

ORIGINAL



Technical Proposal

DPS1411 – Software for the Uniform Crime Reporting Repository

November 19, 2013



Presented to:

West Virginia State Police

Presented by:

Zuercher Technologies, LLC
5121 S. Solberg Ave, Suite 150
Sioux Falls, SD 57108

Contact: Michael Zuercher

Phone: 605.274.6061

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Email: michael@zuerchertech.com

Signature: 

Date: 11/15/13

11/18/13 09:59:56AM
West Virginia Purchasing Division



Zuercher Technologies, LLC
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Sioux Falls, SD 57108

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November 19, 2013

Tara Lyle
Senior Buyer
Department of Administration, Purchasing Division
2019 Washington Street, East
Charleston, WV 25305

Dear Ms. Lyle,

Zuercher Technologies is pleased to provide this response to the West Virginia State Police's request for *Software for the Uniform Crime Reporting Repository*. We trust that after careful review it is evident that Zuercher Technologies is able to successfully provide the required NIBRS solution and support the solution above and beyond the requirements of the RFP. Items which set us apart are as follows:

- Our NIBRS Suite is developed, operational and ready to be deployed. We can fully meet the requirements of the RFP and deliver all of the required products and services to the WVSP.
- Zuercher Technologies has successfully provided similar state-specific NIBRS/UCR data repositories and reporting systems across the United States.
- State agencies that use our NIBRS solution have submission error rates of less than 0.5%, well under the mandated 4% rate.
- Our NIBRS Solution will considerably reduce, through automation, the number of steps currently required for data submission and error correction. Our existing NIBRS Suite client agencies can attest to this as well.
- We have the tools, experience and resources to accurately convert the existing WVSP repository data prior to going live with the new NIBRS solution.
- We are capable of protecting the West Virginia State Police's investment in the solution and meeting the ever-changing needs of the state well into the future, including:
 - Potential NIBRS segment and reporting requirement changes
 - Potential West Virginia-specific data capture requirements
- We are a stable company:
 - We have never been sued, filed for bankruptcy, accepted venture capital or long-term debt.
 - We have consistently grown more than 20% per year.
- We are a safe and smart decision for the West Virginia State Police. Since our founding in 2003, we have **never failed a project** and **never been replaced** by another vendor.
- As an added incentive and as part of this project, Zuercher Technologies will provide our browser-based data-entry application at **no cost**. This will allow agencies which do not have a records management system (RMS) to submit incident and arrest information directly into the WVSP NIBRS repository. This will accomplish the following:
 - Significantly increase the participation rate from the current 70%
 - Provide additional real-time statistical information from newly-participating agencies
 - Provide a simple RMS for small agencies that cannot afford or justify one

Purchasing and implementing a new NIBRS repository is a significant investment which state agencies do not take lightly and neither does Zuercher Technologies. If we are fortunate enough to win the West Virginia State Police's NIBRS/UCR repository business, we will zealously stand behind our commitment to you and our products and look forward to a long lasting, positive, and productive relationship.

Sincerely,

David Jones
VP Sales & Marketing
david.jones@zuerchertech.com
910.685.0543

Michael Zuercher
President
michael@zuerchertech.com
605.274.6061



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Solicitation

NUMBER
DPS1411

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
TARA LYLE
304-558-2544

RFQ COPY

Zuercher Technologies LLC
 5121 S. Solberg Ste 150
 Sioux Falls, SD 57108

WEST VIRGINIA STATE POLICE
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T
O
 4124 KANAWHA TURNPIKE
 SOUTH CHARLESTON, WV
 25309 304-746-2141

DATE PRINTED
10/03/2013

BID OPENING DATE: 10/30/2013

BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		099-00-01-001		
SOFTWARE FOR THE UNIFORM CRIME REPORTING REPOSITORY						
REQUEST FOR PROPOSAL						
THE WEST VIRGINIA PURCHASING DIVISION FOR THE AGENCY, WV STATE POLICE, IS SOLICITING PROPOSALS TO REPLACE THE UNIFORM CRIME REPORTING REPOSITORY SOFTWARE FOR THE WV STATE POLICE, PER THE ATTACHED SPECIFICATIONS.						
ATTACHMENTS INCLUDE:						
1. DPS1411 REQUEST FOR PROPOSAL						
2. ATTACHMENT A VENDOR RESPONSE SHEET						
3. ATTACHMENT B MANDATORY SPECIFICATION CHECKLIST						
4. ATTACHMENT C COST SHEET						
***** THIS IS THE END OF RFQ DPS1411 ***** TOTAL:						

SIGNATURE		TELEPHONE		DATE	
		605.274.6061		November 15, 2013	
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE			
President	36-4521321				

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: DPS1411

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

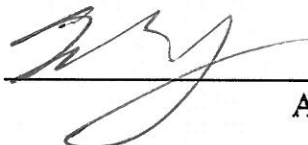
Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input checked="" type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input checked="" type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Zuercher Technologies, LLC
Company


Authorized Signature

November 15, 2013
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

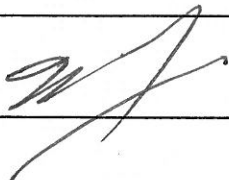
REQUEST FOR PROPOSAL
West Virginia State Police – DPS1411

000050

By signing below, I certify that I have reviewed this Request for Proposal in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

Zuercher Technologies, LLC
(Company)

Michael Zuercher, President
(Representative Name, Title)



Phone: 605.274.6061 Fax: 888.477.5591
(Contact Phone/Fax Number)

November 15, 2013
(Date)

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Zuercher Technologies, LLC

Authorized Signature: [Signature] Date: November 15, 2013

State of South Dakota

County of Lincoln, to-wit:

Taken, subscribed, and sworn to before me this 15 day of November, 2013.

My Commission expires August 24, 2019.

AFFIX SEAL HERE

NOTARY PUBLIC [Signature]



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Attachment A: Vendor Response Sheet

Provide a response regarding the following: firm and staff qualifications and experience in completing similar projects; references; copies of any staff certifications or degrees applicable to this project; proposed staffing plan; descriptions of past projects completed entailing the location of the project, project manager name and contact information, type of project, and what the project goals and objectives were and how they were met.

