State of West Virginia

Request for Proposal

for

Enterprise Resource Planning (ERP)

Software and Services

RFP # FAR226005

January 14, 2011

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SECTION ONE: GENERAL INFORMATION

1.1. Purpose

The Purchasing Division is soliciting proposals pursuant to ***West Virginia Code* §5A-3-10b** on behalf of the Governor, State Auditor, and State Treasurer, hereinafter referred to as the "Executive Sponsors," to provide software and services required to implement and support an Enterprise Resource Planning (ERP) System for the State of West Virginia (State). The Department of Administration, Finance Division, serves as the fiscal agent administering the appropriations for the ERP Project on behalf of the Executive Sponsors.

1.2. Vendor Bound by Terms

By signing and submitting its proposal, the Vendor agrees to be bound by all the terms contained in this RFP except those the State agrees to modify. The Vendor should provide a list of each specific term that it proposes to modify with the requested changes identified by using strike-though for proposed deletions and underlines for proposed additions to the term. Additionally, the Vendor should provide compelling justification for any requested changes.

A Request for Proposal (RFP) is generally used for the procurement of services in situations where price is not the sole determining factor and the award will be based on a combination of cost and technical factors (Best Value). Through its proposal, the bidder offers a solution to the objectives, problem, or need specified in the RFP, and defines how it intends to meet (or exceed) the RFP requirements.

1.2.1 Compliance with Laws and Regulations

The Vendor shall procure all necessary permits and licenses to comply with all applicable Federal, State, or municipal laws, along with all regulations, and ordinances of any regulating body.

The Vendor shall pay any applicable sales, use or personal property taxes arising out of this contract and the transactions contemplated thereby. Any other taxes levied upon this contract shall be borne by the Vendor. It is clearly understood that the State of West Virginia is exempt from any taxes regarding performance of the scope of work of this contract.

1.3. Schedule of Events

The following Schedule of Events represents the State's estimate of the anticipated schedule that will be followed. When a specific time of day is referenced, it means Eastern Time Zone. Unless otherwise specified, the time of day for the following events will be between 8:00 a.m. and 5:00 p.m. The State reserves the right, at its sole discretion, to adjust this schedule as it deems necessary. The Purchasing Division will communicate any substantive adjustments to the RFP Schedule of Events in one or more addendums as described below in Section 1.7.

Exhibit 1: Schedule of Events

	EVENT	DATE
1.	RFP Issued	Fri., Jan.14, 2011

	EVENT	DATE
2.	Pre-Bid Conference	Tue., Feb. 1, 2011
3.	Deadline for Vendors to Submit Written Inquiries	Wed., Feb. 9, 2011
4.	Responses to Vendor Inquiries Provided	Fri., Feb. 25, 2011
5.	**RFP Bid Opening Date**	**Wed., Mar. 23, 2011, 1:30 pm**
6.	Information Related to Software Demonstrations and Vendor Oral Presentations Distributed to Qualified Vendors	Mon., Mar. 28, 2011
7.	Scripted Software Demonstrations and Vendor Oral Presentations Scheduled	Mon., Apr. 18 - Fri., May 27, 2011
8.	Cost Proposal Opening Date	TBD
9.	Discussion Period per West Virginia Code, **§5A-3-11b**	TBD
10.	Request for Best and Final Offer (BAFO) Issued to Qualified Vendors	TBD
11.	**BAFO Opening Date**	**TBD**
12.	Final Evaluation and Ranking of Vendors	TBD
13.	ERP Implementation Begins	TBD

1.4. Pre-Bid Conference

A pre-bid Conference will be conducted on the date listed below:

Date: **Tue., Feb. 1, 2011**
Time: **10:00 a.m.**
Location: **Charleston Marriott Town Center**
200 Lee Street East
Charleston, WV 25301
Email: krista.s.ferrell@wv.gov
Telephone Number: **(304) 558-2596**

All interested Vendors should be represented at this meeting**.**

All potential Vendors are requested to arrive prior to the starting time for the pre-bid conference. An attendance sheet will be made available for all potential Vendors to complete. This will serve as the official document verifying attendance at the pre-bid

conference. All potential Vendors are asked to include their email address, phone number, and fax number so that future correspondence can be sent to attendees.

1.5. Inquiries

Inquiries regarding specifications of this RFP must be submitted in writing to the State Buyer with the exception of questions regarding the proposal submission which may be oral. The deadline for written inquiries is identified in the **Schedule of Events, Section 1.3**. All inquiries of specification clarification must be addressed to:

Krista Ferrell, Buyer Supervisor
Purchasing Division
2019 Washington Street, East
P.O. Box 50130
Charleston, WV 25305-0130
Email: krista.s.ferrell@wv.gov
Phone: (304) 558-2596
Fax: (304) 558-4115

No contact between the Vendor and any State employees or contractors assisting the State regarding the subject matter of this RFP is permitted without the express written consent of the State Buyer. Violation may result in rejection of the bid. The State Buyer named above is the sole contact for any and all inquiries after this RFP has been released.

1.6. Verbal Communication

Any verbal communication between the Vendor and any State personnel is **not** binding, including that made at the pre-bid conference. Only information issued in writing and added to the RFP specifications by an official written addendum by Purchasing is binding.

1.7. Addenda

If it becomes necessary to revise any part of this RFP, an official written addendum will be issued by the Purchasing Division.

SECTION TWO: PROJECT SPECIFICATIONS

2.1. Location

At this time, the ERP Project Team is located at 1615 Washington, Suite 301, Charleston, WV 25311. Additional project space may also be acquired for the ERP Project team in the Charleston metropolitan area, depending on the specific size of the selected Vendor's proposed team.

2.2. Background and Current Operating Environment

2.2.1 State Structure and Organization

West Virginia has a constitutional representative government with three distinct branches.

Legislative Branch

Senators are elected to four-year terms with half of the seats up for election every two years. All members of the House of Delegates are up for election every two years. State lawmakers must be United States citizens and eligible to vote. A delegate must be at least 18 years old and a resident of his/her district for one year, while a senator must be at least 25 years old and a resident of the State for five years. If a legislator moves out of his/her district, the seat becomes vacant.

Executive Branch

West Virginia's Constitution provides for six elected officials in the executive branch of government:

- Governor
- Attorney General
- Auditor
- Commissioner of Agriculture
- Secretary of State
- Treasurer

The governor is elected for a term of four years. Having served during all or any part of two consecutive terms, he or she is then ineligible for the office of governor during any part of the term immediately following the second of the two consecutive terms. The terms of the other five elected officials are four years without term limitations.

Judicial Branch

West Virginia has a unified court system supervised and administered by the West Virginia Supreme Court of Appeals. This system is comprised of the Supreme Court of Appeals, circuit courts, family courts, and magistrate courts.

State Departments, Agencies and Institutions of Higher Education

A listing of State departments, agencies, and institutions of higher education may be found on the West Virginia Legislature's web site at:

http://www.legis.state.wv.us/Contact/Links/links.cfm

2.2.2 Project Governance

2.2.2.1 Background Information

Compared to many other States, the State of West Virginia has more complex governance requirements for its Statewide ERP Project -- primarily because the State has three Constitutional Officers, the Governor, the State Auditor and the State Treasurer, with key responsibilities for much of the business functionality considered to be within project scope.

Some of the unique governance considerations of the State of West Virginia ERP project include:

- Three Constitutional Officers sharing financial management responsibility;
- Two Constitutional Officers sharing human resources/payroll administration responsibility;
- Multiple disparate and redundant back-office systems with multiple data sources and data exchange methods;
- Three Constitutional Officers serving as the Executive Sponsors for the ERP Project;
- Lack of standardization of procedures and policies across the State; and
- Inconsistent enforcement of compliance in some business areas throughout the State.

In West Virginia, the Department of Administration (DOA), which reports to the Governor, administers many of the business areas within scope for the Statewide ERP Project. This includes oversight responsibility for many of the business processes for some agencies, including: Asset Management, Fleet Management, General Services, Personnel Administration, Purchasing, Real Estate, and Technology.

However, the responsibilities for financial oversight of the State are split between the Governor (DOA Finance Division and Department of Revenue's (DOR) State Budget Office), the State Auditor and the State Treasurer. In general, the roles and responsibilities of each Office are clearly identified; however, there appear to be a certain areas where the Offices may have overlapping responsibilities. Key responsibilities identified for each Office are listed below.

- The DOA Finance Division is responsible for preparing the Comprehensive Annual Financial Report (CAFR) for the State; coordinating the Statewide Cost Allocation Plan (SWCAP); coordinating the Single Audit for the State; preparing IRS Form 1099s for some agencies; and managing one of two operating environments or "sides" of the West Virginia Financial Information Management System (WVFIMS). The DOA side of WVFIMS acts as the "front-end" of the accounting system. All accounting transactions are entered, edited, and posted into the DOA side of WVFIMS in compliance with the approved State budget.
- The DOR State Budget Office works with State agencies and the Governor's Office to prepare the Governor's Recommended Budget. The State Budget Office then works with the Legislature, the Governor's Office, and the state agencies to finalize the State budget.
- The State Auditor's Office is responsible for entering the State's official budget into WVFIMS; processing and auditing all vendor payments and employee travel reimbursements; monitoring liquidity for all invoice transactions; overseeing the processing of the State's payroll; managing the State's purchasing card program;

reviewing and performing post-audit functions for political subdivisions; preparing the Annual State Dollar Report; and managing the second of the two sides of WVFIMS.

- The State Treasurer's Office is responsible for receiving and depositing all monies due the State into State depository financial institutions -- approximately $11.2 billion annually. Additional responsibilities of the Office include administering the cash management of State and local funds; authorizing warrant payments that are supported by sufficient funding; administering the Uniform Unclaimed Property Act, the West Virginia College Prepaid Tuition and Savings Plan, and the State's 457 Deferred Compensation Program; administering the functions and duties associated with the Debt Management Act; disbursing the coal, oil and gas severance taxes, liquor tax, wine tax, and the fire and casualty insurance premium tax to local government subdivisions; and chairing and supporting the operation of the Board of Treasury Investments.

The table that follows depicts how the various business processes are administered within the State. Although the Constitutional Officers own/share many of the business processes that are potentially within scope of the Statewide ERP Project, there are a number of business processes for which other departments or agencies may be designated as business owners or key stakeholders.

Exhibit 2: Owners and Stakeholders by Business Process

State of West Virginia ERP
Owners and Key Stakeholders by Business Process for Potential ERP Scope Areas

Business Processes / Departments/Agencies/Divisions	GL & Budget Control	Accts Pay/Travel	Accts Rec & Billing	Budget Development	Cost Accting/Alloc	Project Mgmt	Grants Mgmt	Fin Rpting & Analysis	Procurement	Contract Mgmt	Materials Mgmt	Inventory	Asset Mgmt	Linear Assets	Cash Mgmt	Treasury Mgmt	Investment Mgmt	Debt Mgmt	Risk Mgmt	Personnel Admin	Payroll Admin	Position Control	Recruit & Applicant Svcs	Training & Empl Dev	Class & Comp	Time & Leave Accting	Benefits Admin	Employee Relations	Employee Self-Svc	Real Estate	Work Order Mgmt	Fleet	Facilities
State Auditor	O	O	S		S		S	O		S			S		S		S				O			S		S	S		O				
State Treasurer		S	O					S							O	O	O	O	O					S									
Department of Administration	O	S	S		O	O	O	O	O	O	O	O	O		S		S	S	O	O	S	O	O	O	O	O	O	O	O	O	O	O	O
State Budget Office	O			O																		O											

O = Owner; S = Key Stakeholder
Note: Division of Purchasing interim owner of Fleet process pending selection of new Fleet Manager

2.2.2.2 Purpose of Project Governance

A critical success factor for a project with the size and complexity of the State's Statewide ERP project is effective project governance. Project governance provides a structured approach for project organization and decision-making, as well as for the management of project scope and timely issue resolution. This governance strategy provides the Governor, State Auditor, and State Treasurer, as Executive Sponsors for the ERP project, with a well-defined structure for providing executive oversight throughout the project life cycle from inception through implementation.

The project governance process is intended to:

- Outline the relationships between the project sponsors, business process owners, project team members, and extended project stakeholders;
- Enable timely decision-making and issue resolution at the lowest appropriate level;
- Provide a vehicle to escalate concerns if requirements of the Executive Sponsors and other state agencies are not being properly addressed by the new system; and
- Foster an effective working relationship among the Executive Sponsors.

2.2.2.3 Governance Strategy

As Executive Sponsors, the Governor, the State Auditor, and the State Treasurer have a vested interest in the ERP project scope, organization, management, and funding to maximize the State's operational efficiencies and return on investment. Therefore, the governance strategy is designed to provide each of these officials with an equal voice on ERP issues.

The governance structure calls for periodic briefings of the Executive Sponsors on the progress of the Statewide ERP project. These briefings should address project status, issues and concerns, major risks to project success, and other topics that they need to be made aware of.

Critical project issues or issues perceived to have a potentially adverse impact on one or more of the Executive Sponsor offices should be escalated for consideration by the Executive Sponsor Group.

2.2.2.4 Governance Structure

The project governance structure identifies how the project should be governed and organized, including executive management, sponsors, project management and project team personnel. The structure also provides direction for project management, timely decision-making, and ultimately, project success.

The State has initially determined that the project governance structure be composed of at least seven groups as follows:

- **Executive Sponsors**

  Executive Sponsors for the project are the Governor, State Auditor, and State Treasurer.

- **Advisory Group**

  The Advisory Group will consist of designated State leaders that can assist the project team with policy and statutory issues.

- **Steering Committee**

  The Steering Committee will be responsible for providing guidance on overall strategic direction. The Steering Committee will be composed of representatives from across State government.

- **Change Control Board**

  The Change Control Board (CCB) will be responsible for analyzing and approving or rejecting recommended changes to the project scope as presented by project management. Changes which the CCB cannot reach agreement on or changes which by their nature should be decided by the Executive Sponsors will be escalated to the Executive Sponsor Group for resolution.

- **Project Management Office**

  The Project Management Office (PMO) will consist of the Project Directors, Project Managers, and administrative staff, as appropriate, representing the State, Salvaggio, Teal & Associates (STA), and the Vendor. STA is the firm selected by the State to assist with ERP planning, procurement, evaluation, acquisition, project management, oversight and related activities.

- **Business Owners**

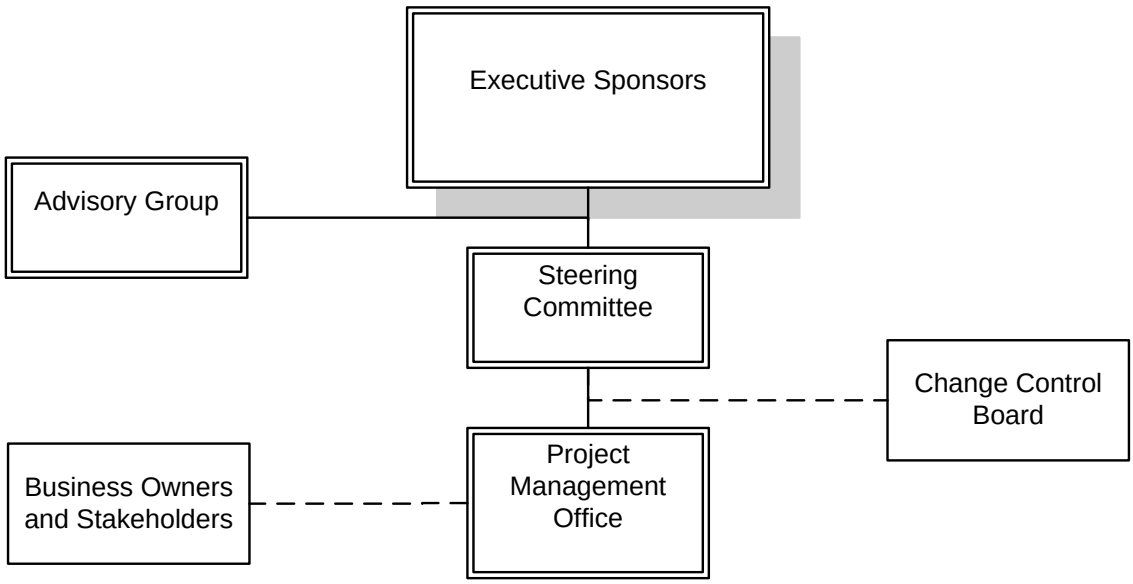
  Business Owners are stakeholders that will be responsible for specific business processes within the ERP system. Business Owners will be responsible for participating in the design, configuration, testing, and preparation of business process procedures for specific business processes for which they are assigned.

- **Project Stakeholders**

  Stakeholders have a vested interest in specific business processes that will support the Statewide ERP system. They are typically customers of the ERP system.

The chart that follows provides a visual representation of the recommended governance structure for the project:

Exhibit 3: High Level ERP Governance Structure



2.2.3 Legacy Enterprise and Other Key Administrative Systems

2.2.3.1 WVFIMS

WVFIMS became the State's system of record in October 1993. WVFIMS is primarily an appropriation accounting system and is implemented in two separate operating environments or "sides", one at the Division of Finance and one at the State Auditor's Office. These two sides of WVFIMS are described below. Approved appropriations are entered into WVFIMS. WVFIMS does not provide a budget preparation function. Budget preparation is largely a manual effort. WVFIMS exercises budget control at the appropriation level and cash control at the fund level. All State transactions are processed in WVFIMS. Certain agencies, including institutions of higher education and WVDOT, interface invoices into WVFIMS for payments. The Department of Revenue interfaces tax refunds as revenue refunds from GenTax. All other transactions are manually entered in WVFIMS including: deposits, investments, adjusting entries, purchase orders, etc. This includes Higher Education Institutions that have their own financial systems and are otherwise not part of WVFIMS.

Features of WVFIMS

On line data entry and editing (modifications and deletions) at the agency level:

- Transactions entered by agency.
- Edits to check for correct financial code combinations, appropriate use of objects and revenue class/source numbers for specific transaction types, and quarterly allotment edits to prevent overspending, as well as, appropriation edits and cash liquidity warnings.

Coversheets:

- One summary document for each transaction used as the routing document for processing.
- The "agency" sheets print immediately. State "Auditor" sheets print when the transaction is approved to a "central" org.
- Eliminates need for manual preparation of documents to be used for routing. i.e.) an invoice can be entered directly into the system without preparing other paper.
- Contains the authorized signature for processing purposes. Whether manual or electronic.

Status tracking:

- Ability to view inquiry screen and see where the document resides electronically, i.e.) at agency, or at the State Auditor's Office, etc.
- Ability to view inquiry screen and see status of transaction. i.e.) complete, approved by the State Auditor's Office for payment, at agency awaiting electronic approval to another organization, rejected, etc.

Split transactions:

- Allows a single accounting transaction to be allocated to multiple financial code combinations. i.e.) an invoice can be paid using different funds and fiscal years, as well as, objects, as appropriate.
- Reduces the need to prepare expense to expense adjusting entries to reallocate expense.
- Each financial code combination and amount is independently edited.

Central Vendor (Payee) File:

- One file that contains vendor information and remit to addresses.
- Eliminates the need to enter all vendor information when processing an invoice, one only needs to reference vendor identification number for an approved vendor.
- Provides ability for preparation and issuance of IRS Form 1099s.

Invoice Processing:

Invoices are entered into WVFIMS at the agency level. Invoice transactions are validated online and staged for review and approval. Once released by the Division of Finance, the invoice transactions are moved to the State Auditor's side of WVFIMS through a bi-directional interface that runs periodically throughout the business day. Agencies are expected to submit supporting documentation to the State Auditor for each invoice transaction. The supporting documentation is submitted either in hard copy or through an

interface between an agency's document management system and the State Auditor's document management system.

The State Auditor's Office performs a pre-audit function that matches the invoice to purchase order and receiving documents to ensure the accuracy of the invoice. Upon successful completion of the pre-audit, the State Auditor issues a warrant upon the Treasury for payment of the invoice.

Personal Services:

Personal Services expenditures are recorded in WVFIMS through an interface with EPICS, the State's centralized payroll system. All salary and benefit expenditures recorded in WVFIMS are entered through the interface with EPICS.

Purchasing Transactions:

WVFIMS accounts for commitments (pre-encumbrances in lieu of purchase orders) and encumbrances (purchase orders and contracts). These transactions should be entered into WVFIMS manually. There is no integration between WVFIMS and TEAM. TEAM is the State's purchasing system.

Chart of Accounts:

The WVFIMS COA structure currently uses a series of required and optional data entry elements which allows users to capture a greater amount of accounting data through inference while entering a minimal number of elements on a transaction. This process is made possible through configuration of the COA. The required data elements and their associated attributes comprise the "statewide" component of the COA. Generally, all other elements are deemed optional or "agency-specific" values that agencies may use at their discretion. Control over the establishment and use of statewide and optional elements can be summarized as follows:

Exhibit 4: Central vs. Agency COA Control

Central	Shared	Agency
♦ Balance Sheet Accounts ♦ Funds ♦ Activities ♦ Organizations ♦ Expenditure Objects ♦ Revenue Sources	♦ Appropriations ♦ Statewide Projects	♦ Agency Organizations ♦ Agency Objects ♦ Agency Sources ♦ Projects ♦ Grants

The current COA and appropriation process do not support enterprise wide reporting by program, project, or grant. The current activity code was originally intended to capture statewide program information but the appropriation process uses the activity code for expenditure categories (e.g.; Personal Services, Assets, Other Disbursements) as well as actual activities. As a result, there is no COA element available to capture statewide program data. The WVFIMS COA does provide for a statewide project code; however, the project code is not validated. As such, the aggregate data captured for statewide projects may not be complete.

To develop and control budgets at a level of detail below the current appropriation line item (Fund, FY, Organization, Activity), agencies capture actual revenue and expenditure

data either in WVFIMS, using the agency extensions or in their own agency-based financial systems. As a result grant, project and program data are all uniquely defined by agency and cannot be summarized, reported, or controlled at the enterprise level.

Additionally, the current COA lacks the ability to classify financial data by location. This is particularly important to agencies like WVDOT that conducts road construction and maintenance projects across the State.

WVFIMS Coding Block:

The table below contains the current elements coded on a WVFIMS transaction.

Exhibit 5: WVFIMS Coding Elements

Current WVFIMS Coding Element	Length/Type	Purpose
GL Account		Asset, Liability, and Fund Balance inferred by transaction type
Fund	4 digit	Identifies the budgetary fund
Fiscal Year	4 digit	Appropriation Fiscal Year
Organization Code	4 digit	Identifies the State level organization (Department, Division) or the agency level organization (cost center).
Activity	3 digit	Revenue or Expenditure Appropriation Line Item
Object Code	3 digit	Identifies high level Expenditure Categories (i.e.; Personal Services, Assets, Other Disbursements) or agency level
Revenue Source	3 digit	Identifies primary revenue types (i.e.; General, Federal, Departmental, State Road)
Grant Code	5 digit	Used to uniquely identify grants.
Project Code	5 digit	Used to uniquely identify projects

In the State's present environment, the Division of Finance, the State Auditor's Office, and most other agencies rely primarily on the State's data warehouse to meet a majority of their reporting needs. Those needs are supplemented by agency-specific systems that provide data not loaded to the data warehouse or by downloads from the data warehouse that are then further manipulated in Microsoft Access® or Excel®.

In discussion of reporting issues, the most common concern is the inability to provide consistent, reliable reporting on a statewide basis. This issue appears to have its origins in both the chart of accounts and the limitations of system tools for reporting financial data in multiple, flexible structures. Another issue is that the State has not identified or maintained a set of statewide reporting codes that could be used by agencies to report major initiatives involving multiple agencies. Although the current WVFIMS system includes a COA element for Entity-wide Project Number, that element is not validated nor is it widely used.

Restructuring the COA may not resolve all issues noted. There are related issues such as ease of access to data, limited reporting tools, and skill limitations that should also be addressed in the new ERP system to ensure that the desired reporting outcomes are achieved. Additionally, the current WVFIMS system does not provide adequate flexibility for preparation of the State's Comprehensive Annual Financial Report (CAFR). Presently, the State uses a separate financial reporting system, CAFR 2000, to prepare financial statements. CAFR 2000 collects financial data from a variety of sources including (WVFIMS, Asset Management, Debt Management, and Agency Systems) to develop the CAFR. CAFR 2000 requires the use of complex mapping and conversion procedures to compile financial statements and other reports used for the State's CAFR.

2.2.3.2 EPICS

EPICS was implemented by the State Auditor's Office in 1999 in a phased rollout to state agencies. The system consists of the payroll processing module only; the corresponding human resources module was not implemented. EPICS is utilized by every agency, organization or entity within the State to process full-time and part-time employee payroll. There are 155 Employer ID Numbers (EIN) identified in EPICS, one for each state entity. On an average 145 EINS are processed during a semi-monthly payroll run due to the fact some of the state entities are boards and commissions and do not receive a regular payroll disbursement. In 2009, 68,243 W-2 Wage and Tax Statements were processed within EPICS.

Human resources information such as employee demographics, salary information or new hire information is entered directly into EPICS manually by payroll administrators at state agencies or interfaced into the system using a standard interface format. HRIS does not interface DOP employee information into EPICS. Employee information is printed off the HRIS system and manually entered into EPICS. EPICS maintains a unique employee number for all State employees within an org. There is a unique employee ID that is created and maintained within PIMS. It is expected to be the identifier going forward.

State employees are paid semi-monthly with two additional supplemental payrolls during the off-cycle weeks. The legislature and some board members are paid on a different schedule and there is a one-time per year "experience" increment check. At the completion of each final payroll run, the payroll disbursement file is forwarded to the DOA side of the FIMS where it is split among the 155 agencies for labor distribution review, adjustments, and approval. This accounting review cycle involves only modifications to the labor distribution account codes not to the hours and dollars related to the payroll run. Those changes are made in the next payroll cycle. Once the individual agencies provide final approval for labor distribution an approval notification is sent to the State Budget Office where confirmation of budgeted new hires is made by accessing PIMS for non-HRIS participating agencies. The State Treasurer's Office does not release payroll warrants to the agencies until the State Budget Office confirms it has reviewed and approved all paid positions by agency and the final review has been completed by the SAO. The approval process described above should be completed at least three days prior to the payroll check date.

All report information generated during each payroll cycle, whether during the pre-edit payroll phase or final payroll run is made available through the Web in PDF format. Payroll administrators and agency management have access to this information through the "myApps" portal. This portal is also available to all State employees to view their electronic Notice of Deposit (eNoD), Travel remittances, and W-2 related information.

2.2.3.3 TEAM

The Team Effort for Acquisition Management (TEAM) system is used by agencies under the purview of the Purchasing Division of the Department of Administration and by the division itself. The system has the capability to add requisitions, solicitations, and purchase orders with detailed specifications for goods and services. TEAM tracks procurement transactions based upon National Institute of Governmental Purchasing (NIGP) commodity codes. The system also has the capability to record the receipt of goods, but only a few agencies use this functionality. The Purchasing Division issued 1,218 purchase orders in TEAM with an estimated value of $540 million over a base of $12.6 billion in total State spend in FY 2010.

The system also provides the functionality to maintain a vendor file. Vendors do not have to be registered to bid. However, only registered vendors are able to view and download current bid opportunities in the West Virginia Purchasing Bulletin and to have procurements awarded to them. TEAM tracks the vendors' status within the system.

Agencies under Purchasing Division's authority are expected to use the TEAM system to verify vendor registration. Additionally, some agencies use the system for their delegated purchasing transactions, including but not limited to: the Department of Administration, the Department of Health and Human Resources, and the Department of Environmental Protection. Due to system limitations and a lack of adequate interfaces, purchase order encumbrance is accomplished by duplicate data entry into the WVFIMS Purchase Order Encumbrance module. Requisition tracking and workflow is also accomplished by double-entry into the Requisition Tracking System (ReqTrak).

2.2.3.4 Requisition Tracking System (ReqTrak)

In 2001, the Purchasing Division commissioned the Office of Technology (OT) to develop the Requisition Tracking (ReqTrak) system to supplement the tracking and workflow functionality of the TEAM purchasing system. The ReqTrak system was implemented in the first quarter of 2002. The system's main functionality is the ability to track elapsed time starting from the receipt of a requisition, progressing through the bid process, and ending at the final distribution of the approved purchase order(s). The functionality includes workflow and the ability to separate and report "purchasing time" versus "non-purchasing time."

The system includes the additional ability to produce purchase order transmittal documents and procurement reporting based on United Nations Standard Product and Services (UNSPSC) and NIGP commodity codes. State agencies are able to inquire on the status of their active requisitions by means of a "Requisition Tracking Report" which is posted daily to an intranet.

2.2.3.5 West Virginia Purchasing Bulletin

The *West Virginia Purchasing Bulletin* has evolved into a web-based system that is used to advertise State government bid opportunities in West Virginia. The Bulletin contains the request for quotation (RFQ) number; the spending unit name; the bid opening date and time; and a description of the goods or services being procured. A new issue of the ***West Virginia Purchasing Bulletin*** is posted on the Purchasing Division's website http://www.state.wv.us/admin/purchase each week.

Approximately 5,900 registered vendors use a TEAM-generated login ID, branch office indicator, and password in order to access the Bulletin system. In addition to procurement descriptions, the Bulletin features downloadable bid documents, notice of award reports, archives, and news articles written specifically for registered vendors. Most of the

downloadable documents are provided in PDF format, but other formats are also used, such as Microsoft Word®, Excel®, and CAD drawings. A new issue of the West Virginia Purchasing Bulletin is published every Friday. The actual bid documents, addendums, and diagrams are updated continuously.

2.2.3.6 State Treasury Systems

The automated systems of the State Treasurer's Office support five major business functions as follows:

- Cash Management;
- Accounts Receivable – Revenue/Remittance Processing;
- Investment Management;
- Debt Management;
- Unclaimed Property; and
- Cash Management Improvement Act (CMIA).

The following is a description of these functions and the systems that support them.

Cash Management

The Cash Management unit within the Treasurer's Office is responsible for the cash management function. This unit processes all payment types (check, ACH, and wire transfer) for the Treasurer's signature. This unit also processes all revenue (cash, check, credit card, ACH, wire transfers, and E-government) received for all state agencies and all federal funds sent to the State. They manage approximately nine (9) central bank accounts and approximately eighty (80) cash receipt accounts throughout the State. In addition, the Cash Management unit performs shareholder accounting for the Board of Treasury Investment (BTI) and the Investment Management Board (IMB).

The cash management and shareholder accounting functions are supported by several systems, databases, and spreadsheets. These include:

- QED System – performs BTI and IMB shareholder accounting and acts as a check register for all State expenditures paid by check;
- Check Data Warehouse – check information and corresponding accounting data;
- Treasury Online Payment System (TOPS) – provides agencies with online access to check information including date redeemed;
- Automated Clearing House (ACH) Payment Database – contains all of the information associated with each State expenditure paid through ACH;
- Cash Position Spreadsheet – contains balance, receipt, and expenditure data for each of the central bank accounts and is used to fix the State's cash position on a daily basis;
- Cash Concentration System (CCS) – transfers cash from the cash receipt bank accounts into the consolidation bank account through ACH; and
- Fairfax System – an automated check processing system that allows for Check 21 conversion, check and stub remittance processing capabilities to authorized agency users, image capture, data capture, data reporting, data extracts to update agency accounts receivables, and remote payment image viewing.

Investment Management

BTI invests Treasurer and agency funds. BTI uses the Princeton Asset Management System (PAM) to manage its investments. PAM is a COTS software package that was designed specifically for investment management and accounting.

Debt Management

The State Treasurer's Office is responsible for managing all General Obligation Bonds approved by the Legislature and issued by the State. The Treasurer is also responsible for investing bond proceeds and paying bond debt. Currently, all bond fund accounting is performed on a Microsoft Excel spreadsheet. The Treasurer also tracks and monitors the issuance costs of each bond issue.

Unclaimed Property

The State Treasurer's Office is responsible for identifying, accounting for, and returning unclaimed property to its rightful owner. Unclaimed property includes items such as bank accounts, matured insurance policies, stocks, bonds, safe deposit box contents, weapons, and a wide variety of other items abandoned by their original owners. Once unclaimed property is identified by and/or reported to the Treasurer, the Treasurer takes possession of the property and holds it in trust until the rightful owner is identified and the property is returned. The Treasurer uses the Wagers System to account for unclaimed property. Wagers is a COTS software package specifically designed to track and account for unclaimed property. Wagers is used by the majority of States to manage their unclaimed property accounts.

Cash Management Improvement Act (CMIA)

The CMIA is designed to prevent either the federal or State government from experiencing opportunity gains or losses based on claims on federal funds. In West Virginia, the Treasurer, in coordination with the applicable state agencies, is charged with the responsibility of calculating the check clearing patterns for the various types of State expenditures. The Treasurer uses the Check Data Warehouse information to calculate these clearance patterns because the Check Data Warehouse captures the check redemption date.

2.2.3.7 West Virginia PCard

A Purchasing Card Advisory Committee (PCAC) was formed with representation from numerous state agencies, including the Auditor's Office, the State Treasurer's Office and the Purchasing Division of the Department of Administration. The PCAC is responsible for the development of the request for proposal specifications, the program's legislative rules and to provide oversight for the program.

PCAC, a focus group of agencies and the West Virginia Office of Technology developed and implemented Software for Transaction Accounting and Reconciliation Systems (STARS) in 1998. STARS is a custom developed system that is integrated into the Department of Administration's side of WVFIMS. WVOT receives a data transmission file from the bank's credit card processing service (currently Total Systems (TSYS)). This data exchange file contains all activity on and all transactions by card holders. A unique number is assigned to each transaction called a shell record in STARS. The transactions are loaded into the WVFIMS database as well as any card and master account changes.

All West Virginia Department of Transportation (WVDOT) shell records are extracted, and the file is made available to WVDOT to be processed in its Remote Entry Management Information System (REMIS). Data on all active card holders are extracted and sent through a secure FTP to the State Auditor's Office. Many of the agencies with the

exception of WVDOT, West Virginia University, and some small entities use STARS to reconcile each shell record. Higher education entities reconcile using a SunGard Banner® style account and extract the reconciled shell records from STARS for processing within Banner®. Reconcilers in the WVFIMS account format post their reconciled transactions to the accounts payable function in WVFIMS to maintain the accuracy of the ledger.

At end of the billing period, WVFIMS reconcilers compile the posted shell records for the period together to create the invoice to pay the bank. Numerous reports are available from both the green screen and web enabled versions of the system. The State Auditor's Office uses an active account interface to maintain a system of cardholder information that includes images of completed PCard request forms. The active account interface also includes training information that is used to insure that cardholders and coordinators are current on their training. The State Auditor's Office uses bank software to track purchasing card purchases and items received by vendor, item, agency, and commodity, and to perform PCard reconciliations.

2.2.3.8 eTravel Management System

The State Auditor's Office enhanced the State's overall program capabilities through the incorporation of end-to-end travel management as a component to the purchasing card program. The travel management system includes all official government travel conducted on behalf of the State, whatever the payment method (travel card, purchasing card or out-of-pocket) utilized.

The eTravel Management System includes: online travel booking (air, lodging, rail, and ground transportation, etc); travel management profile (travel profile for each participating traveler); expense reporting; and reporting and analytics. The system has been designed to accommodate all State and/or Agency travel policies and procedures and facilitate the statewide rollout of the Purchasing card for travel. The system is hosted by IRX Solutions, the State's eTravel software vendor and is web accessible.

2.2.3.9 Human Resources Information System (HRIS)

The Department of Administration Division of Personnel (DOP) implemented the HRIS in 2002. HRIS is used by agencies operating under the DOP's jurisdiction and by some other agencies, such as Regional Jails, that are not under DOP's jurisdiction comprising approximately one-third of the total State employee population. The remaining agencies operate outside the control of DOP, such as constitutional offices or higher education, either use agency-specific human resources systems or have manual processes. In addition, a number of agencies which operate under DOP's jurisdiction also have agency specific human resource systems which provide additional functionality beyond that available in HRIS.

HRIS is a single point of entry system for processing personnel transactions providing updates to agencies' personal services schedules and an online employee history record. It provides a database of employee information including: employee demographics and personal information, classification and compensation data, job vacancy and employment register information, position and vacancy information, Equal Employment Opportunity (EEO) data, Fair Labor Standards Act (FLSA) classifications, leave of absence calculations, previous service calculations, non-tenure and prior service information, and pay tables.

HRIS uses automated workflow for personnel actions which passes the transactions through a step-by-step process which includes: electronic notification, on-line approval or

disapproval of transactions, and real-time status tracking of transactions. HRIS also provides agencies the capacity to generate standard system-wide reports, agency reports, and ad hoc reports to meet specific needs.

While HRIS is used to maintain employee related information, this data is not interfaced into EPICS for payroll purposes. Changes to employee information that impacts compensation, labor distribution, or payroll related employee demographics should be entered manually into EPICS. The State has included requirements for the ERP system to also be able to track contractors as well as employees.

2.2.3.10 Position Information Management System (PIMS)

PIMS was implemented in the 1987-1988 timeframe by the State Budget Office as the State's budget system to track personal services budgets. Information contained on the WV-11 personal action forms is entered into PIMS using online entry screens. For agencies not having access to PIMS/HRIS, the WV-11 personnel action form is forwarded to the State Budget Office to be keyed into PIMS.

The State Budget Office reviews, approves, and processes personnel transactions in PIMS against the personal services budgets of all state agencies and higher education institutions and monitors agency personal services expenditures to resolve funding deficits.

PIMS is considered the original source of record for all active and non-active State employees since two-thirds or approximately 26,000 State employees are not on the HRIS system. During each payroll run the employee status and salary information is electronically compared between EPICS and PIMS using the employee Social Security Number. Discrepancies are manually addressed and resolve between the State Budget Office and the affected agency.

Personnel information contained in PIMS is accessed using a combination of the org code and position number. Position numbers are unique to an agency/organization but are not unique statewide. Agencies/organizations have the ability to renumber position numbers each fiscal year based on individual agency tracking requirements.

Budget data for the subsequent fiscal year is entered by March 31 each year resulting in PIMS containing two years of personal services budgets (current budget year and next budget year) for the last three months of the fiscal year. During this timeframe, personnel action transactions (e.g. salary change, change in funding, etc) should be manually keyed into both the current budget year and the next budget year. Personal services budgets contained in PIMS for all agencies are manually entered into the DOA side of WVFIMS and both systems are manually synced at the beginning of each fiscal year. Budget updates/revisions made to PIMS after the start of the fiscal year are manually updated and reconciled to WVFIMS.

2.2.3.11 NEOGOV

NEOGOV Insight® is a web-based computerized applicant recruitment, tracking and processing system. In West Virginia State government, it is used to announce positions, receive and process all applications, prepare referral lists and track hiring and continued interest by applicants. Paper applications are scanned into the system or applicants can apply online.

NEOGOV is used to generate requests for referral lists, manage applicants, and report back to Division of Personnel the results of contacts made with the applicants. Internal postings are made within the agency and are not listed on NEOGOV. At this time only

external open competitive posted positions for which anyone may apply and be considered for a referral list are placed on the NEOGOV job listing site.

2.2.3.12 Department of Transportation (WVDOT) Information Systems

This section provides a high level overview of the current WVDOT systems environment and the anticipated impact of the ERP project on these existing applications.

WVDOT utilizes a series of custom developed mainframe based legacy applications to support their core administrative business processes. These various WVDOT applications have been designed to be tightly integrated to support WVDOT operations. These WVDOT applications then interface with WVFIMS to support accounts payable processing and the transfer of summary level financial information to WVFIMS. The WVDOT payroll and personnel applications also interface to EPICS for payroll processing.

The existing WVDOT administrative systems are approximately 25 years old. These systems are primarily written in the CICS/COBOL computer languages using VSAM as the file structure. Some additional subsystems have also been developed utilizing SAS business analysis software. These systems primarily execute in the mainframe environment operated by WVOT.

The existing WVDOT core administrative systems have a number of limitations. These include:

- Difficulty in modifying the Federal Aid billing application to support changes to the Federal authorization and billing process legislated by Congress in each new highway bill;
- Limited ability to support budget expansion, fund expansion and other changes to WVFIMS;
- Some subsystems such as procurement and inventory were designed to operate primarily as paper systems, creating additional complexity in the agency's business processes;
- Limitations in the functionality of the parts inventory system complicates WVDOT's management of its equipment fleet valued at approximately $225 million;
- Partial integration of the accounts receivable functionality;
- Lack of integration within the existing systems for some capital assets such as buildings and grounds;
- Inability to interface WVDOT's current systems with Internet applications creating difficulties in the timely reporting of or providing access to information desired by policy makers, other stakeholders and the citizens of West Virginia; and
- Most of the WVDOT staff who are knowledgeable about these systems may be eligible to retire from State service within the next five years.

Appendix H provides an inventory of all existing WVDOT application systems by primary business function as documented in the State's application portfolio inventory. For each application, the appendix outlines the anticipated impact of ERP to these systems: replacement, potential replacement, integration, or no impact. It also identifies the phase of the ERP project in which this system should be decommissioned and/or otherwise impacted.

Exhibit 3 provides a high level model of the current WVDOT core administrative systems depicting the interrelationships between the various WVDOT applications, the other State

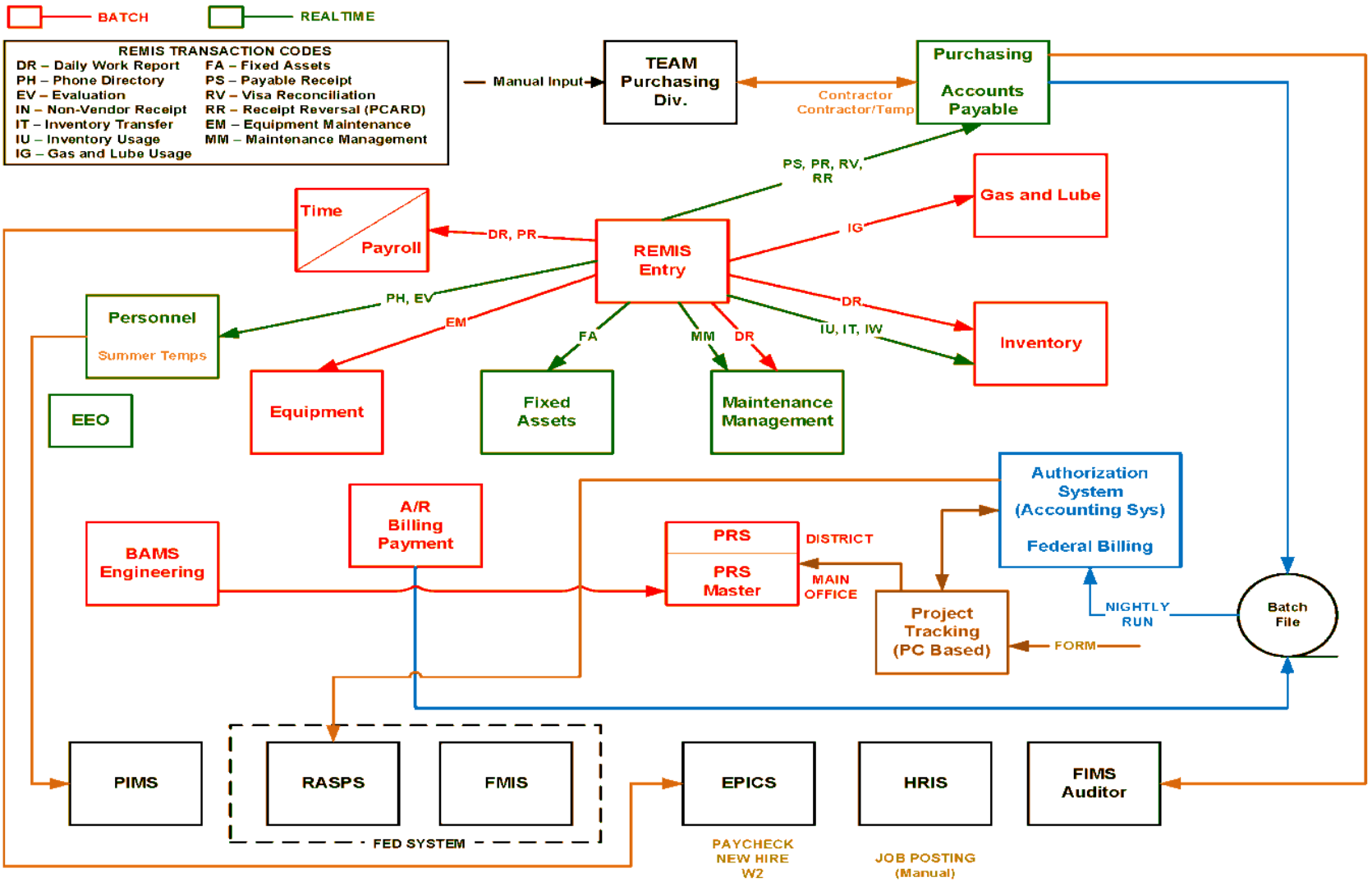
of West Virginia administrative systems and the Federal systems with which WVDOT interfaces to support the Federal Aid billing process. The intent of this diagram is to demonstrate the tight integration between the various WVDOT applications and other State and Federal systems which exists today. The extent of the integration between the existing WVDOT core administrative systems makes incremental replacement of WVDOT functionality by an ERP system difficult. This suggests the need for an ERP implementation strategy for WVDOT in which most application functionality is implemented in a single phase.

WVDOT has recently purchased Oracle Primavera to provide more robust program and project management capabilities. This Primavera solution should support WVDOT's transportation programming process and interface with the Federal Highway Administration (FHWA) to support project authorization. The Primavera application should also provide scheduling and project management capabilities for WVDOT highway construction projects.

WVDOT is evaluating the feasibility of implementing the AASHTO SiteManager™ highway construction management system. SiteManager™ would replace the current PRS and PRS Master systems in terms of supporting contract administration and field recordkeeping functions for highway construction contracts. SiteManager™ would act as the detailed sub-ledger for highway construction projects and integrate with the ERP accounts payable, procurement and project management functions.,

WVDOT is also evaluating the feasibility of implementing an automated fuel management system to manage the distribution of fuel products for its internal fleet and a number of State and local agency customers who purchase fuel from the Department. This system, if implemented, would integrate with the fleet function within the Statewide ERP.

Exhibit 6: High Level As-Is Model of WVDOT Core Administrative Systems



2.2.4 Technical Architecture

Overview

Management of the administrative systems that the State expects to be replaced by the new ERP is divided between multiple agencies. Each of the agencies referenced below maintain their own standards for information technology operations that may include hardware, software, networks, support staff, services to other agencies and contractual arrangements such as licensing, maintenance and in some cases, hosted systems.

Automation of system interactions between the agencies has required the development of significant interfaces between the disparate and sometimes redundant system functions and data sets, many of which the State expects to consolidate or retire as a result of the ERP implementation. The majority of the central systems that should be replaced by the ERP are operated by three information technology organizations headquartered in the capitol area of Charleston, WV, which include:

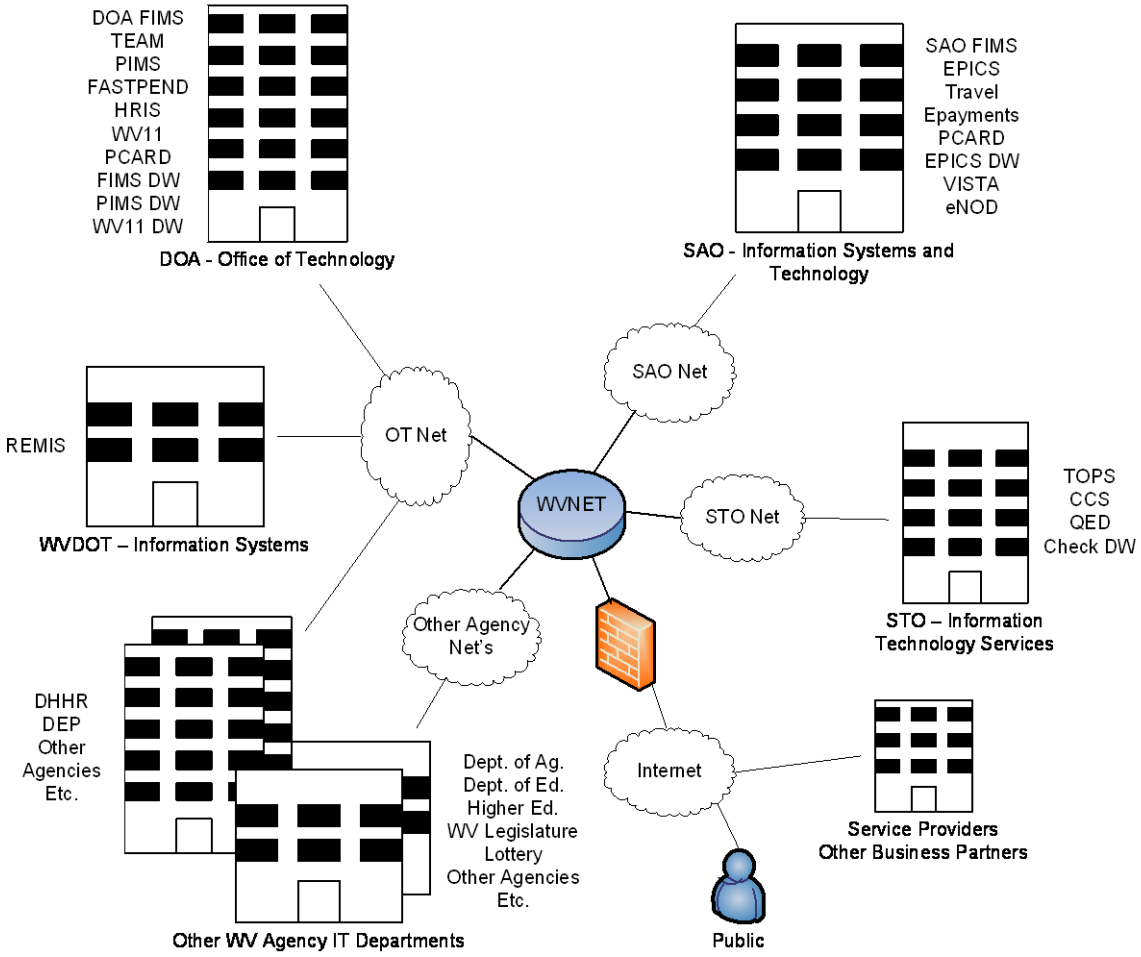
- **The Department of Administration (DOA) Office of Technology (OT)** whose responsibilities include systems that support financial and other management systems such as accounting, budget, procurement, position information, human resources and the provision of various data warehouses;
- **The West Virginia State Auditor's Office (SAO) Information Systems and Technology (IS&T)** unit whose responsibilities include systems that support audit functions, the payroll system, other disbursements including warrants and electronic payments, travel accounting, support for p-cards and a payroll data warehouse; and
- **The West Virginia State Treasurer's Office (STO) Information Technology Services (ITS)** whose responsibilities include systems that support banking, cash management, debt management, investment accounting, accounts receivable – revenue/remittance processing, and a check data warehouse.

In addition to the central budget, financial, human resources, payroll and procurement applications, the West Virginia Department of Transportation (WVDOT) maintains its own set of administrative systems for certain financial, human resources, procurement and timekeeping functions. These systems operate on a mainframe managed by the Office of Technology; application support is provided by WVDOT information technology staff.

Likewise, the State ERP team has also identified a number of other systems managed by a range of state agencies which are likely candidates to be replaced by ERP. These applications are identified in Appendix G of the RFP.

