

Proposed Architecture (PA) Requirements Technical Proposal Response

Bidder's Name: Enter Bidder Name Here

Instructions:

- For each requirement contained within this document a response is required.
- If additional space is needed Bidder should clearly label their response with the requirement identifier.
- NYS reserves the right to allow the Bidder to correct obvious errors of omission.
- Within each response, identify which functional requirements will be met as listed in the Attachment 2.01 - Requirements Matrix (include item numbers).

For each of the following business challenges, provide detailed responses as to **how** the Bidder's system meets the requirement.

Rqmt. No.	Requirement Description – Conceptual Design
PA1	<p>The Bidder shall include a conceptual architecture diagram and description of the proposed architecture. The conceptual architecture should identify and describe the overall hardware; software (COTS, Open-Source); database components; programming languages; development tools; documentation tools; and standards for their proposed architecture. The Bidder shall provide a detailed text description in its proposal including, but not limited to, the following:</p> <ul style="list-style-type: none"> • Depiction of hardware and software layers, storage, interfaces to external systems and communications topology, understanding that the NYS will host the computing platforms; • Approach to integrating with existing systems (please see Appendix H – <i>Interfaces</i>); • Approach to reporting including, but not limited to; standard reports, Ad hoc reports, custom reports and the export of data; • Approach to support accessibility for reporting, analysis and data warehousing; • Approach to ensuring the scalability of the application; • Approach to supporting a permanent training environment in the NYS technical environment that is available 24/7/365 on the most recent production version of the Bidder's solution; • Approach to adding new browser support to the solution throughout the term of the contract; • Approach to supporting disaster recovery.

Bidder PA1 Response:

Rqmt. No.	Requirement Description – Reliability, Availability and Serviceability
PA2	<p>The Bidder's response shall describe in detail, with scenarios, how its proposed solution supports high availability (downtime includes scheduled and unscheduled availability of the proposed solution). NYS will provide highly available systems at our Data Center with optional disaster recovery at a secondary site. As detailed in the Technical Requirements Matrix, the proposed TMS solution should have a 99.9% availability and take 5 or less seconds to complete online transactions 95% of the time.</p> <p>A detailed description of the approach to high availability shall be provided with the Bidder's proposal and shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • How the architecture proposed by the Bidder will meet the application performance requirements; • Redundancy, and single points of failure; • Fault tolerance; • Pending capacity alerts; • Session/load balancing, (if applicable); • Mirrored data; • Backup, restore and recovery plans for all data, including any impact on production, throughput and response times; • Testing plan for the high availability solution; • Any additional high availability features that the proposed solution includes which would allow New York State continued system availability when components of the system are unavailable.

<p>Bidder PA2 Response:</p>

Rqmt. No.	Requirement Description – Software and Database Platforms
PA3	<p>The Bidder shall specify which of the following (see list below) mandatory technology their proposed solution supports including, but not limited to, its' proposed application solution platforms, interfaces, production, test and training environments. The proposed solution shall be able to run effectively within a virtual server environment. The technical proposal shall include any and all peripheral hardware required to operate the bidder's solution; the cost of peripheral hardware, however, will not be included in the total cost of ownership calculation.</p> <p>Operating System shall be one of the following:</p> <ul style="list-style-type: none"> • IBM POWER AIX • Red Hat Enterprise Linux • Microsoft Windows Server 2012 <p>Database (RDBMS) shall be one of the following:</p> <ul style="list-style-type: none"> • Oracle • MS SQL <p>Web Servers shall be one of the following:</p> <ul style="list-style-type: none"> • Microsoft IIS • IBM HTTP • RedHat HTTP <p>Application Servers shall be one of the following:</p> <ul style="list-style-type: none"> • Jboss Enterprise • Oracle WebLogic • .NET - - Microsoft IIS

Bidder PA3 Response:

Rqmt. No.	Requirement Description – Interoperability
PA4	<p>The technical requirements for interoperability shall address issues of connectivity among systems, data and file exchange, and other communication related scenarios. The Bidder shall describe how the proposed solution supports interoperability using open standards where available. The Bidder's response to this requirement shall address, at a minimum, the following:</p> <ul style="list-style-type: none">• Any limitations to interoperability in their solution;• Strategy for achieving interoperability with the Bidder's proposed system;• Explanation of how the Bidder is looking ahead and supporting any research efforts to address interoperability challenges that are not presently realized amongst TMS components;• Detailed model or diagram of the proposed solution's system architecture, noting whether each component or service utilizes an open standard or not. If it supports an open standard, list the supported open standards. If nothing is noted, NYS will assume that the system and services are NOT fully open and interoperable. For each component and service, identify if third party commercial software will be utilized and identify the particular product.• The Bidder's response shall identify where open standards are and are not used in the following aspects of the system: security, software, and messaging.

Bidder PA4 Response:

Rqmt. No.	Requirement Description – Security and Authentication
PA5	<p>The Bidder shall provide a detailed description of its approach to security and authentication. The response shall include, but not be limited to, the following components:</p> <ul style="list-style-type: none">• Approach to directory services;• Approach to remote and mobile security;• Approach to managing roles, especially as it relates to connecting roles to specific functions, and data to be accessed• Approach to compartmentalization of agency owned data• Approach to managing individual user access within the context of the planned NYS ITS Authentication and Authorization Services. This service will be built upon Oracle Identity Manager and will integrate with platforms using SAML• Approach to logging access and modifications to data including access from mobile devices and equipment in their cars;• Approach to the detection of inappropriate access of information• Approach to encryption for data at rest• Approach to encryption for data in transit

Bidder PA5 Response:

