# Requirements Traceability Matrix Instructions

**The Requirements Traceability Matrix (RTM) is used to document and track the project requirements from the proposal through the CMS Certification process.. The Contractor is responsible for maintaining the set of Baseline Requirements directly related to the configuration of the MES components. Additions, modifications, and deletions to these requirements post contract award shall be added and modified timely, with DMAS approval and a current version of the matrix shall be maintained at all times. The Contractor shall provide an initial RTM as part of its proposal per the instructions below. The RTM will be maintained in Excel format until or unless DMAS approves an alternate format.**

| Column | Instructions |
|---|---|
| Requirement ID | The unique identifier for the requirement as assigned by DMAS. **This column shall not be modified by the Bidder.** |
| Requirement | The statement of the requirement to which the Bidder must respond. **This column shall not be modified by the Bidder.** |
| Compliant? | The Bidder shall indicate “Y” (Yes) or “N” (No) as to whether their solution is compliant with the requirement. |
| Availability | The Contractor shall indicate one of the following: |
| | A = Functionality is currently operational |
| | B = Functionality is planned |
| | C = Functionality is not currently planned |
| Date | For Availability code "B" bidder shall provide the planned availability date |
| Proposal Mapping | The Bidder shall provide cross-reference to the location(s) of where compliance with each requirement is described in their proposal. |

# Technology Standards Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TECH-STND-001 | All the artifacts developed as part of the proposed Solution shall be compliant with the CMS and HIPAA standards and requirements. | | | | |
| EDWS-TECH-STND-002 | The Solution shall use rules based, table driven modular, and reusable components. | | | | |
| EDWS-TECH-STND-003 | The Solution shall facilitate online, browser based web capabilities with no client component download(s) for all authorized end users including, but not limited to providers and members. | | | | |
| EDWS-TECH-STND-004 | The Solution shall support functionality to interface with multiple entities outside the MES for exchange of information. | | | | |
| EDWS-TECH-STND-005 | The Solution shall comply with all current and future HIPAA standard Transactions and Code Sets (TCS) in place or mandated by the Department and CMS. | | | | |
| EDWS-TECH-STND-006 | The Solution shall implement standard policies and practices to ensure the security and integrity of the information to be exchanged. | | | | |
| EDWS-TECH-STND-007 | The Solution shall provide notification to the ISS contractor of all changes to application program interface (API) on a timely basis. | | | | |
| EDWS-TECH-STND-008 | The Solution shall provide standard and ad hoc reporting capabilities for all modules of the proposed solution which are accessed by Department end users and other stakeholders. | | | | |

# Technology Standards Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TECH-STND-009 | The Solution shall meet the Federal reporting requirements and performance standards as defined by CMS and the CMS certification checklists. | | | | |
| EDWS-TECH-STND-010 | The Solution shall implement and support a reporting repository with Web based access by authorized end users, including the ability to extract data to be used with desktop applications. | | | | |
| EDWS-TECH-STND-011 | The Solution shall provide interoperability between the modules of the proposed solution and Department imaging and document management systems. All Department documents and images on any media type received or disseminated shall be accessible, stored, and indexed on the Enterprise Content Management system. | | | | |
| EDWS-TECH-STND-012 | The Solution shall allow users to select among several format types (e.g., PDF, Microsoft Excel, Microsoft Word) for any outputs produced. The output media types shall be role based or by individual end user(s). | | | | |
| EDWS-TECH-STND-013 | The Solution shall implement relevant standards including, but not limited to NIEM, CAQH-CORE, HL7, and HIPAA for data interchange. | | | | |

# Technology Standards Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TECH-STND-014 | The Solution shall provide single sign-on (SSO) capability using Commonwealth standards for login and authentication. The Contractor's system shall include an end user authentication process that permits the end user to enter one (1) name and password to access multiple applications. This process authenticates the user for those applications they have access rights to and eliminates the need for further prompts when switching between applications during a session. | | | | |
| EDWS-TECH-STND-015 | The Solution shall process all inbound and outbound files at a frequency as defined by the Department. | | | | |
| EDWS-TECH-STND-016 | The Solution shall support and monitor the processing of all transaction files and notify the Department of all transactions which have not been processed successfully. | | | | |
| EDWS-TECH-STND-017 | The Solution shall accept and apply interface data accurately 100% of the time. | | | | |
| EDWS-TECH-STND-018 | The Solution shall reconcile errors identified during the processing of any transaction file and reprocess partner transactions within the agreed upon SLA. | | | | |
| EDWS-TECH-STND-019 | The Solution shall comply with Commonwealth and Federal records management policies and retention schedules. | | | | |

# Technology Standards Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TECH-STND-020 | The Solution shall ensure archived data is retrievable, formatted to match the original intake document, and shows the changes during processing. | | | | |
| EDWS-TECH-STND-021 | The Solution shall comply with all Commonwealth and Federal laws, grant requirements, rules, regulations, guidelines, policies, and procedures for destruction of records. | | | | |
| EDWS-TECH-STND-022 | The Solution shall retain all records for both paper and electronic claims as per the Commonwealth and Federal guidelines. | | | | |
| EDWS-TECH-STND-023 | The Solution shall comply with and align with Commonwealth Technology Standards. | | | | |
| EDWS-TECH-STND-024 | The Solution for proposed interfaces to Commonwealth systems shall comply with or have approved exceptions to all applicable Commonwealth Data Standards as found at: http://www.vita.virginia.gov/oversight/default.aspx?id=10344 If not, please explain. | | | | |

# Technology Standards Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TECH-STND-025 | The Solution shall provide effective, interactive control and use with nonvisual means and provide 508 Compliance in accordance with the following standard regarding IT Accessibility and 508 Compliance: http://www.vita.virginia.gov/uploadedFiles/Library/AccessibilityStandard_GOV103-00_Eff_11-04-05.pdf (Refer to www.section508.gov and www.access-board.gov for further information)<br><br>If yes, please describe how this functionality is achieved and include a completed Voluntary Product Accessibility Template (VPAT) with your proposal. (The VPAT template is located in APPENDIX C of the Accessibility Standard (GOV103-00)).<br><br>If no, does your solution/application/product provide alternate accessibility functionality? Please describe. | | | | |
| EDWS-TECH-STND-026 | The Solution shall comply with all current COV ITRM Policies and Standards, as applicable, found at: http://www.vita.virginia.gov/library/default.aspx?id=537? If proposed solution does not, please provide details that specify the Standard/Policy and how Offeror's solution does not comply. | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-001 | The Contractor shall provide a description of a Project Management methodology that will be used to implement the Solution and that follows Project Management industry best practices while coordinating changes with the MES ISS Contractor and other contractors. The Contractor shall propose tools, processes, and procedures for the Project Management methodology. | | | | |
| EDWS-PROJ-DDI-002 | The Contractor shall provide the deliverables identified for each of the project phases in Appendix I:<br>▪ Initiation<br>▪ Planning<br>▪ Execution and Control<br>▪ Implementation<br>▪ Closeout<br>▪ Evaluation | | | | |
| EDWS-PROJ-DDI-003 | The Contractor shall provide the status of the project to the MES Program Management Office according to the schedule outlined in the DDI Project Plan chart in Appendix I.<br>The Contractor PMO shall include the following in the weekly status reporting for the lifecycle of the project:<br>▪ Issues and Risk Management<br>▪ Milestone status<br>▪ Change Management<br>▪ Action Items Management<br>▪ Project Meeting Minutes | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-004 | For any milestones or deliverables which are missed or projected to be missed, the Contractor shall provide a Corrective Action Plan (CAP) that includes the following information:<br>▪ Root cause<br>▪ Impact on schedule, scope and costs<br>▪ Milestone recovery strategy<br>▪ Milestone recovery date<br>▪ Project recovery strategy<br>▪ Project recovery date | | | | |
| EDWS-PROJ-DDI-005 | The Contractor shall follow the DDI Change Management process agreed to by DMAS. An Enterprise Change Management process shall be established by the MES ISS Contractor and Program Management Office along with Contractor input to address scope, schedule, or cost changes. | | | | |
| EDWS-PROJ-DDI-006 | The Contractor shall conduct detailed design and joint application requirement meetings with Department staff, other impacted MES solution contractors, and ISS Contractor staff to produce a detailed specification design document for development, configuration, testing, and implementation. | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-007 | The Contractor shall provide a revised work breakdown structure from the original submission, which includes Department project team and ISS activities (provided by the MES ISS Contractor) and any other impacted MES contractors which have been mutually agreed-upon dependencies for DMAS approval. | | | | |
| EDWS-PROJ-DDI-008 | The Contractor shall provide a Project Manager (PM) with the Key Staff requirements and agrees to replace the PM only if necessary, and with someone possessing equally or more qualified skills and experience, as approved by the agency. | | | | |
| EDWS-PROJ-DDI-009 | The Contractor shall entertain baseline changes to the COTS package and provide a method for enhancement input in lieu of customizations through a User Input group or another forum to accept product input. | | | | |
| EDWS-PROJ-DDI-010 | The Contractor shall provide a Hardware and Equipment Acquisition Plan for the DDI. | | | | |
| EDWS-PROJ-DDI-011 | The Contractor shall provide a Software Acquisition and Installation Plan for the DDI. | | | | |
| EDWS-PROJ-DDI-012 | The Contractor shall provide a Risk Management Plan for the DDI. | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-013 | The Contractor shall provide a Quality Management Plan for the DDI. | | | | |
| EDWS-PROJ-DDI-014 | The Contractor shall provide an Implementation and Transition Plan for the DDI which is coordinated with Department staff, and possibly other dependent MES contractors. | | | | |
| EDWS-PROJ-DDI-015 | The Contractor shall provide a Training Plan for the DDI which addresses business owner input to satisfy operational needs. | | | | |
| EDWS-PROJ-DDI-016 | The Contractor shall conduct all DDI training in accordance with the approved DDI Training Plan. | | | | |
| EDWS-PROJ-DDI-017 | The Contractor shall provide a Training Plan for Operations which ensures ongoing operational training needs are met. | | | | |
| EDWS-PROJ-DDI-018 | The Contractor shall conduct all Operations training in accordance with the approved Operations Training Plan. | | | | |
| EDWS-PROJ-DDI-019 | The Contractor shall analyze and document project lessons learned, hold a walkthrough meeting of the results and provide an evaluation report. | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-020 | The Contractor shall provide a Communications Management Plan which addresses all stakeholders' communication needs for the project. | | | | |
| EDWS-PROJ-DDI-021 | The Contractor shall provide a Performance Reporting Plan which includes status reporting and critical success factors. | | | | |
| EDWS-PROJ-DDI-022 | The Contractor shall provide a Documentation Management Plan that:<br>▪ Identifies all of the documentation and deliverables that will be produced to support its DDI methodology as well as on-going Operations and Maintenance.<br>▪ Provides what is needed by the Contractor to successfully implement and operate the proposed solution.<br>▪ Provides DMAS with the information it requires to understand and approve the details of the solution as well as provide the information it needs to fulfill its business requirements with respect to the solution. | | | | |
| EDWS-PROJ-DDI-023 | The Contractor shall provide a Release Management Plan and milestones on an annual schedule with an approach to work with the MES ISS Contractor, any other impacted MES Contractor, and DMAS PMO with a desired 6-month lead time. | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-024 | The Contractor shall provide a detailed project Plan for each new project or release that is coordinated with the MES ISS Contractor, any other impacted MES Contractor, and agency PMO. | | | | |
| EDWS-PROJ-DDI-025 | The Contractor shall provide a Resource Utilization and Acquisition plan for each new project or release including Project Management, technical support, and business support as needed. | | | | |
| EDWS-PROJ-DDI-026 | The Contractor shall develop a Root Cause Analysis process and reporting in conjunction with the ISS Contractor for all defects discovered. | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-027 | The Contractor shall create a DDI Project Management Plan according to the schedule outlined in Appendix I to be approved by DMAS. The project management plan shall include:<br>▪ Quality Management Plan<br>▪ Scope Management Plan<br>▪ Requirements Management Plan<br>▪ Risk and Issues Management Plan<br>▪ Change Management Plan<br>▪ Configuration Management Plan<br>▪ Project Performance Management Summary Plan<br>▪ Communications Management Plan<br>▪ Documentation Management Plan<br>▪ Training Plan<br>▪ Disaster Recovery Plan - DDI<br>▪ Business Continuity Plan<br>▪ Turnover Plan | | | | |
| EDWS-PROJ-DDI-028 | The Contractor shall develop a Project Work Breakdown Structure (WBS) to include both Contractor and DMAS milestones and tasks. An initial Work Plan, according to the schedule outlined in Appendix I, shall involve top-down planning. The work plan shall adhere to PMBOK® best practices for project management. The WBS shall include tasks, resources, deliverables, task dependencies, percent complete, planned start, planned finish, actual start, and actual finish columns. The baseline work plan shall be delivered within 60 days of contract signing unless otherwise agreed to by the Agency. The Work Plan shall be updated and presented weekly. | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-029 | The Contractor's PMO shall participate in Agency Integration and Program Management Meetings. | | | | |
| EDWS-PROJ-DDI-030 | The Contractor shall make Project Documents available online to the Agency and contractor staff including but not limited to: work plan, status reports, status meeting agenda, and minutes. | | | | |
| EDWS-PROJ-DDI-031 | The Contractor shall develop a Project CMS Certification Plan which defines the Contractor's approach to CMS certification. It shall include processes and procedures which will be used to manage certification requirements throughout the project lifecycle. The plan shall include, but not be limited to: completing the certification checklist, complete certification phase deliverables, validate solution functionality against the checklist, and create traceable deliverables to the checklist. | | | | |
| EDWS-PROJ-DDI-032 | The Contractor shall create documents which support certification activities. | | | | |
| EDWS-PROJ-DDI-033 | The Contractor shall assist and participate in CMS certification visits. | | | | |
| EDWS-PROJ-DDI-034 | The Contractor shall respond to CMS queries during and after the site visit. | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-035 | The Contractor shall provide training which includes specific areas such as quality management, risk management, requirements management, overall design and development of the solution and be comprehensive enough so the Agency PMO can participate in the deliverable production and review process. | | | | |
| EDWS-PROJ-DDI-036 | The Contractor's PMO shall work with DMAS and have a PM and other resources willing to periodically be onsite to attend meetings and to conduct presentations as requested. | | | | |
| EDWS-PROJ-DDI-037 | The Contractor shall provide a deliverable tracking method to ensure all DDI related deliverables have been accounted for and scheduled and coordinated with the Department MES PMO. All deliverables shall be approved by DMAS. | | | | |
| EDWS-PROJ-DDI-038 | The Contractor shall provide an Escalation Management Plan to include risk and issue resolution paths through the organizational structure. | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-039 | The Contractor shall provide the status of the project to the MES Program Management Office according to the schedule outlined in the DDI Project Plan chart Appendix I with input from the DMAS MES PMO.<br>Reports shall contain Key Project indicators including Cost Performance Index (CPI) and Schedule Performance Index (SPI). The reports shall convey upcoming milestones progress and overall percentage complete. The report shall have updates on risks, issues and action items. A dashboard shall be created with standards for reporting Green, Yellow, or Red status. Any Red status reporting shall be accompanied by a Corrective Action Plan (CAP). The Contractor shall provide weekly meeting minutes. | | | | |
| EDWS-PROJ-DDI-040 | The Contractor shall provide end user documentation written in a procedural, systematic format, and aligned with business transformation documents. | | | | |
| EDWS-PROJ-DDI-041 | The Contractor shall ensure that abbreviations and acronyms are defined and consistent throughout the documentation. | | | | |
| EDWS-PROJ-DDI-042 | The Contractor shall use consistent field names for the same fields on different records throughout the documentation. | | | | |
| EDWS-PROJ-DDI-043 | The Contractor shall provide online documentation, including an online search capability with context sensitive help screens. | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-044 | The Contractor shall ensure definitions of codes used in various sections of end user manuals are consistent. | | | | |
| EDWS-PROJ-DDI-045 | The Contractor shall identify acronyms used in end user instructions, and ensure that they are consistent with windows, screens, reports, and the data element dictionary. | | | | |
| EDWS-PROJ-DDI-046 | The Contractor shall provide illustrations of windows and screens used in that module, with all data elements on the screens identified by number, in each end user manuals. | | | | |
| EDWS-PROJ-DDI-047 | The Contractor shall provide an electronic documentation format that facilitates efficient and immediate updating and dissemination of new or modified data. | | | | |
| EDWS-PROJ-DDI-048 | The Contractor shall provide a way to update the electronic versions of the document. Each version shall have:<br>▪ All pages numbered within each section<br>▪ A new revision date on each page<br>▪ All revisions clearly identified in bold print | | | | |
| EDWS-PROJ-DDI-049 | The Contractor shall create and maintain end user documentation consistent with the current Department standards. | | | | |
| EDWS-PROJ-DDI-050 | The Contractor shall provide documentation to the Department on request on encrypted DVD/CD-ROM, and ensure access to end users via the website during the Operations Phase. | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-051 | The Contractor shall ensure end user documentation is written and organized so that end users not trained in applications can learn from reading the documentation how to access the online windows/screens, read module reports, and perform ad hoc report development and other related end user functions. | | | | |
| EDWS-PROJ-DDI-052 | The Contractor shall present descriptions of error messages for all fields incurring edits, including the necessary steps to correct such errors. | | | | |
| EDWS-PROJ-DDI-053 | The Contractor shall provide a section in each end user manual describing all reports generated within the business area or function, which includes the following:<br>▪ A narrative description of each report<br>▪ The purpose of the report<br>▪ Definition of all fields in the report, including detailed explanations of calculations used to create all data and explanations of all subtotals and totals<br>▪ Definitions of all user defined, report specific code descriptions; and copies of representative pages of each report | | | | |
| EDWS-PROJ-DDI-054 | The Contractor shall present together all functions and supporting material for file maintenance (e.g., coding values for fields and the names of the files presented as independent sections of the manual). | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-055 | The Contractor shall ensure that instructions for making online updates clearly depict which data and files are being changed. | | | | |
| EDWS-PROJ-DDI-056 | The Contractor shall ensure that documentation does not contain any protected health information (PHI). | | | | |
| EDWS-PROJ-DDI-057 | The Contractor shall use draft versions of end user documentation as the basis for UAT and training, unless otherwise specified by the Department. Final versions shall be updated and completed for training before the start of the operations. | | | | |
| EDWS-PROJ-DDI-058 | The Contractor shall exclude Contractor(s) trademarks, logos, and identifying information in, or on all documentation. | | | | |
| EDWS-PROJ-DDI-059 | The Contractor shall provide online hyperlinks with references to Medicaid and non-Medicaid policy origination documents managed by the Department and the Contractor. | | | | |
| EDWS-PROJ-DDI-060 | The Contractor shall provide a writing style-guide for all documentation for purposes of creating consistency among all documents and containing a maintained list of acronyms used. | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-061 | The Contractor shall implement internal policy and procedures to promote data documentation, development, and management of defined data entities, attributes, data models, and relationships sufficiently to convey the overall meaning and use of Medicaid data and information. | | | | |
| EDWS-PROJ-DDI-062 | The Contractor shall support the adoption of statewide standard data definitions, data semantics, and harmonization strategies. | | | | |
| EDWS-PROJ-DDI-063 | The Contractor shall maintain the following flow diagrams:<br>▪ Overall system flow<br>▪ Each individual module flow<br>▪ Business process flow<br>▪ Business architecture<br>▪ Technical architecture<br>▪ Network architecture | | | | |