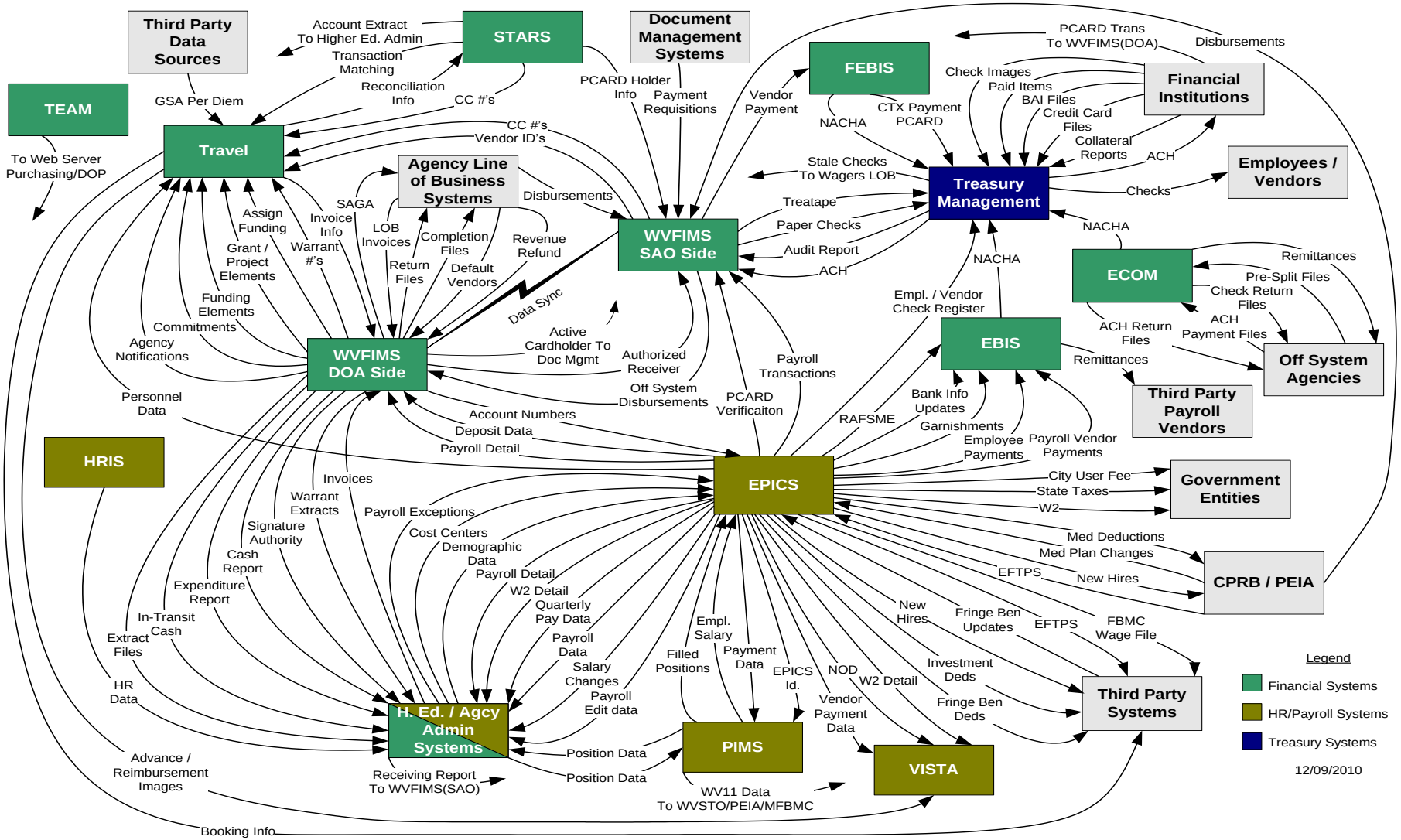
The Office of Technology, WVDOT and many other state agencies are connected by a private network through WVNET. SAO and STO operate their own private networks which are connected through WVNET. The following diagram illustrates the interconnectivity between the agencies responsible for operating the major systems the State expects to replace by the ERP effort.

Exhibit 7: As-Is Relationship Model of Core State Administrative Systems



The State has established a series of interfaces to facilitate the transfer of data between a number of the State's systems. The following diagram provides a depiction of the legacy interfaces:

Exhibit 8: Diagram of Legacy System Interfaces



2.2.4.1 Department of Administration, Office of Technology

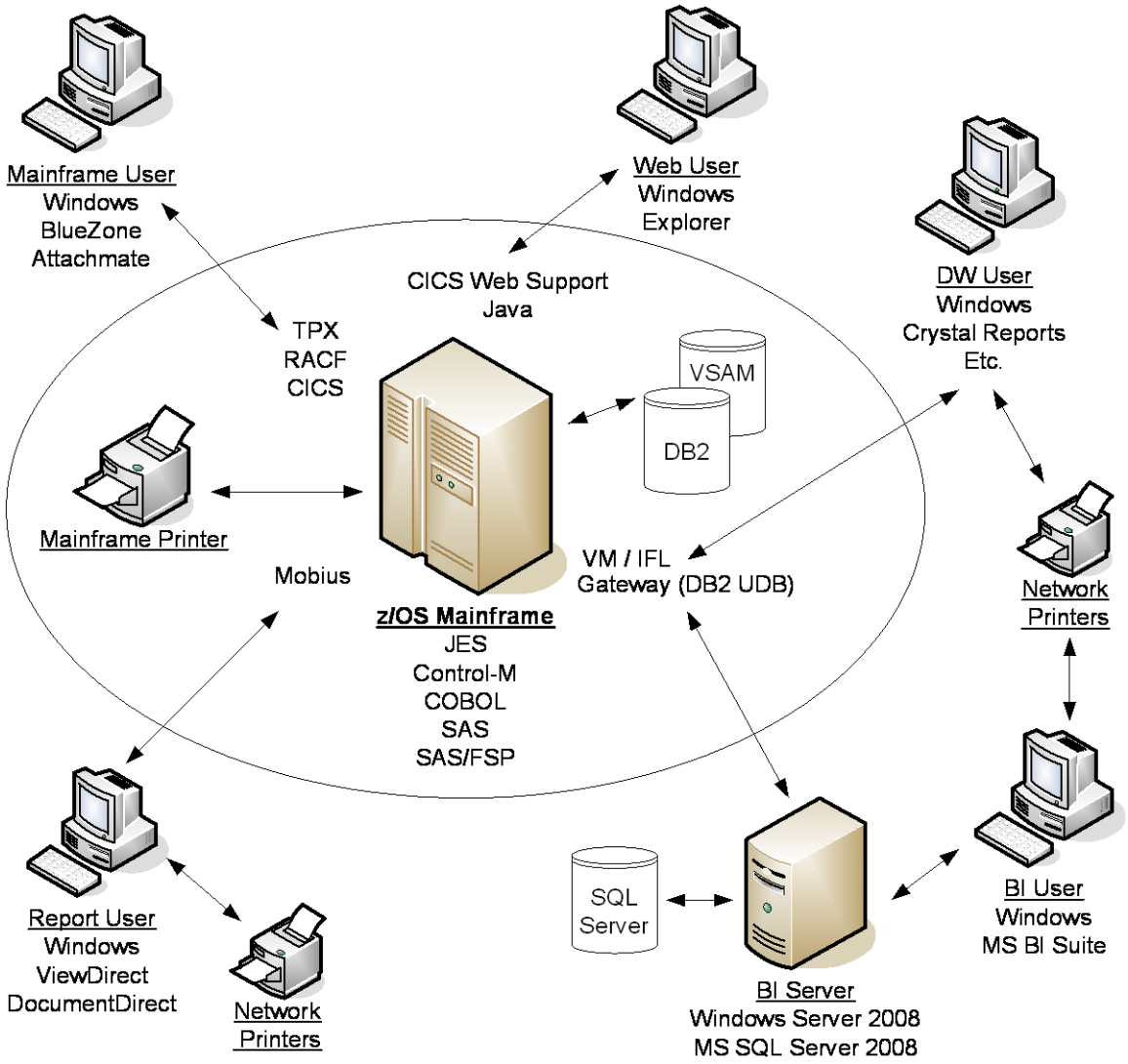
OT operates a large datacenter that supports a significant number of the systems that should be replaced by the ERP. These systems include:

- **DOA FIMS – The** Department of Administration's side of WVFIMS;
- **TEAM -** State Procurement System;
- **PIMS –** State Position Information management System;
- **FASPEND –** Budget History;
- **HRIS –** State Human Resources System;
- **WV11 –** State Personnel Actions System;
- **PCARD –** Procurement Card System;
- **FIMS DW –** Financial Information System Data Warehouse;
- **PIMS DW –** Position Information System Data Warehouse; and
- **WV11 DW -** State Personnel Actions System Data Warehouse.

These systems operate predominantly in the IBM MVS mainframe environment supplemented with some additional functionality provided by Microsoft (MS) Windows® based technologies such as the MS Business Intelligence solution (BI). The mainframe applications themselves have been enhanced to provide comparatively up to date features, for example workflows and role based security, and to take advantage of newer mainframe technologies such as Customer Information Control System (CICS) Web Services. WVOT has standardized on Active Directory.

The OT hardware and network environment is illustrated below:

Exhibit 9: WVOT Hardware and Network Environment



The majority of systems have been developed using COBOL and operate in a zSeries Operating System (z/OS) CICS environment using IBM DB2 Mainframe or VSAM data management methods. The OT also supports at least one system developed using SAS Software tools (SAS/SFP). Batch jobs are scheduled and executed by standard mainframe systems such as JES / TSO and the Control-M Job scheduler.

Network access to the mainframe based systems varies by agency. Each agency is responsible for validating a user's authorized access to the agency network and the use of an IBM 3270 desktop terminal emulator for example, BlueZone or Attachmate Extra TN3270. Upon access to the network, mainframe security is controlled by standard mainframe systems such as the RACF and the TPX session manager.

Within each application, additional security to system functions is controlled by data provided by the user's profile. Within DOA FIMS for example, there are Authorization Orgs which gives access to an agency's data, menu groups which limit access to functional areas, and indicators for the ability to view detail data behind Payrolls and the ability to add signature sheets, etc. Access® to the BI tool comes through permissions granted to the user's network account.

System output including periodic reports that have been developed using COBOL and SAS are distributed using Allen Systems Group (ASG) Mobius content and report management system. These reports are also available on demand and can be viewed and/or printed using a number of media that include the following:

- View Direct for MVS that can schedule and print hard copies on mainframe printers;
- Document Direct, a client application that runs on the user desktop and can send output to network printers or download selected report data; and
- Delivery via an email server that in conjunction with z/OS, can attach PDF or text (.txt) files to emails for delivery to the report user's email account.

Web enabled purchase card reporting and reconciliation functions utilize java based CICS Web Services components that interact with a HTML server. This capability is mostly in use by Higher Ed entities.

OT data warehouses have been developed using DB2. Access to the warehouse databases is facilitated by IBM Universal Database (DB2 UDB) which acts as a gateway. The gateway operates in a mainframe Integrated Facility for Linux (IFL) server supported by the Virtual Machine operating system (z/VM) virtualization software. User access to the warehouse databases is by ODBC compliant connections that support agency reporting tool kits such as Crystal Reports. The warehouses are versions of the production databases that have been de-normalized by extract transformation and load (ETL) processes developed using CA InfoRefiner and COBOL. In particular the FIMS data warehouse has tables that represent the systems ledger.

FIMS DW provides further analytic capabilities supported by the Microsoft Business Intelligence Suite (MS BI) which runs on a dedicated MS Windows 64-bit PerformancePoint Server. Data for analysis is stored in a SQL Server database that is refreshed every morning by a scheduled process on the server that uses the gateway to call DB2 mainframe stored procedures that extract FIMS DW data and then run packages to create BI data cubes. MS SQL Server is used in the development and maintenance of the database and the packages. The data cubes are developed using MS Visual Studio 2008.

The following matrix documents the major technologies used to support the OT systems that the State expects to retire through the ERP project:

Exhibit 10: Matrix of Major Technologies Supporting WVOT Systems

OT Systems Matrix	Systems									
Component	DOA FIMS	TEAM	PIMS	FASPEND	HRIS	WV11	PCARD	FIMS DW	PIMS DW	WV11 DW
Z/OS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
RACF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CICS	✓	✓	✓			✓	✓			
DB2 Mainframe	✓		✓		✓	✓	✓	✓	✓	✓
VSAM	✓	✓								
COBOL	✓	✓	✓		✓	✓	✓			
SAS	✓	✓	✓	✓	✓	✓				
SAS/FSP				✓						
Inforefiner	✓									
Information Expert		✓								
JES / TSO	✓	✓	✓		✓	✓	✓			
Control M	✓	✓	✓		✓	✓	✓			
Mobius	✓	✓	✓		✓	✓	✓			
View Direct	✓	✓	✓		✓	✓	✓			
Document Direct	✓	✓	✓		✓	✓	✓			
SMTP	✓	✓	✓		✓	✓				
CICS Web Support							✓			
Java							✓			
Gateway (DB2 UDB)								✓	✓	✓
VM								✓	✓	✓
IFL								✓	✓	✓
MS Windows			✓			✓		✓		

2.2.4.2 State Auditor's Office, Information Systems and Technology

The SAO Information System and Technology (IS&T) unit maintains EPICS, the State's payroll system and the State Auditor's side of the WVFIMS application. Both of these systems operate on a Unisys Libra 690 mainframe platform.

SAO IS&T has also developed a number of applications which integrate with the mainframe applications which provide functionality typical of modern implementations including document imaging, electronic distribution of reports, information access portals, data warehousing and providing web access for the public to a range of State financial information. Most of these applications have been developed with the Microsoft .Net product or with Unisys supported third party software solutions.

SAO applications which are expected to have some or all functions replaced by the ERP system include:

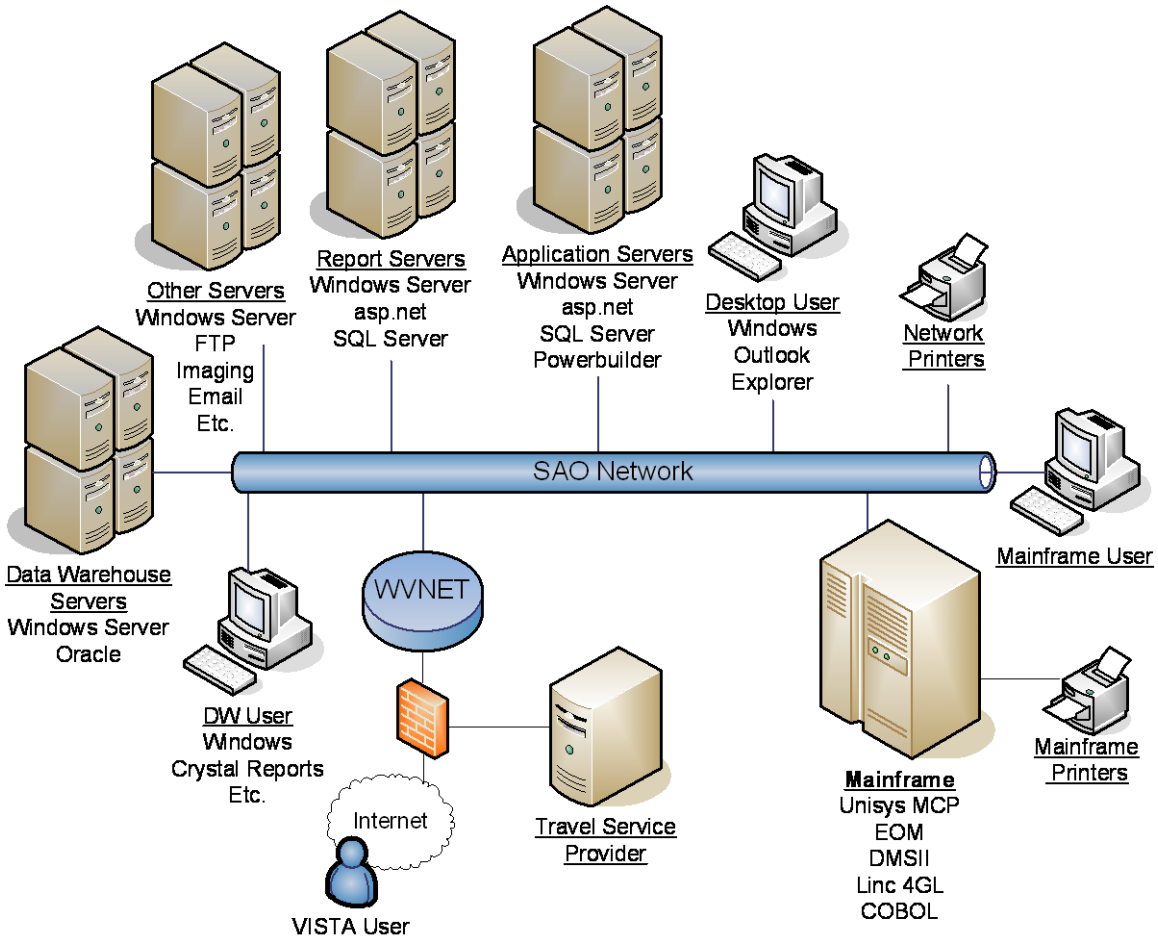
- **ePayments** which supports electronic payment to State vendors;
- **PCard** which supports the State's procurement card program;
- **VISTA** which allows the public to view vendor payments made by the State (without a VISTA sign in) and State users to sign in and access information about State employees, public employee and teacher retirees and State vendors;
- **SAO MyApps Portal** which provides a user friendly information distribution format for a variety of information including viewing and downloading reports in PDF that have been delivered to the report server via FTP, as well access to other functions such as email notifications and access to the Employee Electronic Notice of Deposits (eNOD) and, Employee W2 information; and
- **EPICS Data Warehouse** which provides extracts of payroll information for access and download by authorized state agency staff.

SAO applications which are expected to integrate with the new ERP system include:

- **eTravel** – a vendor hosted solution for managing employee travel and expense reimbursements.

The figure below provides an overview of the SAO IS&T network environment.

Exhibit 11: High Level Overview of the SAO IS&T Network Environment



The mainframe based systems, EPICS and the SAO version of FIMS, have been developed using the Logic and Information Network Compiler (LINC 4GL), a 4th-generation language used mostly on Unisys platforms with some code developed using COBOL. The systems run in a Master Control Program (MCP) operating environment and incorporate Unisys Data Management System II databases (DMS II) that can support both hierarchical and relational models. Reports are distributed using a combination of Unisys Enterprise Output Manager (EOM) and report management features provided by custom built functions incorporated in the SAO Portal.

MS Windows based systems are hosted on an ES7000 system operating approximately forty virtual machines that support the servers required by the MS .Net Framework applications and other servers such as web servers, email servers, imaging servers, database servers, etc.

The ePayments, PCard, SAO Portal and VISTA systems are built around Oracle databases and utilize the MS .Net Framework environment to deliver web based

applications and reports to Windows desktop users and support a wide variety of browsers including MS Internet Explorer, Mozilla Firefox, Google Chrome, Safari and Opera. The majority of these systems have been developed in Visual Basic (VB) using the MS Visual Studio development tool suite with some client server PowerBuilder development supporting direct deposit payments.

eTravel is a partially hosted solution. Other ES7000 server side support includes:

- Unisys InfoImage imaging servers that provide document management facilities;
- FTP servers that send and receive interface and report data between the various servers and the mainframe;
- MS Outlook® email servers;
- PowerBuilder; and
- Oracle database.

Access to the systems is authenticated by an LDAP server and application security can be configured to control access to system functions and reports based on profiles and data content such as a user's role and agency.

The EPICS data warehouse has been developed using Oracle and users connect using a username and password through the Oracle native client generally through Crystal Reports. The data warehouse is populated by replicating the online EPICS system directly to the Oracle DW using Attachmate Databridge. Databridge replicates the data by first doing a full clone of the online EPICS database to the EPICS DW. It then applies changes by reading the online EPICS database log files.

2.2.4.3 State Treasurer's Office, Information Technology Services

STO Information Technology Services (ITS) unit utilizes Microsoft Windows 2003/2008® products including the .Net development framework as its primary applications development toolset. In addition, one system is being hosted by a third party. The STO ITS applications support modern techniques including electronic distribution of reports, data warehousing and providing the public with web access to government transparency information.

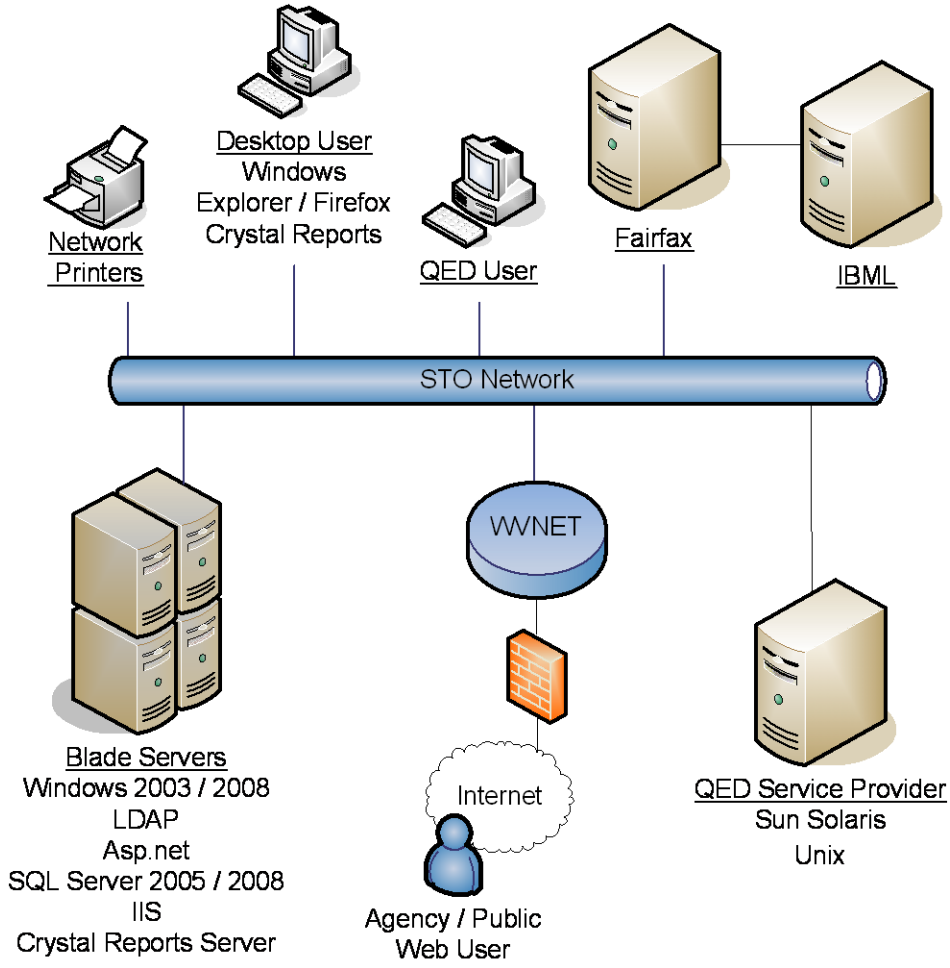
STO applications which are expected to have some or all functions replaced by the ERP system include:

- **TOPS** – Treasury Online Payments System;
- **CCS** – Cash Concentration System; and
- **Check DW** – Check Data Warehouse.

Wagers, the STO's Unclaimed Property System is expected to interface with the new ERP system.

The figure below illustrates the ITS hardware and network environment:

Exhibit 12: High Level Overview of the STO ITS Hardware and Network Environment



MS Windows based systems are hosted on an IBM Blade Server system (12 blades) that operates the virtual machines that support the servers required by the MS .Net Framework applications and other servers such as web servers, email servers, database servers etc.

The TOPS, CCS and Check DW systems are built around Microsoft SQL Server® databases and utilize the MS .Net Framework environment to deliver web based applications and reports to Windows desktop users and support the MS Internet Explorer and Mozilla Firefox browsers. The majority of these systems have been developed in Visual Basic (VB) with some C-Sharp programs using the MS Visual Studio development tool suite. Other server side support includes Crystal Server 2008. Scheduled jobs use stored procedure SQL Server Integration Services (SSIS) packages to process data offline. An example is pulling flat file information from the State Auditor's Office and updating the Check DW on a daily basis.

The QED system is hosted by a third party and operates on a Sun Solaris UNIX platform. Access to the system is provided by a version of remote desktop.

Networked access to the systems by the three Charleston office locations is authenticated by a LDAP server with additional controls provided by application security layers. Public access to the Check DW is provided by a website that sits outside the firewall.

2.2.5 Demographics and Other Metrics

The following tables present demographics related to the estimated number of users for enterprise and other key State legacy systems and transaction volumes for WVFIMS.

Exhibit 13: Enterprise and Other Key System Users

System	Estimated Users (2010)
WVFIMS - DOA side	3,213
WVFIMS - SAO side	147
EBIS, FEBIS & ECOM	12
EPICS	823
PIMS	733
HRIS	942
TEAM	1,000
eTravel	10,000
VISTA (Includes the general public)	56,000
TOPS	677
CCS	143
QED	20
FIMS Warehouse	487
EPICS Warehouse	220
PIMS/WV11 Warehouse	62
Check DW	118

Exhibit 14: WVFIMS Transaction Volumes

Transaction Volumes	FY2010
WVFIMS - Department of Administration:	**Transaction Counts**
Invoices	679,190
Revenue Refunds	595,975
Deposits	93,459
Commitments	45,276
IGTs	34,087
Investments	15,085
Expense to Expense	11,530
Off System Disbursements	8,570
Revenue Transfers	7,084
Payroll	4,518
Chargebacks	4,836
Purchase Orders	2,962
Fund Transfers	2,845
Journal Entries	1,008
Bank Transfers	1,190
Reimbursements	608
IGT Out Allocations	363

Transaction Volumes	FY2010
Redeposits	157
Commitment Maintenance	178
Deposit Corrections	139
IGT In Allocations	105
Fund Transfer Reversals	77
PO Maintenance	35
P-Card:	
P-Card Transactions	636,627
WVFIMS - State Auditor's Office:	**Estimated Annual Volume**
EPICS Payment Detail	18,000,000
EPICS Employee Check/NOD Payments	1,200,000
EPICS W2 File	69,000
EPICS Exceptions	540,000
ePayments	47,495
EPICS DW Payroll Detail	4,612,365
EPICS DW ADDS	6,775,264
EPICS DW ADJUS	6,334
SAO FIMS Vendor ACH	339,785
SAO FIMS Vendor Checks	618,924
SAO FIMS Welfare Checks	380,401
SAO FIMS CHIPS Checks	35,304
SAO FIMS PEIA Checks	146,235
SAO FIMS Vet Checks	558
SAO FIMS Workers Comp	155,603
SAO FIMS Retirement Checks	87,876
SAO FIMS Approvals	650,000
P-Card Transactions that are reconciled in WVFIMS	700,000
P-Card Payments processed to Citi in WVFIMS (monthly)	191
ENOD	19,436,323

2.3. Qualifications and Experience

Vendors will provide in Section 3.3.1 Technical Proposal information regarding their firm and staff qualifications and experience in completing similar projects; references; copies of any staff certifications or degrees applicable to this project; proposed staffing plan; descriptions of past projects completed entailing the location of the project, project manager name and contact information, type of project, and what the project goals and objectives where and how they were met.

2.4. Project and Goals

The project goals and objectives are:

2.4.1 Implement a Statewide ERP System

Implement an integrated and highly efficient ERP system that meets the current and future needs of the State of West Virginia by:

- Replacing multiple outdated, stand-alone systems with a single, integrated ERP system;
- Incorporating business process improvements as appropriate, to increase the efficiency of managing State resources;
- Enhancing security;
- Eliminating administrative activities that do not add value, such as redundant keying and reconciliation of disparate systems; and
- Ensuring transparency with appropriate controls.

2.4.2 Facilitate Standardization

Implement the ERP system in a manner that supports Statewide standardization of data and business processes by:

- Standardizing business processes and practices across the State organizations that are within scope to conform to State statutes, State code, and Statewide policies and procedures; and
- Addressing the business requirements of the operating agencies, both large and small, as well as those of the central administrative agencies/offices.

2.4.3 Facilitate Timely Access to Information

Capture ERP system information and make it readily accessible, as appropriate, to State decision-makers, managers, workers and employees, vendors and customers of the State by:

- Creating a business intelligence data warehouse with effective reporting tools and predefined reports;
- Providing agencies, and specifically system users and business managers, with the necessary technology, tools, and training to enable them to extract the data they require to meet their daily business needs;
- Making information more readily available, as appropriate, to all state agencies, local governments, the general public, and the business community;
- Improving the State's ability to conduct business, human resources, and technology planning based on reliable, timely financial and human resources data;
- Improving the State's ability to manage its resources by integrating funding, employee, location, equipment, and authorization information;
- Providing employees and fiduciaries with direct access, as appropriate, to personnel, payroll, time and attendance, and benefit information;
- Improving the State's ability to budget and measure program success based on performance metrics; and
- Enabling the State to more efficiently conduct business with its vendors and service providers through expansion of electronic commerce.

2.5. Mandatory Requirements

The following mandatory requirements must be met by the Vendor as a part of the submitted proposal. Failure on the part of the Vendor to meet any of the mandatory

specifications shall result in the disqualification of the proposal. The terms **"must," "will," "shall," "minimum," "maximum,"** or **"is/are required"** identify a mandatory item or factor. However, Use of the terms "must," "will," "shall," "minimum," "maximum," or "is/are required" in Appendix M - Functional and System-wide Requirements indicates that such items are expected, but failure to comply with the provision in Appendix M utilizing the above mentioned terms will not result in automatic disqualification of the proposal. Decisions regarding compliance with any mandatory requirements shall be at the sole discretion of the State.

2.5.1 Single Vendor to Execute the Contract

The State is seeking a single Vendor that **shall** be responsible for providing both a complete software solution and all requested services required for a successful implementation, including production support. The Vendor may team with multiple firms in its proposal but there **shall** be a single Vendor that will execute the Contract expected to result from this RFP and will coordinate, integrate, and be accountable for all products and services proposed. This excludes an arrangement between vendors of joint venturing or joint response to this RFP as such arrangements will not be allowed. This restriction does not prohibit multiple vendors from proposing the same subcontractor(s) or software as a part of their proposals.

2.5.2 Demonstrated Implementation Services Experience

The Vendor **must** have completed by the Bid Opening Date, as the primary provider of implementation services, an implementation of an enterprise resource planning (ERP) system for a state or local government with total annual expenditures (including state and federal appropriations) of at least $8 billion and with at least 20,000 head count employees. The software that was implemented during this engagement **must** currently be in use by that client. The purpose of this requirement is to ensure that Vendors possess the experience, knowledge, and lessons learned associated with large public sector ERP implementations that include multiple agencies / departments having multiple locations/offices.

2.5.3 Demonstrated ERP Software Provider Experience

The proposed ERP software **must** be currently in production in a public sector environment which includes a state or local government with a total annual budget of at least $8 billion and with at least 20,000 head count employees. This requirement relates to the proposed ERP software and not to third party software included in the proposal.

2.6. Oral Presentations and Software Demonstrations

Qualifying Vendors will be required to participate in Oral Presentations and Software Demonstrations. The order by which Vendors are assigned Oral Presentation and Software Demonstration dates is to be determined through a random process. Prior to each Vendor's scheduled Oral Presentation and Software Demonstration dates, the State will provide the Vendor with a detailed demonstration script that specifies the requirements, instructions, rules and processes that should be adhered to in each presentation.

The period of advance notice, scripts, requirements, instructions, rules and processes will be the same for all Vendors. The release dates of the scripts to the Vendors will be staggered so that each Vendor has the same amount of time to prepare. In the event multiple Vendors propose the same ERP software, but different solutions involving third party software to address certain functionality, then the ERP Software Provider should

coordinate with the Vendors and the third party Software Providers to ensure that the proposed solution for each Vendor is properly demonstrated. Under this circumstance, the State may adjust the schedule to allow a reasonable amount of additional time to accommodate multiple demonstrations of impacted demonstration scripts.

In situations where the Vendor is proposing an ERP software solution other than one which they own themselves, employees of the ERP Software Provider will be required to demonstrate the functional and technical components of the scripted demonstrations. The Vendor will not be allowed to actively participate in the software demonstrations; however, each Vendor is to be allowed to have up to 8 members of their staff attend the Software Demonstrations and be available to respond to inquiries. Each Vendor will then lead their assigned Oral Presentation.

During oral presentations and software demonstrations, Vendors may not alter or add to their submitted proposal, but only clarify information based on the scripts provided by the State.

All Software Demonstrations and Vendor Oral Presentations will be held in Charleston, West Virginia.

2.7. Anticipated ERP Functionality and Implementation Phasing

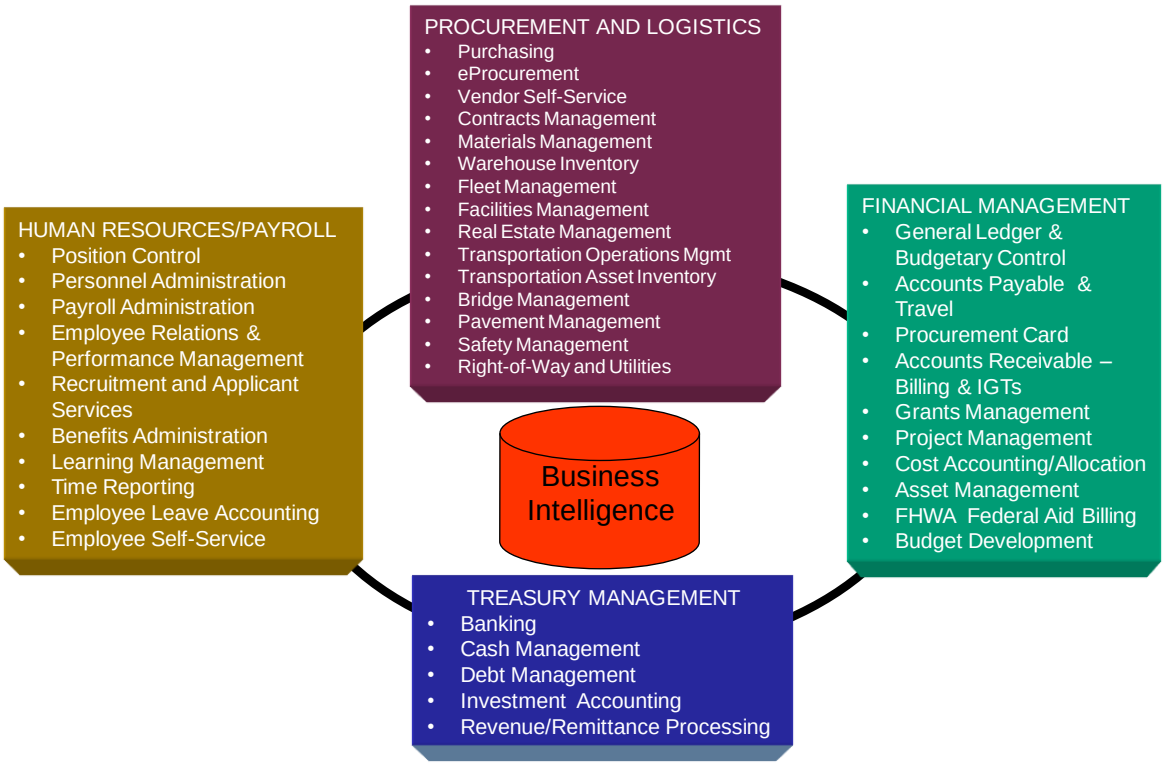
The proposed ERP system is intended to provide an integrated solution to meet the State's current and future administrative systems requirements. The anticipated ERP scope is to include specified functionality in the areas of financial management, treasury management, human resources and payroll administration, and procurement and logistics, including certain transportation-related functionality. Approximately 118 existing legacy applications have been targeted for replacement by the ERP system.

The State expects that the new ERP solution should be implemented in multiple phases over several years. Following below is additional information regarding the functionality that has been identified for inclusion in the ERP system as well as the proposed phasing of the implementation.

2.7.1 ERP Functionality

The chart below depicts the functionality that is expected to be included in the new ERP system:

Exhibit 15: Anticipated ERP System Functionality



While the State is seeking an integrated solution, it is recognized that third party software products may need to be proposed as part of the overall solution to address required functionality in certain areas such as fleet management, the transportation asset management components, and time reporting.

2.7.2 Preliminary ERP Implementation Phasing

The State recognizes that implementing an ERP system with all of the desired functionality across all state agencies should be challenging regardless of the deployment strategy. The Preliminary ERP Implementation Phasing table below was prepared based on an initial assessment of the State's needs, priorities, and existing system integration utilizing certain assumptions, as follows:

- All WVFIMS functionality should be replaced at the same time;
- All WVDOT administrative systems functionality should be replaced at the same time to the extent possible;
- WVDOT functionality should not be included in the first phase due to the required FHWA demonstration for the Federal Aid billing-related functionality, but should be implemented as soon as practical thereafter;
- West Virginia Parkways Authority, a component unit of the State which operates administratively under WDOT and is not currently a user of WVFIMS or EPICS, should be implemented at the same time as WVDOT;
- A fiscal year cut-over should be utilized for the financial management functionality if possible;

- A calendar year cut-over should be utilized for the human resources/payroll functionality if possible; and
- Higher Education users should utilize the ERP system to replace functionality they currently perform in WVFIMS, but new or additional functionality should not be deployed to higher education institutions as part of the current scope of the ERP project.

The State developed the following functionality phasing chart based on the assumptions provided above. Each Vendor should develop a phasing schedule and timeline matching its project plan and detailed staffing based on the Vendor's experience with the solution being proposed to provide the State with the best balance of cost and risk.

Exhibit 16: Preliminary ERP System Implementation Phasing

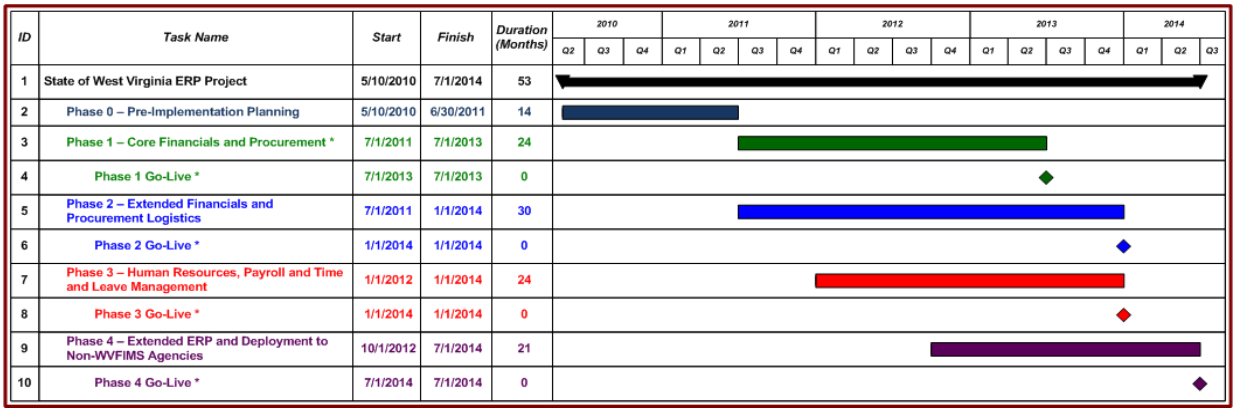
Phase 1 - Core Finance & Procurement	Phase 2 - Remaining Finance & Procurement and Transportation	Phase 3 - Human Resources & Payroll	Phase 4 - Transportation & Facilities
General Ledger & Budgetary Control	Budget Development	Payroll Administration	Real Estate Management
Accounts Payable & Travel	Accounts Receivable, Billing & Revenue/ Remittance Processing	Time Reporting and Leave Accounting	Facilities Management
Procurement Card	FHWA Billing	Position Control	Right of Way and Utility Relocation
Cost Accounting & Cost Allocation	Debt Management	Personnel Administration	Bridge Management
Grants Management	e-Procurement	Recruitment and Applicant Services	Pavement Management
Cash Management	Inventory and Warehousing	Benefits Administration	Safety Management
Banking	Fleet Management	Employee Relations and Performance Mgmt.	Business Intelligence for Phase 4 functions
Investment Accounting	Transportation Operations Management	Employee Self-Service	
Project Management	Transportation Asset Management	Learning Management	
Asset Management	Business Intelligence for Phase 2 functions	Business Intelligence for Phase 3 functions	
Purchasing			
Materials Management			
Contract Management			
Inventory (General Services only)			

Phase 1 - Core Finance & Procurement	Phase 2 - Remaining Finance & Procurement and Transportation	Phase 3 - Human Resources & Payroll	Phase 4 - Transportation & Facilities
Vendor Self-Service			
Business Intelligence for Phase 1 functions			

2.7.3 Preliminary Timeline

The timeline below was prepared taking into account factors such as the anticipated software phasing, ERP Project Sponsor priorities, project risk, anticipated custom development, training requirements, and other factors. As discussed above, Vendors should propose a software phasing schedule and timeline matching its project plan and detailed staffing, based on the Vendor's experience with the solution being proposed, to provide the State with the best balance of cost and risk. Related cost information must be presented in the Cost Proposal and must not be included in the Technical Proposal.

Exhibit 17: Anticipated ERP Project Timeline



2.8. State Participation

The State requires that its employees be fully engaged on the Project Team to facilitate knowledge transfer and system ownership. Additionally, the State has engaged with STA to assist in pre-implementation activities related to the ERP, including the acquisition process, and to provide ongoing oversight and quality assurance support during the implementation. References to the State project team throughout the remainder of this document include the STA resources assisting the State.

The State is prepared to commit resources in the following areas. Where indicated by an asterisk below, a resource may be less than full-time or participate in more than one role. Additional information is provided below for each of the items indicated by a footnote.

Exhibit 18: State Staffing Chart

Projected ERP Project Team Members	State	STA
Project Management:		
Project Director	1	2 [1]

Projected ERP Project Team Members	State	STA
Project Manager	1	1
Administrative Support	1	
Financial Team:		
Financial Team Lead	1 [3]	1 [2]
General Ledger / Budget Control	1 [3]	
Accounts Payable / Travel	1	
Accounts Receivable / Billing	1	
Asset Management	1	
Grants Management	1	
Project Accounting	1	
Cost Accounting / Cost Allocation	1	
Budget Development	1*	
Procurement and Logistics Team:		
Procurement and Logistics Team Lead	1 [4]	2
Purchasing / Materials Management	1 [4]	
Contracts Administration	1*	
Inventory Management	1	
Fleet Management	1*	
Real Estate Management	1*	
Facilities Management	1*	
Treasury Team:		
Treasury Team Lead	1	1 [2]
Banking	1	
Cash Management	1	
Investment Accounting	1*	
Debt Management	1*	
Human Resources and Payroll Team:		
Human Resources and Payroll Team Lead	1 [5]	1
Payroll Administration	1 [5]	
Personnel Administration	1	
Applicant Services	1	
Position Control	1*	
Classification and Compensation	1	
Time and Leave Accounting	1	
Benefits Administration	1	
Training and Employee Development	1*	
Transportation Team:		
Transportation Team Lead	1	1
FHWA Billing	1	
Transportation Operations Management	1	
Transportation Asset Inventory	1	
Bridge Management	1*	
Pavement Management	1*	

Projected ERP Project Team Members	State	STA
Safety Management	1*	
Right-of-Way Acquisition	1*	
Utility Relocation	1*	
Technical Team:		
Technical Team Lead	1	
FRICE-W Development	6 to 8 FTEs depending on phase	
Infrastructure	5 FTEs phased in as infrastructure implemented and transitioned to State	
Business Intelligence / Data Warehouse	1	
Security	1	
Database Administration	1	
Enterprise Readiness Team:		
Enterprise Readiness Team Lead	1	1
Communications	1	
Change Management	1	
ERP Training	10 FTEs beginning approximately six months prior to Phase 1 Go-Live	
Agency Deployment	7 FTEs beginning approximately six months prior to Phase 1 Go-Live	

[1] - Expect 33%-50% participation

[2] - Should serve as Financial Lead and Treasury Lead

[3] - Should serve as Financial Team Lead and General Ledger / Budget Control Lead

[4] - Should serve as Procurement and Logistics Team Lead and Purchasing / Materials Management Lead

[5] - Should serve as the Human Resources and Payroll Team Lead and Payroll Administration Lead

2.9. Items for Special Consideration

The purpose of this section of the RFP is to identify key points that may differentiate this ERP implementation from other similar state and local government ERP projects. These points are discussed in the following sections. Special care should be taken to address

these considerations in preparing responses to this RFP.

2.9.1 Chart of Accounts

The State initiated a Chart of Accounts Workgroup to review issues with the State's current Chart of Accounts and identify a proposed coding block for the ERP chart of accounts.

The State is interested in a model that provides for centralized control of the chart of accounts while allowing agencies control over reporting hierarchies. As the State moves toward a more precisely defined statewide reporting structure, the need for diligent maintenance of reporting hierarchies should increase.

Vendors should describe and be prepared to demonstrate how the proposed software can support a flexible financial chart of accounts that can adapt to and accommodate the State's current and future business needs. The Vendor should also describe the delivered chart of accounts structure and how it is typically used to meet the needs of other states using the ERP software. Both centralization and decentralization are expected for workflow purposes and individual agencies should be able to produce their own balance sheets and income Statements as required.

In order to address the statewide reporting issues described in Section 2.2.3.1 WVFIMS, the State would like to expand the current coding block to include a statewide program code, a location code and two user defined codes. The proposed coding block includes the following:

Exhibit 19: Proposed COA Coding Block

Proposed ERP Coding Element	Length/Type	Purpose
GL Account	N/A	Assets, Liabilities, Fund Balance inferred from transaction type
Fund	N/A	Six levels of fund including Budgetary Fund Type and GAAP Fund
Fiscal Year	N/A	Current Fiscal Year
Budget Fiscal Year	N/A	Appropriation Fiscal Year
Organization Code	N/A	Ten levels of organization (3 Statewide levels and 7 Agency defined levels)
Program	N/A	Seven levels of program (2 Statewide levels and 5 Agency defined levels)
Location	N/A	Eight levels of location (3 Statewide levels and 5 Agency defined levels)
Grant Code	N/A	Five levels of grants (1 Statewide level and 4 Agency defined levels)
Project Code	N/A	Ten levels of projects (2 Statewide levels and 8 Agency defined levels)
Object Code	N/A	Seven levels of objects of expenditure (2 Statewide levels and 5 Agency defined levels)
Revenue Source	N/A	Seven levels of sources of revenue (2 Statewide levels and 5 Agency defined levels)
User Defined	N/A	Six levels uniquely defined by each agency
User Defined	N/A	Six levels uniquely defined by each agency

2.9.2 Vendor Master Files

The State currently has at least three central sources for vendor information. TEAM, the Department of Administration side of WVFIMS and the State Auditor's Office side of WVFIMS all contain vendor data elements that should need to be consolidated into one vendor file in the ERP system. There may also be information in the EBIS, ECOM and FEBIS applications maintained by the State Auditor's Office. In addition, there may be information in agency systems such as the WVDOT Purchasing and Accounts Payable system which should be included in the ERP vendor master file.

TEAM requires annual renewals for registered vendors, therefore, vendor data maintained in TEAM should be reasonably current since the vendors have the opportunity to validate and update the data during the renewal process.

Both the Department of Administration and State Auditor's Office sides of WVFIMS contain additional vendors who are not included in the TEAM system. WVFIMS additions or changes to vendors occur on the WVFMIS Administration side. The WVFIMS State Auditor's Office side collects additional information on vendors who are paid electronically; this information does not flow back to the WVFIMS Department of Administration side.

The State has initiated a workgroup to define the approach to consolidate the data into a single vendor file within the ERP system. The group plans on using D&B® D-U-N-S® Number as the key identifier if the vendor has had a DUNS number assigned. If no DUNS number is assigned, the Federal Tax ID known as the Employer Identification number (EIN) should to be utilized as the key identifier. Every vendor should have an assigned key identifier to be merged into the new vendor system.

2.9.3 Public Employees Insurance Agency (PEIA)

The State of West Virginia Pubic Employees Insurance Agency offers insurance-related benefits to more than 210,000 individuals, including State employees, State retirees and non-state participants.

PEIA was established under the Public Employees Insurance Act of 1971, to provide hospital, surgical, group major medical, prescription drug, group life, and accidental death and dismemberment insurance coverage to eligible employees; and to establish and promulgate rules for the administration of these plans. Benefits are made available to all active employees of the State of West Virginia and various related State entities and local governments. Participants may elect health insurance coverage through a fully self-insured preferred provider benefit plan (PPB) or through external managed care organizations (MCO). Additionally, all participants receive basic life coverage and may elect to purchase additional life insurance under the optional life insurance policy for the policyholder and/or their dependants. Mountaineer Flexible Benefits also provides a section 125 cafeteria plan for optional benefits including dental, vision, long term disability (LTD), short term disability (STD), flexible spending accounts (FSA), and after tax legal services.

For revenue, PEIA relies almost solely on the premiums paid directly by its participating employers and employees. In addition to policyholder and employer contributions, PEIA assess administration fees for new members, transferring members with coverage lapses and transferring members that move between state agencies and non-state agencies. PEIA bills state agencies for the employer portion of insurance premiums on a monthly basis. For more information regarding the benefits offered by the PEIA see the 2011 Summary Plan Description at:

http://www.peia.wv.gov/forms-and-downloads/summary_plan_description/Pages/default.aspx

Insurance premiums from employees, participants and employers are collected using two primary systems: EPICS (State payroll system) via employee deduction; and premium billing, receivable and collection processing via PEIA's custom-developed Benefit Administration System (BAS). The internally developed system includes:

- Mainframe-based CICS application to track all employers, retired policyholders, active policyholders, employee's employment history, employee transfers, insurance coverage(s), member data and attributes, dependent data and attributes, and beneficiary data;
- Web-based applications to support open enrollment, billing and premium contribution processing;
- Customer relationship management (CRM) component to record calls, track correspondence and image paper documents to queue images into work lists and link images to member records,
- Microsoft Dynamics® financial system used to record accrual accounting entries; and
- Integration to WVFIMS to record cash and revenue transactions.

These multiple disparate systems (and the business rules configured within them) help PEIA manage eligibility, enrollment, qualifying events, employee transfers, termination of coverage, death, leave of absence (including medical leave involving worker's compensation), FMLA, military leave and personal leave, and COBRA.

Approximately twenty (20) interfaces are maintained that support data exchange to/from participating organizations, Third party Administrators (TPAs), State Auditor's Office (Payroll system (EPICS) and financial system (WVFIMS)), State Treasurer's Office (payments), Consolidated Pension Retirement Board (CPRB) and other external entities.

Premiums for health insurance are based on member salary at the beginning of the plan year (July 1). Different percentages of salary for employee and employer portions make up the total premium amount. Conditions such as demotion or transfer can impact coverage premiums during the plan year. Premiums for life insurance are based on the health and age of the insured. PEIA also manages the enrollment and maintenance of Flexible Spending Accounts (FSA) for health and dependent care.

In addition to the insurance benefits for the employed members, PEIA also manages health and life plans for participating retirees. A separate Retirement Health Benefit Trust (RHBT) is maintained for the self-insured retirement health plan. Retirement is an eligibility event which requires retirees to re-enroll for continued insurance coverage. Retirees can also leverage multiple means to reduce their insurance premiums:

- Use accumulated leave benefits to extend employer paid insurance premiums and thus reduce their cost of insurance for a pre-determined period of time; or
- Apply for benefit assistance programs to reduce insurance cost based on income level.

The Public Employees Insurance Agency (PEIA) Benefits Administration System (BAS) is assumed to be replaced with the ERP Benefits Administration functionality in this RFP. The functional requirements matrices in Appendix M include requirements to provide the full range of business functionality needed by PEIA. Based on its review of vendor proposals and the conduct of software demonstrations, the State intends to make a final determination whether to replace PEIA's BAS application with functionality in the new ERP system or interface BAS with the ERP system.

Requirements to address this functionality have been included in the appropriate sections

of the functional requirements. Vendors should describe and expect to incorporate and address any unique functionality required such as the ability to manage and account for both State and non-State participants in the ERP System.