Firm and Staff Qualifications and Experience

Company Overview

Zuercher Technologies is a company dedicated to addressing specific needs in the public safety software industry. The company began as a provider of records management systems over 10 years ago and has grown and expanded to the point where it provides an entire suite of public safety software (IedsSuite), encompassing everything from records management (RMS), e-Citations, and mobile data systems to statewide NIBRS/UCR repositories. The Zuercher Technologies NIBRS Suite allows not only for each submitting agency to perform file uploads from its current RMS and for the state agency to report information to the FBI via the normal monthly reports, but it also allows submitting agencies to directly enter incidents via a simple web application interface (included in proposal) if they do not have an RMS.

In its more than 10 years of building, deploying and maintaining public safety software, Zuercher Technologies has never failed a project and never lost a client. This remarkable track record is due to the company's singular focus on public safety software and a zealous approach to maintenance and support. Zuercher Technologies protects its client agencies' investment in the technology, allowing those agencies to focus on public safety rather than constantly soliciting and implementing new software to solve issues which the previous software was unable to address.

NIBRS Experience

Zuercher Technologies deployed its first NIBRS solution for South Dakota in 2006-2007. The South Dakota DCI worked very closely with Zuercher Technologies to implement everything exactly as the state needed it. In addition to training the DCI staff on the NIBRS solution, Zuercher Technologies also worked with local agencies to ensure that they were trained in the use of the system as well, ensuring that implementation and acceptance was both successful and comprehensive. Once the system was completely implemented, data from all agencies was accepted via online submissions, doing away with the existing manual processes. Of all the agencies which are submitting data to the NIBRS repository in South Dakota, 75% of them are doing so directly via data entry in the browser application.

Zuercher Technologies deployed its NIBRS solution for Montana in 2010. Montana had been participating in the NIBRS program for a number of years, but the system Montana was previously using caused a number of problems. One of the main concerns was the error rate of the data which was being submitted to the FBI. Montana was often at or even above the 4% error rate threshold set by the FBI. State officials were also disappointed in the reporting capabilities of the previous system. The ability to

create and run reports was very limited and the few reports which were supplied did not work correctly. The list of needed fixes also continued to grow.

The Zuercher Technologies NIBRS solution provided the accuracy Montana needed to meet the FBI standards and has maintained an error rate of less than 0.5% since implementation. The implemented NIBRS solution was also modified to include a number of state-specific reporting requirements and a web-accessible portal that allows smaller agencies without an RMS already in place to enter incidents and arrests. All data entered in the repository is accessible by Montana’s new web-based analytics tool, giving them a vast selection of report options which were previously unavailable.

NIBRS Data Entry Application

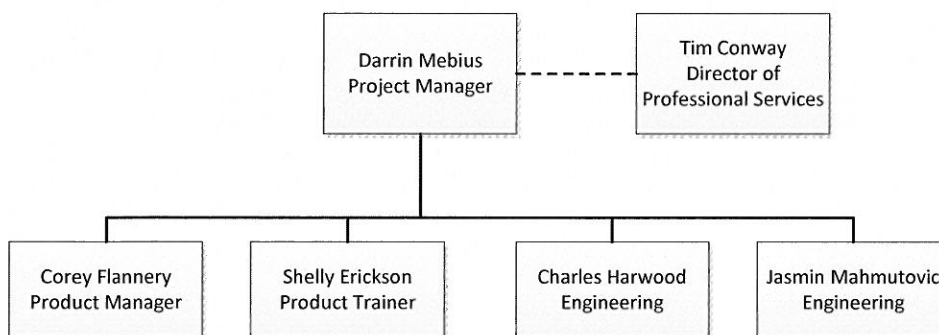
Having worked extensively with both South Dakota and Montana with regard to increasing the number of agencies which are submitting NIBRS data, Zuercher Technologies is providing the browser-based agency data entry application at no cost to the West Virginia State Police.

This additional application will allow local law enforcement agencies that either cannot afford or justify the purchase of an RMS to submit incidents and arrests directly to the WVSP NIBRS repository.

The browser-based data entry application acts as a simple RMS to allow agencies to capture incident arrest data, and look up and query agency-specific incident and arrest data. As a result of implementing this application as part of the NIBRS solution, West Virginia should see a dramatic increase in the number of agencies that will start submitting incident and arrest data to the NIBRS repository.

Proposed Staffing Plan

Zuercher Technologies anticipates that the WVSP NIBRS project would be staffed by the following employees.



Tim Conway, Director of Professional Services – Mr. Conway brings extensive experience within the software industry to Zuercher Technologies. His expertise includes implementations in over 45 states, Guam, Bermuda, India, and Puerto Rico. In his leadership role Mr. Conway oversees multiple teams responsible for managing, implementing, and supporting Zuercher Technologies’ clients and their projects. He holds a Bachelor’s degree in management information systems and business management and a Master’s degree in organizational leadership from Mercyhurst University.

Darrin Mebius, Project Manager – Mr. Mebius has over 15 years’ experience in the software industry and he will be using that knowledge and expertise to manage the WVSP NIBRS repository project. He is

working towards completing his Project Management Professional (PMP) certification and currently holds a Bachelor's degree in business administration from Dakota Wesleyan University.

Corey Flannery, Product Manager – Mr. Flannery brings over 12 years' experience in database and system design. Mr. Flannery will work with the project team to identify the specific needs of the WVSP with regard to implementing a NIBRS Solution and identify how to best meet those needs. Mr. Flannery holds a Bachelor's degree in technology and networking from South Dakota State University.

Shelly Erickson, Product Trainer – Ms. Erickson has been training for the last couple of years and will perform all the training for the WVSP NIBRS repository project. Ms. Erickson holds a Bachelor's degree in industrial engineering from South Dakota School of Mines & Technology and a certification in secondary education from Northern State University.

Charles Harwood, Operations – Mr. Harwood has been professionally developing and designing complex software systems for 11 years. He will ensure that the WVSP NIBRS solution is secure, correct and robust. Mr. Harwood oversees the operation of over a hundred high availability servers at mission-critical agencies across the country. He studied Computer Engineering at Iowa State and Discrete Mathematics at Kansas State.

Jasmin Mahmutovic, Engineering – Mr. Mahmutovic has been building NIBRS/UCR and other software systems for the last 4 years. He will be the one responsible for coding necessary changes to the NIBRS solution and otherwise ensuring that everything works as required. Mr. Mahmutovic holds Bachelor's degrees in computer science and mathematics from Dakota State University.

