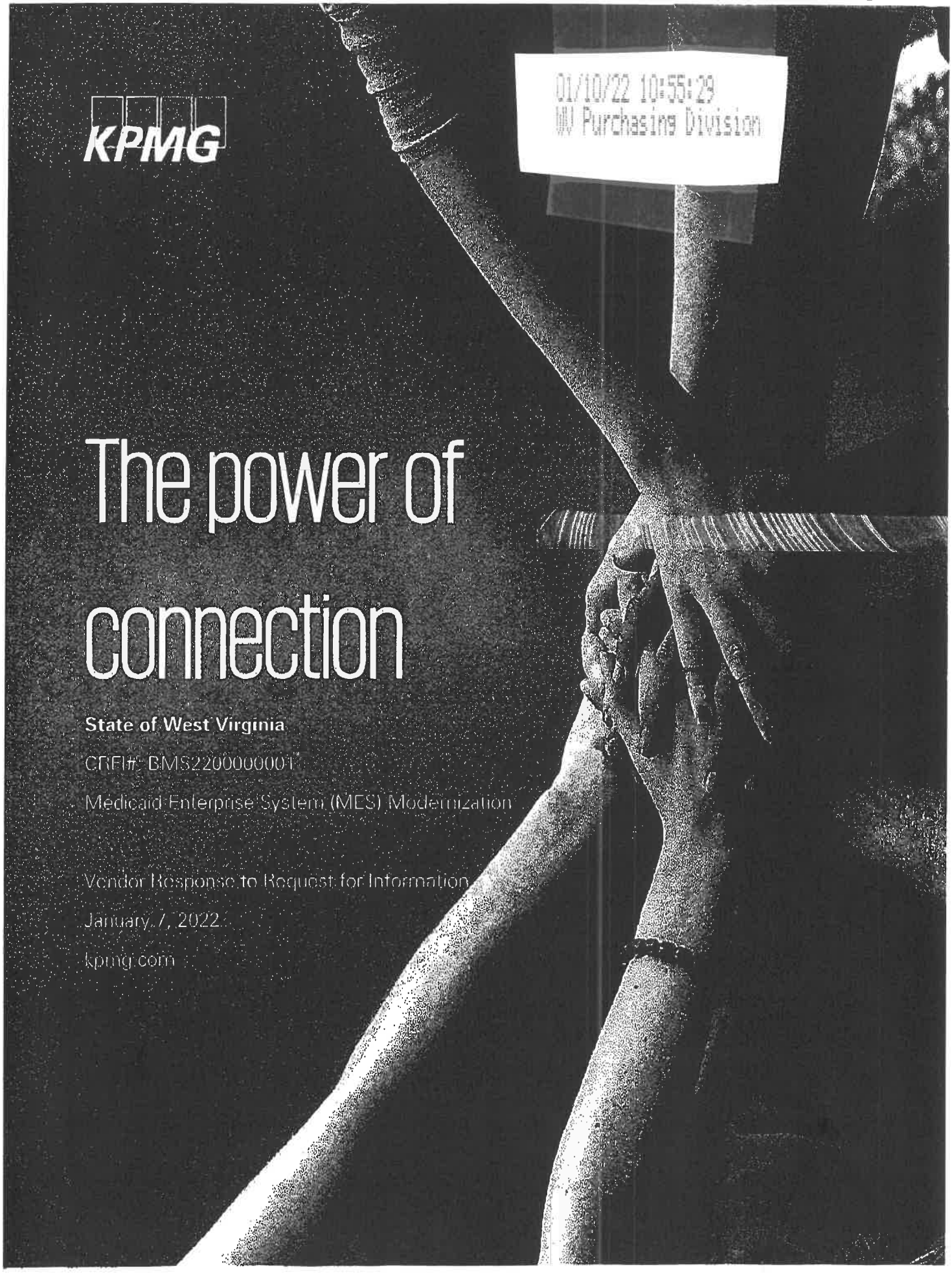

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State of West Virginia

CRFI#: BMS2200000001

Medicaid Enterprise System (MES) Modernization

Vendor Response to Request for Information

January 7, 2022

kpmg.com

CRFI BMS2200000001

Title Page

RFI Subject: Medicaid Enterprise System (MES)

RFI Number: CRFI BMS2200000001

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Date: January 7, 2022

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Clearly identify the material by section and page number.

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4.2.1

Please describe any elements BMS should consider incorporating into its vision, planning, and implementation for a modernized, modular MES.

Response:

Based on KPMG experience, we recommend creating a strategic plan to address business/operational "what" and "why" activities when getting ready for any implementation. By doing so, the strategic plan would align with the agency's strategy, operational goals and objectives, business outcomes, addressing CMS initiatives such as Interoperability Patient Access, documenting the business architecture, moving to program-centric to a person-centric approach based on CMS guidance, and organizational and vendor management. The core components necessary to support implementation are people, resources, governance, culture, and systems as part of your strategic plan:

- **People** – Make sure you have the right people on boarded with the required competencies and skillset through each phase of your strategic modernization roadmap.
- **Resources** – Estimating and having sufficient funding appropriation from the State and Federal partners to support implementation. Often time, expected cost overruns. Additionally, enough time by people/staff to implement for additional activities that they aren't currently performing can be a pitfall.
- **Governance** – Establish a management structure allowing for the appropriate lines of authority by all stakeholders this includes implementing architectural review boards (ARB) – business, technical, data, security and infrastructure supporting the implementation.
- **Culture** – Reinforce and communicate the importance of focusing on strategy, vision, and impact to stakeholder/partners to design and deliver innovative, high-quality human and health services that improve the security and independence of citizens and operational staff.
- **Systems** – Understanding and managing the interdependencies of data between the Eligibility, Decision Support, Data Warehouse and MMIS as well as other DHHR sister agencies is critical to any successful modernization transformation project. Also, a clearly documented business architecture and business rules are needed to enable any technical implementation.

By focusing on translating the vision into a manageable execution timeline and framework, BES desired for a modernized, modular, outcome-based enterprise can be achieved. KPMG can assist West Virginia with enabling your modernization future vision.

4.2.2

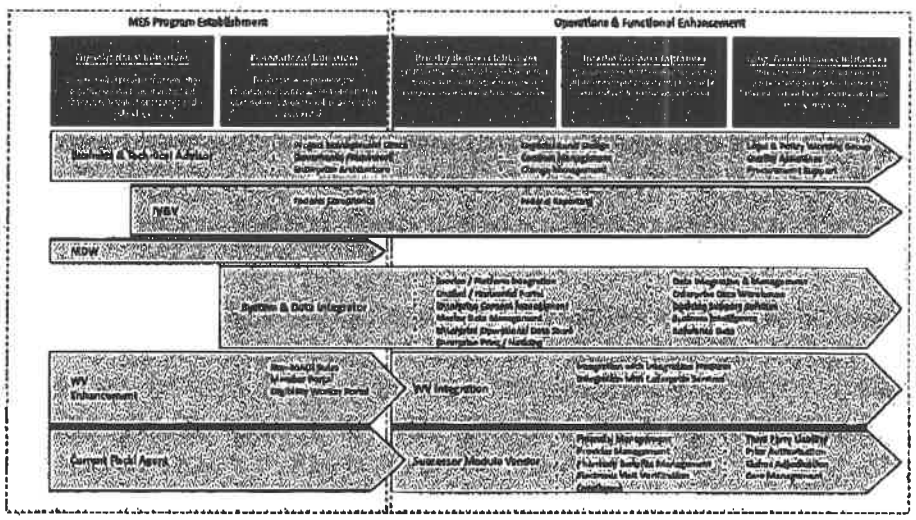
In the projects you have been on, what was the optimal configuration of MES modules specific to functionality, integration of other solutions, and management of data?

Response:

KPMG recommends that the highly complex, tightly integrated existing system(s) be modernized in an incremental approach in order to do no harm to existing processes while adopting more modern operating models and technologies. A vital component of this approach is first developing a strategy Roadmap focused on the agency's strategic goals, priorities and outcomes, WV MES transformation

procurement approach, and implementation timeframe and sequencing. KPMG has experience helping States determine the configuration of MES modules that best fit their needs.

There are two fundamental stages to developing a roadmap:



- **MES modernization program establishment** – Initial work establishes the business and technical framework that will enable a higher level of interoperability between Medicaid operational areas and prioritize improvements to data quality and access.
- **Business operations and functional enhancements** – Once the framework is established, business functional improvements such as integration of Eligibility determinations, Fiscal Agent (FA) re-procurement, and functional enhancements for Medicaid Management Information Systems (MMIS) modules, will go through their own detailed design process informed by an MES program-wide target architecture. By following a holistic enterprise architecture-based approach to business process integration, data sharing, and systems integration, legacy systems can be replaced over time in a controlled fashion to mitigate long-term system risks.

The optimal configuration and order of MES modules implementation should be based in the State's Roadmap, vision and depending upon several factors include a procurement strategy for the vendor as well as the MES modules.

Below is example of a high-level incremental approach to a MES module implementation:

- **MES Module Group 1** – Less complexity and encapsulated systems such as Provider, EVV, MDW and Pharmacy modules are implemented in the first phase of a transformation. In many States, the Pharmacy module has already been decoupled from the existing legacy system. Data integration may be less complicated.
- **MES Module Group 2** – Moderate dependencies and more complexity modules such as Financials, Third Party Liability (TPL), Prior Authorization (PA) and Program Integrity are generally addressed during the middle phase of a large MES transformation.

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— **MES Module Group 3** – Most complex and has the most interdependencies with other modules and other solutions. Data integration can be complicated. The Claim Adjudication/Encounter modules is implemented during this phase.

4.2.3

Describe Medicaid Enterprise solutions your organization provides or is developing that BMS should consider during its roadmap planning. BMS is interested in learning about the following:

Response:

1. The Medicaid Enterprise business processes or discrete functionalities targeted by the Medicaid Enterprise solution.

KPMG understands that migrating Medicaid operations to a modern modular system while maintaining protected data exchanges between the modules requires an integration platform architecture that is highly configurable, scalable, secure, and future-ready. The **KRIS (KPMG Resource Integration Suite) Connected Platform** is our Systems Integration Platform (SIP) solution that is capable of supporting the diverse integration and operational needs of the Department. The proposed platform with its suite of best-in-industry third-party software, cloud services, and accelerators is designed to help the Department mitigate the complexity, costs, and increase speed to go-live.

The Platform will be configured to provide outcomes-based integration of various Medicaid operations, modules, and applications across the MES including Claims, Encounters, time-sensitive point-of-service Pharmacy claims, TPL, BIDM and PBM. And because KERA© (KPMG's Enterprise Reference Architecture) is aligned with CMS MITA architecture standards, the KRIS Connected Platform reflects those same MITA standards, supporting CMS Certification requirements.

The overall solution architecture can be delivered as a managed service in a secure commercial cloud such as, for example, Amazon, Azure, or Google. These commercial clouds enable the KRIS Connected Platform to be scaled up or down as the Department's Medicaid program and policies evolve. Also, the configurable, standards-based integration capabilities of our Platform support the onboarding and operations of MES modules and resources regardless of hosting location (i.e., on premise or cloud deployed).

A summary of the KRIS Connected Platform capabilities is depicted in the circle below (and described in number 6 below).

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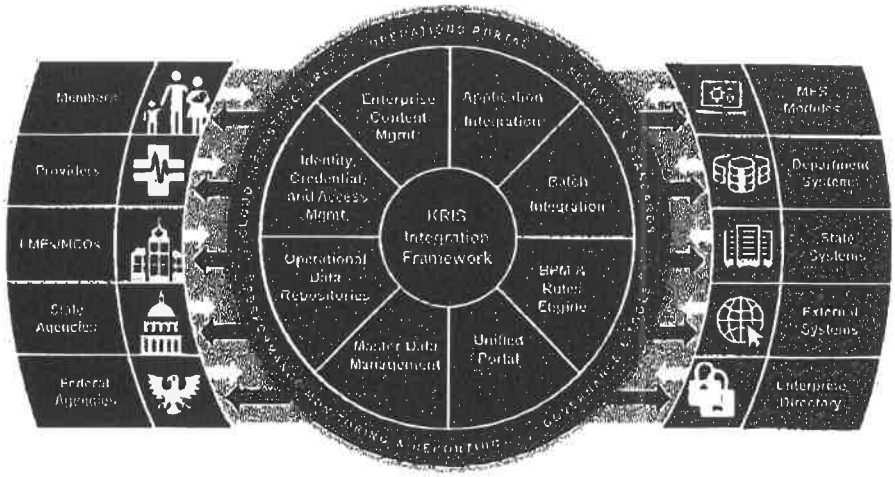

KRIS Connected Platform Conceptual View

We drive our implementations using KERA© for Health and Human Services, to accelerate the implementation of our integration Platform and identify the interactions between the MES Modules, external stakeholders, and the System Integration Platform. A properly designed SIP is the key success factor to host a modernized and modular MES solution that enhances and achieves MITA capabilities.