# Major Milestones and Deliverables Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PROJ-DDI-064 | The Contractor shall maintain the following items for reference and it shall be searchable from the web. Also it shall be kept for each environment and access to these items shall be granted by the Department.<br>▪ List of application servers and its usage<br>▪ List of web servers and its usage<br>▪ List of ESB and its usage<br>▪ Network IP and port details<br>▪ Environment variables<br>▪ Hyperlinks<br>▪ Document links<br>▪ Organization chart<br>▪ Contact details<br>▪ On-call support | | | | |

# Testing Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TEST-001 | The Contractor shall provide an Integrated Test Facility (ITF) which includes separate environments for all test phases, to include at a minimum; unit, integration, SIT, UAT, interface, performance, regression, ORT, system recovery, and mock production. | | | | |
| EDWS-TEST-002 | The Contractor shall provide the Department with access to the ITF as required for testing onsite, from State offices, and/or remotely during the DDI phase and throughout the life of the Contract. | | | | |
| EDWS-TEST-003 | The Contractor shall provide the capability for version control in the ITF. | | | | |
| EDWS-TEST-004 | The Contractor's test environment(s) shall be capable of mirroring the production system in its size, files, databases, processing, and reporting. | | | | |
| EDWS-TEST-005 | As system improvements or enhancements are implemented, that functionality shall also be deployed to test environments. | | | | |
| EDWS-TEST-006 | Test environment(s) data refresh shall be scheduled per the DMAS approved Change Management Plan. | | | | |
| EDWS-TEST-007 | The Contractor shall provide a process for extracting data from the production environment and importing into non-production environments. | | | | |
| EDWS-TEST-008 | The Contractor shall provide a process for masking, sanitizing, scrambling, or de-sensitizing sensitive data (e.g., PII/PHI) when extracting data from the production environment for use in non-production environments. | | | | |

# Testing Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TEST-009 | The Solution shall provide the ability to perform temporal testing within all testing environments. | | | | |
| EDWS-TEST-010 | The Solution shall provide the ability to allow a tester to easily manipulate the system date for temporal testing. | | | | |
| EDWS-TEST-011 | The Solution shall provide the ability to execute performance tests of a simulated user load consistent with the actual load projected or used in production. | | | | |
| EDWS-TEST-012 | The Contractor shall support provider testing of new provider claims submission systems by allowing providers to submit direct data entry claims and electronic claims test files that are processed through the adjudication cycle without impact on system data. | | | | |
| EDWS-TEST-013 | The Contractor shall utilize a DMAS approved or supplied automated testing tool that works seamlessly with all components of the MES. | | | | |
| EDWS-TEST-014 | The testing tool shall include predictive modeling that supports the ability to run “What if” scenarios related to a variety of parameters including, but not limited to rates, coverage, and budgets using historical production claims. | | | | |
| EDWS-TEST-015 | The Contractor shall design and document detailed test cases for each sub-phase of testing. | | | | |
| EDWS-TEST-016 | The Contractor shall provide test cases that include identifications, detailed steps, expected results, and actual results. | | | | |

# Testing Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TEST-017 | The Contractor shall utilize a well-established and DMAS approved or supplied defect tracking tool for management and reporting of system defects. | | | | |
| EDWS-TEST-018 | The Contractor shall perform regression testing for all defects identified and provide regression testing results. | | | | |
| EDWS-TEST-019 | The Contractor shall submit all test results for each test sub-phase to DMAS which includes: number of test scenarios, cases, and scripts executed; pass/fail ratio; number of defects identified and corrected along with their severity ranking. | | | | |
| EDWS-TEST-020 | The Contractor shall communicate the progress of the System Integration Test effort through a regular progress report. This report shall address all test scenarios and test cases and report the status of the test effort relative to the test schedule. | | | | |
| EDWS-TEST-021 | The Contractor shall track and report weekly on the defects identified and the progress made toward resolution of the defects during the System Integration Test effort. | | | | |
| EDWS-TEST-022 | The Contractor shall document and present the results from the System Integration Testing. | | | | |
| EDWS-TEST-023 | The Contractor shall obtain DMAS approval of all tests results before testing is considered complete. | | | | |
| EDWS-TEST-024 | The Contractor shall plan for and include Department participation and involvement in all testing efforts throughout the Software Development Lifecycle. | | | | |

# Testing Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TEST-025 | The Contractor shall provide training on the system, process, and tools that will be used to execute UAT and training on the operation of the technical environment to support user validation. | | | | |
| EDWS-TEST-026 | The Contractor shall support DMAS in all testing activities by providing support staff and technical expertise. | | | | |
| EDWS-TEST-027 | The Contractor shall provide a functional demonstration of the system including any changes or enhancements prior to user acceptance testing. | | | | |
| EDWS-TEST-028 | The Contractor shall develop a Test Management Plan to successfully meet business needs for initial product implementation. | | | | |
| EDWS-TEST-029 | The Test Management Plan shall include the approach to each of the test phases as outlined in the Required Testing Methods. | | | | |
| EDWS-TEST-030 | The Test Management Plan shall include the testing schedule. | | | | |
| EDWS-TEST-031 | The Test Management Plan shall describe how, and at which phase, other Contractor products will be incorporated in the overall testing. | | | | |
| EDWS-TEST-032 | The Test Management Plan shall include roles and responsibilities throughout all testing phases. | | | | |

# Testing Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TEST-033 | The Test Management Plan shall describe how test scenarios, test cases, and test results will be traced to requirements. | | | | |
| EDWS-TEST-034 | The Test Management Plan shall describe the processes, procedures, and tools for problem identification and resolution. | | | | |
| EDWS-TEST-035 | The Test Management Plan shall include templates of test progress and defect reports. | | | | |
| EDWS-TEST-036 | The Test Management Plan shall describe how regression testing will be done at all levels when errors are corrected. | | | | |
| EDWS-TEST-037 | The Test Management Plan shall discuss contingencies for risk mitigation and delays during the test effort. | | | | |
| EDWS-TEST-038 | The Test Management Plan shall define procedures for notifying DMAS of problems discovered in testing, testing progress, and adherence to the test schedule. | | | | |
| EDWS-TEST-039 | The Test Management Plan shall include a strategy for enhancing system performance based on findings obtained during test activities. | | | | |
| EDWS-TEST-040 | The Test Management Plan shall include a description of the process used for the identification and preparation of data required for the System Integration Test effort, including a description of the use of converted data during test. | | | | |
| EDWS-TEST-041 | The Test Management Plan shall describe the process employed for security testing, including compliance for handling of PII and PHI. | | | | |

# Testing Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TEST-042 | The Test Management Plan shall include a description of entry criteria and prerequisites to the System Integration Test effort. | | | | |
| EDWS-TEST-043 | The Test Management Plan shall define the exit criteria which, when met and approved by DMAS, provide evidence of the completion of the System Integration Test effort. | | | | |
| EDWS-TEST-044 | The Contractor shall provide a walk-through of the Test Management Plan before submitting to DMAS for approval. | | | | |
| EDWS-TEST-045 | The Contractor shall submit the Test Management Plan for DMAS review and approval. | | | | |
| EDWS-TEST-046 | The Test Management Plan shall describe how the Contractor will work with DMAS and MES QA Contractor to develop the Acceptance Test Plan and Test Cases. | | | | |
| EDWS-TEST-047 | The Test Management Plan shall define how defect tracking is used to identify organizational or procedural weaknesses and track the resulting corrective actions. | | | | |
| EDWS-TEST-048 | The Test Management Plan shall describe how services that execute on the Enterprise Service Bus (ESB) are unit, integration, and SIT tested. | | | | |
| EDWS-TEST-049 | The Test Management Plan shall describe how message-oriented interactions is accomplished. | | | | |
| EDWS-TEST-050 | Test Management Plan shall describe the Contractor's organizational structure and how the testing function is managed. | | | | |

# Testing Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TEST-051 | The Test Management Plan shall describe the Contractor support that is assigned and provided to DMAS and Contractor staff for each testing phase. | | | | |
| EDWS-TEST-052 | The Test Management Plan shall address the division of responsibilities between the Contractor, DMAS, and MES QA Contractor. | | | | |
| EDWS-TEST-053 | The Test Management Plan shall describe how the Contractor maintains the test environments; including loading test data routinely used by the system to perform its automated processes (e.g., reference values such as system parameters, system lists, reference tables, edits, dispositions, and security tables). | | | | |
| EDWS-TEST-054 | The Test Management Plan shall provide a testing methodology and approach on how the Contractor will test and verify conversion data and files. | | | | |
| EDWS-TEST-055 | The Test Management Plan shall define how defects and other issues reported by DMAS are analyzed, tracked, resolved; how required system changes implemented; and how testing is integrated with other project phases. | | | | |
| EDWS-TEST-056 | The Test Management Plan shall describe how the testing methodology accommodates workflow testing. | | | | |

# Testing Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TEST-057 | The Test Management Plan shall provide a testing methodology and approach on how the Contractor tests and verifies Extensible Markup Language (XML). | | | | |
| EDWS-TEST-058 | The Contractor shall develop comprehensive positive and negative test cases for all phases of testing. | | | | |
| EDWS-TEST-059 | The Contractor shall have processes in place to routinely load production and other data into the ITF, at DMAS request, as necessary to perform its automated processes. | | | | |
| EDWS-TEST-060 | The Contractor shall provide comprehensive documentation for requested test results for DMAS approval, prior to any software or COTS product being implemented in the production environment. | | | | |
| EDWS-TEST-061 | The Contractor shall be responsible for scheduling and coordinating all testing activities to ensure that each test is prepared and performed in accordance with the test plan. | | | | |

# Change Management Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-CHG-MGT-001 | The Contractor shall provide a DDI Change Management Plan which meets the Project Management Institute's standards contained in the Project Management Body of Knowledge (PMBOK®), and addresses and defines processes for managing changes to the project requirements, deliverables, and other components. | | | | |
| EDWS-CHG-MGT-002 | The Contractor shall provide an Operations Change Management Plan which meets the Project Management Institute's standards contained in the Project Management Body of Knowledge (PMBOK®), and addresses and defines processes for managing changes to any of the production environment components, including but not limited to software, hardware, data, and documentation. | | | | |
| EDWS-CHG-MGT-003 | The Contractor shall provide the capability to support a change request methodology and system, including work flow with electronic signatures to track the requests/projects from initiation to closure, and support management of the requests. The Solution shall include storage of and linkage to all SDLC deliverables for each request/project. | | | | |

