

Requirement Section	Requirement ID	Applies to which services	Requirement Description	HHS Tech Group Detailed Response
Testing	TEST01	Applies to all	At a minimum, the Supplier and/or services shall provide sufficient segregated environments to support testing as determined by the agency; such as: Integration Testing, System testing Regression Testing, Parallel Testing, Performance and Load Testing and User Acceptance Test.	Confirmed. Separate, distinct environments will be set up during the implementation to support all required testing. This is part of HHS Tech Group's standard protocol in our implementations today. All required test types will be performed and will be repeated as necessary prior to implementing a new release in order to ensure that our Ryl solution is functioning properly. Please see additional information on environments in our response to Question #8 within this document, Exhibit 6. Ryl's Proposed Environments within this document, and Attachment 8h1. Environments included with our submission for a sample of documentation describing Environments that may be used on a project. If additional environments other than those listed our needed, HHS Tech Group will work with the Agency's Tech Team for a solution.
Testing	TEST02	Applies to all	The Supplier must identify and resolve interdependencies that restrict or impede required testing of the Supplier's solution, other enterprise modules, or module components from performing required testing. Unless otherwise identified by the State strategies to resolve interdependencies must be reviewed and approved by the State prior to implementing the resolution strategy.	Confirmed. All known interdependencies will be documented, noted within the Master Test Plan, and discussed in advance with the Agency. This will ensure that proactive steps and planning with other stakeholders can occur to resolve any interdependency issues so that testing can be conducted on time.
Testing	TEST03	Applies to all	The Supplier shall perform testing and present the results for the test levels as defined by the agency: e.g. Performance Test results, System Test results, Parallel Test results, Regression Test results, Integration Test results. Test results shall be traced to the use case/user story and design documentation being tested.	Confirmed. As part of our best practices, tests are conducted based on identified and documented use cases/user stories. All test plans, documented information, and test results will be provided to the Agency.
Testing	TEST04	Applies to all	The Supplier shall provide sufficient environments and resources for the following: a. Synchronize the software and the data from the production environment and testing and impact analysis environment at a minimum on a quarterly basis or at the discretion of the agency. b. Synchronize the software and the data from the production environment and training environment following software deployments. c. Provide a fully functioning online test environment, which includes batch and online programs, files, and supporting systems. d. Provide technical and functional support to create and analyze "what-if" scenarios and compare results between scenarios in the impact analysis environment. Provide an analysis of outcomes in impact analysis environment and another environment, such as production or test. e. Provide State, Supplier, and IV&V staff a minimum of read-only access to all environments and tools. f. Provide sufficient resources to support the execution of automated regression testing. h. Provide comparative analysis support of regression testing results. i. Conduct testing of approved system configuration changes, corrections or enhancements or before implementation. j. Allow agency resources and Suppliers designated by the agency to create and edit appropriate data to support testing efforts, including provider, member, and reference data.	Confirmed. All environments will be set up during the implementation. HHS Tech Group will ensure appropriate software and data synchronization is set up and ready for use so that test results are accurate and reflective of the experience the end user will have in the production environment. HHS Tech Group staff will ensure that all environments are running efficiently, including a fully functioning online test environment. These environments will provide flexibility in completing any impact analysis on "what-if" scenarios. Environment access and tools will be set up during the implementation with identified, permissioned users. This will include access by department or contractor resources for the purposes of assisting with testing efforts. Continual evaluations of staffing levels will occur throughout the implementation and the lifetime of the contract to ensure sufficient testing staff are continually available, particularly during periods such as regression testing, parallel testing, and for comparative analysis of regression testing results. Once in production, any subsequent changes, enhancements, or other modifications to the system will be run through extensive testing (and change management) prior to being pushed to the production environment.
Testing	TEST05	Applies to all	The Supplier shall ensure, in order to release code to UAT or production, it must meet the minimum acceptable defect levels (as determined by the Agency).	Confirmed. Before releasing into production, HHS Tech Group will ensure all critical and high defects are resolved. Any minor defects reserved for later correction will be documented, aligned with acceptable defect levels, and approved by the Agency.
Testing	TEST06	Applies to all	The agency plans to perform UAT on all software releases as part of the contract. The Supplier's approach to establishing testing environments should not impact the agency's ability to conduct continuous UAT in a separate, dedicated environment.	Confirmed. A separate UAT environment will be provided to the Agency throughout the course of the implementation in order to support all UAT efforts. Except for scheduled releases and maintenance periods, the UAT environment will be available for scheduled testing by the approved users. Support for UAT will be provided during normal working project hours, Monday through Friday, excluding designated holidays.

