

**EXHIBIT A – REQUIREMENTS**

Exhibit A – Requirements includes details about the work and services to be provided by Supplier under this Contract.

<b>General</b>			
<b>#</b>	<b>Specification</b>	<b>A</b>	<b>B</b>
<b>GEN-1</b>	Does the Supplier have extensive experience and a proven reputation in providing services to government entities and localities? Please describe.	<b>Y</b>	<p>AIS Network (AISN) has extensive experience and a proven reputation for providing government entities and localities with solutions and services that solve problems, increase efficiency and reduce costs.</p> <p>Over the last seven years, AISN has been providing the full suite of services requested in this RFP to Commonwealth of Virginia agencies and other public entities, including delivering citizen-facing, award-winning website/application services that include supporting hosting, development, operations/maintenance, full life-cycle support, and payment processing services.</p> <p>Since 2012, AISN has been transforming Virginia agencies to achieve advanced data security, IT systems efficiency, cloud readiness, intelligent governance and risk management — all with cost savings.</p> <p>After working with dozens of agencies over the years, we've developed a government IT brain trust. How? Based on our unparalleled knowledge of state agencies and their unique needs when it comes to protecting data, ensuring compliance, navigating policy matters, and understanding the minutiae of their governance and auditing environments.</p> <p>We serve the executive branch agencies, however all counties, cities, towns, schools and all other public entities can use any of our contracts.</p>

		<p>AISN's CAI contract, Virginia IT Contingent Labor, offers flexibility for Statement of Work in App Development, Infrastructure Services and Information Security. AISN has delivered:</p> <p>Security &amp; SEC 501/520/525 Compliance: PCI compliance &amp; vulnerability scans, governance policies, risk assessment &amp; remediation, information security audits and information security implementation.</p> <p>IT Managed Services: Infrastructure systems design, private and public cloud hosting, disaster recovery, migration &amp; maintenance, data storage</p> <p>Development: App and website development, software development, payment portals, data visualization &amp; analytics</p> <p>Consulting: Cloud readiness assessments, IT business strategy, advanced information security posture, cost modeling and systems planning.</p>
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<p><b>GEN-2</b></p>	<p>Will the Solution be able to comply with all current COV ITRM Policies and Standards, as applicable, found at?</p>	<p><b>Y</b></p>	<p>AISN's experience includes similar or equal requirements, and we are comfortable complying with all of these requirements.</p> <p>If the AISN solutions consist of hosting Agency-selected third party applications and data, AISN does not warrant that the third party software, or the data choices under any particular task order specifications, complies with COV Policies.</p> <p>AISN can consult with the agencies to determine compliance and provide plans to bring the non-compliant solution or data into conformance with Commonwealth policy and governance.</p>
	<p><a href="http://www.vita.virginia.gov/library/default.aspx?id=537">http://www.vita.virginia.gov/library/default.aspx?id=537</a> If not, can comply by the time of project initiation?</p>		
<p><b>GEN-3</b></p>	<p>Will the Solution provide effective, interactive control and use with nonvisual means and provide 508 Compliance in accordance with the following standards regarding IT Accessibility and 508 Compliance?</p>	<p><b>Y</b></p>	<p>AISN solutions developed, implemented and maintained by AISN are compliant.</p> <p>If the AISN solution consists of hosting Agency-selected third party applications and data, AISN does not warrant that the third party software, or the data choices under any particular task order specifications, complies with COV Policies.</p> <p>AISN will consult with the agencies to determine compliance and provide plans to bring the non-compliant solution or data into conformance with Commonwealth policy and governance.</p>
	<p><a href="http://www.vita.virginia.gov/it-governance/itrm-policies-standards/it-accessibility-and-website-standards/">http://www.vita.virginia.gov/it-governance/itrm-policies-standards/it-accessibility-and-website-standards/</a></p>		
	<p>(Refer to <a href="http://www.section508.gov">www.section508.gov</a> and <a href="http://www.access-board.gov">www.access-board.gov</a> for further information)</p>		

	<p>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 B of the Enterprise Technical Architecture IT Accessibility Topic Report in the Application Domain (GOV103-02)).</p>	<p><b>Y</b></p>	<p>AISN will work with agencies to document a VPAT and meet 508 Compliance based on specific application requirements. AISN has provided, as requested, a sample VPAT (See Appendix H for sample VPAT) to provide insight into the approach used to develop a VPAT and associated 508 compliant solutions.</p>
<p><b>GEN-4</b></p>	<p>As part of the Solution, will you be using any 3<sup>rd</sup> parties to provide the solution/services? Please list the 3<sup>rd</sup> party suppliers you will be using and all services they will provide.</p>	<p><b>Y</b></p>	<p>From time to time, AISN will enlist third parties to provide VITA and the Commonwealth Agencies with the services described herein.</p> <p>Major third parties we will use include:</p> <p>Microsoft for Azure and DB and OS licensing. KPMG to provide access to a deeper bench, subject matter expertise, and innovation in the realm of digital citizen engagement.</p>

<b>Facility</b>			
<b>#</b>	<b>Specification</b>	<b>A</b>	<b>B</b>
<b>FAC -1</b>	Will the Solution include a highly available data center? Please describe the data center's site infrastructure (power, security, network, cooling and fire systems) where the applications will be hosted. Also, please indicate which Tier Level the data center is rated, (Tier 1, Tier II, Tier III or Tier IV), based on the Uptime Institute's Site Infrastructure Tier Standards. A copy of the Data Center Site Infrastructure Tier Standard Topology document can be found at: <a href="https://uptimeinstitute.com/resources/asset/tier-standard-topology">https://uptimeinstitute.com/resources/asset/tier-standard-topology</a>	<b>Y</b>	All data center facilities used by AISN are Tier III or above, including:  <ul style="list-style-type: none"> <li>- AISN's private multi-tenant cloud</li> <li>- Amazon AWS</li> <li>- Microsoft Azure</li> <li>- Google</li> <li>- IBM Watson</li> <li>- Unisys/ VITA</li> </ul>
<b>FAC -2</b>	Will the Solution be externally hosted? If yes, where?	<b>Y</b>	AISN offers choices. We can provide hosting in:  <ul style="list-style-type: none"> <li>- AISN's private, multi-tenant cloud</li> <li>- Amazon AWS</li> <li>- Microsoft Azure</li> <li>- Google</li> <li>- IBM Watson</li> <li>- Unisys/ VITA</li> </ul> <p>AISN also supports and provides services for agencies with on-prem data centers.</p>
<b>FAC -3</b>	Will the Solution's data center include physical access controls? Please describe.	<b>Y</b>	All data centers have multiple levels of physical access controls, including mantraps, key cards, and biometrics. Data center audits for SOC 2 Type II and above require these controls.
<b>FAC -4</b>	Will the Solution's data center include access management procedures? Please explain how access is managed and who has access to the data center.	<b>Y</b>	All data centers have strict physical access procedures per the compliance audits. Only authorized personnel may access.

<p><b>FAC -5</b></p>	<p>Will you, as part of the Solution, include security background checks on your employees and contractors? Please describe what types of checks and how often they are completed. (Supplier will be required to comply with provision 2.1, <i>Background Investigations</i>, of the then-current Commonwealth of Virginia security procedures found at</p>	<p><b>Y</b></p>	<p>All personnel employed by or contracted by AISN must pass a security background check that meets or exceeds the requirements of the Commonwealth of Virginia.</p>
	<p><a href="https://www.vita.virginia.gov/media/vitavirginiagov/it-governance/psqs/pdf/COVITRM513-00PersonnelSecurityGuideline02_15_08.pdf">https://www.vita.virginia.gov/media/vitavirginiagov/it-governance/psqs/pdf/COVITRM513-00PersonnelSecurityGuideline02_15_08.pdf</a></p>		
	<p>before any work can begin.)</p>		

<b>Performance &amp; Support Services</b>			
<b>#</b>	<b>Specification</b>	<b>A</b>	<b>B</b>
<b>PFM-1</b>	Will the Solution include Service Level Agreement (SLA) metrics, including optional levels and reporting on metrics? Please describe the SLA metrics, how they are measured, and how they are reported.	<b>Y</b>	<p>AISN provides SLAs for the following products and services:</p> <ul style="list-style-type: none"> <li>• Compute Cloud</li> <li>• Storage Cloud</li> <li>• Backup Service</li> <li>• Disaster Recovery Cloud</li> </ul> <p>Service Commitment:                      AISN will use commercially reasonable efforts to make each of the included products and services available with a monthly uptime percentage of at least 99.99% in each case during any monthly billing cycle (the "Service Commitment"). In the event any of the included products and services do not meet the Service Commitment, the customer will be eligible to receive a service credit.</p>
<b>PFM-2</b>	Will the Solution have any exceptions within the SLAs? Please describe.	<b>Y</b>	Specific services may have specific SLAs, which would be included in contracts with agencies when applicable.
<b>PFM-3</b>	Will the Solution include remedies when SLAs are not met? Please describe.	<b>Y</b>	In the event that any of the included products and services do not meet the Service Commitment, the customer will be eligible to receive a service credit. Full details regarding service credits can be found in Appendix A.
<b>PFM-4</b>	Will the Solution include backup and restore standards? Please describe.	<b>Y</b>	The VEEAM backup software is used and we can restore from the file level or database to the complete server. A snapshot of the server is taken and then the server is backed up.

<b>PFM-5</b>	Will the Solution include restoration services? Please describe.	<b>Y</b>	Yes, and customizable to meet RTO/RPO requirements and budget requirements.
<b>PFM-6</b>	If the Solution includes sub-contracting for hosting services, will you require a key performance indicator for website up time as part of your sub-contractor agreement? Please describe.		AISN procures cloud resources from top tier providers with stringent SLAs. The SLAs for cloud services are matched by AISN SLAs.
<b>PFM-7</b>	If the Solution includes sub-contracting for hosting services, will you regularly monitor performance and report results to customer? Please describe.	<b>Y</b>	AISN constantly monitors the performance of its contracted cloud services. All systems provisioned to the cloud are monitored. Reporting is provided per policy and requirements for the Commonwealth of Virginia.
<b>PFM-8</b>	If the Solution includes sub-contracting for hosting services, will you take the lead in resolving any hosting issues? Please describe.	<b>Y</b>	AISN is the single point of contact for all agencies. AISN maintains escalation procedures with all cloud providers.
<b>PFM-9</b>	Will the Solution include satisfaction surveys to Commonwealth customers related to Solution/Supplier performance? Please describe.		We can do this with Salesforce.
<b>PFM-10</b>	Will the Solution include a process for ticket/trouble/incident tracking and reporting? Please describe.	<b>Y</b>	AISN uses Zendesk software which contains the tickets. The level of severity determines which ticket is prioritized first. There is a main support phone to call.
<b>PFM-11</b>	Will the Solution include an escalation process associated with ticket tracking? Please describe.	<b>Y</b>	A ticket will be escalated due to the severity of the issue. AISN is the single point and will manage any infrastructure escalations required to cloud providers.
<b>PFM-12</b>	Will the Supplier provide technical response within one (1) hour and resolution within twenty-four (24) hours of the time an issue is reported? Please explain.	<b>Y</b>	The supplier will provide technical response within one (1) hour and will try to resolve the issue within twenty-four (24) hours.  Critical issues are addressed with the highest priority.
<b>PFM-13</b>	Will the Solution include technical support available to website owners, users, and the general public twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year? Please describe.	<b>Y</b>	Support is 24/7/365. Normal matters will be cared for during normal business hours. Emergencies will be addressed during business hours and after hours. Support for issues that are not with AISN ( <i>i.e.</i> , agency broke their website) may be billable.

<b>PFM-14</b>	Will the Supplier provide a minimum of 72 hour notice for scheduled downtime for upgrades and maintenance? Please explain.	<b>Y</b>	Maintenance windows are announced.
<b>PFM-15</b>	(M) This is MUST HAVE #3 - The Supplier shall annually verify, by third-party independent assessment, attestation or audit, that required Commonwealth of Virginia security controls have been implemented in the Solution environment; and, upon request provide a copy of the report to VITA and the Authorized User(s). The Trust service principles to be covered include Security, Availability, Processing Integrity, Privacy and Confidentiality. Please describe your current assurance processes for third-party assessment, attestation or audit.	<b>Y</b>	AISN adheres to all Security requirements and audit requirements of the Commonwealth of Virginia.
<b>PFM-16</b>	<p>Will the supplier agree to provide the following reports and the required intervals?</p> <ul style="list-style-type: none"> <li>- Service Level Performance- Due monthly by the 5th day of the month.</li> <li>- System/Application Patching Compliance – Due monthly by the 5th day of the month</li> <li>- Scanning Reports (OS, middleware, applications &amp; Interfaces) – Due monthly by the 5th day of the month.</li> <li>- Summary report of Intrusion Detection Scans and Intrusion Prevention Scans – Due Quarterly, by the 5th day of the first month in the quarter.</li> <li>- Third-party independent assessment, attestation or audit – Initial review due within 90 days of contract effective date. Afterwards due Annually, Supplier to provide target annual date, by defaults it is due by the anniversary of the contract effective date.</li> </ul>	<b>Y</b>	Report generation per customer needs to be standardized.

<b>PFM-17</b>	Will the Solution include benchmark data and related assumptions for the expected time that it would take to refresh current application screen and navigate between different application screens? Please describe.	<b>Y</b>	The benchmark data will be determined during the testing and evaluation phase of the project. During the testing, the time to refresh the current application screen and the different application screens will be determined. This will establish a baseline.
<b>PFM-18</b>	Will the Solution include benchmark data regarding the number of concurrent (logged in) and simultaneous (transacting at the same time) users that it can support in typical environment setup while maintaining the performance levels indicated above? Please describe, including all assumptions.	<b>Y</b>	The AISN solution will use PRTG in conjunction with SolarWinds to provide monitoring and optimizing performance. This will include data regarding the number of concurrent (logged in) and simultaneous (transacting at the same time) users that it can support in typical environment setup.
<b>PFM-19</b>	Will the Solution include the tools necessary for monitoring and optimizing performance? If yes, please describe. If no, please describe how the application is monitored and optimized.	<b>Y</b>	The AISN solution will use PRTG in conjunction with SolarWinds to provide monitoring and optimizing performance.
<b>PFM-20</b>	Will the Solution include all the install, setup, configuration, and maintenance documentation that is provided to the business owners? Please describe.	<b>Y</b>	Yes, Documentation is created for AISN custom solutions as required based on the specific requirements of the customer request.
<b>PFM-21</b>	Will the Solution use all the licensed and currently supported components to host, build, and cater the Solution? Please describe.	<b>Y</b>	AISN uses only products that are actively maintained and best-of-breed in the industry.
<b>PFM-22</b>	Will the Solution include support for pre go-live preparations? Please describe.	<b>Y</b>	All projects are planned to include standard stages: provisioning infrastructure, developing a site (where applicable), standing up the site, testing in staging and then planning to go live. The latest SOWs for mini-projects have some standard steps.

<p><b>PFM-23</b></p>	<p>Will the Solution include a Requirements Verification process to make sure all the committed requirements are met? Please describe.</p>	<p><b>Y</b></p>	<p>All requirements gathered and shared with the client and all requirements are tracked through every stage by a project manager.</p>
<p><b>PFM-24</b></p>	<p>Will the Solution prevent the use of auditing and logging from adversely impacting system performance? Please describe.</p>	<p><b>Y</b></p>	<p>Cloud resources are monitored using a combination of infrastructure tools and lightweight agent-based monitoring designed to provide services without impacting performance. Basic auditing and logging at the system level (Apache logs, IIS logs, Windows logs) are accounted for in the resource allocation for each project. Advanced auditing (SIEM) is agent-based using a lightweight system that does not impact performance.</p>
<p><b>PFM-25</b></p>	<p>Will the Solution provide a mechanism for rolling back all software and data to a previous release for all software applications and databases included in the Solution? Please describe.</p>	<p><b>Y</b></p>	<p>Source control/ code repos systems allow developers to maintain strict version control and to generate code branches when developing enhancements or fixing bugs. This allows code to be rolled back to previous version.</p> <p>Server-level backups are the foundation and the base of best practice backup&amp; recovery plans. Agencies can also backup files and databases at the application layer to provide the ability to roll back without a full system restore.</p> <p>As a best practice, before any upgrade or maintenance, AISN always backs up the key components (code/ DB) to allow a roll back in the event of an issue.</p>

<b>Network &amp; Operations</b>			
<b>#</b>	<b>Specification</b>	<b>A</b>	<b>B</b>
<b>NOP-1</b>	Will the Solution have an operating system life cycle? Please describe.	<b>Y</b>	The latest OS version will be used. For each renewal, a version assessment should be performed to check for security and compliance. If any services become deprecated or reach end-of-life, then an upgrade project is required.
<b>NOP-2</b>	Will the Solution allow for the introduction of new technologies? If yes, please describe how they are introduced.	<b>Y</b>	New technologies are introduced in a methodical manner that considers the risk and potential impact. Our solution architects consider new technologies when creating solutions and the organization introduces them once they are proven to be stable and secure.
<b>NOP-3</b>	Will the Solution have a standard time frame for the "stand up" of an operating environment? Please explain.	<b>Y</b>	The standard setup time for a ready-to use virtual server in AISN solution's managed service environment will be a 5-business day maximum turn-around time.
<b>NOP-4</b>	Will the Solution be fault-tolerant? Please describe this fault-tolerance in detail.	<b>Y</b>	All cloud resources are fault-tolerant and redundant at the infrastructure level.

<b>NOP-5</b>	Will the Solution offer load balancing? Please explain.	<b>Y</b>	Standard network load balancers and application gateways are used. Next gen LBs have the ability to work at the application layer. With an application gateway, you can be even more specific. For example, you can route traffic based on the incoming URL. So, if /images is in the incoming URL, you can route traffic to a specific set of servers (known as a pool) configured for images. If /video is in the URL, that traffic is routed to another pool optimized for videos.
<b>NOP-6</b>	Will the Solution include alternate routing capabilities? Please describe.	<b>Y</b>	Alternate routing capabilities are available.
<b>NOP-7</b>	Will the Solution use multiple internet service providers? Please describe.	<b>Y</b>	All data centers use multiple internet service providers to provide redundant and separate routes to the internet.
<b>NOP-8</b>	Will the Solution include Tier I or Tier II internet-provided services? Please explain.	<b>Y</b>	All cloud services use redundant providers primarily at the Tier 1 level. Some services also use Tier 2 providers.
<b>NOP-9</b>	Will the Solution display consistently on Google Chrome, Apple Safari, Internet Explorer 8.0 or greater, Firefox, UC Browser or any other web browser with more than 5% market share. Please list supported browsers.	<b>N</b>	Browsers that have reached end-of-life will not be supported. For example, all versions of Internet Explorer prior to 11 reached end-of-life in 2016 and no longer meet the base security requirements of VITA. IE11 will receive security updates and compatibility updates through 2020, but Microsoft recommends that users move to Edge.
<b>NOP-10</b>	Will the Solution include a capacity planning methodology for managing high/low use levels? Please describe.	<b>Y</b>	Capacity planning is a standard step in the customer onboarding and/or discovery process.
<b>NOP-11</b>	Will the Solution have any network volume limitations? Please describe.	<b>N</b>	The solution will not have any network volume limitations. If more volume is required, it can be added.
<b>NOP-12</b>	Will the Solution allow for data to leave a controlled data infrastructure? Please explain.	<b>Y</b>	The data will need to be encrypted and sent through a secure tunnel.

<b>NOP-13</b>	Will the Solution include bandwidth utilization? Please describe.	<b>Y</b>	This will allow AISN to be able to identify the users, applications, and protocols that are consuming the most bandwidth.
<b>NOP-14</b>	Will the Solution provide for bandwidth options on the infrastructure and internet connections? Please describe.	<b>Y</b>	Standard options are available for most cloud services.
<b>NOP-15</b>	Will the Solution provide tools to migrate to and/or from another provider? Please describe.	<b>Y</b>	In most cases, automated tools can be used for migration of services. In other cases, projects are assigned for manual migration.
<b>NOP-16</b>	Will the Solution provide for additional data storage to be addressed for a given application? Please describe.	<b>Y</b>	Additional storage can be provided if needed.
<b>NOP-17</b>	Will the Solution utilize an IT service management framework. Please explain.	<b>Y</b>	The AISN solution will provide services based on an ITIL management framework and will drive continuous improvement as is best practice.
<b>NOP-18</b>	Will VITA be integrated within the IT service management framework utilized by your Solution? Please explain.	<b>Y</b>	The Service Management Framework is ITIL 3.0.
<b>NOP-19</b>	Will the Solution provide operational services? Please describe.	<b>Y</b>	The Service Management Framework is ITIL 3.0.
<b>NOP-20</b>	Will the Solution follow operational Best Practices? Please describe.	<b>Y</b>	The solution will follow best practices as we build a secure and reliable application.
<b>NOP-21</b>	Will the Solution provide reporting such as problem, incident and capacity reporting? Please describe types of reporting provided.	<b>Y</b>	Problem, incident and capacity reporting will be provided per the customer requirements.
<b>NOP-22</b>	Will the Solution allow website owner access to your security and audit reports? Please describe.	<b>Y</b>	The website owner will have access to security and audit reports if the website owner is a member of the local administrators' group. Otherwise, reports can be generated and given to the website owner.

<b>NOP-23</b>	In development and production, will the Solution support fast loading pages? Please describe target load speed and connection capacity used to measure.	<b>Y</b>	In production systems, resources are allocated to provide fast-loading pages that meet common industry standard averages for the type of pages being rendered. In development systems, resources are allocated to provide reasonable speed based on the requirements of the environment. For example, the development environment being used to train end users would have more resources allocated than one being used for low-use quality assurance testing.
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<b>Software and Web Services</b>			
<b>#</b>	<b>Specification</b>	<b>A</b>	<b>Response</b>
<b>SWS-1</b>	Will the Solution provide for various system operating systems? Please describe what operating systems and versions are supported.	<b>Y</b>	<p>The solution supports both Linux-based and Windows-based operating systems. Supported operating systems include:</p> <p>Linux</p> <ul style="list-style-type: none"> <li>- Currently supported versions of Red Hat Enterprise Linux, CentOS, and Ubuntu</li> <li>- Other Linux systems may be supported as required</li> </ul> <p>Windows</p> <ul style="list-style-type: none"> <li>- Currently supported versions and editions of Windows Server</li> </ul> <p>The appropriate operating system is determined during the solution architecture and/or discovery phase of implementation. AISN will recommend the appropriate operating system based on the requirements and code-base being deployed.</p>