KPMG believes that successful transformation projects are first business driven and thereafter technology enabled. Our KPMG Team understands that each Medicaid program has unique objectives that require a customizable approach, Medicaid programs look similar state-to-state. Our approach starts with the outcomes that you are looking to achieve for West Virginia Medicaid and designs the SI Platform and MES integration to those specifications using our industry-leading toolkits. As a result, the Department gets a MES system designed and befitted specifically for West Virginia and not a cloned system from another State.

2. How the Medicaid Enterprise solution is packaged (i.e., commercial-off-the shelf (COTS) or proprietary; modular or tightly integrated; cloud or local).

The KRIS Connected Platform is a cloud-based solution based on market-leading commercial off the shelf software (COTS) products. Our solution is designed with the industry leading COTS products and services which are cloud native, that come integrated out-of-the-box using a loosely coupled and modular approach. It is offered as fully managed turnkey SaaS solution, but can also operate under different deployment models. The KRIS Connected Platform is configured to be integrated with the MES modules implemented from other vendors and external entities, guided by KERA© and Master Integration Control Center.

3. How the Medicaid Enterprise solution is priced (please include methodology only, e.g., Per Member per Month, fixed price per year, data usage—please do not provide actual purchase prices).

The KRIS Connected Platform has flexible pricing that depends on the deployment approach selected by BMS. We can provide options for pricing for use based on:

- Cloud deployment model Options (SaaS, PaaS, or IaaS)
    - Fixed Price per Year

- Infrastructure Usage
- Software licenses ownership Options (state or KPMG)
  - Fixed Price per Year
- Module Integrations Options
  - Fixed Price
  - Time and Materials

Typical options include a fixed-price portion for standup and O&M of the Platform and a time and materials or fixed-price portion for BMS specific configurations

4. In how many states is your Medicaid Enterprise solution currently deployed, or expected to be deployed, and how long has it been in use.

An earlier version of the KRIS Connected Platform went live with Tennessee Health and Human Services in May 2021. Additionally, we are currently deploying the platform with both North Carolina and New Mexico Medicaid agencies. These platform deployments are on schedule to complete by August 2022.

5. Configurations and customizations typically requested to adapt the product for use in a State Medicaid Program.

Our Platform is a highly modular and configurable platform which is configured depending on the software and services required by BMS and configured to integrate the MES Modules and external entities with the System Integration Platform for BMS' MES implementation.

With KRIS, both the functional and technical capabilities are configurable and customizable to be used in a future ready State Medicaid Program

We try to minimize customizations but realize that some customizations are required – we typically see those in data conversions and other specialized areas as you convert to the new MES platform

6. Technical architecture and processing capacity/scalability.

The KRIS Connected Platform is a configurable and expandable suite of industry-leading third-party software, cloud services, and accelerators that KPMG designed to merge market leading components in a connected solution with a lower total cost of ownership. The KRIS Connected Platform addresses the requirements of a Systems Integration Platform (SIP) in Medicaid Enterprise solution (MES) as recommended by CMS.

The KRIS Connected Platform is built using modern Service-Oriented Architecture (SOA) principles that allow for an incremental approach and promote a Medicaid domain-driven, loosely coupled, and microservices-based approach to integrating MES modules and supporting IT systems operations. KPMG designed the KRIS Connected Platform with the need for business flexibility in mind and combined methods, tools, workflows, data, and industry content to accelerate MES integration and reduce the risk of transformation failure.

Aligned with the MITA Framework v3.0 principles, the KRIS Connected Platform is designed to connect multiple vendor technology modules seamlessly. With insights gained through our current work on Medicaid modernization projects in other states, including Connecticut, New Mexico, North Carolina, Pennsylvania, and Tennessee, we will configure the KRIS Connected Platform in a manner that it addresses the Department's business needs and deliver the meaningful Medicaid outcomes.

As outlined in the list below, the core capabilities of the KRIS Connected Platform include:

- **Application Integration** – Supports the synchronous and asynchronous integration between systems including the following three capabilities
  - **API Management** - the capability to create and publish web APIs, enforcing their usage policies, controlling access, supporting the subscriber community, collecting, and analyzing usage statistics, and reporting on performance.
  - **Enterprise Service Bus** - provides the capability to support decoupled application integrations across a common communication architecture. The ESB will support routing, monitoring and controlling of messages while also supporting orchestration, event handling, data transformation and other features.
  - **Messaging** - provides the capability to support queue-based messaging and publish/subscribe messaging across a robust architecture that provides security, guaranteed delivery, batching, prioritization and other message controls.
- **Batch Integration** - provides the capability to securely transfer files over multiple standard file transfer protocols using a robust Managed File Transfer capability. This capability includes the ability to store encrypted files, automate file transfers and provide detailed file transfer reporting. The Managed File Transfer service will include a web frontend that allows manual file storage and retrieval for NCID authenticated users
- **Unified Portal** – Provides a single authentication and launching point for MES users to access all resources in the MES
- **Master Data Management** – Provides the capability of mastering different domains inlcuding client, provider, claims, and others. Provides a single source of truth for data contained within the domains.
- **Operational Data Repositories** - provides the capability to persist operational data and integrated data views across multiple sources.
- **Identity, Credential, and Access Management** – ICAM provides the capability to manage system authorizations in a centralized management system. This service will integrate with NCID for authentication along with all MES modules to provide user access across the enterprise.
- **Enterprise Content Management** – ECM provides the capability to store operational artifacts such as hard-copy inputs, report outputs and other documents received. Scanning and other document origination activities are not included here.
- **Operations Portal** – provides web-based access to monitor, configure, control and report on each of the platform services.
- **Governance & Tools** – Governance and supporting tools to support all aspects of the platform including:
  - **Certificate and Key Management** – provides the capability to manage digital security certificates and cryptographic keys through support of: creation (including import/export), distribution, storage, suspension, updates and revocation. The service will enforce security controls and provide audit and usage logs.

- **Defect Tracking**–provides the capability for centralized defect tracking across all MES modules and the System Integration Platform. This service will allow the Department to monitor and report on all defects, regardless of the vendor.
- **Test Management**– provides the capability for centralized test management across all MES modules and the System Integration Platform. This service will allow the Department to monitor and report on testing, regardless of the vendor.

- **Performance Monitoring and Reporting** – will provide tools that accommodate the entire platform. This monitoring will minimally require visibility into transaction performance, portal performance and database performance (i.e. search times, query times). Vendor must provide detailed performance monitoring and reporting capabilities in their proposal. Tools must support the monitoring and reporting of all measurements described in this RFP. Vendor must provide 24x7x365 access to detail performance, monitoring and reporting capabilities for any time period selected by the Department.

7. User-facing and self-service capabilities.

The KRIS Connected Platform offers multiple user interfaces and self-service capabilities depending on the business and functional requirements. Following are the examples of user facing capabilities offered by the KRIS Platform:

- **Management Console:** provides a web based graphical environment for configuring and managing the SIP components and MES module interfaces. One-stop location for authorized Department users and the KPMG Team to administer SIP operations.
- **Operations Portal:** a unified web-based portal to allow for Information Technology Infrastructure Library (ITIL) inspired administration of the SIP including request, monitor, configure, control and report on each of the platform services. The KPMG Team follows a structured, repeatable administrative policies in maintaining the SIP infrastructure, lowering risk of "operator error" to the Department.
- **Performance Monitoring and Reporting:** provides a centralized performance monitoring dashboard of the SIP components, MES module interfaces, and SLAs at a detailed level. In combination, the Performance Monitoring suite continually monitors the MES health in near real-time and will alert the KPMG Team and key Department stakeholders when Medicaid business processes appear to be heading for trouble.
- **Certificate and Key Management:** support for managing the entire lifecycle of digital security certificates and cryptographic keys securing the SIP components and the MES module interfaces. The security administrative framework applied prevents keys and certificates from expiring unexpectedly, preventing MES outages or security gaps.

8. Interface support, flexibility, and extensibility to other stakeholders and State agencies.

The KRIS Connected Platform supports the interfacing and integration with MES Modules from module vendors, other state agencies and entities from external stakeholders alike with utmost flexibility and ease. The platform can be extensible to any modularized MES system entity by integrating it with the KRIS. KPMG will bring in the consulting expertise for planning and implementing the integration and configuration of the interfaces and will utilize Master Integration Schedule to facilitate and track the integration.

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4.2.4

What do you see as the benefits and risks of including business process outsourcing (BPO) services together with technical services?

Response:

KPMG believes BMS would be best served with separate technical and BPO vendors, each with the needed background, experience, and staffing to support Medicaid. Specialization to deploy, integrate modules and operate the MES Integration Platform is very different from the BPO business services of a Fiscal Agent vendor. The specialization of separate vendors can assist BMS with solutions and support unique to their perspective. One vendor providing both type of services could be a dilution of benefit to BMS.

4.2.5

Describe your experience, if any, with CMS Outcomes-Based Certification or Streamlined Modular Certification.

Response:

KPMG has successfully transitioned from CMS' MECT 2.3 Certification processes to CMS' current Streamlined Modular Certification (SMC) for several States. In Tennessee for example, KPMG helped the State achieve Outcomes-Based Certification (OBC) for their Pharmacy Benefit Management module. We are currently assisting Tennessee with their Provider and Long-Term Services and Support modules using SMC. In the Commonwealth of Pennsylvania, KPMG is assisting with the initial planning phase for incorporating OBCs into the Commonwealth's end-to-end life cycle from the advance planning document (APD) process through the Maintenance and Operations phase of periodic monitoring and reporting of OBCs. KPMG has also been engaged to assist with certifying North Carolina modules through its System Integration Platform.

4.2.6

What approaches to supporting consistency in business process functions and data architecture across multiple systems and vendors have you encountered?

Response:

From our experience in both Medicaid and Human Services, we recommend a multi-layered business process framework complemented by an information framework to achieve consistency in business process functions. The business process framework provides view of the key business processes that are required to run an efficient, effective, and agile Medicaid enterprise. This entails modeling (using notations such as BPMN), documenting and cataloguing key business processes (according to MITA) required to run a service-focused Medicaid / HHS business. These process models provide a common language that are independent of the modules and IT systems and helps streamline the business

processes associated with information exchange, both within and outside of the MES ecosystem. Most importantly it provides a bridge between business and IT by providing a common lexicon.

Complementing the business process framework, an information framework (a.k.a canonical model or a common information model) focuses on the concepts that are handled by the business processes and a common vocabulary. It provides a representation of the core Medicaid/HHS specific business concepts or entities (Provider, Member, Claim, etc.), their attributes and relationships, described in a manner that are independent of the modules. Adopting the common information model as part of the API/interface definitions allows for exposing well-understood integration interfaces. This vastly reduces data translation between systems and provides consistency when it comes to integrating with various MES modules and IT systems thereby reducing integration costs.

KPMG's Enterprise Reference Architecture for Health and Human Services (KERA©) is our enterprise-architecture methodology and allows for Business Process Modeling and Notation (BPMN) based modeling of the various MES processes and aligns with the National Human Services Interoperability Architecture (NHSIA) and CMS's MITA framework. KERA© has been used across the country to advise states modernizing their Medicaid, Integrated Eligibility, Child Welfare, Child Support Enforcement programs.

4.2.7

Please provide your recommended strategy for ongoing compliance with the CMS Interoperability and Patient Access final rule (CMS-9115-F). The rule can be found at the following location: https://www.cms.gov/files/document/cms-9115-f.pdf.

Response:

The Centers for Medicare & Medicaid Services (CMS) issued a final rule in April 2020 regarding interoperability and patient access to health data. The CMS Interoperability and Patient Access Final rule is designed to empower patients by giving them access to their health data when they need it and any device or application of their choice. The rule further mandates implementing industry-wide technical standards such as Fast Healthcare Interoperability Resources (FHIR) Standards for APIs, secure authorization of third-party apps using the OAuth 2.0, OpenID Connect, and Content and Vocabulary Standards.

KPMG believes it is essential to understand the CMS's long-term strategy and philosophy in this interoperability journey. This understanding has informed the KPMG strategy to develop some core infrastructure capabilities that then provide any State the agility to handle current and future interoperability use cases.

KMPG strategy for Ongoing Compliance with the CMS Interoperability and Patient Access final rule (CMS-9115-F) is built on the following guiding principles

1. Build foundational infrastructure services such as API management and governance and identity management services that are reusable across other modules and reduce the overall ownership cost for the State.

2. Implement flexible and reusable data pipelines that provide efficient data processing, enforce data quality checks, and offer a scalable FHIR data repository.
3. Use data mapping accelerators and KRIS common information model built on FHIR to provide greater flexibility to implement future interoperability changes.
4. Help ensure a seamless member experience around consent management and identity proofing services.
5. Develop and operationalize a master patient index service using master data management capabilities to support upcoming use cases such as payer to payer data exchange.
6. Provide flexibility to integrate with future third-party app registries for effective third-party application registration and approval process.

The following figure highlights the decomposition approach KPMG used to identify and build the core foundational services required to support the CMS Interoperability rule making.