2.9.4 Interfacing with the State Pension System

The State's pension agency, the Consolidated Pension Retirement Board (CPRB), is in the process of implementing a new Pension System for the State. There are a number of interfaces that have been identified as being required between the ERP and CPRB's new Pension System. While the two projects are expected to proceed concurrently, Vendors are expected to coordinate with CPRB as necessary to assure that the appropriate interfaces are developed between the ERP System and CPRB's Pension System.

2.9.5 Purchasing Exemptions

The State allows for a number of statutory exemptions from the West Virginia Purchasing Division approved by the State Legislature. These exemptions typically authorize the entity receiving the exemption to procure the specified goods or services without utilizing the procurement processes and procedures required by the Purchasing Division.

It is the State's intention that all purchasing transactions by state agencies implementing the ERP system be performed in the ERP system regardless of whether the agency or the commodity being acquired by the agency is subject to the jurisdiction of the Purchasing Division. The impact of the various agency purchasing exemptions on the ERP project is that a significant portion of the State procurement occurs outside the purview of the Purchasing Division resulting in multiple, non-standard purchasing processes that may need to be configured in the new ERP system. Whenever possible, the State may attempt to utilize common business processes using workflow to obtain the appropriate approvals.

For reference, the Purchasing exemptions are provided below with links to the appropriate West Virginia Code section:

- Higher Education §5A-3-3(9)
- Division of Highways (Road Construction) §5A-3-3(9)
- Legislature §5A-3-1
- Supreme Court §51-1-17(d)
- Alcohol Beverage Control Administration (ABCA) Stock §5A-3-1
- Education Textbooks §5A-3-1
- West Virginia Children's Health Insurance §5-16B-5
- Public Employee Insurance Agency (PEIA) Insurance §5-16-9
- Treasurer Bond Counsel/Prof. §12-5-7
- Governor Bond Counsel/Underwriter §17-26-12
- Board of Risk and Insurance Management §29-12-8
- Development Office §31-15-6(mm)
- Parkways Authority §17-16A-13(b)
- Auditor/Treasurer-Bank/Investment Services §12-3A-3

- Special Exemption from Governor §5A-1-8
- State Rail Authority / Rolling Stock or Equipment §29-18-6(a) (11) (B)
- West Virginia Investment Management Board §12-6-4(g)
- West Virginia Board of Treasury Investments §12-6C-7
- West Virginia Health Information Network §16-29G-3
- Banking Commissioner - Contracts for Supervisory Agency §31A-8D-7(d)
- Banking Commissioner - Contracts for Examiners §31A-8A-8(4)
- Department of Health and Human Resources (DHHR) - Pharma Manufacturers §9-5-15
- Insurance Commission - Professional Services §23-1-1f (2)
- West Virginia Health Insurance Plan §33-48-2(h) (1)
- Insurance Commission - Examinations §33-2-9(i) (1)
- Medical Insurance Underwriters §33-20E-7
- Workers' Compensation - Technology Contracts §23-1-1b (g) (24) (B)
- Workers' Compensation Commission §23-1-1g (a)
- Employer's Mutual Insurance Company §23-2C-3(e)
- Broadband Deployment Council §31-15C-4(2)
- Water Development Authority §22C-1-6(11)
- Governor's Office of Health Enhancement and Lifestyle Planning §16-29H-10
- Contract procedure for the Medicaid program §9-2-9b (b)

In addition, the Division of Purchasing has published a Purchasing Procedure Handbook on the items which comprise the non-competitive/exempt list of commodities and services that may be purchased directly by spending units without advertisement or bid. Purchasing Division approval is not required for these procurements, unless specifically noted. Vendor registration and all other requirements for the dollar amount of the purchase are mandatory for contracts for these commodities and services; however, the annual vendor registration fee is waived.

These non-competitive/exempt items include but are not limited to the procurement of advertising, attorneys and law firm's services, contracts between governmental agencies, medical fees, and utility costs. For more detail on exemptions, refer to the following Web site: http://www.state.wv.us/admin/purchase/handbook/2007R10/hand9.htm.

2.9.6 Cost Allocation

Like most large service organizations, the State of West Virginia is interested in understanding the total cost of the services it provides and the programs that it operates. This information is an essential component of the budget development process. Particularly when it comes to prioritizing the services and programs it can provide within the limits of available funding.

Each year, the State of West Virginia develops a Statewide Cost Allocation Plan (SWCAP). The purpose of the SWCAP is to allocate administrative and other indirect costs to services provided and programs operated by the State. Additionally, the SWCAP

is used to burden federally-funded programs with their reasonable, allowable, and allocable share of these administrative and indirect costs. As a result, the State's SWCAP must be approved by the appropriate Federal Authority.

The Federal Department of Health and Human Services Division of Cost Allocation (DCA) is the approving authority for State Cost Allocation Plans. DCA is guided by OMB Circular A-87, and GASB 34 and 51. Cost Allocation plans and changes to cost allocation plans must be approved by DCA in advance.

Most, but not all, of these administrative and indirect costs are accounted for in WVFIMS. Costs not accounted for in WVFIMS along with the statistics that form the allocation bases for the SWCAP are manually gathered from a variety of different systems.

The actual allocation of costs is not performed by WVFIMS. The allocations are performed using spreadsheets and the results of the allocation are entered into WVFIMS. The State would like the ability to use the new ERP system to capture all of the allocable costs, the allocation statistics, perform the allocation, and generate the journal entries necessary to record the impact of the allocation in the general ledger.

Individual agencies also have cost allocation plans. In addition to the indirect and administrative costs, the agencies are faced with the problem of accurately charging direct costs to programs, projects, and grants.

Agencies employ a variety of methods to distribute labor costs to the various programs, projects and grants. For example, the WVDOT Division of Highways uses actual hours worked and salaries from the payroll system to identify the labor cost that should be charged to a particular project. These labor costs are burdened with a fringe benefit factor that includes the average cost of fringe benefits plus the cost of leave accruals to support the FHWA billing process.

The Division of Highways also distributes the cost of goods and services used by the various projects incorporating the total cost of the equipment. This includes not only the acquisition cost, but also the cost associated with maintenance and repair. Depreciation, interest, parts, supplies, and the labor costs for maintenance and repair are captured for the equipment and used to develop a unit of service (hours) rate. The rate is calculated by dividing the total cost of the equipment by the total number of hours the equipment is used. A time sheet is completed for the equipment and the applicable projects are charged the unit of service rate for each hour the equipment is used.

The Division of Highways also incurs indirect costs that should be allocated to its various projects. The Division of Highways has developed a cost allocation procedure that allocates indirect and administrative costs to the various projects and programs operated by the Division of Highways. These indirect costs include the Division of Highways share of the statewide and WVDOT indirect costs. Indirect costs are allocated to projects using a representative statistical allocation bases (e.g. hours, square feet, number of employees, etc.). None of these statistics are captured in WVFIMS nor is the result of these allocations posted in WVFIMS.

All state agencies perform labor distribution and cost allocation in some form or another. In fact there are almost as many different approaches to labor distribution and cost allocation as there are agencies. Some agencies use standard labor rates applied to actual hours worked to distribute labor costs. While others distribute actual labor cost applied to standard percentage distribution. For example the Department of Health and Human Resources uses random moment sampling to develop standard labor distribution percentages. In both cases (standard labor rates and standard distribution percentages), the standards are periodically adjusted to reflect the actual labor cost and the actual hours worked.

Other agencies also assign non labor-related direct costs to programs, projects, and grants using units of service or fixed percentages. They also allocate indirect and administrative costs to their various programs, projects, and grants using some representative allocation bases. With the exception of Workforce West Virginia all of these labor distribution and cost allocation activities are performed outside of WVFIMS.

The Office of Technology developed a special cost allocation feature in WVFIMS for Workforce West Virginia. Workforce allocates its costs using a combination of labor dollars and hours worked. The cost allocation feature generates journal entries at the chart of accounts level of detail and posts the journal entries into WVFIMS.

The State expects the new ERP system to be able accommodate a wide variety of labor distribution and cost allocation methods.

2.9.7 Budget Development

Budget Development as it currently exists within the State is largely a manual process.

The budget development cycle begins when the State Budget Office publishes the Budget Calendar and Budget Guidelines. The typical Budget Calendar is outlined in Table 1 below.

Exhibit 20: West Virginia Budget Calendar

Timeframe	Budget Development Activity
July	Budget Office issues Budget Guidelines
September	Agencies Submit Budget Requests
September	State Budget Office Reviews Requests
September - October	State Budget Office conducts budget hearings with State Agencies
November	Official Revenues Estimates are completed
December	Final Budget Recommendations are developed *
January	Governor Presents Budget to the Legislature *
January – March	Legislative Budget hearings with State Agencies *
March	House and Senate Budget Bills are introduced *
March	Legislature Passes Budget *
March	Governor Approves/Vetoes Budget *
April	State Budget Office issues Expenditure Schedule Guidelines
May	Agencies submit Expenditure Schedules
May - June	State Budget Office reviews Expenditure Schedules
June	State Budget Director Approves Expenditure Schedules
June	Expenditure Schedules are entered into WVFIMS
July	Fiscal Year Begins

* *Following a gubernatorial election, these six steps in the budget process are delayed by one month.*

Typically, the budget guidelines explain the Governor's overall philosophy for the upcoming budget year, including overall percentage of increase/decrease from the current year budget. Additionally, the guidelines may provide budget guidance for specific programs that are being initiated, expanded, reduced, or retired. The required Appropriation Request forms along with the detailed instructions for completion of these forms are also included in the Budget Guidelines.

Typically, agencies manage and control their budgets at a more granular level of detail than the statewide appropriation level. As result, the budget development process in the agencies tends to start at a more detailed level than that required for the Appropriation Request. State Agencies build their internal budgets at the level of detail necessary to manage their business effectively as well as to respond to Federal grant reporting requirements.

Once they have created their internal budgets, agencies summarize their operating budgets to the appropriation level for submission to the State Budget Office. With the exception of a few agency-based budget development systems, there is no automated budget development system at the present time. Most of the Appropriation Request forms are submitted by the agencies to the State Budget Office in hard copy and on Microsoft Excel® spreadsheets.

The State Budget Office develops the Governor's Budget Request based on the agency Appropriation Requests as adjusted by the State Budget Office. The Budget Book is developed using WordPerfect and Lotus 1-2-3. As a result State Budget Office personnel manually enter the data submitted by the agencies into WordPerfect and Lotus 1-2-3. The Governor's Budget Request is submitted to the Legislature in hard copy format.

Typically, the Legislature uses the Governor's Budget Request as a starting point for the Appropriations Bill. The Finance Committees in the Senate and House of Delegates make adjustments to the requested budget and develop an Appropriations Bill. This process is also largely a manual process using spreadsheets. The Senate and the House of Delegates each pass an Appropriations Bill and a Joint House of Delegates and Senate Committee reconciles the differences and drafts the final Appropriations Bill.

The State Budget Office receives the enacted Appropriations Bill in hard copy and enters the appropriations into WVFIMS (the State Finance System). Agencies are notified when their appropriations are available in WVFIMS. The agencies then manually adjust their internal operating budgets to reflect the funding made available by the appropriations.

The State expects the ERP system to provide a Budget Development module that is fully integrated with the appropriate financial and human resource modules. Budget development functionality must include the ability for the agencies to develop their internal operating budgets at the appropriate level of detail and automatically roll them up to the appropriation level. Version control must be provided at each level in the budget development process along with the ability to secure versions from further update by the submitting party.

The Budget Development application must also include word processing and publication capabilities to develop the Budget Book and the Appropriation Bill. The Legislature may also use the ERP budget development functionality to develop the appropriations budget. The Budget Development application must automatically update the finance system with the approved appropriations and support the required adjustment to the final version of the agency operating budget to reflect the changes in the Appropriations Bill.

2.9.8 Facilities Management

The goal of the ERP facilities management function is to provide a flexible/extensible repository to support managing a range of facilities owned and operated by the State.

The General Services Division within the Department of Administration owns and maintains on behalf of other state agencies a number of facilities, primarily within the Capitol Complex or other parts of the Charleston metropolitan area. The General Service Division is responsible for providing facilities management services for all of the facilities which it owns.

Some state agencies own and manage all or some part of their facilities. For example, while WVDOT's central office is located in a facility owned and operated by the General Services Division, WVDOT owns and is responsible for maintaining various district and substation facilities across the State. The Department of Health and Human Resources' (DHHR) headquarters building is owned and operated by the General Services Division, but DHHR owns and is responsible for maintaining a number of hospital facilities. Likewise, various divisions within the Department of Military Affairs and Public Safety own and operate correctional institutions, juvenile facilities and regional jails.

Other facilities, which are leased by the State, are maintained all or in part by the State's landlords. The goal is for the Division of Real Estate to act as the primary liaison between state agencies leasing facilities and the property owners and property managers of these facilities on lease and facilities management issues. Some exceptions would be facilities which are clearly programmatic in nature, such as an environmental test site being leased by the Department of Environmental Protection from a property owner.

There is currently no enterprise-wide facilities management system. Some facilities information and information on major facility systems is contained in the WVFIMS asset register and is expected to be converted to the ERP in Phase 1. The General Services Division utilizes the HEAT system, a commercial off-the-shelf help desk solution from FrontRange Systems for problem reporting. The General Services Division also utilizes a module of Infor's enterprise asset management solution, another commercial off-the-shelf solution, for managing and tracking work orders.

WVDOT tracks facilities management related work in its Maintenance Management System. It also has some facility inventory information in its WVDOT Facility Locations system and it maintains parking assignments and priorities in the Division of Highways Parking System. Some other agencies maintain facilities information in spreadsheets, Microsoft Access® databases or other off-line systems.

All agencies are expected to provide certain information about their facilities assets to the West Virginia Board of Risk and Insurance Management (BRIM) for insurance purposes. Currently, this is a paper interface with each agency providing information about their new facilities and major new facility systems and providing an annual update of any changes.

All State agencies will be encouraged to adopt the ERP facilities management function and the system should be configured to support the range of various facilities owned and operated by all State agencies. However, for purposes of estimating the implementation effort in Phase 4, the Vendor should assume that the State will fully deploy the application at a minimum to facilities owned and managed by:

- General Services Division;
- All WVDOT divisions including the Parkways Authority;
- DHHR including State hospital facilities;

- DEP;
- Department of Education including State-operated school facilities and the conference center owned by the Department of Education;
- Department of Education and the Arts;
- Division of Natural Resources including State park lodges and other facilities;
- West Virginia State Police; and
- Department of Military Affairs and Public Safety including correctional institutions, regional jail facilities, juvenile facilities and National Guard armories.

2.9.9 Real Estate Management

The goal of the ERP real estate management function is to provide a tool for tracking building, facility and other space needs of state agencies, analyzing alternative approaches for meeting these needs, supporting the property acquisition process and managing construction and refurbishment of State facilities. Other current functionality includes maintaining a comprehensive inventory of State facilities, managing state agency leases for facilities, and property management functions for state agencies leasing space to another state agency or an external entity.

The Real Estate Division within the Department of Administration has primary responsibility for managing the selection and acquisition of grounds, buildings and office space for state agencies. The goal of the Real Estate Division is to provide state agencies with a highly qualified and effective centralized real estate resource that can assist agencies with their real estate requirements, while enhancing efficiency, improving performance, and reducing costs wherever possible.

In addition to the Real Estate Division, a number of state agencies are also responsible for performing some or all of their property acquisition activities. This is typically situations where the property acquisition is closely related to an agency program area and specialized expertise is expected. Examples include construction or reconstruction of hospital facilities by the Department of Health and Human Resources; construction or expansion of juvenile facilities, regional jail facilities or correctional facilities by the Department of Military Affairs and Public Safety or construction or expansion of highway maintenance facilities by WVDOT. In addition, WVDOT also acquires right-of-way needed for transportation projects (please refer to Right-of-Way and Utilities).

There is currently no enterprise-wide real estate management system. Some facilities information is contained in the WVFIMS asset register and is expected to be converted to the ERP system in Phase 1. Some real estate projects may be tracked in WVFIMS or within WVDOT's Project Tracking System. WVDOT's Right of Way system and a WVDOT facilities management database also contain some limited facility inventory information. Payments for facility leases for state agencies are processed through WVFIMS. In addition, a number of agencies maintain spreadsheets or other off-line inventories of their property leases.

Certain information about State facilities is also provided to the West Virginia Board of Risk and Insurance Management (BRIM) for insurance purposes. Currently, this is a manual process with each agency providing information about their new facilities and providing an annual update of any changes.

2.9.10 Fleet Management

There are approximately 7,000 passenger vehicles and 8,000 special purpose vehicles owned and/or operated by various State agencies comprising an annual operating budget of $60 to $70 million. There are also additional State entities, such as the Higher Education Planning Commission, West Virginia Parkways Authority and the Bureau of Criminal Investigation (BCI), which are also expected to utilize the ERP fleet management functionality in the ERP system.

A number of agencies lease their passenger vehicles and light duty trucks from the Department of Administration, which utilizes a third party fleet management firm (currently Automotive Resources International or ARI). Approximately 1,800 vehicles are currently managed by the Department of Administration for State agencies. That number is expected to grow continuously over the next 24 – 36 months as State agencies comply with recent legislation. When a vehicle requires service, the driver calls ARI, who directs the driver to an authorized repair location. Similarly, drivers and/or their supervisors are notified by ARI of required preventive maintenance. Agencies are also provided trend analysis and exception reports on key program indicators (KPIs).

Some other agencies own and/or lease their own vehicles but utilize a third party fleet management firm or local automotive repair shops to perform maintenance. Likewise, some agencies who utilize Department of Administration owned passenger vehicles or trucks may own some equipment of their own which is more specialized or tied to their specific program areas. An example is all terrain vehicles utilized by Department of Environmental Protection staff that travel off-road to perform various inspections. These fleet/equipment units are typically maintained by third party repair shops as required.

WVDOT and the West Virginia State Police own, operate and maintain their own vehicles. WVDOT also owns and/or operates highway construction and maintenance equipment. Both WVDOT and the State Police have a number of garage and repair facilities located across the State. WVDOT has a central equipment unit in Buckhannon and fleet maintenance units at various locations in each of WVDOT's ten districts. WVDOT has 96 shops statewide and a total of 262 mechanics.

The State Police have five (5) garages located in various barracks across the State. The State Police also have five (5) electronic shops and one (1) body shop. The garages and electronic shops are located at Troop 1 (Shinnston), Troop 2 (Charles Town), Troop 3 (Elkins), Troop 4 (South Charleston) and Troop 6 (Beckley). The body shop is located at Troop 4 (South Charleston). The State Police have a total of 23 civilian employees, 11 in the garages, ten (10) in the electronic shops and two (2) in the body shop. There are also a total of six (6) logistics officers.

The Division of Natural Resources owns, operates and maintains various agricultural equipment. The Department of Administration operates the State's Aviation Division, which has both rotary and fixed-wing aircraft.

There is currently no enterprise-wide fleet management system. General information about most fleet assets of state agencies is stored in the asset register in WVFIMS and is expected to be migrated to the ERP system in Phase 1. WVDOT has an agency Equipment Management System which provides a broad range of fleet and equipment management functionality. The West Virginia State Police maintain an inventory of their fleet and equipment in an agency-specific system called TEAMUP.

All agencies are expected to provide certain information about their fleet and equipment assets to the West Virginia Board of Risk and Insurance Management (BRIM) for insurance purposes. Currently, this is a paper interface with each agency providing information about their new fleet units and providing an annual update of any changes.

This creates redundant data entry. As an example, the State Police enter information about their fleet and equipment units into BRIM's system, WVFIMS and their own TEAMUP application.

During the 2010 session, The West Virginia Legislature created under Senate Bill 219 the new West Virginia State Fleet Management Office within the Department of Administration. The goal of this new office is to provide greater enterprise-level coordination of fleet management for all state agencies including higher education institutions. With the establishment of this office, responsibility for managing the vehicle fleet operated by the Department of Administration for various state agencies was transferred from the Division of Purchasing to this new agency. The first director of the new agency was appointed and began work as of October 4, 2010. The responsibility for assisting state agencies with purchasing new vehicles and the surplus property functions remain within the Division of Purchasing.

The goal of the ERP fleet management function is to provide an enterprise wide repository to manage all of the State's fleet and equipment units, while providing flexibility for managing fleet and equipment either centrally or at an agency level.

If the vendor is proposing a third party solution to meet any of the fleet management requirements, it is preferred that these components be currently in production in a state fleet environment which is responsible for maintaining at least 10,000 vehicles and which has an annual budget (capital cost, fuel, maintenance, subrogation, accident management, and insurance premiums) of at least $60 million dollars.

2.9.11 Geographic Information Systems

Geographic Information Systems (GIS) are playing an increasingly important role across West Virginia State government. Currently, WVDOT, DHHR, DEP, Revenue, and Commerce have GIS systems. It is anticipated that the new ERP system should provide GIS capabilities and integrate with the State's existing GIS environment in two ways:

- Providing GIS viewer capabilities within the ERP for specific functions which involve geospatial based information; and
- Supporting application level integration to allow ERP functions and data to be displayed and accessed by agency GIS applications.

These required GIS capabilities are described in further detail below. Each of these GIS capabilities is expected to be general features of the selected ERP system. Each of these capabilities is expected to also be specifically implemented between the ERP and the WVDOT GIS environment to meet the requirements defined within each of the functional areas of the ERP system.

Several ERP functions which involve extensive use of geospatial based information are expected to provide a GIS viewer capability within the ERP function. These functions include:

- Bridge Management;
- Facilities Management;
- Fleet Management;
- Pavement Management;
- Project Management;
- Real Estate Management;

- Right-of-Way and Utilities;
- Safety Management;
- Transportation Asset Inventory; and
- Transportation Operations Management.

This GIS viewer capability is expected to provide the following functionality:

- A full featured GIS viewer within each of the identified ERP functions which is compatible with industry standards and all industry leading GIS environments. It is expected that this GIS viewer is expected to initially be integrated with WVDOT's existing ESRI ArcGIS environment; the State may integrate the ERP with other agency GIS environments in a future phase.
- The ability to display one or more items meeting specific user defined criteria on a map from within the GIS viewer in the ERP. Depending on the specific ERP function, this could be one or more transportation assets, projects, facilities, parcels, utility relocations, etc.
- The capability to spatially map information meeting a user defined set of criteria from within the ERP. While looking at a list of items meeting a user defined set of criteria or detailed information about an individual item, the user should be able to select "map" and see the location of the item or items displayed spatially by the GIS viewer within the ERP.
- The capability to enter a set of selection criteria for any pre-defined report and request that the results be displayed spatially by the GIS viewer within the ERP.
- The capability to enter a set of selection criteria for an ad-hoc query of data within the identified functional areas and request that the results be displayed spatially by the GIS viewer within the ERP.

The ERP system is expected to also have the capability to integrate at the application level with various agency GIS environments and applications. The ERP system is expected to be able to integrate at the application level with all industry leading GIS tools and environments. This capability is expected to be specifically implemented with the WVDOT ESRI ArcGIS environment for each of the identified ERP functions.

This capability is expected to allow a user to select an area of interest from within WVDOT's GIS application and request that various types of information such as assets, projects or parcels in that area or all of the items in that area meeting certain user defined criteria stored in the ERP be spatially displayed on a map within WVDOT's GIS. The user is expected to then be able to select one or more of these items from the map displayed in the WVDOT GIS application and drill down to see the detailed information about these items within the ERP.

2.9.12 Document Management

State agencies currently utilize several different document management systems to track and store electronic documents and/or images of paper documents. Several of these document management systems capture images of accounts payable documents to support accounts payable transactions entered into WVFIMS. Some of these document management systems are also integrated with various agency lines of business systems.

In terms of the State's financial and accounting processes, document management systems are being utilized to capture and share electronic images of accounts payable documents between a number of agencies and the State Auditor's Office. The accounts

payable invoice is entered into WVFIMS and the supporting accounts payable documentation received from the vendor is then scanned by the agency into their agency-specific document management system. For example, the Department of Transportation utilizes EMC Application Xtender to scan in its accounts payable invoices. The Department of Health and Human Resources utilizes OnBase. Fairmont State University and several other higher education institutions utilize Global Science and Technology's (GST) Audit Detail Imaging System (ADIS) which is based on Kofax. The scanned image is then passed by the user agency to the State Auditor's Office through a file transfer mechanism where the Auditor's staff performing accounts payable audit functions can access the documentation using the State Auditor's Office Unisys InfoImage application.

It is expected that the ERP system have the capability to integrate with the six document management systems in widest use within State government today. This includes the ability to scan, store in the ERP database and associate a document with a specific ERP transaction or record. It also includes the ability to link to and display one or more stored images in the document management system associated with an ERP record or transaction directly from the ERP system. The ERP system is expected to integrate with the following document management applications:

- EMC Documentum
- EMC Application Xtender;
- IBM FileNet;
- Kofax including Global Science and Technology's (GST) Audit Detail Imaging System (ADIS);
- Unisys InfoImage; and
- Hyland Software's OnBase.

Within the various ERP functional areas, requirements have also been identified for specific integration points between the ERP system and one or more document management systems to support State business processes. Some examples of these specific document management integration requirements include:

- Integrating with each of the identified document management systems to support scanning and storing accounts payable documentation within the ERP database, associating these documents with the related ERP transaction and linking to these documents as required during the processing of an accounts payable transaction;
- Integrating with the different document management systems utilized by various agencies to allow for storing a document in the agency's document management system, linking the document to a record in the ERP facilities, fleet or real estate function and then displaying the document in the document management system based on a request initiated within the ERP facilities or real estate function;
- Integrating with EMC Application Xtender to provide the ability to link to as-built plans for transportation infrastructure in the transportation asset inventory function; and
- Integrating in the ERP right-of-way and utilities function with EMC Application Xtender to link to, store and display various types of documents related to the acquisition of a parcel or the management of a required utility relocation for transportation projects.

2.9.13 Pay, Time, and Leave Standardization Issues

Currently, there is a lack of standardization across state agencies regarding a number of pay, time, and leave policies and practices. While there is an initiative underway to review

the lack of standardization and to make recommendations for policy and statutory changes necessary to achieve as much standardization as is practical, this issue is presented as a noteworthy background topic.

The following represent several of the more significant issues where there is a lack of standardization in pay, time, and leave policies and practices:

- Agency work day schedules are not consistent across the State. Some agencies require an 8 hour work day with an unpaid lunch resulting in 40 hour work week. Other agencies require an 8 hour work day with a 0.5 hour paid lunch resulting in a 37.5 hour work week. Other agencies require a 7.5 hour work day with a 0.5 hour paid lunch resulting in a 35 hour work week.
- Agencies pay some employees in arrears and others on a current basis. In July 2002, the State required that all new employees were to be paid in arrears, however, employees hired before this date are still paid on a current basis in most agencies.
- Agencies have different policies regarding accrued holiday time. Some agencies put a cap on the amount of holiday time accumulated and others do not. Some agencies pay for holiday leave upon separation and others do not.
- Agencies have different policies regarding compensatory time. Some agencies permit employees to earn compensatory time while others do not. One agency uses flex-time in lieu of compensatory time.
- Agencies use different formulas to calculate annual leave. Some agencies use 0.25 hour as the lowest increment while one agency uses 0.38 hour increment.

These disparate policies and practices add complexity to employee management, record-keeping, and employee transfers between agencies. It also results in errors and difficulty in achieving compliance with internal control measures the State desires from an enterprise perspective.

The HR/Payroll Standardization Workgroup is charged with making their recommendations for legislative consideration by January 2011. This work group's charge includes impacts in three key areas as follows:

- Reduce complexity of administering pay, time and leave policies based on personnel or payroll processing related to employee overtime, transfer, separation, retirement, and leave payout;
- Reduce the training cost associated with the State's mobile workforce related to the administration of common pay, time and leave policies; and
- Reduce inconsistencies and strengthen the overall internal control structure for the effected agencies.

2.9.14 Shared Services Center

As part of the implementation of the new ERP solution, the State would like to explore the potential for supporting some core business processes in a shared services model. Under a shared services approach, the funding and resourcing of the service is shared and the providing department or shared services function effectively becomes an internal service provider.

The State is currently evaluating the feasibility of implementing one or more business processes in a shared services environment as part of the migration to the new ERP system. Business processes which have been identified as possible candidates for being supported in a shared services environment include:

- Vendor file maintenance;
- Vendor invoice processing;
- Employee travel expense processing;
- Timekeeping/payroll adjustments;
- Accounts Payable;
- Miscellaneous billing and accounts receivables; and
- Facilities, Fleet, and Real Estate functionality.

These functions are performed across State government today in a variety of centralized and decentralized approaches. WVDOT, for example, has centralized accounts payable processing in headquarters, while accounts payable is processed at the division level in the Department of Military Affairs and Public Safety.

Timekeeping and payroll administration are often decentralized throughout various departments. Accounts receivable is often the responsibility of the business unit generating the receivable. The Finance Division does, however, provide accounts payable and accounts receivable services for various Boards and Commissions and the State Treasurer's Office handles cash receipts for many of these boards and commissions.

The State envisions completing its assessment of the feasibility of implementing a shared services center prior to the start of the implementation phase of the ERP project. The selected Vendor is expected to then work with the State to perform a detailed design of the selected shared service center business processes (if any) as part of defining the To-Be business processes for the new ERP system.

It is the State's expectation that some State agencies may transition to the shared services center at the time they begin using the new ERP implementation, while others may potentially transition at a later date. For planning purposes, the Vendor should assume that some business functions may require two workflows, one for agencies migrating to the shared services center and one for agencies who may be continuing to perform most aspects of the business function within their individual agencies.

The State intends to have primary responsibility for planning, organizing and implementing the shared services center with potential advisory and staff augmentation support from STA staff.

The Vendor's assigned staff are expected to design the business process to operate in the shared services center and configure the ERP software to support these business processes. These services should be included in the contract resulting from this RFP as an optional service and used as required by the State. The Vendor should invoice monthly on a time and material basis for these optional shared services consulting services if or when they are requested by the State.

For planning purposes, the Vendor should assume 2,000 hours of planning, design, and implementation support services will be required.

2.9.15 Higher Education Participation

West Virginia institutions of higher education are currently integrated in the State's enterprise systems for business functions such as payroll, processing payments, deposits, and fleet management. These institutions of higher education are going to be user agencies of the ERP system for this functionality. The State is also interested in

potentially migrating some or all of its four-year and two-year higher education institutions to the ERP system in a single instance for all ERP functionality at some point in the future. The State, at its option, may consider a change order to include a pilot initiative to migrate additional functionality for one or more institutions of higher education as a change order to a later implementation phase under the contract resulting from this RFP.

To facilitate this potentiality, Vendors should describe any unique functionality which would be required to fully integrate institutions of higher education addressing impacts on areas such as the chart of accounts, grants management, and concurrent employment. The Vendor should provide a discussion of each of the following in this section of their proposal:

- Higher education institutions where the Vendor has implemented an ERP system;
- Major modifications or enhancements that were made in those implementations;
- Primary areas, either business-related or project-related, that the Vendor expects may require additional attention; and
- Major challenges of incorporating higher education institutions as part of a Statewide ERP system.

2.9.16 Travel

The State has included requirements for travel functionality in Appendix M – Functional and System Wide Requirements. The State is currently implementing TRX Solutions, a third party hosted solution, to perform travel management for the State.

The State has also included a number of interfaces between the ERP and the hosted travel solution in Appendix J – Interfaces. Vendors should respond to the travel requirements as part of their technical proposal. Vendors should also include the effort and associated cost of interfacing with the hosted travel solution in their cost proposal. The State anticipates making a final determination on whether to implement the ERP travel management functionality and whether the ERP travel functionality will integrate with or replace the TRX application following a review of the proposals from vendors and the conduct of software demonstrations.

2.9.17 Applicant Services

The State has included requirements for applicant services in Appendix M – Functional and System Wide Requirements. The State currently utilizes NEOGOV, a third party hosted solution, to perform some recruitment functions and the State has included an interface between the ERP and NEOGOV in Appendix J – Interfaces.

Vendors are expected to respond to the applicant services requirements as part of their technical proposal. Vendors are expected to also include the effort and associated cost of interfacing with NEOGOV in their cost proposal. The State anticipates making a final determination on whether to implement the ERP applicant services functionality and whether the applicant services functionality will integrate with or replace NEOGOV following a review of the proposals from vendors and the conduct of software demonstrations.

2.9.18 Transportation Considerations

The West Virginia Department of Transportation (WVDOT) consists of the Division of Highways, Division of Motor Vehicles, Division of Public Transit, the Public Port Authority, the Parkways Authority (West Virginia Turnpike), the State Rail Authority, and the

Aeronautics Commission. Transportation considerations unique to these agencies are described in the following sub-sections.

If the vendor is proposing third party solutions for the transportation asset management components of the vendor's ERP solution, it is preferred that these components be currently in production in a state transportation agency or large city/county public works environment responsible for maintaining at least 15,000 miles of roadway and which has an annual budget of at least $1 billion dollars.

The proposed third party software should be in production use by agency staff and not by a third party performing general engineering services on behalf of the agency. In its response to the RFP, the Vendor should include a list of state or large city/county public works environments where the software is currently in production. The transportation asset management software components include transportation asset inventory, transportation operations management, pavement management, bridge management and safety management.

2.9.18.1 FHWA Federal Aid Billing

The ERP FHWA Federal Aid billing function is designed to support billing of FHWA and other third parties such as the Federal Transit Agency (FTA), and other states and local political subdivisions for their share of the cost of transportation projects.

WVDOT was reimbursed over $400 million during the last fiscal year by FHWA and other third parties for these agencies' share of the cost incurred in the execution of the WVDOT transportation construction program.

The Federal Aid agreements and billing process is managed by the Program Administration section of the WVDOT Program Planning and Administration Division and the Federal Billing section of the WVDOT Finance and Administration Division. Participation agreements between WVDOT and FHWA, FTA or other third parties which define the third party's share of the cost of a transportation project and the eligible funding sources for these projects are established by the WVDOT Program Administration section. The billing of FHWA and other third parties for actual costs incurred by WVDOT in the execution of a transportation project are performed by the Federal Billing section of the Finance and Administration Division.

The mainframe-based WVDOT Authorization and Federal Billing system supports the Federal Aid Billing process. This system interfaces with FHWA's Financial Management Information System (FMIS) to establish project authorizations and submit regular project billings. WVDOT bills FHWA weekly on Tuesday night of each week for all eligible costs incurred through Monday of that week.

WVDOT is currently developing a new Program and Project Management system using Oracle's Primavera toolset. It is anticipated that this new Program and Project Management system should support the project authorization process, including integration with the FHWA FMIS application. The Federal Aid billing process is expected to migrate to the ERP system.

2.9.18.2 FHWA Demonstration

Under federal law, state transportation departments are expected to successfully complete a comprehensive testing of the new ERP system's capabilities prior to implementation in order to satisfy the primary elements of the Federal-Aid Highway Program (FAHP). FHWA is concerned with a state's ability to plan/track federal-aid projects from conception to completion, and the sufficiency of accounting controls to properly manage federal funds overall and those obligated on specific projects. The

ability to bill FHWA along with the validity of cost data for which FHWA is being billed will be a primary focus. Additionally, the review will assess internal controls and implementation of generally accepted accounting principles that have an effect on the FAHP.

The system demonstration and related site visit by FHWA review team members will generally take three full business days; but may take up to five business days. Adequate time will be scheduled for proper planning, coordination among team members, review of system documentation, testing and analysis. Prior to implementing WVDOT on the ERP System, the State must demonstrate the system capabilities by completing a test script through live use of the system (in a test environment) that covers the elements/capabilities listed below. Vendor is expected to be responsible for ensuring that the ERP system fully supports the required functionality and for preparing the test environment for the FHWA system demonstration. In its proposal response, vendor should list projects where it supported a successful FHWA demonstration. WVDOT staff must perform the demonstration scripts to the satisfaction of the FHWA reviewers. FHWA reserves the right to update or modify the system demonstration requirements at any time. Additional details about the FHWA demonstration and related requirements may be found at the following web site: http://knowledge.fhwa.dot.gov/cops/finsys.nsf/home

2.9.18.3 Transportation Operations Management

The goal of the ERP transportation operations management solution is to support the management and tracking of maintenance activities performed by various WVDOT divisions including but not limited to the Division of Highways, the Parkways Authority and the State Rail Authority. It is also intended to support the maintenance of transportation related assets performed by the West Virginia Division of Natural Resources.

The WVDOT Division of Highways is responsible for maintaining more than 34,726 miles of State owned highways and 6,710 bridges, of which 32 percent are more than 100 feet in length. Highway maintenance activities are performed by staff assigned to ten district offices across the State of West Virginia, along with several statewide crews. Each district is further subdivided into county operations and into sub stations within each county.

The WVDOT Division of Highways Maintenance Division in the central office establishes maintenance policies and standards. The Maintenance Division monitors maintenance operations to insure statewide uniformity. The Maintenance Division also establishes long range maintenance goals and recommends allocation levels for accomplishment of these goals.

The West Virginia Parkways Authority is responsible for maintaining the 88 miles of the West Virginia Turnpike from Princeton to Charleston. The Parkways Authority performs these maintenance activities through three maintenance sections, which are managed by a maintenance engineering function based in Beckley.

The State Rail Authority owns and operates the 52.4-mile South Branch Valley Railroad. It also owns and oversees operation of the 132.1-mile West Virginia Central Railroad. The State Rail Authority supports the Maryland Area Regional Commuter (MARC) commuter rail service to Washington, DC by maintaining two train stations in the Eastern Panhandle and leasing a third for commuter use. It also owns 266.28 miles of “rail-banks” which are abandoned rail lines that may be used again if future conditions make it economically feasible. The State Rail Authority encourages the interim use of these banked lines as trails for public recreation.

A large portion of the State Rail Authority’s rail banks are currently maintained and operated by the Division of Natural Resources within the Department of Commerce. In

addition to maintaining rail banks, the Division of Natural Resource is also responsible for maintaining certain non-public portions of the road and bridge network within State parks, State forests and other public lands.

The WVDOT Division of Highways and the WVDOT State Rail Authority currently utilize the mainframe-based WVDOT Maintenance Management System to support their maintenance management operations. The Parkways Authority began implementing a maintenance management process improvement effort in 2005 and has developed a number of spreadsheet based tools as interim solutions to support maintenance planning and budgeting and condition assessment activities. The Parkways Authority recently initiated implementation of a hosted maintenance management system on a limited scale. This system is expected to be de-commissioned and transitioned into the ERP transportation operations management function as part of Phase 2 of the ERP project. The Division of Natural Resources currently has no automated maintenance or operations management system.

The ERP transportation operations function is expected to provide an operations management solution that will support the management and tracking of maintenance activities performed by various WVDOT divisions and the West Virginia Division of Natural Resources In addition, it is expected to provide an operations management solution that is extensible to be adapted by the State in the future to support the management and tracking of maintenance activities by other State agencies, community colleges and higher education institutions.

The State recognizes that some vendors may propose a third party application for transportation operations management. The State expects any third party best of breed application to be fully integrated with the other ERP functions and that this integration will be vendor supported and upgradeable on a go-forward basis. In addition, while a best of breed solution designed for the transportation industry may provide the best fit with WVDOT's requirements, it is also important that the Vendor ensures that their solution is extensible to support the operations management requirements of other State agencies such as higher education in the future.

2.9.18.4 Transportation Asset Inventory

The goal of the ERP transportation asset inventory function is to provide a flexible/extensible asset data repository to support managing all types of assets on the transportation network. The ERP transportation asset inventory function is intended to support all transportation modes including: highways, tolled facilities, road, bridge, and tunnel infrastructure within State park facilities, national forests, rails, transit, ports, and airports.

WVDOT currently maintains information about its transportation inventory across these various transportation divisions and modes in a number of different, disconnected files. There is no single, easily accessible one-stop source of information about the assets on the State's transportation network.

The mainframe-based Roadfile Inventory Log within the Maintenance Management System contains much of the information about the State highway route network. This application is currently being re-written in SQL Server to more tightly integrate with the WVDOT Geographic Information System (GIS) environment.

Information about bridge assets are maintained in the mainframe Bridge System which is currently being re-developed through the use of the third party InspecTech BridgeInspect ™ database. Information about pavement assets is contained in the Deighton dTIMS™ Pavement Management System.

An inventory of and information about the airports in the State is stored in the WVDOT Airport Locations database. The WVDOT Riverport Locations database shows the location of river ports in the State.

The Salvage Yards and Outdoor Advertising Permits application manages information concerning salvage yard license holders, salvage yard locations and yearly license information on licenses issued. It also manages information about the owner of permits for outdoor advertising signs and the location of the signs for which outdoor advertising permits have been issued.

The Parkways Authority has inventory information on a wide range of assets from a comprehensive inventory effort in 2005 and 2006. This information is stored in a Microsoft Access® database. The Parkways asset inventory information is expected to be incorporated into their new Maintenance Management System which is currently under development. This new Parkways Maintenance Management system is intended to be replaced by the ERP system.

The ERP transportation asset inventory function must be a flexible/extensible asset data repository to support managing all types of linear and point assets on the transportation network including highways, bridges, rail, transit, airports and ports. It is expected to support utilities in the right-of-way and water utilities owned and operated by the Division of Natural Resources.

As with transportation operations management, the State recognizes that some vendors may propose a third party application to meet the transportation asset inventory requirements. The State expects any third party best of breed application to be fully integrated with the other ERP functions and that this integration will be vendor supported and upgradeable on a go-forward basis. In addition, while a best of breed solution designed for the transportation industry may provide the best fit with WVDOT's requirements, it is also important that the Vendor ensures that their solution is extensible to support linear and other asset inventory requirements of State agencies in the future.

The ERP transportation asset inventory function will be implemented in Phase 2. During the implementation in Phase 2, the transportation asset inventory function will integrate with the existing Deighton Pavement Management System and the RoadWare Pavement Management System which provides video logs and associated data about the road network. Depending on the Vendor's solution and the State's decision concerning the ERP pavement management functionality, the ERP transportation asset inventory function will either integrate with a new ERP pavement management system during Phase 4 or it will remain integrated with the Deighton Pavement Management system as implemented in Phase 2.

During the implementation in Phase 2, the transportation asset inventory function will integrate with the WVDOT BridgeInspect ™ database, which is currently being deployed. During Phase 4, depending on the Vendor's solution and the State's decision concerning the ERP bridge management functionality, the ERP transportation asset inventory function will either integrate with a new ERP bridge management system , a new ERP bridge management system to provide modeling and analysis capabilities and the WVDOT BridgeInspect ™ database for bridge inventory, condition and inspection data or it will remain integrated with the WVDOT BridgeInspect ™ database only as implemented in Phase 2.

During the implementation in Phase 2, the transportation asset inventory function will integrate with the WVDOT Crash Reporting System, which is currently being deployed. During Phase 4, depending on the Vendor's solution and WVDOT's decision concerning the ERP safety management functionality, the ERP transportation asset inventory function

will either integrate with a new ERP safety management system and potentially the Crash Reporting System or it will remain integrated with the WVDOT Crash Reporting System only as implemented in Phase 2.

The ERP transportation asset inventory function must be fully configured and system tested to support the range of assets identified in the functional requirements contained in this RFP. Some of these asset classes or asset types, however, may not be implemented initially depending on the timing and quality of available data. These asset types and classes would then be implemented by the State itself at a later date into the software configuration established by the vendor.

2.9.18.5 Right-of-Way and Utilities

The goal of the ERP right-of-way and utilities function is to provide the capability to track the acquisition of required right-of-way and the relocation of railroad assets and utilities within the WVDOT right-of-way in support of transportation projects.

The acquisition of right-of-way required to support new construction or enhancement of transportation facilities and the re-location of railroad assets and utilities within the WVDOT right-of-way are key elements of the WVDOT project development process. Both the acquisition of right-of-way and the relocation of utilities are critical path items for beginning the construction phase of a transportation project.

The WVDOT Division of Highways Right-of-Way Division oversees the acquisition of all real estate necessary for the construction and maintenance of all public roads and highways under the jurisdiction of the Division of Highways. The Right-of-Way Division establishes WVDOT policies and ensures conformity with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. The Right-of-Way Division acquires property for most of the larger highway construction projects. Right-of-Way staff assigned to each WVDOT district also acquires property for smaller projects.

The Right-of-Way Division also typically performs any right-of-way acquisition activities required by other WVDOT divisions such as the Public Port Authority. In addition, it also performs the acquisition of property under eminent domain for other state agencies, based on a request for support from that agency.

The specific parcels which should be acquired for a transportation project are usually identified during the preliminary engineering phase of a project by the WVDOT design staff or the consulting firm performing the design work. The WVDOT Right-of-Way staff or consultants working on behalf of the department then perform the title searches and appraise each parcel. The WVDOT Right-of-Way staff then negotiates with each property owner and attempt to obtain an agreement to acquire the parcel. If agreement cannot be reached, the State files condemnation proceedings in court. This allows the State to take possession of the property for purposes of proceeding with the transportation project, while the monetary award to the property owner(s) for the taking of their property is then determined through further court proceedings.

In certain cases the acquisition of right-of-way may be completed in advance of the start of the construction project. In these cases, the State may lease the home or business back to the original property owner or another third party until the property is needed for the project. In these cases, the Right-of-Way Division is responsible for performing property management services.

The Right-of-Way Division also offers relocation services and payments to each eligible family or business affected by construction of public transportation projects. It is also responsible for procuring necessary waste and borrow pit agreements, communication tower sites and relocation of any graves or cemeteries located within the proposed

highway right-of-way. The Right-of-Way Division also has the task of the property management function and is responsible for the tracking of excess land and disposing of land as per procedures and policies.

WVDOT currently has a Right-of-Way System which supports both right-of-way acquisition and some general real estate and facilities management functions. The sub systems related to the right-of-way acquisition process include Condemnation, Lease Receivables and Relocation. The Condemnation sub system is used to track real estate property purchases where the seller is not interested in selling their property and it becomes eminent domain. The Lease Receivables sub system tracks vendors who lease real estate property from WVDOT. This data is then provided to the WVDOT Accounts Receivable unit to submit invoices to these vendors. The Relocation system is used to track payment for relocated individuals and businesses where property has been acquired for WVDOT use. The Deed Microfilm Index sub system is used to locate deeds, final orders and agreements for real estate owned by WVDOT. Additionally a listing of real property transactions is added to a data base maintained by the Finance Division.

The relocation of railroad assets and utilities required to support transportation projects is managed by the Railroad and Utilities unit within the Engineering Division of the WVDOT Division of Highways. This unit is responsible for:

- Working with design engineers to identify potential utility or railroad relocation requirements;
- Coordinating with the impacted utilities and railroads;
- Determining the degree of financial responsibility of WVDOT and the impacted utility or railroad for the required relocation;
- Implementing engineering agreements with the impacted utilities or railroads to design the re-location of the rail assets or utilities;
- Implementing agreements to re-locate the utilities or railroads; and
- Monitoring and tracking the completion of the relocation activities.

The Right-of-Way Division assists the Railroad and Utilities unit in obtaining funding and processing payments to utilities and railroads for engineering services and the relocation of facilities.

The Railroad and Utilities unit currently manages these relocation activities through a database maintained within their unit.

2.9.18.6 Bridge Management

The ERP bridge management function maintains a history of inventory characteristics, inspections and condition assessments, maintenance and improvement actions, and associated costs for each bridge or other structure on the State transportation system. The ERP bridge management function is expected to also provide a set of deterioration and optimization models which should utilize this bridge inventory, bridge inspection and other information to project future conditions and recommend candidate projects and maintenance strategies based on various user-defined priorities and parameters.

The WVDOT Division of Highways is responsible for maintaining more than 6,710 bridges, of which 32 percent are more than 100 feet in length. Bridge maintenance activities are performed by staff assigned to ten district offices across the State of West Virginia, along with several statewide crews. Each district is further subdivided into county operations and into sub stations within each county. In addition, the West Virginia Parkways

Authority and the State Rail Authority would also be expected to be users of the ERP bridge management function.

Information about bridge assets are maintained in the mainframe Bridge System which is currently being re-developed through the use of the third party InspecTech BridgeInspect ™ database.

The BridgeInspect ™ application is a SQL Server database. It maintains the bridge inventory data. It is expected to also provide the capability to record bridge inspection information and maintain a history of bridge inspections. The BridgeInspect ™ application should not include any deterioration or optimization modeling capabilities. The first release of this new application is scheduled to be deployed to each WVDOT district beginning in early 2011.

For purposes of the RFP, the WVDOT BridgeInspect™ application is assumed to be maintained and integrated with a bridge management solution to provide modeling and analytical capabilities as part of the scope of the ERP project.

The State will make a final determination on whether or not to include bridge management within the ERP system, following a review of the proposals from Vendors and the conduct of software demonstrations.

It is anticipated that the Vendor could meet the ERP bridge management capabilities through one of two alternative approaches:

- Implementing a commercial off-the-shelf best of breed bridge management solution which provides the full range of bridge inventory, bridge inspection and modeling and analysis capabilities in a single solution and integrating this solution to the other ERP functions as appropriate; under this alternative, the WVDOT BridgeInspect ™ application would likely be decommissioned.
- Implementing the modeling and analysis capabilities of a commercial-off-the-shelf bridge management solution and integrating these modeling capabilities with the bridge inventory and inspection history in the BridgeInspect ™ application, which is currently under development. The ERP bridge management function and the BridgeInspect™ application will then be integrated with other ERP functions as appropriate.

The ERP bridge management function is expected to be fully configured and system tested to support the range of capabilities identified in the functional requirements contained in this RFP. Some of these capabilities, however, may not be implemented initially depending on the timing and quality of available data. One example is maintaining an inventory and inspection history on element level data and the use of element level data in various models and analysis. These capabilities would then be implemented by the State itself at a later date using the software configuration established by the vendor.

2.9.18.7 Pavement Management

The goal of the ERP pavement management function is to identify optimum strategies for maintaining pavements at various target levels of service based on different funding constraints. The ERP pavement management function is a planning tool that models pavement and surface deterioration due to various effects such as traffic loads and environmental impacts. It seeks to identify maintenance and rehabilitation activities which optimize benefits and minimize costs. The ERP pavement management function can also be used to help determine long-term maintenance funding requirements for pavement assets and to analyze the impact on transportation network condition if insufficient funding is made available for pavement management activities.

Pavement management activities are performed by staff within the WVDOT Maintenance Division in the central office and by staff assigned to ten district offices across the State of West Virginia. In addition, several West Virginia Parkways Authority staff, based in their Beckley maintenance headquarters, would also be expected to be users of the ERP pavement management function.

WVDOT currently utilizes the Deighton dTIMS CT pavement management system. This system has been partially implemented and is currently utilized by central office staff assigned to the Maintenance Division. District based maintenance, design and construction staff currently do not have online access to the Deighton dTIMS CTapplication, however the web based dTIMS MD is available but district users have yet to be trained in its use. Some districts maintain pavement condition data in their own Microsoft Access® or other off-line databases to support the evaluation and selection of pavement projects.

WVDOT also utilizes the Fugro-RoadWare software that provides visual location and condition data about the road network. It allows WVDOT staff to review video logs captured by an Automatic Road Analyzer (ARAN) van which is driven on all WVDOT paved roadways at scheduled intervals. WVDOT has the following Fugro-RoadWare modules:

- VisiData - a visual data presentation program that provides the ability to review ARAN processed data and synchronized video images;
- VisiWeb - a web-enabled version of VisiData that provides remote or infrequent users access to video images over a standard Internet connection; and
- Surveyor - used to determine the linear position, measurements, X, Y, and Z location and other user-defined attributes of roadside assets from geo-referenced digital images.

District staff members have access to and utilize data from Fugro RoadWare in evaluating pavement conditions and recommending pavement projects.