Past Project Information

South Dakota NIBRS Repository

This project was implemented for the South Dakota Department of Criminal Investigations which manages the South Dakota NIBRS repository. The primary person working the continuing project is listed below with her contact information. She also participated in the original project.

Agency Name	South Dakota Division of Criminal Investigation
Address, City, State	1302 E. Hwy 14, Suite 5, Pierre SD 57501
Contact Information	Brenda Manning, Criminal Statistical Analyst (605-773-6312) or brenda.manning@state.sd.us

This project was to implement a statewide system which would replace the current NIBRS repository, provide a simpler process for managing submitted information, and allow agencies to perform as much of the work of submitting incidents and arrests as was reasonable, lessening the load on DCI staff.

All of these goals and more were met and the SD NIBRS repository continues to be supported and improved to this day. Since implementation, and in addition to the agencies submitting via a 3rd party RMS vendor, the number of reporting agencies has remained high, with 75% of the agencies using the web application to upload incident and arrest information to SD NIBRS.

Montana NIBRS Repository

This project was implemented for the Montana Board of Crime Control which manages the Montana NIBRS repository. The primary person working the continuing project is listed below with her contact information. She also participated in the original project.

Agency Name	Montana Board of Crime Control
Address, City, State	PO Box 201408, Helena, MT 5960
Contact Information	Kathy Ruppert, MT UCR/IBR Program Manager (406-444-2084) or kruppert@mt.gov

This project was to implement a statewide system which would replace the current NIBRS repository, include an integrated web-based data entry system, and substantially improve the functionality of the repository (particularly with regard to additional data Montana wanted to collect that was not part of the FBI-required specification).

All of these goals and more were met and the MT NIBRS repository continues to be supported and improved to this day. Since implementation, many agencies which had previously not submitted data to the NIBRS repository are now doing so via the web application.

Project Goals and Objectives

List project goals and objectives contained in Section 4, Subsection 4:

Section 4, Subsection 4.1: Procure and implement of software for the UCRR system into the UCR-IBR central repository.

Vendor Response: The Zuercher Technologies NIBRS Suite will replace the functionality of the existing repository, but will do so more efficiently and in a contemporary fashion.

Section 4, Subsection 4.2: Acquire and make operational the replacement UCRR system that is compliant with and meets the FBI (NIBRS) requirements as well as WV IBR requirements.

Vendor Response: The Zuercher Technologies NIBRS Suite will meet both federal and state requirements.

Section 4, Subsection 4.3: The replacement system must improve upon the current error checking for standard IBR submission from the various criminal justice agencies within West Virginia.

Vendor Response: Currently deployed Zuercher Technologies' NIBRS solutions have an error check rate of less than 0.5%.

Section 4, Subsection 4.4: The replacement system must improve upon the current WV IBR staff interface for daily administration and usage.

Vendor Response: The Zuercher Technologies NIBRS Suite user interface is simple, yet contemporary in design and function, supporting both the needs of administrators and the submitting agencies. Incident reports which are entered via the browser application are validated for errors before submission, substantially reducing such errors.

Section 4, Subsection 4.5: Provide Maintenance and Support.

Vendor Response: Maintenance and support will be provided as part of the contract. Any new reporting segments that are required by the FBI will be provided as part of Zuercher Technologies' standard maintenance agreement.

Section 4, Subsection 4.6: Provide Project Management

Vendor Response: Comprehensive project management will be provided over the course of the project.

Attachment B: Mandatory Specifications Checklist

List mandatory specifications contained in Section 4, Subsection .5:

- 4.5.1 Creation of an updated work plan with specific dates, to be submitted to WVSP no later than 30 days after the contract is fully executed.

Vendor Response: Zuercher Technologies will provide a detailed work plan (project plan) to WVSP within 30 days of contract execution.

- 4.5.2 Installation of the production and applications and databases in South Charleston, West Virginia, on a state-owned server or servers. This application will be installed on a VMWARE server.

Vendor Response: Zuercher Technologies will install a production and testing copy of the web-based NIBRS repository and web-based NIBRS application. The test system will remain in place permanently and will be used to test program changes to any of the components of the proposed solution. Additionally, the test system will be available for training use as it will be a complete copy of the production system.

Both the production repository and the testing repository will include a database server and a web application server. Based on the WVSP's preferences and the existing environment, Zuercher Technologies recommends that the new servers be deployed on either 2 or 4 virtual instances.

- 4.5.3 Conversion of the legacy data to the new database schema. This includes all incidents and incident-related information in the existing Microsoft SQL Server 2005 database. There are approximately 1,904,107 incidents in the system.

Vendor Response: Zuercher Technologies will convert legacy data from the existing format to the new repository. The company has successfully converted data for multiple NIBRS repositories as well as many other public safety software systems and is well aware of what is needed to direct a smooth and accurate data conversion process for the WVSP.

- 4.5.4 The successful vendor will modify the application to accommodate the submittal of West Virginia-specific IBR offense codes by the agencies. The West Virginia Standards handbook includes an appendix that shows the relationships between West Virginia IBR codes and FBI NIBRS codes:

Vendor Response: Zuercher Technologies staff has studied the West Virginia Standards handbook and has a plan in place to support West Virginia-specific IBR offense codes under this proposal. The Zuercher Technologies NIBRS Suite will be modified to support West Virginia offense codes during the import and web data entry processes while continuing to export standard FBI offense codes. Further, reporting will be available on either the WV IBR codes or standard FBI codes, giving users the maximum flexibility possible.

This functionality can be added in a straightforward and therefore low risk way. Although several different parts of the software will be affected by this modification (import, export, repository, error checker, and web application) it can largely be done in one core library, minimizing the possibility of adversely affecting the system.

- 4.5.5 The successful vendor will modify the application to accommodate the import of full incident information for Group B incidents (with arrests) including all segments. (Most states and the FBI only require arrest information for Group B incidents.)

Vendor Response: The Zuercher Technologies NIBRS Suite allows Group B incidents to include all Segments (1-6) while continuing to export only Segment 7 to the FBI. The system will essentially treat Group B incidents identically to Group A incidents until FBI export time. At that time, the FBI export routines will correctly handle Group B incidents by submitting only Segment 7 to the FBI.