<p><b>SWS-2</b></p>	<p>Will the Solution support Database Management Systems (DBM)? Please describe what DBM systems the Solution supports including releases/versions currently being used.</p>	<p><b>Y</b></p>	<p>The solution supports all major DBM systems. Supported DBMs include:</p> <p>Microsoft</p> <ul style="list-style-type: none"> <li>- Currently supported versions and editions of Microsoft SQL Server (installed on server)</li> <li>- Microsoft SQL Server database as a service (serverless)</li> </ul> <p>Open Source</p> <ul style="list-style-type: none"> <li>- Currently supported versions of MySQL / MariaDB / PostgreSQL (installed on server)</li> <li>- MySQL, MariaDB, PostgreSQL database as a service (serverless)</li> </ul> <p>Oracle</p> <ul style="list-style-type: none"> <li>- Currently support versions of Oracle (installed on server only)</li> </ul> <p>AISN always installs the most current, stable general release version available unless a project has specific version requirements.</p>
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<p><b>SWS-3</b></p>	<p>Will the Solution be scalable? Please describe.</p>	<p><b>Y</b></p>	<p>The solution supports scalability and on-demand capacity across platforms to help websites and applications perform under changing conditions.</p> <p>Stability options include:</p> <ul style="list-style-type: none"> <li>- Auto-Scaling Virtual Machine Groups (based on demand or scheduling)</li> <li>- Containers (docker or kubernetes)</li> <li>- Serverless Applications</li> <li>- Elastic Applications and Databases</li> </ul> <p>AISN will help agencies in determining the optimal mechanism for scaling based on the application architecture (CPU intensive vs. memory intensive applications) and the potential for change in demand (predictable vs. unpredictable).</p>
<p><b>SWS-4</b></p>	<p>Will Solution provide scalability to support the following?  a) An increasing user base  b) Increased transaction volume  c) Exponentially expanding data  If yes, please describe how scalability is accomplished. Include any tools that would be provided and/or limitations to scaling.</p>	<p><b>Y</b></p>	<p>The solution will address all these scalability requirements by implementing the following:</p> <p>Increased user base - website load balancing to improve overall website response.</p> <p>Increased transaction volume - website load balancing with an "elastic" database environment that can grow based on demand.</p> <p>Exponentially expanding data - By using a database service that adds resources as a function of demand. In other words, a very "elastic" type service. Both Azure and AWS can be used to meet this requirement.</p> <p>In general, this type of scalability allows for a dynamically configured hosting resource that can quickly respond to changing application load.</p>

<p><b>SWS-5</b></p>	<p>Will application development within this Solution be a repeatable process that can be defined in a Statement of Work? Please describe.</p>	<p><b>Y</b></p>	<p>The solution will contain several repeatable sub-applications that can address such functionality as user credentialing, database access, CSS libraries, image libraries, profile maintenance, and email relaying services.</p> <p>AISN will, as a matter of course, consider the re-use of existing repeatable projects with the objective of lowering development and maintenance costs.</p> <p>As each SOW is responded to, and where appropriate, an internal third party approach will be used to help facilitate code and application re-use.</p> <p>Where appropriate, web services will be developed that can later be used by future application projects to help with such activities as user credentialing, user profile maintenance, and file library management.</p>
<p><b>SWS-6</b></p>	<p>Will the Solution include a records retention policy? Please explain.</p>	<p><b>Y</b></p>	<p>The solution will include a records retention policy.</p> <p>The level of retention will most probably be specified by individual statements of work together with specific VITA and agency requirements.</p> <p>Retention may include assets such as source code, database backups, static images, read/only files (.pdf, etc.), and uploaded user files.</p>

<b>SWS-7</b>	Will the Solution have the ability to provide interactive voice response (IVR) services? Please describe.	<b>Y</b>	<p>The solution will include the ability to provide interactive voice response services when specified by statement of work.</p> <p>Any IVR service will be provided by an appropriate and cleared third party vendor.</p> <p>It is not economically feasible for an agency to develop their own IVR solution.</p>
<b>SWS-8</b>	Will the Solution employ responsive design and support device independence? Please describe.	<b>Y</b>	<p>The solution will employ a “mobile first” approach to development.</p> <p>This will typically be done by using existing third-party tools such as Bootstrap to help reduce the cost of responsive development.</p> <p>All web-based applications will be tested with browsers Chrome, Internet Explorer/Edge, Firefox, and Safari.</p>
<b>SWS-9</b>	Will the Solution include versioning for audit capabilities?	<b>Y</b>	<p>The solution will include application version control.</p> <p>As each successive update is deployed to production, the version number will be incremented accordingly.</p>

<b>SWS-10</b>	Will the Supplier agree that any code that is developed and paid for under this contract will be owned by the Commonwealth website owner? Please explain.	Y	<p>AISN agrees that all development efforts will be considered as “work for hire.”</p> <p>The Commonwealth will have full ownership of all associated intellectual property.</p> <p>Any third-party products needed will be purchased, registered and owned by The Commonwealth.</p>
<b>SWS-11</b>	Will the Solution provide administrative accounts over an encrypted connection to manage the site securely? Please describe.	Y	<p>The solution will provide separate administrative accounts, and where appropriate, separate applications to manage administrative functions such as user maintenance.</p> <p>AISN’s approach to developing administrator applications is to exclude such applications from public-facing URLs where possible.</p> <p>All applications will be hosted in an environment that uses SSL certificates.</p>
<b>SWS-12</b>	Will the Solution require multi-factor authentication for administrator login sessions? Please describe.	Y	<p>The solution will use multi-factor authentication as required per statement of work.</p>
<b>SWS-13</b>	Will the Solution provide the creation of citizen accounts over an encrypted connection allowing them to provide non-sensitive user data? Please describe.	Y	<p>The solution will require the use of SSL certificates for all citizen facing applications. Each website owner (<i>i.e.</i>, agency) will own their individual certificate.</p> <p>Wildcard certificates are no longer recommended because of ownership and control challenges.</p>

<b>SWS-14</b>	Will the Solution allow the user secure access to their account information free of charge from any Internet capable computer? Please describe.	<b>Y</b>	The solution will allow user access to the user's account information over an encrypted connection at no charge to the end user.
<b>SWS-15</b>	Will the Solution present the user with information on account balances, history, statuses, and payments? Please describe.	<b>Y</b>	<p>The solution will provide an end user interface that will allow the end user to view their account and any related account activity, such as payments, support tickets, <i>etc.</i></p> <p>The access will always be over an encrypted connection, at no charge to the end user.</p>
<b>SWS-16</b>	Will the Solution interface with various COV enterprise systems using web services to update information in real time? Examples might include applying for permits, filing use taxes, signing up for programs, and then making payment. Please describe.	<b>Y</b>	The solution will have the capability to interface with any existing COV enterprise web service. These interfaces will be able to read and update information by using web service calls.
<b>SWS-17</b>	Will the Solution offer Single Sign On (SSO) functionality in case the user has to logon to multiple systems? Please describe.	<b>Y</b>	The solution will offer and support SSO through the use of an approved SSO vendor per each statement of work.

<b>SWS-18</b>	<p>Will the Supplier provide online support for any issue that requires website owner intervention for routing to the proper contact? Please describe availability and process.</p>	<b>Y</b>	<p>The solution will include an access to a ticketing and issue management system.</p> <p>Users will be able to submit tickets via email, telephone, or per statement of work.</p> <p>All issues will be triaged by supplier and assigned to an appropriate internal resource for resolution.</p>
<b>SWS-19</b>	<p>Will the Solution be capable of producing an online bill/statement that is presented to the user/payer in a format similar to bills/statements that may be currently billed by the website owner? Will that statement be produced in a PDF format and have the option to print or save? Please describe.</p>	<b>Y</b>	<p>The solution will produce customer statements in both web page and pdf/download format.</p> <p>PDF formats will be available for online viewing or download and save.</p>
<b>SWS-20</b>	<p>Will the Solution be deployed in a manner that allows customization for graphics/branding? Please describe.</p>	<b>Y</b>	<p>The solution will be deployed using standard page templates that will contain easily maintained sections for displaying such items as standard text and graphic images such as logos.</p> <p>This capability will be delivered by allowing an administrative user to upload updated image files that will then be referenced in the solution for end user display.</p>
<b>SWS-21</b>	<p>Will the Solution allow any consistent business rule to be integrated, using configuration features and without any code changes, on behalf of the website owner? Examples might include conditional payments, full but not partial payments, date/time related payments, etc. Please describe.</p>	<b>Y</b>	<p>The solution will allow limited business rules to be integrated, where such capability is consistent with the required effort.</p> <p>As an example, partial or conditional payments will be handled using a classic debit and credit approach to collecting transactions and keeping track of balances due by invoice and/or customer. This simple approach allows for more source code re-use and facilitates the export of transactions as a data source for COV agency level accounting systems.</p>