# Change Management Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-CHG-MGT-004 | The Contractor shall submit a proposed Impact Assessment Form with instructions to be used in the Change Management process that includes accounting for change in:<br>▪ Scope<br>▪ Schedule<br>▪ Costs or Resources<br>▪ Business Process Definition<br>▪ Documentation<br>▪ Performance Standards<br>▪ Configuration<br>▪ Risks | | | | |
| EDWS-CHG-MGT-005 | The Contractor shall follow the best practices guidelines for Change Management as described in ISO/IEC 20000 [1 to 11] standards for Information Technology Service Management (ITSM), which is contained within the Information Technology Infrastructure Library (ITIL) framework.<br>Please refer to the ISO catalogue for more details:<br>http://www.iso.org/iso/home/store/catalogue_tc/catalogue_tc_browse.htm?commid=5013818 | | | | |

# IV&V and CMS Certification Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-IVV-001 | The Contractor shall provide the necessary information requested by the IV&V Contractor to assess the Contractor's Project Management capabilities to included, but not limited to:<br>▪ Progress against budget and schedule<br>▪ Risk management<br>▪ Adherence to the software development lifecycle (SDLC)<br>▪ Incorporation of the Seven Conditions and Standards into design and development<br>▪ Reflection of the Department's MITA goals and plans into actual design and development<br>▪ Configuration management is robust and includes Department or developer configuration audits against configuration baseline<br>▪ Change management<br>▪ Adherence to service-level agreements<br>▪ Project Work Plan comprehensiveness | | | | |

# IV&V and CMS Certification Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-IVV-002 | The Contractor shall provide the necessary information requested by the IV&V Contractor to assess the Contractor's System/Modular development capabilities including, but not limited to:<br>▪ Completeness and reasonability of MES concept of operations, architecture, and designs<br>▪ Accuracy of capture of interfaces and data sharing requirements with systems external to the MES<br>▪ Viability and completeness of the data transition plan<br>▪ Traceability of requirements through design, development, testing, and certification<br>▪ Adequacy of system security and privacy policies, plans, technical designs, and implementations<br>▪ Coverage and integrity of all system testing, including stress testing and testing of interfaces between modules and with external partner systems<br>▪ Capacity management, including consideration of future Contractors' support and release plans for underlying databases, software, and hardware<br>▪ Adequacy of disaster recovery planning | | | | |
| EDWS-IVV-003 | The Contractor shall make available all systems related planning, design, development and implementation related activities, outputs, documentation, and test results in order to substantiate the solution meets related CMS certification checklist items as defined at the time of the review. | | | | |
| EDWS-IVV-004 | The Contractor shall demonstrate the solution meets MITA 3.0 Framework guidelines regarding business, information, and technical requirements in addition to compliance with the Seven Conditions and Standards. | | | | |

# Audit Support Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-AUDIT-001 | The Contractor shall provide DMAS, at a minimum, an annual report from its external auditor on effectiveness of internal controls. If the report discloses deficiencies in internal controls, the Contractor shall include management's corrective action plans to remediate the deficiency. The report shall be compliant with the AICPA Statement on Standards for Attestation Engagements (SSAE) No. 16, Reporting on Controls at a Service Organization, Service Organization Controls (SOC) 2, Type 2 Report. | | | | |
| EDWS-AUDIT-002 | The Contractor, and each of its third-party service providers which provide a service that may impact the financial or program operations of DMAS, shall provide the SSAE 16 SOC 2 reports for its respective entity. The SSAE 16 audit reports shall be provided to DMAS's Internal Audit Division annually, no later than 30 days after the report is issued to the Contractor. | | | | |
| EDWS-AUDIT-003 | The Contractor shall provide DMAS, at a minimum, an annual report from a qualified, independent, external IT security Contractor for a Vulnerability Assessment and Network Penetration Test covering all Contractor and subcontractor networks that will access State data and information. | | | | |
| EDWS-AUDIT-004 | The Contractor shall provide the Department, at a minimum, a quarterly report of the results of its quarterly vulnerability scans covering all Contractor and subcontractor networks that will access State data and information. | | | | |

# Audit Support Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-AUDIT-005 | The Contractor shall provide the Department, at a minimum, a biennial report from an independent, external auditor on the Contractor's compliance with the State IT Information Security Standard SEC 501-09 (or latest). If the report discloses security deficiencies, the Contractor shall include management's corrective action plans to remediate the deficiency. The report shall be developed utilizing the requirements established in State IT Information Security Standard (SEC 501-09 or latest) and State IT Security Audit Standard (SEC 502-02.2 or latest). | | | | |
| EDWS-AUDIT-006 | The Contractor and its subcontractors shall provide network connectivity for visitors from DMAS, Federal, and State auditors, including the execution of outside audit tools and audit test software for guest auditors from the U.S. Department of Health and Human Services (HHS) Office of the Inspector General, the HHS CMS Virginia Auditor of Public Accounts (APA) or any other authorized auditors as determined by DMAS. | | | | |

# Audit Support Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-AUDIT-007 | The Contractor shall produce robust audit trails and audit logs of all applications and engineering activities (including inquiry transactions) on the production systems. These audit logs will be kept available online, behind a front-end presentation toolset providing queries, reports, and analytics on any log selected. The system will be able to answer typical control questions required by COV SEC 501-09 and NIST 800-053 REV 4 (or latest) with online reporting. The DMAS Internal Audit Division and the Office of Compliance and Security shall provide the capability to access the audit logs directly without the Contractor's intervention. The logs shall be available to be reviewed by authorized Federal and COV auditors. Log retention shall be seven (7) years based on Library of Virginia standards. | | | | |
| EDWS-AUDIT-008 | The Contractor shall establish policies, procedures, and practices to ensure there is appropriate internal monitoring of the audit logs and the established process produces documentation to evidence the monitoring effort. | | | | |

# Audit Support Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-AUDIT-009 | The Contractor shall provide DMAS, the U.S. Department of Health and Human Services (HHS) Office of the Inspector General, the HHS CMS, the Auditor of Public Accounts, and any other State and Federal auditors, or any of their duly authorized representatives with access to Contractor facilities for the purposes of audit, review, or physical inspection of system assets and system security, and access to any books, annual reports, management's report on internal control over financial reporting, SSAE No. 16 Service Organization Controls audit reports, fee schedules, documents, papers, and records of the Contractor and any of its subcontractors. Access to records includes any records which are stored offsite. Records shall be provided for review at no cost to the Department. | | | | |
| EDWS-AUDIT-010 | The Contractor shall provide DMAS, the U.S. Department of Health and Human Services (HHS) Office of the Inspector General, the HHS CMS, State and Federal auditors, or any of their duly authorized representatives, access to inspect, copy, and audit contractor documents, including, medical and/or financial records of the Contractor and its subcontractors. | | | | |

# Audit Support Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-AUDIT-011 | The Contractor shall retain all records and reports relating to this Contract for a period of six years after final payment are made under this Contract or in the event that this Contract is renewed six years after the final payment. When an audit, litigation, or other action involving or requiring access to records is initiated prior to the end of said period, however, records shall be maintained for a period of six years following resolution of such action or longer if such action is still ongoing. Copies on microfilm or other appropriate media of the documents contemplated herein may be substituted for the originals provided that the microfilming or other duplicating procedures are reliable and are supported by an effective retrieval system which meets legal requirements to support litigation, and to be admissible into evidence in any court of law. | | | | |
| EDWS-AUDIT-012 | The Contractor shall provide the Department with timely responses and corrective action plans (CAPs) for any audit or review findings, and shall ensure that any and all of its subcontractors also comply. In addition, the Contractor shall provide quarterly status updates for each CAP until the CAP is complete and the finding is remediated. | | | | |

# Audit Support Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-AUDIT-013 | The Contractor shall comply, and shall ensure any and all subcontractors comply with the following COV Information Security Standards (available on the VITA website), which among other requirements includes development and or performance of risk assessments, system security plans, disaster recovery plans, continuity of operations plans, and security audits: COV SEC 501-09 (or latest) IT Information Security Standard, COV SEC 502-02.2 (or latest) IT Security Audit Standard, COV SEC 514-03 (or latest) Removal of State Data from Electronic Media Standard, COV SEC 520-00 (or latest) IT Risk Management Standard, COV SEC 525-01 Cloud-Based Information Security Standard (Pending its release in 2016). | | | | |
| EDWS-AUDIT-014 | The Contractor shall not have the right to audit DMAS, or require that DMAS be audited. | | | | |
| EDWS-AUDIT-015 | The Contractor shall provide Control Policy and Procedures required by the Agency to develop, disseminate, and review/update annually, formal documented procedures. The Contractor shall also provide a Security Roles-based Report that can be used as evidence to validate access control policy on an annual basis. (SEC501-09 Section 8.1.AC-1). | | | | |
| EDWS-AUDIT-016 | The Contractor shall provide Control Policy and Procedures to disable unneeded accounts in a timely manner as well as historical records of such actions. (SEC 501.9 Section 8.1-AC-2-COV 1.b). | | | | |

# Audit Support Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-AUDIT-017 | The Contractor shall conduct and document a risk assessment of each IT system classified as sensitive at least once every three years. The risk analysis shall address all of the requirements in the Security Standard and include an analysis of encryption/decryption mechanisms pertaining to PHI data at rest or in transition. (SEC 501.9 Section 6.2). | | | | |
| EDWS-AUDIT-018 | The Contractor shall maintain and document a system for Risk Management which is compliant with the COV IT Risk Management Standard (SEC 520-00 or latest) published by VITA. The intent of this requirement is to ensure the Contractor establishes a risk management framework, setting a baseline for information risk management activities for the Contractor. These risk management activities include, but are not limited to, any regulatory requirements that the Contractor is subject to, information security best practices, and the requirements defined in this Standard. These risk management activities will provide identification of sensitive system risks, their associated business impact, and a remediation/recommendation strategy that will help mitigate risks to the Contractor's information systems and data and the State's information systems and data. The Risk Management Framework aligns with the methods set forth by the National Institute of Standards and Technology (NIST) Framework for Improving Critical Infrastructure Cybersecurity. | | | | |

# Audit Support Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-AUDIT-019 | The Contractor shall process a documented request with supervisory approval to establish an account on IT systems. In addition, the Contractor shall notify the Agency System Administrator in a timely manner about termination and/or transfer of employees and contractors with access rights to IT systems and data. (SEC501.9 Section 8.1.AC-2 COV 2). | | | | |
| EDWS-AUDIT-020 | The Contractor shall provide and require encryption for the transmission of email and attached data that is sensitive relative to confidentiality. (SEC501.9 Section 8.16.SC-8-COV). | | | | |
| EDWS-AUDIT-021 | The Contractor shall, annually, support the Agency and review of user accounts and privileges. (SEC501-09 Section 8.1.AC-2(j)). | | | | |
| EDWS-AUDIT-022 | The Contractor shall support at least two Agency individuals to have administrative accounts to provide continuity of operations. (SEC501-09 Section 8.1.AC-2-COV 1 (h)). | | | | |
| EDWS-AUDIT-023 | The Contractor shall provide evidence of document management practices for administering accounts. (SEC501 - 09 Section 8.1 AC-2-COV). | | | | |

# Turnover Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TRNOVR-001 | The Contractor shall provide a Turnover Plan within 30 days of the Turnover Notification Letter. The plan shall include:<br>▪ Data Turnover tasks<br>▪ Custom interface Turnover tasks<br>▪ Reusable code Turnover tasks<br>▪ Documentation regarding files, interfaces, and work flows not considered to be part of the COTS proprietary documentation tasks<br>▪ A timeline with milestones for the Turnover to include planning, execution, and implementation approval | | | | |
| EDWS-TRNOVR-002 | The Contractor shall carry out an orderly, cooperative, comprehensive, and controlled transition to the Department. | | | | |
| EDWS-TRNOVR-003 | The Contractor shall provide a security profile of Department users in a Microsoft Word document or Microsoft Excel spreadsheet format. | | | | |
| EDWS-TRNOVR-004 | The Contractor shall provide Turnover deliverables as part of the Turnover tasks to include:<br>▪ All files and data<br>▪ Reusable code Turnover<br>▪ Customized ad-hoc reporting specifications<br>▪ Documentation regarding files, interfaces, and work flows not considered to be part of the COTS proprietary documentation<br>▪ A timeline with milestones and a work breakdown structure for the Turnover to include planning, execution, and implementation approval<br>▪ A description of post turnover support for up to 6 weeks | | | | |

# Seven Conditions and Standards Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SCS-001 | The Contractor shall comply and consistently meet or exceed the CMS Seven Conditions and Standards over the life of the contract. | | | | |
| EDWS-SCS-002 | Modularity Standard - The Contractor shall demonstrate the use of a modular, flexible approach in its solution. This approach shall describe the modularity within its Solution including, but not limited to:<br>▪ Use of a Systems Development Life Cycle Methodology (SDLC)<br>▪ Identification of the modules within the solution and a description of the attributes that make them modular<br>▪ Identification and description of open interfaces<br>▪ Use of standardized business rule definitions and engines | | | | |
| EDWS-SCS-003 | MITA Condition: The Contractor shall support the following if required:<br>▪ Conducting MITA Self Assessments<br>▪ Developing MITA Roadmaps<br>▪ Developing Concept of Operations (COO) and Business Process Models (BPM) | | | | |

# Seven Conditions and Standards Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SCS-004 | Industry Standard Condition - The Contractor shall ensure alignment with, and incorporation of, industry standards, including but not limited to: the Health Insurance Portability and Accountability Act of 1996 (HIPAA) security, privacy and transaction standards; accessibility standards established under section 508 of the Rehabilitation Act, or standards that provide greater accessibility for individuals with disabilities, and compliance with Federal Civil Rights laws; standards adopted by the Secretary under section 1104 of the Affordable Care Act; and standards and protocols adopted by the Secretary under section 1561 of the Affordable Care Act.<br>The Contractor shall describe and provide examples of how the solution provides the following capabilities:<br>▪ Inclusion of industry standards<br>▪ Incorporation of industry standards in requirements, development, and testing phases | | | | |
| EDWS-SCS-005 | Leverage Condition - The Contractor shall work with DMAS to promote implementation of COTS packages or SaaS, and share, leverage, and identify possibilities for reuse of Medicaid technologies and systems within and among States, including but not limited to:<br>▪ Multi-state efforts<br>▪ Availability for reuse<br>▪ Identification of open source, cloud-based, and commercial products<br>▪ Customization<br>▪ Transition and retirement plans | | | | |

# Seven Conditions and Standards Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SCS-006 | Business Results Condition - The Contractor shall support accurate and timely processing of claims, assignment of member eligibility benefits, adjudications, and effective communications with providers, members, and the public. The Contractor shall provide examples of how its solution accomplishes this condition, including but not limited to:<br>▪ Degree of automation<br>▪ Web-based Customer Service<br>▪ Performance standards and testing | | | | |
| EDWS-SCS-007 | Reporting Condition - The Contractor's solution shall produce transaction data, reports, and performance information that contribute to program evaluation, continuous improvement in business operations, transparency, and accountability. The Contractor shall provide examples of meeting this requirement including, but not limited to:<br>▪ Accurate data<br>▪ Interfaces with designated federal repositories or hubs<br>▪ Automatic generation of reports<br>▪ Audit trails | | | | |

# Seven Conditions and Standards Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SCS-008 | Interoperability Condition - The Contractor's solution shall provide seamless coordination and integration with appropriate exchanges including but not limited to HIE and HIX, and any run by the state or federal government, and allow interoperability with health information exchanges, public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services. The Contractor shall describe and present examples of how the solution provides the following capabilities:<br>▪ Interactions with exchanges<br>▪ Interactions with other entities<br>▪ Use standard messaging, protocols and architecture | | | | |

# Security/Compliance Audit Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SSDR-SAD-001 | The Solution shall support encryption at rest for all relational database items. | | | | |
| EDWS-SSDR-SAD-002 | The Solution shall require all relational database(s) to enforce Transport Layer Security (TLS 1.2 or above) for all incoming database connections. | | | | |
| EDWS-SSDR-SAD-003 | The Solution requires a minimum of 256 bit encryption (AES preferred). | | | | |
| EDWS-SSDR-SAD-004 | The Solution utilized to encrypt the database shall include security that contains encryption keys to be a minimum of 2048 bits. | | | | |
| EDWS-SSDR-SAD-005 | The Solution utilized to encrypt the database requires methods used by relational databases to be FIPS-140-2 certified or higher. | | | | |
| EDWS-SSDR-SAD-006 | The Solution utilized to encrypt the database requires methods used by relational databases to be common criteria certified. | | | | |
| EDWS-SSDR-SAD-007 | The Contractor shall provide a Security Plan which will be in compliance with all State and Federal enterprise information security policies, standards, security initiatives, and regulations. | | | | |
| EDWS-SSDR-SAD-008 | The Contractor shall provide a security solution which complies with VITA Information Security Standard Regulation SEC 501-09 or latest (SEC501-09 is updated annually and is based on NIST 800-53 v.4). | | | | |

# Security/Compliance Audit Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SSDR-SAD-009 | The Solution shall ensure that all data considered to be Protected Health Information (PHI) is secured while in transit and at rest (via encryption or an industry standard method of secure file transport). Data shall be stored in the continental United States. | | | | |
| EDWS-SSDR-SAD-010 | The Contractor shall provide guest network connectivity from its offices and facilities during the life of the contract, at the Contractor's expense. This can be guest Wi-Fi or some other DMAS approved method. Requested guest accounts will be provisioned within twenty four (24) hours. | | | | |
| EDWS-SSDR-SAD-011 | The Contractor shall collaborate and provide significant participation in support of the development and annual maintenance of the CMS System Security Plan (SSP). | | | | |
| EDWS-SSDR-SAD-012 | The Solution shall provide the capacity to manage the creation of unique and permanent User ID's across multiple systems. | | | | |
| EDWS-SSDR-SAD-013 | The Solution shall provide the capability for the provisioning of all MES accounts through the use of federated lists of tables. | | | | |
| EDWS-SSDR-SAD-014 | The Solution shall have the functionality to allow for automated password resets using industry standard algorithms. | | | | |
| EDWS-SSDR-SAD-015 | The Solution's password complexity shall require the use of all four of the following characteristics: Upper Case, Lower Case, Special Characters, and Numbers. | | | | |

# Security/Compliance Audit Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SSDR-SAD-016 | The Solution's passwords shall be a minimum of 12 characters in length and expire every 42 days. | | | | |
| EDWS-SSDR-SAD-017 | The Contractor shall ensure the Solution integrates with a central ICAM/SSO using web services. | | | | |
| EDWS-SSDR-SAD-018 | The Contractor shall ensure the Solution provides an authorization system and workflow for setting up user roles/access levels. | | | | |
| EDWS-SSDR-SAD-019 | The Contractor shall provide coordination between role-based contractor solutions that include DMAS user roles and the central ICAM/SSO during implementation/setup of access control components. | | | | |
| EDWS-SSDR-SAD-020 | The Contractor shall provide coordination between role-based contractor solutions which include DMAS roles and the central ICAM/SSO for external testing. | | | | |
| EDWS-SSDR-SAD-021 | The Contractor shall provide coordination and support during the mapping of current roles (such as VAMMIS ACF2 roles) into applicable contractor solution roles for DMAS users. | | | | |
| EDWS-SSDR-SAD-022 | The Contractor shall ensure the Solution provides role-based security and audit capabilities relative to the ICAM/SSO. | | | | |
| EDWS-SSDR-SAD-023 | The Contractor shall ensure the user role/access level identifiers are continually in synch with the authorization system. | | | | |

# MES SSO Global Security Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-MES-SSO-GLBL-001 | The Contractor shall provide a detailed integration, implementation plan on how the solution shall integrate with a central SSO using its web services. | | | | |
| EDWS-MES-SSO-GLBL-002 | The Contractor shall provide a detailed plan on the implementation of authorization system's workflow to set up user roles/access levels. | | | | |
| EDWS-MES-SSO-GLBL-003 | The Contractor shall provide an authorization solution that shall support the MES SSO concept. | | | | |
| EDWS-MES-SSO-GLBL-004 | The Contractor shall provide a coordination effort plan, detailing the efforts required between role-based contractor solutions that include DMAS user roles and the central SSO during implementation/setup of access control components. | | | | |
| EDWS-MES-SSO-GLBL-005 | The Contractor shall provide an integration and implementation plan that requires coordination between role-based contractor solutions that include DMAS roles and the central SSO for external testing. | | | | |
| EDWS-MES-SSO-GLBL-006 | The Contractor shall provide the coordination and support plans during the mapping of current roles (such as mainframe MMIS ACF2 roles) into applicable contractor solution roles for DMAS users. | | | | |
| EDWS-MES-SSO-GLBL-007 | The Contractor shall implement a solution's role-based security and its audit capability relative to the SSO. | | | | |
| EDWS-MES-SSO-GLBL-008 | The Contractor shall keep the user role/access level identifiers in synch with the authorization system. | | | | |

# Integration Services Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-IS-001 | The Contractor shall facilitate the secure exchange of data with other applications in the MES within the agreed upon SLA through synchronous real time web services and/or asynchronous services using Queues through an Integration service. | | | | |
| EDWS-IS-002 | The Contractor shall have the ability to produce/consume SOAP, RESTful Web Services. | | | | |
| EDWS-IS-003 | The Contractor shall have the ability to exchange files through secure file transfer protocol with other systems through an Integration service. | | | | |

# Rules Engine Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-RULE-EGN-001 | The Contractor's Rules Engine shall meet MITA 3.0 standards by using COTS Business Rules Engine products using BPMN and BPEL methodologies. | | | | |
| EDWS-RULE-EGN-002 | The Contractor's Rules Engine shall allow integration with Identity Access Management products for several elevated user levels for business rules approvals. | | | | |
| EDWS-RULE-EGN-003 | The Contractor’s provided workflow shall automate details for any rules creation/modification/deletion and scheduled auto deployment shall be explained. | | | | |
| EDWS-RULE-EGN-004 | The Contractor's Rules Engine shall provide a testing environment with dashboard drill downs using past production data to show how functionality/end result will change by the rule changes. This can be displayed in the dashboard by a graphical and columnar view for easy impact assessment by the business user. | | | | |
| EDWS-RULE-EGN-005 | The Contractor shall provide a Rules Engine Business Dictionary which includes data elements, definition, data size, meaning, description and its usage. | | | | |
| EDWS-RULE-EGN-006 | The Contractor's Rules Engine shall allow changes to be made to the valid values without bringing down the rules engine. | | | | |
| EDWS-RULE-EGN-007 | The Contractor's Rules Engine shall have tracking mechanisms to identify which rules are executed for the particular transactions. | | | | |
| EDWS-RULE-EGN-008 | The Contractor's Rules Engine shall be able to produce a report on rules passed or failed for all transactions. | | | | |

# Rules Engine Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-RULE-EGN-009 | The Contractor's Rules Engine shall send alerts to the appropriate resource if there is any issue in the rules engine. | | | | |
| EDWS-RULE-EGN-010 | The Contractor's Rules Engine shall allow logging to be turned ON or OFF. | | | | |
| EDWS-RULE-EGN-011 | The Contractor's Rules Engine shall provide a debugging tool to debug the rules execution. | | | | |
| EDWS-RULE-EGN-012 | The Contractor's Rules Engine shall allow rules to run sequentially and in parallel. | | | | |
| EDWS-RULE-EGN-013 | The Contractor's Rules Engine shall allow Individual rules testing features available. | | | | |
| EDWS-RULE-EGN-014 | The Contractor's Rules Engine shall include test data creation tools. | | | | |
| EDWS-RULE-EGN-015 | The Contractor's Rules Engine shall allow users to map JSON or XML documents as input data elements. | | | | |
| EDWS-RULE-EGN-016 | The Contractor's Rules Engine shall be easily accessed through Java or web services. | | | | |
| EDWS-RULE-EGN-017 | The Contractor's Rules Engine shall process high volume transactions and shall be scalable. | | | | |
| EDWS-RULE-EGN-018 | The Contractor's Rules Engine shall be able to support NoSQL or MongoDB. | | | | |
| EDWS-RULE-EGN-019 | Rules Editor shall allow the subject matter experts or technical resource to write the rules in the natural language. | | | | |
| EDWS-RULE-EGN-020 | The Contractor shall supply a dashboard to monitor the rules execution and its performance and statistics. | | | | |

# Rules Engine Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-RULE-EGN-021 | The Contractor's Rules administration process shall control user access, modify and execute the rules. | | | | |

# Workflow Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-WF-001 | The Contractor's workflow management tool shall support the intelligent assignment, queueing, notification, escalation and management of requests, interactions and relationships with providers, members, and other stakeholders. | | | | |
| EDWS-WF-002 | The Contractor's workflow management tool shall be easily configurable. | | | | |
| EDWS-WF-003 | The Contractor's workflow management tool shall support notifications and alerts using a variety of access channels that can be managed by authorized users. | | | | |
| EDWS-WF-004 | The Contractor's workflow management tool shall have the capability to schedule the execution of tasks. | | | | |
| EDWS-WF-005 | The Contractor's workflow management tool shall be able to track and monitor the progress of the execution of the workflows. | | | | |
| EDWS-WF-006 | The Contractor's workflow management tool shall have the ability to prioritize the tasks based on the severity. | | | | |
| EDWS-WF-007 | The Contractor's workflow management tool shall be fault tolerant. | | | | |
| EDWS-WF-008 | The Contractor's workflow management tool shall provide ability to view the workflow execution history. | | | | |
| EDWS-WF-009 | The Contractor's workflow management tool shall have user defined reporting capabilities to assist in managing caseloads, workflow processes, and quality assurance. | | | | |

# Portal Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TECH-WEB-001 | All Contractor websites shall comply with section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794d) and meet the standards published in the Federal Register on December 21, 2000 (36 CFR Part 1194). | | | | |
| EDWS-TECH-WEB-002 | All Contractor website components used to publish or create content or user accessible interfaces shall comply with the Authoring Tool Accessibility Guidelines (ATAG) 2.0 as published by the Worldwide Web Consortium (W3C). | | | | |
| EDWS-TECH-WEB-003 | All Contractor website components or content accessed via a Web Browser shall comply with Virginia web standards as published at: http://www.vita.virginia.gov/library/default.aspx?id=663 | | | | |
| EDWS-TECH-WEB-004 | The Contractor's online help shall be available and provide current and accurate information. Online Help shall be content sensitive to the extent possible. The format and structure of online help shall be approved by DMAS. | | | | |
| EDWS-TECH-WEB-005 | All Contractor website components or content accessed via a Web Browser shall meet the W3C Web Content Accessibility Guidelines (WCAG) V2.0. | | | | |
| EDWS-TECH-WEB-006 | All Contractor websites shall support human-readable URLs which are usable as navigational aids to end users. | | | | |
| EDWS-TECH-WEB-007 | All Contractor websites shall be accessible using common major web browsers like, but not limited to Chrome, Firefox, IE, Edge, and Opera and shall be compatible with previous versions approved by DMAS. | | | | |

# Portal Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TECH-WEB-008 | All Contractor websites shall be accessible using, but not limited to mobile devices, tablets and PC's. | | | | |
| EDWS-TECH-WEB-009 | All Contractor's solution components or content accessed via a Web Browser shall comply with the W3C Mobile Web Application Best Practices as published on December 14, 2010. | | | | |
| EDWS-TECH-WEB-010 | All Contractor websites shall support English, Spanish, and any other language that is used by 5% or more of the population. | | | | |
| EDWS-TECH-WEB-011 | All Contractor website components or content accessed via a Web Browser shall display a dismissible alert when being accessed by a browser type or browser version that is not fully supported. | | | | |
| EDWS-TECH-WEB-012 | All Contractor website components or content accessed via a Web Browser shall not use, nor have any dependencies on Active-X controls, Flash, Frames or iframes. | | | | |
| EDWS-TECH-WEB-013 | For supported browsers, all Contractor websites shall print what the users see. The Solution shall provide options to print or download HTML and PDF documents. | | | | |
| EDWS-TECH-WEB-014 | All Contractor websites shall include a knowledge based component and frequently asked questions. | | | | |
| EDWS-TECH-WEB-015 | The Contractor shall ensure all browser run scripts load from website servers, unless approved otherwise by DMAS. | | | | |

# Portal Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TECH-WEB-016 | The Contractor shall ensure all browser run scripts are verified only to communicate with websites, unless approved otherwise by DMAS. | | | | |
| EDWS-TECH-WEB-017 | The Contractor shall ensure all browser run scripts use minified version in production. | | | | |
| EDWS-TECH-WEB-018 | The Contractor shall ensure all websites are developed using current technologies including Angular JS, JavaScript, JQuery, and Bootstrap. | | | | |
| EDWS-TECH-WEB-019 | The Contractor shall ensure all websites disallow multiple concurrent logins by an individual user or by a single user ID. | | | | |
| EDWS-TECH-WEB-020 | The Contractor shall ensure all platforms supporting or hosting browser accessible components or content shall be scanned for known vulnerabilities no less frequently than once a month. Scan results shall be sent to DMAS Security Officer. | | | | |
| EDWS-TECH-WEB-021 | The Contractor's websites shall be scalable to support growth in the number of Medicaid providers, members and for future growth of Medicaid program. | | | | |
| EDWS-TECH-WEB-022 | The Contractor shall ensure users attempting to access a solution component or content that is unavailable due to scheduled maintenance shall receive a response notifying them of the reason for non-availability and an expected service resumption time. | | | | |
| EDWS-TECH-WEB-023 | The Contractor shall ensure all website users are notified of any scheduled maintenance on the website's main page. | | | | |