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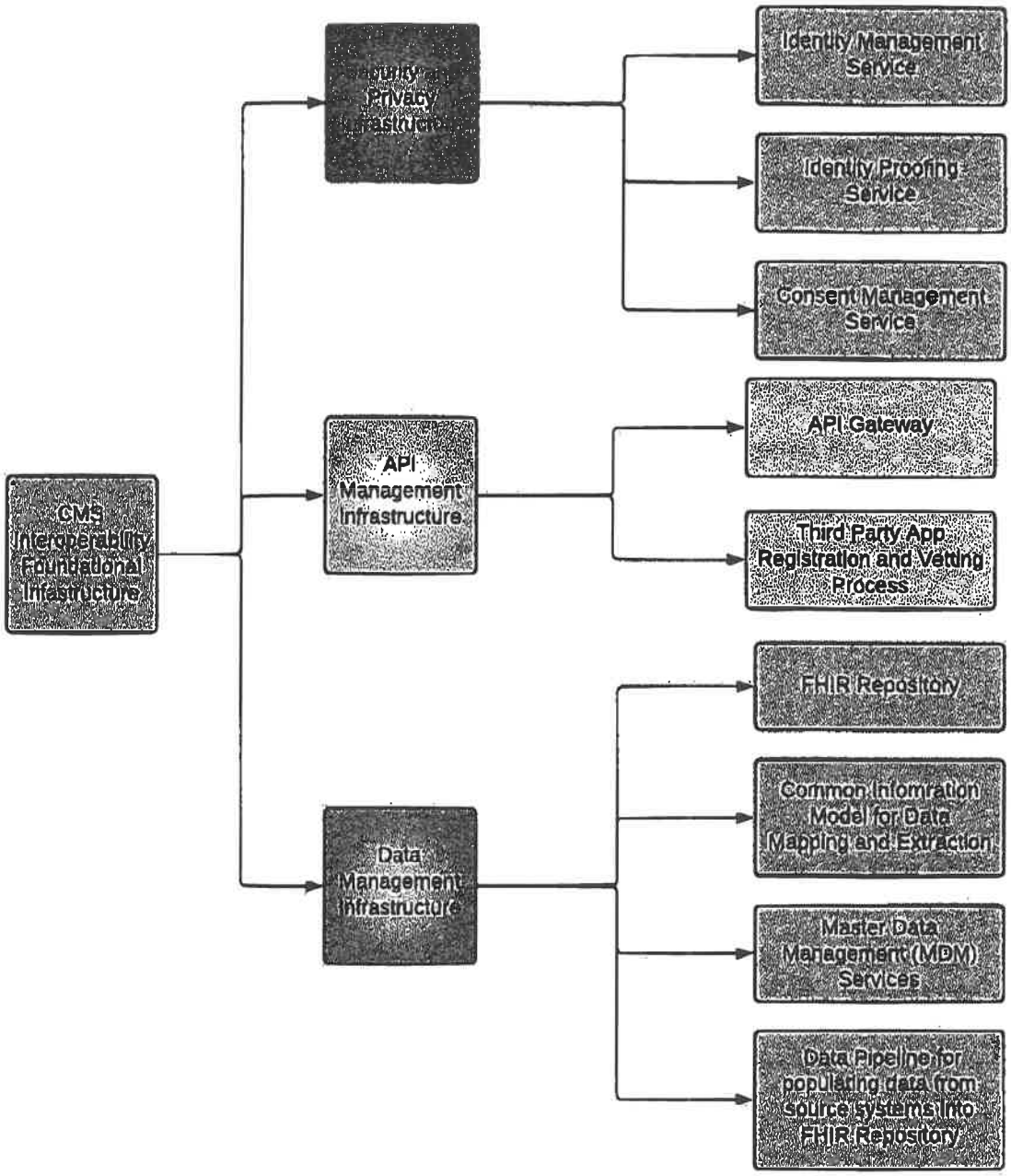

KPMG Strategic Approach of Building and Using Enterprise Shared Services (ESS) from its System Integration Platform to support Compliance with the CMS Interoperability Rule

4.2.8

Provide your strategy for compliance with the Health Insurance Portability and Accountability Act (HIPAA) and Federal Risk and Authorization Management Program (FedRAMP) Requirements. Information about HIPAA compliance can be found at the following location:

https://www.hhs.gov/hipaa/for-professionals/privacy/index.html. Information about FedRAMP can be found on www.fedramp.gov.

Response:

Our team understands the process of developing security control mappings using HIPAA, CMS MARS-E, and IRS Pub 1075 requirements. We approach security controls and standards in all stages of a program to balance risk and maintain system integrity. We believe that achieving adequate security for the BMS is a multifaceted undertaking that requires:

- Clearly articulated security requirements and security specifications
- Sound systems/security engineering principles and practices to effectively integrate information technology products into organizational information systems
- Continuous monitoring of organizations and information systems to determine the ongoing effectiveness of deployed security controls, changes in information systems and environments of operation, and compliance with legislation, directives, policies, and standards
- Comprehensive information security planning and system development life cycle management

Our security team goes beyond following checklists by informing BMS of security risks within the current system that should be mitigated. Security assessments are intended to identify gaps in the security of a system needed to maintain confidentiality, integrity, and availability. Our team will thoroughly review existing SSP documents, related artifacts, and other evidence to ensure that the implementation standards of HIPAA standards are met or exceeded. Some examples of strategic approach to implementing key security and privacy compliance controls in accordance with NIST 800-53 and FedRAMP 800-53 enhancements include but are not limited to:

- Data flows clearly identifying anywhere State data is processed, stored, or transmitted
- Separation controls to provide segmentation and isolation of CSP tenants system-to-system relationships
- System interconnections between the proposed SaaS/PaaS and underlying IaaS information systems
- Use of State approved cryptographic modules and algorithms
- Inbuilt Transport layer security requirements
- Identification and Authentication, Authorization, and Access Control processes
- Audit, Alerting, Malware, and Incident Response procedures
- Contingency Planning and Disaster Recovery measures
- Configuration and risk management processes and
- Policies, procedures, and training programs

Additionally, the KRIS Connected Platform Infrastructure (IaaS), Platform (PaaS), and Software (Saas) as a service component are rated as industry leading technology solutions with FedRAMP authorizations. As part of the implementation of the various cloud service models that make up our Platform, the

FedRAMP authorizations are leveraged to identify and meet requirements for implementing the customer responsible security control implementations as identified as part of the FedRAMP authorization package. In doing so, this provides the strategy for effectively implementing the NIST 800-53 security controls and further FedRAMP 800-53 control enhancements.

4.2.9

Provide your strategy for assisting states in achieving compliance with CMS, and federal rules, regulations, and guidance related to modularity, leverage, reuse, and outcomes achievement.

Response:

As mentioned in our responses to other questions, KPMG recommends that BMS consider a three-phase SI approach to your MES modernization journey. In Phase 1, the KPMG will focus on developing an integration roadmap using the KERA© Enterprise Architecture methodology. In collaborative working sessions with BMS, the KPMG team will interview stakeholders and survey current operations documents to understand existing Medicaid program "pain points" aka opportunities for improvement. Examples we've seen before include: T-MSIS compliance, accurate FFS claims payment, meaningful metrics to understand MCO effectiveness, and provider network coverage. In understanding these program opportunities for improvement, our team then develops future-state business process workflow diagrams, context diagrams showing module interactions, and potential integration strategies using KERA©. These KERA©-based models help identify:

- Clear definition of the BMS MES module approach
- State IT assets that are working well and possible reuse targets
- Potential outcomes linked to the identified program opportunities for improvement
- Metrics and data sources to support identified outcomes
- Delineation of security boundaries in the future MES system

Our KERA© methodology not only includes baseline versions of Medicaid Enterprise Solutions integration patterns and effort required, but also incorporates reusable program operational models and technical integration models that reflect both federal requirements like MITA and MECT, and common Medicaid operating patterns that KPMG has observed in many states. So, alignment with CMS and other federal regulations is defined as the KERA© models are created.

Please note that Phase 1 can be performed by the Department before KPMG starts working on the implementation of our Systems Integration Platform. We can discuss the pros and cons with BMS during the vendor presentation sessions. The other two phases are considered DDI and are explained further in our response to Question 4.2.12.

4.2.10

What approaches do you suggest for Disaster Recovery processes in a modular MES that accounts for integration and communication across multiple partners?

Response:

The Disaster Recovery (DR) plan works in concert with the Business Continuity Plan to create a definitive process that will detail the different protocols to be used in case of unexpected events. KPMG has developed disaster recovery plans for federal and state agencies in a multi-vendor environment. We understand the dependencies needed to coordinate communications across multiple partners in order to keep mission critical systems that integrate together operational.

Creating an effective disaster recovery plan requires a baseline implementation of the systems and platform, which will be finalized during the design phase of the engagement. The Disaster Recovery plan is intended to be a living document that will be continuously updated throughout the engagement as the design is continuously iterated and new enhancements and processes are introduced to the systems. The Systems Integrator will work with the Department to develop and maintain the plan for the Systems Integration Platform (SIP) solution, in coordination with the MES module vendors, leveraging our experience on past engagements as well as industry best practices.

The DR plan is intended to cover the following key areas:

- Roles and responsibilities of resources involved in the disaster recovery exercise (people, tools, and processes)
- Dependencies between activities and the execution timeline of the activities (i.e., pre-DR, during DR, and post-DR)
- Fallback strategy in the event that failover is unsuccessful or is no longer needed
- Communication plans for the impacted users of the application(s)
- Risks and mitigation plans involved in the DR exercise
- Any new bugs or issues discovered during the activities and the resolution plan

The recommended approach for a MES-wide Disaster Recovery Strategy is hinged on the following steps:

Developing the Plan	The SI Team will work with the Department, the legacy MMIS vendor, and MES module vendors to develop a detailed DR plan. This will include building a detailed DR plan with other module vendors which will help minimize the Department's exposure and risk to disasters. This plan will include identifying the Recovery Time Objective (RTO) and the required Recovery Point Objectives (RPO).
Documenting and Training on the Plan	A key success factor in executing on any disaster recovery plan is knowing what to do, who should it, and when it should be done. The SI Team will help verify that each step of a recovery is documented in a formal process. Part of those processes will include creating specific roles, responsibilities, communication standards, and notification alerts (including notifying key organizations who are dependent on SIP). The processes for each module will be validated by the SI Team to help confirm that they are clear and precise so that they can be followed quickly. We strongly believe that those who will execute the processes should have a key role in developing them. Once the processes are developed, regular reviews of the processes should occur. Department personnel, module vendors, the legacy MMIS vendor, and the SI Team should receive DR training.
Execute the plan in drills	The SI Team will organize and conduct regular disaster recovery drills to test the plans and help verify that the participants understand the

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	processes necessary to recover the business functionalities. The SI Team will work with each module vendors, Legacy vendor, and internal / external stakeholders to organize and conduct the drills. The SI Team proposes that drill execution be conducted in a dedicated production-like environment to isolate inputs/outputs, providing a more realistic test and trusted test results. Each drill will have a planned schedule for specific tasks and processes to be executed to restore business functionality. These plans will include pre-planned messages to be communicated on a regular basis to communicate status, issues, resolutions and other information to all participants and Department leadership. Each part of the plan will have an expected execution time. Once the systems are restored at the recovery site, the SI Team will help execute and evaluate test cases for the SIP and other vendors and stakeholders to confirm full functionality restoration. All test results will be presented to the Department for review and approval.
Document Results & take corrective actions	The drill results will be reported in an established and approved report format that identifies successes, failures, defects and deviations from the expected results to Department stakeholders. Risks, issues, and dependencies that could prevent successful restoration/recovery will be identified and coordinated with recommendations and mitigation plans in the risk management plan. The SI Team will track all corrective actions necessary to improve the DR plans, correct errors (both systems and organization related) and build those improvements into the next drill. The SI Team will maintain the processes, plans, and documentation and treat these as "living documents" so that a disaster can be handled with the minimum amount of disruption possible.

4.2.11

What organizational change and communications management processes have you seen employed for a modernized, multi-vendor MES implementation? How would you help support the evolution of the Medicaid Enterprise as a whole?

Response:

Having a coordinated approach to manage organizational change is critical to facilitate successful, complex MES transformations. A comprehensive approach is particularly important when the implementations involve multiple leaders, vendors with different remits, system users with disparate roles and responsibilities, and end users with varying expectations. While we understand the size, scope, and complexity of organizational change, communications, and training can differ with every transformation, successful implementations consistently include the following organizational change management processes and themes:

- **Leadership alignment.** Getting leaders on the same page is a continuous process. This typically starts with establishing a shared vision, common set of goals and the objectives for the

Implementation, and long-term desired outcomes for the organization. Leaders are often the primary change agents. It is important for them to be in lock step to reflect the vision and guide others to achieve results. This is enabled by consistent processes to collect leadership input, provide visibility to implementation progress and achievement against goals.