<b>SWS-22</b>	Will the Solution draw data from one and/or multiple data sources and hide or display data elements that the website owner desires? Please describe.	<b>Y</b>	<p>The solution will draw data from one and/or multiple data sources as may be required per each statement of work.</p> <p>Each application will hide or display data elements as required by each statement of work.</p>
<b>SWS-23</b>	Can the Solution be linked to the website owner's web content management system for services such as document management services? Please describe.	<b>Y</b>	<p>The solution can be linked to a website owner's web content management system if that system can expose such data through a secure web service.</p>
<b>SWS-24</b>	Can the Solution be linked to the website owner's databases? Please describe.	<b>Y</b>	<p>The solution can be linked to a website owner's databases if that system can expose such data through a secure web service.</p>
<b>SWS-25</b>	Will the Solution provide the website owner with operational and financial activity reports in a mutually agreed format? Please explain.	<b>Y</b>	<p>The solution will provide the website owner with operational and financial activity reports as required per each statement of work.</p> <p>The format of these reports will also be detailed in a statement of work and in a mutually agreed upon format.</p>

<p><b>SWS-26</b></p>	<p>Will you provide user acceptance testing (UAT) in a separate TEST environment as part of site implementation? If yes, please provide a detailed explanation of the process and components of the UAT and include an example or a template.</p>	<p>Y</p>	<p>AISN will provide user acceptance testing as part of a three-tier development process.</p> <p>UAT is performed in the second step of the process, where the end user can review and test a development release prior to deployment to production.</p>
<p><b>SWS-27</b></p>	<p>Will you make changes based on UAT? Please describe past experience and results, including any changes made prior to go-live as a result of the UAT.</p>	<p>Y</p>	<p>AISN will make changes based on UAT if such changes are within the scope of work.</p> <p>This process must be carefully managed to help ensure that development does not get stalled for minor issues and to keep development going in the proper direction toward a successful outcome.</p> <p>This process is a team effort, and fairness must reign. If “substantial” changes are necessary that require major re-writing of source code, then this will be handled through the normal process of a change order, which will follow the same guidelines as a statement of work.</p>
<p><b>SWS-28</b></p>	<p>Will you provide a communication, governance, and project plan, including milestones? Please describe and provide examples.</p>	<p>Y</p>	<p>Each statement of work will include any a detailed project plan that will specify how the parties will communicate, any required governance references, and all deliverables and milestones.</p>

<b>SWS-29</b>	Will you provide a detailed implementation plan for the website solution? Please describe.	<b>Y</b>	AISN will provide an implementation plan as part of any statement of work.
<b>SWS-30</b>	Will you define criteria for successful completion of planned deliverables? Please explain.	<b>Y</b>	AISN will define the method and/or criteria of acceptance as part of each statement of work. Typically, this involves deliverables with review and sign off by all parties to the statement of work.
<b>SWS-31</b>	Will the Solution have the capability for a COV application administrator to easily add user defined fields and tables without code changes? Please describe.	<b>Y</b>	<p>The solution will provide this capability as required by each statement of work.</p> <p>This capability would require a very advanced application and data management interface and is typically reserved for only very complex requirements as it can easily get out of hand and create data integrity issues. Most applications may allow such features in the read only or reporting portion of a solution, where exposure to “breaking the solution” can be kept to a minimum. As a general rule, AISN does not recommend this practice because of the exposure to application failure and loss of data integrity.</p>

<b>SWS-32</b>	Will the Solution have the capability for a COV administrator to define custom work-flow for approvals, track the status for each step, and also define automatic escalation and notification process? Please explain how the Solution accomplishes this.	<b>Y</b>	<p>The solution will have the capability for a COV administrator to define custom workflows for approvals, track the status for each step, and define escalation and notification processes.</p> <p>This will be accomplished by including in each statement of work the required process that will need to be designed and coded into the application.</p> <p>Simpler applications can use a simple transaction status to keep track of the progress of a transaction through a process.</p> <p>More complex applications can use processes similar to SharePoint workflows.</p>
<b>SWS-33</b>	Will the Solution have the capability to allow a user to associate a document (as an attachment or a link - (i.e. email, xls, doc, txt, csv, pdf, XML, etc)) with any record at any step in the workflow so that it will be available to subsequent users? Please describe.	<b>Y</b>	<p>The solution will contain the capability to allow a user to associate a document with any record at any step in the workflow.</p> <p>Such documents will be stored as Blob objects in a database.</p>
<b>SWS-34</b>	Will the Solution have the capability to download selected data in a format usable on a PC application (i.e. MS Office, Excel, and Access)? Please describe.	<b>Y</b>	<p>The solution will have the capability to download selected data in any format specified per each statement of work.</p> <p>Sample formats include CSV, Office, and PDF.</p>

<b>SWS-35</b>	Will the Solution include any pre-built (delivered "out of the box") reports for all solutions? Please list and describe those reports.	<b>Y</b>	<p>The solution will include any standard reports as required per each statement of work.</p> <p>Standard reports include such items as user lists, transaction reports, and SEO reports.</p>
	Will the Solution provide features to allow for system configuration (where the Solution supports an administrator using built in editors to adjust the Solution without requiring coding changes to the application. e.g. translation codes, user permissions, views, reports, and workflow business rules)? Please describe.	<b>Y</b>	<p>The solution will provide these features.</p> <p>AISN considers this a very advanced application feature, the details of which will need to be worked out for each statement of work.</p>
<b>SWS-37</b>	Will the Solution provide inter-operability or compatibility with common versions of desktop operating software (i.e. Microsoft Windows, Mac OS), Web browser software (i.e. Internet Explorer, Firefox) and other third party applications (i.e. Adobe, Excel)? If yes, please describe. If no, please identify any known issues, including the software (with version), and how this could impact the Solution.	<b>Y</b>	<p>The solution will provide this inter-operability through a user interface to allow for the creation and export of various elements of the application, including, but not limited to data elements, in standard Windows file formats such as .csv, .xls, .doc, .and .pdf.</p> <p>This requirement will have to be considered for each statement of work.</p>

<p><b>SWS-38</b></p>	<p>Will the Solution have the capability to prevent multiple users from updating the same record simultaneously? If yes, please describe how this is done and any limitations. If no, please explain what happens when multiple users are updating the same record.</p>	<p>Y</p>	<p>The solution will be able to meet this requirement.</p> <p>This capability is managed through proper application design and database integration. Typically, in an application that uses a service-based database such as Oracle, this is generally not an issue, since database service requests are managed by the service on a FIFO basis. In web-based (“stateless”) applications, a web browser will not hold a lock on a record. If a back-end process requires a table or row level lock, this will be managed in the solutions' code-behind; the web application will not suffer as a result of this activity.</p>
<p><b>SWS-39</b></p>	<p>Will the Solution provide the capability to dynamically (without code changes) include calculated fields on screens, including summary and derived fields? Please describe.</p>	<p>Y</p>	<p>The solution will provide this capability.</p> <p>End user custom fields containing constants or functions can be designed into the application. This feature should be considered an advanced application requirement and should be used only where absolutely necessary because of the complexity it adds to the development and maintenance effort. Additionally, such capability assumes that the end user understands how to construct custom equations that will result in accurate results. In general, AISN recommends minimizing this capability. A robust data export capability may be a better way to meet this requirement.</p>