The West Virginia Parkways Authority implemented MicroPAVER™ in 2006 as its pavement management system. The Parkways Authority has utilized this system with some consultant support to evaluate pavement conditions on the West Virginia Turnpike and develop recommendations for its annual re-surfacing program. The Turnpike is 88 miles long and has 415 lane miles of roadway and 18 interchanges.

For purposes of the RFP, the WVDOT Deighton dTIMS Pavement Management System is assumed to be extended and fully deployed within the agency and integrated with the ERP system as part of the scope of the ERP project.

The State will make a final determination on whether or not to include pavement management within the ERP system, following a review of the proposals from Vendors and the conduct of software demonstrations.

It is anticipated that the Vendor could meet the ERP pavement management requirements through one of two alternative approaches:

- Completing the configuration and extending the implementation of the Deighton dTIMS applications to fully meet all of the ERP pavement management requirements; the Deighton dTIMS applications would then be integrated with the ERP transportation asset inventory, ERP transportation operations management function and other ERP modules as required. This approach is expected to include the full deployment of the Deighton dTIMS applications to all appropriate WVDOT district staff.

- Implementing another commercial off-the-shelf pavement management solution which has vendor supported integration with the proposed ERP transportation asset inventory solution. The ERP pavement management and transportation asset inventory functions would then be integrated with other ERP functions as required. The ERP pavement management function is expected to be fully deployed to all appropriate WVDOT district staff.

The State will only entertain another commercial off-the-shelf pavement solution other than Deighton dTIMS if the proposed solution has vendor supported integration and a vendor supported upgrade path between the proposed pavement management solution and the Vendor's proposed solution for the transportation asset inventory function.

The ERP pavement management function is expected to be fully configured and system tested to support the range of capabilities identified in the functional requirements contained in this RFP. Some of these capabilities, however, may not be implemented initially depending on the timing and quality of available data. One example is maintaining an inventory and inspection history of shoulder data. These capabilities would then be implemented by the State itself at a later date using the software configuration established by the Vendor.

One exception to the above is the capability to utilize the ERP pavement management function to support pavement management for airports in West Virginia. The State has a preference for an ERP pavement management solution which can support both highway and airport pavements. However, the actual configuration of the software to support airports is out of scope. The ERP pavement management solution may be extended by the State to support airports at a later date.

2.9.18.8 Safety Management

The ERP safety management function is intended to capture, store, report and analyze a range of safety management information, including:

- WVDOT Division of Highways Traffic Engineering Division and District Traffic Engineering and Design staff;
- Division of Motor Vehicles Governor's Highway Safety Program
- Division of Motor Vehicles Driver Services
- West Virginia Parkways Authority;
- West Virginia State Police;
- West Virginia Public Service Commission Motor Carrier Safety Section;
- Department of Health and Human Resources (DHHR)Division of Trauma;
- DHHR Division of Emergency Medical Services
- Department of Administration Board of Risk and Insurance Management (BRIM);
- West Virginia Court System;
- Metropolitan planning organizations;
- Local law enforcement staff;
- Federal Highway Administration (FHWA); and
- National Highway Traffic Safety Administration (NHTSA).

The safety management function for the State of West Virginia is a multi-disciplinary effort involving staff from a number of Federal, State and local agencies, including:

- WVDOT Traffic Engineering Division;
- The Governor's Highway Safety Program in the WVDOT Division of Motor Vehicles (DMV);
- WVDOT district traffic and design staff;
- West Virginia Parkways Authority;
- West Virginia State Police Traffic Safety Section;
- Public Service Commission;
- Department of Health and Human Resources (DHHR);
- West Virginia Court System;
- Metropolitan planning organizations;
- Local law enforcement staff;
- Local engineering staff;
- Federal Highway Administration (FHWA); and
- National Highway Traffic Safety Administration (NHTSA).

Traffic safety-related information is currently maintained in a number of databases including:

- WVDOT's Crash Records system which compiles crash reports completed by law enforcement officers at the crash scene;
- DMV's driver license system for the driver history of each driver involved in a crash;
- DMV's vehicle registration system to obtain vehicle specific data for each vehicle involved in a crash;
- DHHR's State Trauma Registry for crash injury data reported by health and hospital agencies; and
- The West Virginia Uniform Citation Database which contains citation data reported by law enforcement.

While there is a significant amount of safety related data available in these various datasets, there are currently no analytical tools available which draws data from each of these sources and allows for a holistic view of crash and other safety-related information.

The ERP safety management function is intended to provide a set of analysis tools for identifying, selecting and implementing effective highway safety strategies and projects and then evaluating and measuring the outcome of these initiatives.

The State will make a final determination on whether or not to include safety management within the ERP system, following a review of the proposals from Vendors and the conduct of software demonstrations.

2.10. Services to be Provided

The State requires that the Vendor provide a complete and comprehensive set of services that are expected to ensure project success. Vendor deliverables are expected to be

phase and functionality specific. Each phase or deployment of selected functionality requires deliverables specific to that phase of the project. The Vendor should clearly describe in its approach and methodology how it plans to address multiple phases from a planning, control, and deliverable perspective.

Following is a high-level list of the implementation services that are expected; however, additional services may be required to ensure implementation success in accordance with the Vendor's proposed methodology:

- Project management;
- Requirements development;
- Technical architecture and infrastructure design;
- System analysis and business process design;
- Software configuration;
- Customizations (including forms, custom reports, automated interfaces, software enhancements and modifications, and custom workflows);
- Security configuration;
- Data conversion;
- Testing;
- Training;
- Documentation;
- Knowledge transfer;
- Communications and change management;
- Deployment (roll-out) support;
- Infrastructure and implementation support; and
- Production software and infrastructure maintenance and support, including one major software upgrade.

The remainder of this section of the RFP provides a detailed description of the services to be included in the proposal. These services are expected to be addressed in the Statement of Work between the State and the Vendor. The Vendor is expected to submit a proposed Statement of Work in the Technical Proposal in TAB 10 - Sample Statement of work. The detailed proposal submission requirements for implementation services are defined in Section 3.3.1, Technical Proposal.

2.10.1 Project Management

In accordance with **West Virginia Code §5A-6-4b**, the West Virginia Chief Technology Officer has established a Project Management Office (PMO) responsible for providing oversight for state agency information technology projects. The Vendor's proposed project management methodology is expected to be consistent with the West Virginia Office of Technology (WVOT) Project Management Methodology. This methodology closely follows the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK). Additional information on the WVOT Project Management Methodology may be found on WVOT's web site at *http://www.wvot.gov/*.

The Vendor should describe its project management methodology and approach to

managing the project consistent with the above methodology.

2.10.1.1 Project Manager

The Vendor is expected to provide a full-time, experienced Project Manager who is expected to be accountable for all services and deliverables provided under the Contract resulting from this RFP, and who should work to ensure the on-time delivery and successful deployment of a functioning system that meets the State's requirements and the successful ongoing operation of the ERP system. This individual is expected to be required to be on-site full-time and should function as the State's primary point of contact with the Vendor. The Vendor's Project Manager, is expected to respond to day-to-day problems, manage issues, provide status reports, participate in weekly status meetings, and manage personnel resources.

The Vendor's Project Manager is expected to have demonstrated prior experience as a project manager, deputy project manager, or functional / technical team leader on a public sector ERP project for a client with total annual expenditures of at least $3 billion and at least 5,000 employees. It is preferred that the Project Manager be certified by the Project Management Institute as a Project Management Professional (PMP).

The State reserves the right to approve, disapprove and request removal of the Vendor's Project Manager throughout the term of the Contract resulting from this RFP.

2.10.1.2 Project Work Plan

The Vendor is expected to include a comprehensive project work plan that addresses the Vendor's recommended implementation approach. The work plan should include tasks to be performed by the State and Vendor personnel. The following standards apply to the work plan:

- Project management activities should be documented in the work plan.
- The work plan should outline a plan for the entire project.
- The work plan should include tasks, schedules, dependencies, critical paths, and responsible parties (both Vendor and State staff) assigned to each task.
- The work plan should include all deliverables that support the Proposed Methodology and Approach.
- Estimated work effort, duration, start and end dates should be shown for each task.
- Appropriate milestones should be identified in the work plan to gauge the project's progress toward meeting desired target completion dates.
- Any assumptions made in developing the work plan should be included in this section.

The work plan should be accessible via Microsoft Project 2007®, and should be included in electronic (Microsoft Project®) format (do not submit in PDF format only). Printed copies of the proposal should also include a high-level timeline in Gantt chart format.

The Vendor should also provide a Staffing Plan that addresses each of the Vendor's project staff as well as the necessary State's project staff. The Staffing Plan should show the plan of usage (days per month) on a monthly basis for each resource over the period of the project. The Staffing Plan should be included in Microsoft Excel® format (do not submit in PDF format only). Costs must be reflected in the Cost Schedules.

During implementation, the Vendor's Project Manager is expected to be responsible for monitoring and updating the project plan continuously, and revising and developing further

detail as appropriate. It is expected that the Vendor will provide highly qualified project management staff to manage the work planning effort and to maintain the Project Plan in Microsoft Project 2007®. The Vendor's Project Manager is expected to provide weekly status reports relative to the Project Plan to the State project leadership for the duration of the project.

2.10.1.3 Project Time Reporting

The Vendor should describe its approach for providing automated project time reporting that integrates with Microsoft Project 2007® to support the Project Plan and other required reporting.

By the 15th of each month, Vendor is expected to report actual hours worked during the previous month for each Vendor team member. Hours worked must be exclusive of travel time. The State does not pay for travel time other than actual time spent while working on ERP project deliverables. The Vendor must maintain records to support any hours reported for work performed during travel time.

2.10.1.4 Status Reporting

The Vendor should describe its approach for project status reporting. The State requires weekly status reports be provided to reflect the major activities for the reporting period. As part of the Vendor's approach to status reporting, the State expects weekly participation in status meetings with the State project team. Project management intends to use the status report to monitor project activity and to detect potential problems or delays. The weekly status report is expected to serve as the agenda for the status meetings. Topics to be covered include:

- A listing of significant departures from the Project Work Plan with explanations of causes, affects on other areas, and strategies to achieve realignment;
- Changes to project objectives, scope, schedule, or budget;
- A listing of tasks completed since the last report;
- Tasks that were delayed and reasons for delay, with expected revised completion date;
- Planned activities for the next scheduled period;
- Summary of major concerns or issues encountered, proposed resolutions, and actual resolutions; and
- Any other topics that require attention from the State Project Manager.

2.10.1.5 Issue Resolution

The Vendor should describe its approach to issue identification, tracking, and resolution. This discussion should include the use of any tools or techniques that are integrated into configuration management, software change control, and the overall project management methodology. Topics to be addressed in this section include:

- Issue identification;
- Issue tracking;
- Issue review and prioritization;
- Issue analysis;

- Issue resolution; and
- Issue escalation.

After award, the State and the Vendor should agree on a protocol for collaboratively resolving implementation issues. This protocol is expected to address the topics above, responsible parties, and specific steps to be taken on issues or disputes arising during the implementation process.

2.10.1.6 Project Controls, Standards, and Procedures

The Vendor should describe its proposed project controls, standards, and procedures for all project tasks. These items are expected to be reviewed and approved by the State's project leadership. This requirement includes, but is not limited to:

- Managing project documentation – Vendor should describe templates used (configuration, design specifications, test scenarios, change request, etc.); organization of project directories; naming conventions; and version control procedures that are consistent with the processes and frameworks described in 2.5.1 Project Management above.
- Meeting procedures – Vendor should describe techniques to ensure that meetings are efficient, productive, and results are adequately documented.
- Development standards – Vendor should describe standards and procedures for design specifications, review processes, unit testing, and other controls to ensure the quality and consistency of custom design and development.
- Software change control procedures – Vendor should describe the procedures and/or automated tools that should be employed to ensure the integrity of programs and configuration settings developed to support the solution. If automated tools are to be used during the project, the costs for such tools should be included in the Other Costs schedule of the Cost Section.
- Scope management – The Vendor should describe its scope control processes to ensure that work is not performed on out-of-scope features, functions, or tasks until the State grants authorization in writing.
- Communications Management - The Vendor should describe its project communication plan including the types, frequency, sensitivity classification, and target audience for each communication.
- Development Standards Management – the Vendor should describe its processes to verify and validate that all code, interfaces, forms, reports, workflow and other deliverables are development and implemented according to agreed upon standards.

2.10.1.7 Risk Management Plan and Procedures

The Vendor should describe its approach to identifying, assessing, and communicating potential risks to the project, as well as identifying and managing actions to avoid, transfer, mitigate, and/or manage those risks. In addition, the Vendor should include the provision of the appropriate methods, tools, and techniques for active and ongoing identification and assessment of project risks; development of risk avoidance, transfer, mitigation, or management strategies; and monitoring and reporting of risk status throughout the life of the project.

The State intends for STA to lead all risk management activities with the active participation of the Vendor and the State in the process.

2.10.1.8 Communication and Cooperation

The Vendor is expected to communicate and cooperate with all parties involved in the ERP Project. Vendor's staff are expected to have excellent communication skills and conduct themselves professionally and courteously in all instances.

The Vendor is expected to maintain communication to ensure project success. Project plans developed by the Vendor must be reviewed and approved by the State prior to implementation. Communications between parties should be performed through, but not limited to:

- Regularly scheduled and ad hoc on-site meetings;
- Conference calls;
- Email;
- Weekly written status reports provided to the State by the Vendor; and
- Project Plans.

2.10.1.9 Work Products/Compliance with Standards

All work products, including documentation, are expected to conform to any standards provided by the State to the Vendor prior to execution of the contract resulting from this RFP. The documentation must be kept current by the Vendor and made available to the State in electronic format that is accessible through Microsoft Office 2007® software. Any electronic media produced during the course of the Contract, resulting from this RFP, is expected to be compatible with Microsoft Office 2007® software. The State reserves the right to change its office software suite and Vendor is expected to conform to the new standard within thirty (30) calendar days after receipt of written notice by the State. Additionally, the State reserves the right to change its policies, procedures, and standards, as well as make changes according to Federal or other regulations. The Vendor is expected to conform with the new directives and regulations within thirty (30) calendar days after receipt of written notice by the State. In the event that complying with the new policies, procedures, or standards within the 30 day timeframe appear to be overly burdensome, then the Vendor may provide written notification to the State with a proposed alternative compliance date.

All work products, including but not limited to electronic media and/or hard copy documentation produced as a result of the Contract, become the property of State and should not be published or reproduced without the written permission of State.

The Vendor represents and warrants that the performance of work and services performed under this RFP conform to the highest professional industry standards. In addition, all deliverables produced as a result of the tasks performed under this RFP are to follow, to the extent applicable, the technical standards and procedures of the State of West Virginia.

Deliverables:

- Documentation of Project Controls, Standards, and Procedures
- Project Work Plan
- Project Management Documentation required by State

2.10.2 Technical Architecture and Infrastructure Design

The following technical activities are within the Vendor's scope for this project. The

Vendor shall describe its approach to providing the services and activities associated with each of the following:

- Technical assistance in assessing the sizing and procurement of infrastructure hardware and systems software including an assessment of the State's current IT resources (e.g., IFL on OT's z series machine).
- Assistance in evaluating the State's WAN capacity as it relates to the implementation of the proposed ERP software, and specific recommendations concerning any needed LAN or WAN upgrades.
- Technical architecture and infrastructure design.
- Standard technical infrastructure configuration and change management methodology activities, procedures, tools and templates and how Vendor manages these activities and leverages the tools and templates.
- Initial software installation to support design, configuration, and testing.
- Structure and maintenance of planned database instances / environments considering IFL among others. Minimally, the State believes that the following environments are expected:
  - Baseline (vanilla);
  - Sandbox;
  - Development;
  - System Test;
  - Training;
  - Acceptance Test; and
  - Production.

Vendors shall address these environments and any other environments needed, explaining any variance in detail.

- Standard methodology for developing a business continuity plan, continuity capabilities and high-availability infrastructure, as well as a detailed explanation of the related approach, activities, procedures, tools, and templates and how the Vendor manages these activities and leverages the tools and templates.
- Disaster recovery guidance and execution (if necessary) for the duration of the project in accordance with the State's disaster recovery plan.
- Performance tuning of databases, application servers, web servers, and other software and devices deployed as part of the proposed solution. This includes batch and online software tuning, as well as data conversion software tuning.
- Software upgrade methodology, as well as a detailed explanation of the related approach, activities, procedures, tools, and templates, and how the Vendor manages these activities and leverages the tools and templates.

Based upon the business requirements, technical requirements, business continuity requirements, volume metrics, and the State's existing hardware platform supplied in this RFP, the Vendor shall provide a recommended hardware sizing and architecture that considers:

- Initial hardware for configuration, design, and development;

- Hardware for testing in a production equivalent environment;
- Complete hardware sizing and architecture to address environment for release updates, training, development, testing, and production with the test and production environments being equivalent or practically equivalent for testing purposes;
- Security administration; and
- How the proposed technical architecture design fits within the State's existing network security architecture, composed of unique logical areas separating development/test environments from production environments.

Deliverables

- Technical Environment Design
- Technical Environment Installation and Set-up
- Installed Application Software
- Installed Pre-Populated "User Sandbox"
- Installed Software Instances as Described

2.10.3 Systems Analysis and Business Process Design

The Vendor should describe its approach to analyzing the State' business requirements and demonstrating the proposed software's ability to satisfactorily meet those requirements. It is strongly recommended that this approach include a Conference Room Pilot, or prototype format, integrated with the system analysis and business process design. The State desires to receive a formal fit/gap analysis documenting the disposition of each functional requirement and the resolution of identified gaps (e.g., customization, workaround, eliminate requirement). The Vendor is expected to assist the State in identifying appropriate business process improvement opportunities inherent in the use of software best practices, documenting the desired changes, and planning and implementing the business process changes. The Vendor should describe how this process integrates with its approach to project communications and cultural change management, since many of the change management issues involve changes to the State' business processes.

Deliverables

- Fit/Gap Analysis Documentation
- Business Process Improvement Documentation
- System Business Process Design Documentation
- FRICE-W Development Specification Documentation

2.10.4 Software Configuration

The State requires the configuration of all application software. The Vendor must work closely with State project management, team members, subject matter experts and technical personnel in meeting process, workflow, functional, technical, and security requirements via software configuration to the extent possible. The Vendor must demonstrate the configured software as required during the project so that State personnel may review and approve it.

The Vendor should then describe its approach and methodology to be used to configure the ERP software in accordance with the new business process design. This section is expected to also describe:

- Tools and procedures available to aid in the software configuration process;
- Documentation provided to support the software configuration;
- Process for validating configuration against the State's documented requirements, and,
- Process used to ensure effective knowledge transfer to State staff.

Deliverables

- Configured Application Software
- Updated Documentation to Support Configuration

2.10.5 Customizations

The State is committed to minimizing customization of the ERP System. It is anticipated, however, that certain development work products may be necessary in order to properly meet the State's functional requirements.

In the following subsections, the Vendor should describe its approach to addressing the various types of customizations as follows:

- Enhancements and Modifications;
- Automated Interfaces;
- Custom Forms;
- Custom Reports; and
- Custom Workflow Configuration.

Though it is the State's desire to utilize a fixed price arrangement for the project, including all customization activities, consideration will be given to eliminating specific customizations from project scope if such elimination is validated after completion of the software design phase. If any customizations are eliminated as part of the process, then the cost associated with each eliminated customization will be applied to a contingency fund to be used as the State determines.

2.10.6 Enhancements and Modifications

The Vendor is expected to describe its approach to making enhancements or modifications to the baseline software solution in a manner that facilitates an easy, low-cost, and low risk migration to new releases of the baseline product. The Vendor should describe its approach to coding and documenting modifications in such a way as to ensure that they can be easily re-applied when the State upgrades to new releases of the ERP software. The Vendor should also include its business-justification process for prioritizing and approving each of the identified potential enhancements.

While the State intends to minimize modifications made to the software to the extent possible, it is expected that some modifications may be required. Once proposed modifications are identified through the fit/gap analysis process, the Vendor must work with the appropriate State business analyst(s) to prepare a high-level design document with cost estimates for review and approval by State project leadership. Upon approval, the Vendor must produce the detailed technical design and develop the modification. The

Vendor will be responsible for the functional and technical designs, coding, unit testing, integration testing, and knowledge transfer associated with all modifications in accordance with agreed upon standards. All modifications must be documented in such a way as to ensure that they can be easily reproduced when the State upgrades to new releases of the proposed software.

Vendors are requested to provide a description of the potential customizations they believe should be necessary to address the needs of the State based on their prior experience with West Virginia and other State governments. Any assumptions associated with potential customizations should be provided as well.

In completing the responses to each of the State's Functional and System-wide Requirement in Appendix M, Vendors are expected to insert narrative that indicates when a customization is required to address the requirement. Vendors are then expected to list the customizations and the estimated cost for each in the Enhancements and Modifications Schedule of the Vendor's Cost Proposal. Vendors are requested to provide candid feedback regarding the potential work effort and associated costs of Enhancements and Modifications.

2.10.7 Automated Interfaces

Appendix J provides a list of the interfaces and integration points between the ERP system and other State and external systems. The responsibilities of the Vendor and the State for developing automated interfaces are outlined below.

Vendor Responsibilities

Work effort to be provided by the Vendor is expected to include, but not be limited to:

- Managing all activities related to interfacing data with the new ERP system including the coordination of agency interface development efforts;
- Developing a detailed data interface plan document;
- Developing programming specifications;
- Coding of interface programs that transform and load data to the new ERP in accordance with program specifications;
- Performing unit testing of the interface programs developed by the Vendor;
- Developing reports and other means for State personnel to audit the interfacing; and
- System, integration and acceptance testing of interfaces.

The Vendor must provide a comprehensive Interface Plan that defines all the fundamental concepts and activities related to interfacing between the ERP and retained legacy systems or other external systems. The document is expected to at least address the following:

- The assumptions made when developing the Interface Plan;
- The analysis methodology that should be used to develop Interface Plan;
- Opportunities for consolidation or integration for example, recommendations for additional modules and/or configurations, retiring interfaces that supply data which can be retrieved from the ERP by other means e.g. data downloads;
- Revised interfacing requirements based on the adopted implementation strategy;
- A detailed interface architecture specifying methods of communication, tools, formats,

protocols, adapters and control reports to ensure the operational integrity of the interfaces (e.g. control totals, record counts, etc.);

- Identification of risks with mitigation strategies;
- Installing, maintaining and operating for the duration of the ERP project, tools to support the design, development, and testing of conversions. It is the State's expectation that the Vendor leverage the same ETL architecture/middleware tools that will be used by the conversion and the proposed data warehouse solution;
- A knowledge transfer plan that identifies the deliverables for which knowledge transfer is expected to take place and the skill sets required by participating State employees;
- An error correction methodology for rejected interface data that ensures that data is not 'lost' for example an on-line suspense file;
- Definition of the formats and protocols that should be observed between ETL components for example Comma Separated Value (.csv) or Extensible Markup Language (XML);
- Audit controls that are expected to be built into the interface processing to ensure completeness and accuracy of transferred data;
- Standards for transactions to/from the agency administrative systems not replaced by the new ERP and for all temporary interfaces to/from legacy systems required as a result of the proposed deployment approach; and
- Communication and coordination methodology to be used with agencies and external entities.

The Vendor is responsible for providing all required and temporary interfaces either as a fully documented out-of-the-box component of the ERP or by providing the following services associated with development of the required interfaces;

- Interface design including unit test cases;
- Interface development including software modifications;
- Testing; and
- Development of any procedures to support interfacing system operations that are not delivered as part of the baseline product.

The Vendor is responsible for providing an acceptable solution to all identified interfaces, including those identified as tentative, either as a fully documented out-of-the-box component of the ERP or by providing additional development required to support the proposed solution: The Vendor must provide a business needs assessment of each potential interface that identifies at least one acceptable solution and if software development is expected, provide;

- Designs including unit test cases;
- Development including software modifications;
- Testing; and
- Development of any procedures to support system operations that are not delivered as part of the baseline product.

State Responsibilities

The State is expected to be responsible for subject matter knowledge of existing interfaces and associated data. State subject matter experts are expected to be available to consult with the Vendor during the development of the interface plan and to assist with the determination and adoption of acceptable alternatives to interfaces wherever feasible.

The State expects to code and unit test interface programs that extract data from the legacy applications using the formats and protocols defined by the Vendor for use in the transformation and load processes. Additionally, the State expects to code and unit test interface programs that load data into the legacy applications using the formats and protocols defined by the Vendor. Additionally, the State expects to be responsible for verifying the accuracy of the interfaces through participation in all levels of testing.

The following matrix summarizes the interface responsibilities of the Vendor and the State.

Exhibit 21: Interface Responsibility Matrix

Interface Roles and Responsibilities	Vendor	State
Managing Interface Activities	Primary	Support
Interface Planning	Primary	Support
Interface Design	Primary	Support
Installation, Maintenance and Operation of Tools	Primary	Support
Interface Program Specifications	Primary	Support
Interface Development/Unit Test (Transformation and Load Processes)	Primary	Support
Interface Development/Unit Test (Extract Processes)	Support	Primary
Audit / Control Reports	Primary	Support
Interface Procedures	Primary	Support
Conduct Integration/System Testing	Primary	Support
Execute User Acceptance Testing	Primary	Support
Verify User Acceptance Testing	Support	Primary
Provide Subject Matter Expertise	Support	Primary
Execute Production Cut-over	Primary	Support
Verify Production Cut-over	Support	Primary

2.10.8 Custom Forms

Vendor is expected to develop custom forms required to meet all requirements designated as "high" in the functional and system-wide requirements in Appendix M which cannot be supported by the vendor's proposed software solution. Vendor is expected to also

develop custom forms, approved by the State, which are necessary to address the requirements designated as "medium" in Appendix M that cannot be supported by the vendor's proposed software solution. The vendor should also include in its work plan and cost estimate the effort required to develop five (5) additional custom forms of "medium" complexity as determined by the State, and as defined and agreed upon in the planning and design phases of the project.

2.10.9 Custom Reports

The Vendor must develop the following custom reports:

- All reports required to meet State and federal reporting requirements;
- All reports specifically identified in the requirements matrices and rated as "high" in Appendix M if the report cannot be addressed by the ERP system's standard reports;
- All reports specifically identified in the requirements matrices and rated as "medium" if the report requirement cannot be met by a standard report, subject to the approval of the State; and
- The following additional custom reports as determined by the State, and as defined and agreed to in the planning and design phases of the project:

Complexity	Definition	Number of Custom Reports
Simple	Less than or equal to 16 hours to complete entire development process, including report design and documentation, development, and testing.	5
Average	Greater than 16 hours but less than or equal to 40 hours to complete entire development process, including report design and documentation, development, and testing.	10
Complex	Greater than 40 hours to complete entire development process, including report design and documentation, development, and testing.	10

2.10.10 Custom Workflow Configuration

The Vendor should describe its approach to analyzing, establishing, documenting, and assisting in the deployment of the workflow, electronic notification, and electronic approval processes that are built into the system, as well as those developed during the project. The approach is expected to include a recommended schedule and/or priority for deploying these features at the State, based on the Vendor's experiences with implementations of similar size and scope.

The Vendor is expected to also recommend specific workflow and notifications that should be considered for deployment by module based on previous implementations of comparable size and functionality, and a recommended schedule for deployment of this additional functionality. For workflow customization, the Vendor should assume that delivered ERP workflow tools will be used to develop, configure, customize, and manage the defined workflows. The Vendor should assume that workflow processes defined in this section are custom workflows and are not part of the standard workflow processes delivered as part of the ERP software. Standard workflows that are part of the delivered product must be configured as part of software configuration services. Further, the

Vendor should assume that the custom workflow processes are defined by the following levels of complexity:

Complexity	Complexity Descriptions
Simple	A two-step process that includes evaluating data against up to two variables from step one, then the initiation of step two based upon the results of the query.
Average	A process with up to five steps that includes evaluating of data against up to five variables from step one, the initiation of step two based upon the results of the query with a simple approval process, including the development of a simple data entry screen and an approval screen.
Complex	A process with greater than five steps that includes evaluating data against variables entered in step one, the initiation of step two based upon variable rules, the initiation of step three based upon the results of a multi-table query with a multi-step approval, rejection, and re-approval process, including the development of related data entry screen and approval screens.

The vendor is expected to modify or custom develop all workflows specifically designated as "high" in the functional and system-wide requirements in Appendix M if the requirement cannot be met by the standard workflows provided with the vendor's ERP software. The vendor is expected to also modify or custom develop all workflows specifically identified in Appendix M which are rated as "medium" if the requirement cannot be met by the workflows provided with the vendor's ERP software, subject to the approval of the State. In addition, for costing purposes, the Vendor should plan on designing, developing, and testing additional workflows of the following complexities:

Complexity Level	Number of Workflow Processes
Simple	5
Average	10
Complex	10

Deliverables

- Completed Programs for Enhancements and Modifications
- Completed Custom Reports
- Completed Automated Interfaces
- Completed Custom Workflows

2.10.11 Data Conversion

The Vendor is expected to describe its approach to performing all required data conversion activities associated with the project. The State and Vendor responsibilities for data conversion are outlined below. Appendix I - Data Conversion provides additional information about the anticipated data conversion requirements.

Vendor Responsibilities

The Vendor will be responsible for developing a comprehensive Data Conversion Plan that defines all the fundamental concepts and activities related to converting data from retired legacy applications to the new ERP system. The data conversion plan is expected to encompass all phases of the conversion effort from initial designs and strategies through the development and testing of automated conversion programs and support for the commencement of live operations. The general scope of work to be provided by the Vendor is expected to include, but not be limited to:

- Managing all activities related to converting legacy data to the new ERP system.
- Developing a detail data conversion plan document which describes the following:
  - All data to be loaded or entered in the new system;
  - Data sources;
  - Expected data volumes;
  - Conversions where automated programming can be used to significantly reduce data conversion labor;
  - Roles and responsibilities and timing requirements for the conversion effort; and
  - Extraction transformation and load methods to be used.
- Installing, maintaining and operating for the duration of the ERP project, tools to support the design, development, and testing of conversions. It is the State's expectation that the Vendor leverage the same ETL architecture/middleware tools that will be used by the interface architecture and the proposed data warehouse solution.
- Developing programming specifications in accordance with the detailed data conversion plan that includes coding and unit and integration testing for the conversion programs.
- Coding of conversion programs that transform and load data to the new ERP in accordance with program specifications.
- Building any crosswalk file structures required to assist the State in developing test scenarios and conducting acceptance testing.
- Performing unit and integration testing of the conversion programs developed by the Vendor.
- Developing reports and other means for State personnel to validate converted data.
- Running the conversion programs and assisting the State with the verification of the converted data in the production environment.
- Managing execution of multiple 'dress rehearsals' of the end to end conversion process into a copy of the production environment in test mode prior to final conversion. This includes execution of both extract programs of legacy system data developed by the State and all other processes developed by the vendor.
- Adapting and re-running conversion programs as necessary to properly convert and load the data, and for maintaining a conversion log to track the accuracy of all conversion efforts.

Automated data to be converted and loaded in the new ERP System (and any new third party software) production database(s) includes (but is not limited to) items specifically listed in the functional requirements and listed in Appendix I - Data Conversion.

Development of the Data Conversion Plan and management of the tasks contained within conform to best practices adopted by the project and incorporate the following conversion specifics including:

- Assumptions made when developing the Data Conversion Plan;
- Confirmation of which applications is expected to be retired or retained based on the adopted implementation plan;
- Confirmation of detailed data mapping required to support ongoing business transactions;
- Identification of detailed historical data required to be converted and the business case to support their conversion;
- Identification of conversion risks with mitigation strategies;
- For redundant data, such as vendor codes maintained in multiple applications, the approach for how the data should be merged or converted into a single set of data;
- Pre-conversion activities such as archiving, purging, and cleansing of legacy data;
- The architectural components of the data conversion including estimated sizing in terms of processing power and amount of data storage required;
- An error correction methodology for rejected conversion data, for example an on-line suspense file, that will ensure that data is not 'lost';
- Definition of the data formats and protocols that are expected to be observed between ETL components for example Comma Separated Value (.csv) or Extensible Markup Language (XML);
- Determination of which data is expected to be converted using a manual, automated, or semi-automated method;
- Audit controls that will be built in to permit the accurate completion of data conversion processing and reconciliation within a three (3) day period; and
- Communication and coordination methodology to be used with agencies and other external parties.

The Vendor is expected to develop queries and reports required by agencies to validate their data in the ERP. Prior to final conversion into the production environment, at least two (2) complete and successful test conversions must be performed by the Vendor and the State. Exercises should consist of Vendor loading data extract files provided by agencies and Vendor providing reports / query results so that agencies may validate the accuracy and completeness of the conversion. Upon completion of the process, the Vendor must provide a letter certifying that the programs utilized for conversion have been properly tested and are fit for the task of performing the conversion into the ERP System.

State Responsibilities

The State expects to be responsible for subject matter knowledge of existing applications and associated data. If correction of any of the State-provided data is expected, those tasks are the responsibility of the State, although direction from the Contractor may be required.

The State expects to perform all data cleansing and manual conversion processes, with the expertise and guidance of the Contractor. Manual conversions are defined as "manual" when the Contractor and the State agree that the volume is too low to justify the cost of developing an automated conversion program. The State expects to take responsibility for loading data that is not converted or loaded automatically and for certifying the production database as being accurate.

The State is expected to be responsible for developing test scenarios and conducting the acceptance testing of conversion programs with the assistance of the Vendor.

The State expects to code and unit test conversion programs that extract data from the legacy applications and output the data using the formats and protocols defined by the Contractor for use in the transformation and load processes.

The state agencies should be responsible for verifying the accuracy of the converted / loaded data through participation in all levels of testing. In support of conversion 'dress rehearsals', State staff responsible for manual entry and correction, data reconciliation and acceptance, technical support, issue resolution and executive level go / no go decision making should be available to role play their tasks in real time. The State ERP PMO will define the timing, requirements, and acceptance criteria for the test conversions.

The following matrix summarizes the conversion responsibilities of the Contractor and the State.

Exhibit 22: Data Conversion Responsibility Matrix

Data Conversion Roles and Responsibilities	Vendor	State
Managing Conversion Activities	Primary	Support
Data Conversion Planning	Primary	Support
Conversion Design	Primary	Support
Installation, Maintenance and Operation of Tools	Primary	Support
Conversion Program Specifications	Primary	Support
Conversion Development/Unit Test (Transformation and Load Processes)	Primary	Support
Conversion Development/Unit Test (Extract Processes)	Support	Primary
Crosswalks	Primary	Support
Reconciliation Reports	Primary	Support
Conduct Integration/System Testing	Primary	Support
Execute Dress Rehearsals / User Acceptance Testing	Primary	Support
Verify Dress Rehearsals / User Acceptance Testing	Support	Primary
Provide Subject Matter Expertise	Support	Primary
Data Cleanup	Support	Primary

Data Conversion Roles and Responsibilities	Vendor	State
Perform Manual Data Conversions	Support	Primary
Execute Production Cut-over	Primary	Support
Verify Production Cut-over	Support	Primary

Deliverables

- Data Conversion Plan
- Data Conversion Log
- Converted Data in Production Database

2.10.12 Security Configuration

The proposed solution must provide application controls to prevent unauthorized use of the system, maintain system process controls, and log all transactions. In addition, the system must provide security to limit availability to application functionality, software screens, data records, data elements, and date element values where appropriate.

The Vendor is expected to describe its approach to analyzing, establishing, and documenting security functions into the State's security network.

The Vendor should fully describe its approach to security for the proposed solution, including, but not limited to, the use of firewall hardware and software, intrusion detection/ prevention systems, other protective measures, and other measures that provide in-depth defense for the proposed ERP system. The Vendor is expected to fully describe its risk management approach to application development and deployment in terms of threat and vulnerability identification, analysis and prioritization, and mitigation techniques.

2.10.13 Testing

The Vendor is expected to describe its approach and commitment to all phases of testing required for a system of this magnitude, including, but not limited to:

- Unit testing;
- System testing;
- Integration testing;
- Performance (load/stress) testing; and
- User acceptance testing.

The Vendor should also list and describe any tools used to facilitate the testing process, including those tools used for performance testing. The Vendor must provide any required training on the proposed testing tools to all State staff that are expected to use the proposed testing tools.

All system components must be subjected to system testing performed by a test team composed of Vendor and State staff. The Vendor must conduct unit, integration, and system testing. The Vendor must assist the State with acceptance testing. The system test team is expected to function as system users during system testing and must evaluate all test outcomes. The system test team should direct system testing and

operate the system in accordance with the system testing plans. The system test team must provide all error resolution and other technical support as required.

2.10.13.1 System Test Plans

The Vendor must prepare system test plans that verify that:

- The new configured, modified and unmodified software work in concert;
- The system has been properly configured for use for the State;
- Reports and correspondence work in accordance with State requirements;
- All scripts or job streams run properly;
- All security roles, functions and controls operate as intended; and
- All interfaces function properly.

This test plan must be comprehensive in scope and is expected to be drafted in cooperation with project management, IT staff assigned to the project, and subject matter experts.

2.10.13.2 Application System Testing

The Vendor will be responsible for conducting system tests in accordance with the approved ERP system test plans. All system test results must be documented, exceptions analyzed and any software defects corrected. The Vendor must lead selected State Project team members through the system test process so that they may review the test process and outcomes and learn about system operations and functionality. This test should be thorough enough to ensure that few software or configuration “bugs” are uncovered in the Acceptance Test which will follow.

2.10.13.3 Acceptance Test Planning

The Vendor must prepare an Acceptance Test Plan, which will be subject to State approval. The plan must include:

- Structuring of the test cycles;
- Designing test scripts;
- Explaining user actions, transactions, and processing outcomes; and
- Organizing the test tracking, outcome tracking, and exception follow-up procedures.

The Acceptance Test Plan is expected to be built around the State’s most important business scenarios but must include comprehensive testing of the software to ensure that it conforms to marketed or promised functionality.

2.10.13.4 Acceptance Testing Assistance

The State expects to assume responsibility for conducting acceptance testing of the entire application. The Vendor must provide assistance during such testing. This assistance must include:

- Submitting off-line jobs;
- Performing backups;
- Restoring databases as required;

- Analyzing and explaining outcomes; and
- Answering questions as they arise.

Successful completion of this test will be required before the software can be approved for production use.

2.10.13.5 Performance Testing and System Tuning

The Vendor must conduct performance testing and system tuning for the fully configured and tested software prior to commencing live operations and at a preliminary point in the project sufficiently in advance of the implementation date to allow reasonable tuning. These tasks must be coordinated and performed with State system programmers, database administrators, security analysts, and application development staff. The State recognizes that performance testing and tuning activities may be necessary at several stages in the process. For example, tuning could take place after the software installation, prior to production migrations and during initial production operations.

If modifications are made to the application software to meet the State's unique requirements, the Vendor must review and make adjustments to ensure acceptable performance.

Deliverables

- System Test Plan
- Application System Testing
- Acceptance Test Plan
- Acceptance Testing Assistance
- Performance Testing

2.10.14 Training

The Vendor should describe a strategy for project team training and end user training that appropriately integrates with the Vendor's methodology and timeline. Although the State intends to deliver most of the end user training sessions, the Vendor must provide training to the State project team, develop the end user training materials, and conduct the train-the-trainer sessions. This section is expected to address all types of required training, including but not limited to the following:

- Project team training;
- Technical, security, and operations training to support development, implementation, and production;
- End user training to support implementation and ongoing needs; and
- Deeper knowledge transfer to a core group of functional, administrative, programming, security, and other technical and operations personnel to support independent operations capability before the Vendor departs.

2.10.14.1 Project Team Training

The Vendor must provide training to the project team as follows:

In the first weeks of the Project, training must be provided using the installed baseline software. This training must cover:

- System architecture, navigation and functionality;
- Configurable components and system options;
- Online and batch operations;
- Security and system options available;
- Application data model; and
- Other topics useful in orienting the project team to the software.

The Vendor must also provide training to State project team members on its Systems Development and Implementation Methodology. The Vendor is expected to also explain how the State project team members will have continued access to the "User Sandbox" environment to better understand system functionality and to try various business scenarios.

2.10.14.2 Training Plan

The Vendor must provide a detailed training plan for the analysis, design, implementation and evaluation of a comprehensive training program for ERP System. The Training Plan, which is to be updated on a regular basis and delineate training goals and objectives, must serve all levels of the ERP Project, including the project team, system users, trainers and technical staff.

The Training Plan must be based on a comprehensive training needs assessment conducted by the Vendor and must also describe the types of training to be employed to meet identified needs. Computer based training (CBT) may be utilized where appropriate for specific training classes with prior approval from the State, provided that all CBT is expected to be audio-video. Exceptions to the required audio-video CBT format may be approved by the State on a case-by-case basis.

2.10.14.3 Training Curriculum

The Vendor is expected to identify, develop, and document the training curriculum that will be used to educate and train State staff in the development, configuration, implementation, maintenance, support, and use of the ERP System.

2.10.14.4 End User Training

A train-the-trainer classroom approach is expected to be pursued by the Vendor to assist the State in training employees who will be using the ERP System. As part of this effort, the Vendor must provide:

- Classroom materials to support the classroom training effort that have been customized to address specific software configuration and customizations made as part of the ERP project.
- Training for State trainer candidates that includes:
  - Best practices on training for the proposed software;
  - Practice training sessions;
  - The business processes and system functionality on which they are expected to provide training; and
  - How to customize the training materials and set-up specific reference data in the training environment.

- A stable, tested training environment pre-loaded with representative converted reference and historical data that can become a starting point for creating training materials (including screen prints showing user actions and processing outcomes). Note: For training purposes, the State expects to take responsibility for entering representative reference data that is impractical or impossible to convert automatically.
- Support to State trainers prior to and during training.
- Back up, restore, and troubleshooting assistance in the training environment as materials are prepared and customized and as end user training proceeds.

The Vendor must lead the first two sessions of each classroom training course, and then provide in-classroom support to the State trainer for a minimum of two additional sessions to ensure a high quality experience for the training participants. The Vendor must develop all training materials, including training guides, speaker notes, user materials and course curricula (including training objectives and outcomes). The Vendor must also work with assigned State staff to incorporate policy, procedure, and specific personnel roles into the materials. All training materials must be reviewed and approved by the State prior to the start of the training. The Vendor must provide all electronic source documents and graphics used in the development and presentation of training.

2.10.14.5 Technical and Operations Personnel Training

The Vendor must supply classroom and substantial hands-on training to ensure that State personnel have the necessary skills to operate and maintain the system once in production. It is assumed that State personnel will perform all operations and system administrative functions with assistance as needed by the Vendor when live operations commence. Such training must include: systems operations, including system startup, backup and recovery, job scheduling, and any other tasks necessary to operate the system; training on any components of the operating environment that are new to the State; as well as, training on the use of the Vendor's development tools, system management, and application administration tools.

2.10.14.6 Software Education Sessions

The Vendor must provide education sessions that describe:

- The software configuration;
- Organization of software libraries;
- System operation procedures for use during the Project;
- System administration responsibilities, log on/log off procedures, workflow, and security; and
- Other topics necessary to educate State personnel on 'system housekeeping' during the ERP Project.

All training is expected to be provided at training facilities provided by the State.

Deliverables

- Project Team Training
- Comprehensive Training Plan
- Training Curriculum

- End User Training
- Technical and Operation Personnel Training
- Training Materials
- Software Education Sessions

2.10.15 Documentation

The Vendor is expected to describe its proposed approach for developing and maintaining technical and end user documentation, systems and operational documentation, system configuration documentation, and procedural documentation, including manuals, quick reference guides, tutorials, online help, and other techniques as appropriate. The Vendor should also describe the approach used to keep technical and user documentation current throughout the project, and throughout the life of the system.

The Vendor must develop and provide to the State all system documentation at the time the system is presented for final acceptance. The Vendor must provide complete, well-written, and accurate technical, system, and user documentation. The Vendor also must provide complete source code for any custom-developed work products. All documentation must be available in both paper and electronic form (in a format acceptable to the State). The documentation must be updated throughout the course of the Project. The documentation must include, at least, the items described in the following sections.

2.10.15.1 Security Administrators Guide

The Vendor must prepare a comprehensive security guide that combines general reference information with State-specific procedures to assist security administrators in performing their duties.

2.10.15.2 User Documentation

The Vendor must develop an Agency Implementation Guide with on-line user procedures, on-line help, and on-line policy documentation along with a hard-copy quick reference for ERP System users that provides log-on and log-off procedures and basic access and navigation instructions. The on-line guide must at least contain the following:

- Functional Help Desk Phone Number;
- Technical Help Desk Phone Numbers;
- Instructions on obtaining a file from the new system;
- Transaction Quick Reference Guides which include step-by-step procedures for executing each business process;
- Important Dates; and
- Key Tips and Tricks.

2.10.15.3 Operations Documentation

The Vendor must develop complete operations documentation. The operations documentation must include overviews of the application, system structure, major processing, required interfaces, report documentation and correspondence documentation. This includes any required periodic maintenance tasks. The operations

documentation must also describe the overall batch or background process schedule, including dependencies, sequencing, and timing.

2.10.15.4 Technical Documentation

The Vendor must produce complete system documentation that address the application software and its architecture (e.g., implementation view of the application architecture). This includes all ERP software source code, programs, and executables, as well as a comprehensive data model that includes a detailed data element dictionary (DED). The data element dictionary must include a crosswalk that reflects the data elements used by each function or module, entity-relationship diagrams (ERDs), new user-defined elements, and a tool for keeping the DED current. The Vendor must maintain this documentation to reflect changes made throughout the project.

2.10.15.5 Documentation of All Customization/Configuration Parameters

The Vendor must document all customization / configuration parameters used at the State as well as the full range of alternative values possible (and the effect of each value). The documentation must reference all parameters and note and explain where dependencies occur and where environmental conditions dictate specific usage and settings.

2.10.15.6 Documentation of All Supported Exit Points and Exposed Parameters for Site-Specific Programming Modifications

The Vendor should document all supported program exit points. The documentation must include the envisioned functionality of each exit point, any configuration values that may affect the operation of each exit point and the input and output data parameters or arguments available to site-specific programs invoked from each exit point. The documentation must also include sample programming code that uses the exit point with the associated input and output data parameters. The documentation must reference all parameters and note and explain where dependencies occur and where environmental conditions dictate specific usage and settings.

2.10.15.7 Workstation Installation Procedures and Automated Installation Tools

If there are any workstation-based components to any of the proposed software products, the Vendor must provide the State with a set of documented procedures and automated deployment/installation scripts for use with the State's software distribution tools. These scripts and procedures must enable State staff to independently install and connect additional workstations. The state is currently moving toward a virtual desktop.

2.10.15.8 Workflow Administration Guide

The management and administration of workflow software is expected to be a required duty for selected State personnel. The Vendor must produce a Workflow Administration Guide that describes the duties of workflow administrators. The Guide must include:

- Coverage of policies and procedures for workflow setup;
- User setup;
- Work group setup;
- Workflow rules setup;
- Provisions for establishing alternates for absent users; and

- Archiving and reporting.

2.10.16 Online Help

The Vendor should describe the online help functions delivered with the proposed software, and the process available, if any, to customize the online help to support the software as configured and customized (if necessary) to meet the State's business needs.

Deliverables

- Security Administrators Guide (and updates)
- User Documentation (and updates)
- Operations Documentation (and updates)
- Technical Documentation (and updates)
- Workflow Administration Guide (and updates)
- Online Help
- Data Element Dictionary
- Entity-Relationship Diagrams

2.10.17 Knowledge Transfer

The Vendor is expected to describe its knowledge transfer strategy to be utilized throughout the project to ensure that State employees are prepared to operate and maintain the system at go-live. The response should describe the specific procedures that the Vendor expects to undertake to mentor State staff and ensure adequate State experience and knowledge of the system by the time of transition.

The Vendor is expected to also describe its approach to transferring operation of the ERP System to the State. The description should include all elements necessary to transfer a fully functioning system, including software, hardware, data, and processes.

It is important to the State that, as a part of the Knowledge Transfer Plan, an effective mentoring program is developed for key State staff. The State is interested in innovative ideas from Vendors concerning how the mentoring vision can be practically fulfilled.

2.10.17.1 Knowledge Transfer Planning

The Knowledge Transfer Plan is a key deliverable for the State. It is the intention of the State to require formal sign-off from key Vendor and State staff members that appropriate knowledge transfer has occurred. The Vendor must work closely with the State Project Manager and team members to document the knowledge transfer activities that are expected to occur in each phase of the project, how they should occur, and the individuals responsible for each activity. As part of the plans produced, the Vendor must document the design, configuration, development, testing and other tasks and assignments that State personnel are expected to perform to facilitate knowledge transfer.

The planning is expected to explicitly include those activities necessary to prepare State project team members for their project and post- implementation roles.

Deliverables

- Knowledge Transfer Plan

2.10.17.2 Knowledge Transfer Approach

While formal training will form part of the overall mix of training services required to train State personnel, it will not fully satisfy them. A more complete knowledge transfer approach that supplements training with carefully selected hands-on experience during the Project is also required. The Vendor is expected to provide a knowledge transfer approach that will ensure the State has a "critical mass" of knowledgeable users (experts), system administrators, programmers and other technical personnel sufficient to operate and maintain the system independently. While creative solutions are welcomed, a key requirement for success in this area is expected to be the acquisition of skills via State participation in producing key functional and technical deliverables, including software modifications and configuration changes, under the supervision and instruction of experienced Vendor personnel.

Deliverables

- Formal Knowledge Transfer Sign-Offs

2.10.18 Cultural Change Management

The Vendor should describe its approach and recommended methodology for performing cultural change management activities for the Project. Cultural change management is also referred to as enterprise readiness. Specifically, the approach should at least address the following:

- Planning for change management;
- Organizational redesign;
- Readiness assessment of end users;
- Leadership alignment and executive sponsorship;
- Role mapping and end user skills fit/gap analysis;
- Workforce transition to the new system; and
- Impact of business process re-design to the organization.

The Vendor is expected to commit at least one (1) consultant experienced in providing change management services for ERP projects of similar size and scope. This consultant should provide the framework and direction to the State's change management resources in executing the change management plan.

Deliverables

- Change Management Plan
- Communications Plan
- Readiness Assessment of End Users
- Role Mapping Matrix
- ERP System Help Desk Plan

2.10.19 Deployment (Roll-out) Support

The State requires an extensive and carefully structured approach to the implementation of the ERP System. This includes the organization and execution of cut-over activities necessary to transition operations to the new system. The Vendor must provide on-site

support throughout the entire implementation period. More specifically, the State requires the at least the services described below.

2.10.19.1 Production Cut-over (Go-Live) Planning

The Vendor must produce a detailed Deployment Cut-over Plan to reflect all project activities that impact deployment of the ERP System into the production environment. This deliverable documents all steps required to make a successful cut-over to the production environment, including specific cut-over tasks, planned and actual dates for tasks completed, task responsibilities, task dependencies, estimated work effort required to complete each task, task status, results of task completion, and party sign-off for each task completed.

The Vendor must also develop a Contingency Plan for mitigating and resolving those risks that have been identified as impacting deployment. It must address the strategies for business and system continuity planning as a result of implementation issues. For each risk identified, the contingency plan must include one or more alternate solutions that are acceptable to all project stakeholders. The Vendor is responsible for executing the contingency plan as issues arise during deployment, upon approval of the State.

The Deployment Cut-over Plan must demonstrate to the State how the Vendor will implement the ERP System. The plan must detail the approach for coordinating the following:

- Data conversion activities;
- Technical preparation and system changeover activities;
- Development of a cut-over activities checklist;
- Staffing requirements, by role and responsibilities, for both Vendor and State staff for all deployment / cut-over activities;
- Deployment schedule; and
- The process for developing a contingency plan for identifying, communicating, resolving risks and maintaining then current production capability if the deployment is delayed.