The solution, as implemented for other agencies, already allows multiple offenses for each Group B incident, treating them as Segment 2 data instead of Segment 7. The most serious offense is chosen as part of the FBI export and sent to the FBI as a Segment 7. Because of this requirement in South Dakota, the Zuercher Technologies solution already contains all the underpinnings necessary to support the WVSP requirement that Group B incidents include all segments. This is greatly advantageous as Group B incidents can be handled in a West Virginia-specific way while maximizing the use of code already tested and in production and minimizing the amount of custom code that needs to be written.

Further, because the Zuercher Technologies NIBRS Suite is built using modern software best practices, nearly all changes necessary to support this behavior can be made in one core library. Because the changes are consolidated, the risk of adversely affecting the system is greatly reduced.

- 4.5.6 The successful vendor will modify the application to accommodate the unique fields that is collected by West Virginia, as outlined in the WVSP Standards handbook.

Vendor Response: Zuercher Technologies will modify its current NIBRS Suite to include unique West Virginia fields. As most states have at least some custom fields, the Zuercher Technologies NIBRS Suite has been designed to make this a straightforward customization. Zuercher Technologies will make any changes necessary to comply with the WV IBR Standards handbook.

- 4.5.7 West Virginia treats Group B incidents in the same manner as Group A incidents in the repository. The FBI export routines must be able to convert Group B full incident information to just a Segment 7 arrest record for the FBI export where there is a Group B arrest.

Vendors are expected to be familiar with current versions of the FBI NIBRS submission requirements. Any proposed system is required to be compliant with these requirements. The requirements are identified in the following FBI

Manuals. They are available at the following FBI website: <http://www.fbi.gov/ucr/ucr.htm>.

- *Uniform Crime Reporting Handbook, NIBRS Edition*
- *National Incident-Based Reporting System, Volume 1, Data Collection Guidelines*
- *National Incident-Based Reporting System, Volume 2, Data Submission Specifications*
- *National Incident-Based Reporting System, Volume 4, Error Message Manual*
- *NIBRS Addendum for Submitting Additional Location and Property Data Values*
- *NIBRS Addendum for Submitting Cargo Theft Data*

Vendor Response: Zuercher Technologies is fully aware of the current versions (and previous versions) of the FBI NIBRS submission requirements and has been successfully following them for close to 7 years.

Zuercher Technologies' NIBRS Suite allows Group B incidents to include all Segments (1-6) while continuing to export only Segment 7 to the FBI. The system will essentially treat Group B incidents identically to Group A incidents until FBI export time. At that time, the FBI export routines will correctly handle Group B incidents by submitting only Segment 7 to the FBI.

The proposed solution, as implemented for other agencies, already allows multiple offenses for each Group B incident, treating them as Segment 2 data instead of Segment 7. The most serious offense is chosen as part of the FBI export and sent to the FBI as a Segment 7. Because of this requirement in South Dakota, the Zuercher Technologies solution already contains all the underpinnings necessary to support the WVSP requirement that Group B incidents include all segments. This is greatly advantageous as Group B incidents can be handled in a West Virginia-specific way while maximizing the use of code already tested and in production and minimizing the amount of custom code that needs to be written.

Further, because the Zuercher Technologies NIBRS Suite is built using modern software best practices, nearly all changes necessary to support this behavior can be made in one core library. Because the changes are consolidated, the risk of adversely affecting the system is greatly reduced.

4.5.8 **Requirements for WV IBR data submissions are included in this RFP.**

The new Repository must collect the additional required WV IBR data with options to add or modify fields over time. A list of all West Virginia-specific data collected for West Virginia is attached: (see Appendix "D")

Vendor Response: As with other agencies that use the Zuercher Technologies NIBRS Suite, the WVSP will be perfectly positioned to enhance the system's data collection and reporting capabilities. The Montana NIBRS solution provides an example of how states can capture additional information above and beyond the FBI and state-specific reporting requirements. Montana captures stalking offenses and asked Zuercher Technologies to also provide a mental health module to collect additional data which does not need to be reported to the FBI.

4.5.9 Repository System Requirements

4.5.9.1 A complete WV IBR application/database repository is required.

Vendor Response: The solution proposed by Zuercher Technologies includes a complete, web-based NIBRS application and the corresponding repository database.

4.5.9.2 Preference will be given to offeror proposals utilizing a Microsoft SQL Server database as this is the current database technology in place at WVSP.

Vendor Response: Zuercher Technologies' NIBRS Suite is based on Microsoft SQL Server 2008 R2.

4.5.9.3 The repository will be managed locally by WVSP UCRR staff.

Vendor Response: The proposed NIBRS solution will be managed by WVSP UCRR staff. Zuercher Technologies will provide necessary training to staff who will manage the system.

4.5.9.4 The repository application can be of client/server or web design.

Vendor Response: The proposed NIBRS solution is web-based, served by Microsoft IIS. This allows access to not only WVSP staff, but also to local public safety agencies to view their own data and manage their submissions directly.

4.5.9.5 The proposed system must use standard programming languages and a standard database.

Vendor Response: Zuercher Technologies' NIBRS Suite is built using the Python programming language, a standard web language with users ranging from Google to the CIA. The repository database is built on Microsoft SQL Server 2008 R2. The web application uses standard HTML and CSS.

4.5.9.6 UCR must be able to run queries and create custom reports on the database directly without going through the application. UCR will purchase the necessary tools such as Crystal Reports or SQL Server Enterprise Manager. The required tools must be described in the proposal.

Vendor Response: With the Zuercher Technologies NIBRS Suite, WVSP will be able to directly access repository data using tools such as Crystal Reports or SQL Server Enterprise Manager. WVSP will have access to the SQL tables with the raw data and also to a set of SQL views that organize the data for more efficient report generation.

- 4.5.9.7 Legacy data in the current WV IBR repository (approximately 1.8 million incidents) must be converted to the new database system so that reports can be run across multiple years. The vendor must include the cost of converting legacy data from the old database system to the new one.

Vendor Response: Zuercher Technologies will convert legacy data from the existing format to the new repository. The company has successfully converted data for multiple NIBRS systems and is well aware of what is needed to direct a smooth and accurate data conversion process for the WVSP.

- 4.5.9.8 The vendor must ensure the application accommodates the submissions of West Virginia-specific IBR offense codes by contributing agencies. FBI exports will use FBI NIBRS (UCR) codes as West Virginia is a NIBRS-compliant state.

Vendor Response: Zuercher Technologies staff has studied the West Virginia Standards handbook and has a plan in place to support West Virginia-specific IBR offense codes under this proposal. The Zuercher Technologies NIBRS Suite will be modified to support West Virginia offense codes during the import and web data entry processes while continuing to export standard FBI offense codes. Further, reporting will be available on either the WV IBR codes or standard FBI codes, giving users the maximum flexibility possible.

This functionality can be added in a straightforward and therefore low risk way. Although several different parts of the software will be affected by this modification (import, export, repository, error checker, and web application) it can largely be done in one core library, minimizing the possibility of adversely affecting the system.

- 4.5.9.9 WVSP must be provided the ability to manage the ORI table for all submitting agencies. This table must include agency's name, primary contact's name, mailing address, telephone, fax and email address.

Vendor Response: The Zuercher Technologies NIBRS Suite allows administrators to manage the information included in the ORI table for all submitting agencies. Local public safety agencies will submit and access their data via the secure accounts which are set up by the WVSP and associated with each agency's ORI.

- 4.5.9.10 The "domestic violence" flag must be stored on the offense table, as the WV IBR submission format includes the flag for domestic violence on the offense segment.

Vendor Response: The Zuercher Technologies NIBRS Suite includes this functionality, which is currently deployed for other states' repositories.

- 4.5.9.11 The proposed system must display WV IBR codes on the Offender/Arrestee, Offense, and Victim screens.

Vendor Response: Zuercher Technologies staff has studied the West Virginia Standards handbook and has a plan in place to support West Virginia-specific IBR offense codes under this proposal. The Zuercher Technologies NIBRS Suite will be modified to support West Virginia offense codes during the import and web data entry processes while continuing to export standard FBI offense codes. Further, reporting will be available on either the WV IBR codes or standard FBI codes, giving users the maximum flexibility possible.

This functionality can be added in a straightforward and therefore low risk way. Although several different parts of the software will be affected by this modification (import, export, repository, error checker, and web application) it can largely be done in one core library, minimizing the possibility of adversely affecting the system.

- 4.5.9.12 The vendor's system must be able to consistently maintain an FBI import error rate below 4%.

Vendor Response: The Zuercher Technologies NIBRS solution provided to other states consistently maintains an error rate below 0.5% and has done so since the NIBRS Suite was first implemented.

- 4.5.9.13 The proposal must contain a complete list of all software licenses that need to be purchased by the State, for example, database licenses, software libraries, software tools, etc.

Vendor Response: Each of the servers will need a Windows server license. Each database server will also need a SQL Server 2008 R2 license. Each web application server will need an IIS 7 license (which is included in most Windows Server Licenses). No other licenses will be required outside of those provided by Zuercher Technologies as part of the proposed solution.

- 4.5.9.14 Remote access to systems will be provided as necessary to help reduce travel costs.

Vendor Response: Remote access is the preferred approach which Zuercher Technologies currently uses with regard to NIBRS solutions implemented for other agencies.

4.5.10 Input from Agencies

4.5.10.1 Data Segment

4.5.10.1.14 **Input Format.** The proposed system must implement the WV IBR specifications currently utilized by agencies' in their existing format. The specification requirements can be found in Appendix "D".

Vendor Response: The Zuercher Technologies NIBRS solution will accept data imports in the format specified in the "West Virginia Incident Based Reporting Standards." Since most states make at least some modification to the FBI standard NIBRS submission format, the Zuercher Technologies NIBRS Suite has been designed from the beginning to support such changes and additions. The solutions in place in South Dakota and Montana have several state-specific changes including domestic violence flags; offender and victim names, dates of birth, and addresses; and gambling motivated bias on offenses. Zuercher Technologies' past experience with these requirements gives the company a solid platform of knowledge that will be very useful during the proposed project.

4.5.10.1.15 **Data Input Error Checking.** The system must check for all errors that would cause the FBI export to fail, and create a log of these files for review.

Vendor Response: The Zuercher Technologies NIBRS Suite includes two error checkers. One checks the validity of files from the perspective of the State's reporting standards including any changes or additions made to the standard FBI format. This is used for data imports. A second error checker checks the validity of output files from the perspective of the strict FBI standard format. Having these two types of error checkers is crucial to managing a NIBRS repository solution with state-specific requirements.

4.5.10.1.16 **Non FBI Required Input.** The system must correctly handle the additional offense codes and incidents that West Virginia collects that are not in the FBI NIBRS standard.

Vendor Response: The Zuercher Technologies NIBRS Suite supports this functionality. Zuercher Technologies will configure the NIBRS solution to ensure that WV-specific offense codes and incidents are included.

4.5.10.1.17 **Other Errors.** The system must check for errors that would create inconsistent data for WVSP crime data reporting.

Vendor Response: The error checker setup provides several ways to ensure that users cannot enter inconsistent data either through web entry or imports. Additionally, any incidents entered through the web application that have outstanding errors are ignored by the reporting system so as not to produce incorrect statistics.

4.5.10.1.18 **Updated Incidents.** Incidents that are previously submitted to the FBI and then updated by agency input must be placed in the next monthly FBI export file utilizing the FBI rules. These may be sent as supplemental report. The proposed system must be able to correctly handle the updating of existing incidents as a supplemental incident.

Vendor Response: The Zuercher Technologies NIBRS Suite tracks the last updated time for each segment. Each time an FBI export is created, the system uses this to determine which incidents need to be submitted according to FBI guidelines.

4.5.10.1.19 **Multiple Monthly Submissions.** The system must have the ability for agencies to submit data more than once per month without causing data integrity problems or FBI reporting problems, e.g., for cases where errors are discovered in the initial submission and subsequently corrected.

Vendor Response: The Zuercher Technologies NIBRS Suite supports an unlimited number of imports from each agency. Internally, the system tracks the last updated time for each segment, which gives the repository the information needed to avoid any data integrity problems or FBI reporting problems.

4.5.10.1.20 **Automatic Importing.** In addition to manual one-at-a-time file import by WVSP staff, the system must have the ability to import emailed submission files automatically or provide a web-based secure upload facility that submitting agencies can use without WVSP assistance.

Vendor Response: The Zuercher Technologies NIBRS Suite has a web-based secure file upload function that can be accessed by WVSP staff to import files for any agency and can also be accessed by local agencies to import their own files. Uploaded files are briefly placed in a queue and then processed as quickly as possible while ensuring that system performance is not degraded. Once a file is processed, an error report is available to both the submitting agency and WVSP staff. The error report

can also be automatically emailed to the submitting agency and WVSP staff.

4.5.10.1.21 **Import Error Management.** The system must have the ability to easily manage errors on the import files. This must include overall error reports plus the ability to **automate** email error reports to each agency for each file they submit by email. The FBI error number from the National Incident-Based Reporting System, FBI NIBRS Volume 4, *Error Message Manual* must be included in the error reports if the error is FBI-related. WVSP must be included in any emails to agencies.

Vendor Response: The error report created during the import process in the proposed solution includes the FBI error number as well as the relevant text from Volume 4. Including this text as well as the appropriate FBI error numbers has proven to dramatically simplify the process of working with RMS vendors and local agencies to resolve errors and prevent future ones. Following is a sample of what is displayed for an import error report.

```
13-243-OF
Global Error
081: THIS PROPERTY LOSS CODE CANNOT EXIST WITH THE OFFENSES SUBMITTED
Data Element 14 (Type Property Loss/Etc.) has a loss code that is not applicable to any of the offenses submitted.
Refer to section I of this manual for the correct values to use for each of the offenses.

Segment: 5 (Offender) Element: 39A (Ethnicity (of Offender))
501: MUST BE PRESENT - MANDATORY FIELD
The data field must be entered; it is required.
```

The Zuercher Technologies NIBRS Suite can be modified to support automated email error report notifications as needed by the WVSP.

4.5.10.1.22 **LEOKA Checking.** The system must have continuity and error checks to ensure that LEOKA records, the Incident Type, Activity Type, and Assignment Type are included.

Vendor Response: The Zuercher Technologies NIBRS Suite error checkers implement the FBI LEOKA error checks. This includes mandatory field checks for 25A (Type of Activity) and 25B (Assignment Type).

4.5.10.1.23 **Group “B” Handling.** The system must accept and store Group “B” incidents with arrest segments in the Group “A” format, and send to the FBI as NIBRS-compatible Group “B” incidents (e.g., arrest Segment 7 only). Group “B” incidents will be represented by the same segments as Group “A” incidents.

Vendor Response: The Zuercher Technologies NIBRS Suite allows Group B incidents to include all Segments (1-6) while continuing to export only

Segment 7 to the FBI. The system will essentially treat Group B incidents identically to Group A incidents until FBI export time. At that time, the FBI export routines will correctly handle Group B incidents by submitting only Segment 7 to the FBI.

The proposed solution, as implemented for other agencies, already allows multiple offenses for each Group B incident, treating them as Segment 2 data instead of Segment 7. The most serious offense is chosen as part of the FBI export and sent to the FBI as a Segment 7. Because of this requirement in South Dakota, the Zuercher Technologies solution already contains all the underpinnings necessary to support the WVSP requirement that Group B incidents include all segments. This is greatly advantageous as Group B incidents can be handled in a West Virginia-specific way while maximizing the use of code already tested and in production and minimizing the amount of custom code that needs to be written.

Further, because the Zuercher Technologies NIBRS Suite is built using modern software best practices, nearly all changes necessary to support this behavior can be made in one core library. Because the changes are consolidated, the risk of adversely affecting the system is greatly reduced.

4.5.10.1.24 **Group “B” Checking.** The system must add appropriate error checks for each Group “B” incident as per WV IBR standards. The system must have a continuity check at input to make sure that all arrest numbers in the arrest Segment 6 are unique for that ORI. This is true for Group “A” and Group “B” incidents.

Vendor Response: The Zuercher Technologies NIBRS Suite will be modified to perform appropriate error checking for Group B incidents according to WV IBR standards. Additionally, a check is already performed to ensure that all Arrest Numbers in Segment 6 are unique for an ORI. This check will address both Group A and Group B incidents.

4.5.10.1.25 **Multi User.** Multiple staff must be able to import simultaneously.

Vendor Response: The Zuercher Technologies NIBRS Suite is designed to allow all various functions to be completed in parallel, whether importing files from a local agency, performing an FBI export, or using the web application to enter incidents. The system automatically throttles imports and exports as necessary to ensure that system performance is not degraded for web users entering data.

4.5.10.1.26 **Individual Segment Differences.** The differences between the FBI submission requirements and the West Virginia submission requirements are listed below. The WVSP follows the WV IBR Standards Handbook.

Vendor Response: Zuercher Technologies staff have studied and become familiar with the WV IBR Standards handbook. The proposed NIBRS solution will comply with the handbook.

4.5.10.2 **Offense Segment**

4.5.10.2.3 **Data Element 6 WV IBR Code:** The proposed system must accept WV IBR offense codes and cross reference with FBI codes. West Virginia does not follow the mutually exclusive rule (see FBI NIBRS Volume 4, *Error Message Manual*, page 118), but the mutually exclusive rule will have to be followed for the FBI export. Example: West Virginia will allow an IBR offense code for aggravated assault: (UCR 13A) and a simple Assault: (UCR 13B) in the same incident. The system will have to drop the least serious offense during FBI export. According to mutually exclusive rule.

Vendor Response: Zuercher Technologies staff has studied the West Virginia Standards handbook and has a plan in place to support West Virginia-specific IBR offense codes under this proposal. The Zuercher Technologies NIBRS Suite will be modified to support West Virginia offense codes during the import and web data entry processes while continuing to export standard FBI offense codes. Further, reporting will be available on either the WV IBR codes or standard FBI codes, giving users the maximum flexibility possible.

This functionality can be added in a straightforward and therefore low risk way. Although several different parts of the software will be affected by this modification (import, export, repository, error checker, and web application) it can largely be done in one core library, minimizing the possibility of adversely affecting the system.

The mutually exclusive rule laid out in Volume 4 will be ignored for data input and import but will be respected during the export process. This is already handled in the Zuercher Technologies NIBRS Suite as it is a requirement for other states using the repository.

4.5.10.2.4 **Group “B” Offenses in an Incident with Group “A” Offenses:** The proposed system must accept both Group “A” and

Group “B” offenses in the same incident, but send only the Group “A” offense to the FBI.

Vendor Response: The Zuercher Technologies NIBRS Suite supports this functionality as it is a requirement for other states using the repository.

4.5.10.3 Property Segment

4.5.10.3.3 Issuing Bad Checks (UCR 90A): Issuing Bad Checks is a Group “B” offense that requires a property segment in West Virginia. The FBI does not require a property segment for Issuing Bad Check offenses. The Type of Property Loss valid codes are 1 – none, 7 – stolen/etc., or 8 – unknown.

Vendor Response: The Zuercher Technologies NIBRS Suite supports this functionality as it is a requirement for other states using the repository.

4.5.10.3.4 Data Element 16 Value of Property Loss: NIBRS application must have a warning prompted during the import and in the Web Data Entry Application when property value is \$250,000 or more.

Vendor Response: The Zuercher Technologies NIBRS Suite includes a warning in both the repository and the web application which notifies users if element 16 is greater than \$250,000.

4.5.10.4 Victim Segment

4.5.10.4.2 Data Element 24 Offense Codes: The proposed system must allow for WV IBR offense codes to be entered and imported and cross-referenced to FBI NIBRS UCR codes for the export to the FBI.

Vendor Response: Zuercher Technologies staff has studied the West Virginia Standards handbook and has a plan in place to support West Virginia-specific IBR offense codes under this proposal. The Zuercher Technologies NIBRS Suite already supports this functionality and will be configured to include West Virginia offense codes during the import and web data entry processes while continuing to export standard FBI offense codes. Further, reporting will be available on either the WV IBR codes or standard FBI codes, giving users the maximum flexibility possible.

This functionality can be added in a straightforward and therefore low risk way. Although several different parts of the software will be affected by this modification (import, export, repository, error checker, and web application) it can largely be done in one core library, minimizing the

possibility of adversely affecting the system.

4.5.10.5 Arrestee Segment

4.5.10.5.4 **Data Element 45 IBR Arrest Code:** Allow up to 10 WV IBR arrest offense codes. The most serious offense must be sent to the FBI on export.

Vendor Response: The Zuercher Technologies NIBRS Suite supports up to 10 offense codes for Group B incidents. The FBI export routine chooses the most serious offense and submits only that offense to the FBI.

4.5.10.5.5 **Segment 7 Group “B” Arrest:** Segment 7, Group “B” arrest, is used for the FBI export, and all Group “B” arrests are sent to the repository like a Group “A” offense utilizing Segments 1 through 6.

Vendor Response: The Zuercher Technologies NIBRS Suite allows Group B incidents to include all Segments (1-6) while continuing to export only Segment 7 to the FBI. The system will essentially treat Group B incidents identically to Group A incidents until FBI export time. At that time, the FBI export routines will correctly handle Group B incidents by submitting only Segment 7 to the FBI.

The proposed solution, as implemented for other agencies, allows multiple offenses for each Group B incident, treating them as Segment 2 data instead of Segment 7. The most serious offense is chosen as part of the FBI export and sent to the FBI as a Segment 7. Because of this requirement in other states, the Zuercher Technologies solution contains all the underpinnings necessary to support the WVSP requirement that Group B incidents include all segments. This is greatly advantageous as Group B incidents can be handled in a West Virginia-specific way while maximizing the use of code already tested and in production and minimizing the amount of custom code that needs to be written.

Further, because the Zuercher Technologies NIBRS Suite is built using modern software best practices, nearly all changes necessary to support this behavior can be made in one core library. Because the changes are consolidated, the risk of adversely affecting the system is greatly reduced.

4.5.10.5.6 **Segment Action Types of “W”:** The proposed system must send a Segment Action Type of “W” according to FBI specifications and must be able to manage the Window submissions to the FBI according to FBI rules.

Vendor Response: The Zuercher Technologies NIBRS Suite correctly handles Time Window “W” submissions according to FBI standards. Additionally, it does not require “W” submissions from local agencies but will correctly deal with them if they are received.

4.5.11 **Output to the FBI**

4.5.11.9. **Monthly Export File.** Ability to create a NIBRS-compliant monthly export file for the FBI.

Vendor Response: The Zuercher Technologies NIBRS Suite creates NIBRS-compliant export files for the FBI. Since 2007, the South Dakota repository has achieved a 0.5% error rate or better. The FBI export can be run on demand by WVSP staff. It does not degrade performance of the other parts of the NIBRS solution while running and therefore can be run at any time. This removes the need to shut down imports, reports, and the web application during exports.

4.5.11.10. **FBI Offense Codes.** FBI exports will use FBI NIBRS UCR offense codes, as West Virginia is a NIBRS-compliant state.

Vendor Response: The proposed solution meets the standards outlined in FBI Volumes 1, 2, 4, and addendums. This includes using FBI NIBRS offense codes.

4.5.11.11. **FBI Error Report Handling.** Ability to import FBI EDS reports. These are error reports returned by the FBI. The system must be able to import them into a table, so that they can be analyzed by WVSP staff.

Vendor Response: The Zuercher Technologies NIBRS Suite allows FBI EDS files to be imported and analyzed by WVSP staff. Under the maintenance agreement quoted in this proposal, Zuercher Technologies staff will be available to help analyze FBI error files and make appropriate changes to the system to address any problems.

4.5.11.12. **Zero Report Forwarding.** Ability to store Zero reports received from agencies and include them in the FBI export.

Vendor Response: The Zuercher Technologies NIBRS Suite handles zero reports in accordance with the guidelines laid out by the FBI.

4.5.11.13. **Updated Incidents.** Updated incidents from agencies must be sent to the FBI according to FBI specifications and sent as an updated Supplemental Incident to the WVSP.

Vendor Response: The Zuercher Technologies NIBRS Suite tracks the last updated time for each segment. Each time an FBI export is created, the system uses this to determine which incidents need to be submitted according to FBI guidelines.

If desired, the import process in the Zuercher Technologies NIBRS Suite can allow straight inserts rather than delete/inserts. In this situation, the system recognizes that the incident has been previously submitted and correctly handles the lack of a delete rather than throwing an error. Otherwise, the NIBRS solution can be configured to generate an error when a delete is not passed in before an insert.

4.5.11.14. Allow Multiple Offense Codes in the Repository. Allow multiple FBI offense codes in the same incident on import, but only submit valid codes to the FBI. (See page 118 of the FBI NIBRS Volume 4, *Error Message Manual*. This is a chart of all incompatible offense codes for a single victim.)

Vendor Response: The Zuercher Technologies NIBRS Suite currently behaves as indicated above. Multiple FBI offense codes are allowed on import, but during an FBI export only the valid codes are sent. The Zuercher Technologies NIBRS solution has the referenced chart built in.

4.5.11.15. Group "A" Group "B" Combinations. When an incident has a Group "A" offense, the system must not submit any Group "B" offense segments for that same incident to the FBI. Group "A" offense(s) with a Group "B" arrest segment is an allowable combination. (See *Uniform Crime Reporting Handbook*, NIBRS Edition, page 57.)

Vendor Response: The Zuercher Technologies NIBRS Suite correctly handles this FBI rule in accordance with the cited section entitled "ARREST OFFENSE CODE (Groups A & B)" in the *Uniform Crime Reporting Handbook*, NIBRS Edition.

4.5.11.16. Duplicate Offense Codes. When an incident has two or more offense segments with the same FBI NIBRS code, the system must send only one of the offense segments.

Vendor Response: The Zuercher Technologies NIBRS Suite sends a single offense segment when an incident has multiple segments with the same FBI NIBRS code.

4.5.12 Reports and Viewing

4.5.12.4 Ability to bring up a single incident by ORI and Incident Number and easily view all segments of that incident. This view must display the WV IBR codes and must be printable.

Vendor Response: The Zuercher Technologies NIBRS Suite allows a single incident to be found by searching based on ORI, Incident Number, Offense Code, Date Range, or any combination of these fields. A specific incident can be viewed from the search results, which makes all segment data easily accessible. This includes WV IBR codes.

4.5.12.5 Ability to view and print a table of total Group “A” and Group “B” incidents imported for each agency for each month in a selected year.

Vendor Response: The Zuercher Technologies NIBRS Suite includes a grid-view which will allow WVSP staff to click on any of the numbers to view a list of the matching incidents. Then, a given incident can be selected to view all segment information. Following is a sample image of the referenced grid-view.

	Jan	Feb	Mar	Apr	May	June	July
2013	3347	3017	3463	3666	3320	3009	2335
	947	995	1099	1062	1040	875	691
2012	3813	3321	4128	4219	4501	4653	4725
	1305	1230	1480	1382	1465	1380	1531

4.5.12.6 **Utility and Management Reports.** At a minimum, the following utility and management reports must be included: A report showing a count of Group “A” and Group “B” incidents imported and entered through a WV IBR entry portal application vs. FBI exports for each agency by month.

Vendor Response: This report is included in the Zuercher Technologies NIBRS Suite.

4.5.13 **Security Requirements**

The system must incorporate role-based security to provide at least entry, read-only, and administrative levels for each table.

Vendor Response: The Zuercher Technologies NIBRS Suite uses role-based security to restrict access to the application as deemed necessary by system administrators. This security system not only restricts access to specific tables but also restricts access granted to local agencies. For example, submitting agency users can be configured such that they only have access to their own data. This allows local agencies to run reports, view error reports, perform imports, etc. without exposing them to other agencies' data.

4.5.13.1 The system must enforce strict password requirements. Minimum password requirements are:

- The password does not contain the account name of the user.
- The password is at least eight characters long.
- The password contains characters from three of the following four categories:
 - Latin uppercase letters (A through Z)
 - Latin lowercase letters (a through z)
 - Base 10 digits (0 through 9)

- Non-alphanumeric characters such as: exclamation point (!), dollar sign (\$), number sign (#), or percent (%).

Vendor Response: The Zuercher Technologies NIBRS Suite can be configured to support the stated password requirements.

- 4.5.13.2 WVSP administrators must be able to add and remove users and control their access levels.

Vendor Response: The Zuercher Technologies NIBRS Suite allows administrators to manage user accounts, including access levels.

- 4.5.13.3 The proposal must include a description of system security features to protect the data. Some specific areas of concern are:

- SQL injection attacks
- Secure logon
- Separate authority levels for different user groups
- Read-only access for report users

Vendor Response: The Zuercher Technologies NIBRS Suite uses best practice system security features. Some specific examples include:

- SQL Injection - All user inputs are automatically quoted using a system-wide library. No inputs are pulled from GET or POST data without being passed through this library. An internal audit process at the software development and QA levels ensures that this is adhered to by developers.
- Secure logon - Several precautions are taken including storing passwords as salted hashes instead of plain text and enforcing password requirements upon users. Additionally, the solution is designed to be hosted over SSL (https) to encrypt and protect application data including logon credentials.
- Separation of authority down to the table level - The proposed solution is designed in a way that allows it to be configured to support separation of authority. For example, SQL Server could be configured to give some IT staff permission to the data tables and others permission to the audit trail tables. This would protect the system by requiring at least two people to be involved in any unauthorized use.
- Read-only access for report users - Read-only access to various parts of the system can be granted to any user. This includes reports.
- Auditing - The system keeps an audit trail reflecting any changes made to the data. This can be used to look for unusual activity. The

audit trail is kept using triggers in Microsoft SQL Server meaning that changes to data are logged even if they are made using a tool like SQL Management Studio rather than the NIBRS applications.

4.5.14 New FBI Codes

4.5.14.1 The FBI has recently added several new property and location codes. As part of the data conversion of the legacy data, the vendor must convert existing fields so that the data will be stored utilizing the new FBI codes.

Vendor Response These changes have been implemented in the Zuercher Technologies NIBRS solution provided to the company's other NIBRS customers.

4.5.14.2 The FBI has recently released a Cargo Theft Addendum. The new system must accommodate these cargo theft changes.

Vendor Response: These changes have been implemented in the Zuercher Technologies NIBRS solution provided to the company's other NIBRS customers.

This is an example of how Zuercher Technologies protects agencies investment in our technology by developing and providing functionality to meet new FBI reporting requirements under the Zuercher Technologies standard maintenance and support agreement.

4.5.14.3 The vendor must provide a complete description of any special requirements for backup and recovery of their proposed software. The successful vendor will be expected to provide a step-by-step guide to recovery of their installed software explaining how to handle a total system failure.

Vendor Response: To recover from a total system failure, three things will be needed:

- Program/configuration files - provided to WVSP by Zuercher Technologies upon initial installation and upon installation of any program changes/updates.
- Database backup - The Zuercher Technologies NIBRS Suite uses Microsoft SQL Server 2008 R2 and can therefore be backed up using any standard SQL Server method.
- Import/Export file backup - the imported and exported files are stored as files on the application server. They can be backed up using any standard file backup system.

Zuercher Technologies will assist WVSP IT staff in implementing and testing a backup system. The company will also provide a step-by-step guide to recovery from a total system failure.