- **Governance and decision-making.** All parties engaged in a transformation initiative must adhere to the same governance framework and processes to manage the implementation, identity implementation needs and challenges, assess impact, evaluate potential resolution, and make decisions to course correct. All vendors, implementation project leaders and team members must be aware of and subscribe to the defined governance model. A proper governance framework will define processes and protocols, and roles and responsibilities for each party involved. Governance is incorporated into requirements definition, system modifications, change requests and other key processes and decision points.

- **Organizational change strategy development, planning and implementation.** Managing organizational change is an iterative process that spans from the beginning of the project all the way through to continuous improvement post-implementation. It starts with aligning on the overall vision. This is important for leadership alignment, understanding stakeholder impact, communications, training and other change support needs. A change strategy will guide the high-level approaches to help stakeholders understand and adopt change to drive business readiness. What makes the process iterative is that, for MES implementations, change impacts may evolve as system functionality is modified or newly introduced. This may require adjustments to stakeholders' communications and support needs.

- **Multi-channel stakeholder communications and engagement.** Communications is an active process that is generally aligned to support information needs throughout the project. Communications are aligned to keep stakeholders abreast of project milestones, status and success. Modernized MES implementations require multi-channel communication so stakeholders informed at their respective project integration points.

KPMG has provided overarching change management, communications, and training support for a number of state and local clients undertaking multi-vendor MES transformations. What sets our firm apart is that we work alongside our clients throughout their entire transformation journeys, instead of limiting the scope of change support to the implementation project.

We understand that Medicaid Enterprise implementations represent fundamental changes for many stakeholders. Modernization of MES represent new ways of working for state and local leaders who are responsible for successful programs, front-line workers who administer Medicaid benefits and the constituents they serve. The success of the OCM efforts for these programs is contingent on establishing a vision, change strategy and plan to facilitate the implementation and enable longer term success for all stakeholders. The approach we've brought to similar implementations is rooted in our "Make It" methodology which drives effective stakeholder engagement, clear and consistent communications, and sustainable organizational change as the enterprise evolves.

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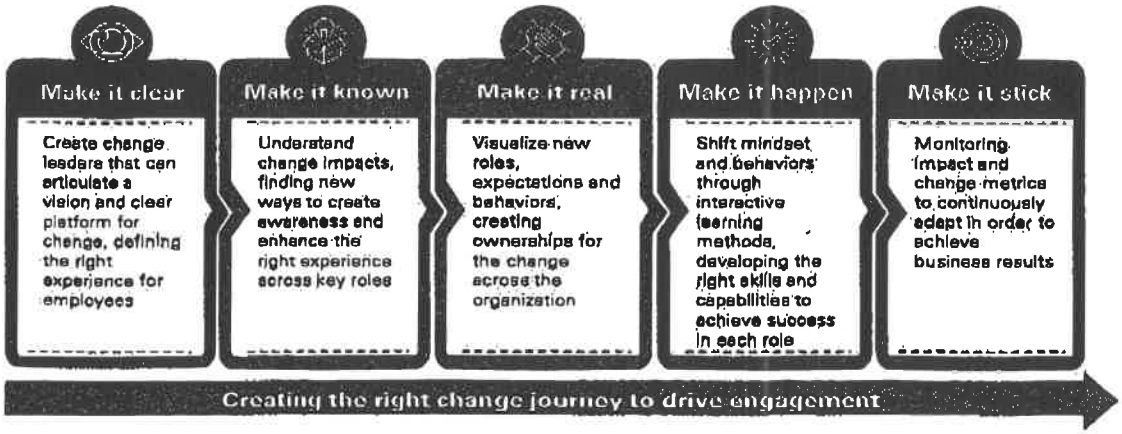

Once our clients have realized success in their initial change efforts from the MES implementation, we turn our focus to enabling the enterprise to achieve long-term success and drive continued transformation. We support our clients to establish their own organizational change capabilities to maximize return on investment from the MES implementation. This may include but is not limited to the development of tools, templates, and business processes for managing the enterprise through ongoing change.

Should the enterprise anticipate larger-scale, ongoing transformation, we have supported our clients in designing and implementing a dedicated Change Management Office (CMO) or a similar Transformation Management Office (TMO) to address substantial, long-term transformational needs. We often view this as a "net new" capability established within the enterprise. This function regularly works at the intersection of business teams, IT, program management, and the many vendors supporting a variety of project implementations. Ultimately, this type of dedicated function results in greater sustained success for the Medicaid enterprise as a whole.

4.2.12

How does a multi-vendor environment change how you manage your own Design, Development, and Implementation (DDI) work? How should dependencies be identified, negotiated, and implemented in a multi-vendor environment?

Response:

A multi-vendor environment is the established norm for MES implementations and in the role of the Systems Integrator, we need to be prepared to manage our DDI activities both separately and aligned with the other MES module vendors as well as trading partners and State stakeholders. We will bring established processes and procedures that allow us to operate effectively during both types of DDI phases.

There are two major phases associated with our DDI activities (these would take place after the Planning phase as described in our response to question 4.2.9:

1. Buildout & Operationalizing the KRIS Connected Platform
2. Developing and deploying integrations across the MES

The first phase is one that one that we will perform irrespective of other MES module vendors - it is the DDI associated with operationalizing our platform and preparing and it for use by BMS. This entails procuring, installing, and configuring an instance of our KRIS Connected Platform including the infrastructure and software components and preparing it for module and third-party integration. During this activity, we will work with BMS and the State to:

- Establish our platform according the security, network, and other standards required by the State.
- Build out the non-production environments including the deployment pipelines needed for all MES SIP components so that we have a highly performing continuous integration (CI) and continuous deployment (CD) process
- Develop training materials specific to the BMS instance of our Platform
- Develop all of the playbooks (for example, Module Onboarding) needed so that we are prepared to begin our integration work
- Prepare all of the deliverables associated with the Platform

These sets of activities will be performed in a non-production environment established specifically for our platform. At the end of this activity, our platform's DDI activities will be complete, and the solution will be migrated to other non-production environments and available for any integration needs. We will also move our Platform into an Operations and Maintenance (O&M) mode.

The second DDI phase is where we will develop the integrations with the MES module vendors, and it is this activity where we will operate in a multi-vendor environment. During this phase, it is paramount that all dependencies be identified, DDI activities synchronized, and implementation schedules aligned. In order to successfully navigate this multi-vendor environment, during this phase, we will:

- Develop a module-specific integration project schedule
- Using our KPMG Enterprise Reference Architecture (KERA©), work with BMS and MES module vendors to align on the number, method, and payload for each of the integration points (for example, will the integration be an API, Web Services, or a batch file transfer)
- Populate our master integration schedule tool to align development and testing times frames between our DDI activities and each of the MES module vendors
- Populate our developer portal with the API specifications
- Align our SDLC approach with that of each of the other vendors
- Coordinate end-to-end and user acceptance test management activities including timing, duration, use of data, and defect management
- Develop a conflict resolution & escalation process to remove barriers in the events conflict are identified between the systems integrator and other vendors.

We will be happy to demonstrate these tools and accelerators during a live demonstration with the State.

4.2.13

Describe your experience, if any, with collaboration tool(s) such as or equal to Jira®, Confluence, and IBM® Rational Team Concert (RTC) or other tools to track items, which include, but are not limited to, project milestones, deliverables, and/or implementation testing. Do you recommend any specific approaches or tool(s) for collaboration in a multi-vendor environment? Does your company prefer

using its own collaboration tool(s) to support an implementation, or do you prefer using collaboration tool(s) provided by a state and/or a systems integrator (SI)?

Response:

Collaboration tools are fundamental to project development. KPMG uses collaboration tools both internally for our own development and for most clients we support. KPMG is comfortable using most collaboration tools and has subject matter professionals skilled in all of these. We encourage the use of collaboration tools and will be able to support each tool. We will use any tool proposed by West Virginia.

4.2.14

What roles and responsibilities have you seen for a system integrator (SI) in a modular systems environment? Was this role fulfilled by a separate vendor, incorporated with other services, or performed by the state Medicaid agency itself? What are the key success factors and risks to success related to using a SI?

Response:

KPMG recommends state partners engage their SI early and leverage them as a Trusted Advisor in the MES journey. This is a "once in a generation" modernization opportunity and State personnel are busy, running a major Medicaid program. Your SI should bring a rich understanding of the "art of the possible" with MES modernization from other states and the resources to support creating and executing a BMS specific vision. Key responsibilities we suggest the SI role include are:

- Support BMS in defining the MES module roadmap
- Develop and manage the master integration schedule
- Develop and maintain logical and technical models of the new MES
- Establish and administer data, SOA, interface, security standards
- Provide and manage the System Integration Platform services and resources
- Establish and administer enterprise shared services like Master Data Management, Document Management, Address Validation
- Provide Quality Management and Testing support including Integration, Performance, End-to-End, and UAT
- Support BMS with the CMS Certification process

Key credentials we believe the SI should possess a deep Medicaid program knowledge, a modern and highly configurable System Integration Platform (like KPMG's KRIS Connected Platform), hands-on knowledge of CMS outcomes-based certification, and trusted experience with state clients.

And considering SI related risks, KPMG advises BMS to be weary of an SI that focus too much on technology, vendors that have a history of change order abuse after their solution is proposed, and an SI that does not have experience managing large IT transformation projects. These can combine to drain BMS focus from the modernization, trigger project delays, cost overruns, and (perhaps) project failure.

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4.2.15

Describe your depth, breadth, and frequency recommendations for performing periodic vulnerability scans of production and development environments?

Response:

The KRIS Connected Platform undergoes weekly vulnerability scans covering all Vendor and subcontractor networks that will access State data and information by leveraging industry standard automated network scanning tools such as Nessus Professional. Our network security vulnerability scanning approach is based on NIST SP 800-115 standard and includes technical information security tests and examinations, analyzing findings, and developing mitigation strategies.

Vulnerability findings leverage Common Vulnerability Scoring System (CVSS) scoring and risk classification is depicted in the representative matrix below to identify severity rating of High, Medium, or Low for vulnerability risk classification incorporating the impact and likelihood. Impact and likelihood determinations determine the categorization of risk by the change that a threat could exploit a vulnerability and cause loss to the system or its data. In compliance with the latest guidance from CMS MARS-E and IRS Publication 1075, scans for vulnerabilities in the information system and hosted applications is performed no less often than once every 72 hours and when new vulnerabilities potentially affecting the system/applications are identified and reported.

Likelihood	Description
Low	There is little to no chance that a threat could exploit a vulnerability and cause loss to the system or its data.
Moderate	There is a moderate chance that a threat could exploit a vulnerability and cause loss to the system or its data.
High	There is a high chance that a threat could exploit a vulnerability and cause loss to the system or its data.

Impact	Description
Low	If vulnerabilities are exploited by threats, little to no loss to the system, networks, or data would occur.
Moderate	If vulnerabilities are exploited by threats, moderate loss to the system, networks, and data would occur.

High	If vulnerabilities are exploited by threats, significant loss to the system, networks, and data would occur.

Likelihood	Impact		
	Low	Moderate	High
High	**Low**	**Moderate**	**High**
Moderate	**Low**	**Moderate**	**Moderate**
Low	**Low**	**Low**	**Low**

Additionally, KPMG considers security core to its SDLC approach and implements a DevSecOps integrated approach baked into the SDLC Continuous Integration and Delivery (CI/DC) pipeline. The integration includes efficiencies brought on through automation such as but not limited to; IDE integration providing release based Static Code Analysis (SAST), Source Composition Analysis (SCA), Dynamic Application Security Testing (DAST) on a major release basis.

4.2.16

What processes, techniques, and solutions does your organization consider critical for delivering optimal data sharing throughout the MES?

Response:

We believe just collecting, storing and sharing data throughout the is not going to be enough. Data is constantly evolving, and it may be both appreciating and depreciating simultaneously. Hence to realize the full potential data must be accessible and available for right personnel, business applications and processes. To find most feasible data-driven business use case and discover business potential of customer data by quantifying its benefits. From our experience there are the 10 tenets that we recommend our clients follow for delivering optimal data sharing,

1. **Modern Data Architecture:** An end-to-end data architecture that allows for all the way from acquisition to ingestion incl quality & cleansing to cataloguing to governance & policy enforcement. Also support for multiple storage patterns including data lake houses and data warehouses.
2. **Data Discovery:** Taking a stock count and establishing an automated scanning for data assets (data sets, systems, reports, analytical models etc.) is the first step.
3. **Cataloguing incl Metadata:** Standardized approach to adding metadata to the data assets to facilitate better discovery. Making the data and assets available via a self-service catalog /

exchange incorporating policies and controls. This also serves as a mechanism to communicate data's value internally and externally to foster growth.