<p><b>SWS-40</b></p>	<p>Will the Solution's test plan include:  a) Development of test data,  b) Development of test scripts,  c) Conducting the testing,  d) Analysis of test results including benchmarking,  e) Reporting of test results, and  f) Resolution of problems identified during testing?  Please describe.</p>	<p><b>Y</b></p>	<p>The solution will include this capability.</p> <p>As indicated elsewhere, development will follow a three phase process: development, testing, and production.</p> <p>Each phase will contain test procedures that will be used to thoroughly test solution capabilities prior to moving the application unit of work to the next stage.</p> <p>Each level of testing will include the tracking of all reported bugs and the resulting resolution.</p> <p>Additional information:  Test data is very useful and often required in order to test an application effectively. Test scripts typically apply to database-level scripts used to create initial data tables, although this functionally could be built into the application's administrative interface. Testing is done at three levels: development, staging, and production as indicated in SWS-26. Analysis and reporting of test results is generally included as part of unit testing, but only in those cases where unit testing is a requirement. If necessary, AISN will provide a separate unit testing project or application (this option can substantially increase development costs and should be used only when required and never as a matter of course). Problem resolution will come out of QAT and UAT processes. AISN will provide end user appropriate tools for documenting test results and "bugs" requiring attention.</p>
<p><b>SWS-41</b></p>	<p>Will the Solution provide a feature for users to setup custom notification and alerts? Please describe.</p>	<p><b>Y</b></p>	<p>The solution will provide this feature.</p> <p>As part of the user profile interface, users will be able to choose which pre-defined solution alerts they want to receive.</p> <p>Where appropriate, users can fine-tune such settings as frequency of receipt and which specific notifications or alerts they choose to receive.</p>

<b>SWS-42</b>	Can the Solution "punch-out" to the Commonwealth's payment processor? Please explain.	<b>Y</b>	The solution will be able to submit payment requests to the Commonwealth's selected payment processor.  Additionally, the solution will trap and record all submitted transactions as well as all responses received from the selected payment processor.
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<b>Security &amp; Authentication</b>			
<b>#</b>	<b>Specification</b>	<b>A</b>	<b>B</b>
<b>SEC-1</b>	Will the Solution comply with all provisions of the current Commonwealth of Virginia security procedures (published by the Virginia Information Technologies Agency (VITA) at <a href="http://www.vita.virginia.gov/library/default.aspx?id=537">http://www.vita.virginia.gov/library/default.aspx?id=537</a>	<b>Y</b>	AISN will meet all provisions of the Commonwealth of Virginia security procedures published by the Virginia Information Technology Agency (VITA) published at <a href="http://www.vita.virginia.gov/library/default.aspx?id=537">http://www.vita.virginia.gov/library/default.aspx?id=537</a> or a successor as it relates to supplier operation.
	<a href="http://www.vita.virginia.gov/library/default.aspx?id=537">http://www.vita.virginia.gov/library/default.aspx?id=537</a>		
	or a successor URL(s)) as pertinent to your operation ?		
<b>SEC-2</b>	(M) This is MUST HAVE #2 - The Solution's information system components, services, data and system information associated with the information system components and services shall remain within the continental United States. Please describe.	<b>Y</b>	AISN services are provided within the continental United States. (redacted)  All Tier III or above facilities all are located within the continental United States.
<b>SEC-3</b>	Will the Solution provide audit trail capability as required by COV security standards? Please describe.	<b>Y</b>	AISN will employ Paessler's PRTG, Trident IDS and will aggregate and provide analysis with Solarwinds SIEM to provide monitoring and an audit trail to meet or exceed COV security standards. These will be provided in conjunction with application auditing tools as required to establish a baseline security level to meet the common security standards across the solution platform and at increased levels as required by specific data. Specific audit trail elements will be established as a part of defining hosting/application requirements.

<b>SEC-4</b>	Will the Solution include security procedures when a breach occurs? Please describe.	<b>Y</b>	AISN has fully developed incident response policies and procedures based on NIST's 800-61 standard, which include security incident handling and notification of relevant stakeholders. These incident handling procedures meet COV SEC 502 and SEC 525 standards.
<b>SEC-5</b>	Will the Solution include website owner access to all security breach reports and corresponding logs? Please describe.	<b>Y</b>	As a part of the incident response and breach notification process described above in the response to SEC-4 AISN's solution preserve chain of custody and make breach reports and logs available to website owners.
<b>SEC-6</b>	Will the Solution include authentication and authorization controls that align with COV standards linked above? Please describe how the Solution manages user accounts and authentication for public facing web applications.	<b>Y</b>	AISN's solution will leverage Okta to provide a robust identity and access management (IAM) capability. AISN's IAM solution will securely connect customers and provide authentication and authorization controls that align with COV standards across the range of service requirements.
<b>SEC-7</b>	Will the Solution ensure secure and encrypted data sharing with the Commonwealth data center? Describe the methods that can be deployed.	<b>Y</b>	As with its current hosting for the Commonwealth, AISN's solution will provide a range of encryption based on customer needs. This will include native encryption with Database (e.g., MS SQL Server DB Encryption) and the latest commercially available volume-encrypted products (e.g., BitLocker).
<b>SEC-8</b>	Will the Solution provide for the separation of data from the web services? Please describe how the web server protects application data.	<b>Y</b>	AISN's solution will provide a multi-tiered architecture that separates data from web services. The system will employ an in-depth defense strategy to ensure security across confidentiality, integrity and availability.
<b>SEC-9</b>	Will you, as part of the Solution, provide VITA and the website owner with security vulnerability testing/scanning and results every 30 days? Please describe.	<b>Y</b>	AISN's solution will use Tenable to provide scanning and reporting every 30 days or more often as necessary due to system changes or based on the threat landscape changes. AISN has a well-developed, implemented, and established set of policies and procedures used for identification and remediation of vulnerabilities that has been in place and tested as a part of the current services provided to the Commonwealth. These processes will be a part of the AISN solution.

<b>SEC-10</b>	Will the Solution have an established process to address discovered security vulnerabilities? Please describe.	<b>Y</b>	AISN's solution has developed and implemented a well-established set of policies and procedures used for identification and remediation of vulnerabilities that has been in place and tested as a part of the current services provided to the Commonwealth. These processes will be a part of the AISN solution.
<b>SEC-11</b>	Will you, as part of the Solution, provide different types of security audits and reports? Please explain types and how often they are completed.	<b>Y</b>	AISN's solution will provide a variety of types of audits, including technical, physical and administrative. The information security audits will cover topics that include physical security of data centers, logical access, and key components to maintaining a robust security solution. The range of audits will meet or exceed the COV standards.
<b>SEC-12</b>	Will you, as part of the Solution, allow website owner access to Solution security and audit reports? Please explain.	<b>Y</b>	Security audit reports will be a part of the baseline services offer as a part of AISN's solutions. The website owners will have complete access to the security and audit reports.
<b>SEC-13</b>	Will the Solution ensure the security and confidentiality of any and all financial information that the Solution obtains from users? Please describe.	<b>Y</b>	AISN's solution will provide a PCI-compliant cloud environment that can be used by customers to maintain their own compliance. AISN will validate and document compliance of its cloud annually by conducting an assessment of the following cloud resources: compute, storage, and networking. These assessments occur in each data center through which AISN provides cloud hosting services.