Deliverables

- Contingency Plan
- Deployment Cut-over Plan

2.10.19.2 Production Cut-over (Go-Live) Checklist

The Vendor must maintain a Cut-over Checklist for each phase that tracks each activity required to ascertain that the ERP System is ready for deployment. This checklist must be reviewed with the State PMO personnel with increasing frequency as the Go-Live date approaches to confirm:

- All testing has been successfully completed;
- All staff have completed staff and management training;
- All data has been converted, cleaned and accepted by the user;
- All interfaces are functioning as required;
- All site preparation requirements have been met;

- User Support is established; and
- All user and system supports are in place.

2.10.19.3 Establish Procedures for User Support

User support personnel are expected to respond to questions regarding the use of the application. Efficient and effective procedures for providing user support must be established before the beginning of implementation and must be supported by the Vendor through the end of the production support period. The Vendor must provide software for incident tracking.

2.10.20 Production Transfer

Once the system has been approved, in writing, as ready for production, the Vendor must work with the State to perform a production turnover procedure. Among other things, this procedure requires that the Vendor turn over all system components in a systematic fashion into the production environment. The Vendor must ensure that the source code, compiled modules (where required), job streams, other components of the production environment, and all documentation are ready and organized for the production turnover. The State expects to then ensure all compiled extension programs have corresponding source code and ensure that all programs are present. The State expects to also ensure that all components and modules of the production environment can be operated on-line or run to completion as appropriate, and that all modules, job streams (or scripts) are properly documented according to agreed upon standards.

Deliverables

- Commencement of Stable Production System

2.10.21 Production Maintenance and Support

On-site technical support and maintenance is expected to be required after the acceptance of each phase of the implemented ERP System. The on-site presence is essential to maintaining a stable production environment, and to providing for a smooth turnover of system responsibility to the State.

The Vendor must provide full onsite post-implementation maintenance and support for 24 months after Go-Live of Phase 1 or until three (3) months after the last implementation phase is in production, whichever is later. The Vendor must then jointly manage and perform post-implementation support with the State for a period of 48 months. It is the intent of the State that the Vendor includes this level of support in its proposal even if it extends beyond the five (5) year contract period into the two (2) one-year renewal option periods.

This post-implementation maintenance and support will consist of technical, functional, and operational support, and must be provided by skilled personnel who have become familiar with the project over the course of the implementation effort.

The Vendor will have primary responsibility for the production support of the ERP application during the phased deployment of the ERP solution as described above. During this period, the Vendor must also be responsible for mentoring assigned State staff involved in production support to prepare them to assume this responsibility in accordance with a transition plan to be provided by the Vendor. At the designated point in time when the ERP application production support becomes a joint responsibility between the State and the Vendor, the parties will jointly manage the production support with the Vendor continuing to mentor and assist the State staff in accordance with the transition plan

approved by the State. After 48 months of Phase 1 being in production or three (3) months after the final phase is in production, whichever is later, the State expects to manage and lead the ERP application production support activities, with the Vendor providing advisory support or providing specialized subject matter expertise for a period of 12 months. During the last six (6) months of production support, the Vendor must complete a major upgrade of the ERP software.

Please refer to Appendix K for detailed specifications on the required ERP production support.

2.10.22 ERP Operations Environment

The Vendor is expected to recommend a proposed ERP operations environment, including a proposed hardware configuration and technology infrastructure for the production and development/test environments as part of its proposal.

This ERP operations environment is expected to support all ERP implementation activities across all project phases. It should also provide for the optimal production operation of the Vendor's proposed ERP solution.

The Vendor will be expected to host the ERP development environment for the State from the beginning of the project through no later than three (3) months following the Go-Live of Phase 1. At that time, the ERP development environment is expected to migrate into a State operated development environment, with the Vendor acting in a support and advisory role to help resolve any issues which may arise with the State development environment.

The Vendor is expected to specify and acquire for the State the recommended components to support the State's own ERP development environment. The State ERP development environment should then be established, along with the ERP production environment, in a State-owned facility. The vendor should determine and recommend as part of its proposed configuration whether the development environment should reside on the same hardware as the production environment or whether these environments should be on separate servers.

The Vendor should assist the State with the establishment and testing of the ERP development environment and the migration of the ERP development environment from the Vendor hosted environment to the State operated development environment with no impact to the ERP project schedule. While management of the ERP development environment is expected to be the primary responsibility of the State beginning no later than three months following the Go-Live of Phase 1, the vendor should also provide advisory support to the State staff on the management and operation of the State ERP Development environment as needed to ensure there is no impact to the ERP project schedule through one year following the Go-Live of Phase 4.

The Vendor is also responsible for recommending a proposed ERP production environment configuration as part of its proposal. The Vendor is expected to then acquire the specified components on behalf of the State, install these components in production and hot-site data center environments provided by the State, and operate the ERP production environment in these data centers in conjunction with the State for one year following the Go-Live of Phase 4.

Through one year following the Go-Live of Phase 4, the Vendor is expected to have primary responsibility for managing the ERP production environment, with the State acting in a support role and being mentored and guided by the Vendor. One year following the

Go-Live of Phase 4, responsibility for operating the ERP production environment is expected to transfer fully to the State.

Please refer to Appendix L ERP System Operations Environment for additional specifications.

SECTION THREE: VENDOR PROPOSAL

3.1. Economy of Preparation

Proposals should be prepared simply and economically providing a straightforward, concise description of the Vendor's abilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of the content.

3.2. Incurring Cost

Neither the State nor any of its employees or officers should be held liable for any expenses incurred by any Vendor responding to this RFP, including but not limited to preparation, delivery, or travel.

3.3. Proposal Format

Vendors should provide responses in the format listed in sections 3.3.1 Technical Proposal and 3.3.2 Cost Proposal. The instructions in these sections describe the required format for a responsive Technical Proposal and Cost Proposal. Vendors should prepare their proposal in accordance with the instructions and sequence given below. The proposal should be clear and concise in response to the information and requirements described in this RFP.

The proposal, as well as any reference material presented, should be written in English on standard 8-1/2" x 11" paper. Foldouts containing charts, spreadsheets, and oversize exhibits are permissible. Each page of the proposal should be clearly and uniquely numbered.

3.3.1 Technical Proposal

The format and subsections of the Technical Proposal should conform to the tabbed structure outlined below. All tabs should be labeled appropriately. Adherence to this format is necessary in order to permit effective evaluation of proposals.

Exhibit 23: Technical Proposal Structure Outline

Technical Proposal Content	Reference Section
Title Page	3.3.1.1
Transmittal Letter	3.3.1.2
Table of Contents	3.3.1.3
TAB 1 – Executive Summary	3.3.1.4
TAB 2 – Vendor Company Profile	3.3.1.5
TAB 3 – Subcontractor Company Profiles	3.3.1.6
TAB 4 – Licensed Product Information	3.3.1.7

Technical Proposal Content	Reference Section
TAB 5 – References	3.3.1.8
TAB 6 – Proposed Project Staff and Organization	3.3.1.9
TAB 7 – Vendor's Proposed Plan for Providing Requested Services	3.3.1.10
TAB 8 - Project Goals and Objectives	3.3.1.11
TAB 9 - Mandatory Specifications Checklist	3.3.1.12
TAB 10 - Technical Architecture Questionnaire	3.3.1.13
TAB 11 - Sample Statement of Work (SOW)	3.3.1.14
TAB 12 - Functional and System-wide Requirements	3.3.1.15

The following sections explain the content for each of the subsections of the Technical Section. **No pricing or cost information should be included in the Technical Proposal.**

3.3.1.1 Title Page

State the RFP subject, number, Vendor's name, business address, telephone number, fax number, name of primary contact person, e-mail address, and Vendor signature and date.

3.3.1.2 Transmittal Letter

Vendors should provide a transmittal letter on the Vendor's letterhead signed by an individual authorized to legally bind the Vendor. The Transmittal Letter should include the following:

- A brief Statement of the Vendor's understanding of the scope of software and services associated with this RFP;
- The names, titles, addresses, e-mail addresses, and telephone numbers of the individuals who are authorized to make representations on behalf of and legally bind the Vendor;
- A Statement that the entire proposal and the price contained therein is binding upon the Vendor in all respects for a period of 180 days from receipt of the BAFO, or from submission if no BAFO is requested;
- A Statement designating the firm that should function as Vendor (primary contractor) in response to the RFP;
- A list identifying all firms proposed as subcontractors or software providers;
- A Statement that the Vendor and any subcontractors in the Vendor's proposal presently have no interest, direct or indirect, which would conflict with the performance of services under this contract and should not employ, in the performance of this contract, any person having a conflict;
- A Statement that all staff members of the Vendor's proposed team should follow all

State of West Virginia administrative policies, procedures, requirements, specifications, and standards; and

- The signature of a person authorized to legally bind the Vendor. The name and legal title of the individual should be typed under the signature. Indicate the Vendor's tax number under the signature block.

3.3.1.3 Table of Contents

Each proposal should include a table of contents that clearly identifies the material by location of each section and subsection. Each page of the response should be clearly and uniquely numbered. Additionally, the table of contents should clearly identify and denote the location of all enclosures and appendices to the proposal.

3.3.1.4 TAB 1 - Executive Summary

In the Executive Summary, the Vendor should condense and highlight the contents of the proposed solution in such a way as to provide the State with a broad understanding of the proposal in twenty (20) pages or less. Vendors should provide a concise summarization of the proposed products and services, and how these proposed products and services address the requirements presented in the RFP.

Vendors should present a summarization of their planned approach, their successful public sector implementations of the proposed solution, highlight the relevant public sector experience for all key staff included in the proposal and describe why the product and service providers assembled in the proposal are best qualified to perform the work required.

Vendors should also include a list of each specific term that it proposes to modify with the requested changes identified by using strike-though for proposed deletions and underlines for proposed additions to the term. Additionally, the Vendor should provide compelling justification for any proposed changes.

3.3.1.5 TAB 2 - Vendor Company Profile

The Vendor should include a detailed narrative description of its organization. The narrative should include the following:

- Brief overview of business operations, with an emphasis on ERP related business in the public sector;
- Date established;
- Ownership (public, partnership, subsidiary, etc.);
- Location in which the Vendor is incorporated;
- Office location(s) responsible for performance of proposed tasks;
- Full disclosure of any proposed off-site activity and the locations involved;
- Vendor's organizational chart relevant to this project;
- Full disclosure of any potential conflict of interest;
- A Statement of whether, in the last ten years, the Vendor and any officers in their individual or professional capacity or associated with another company have filed (or had filed against it) any bankruptcy or insolvency proceeding, whether voluntary or involuntary, or undergone the appointment of a receiver, trustee, or assignee for the benefit of creditors, and if so, an explanation providing relevant details;

- A Statement of whether there are any pending Securities Exchange Commission investigations involving the Vendor, and if such are pending or in progress, an explanation providing relevant details and an attached opinion of counsel as to whether the pending investigation(s) may impair the Vendor's performance in a Contract under this RFP;
- A Statement documenting all open or pending litigation initiated by Vendor or where Vendor is a defendant in a customer matter;
- Full disclosure of any public sector ERP contracts terminated for cause or convenience in the past five (5) years;
- Full disclosure of any criminal or civil offense; and
- Statements of financial stability indicating that the Vendor has the financial capacity to provide the entire solution, and that the Vendor has adequate resources to continue as an ongoing concern.

3.3.1.6 TAB 3 - Subcontractor Company Profiles

3.3.1.6.1 ERP Software Provider

For the ERP Software Provider, Vendor should provide the same information as the Vendor Company Profile listed above in Section 3.3.1.5.

3.3.1.6.2 Third party Software Providers

For any Third party Software Provider included in the proposal, Vendor should provide the same information listed for the Vendor Company Profile in Section 3.3.1.5.

3.3.1.6.3 Service Providers

For any Service Providers included in the proposal, Vendor should provide a description of the role and level of involvement proposed for the Subcontractor and should provide the same information listed for the Vendor Company Profile in Section 3.3.1.5, as applicable. Vendor should include a copy of the teaming agreement or subcontracting agreement between the Vendor and each Service Provider. Subcontractor Corporate Information is not required if the Subcontractor is providing five (5) or fewer staff in the proposal.

3.3.1.7 TAB 4 - Licensed Product Information

3.3.1.7.1 Business Applications

In this section, the Vendor should provide a detailed product summary chart that lists:

- Each Software Provider (please list the ERP Software Provider first);
- The different product sets to be provided by each Software Provider;
- The modules / functions within those product sets;
- The release level of the products to be used;
- The next release / version level to be released; and
- The planned release date of the next release / version.

After the summary chart, the Vendor should provide a description of all application software modules necessary to provide the requested functionality as referenced above in

Section 2.5 Project Scope. For each module, the Vendor should summarize in one page the key features and functions of that module, as well as the major integration points of the module, in the following format. The size of the individual response items may be adjusted as needed, as long as the total response for each module does not exceed one page.

Exhibit 24: Sample Format for One-Page Software Modules Summary

Module Name	
Narrative Description of Major Functions	
Integration Points	

The following is a brief explanation of expected response for each required field:

- **Module Name** – Indicate the module name (e.g., General Ledger, Accounts Payable) from the proposed software solution.
- **Narrative Description of Major Functions** – Describe in narrative form the major business process functions addressed by the module. Describe the key features of the module and how the module addresses the pertinent business needs of the State.
- **Integration Points** – Describe the integration of the module with other modules in related business processes. An exhaustive listing of all integration points is not required. The intent is to provide a general understanding of relationships and dependencies between software modules.

3.3.1.7.2 Technology Products

The Vendor should take the following into account when addressing the technology components of their proposal:

- The Vendor should provide the State with network, desktop, and server requirements for all software.
- The Vendor should specify the requirements for all required cache servers, web servers, application servers, and database servers for installation per the Vendor's specifications.

In this section, the Vendor should provide a product summary chart that lists:

- Each Technology Product Provider;
- The different technology products to be provided by each Technology Product Provider;
- The release level of the products to be used;

- The next release / version level to be released; and
- The planned release date of the next release / version.

Additionally, the Vendor should address the following topics regarding the proposed products.

3.3.1.7.2.1 Integrated Development Toolset

More than one toolset can be provided if products are sourced from different Third party Software Providers. The Vendor should address the following:

- Screen / panel modification and development;
- Menu modification and development;
- Screen-based label name configurations for tailoring to State vocabulary;
- Workflow modification and development;
- Extract, transform and load (ETL) tools;
- Web service and application API modification and configuration;
- Database – current table, current column, or new column addition and editing;
- Database – new table and column addition and editing; and
- Database, table, and column triggers and procedures – either directly or through configurable implementations of equivalent capabilities through abstract programmatic capabilities.

3.3.1.7.2.2 Data Warehouse

The data warehouse and business intelligence solution should be a collection of data from varying sources which is loaded on a periodic basis. This data is to be organized in a way that optimizes data retrieval for reporting purposes and is extensible, allowing for additional data to be added at a future date. Access to this data is to be controlled by an administrator. The administrator is to be provided a tool to be used to create data maps that handle the varying relationships within the data. The business users of this data can run standard or ad hoc reports using reporting tools. Business users currently use a variety of reporting tools to generate ad hoc.

The State currently maintains a number of separate data warehouses which support a variety of applications and reporting requirements. The proposed data warehouse should offer the capability to merge data from existing data warehouses into ERP data warehouse at some point in the future.

3.3.1.7.2.3 Ad Hoc Reporting Tools

The data warehouse and business intelligence solution should enable business users to create their own reports and explore enterprise data by downloading data or utilizing standard ad hoc reporting tools such as Crystal Reporting, Business Objects, and Microsoft Access®.

3.3.1.7.2.4 Business Intelligence Tools

It is the State's intent to take full advantage of the information captured within the new ERP system to support Business Intelligence functionality in addition to operational reporting requirements. The expectation for Business Intelligence is to provide the

capability for both tactical data analysis associated with program performance and strategic data analysis associated with long-term planning and measurement of operational performance against strategic goals.

3.3.1.7.2.5 Upgrade Tools

Analysis tools, “fix” and “patch” automated implementation tools, and full release or version automated upgrade tools should be provided. More than one set of tools can be provided if products are sourced from different Third party Software Providers.

3.3.1.7.2.6 Enterprise Application Interface (EAI) Tools

Tools provided should support use with all products proposed in the solution.

3.3.1.7.2.7 Extract, Transform, and Load (ETL) Tools

Tools provided should support use with all products proposed in the solution.

3.3.1.7.2.8 Production Tools

Typical capabilities of these types of tools (schedulers, job automation and sequence scripting, job roll-back, etc.). Tools provided should support all components of the server-based application software solution.

3.3.1.7.2.9 Application Test Tools

Tools provided should support all components of the server-based application software solution.

3.3.1.7.2.10 Configuration Management Tools

Tools provided should support all components of the application software solution.

3.3.1.7.2.11 Performance Monitoring Tools

Tools that monitor the end-to-end response time and performance of the application on an ongoing basis, for use in alerts and troubleshooting.

3.3.1.7.3 Product Maintenance

In this section of the proposal, the approach of the ERP Software Provider and the Third party Software Provider(s) to meet the State’s requirements to provide product maintenance is described, including:

- The software upgrade process used by the ERP Software Provider and the Third party Software Provider(s). What is the impact on user-defined fields and tables during the upgrade process? What is the impact on any customizations previously made to the software? What support does the software vendor provide during the upgrade process? Is the State always required to upgrade? How many versions/releases of the software are supported by the software vendor, and for how long? Describe the types of documentation that accompany the upgrade software, and the resources available if there are questions or problems applying the upgrade.
- The process used by the ERP Software Provider and the Third party Software Provider to distribute software fixes and patches. Describe the typical documentation that accompanies new patch releases. Are releases of fixes and patches made on a certain schedule, or are they released as they are ready? Is each release cumulative

of all fixes since the last upgrade? If not, how are the patch prerequisites established? What support is the software vendor providing?

- Any special plans defining "levels" of customer support (e.g., gold, silver, etc.).
- The telephone support (include toll-free support hotline, hours of operation, availability of 24 x 7 hotline, etc.).
- The currently known or planned enhancement items that would not be covered by the ongoing annual maintenance payment quoted in the Cost Proposal.
- The availability of user groups, how often they meet and how they are structured. Does the Software Provider or the user group manage the agenda and contents of the meetings? Describe user group input to system fixes and future enhancements.
- The problem reporting and resolution procedures.
- The other support (e.g., on-site, remote dial-in, web site access to patches, and knowledge base).

3.3.1.7.4 Product Maintenance Assumptions

The following assumptions apply to the Product Maintenance services:

- Upon notification of a maintenance problem, Vendor should perform an adequate level of problem determination to identify and resolve the issues (if possible) based upon known product or customized solution issues. After first having completed proper due diligence, problem determination, and using Software Provider resources and content to attempt to resolve the support incident, the Vendor may triage to the Software Provider and leverage the Software Provider as tier two support whereby the Software Provider may work directly with the State to fix a particular problem while the Vendor continues to take full responsibility for the outcome of the incident by monitoring progress, logging, tracking, and obtaining other resources (if the Software Provider has not solved the issues) and any other effort required to resolve support incidents that arise during the life of the Contract.
- The State is seeking a "high availability" ERP solution. Although the goal of all systems is always to have a failure rate of zero, it is understood that such a goal is truly unobtainable. A goal of 99.999% availability is more reasonable. The Vendor should provide a plan for obtaining this goal of 99.999% availability. The Vendor's proposed ERP operations environment configuration should be architected to meet this requirement and the cost of acquiring the elements of the production environment on a lease base transferrable to the State included in the Vendor's price proposal.

3.3.1.7.5 Future Direction

The Vendor should describe the future direction of the technology of the proposed products. Also, include future plans for public sector functionality for the components of the proposed solution. The Vendor should discuss in some detail the strategic product plans for the proposed software products in this response. What have been the significant enhancements to the products in the past few years, and what is expected in the next five years? Describe how the proposed solution provides a stable robust environment for the State and provide a platform for growth and technological advances for the future?

3.3.1.7.6 Student Information System (SIS) Modules

The State is interested in potentially expanding the scope of the ERP System to provide additional functionality for institutions of higher education at some point in the future.

Because of this, the State is also interested in determining if any of the ERP software providers associated with this procurement offer SIS functionality commonly implemented by institutions of higher education.

While this section is optional and will have no impact on scoring or the final award of the contract, if the proposed solution selected for award by the State includes SIS modules, then the State would be interested in obtaining discounted pricing for the following modules or other modules that might be available. The discounted pricing should be good for a period of at least five (5) years. Vendors are reminded that all cost and pricing information should be included in the Optional Software Schedule of the Cost Proposal and should not be presented in the Technical Proposal.

SIS modules may include, but not be limited to, the following:

- Curriculum and Catalog Management
- Student Housing and Food Services
- Undergraduate and Graduate Recruiting, Admissions and Orientation
- Advising and Degree Audit
- Faculty Employment / Records (including Faculty Workload)
- Financial Aid and Scholarships
- Learning Management
- Course Registration, Grades and Transcripts
- Student Billing and Accounting
- Alumni and Development
- Student and Faculty Self-Service

3.3.1.8 TAB 5 - References

The State intends to conduct reference checks for account references provided by Vendors. It may, at its sole discretion, contact additional clients not presented as references.

Vendors should provide at least three (3) client references for the implementation of ERP software for state or local governments, with a preference for Statewide ERP implementations. All references should be for systems in production at this time -- not for implementations that are still in progress.

The following information should be provided for each reference:

- Organization Name;
- Project Name;
- Project Description;
- Contact Name;
- Contact Mailing Address;
- Contact Phone Number;
- Contact Email Address;
- ERP Software Product and Release Number(s) Implemented;

- Project Start and End Date; and
- Contract Value.

The Vendor should also provide additional references to validate that any proposed third party solution for the fleet management and transportation asset management related functionality is currently in production in government environments. This addresses the State's previously described preferences for any third party functionality in these areas to be in a production status.

3.3.1.9 TAB 6 - Proposed Project Staff and Organization

3.3.1.9.1 Project Organization

Vendors should describe their project staffing strategy to coincide with their recommended phasing approach. As part of this project staffing strategy, the Vendor should recommend when State participation is expected, how the State's employees are going to be integrated into the Project Team, and what methods are going to be used to ensure skills and knowledge transfer. As noted previously, STA resources should be considered part of the State team focused on project management and oversight activities.

Vendors should provide:

- A narrative description of the recommended project organization;
- A proposed organization chart for the project team;
- A table using the format provided below showing all recommended roles (Vendor and State) modified as necessary to reflect the recommended staffing level for each being proposed for the engagement; and
- A brief description of the responsibilities for each role.

Exhibit 25: Format for Vendor and State Project Team Summary

ERP Project Team Roles	State	Vendor
Project Management:		
Project Director		
Project Manager		
Administrative Support		
Financial Team:		
Financial Team Lead		
General Ledger / Budget Control		
Accounts Payable / Travel		
Accounts Receivable / Billing		

ERP Project Team Roles	State	Vendor
Asset Management		
Grants Management		
Project Accounting		
Cost Accounting / Cost Allocation		
Procurement and Logistics Team:		
Procurement and Logistics Team Lead		
Purchasing / Materials Management		
Contracts Administration		
Inventory Management		
Fleet Management		
Real Estate Management		
Facilities Management		
Treasury Team:		
Treasury Team Lead		
Banking		
Cash Management		
Investment Accounting		
Debt Management		
Human Resources and Payroll Team:		
Human Resources and Payroll Team Lead		
Payroll Administration		
Personnel Administration		
Applicant Services		
Position Control		
Classification and Compensation		

ERP Project Team Roles	State	Vendor
Time and Leave Accounting		
Benefits Administration		
Training and Employee Development		
Transportation Team:		
Transportation Team Lead		
FHWA Federal Aid Billing		
Transportation Operations Management		
Transportation Asset Inventory		
Bridge Management		
Pavement Management		
Safety Management		
Right-of-Way and Utilities		
Technical Team:		
Technical Team Lead		
FRICE-W Development		
Infrastructure		
Business Intelligence / Data Warehouse		
Security		
Database Administration		
Enterprise Readiness Team:		
Enterprise Readiness Team Lead		
Communications		
Change Management		
ERP Training		
Agency Deployment		

3.3.1.9.2 Personnel Summary Table

Vendors should provide a Personnel Summary Table listing each proposed project team member. The Personnel Summary Table should be presented in tabular form similar to the example provided below including the proposed role(s), consultant name, total years of relevant ERP implementation experience, years of experience in the proposed role, list of public sector clients in the proposed role, and relevant certifications.

Exhibit 26: Format for Vendor Personnel Summary Table

Proposed Role(s)	Consultant Name	Experience Summary
Project Manager	Consultant Name	SAMPLE - 7 years ERP implementation experience, 5 years as project manager on 2 ERP projects, State Client Name & University Client Name, PMP certification

3.3.1.9.3 Resumes

The Vendor should provide resumes for each role to be filled by Vendor personnel. Proposed consultants should be available to staff the project. Resumes should include the following information:

- Name of consultant;
- Proposed role on project;
- Education and training;
- Summary of relevant experience (including start and end dates);
- Experience implementing ERP software;
- Other relevant experience; and
- Designation as employee or subcontractor.

If any staff from the Vendor's team require special accommodations for a disability or work limitation, please note such in this section.

3.3.1.9.4 Staffing Changes

No change may be made in the staffing of the ERP project without the prior approval of the State. Throughout the term of the Contract resulting from this RFP, the Vendor should:

- Provide qualified personnel to perform all Services required in this RFP;
- Promptly remove and replace personnel at the request of the State; and
- Provide written notice and seek State approval of any plan to add, remove and replace personnel.

3.3.1.10 TAB 7 - Vendor's Proposed Plan for Providing Services

In order to facilitate the Evaluation Committee's comparison of proposals, the Vendor's

response to this section of the RFP should conform to the following format without exception.

3.3.1.10.1 Timeline and Implementation Phasing Approach

The Vendor should describe its proposed implementation timing and phasing approach and include a phasing schedule and timeline similar to those included in section 2.6.2 which matches their project plan and detailed staffing. It should be based on the Vendor's experience with the solution being proposed and provide the State with the best balance of cost and risk for the implementation of the ERP system. The Vendor should also provide a thorough explanation of its rationale to support its proposed phasing. Related cost information should be presented in the Cost Proposal and should not be included in the Technical Proposal. Any required clarifications regarding the phasing or timelines should be addressed during the Discussion and Best and Final Offer process.

The description provided should include the following information for each module:

- Implementation timeframes;
- Milestones and implementation phasing (if any);
- Deliverables; and
- Any software upgrades that should occur during the project.

3.3.1.10.2 System Development Methodology Overview

It is the Vendor's responsibility to propose a system development methodology (SDM) that is defined, documented, repeatable, and emphasizes project management best practices.

The project scope and cost should include training the State project team staff on the Vendor's SDM. The proposal should identify certifications the Vendor has received, such as SEI CMM assessments, the International Organization for Standardization (ISO) 900x certifications, the Institute of Electrical and Electronics Engineers' (IEEE) Software Engineering Standards, or any other pertinent certifications.

3.3.1.10.3 Project Management Methodology and Approach

The Vendor should describe its approach to managing the project. As part of its project management approach, the Vendor should describe the project management tools, standards, controls, and procedures that are going to be utilized to create a proven, reliable process. This section should also include a brief description of the Vendor's approach for managing the project on a daily basis. The intent of this information is to provide assurance to the State of the Vendor's demonstrated ability to manage large, complex enterprise software projects in a manner that ensures quality, project success, long-term viability, and lowest cost of ownership.

As provided in Section 2.9.1, the West Virginia Chief Technology Officer has established a Project Management Office (PMO) responsible for providing oversight for state agency information technology projects. The Vendor's proposed project management methodology should be consistent with the West Virginia Office of Technology (WVOT) Project Management Methodology. This methodology closely follows the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK). Additional information on the WVOT Project Management Methodology may be found on WVOT's web site at http://www.wvot.gov/.

The proposed Project Governance Structure is documented in Section 2.2.2 Project Governance. Vendors are invited to provide recommendations for enhancing project

governance in this section of their response.

3.3.1.10.4 Detailed Description of Services / Deliverables to be Provided

The Vendor should describe in detail how each of the services listed in Section 2.9, Services to be Provided, should be addressed in accordance with the Vendor's methodology and approach taking into account the items discussed in Section 2.8, Items for Special Consideration.

A listing and description of proposed deliverables should be included with each service discussion. All deliverables identified in Section 2.9 should be included.

3.3.1.10.5 Lessons Learned

The Vendor should provide a discussion of the significant lessons learned from experience at previous public sector ERP financial management projects of similar size and scope, and how the Vendor plans to apply those lessons to the ERP project.

3.3.1.10.6 Unique Transportation Considerations

WVDOT is one of the largest and most complex agencies to be implemented on the ERP system. It is critical that the Vendor have a thorough knowledge of transportation operations and complexities. Section 2.9.18 provides additional information regarding Unique Transportation Considerations of the ERP system.

The Vendor should provide a discussion of each of the following in this section of their proposal:

- Recommended options for integrating WVDOT into the overall ERP system environment.
- State transportation departments where the Vendor has implemented ERP.
- What were the major modifications or enhancements that were made in these implementations?
- What are the primary areas, either business-related or project-related, that the Vendor expects should require additional attention?
- Major challenges of incorporating a State transportation department as part of a Statewide ERP system.

3.3.1.10.7 Other Unique West Virginia Considerations

As described in section 2.8 Items for Special Consideration, the State has a number of other unique items that Vendors should take into consideration for their proposals. Vendors should describe how these items would be addressed under the proposed solution.

3.3.1.10.8 Vendor's Proposed Plan for Establishing the Technical Infrastructure

The State intends to rely on technical architecture requirements provided by the Vendor to determine the infrastructure and sizing requirements to efficiently and effectively run the ERP System.

The Vendor is expected to host the ERP development environment for the State from the beginning of the project through no later than three (3) months following the Go-Live of Phase 1. At that time, the ERP development environment should migrate into a State

operated development environment, with the Vendor acting in a support and advisory role to help resolve any issues which may arise with the State development environment.

The Vendor is responsible for assisting the State with the installation of the State ERP development environment and managing the migration of the ERP development environment from the Vendor hosted environment to the State's new development environment with no impact to the ERP project schedule.

The Vendor is responsible for recommending a proposed ERP production environment configuration as part of its proposal. The Vendor should then acquire the specified components on behalf of the State, install these components in production and hot-site data center environments provided by the State and operate the ERP production environment in these data centers in conjunction with the State for one year following the Go-Live of Phase 4.

Through one year following the Go-Live of Phase 4, the Vendor should have primary responsibility for managing the ERP production environment, with the State acting in a support role and being mentored and guided by the Vendor. One year following the Go-Live of Phase 4, responsibility for operating the ERP production environment should transfer fully to the State.

The Vendor should provide a description of its plan for hosting the development environment through three months after the Go-Live of Phase 1. This plan should describe the Vendor's proposed hosting site and provide information about the proposed site's services, capabilities and prior experience in terms of supporting ERP production or ERP implementation project efforts. The plan should also describe the Vendor's on-site staffing which should help support the development environment (if any) and how the Vendor and State project team should interface with the management/staff of the hosting site. The Vendor should also provide a discussion of its proposed approach for assisting the State with procuring, establishing and transitioning to the State's own development environment. This should include a discussion of how the Vendor should ensure that any changes required to the Production environment following the Phase 1 – Phase 4 go-live are also migrated down to the development environment managed by the State.

The Vendor should provide a description of its plan for procuring the hardware and establishing the ERP production environment in the State facility. This plan should cover the activities required to establish the ERP production environment, the Vendor's proposed on-site staffing and any off-site staffing to support this environment. The Vendor should specify what staffing/support should be needed from the State to stand-up the Production Environment. The Vendor should also describe its recommended knowledge transfer plan to State staff and its proposed approach for transitioning responsibility for the ERP Production Environment to State staff following one year of production operations.

Vendor should also complete the following table:

Exhibit 27: Format for Technical Environments to Be Provided

Technical Environments	# of Instances
Baseline (Vanilla)	
User Sandbox	
Development	
Testing	

Technical Environments	# of Instances
Quality Assurance	
Training	
Other (Please describe)	
Other (Please describe)	
Other (Please describe)	

3.3.1.11 TAB 8 – Project Goals and Objectives

The Vendor should complete the responses to each of the State's goals and objectives identified in Section 2.4 following the format provided in Appendix A. Vendors should describe how they will comply with each. The completed response should be inserted in the Technical Proposal in TAB 9.

3.3.1.12 TAB 9 – Mandatory Specifications Checklist

The mandatory specifications contained in Section 2.5 must be completed along with the certification in the format provided in Appendix B. Vendors must respond to each mandatory requirement describing how they will comply with each and complete the required certification. The completed Mandatory Specification Checklist and certification should be inserted in the Technical Proposal in TAB 10.

3.3.1.13 TAB 10 – Technical Architecture Questionnaire

The Technical Architecture Questionnaire found in Appendix E should be completed and inserted in the Technical Proposal in TAB 11. The survey is intended to obtain the Vendor's recommendations about the technical architecture and other areas such as: configuration and maintenance, customizations and upgrades, report development, and security.

3.3.1.14 TAB 11 – Sample Statement of Work

The Vendor should submit a Sample Statement of Work in TAB 12. This Sample Statement of Work will provide a starting point for drafting the final Statement of Work that will be included in the contract with the Awarded Vendor as part of contract execution. The Sample Statement of Work should include a description of the roles and responsibilities for each of the services requested in this RFP in accordance with the vendor’s proposed project plan and methodology, and descriptions of all deliverables to be provided.

3.3.1.15 TAB 12 – Functional and System-wide Requirements

The State has developed an extensive list of Functional and System-wide Requirements provided in Appendix M. To assist the State in managing and analyzing Vendor responses to each of these requirements, the State contracted with Advantiv Solutions, LLC for the use of DecisionDirector® RFP Response Management System (DD2), a secure, web-based team collaboration system.

Vendors must submit a copy of their responses to each Functional and System-wide Requirement in DD2 in the format provided in Appendix M along with a certification that the responses match the Vendor's responses in DD2 as described in Section 3.9 Functional and System-wide Requirements Submission. In addition, Vendors must

provide a soft copy PDF of their responses and insert it into the Technical Proposal in the manner described in Section 3.4 Proposal Submission.

3.3.2 Cost Proposal

The format and sections of the Cost Proposal should conform to the tabbed structure outlined below. All tabs should be labeled appropriately. Adherence to this format is necessary in order to permit effective evaluation of proposals.

The Cost Proposal should be in the following format:

Exhibit 28: Cost Proposal Format Outline

Cost Proposal Content Checklist	Reference Section
Title Page	**3.3.2.2**
Table of Contents	**3.3.2.3**
Administrative Requirements	**3.3.2.4**
TAB 1 - Summary Presentation Schedule	**3.3.2.5**
TAB 2 - Total Cost Summary Schedule	**3.3.2.6**
TAB 3 - Deliverables-Based Payment Schedule	**3.3.2.7**
TAB 4 - Staffing Plan by Function Schedule	**3.3.2.8**
TAB 5 - Staffing Plan by Position Schedule	**3.3.2.9**
TAB 6 - Training Breakdown Schedule	**3.3.2.10**
TAB 7 - Customizations Schedule	**3.3.2.11**
TAB 8 - Other Costs Schedule	**3.3.2.12**
TAB 9 - Labor Rates Schedule	**3.3.2.13**
TAB 10 - Technical Infrastructure Schedule	**3.3.2.14**
TAB 11 - Software Licensed Products Schedule	**3.3.2.15**
TAB 12 - Upgrade Schedule	**3.3.2.16**

3.3.2.1 Cost Proposal Content:

Cost information is to be provided in accordance with the templates provided in RFP Appendix C (Cost Proposal Schedules). The remainder of this section of the RFP describes the content that is expected in each of the sections of the Cost Proposal.

3.3.2.2 Title Page

The title page should be placed as the front cover and/or insert and include the following:

- State of West Virginia Request for Proposal for Enterprise Resource Planning (ERP) Software and Implementation Services
- Response to RFP Number
- Bid Due Date
- Vendor Name
- A separate and distinct control number for each of the hard copies placed in the bottom right corner. The control number naming convention is: Vendor Name - Sequential Number (e.g. “ABC Consulting Services – 10”). Please ensure that the signed original copy is designated using control number “1”.
- The inscription, “Cost Proposal.”

3.3.2.3 Table of Contents

The Cost Proposal should be submitted with a table of contents that clearly identifies and denotes the location of each section and subsection of the Cost Proposal. Each page of the response should be clearly and uniquely numbered. Additionally, the table of contents should clearly identify and denote the location of all enclosures and attachments to the proposal.

3.3.2.4 Administrative Requirements

The Vendor should fill out the Signature Sheet form and submit it with the Cost Proposal as the first entry in this section. The person who signs the Cost Proposal Signature Sheet should be the same person who signed the Technical Proposal Signature Sheet.

Immediately following the Signature Sheet form, Vendors should include, as the second entry in this section, a copy of each proposed Software License and Annual Maintenance Agreement (Agreement) for all proposed Software Providers. Provide the ERP Software Provider’s Agreement first, and then all Third party Agreements in alphabetical order.

3.3.2.5 TAB 1 - Summary Presentation Schedule

This section should include Summary Presentation Schedule from Appendix C Cost Proposal Schedules.

No entries are required on this schedule. It automatically pulls key data from several of the other schedules and is intended to assist in evaluating the Cost Proposal.

Unless an assumption is specifically cost related, it should be placed in the Technical Proposal. Cost related assumptions should be placed after the Summary Presentation Schedule behind TAB 1.

3.3.2.6 TAB 2 - Total Cost Summary Schedule

This section should include the Total Cost Summary Schedule from Appendix C Cost Proposal Schedules. This schedule is comprised of three (3) sections:

- Section 1 - the Required ERP and Other Software Licenses section, should include pricing for the five (5) year contract term plus the three (3) one-year renewals periods for any fees related to the licensing of ERP products.

- Provide the cost for each individual application module and third party tools included as part of the proposed solution and any associated proposed tool. The costs for each item are to be quoted separately unless bundled pricing is proposed.
- Additionally, if third party products (specialized functional software, middleware, database instances, operating system software, compilers, job schedulers, security-related packages, etc.) are expected to successfully implement the proposed integrated software solution the Vendor should list these products. The Vendor should include a worksheet describing the quantities, release levels, etc., of each of these products.
- Vendors should enter the Required ERP and Other Software Licenses information into Section 1 of the Schedule.
- Because the State intends to implement the ERP software and required third party products using a phased approach covering several years, it is imperative that the State buy only the licenses for the products that are required for each phase in accordance with the proposed phasing and approach. As an example, the software costs for bridge management, pavement management, and facilities management should be reflected in the actual year in which those functions will be addressed in the proposed phasing approach. The State requires a firm price commitment on all proposed software in each proposal; however, software payments will be made in accordance with the proposed phasing plan to ensure that the State does not pay for software and associated annual maintenance costs that will not be utilized until a later date.

♦ Section 2 - the Ongoing Software Maintenance section, should include pricing for the ongoing software annual maintenance fees.

- Any fees related to the maintenance should be included, as well as any discounts to be provided. The initial basis for annual maintenance fees should be based on the negotiated purchase price for the licensed products (not the “then list” price of software purchased).
- In no event should any maintenance fees for any proposed software products be increased during the period covered by this RFP and in any year thereafter by more than the lower of: (a) three percent (3%) of the previous year's maintenance fees, or (b) the increase in the U.S. Consumer Price Index (CPI) as published by the Bureau of Labor Statistics. Notwithstanding the foregoing, in no event should the maintenance factor used to calculate the annual maintenance fees exceed the “then current” factor in effect used generally by the Software Provider to calculate annual maintenance fees for similarly situated licensees in the United States.
- Vendors should enter the Ongoing Software License and Maintenance Support information into Section 2 of the Schedule. As referenced in Section 1 above, the State strongly prefers that all application software licensing be acquired “just in time” for usage in accordance with the Vendor’s proposed phasing approach in order to eliminate paying annual maintenance on software not being utilized.

♦ Section 3 - the ERP Implementation and Post-Implementation Services section, should provide pricing for the proposed solution for each specified activity. This section should be consistent with the Staffing Plan by Function Schedule submitted in Cost Proposal TAB 4 and the Staffing Plan by Position Schedule submitted in Cost Proposal TAB 5. No entry is expected for this section. Section 3 pulls data from the Staffing Plan by Activity Schedule.

- Section 4 includes the cost for the Software Major Release Upgrade Services being proposed by the Vendor. It should be consistent with the Upgrade Schedule provided in TAB 12.
- Section 5 includes the cost for

3.3.2.7 TAB 3 - Deliverables-Based Payment Schedule

This section should include the proposed Deliverables Payment Schedule from Appendix D - Sample Payment Schedule. The suggested Payment Schedule should follow the Vendor's implementation methodology and include all significant deliverables to be provided to the State including the deliverables listed in Section 2.10 - Services to be Provided. The Total Payment Amount should be consistent with the Total ERP Implementation Services Cost on the proposed Section 3 – ERP Implementation Services portion of Total Cost Summary Schedule submitted in Cost Proposal TAB 2. The Deliverables-Based Payment Schedule should include a fifteen percent (15%) retainage as specified in RFP Section 5.9.1.

Vendors should enter a Vendor-defined Deliverable Reference Number, list their payment related deliverables, specify an Estimated Due Date for each deliverable, and provide the payment amount attributed to each deliverable in the Deliverables Payment Schedule.

3.3.2.8 TAB 4 - Staffing Plan by Function Schedule

This section should include the Staffing Plan by Function Schedule from Appendix C Cost Proposal Schedules.

No entry is expected on this schedule. It pulls totals for each work activity by month and fiscal year from Staffing Plan by Position Schedule.

3.3.2.9 TAB 5 - Staffing Plan by Position Schedule

This section should include the Staffing Plan by Position Schedule from Appendix C Cost Proposal Schedules.

Vendors should enter each position scheduled for each work activity and the hours scheduled by month. Hours scheduled each month should be exclusive of travel time for Vendor team travel time. The State does not pay for travel time other than actual time spent while working on ERP project deliverables and the Vendor should address this provision in the proposed Statement of Work. The Vendor should maintain records to support any hours claimed for work performed during travel time.

3.3.2.10 TAB 6 - Training Breakdown Schedule

This section should include the Training Breakdown Schedule from Appendix C Cost Proposal Schedules.

In accordance with RFP Section 2.9.13 Training, the itemized costs associated with the proposed training should be provided here.

3.3.2.11 TAB 7 - Customizations Schedule

This section should include the Customizations Schedule from Appendix C Cost Proposal Schedules.

This schedule requires a description of the level of effort estimated for each proposed enhancement or modification cross-referenced by requirement reference number. Vendors should also enter an estimate in hours under the appropriate column for a minor

modification, a major modification, a report or query, or for custom development. The cost of each item is also required.

3.3.2.12 TAB 8 - Other Costs Schedule

This section should include the Other Costs Schedule from Appendix C Cost Proposal Schedules.

This schedule requires a description and any assumptions for all other costs included as part of the solution which have not been defined and described in other parts of the Cost Proposal Schedules.

3.3.2.13 TAB 9 - Labor Rates Schedule

Although the State will not reimburse the Vendor on a “time and materials” or “not to exceed” basis for project deliverables, it may be necessary to make scope changes that require assistance in areas not anticipated for which the State may consider a time and materials payment arrangement. For this purpose, the Vendor should provide all-inclusive (travel and all other expenses included) billing rates for a range of different skill areas using the Labor Rates Schedule provided in Appendix C Cost Proposal Schedules.

3.3.2.14 TAB 10 - Technical Infrastructure Schedule

This section should include the Technical Infrastructure Schedule from Appendix C Cost Proposal Schedules and the Recommended Architecture Cost Summary described in Appendix E Application Architecture Questionnaire.

Vendors should separately identify the cost of hosting the ERP development environment through three months after the Go-Live of Phase 1.

Vendors should also describe each cost component and provide the cost of acquiring for the State the necessary hardware and services to establish the ERP production environment consistent with the Vendor's response in Technical Proposal Tab 8 - Vendor's Proposed Plan for Establishing the Technical Infrastructure. For the production environment, the vendor should provide the proposed cost of the production environment if the State pays for this environment in annual increments over the life of the contract beginning with the time of acceptance of the technical infrastructure by the State. The Vendor should also reflect the cost that the State would pay for the production environment at the time of acceptance of the technical infrastructure by the State. The vendor’s proposed annualized cost for the production environment will be utilized for the purposes of evaluation of the cost proposals. If the vendor is proposing to provide disaster recovery services through one year following the Go-Live of Phase 4 versus procuring the required hardware for the hot site environment on behalf of the State, it should present the cost of these disaster recovery services on an annualized basis.

Vendors should also describe the costs associated with providing the Production Support Services and operational support services described in Appendices K and L.

3.3.2.15 TAB 11 - Software Licensed Products Schedule

This section should include the Software Licensed Products Schedule from Appendix C Cost Proposal Schedules. Vendors should describe the software being proposed as part of the solution. Additionally, the optional Student Modules would be reflected in this schedule if available along with any other optional software that the Vendor recommends for the State to enhance the implementation or operation of the ERP system.

3.3.2.16 TAB 12 - Upgrade Schedule

The Upgrade Schedule should be completed and attached behind this tab. It should provide sufficient detail to identify the software products that are expected to be upgraded as part of this effort.

3.4. Proposal Submission

Proposals must be received in **two distinct parts**: technical and cost.

- **Technical proposals** must not contain any cost information relating to the project.
- **Cost proposal** shall be sealed in a separate envelope and will not be opened initially.

All proposals must be submitted to the Purchasing Division **prior** to the date and time stipulated in the RFP as the opening date. All bids will be dated and time stamped to verify official time and date of receipt.

3.4.1 Vendors Should Allow Sufficient Time for Delivery

In accordance with ***West Virginia Code*** §5A-3-11, the Purchasing Division cannot waive or excuse late receipt of a proposal, which is delayed or late for any reason. Any proposal received after the bid opening date and time will be immediately disqualified in accordance with State law.

Vendors responding to this RFP shall submit:

One original technical and cost proposal plus 5 convenience copies and 2 convenience copies of each on CDs should be delivered to:

Purchasing Division
2019 Washington Street, East
P.O. Box 50130
Charleston, WV 25305-0130

The electronic versions of the technical and cost proposal should be provided on CD, and placed in the front cover sleeve of the paper original of the respective technical and cost proposals. The CDs should include the proposal in both PDF format and in the appropriate Microsoft Office 2007 format. Cost schedules should be provided in Microsoft Office 2007® format, and project plans should be provided in Microsoft Project 2007® format. The CDs should be labeled as provided below. Separate CDs should be used for the Technical and Cost Proposals. Vendors should not include cost information on the CDs that contain the Technical Proposal.

The outside of the envelope or package(s) and the CD labels for both the technical and the cost proposals should be clearly marked as either "Technical Proposal" or "Cost Proposal" and include the following information:

Vendor: _____
Buyer: **Krista Ferrell**
Req #: **FAR226005**
Opening Date: **Wednesday, March 23, 2011**
Opening Time: **1:30 p.m.**

3.5. Purchasing Affidavit

West Virginia Code **§5A-3-10a** requires that all bidders submit an affidavit regarding any

debt owed to the State. The affidavit must be signed and submitted prior to award. It is preferred that the affidavit be submitted with the proposal.

3.6. Resident Vendor Preference

In accordance with ***West Virginia Code*** §5A-3-37, Vendors may make application for Resident Vendor Preference. Said application must be made on the attached Resident Vendor Certification form at the time of proposal submission.

3.7. Technical Bid Opening

The Purchasing Division will open and announce only the technical proposals received prior to the date and time specified in the Request for Proposal. The technical proposals shall then be provided to the evaluation committee.

3.8. Cost Bid Opening

The Purchasing Division shall schedule a date and time to publicly open and announce cost proposals once the evaluation committee has completed the technical evaluation and it has been approved by the Purchasing Division.

3.9. Functional and System-wide Requirements Submission

The State has contracted with Advantiv Solutions, LLC for the use of DecisionDirector® RFP Response Management System (DD2), a secure, web-based team collaboration system to assist Vendors in responding to the Functional and System-Wide Requirements.

Vendors **shall** utilize DD2 to complete and respond to the State's Functional, Technical, and General Requirements. Functional and System-wide Requirements for this RFP have been uploaded into DD2, Vendor responses to these requirements should be collected and processed via DD2. **Vendors who fail to respond to the requirements via DD2 or who fail to provide, as part of their RFP submission, a printed copy of their DD2 responses along with a statement certifying that printed copy matches their responses in DD2, will be disqualified.**

Each Vendor will be required to contact Advantiv and request their secure, on-line response environment within the DD2 system. Advantiv will be available to provide technical support regarding the use of the DD2 system. **ALL OTHER INQUIRIES RELATED TO THE RFP MUST BE DIRECTED TO THE OFFICIAL STATE POINT OF CONTACT PROVIDED IN SECTION 1.5 - INQUIRIES.** Refer to Appendix M - Functional and System-wide Requirements for additional information.

3.10. Discussion and Final Offer

The State anticipates that it may conduct discussions with, and obtain best and final offers (BAFO) from, responsive and responsible bidders who submit proposals determined to be reasonably susceptible of being selected for award for the purpose of clarification to assure full understanding of, and responsiveness to, the solicitation requirements in accordance with **West Virginia Code, §5A-3-11b**. The State, at its sole discretion and as deemed to be in the best interest of the State, may provide clarification in the request for BAFO regarding the anticipated scope of the project as described in the RFP and instruct Vendors to adjust their technical proposal and cost proposal accordingly to reflect the clarification provided by the State. If deemed appropriate, the State reserves the right to

adjust the point allocations for the BAFO Technical Proposal and Cost Proposal evaluation as provided in Section 4.2 Evaluation Criteria to reflect the scope clarification.

SECTION FOUR: EVALUATION AND AWARD

4.1. Evaluation Process

Proposals will be evaluated by a committee of three (3) or more individuals against the established criteria with points deducted for deficiencies. The Vendor who demonstrates that they meet all of the mandatory specifications required; and has appropriately presented within their written response, software demonstration, and Vendor presentation and oral interview their understanding in meeting the goals and objectives of the project; and attains the highest overall point score of all Vendors shall be awarded the contract. The selection of the Vendor will be made by a consensus of the evaluation committee.

4.2. Evaluation Criteria

All evaluation criteria is defined in the specifications section and based on a 1,000 point total score. Cost shall represent a minimum of 300 of the 1,000 total points.

The following are the evaluation factors and maximum points possible for technical point scores:

A. Technical Proposal	**700 Points Possible**
a) Vendor Qualifications and References	70
b) Vendor Team Experience	105
c) Vendor Approach and Methodology	175
d) Vendor Presentation and Oral Interview	70
e) Software Requirements Functionality and Fit	175
f) Software Demonstrations	105

The following are the evaluation factors and maximum points possible for cost point scores:

B. Cost Proposal	**300 Points Possible**
Total Points	**1,000 Points Possible**

Each cost proposal cost will be scored by use of the following formula for all Vendors who attained the minimum acceptable score:

$$\frac{\textbf{Lowest price of all proposal}}{\textbf{Price of Proposal being evaluated}} \textbf{ X 300 = Price Score}$$

4.2.1 Technical Evaluation

The evaluation committee will review the technical proposals, deduct points where appropriate, and make a final written recommendation to the Purchasing Division. For the Software Fit and Functionality evaluation, DD2 will be utilized to assist in the scoring of each Functional Requirement response and to compile the total score for all Functional Requirement responses. The DD2 information will then be utilized by the evaluation committee to complete its evaluation and deduct points where appropriate.

4.2.2 Minimum Acceptable Score

Vendors must score a minimum of 70% (490 points) of the total technical points possible. All Vendors not attaining the minimum acceptable score (MAS) shall be disqualified and removed from further consideration.