4. **Data Quality & Stewardship:** Help ensure there is an accountability for the management of data assets. Data Stewards do not own the data, but instead are the caretakers of the MES data assets, ensuring the lineage, quality, accuracy, and security of the data.
5. **Domain Centric Ownership:** Putting in place and assigning a decentralized responsibility to people who are closest to the data to support continuous change.
6. **Policies, Controls & Compliance:** Putting in place effective processes to protect data including but not limited to PHI from threats of inappropriate release and access. Built-in controls and policies including enforcing authentication, protect MES data from anticipated threats and access rights to data to be compliance with laws and regulations.
7. **Talent & Skills:** Acquiring and developing the right resources and skillsets across the agencies to use as well as manage the data to uncover insights.
8. **Tools:** Making available tools including low-code ones that can support a variety of scenarios including building reports & dashboards, ingestion pipelines, AI/ML tools etc., would help gain efficiencies and also help address talent sourcing issues.
9. **Self-Service Access:** Once the data has been discovered and catalogued using a modern data platform, allow for self-service access to discover, serve, and use the data.
10. **Governance:** To top it all, manage and govern the MES data as a strategic asset. While the MES data must be shared and accessible, having a set of standards, processes, reactive measures, and guardrails are essential to make the data program initiatives effective.

4.2.17

What standards and practices would you recommend with regards to key data governance, master data management, data stewardship, and data-sharing concerns? What approaches do you recommend for engaging business data owners separately from technical data system managers?

Response:

Data must be valued as an asset and managed through all its lifecycles, including project work and ongoing operation. The KPMG team has the experience and deep understanding needed to guide and establish governance standards and policies around administration, managing access, sharing data, and meeting data quality standards.

The KPMG team employs the following key practices to help ensure appropriate data governance:

Data Quality: Data quality (DQ) is integral part of data governance, and the KRIS Connected Platform will help affirm that the data that enters the system is of the highest quality. We leverage market leading tools to support the DQ process but can work with any tools the Department might have.
Data Access: Appropriate and right access to data to various members of an organization, including external stakeholders, is foundational to data governance. KRIS connects role-based security, and robust user provisioning will support consistent user access and authorization.

Data Literacy: Efficiency cannot be achieved without the appropriate interpretation of data in respect to a user's role and responsibility. KRIS Connected Platform metadata (information about the data) management includes business glossary, data models, user manuals, experienced Help Desk support, and training curriculum to increase literacy.
Data strategy: KPMG teams work with our clients to help plot a multi-year strategy for data acquisition and provisioning. The content of the data will be captured in the metadata repository that will be central to the design of data acquisition and management.
Master Data Management (MDM): Resolving entities across disparate data sources is instrumental to a data management strategy. The KPMG teams utilize their expertise in MDM to help create procedures for entity resolution and providing access to a single identity for an entity across multiple data sources.
Data Stewardship: Although an organization owns the data, a data steward is the custodian of data within the organization who is responsible for managing the integrity and quality of the data in the best interest of the organization. KPMG recommends that data stewards be assigned with appropriate responsibilities and level of authority across the organization for the effective management of data. They must be influential to represent the interest of all stakeholders of the data and must dedicate a portion of their time to data governance. KPMG provides a list of various types of data stewards that could be deployed across a large, distributed organizations. KPMG would recommend that data stewardship role be chosen from these different types based on the need within the organization

KPMG also encourages organizations to adapt a data governance model that supports its business strategy and is likely to succeed within its culture. It should be bound by policies and processes that incentivizes its staff (both business and IT) to amicably resolve data quality issues, establish data standards, formalize data sharing agreements, and propose data security and usage.

The data governance structure should have multiple layers to address concerns at different levels of the organization such as—local, divisional and enterprise. It should consist of committees focused on appropriate purposes and with different levels of oversight. Lastly, the governance structure should also evolve within the organization to meet future challenges

Below is a proposed structure that allows business and technical teams to participate in the data governance process.

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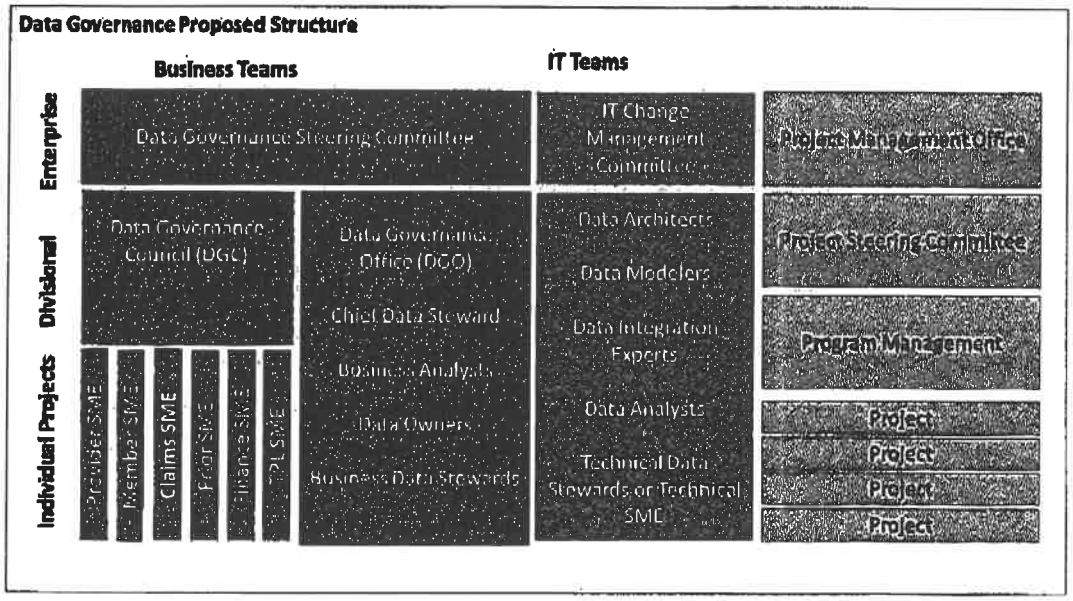

4.2.18

Describe your company's current roles and responsibilities as a fiscal agent, if applicable, in a modular systems environment. Describe how you coordinate with other vendors to incorporate their services in a modular systems environment. What are the key success factors and risks for separating Fiscal Intermediary functions from technical functions?

Response:

KPMG does not perform the role of a fiscal agent but has experience in multiple States partnering in the transition to a modular systems environment. KPMG suggests BMS consider a strong partner with business integration and PMO expertise to assist BMS set guidelines, processes, and governance to set a common direction for the vendors chosen to participate in BMS's modular transformation. BMS stakeholder alignment along with proper vendor management and governance will be key. Another key element to consider is a staggered transformation roadmap and release schedule based on BMS business priorities and risk tolerance as the Department is making decisions on carving out technical components and potentially associated Fiscal Intermediary functions.

4.2.19

Describe the division of responsibilities on successful projects, in relation to a multivendor environment, between vendor and subcontractor Project or Portfolio Management Offices (PMO), and an Enterprise PMO provided by either BMS or a separate vendor?

Response:

Our response is based on our recommendation that WV procures a System Integrator (SI) early in the procurement cycle, prior to contracting with module vendors. In addition to designing and implementing an SI Platform to support a modular approach for the new MES, the SI should have qualifications and

experience in providing an overall MES PMO and advisory team that will partner with the Agency to define/refine your MES objectives, workflows, data and technical requirements, and enterprise architecture, as well as the resulting MES roadmap and plan, and advise on subsequent module requirements.

The SI PMO should work directly with the Agency EPMO to define the project and technical governance and overall MES Project Management Plan (PMP) that will guide both the SI Platform implementation as well as subsequent module implementations the Agency decides to procure and pursue. We recommend that the SI defines a tailored PMO approach that incorporates your EPMO-established project management standards, tools, templates, and processes into one integrated MES delivery plan. The SI's PMO goal should be to partner with your EPMO to create and deliver the most effective and collaborative approach to managing the MES project. The SI PMO should use its experience to manage the many MES programmatic elements, service delivery, and project stability needs, and help establish and monitor operational metrics for MES project delivery.

The SI PMO should collaborate with your EPMO to understand lessons learned and leading practices from previous experiences the Agency has implemented, as well as clearly establishing roles, responsibilities, and handoffs between SI, Agency, and module vendor teams.

The table below outlines our recommended division of responsibilities between the SI PMO, the Agency EPMO, and Module Vendors. In short, it our recommendation that the Agency EPMO focuses on strategic alignment and coordinating Agency and other state resources as needed to provide WV Medicaid and HHS Subject Matter Experts and confirming that resulting MES designs will meet and support Agency MES program goals and objectives. In turn, the SI PMO should lead Methodology and Governance definition and adherence and ongoing PMO activities, keeping the EPMO appraised of project status, and obtaining EPMO signoff on methodologies, designs and deliverables.

MES EPMO, PMO and Module Vendor Responsibilities					
			Division of Responsibilities		
Category	Responsibility	Description	Agency EPMO	SI Vendor PMO	Module Vendor
Project Management	Strategic Alignment	Confirm alignment between executive stakeholder vision/priorities and project scope/schedule	Lead	Support	Support as Needed
	Methodology Definition	Define tracking, execution, and reporting processes, procedures, standards - including SDLC	Support and Sign off	Lead	Support as Needed
	Methodology Adherence	Ensure project staff adherence to project processes, procedures, standards	Support and Sign off	Lead	Support as Needed
	Org Structure	Define the project org chart, manage changes to team structures as needed	Support and Sign off	Lead	Support as Needed

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MES EPMO, PMO and Module Vendor Responsibilities					
	Risk/Issue/Decision Management	Escalate/mitigate risks and issues; facilitate/communicate decisions	Support and Sign off	Lead	Support as Needed
	Plan Development	Deliver/maintain project management plan documentation (PM Plan, Test Plan, Communications Plan, Implementation Plan, Conversion Plan, Interface Plan, Code/configuration management plan, etc.)	Support and Sign off	Lead	Support as Needed
	Plan Management	Manage teams and work efforts to deliver on the plan / critical path	Support and Sign off	Lead	Support as Needed
	Progress Reporting	Report project status	Support and Sign off	Lead	Support as Needed
	Financials Tracking	Manage budgets, forecasts, consumed, actuals, including match funding tracking	Support and Sign off	Lead	Support as Needed
	Vendor management	Manage vendor procurements, contracts, and delivery performance	Lead	Support	-
	Communications	Maintain appropriate communication with stakeholders and project teams	Support and Sign off	Lead	Support as Needed
	Policies, Processes, and Standards	Define and enforce project policies, processes, and standards	Support and Sign off	Lead	Support as Needed
Certification	CMS Requirements Adherence	Ensure project scope/activities adhere to CMS requirements	Support and Sign off	Lead	Support as Needed
	CMS Funding	Submit funding match requests for CMS approval and annual updates	Lead	Support	Support as Needed
	MECL Milestones	Facilitate completion of MECL Milestones	Support and Sign off	Lead	Support as Needed
	MECT Checklist Traceability	Define and maintain traceability between MECT checklists and project delivery artifacts	Support and Sign off	Lead	Support as Needed

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MES EPMO, PMO and Module Vendor Responsibilities					
	MITA	Ensure compliance with MITA plan/conditions	Support and Sign off	Lead	Support as Needed
Scope Management	Define Vision/Approach	Determine project phases and high-level scope of each phase	Lead	Support	Support as Needed
	Roadmap Planning	Identify the deliverables / activities and associated sequencing required to complete each phase and the associated DoD of each	Support and Sign off	Lead	Support as Needed
	Scope Planning	Decompose deliverables into tangible milestones and the associated DoD of each	Support and Sign off	Lead	Support as Needed
	Iteration Planning	Identify tasks achievable during the next iteration	Support and Sign off	Lead	Support as Needed

4.2.20

Describe your recommended approach to addressing the complex relationships between a variety of vendors working on separate parts (or modules) of the overall Medicaid Enterprise System. To what degree do you recommend BMS require these approaches in any RFP(s) it issues?

Response:

Summary

Based on our modular MES experience in multiple states, we strongly encourage BMS to include requirements for project governance, responsibilities, and relationships for all stakeholders (BMS EPMO, SI PMO, and module vendors) in modular RFPs.

While vendor relationships can be complex in a modular MES project, we have seen the most effective MES project management and project delivery across vendors when an Agency partners with an experienced modular MES SI early in the project, prior to the module vendor RFPs, to define the right governance model and PMP, including a communications plan and project RACI. We believe the project and procurement approach Connecticut and Colorado have taken is a model for BMS to consider. Both states have or are procuring an SI prior to module RFPs. The SI will partner with the Agency in the initial 12-18 months to define the right MES project governance module and roadmap, tuned specifically for the target outcomes the Agency has defined. In addition to the governance model, RACI and communications plan, this "look before you leap" approach with the right SI partner will mitigate MES project complexity and risk by developing and tuning an MES enterprise architecture that includes 1) a Medicaid business architecture detailing BMS Medicaid program goals, capabilities, and business process flows (which can extend across HHS), 2) an application architecture that provides a technical view of Medicaid modules and module/system integration across the MES, and 3) a data architecture

that describes the data and transformations needed to support the outcomes, program process flows and module interactions detailed in 1 and 2.

The details of the 'phase 1' assessment and architecture can then be used in subsequent module RFPs to define module vendor requirements, including project relationships and roles, that are tuned specifically for BMS target outcomes and the WV Medicaid program.

