

Attachment C: Service Level Assurance

Service Level Assurance

For Service Level Assurance, there shall be a fixed monthly fee for technical operations, system monitoring and troubleshooting, and project management and coordination services. NYSDOH requires following service levels related to the UAS-NY application:

- Monitor and perform routine maintenance on all relevant enterprise components across the development, testing, and production environments:
 - UAS-NY software application and application tier components (i.e., WebLogic)
 - UAS-NY application database and database tier components (i.e., Oracle RDBMS)
 - UAS-NY TEST DRIVE software application and application tier components (i.e., WebLogic)
 - UAS-NY TEST DRIVE application database and database tier components (i.e., Oracle RDBMS)
 - Learning Management System (LMS) application and application tier components
 - LMS application database and database tier components
- Provide timely response to any system outage where the outage is the result of the UAS-NY software application or the UAS-NY database, but not where the outage is a result of hosting services provisioned by other organizations (CMA, Inc. or NYSDOH). Provide support to hosting services providers, as needed, to recover operations following any outage.
- Provide timely response to and resolution of technical issues reported by end-users and escalated by helpdesk support staff, per the following:
 - Within same business day acknowledgement and assignment of reported issue
 - Daily feedback on issue resolution progress until fully resolved
 - Provide Tier 2 and Tier 3 support with available staff to answer phones during business hours (7am-7pm M-F)
 - Provide technical support for the application 24x7, addressing issues outside of ongoing support desk hours. Service Levels will adhere to the definitions in the tables below:

Severity Definitions

Severity/Type of Defect	Application Outage	Application Defect
Severity 1	<ul style="list-style-type: none"> • Service disruption for one or more client-facing applications • Loss of network connectivity to any service domain or office • Data corruption or loss for any service domain or assessment instrument 	<ul style="list-style-type: none"> • Functionality that directly supports execution of a critical business process is not available and no workaround exists • Governmental regulation is broken/likely to be broken • Significant data corruption or data loss will happen or is likely to happen • Support desk volume is high enough to impact response times

Severity 2	<ul style="list-style-type: none"> • Service disruption for non-mission critical services • Usable but degraded service for any assessment instrument • Imminent failure of assessment instruments and related services 	<ul style="list-style-type: none"> • Functionality that directly supports execution of a critical business process is not available, but a workaround exists • Functionality that directly supports execution of a major business process is not available and no workaround exists
Severity 3	<ul style="list-style-type: none"> • Risk of being unable to meet an internal or external client commitment • Client-facing service failures that are not causing service disruption, but will create service disruption in the next 24 hours 	<ul style="list-style-type: none"> • Functionality that directly supports execution of a major business process is not available, but a workaround exists • Functionality that directly supports execution of a minor business process is not available and no workaround exists • Defects that have a good workaround but must be fixed within a reasonable amount of time, to be determined by NYSDOH and the vendor, and before future functionality releases
Severity 4	<ul style="list-style-type: none"> • Issues that are failures in enterprise technology, but do not result in performance issues and therefore are transparent to the user community (e.g. redundant server crash, high CPU utilization) 	<ul style="list-style-type: none"> • Functionality that directly supports execution of a minor business process is not available and no workaround exists • Cosmetic issues that must be fixed within a reasonable amount of time and before future functionality releases

Priority Definitions

1-Critical	2-High (Major)	3-Medium (Minor)	4-Low (Cosmetic)
<ul style="list-style-type: none"> • Critical business need is not met 	Major business need is significantly impacted but	<ul style="list-style-type: none"> • Low visibility issue or productivity 	<ul style="list-style-type: none"> • Low or no visibility issue or productivity

<ul style="list-style-type: none"> Showstopper that halts business operations from functioning 	business can continue	enhancement opportunity <ul style="list-style-type: none"> Business need is minimally impacted, but can operate normally 	enhancement opportunity <ul style="list-style-type: none"> No negative impact to customers or associates Business need is minimally impacted but can operate normally
SLA: These issues must be completed first in a focused, urgent manner	SLA: These issues must be completed with high attention	SLA: These issues are to be completed with "business as usual" type attention	SLA: These issues are to be completed with "business as usual" type attention
Severity: High severity/impact	Severity: Middle to high level of severity/impact	Severity: Middle to lower level of severity/impact	Severity: Lower level of severity/impact
Action: Candidate for immediate, unscheduled release	Action: Strongly considered for next release, dependent on higher business priorities and risk	Action: Scheduled for a future release, dependent on higher business priorities	Action: Scheduled for a future release, dependent on higher business priorities

Enhancements and Defects

Enhancement	A request type of enhancement means that one or more service domain clients have requested a change that is not currently part of the functionality of the application. These are required to go through the Software Development Life Cycle (SDLC).
Defect	A request type of defect means that one or more service domain clients or internal operations have requested a change because part of the system is not functioning to the system specification.

