

APPENDIX XII: TECHNICAL REQUIREMENTS OVERVIEW

The following is an overview of the technology, service and security requirements and standards of the State Court Administrator's Office (SCAO). The intent of this section is to set expectations with the respondent. Specific questions regarding the fulfillment of these requirements are contained in *Appendix V: Vendor Capability Questionnaire* and *Appendix VII: - Report and Technical Requirements Response*.

1.1 SYSTEM REQUIREMENTS

SCAO-Hosted Servers

Application environment require load balances web servers to provide high availability. Number of servers in farm is dependent upon the number of users and application requirements. Database servers also can be a cluster, if required.

Application Server

- Microsoft Windows Server 2012 R2

Database Server

- Database: SQL Server 2012

Vendor-Hosted Hardware

Vendor-hosted hardware may vary greatly. SCAO needs to have a Service Level Agreement in place and ability to submit tickets and track issues with Vendor.

SCAO-Hosted Applications/Services

- Application will be available directly from Internet.
- Application will use Secure Sockets Layer (HTTPS).
- In-House built Application will use .Net \geq 4.0 and/or HTML5 compatible standards. Internet Information Services (IIS) \geq 7.0 and SQL Server 2012.
- Any Vendor application hosted in-house will be a Microsoft solution including: .Net framework \geq 4.0 or HTML5 code, Internet Information Services (IIS) \geq 7.0 and SQL Server 2012.
- MVC is preferred for application architecture.
- Data access will use Entity Framework \geq 5.0. LINQ to SQL or other compatible framework can also be incorporated.

- APIs will be RESTful supporting HTTP, XML and JSON.
- RESTful APIs will ideally support Open Data Protocol (OData).

Vendor Hosted Application/Services

Vendor-hosted application needs to have RESTful API available for all required data elements specified in each application's business requirements document.

- All CRUD operations (Create, Read, Update & Delete) need to be supported for the required data elements.
- Connection to Vendor-hosted Application will use Secure Sockets Layer (HTTPS).
- RESTful APIs will support HTTP, XML and JSON.
- RESTful APIs will ideally support Open Data Protocol (OData).

Availability Requirements

- Court applications need high availability. Service Level Agreement (SLA) will have varied response requirements for core daytime hours of operation and after business hours of operation.
- A flexible communication method must be in place for notification of end users for scheduled maintenance downtimes.

1.2 PERFORMANCE REQUIREMENTS

Average page load time should not exceed two (2) seconds. SCAO-hosted applications will use application performance monitoring. Vendor applications will allow application performance monitoring (e.g., New Relic, Google Analytics) to be installed on application. A negotiated service level agreement may specify additional requirements.

1.3 SUPPORTABILITY REQUIREMENTS

SCAO-Hosted Applications/Services

Court applications adhere to Microsoft's best practices for coding standards (<https://msdn.microsoft.com/en-us/library/67ef8sbd.aspx>), security standards (<https://msdn.microsoft.com/en-us/security/aa570401.aspx>) and use a tool such as ReSharper to review code. Current web applications are written in C# using Visual Studio. Code is versioned in Team Foundation Server (TFS). Supporting web services are RESTful Web APIs. Code level documentation will include XML documentation comments.

Vendor-Hosted Application/Services

SCAO needs to have a Service Level Agreement in place and ability to submit tickets and track issues with Vendor.

Technical, operational, and troubleshooting documentation, including detailed documentation on RESTful APIs and Security model, needs to be available upon the project's completion.

1.4 SECURITY REQUIREMENTS

- Applications will use ADFS as its primary method of authorization and authenticating.
- Secure sockets protocol will be used on all communications between user and application.
- Required data elements will be stored on premises for auditing purposes. If Vendor hosts application, then they must provide a way to access all required data elements for auditing purposes.

1.5 USER ENVIRONMENT REQUIREMENTS

- Internal Users — Proposed Solution will be compatible with the SCAO employee standard environment:
 - Windows 7 and greater
 - Office 2013 and greater
 - Exchange 2013 and greater
 - Internet Explorer 11 , Edge
- External Users — Court Interpreter Contractors and Psychiatric Psychological Examiner Contractors provide their own equipment and will be using a wide variety of equipment (desktop and mobile) and operating systems. The proposed solution should, at minimum, be compatible with the most popularly used browsers (i.e., FireFox, Internet Explorer, Chrome, Safari).
- Application should support versions of \geq IE11, Chrome and mobile/table compatibility for IOS and Android devices.
- Interface will adhere to best practices in responsive web design and accessibility. <http://www.w3.org/standards/webdesign/accessibility>