Approach to MES project governance and vendor management

To provide project clarity and simplification to the oversight of multiple simultaneous efforts and the needs of multiple vendors, we recommend the SI start with an evaluation of current BMS governance frameworks, as this will dictate key aspects of the PMP such as identifying key stakeholders, their responsibilities, and setting up and managing communications. Using the governance framework as an input, the SI should develop an MES Project Management Plan (PMP). The PMP will create a streamlined approach to stakeholder management and coordination, communication management, change management, vendor management, risk and issue management, quality management, documentation management and schedule management, among other things.

Communication management governance should describe the cadence of all meetings, their scope and purpose, and key stakeholders whether for the program as a whole or specific to a system, module or service. Example meetings include the program and project/module kickoff meetings, routine project status reviews, joint application design (JAD) sessions, and governance meetings.

A Change Management Plan should clearly establish change management processes, methodologies, and roles and responsibilities across vendors that will enable the Agency to determine which changes will be implemented and in which release they will be implemented. As requirements and modifications related to modules/functionality change throughout the SDLC phases, those changes must be accurately documented, agreed upon by the project stakeholders and communicated to the project teams across all vendors.

Identifying, assessing, and mitigating risks at both Program and Project levels is vital. Risk assessment activities should provide the Agency with an early identification of risks, unbiased assessment of the status, progress, and risk profile of projects as well as robust recommendations for risk mitigation strategies.

Integrated Master Schedule (IMS): the Agency and SI vendor should document an IMS to develop and maintain an MES Project Runway to track project and vendor activities across modules.

Through this approach, the SI should develop, execute, monitor, report on, and maintain an IMS through a collaborative effort with your stakeholders, including all module vendors and State partners. Our IMS activities will help plan, coordinate, and monitor the program schedule across all stakeholders to

manage complexity and communications across vendors, achieve timely completion of deliverables, confirm that dependencies are considered, and that MES project progress is maintained.

4.2.21

What factors (technologies, development methodologies, frameworks, etc.) would you recommend BMS require in an RFP in order to accelerate the DDI of MES modules?

Response:

In order to accelerate the DDI activities of MES modules, there are a number of factors we would recommend that will not only improve the delivery time associated with implementing MES modules, but also improve the quality and integrity of the overall MES. These factors are aligned by category and described below:

Factor Category	Description
Business Process	• Provide business process models so MES Module vendors understand required capabilities
Integration	• Identify expected integration points based on module capabilities • Provide canonical model so vendors can understand transformation requirements • Provide preferred integration methods (e.g., API-first) so vendors understand
Conversion	• Ensure conversion starts early in process and aligns across SIP and other modules • Provide assessment of legacy system data • Provide data quality tools to be used so that are consistent across the MES
Governance	• Describe your preferred SDLC • Describe expectations for multi-vendor alignment and approvals • Describe any SDLC tool standardization (e.g., test and defect management)

4.2.22

Describe ways you feel BMS should structure an RFP to encourage competition and innovation from Medicaid Enterprise solution bidders.

Response:

KPMG would suggest these RFP considerations to encourage competition and innovation from bidders:

- Bidders will only be awarded the contract for the MES Integration Platform, and not be allowed to bid on other MES modules. This encourages bidders to bring their most competitive and innovative solutions forward for the MES Integration Platform.
- BMS should encourage bidders to present pricing tied to positive contract performance, not just SLA penalties.
- Bidders should be allowed to utilize offshore resources for DDI tasks that do not include confidential PHI data.
- Bidders should be encouraged to flex rates over the extended contract years (Operations & Maintenance) as needs and roles change.
- BMS should ask bidders to be creative with staffing and onsite requirements.

4.2.23

What recommendations do you have for establishing procurement and implementation timelines that help deliver value sooner, reduce risk, maximize Federal Financial Participation (FFP), and achieve Outcomes-Based Certification or Streamlined Modular Certification?

Response:

Prior to setting implementation timelines and determining the order of procurements, it is critical that you have a full understanding of the business goals and how technology should be deployed to support them. Too often, these procurements seek to replace aging technology without a full understanding of the desired outcomes for the program. By identifying these outcomes, it becomes easier to architect your implementation roadmap to achieve both short and long-term goals and communicate the outcomes that will be measured to help you achieve certification.

Coupled with an assessment of your current state business operations and technical architecture and analysis of the gaps between these and your desired future state, you can identify which business outcomes might be achieved through the reuse or improvement of current technology or even just the improvement of business operations. These short-term improvements can help to achieve meaningful outcomes for the program and potentially minimize the number of procurements focused on larger, longer-term initiatives, and influence the order in which you procure software and services and the associated timing of the procurements.

One of the keys to staying on track is to create a realistic plan for the procurements. It has been widely observed that many states create a best-case timeline first with little margin of error allowed. Any deviation from this timeline can cause ripple effects in your plan and result in implementation timeline extensions that exceed the initial delay. Even when working through an initial plan, you must consider the additional time needed to movie complex procurements through the state and federal approval process.

Related to the proposed overall timelines and the potential time it may take to finalize and release a procurement, recognize that your overall roadmap may need to be adjusted based on delays in the release or award of a solicitation, or even the additional time that may have been required to achieve some short-term improvements. Roadmaps are fluid by nature, and little is served by fixing an end date without accounting for delays in procurement.

4.2.24

Describe the major trends in your Medicaid Enterprise solution category that you believe BMS should be aware of, including any product or approach changes that you believe will come to market within the next 12 – 24 months. How do your Medicaid Enterprise solution roadmaps stay current with such trends? If possible, please be specific regarding how these trends affect Medicaid, WVCHIP, or healthcare IT in West Virginia.

Response:

KPMG reviews the evolving landscape of Healthcare IT, assesses the macro trends in the health and human services domain and evaluates latest technology trends to advice its overall product and platform strategy. KPMG not only provides the system integration platform which allows the Medicaid enterprise to connect data, process and technology capabilities of the Medicaid Enterprise but also provides advisory services to support business transformation, and improved outcomes. The following lists the major MES tends that BMS should be aware of and it provides our perspective on these trends and impact to on our solution.

Delivery System Reform Models

At the federal level, the Center for Medicaid and Medicare Innovation (CMMI) has continued to develop and evaluate new delivery system reform models for different types of providers, patients, and populations. The most recent models are the Direct Contracting models, the Integrated Care for Kids (InCK) and Maternal Opioid Misuse (MOM) models, Primary Care First, and the Emergency Triage, Treat, and Transport (ET3) models.

KPMG understands that the State of West Virginia is actively participating in the Maternal Opioid Misuse (MOM) model. This model addresses fragmentation in the care of pregnant and postpartum Medicaid beneficiaries with opioid use disorder (OUD) through a state-driven transformation of the delivery system surrounding this vulnerable population. By supporting the coordination of clinical care and integrating other services critical for health, wellbeing, and recovery, the MOM model goal is to improve the quality of care and reduce costs for mothers and infants. In addition, the MOM focuses on delivering coordinated and integrated physical health care, behavioral health care, and critical wrap-around service.

The key takeaway from the MOM model and all these delivery reform models is the increased focus on data integration across the different data domains and the capability to engage and onboard partners with varying technology platforms. KPMG recognizing this trend has leveraged its common information model (CIM), provisioned flexible data pipelines, and developed domain-specific (housing, education) data accelerators.

Interoperability Trend – FHIR standard

Demand for interoperability among healthcare systems will grow dramatically in the coming years, and more so with the COVID-19 outbreak. In addition, with changes in healthcare payment models such as value-based reimbursement, there is a growing need for real-time data exchange among healthcare providers to promote a coordinated care experience.

KPMG recognizing the interoperability trend has embraced the FHIR standard in its Core Common Information Model and provides the ability for the State to build an enterprise-grade FHIR repository to service its needs for interoperability across many use case scenarios.

Improved Transparency and Outcomes Based Focus

Prompted by new regulations, enhanced funding, and improved data availability, Medicaid agencies emphasize improving transparency and outcomes. Our KRIS Connected Platform provides intelligent data collection agents to provide real-time operational monitoring, allows for configuration, visualization, and tracking of Key Performance Metrics (KPIs)and trends, and provides the ability to link these KPI(s) to overall business goals and outcomes.

4.2.25
Identify any innovations in your Medicaid Enterprise solution for addressing Medicaid Business Priorities (cost savings, performance efficiencies, improved care outcomes, etc.).

Response:

The KRIS Connected Platform includes multiple business innovations, several examples include:

- A high-performance, auto-scalable integration platform that can ramp-up automatically when Medicaid business services peak such as large MCO encounter file processing. BMS does not need to pay for peak integration platform availability when 80% plus automatic ramp-up can provide for business needs.
- Integrated Identity and Access Management and Single Sign-On services, to enable a common credential experience for all users and improve access to the MES for members, workers, and providers.
- Single EDI Gateway to support processing, auditing, and translation of X12 transactions across the MES
- Master Data Management and Address Verification enterprise services, to confirm member and provider information and improve paper correspondence delivery effectiveness. Also, leverageable by MES modules.
- Centralized Document Management System so all documents, images, and other unstructured content can reside in a single repository
- Flexibility to include and reuse existing WV IT resources into the integration platform, reducing the time to deploy and total cost of ownership of the integration platform for BMS
- Intelligent and configurable transaction routing, enabling dissimilar but logically related transactions received at different times to be integrated. Ex: supporting claims documentation provided with a X12 275 associated to its related claim received the day prior. The result is a claim ready for adjudication that did not require significant worker intervention.
- Flexible and configurable intake rules, to improve data quality passing through KRIS between MES modules. This helps improve the quality of MES data for program operations and program decision making.
- Integrated support for secure TXT and e-mail messaging, reducing the dependence on paper correspondence. Modules can leverage these services.

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4.2.26
Identify any innovations in your Medicaid Enterprise solution for addressing technical risk management.

Response:

KPMG mitigates technical risk during MES projects during both planning and DDI phases on a modernization project. Following the old adage "measure twice, cut once" we believe having a shared understanding of the MES vision from both a business and technical viewpoint establishes a solid foundation to build upon. And then having a flexible and configurable integration platform enables modules to be onboarded with a minimum of project and Medicaid program risk.

Specifically, some of the innovations and accelerators we employ to address technical risk include:

- **Business Driven Integration** – using our KPMG Enterprise Reference Architecture, we have already documented all of the integration points across the MES in the form of Enterprise Architecture Models. We use these models to:
  - Validate the business capabilities in each MES module
  - Validate the integrations between each MES module and the rest of the Enterprise
  - Validate the data that will exchanged down to the element level
  - Load our Integration Control Center with the catalog of integration points
- **Use of an Integration Control Center (ICC)** to support managing the catalog of integration points including the method, frequency, schedule, and status of each across the SDLC. We use the ICC to kick off the development process that is managed and tracked in Jira.
- **Pre-built Orchestrations** – Baseline orchestrations between modules to accelerate to development and testing timeframes.

4.2.27
Describe 1 to 3 use cases where innovations in your Medicaid Enterprise solution would apply and the value your Medicaid Enterprise solution would add when applied to them.

Response:

The following two use cases highlight innovations in our KRIS Connected Platform that would be beneficial to BMS. Given the confidential nature of these innovations, they are summarized below. We would be delighted to discuss these with you in more detail during the vendor presentation sessions.

Integration Control Center (ICC) – as described above, the ICC is a tool that is used to manage and reduce the risk and provide BMS with transparency during the DDI phases with the MES modules. The ICC is a real time portal that will be used by KPMG and the State to manage all of the integrations, track their progress, and eventually manage their operations. It provides connectivity to Jira and our ITSM solution when the integrations are operating in production.

Data Quality Intelligence - The KRIS Connected Platform has built smart data pipelines that are configurable, scalable and allow for moving data in real time across systems. Further, with our unique and innovative approach of asynchronous data quality engineering, the KPMG team provides the ability to perform data profiling, standardization, and deduplication without disrupting core operations. This approach allows the platform to help ensure that the data delivered is accurate and meets the business operational quality standards. Also, this approach enables the KPMG team to produce trends and KPIs on data and process quality.

4.2.28

In the states where you have implemented, what have been some of the higher value outcomes? What performance metrics were you able to provide to substantiate this success?

Response:

An earlier version of the KRIS Connected Platform went live with Tennessee Health and Human Services in May 2021. The platform showed its resiliency to unplanned production volume growth as TN HHS citizen service requests grew nearly 300% during the summer of 2021 at the height of the COVID-19 epidemic. The dynamic scaling capability of the platform allowed HHS business services to scale up and down as citizen needs profoundly changed during unprecedented times.

4.2.29

Discuss any experiences you have had integrating your Medicaid Enterprise solution with legacy system management and lessons you have learned for implementing new Medicaid Enterprise solutions. Do you recommend any specific approach for modifying, interfacing with, and managing the legacy system while implementing a new Medicaid Enterprise solution?

Response:

From our KPMG MES experience, we see states often focus extensively on their new MES integration and not enough on the disintegration of the legacy MMIS. Only when deployment dates for new functionality is scheduled do teams consider the legacy system. And then MES schedule dates can hit a speedbump.