Support Response Targets

The severity of the problem and the associated business priority determine the speed and method of response. Following are response time targets for initial response:

Business Priority/Severity	Severity 1	Severity 2	Severity 3	Severity 4
Critical	30 min or less; 24x7	1 business hour; 12x7	4 business hours; 12x5	8 business hours 12x5
High	30 min or less; 24x7	1 business hour 12x5; 4 business hours evenings and weekends	1 business day	12 business hours
Medium/Low	30 min or less; 24x7	4 business hours	1 business day	12 business hours

- Ensure ongoing consistency of data feeds to OHIP data mart as well as to OMH, OPWDD or other agency-specific analytics platforms in response to any content modifications to UAS within maintenance releases
- Provide daily access to staff possessing a wide range of technical skills, on as needed and as appropriate basis, needed for managing and maintaining the technology solution, responding to unforeseen technical issues (observed by operations staff or reported from end-users), and ensuring system stability and availability.
- Provide a full-time resource to manage technical operations, including coordination of technical activities with NYSITS and other UAS-NY contractors (CMA, IBM).
- Provide routine and cooperative coordination with other organizations and service providers. Currently, these additional constituents include:
 - NYSITS staff – application tier staff
 - CMA staff – hosting service provider
 - NYSTEC staff – project management, organization and user support, training, business analysis, and quality controls
 - Stakeholder agency staff – organization staff from any UAS stakeholder agency
- Manage process to track requested modifications; identify usability facilitations, potential new enhancements, and other operational improvements; provide evaluation of impact and scope for each software change; coordinate decision-making process with NYSTEC to select content for ongoing maintenance releases
- Provide technical advice and associated recommendations, as identified or requested, pertaining to the technology environment and architecture to ensure scalability, stability, and extensibility of the UAS application
- Participate in Disaster Recovery Failover testing in coordination with CMA as hosting service provider, as requested

NYSDOH expects that the following technical services will be provided under the Service Level Assurance component of the proposal.

Activity Monitoring

- Understand usage patterns and identify areas for software improvement/optimization

- Identify any unreported error states or failure points experienced by users and investigate underlying circumstances and causes; provide root cause analysis
- Report on any inappropriate software access and other forms of unusual user behavior to UAS managers
- Capacity Monitoring and Planning
- Monitor the ongoing state of the system infrastructure in real time with the objective through early identification to prevent problems before they impact critical services or users.
- Engage with DOH and CMA to synchronize plans for expansion of UAS-NY features and user groups with provision of adequate capacity of the UAS infrastructure; anticipate and properly plan for modification of infrastructure capacity to meet emerging performance needs

Configuration Management

- Ensure consistent and optimized deployment configurations and coordinate plans for ongoing management
- Research and identify causal links between any experience of service degradations and underlying infrastructure elements
- Identify and implement improved methods for utilizing resources
- Identify security exploits in UAS-NY software and supporting libraries

Fault Management

- Compensate for environmental changes
- Maintain and examine error logs
- Develop action plans and implement changes in responses to error detection notifications
- Trace and identify any application faults
- Execute periodic diagnostic tests
- Report certain error conditions for possible modification of training materials or other types of user intervention

Performance Management

- Monitor changes and events to respond instantly to system performance deviations
- Track and analyze system performance over time to identify and preemptively avoid service degradations

Measure the End-User Experience

- Monitoring application response times for each transaction
- Monitoring business metrics related to application performance
- Continually interface with end-users and identify expectations and implement remediation steps as well as help prioritize software development activities in conjunction with the NYSTEC support desk
- Review end-user problem reports, isolate problem areas and execute remediation steps

Performance and Quality Reporting

- Provide semi-annual operations reporting
 - Response time summaries
 - Problem report and mitigation statistics
 - End-user surveys
 - Other Business metrics related to system performance
 - Other general operations activities and improvements

- Provide portal for DOH to monitor system effectiveness metrics

Penalties

If support response targets are missed or if application downtime occurs, the State may assess liquidated damages at the rate of \$50 per minute of downtime during key business operational hours of Monday through Friday from 7am to 7pm (12x5).

Application performance issues preventing the regular conducting and finalization of assessments and monthly reporting across the service domains may result in the collection of damages against the monthly service level assurance payment in an amount up to 1/3 (33%) of the invoice amount. This penalty will increase in severity the longer the performance issues occur.

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Beyond Day 10
0.5%	1.5%	2%	2.5%	2.5%	3%	3.5%	4%	4.5%	5%	Max (full 33% penalty)