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Testing	TEST07	Applies to all	The Supplier shall facilitate UAT as defined by the agency, such as: a. Provide test cases and scripts b. Assist the agency in developing UAT test cases. c. Provide a dedicated UAT environment to the agency and maintain the environment as needed to support continuous UAT throughout design, configure/build and testing. d. Refresh data, execute processes, and migrate releases or code fixes as requested or on an agreed-upon schedule. e. Provide test data. f. Provide a mechanism for the agency to enter defects into the online defect-tracking tool.	Confirmed. To ensure joint success in all UAT activities, HHS Tech Group will ensure the prompt supply of all materials, data, configurations, and other support as needed. HHS Tech Group brings firsthand experience from other States in leading Agency administrators and internal users through the UAT process. For example, our team led and managed UAT, guiding the State in the building of Minnesota's State-based exchange. In supporting the Agency in UAT, our team will ensure the following: a. Test cases will be stored in the project repository for reusability. b. We have found that leveraging Functional Test Cases may be helpful, but that it is often not sufficient as users have varied permutations in approach and perspective. To that end, HHS Tech Group shall deliver a Pre-UAT user orientation to address UAT. The purpose of this orientation is to provide guidance on the knowledge and skills required to develop test scripts, review the testing scope, document test results, and educate end users on access and other administrative procedures. c. Except for scheduled releases and maintenance, the UAT environment will be available for scheduled testing by the approved users. Support for the UAT will be provided during normal project hours, Monday through Friday, excluding designated holidays. d. Data refresh processes will be supported by HHS Tech Group during normal project hours; all release installation, migration and fixes will be applied during scheduled maintenance windows. e. Test data will be provided through the use of a de-identification tool from Agency production data and/or utilization of similar 'dummy' data. f. Defects shall be entered into the Jira online tracking tool.
Testing	TEST08	Applies to all	The Supplier shall provide agency resources or their designee access to test cases, test results and defect tracking via online tools. The agency reserves the right to inspect artifacts and results at any time.	Confirmed. Results of all tests will be provided to the Agency for review. All tests, associated test cases, user stories, results, artifacts, and all other applicable documentation will be continually available to the Agency for review and inspection at any time in the project repository and/or in Jira.
Testing	TEST09	Applies to all	The agency reserves the right to conduct independent testing of the solution at any time. The Supplier must cooperate with the agency or its designee, and provide environments, data, and technical support for independent testing.	Confirmed. HHS Tech Group will support independent testing conducted on our solution. Environments, associated data, and the support of our technical staff will be available to support these efforts, as desired.
Testing	TEST10	Applies to all	The Supplier's Performance and UAT test environments shall be sized to be capable of mirroring the production System in its infrastructure, files, databases, processing, and reporting.	Confirmed. The appropriate testing environments will be set up to mimic the production environment in order to ensure the accuracy and reliability of tests completed. The UAT environment will be migrated to be the production environment upon Go-Live. A separate UAT environment which will be 1/3 the size of production will be set up post Go Live for UAT activities. The performance environment will be decommissioned 120 days after Go Live.
Testing	TEST11	Applies to all	The Supplier shall work proactively with the State's designated testing resources to review all test results and provide the necessary system and functional information to create verification procedures and user acceptance test cases.	Confirmed. HHS Tech Group shall work collaboratively with the Agency throughout the testing phase. HHS Tech Group will assist the Agency with the needed information to properly and mutually manage the testing processes. In addition, our Test Lead and associated staff will work in conjunction with State staff to collaborate in joint reviews of all test results.
Testing	TEST12	Applies to all	The Supplier shall develop test criteria and algorithms for expected outcomes prior to production of reports.	Confirmed. All test criteria and associated algorithms will be documented and reviewed with the Agency. This ensures subsequent tests and result reports are aligned to all agreed upon test criteria.
Testing	TEST13	Applies to all	The Supplier shall ensure that the Project Work Plan allocates sufficient time to the State's user acceptance testing activities relative to the detailed scope of work, requirements and gaps, the number of manually executed test cases, and the complexity of module integration. The Supplier will be responsible for extended user acceptance testing if the proposed testing duration is not sufficient for the State to validate the module.	Confirmed. HHS Tech Group will ensure ongoing access is provided to support UAT activities. We will work with the Agency so that your staff has sufficient time to conduct thorough testing across all user interfaces. The Project Work Plan (PWP) will be created with the Agency's assistance to ensure that proper timeframes have been allocated in the schedule for the Agency, particularly the duration of UAT.
Testing	TEST14	Applies to all	The Supplier shall plan and execute testing for all inbound and outbound interfaces, ensure accurate and secure data transmission between the Supplier's solution and the State's Integration Platform and coordinate with external entities as appropriate.	Confirmed. HHS Tech Group will work in joint collaboration with the System Integrator to ensure the successful interfacing and testing between RyL and the Integration Platform as well as other contractor modules, as they are procured.
Testing	TEST15	Applies to all	The Supplier shall coordinate with the agency, Systems Integrator, and specific module component vendors to conduct integration testing.	Confirmed. Integration Testing will be conducted in joint collaboration with all stakeholders, including the Agency, the System Integrator, and other module contractors. As new modules are brought on board throughout the life of the contract, HHS Tech Group will support ongoing Integration Testing as other modules are implemented across the enterprise.
Testing	TEST16	Applies to all	The Supplier shall support system performance and load testing by supplying solution test data in sufficient volume (amount) in order to represent production data quantities.	Confirmed. The objective of Performance and Load Testing is to validate that the performance of the system meets all stated service level requirements and validates the behavior of the system as load increases. We will provide data, representative of the production system, to create the volume of transactions necessary for valid testing. HHS Tech Group will use JMeter and New Relic for performance and load testing.

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Testing	TEST17	Applies to all	The Supplier shall provide isolated testing environments and the ability to support testing with de-sensitized (non-PHI, non-PII) data sets.	Confirmed. HHS Tech Group will ensure appropriate, isolated testing environments are in place as needed. All data will be de-sensitized to ensure any PHI/PII is removed, ensuring the masking, sanitizing, scrambling, and de-sensitizing of data.
Testing	TEST18	Applies to all	The Supplier shall provide a pre-production environment configured to mirror production settings to support integration checks and pre-deployment checks with sensitive (e.g. PHI/PII) data sets.	Confirmed. The pre-production environment will be set up to mimic the production environment in order to ensure the accuracy and security of data sets.