4.2.3 Cost Evaluation

The evaluation committee will review the cost proposals, assign appropriate points, and make a final recommendation to the Purchasing Division.

4.3. Independent Price Determination

A proposal will not be considered for award if the price in the proposal was not arrived at independently without collusion, consultation, communication, or agreement as to any matter relating to prices with any competitor unless the proposal is submitted as a joint venture.

4.4. Rejection of Proposals

The State reserves the right to accept or reject any or all proposals, in part or in whole at its discretion. The State further reserves the right to withdraw this RFP at any time and for any reason. Submission of or receipt of proposals by the State confers no rights upon the bidder nor obligates the State in any manner.

4.5. Vendor Registration

Vendors participating in this process should complete and file a Vendor Registration and Disclosure Statement (Form WV-1) and remit the registration fee. Vendor is not required to be a registered Vendor in order to submit a proposal, but the **successful bidder must** register and pay the fee prior to the award of an actual purchase order or contract.

SECTION FIVE: CONTRACT TERMS AND CONDITIONS

5.1. Contract Provisions

The RFP and the Vendor's response will be incorporated into the contract by reference. The order of precedence shall be the contract, the RFP and any addendum, and the Vendor's proposal in response to the RFP.

5.2. Public Record

All documents submitted to the State Purchasing Division related to purchase orders or contracts are considered public records. All bids, proposals, or offers submitted by Vendors shall become public information and are available for inspection during normal official business hours in the Purchasing Division Records and Distribution center after the bid opening.

5.2.1 Risk of Disclosure

The only exemptions to disclosure of information are listed in ***West Virginia Code*** §29B-1-4. Any information considered a trade secret must be separated from the Vendor submission and clearly labeled as such in the original technical proposal only. The courtesy copies should not have the trade secret information separated. Primarily, only trade secrets, as submitted by a bidder, are exempt from public disclosure. The submission of any information to the State by a Vendor puts the risk of disclosure on the Vendor. The State does not guarantee non-disclosure of any information to the public.

5.2.2 Written Release of Information

All public information may be released with or without a Freedom of Information request; however, only a written request will be acted upon with duplication fees paid in advance. Duplication fees shall apply to all requests for copies of any document. Currently, the fees are 50 cents per page, or a minimum of $10.00 per request, whichever is greater.

5.3. Conflict of Interest

Vendor affirms that neither it nor its representatives have any interest nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the State.

5.4. Vendor Relationship

The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents.

Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this RFP and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever.

Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and

Social Security obligations, licensing fees, *et cetera* and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

The Vendor shall not assign, convey, transfer, or delegate any of its responsibilities and obligations under this contract to any person, corporation, partnership, association, or entity without expressed written consent of the State.

5.4.1 Subcontracts/Joint Ventures

The Vendor may, with the prior written consent of the State, enter into subcontracts for performance of work under this contract. Joint ventures are not allowed.

5.4.2 Indemnification

The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the contract in a manner not authorized by the contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage laws.

5.4.3 Limitation of Liability

The Vendor's liability to the State, and its indemnification of the State for any acts or omissions attributable to the Vendor under this contract resulting from this RFP, shall be limited to two (2) times the value of this contract. This limitation applies to all causes of action, including without limitation, breach of contract, breach of warranty, negligent acts, but specifically shall not apply to criminal acts, intentional torts or fraudulent conduct of the Vendor. The State will not indemnify the Vendor for damages caused by the Vendor's own actions or negligence, or those of third parties.

5.4.4 Governing Law

This contract shall be governed by the laws of the State of West Virginia. The Vendor further agrees to comply with the Civil Rights Act of 1964 and all other applicable laws and regulations as provided by Federal, State, and local governments.

5.5. Term of Contract and Renewals

This contract will be effective upon award and shall extend for the period of five (5) years, at which time the contract may, upon mutual consent, be renewed. Such renewals are for a period of up to one (1) year, with a maximum of three (3) one-year renewals, or until such reasonable time thereafter as is necessary to obtain a new contract. The “reasonable time” period shall not exceed twelve (12) months. During the “reasonable time” period Vendor may terminate the contract for any reason upon giving the State ninety (90) days written notice. Notice by Vendor of intent to terminate will not relieve Vendor of the obligation to continue providing services pursuant to the terms of the contract.

5.6. Non-Appropriation of Funds

If funds are not appropriated in any succeeding fiscal year for the continued use of the services covered by this contract, the State may terminate the contract at the end of the affected current fiscal period without further charge or penalty. The State shall give the Vendor written notice of such non-appropriation of funds as soon as possible. No penalty shall accrue to the State in the event this provision is exercised.

5.7. Changes

If changes to the contract become necessary, a formal contract change order will be negotiated by the State and the Vendor.

As soon as possible, but not to surpass thirty (30) days after receipt of a written change request from the State, the Vendor shall determine if there is an impact on price with the change requested and provide the State a written Statement identifying any price impact on the contract. The Vendor shall provide a description of any price change associated with the implementation.

NO CHANGE SHALL BE IMPLEMENTED BY THE VENDOR UNTIL SUCH TIME AS THE VENDOR RECEIVES AN APPROVED WRITTEN CHANGE ORDER FROM THE PURCHASING DIVISION.

5.8. Price Quotations

The price(s) quoted in the Vendor's proposal will not be subject to any increase and will be considered firm for the life of the contract unless specific provisions have been provided in the original specifications.

5.9. Invoices and Progress Payments

The Vendor shall submit invoices, in arrears, to the State at the address on the face of the purchase order labeled "Invoice To." Payments shall be made in accordance with the terms of the Payment Schedule subject to the retainage holdback. Consistent with the provisions of section 5.9.1 below, fifteen percent (15%) of each invoice for implementation services shall be withheld by the State as retainage.

5.9.1 Retainage

In lieu of a Performance Bond, an amount representing fifteen percent (15%) of the contract resulting from this RFP for implementation services shall be withheld by the State. For retainage purposes, implementation services excludes software licensing and maintenance payments, costs for hardware purchased for the State by the Vendor, and costs related to infrastructure support for the production ERP system. Upon formal acceptance by the State of each implementation phase, the State will release one-third (1/3) of the fifteen percent (15%) retainage related to that phase. Within 60 days of final State approval of all implementation services performed by the Vendor and formal acceptance of the production ERP system, the State will release the remaining retainage.

5.10. Contract Termination

The State may terminate any contract resulting from this RFP immediately at any time the Vendor fails to carry out its responsibilities or to make substantial progress under the terms of this RFP and resulting contract. The State shall provide the Vendor with advance notice of performance conditions which may endanger the contract's continuation. If after

such notice the Vendor fails to remedy the conditions within the established timeframe, the State shall order the Vendor to cease and desist any and all work immediately. The State shall be obligated only for services rendered and accepted prior to the date of the notice of termination.

The contract may be terminated by the State with thirty (30) days prior notice pursuant to ***West Virginia Code of State Rules § 148-1-7.16.2.***

5.11. Special Terms and Conditions:

5.11.1 Insurance Requirements

The following requirements shall be adhered to by the Vendor throughout the duration of the Contract, and as may otherwise specified herein. Vendor shall procure and maintain insurance, which shall protect the Vendor and the State from any claims for bodily injury, property damage, and/or personal injury, which may arise out of operations under the control of the Vendor. Vendor shall procure the insurance policies at the Vendor's own expense and shall furnish the State an insurance certificate of the coverage required by this section. Vendor is expected to obtain and maintain the following types of insurance coverage for the duration of the Contract:

Insurance / Limits of Liability:

5.11.1.1 Workers' Compensation

Must meet the statutory requirements of West Virginia Code section 23.

5.11.1.2 Unemployment Insurance

Must meet the statutory requirements of West Virginia Code, Section 21A and the federal Social Security Act of 1935, as amended.

5.11.1.3 Commercial General Liability Insurance

Minimum limits of coverage shall be $1,000,000 per person and $2,000,000 per occurrence for personal and bodily injury and $500,000 for property damages.

5.11.1.4 Liability, Malpractice, and/or Errors and Omissions Insurance

The Vendor shall maintain malpractice and/or errors and omissions insurance in the amount of $2,000,000. Additionally, the Vendor shall maintain adequate business insurance to include an umbrella liability policy of $5,000,000 total. Coverage under these policies includes protection from the fraudulent conduct and breach of fiduciary responsibility of the contractor.

5.11.1.5 Proof of Coverage and Changes in Coverage

Vendor must submit within ten (10) calendar days after notification of intent to award, the original or a certified true copy of insurance certificates confirming coverage as stipulated above. If this information is not provided within this time frame, the State, at its option, may set aside the award. All insurance costs must be exclusive of legal costs.

New insurance shall be promptly furnished in the event of insolvency, bankruptcy, or failure of any insurance company. The Vendor shall notify the State thirty (30) days in advance of cancellation, termination, or alteration of insurance policies required by the State. A renewal policy or certificate shall be delivered to the State at least thirty (30) days prior to the expiration date of each expiring policy. If at any time any of the policies

shall become unsatisfactory to the State as to form or substance, or any of the carriers issuing such policies shall be or become unsatisfactory to the State, the Vendor shall promptly obtain a new and satisfactory policy in replacement. If determined necessary by the State's Representative/Contract Administrator, the Vendor shall deliver upon demand a certified copy of any policy required herein for review.

Insurance certificates must be submitted and accepted by the State prior to the commencement of work under this RFP and accompanying contract. Failure to obtain insurance satisfactory to the State will result in the rescission of any Notice of Award to the Vendor. Any contract awarded shall be void if this requirement is not met.

5.11.1.6 Protest Bond

Any bidder that files a protest of an award shall at the time of filing the protest submit a protest bond in the amount equal to one percent of the lowest bid submitted or $5,000, whichever is greater.

The entire amount of the bond shall be forfeited if the hearing officer determines that the protest was filed for frivolous or improper purpose, including but not limited to the purpose of harassing, causing unnecessary delay, or needless expense for the State. All protest bonds shall be made payable to the Purchasing Division and shall be signed by the protester and the surety. In lieu of a bond, the protester may submit a cashier's check or bank money order payable to the Purchasing Division. The money will be held in trust in the State Treasurer's office.

If it is determined that the protest has not been filed for frivolous or improper purpose, the bond shall be returned in its entirety.

5.12. Record Retention (Access and Confidentiality)

Vendor shall comply with all applicable Federal and State rules, regulations, and requirements governing the maintenance of documentation to verify any cost of services or commodities rendered under this contract by the Vendor. The Vendor shall maintain such records a minimum of five (5) years and make such records available to State personnel at the Vendor's location during normal business hours upon written request by the State within ten (10) days after receipt of the request.

Vendor shall have access to private and confidential data maintained by the State to the extent required for the Vendor to carry out the duties and responsibilities defined in this contract. Vendor agrees to maintain confidentiality and security of the data made available and shall indemnify and hold harmless the State and the Agency against any and all claims brought by any party attributed to actions of breach of confidentiality by the Vendor, subcontractors, or individuals permitted access by the Vendor.

APPENDICES:

Appendix A - Vendor's Response Sheet

Appendix B - Mandatory Specification Checklist

Appendix C - Cost Schedules

Appendix D - Sample Payments Schedule

Appendix E - Application Architecture Questionnaire

Appendix F - Glossary of Terms, Abbreviations, and Acronyms

Appendix G - Inventory of State Applications

Appendix H - Inventory of WVDOT Applications

Appendix I - Data Conversion

Appendix J - Interfaces

Appendix K - ERP System Production Support

Appendix L - ERP System Operations Environment

Appendix M - Functional and System-wide Requirements

Appendix A - Vendor Response Sheet

The Project Goals and Objectives contained in Section 2.4 are provided below. Vendors must respond to each section below describing how they will comply with each. The completed Vendor Response Sheet should be inserted in TAB 9 of the Technical Section in accordance with Section 3.3.1.12 Project Goals and Objectives.

2.4.1 Implement a Statewide ERP System

Implement an integrated and highly efficient ERP system that meets the current and future needs of the State of West Virginia by:

- Replacing multiple outdated, stand-alone systems with a single, integrated ERP system;
- Incorporating business process improvements as appropriate, to increase the efficiency of managing State resources;
- Enhancing security;
- Eliminating administrative activities that do not add value, such as redundant keying and reconciliation of disparate systems; and
- Ensuring transparency with appropriate controls.

Vendor Response:

2.4.2 Facilitate Standardization

Implement the ERP system in a manner that supports Statewide standardization of data and business processes by:

- Standardizing business processes and practices across the State organizations that are within scope to conform to State statutes, State code, and Statewide policies and procedures; and
- Addressing the business requirements of the operating agencies, both large and small, as well as those of the central administrative agencies/offices.

Vendor Response:

2.4.3 Facilitate Timely Access to Information

Capture ERP system information and make it readily accessible, as appropriate, to State decision-makers, managers, workers and employees, vendors and customers of the State by:

- Creating a business intelligence data warehouse with effective reporting tools and predefined reports;

- Providing agencies, and specifically system users and business managers, with the necessary technology, tools, and training to enable them to extract the data they require to meet their daily business needs;
- Making information more readily available, as appropriate, to all State agencies, local governments, the general public, and the business community;
- Improving the State's ability to conduct business, human resources (HR), and technology planning based on reliable, timely financial and human resources data;
- Providing employees and fiduciaries with direct access, as appropriate, to personnel, payroll, time and attendance, and benefit information;
- Improving the State's ability to manage its resources by integrating funding, employee, location, equipment, and authorization information;
- Improving the State's ability to budget and measure program success based on performance metrics; and
- Enabling the State to more efficiently conduct business with its vendors and service providers through expansion of electronic commerce.

Vendor Response:

Appendix B - Mandatory Specification Checklist

The mandatory specifications contained in Section 2.5 are provided below. Vendors must respond to each mandatory requirement describing how they will comply with each and complete the required certification. The completed Mandatory Specification Checklist and certification should be inserted in the Technical Proposal behind TAB 1 - Executive Summary.

2.5.1 Single Vendor to Execute the Contract

The State is seeking a single Vendor that shall be responsible for providing both a complete software solution and all requested services required for a successful implementation, plus production support. The Vendor may team with multiple firms in its proposal but there shall be a single Vendor that will execute the Contract expected to result from this RFP and will coordinate, integrate, and be accountable for all products and services proposed. This excludes an arrangement between Vendors of joint venturing or joint response to this proposal as such arrangements will not be allowed. This restriction does not prohibit multiple Vendors from proposing the same subcontractor or software as a part of their proposals.

Vendor Response:

2.5.2 Demonstrated Implementation Services Experience

The Vendor must have completed by the Bid Opening Date, as the primary provider of implementation services, a State or local government implementation of an enterprise resource planning system for an organization with total annual expenditures (including State and federal appropriations) of at least $8 billion and with at least 20,000 head count employees. The software that was implemented during this engagement should currently be in use by that client. The purpose of this requirement is to ensure that Vendors possess the experience, knowledge, and lessons learned associated with large public sector ERP implementations that include multiple agencies / departments having multiple locations/offices.

Vendor Response:

2.5.3 Demonstrated ERP Software Provider Experience

The proposed ERP software must be currently in production in a public sector environment which includes, a city, county, or State government, or a public or private institution of higher education, with a total annual budget of at least $8 billion and with at least 20,000 head count employees. This requirement relates to the proposed ERP software and not to third party software included in the proposal.

Vendor Response:

I certify that the proposal submitted meets or exceeds all the mandatory specifications of this RFP. Additionally, I agree to provide any additional documentation deemed necessary by the State of West Virginia to demonstrate compliance with said mandatory specifications.

_____
(Company)

_____
(Representative Name, Title)

_____
(Contact Phone/Fax Number)

_____
(Date)

Appendix C - Cost Schedules

Cost information below as detailed in the RFP and submitted in a separate sealed envelope. Cost should be clearly marked. If applicable, sign and submit the attached Resident Vendor Preference Certificate with the proposal. The Cost Schedules are attached as a separate Excel file.

Appendix D - Sample Payment Schedule

Vendors should prepare and submit a Sample Payment Schedule as part of their Cost Proposal.

This section should be submitted in the Cost Proposal behind TAB 3 - Deliverables-Based Payment Schedule. The Sample Payment Schedule should follow the Vendor's implementation methodology and include all significant deliverables to be provided to the State including the deliverables listed in Section 2.10 - Services to be Provided. The Sample Payment Schedule should be consistent with the Vendor's proposed phasing and project work plan. The State is prohibited from making advance payments so the Sample Payment Schedule should be reflective of the goods or services received.

The Sample Payment Schedule should reflect fifteen percent (15%) retainage for the services specified in RFP Section 5.9.1. In addition, at least ten percent (10%) of the payments for each phase of the ERP implementation should be associated with the final acceptance by the State for that phase of work. For purposes of the Sample Payment Schedule, a Project Phase refers the ERP software phasing proposed by the Vendor and a Segment refers to a defined set of related work activities and deliverables under the Vendor's implementation methodology (i.e., Project Planning, Design or Blueprint, etc.). The Vendor may use the same format for other goods and services requested in the RFP in which case a phase may refer to categories such as software, software maintenance, etc.

The Sample Payment Schedule should address all goods and services included in the RFP. For purposes of the Sample Payment Schedule, Vendors should separate the various goods and services requested in the RFP, such as: implementation services, upgrade services, software, software maintenance, providing an initial development and test environment, establishing the development and production environment infrastructure, and providing production and operations environment services.

A format reflecting the categories that the State would expect to see on the Sample Payment Schedule. Vendors may suggest additional categories if appropriate.

Exhibit 29: Sample Payment Schedule

Project Phase & Segment	Payment Number	Deliverable ID	Name of Deliverable	Est. Month & Year of Payment	Gross Payment Amount	Gross Payment as a Percent of Phase Total	Less 15% Retainage (if applicable)	Net Payment Due

Appendix E - Application Architecture Questionnaire

Vendors are expected to complete the following questionnaire and include it in TAB 11 - Technical Architecture Questionnaire the Technical Proposal. Attach additional pages as required.

Part 1 – Architecture

Q1. Please describe the hardware platforms, operating systems, and databases that the proposed product supports. If there are benchmarks or performance statistics, please provide those as well. In addition (but not required), feel free to attach a matrix of operating system / database statistics to describe performance if that presentation better portrays the information requested. Under "Recommended Ranking" please rank in numerical order the solution that you feel best fits the needs of the State of West Virginia.

RANKING	***SUPPORTED***	***EXPERIENCE (1= LOW, 4= HIGH)***	***BENCHMARK***	***RECOMMENDED (Highest = 1)***
Platforms				
Xeon/Opteron	Y☐ N☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐
Sparc/UltraSparc	Y☐ N☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐
IBM Z Series	Y☐ N☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐
IBM Power Series	Y☐ N☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐
IBM AS/400	Y☐ N☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐
Intel Itanium	Y☐ N☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐
Other _____		1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐

Operating Systems Versions	***SUPPORTED***	***BIT***	***EXPERIENCE (1= LOW, 4= HIGH)***	***BENCHMARK***	***RECOMMENDED RANKING (Highest = 1)***
AIX 7.1	Y☐ N☐	32☐ 64☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐
Solaris 10 or 11	Y☐ N☐	32☐ 64☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐
LINUX _____	Y☐ N☐	32☐ 64☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐
Windows 2008	Y☐ N☐	32☐ 64☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐
IBM i 7.1	Y☐ N☐	32☐ 64☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐
HP-UX 11i	Y☐ N☐	32☐ 64☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐
Other _____		32☐ 64☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐
_____		32☐ 64☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐

Database Versions	***SUPPORTED***	***EXPERIENCE (1= LOW, 4= HIGH)***	***BENCHMARK***	***RECOMMENDED RANKING (Highest = 1)***
Oracle 11g	Y☐ N☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐
SQL Server 2008	Y☐ N☐	1☐ 2☐ 3☐ 4☐	Y☐ N☐	☐

Q2. Describe the operational hardware and software components for the solution that you feel best fits the needs of the State of West Virginia. Describe the software components that comprise the framework of the application. What is the technology and architecture that supports these components (J2EE, .NET)? What components are

expected on the web client in order to complete the user interface? What types and levels of browsers are supported, and with what desktop operating systems? What scheduling package options are expected to run the application? The descriptions should include the purpose of each architectural component and the recommended model number or version number.

Q3. The State intends to maintain a data warehouse to support financial, treasury, procurement, human resources and other data maintained in the ERP. What approach is used to address this need and what are the data warehousing options that can be delivered with the baseline product? Describe the data warehouse and business intelligence options including requirements for any additional components. For each option, provide an explanation as to what types of reporting and analysis would be provided by the production system versus the data warehouse.

Q4. Provide a matrix of the recommended number of units or licenses required for each component listed in response to questions two (2) and three (3). Include the cost per unit, the total costs of providing each component and the total cost of the solution. Indicate in the description the type of licensing arrangement if applicable (e.g. named user, server, CPU, etc.) and describe how any licensing for third party components is addressed. Costing should include the initial cost of procurement, and the estimated annual cost ownership for the next ten (10) years including maintenance agreements, upgrades, replacements, etc. No cost information may be included in the Technical Proposal, so the Recommended Architecture Cost Summary should be inserted in TAB 10 - ERP Operations Environment Costs of the Cost Proposal.

Following is an example of the matrix to be provided:

Exhibit 30: Recommended Architecture Cost Summary

Component Description	Unit Cost	# Units	Initial Cost	Yr 1 Cost	Yr 2 Cost	*etc.*	Yr 10 Cost	Total Cost
Component 1								
Component 2								
etc.								
Total								

Part 2 – Configuration and Maintenance

Q1 Provide an architectural diagram depicting the relationships between the components and the levels of support required to address the following:

- Options and recommended configuration for failover, availability, scalability, and reliability;
- The scalability of the recommendation (include hardware scalability, largest number of users, and software scalability in your answer);
- Internal development environment specification and any other tools required to maintain the solution (include any additional hardware, software, monitoring tools, tuning tools, version control, etc.);
- The recommended production staffing (include number and type of support personnel, skills needed, and contracted support needed); and

- The ability to capture and track usage of the configuration in support of billing allocations.

Q2. For the architecture described above, please provide the recommended number of test applications required to support each stage of the project from initial start up through transition and post production support for example, development, system test, training, conversion, stress test etc. For each test application, provide a matrix of the recommended number of units or licenses required for each component, the cost per unit and the total costs of providing each test application.

Part 3 – Integration and Interfaces

Q1. What integration tool(s) and technologies are provided (Messaging, WS* Services, etc.)?

Q2. Describe any communication (e.g., ODBC) and data (e.g., XML, EDI) standards that are supported for the proposed product to interface with outside organizations / providers.

Q3. What interfaces to other systems may be required, desired, or optional?

Q4. What data integration tools are provided to support conversions, interfaces and the transformation of data into the warehouse? What meta data repositories, data structure mapping, data scrubbing or other data integration services do these tools provide? Clearly articulate the plan to migrate the State's data including any methodologies that could be used to convert legacy historical data into the data warehouse.

Q5. What email products (e.g., MS Outlook®) is the proposed software certified to support, especially for workflow?

Q6. What integration does the proposed software provide to desktop productivity software applications (e.g., word processing, spreadsheets)?

Q7. What is the proposed EAI middleware / SOA approach to data integration?

Part 4 – Additional Questions

Customizations and Future Upgrades:

Q1. Describe the recommended approach to customizations required to meet the State's functional requirements and how those customizations would be addressed in future upgrades/releases.

Q2. Describe the recommended methodology for developing and migrating customizations from development through to production.

Q3. Are future component enhancements / expansions planned? If so, please describe.

Q4. What is the expected schedule for release of new versions and upgrades? Are there additional costs for these releases beyond any proposed maintenance fees?

Report Development

Q1. What reporting tools, if any, are provided with the ERP application product? If applicable, how many licenses of each reporting tool are provided with the ERP application product?

Q2. What reporting tools, if any, are provided with the data warehouse functionality? If applicable, how many licenses of each reporting tool are provided with the data warehouse functionality?

Q3. What reporting tools are supported (e.g., Crystal Reports)?

Q4. How do the proposed reporting tools leverage application security for data filtering?

Q5 Describe any additional features of the print & delivery architecture such as the ability to format and distribute data via fax, email, CD, DVD, Web, PDA, Blackberry, iPhone, etc.

Data

Q1. How is historical data addressed?

Q2. How is archiving / purging of historical data addressed in the application?

Security

Q1. How is security addressed in the proposed product (include menu and screen access, individual, role, or group-based access, database vs. application access control, and standard security reports)?

Q2. How does the product support integration of authentication (single sign-on) and authorization (role-based)?

Q3. Does the product allow for decentralized / segmented security administration?

Q4. Describe the product's access audit capabilities.

Miscellaneous

Q1. Describe the application's document management integration capabilities.

Q2. Describe the support for help desk deployment – knowledge base, specialized training, computer-based training (CBT), etc.

Q3. Describe the recommended plan for training technical staff.

Q4. Is the proposed product based on a service-oriented architecture? If not, are there published plans to migrate the proposed product to the service-oriented architecture? If so, please describe such plans in detail.

Q5. Describe proposed product's compliance with ADA Section 508 as well as any other accessibility initiatives. Please confirm the ERP software product's compliance with these guidelines, or note exceptions.

Appendix F - Glossary of Terms, Abbreviations, and Acronyms

ABCA – Alcohol and Beverage Control Administration.

ACES – Application, Claiming, and Evaluation System utilized by Department of Education.

ACH – Automated Clearing House.

Administrative – Work activities relating to planning, organizing, directing, controlling, supervising and budgeting of agency or unit operation, programs and mission.

Agency - For the purpose of this RFP, *agency* means any agency, department, authority, board, division, institution, spending unit or office of the State of West Virginia.

Allotment - An agency's plan of estimated expenditures each year. This is a budgetary control administratively established by the State that divides appropriations into quarterly or monthly allotments for purposes of cash management.

Appropriation - Authorization by the legislature to spend money from the State treasury for purposes established in law. Appropriations typically limit expenditures to a specific amount and purpose within a fiscal year.

ARAN – Automatic Road Analyzer allows Department of Transportation staff to view video logs on paved roadways at scheduled intervals.

ARI – Automotive Resources International is a third party fleet management firm used by the Department of Administration.

ARRA – American Recovery and Reinvestment Act.

ASAP – Automated Standard Application for Payments.

ASG – Allen Systems Group.

ASSHTO SiteManager – American Association of State Highway and Transportation Officials' construction management system.

BA – Benefits Administration.

BAFO – Best And Final Offer.

Banner® – Collegiate administrative software used by the majority of the State's Higher Education Institutes for student administration, finance and human resource information.

BAS – Benefits Administration System which is a custom developed system managed by the Public Employee Insurance Agency.

BES – Base ERP System – Vendor response option in DD2.

Best Value Procurement - Purchasing methods used in awarding a contract based on evaluating and comparing all established quality criteria where cost is not the sole determining factor in the award. This includes Request for Proposals (RFP), Life Cost Cycle (LCC), and Expression of Interest (EOI).

BI – Business Intelligence.

Bid - A competitive offer made by a seller.

Bid Opening - A firmly established date and time for the public opening of responses to a solicitation.

BRIM – Board of Risk and Insurance Management.

BTI – Board of Treasury Investment.

Buyer - An employee of the Purchasing Division whose primary assignment is purchasing commodities or services on behalf of the State.

CAD – Computer Aided Design.

CAFR - Comprehensive Annual Financial Reports.

Capital Outlay - Expenditures which result in the acquisition of or addition to major fixed assets (e.g., land, buildings, and equipment related to construction).

CAPS – Client Authorization Payment System utilized for case services by Rehabilitation.

CBT – Computer-based training.

CCB – Change Control Board will be responsible for approving or rejecting recommended changes to the project scope.

CCS – Cash Concentration System used by the Treasurer's Office.

CDs – Compact Discs.

Change Order - A document which is used when it becomes necessary to amend, clarify, change or cancel purchasing documents issued by the Purchasing Division.

Check DW – Check Data Warehouse contains check information along with the corresponding accounting data.

CICS – Customer Information Control System is a system designed for high volume, online processing.

CM – Cannot meet – Vendor response option in DD2.

CMA – Customization – Major – Vendor response option in DD2.

CME – Customization – Medium – Vendor response option in DD2.

CMI – Customization – Minor – Vendor response option in DD2.

CMIA – Cash Management Improvement Act.

COA – Chart Of Accounts.

COBOL – Common Business Oriented Language programming language.

COBRA – Consolidated Omnibus Budget Reconciliation Act.

Commitment – Pre-encumbrance.

Competitive Bidding - The process by which individuals or firms compete for an opportunity to supply specified commodities and services by submitting an offer in response to a solicitation.

Configuration - Process of tailoring the software or setting parameters to meet the needs of the State. Configuration does not include writing code, utilizing user exits, altering programs, or developing reports or queries.

COTS – Commercial off-the-shelf.

CPI – U.S. Consumer Price Index.

CPRB – Consolidated Pension Retirement Board.

CRM – Customer Relationship Management.

DB2 UDB – IBM Universal Database.

DD2 - DecisionDirector®. The software solution from Advantiv Solutions LLC that Vendors must use to complete and respond to the State's Functional and System-wide Requirements as directed in the RFP.

DED – Data Element Dictionary.

Defect - A non-conformance of an item with specified requirements.

Delivery - With respect to instruments, documents of title, chattel paper or securities means voluntary transfer of possession.

Delivery Schedule - The required or agreed time, or rate, or delivery of goods or services.

DEP – Department of Environmental Protection.

Descriptive or Marketing Literature - Information, such as charts, illustrations, drawings, and brochures which show the characteristics or construction of a product or explain its operation, furnished by a bidder as a part of his/her bid to describe the products proposed in his bid. The term includes only information required to determine acceptability of the product, and excludes other information, such as that furnished in connection with the qualifications of a bidder for use in operating or maintaining equipment.

DHHR – Department of Health and Human Resources.

DMV – Division of Motor Vehicles under the Department of Transportation.

DOA - Department of Administration.

DOP - Division of Personnel; a division of the Department of Administration.

DOR – Department of Revenue.

EAI – Enterprise Application Interface.

eBIS – Electronic Banking Information System.

ECHO – Enforcement and Compliance History Online system utilized by U.S. Environmental Protection Agency.

eCom – Electronic Commerce system.

EDI - Electronic Data Interchange.

EEO – Equal Employment Opportunity.

EFT – Electronic funds transfer. Sometimes referred to as "Direct Deposit" in relation to the payroll system. A system used by the State Government which allows employees to have their paychecks deposited directly into their checking or savings account. Also a mechanism used to pay vendor invoices.

EIA – Enterprise Integration Application.

EIN – Employer Identification Number, used to identify an employer to a government unit.

Electronic Transmission – Any process of communication not directly involving the physical transfer of paper that is suitable for the retention, retrieval and reproduction of information by the recipient.

EMC Application Xtender – One of several document imaging systems being used by the State which will integrate with the ERP system.

EMC Documentum – One of several document imaging systems being used by the State which will integrate with the ERP system.

EMS – Emergency Medical System.

Encumbrance - The reservation of a portion or all of an appropriation in order to meet a legal obligation that is expected to be incurred to pay for goods or services received by the State or to pay a grant. It is generally created by a purchase order or contract. See also Pre-Encumbrance.

eNOD – electronic Notice of Deposit contains State employee payroll information.

EPICS - The State's payroll system managed by the State Auditor's Office.

Equipment - Personal property of a durable nature which retains its identity throughout its useful life.

ERDs – Entity- relationship diagrams.

ERP - Enterprise Resource Planning (System).

ESRI ArcGIA – Environmental Systems Research Institute Inc's enterprise GIS software licensed by West Virginia's Department of Transportation.

ETL – Extract, Transform, Load process

eTravel Management System – Includes all official government travel conducted on behalf of the State.

Evaluation of Bids - After the bid opening, the process of examining all offers in order to determine the bidder's responsibility, responsiveness to requirements, conformance to specifications and other characteristics important to the recommendation or selection for award.

FAHP – Federal-Aid Highway Program.

Fair Labor Standards Act (FLSA) – The Fair Labor Standards Act of 1938, as amended, established minimum wage, overtime pay and child standards for employment subject to its provisions.

Family and Medical Leave (FMLA) - An employee may continue their life insurance coverage while on Family Medical Leave up to 12 weeks. The employer would be responsible for paying the Basic coverage for the employee. The employee will be responsible while on FMLA for any additional coverage.

CAFR 2000 – Financial Accounting and Reporting System is used to develop financial statements.

FASPEND – Budget system maintained by the Budget Office in the Department of Revenue.

FEBIS – Financial Electronic Banking Information System.

Federal Funds - Funds received from federal government agencies for the support of programs at State and local levels. Federal funds are received by way of block grants, entitlement programs, and discretionary grants.

FHWA – Federal Highway Administration.

FI – Financial.

FICA – Federal Insurance Contributions Act provides for the withholding of social security tax.

FIFO – First In First Out.

Finance Division - A division of the Department of Administration.

Fiscal Year - A 12-month accounting period; in West Virginia, July 1 through June 30.

Fixed Assets - Reportable property with an acquisition cost of $1,000 or more and has a life of one (1) year or more.

FPEDS – Family Planning Program Electronic Data System utilized by Department of Health and Human Resources.

FRICE-W - Forms, Reports, Interfaces, Conversions, Enhancements, and Workflow. Typically used in reference to development work required for an ERP system.

FSA – Flexible Spending Accounts.

FTA – Federal Transit Authority.

FTE - Full-Time Equivalent.

FTP – File Transfer Protocol.

GAAP - Generally Accepted Accounting Principle(s).

GASB - Governmental Accounting Standards Board.

General Terms and Conditions - Standard clauses and requirements incorporated into all solicitations and resulting contracts which are derived from laws, or administrative procedures of the agency.

GIS – Geographic Information Systems.

Global Science and Technology's Audit Detail Imaging System (ADIS) – A custom application developed on Kofax document imaging software which is utilized by a number of Higher Education Institutes to scan accounts payable invoice documentation for transmission to the State Auditor's Office. This system is expected to integrate with the ERP system.

Grant - A grant is an award of financial assistance from a federal or state government or agency to a recipient to carry out a public purpose of support or stimulation authorized by a law.

Gross Pay – The total amount of wages, tips, and other compensation paid to an employee, before any dedications.

GSA – U.S. General Services Administration.

GTS – Grant Tracking System utilized by National Household Travel Survey.

GUI - Graphical User Interface.

HEAT – Help desk software solution from FrontRange Solutions for problem reporting utilized by General Service division.

HIPAA - Health Insurance Portability and Accountability Act.

HR - Human Resources.

HRIS - The HR Information System for agencies under the purview of the Division of Personnel.

HVAC – Heating, Ventilation, and Air Conditioning.

Hyland Software's OnBase - One of several document imaging systems being used by the State which will integrate with the ERP system.

IBM FileNet - One of several document imaging systems being used by the State which will integrate with the ERP system.

IEEE – Institute of Electrical and Electronics Engineers

IFL – Integrated Facility for Linux.

IGTs – Intergovernmental Transactions.

IMB – Investment Management Board.

INFOR – Work order tracking system utilized by General Services Division.

IRS – Internal Revenue Service.

ISO – International Organization for Standardization.

IS&T - Information Systems and Technology is a unit in the State Auditor's Office.

ITS – Information Technology Services is a division in the State Treasurer's Office.

JES – Job Entry System.

Kofax - One of several document imaging systems being used by the State which will integrate with the ERP system.

KPIs – Key program Indicators.

Lease - A written agreement between the owner of property (lessor) and a state agency (lessee) by which the owner agrees to give the agency permission to use the property for a predetermined fee (rental) for a period exceeding thirty (30) days. Title does not pass from the lessor to the lessee.

Lease Purchase - A written agreement in which the lease payments are applied, in whole or in part, as installment payments for equity or ownership upon completion of the agreement. Title transfers with the last installment payment to the lessee.

Life Cost Cycle - A Best Value Procurement tool that allows for the evaluation of the total or projected cost of a commodity over its life cycle, in addition to the initial purchase price, including operational expenses and other factors.

LOB – Line of Business used to denote Agencies' systems.

LTD – Long Term Disability.

Mandatory Terms - All terms and conditions in the written specification which are absolute and the compliance with cannot be waived. Failure to comply with mandatory terms shall require the Vendor to be disqualified. Mandatory terms are indicated by the use of the terms ***shall, will, must, maximum, minimum*** and ***is/are required***.

MARC – Maryland Area Regional Commuter is supported by the State Rail Authority.

MAS – Minimum Acceptable Score.

MCO – Managed Care Organizations.

Microsoft Office® - Microsoft Office® is a registered trademark of Microsoft Corporation and refers to standard software components including, but not limited to, Word®, Excel®, PowerPoint®, Outlook®, and Access®.

MIRE – Model Inventory of Roadway Elements.

MM – Mostly Meets – Vendor response option in DD2.

MMUC – Model Minimum Uniform Crash Criteria.

MR – Rating for Meets Requirements - Vendor response option in DD2.

MS – Microsoft.

NEMSIS – National Emergency Management Information System.

NEOGOV – Is a web-based applicant recruitment, tracking and processing system.

NHTS – National Household Travel Survey.

NHTSA – National Highway Traffic Safety Administration.

NIGP – National Institute of Governmental Purchasing.

NR – Provided in Next Release – Vendor response option in DD2.

ODBC – Open Database Connectivity.

Open standard - Commonly refers to a technology format, protocol, set of rules, set of specifications or interface standard that has been implemented by multiple vendors and/or has been generally accepted and used widely so that its availability is common.

OPIS – Oil Price Information System utilized by West Virginia Department of Transportation.

OT – Office of Technology which is a division of Department of Administration.

PAM – Princeton Asset Management system used by the Board of Treasury Investment to manage its investments.

PARS – Public Debt and Accounting Reporting System.

Pay Period – The period of service for which the employer pays wages to the employees. In State government, the period is semi-monthly.

PCAC – Purchasing Card Advisory Committee.

PCard - The State's purchase and payment card primarily managed by the State Auditor's Office.

PDF - Portable Document Format.

PEIA – Public Employees Insurance Agency offers insurance-related benefits to state employees, state retirees, and non-state participants.

Performance Measure - A quantitative or qualitative tool that is used to gauge progress toward attaining a program goal or objective.

PIMS - The State's Position Information Management System primarily managed by the State Budget Office.

PIMS DW - The State's Position Information Management System Data Warehouse.

PMBOK – Project Management Body of Knowledge.

PMI – Project Management Institute.

PMO – Project Management Office.

PMP – Project Management Professional.

PMS – Payment Management System.

PO – Purchase Order

PPA – Public Port Authority.

Pre-bid Conference - A meeting between Vendors and agency personnel which offers an opportunity to emphasize and clarify critical aspects of a solicitation, eliminates misunderstanding and permits Vendor input.

Pre-Encumbrance - The commitment of funds for an obligation that is expected to be incurred to pay for goods or services received by the State or to pay a grant. Generally used when the vendor and precise dollar amount is unknown. West Virginia uses the term 'commitment' for this type of reservation.

Primavera – Oracle project management software used by West Virginia Department of Transportation. The Primavera P6 Professional Project Management software is also in use by several Department of Administration offices, including WVOT.

Priority - The degree of precedence given to a particular requisition, order, or contract to obtain completion, delivery, or performance on a particular date at the expense, if necessary, of competing demands to the same supplier or facility.

Procurement - The process of obtaining goods or services, including all activities from the preparation and processing of a requisition, through receipt and approval of the final invoice for payment. The acts of preparing specifications, making the purchase, and administering the contracts involved.

Protest - A formal, written complaint filed by a vendor regarding specifications or an award made with the intention of receiving a remedial result.

PRS – Project Record System used by West Virginia Department of Transportation to manage construction.

Public Bid Opening - A formal process of publicly opening and examining bids, conducted at the time and the place specified in the RFP in the view of anyone who wishes to attend.

Purchase Order - A document issued by the Purchasing Division used to execute a purchase transaction with a vendor. It serves as notice to a vendor that an award has been made.

Purchasing Affidavit - A form required to be completed by all vendors prior to the award of a contract. In accordance with ***West Virginia Code***, **5A-3-10A**, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor is a debtor and the debt owed is an amount greater than $1,000 in the aggregate.

Purchasing Bulletin – An electronic publication posted weekly by the Purchasing Division on its website advertising purchases expected to exceed $25,000 for all agencies under the Purchasing Division's jurisdiction.

Purchasing Division - A division of the Department of Administration.

PY – Payroll.

QED System – Investment management system used by the State Treasury Office.

Quality Assurance - A planned and systematic series of actions considered necessary to provide adequate confidence that a product that has been purchased will perform satisfactorily in service.

RACF – Resource Access Control Facility.

RASPS- Rapid Approval and State Payment System used by FHWA and WVDOT.

Receiving Report - A form used by a receiving function to inform others, such as the purchasing and accounting departments, of the receipt of goods purchased.

REMIS - Remote Entry Management Information System; WVDOT's financial and administrative system.

Removable Property - Any personal property not permanently affixed to or forming a part of real estate.

Renewal -When an existing contract is renewed for an additional time period in accordance with the terms and conditions of the original contract.

RFP - Request for Proposal - A Best Value Procurement tool used to acquire professional and other services where the scope of work may not be well defined and cost is not the sole factor in determining the award.

ReqTrak – Requisition Tracking system used to supplement the tracking and workflow functionality of the State's purchasing system.

Requisition - A written or electronic request by an agency for the purchase of commodities and services. The requisition sets aside (pre-encumbers) an estimated dollar amount from the agency budget.

Resident Vendor Preference (RVP) - A numerical preference used during the evaluation of bids when comparing in-state and out-of-state bidders, pursuant to ***West Virginia Code* §5A-3-37**.

ROW – Right of Way.

RQ – Report or Query Tool – Vendor response option in DD2.

SAGA – State Agency Grant Award system utilized by Legislative Auditor's Office.

SAO - State Auditor's Office.

SAS/SFP – An interactive tool for information processing.

SDM – System Development Methodology.

Services - Work performed by a vendor that does not consist primarily of tangible commodities.

SF – Standard Functionality – Vendor response option in DD2.

SM – Somewhat Meets – Vendor response option in DD2.

SME - Subject Matter Expert.

SOA – Service-oriented Architecture.

Software Vendor - A firm supplying ERP or third party software as part of the Vendor's proposal which is necessary to fulfill the State's requirements through this RFP. This firm will be a subcontractor to the Vendor in this RFP.

Spending Unit - A department, agency or institution of state government for which an appropriation is requested, or to which an appropriation is made by the Legislature.

Specifications - A detailed description of a commodity or service to be included in a solicitation or bid or an awarded contract.

Standard Exhibit - Standardized language developed and approved by the Purchasing Division and Attorney General's office which establishes contract clauses such as life of contract, price adjustment and ordering procedures.

STA – Salvaggio, Teal and Associates is the company assisting the State in pre-implementation activities related to the ERP.

STARS – Software for Transaction Accounting and Reconciliation System used for PCard transactions which integrates with the statewide financial system.

STD – Short Term Disability.

STIP – State Transaction Improvement Plan is required to be submitted Federal Highway Administration.

STO - State Treasurer's Office.

SWCAP – Statewide Cost Allocation Plan.

TBD - To Be Determined. Used in the Schedule of Events where a specific date is not known at this time.

TEAM - Team Effort for Acquisition Management; the state's automated purchasing system.

TEAMUP – State Police maintain an inventory of their fleet and equipment in this system.

TM – Abbreviation for Treasury Management.

TOPS – Treasury Online Payment System.

TPI – Third party – Fully Integrated – Vendor response option in DD2.

TPN – Third party – Not Fully Integrated – Vendor response option in DD2.

TPX – Terminal Productivity Executive session management tool.

TR – Travel.

TSO – Time Sharing Option.

Unisys InfoImage - One of several document imaging systems being used by the State which will integrate with the ERP system.

Unit Price - The cost per unit of the commodity or service.

UNSPSC – United Nations Standard Products and Services Code.

Vendor - An individual or business registered with the Purchasing Division who may provide commodities and services to state agencies.

VISTA – Vendor Inquiry System to the Auditor which allows the public to view vendor payments made by the State.

VSAM – Virtual Storage Access Method file structure.

Wagers System – The State Treasurer's Office uses this system to account for unclaimed property.

WAN – Wide Area Network.

WBS - Work Breakdown Structure

Web-based - An application built to run using a standard web browser. No applets or applications are installed on the client

Web-enabled - An application to be run through a Web browser. The application may require an applet or application to be installed or downloaded on the client.

WV11– State Personnel Actions System stores personnel action form data used by the State for all state employee personnel actions.

WV11 DW - State Personnel Actions System Data Warehouse.

WVDOT - West Virginia Department of Transportation.

WVFIMS - West Virginia Financial Information Management System; the state's automated accounting system.

WVFIMS DW - West Virginia Financial Information Management System Data Warehouse.

WVNET – West Virginia Network provides telecommunication and computing services within the State.

WVNG – West Virginia National Guard.

WVOT - West Virginia Office of Technology, an office under the Department of Administration.

WVU – West Virginia University.

XML – Extensible Markup Language.

z/VM - Virtual Machine operating system.

Appendix G - Inventory of State Applications

Attached is an inventory of existing State application systems by agency as documented in the State's application portfolio inventory, which have been identified to date as potential candidates to be replaced by ERP. This inventory excludes WVDOT systems which are documented in Appendix H of this RFP.

For each application, the exhibit provides a brief description of the current system and outlines the potential impact of ERP to the system. It also identifies the phase of the ERP project in which this system is expected to be decommissioned and/or otherwise impacted. This anticipated phase is based on the proposed ERP implementation strategy outlined in this RFP.