<p><b>SEC-14</b></p>	<p>Will the Solution, including systems, software, hardware, processes, and partners, adhere to the requirements of the Cardholder Information Security Program (CISP) and maintain full PCI Security Standards Council compliance? Please describe.</p>	<p><b>Y</b></p>	<p>AISN's solution will provide a PCI-compliant cloud environment that can be used by customers to maintain their own compliance. AISN will validate and document compliance of its cloud annually by conducting an assessment of the following cloud resources: compute, storage, and networking. These assessments occur in each data center through which AISN provides cloud hosting services.</p>
<p><b>SEC-15</b></p>	<p>Will the Solution provide a password protected administrative area allowing the website owner to assign internal users roles to search and view user account history, reset logins/passwords, issue refunds, etc.? Please describe business owner admin access capabilities.</p>	<p><b>Y</b></p>	<p>As with the current AISN services, AISN will provide the website owners with complete control over their websites. AISN's solution will provide the website owner with the capability to assign internal users roles with comprehensive permissions that permit them to search and view user account history, reset logins/passwords, and issue refunds.</p>
<p><b>SEC-16</b></p>	<p>Will the Solution require multi-factor authentication of administrative access? Please describe.</p>	<p><b>Y</b></p>	<p>AISN's solution will leverage Duo's wide variety of authentication methods to enable users to log in securely and quickly. Duo Push, sent by the Duo Mobile authentication application, will allow users to approve push notifications to verify their identity.</p>
<p>.</p>	<p>Will the Solution include website owner access to all security breach reports? Please describe.</p>	<p><b>Y</b></p>	<p>AISN has fully developed incident response policies and procedures based on NIST's 800-61 standard, which include security incident handling and notification of relevant stakeholders. These incident handling procedures meet COV SEC 502 and SEC 505 standards. As a part of these procedures, the AISN solution will provide website owners with full access to breach reports relevant to their sites.</p>

<p><b>SEC-18</b></p>	<p>Will the Solution have the capability to provide auditing and reporting of system administration functions? Please describe.</p>	<p><b>Y</b></p>	<p>AISN will employ Paessler's PRTG, Trident IDS and will aggregate and provide analysis with Solarwinds SIEM to provide monitoring and an audit trail to meet or exceed the COV security standards. These will be provided in conjunction with application auditing tools as required to establish a baseline security level to meet the common security standards across the solution platform and at increased levels as required by specific data. Specific audit trail elements will be established as a part of defining hosting/application requirements. The capabilities will include the capability to provide auditing and reporting of system administration functions as required by the organization.</p>
<p><b>SEC-19</b></p>	<p>Will the Solution have the capability to maintain a log of reports that have been run, by name, date and time, and user? Please describe.</p>	<p><b>Y</b></p>	<p>AISN will employ Paessler's PRTG, Trident IDS and will aggregate and provide analysis with Solarwinds SIEM to provide monitoring and an audit trail to meet or exceed the COV security standards. These will be provided in conjunction with application auditing tools as required to establish a baseline security level to meet the common security standards across the solution platform and at increased levels as required by specific data. Specific audit trail elements will be established as a part of defining hosting/application requirements. The capabilities will include the capability to maintain a log of reports that have been run, by name, date and time, and user as required by the organization procuring the service.</p>
<p><b>SEC-20</b></p>	<p>Will the Solution ensure that passwords are never viewable in clear text in any part of the application or database? Please describe.</p>	<p><b>Y</b></p>	<p>All passwords are stored using various data encryption schemes. Additionally, any end user web forms/ pages that contain password input controls will be styled to not show the password being entered. Any profile maintenance page will mask such items as passwords and PINS.</p>

<b>SEC-21</b>	Will the Solution have the capability to automatically disable and report user accounts that have been inactive for a specified period (i.e. 90 days)? Please describe.	<b>Y</b>	AISN's solution will leverage Okta to provide a robust identity and access management (IAM) capability. This will include the ability to monitor accounts for inactivity over a period of time, invalid login attempts, and a range of activities that require accounts to be disabled.
<b>SEC-22</b>	Will the Solution include self service capabilities for users to reset and recover their own passwords? Please describe.	<b>Y</b>	AISN's solution will use Forefront Identity Manager (FIM) to provide self-service password reset. The solution will provide a portal for internal users and a portal for external users.
<b>SEC-23</b>	Will the Solution have the ability for the system administrator to lock and unlock user accounts and track all login attempts - both successful and unsuccessful? Please describe.	<b>Y</b>	AISN's solution will leverage Okta to provide a robust identity and access management (IAM) capability. This will include the ability to monitor accounts for inactivity over a period of time, invalid login attempts, and a range of activities that require accounts to be disabled.

<b>Application Maintenance</b>			
<b>#</b>	<b>Specification</b>	<b>A</b>	<b>B - Responses</b>
<b>APP-1</b>	Will the Solution include a testing/release process? Please describe.	<b>Y</b>	<p>Solution development will be sandboxed into three areas: development, test, and production.</p> <p>All work starts in development and makes its way to staging for customer review, and then finally, it moves into production. As units of work are moved from area to area, appropriate sign-offs are required.</p>
<b>APP-2</b>	Will the Solution include a test environment that mirrors production system functionality and performance? Please describe.	<b>Y</b>	<p>The solution will include a test environment that serves as a staging area for in-process testing prior to release to production. A mirrored production system may be provisioned as part of load balancing or disaster recovery, but typically the test environment is slightly ahead of production.</p>
<b>APP-3</b>	Will the Solution ensure testing of all components on all applicable platforms in a test environment? Please describe.	<b>Y</b>	<p>The solution will be tested in all applicable platforms (browsers), including Microsoft Internet Explorer, Microsoft Edge, Google Chrome, Mozilla Firefox, and Apple Safari, as well as mobile versions of each of these.</p>
<b>APP-4</b>	Will the Solution include the use of any 3rd party tools or services in the testing/release process? Please describe.	<b>Y</b>	<p>The solution will include third-party tools, where appropriate, for any needed functionality.</p> <p>However, it should be noted that the use of third-party tools will be minimized to reduce associated license costs as well as potential security risks.</p> <p>An example of an acceptable third-party tool is an email relay library.</p>

<p><b>APP-5</b></p>	<p>Will the Solution have the ability to manage web servers/app servers, etc.? Please explain, to include redundancies, expandability, capacity management, monitoring, etc.</p>	<p><b>Y</b></p>	<p>The solution will manage web servers through a hosting agreement that will include managed services to cover such items as load balancing, SSL certificates, backup, restore, and all resource monitoring.</p> <p>Application servers will be managed through an application support agreement. This would cover the management of such items as IIS, Apache, Database Servers, etc.</p> <p>Redundancies, expandability, capacity management and monitoring will all be included in the above agreements.</p> <p>Additionally, the solution will be covered under an operations and maintenance agreement that covers such services as vulnerability scans, framework updates, library updates, patching, etc.</p>
<p><b>APP-6</b></p>	<p>Will the Solution include a process for code and change management? Please describe.</p>	<p><b>Y</b></p>	<p>The solution will include and adhere to a strict process of code and change management.</p> <p>All code will be stored in a source code repository such as Team Foundation Server or Github.</p> <p>If VITA has an approved change management process, it will be used, otherwise AISN will use its process.</p>
<p><b>APP-7</b></p>	<p>Will the Solution include an escrow process? Please describe.</p>	<p><b>Y</b></p>	<p>The solution, when required per statement of work, will include an agreement with a third-party escrow company.</p> <p>The escrow company will be responsive for warehousing source code and making it available in the event of abandonment or orphaning.</p>
<p><b>APP-8</b></p>	<p>Will the Solution include a process for archiving data? Please describe.</p>	<p><b>Y</b></p>	<p>The solution will include a utility to allow administrators to archive production data, if required by any statement of work.</p> <p>Typically, this activity will be performed as part of an accounting period closing or some other related event.</p>