# Portal Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TECH-WEB-024 | The Contractor's websites shall adhere to the "Government Data Collection and Dissemination Practices Act" Code of Virginia, § 2.2-3800, "Administration of systems including personal information; Internet privacy policy; exceptions" Code of Virginia, § 2.2-3803, the "Virginia Freedom of Information Act" § 2.2-3700, et seq., and HIPAA regulations (Health Insurance Portability and Accountability Act (1996) (HIPAA). | | | | |
| EDWS-TECH-WEB-025 | The Contractor shall ensure all solution components that are accessible from the Public Internet (e.g. websites) shall make the site's privacy policy and terms of service available prior to authentication. | | | | |
| EDWS-TECH-WEB-026 | The Contractor shall ensure cookie dependencies for Solution components or content accessed via a web browser is limited to session cookies. | | | | |
| EDWS-TECH-WEB-027 | The Contractor shall ensure any cookies generated, used, or required by the solution do not contain user identifiable data. | | | | |
| EDWS-TECH-WEB-028 | The Contractor shall ensure users attempting to access a solution component or content that has a dependency on cookies with a browser that has cookies disabled shall receive a response notifying them of features, modules, or services that may not be available. | | | | |
| EDWS-TECH-WEB-029 | The Contractor shall ensure website form fields are validated on the client side as well as on server side. | | | | |
| EDWS-TECH-WEB-030 | The Contractor shall ensure fields have standard formats such as phone numbers, date, time, currency, numbers, SSN use input mask to aid users. | | | | |

# Portal Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-TECH-WEB-031 | The Contractor shall ensure users do not see technical implementation details in error messages on production system, e.g. 500 errors shall display a message such as "we are experiencing technical problems, please check back soon" with a link back to home page or the page they came from. | | | | |
| EDWS-TECH-WEB-032 | The Contractor shall ensure the website provides the ability to upload multiple files and show end users the progress of the upload using, but not limited to JQUERY or Angular file upload plugin. | | | | |
| EDWS-TECH-WEB-033 | The Contractor shall ensure the website can validate and scan for potential malware and viruses before uploading files to the secured area. | | | | |

# Document Management Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-DOC-001 | The Contractor shall capture all the incoming and outgoing documents in the repository with a unique ID, date, and timestamp. | | | | |
| EDWS-DOC-002 | The Contractor shall include electronic documentation context sensitive help screens for all online functions (desktop and browser). | | | | |
| EDWS-DOC-003 | The Documentation Management system shall provide full functionality for a robust Documentation Management system solution, including but not limited to:<br>▪ Web-based access<br>▪ Document storage<br>▪ Category meta-tagging<br>▪ Collaborative editing with version controls<br>▪ Workflow with automated notifications<br>▪ Integrate and interface with common desktop productivity software<br>▪ The ability to search among documents<br>▪ The ability to enter notes or annotate documents | | | | |
| EDWS-DOC-004 | The Documentation Management system shall store all generated outputs, including but not limited to reports and letters. | | | | |
| EDWS-DOC-005 | The Documentation Management system shall store all MES documentation, including but not limited to designs, manuals, and training materials. | | | | |
| EDWS-DOC-006 | The Documentation Management system shall store all documents transmitted by internal and external sources, including but not limited to reports generated by other systems, faxes, and uploaded materials. | | | | |

# Document Management Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-DOC-007 | The Documentation Management system shall store images of all hard-copy documents received including but not limited to paper claims, provider enrollment applications, service authorization requests, attachments, including attachments to claims, and correspondence. | | | | |
| EDWS-DOC-008 | The Documentation Management system shall support the ability to retrieve and view all information stored, based on a variety of identifying information, including but not limited to report number, provider ID, letter ID, run date, as of date, payment date, RA number, check number, claim control number, and letter date. | | | | |
| EDWS-DOC-009 | The Documentation Management system shall provide the ability to search within documents. | | | | |
| EDWS-DOC-010 | The Documentation Management system shall provide the ability for users and applications to retrieve a document using a web-based application. | | | | |
| EDWS-DOC-011 | The Documentation Management system shall provide the ability to print and download any document in total or part as defined by the user. | | | | |
| EDWS-DOC-012 | The Documentation Management system shall manage access based on security rules defined for both internal and external users and systems. | | | | |

# Document Management Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-DOC-013 | The Documentation Management system shall maintain an audit trail of all actions related to ECM content, including but not limited to:<br>▪ Date and time document is entered in the System<br>▪ Any actions taken on the document or attachment; including the date and time of the edits/modification<br>▪ Record the user responsible for the changes<br>▪ Record all user inquiries even if no action was taken by the user | | | | |
| EDWS-DOC-014 | Audit trail reports shall be available on demand, both an aggregated report of all actions by type (inquiry, add, change, etc.) and by an individual user ID. | | | | |
| EDWS-DOC-015 | The Documentation Management system shall provide a scalable environment with a separate testing/staging environment. | | | | |
| EDWS-DOC-016 | The Documentation Management system shall convert and store the contents of the legacy ECM. | | | | |
| EDWS-DOC-017 | The Documentation Management system shall support data retention and deletion in accordance with Department record retention policies. | | | | |
| EDWS-DOC-018 | The Documentation Management system shall install and manage application-specific malware protection. | | | | |
| EDWS-DOC-019 | The Documentation Management system shall deploy customizations (e.g., web parts and solutions) supplied by an Authorized User using server tools. | | | | |
| EDWS-DOC-020 | The Documentation Management system shall provide all enterprise-level infrastructure hardware and software licensing required to support the services. | | | | |

# Document Management Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-DOC-021 | The Documentation Management system shall continually evolve to stay contemporary with best of breed market offerings. | | | | |
| EDWS-DOC-022 | The Contractor shall provide electronic documentation management capability that promotes automatic updates to the documentation when content, technical, and operational changes occur. | | | | |
| EDWS-DOC-023 | The Contractor shall provide an electronic document management capability to link, track, and update all electronic documentation, technical and operational, when affected by a subsystem or component or business practice and rules requirement change. | | | | |
| EDWS-DOC-024 | The Contractor shall provide the methodology to work with the Department to finalize the service level criteria for the following:<br>▪ Distinguishing the priority and severity of a problem<br>▪ Determining the category of the problem<br>▪ Establishing the nature of the problem | | | | |
| EDWS-DOC-025 | The Contractor shall present instructions for requesting reports or other outputs with examples of input documents and replicas of screens (desktop and browser). | | | | |
| EDWS-DOC-026 | The Contractor shall provide the ability to accommodate electronic signatures. | | | | |
| EDWS-DOC-027 | The Contractor shall provide artifacts, including but not limited to reports, letters, documents, and documentation, for an Enterprise Content Management (ECM) system. | | | | |

# Enterprise Data Warehouse Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-GNRL-001 | All Contractors and their partners, with no exceptions, shall have to accommodate sharing of enterprise relationship diagrams of their system, data dictionaries, and business and technical metadata with DMAS. | | | | |
| EDWS-GNRL-002 | The Contractors shall provide resources and services that provide access to their transactional data both in real-time and batch. | | | | |
| EDWS-GNRL-003 | The Contractors shall provide functions to translate their data into XML, JSON, SOAP, etc., for exchange as required by DMAS. | | | | |
| EDWS-GNRL-004 | The Contractors shall adhere to the frequency of data-exchange as desired by DMAS. | | | | |
| EDWS-GNRL-005 | Each Contractor shall assure data quality pertaining to the benchmarks set forth by DMAS. | | | | |
| EDWS-GNRL-006 | Any and all products generated by the Contractor during the course of MES and pertaining to MES shall be shared with DMAS. | | | | |

# Conversion Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-DATA-CON-001 | Contractor shall develop a Conversion Plan to successfully meet DMAS business and technical specifications for deployment. | | | | |
| EDWS-DATA-CON-002 | The Conversion Plan shall include a description of the overall conversion strategy. | | | | |
| EDWS-DATA-CON-003 | The Conversion Plan shall include a detailed conversion schedule. | | | | |
| EDWS-DATA-CON-004 | The Conversion Plan shall include an outline of roles and responsibilities. | | | | |
| EDWS-DATA-CON-005 | The Conversion Plan shall include pre-defined and mutually agreed upon success criteria and acceptable thresholds. | | | | |
| EDWS-DATA-CON-006 | The Conversion Plan shall include a description of all tools to be used during the conversion process. | | | | |
| EDWS-DATA-CON-007 | The Conversion Plan shall include methods for user validation of converted data. | | | | |
| EDWS-DATA-CON-008 | The Conversion Plan shall include procedures for tracking and correcting conversion problems when encountered. | | | | |
| EDWS-DATA-CON-009 | The Conversion Plan shall include a process to identify and mitigate risks that may be encountered during conversion. | | | | |
| EDWS-DATA-CON-010 | The Conversion Plan shall include the target data store schemas. | | | | |
| EDWS-DATA-CON-011 | The Conversion Plan shall include detailed data element mappings, including values of the old systems data elements to the new systems data elements, new data elements to old data elements, and default values where necessary. | | | | |

# Conversion Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-DATA-CON-012 | The Conversion Plan shall include specifications for manually converting unreliable data elements that cannot be converted. | | | | |
| EDWS-DATA-CON-013 | The Conversion Plan shall include referential integrity relationships for related data. | | | | |
| EDWS-DATA-CON-014 | The Conversion Plan shall define the reporting of processing statistics that include, but are not limited to, load execution time and duration. | | | | |
| EDWS-DATA-CON-015 | The Conversion Plan shall define the reporting of failures, error conditions, and unexpected terminations. | | | | |
| EDWS-DATA-CON-016 | The Conversion Plan shall include a definition of the metrics that will be generated by the conversion process to measure the completeness of conversion. These metrics shall include record counts and balancing for each major grouping of data elements from both the legacy source systems (e.g., number of members, cases, claims, and claims paid). | | | | |
| EDWS-DATA-CON-017 | The Conversion Plan shall include layouts, procedures, and schedules for all conversion reporting. | | | | |
| EDWS-DATA-CON-018 | The Conversion Plan shall include transformation and loading for each data source. | | | | |
| EDWS-DATA-CON-019 | The Conversion Plan shall include a strategy for data quality assurance and control. | | | | |
| EDWS-DATA-CON-020 | The Conversion Plan shall include an inventory and cross-reference of:<br>Source and target data elements, schema, and metadata. | | | | |
| EDWS-DATA-CON-021 | The Conversion Plan shall include a process for data extraction. | | | | |

# Conversion Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-DATA-CON-022 | The Conversion Plan shall describe all preparatory and/or initiation processes that shall be completed prior to conversion. | | | | |
| EDWS-DATA-CON-023 | The Conversion Plan shall identify if the conversion process will be implemented in phases or stages, and which components will undergo conversion in each phase. | | | | |
| EDWS-DATA-CON-024 | The Conversion Plan shall describe the process for converting reports and imaged documents. | | | | |
| EDWS-DATA-CON-025 | The Conversion Plan shall identify what data related to specific business processes will be converted first. | | | | |
| EDWS-DATA-CON-026 | The Conversion Plan shall identify and describe any part of the conversion process that will be performed manually. | | | | |
| EDWS-DATA-CON-027 | The Conversion Plan shall identify and describe any custom-developed conversion programs that will be needed and their associated performance tuning. | | | | |
| EDWS-DATA-CON-028 | The Conversion Plan shall describe all conversion reporting, control, and balancing outputs. | | | | |
| EDWS-DATA-CON-029 | The Conversion Plan shall define the metrics that will be generated by the conversion process to measure the completeness of conversion. | | | | |
| EDWS-DATA-CON-030 | The Conversion Plan shall identify criteria for a Go/No-Go decision. | | | | |
| EDWS-DATA-CON-031 | The Conversion Plan shall identify a staffing approach. | | | | |
| EDWS-DATA-CON-032 | The Conversion Plan shall identify if parallel runs of the old and new systems will be necessary during the conversion process, or if there will be a one-time cut-over to the new system. | | | | |

# Conversion Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-DATA-CON-033 | The Conversion Plan shall identify whether data availability and use shall be limited during the conversion process. | | | | |
| EDWS-DATA-CON-034 | The Conversion Plan shall describe security and privacy controls required for the conversion process. | | | | |
| EDWS-DATA-CON-035 | The Conversion Plan shall describe the disposition of obsolete or unused data that is not converted. | | | | |
| EDWS-DATA-CON-036 | The Conversion Plan shall identify a retention policy for the non-converted data in case of fallback with a need to rerun the conversion process. | | | | |
| EDWS-DATA-CON-037 | The Contractor shall submit the Conversion Plan for DMAS review and approval. | | | | |
| EDWS-DATA-CON-038 | The Contractor shall provide a walk-through of the Conversion Plan before submitting to DMAS for approval. | | | | |
| EDWS-DATA-CON-039 | The Contractor shall document any revised procedures in the Conversion Plan. | | | | |
| EDWS-DATA-CON-040 | The Contractor shall execute the approved Conversion Plan according to the project schedule. | | | | |
| EDWS-DATA-CON-041 | The Contractor shall convert all historical and transactional data stores that are needed by and applicable to the solution. | | | | |
| EDWS-DATA-CON-042 | The Contractor shall convert all images and other document types that are needed by and applicable to the solution. | | | | |
| EDWS-DATA-CON-043 | The Contractor shall store and manage specified historical data covering a specified time. | | | | |
| EDWS-DATA-CON-044 | The Contractor shall provide hardware, software, and data support for the Department during all phases of conversion. | | | | |

# Conversion Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-DATA-CON-045 | The Contractor shall supply appropriate environments for developing and testing conversion processes. | | | | |
| EDWS-DATA-CON-046 | The Contractor shall provide the capability for storing all conversion-related artifacts in an easily retrievable format for access by DMAS for the life of the contract. | | | | |
| EDWS-DATA-CON-047 | The Contractor shall ensure all data is protected with access restricted to authorized personnel. | | | | |
| EDWS-DATA-CON-048 | The Contractor shall provide the converted data to other DMAS users and/or contractors as required for its processing needs as identified by the Department. | | | | |
| EDWS-DATA-CON-049 | The Contractor shall present a conversion walk-through with Department users, displaying resulting output data in screens of the new MES. | | | | |
| EDWS-DATA-CON-050 | The Contractor shall submit all conversion reports as defined in the Conversion Plan to the Agency for review and approval. | | | | |
| EDWS-DATA-CON-051 | The Contractor, under DMAS guidance, shall be responsible for identifying and obtaining any data that is required for its solution but not present in VAMMIS. | | | | |

# Hardware Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-HDW-001 | The Contractor shall provide two cost proposals relative to the hosting of the EDWS appliance/hardware.<br>Option #1: The first option is that the hardware will be hosted by VITA.<br>Option #2: The second option is the hosting hardware will be determined by the Contractor. The Contractor will provide details of the solution and the location of data.<br>DMAS's preference is to host hardware in VITA and receive support from the Contractor for set up. The intent is to co-locate with SAS servers at VITA to avoid latency issues. In both options, the Contractor will ensure that the solution would provide equal or better performance utilizing the SAS analytics platform that is hosted in VITA (CESC) Chesterfield, VA.<br>The Contractor is required to comply with VITA IT and Security standards and meet DMAS approved SLAs. Please refer 3.b.7 Service Requirements section for additional information. | | | | |
| EDWS-FR-HDW-002 | The Contractor shall provide a solution with simplicity and ease of development and deployment, with minimum/No assembly required, easy integration of hardware, software and storage with shorter deployment cycles and faster time to value. | | | | |
| EDWS-FR-HDW-003 | The Contractor shall provide recommended approach to deliver high performance out of the box hardware solution. DMAS prefers an appliance with minimum/no indexing or tuning capabilities. | | | | |
| EDWS-FR-HDW-004 | The Solution shall integrate with leading ETL, EDWS and analytic applications through standard ODBC, JDBC and OLE DB interfaces. | | | | |