Exhibit 31: Inventory of State Systems Identified for Potential Replacement

Application Name	Description	Anticipated ERP Impact	Anticipated ERP Project Phase
State Auditor's Office			
Bond Accounting	Bond accounting application for state employees. This is a data base of employees who have bond type codes for EE and I series bonds in the EPICS payroll master file	Potentially replaced by ERP personnel administration, payroll and other functions	Phase 3
Employee Banking Information System (EBIS)	This application processes the electronic payments for the EPICS payroll system. Employees who sign up for direct deposit and vendors who choose to be paid electronically are processed in the EBIS system. NACHA formatted payment files are generated and sent to the State Treasurer's Office via FTP along with registers in an Adobe PDF format. Employees can view their Notice of Deposits (ENOD) on the VISTA system while vendors typically receive remittance files from the EBIS system that are transferred via FTP and encrypted	Targeted for replacement by ERP payroll and other ERP functions	Phase 3
Employee Payroll Information Control System (EPICS)	Statewide payroll system	Targeted for replacement by ERP payroll function and other functions as appropriate	Phase 3
FIMS Electronic Banking Information System (FEBIS)	FEBIS is used to process a flat file of FIMS vendor warrants to be paid via ACH. This includes: vendor payments; employee reimbursements; purchase card payments and tax revenue refunds	Targeted for replacement by ERP accounts payable and other ERP functions	Phase 1
VISTA	Information on vendor payments and remittances accessible by the vendors and the public	Targeted for replacement by ERP accounts payable, procurement and other ERP functions including self-service/portal capabilities	Phase 1
WV Financial Information Management System - WVFIMS	State Auditor's Office side of the Financial Information Management System	Targeted for replacement by multiple ERP functions	Phase 1

Application Name	Description	Anticipated ERP Impact	Anticipated ERP Project Phase
State Treasurer's Office			
ACH database	Microsoft Access database that records and tracks the status of all ACH payments	Targeted for replacement by ERP cash management and other appropriate functions	Phase 1
Bond Accounting spreadsheet	Bond Accounting spreadsheet for bonded debt	Targeted for replacement by ERP debt management function	Phase 2
Cash Consolidation System	Sweeps and consolidates cash from agency cash receipt accounts periodically	Targeted for replacement by ERP cash management function	Phase 1
Cash Position spreadsheet	Tracks bank activity and balances to fix the State's cash position each day	Targeted for replacement by ERP cash management function	Phase 1
Check Data Warehouse	Microsoft Excel based check register	Targeted for replacement by ERP cash management, accounts payable and other appropriate functions	Phase 1
QED	Commercial off the shelf investment accounting and portfolio management software	Targeted for replacement by ERP investment accounting and other appropriate functions	Phase 1
Treasurer's Online Payment System (TOPS)	Provides status of vendor payments	Targeted for replacement by ERP accounts payable and procurement functions including self-service capabilities	Phase 1 and Phase 2
Department of Administration, Division of Finance			
WV Financial Information Management System - WVFIMS	This is the Department of Administration‘s side of the State's financial management system	Targeted for replacement by multiple ERP functions	Phase 1
Small Transaction Accounting and Reconciliation System (STARS)	STARS is the purchase card module within WVFIMS. It also exists in a web enabled form that offers reporting in addition to reconciliation and inquiry capabilities	Targeted for replacement by P-Card function and other ERP functions	Phase 1
Department of Administration, General Services Division			
HEAT system	Commercial off the shelf problem reporting system	Targeted for replacement by ERP facilities management function	Phase 4
INFOR	Commercial off-the-shelf work order management system	Targeted for replacement by ERP facilities	Phase 4

Application Name	Description	Anticipated ERP Impact	Anticipated ERP Project Phase
		management function	
Department of Administration, Division of Personnel			
Human Resource Information System (HRIS)	Single point of entry system for processing personnel transactions, providing updates to agencies' personal services schedules and maintaining an online employee history record	Replaced by ERP personnel administration and other ERP functions	Phase 3
Department of Administration, Public Employees Insurance Agency (PEIA)			
Benefits Administration System	Microsoft Dynamics GP based benefits administration, eligibility and web-based contribution modules	Targeted for replacement by ERP benefits administration function; customer relationship management (CRM) function should not be replaced and should be integrated with ERP	Phase 3
Department of Administration, Purchasing Division			
State Surplus Federal Inventory	This application maintains federal inventory items available for sale. The application also keeps track of invoices of items that have been sold	Targeted for replacement by ERP asset management, inventory and other functions as appropriate	Phase 1
State Surplus Property Inventory	This system maintains the surplus inventory that has been turned into the division. The system also has an invoicing component for items that were sold. It also maintains accounts for state agencies and certain non-profits that are also customers	Targeted for replacement by ERP asset management, inventory and other functions as appropriate	Phase 1
Surplus Credit Tracking	This keeps track of all "Credits" given to accounts in the event an item is returned back to surplus by a someone other than the general public	Targeted for replacement by ERP asset management, inventory and other functions as appropriate	Phase 1
Team Effort for Acquisition Management (TEAM)	Statewide procurement system	Targeted for replacement by ERP procurement function and other functions as appropriate	Phase 1 and Phase 2
Department of Agriculture			
TimeTrex	Time and attendance and leave system. Also includes	Targeted for replacement by ERP time	Phase 3

Application Name	Description	Anticipated ERP Impact	Anticipated ERP Project Phase
	grant tracking and management capabilities	reporting and leave accounting and grants management functions	
Department of Commerce, Development Office			
Personnel Management (People-Trac)	Tracks time/attendance, personal information, seniority, and education	Targeted for replacement by ERP time reporting and leave accounting and other ERP human resource management functions	Phase 3
Department of Commerce, Division of Labor			
Checks	Checks database (deposit information)	Targeted for replacement by ERP cash management function	Phase 1
Inventory	Inventory database	Targeted for replacement by ERP asset management and/or inventory functions	Phase 1
Department of Commerce, Division of Natural Resources			
Federal Time/Cost Accounting System Database	Provide federal agencies with quarterly invoices for reimbursable expenditures	Targeted for replacement by ERP grants management function	Phase 1
Inventory Database	Contains all pertinent data concerning the receipt and issuance of pagers, two-way radios, cell phones, uniform clothing, purchasing cards, phone cards, Division Of Highways gas cards, travel cards, Turnpike E-ZPass cards, computer equipment, weapons and vehicles (cars, trucks, ATVs, boats, snowmobiles, trailers, boat motors) to Conservation Officers	Targeted for replacement by ERP asset management, inventory and fleet management functions	Phase 1 and Phase 2
Leave System	Contains the agency leave (annual, sick, military, jury, etc) information for all employees	Targeted for replacement by ERP time reporting and leave accounting	Phase 3
DNR Mainframe Personnel Applications	Personnel data (includes suspension dates, hire dates); criminal records (includes citations, warnings, prosecutions and revocations)	Targeted for replacement by ERP personnel administration	Phase 3
Park Division/Activity	DNR uses this application to allocate cost to activities and features of the various state parks. The system	Targeted for replacement by ERP cost accounting, business intelligence and other	Phase 1

Application Name	Description	Anticipated ERP Impact	Anticipated ERP Project Phase
Cost Allocation Database	allows DNR management to make business decisions about the parks' offerings	functions	
Payroll Database	Contains all pertinent data concerning overtime hours worked and paid, supporting documentation and special details	Targeted for replacement by ERP time reporting and leave accounting and payroll functions	Phase 3
Personnel Files	Houses the agency personnel file records for all employees	Targeted for replacement by ERP personnel administration	Phase 3
Qualifications Database	Contains all pertinent data concerning the weapons qualifications of current and retired Conservation Officers and Special Conservation Officers	Targeted for replacement by ERP personnel administration	Phase 3
Training Database	Contains all pertinent data concerning training completed by section employees	Targeted for replacement by ERP learning management	Phase 3
Vehicle Database	Contains all pertinent data concerning the use of state-issued vehicles, ATVs, snowmobiles and boats	Targeted for replacement by ERP fleet management	Phase 3
Wildlife Accounting Database	Allows Wildlife section accounting staff to manage various accounting data	Targeted for replacement by cost accounting/cost allocation and other ERP functions	Phase 1
Department of Commerce, Division of Forestry			
FLEP	A Microsoft Excel spreadsheet for a federal grant the Division of Forestry administers for the purpose of providing monies to do a specific job on a landowners property	Targeted for replacement by ERP grants management	Phase 1
Department of Commerce, Geological and Economic Survey			
Financial Accounting. Leave Accounting	Agency time and leave accounting system	Targeted for replacement by ERP time reporting and leave accounting	Phase 3
Department of Commerce, Marketing and Communications			
BillQuick	Commercial off the shelf project management and time keeping system that generates client invoices	Targeted for replacement by ERP project management and accounts receivable	Phase 1 and Phase 2

Application Name	Description	Anticipated ERP Impact	Anticipated ERP Project Phase
		functions	
Department of Commerce, WorkForce West Virginia			
Personnel/Payroll System	Personnel information database; timekeeping with project tracking; leave tracking	Targeted for replacement by ERP personnel administration, time reporting and leave accounting, project management and other functions	Phase 1 (potentially for projects) and Phase 3
Department of Education and the Arts, Rehabilitation Services			
Crystal/Crystal Reports	Reporting application utilized primarily in Fiscal Services and Human Resources. Generate local, state, and federal reports.	Targeted for replacement by various ERP reports and business intelligence functionality	Phase 1 and Phase 3
Facilities Requests	Online request process utilized to request work efforts and renovations from Rehabilitation Services facilities unit.	Targeted for replacement by ERP facilities management	Phase 4
Human Resources	In-house application containing agency specific employee data	Targeted for replacement by ERP personnel administration	Phase 3
Inventory systems - hardware and software	In-house application utilized to track and inventory all information related to technology items, including computers and peripherals, telecomm items	Targeted for replacement by ERP asset management	Phase 1
QuickBooks	Agency specific accounting application	Targeted for replacement by multiple ERP functions as appropriate	Phase 1
Department of Environmental Protection			
DEP SAS Leave System	The DEP SAS based Leave System is an in-house application that tracks and updates all leave types (annual, sick, etc.) for each DEP employee	Targeted for replacement by ERP time reporting and leave accounting function	Phase 3
Licensed Remediation Specialist Online Application	System to verify the credentials of an applicant	Targeted for replacement by ERP applicant services function	Phase 3
Special Reclamation	System is used to download financial data from FIMS in	Targeted for replacement by ERP cost	Phase 1

Application Name	Description	Anticipated ERP Impact	Anticipated ERP Project Phase
FIMS Posting	order to track costs for special reclamation permits	accounting and allocation and other ERP functions as appropriate	
Time and Activity (ERIS)	Tracks employees' time and attendance. Some offices track hours by project, activity and/or task. Leave taken is entered and approved by supervisor and then fed into SAS Leave System. Tracks vehicle mileage and feeds into payroll	Targeted for replacement by ERP time reporting and leave accounting function	Phase 3
WVDEP Training System	This system tracks the classes taken by each full-time DEP employee. Each DEP employee can access only his/her list of classes they have taken while employed at DEP	Targeted for replacement by ERP learning management function	Phase 3
Department of Military Affairs and Public Safety, WV State Police			
PSINSURE	Agency specific benefits management application	Targeted for replacement by ERP benefits management function	Phase 3
TEAMUP	Agency purchasing and fleet management system	Targeted for replacement by ERP procurement and fleet management functions	Phase 1 and Phase 2
Department of Military Affairs and Public Safety, Division of Corrections			
Lockdown Inmate Trustee Accounting Application	Utilized for managing inmate trustee accounts	Targeted for replacement by various ERP financial management functions	Phase 1
Department of Military Affairs and Public Safety, State Fire Commission			
Activity 2002	Time management and leave tracking database	Targeted for replacement by ERP time reporting and leave accounting	Phase 3
Inspection Invoicing	Invoicing database for Fire Safety Inspection Division	Targeted for replacement by ERP accounts receivable	Phase 2
Transmittal	Database for all financial transactions	Targeted for replacement by various ERP financial management functions	Phase 1
Department of Military Affairs and Public Safety, Division of Veterans Affairs			

Application Name	Description	Anticipated ERP Impact	Anticipated ERP Project Phase
BLUEZONE	Application which provides ability to access information from mainframe	Potential for full or partial replacement based on ERP functionality	Phase 1 and Phase 3
GENESIS PRO	Time keeping application	Targeted for replacement by ERP time reporting and leave accounting function	Phase 3
WASP Technologies	Inventory database	Targeted for replacement by ERP asset management and inventory functions	Phase 1
Public Service Commission			
CompTrack	Tracking of technology assets	Targeted for replacement by ERP asset management function	Phase 1
Intuit QuickBooks	Utilized to track agency financial data	Targeted for replacement by multiple ERP financial functions	
Legacy Employee Information System	Tracked employment, tenure, leave, and payroll. Last pieces moved to new application in 2005. Used for research purposes	Potential to migrate history to ERP business intelligence function	Phase 3
Personnel Database	Tracks agency staff employment, tenure, leave, payroll, training, etc.	Targeted for replacement by multiple ERP human resource functions and the ERP time reporting and leave accounting function	Phase 3
Department of Revenue, Alcohol Beverage Control Administration (ABCA)			
Great Plains	Agency financial management and billing system	Targeted for replacement by multiple ERP functions; ERP should then integrate with ABCA warehouse management system	Phase 1 and 2
Department of Revenue, Division of Banking			
Office Inventory	Microsoft Access database that is used to track equipment, furniture and computer equipment assigned to users	Targeted for replacement by ERP asset management function	Phase 1
Department of Revenue, Lottery Commission			
Great Plains	Commercial off the shelf agency financial and purchasing system	Targeted for replacement by multiple ERP financial functions and ERP procurement	Phase 1

Application Name	Description	Anticipated ERP Impact	Anticipated ERP Project Phase
Department of Revenue, State Budget Office			
FASPEND	State budget system	Targeted for replacement by ERP budget development function	Phase 2
Position Information Management System (PIMS)	Statewide position control and budgeting application	Targeted for replacement by ERP position control function	Phase 3
Department of Revenue, State Tax Department			
103 Procurement	Microsoft Access database which supports purchasing within the department	Targeted for replacement by ERP procurement function	Phase 1
Q & A	Microsoft Access database used by Operations unit for payroll support / tracking / reporting	Targeted for replacement by ERP payroll and ERP time reporting and leave accounting functions	Phase 3

Appendix H - Inventory of WVDOT Applications

Attached is an inventory of all existing WVDOT application systems by primary business function as documented in the State's application portfolio inventory. For each application, the exhibit outlines the anticipated impact of ERP to these systems: replacement, potential replacement, integration, or no impact. It also identifies the phase of the ERP project in which this system is expected to be decommissioned and/or otherwise impacted. This anticipated phase is based on the proposed ERP implementation strategy outlined in this RFP.

Exhibit 32: Inventory of WVDOT Applications and Anticipated Impact Of the ERP System

Application Name	Function	Anticipated ERP Impact	Description of ERP Impact	Anticipated ERP Project Phase
Asset Management				
Bridge System	Mainframe system which records and tracks bridge inspection data	Expected to be decommissioned prior to ERP	To be replaced by BridgeInspect ™ prior to ERP implementation	N/A
BridgeInspect ™ database	New SQL Server application under development based on InspectTech software which records and tracks bridge inspection data	Integrated in Phase 2 and potentially replaced in Phase	Integrated with the transportation asset inventory function in Phase 2 and potentially replaced by the ERP bridge management function in Phase 4 depending on the specific solutions proposed by Vendors	Phases 2 and 4
Bridge Modeler	Bridge loading software	No impact		N/A
Citizens Request for Assistance	Logs, routes and tracks citizen calls and complaints	Replacement	Replaced by the transportation operations management function	Phase 2
Claims	Tracks reimbursable expenses for legal claims	Replacement	Replaced by project management, transportation operations management and accounts receivable functions	Phase 2
Crash Records System	Statewide crash records database	Integration in Phase 2 and Phase 4	Integrated with the transportation asset inventory function in Phase 2. Integrated with the safety management function in Phase 4	Phases 2 and 4
Deighton dTIMS Pavement Management System	Provides pavement condition assessment, historical project information and modeling capabilities	Integration in Phase 2 and potentially replaced in Phase 4	Integrated with the transportation asset inventory function in Phase 2. Potentially replaced by the ERP pavement management function in Phase 4 depending on the specific solutions of each Vendor	Phases 2 and 4
ePermits and eBonds	Tracks and issues highway access and other permits	Integration	Integrated with general ledger function for revenue accounting	Phase 2
Maintenance Management System	Manage/track maintenance expenditures	Replacement	Replaced by transportation operations management function	Phase 2

Application Name	Function	Anticipated ERP Impact	Description of ERP Impact	Anticipated ERP Project Phase
Road Closures	Tracks temporary road closures	Potential replacement	Potentially replaced by transportation asset inventory function	Phase 2
RoadWare Pavement Management System	Provides video logging of the State highway network	Integration	Integrated with the transportation asset inventory function in Phase 2 and with the ERP pavement management and safety management functions in Phase 4	Phases 2 and 4
Salvage Yards/Outdoor Advertising	Manages and tracks outdoor advertising and salvage yard licenses and permits	Potential replacement and/or integration an	Potentially replaced by the ERP transportation asset inventory function Integrated with general ledger function for revenue accounting	Phase 2
Sign Inventory	Tracks signs on the transportation network	Replacement	Replaced by transportation asset inventory function	Phase 2
SuperLoad	Routing of oversize/overweight vehicles	Integration	Integrated with general ledger function for revenue accounting	Phase 2
Traffic	Maintains traffic count data for roadways	Potential replacement	Potentially replaced by the transportation asset inventory function; otherwise integrated with the transportation asset inventory function to provide traffic count information about roadway segments and in with the safety management function	Phase 2 and 4
Turning Movement	Turning movement data for intersections	Potential replacement	Potentially replaced by the transportation asset inventory function	Phase 2
WVDOT Airport Locations	Provides an inventory of airport locations	Replacement	Replaced by the transportation asset inventory function	Phase 2
WVDOT Riverport Locations	Provides an inventory of river port locations	Replacement	Replaced by the transportation asset inventory function	Phase 2
WV Snow and Ice Removal	Road condition information	No impact		N/A
Facilities Management				
WVDOT Facility Locations	Inventory of WVDOT State owned facilities	Replacement	Replaced by facilities management function	Phase 4
Financial Management				

Application Name	Function	Anticipated ERP Impact	Description of ERP Impact	Anticipated ERP Project Phase
Accounts Receivable System	Invoice system for miscellaneous billing	Replacement	Replaced by accounts receivable function	Phase 2
Application Xtender	Document Management	Integration	Integrated with ERP across multiple functions	Phase 2 and 4
Auditing	External audit information	No impact		N/A
Authorization and Federal Billing System	FHWA Federal Aid billing	Replacement	The billing functions should be replaced by the ERP Federal Aid billing function. The functionality to support the project authorization process should likely be replaced by the new Primavera application currently under development and then integrated with ERP	Phase 2
CCH Teammate	Audit management software	No impact		N/A
Parts, Materials and Supplies Inventory	Inventory management	Replacement	Replaced by inventory function	Phase 2
Purchasing and Accounts Payable System	Supports WVDOT purchasing and accounts payable processes	Replacement	Replaced by purchasing and accounts payable functions	Phase 2
Pro System FX	Prepares WVDOT financial statements	Integration	Integration with general ledger function assuming no change in the statutory requirement requiring WVDOT to prepare its own financial statements	Phase 2
REMIS	Remote entry system for WVDOT financial and payroll applications	Replacement	Replaced by multiple ERP functions	Phase 2
Solomon General Ledger and Accounts Payable	Parkways Authority General Ledger and Accounts Payable application	Replacement	Replaced by general ledger and accounts payable functions of ERP	Phase 2
WV ARRA Reporting	ARRA stimulus reporting	Replacement	Replaced by the business intelligence function of the ERP	Phase 2
5310 Grant Program	5310 grants management and reporting	Replacement	Replaced by grants management function	Phase 2
Fleet Management				

Application Name	Function	Anticipated ERP Impact	Description of ERP Impact	Anticipated ERP Project Phase
Automated Vehicle Inventory System	Inventory of vehicles owned by public transit agencies in West Virginia	Replacement	Replaced by fleet management function	Phase 2
Equipment System	Manages and tracks WVDOT fleet and equipment	Replacement	Replaced by fleet management function	Phase 2
Gas and Lube System	Maintains monthly prices for gas and lube and provides this cost information to WVDOT financial applications	Integration	Integration with fleet function to provide cost of fuel used in WVDOT fleet or cost of fuel sold to other State and local agencies; information should be used in conjunction with accounts receivable function to support billing of other agencies for fuel purchased from WVDOT This system may also be replaced by WVDOT by a new automated fuel system prior to the implementation of ERP. A new automated fuel management system would then be integrated with ERP.	Phase 2
RailConnect	Rail car management for State Rail Authority	Integration	Integrated with general ledger function to support revenue accounting	Phase 2
Section 5310	Inventory of nonprofit agency vehicles purchased through grant funds distributed and managed by WVDOT	Replacement	Replaced by grants management and fleet functions	Phase 2
Trimble Fleet Management	Provides vehicle tracking for certain WVDOT vehicles and equipment	integration	Integration with the fleet function	Phase 2
VP Vehicle Calendar	Reservation system for Public Port Authority (PPA) vehicles	Replacement	Replaced by fleet function	Phase 2
Geographic Information Systems (GIS)				
ESRI - Arc Suite	Provides WVDOT geographic information system (GIS)	Integration	Integration with multiple ERP functions	Phases 2 and 4

Application Name	Function	Anticipated ERP Impact	Description of ERP Impact	Anticipated ERP Project Phase
	capabilities			
ESRI – Environmental Application	Monitors environmental compliance	No impact		N/A
GIS Maps Services	GIS map integration	Integration	Integration with multiple ERP functions to support spatial data analysis	Phases 2 and 4
WV Portal – Straight Line Diagram	Straight line diagrams	No impact		N/A
Human Resources and Payroll				
DOH Parking System	Tracks employee parking spaces and manages employee prioritization on the wait list for parking spaces	Potential replacement	Potential replacement by ERP personnel administration or other ERP human resource functions	Phase 3
HR Class Tracking	Tracks training classes for Division of Highways employees	Replacement	Replaced by learning management function within ERP	Phase 3
Insurance	Tracks insurance premiums for employees on leave	Potential replacement	Potentially could be replaced by benefits administration and accounts receivable functions; additional analysis is expected	Phase 3
Personnel System	Maintains personnel information for WVDOT staff	Replacement	Replaced by position control and personnel administration functions	Phase 3
Safety OSHA200	Tracks total lost work days for employees from accidents	Replacement	Replaced by health and safety capabilities within the personnel administration function	Phase 3
Motor Vehicle Administration				
Cash Register System	DMV fee payments and inventory reconciliation	Integration	Integrated with general ledger function to support revenue accounting; this application is being re-developed. The new system should also have some inventory functionality to support DMV inventory (tags, card stock, etc.) This inventory function and cash receipts posting could potentially be performed in the ERP	Phase 2

Application Name	Function	Anticipated ERP Impact	Description of ERP Impact	Anticipated ERP Project Phase
Computerized Vehicle Registration	Dealer front-end to vehicle titling and registration system	No impact		N/A
Digital Drivers License	Production and storage of digital driver licenses	No impact		N/A
DISKXTENDER	DMV document management application	No impact		N/A
DMV ATS	Automated driver testing application	No impact		N/A
Docketing System	Scheduling and tracking of DMV hearings	No impact		N/A
Drivers License System	Supports driver licensing issuance and control functions	No impact		N/A
Electronic CDL	CDL skills testing	No impact		N/A
KOFAX Image Capture	DMV imaging solution	No impact		N/A
Miscellaneous ID System	Issuance and processing of ID cards	No impact		N/A
MOVISplus	DMV imaging solution	No impact		N/A
Temporary Tag	Issues and tracks temporary tags	No impact		N/A
Vehicle Title and Registration System	Manages issuance of vehicle titles and registrations	No impact		N/A
Project Development				
AASHTO BAMS - now known by the American Association of State Highway Transportation Officials (AASHTO) as Trns•port™	Supports the project development, letting and award process for highway construction projects	Integration	Integrated with ERP procurement, projects and contracts functions	Phase 2
Consultant Agreement System	Tracks consultant agreements	Replacement	Replaced by ERP procurement function	Phase 2
CulvertMaster	Used to analyze hydraulic flow	No impact		N/A

Application Name	Function	Anticipated ERP Impact	Description of ERP Impact	Anticipated ERP Project Phase
	to support highway design activities			
EEO	Supports equal employment opportunity requirements for highway construction projects	Potential replacement	Potential replacement by ERP procurement function or a combination of ERP procurement function and AASHTO SiteManager™	Phase 2
Engineering Tracking	Status tracking for highway construction projects	No impact as scheduled to be decommissioned prior to ERP	It is assumed that this functionality should be provided by the new Oracle Primavera Program and Project Management System that is under development. This new Primavera application should be integrated with the ERP in Phase 2.	N/A
FlowMaster	Performs hydrologic analysis	No impact		N/A
InRoads	Engineering design software	Integration	Integration with multiple ERP functions	Phase 2 and 4
Interplot Client	Computer Aided Design and Drafting (CADD) print management	No impact		N/A
Interplot Raster Server	CADD print management	No impact		N/A
IRAS B	Digital map management	No impact		N/A
LEAP Conspan	Design, analysis and rating of bridge beams	No impact		N/A
LEAP RC Pier	Design, analysis and rating of bridge piers	No impact		N/A
Materials Control, Soil and Testing System	Laboratory information management system for materials testing for highway construction projects	Potential integration	Potential integration with the ERP project management function for costing and the accounts receivable function for billing of third party tests. Current application could also potentially be replaced by AASHTO Trns•port SiteManager™ and custom extensions	Phase 2
Material Security	Supports tracking and testing of materials utilized on highway construction projects	No impact	Could be replaced by the AASHTO SiteManager™ solution	N/A

Application Name	Function	Anticipated ERP Impact	Description of ERP Impact	Anticipated ERP Project Phase
MicroStation	Computer aided drafting and design (CADD) software	Integration	Integration with multiple ERP functions	Phase 2 and 4
Project Record System (PRS)	Supports contract administration for highway construction projects; application is used primarily by construction field staff	Anticipated to be replaced by AASHTO SiteManager™ prior to ERP implementation	Targeted for replacement by AASHTO SiteManager™ which would be integrated with the ERP project management, procurement and accounts payable functions	N/A
Project Record System (PRS) Master	Supports contract administration for highway construction projects; application is used primarily by headquarters construction staff	Anticipated to be replaced by AASHTO SiteManager™ prior to ERP implementation	Targeted for replacement by AASHTO SiteManager™ which would be integrated with the ERP project management, procurement and accounts payable functions	N/A
Project Tracking System	Provides program and project management for WVDOT capital construction program	To be replaced by new Oracle Primavera application prior to ERP implementation	It is assumed that this functionality should be provided by the new Oracle Primavera application and that this new application should be integrated with the ERP	N/A
WVDOT Statewide Transportation Improvement Plan	Publication of Federally mandated Statewide Transportation Improvement Program (STIP)	To be replaced by new Oracle Primavera application prior to ERP implementation	It is assumed that this functionality should be provided by the new Oracle Primavera application and that this new application should be integrated with the ERP	N/A
Real Estate				
Right of Way System	Supports managing/tracking of right of way owned by WVDOT	Replacement	Replaced by ERP real estate, accounts receivable (for billing of any rental properties), procurement, and accounts payable functions	Phase 4
ROW System	Supports the right of way acquisition process	Replacement	Replaced by ERP real estate, procurement, and accounts payable	Phase 4

Application Name	Function	Anticipated ERP Impact	Description of ERP Impact	Anticipated ERP Project Phase
			functions	
Other Applications				
WVNG Weather	Weather information for West Virginia National Guard	No impact		N/A
PlusSuites	Query tool	Replacement	Replaced by ERP business intelligence function	Phase 2

Appendix I - Data Conversion

Through the implementation of the new ERP system, the State expects to retire a number of legacy applications residing across numerous State agencies. Data conversion into the operational application components of the ERP is expected to at least include data that is expected to support ongoing business processes. This includes master files such as employee master data, vendor master data, commodity master data, asset register, etc. It also includes 'open' transactional data at the time of conversion for example, general ledger balances, un-cleared checks, open purchase orders or employee pay, deduction and leave balances, etc.

In addition, some historical data is expected to be converted into the operational systems or ERP data warehouse where a solid business case is identified through detailed conversion planning. Any additional historical data for inquiry, reporting or analysis may need to be either converted to the ERP data warehouse, or remain available 'read only' from legacy applications until such time that the data is either converted or no longer required.

Data conversion for the ERP project will involve coordination with multiple stakeholder agencies and extensive analysis to determine the most appropriate data sources for populating the ERP system from amongst the various legacy applications. Examples of some of the challenges which may need to be addressed include:

- Determining whether to utilize data from either the State Auditor's Office side of WVFIMS, the DOA side of WVFIMS or elements of both;
- Potential for multiple chart of account crosswalks, including any extensions to the common elements in use by WVFIMS agencies and mapping of the unique chart of account schemes for each of the non-WVFIMS agencies;
- Establishing the ERP vendor master file from multiple legacy data sources;
- Developing the employee master file, employee pay history and current leave balances from EPICS, HRIS, PIMS and numerous agency specific HR and time and attendance systems;
- Consolidation of commodity master data from multiple automated and manual systems and the conversion of inventory balances from multiple automated and manual systems; and
- Resolving any differences in data identification schemes for example consolidating employee id's or inventory asset numbers from multiple systems; and
- Collecting data not currently maintained in automated systems especially in the areas of fleet, facilities, real estate and transportation asset inventory.

For purposes of this procurement and to ensure an "apples to apples" comparison of data conversion costs, the Vendor should assume that the following data elements need to be converted to the ERP system:

Exhibit 33: Known Data Conversion Elements by Anticipated Phase

No.	Function	Known Data Conversion Sources	Notes
Phase 1			
1	General Ledger Balances	WVFIMS; West Virginia Lottery Great Plains application; Alcoholic Beverage Commission (ABC) Great Plains application	One inbound file with multiple legacy source systems assumed
2	Open Accounts Payable	WVFIMS	
3	Accounts Payable History	WVFIMS	AP history for previous fiscal year
4	Bank Balances	WVFIMS	
5	Fixed Assets	WVFIMS	
6	Open/Active Grants	WVFIMS	
7	Grant History	WVFIMS	
8	Open/Active Projects	WVFIMS	
9	Project History	WVFIMS	
10	Investments	WVFIMS and QED	Multiple legacy sources
11	Vendor Master	WVFIMS SAO side; WVFIMS DOA side; TEAM; EBIS; ECOM; FEBIS	Multiple legacy sources
12	Commodity Master	TEAM; WVFIMS	Multiple legacy sources
13	Open Purchase Orders	TEAM	
14	Open Contracts	TEAM	
15	Contracts History	TEAM	
16	Inventory Balances for General Services Division	WVFIMS Asset Register	
17	Bank ACH History	ECOM and EBIS	Multiple legacy sources
18	Check History	QED and Check Data Warehouse	
19	Deposit History	Cash Concentration System (CCS)	
20	Stop Payment History	Treasury Online Payments System (TOPS)	
Phase 2			

No.	Function	Known Data Conversion Sources	Notes
21	General Ledger Balances for West Virginia Parkways Authority	Parkways Solomon application	Leverage Phase 1 load file
22	Open Accounts Payable for WVDOT and West Virginia Parkways Authority	WVDOT Purchasing and Accounts Payable System and Parkways Solomon application	Leverage Phase 1 load file
23	Open Accounts Receivable	Peachtree for small boards and commissions; WVDOT accounts receivable system; West Virginia Lottery Great Plains application; Alcoholic Beverage Control Administration (ABCA) Great Plains application; and other agency specific systems	One inbound file format with multiple legacy source systems assumed
24	Debt History	Offline spreadsheet	Manual conversion or file upload
25	Vendor Master	WVDOT Purchasing and Accounts Payable System for any incremental additions to vendor file not populated in Phase 1	Utilize Phase 1 load file, new source
26	Open Purchase Orders	WVDOT Purchasing and Accounts Payable System, WVDOT Consultant Agreement System	Utilize Phase 1 load file, new source
27	Open Contracts	WVDOT Purchasing and Accounts Payable System, WVDOT Consultant Agreement System	Utilize Phase 1 load file, new source
28	Contracts History	WVDOT Purchasing and Accounts Payable System, WVDOT Consultant Agreement System	Utilize Phase 1 load file, new source
29	Commodity Master	WVDOT Parts, Materials and Supplies Inventory for incremental additions to commodity file not populated in Phase 1	Utilize Phase 1 load file, new source
30	Inventory Balances	WVDOT Parts, Materials and Supplies Inventory	Utilize Phase 1 load file, new source
31	Open/Active Grants	WVDOT 5310 Grants Program and WVDOT Authorization and Federal Billing System	Utilize Phase 1 load file, new source
32	Grant History	WVDOT 5310 Grants Program and WVDOT Authorization and Federal Billing System	Utilize Phase 1 load file, new source
33	Open/Active Projects	WVDOT Project Tracking System	Utilize Phase 1 load file, new source
34	Project History	WVDOT Project Tracking System	Utilize Phase 1 load file, new source
35	Statewide Transportation Improvement Program	WVDOT Project Tracking System and WVDOT Statewide Transportation Improvement Plan	Potential conversion depending on whether function is performed in ERP or in WVDOT's new Oracle Primavera based Program and Project Management System

No.	Function	Known Data Conversion Sources	Notes
36	Federal Billing History	WVDOT Authorization and Federal Billing System	
37	Fleet Inventory including warranties, preventive maintenance and repair history	WVDOT Equipment System, WV State Police TEAMUP, DNR Vehicle Database, DNR Inventory Database, WVDOT Section 5310 Fleet Inventory, WVDOT Automated Vehicle Inventory System, WVDOT VP Vehicle Calendar and ERP fixed asset function information migrated from WVFIMS	Multiple legacy sources or transformation of information migrated to ERP in Phase 1
38	Transportation Asset Inventory	Potential data conversion/initial data loading depending on solution from WVDOT SQL Server Roadway Inventory, Deighton dTIMS Pavement Management, BridgeInspect ™ bridge database, WVDOT Crash Reporting System, WVDOT Road Closures, WVDOT Salvage Yards and Outdoor Advertising, WVDOT Sign Inventory, WVDOT Traffic, WVDOT Turning Movement, WVDOT Airport Locations, WVDOT Riverport Locations	Multiple sources
39	Open Problem Reports	WVDOT Citizen Problem Reporting System	
40	Problem Report History	WVDOT Citizen Problem Reporting System	
41	Claims	WVDOT Claims System	
42	Claims History	WVDOT Claims System	
43	Open Work Orders	WVDOT Maintenance Management System	
44	Work Order History	WVDOT Maintenance Management System	
Phase 3			
45	Position Control	PIMS and EPICS position information	Multiple legacy sources
46	Employee History	HRIS, EPICS,WVDOT Personnel System, other agency HR systems and EBIS	Multiple legacy sources
47	Payroll	EPICS and ADP for Parkways	Multiple legacy sources: Parkways could be considered for manual conversion of approximately 400 employees
48	Training History	DOP Training System , DOT HR Class Tracking and various other agency training systems	Multiple legacy sources
49	Employee Benefits	PEIA Benefits Administration System	

No.	Function	Known Data Conversion Sources	Notes
50	Vendor Master	PEIA Benefits Administration System for any incremental additions to vendor file not populated in Phase 1	Utilize Phase 1 load file, new source
51	Leave Balances	Multiple agency time and leave applications	One inbound file with multiple legacy source systems assumed
Phase 4			
52	Facility Inventory	WVDOT Facility Inventory, WVDOT ROW System, information from ERP assets function about facilities and ERP accounts payable function about leases, etc.	Multiple systems and transformation of data already converted to ERP to establish a baseline set of facilities information; additional manual data conversion
53	Open Facility Problem Reports and Work Orders	General Services HEAT and INFOR	
54	Open Real Estate acquisitions and activity	Offline systems/files	Manual conversion
55	Pavement Assets	WVDOT Deighton dTIMS application	Required conversion effort will depend on Vendor's proposed solution
56	Bridge Assets	WVDOT BridgeInspect ™ application	Required conversion effort will depend on Vendor's proposed solution
57	Safety Management Information	Potential data conversion/initial data loading depending on solution from WVDOT Crash Reporting application, DMV Driver License, DMV Vehicle Registration, DHHR Trauma Registry, West Virginia Uniform Citation Database	
58	Open Right-of-Way Parcels	WVDOT Right-of-Way System and WVDOT ROW System	
59	Right-of-Way Acquisition History	WVDOT Right-of-Way System and WVDOT ROW System	
60	Open Railroad and Utility Relocations	WVDOT Utilities database	
61	Railroad and Utility Relocations History	WVDOT Utilities database	

Appendix J - Interfaces

This section outlines the requirements for interfacing between the new ERP system and other State systems and third party systems. The integration of external system functions with the new ERP solution will be a primary responsibility of the Contractor with shared assistance from the State.

At a high level, the ERP system is expected to interact with the following external entities / functions:

- Financial Institutions that process ACH payments, wire payments, procurement card (PCARD) transactions, cash management, etc.;
- Government entities, including external taxing authorities and required reporting such as1099, W2, federal grants, FHWA billing, transparency data, etc.;
- Third party payroll vendors (e.g., retirement and insurance benefit providers);
- WVDOT Systems, including Site Manager, Primavera, and AASHTO;
- Quasi Government entities (e.g., CPRB and PEIA);
- Agency core business systems not provided for by the ERP system, such as DHHR Child Support or Department of Revenue collection systems;
- Agency administrative systems that are not in scope of the ERP;
- Third party hosted systems, such as eTravel (booking) and PCARD reconciliation;
- STO Accounts Receivable – Revenue/Remittance Processing systems such Fairfax/IBML, E-Government, ACH and Wire systems;
- Third party data sources – Vendor Catalogs, etc.; and
- Document management systems that record data to support ERP transactions such as accounts payable invoice documentation and travel receipts.

The State has completed an initial analysis of the interfaces and other integration points between ERP and other internal and external systems. The State has attempted to classify those that are expected to be required during the ERP transition and beyond, those that are expected to be required temporarily during the ERP transition and integration phases, and those that are tentatively required depending on the scope of the adopted solution. Required interfaces are interfaces that either replace existing system interfaces or which are expected to meet functional requirements for exchanging information between ERP and other internal and external systems where the requirement is rated as either High or Medium.

Temporary interfaces should be used as an interim bridge to support the phased implementation of the software components and to support the conversion of agencies over an extended period of time in accordance with the proposed phasing:

- Phase 1: Core Financials and Procurement;
- Phase 2: Extended Financials, Procurement and Logistics;
- Phase 3: Human Resources, Payroll and Time Reporting and Leave Management; and
- Phase 4: Extended ERP and Deployment to Non-WVFIMS Agencies.

The new temporary interfaces is expected to enable agencies to use existing interfaces

between their legacy systems and the ERP by translating inbound agency transactional data into the new ERP format and by translating outbound transactional data from the new ERP back into the legacy format.

Tentative interfaces (either new or replacements) have been identified that may be required to support the anticipated level of integration defined by the proposed scope of the ERP and approach to phasing. In general, these tentative interfaces are currently supported by the central systems as a service to other agencies i.e. interfaces that help meet those agencies' needs when interacting with financial, procurement, or personnel/payroll activities. The State anticipates the proposed solution should retire many of these interfaces either by conversion of agency systems to the ERP or by providing acceptable alternate solutions. Examples of alternate solutions are best practices inherent in the software, business process improvements; data downloads from a central repository or real time access to central data, for example via Application Programming Interfaces (API's). Acceptable alternate solutions are defined as "acceptable" when the Contractor and the State agree upon feasibility and the total cost is less than or equal to the development and/or operation of a standard interface approach.

A chart with the anticipated system interfaces is presented on the pages below followed by a table which provides an inventory of the anticipated ERP interfaces including the anticipated ERP phase(s) in which the interface or integration point needs to be constructed.

Exhibit 34: Diagram of Anticipated ERP Interfaces

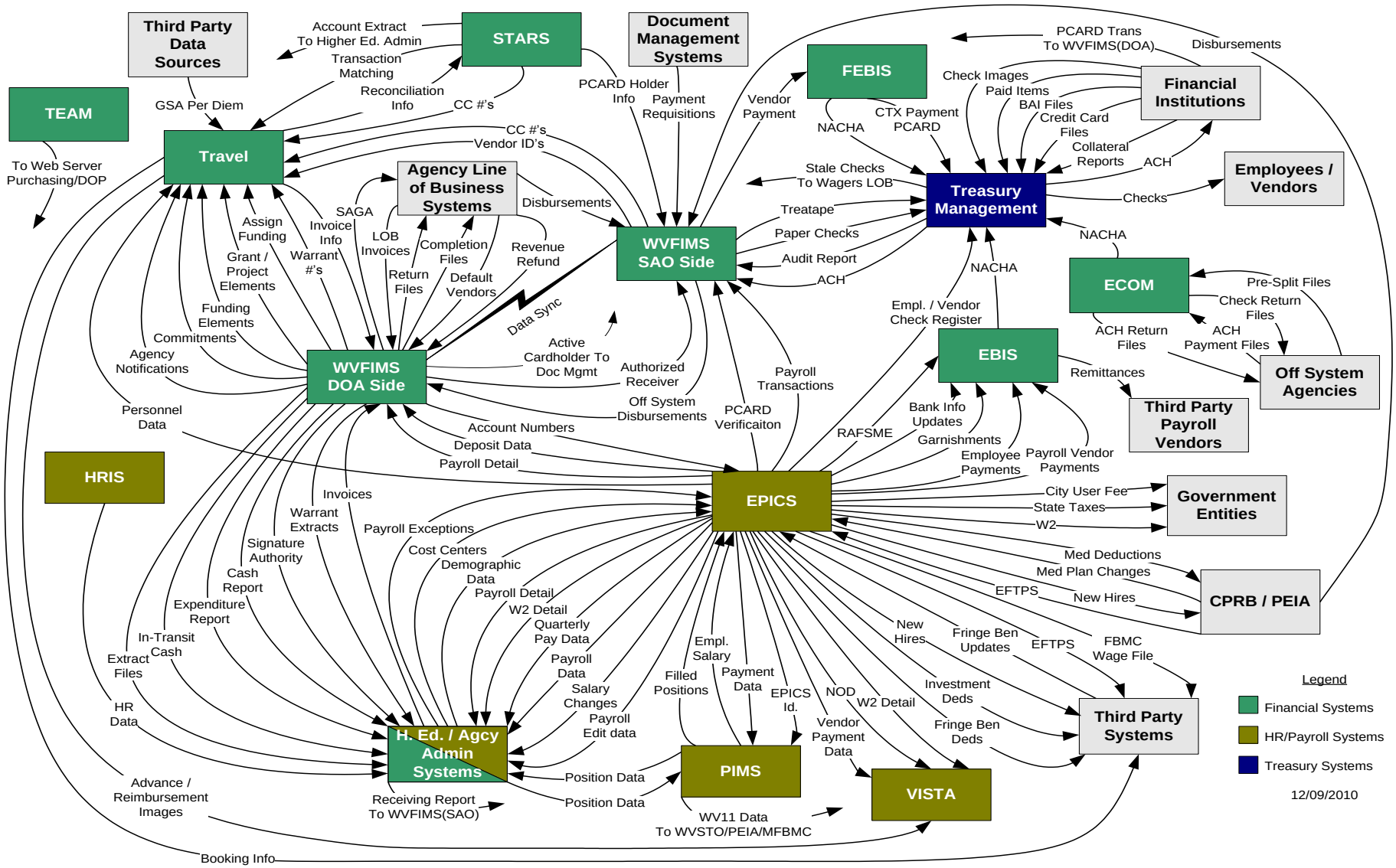


Exhibit 35: Anticipated System Interfaces

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
1	1	Accounts Payable	Higher Education	Invoices from WVU Oracle Financials and various Banner® Systems to ERP for payment	Both	18	2	Existing	
2	1	Accounts Payable	Higher Education	Receiving reports from WVU Oracle and Banner® Systems to ERP	Inbound	18	1	Existing	
3	1	Accounts Payable	Alcohol and Beverage Control Administration (ABCA)	Invoice requests from ABCA warehouse inventory application to ERP	Inbound	1	1	New	To pay liquor distributors for sales of their product
4	1	Accounts Payable	Department of Health and Human Services (DHHR), Department of Education (WVDE), Public Defender Services (WVPDS) and State Auditor's Office (WVSAO) Line of Business Systems	Invoice requests for payment from various line of business systems to ERP; return and completion files from ERP to LOB systems files	Both	7	3	Existing	Agency line of business systems are DHHR FPEDS to pay family planning clinics for services; Department of Education Application, Claiming and Evaluation System (ACES) for payments related to the school nutrition program; DHHR Rehabilitation Division Iron Data Disability Case Processing System; DHHR Rehabilitation Case Services System; State Auditor's Office

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
									local government P-Card rebate program and State Auditor's Office utility tax local government distribution
5	1	Accounts Payable	Department of Revenue - Tax Division	Revenue refunds from (GenTax®) to ERP for payment processing	Inbound	1	1	Existing	RAPIDS (GenTax®)
6	1	Accounts Payable	Department of Health and Human Resources, Division of Veterans Affairs (WVDVA), Public Employees Insurance Agency (PEIA), Consolidated Public Retirement Board (CPRB)	Requests from various agencies to ERP for processing disbursements	Inbound	5	1	Existing	
7	1	Accounts Payable	Various off system agencies	Requests from agencies to process payments in ERP to support various State programs	Both	15	5	Existing	State would like to consolidate payments to one format. Payments could be check, ACH or wire. Off system agencies include: BLACK LUNG-WC, CHIP, Coal Severance – WVSTO, Coal Waste – WVSTO, CPRB, CSI, DHHR-BT3, Disability-WV, FACTS, Oil & Gas – WVSTO, PEIA, RegMedical, RJF

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
									– WVSTO, TANF, VFD – WVSTO, WLP – WVSTO, WVIC
8	1	Accounts Payable	Department of Health and Human Resources	Notification to DHHR that money is available (document identifier, amount completion date, comments) to intercept tax refund and redirect to child support	Outbound	1	1	Existing	
9	1	Accounts Payable	Tax Division of the Department of Revenue	Notification to State Tax Department of all vendors recently scheduled to be paid by ERP.	Outbound	1	1	New	Allow for intercept of payments to be applied to delinquent taxes.
10	1	Accounts Payable	Department of Health and Human Resources	Vendor payment information from ERP to Keane hospital system to support detailed cost accounting for individual hospitals	Outbound	1	1	Existing	
11	1	Accounts Payable	Various agency document management systems	ERP to/from multiple agency document management systems to allow for storing, linking and retrieving accounts payable invoice documentation	Both	6	6	New	
12	1	Cash Management	West Virginia University (WVU)	Extract of cash management file from ERP for import into WVU Oracle Financials	Outbound	1	3	Existing	Cash report, expenditure report and in-transit cash
13	1	Cash Management	Various Banks	Bank Administration Institute (BAI) files to ERP	Inbound	5	1	Existing	

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
14	1	Cash Management	Credit Card Vendors	Credit card files to ERP	Inbound	4	1	Existing	
15	1	Cash Management	Citigroup	Collateral reports to ERP	Inbound	1	1	Existing	
16	1	Cash Management	Chase Bank	ACH payments from ERP	Outbound	1	1	Existing	
17	1	Cash Management	State Treasurer's Office (STO)	Stale check information from ERP to STO Wagers unclaimed property system	Outbound	1	1	Existing	
18	1	Cash Management	Branch Banking and Trust Company (BB&T)	Paid items and trace number for each check, Check Images for Redeemed warrants, BB&T 1st presentment file	Inbound	1	3	Existing	
19	1	General Ledger	Various Agency LOB Systems	Agency LOB systems to ERP for revenue accounting	Inbound	5	1	New	Interfaces with general ledger for revenue accounting for example; Department of Revenue (DOR) RAPIDS (GenTax®)
20	1	General Ledger	WV Lottery	GTECH to ERP for revenue accounting	Inbound	1	1	New	Traditional games
21	1	General Ledger	WV Lottery	Scientific Games to ERP for revenue accounting	Inbound	1	1	New	Slot machines
22	1	Grants Management	State Agency Grant Awards (SAGA)	ERP to State SAGA System to submit and view billing information.	Outbound	1	1	New	Potentially replaced with functionality in Grants Management
23	1	Grants Management	Automated Standard Application for Payments (ASAP)	ERP to federal ASAP system to submit and view billing information.	Outbound	1	1	New	
24	1	Grants	Payment	ERP to federal PMS	Outbound	1	1	New	

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
		Management	Management System (PMS)	system to submit and view billing information.					
25	1	Grants Management	Public Debt Accounting and Reporting System (PARS)	ERP to federal PARS system to submit and view billing information.	Outbound	1	1	New	
26	1	Grants Management	National Household Travel Survey (NHTS)	ERP to NHTS grant tracking system to submit and view billing information.	Outbound	1	1	New	
27	1	Grants Management	EPA Enforcement and Compliance History Online (ECHO)	ERP to federal ECHO - Web system to submit and view billing information.	Outbound	1	1	New	
28	1	Grants Management	US Department of Education G5 Website (G5)	ERP to federal G5 – Web system to submit and view billing information.	Outbound	1	1	New	
29	1	Grants Management	West Virginia Department of Education	Education Commitment/Grant Extracts from ERP	Outbound	1	1	Existing	
30	1	Inventory	Alcohol and Beverage Control Administration (ABCA)	Liability transaction from ABCA Inventory application to ERP	Inbound	1	1	New	Changes in inventory amounts (Inventory is held but not owned by the State)
31	1	P-Card	Higher Education	Extract of Higher Education P-Card records from ERP to various Banner® systems	Outbound	17	1	Existing	For reconciliation processing within Banner®
32	1	P-Card	CitiBank/VISA (Total Systems Services)	P-Card transaction and account maintenance from Total Systems via CitiBank to ERP	Inbound	1	1	Existing	
33	1	Project Management	Department of Administration (DOA)	ERP to/from DOA Primavera applications to	Both	1	2	New	Interface to/from ERP project management

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
				generate project numbers					and the DOA Oracle Primavera applications to generate a unique project number. This interface is based on the assumption that all project numbers will originate in ERP
34	1	Project Management	Department of Administration	DOA Primavera applications to ERP to provide project attributes and other project information	Inbound	1	1	New	Obtain project attribute information from various DOA Primavera applications to populate project information required in ERP at the time of a project is fully established for project budgeting and costing purposes in the ERP
35	1	Project Management	Department of Administration	ERP to DOA Oracle Primavera applications to provide updates to project attribute information made in ERP	Outbound	1	1	New	Apply any changes to project information in ERP project management to project records in various Oracle Primavera based applications
36	1	Project Management	Department of Administration	ERP to DOA Oracle Primavera applications to periodically provide actual costs incurred on	Outbound	1	1	New	Apply costs accumulated on a project in ERP project management to the

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
				the project					project records in the DOA Oracle Primavera applications
37	1	Project Management	Department of Administration	ERP to the DOA Oracle Primavera applications to provide updates to milestone dates based on events recorded in ERP	Outbound	1	1	New	Provide any updates to milestone dates in the various Primavera applications based on events in ERP, such as completion dates logged in ERP, etc.
38	1	Project Management	Department of Administration	DOA Oracle Primavera applications to ERP to provide updates to milestone dates	Inbound	1	1	New	Provide updated milestone dates tracked in various Oracle Primavera applications to ERP project management
39	1	Purchasing	Workforce WV / Office of the Insurance Commissioner	List of State vendors delinquent or non compliant in terms of unemployment from Work Force West Virginia to ERP	Inbound	1	2	Existing	
40	1	Purchasing	West Virginia Secretary of State	List of non-compliant State vendors (registration requirements, etc.) from the West Virginia Secretary of State to ERP	Inbound	1	1	New	
41	1	Purchasing	West Virginia Department of Revenue	List of State vendors from the Department of Revenue to ERP who are delinquent in terms of tax payments due to the State, etc. Default vendors	Inbound	1	1	New	

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
				to ERP					
42	1	Purchasing	Higher Education Banner® system, WVU Oracle and various other Agency Line of Business Systems	Vendor master file changes from ERP to the Higher Education Banner® System, the legacy WVDOT system in Phase 1 and various other Agency LOB systems maintaining vendor information	Outbound	5	1	New	
43	1	Temporary Bridge	WV Department of Transportation (WVDOT)	ERP to/from DOT Accounts Payable and Purchasing System for AP transactions during Phase 1	Both	1	2	New	Temporary bridge during Phase 1 until WVDOT is migrated to ERP
44	1	Temporary Bridge	WV Department of Transportation	Warrant Extracts from ERP to WVDOT	Both	1	2	New	Temporary bridge during Phase 1 until WVDOT is migrated to ERP
45	1	Temporary Bridge	State Auditor's Office	Temporary Bridge between ERP and EPICS for Payroll validation data from ERP to EPICS - valid expenditure accounts, grants and projects	Outbound	1	1	New	Temporary bridge during phase 1 and 2 until payroll migrated to ERP
46	1	Temporary Bridge	State Auditor's Office	Temporary bridge from EPICS to ERP with a payroll detail information	Inbound	1	1	New	Temporary bridge during phase 1 and 2 until payroll migrated to ERP
47	1	Temporary Bridge	State Auditor's Office	Temporary bridge from EPICS to ERP with deposit data for agencies that are 'vendors' within payroll system	Inbound	1	1	New	Temporary bridge during phase 1 and 2 until payroll migrated to ERP

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
48	1	Temporary Bridge	WVU, Marshall, Fairmont	Temporary bridge between ERP and higher education systems with payroll edits	Outbound	3	1	Existing	Crosswalk to new accounting format until payroll migrated to ERP
49	1	Temporary Bridge	WV Department of Transportation	Temporary bridge from ERP to WVDOT's Accounts Payable system to provide an extract of WVDOT purchase card transactions	Outbound	1	1	New	Temporary bridge during Phase 1 until WVDOT is migrated to ERP
50	1	Travel	Travel System	Provide information from ERP to Travel System on valid Vendor IDs and addresses to match to FTE info as well as populate vendor validation table	Outbound	1	1	Existing	
51	1	Travel	Travel System	Provide accounting elements from ERP to Travel System to populate validation tables	Outbound	1	4	Existing	Includes commitments, funding elements, grant/project elements and assignment of funding availability based on authorization org. structure
52	1	Travel	Travel System	Invoice information extract from travel advance or reimbursement requests to create ERP Invoice document.	Inbound	1	1	Existing	
53	1	Travel	Travel System	Provide warrant number and date from ERP for	Outbound	1	1	Existing	

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
				recording payment of invoice in travel system.					
54	1	Travel	Travel System	Provide Transaction information from ERP to be matched and routed to cardholder in travel system.	Outbound	1	1	Existing	
55	1	Travel	Travel System	Provide reconciliation for travel only credit card transactions to ERP	Inbound	1	1	Existing	
56	1	Travel	Travel System	Provide file of images to ERP for each advance or reimbursement request for archiving and auditing purposes.	Inbound	1	1	Existing	This information also currently goes to VISTA
57	1	Travel	Travel System	Identifying information for travel transactions from the ERP to the Travel System.	Outbound	1	1	Existing	Used to generate email notifications informing the agencies that documents are in the ERP requiring action
58	2	Accounts Payable	WV Department of Transportation	AASHTO SiteManager™ to ERP for pay estimates for highway construction contracts; ERP to return warrant number and date paid to ERP	Both	1	3	New	Interface with ERP for contractor pay estimates should be able to leverage inbound AP file formats used in Higher Ed and other interfaces
59	2	Accounts Receivable	Alcohol and Beverage Control Administration (ABCA)	ABCA inventory system to ERP to record receivables and collections from the retail stores for purchases	Inbound	1	1	New	

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
				made from ABCA					
60	2	Accounts Receivable	Alcohol and Beverage Control Administration	ERP to ABCA inventory system for updates to customer information	Outbound	1	1	New	
61	2	Accounts Receivable	Department of Administration - Office of Technology (OT)	Billing summary from OT to ERP intergovernmental transactions	Inbound	1	1	New	Internal billing for IT services provided by OT to various agencies
62	2	Federal Aid Billing	WV Department of Transportation	ERP to/from Federal Highway Administration Financial Management Information System (FMIS)	Both	1	4	New	Interface with FMIS for funding agreements and Federal-Aid bills; agreement interface required only if this function is performed in ERP instead of Oracle Primavera
63	2	Fleet Management	Various Agency Document Management Systems	ERP to various agency document management systems to allow for storing, linking to and viewing fleet related documentation	Outbound	6	6	New	
64	2	Fleet Management	Third Party Fleet Managers Utilized by the State	ERP to/from systems of third party fleet managers utilized by the State to provide inventory information and obtain work order history, warranty, preventive maintenance and other information	Both	1	4	New	Automotive Resources International (ARI) is the State's current provider. This contract will be up for renewal during the ERP project. ARI's Driver Insights, Maintenance System (TMS), and Garage Management System

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
									(GMS) are the current applications which would be integrated
65	2	Fleet Management	WV Department of Transportation	WVDOT Gas and Lube System to ERP for fuel cost information	Inbound	1	1	New	Interface with fleet system to provide fuel costs
66	2	Fleet Management	WV Department of Transportation	Proposed WVDOT Automated Fuel Management System to ERP with fuel usage information for each vehicle collected from various WVDOT gas pumps	Inbound	1	1	New	Interface with fleet system to provide fuel usage information; tentative pending WVDOT implementation of new system
67	2	Fleet Management	Oil Price Information System (OPIS)	Fuel price information from Oil Price Information System (OPIS) to ERP	Inbound	1	1	New	Interface between fleet function and OPIS for average daily fuel price
68	2	Fleet Management	Board of Insurance and Risk Management (BRIM)	ERP to Board of Insurance and Risk Management database to provide additions, change, deletions to State agency fleet inventory information and process the annual update of this information	Outbound	1	6	New	ERP will integrate with an in-house SQL Server application maintained by BRIM
69	2	Fleet Management	WV Department of Transportation	WVDOT's web based Trimble TrimWEB and Telvistar Mobile Resource Management application and/or WVDOT's TRIMDB SQL*Server database to	Inbound	1	2	New	

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
				ERP to allow for authorized users viewing vehicle activity history including activity, location and date and time of activity and viewing available vehicle event history which are logged such as speeding, vehicle operations during scheduled down-time, etc.					
70	2	Fleet Management	WV Department of Transportation	ERP from R.L. Polk Vehicle Identification Number Analysis software for vehicle information for a new vehicle added to the State of West Virginia Fleet	Inbound	1	1	New	
71	2	Fleet Management	WV Department of Transportation	DMV Driver License system to ERP to perform a driver license record check on a State employee reserving a State vehicle	Inbound	1	3	New	
72	2	General Ledger	Various DOT Systems	DOT systems to ERP for revenue accounting	Inbound	6	1	New	Interfaces with general ledger for revenue accounting including: DMV Cash Register System; WVDOT RailConnect; WVDOT ePermits and eBonds; WVDOT Superload; WV

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
									Parkways E-Zpass; and WVDOT Salvage Yards / Outdoor Advertising if this system is not migrated to ERP. This will leverage interface in Item #19
73	2	General Ledger	WV Department of Transportation	ERP to WVDOT ProSystem FX to prepare WVDOT financial statements	Outbound	1	1	New	Required unless WVDOT no longer has to prepare its own financial statements
74	2	Project Management	WV Department of Transportation	ERP to/from WVDOT GIS for project information	Both	1	3	New	Allow for displaying of project information from ERP in WVDOT GIS and then drill down into ERP
75	2	Project Management	WV Department of Transportation	ERP to the WVDOT Oracle Primavera Project Management System to generate project numbers	Outbound	1	1	New	Interface from ERP project management to the WVDOT Oracle Primavera based Program and Project Management System to generate a unique project number. This interface is based on the assumption that all project numbers will originate in ERP. This will leverage interface in Item #33 but require additional coordination with WVDOT application.