KPMG offers the following lessons learned:

- Begin the planning process with the legacy MMIS early. Some states are concerned about future procurement conflicts as the legacy MMIS vendor might bid on new MES work. Indicate to legacy vendors they must provide a firewalled team to support legacy transition.
- Include the legacy MMIS vendor in planning and design sessions for the new MES interfaces.
- Make legacy MMIS interface decisions public, so other vendors bidding on future MES work have the same information.
- Include legacy MMIS changes in the MES Master Integration Schedule; to coordinate design, development, and integrated testing.
- Evaluate existing ETL and EDI interfaces in the legacy MMIS for reuse. Consider reusing (overloading) existing interfaces to share data between the MMIS and MES. Most legacy MMIS

systems have existing batch file interfaces for provider, member, claim, encounter, and member updates. Consider SI services to interface with these batch file interfaces.

- Consider all options for sharing data between the MMIS and MES including Robotic Process Automation (RPA) to engage the legacy MMIS user interface. Such bots can enter / access information as a simulated user. Your SI should have experience with such forward looking RPA options.
- For any new data interfaces created, make sure your SI considers potential security impacts.
- Don't forget to include legacy MMIS disintegration in CMS funding requests.

4.2.30

What staffing levels, including experience and skillset, are typically required to implement your Medicaid Enterprise solution? What are the suggested state Medicaid agency staffing levels to support DDI and ongoing operations? How do these staffing requirements compare to other offerings in your Medicaid Enterprise solution?

Response:

Specific BMS staffing levels will vary by project phase and the desired level of engagement desired by BMS leadership. KPMG as your Trusted Advisor understands that BMS resources are very busy providing healthcare related services to the some of the most at-risk persons in the State. As we work collaboratively with BMS to plan the SI related tasks in the Master Integration Control Center, focus is made to have the right State resources at the right time engaged on the project. At a summary level, below is a thematic outline of when State resources would be needed on the KRIS DDI effort.

Resource Type / Project Phase	Design	Development	Implementation	Maintenance & Operations
BMS Leadership	Strategic	Strategic	Strategic	Strategic
Medicaid SMEs	Medium	Low	Medium	Low
Technology	Low	Medium	Medium	Low
State Security	Low	Low	Medium	Low

High – detailed level of State resource engagement; working on SI related tasks on a daily basis
Medium – State resources allocated to SI related tasks several times a week
Low – State resources working periodically on SI related tasks; as needed
Strategic – very lite need for State resources; providing overall direction and guidance to the SI effort

4.2.31

Describe the System Development Lifecycle (SDLC) approach that you use for implementing your Medicaid Enterprise solution. Can your SDLC approach be incorporated into an environment that uses a traditional "waterfall" SDLC approach? What about "agile" methodologies to support the implementation of your Medicaid Enterprise solution? If so, how can this be accomplished?

Response:

As described in our response to question 4.3.12, there are two sets of DDI efforts we will perform in the role of the Systems Integrator:

1. Buildout & Operationalizing the KRIS Connected Platform
2. Developing and deploying integrations across the MES

For both of the DDI efforts, our proposed SDLC is based on agile approach where we build and demonstrate our progress to BMS in an incremental manner. We believe the benefits of an agile approach are significant and we have observed the following benefits with our current and past clients:

- Focus on delivering business value earlier
- Improved transparency
- Improved quality
- Increased flexibility
- Improve project predictability
- Continuous delivery and improvement
- Reduce risk (and surprises)

Our agile approach slightly different between the two phases of DDI. For the first phase, we organize the Operationalization of the SIP across five overlapping program increments that each span two to three months. This allows us to set up WV instance of our Platform incrementally, demonstrate these capabilities to BMS, and accelerate the testing and approval process.

For the second DDI phase where we need to work with the MES module vendors, BMS, the State, and other trading partners, we break down the work into varying number of program increments depending on the size of the integration effort. Each program increment consists of four, two-week sprints. For each sprint, we perform the grooming of the backlog, the sprint planning and retrospective. Once a program increment is complete, it is moved in its entirety to our Testing Team where all these capabilities contained within the program increment are tested in conjunction with the other vendors.

While we prefer not to use the traditional "waterfall" approach, we do understand that some states prefer this method due to facilitate deliverable approval and contract management. We can incorporate our SDLC into a "waterfall" approach and would need to make sure the project schedule can accommodate the serial sequence of the work activities that need to be performed. However, given benefits of an agile methodology, we can work with BMS to help ensure that you are comfortable with any contractual arrangements so that deliverables and payment milestones are clearly established and measurable.

4.2.32

What is the typical duration of a project to implement your Medicaid Enterprise solution? How does this timeline break down across the planning and DDI phases?

Response:

Given that our KRIS Connected Platform can be implemented as a Software-as-a-Service, we are able to accelerate the time it takes to create the initial platform before it is ready for support the integration. The duration of the planning (Phase 1) and DDI phases (Phases 2 and 3) is impacted by the capabilities of

what BMS plans to put into the Systems Integration Platform (SIP). However, before any DDI activities take place, BMS does need to perform planning activities for the SIP. These could include:

- Develop high-level MES roadmap
- Define future Target Operating Model
- Define the requirements for the SIP including capabilities and deployment models
- Define data integration standards
- Define data governance approach

These planning activities should take no more than one year to accomplish (and can be performed by KPMG or the State). Once complete, the typical duration to implement our KRIS Connected Platform is seven to nine (7 - 9) months. This includes operationalizing the KRIS Connected Platform, so it is ready for module integration (see our response to question 4.2.12 for more details about the activities that take place during this phase).

Once the SIP is operationalized, we can commence building the integrations with each of the MES module vendors. The typical duration for these varying depending on what capabilities BMS allocates to each of the modules (in our experience, this does vary state by state). However, a typical duration to implementation a module and can be 9-18 months. This includes all of the effort from design to the completion of the operational readiness review process and the migration of the code to production.

4.2.33

What do you see as the key cost drivers for implementing your Medicaid Enterprise solution? What recommendations do you have for managing MES costs and demonstrating outcomes that mitigate any unnecessary costs of a Medicaid Enterprise solution?

Response:

Based on KPMG's experience supporting both MES transformations in many different capacities, there are several key areas of an MES Modernization effort that are likely to impact the total cost of ownership for the Agency. Scope, human capital, variable resource levels, infrastructure costs, service level agreements, project controls such as a well-defined project PMO and governance strategy, clearly articulated and testable functional and non-functional requirements that driving business outcomes, legacy data migration, and State and Federal regulatory and procurement constraints are the primary determinants of overall cost for an MES implementation. Failure to invest the time and analyze in properly identifying, elaborating, and understanding how these factors impact the RFP phase(s) and implementation may lead to the project not realizing its goals and objectives.

The following are some factors to consider that are specific to our solution as well as ones with MES-wide implications:

— Timing of MES Module Implementations	— System Availability
— Number of Integration points and method	— Disaster Recovery RTO & RPO

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— Technological expertise required to integrate between the legacy and new platform/module	— Response Time Requirements — Years of Archival — Security & Audit Requirements
— Highly skilled business and technical professionals — Resource Management — Subject Matter Experts for program specific rules and procedures	— Cloud Compute and Platform Services — SIP Platform Software — Number and size of production & non environments — Disaster Recovery Requirements — Application Lifecycle Tools
— Project Methodology — Data Standards — Integration Standards	— Costs of turning off existing functionality — Proactive design of hybrid workflows during transition period — Legacy technology not designed for modular operations
— Well-defined Scope — Speed of decision-making — Delegated Decision	— Volume of history to be converted — Cleanliness of historical data — Documentation of the legacy data model

4.2.34

Using your Medicaid Enterprise solution as an example, what guidelines do you recommend for "phasing in" your modules and/or services? How do these guidelines maximize efficiency and/or minimize risk? What constraints would they place on DDI partners and BMS?

Response:

KPMG agrees with BMS that a phased approach to module integration can reduce overall project risk and provides early wins to the Department. Our recommended strategic approach is to identify where

BMS has the greatest current Medicaid program "pain points" to improve service delivery. Via a collaborative planning discussion with the Department and stakeholders, define which SI services can address those program needs. This planning should go into the MES roadmap that KPMG suggests being developed in the planning phase of the project.

Working with KPMG, the module vendor will need to confirm plans for their module APIs to align with logical and physical data requirements defined in the KRIS Connected Platform Canonical Model (also known as the Common Information Model -CIM). Where interface gaps are identified, plans are defined on how/who will resolve them – SI or module vendor. Our KPMG Team recommends a standard set of onboarding templates, combined into a configurable onboarding workflow to be completed with/by each module vendor. The KRIS Connected Platform includes a catalog of such templates which include API, connectivity, payload, security, and other integration standards.

In our SI role, the KPMG Team will perform integration testing for all module integration completed by the module vendor. While the self-completed testing performed by the module vendor will be reviewed, independent API, connectivity, payload, security, and other testing performed by the KPMG Team will provide BMS confidence with the API entering Production.

Finally – all module vendor tasks should be identified and tracked on the KPMG maintained Master Integration Schedule. This serves to keep all parties informed on progress, risks identified early, and collaborative solutions found to keep the module integration on-track.

4.2.35

What do you believe would be the optimum duration and the minimum duration for DDI of your Medicaid Enterprise solution?

Response:

The optimal duration for operationalizing our KRIS Connected Platform is 9 months. This provides enough time to procure, configure, and test our instance of the Platform for BMS. It also allows enough time to make any changes to the platform that might be associated with any requirements contained within your RFP that are specific to BMS (business or technical).

Please see our response to 4.2.32 for more detail on the timeframes for both of the DDI phases.

4.2.36

List and describe the documentation developed by your company and/or the state Medicaid agency that is essential to DDI and operations of your Medicaid Enterprise solution.

Response:

The recommended list of documentation to support both the DDI and operations of a Medicaid Enterprise Solution (MES) includes the items in the following bulleted list. This documentation may be developed by the Systems Integrator, the State Medicaid Agency, module vendors, or through a collaboration of all parties. It is recommended that a single, electronic document repository be

established where all vendors and the state have access by permissions to view and store project-related documents.

- KRIS Connected Platform End User Documentation – information and instructions for Department, Module Vendors, and third-parties on the different technology solutions and interface connections as well as detailed instructions for non-technical staff who may have access to dashboards, portals, etc. that are components of our Platform. Examples of this documentation may include:
    - Playbooks for onboarding module vendors, integrating modules to the Systems Integration Platform, and testing
    - Release Notes to communicate system enhancements and fixes with each release
    - User guides or quick reference guides for:
        - Navigating the Systems Integration Platform portals (general user and module developer)
        - Managing change request, incident, and defect processes
        - Managing integration testing processes
        - Managing the lifecycle of integration requests from a variety of stakeholders to the systems integration platform
        - Managing data file transfers/exchanges
- Contract Management Plans – these documents outline the scope of work, approach, methodologies, responsibilities matrix, assumptions, etc. for the major activities included in a vendor's contract such as project management, quality management, system testing, system implementation, and training.
- Detailed Project Schedule – a detailed project schedule that defines all project tasks and activities, and associated subtasks, timelines, resources, and durations.
- Risk, Action Item, Issue, Decision (RAID) Tracker – a tool to document identified risks, action items, issues and decisions, and the resolution of each.
- Defect, Incident, and Change Request Tracker – a tool(s) to document identified defects, incidents, and change requests, and the resolution of each, throughout the lifecycle of the project.
- Requirements and Service Level Agreement (SLA) Tracker – a tool(s) to document the vendor's contract requirements and SLAs, as well as the state's business requirements for a module, and to document the traceability of requirements to project activities.
- Project Management Documents – the routine project documents used for communication between the state and a vendor (such as meeting agendas/minutes, contract deliverable acceptance/rejection notices, status reports, work/change orders, etc.).
- CMS Certification Documents – required documents by CMS throughout DDI and operations phases to obtain certification.

- Writing Style Guide – a document that provides guidelines on style and formatting standards for all documents created for the project to align with the state's branding and style standards, and industry standards.

4.2.37
Detail how your Medicaid Enterprise solution could support BMS in improving data analytics and reporting capabilities, data sharing initiatives, and overall confidence in health data.

Response:

Several capabilities exist within the KRIS Connected Platform to improve data analytics and reporting capabilities, data sharing initiatives, and overall confidence in health data.

The KRIS capabilities of interest include:

- The Common Information Model (CIM) in the KRIS Connected Platform provides a common definition of the entities, attributes, relationships, glossaries, and meta-data in the various Medicaid domains. The CIM helps to enforce a common messaging model across the integration flows and the API's to build consistent data.
- KPMG brings a wealth of data governance experience to support the state's interoperability efforts by establishing data sharing and data quality criteria for the roll out of interoperability efforts utilizing industry standards across MES modules.
- Decision Support ODS: Some states decide to include a "heavy" ODS to provide added functional reporting from the Integration Platform. This form of ODS can supply modules as a SOA datastore, provide data conversion support for module data, and support integrated business reporting.
- Master data management (MDM) capabilities to master key domains and reconcile entities with multiple concurrent opinions (such as patient, provider, business) into a unified, unduplicated view.
- As real-time and batch transactions move through the KRIS Connected Platform, they are passed through the Integration Platform. While in there, data quality policies defined in Business Process Execution Language can be triggered. Failing transactions are either remediated real-time based on defined correction rules or logged for later review.