# Hardware Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-HDW-005 | The Contractor shall provide a pre-integrated and tested server, storage, database and built-in analytics capabilities designed, integrated and tuned for high performance analytics. | | | | |
| EDWS-FR-HDW-006 | The Contractor shall provide an asymmetric, massively parallel processing architecture that supports large volumes of data. | | | | |
| EDWS-FR-HDW-007 | The Contractor shall provide in-database analytics functions which can support analysis where the data resides to eliminate costly data movement and yielding high performance. | | | | |
| EDWS-FR-HDW-008 | The Contractor shall provide in-database geospatial analytics which correlate transactional information to a location, enhancing applications such as fraud detection and population healthcare analytics. | | | | |
| EDWS-FR-HDW-009 | The Contractor shall provide in-database SAS execution to improve speed and reliability. | | | | |
| EDWS-FR-HDW-010 | The Contractor shall provide the ability to manage and monitoring performance and activity. | | | | |
| EDWS-FR-HDW-011 | The Contractor shall provide ability to manage security credentials and policies for system and database users with a three dimensional security model. | | | | |
| EDWS-FR-HDW-012 | The Contractor shall provide ability to configure and authenticate users in one of two ways:<br>▪ A Local Authentication<br>▪ An Active Directory Authentication (ADA) | | | | |
| EDWS-FR-HDW-013 | The Contractor shall provide minimum/ no disruption in service when increasing capacity through modification of hardware configuration. | | | | |

# Hardware Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-HDW-014 | The Contractor shall optimize execution of SAS, ESRI and other mathematical functions in the appliance, delivering high performance. | | | | |
| EDWS-FR-HDW-015 | The Contractor shall not share any data without permission as DMAS owns all the data. | | | | |
| EDWS-FR-HDW-016 | The Agency shall have the ability to add any additional networking hardware or increase network throughput without affecting downtime. | | | | |

# Tableau Server Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-TBL-001 | The Contractor shall provide the details for supporting Tableau Server or choose to recommend an alternative BI Solution. If an alternative is recommended, the Contractor shall describe the benefits of using the Contractor's alternatively proposed Solution and describe how they will transition DMAS to the new Solution. | | | | |
| EDWS-FR-TBL-002 | The Contractor shall be required to respond to licensing requirements for up to 200 concurrent users and 30 authors/dashboard designers, in two ways:<br>▪ Per-named-user-basis<br>▪ Core license | | | | |
| EDWS-FR-TBL-003 | The Contractor shall be expected to provide configurable tools for system administration, including access rights, scheduling, and notifications designed for enterprise environments that require various levels of data security. | | | | |
| EDWS-FR-TBL-004 | The Contractor shall be required to provide service that will configure the Tableau server to authenticate users in one of two ways:<br>▪ Local Authentication<br>▪ Active Directory Authentication<br>Permissions can be applied to specific views within a workbook or at the entire workbook level. | | | | |
| EDWS-FR-TBL-005 | The Contractor shall provide easy access and easy configurability to the platform's capabilities. | | | | |
| EDWS-FR-TBL-006 | The Contractor shall ensure that the platform will enable data-driven decision making across the agency and deliver self-service analytics at scale with high availability. | | | | |

# Tableau Server Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-TBL-007 | The Contractor shall ensure that the platform provides administration tools that are easily configurable. | | | | |
| EDWS-FR-TBL-008 | The Contractor shall ensure that the server architecture is scalable from a single server to large multi-server deployments. | | | | |
| EDWS-FR-TBL-009 | The Contractor shall monitor the performance and activity on the Tableau server and manage those attributes for optimal performance. | | | | |
| EDWS-FR-TBL-010 | The Contractor shall provide set-up to support the following web browsers:<br>▪ MS Windows IE 9, IE 10, IE 11, or later; Mozilla Firefox 3.6 or later<br>▪ Linux Mozilla Firefox 3.6 or later | | | | |
| EDWS-FR-TBL-011 | The Contractor shall recommend the operating system to support the Tableau platform. | | | | |
| EDWS-FR-TBL-012 | The Contractor shall recommend hardware specification for asynchronous data loading, e.g., cluster size, RAM, CPU, Hard disk capacity, network capability. | | | | |
| EDWS-FR-TBL-013 | The Contractor shall recommend minimum hardware specifications for the database host: Cluster size, Number of Hosts, RAM, CPU, Hard disk capacity, Network capacity. | | | | |
| EDWS-FR-TBL-014 | The Contractor shall provide installation services and adhere to VITA standards. | | | | |
| EDWS-FR-TBL-015 | The Contractor shall provide cost structure for maintenance for 1 year, 2 years, and 3 years after installation. | | | | |

# Tableau Server Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-TBL-016 | The Solution shall support connecting to any Web Map Service and support geo coding and display your data on a map. | | | | |
| EDWS-FR-TBL-017 | The Contractor shall provide fundamental and advanced training and provide comprehensive documentation. | | | | |
| EDWS-FR-TBL-018 | The Contractor shall be required to collaborate with other MES Contractors when requested by DMAS. | | | | |

# Data Modeling Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-MOD-001 | The Contractor's EDWS shall be generated from either the Atomic Warehouse Model or the Dimensional Warehouse Model. | | | | |
| EDWS-FR-MOD-002 | The Contractor's Methods/techniques shall be used to drive the specification of specific analytical requirements. | | | | |
| EDWS-FR-MOD-003 | The Contractor's model shall support standard domains, e.g., HL7 2.5, X12, SNOMED, LOINC, RxNorm, ICD-9/ICD-10. | | | | |
| EDWS-FR-MOD-004 | The Contractor's Data Model tool shall perform the following tasks:<br>▪ Build a logical data model<br>▪ Build a physical data model based on the logical one<br>▪ Create DDL from the physical data model<br>▪ Build one or more reports that help effectively describe and share the model with others, including business users<br>▪ Present the model in a variety of easy-to-analyze view with capabilities to make the overall look of the model visually appealing | | | | |
| EDWS-FR-MOD-005 | The Contractor's Data modeling tools shall:<br>▪ Be flexible and have the ability to interchange with other tools (example Metadata Interchange with Other Tools)<br>▪ Include a strong set of documentation and online resources, and<br>▪ Feature an intuitive, well-designed user interface<br>▪ Provide editor function that enables users to quickly view and easily update with multiple object types, or multiple properties | | | | |

# Data Modeling Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-MOD-006 | The Contractor's Data Mart structure development shall be driven from the Dimensional Warehouse Model. This layer within the architecture shall be used to manage the data marts and OLAP cubes as needed to meet the requirements of DMAS. The data marts shall use accelerators to provide faster time to market information based on subject areas needed within DMAS including Cohort Analysis. | | | | |
| EDWS-FR-MOD-007 | The Contractor's Independent data mart architecture shall be embraced to share data externally. Stand-alone data marts that are controlled by a particular workgroup, department, or line of business and built solely to meet their needs will be required to control access to sensitive data. | | | | |
| EDWS-FR-MOD-008 | The Solution's EDWS and data mart shall structure the data in a way that would provide the fastest and easiest access to the data and supports different levels of data analysis including:<br>▪ Display: Querying and reporting<br>▪ Analyze: Multidimensional Analysis<br>▪ Discover: Data Mining and advanced statistical analysis | | | | |
| EDWS-FR-MOD-009 | The Contractor's data model Model shall be Multi-Tenant enabled at all layers. | | | | |

# Data Modeling Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-MOD-010 | The Contractor shall provide a data model and a data warehouse solution that addresses data and business process needs of the agency as mentioned in section 3.b.2 Business Area Support, including but not limited to:<br>▪ Standardize data using MITA standards<br>▪ Increase accuracy and consistency of data<br>▪ Increase accessibility through improved standards<br>▪ Store and track data in a centralized location<br>▪ Develop and implement business rules to increase accuracy and consistency<br>▪ Develop procedures and standards to ensure quality improvement and cost management<br>▪ Develop standards that comply with Federal/State defined data standards<br>▪ Develop and implement standards for electronic interchanges<br>▪ Create automated workflows<br>▪ Develop processes that increase efficiency and completion timeframes<br>▪ Increase coordination, consistency, and communication at all stages | | | | |
| EDWS-FR-MOD-011 | The Contractor shall provide a data model which meets the non-functional requirements described in section 3.b.6. | | | | |
| EDWS-FR-MOD-012 | The Contractor shall provide a data model which meets the data modeling requirements mentioned in section 3.b.7 Service Requirements. | | | | |

# Data Integration Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-DI-001 | The Contractor shall provide a landing and temporary processing area for all new enterprise data for the EDWS Data Staging. | | | | |
| EDWS-FR-DI-002 | The Contractor's Data Acquisition Service shall provide efficient, timely access to source data from all relevant operational systems. | | | | |
| EDWS-FR-DI-003 | The Solution shall provide Middleware compatibility which includes: compatibility with industry leading data, application, and messaging middleware. | | | | |
| EDWS-FR-DI-004 | The Solution shall provide recovery of integration after failure, having the ability to successfully roll back a transaction, regardless of size or distribution. | | | | |
| EDWS-FR-DI-005 | The Solution shall provide Performance Monitoring including the ability to see performance metrics of executing processes without degradation. | | | | |
| EDWS-FR-DI-006 | The Solution shall provide the ability to resolve semantic and context conflicts between numerous data sources. | | | | |
| EDWS-FR-DI-007 | The Solution shall provide Synchronization and Data Replication including the ability to accurately reflect data changes in data across multiple data stores. | | | | |
| EDWS-FR-DI-008 | The Solution shall provide Exception Reporting and Notification, including the ability to identify, report and handle exceptions as they occur during integration. | | | | |
| EDWS-FR-DI-009 | The Solution shall include an Administrative Console which provides Software allowing users to see the current state of integration processes during execution, and intercede if necessary. | | | | |
| EDWS-FR-DI-010 | The Solution shall include a Data History Service (Incremental History Store) which will ensure that historical data is preserved for current and future analytical needs. | | | | |

# Data Integration Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-DI-011 | The Solution toolset shall support job scheduling, management and also provide visibility into expected timeframes to complete extract, transform, and load processes. | | | | |
| EDWS-FR-DI-012 | The Solution toolset shall provide detail logging and reporting capability including start and end times for all extract, transform and load jobs/processes that have been planned and scheduled in specified timeframes. | | | | |
| EDWS-FR-DI-013 | The Solution's data integration tool shall be triggered through files, messages, queues, or any other payload as applicable. | | | | |

# Data Quality Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-DQ-001 | The EDWS shall include audit and control processes that will prove that the target EDWS and internal analytic applications were populated accurately and completely. | | | | |
| EDWS-FR-DQ-002 | The EDWS shall ensure that all source data that enters the EDWS is processed through a well-defined data quality process before it can be integrated and published for access by subscribing end users and external systems. | | | | |
| EDWS-FR-DQ-003 | The EDWS shall have automated quality checks and controls to regularly identify inconsistent, incorrect, and redundant values and report the identified data in the form of reports or alerts. | | | | |
| EDWS-FR-DQ-004 | The EDWS shall have the ability to track transaction frequency. | | | | |
| EDWS-FR-DQ-005 | The EDWS shall include audit and control processes that will identify, report, summarize errors/defects in the data residing in the EDWS and the internal analytic applications. | | | | |
| EDWS-FR-DQ-006 | The EDWS shall have controls and routines to analyze and report data values, statistics, frequencies, and ranges on a dashboard that monitors the data quality activities. | | | | |
| EDWS-FR-DQ-007 | The EDWS shall include service-oriented characteristics and support for service-oriented architecture (SOA) deployments related to data quality information. | | | | |
| EDWS-FR-DQ-008 | The EDWS shall have capabilities for creating, managing and deploying data quality rules. | | | | |

# Data Quality Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-DQ-009 | Data quality tools and products shall provide a range of additional functionality that supports many of the data quality core functions, or specific data quality applications. These additional valuable functions include:<br>▪ Ability to interact with range of different data structures<br>▪ Subject-area specific support<br>▪ Metadata Management<br>▪ Capability for creating, managing and deploying data quality rules<br>▪ Operations and Administration<br>▪ Support SOA deployments | | | | |
| EDWS-FR-DQ-010 | The Contractor shall provide a tool that provides data profiling metrics such as completeness, consistency, conformity, integrity, duplication, and accuracy in easy-to-understand reports, charts, graphs, etc. | | | | |
| EDWS-FR-DQ-011 | The EDWS shall provide functionality for attribute-based analysis (for example, minimum, maximum, frequency distribution) and dependency analysis (cross-table and cross-data set analysis). Profiling results will be exposed in either a tabular or graphical form. | | | | |
| EDWS-FR-DQ-012 | The EDWS shall have ability to set quality metrics to provide ongoing data profiling. | | | | |
| EDWS-FR-DQ-013 | The EDWS shall provide the functionality to perform analysis of data to derive statistics that provide insight into the quality, quantity and distribution of data to assist in identifying data quality issues. | | | | |
| EDWS-FR-DQ-014 | The EDWS shall provide capabilities to support automated data profiling activities. | | | | |

# Data Quality Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-DQ-015 | The Contractor shall provide a tool that will offer data profiling capabilities that will obtain comprehensive and accurate information about the content, quality, and structure of data in the source systems as an on-going process. | | | | |
| EDWS-FR-DQ-016 | The EDWS will be expected to have the capability to perform data quality checks at various stages, and the ability to assess data quality before launching into data warehousing build processes and populate structured data into the data warehousing zone. | | | | |
| EDWS-FR-DQ-017 | The EDWS system shall handle common data matching and standardization, address parsing, standardization, verification and geo-coding to improve the quality and consistency of address information and match against local identifiers by source. | | | | |
| EDWS-FR-DQ-018 | The EDWS solution shall provide compatibility with the Data Integration tool. The Contractor will describe how the DQ monitoring tool can be configured so that data loading to destination can be controlled when minimum data quality thresholds are not met. | | | | |
| EDWS-FR-DQ-019 | The EDWS system shall have an Interactive Dashboard providing the ability to gather and visualize statistics about the data and present the results of these profiling and audit processes in an easy to understand executive dashboard. Graphical views will show data quality trends over time. | | | | |
| EDWS-FR-DQ-020 | The EDWS system will have the ability to transform scalable volumes of data on the fly against the defined business rules, providing a flexible and adaptable data quality firewall. | | | | |

# Data Quality Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-DQ-021 | The Contractor shall provide details about their recommended approach to monitor data quality dimensions listed below –<br>▪ Validity: Are all data values within the value domains specified by the business?<br>▪ Accuracy: Does data reflect the real-world objects or a verifiable source?<br>▪ Consistency: Is data consistent between systems? Do duplicate records exist?<br>▪ Integrity: Is data consistent between systems? Do duplicate records exist?<br>▪ Timeliness: Is the data available at the time needed?<br>▪ Completeness: Is necessary data present? | | | | |
| EDWS-FR-DQ-022 | The Solution shall enable and the Contractor shall facilitate establishment of business rules and policy, Key Performance Indicators (KPI), and data quality thresholds. | | | | |
| EDWS-FR-DQ-023 | The Contractor shall provide the capability to identify full, partial, and potential duplicates encounters/claims based on criteria to be defined by DMAS. | | | | |