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
76	2	Project Management	WV Department of Transportation	WVDOT Oracle Primavera Project Management System to ERP to provide project attributes and other project information	Inbound	1	1	New	Obtain project attribute information from the WVDOT Oracle Primavera based Program and Project Management System application to populate project information required in ERP at the time of a project is fully established for project budgeting and costing purposes in the ERP. Can leverage work performed for Item #34 but will required additional work to integrate different State application.
77	2	Project Management	WV Department of Transportation	ERP to the WVDOT Oracle Primavera Program and Project Management System to provide updates to project attribute information made in ERP	Outbound	1	1	New	Apply any changes to project information in ERP project management to project records in WVDOT Program and Project Management System; can leverage interface developed for Item #35 but additional work required to integrate with WVDOT application

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
78	2	Project Management	WV Department of Transportation	ERP to the WVDOT Oracle Primavera Program and Project Management System to periodically provide actual costs incurred on the project	Outbound	1	1	New	Apply costs accumulated on a project in ERP project management to the project records in the WVDOT Oracle Primavera Program and Project Management application; can leverage interface in Item #36 but additional effort required to integrate to the WVDOT application
79	2	Project Management	WV Department of Transportation	ERP to the WVDOT Oracle Primavera Program and Project Management System to provide updates to milestone dates based on events in ERP	Outbound	1	1	New	Provide any updates to milestone dates in the WVDOT Program and Project Management System based on events in ERP, etc.; Can leverage interface in item #37 but requires additional effort to integrate with WVDOT application
80	2	Project Management	WV Department of Transportation	WVDOT Oracle Primavera Program and Project Management application to ERP to provide updates to milestone dates	Inbound	2	2	New	Provide updated milestone dates tracked in various Oracle Primavera applications to ERP

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
									project management; leverages interface in Item #38 but requires additional effort to integrate to WVDOT application
81	2	Project Management	WV Department of Transportation	Oracle Primavera Program and Project Management Application to ERP to provide potential projects for use in what if analysis in STIP process	Inbound	1	1	New	Provide an inventory of potential projects in WVDOT Oracle Primavera Program and Project Management application for use in ERP STIP function
82	2	Project Management	WV Department of Transportation	ERP to Oracle Primavera Program and Project Management to provide approved STIP	Outbound	1	1	New	Provide approved STIP from ERP to WVDOT Oracle Primavera Program and Project Management application for tracking/managing execution of capital program
83	2	Project Management	WV Department of Transportation	FHWA FMIS to ERP to provide available balances by funding source for what if analysis in STIP function	Inbound	1	1	New	
84	2	Project Management	WV Department of Transportation	ERP from WVDOT Deighton Pavement Management System for candidate projects for use in what if analysis in STIP	Inbound	1	1	New	Maybe removed in Phase 4 if Deighton dTIMS decommissioned depending on specific

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
				function					systems integrator solutions
85	2	Purchasing	WV Department of Transportation	Vendor master file changes from ERP to AASHTO Trns*port Preconstruction and SiteManager™ Construction Management System	Outbound	1	1	New	Same outbound file format as Item #42, additional work by State or third party contractor to integrate to agency line of business systems
86	2	Purchasing	WV Department of Transportation	AASHTO Trns*port Letting and Award application to ERP to establish purchase order for selected contractor for highway construction projects	Inbound	1	1	New	
87	2	Purchasing	WV Department of Transportation	AASHTO SiteManager™ to ERP to modify purchase orders for construction contracts based on change orders processed in SiteManager	Inbound	1	1	New	
88	2	Transportation Asset Inventory	WVDOT EMC Application Xtender	ERP to WVDOT EMC Application Xtender to view documentation related to transportation asset inventory	Outbound	1	1	New	
89	2	Transportation Asset Inventory	WV Department of Transportation	ERP to/from WVDOT GIS for transportation asset inventory information	Both	1	5	New	Allow for displaying of transportation asset inventory information in WVDOT GIS and then drill down into ERP

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
90	2	Transportation Asset Inventory	WV Department of Transportation	ERP to/from WVDOT CAD environment for CAD data related to transportation asset inventory	Both	1	5	New	Allow for linking to and displaying CAD data related to a transportation asset inventory item
91	2	Transportation Asset Inventory	WV Department of Transportation	WVDOT ePermits and eBonds application to ERP for inventory and location information	Inbound	1	1	New	Provides inventory and location information for access permits to ERP transportation asset inventory function
92	2	Transportation Asset Inventory	WV Department of Transportation	WVDOT Salvage Yards and Outdoor Advertising application to ERP for inventory and location information	Inbound	1	2	New	Interfaces with transportation asset inventory for inventory and location information; tentative depending on whether this function is migrated to transportation asset inventory function
93	2	Transportation Asset Inventory	WV Department of Transportation	WVDOT SQL Server Roadway Inventory System to/from ERP for route network updates	Both	1	2	New	
94	2	Transportation Asset Inventory	WV Department of Transportation	WVDOT Deighton Pavement Management System to ERP for pavement asset and condition information	Inbound	1	2	New	Maybe removed in Phase 4 if Deighton dTIMS decommissioned depending on specific systems integrator solutions
95	2	Transportation	WV Department of	WVDOT RoadWare	Outbound	1	1	New	Interface with

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
		Asset Inventory	Transportation	Pavement Management System to ERP for pavement asset and condition information					transportation asset inventory in Phase 2 and pavement management and safety management in Phase 4
96	2	Transportation Asset Inventory	WV Department of Transportation	WVDOT BridgeInspect™ to ERP for bridge inventory and inspection information	Inbound	1	2	New	Maybe removed in Phase 4 if BridgeInspectTM decommissioned depending on specific systems integrator solutions
97	2	Transportation Asset Inventory	WV Department of Transportation	WVDOT Crash Reporting System to ERP for crash history	Inbound	1	1	New	Interface with transportation asset inventory in Phase 2 and safety management in Phase 4
98	3	Benefits	WV Department of Education	Benefits deductions for county school board employees from the West Virginia Education Information System (WVEIS) to ERP	Inbound	1	1	New	
99	3	Benefits	WV Counties	Premium files to the Counties	Outbound	See notes	1	New	All counties do not receive this. Only the counties that requested to receive it. The State is encouraging the counties to download the information from

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
									the WEB. The State creates files for all 55 counties but only sending 41 files to the ftp site for download.
100	3	Benefits	Third -party eligibility, billings and claims analyst	Eligibility, Billings and Claims information file from ERP to Consultant for analysis	Outbound	1	1	New	Currently, the claims data comes from the third-party administrators. The analyst is Michael A. Madalena, Consultant
101	3	Benefits	Third-party Administrators	Eligibility data from ERP to multiple third-party administrators	Outbound	5	1	New	Third-party administrators include: Healthplan, Wells Fargo, Express Script (Commercial), Express Script (PDP) and Humana
102	3	Benefits	Consolidated Public Retirement Board (CPRB)	Premium data from ERP to CPRB.	Outbound	1	1	New	
103	3	Benefits	Consolidated Public Retirement Board	Deductions file from CPRB to ERP accounts receivable.	Inbound	1	1	New	
104	3	Benefits	Public Employees Insurance Agency	Integration of PEIA Customer Relationship Management (CRM) with ERP	Both	1	2	New	
105	3	Learning Mgmt	Courseware Development Systems	Courseware Development to ERP Learning Management	Inbound	3	1	New	To support integration of courseware developed by agencies
106	3	Learning Mgmt	Agency Learning Management Systems	Class schedule and enrollment to ERP	Inbound	5	1	New	Class data from agencies that maintain

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
				Learning Management					their own learning management systems
107	3	Learning Mgmt	Agency Learning Management Systems	Classes completed to ERP Learning Management	Inbound	5	1	New	Attendance data from agencies that maintain their own learning management systems
108	3	Learning Mgmt	Agency Learning Management Systems	Employee data from ERP to Agency Learning Management systems	Outbound	5	1	New	To maintain up to date employee data within agencies that operate their own learning management systems
109	3	Learning Mgmt	Agency Learning Management Systems	Certification data to Learning Management	Outbound	5	1	New	To update certification data for agencies that operate their own learning management systems
110	3	Payroll	Higher Ed Agencies	ERP Payroll data files to Banner® Systems from ERP	Outbound	18	2	Existing	Employee gross pay data and payroll detail file that includes account information
111	3	Payroll	WVU, Marshall, Fairmont, Adj. General, Bluefield	Payroll Exceptions to ERP	Inbound	5	1	Existing	Files of records to override payroll earnings and deductions
112	3	Payroll	WVU, Marshall, Fairmont	Updates to employee payroll data from ERP to individual higher education payroll systems	Outbound	3	1	Existing	
113	3	Payroll	Fairmont	Valid accounting element data from Banner® system to ERP	Inbound	1	2	Existing	Cost center data and accounting data (Dept. default or employee specific)

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
114	3	Payroll	Concord, WVU, Fairmont	Quarterly payroll data files from ERP to Higher Ed.	Outbound	3	1	Existing	Copy of quarterly reports
115	3	Payroll	Various Agencies	Salary Increases from various agencies to ERP	Inbound	18	2	Existing	
116	3	Payroll	WVU, Marshall, Fairmont,	Payroll edits data file from ERP to Higher Ed.	Outbound	3	1	Existing	Gross-to-Net details including accounting information
117	3	Payroll	Various Agencies	Time and attendance data from remaining agency time and attendance applications to ERP	Inbound	8	1	New	
118	3	Payroll	Policy Studies (external third party, works with DHHR)	New hires from ERP to DHHR contracted third party	Outbound	1	1	Existing	
119	3	Payroll	ING Retirement	Investment deductions from ERP	Outbound	1	1	Existing	
120	3	Payroll	FBMC Benefits Management	Fringe benefit deductions from ERP	Outbound	1	1	Existing	
121	3	Payroll	FBMC Benefits Management	Fringe benefit deductions updates by employee to ERP	Inbound	1	1	Existing	
122	3	Payroll	FBMC Benefits Management	Wage file for reporting to FBMC	Outbound	1	1	Existing	Currently, the FBMC retrieves the data from a WVSAO website
123	3	Payroll	EFTPS Batch Provider	EFTP acknowledgments file from ERP	Outbound	1	1	Existing	Interactive System to load to IRS process (Electronic Federal Payments Program)
124	3	Payroll	WV Tax Dept	State tax deductions from ERP	Outbound	1	1	Existing	
125	3	Payroll	Federal and state taxing authorities	W2 detail to IRS and various states from ERP	Outbound	7	1	Existing	States include: KY, MD, OH, PA, VA, WV

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
126	3	Payroll	City of Charleston	User fee deduction file from ERP to the City	Outbound	1	1	Existing	
127	3	Payroll	Consolidated Public Retirement Board	Retirement payroll, EFTPS data to ERP	Inbound	1	1	Existing	
128	3	Payroll	Payroll Vendors	ERP to multiple payroll vendors for payroll remittances - includes detail	Outbound	12	1	Existing	Payroll vendors include: TIAA-CREF, TIAA SRA, WVDHHR - CHILD SUPPORT, STATE OF WV INCOME TAX, ING FINANCIAL SERVICES, AFLAC, VARIABLE ANNUITY LIFE INS, GREAT WEST, LIFE, HARTFORD - SMART 529, PNC BANK-CITISTREET, TIAA DEFERRED, AMERICAN GENERAL LIFE
129	3	P-Card	CitiBank/VISA (Total Systems Services)	Interface from ERP to the State's P-Card processing firm to establish new card account	Outbound	1	1	New	
130	3	P-Card	CitiBank/VISA (Total Systems Services)	Interface from ERP Personnel Administration to the State's P-Card processing firm to temporarily suspend authorization due to employee extended leave	Outbound	1	1	New	For example, employee is on extended leave
131	3	P-Card	CitiBank/VISA (Total Systems Services)	Interface from ERP leave to the State's P-Card processor to cancel card in	Outbound	1	1	New	For example, employee is terminated

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
				the event of an employee termination or position change where card is no longer needed/authorized					
132	3	Personnel	Various Agencies	Employee data updates from ERP to any remaining agency time and attendance systems	Outbound	8	1	New	
133	3	Personnel	NeoGov	New hire information from NeoGov to ERP to pre-populate employee information in ERP collected in NeoGov	Inbound	1	1	New	
134	3	Personnel	Travel System	Provide employee data from ERP to Travel system	Outbound	1	1	Existing	
135	3	Personnel	Travel System	Provide credit card number for cardholders from ERP to populate validation/assignment table in the system	Outbound	1	1	Existing	
136	3	Personnel Administration	Various agency document management systems	ERP to/from multiple agency document management systems to allow for storing, linking and retrieving applicant and employee documentation	Both	6	6	New	
137	3	Time and Labor	Department of Administration and Department of Transportation	ERP to DOA Oracle Primavera Applications and WVDOT Oracle Program and Project Management System to provide time charged to	Outbound	2	2	New	Provide time charged to projects in ERP to various Oracle Primavera applications; assumed implemented in Phase

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
				projects					3 when ERP time and leave function deployed
138	3	Time and Labor	Travel System	Interface from ERP Time and Labor function to record account distribution for hours worked on travel days	Outbound	1	1	New	To facilitate option for charging travel expenses to same distribution as hours worked
139	3	Travel	Travel System	Interface to ERP payroll (taxable reimbursements)	Inbound	1	1	New	
140	4	Bridge Management	WV Department of Transportation	ERP to WVDOT EMC Application Xtender to view documentation related to bridge assets	Outbound	1	1	New	
141	4	Bridge Management	WV Department of Transportation	ERP to/from WVDOT CAD environment	Both	1	8	New	Allow for linking to and displaying CAD data related to a bridge asset
142	4	Bridge Management	WV Department of Transportation	ERP to/from WVDOT GIS for bridge inventory and inspection information	Both	1	2	New	Allow for displaying of bridge information in WVDOT GIS and then drill down into ERP
143	4	Facility Management	WV Department of Transportation	ERP to/from WVDOT CAD environment	Both	1	8	New	Allow for linking to and displaying CAD data related to a real estate or facility item
144	4	Facility Management	Various agency document management systems	ERP to various agency document management systems to allow for storing, linking to and viewing facilities related documentation	Outbound	6	6	New	
145	4	Pavement	WV Department of	ERP to/from WVDOT GIS	Both	1	2	New	Allow for displaying of

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
		Management	Transportation	for pavement asset and condition information					pavement information in WVDOT GIS and then drill down into ERP
146	4	Pavement Management	WV Department of Transportation	ERP to WVDOT EMC Application Xtender to view documentation related to pavement assets	Outbound	1	1	New	
147	4	Pavement Management	WV Department of Transportation	ERP to/from WVDOT CAD environment	Both	1	8	New	Allow for linking to and displaying CAD data related to a pavement asset
148	4	Real Estate	Multiple Listing Service (MLS) information on candidate properties for use by various State agencies	ERP to/from Multiple Listing Service to obtain detail property information	Both	1	1	New	Integration between Multiple Listing Service software and ERP real estate functions
149	4	Real Estate	Board of Insurance and Risk Management	ERP to Board of Insurance and Risk Management database to provide additions, change, deletions to State agency real estate, facility, information and process the annual update of this information	Outbound	1	5	New	Also utilized by ERP facilities and right-of-way functions; should be able to leverage interface developed for Item #68
150	4	Real Estate	Various agency document management systems	ERP to various agency document management systems to allow for storing, linking to and viewing real estate related	Outbound	6	6	New	

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
				documentation					
151	4	Right-of-Way and Utilities	WV Department of Transportation	ERP to WVDOT EMC Application Xtender to view documentation related to parcels and utility relocations	Outbound	1	1	New	
152	4	Right-of-Way and Utilities	WV Department of Transportation	ERP to/from WVDOT GIS for right-of-way parcel and utility relocation information	Both	1	2	New	Allow for displaying of parcel and utility relocation information in WVDOT GIS and then drill down into ERP
153	4	Right-of-Way and Utilities	WV Department of Transportation	ERP to/from WVDOT CAD environment	Both	1	3	New	Allow for linking to and displaying CAD data related to right-of-way parcels and utility relocations
154	4	Safety Management	WV Department of Transportation	ERP to WVDOT EMC Application Xtender to view documentation related to vehicle crashes and/or transportation inventory	Outbound	1	1	New	
155	4	Safety Management	WV Department of Transportation	ERP to/from WVDOT GIS for crash history information	Both	1	1	New	Allow for displaying of crash history information in WVDOT GIS and then drill down into ERP
156	4	Safety Management	WV Department of Transportation	ERP to/from WVDOT CAD environment	Both	1	8	New	Allow for linking to and displaying CAD data related to asset inventory associated with a crash

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
157	4	Safety Management	WV Department of Transportation	ERP from R.L. Polk Vehicle Identification Number Analysis software for vehicle information for each vehicle involved in a crash	Inbound	1	2	New	Can leverage interface developed for Fleet in Item #70 in Phase 2; some additional effort may be required to integrate into ERP safety management function
158	4	Safety Management	WV Department of Transportation	DMV Driver License system to ERP for history of each driver involved in a crash, driver traffic conviction history	Inbound	1	3	New	Can leverage interface developed for Fleet in Item #71 in Phase 2; some additional effort may be required to integrate into ERP safety management function
159	4	Safety Management	WV Department of Transportation	Collision data from ERP safety management to a user defined collision diagramming tool (for example Intersection Magic).	Outbound	1	1	New	Application integration between ERP safety management and crash diagramming tools
160	4	Safety Management	WV Department of Transportation	Crash data from ERP safety management to TrafficWare Syncro Studio 7 modeling software	Outbound	1	1	New	Application integration between ERP safety management and TrafficWare Syncro Studio
161	4	Safety Management	WV Department of Transportation	Crash data from ERP to McTrans Highway Capacity software	Outbound	1	1	New	Application integration between ERP safety management and McTrans Highway

No.	Phase	Function	External Entity	Type of Data	Inbound / Outbound	Approx. Sources / Receivers	Number of File Formats	Existing or New	Notes
									Capacity software
162	4	Safety Management	Public Service Commission	Motor Carrier Citations Database to ERP to track PSC issued motor carrier citations.	Inbound	1	1	New	Provide Motor Carrier Citation data on drivers involved in vehicle crashes
163	4	Safety Management	WV Department of Transportation	ERP from Uniform Citation Database for citation history	Inbound	1	1	New	
164	4	Safety Management	WV Department of Transportation	ERP from DHHR Trauma Registry for injury information from a crash	Inbound	1	1	New	
165	4	Safety Management	WV Department of Transportation	ERP from DMV Vehicle Registration System for vehicle information for each vehicle involved in a crash	Inbound	1	1	New	

Appendix K - ERP System Production Support

This appendix provides additional specifications concerning the Vendor's requirements to provide production support and maintenance for the ERP system. It also describes expectations concerning the software upgrade to be performed following the completion of all implementation phases.

The Vendor will be responsible for the production support of the ERP application during the phased deployment of the ERP solution and for the first full year of production operations (i.e. through one year following the Go-Live of Phase 4). After one full year of production operations, the responsibility for providing production support for the ERP system is expected to become a joint responsibility between the State and the Vendor. In the second full year of production operations, the Vendor is expected to manage the production support activities, with State staff performing most of the production support activities under the Vendor's direction. Beginning with the third full year of production operations, the State expects to manage and lead the production support activities, with the Vendor providing advisory support or providing specialized subject matter expertise.

The following table outlines the anticipated ERP Production Support approach.

Exhibit 36: ERP Production Support Approach

Project Phase/Timeline	Vendor Responsibilities	State Responsibilities
During phased implementation activities through the Go-Live of Phase 4	The Vendor must: ♦ Manage and provide application support for the production components of the ERP system ♦ Manage, guide and direct State staff to perform low risk support activities ♦ Manage and perform system testing of any system changes ♦ Create or update training materials to reflect system changes ♦ Provide advisory support on any organizational change management impacts ♦ Ensure any changes to the production environment are reflected as required in ongoing development	The State will: ♦ Operate the help desk and track problem reports ♦ Manage user security profiles ♦ Provide super users with sufficient knowledge of the ERP system and State business processes to perform initial problem identification and act as the initial point of contact with the user community ♦ Perform some support responsibilities to facilitate knowledge transfer under the management and guidance of the Vendor ♦ Perform user acceptance testing of any system changes ♦ Provide any required

Project Phase/Timeline	Vendor Responsibilities	State Responsibilities
	activities ♦ Manage relationships with the ERP software Vendor and any third party software Vendors	additional training of end users, leveraging training materials developed by the Vendor ♦ Manage organizational change impacts, with advisory support from the Vendor ♦ Establish and monitor with the Vendor the knowledge transfer plan
Year 1 of full production operations	The Vendor must: ♦ Manage and provide application support for production components of the ERP system ♦ Manage, guide and direct State staff to perform low risk support activities ♦ Manage and perform system testing of any system changes ♦ Create or update training materials to reflect system changes ♦ Provide advisory support on any organizational change management impacts ♦ Ensure any changes to the production environment are reflected as required in ongoing development activities ♦ Manage relationships with the ERP software Vendor and any third party software Vendors	The State will: ♦ Operate the help desk and track problem reports ♦ Manage user security profiles ♦ Provide super users with sufficient knowledge of the ERP system and State business processes to perform initial problem identification and act as the initial point of contact with users ♦ Perform some application support activities under the guidance and direction of the Vendor in order to achieve knowledge transfer to the State ♦ Perform user acceptance testing of any system changes ♦ Provide any required additional training of end users, leveraging training materials developed by the

Project Phase/Timeline	Vendor Responsibilities	State Responsibilities
		Vendor ♦ Manage organizational change impacts, with advisory support from the Vendor ♦ Monitor with the Vendor the knowledge transfer plan
Year 2 of full production operations	The Vendor must: ♦ Manage and provide overall leadership for support activities, but with most activities performed by State staff under the Vendor's direction ♦ Manage system testing of any required changes ♦ Provide specialized expertise in various ERP functions or technologies on an as required basis ♦ Manage relationships with the ERP software Vendor and any third party software Vendors	The State will: ♦ Operate the help desk and track problem reports ♦ Manage user security profiles ♦ Provide super users with sufficient knowledge of the ERP system and State business processes to perform initial problem identification and act as the primary point of contact with users ♦ Perform most support activities under the direction of the Vendor ♦ Perform system testing of any changes under the direction of the Vendor ♦ Perform user acceptance testing of any system changes ♦ Create new training material or update existing raining materials as required under the direction of the Vendor ♦ Provide any required additional training of end users ♦ Manage organizational

Project Phase/Timeline	Vendor Responsibilities	State Responsibilities
		change impacts ♦ Ensure any changes to the production environment are reflected in ongoing development activities, with guidance from the Vendor ♦ Monitor with the Vendor the knowledge transfer plan
Years 3 – 5 of full production operations	The Vendor must: ♦ Provide specialized expertise in various ERP functions or technologies under the direction of the State ERP Project Manager	The State will: ♦ Manage all aspects of ERP application support ♦ Perform all support activities, except where the State determines that specialized expertise or skills is required from the Vendor ♦ Manage relationships with the ERP software Vendor and any third party software Vendors

Additional requirements and specifications related to ERP production support are outlined below.

During Phased Implementation Activities and Through the First Full Year of Production Operations

The Vendor is responsible for managing and performing all required application and other production support activities. The Vendor is expected to assign low risk and non-mission critical support activities to State staff and/or have State staff partner with Vendor staff to complete various support assignments.

The Vendor will be responsible for addressing all ERP production system issues within the timelines outlined in the tab. The Vendor is responsible for managing and performing all required application and other production support activities. The Vendor is expected to assign low risk and non-mission critical support activities to State staff and/or have State staff partner with Vendor staff to complete various support assignments.

The Vendor will be responsible for addressing all ERP production system issues within the timelines outlined in the table below.

Exhibit 37: ERP System Issue Resolution Timeframes

Severity	Description	Timeframes for Initiating Work and Resolving the Issue
High	Show-stopper issue which is preventing the State from performing business operations. There is no work-around or the work-around is extremely complex.	♦ The Vendor must begin problem diagnostics on the issue within two (2) hours of the issue being reported to the Vendor ♦ The Vendor must resolve at least 95% of all high issues within one (1) business day of issue identification
Medium	Material impact on State business operations. However, there is a work around allowing business operations to proceed in the interim.	♦ The Vendor must begin problem diagnostics on the issue within eight (8) hours of the issue being reported to the Vendor ♦ The Vendor must resolve at least 95% of all high issues within five business days of issue identification
Low	System does not work according to approved design, but the issue is having a limited immediate impact on State business operations	♦ The Vendor must begin problem diagnostics on the issue within ten business days of the issue being reported to the Vendor ♦ The Vendor must resolve at least 90% of all low issues within 20 business days of issue identification
Enhancement	Issue is determined to be an enhancement to the ERP system	♦ Prioritized by State ERP Change Control Board and scheduled/ worked on if approved by Change Control Board

If the Vendor begins works on an issue which is classified by the State as a high, medium or low issue and is later determined to be an enhancement request, the State should compensate the Vendor at its change order rates for all diagnostic time performed up to the point at which the Vendor reports to the State that the item reported as an issue appears to be an enhancement request and the State accepts this interpretation of the item.

For planning purposes, the Vendor should assume 1,500 hours of enhancement requests 3 for the year following the Go-Live of Phase 1 (which coincides with the phased deployment of Phases 2-4).. The Vendor should assume an additional 2,000 hours of

enhancement requests during the first full year of production operations following the Go-Live of Phase 4.

The Vendor should be compensated on a fixed fee payable monthly for production support services. The Vendor should be compensated on a fixed price basis according to the estimate submitted by the Vendor and approved by the State for each approved enhancement request, which the Vendor should invoice upon State acceptance of the enhancement request.

The State and the Vendor should establish a knowledge transfer plan as part of project start-up. This plan must be monitored continuously by the ERP PMO and updated as required.

Second Full Year of Production Operations

During the second full year of production operations, the Vendor must provide a full-time Project Manager to manage the production support activities. The Vendor must also provide at least the following staff to guide the State in performing production support activities:

- One FTE Finance functional lead
- One FTE Human Resources/Payroll functional lead
- One FTE Procurement/Logistics functional lead
- One FTE Transportation Asset Management functional lead
- One FTE Senior Applications Database Administrator
- Other experienced ERP resources on as needed basis to perform advisory services or provided specialized expertise (approximately 0.25 FTE equivalent)
- Analysts and developers for approved enhancement requests (approximately 2 FTE equivalents)

For planning purposes, the Vendor should assume 4,000 hours of enhancement requests during the second full year of production operations and 500 hours of specialized and advisory assistance.

The Vendor should be compensated on a fixed fee payable monthly for production support services. The Vendor should be compensated on a fixed price basis according to the estimate submitted by the Vendor and approved by the State for each approved enhancement request, which the Vendor should invoice upon State acceptance of the enhancement request. The Vendor should be compensated on a loaded hourly rate basis including expenses for specialized and advisory services. Specialized and advisory services should be invoiced monthly.

Third, Fourth and Fifth Full Year of Production Operations

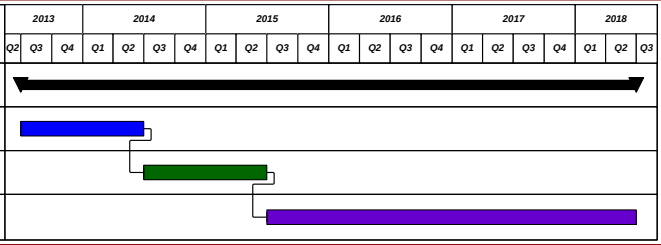
For planning purposes, the Vendor should assume 4,000 hours per year of enhancement requests during this period and 2,000 hours per year of specialized and advisory assistance.

The Vendor should be compensated on a fixed price basis according to the estimate submitted by the Vendor and approved by the State for each approved enhancement request, which the Vendor should invoice upon State acceptance of the enhancement request. The Vendor should be compensated on a loaded hourly rate basis including expenses for specialized and advisory services. Specialized and advisory services should be invoiced monthly.

The following chart illustrates the anticipated Production Support timeline:

Exhibit 38: Anticipated ERP System Production Support Timeline

ID	Task Name	Start	Finish
1	ERP Production Support	7/1/2013	6/30/2018
2	Vendor Production Support - 1st Year	7/1/2013	6/30/2014
3	Shared Production Support - 2nd Year	7/1/2014	6/30/2015
4	State Production Support - 3rd to 5th Years	7/1/2015	6/30/2018



Software Upgrade

The Vendor must manage and lead one upgrade of the software comprising the ERP system. This upgrade must be performed beginning no later than six (6) months after the State ERP PMO and the State's Steering Committee establish that the ERP production environment has been stabilized following the completion of the go-live of Phase 4. This software upgrade must include migrating all elements of the Vendor's proposed ERP system to the next generally available major release of the software. This software upgrade must include both ERP software modules and any third party software solutions which have been included in the Vendor's ERP solution.

This software upgrade is expected to be primarily a "technical upgrade", with no additional functionality added. However, if a customization can be retired because of the availability of new out-of-the-box functionality in the next release of the software, the customization should be retired and the software configuration modified to take advantage of the new functionality available within the ERP or third party software module.

During the upgrade process, the Vendor must be responsible for the following activities:

- Performing fit/gap analysis;
- Identifying solutions to address any gaps;
- Designing and developing new customizations or making modifications to existing customizations to support the upgrade process;
- Defining any impacts on existing system interfaces;
- Retrofitting any extract routines from or load routines to the ERP system to support the software upgrade;
- Planning and leading execution of system test;
- Assisting the State to plan and conduct user acceptance testing;
- Planning for and managing execution of the transition of the upgraded software to Production; and
- Developing any new training materials required to support the software upgrade and conducting train-the-trainer sessions using these materials for State staff.

The State will be responsible for retrofitting extracts from and loads to other State or third party systems which integrate with the ERP system. The State will participate in system testing and have responsibility for performing user acceptance testing. The State will perform any required user training. The Vendor should assume that the State staff identified in the subsection below would be available to assist with this upgrade process.

State Staffing for ERP System Production Support

The table below outlines the staff which the State expects to assign to an ERP Center of Excellence to support the new ERP system.

Exhibit 39: Anticipated Staffing of State ERP System Support Team

State of West Virginia ERP Production Support Staffing
Project Management Office
ERP Center Director/Manager
ERP PMO Analyst
Administrative Assistant
Super Users and Subject Matter Experts
Finance Lead Super User
Finance Super User
Finance Super User
Finance Super User
Procurement/Logistics Lead Super User
Procurement/Logistics Super User
HR/Payroll Lead Super User
HR/Payroll Super User
HR/Payroll Super User
HR Payroll Super User
Fleet Management Super User
Transportation Operations Mgmt Super User
Transportation Asset Inventory Super User
Facilities/Real Estate
Pavement/Bridge/Safety Super User
Right-of-Way/Utilities Super User
Higher Education Super User
BI Lead Super User
BI Super User
Senior System Administrator
Junior System Administrator
Administrative Assistant
ERP IT Applications Support
Technical Project Manager
Finance Lead
GL, AR, Grants, Projects, Cost Lead
AP, PO, Inv Lead
Facilities, Fleet, Real Estate Lead
Payroll Lead
HR/Benefits Lead
Transportation Asset Mgmt Lead
Safety/Pavement/Bridge Lead

State of West Virginia ERP Production Support Staffing
Right-of-Way/Utilities Lead
Business Intelligence Lead
Senior Application DBA
Application DBA
Five (5) Application Developers
Administrative Assistant
ERP IT Infrastructure/Operations
Technical Lead/Systems Programmer
Four (4) Operations Staff
1/2 time Administrative Assistant

Appendix L - ERP System Operations Environment

The specific requirements of the ERP system operations environment which must be provided by the Vendor are outlined below.

Development / Test Environment

The Vendor will be expected to host the ERP development environment for the State from the beginning of the project through no later than three (3) months following the Go-Live of Phase 1. At that time, the ERP development environment is expected to migrate into a State operated development environment, with the Vendor acting in a support and advisory role to help resolve any issues which may arise with the State development environment.

The ERP development / test environment must consist at least of the following instances/environments:

- Baseline (vanilla);
- Sand-box;
- Development;
- System testing; and
- Training.

The ERP development environment hosted by the Vendor must adhere to the following standards and specifications:

- Include the installation, technical support and access to the ERP software and all other development tools and software expected for the ERP project including extract, transform, load (ETL) tools, workflow tools, etc.;
- Provide availability of and access to all required instances within the timelines identified in the approved ERP implementation work plan;
- Provide 99.9% up-time for all instances in the ERP development environment;
- Support the scheduling of down-time in coordination with the ERP Project Management Office (PMO) to minimize the impact of down-time windows on ERP project activities;
- Provide for hosting of the development environment in a data center environment which at least complies with Telecommunications Industry Association (TIA) Tier 3 data center standards;
- Provide security for the development environment consistent with the security requirements for the ERP software solution outlined in the General and Technical requirements including protection of all data contained in all development, testing and training instances; and
- Provide for fail-over of the ERP development environment within 48 hours of an outage, with no more than the loss of one day of data.

The Vendor is expected to specify and acquire for the State the recommended components to support the State's own ERP development environment. The State ERP development environment is expected to then be established, along with the ERP production environment, in a State-owned facility. The Vendor is expected to determine and recommend as part of its proposed configuration whether the development

environment should reside on the same hardware as the production environment or whether these environments should be on separate servers.

The Vendor must assist the State with the establishment and testing of the ERP development environment and the migration of the ERP development environment from the Vendor-hosted environment to the State-operated development environment with no impact to the ERP project schedule. While management of the ERP development environment is expected to be the primary responsibility of the State beginning no later than three months following the Go-Live of Phase 1, the Vendor must also provide advisory support to the State staff on the management and operation of the State ERP Development environment as needed to ensure there is no impact to the ERP project schedule through one year following the Go-Live of Phase 4.Production Environment

The Vendor is responsible for recommending a proposed ERP production environment configuration as part of its proposal. The Vendor should then acquire the specified components on behalf of the State, install these components in production environments provided by the State and operate the ERP production environment in these data centers in conjunction with the State for one year following the Go-Live of Phase 4.

The State is willing to consider Vendor proposals which leverage existing components of the State's technology infrastructure. One example could be implementing the ERP system under the Integrated Facility for Linux (IFL) on the Office of Technology IBM Z series mainframe. If Vendors propose leveraging elements of the existing State technology environment for the ERP system, the Vendors should include only the incremental cost of any additional required components to implement its recommended environment in its cost proposal.

Through one year following the Go-Live of Phase 4, the Vendor is expected to have primary responsibility for managing the ERP production environment, with the State acting in a support role and being mentored and guided by the Vendor. One year following the Go-Live of Phase 4, responsibility for operating the ERP production environment is expected to transfer fully to the State.

The ERP production environment must at least consist of the following instances/environments:

- Production;
- Emergency patch;
- User acceptance testing in an environment that mirrors the production environment; and
- Performance testing in an environment that mirrors the production environment.

This ERP production environment is expected to operate over the State of West Virginia network including various private networks operated by State Auditor, State Treasurer, Office of Technology, Department of Education, West Virginia Lottery, West Virginia Legislature, other State agencies which maintain their own networks and various higher education institutions.

The State expects to assign the staff identified in the chart below to work with the Vendor's operations and support staff to operate the ERP production environment. These staff are expected to also be responsible for maintaining the State's ERP development environment once it is established.

Exhibit 40: ERP System State Operations Support Staff

Role	Number of State Staff	Level of Commitment	Anticipated Skills
Infrastructure Lead	1	25% from project start, then 100% beginning January 1, 2012	Experienced in data center architecture and operations. Will have specific training if needed in operating systems and platforms recommended by the Vendor. Will shadow the Vendor staff prior to transition to State responsibility.
Systems Programmer	1	25% from project start, then 100% beginning January 1, 2012	Experience in multiple operating system environments, with specific training to be given in systems and tools recommended by Vendor. Will shadow Vendor staff prior to the transition to the State.
Operations Support Staff	3	25% from project start, then 100% beginning January 1, 2012	Experience in data center operations, with specific training to be given in systems and tools recommended by Vendor. Will shadow" Vendor staff prior to the transition to the State.

The ERP production environment must be acquired by August 1, 2012 and installed by September 1, 2012 in order to support user acceptance testing, performance testing and cut-over preparation for the Phase 1 Go-Live. It is the State's intention that the hardware, system software and related components in the ERP production environment are leased and the lease is transferred to the State at the time responsibility for managing the ERP production environment is transitioned from the Vendor to the State.

The State recognizes that hardware technologies are continuously evolving and that the price performance ratio of hardware typically increases over time. It is the State's expectation that the Vendor will acquire for the State the optimal configuration available at the time of the actual hardware acquisition for the cost included for the production environment in the Vendor's proposal.

The ERP production environment must meet all of the security, reliability, performance and other requirements delineated in the General and Technical Requirements. This includes the following requirements:

- Support 99.999% availability for online inquiry and updates seven days a week (other than the defined maintenance window);

- Conduct scheduled maintenance during hours designated as the "Maintenance Window". This maintenance window will be established by the State at a time which is least impacting to both online users and batch processing;
- Process fully a transaction within the application and the database environment within three seconds of receipt of the transaction 98% of the time;
- Support multi-node application server processing so that application processing load can be distributed and balanced across multiple physical servers;
- Design the system architecture to ensure that normal system operations are restored within less than five minutes of a failover event of a production system component 99% of the time;
- Provide ability to support scaling of the application to accommodate 10 years of future growth with minimal user impact;
- Allow for maintenance of a current back-up of the ERP database including application data and system tables and configurations to be utilized for restoration in the event of catastrophic failure and loss of data. This includes any third party add-on modules to the ERP; and
- Ensure solution is architected to allow it to be fully recoverable, with no data loss, within 48 hours of an unexpected outage.

Disaster Recovery/Hot Site Back-up

The Vendor should propose an ERP disaster recovery/hot site back-up plan as part of its proposal. The Vendor should either:

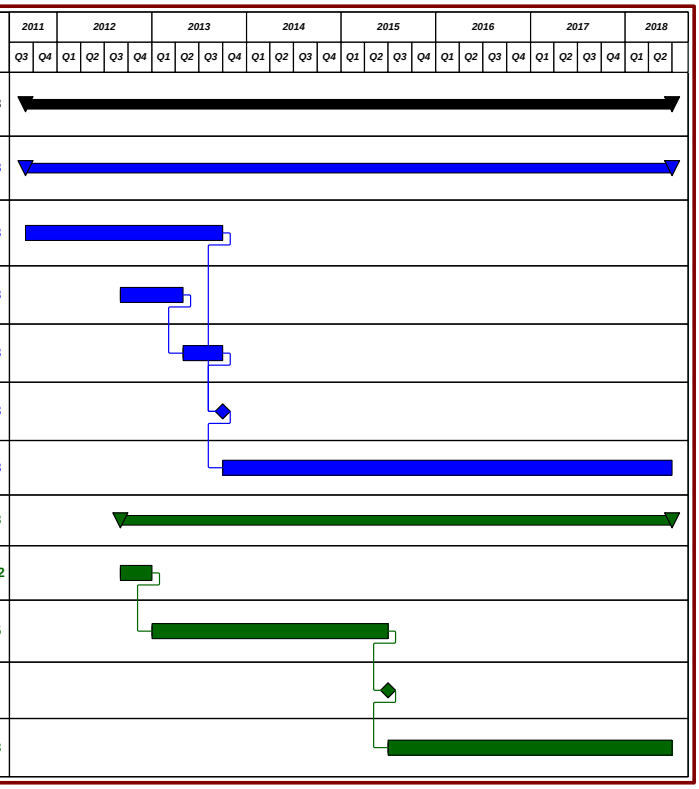
- Specify in its proposal the appropriate hot site hardware and system software components/configuration and acquire these components on behalf of the State in order to establish a disaster recovery/hot site back-up in an existing State-owned disaster recovery facility; or
- Specify a Vendor disaster recovery/hot site back-up site which can provide these services for the State through one year following the Go-Live of Phase 4.

The Vendor is expected to include the costs associated with its recommended option in its cost proposal. A Vendor disaster recovery site or a site operated by a subcontractor to the Vendor is expected to provide a data center environment which at least compiles with Telecommunications Industry Association (TIA) Tier 4 data center standards.

Regardless of the option recommended for implementing the hot site, the Vendor must prepare a detailed plan for establishing the ERP disaster recovery/hot site and manage implementation of the hot site. Prior to the go-live of Phase 1 and at least once every six months thereafter through one year following the Go-Live of Phase 4, the Vendor must then plan and conduct structured testing of the hot site capabilities including testing a full restore of the Production environment.

Exhibit 41: Anticipated ERP System Operations Environment Timeline

ID	Task Name	Start	Finish
1	ERP Development and Production Environment Implementation	9/1/2011	6/30/2018
2	Development Environment	9/1/2011	6/30/2018
3	Establish and Operate Vendor Hosted Development Environment	9/1/2011	9/30/2013
4	Procure and install State Hardware for State Supported Development Environment	9/1/2012	4/30/2013
5	Establish State Supported Development Environment	5/1/2013	9/30/2013
6	Switch over to State Supported Development Environment	10/1/2013	10/1/2013
7	Operate State Supported Development Environment	10/1/2013	6/30/2018
8	Production Environment	9/1/2012	6/30/2018
9	Establish Vendor Supported Production Environment	9/1/2012	12/31/2012
10	Operate Vendor Supported Production Environment	1/1/2013	6/30/2015
11	Transfer Operational Control from Vendor to State Personnel	7/1/2015	7/1/2015
12	Operate State Supported Production Environment	7/1/2015	6/30/2018



Appendix M - Functional and System-wide Requirements

In accordance with Section 3.9 Functional and System-wide Requirements Submission, Vendors are expected to utilize Advantiv Solution's DD2 RFP Response Management System to complete and respond to the State's Functional and System-wide Requirements which have been uploaded into DD2. Vendor responses to these requirements are expected to be collected and processed via DD2.

Advantiv is expected to provide each Vendor with Login IDs and all necessary instructions within one business day of contact. The DD2 Vendor response environment is expected to be available to each Vendor upon completion of the activities listed below. Vendor access to DD2 will end in accordance with the due date/time for submission of proposals listed in Section 1.3 – Calendar of Events.

Obtaining Access to DD2

The following steps are expected to be completed by each Vendor in order to request their secure, on-line response environment within the DD2 system and ensure that the DD2 software is properly configured for their responses to be recorded:

- Contact Advantiv via email at dd2@advantiv.com to request client software for loading DD2;
- Provide Advantiv a list of individuals authorized by Vendor who are to be given Login IDs and passwords;
- Provide Advantiv a list of software product names and report or query tool names to populate Vendor's Functional Requirements Source response options field allowing the Vendor to designate which software product will provide the required functionality. Software product names should be listed on the spreadsheet provided by Advantiv; and
- Respond to requirements and submit responses as specified in below prior to the proposal submission deadline.

Advantiv will also be available to provide technical support regarding the use of the DD2 system. **ALL OTHER INQUIRIES RELATED TO THE RFP MUST BE DIRECTED TO THE OFFICIAL STATE POINT OF CONTACT PROVIDED IN SECTION 1.5 - INQUIRIES.**

Functional Requirement Responses

Two primary columns (or fields) are expected to be used by the Vendor to respond to each Functional Requirement in DD2: Support and Source. A response in both columns in order to be considered responsive to each Functional Requirement. The response options for each field are provided and described below along with the score associated with each. The Vendor should use the Narrative field when appropriate to provide additional information or clarification regarding the requirement. Although the DD2 environment provides additional fields, the State will not evaluate any information provided in these fields.

SUPPORT - The “Support” selection identifies whether support for the requirement can be met through proposed standard software. The Vendor response options are defined in the following table:

Exhibit 42: Vendor Functional Response Definitions - Support

Support Responses	Functional Response Definition	Response Score
SF **Standard Functionality**	The software provides the requested functionality without screen, code, or design changes. The product can satisfy the specification "out-of-the-box" without any modification to the standard baseline software offering. The Vendor should only use "SF" if the baseline software as delivered in the current release fully meets the requirement "as-is" or through software configuration.	**4**
CMI **Customization - Minor**	The desired feature or functionality is not available as part of the standard (base or third party system) functionality, but can be customized to satisfy the specified system requirement. Only use "CMI" if the functionality can be custom developed as a "bolt-on" to the software without requiring changes to the underlying software source code and is expected to require less than 80 hours to develop. A brief explanation is expected to support any proposed custom development; explanations should be provided in the "Comments" section for the requirement in DD2. Estimated costs and work effort associated with each custom development effort should be addressed in the Enhancements and Modifications Schedule of the separate cost proposal.	**3**
CME **Customization - Medium**	The desired feature or functionality is not available as part of the standard (base or third party system) software functionality, but can be custom built to satisfy the specified system requirement. Only use "CME" if the functionality can be custom developed as a "bolt-on" to the software without requiring changes to the underlying software source code and is expected to require between 80 and 160 hours to develop. A brief explanation is expected to support any proposed custom development; explanations should be provided in the "Comments" section for the requirement in DD2. Estimated costs and work effort associated with each custom development effort should be addressed in the Enhancements and Modifications Schedule of the separate cost proposal.	**2**
CMA **Customization - Major**	The desired feature or functionality is not available as part of the standard (base or third party system) software functionality, but can be custom built to satisfy the specified system requirement. Only use "CMA" if the functionality can be custom developed as a "bolt-on" to the software without requiring changes to the underlying software source code and is expected to require more than 160 hours to develop. A brief explanation is expected to support any proposed custom development; explanations should be provided in the "Comments" section for the requirement in DD2. Estimated costs and work effort associated with each custom development effort should be addressed in the	**1**

Support Responses	Functional Response Definition	Response Score
	Enhancements and Modifications Schedule of the separate cost proposal.	
NR **Provided in Next Release**	The next release of the software should provide the requested functionality without screen, code, or design changes. The Vendor should only use "NR" if the very next release of the base or third party software should fully meet the requirement and the release should be standard functionality within 12 months. Only formal releases that have been published and are accessible on the Internet should be considered when addressing this requirement. A brief identifier/description of the referenced release should be included in the "Comments" section.	**1**
DNM **Does Not Meet Requirement**	The desired feature or functionality is not available as part of the standard (base or third party) software functionality or through customization, or reporting tools. The requirement would most likely need to be met by a process workaround or by interfacing to an existing legacy application. An "DNM" response on the Vendor Response - Support necessitates an "DNM" response on the Vendor Response - Source.	**0**

SOURCE - The "Source" selection identifies the particular software or tool that is used for meeting the requirement as part of the proposed solution. The Vendor response options are defined in the following table where "BES", "TPI", "TPC", and "RQ" substitute for the name of the appropriate software or report or query tool.

Exhibit 43: Vendor Functional Response Definitions - Source

Source Response Options	Functional Response Definition	Response Score
BES **Base ERP System**	The desired feature or functionality is provided by the base (ERP) software.	**3**
TPI **Third party - Fully Integrated**	The desired feature or functionality is not available as part of the standard (baseline) software functionality, but is a standard feature of third party software proposed to satisfy the specified system requirement and is fully integrated to function as part of the ERP system. The third party software provides the requested functionality without screen, code, or design changes. The proposed third party product can satisfy the specification "out-of-the-box" without any modification to the standard baseline software offering. Only use the "TPI" response if the third party software fully meets the requirement.	**2**

Source Response Options	Functional Response Definition	Response Score
TPC **Third party with Customization**	The desired feature or functionality is not available as part of standard (baseline) ERP software functionality, but is a standard feature of third party software proposed to satisfy the specific system requirement. The third party software provides the requested functionality without screen, code, or design changes, but is not integrated out-of-the-box with the ERP system. Only use the "TPC" response if the third party software meets the requirement with no modification to the third party product. Note: The integration hours are expected to be provided for any specific integration requirements with the rest of the proposed ERP system or other systems.	**1**
RQ **Report or Query Tool**	The software supports the data elements necessary for the report/query, but a custom report/query would need to be developed to meet the requirement. If a brief explanation is expected to support any proposed report/query; explanations should be provided in the narrative field. Estimated costs and work effort associated with each custom report/query should be addressed in the Enhancements and Modifications Schedule of the separate cost proposal.	**1**
DNM **Does Not Meet Requirement**	The desired feature or functionality is not available as part of the standard (base or third party) software functionality or through customization, or reporting tools. The requirement would most likely need to be met by a process workaround or by interfacing to an existing legacy application. A "DNM" response on the Vendor Response - Source necessitates a "DNM" response on the Vendor Response - Support.	**0**

System-wide Requirements

Vendors should utilize the following table to assess how well their proposed unmodified solution meets each requirement. Scores are calculated based on Vendor responses to each System-wide Requirement as described in the following table. The points awarded each requirement will be totaled and divided by the total points available for all System-wide Requirements. The resulting percentage will then be multiplied by the maximum allowable points to arrive at the score for the technical requirements.

Unlike the responses required for the Functional Requirements in DD2, only the "Support" field should be used by the Vendor to respond to the System-wide Requirements.

Exhibit 44: Vendor System-wide Response Definitions - Support

Support Responses	System-wide Response Definition	Response Score
MR **Meets Requirement**	Solution meets the requirement without any customization or configuration to implement.	**5**
MM **Mostly Meets Requirement**	Solution mostly meets the requirement, but is expected to require minor customization or configuration to implement.	**3**
SM **Somewhat Meets Requirement**	Solution somewhat meets the requirement, but is expected to require significant customization or configuration to implement.	**1**
DNM **Does Not Meet Requirement**	Solution does not meet the requirement at all, and cannot do so through customization.	**0**

Functional and System-wide Requirements

A listing of the Functional and System-wide Requirements from DD2 is provided below. As provided above, Vendors must respond to each requirement in DD2 and, as part of its official response to the RFP, must provide a report of the responses to each requirement in DD2 in this format and a completed certification that it matches the Vendor responses in DD2. A separate PDF document containing a listing of the Functional and System-wide Requirements from DD2 is attached.