4.2.38
Describe or illustrate your data visualization capabilities.

Response:

From data visualization to advanced data management, KPMG provides the data understanding to help organizations unlock real, actionable insights to make transformative business decisions. Our capabilities in data visualization can be broad summarized into four (4) categories,

a. Skills that include deep expertise in data, design, AI/analytics and data-driven app development.

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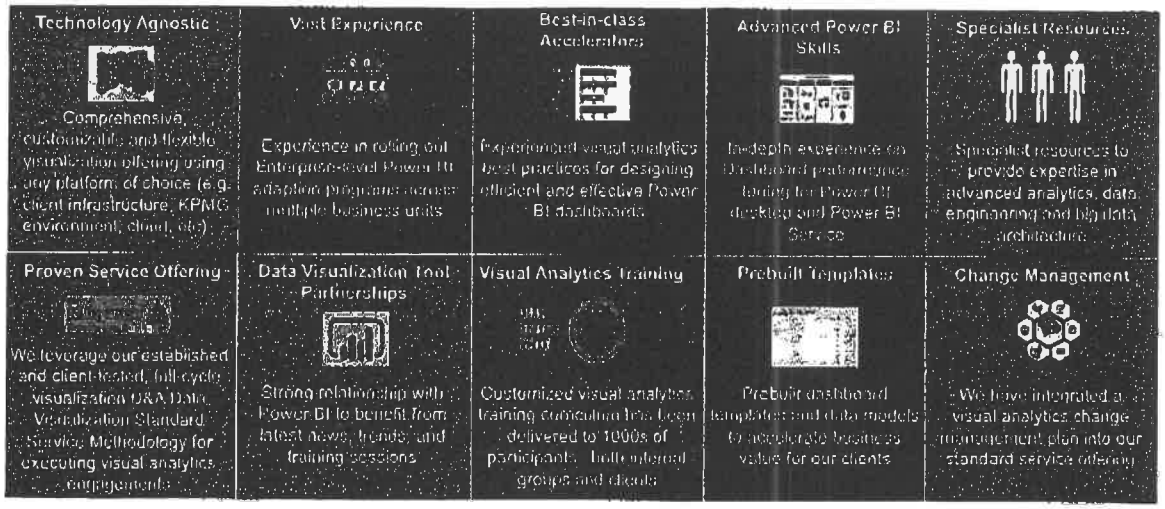
b. **Industry knowledge** who have skills in their respective domains including functions. These digitally manifest as "KPMG Knowledge Cartridges" that are a set of data assets including visualizations that are pertinent to a specific industry use case or scenario.
c. **Human centered design approach** that puts the end users and personas in front & center and adopting an agile approach to designing delightful data driven apps.
d. **Data and signals** that we continuously harvest sets from a variety of data from public and private sources. These complement client specific internal data sources and sets in the development of data visualization apps.

Our organic expertise in conjunction with our "visual analytics toolkit" (depicted below) accelerates enterprise grade adoption of data & analytics for our clients.



Our top down – human centered approach focuses on the right questions, KPIs and measures, resulting in dynamic visualizations We apply leading practices using a "D&A Data Visualization Standard Service Methodology" for all visual analytics engagements. During the data visualization phase, we also establish an operating model to ensure a sustainable model is in place to consistently source and ingest the data required to support each visualization or dashboard metric. A suite of operating model artifacts that are typically developed to enable dashboard launch and continuous reporting.

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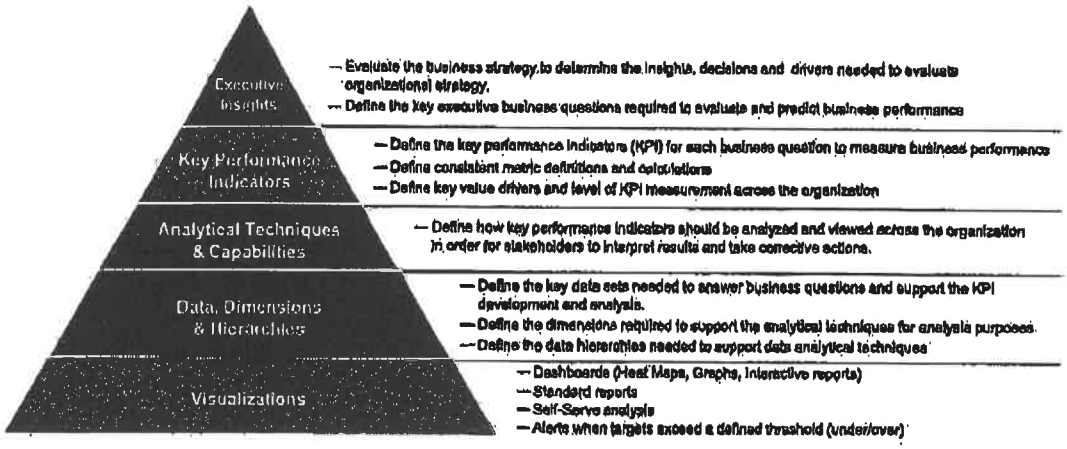

4.2.39

How does your Medicaid Enterprise solution improve the coordination of care, detect and prevent fraud, waste, and abuse to support Medicaid program integrity, and improve stakeholder access to state Medicaid Enterprise data?

Response:

The KRIS Connected Platform will foster coordination of care, detect and prevent fraud, waste, and abuse across the MES in a number of ways:

- Single Sign-On (SSO) security services to enable seamless BMS worker access to MES modules, care coordination applications, and case management systems. In addition to streamlining access, these same SSO tools can detect abusive access attempts to the MES.
- Master Data Management capabilities to reconcile citizen or provider records that might be duplicative. And data interoperability capabilities to share these insights with MES modules and other BMS systems.
- Address Validation and Verification capabilities to enable mailed Medicaid documents to be sent to the right person who exists at a valid postal address. These capabilities can also identify when several unrelated persons receive mail at the same postal address.
- Reference Data Management capabilities that keep all modules using the same code sets, improving data quality.
- The platform is capable of integrating HL/7 messages to receive ADT feeds and transmit via an API gateway to care coordination applications.

4.2.40

Describe how your Medicaid Enterprise solution increases access and shared use of data with both the State and other vendors, improves healthcare quality management, and increases automation capabilities.

Response:

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In our view, the adoption and implementation of data standards and industry best practices are the cornerstone to any successful modernization. Absence of a coherent data strategy for organizing, governing, mastering, analyzing, and deploying an organization's information assets are the primary drivers of failed implementation. The key is to balance an organization's strategic goals, risk appetite, culture, and economic and regulatory environment while focusing the people, processes and technology that define an organization's information management and governance strategy while aligning the federal data exchange regulation and CMS compliance.

More than over, this strategy provides the department with timely, accurate, complete outcomes to support decision making and the department operational vision. Our data strategy and holistic data governance framework approach focus on an organization people, processes, and technology. The following are key considering for an overall data governance and management strategy.

Data Governance Roadmap	Data Management Strategy (DMS)
— Identify and enforce industry data leading practices and standard such as Data Management Body of Knowledge (DMBOK) — Address risk and challenges — Advance data governance maturity and capabilities — Define and adherence to data standards and policies	— Address data flow across the Medicaid Enterprise — Involves architecture, modeling, standards, metadata, management, interoperability, Security & Privacy (S&P), access methods, quality, and performance standards Intra-State agency dependency & collaboration — Data Stewardship roles and responsibilities assignment
Data Asset Inventory	**Definition and Standards**
— Data asset maintenance plan — Data asset catalog — Metadata definitions and source systems	— Establish collaborative processes — Oversight of data dictionaries, taxonomies i.e., federal and local codes, and business rules for Enterprise Master Client Solution — Guidelines for data sources standards such as FHIR, HL7, X12 transactions, and NCPDP D.0
Data quality Management	**Data Sharing**
— Inform changes in source systems that may result in corrupt or inconsistent data. — Use documentation to inform others. — Measure data quality and executing corrective actions.	— Formal contract/agreement between two or more parties — Define data usage and purpose — MOUs between two sister agencies and trading partners — Supports mastering of data between two or more parties
Master Data Management	
— Single-source-of-truth to support business processes	

— Complete, consistent, and reliable source of master data across your organization — Better data quality for reporting and insight	

4.2.41

If applicable, how does your Medicaid Enterprise solution improve access to end-users, such as a user's data or access to additional services?

Response:

Several capabilities exist within the KRIS Connected Platform to improve end user access to data. Our Platform's capabilities of interest include:

- Identity & Access Management (IdAM) and Single Sign-On resources to enable end users seamless and secure access to MES data resources in modules.
- A unified worker portal which includes dashboards and alerts driven by key MES performance indicators.
- The KRIS Connected Platform applies an API-centric design approach for developing the integration services. This solution includes an API-centric workflow for MES vendors to sign up for a service, including the approval process to access the services along with other governance parameters. This approach enhances end-user access to data by increasing the number of secure MES endpoints where data is available.
- Additionally, the KRIS Connected Platform can be configured to receive monitoring updates from the MES modules. This information will provide the Department with a unified view of business activity across the MES ecosystem.

4.2.42

How can your Medicaid Enterprise solution help address gaps in health outcomes? Please provide outcomes from other engagements, if applicable.

Response:

The KRIS Connected Platform is designed to scale across the entire HHS community. Its ability to break down data silos with agencies empowers data transformation, governance, and integration with Medicaid high utilization communities in Aging, Behavioral Health, Homelessness, and Unemployment. We are doing this work in states like New Mexico, where taking a "whole citizen" approach to care delivery is a cornerstone to improved health outcomes.

And in states like Tennessee and North Carolina, third-party solutions such as HealthED Care Coordination Tool and UniteUs are part of the Integrated KRIS Connected Platform roadmap, as business intelligence tools to identify care gaps/supporting care coordination.

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4.2.43
Describe your experience with payment milestones during the DDI of your Medicaid Enterprise solution. In other DDI projects, were payments tied to deliverables, acceptance criteria, and/or other DDI milestones?

Response:

We have significant experience with a deliverables-based pricing approach that ties our payments to delivering on-time work products against predetermined success criteria. This approach will allow us to provide you with options that we can match against your key strategic program priorities as well as practical cost considerations.

We would be more than happy to discuss alternative approaches to pricing and are flexible to adjusting our pricing approach based on BMS strategic goals.

4.2.44
Do you have a short demonstration of your approach and/or Medicaid Enterprise solution that you would like to present to BMS? If so, please describe the method of presentation for the demonstration and suggestions for who should attend. If BMS wishes to take part in a demonstration, they will reach out to the Respondent for further information.

Response:

We believe the best method to evaluate our people, subject matter knowledge, and innovative SIP solution is through both a presentation and demonstration of our Solution. While we prefer to conduct our presentations in person, we do understand the challenges of in-person meetings during the pandemic and have performed many virtual presentations of the course of the last two years.

Our presentation would consist of two segments: In the first segment, we would set the context of our solution, provide a summary of its capabilities and architecture, and discuss our accelerators, methodologies, and frameworks.

In the second segment, we would demonstrate our platform's capabilities real-time so you can see for yourselves the capabilities contained in our platform, the value we provide, and how we differentiate our offering from our competitors. Our demonstration is not pre-recorded – it is a live demonstration of our platform.

We suggest that the attendees should span your different MES stakeholders – both on the business and technology areas. This includes:

- Program area business leads from claims, provider, member, TPL, etc.
- Program leads responsible for Data Warehousing and CMS compliance reporting (ex: T-MSIS)
- Chief Information Officer responsible for BMS
- BMS manager of the current MMIS
- System Architects
- Cloud and Infrastructure Architects
- Chief Information Security Officer (CISO) with security and privacy oversight for BMS

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4.2.45

Is there additional information you would like to share with BMS related to the topics addressed in this RFI?

Response:

KPMG's Medicaid experience is unique across all vendors that will submit responses to this RFI. We have a 360-degree perspective given the different roles we have played for our clients over the years including IV&V, Transformation Advisor, and Systems Integrator. Given this unique perspective, coupled with our experience in our SI engagement currently underway, we suggest the Department seriously consider the scope it places within the scope of the Systems Integrator versus creating separate solicitations and breaking apart these responsibilities. We would like to present some of these ideas along with the pros and cons to the Department during and vendor presentation sessions.

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Request for Information
CRFI BMS2200000001
Medicaid Enterprise System (MES)

By signing below, I certify that I have reviewed this Request for Information in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this response for review and consideration on behalf of my organization.

KPMG, LLP

(Company)

Nashim Mollah **Nashim Mollah, Managing Director**

(Representative Name, Title)

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(Contact Phone/Fax Number)

January 7, 2022

(Date)