# Master Data Management Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-MDM-001 | The Contractor shall provide a profile function-Including the ability to perform a quality assessment, detect anomalies, and highlight issues in enterprise data assets. It shall also Identify the source schemas for master data which may be structured or unstructured data. | | | | |
| EDWS-FR-MDM-002 | The Contractor shall provide the functional ability to create a common model for data from multiple sources that may iterate over time to accommodate changes and ongoing modifications. Master Data Model shall be created to cater the entire reference data requirement and the changes to the model will be monitored. | | | | |
| EDWS-FR-MDM-003 | The Contractor shall be required to acquire data from multiple sources, synchronize, format, and make available. | | | | |
| EDWS-FR-MDM-004 | The Contractor shall provide the ability to cleanse, standardize and augment data as well as remove duplicates and create an accurate master across and within sources. | | | | |
| EDWS-FR-MDM-005 | The Contractor shall provide a governing function that will:<br>▪ Institute process controls that shall provide a systematic approach to improved data quality<br>▪ Enable users to collaborate on, agree, and publish a set of accepted master data<br>▪ Establish a common understanding and publish highly accurate, reliable master data set for domain across DMAS. | | | | |

# Master Data Management Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-MDM-006 | The Contractor shall provide a Master Data Management solution that drives improved data quality of patients/members, providers, organizations, facilities, locations, and other key master domain data within the Enterprise. | | | | |
| EDWS-FR-MDM-007 | The Master Data Management solution shall use advanced techniques (such as probabilistic matching) to connect disparate pieces of patient/member, provider and organization information across multiple sources, into a single, actionable view within the Enterprise. | | | | |
| EDWS-FR-MDM-008 | The Master Data Management solution shall enhance the EDWS repository with automated matching and linking of members and providers as well as maintaining the relationships between them. | | | | |
| EDWS-FR-MDM-009 | The Master Data Management solution shall generate a single trusted view of each provider, (whether that provider is an individual doctor, nurse or home health worker or an organization clinic, lab, or practice location). | | | | |
| EDWS-FR-MDM-010 | The Master Data Management solution shall drive integrity initiatives and identification of fraud and waste. | | | | |
| EDWS-FR-MDM-011 | The Master Data Management solution shall create a master virtual repository of provider information that integrates trusted data sources from across claims, encounters, and services. | | | | |
| EDWS-FR-MDM-012 | The Master Data Management solution shall be expected to facilitate creating “golden records”. | | | | |
| EDWS-FR-MDM-013 | The Master Data Management solution shall establish a common understanding and publish highly accurate, reliable master data set for domains across DMAS. | | | | |

# Master Data Management Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-MDM-014 | The Master Data Solution Model shall be created to cater the entire reference data requirement and the changes to the model will be monitored. | | | | |
| EDWS-FR-MDM-015 | The Master Data Management solution shall be capable of consuming web services, asynchronous messages, and supporting various formats of consumption including but not limited to JSON, XML, SOAP, MIME, X12, and HL7. | | | | |
| EDWS-FR-MDM-016 | The Solution model shall support standard algorithms, such as SOUNDEX, NYSIS, and enable standardizing names: e.g., William and Bill. | | | | |

# Disaster Recovery Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-NFR-DR-001 | The Contractor shall prepare and submit for Department approval a comprehensive Disaster Recovery Plan due to the Department on an annual basis and after a substantive change to the EDWS that would require revision to the DR Plan. | | | | |
| EDWS-NFR-DR-002 | The Contractor shall provide back-up processing capability at a remote site from the primary site such that normal EDWS processing can continue in the event of a disaster or major hardware problem at the primary site. All operations at the remote back-up site will meet established contractual performance and SLA requirements. | | | | |
| EDWS-NFR-DR-003 | The Contractor shall coordinate with and demonstrate to the Department the Contractor's disaster recovery capabilities in accordance with SLAs. The Contractor will include recovery of any new functionality implemented during the previous year. | | | | |
| EDWS-NFR-DR-004 | The Contractor shall, in the event of a catastrophic (i.e. possibility of crimes, terrorism, hackers, intentional torts, human error, virus, etc.) or natural disaster, resume normal operational business functions at the earliest possible time in accordance with specified SLAs and according to the Department-approved disaster recovery plan. | | | | |
| EDWS-NFR-DR-005 | The Contractor shall, in the event of other disasters caused by such things as criminal acts, human error, malfunctioning equipment, computer viruses, or electrical supply, resume normal business functioning at the earliest possible time, in accordance with SLAs. | | | | |
| EDWS-NFR-DR-006 | The Contractor shall plan and coordinate disaster recovery activities with Department-approved business partners. | | | | |

# Disaster Recovery Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-NFR-DR-007 | The Contractor shall coordinate with and demonstrate to the Department the Business Continuity and Contingency Plan every calendar year in conjunction with the annual disaster recovery demonstration. | | | | |
| EDWS-NFR-DR-008 | The Contractor shall leverage and use the LAST environment as the Disaster Recovery site for the EDWS. The extent to which the primary site cannot be restored in accordance with SLAs, may determine that the recovery site be considered the new primary site. | | | | |
| EDWS-NFR-DR-009 | The Contractor shall, upon notification by DMAS that the primary production site is deemed inoperable, execute the Disaster Recovery Plan. | | | | |
| EDWS-NFR-DR-010 | The Contractor shall provide back-up network connectivity at both the primary Production and Disaster Recovery sites with the capacity to support EDWS and its components. | | | | |
| EDWS-NFR-DR-011 | The Contractor shall ensure that the DRP is available to Commonwealth and Federal auditors at all times. | | | | |
| EDWS-NFR-DR-012 | The Contractor shall establish, in cooperation with DMAS a hierarchy of critical services and infrastructure to determine the order that services will be restored. | | | | |
| EDWS-NFR-DR-013 | The Contractor shall maintain a DRP that provides for the recovery of critical EDWS services in accordance with SLAs of the discovery of the service disruption, the declaration of a disaster or EDWS Production site becoming unsafe or inoperable. | | | | |
| EDWS-NFR-DR-014 | The Contractor shall maintain or otherwise arrange for a disaster recovery site for its system operations in the event of a disaster that renders the EDWS Production site inoperable. | | | | |

# Disaster Recovery Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-NFR-DR-015 | The Contractor shall modify the DRP, software installation procedures and operational procedures as needed to reflect the changes implemented with new data sources, system changes, or any enhancements that will impact the disaster recovery capability. | | | | |
| EDWS-NFR-DR-016 | The Contractor shall perform an annual review of the disaster recovery back-up site, procedures for all off-site storage and validation of security procedures. | | | | |
| EDWS-NFR-DR-017 | The availability schedules and corresponding SLAs for the Production EDWS shall apply to the disaster recovery environment when fulfilling the Production role. | | | | |
| EDWS-NFR-DR-018 | The Contractor's DRP test shall be performed, each year at no additional cost to DMAS. In the event the Contractor's test is deemed by HHS to be unsuccessful, the Contractor shall continue to perform the test at its expense until satisfactory results are received and approved by DMAS. | | | | |
| EDWS-NFR-DR-019 | The Contractor shall develop, maintain and submit to DMAS, in advance, all proposed off-site procedures, locations and protocols for DMAS review and approval prior to implementation. These items shall be incorporated by the Contractor as components of the Disaster Recovery Plan (DRP). | | | | |
| EDWS-NFR-DR-020 | The Contractor shall execute a disaster recovery test to demonstrate the capability of the Contractor to restore processing capability in accordance with the DRP and for all critical system components at a remote site. The DRP test shall be included as a part of Acceptance Testing. The length of the test shall be the amount of time that is necessary to recover from the disaster and provide proof that the recovery has been successfully completed. | | | | |

# Disaster Recovery Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-NFR-DR-021 | In the event of disaster, full EDWS functionality shall be restored in accordance with SLAs. Critical EDWS functions are defined as daily ETL refresh cycle and basic access to published data (querying, reporting, data analysis, web services, and web portal). | | | | |
| EDWS-NFR-DR-022 | The Contractor shall take all precautions to ensure that EDWS system interruptions in service, resulting from a Production hardware failure, data corruption or a disaster that renders the Contractor's primary computer facility unusable are avoided. | | | | |
| EDWS-NFR-DR-023 | If the EDWS Production site becomes unavailable during the contract period, the Contractor shall be required to move EDWS operations to the disaster recovery site. In this event, the Contractor shall not be allowed to return to the original EDWS Production site without approval of DMAS. | | | | |
| EDWS-NFR-DR-024 | The Contractor's disaster recovery test shall include the processing of one weekly ETL cycle and one daily ETL cycle as in place at the time of the test, and will involve all major EDWS functions including data acquisition, data access (Web portal, business intelligence capabilities), and data delivery.<br>A report summarizing disaster recovery test results shall be provided to DMAS in accordance with SLAs. This report will include remediation steps taken to resolve any issues discovered during the test. | | | | |
| EDWS-NFR-DR-025 | The Contractor shall comply with all SLAs that are relevant to Disaster Recovery Requirements. | | | | |

# Disaster Recovery Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-NFR-DR-026 | The Contractor's Disaster Recovery Plan shall adhere to Commonwealth and Federal laws, rules, regulations, and guidelines, will address recovery of EDWS functions, human resources and the technology infrastructure and shall include:<br>▪ Checkpoint/restart capabilities<br>▪ Retention and storage of back-up files and software<br>▪ Hardware back-up for the servers<br>▪ Hardware back-up for data entry<br>▪ Network back-up for telecommunications<br>▪ Telephone communications lines to the disaster back-up site<br>▪ Recovery prioritization list (hardware and software applications)<br>▪ Telecommunication Voice Switch | | | | |
| EDWS-NFR-DR-027 | The Contractor's Disaster Recovery Plan shall include detailed procedures to address (but not be limited to) the following potential events:<br>▪ Natural disasters (e.g., earthquake, fire, flood, storms)<br>▪ Terrorist acts<br>▪ Power disruptions or power failure<br>▪ Computer software or hardware failures<br>▪ Computer shutdown due to hackers or viruses<br>▪ Significant compromises/degradation of EDWS performance<br>▪ Processing shutdowns | | | | |
| EDWS-NFR-DR-028 | The Contractor shall coordinate with VITA to meet the minimum geographic offsite location requirement of 100 miles between the disaster recovery site and the Production environment site. | | | | |

# Training Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SR-TRN-001 | The Contractor shall work with DMAS to analyze, define, and tailor training to each specific user role and group. | | | | |
| EDWS-SR-TRN-002 | The Contractor shall submit to DMAS for approval, all training plans which address the training needs for each user group and role. | | | | |
| EDWS-SR-TRN-003 | The Contractor shall provide hands on training to the DMAS user community prior to each EDWS release. | | | | |
| EDWS-SR-TRN-004 | The Contractor shall conduct initial onsite training for each EDWS release in Richmond Virginia to train essential Department staff that will use the EDWS and the newly developed reports. | | | | |
| EDWS-SR-TRN-005 | The Contractor shall develop a multi-tier training curriculum to educate Department staff on the use of the EDWS and the use of the reporting tool, using Department defined user proficiency levels from Basic to Super. | | | | |
| EDWS-SR-TRN-006 | The Contractor shall provide a computer-based training (CBT) course for each EDWS release for new employees and existing staff. | | | | |
| EDWS-SR-TRN-007 | The Contractor shall procure a training facility and related resources at no cost to the State, if Commonwealth facilities are not available. | | | | |
| EDWS-SR-TRN-008 | The Contractor shall be required to provide a fully qualified, expert user of the EDWS and reporting tool, for Department staff training. | | | | |
| EDWS-SR-TRN-009 | If the Contractor sponsors training courses, symposiums, or users' conferences, the registration fee shall be waived for the attendance of essential DMAS staff. These sponsored training(s) will be identified in the training plan. | | | | |

# Training Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SR-TRN-010 | The Contractor shall provide ongoing training and update CBT courses to address system or functionality changes for the EDWS. | | | | |
| EDWS-SR-TRN-011 | The Contractor shall equip the training and resource center, including classroom training facilities to accommodate stand-up instructor-led sessions, with effective learning environment and tools. | | | | |
| EDWS-SR-TRN-012 | The Contractor shall equip the training facility for an effective and accessible learning environment with all necessary educational equipment to provide effective training, complete with desks, chairs, computers, tables, whiteboard, flip charts and access to electronic information. | | | | |
| EDWS-SR-TRN-013 | The Contractor shall furnish and maintain appropriate hardware, software and telecommunications to support the development, maintenance and presentation of training program(s). | | | | |
| EDWS-SR-TRN-014 | The Contractor shall use DMAS approved training media including, but not limited to, teleconferencing, Web-based and computer-based training. | | | | |
| EDWS-SR-TRN-015 | The Contractor shall comply with all SLAs that are relevant to this section. | | | | |

# Metadata Management Toolset Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-MET-001 | The Metadata toolset shall provide the capability to identify, capture, retain, analyze, and publish information that provides detailed knowledge about the characteristics and behavior about business and technical processes and their associated data. | | | | |
| EDWS-FR-MET-002 | The Contractor shall provide a unified and shared metadata repository supporting end-to-end information lifecycle management and data governance. At a minimum, the following are the metadata categories that the respondents will address in their proposals:<br>▪ Business Metadata Repository<br>▪ Technical Metadata Repository<br>▪ ETL Technical metadata<br>▪ Quality Metadata Repository<br>▪ Operational Metadata Repository<br>▪ Security Metadata Repository<br>▪ End User Metadata Repository | | | | |
| EDWS-FR-MET-003 | The Contractor's Business Glossary shall provide business vocabulary and technical definitions across data elements. | | | | |
| EDWS-FR-MET-004 | The Contractor shall provide metadata capabilities to maintain and visualize data lineage from sources to reports, including explanation of how the tool will help perform impact analysis when changes need to be implemented. | | | | |

# Metadata Management Toolset Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-MET-005 | Data lineage captured from metadata shall:<br>▪ Provide data flow from origin to destination<br>▪ List rules and transformation for each flow<br>▪ Enable "what-if analysis" for change in an ETL flow<br>▪ Help identify right source and optimum data flow for any new requirement<br>▪ Provide meaning of specific field in a report<br>▪ Eliminate data redundancy and ensure completeness<br>▪ Provide information on report usage<br>▪ Identify data quality index associated with a data element, thus increasing the trust factor<br>▪ Provide operational metadata | | | | |
| EDWS-FR-MET-006 | All metadata in the Solution and databases shall be made secure. Access shall be granted based on authorized approval to tools and repositories of metadata to users. | | | | |
| EDWS-FR-MET-007 | The Contractor shall maintain the capability to employ data masking and obfuscation to replace sensitive data and shall ensure masked/obfuscated data is realistic-looking and has the same type and characteristics as the original data. | | | | |

# Contractor Support Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SR-VS-001 | The Contractor shall supply all necessary project resources in order to provide adequate project support 24/7/365 days per year. The Contractor shall either set up a facility in Richmond or co-locate with DMAS staff for key personnel. DMAS will determine the staffing requirements based on the phase of the project and effectiveness of the Contractor team. The operations facility shall provide the infrastructure necessary to support all required Department staff functions. | | | | |
| EDWS-SR-VS-002 | The Contractor shall utilize VITA issued laptops and have to be physically present in Richmond, Virginia to collect the laptops after completing identification screening.<br>Upon DMAS request, the Contractor shall be able to provide computers with connectivity to the State server, internet and phone access for each employee, telecommunications, and tech support to staff. Those computers shall have suitable, sufficient processor speed, memory and hard drive space to operate and support the current release of Microsoft's operating system and Office Suite software, as well as any additional equipment and software necessary to access and utilize EDWS functions. All equipment at the Contractor's operations facility to which staff shall be assigned, shall have equivalent standards as those defined by VITA. | | | | |

# Contractor Support Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SR-VS-003 | The following minimum activities shall also be performed at the Contractor's primary project site:<br>▪ Contract administration/housing key personnel<br>▪ Project Coordination<br>▪ Joint application design (JAD) and review sessions<br>▪ Demonstrations of design prototypes<br>▪ Discussion and presentations of proposed system design changes<br>▪ Deliverable walkthroughs<br>▪ Technical and user support help desk functions<br>▪ System testing task walkthroughs<br>▪ User acceptance test support<br>▪ Implementation planning<br>▪ Transition management support<br>▪ Regularly scheduled and DMAS-requested training sessions<br>The Contractor shall accommodate these activities in accordance with the release schedule. | | | | |
| EDWS-SR-VS-004 | The Contractor shall provide a solution for multi-layered production support based on response time and severity. The Contractor will include details about support for EDWS and reporting. | | | | |
| EDWS-SR-VS-005 | The Contractor shall be solely responsible for obtaining all permits, approvals, licenses, certifications and similar authorizations required by any local, State or Federal entities for the project and maintaining them throughout the duration of the contract. | | | | |
| EDWS-SR-VS-006 | The Contractor shall protect equipment from physical risks, including but not limited to power failures and other electrical anomalies. | | | | |

# Contractor Support Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SR-VS-007 | The Contractor may perform functions, including computer processing, outside of Virginia but must perform the functions within the continental United States. | | | | |
| EDWS-SR-VS-008 | The Contractor shall comply with all SLAs that are relevant to this section. | | | | |
| EDWS-SR-VS-009 | The Contractor shall provide all professional services listed in section 3.b.7 Service Requirements and shall manage resources and skill sets accordingly. Contractor shall provide appropriate implementation and post implementation services during multiple phases of the project as described in section 3.b.1 Release Scoping. | | | | |
| EDWS-SR-VS-010 | The Contractor shall implement required Federal and Medicaid reports including but not limited to the CMS required reports listed in Appendix K. | | | | |
| EDWS-SR-VS-011 | The Contractor shall provide support to transition current reports to the new EDWS platform. Additionally the Contractor shall provide support to develop new canned reports, dashboards and ad-hoc reports as determined by DMAS during project lifecycle. | | | | |

# Hours of Operation Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SR-HOP-001 | The Contractor shall provide secure, on-line role-based access for inquiries, reporting, updates and submissions to the EDWS and ancillary applications for authorized users from 6:00AM-8:00PM (Eastern Time), Monday through Friday, excluding official Commonwealth of Virginia closed holidays. The Contractor shall notify and obtain approval from the Department prior to scheduling non-emergency system downtime/maintenance during these times. Expected system uptime is 24*7*365 days a year. Any outage for maintenance shall be planned ahead and approved by normal Change Management approval process. | | | | |
| EDWS-SR-HOP-002 | The Contractor shall provide a process for requesting access to the EDWS during special circumstances depending on legislative and/or other circumstances. This may require platform availability and EDWS Operational support staff outside of the above business hours including weekends. When possible, DMAS will provide notification to the Contractor three (3) business days prior to requiring operations outside of the standard hours. | | | | |
| EDWS-SR-HOP-003 | The Contractor shall provide network availability in accordance with SLAs. | | | | |
| EDWS-SR-HOP-004 | The Contractor shall comply with all SLAs that are relevant to this section. | | | | |

# EDWS Performance Standards Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-PERF-STD-001 | Solution performance data shall be kept online for 2 years. | | | | |
| EDWS-PERF-STD-002 | The Solution shall pass the Commonwealth's security assessments based on the Commonwealth and federal security requirements. | | | | |

# Job Scheduling Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-FR-JS-001 | Data access component shall provide the capability to schedule reports to be run immediately or scheduled in the future, based on time or event trigger. | | | | |
| EDWS-FR-JS-002 | Data access component shall provide the capability to schedule reports for execution and route the result sets automatically to select addressees through e-mail. | | | | |
| EDWS-FR-JS-003 | Job scheduling and workflow management software shall be required to support all end to end EDWS job process components including data acquisition, data quality checks, data transformations and data publishing. | | | | |
| EDWS-FR-JS-004 | Job scheduling tools shall permit capture of operational metadata. | | | | |
| EDWS-FR-JS-005 | Job scheduling tools shall have restart/recovery processing capability for any job process components which may be interrupted by software or hardware failure. | | | | |

# Non-Functional Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-NFR-MD-001 | The Contractor shall provide conformance capability by common EDWS aspects presented in identically the same way across the entire EDWS specification. | | | | |
| EDWS-NFR-MD-002 | The Contractor shall adequately and efficiently integrate operational information. | | | | |
| EDWS-NFR-MD-003 | The Contractor shall determine the loading periodicity that offers best tradeoff between user requirements and environment restrictions and update data with a frequency that meets business needs in a timely manner. | | | | |
| EDWS-NFR-MD-004 | The Contractor shall create database model, data marts etc., for provisioning access to users at different levels both internal and external to the agency for querying data. | | | | |
| EDWS-NFR-MD-005 | The Contractor shall efficiently model the EDWS and create sound data descriptions. | | | | |
| EDWS-NFR-MD-006 | The Contractor shall build a multidimensional architecture that entails accessing external and internal information under strict time and quality control constraints. | | | | |
| EDWS-NFR-MD-007 | The Contractor shall design multidimensional data model that is stable, flexible to changing business practices, extensible to changing business needs and that can handle the diversity of Medicaid data without sacrificing ease of use or performance. | | | | |
| EDWS-NFR-MD-008 | The Contractor shall integrate operational data on a timely basis and utilize business modeling techniques that contribute to increase data interpretability. | | | | |
| EDWS-NFR-MD-009 | The Contractor shall provide a solution which meets the non-functional requirements described in section 3.b.6 Non-Functional Requirements including performance, Security, Multidimensionality, Scalability, Maintainability, Extensibility, Usability, Backup, Recovery & Archive, and Data Retention. | | | | |

# Post-Implementation Support Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SR-POST-001 | The Contractor shall provide post-implementation support after every release and until 6 months after ETL for all source applications is established. | | | | |
| EDWS-SR-POST-002 | The Contractor shall provide cost estimate for three (3) years of maintenance after implementation of all phases of EDWS. | | | | |
| EDWS-SR-POST-003 | The Contractor shall provide support for all general activities and tasks including operations, administration, maintenance and technical support for the EDWS. | | | | |
| EDWS-SR-POST-004 | The Contractor support will include ongoing administration required to manage software updates and patches, data partitioning, indexes, statistics updates, file vacuuming, and scaling. | | | | |
| EDWS-SR-POST-005 | The Contractor shall be required to provide system maintenance which will include at a minimum:<br>▪ Data Maintenance activities for table updates<br>▪ Activities necessary to correct deficiencies<br>▪ Activities necessary to meet performance requirements<br>▪ Activities necessary to ensure data, tables, programs, and documentation are current<br>▪ Changes to scripts or system parameters concerning frequency, number, sorting, and media of reports<br>▪ Addition of new values or changes | | | | |
| EDWS-SR-POST-006 | The Contractor shall provide Level 3 support for those capabilities released into production. | | | | |
| EDWS-SR-POST-007 | The Contractor shall provide support responsible for handling the most difficult or advanced problems (Level 3) via the Contractor's Operational Support Team. Level 3 supports might include providing solutions to new or unknown issues. | | | | |

# Post-Implementation Support Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SR-POST-008 | The Contractor shall be responsible for Higher level diagnosis and action when problems are escalated from Level 1 or Level 2 support. | | | | |
| EDWS-SR-POST-009 | The Contractor shall be available at the Vendor's facility and provide support in accordance with Service-Level Agreements (SLAs). | | | | |
| EDWS-SR-POST-010 | The Contractor shall provide a process for requesting on-site support during special circumstances depending on legislative and/or other circumstances. | | | | |
| EDWS-SR-POST-011 | Knowledgeable support personnel shall be available via a toll-free number during normal business hours. The Contractor shall maintain sufficient telephone lines and personnel so that no more than five percent (5%) of incoming calls within a month meet the following conditions:<br>▪ Ring busy<br>▪ On-hold for more than two (2) minutes<br>▪ Call not answered within ten (10) rings | | | | |
| EDWS-SR-POST-012 | The Contractor support shall include, but is not limited to, ETL job scheduling and monitoring, defect tracking and resolution, developing specialized reports, developing alternative ways to group, present, or otherwise. | | | | |

# Reporting Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-RPT-001 | The Contractor supplied reporting tool shall include the ability to conduct:<br>▪ Ad hoc queries<br>▪ Pre-defined reports<br>▪ Geographical mapping<br>▪ Statistical analysis<br>▪ Data mining<br>▪ Clinical analysis | | | | |
| EDWS-RPT-002 | The EDWS shall provide the means for completing reports necessary to meet Federal and Commonwealth rules and regulations for surveillance and utilization review activities as well as program information for legislators, decision makers, and the public. | | | | |
| EDWS-RPT-003 | The EDWS shall provide the ability to produce reports using ad hoc queries and/or pre-defined report parameters, or support the use of SAS and other BI/Visualization tools external to the EDWS. | | | | |
| EDWS-RPT-004 | The Contractor supplied reporting tool shall provide the capability to identify anomalous or outlier data. | | | | |
| EDWS-RPT-005 | The reporting tool shall have the capability to analyze characteristics of individual record instances to assign it to a category. | | | | |
| EDWS-RPT-006 | The reporting tool shall have the capability to combine data on multiple dimensions to reveal proximity in two or more dimensions. | | | | |
| EDWS-RPT-007 | The reporting shall have the capability to analyze associations between specific instances of underlying data. | | | | |

# Reporting Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-RPT-008 | The reporting tool shall have the ability to substitute and score words and phrases using wildcards and weighing, stemming to identify root words, etc. | | | | |
| EDWS-RPT-009 | The reporting tool shall have the capability to utilize keyword extraction, language support, etc. for text mining. | | | | |
| EDWS-RPT-010 | The reporting tool shall have the ability to automatically roll up the terms/texts to the highest value based on weights in a document. | | | | |
| EDWS-RPT-011 | The reporting tool shall have the capability to generate summary statistics for various usages including but not limited to words that are searched for often, frequently replaced words, etc. | | | | |
| EDWS-RPT-012 | The reporting tool shall be able to handle large datasets with a wide range of variables and attributes to examine the broadest range of correlations while minimizing variance and estimation errors. | | | | |
| EDWS-RPT-013 | The reporting tool shall provide the ability to manipulate data through scoring, grouping, classification, clustering, and segmentation. | | | | |
| EDWS-RPT-014 | The reporting tool shall have the ability to summarize grouping functions such as count, max, min, sum, average, standard deviation, etc. | | | | |
| EDWS-RPT-015 | The reporting tool shall support the clustering, decision trees, linear regression, logistical regression, Chi-square, analysis of variance and sequence clustering analysis, etc. | | | | |
| EDWS-RPT-016 | The reporting tool shall provide the capability to estimate goodness of fit, skewness, kurtosis, normality, collinearity, heteroscedasticity, etc. | | | | |

# Reporting Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-RPT-017 | The reporting tool shall provide the ability to perform categorical data analysis, basket analysis and support cluster analysis. | | | | |
| EDWS-RPT-018 | The reporting tool shall have the flexibility to produce reports of varying levels of detail from high-level to detailed ones that support drill-down capabilities, multiple cross-tabulations (e.g., by demographics, geography and managed care plan), sub setting, modeling, and forecasting. | | | | |
| EDWS-RPT-019 | The reporting tool shall provide an online audit trail for all additions, changes, or updates to system data that identifies the responsible user or process, date and time of change, and the status of the record. | | | | |
| EDWS-RPT-020 | There shall be confirmation that no records processed or loaded to the Contractor's production application or environments are physically deleted. | | | | |
| EDWS-RPT-021 | There shall be confirmation that the Contractor will obtain DMAS approval prior to archiving data from production applications or environments. | | | | |
| EDWS-RPT-036 | The Contractor shall provide capability to distinguish member waiver participation and flag correlated encounter transactions to enable reporting based on the requirements provided by Business. | | | | |
| EDWS-RPT-037 | The Contractor shall provide an extract from EDWS based on criteria to be defined by DMAS to support shadow price of encounters on an ad hoc basis. Additionally, reload the shadow priced encounters back to EDWS. | | | | |
| EDWS-RPT-038 | The Contractor shall provide an automatic mechanism to compare MCO payments for services against Medicaid-defined pricing (e.g., shadow pricing). | | | | |

# Reporting Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-RPT-039 | The Contractor shall provide the capability to collect and load additional data such as service authorization, remittance advice, etc. | | | | |
| EDWS-RPT-040 | The Contractor shall provide capability to produce quality and compliance reports to support SLAs and help adherence to contracts. | | | | |

# System Backup and Recovery Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-SBR-001 | The Contractor shall maintain and operate the EDWS to the standards required to pass periodic reviews as may be conducted by CMS State Contracted Independent Audits in accordance with Commonwealth and Federal laws, rules, regulations, and guidelines. | | | | |
| EDWS-SBR-002 | The Contractor shall develop standards and policies that follow national and Commonwealth standards and requirements, including requirements for interoperability among systems. | | | | |
| EDWS-SBR-003 | The Contractor shall provide knowledgeable and skilled staff to operate, maintain, and enhance the EDWS. | | | | |
| EDWS-SBR-004 | The Contractor shall maintain sufficient staff to perform all contract requirements within Department defined timeframes and according to SLAs. | | | | |
| EDWS-SBR-005 | The Contractor shall perform the system operations tasks and activities with staff that is separate and distinct from the staff needed to perform the System Maintenance and Modification tasks. | | | | |

# Meeting Space Requirements

| Requirement ID | Requirement | Compliant? | Availability | Date | Proposal Mapping |
|---|---|---|---|---|---|
| EDWS-MTG-001 | The Contractor shall provide appropriate space to conduct meetings during the DDI phase that require DMAS staff attendance, including but not limited to JADs, walkthroughs, and team meetings. The space would ideally be within walking distance of the DMAS offices, but must be no more than 3 miles from 600 East Broad Street. Include the number of sessions, length of sessions, and capacity in your proposal. The proposed meeting space should be fully functional to ensure productivity, including but not limited to accommodate teleconferences, connectivity for WebEx meetings, projector equipment and white boards. | | | | |