<b>APP-9</b>	<p>Will the Solution include a methodology for troubleshooting issues, coordinating help desk, and tracking status of issues? Please describe</p>	<b>Y</b>	<p>The solution will include a troubleshooting methodology.</p> <p>This process will begin with the submission of a request into AISN's task ticketing system, where it will be triaged and assigned to the appropriate person or department for resolution.</p> <p>In addition, AISN will manage a telephone help desk to accept tickets via telephone.</p>
<b>APP-10</b>	<p>Will the Solution include a process for managing upgrades and maintenance? Please describe.</p>	<b>Y</b>	<p>The solution will be covered by an operations and maintenance agreement. Such an agreement will cover services needed to keep the application updated and secure.</p> <p>Solution upgrades will follow the same process as initial development; usually through a change order to the statement of work.</p> <p>AISN strongly recommends that all development efforts be covered by an O&amp;M agreement to help insure that the highest level of security is maintained.</p>
<b>APP-11</b>	<p>Will the Solution include downtime notification to the website owner and general public via email and posting on the Solution website? Please describe.</p>	<b>Y</b>	<p>The solution will include a downtime notification process.</p> <p>Should the solution need to go offline, the website owner will be contacted first and informed of the reason for the downtime as well as the anticipated downtime window.</p> <p>Once the website owner has been notified, an appropriate web page will be enabled to inform visitors that the site is temporarily unavailable. When possible, the notice will advise the visitor as to the expected period of time that the site will be down.</p>
<b>APP-12</b>	<p>Will Database Administrator support be offered as part of the Solution? Please detail what types (ex. Oracle, MS, Sybase, etc.) and describe how the types are supported.</p>	<b>Y</b>	<p>The solution will include the support of a database administrator. The DBA's services are used during the development phase to primarily assist in initial database setup and table design as well as post-installation to assist in troubleshooting database issues.</p> <p>Although almost any database engine can be supported, in general, the most used engines are MySQL, SQL Server, and Oracle.</p>

<b>APP-13</b>	Will the Solution provide tools to migrate to and/or from another provider? Please explain.	<b>Y</b>	The solution, when required, will include the services to move the application from one server/ provider to another and/or any application development to migrate data if needed.
<b>APP-14</b>	Will the Solution provide for additional data storage on demand for a given application? Please explain.	<b>Y</b>	<p>The solution will provide for additional storage on demand by deploying the database in an elastic cloud service such as AISN Cloud, Amazon AWS or Microsoft Azure.</p> <p>These services are capable of expanding storage based on the rate and amount of storage used.</p>
<b>APP-15</b>	Will the solution include a repository for source code and source code controls? Please describe.	<b>Y</b>	<p>The solution will use a trusted source code repository such as BitBucket, GitHub, or Team Foundation server.</p> <p>VITA and AISN will have access to any repository used.</p>

<b>Payment Processing</b>			
<b>#</b>	<b>Specification</b>	<b>A</b>	<b>Response</b>
<b>PMT-1</b>	Will the Solution be Payment Card Industry Data Security Standards (PCI DSS) compliant? Please describe.	<b>Y</b>	<p>The solution complies with the most recent version of PCI DSS as published by the Payment Card Industry Security Standards Council.</p> <p>The infrastructure and networks used to host payment gateways and integrated payment solutions for credit card processing all meet or exceed the requirements of PCI DSS.</p> <p>All communications between gateways and integrated solutions with payment processors for credit card transactions also meet or exceed the requirements of PCI DSS.</p>
<b>PMT-2</b>	Will the Solution be IAT (International ACH (Automated Clearing House) Transaction) compliant? Please describe.	<b>Y</b>	<p>The solution complies with International ACH standards.</p> <p>The infrastructure and networks used to host payment gateways and integrated payment solutions for ACH transaction processing all meet or exceed the requirements of IAT.</p> <p>All communications between gateways and integrated solutions with payment processors for ACH transactions also meet or exceed the requirements of IAT.</p>

<p><b>PMT-3</b></p>	<p>Will the Solution be NACHA (National Automated Clearing House Association) compliant? Please describe.</p>	<p><b>Y</b></p>	<p>The solution complies with the NACHA Operating Rules.</p> <p>Payment gateways and integrated payment solutions in the originator role will obtain the customer’s consent to debit or credit their bank account and initiate a charge over the ACH network.</p> <p>Such consent will be in a form and manner that complies with the NACHA Operating Rules and the Documentation for ACH Transactions.</p> <p>All ACH transactions shall be processed over the ACH Network.</p>
<p><b>PMT-4</b></p>	<p>Will the Solution have the ability to use batch processing? Please describe.</p>	<p><b>Y</b></p>	<p>The solution supports the ability to batch daily transactions into a single deposit made to the agency.</p> <p>Each transaction is processed individually and all transactions for the day are collected into a single processed batch.</p> <p>Batching does not occur on weekends and any transactions made throughout the weekend will be processed in the first weekday daily batch.</p>
<p><b>PMT-5</b></p>	<p>Will the Solution have the ability to use ACH Batch processing? Please describe.</p>	<p><b>Y</b></p>	<p>The solution supports the ability to batch daily transactions into a single deposit made to the agency.</p> <p>Each transaction is processed individually and all transactions for the day are collected into a single processed batch.</p> <p>Batching does not occur on weekends and any transactions made throughout the weekend will be processed in the first weekday daily batch.</p>

<b>PMT-6</b>	Will the Solution have a process to track and monitor transactions, including potentially fraudulent activities? Please describe.	<b>Y</b>	<p>The solution tracks and monitors all transactions.</p> <p>At the processor level, sophisticated anti-fraud measures are implemented to prevent fraud using identifiers such as device fingerprinting and proxy detection.</p>
<b>PMT-7</b>	Will the Solution have a typical process/methodology for payment processing? Please describe, and include what you require to complete your process, assumptions, etc.	<b>Y</b>	<p>The payment gateway solution uses standardized templates following a standard series of steps for payment processing.</p> <p>Templates may be personalized by each agency.</p> <p>Integrated solutions use standard script embeds within the customer's website or application.</p>
<b>PMT-8</b>	Will the Solution support electronic payments? Please describe which types you support (i.e. echecks, ACH, credit card, etc.)	<b>Y</b>	The solution supports both credit card and ACH transactions (including eCheck).
<b>PMT-9</b>	Will the Solution give customers the option to make either partial and full payments on accounts? Please describe.	<b>Y</b>	<p>The solution supports the ability to make either full or partial payments.</p> <p>Integration with existing systems used by agencies to track the individual account balances may require custom solution designs.</p>
<b>PMT-10</b>	Will the Solution allow the website owner to designate when partial payments are allowed? Please describe.	<b>Y</b>	<p>The solution can allow for the designation of partial payments.</p> <p>Integration with existing systems used by agencies to track the individual account balances may require custom solution designs.</p>

<b>PMT-11</b>	Will the Solution give customers the ability to make a single payment for multiple services (i.e. shopping cart)? Please describe.	<b>Y</b>	<p>The solution provides shopping cart services, allowing customers to make a single payment for multiple services.</p> <p>The solution assumes that the multiple services remain within the single agency site or application. For example, a constituent may purchase multiple services from Agency A (e.g., DMV) or Agency B (e.g., DGIF), but not from both Agency A and Agency B in a single transaction.</p>
<b>PMT-12</b>	Will the Solution give the website owner the ability to designate what type of payment is allowed by transaction type (i.e. tax payments may only be made by electronic check while fishing licenses may be made by any electronic payment method) Please describe.	<b>Y</b>	<p>The solution provides the ability for customers to designate specific payment methods for specific products or services.</p> <p>Some solutions may require customization depending on the technologies used in the site and/or existing systems used to define services and payment limitations.</p>
<b>PMT-13</b>	Will the Solution give an authorized business user the ability to change the types of payments allowed at any time? Please describe.	<b>Y</b>	<p>Administration of the payment types for various products or services can be supported as part of the solution.</p> <p>Some solutions may require customization depending on the technologies used in the site and/or existing systems used to define services and payment limitations.</p>
<b>PMT-14</b>	Will the Solution allow for voluntary donations/contributions to specified funds? Can these voluntary donations/contributions be made free of fees? Please explain.	<b>Y</b>	<p>The solution supports the ability for constituents to add an optional voluntary contribution to specified funds.</p> <p>These contributions can made separate of convenience fees but not of processor fees.</p>
<b>PMT-15</b>	Will the Solution conspicuously and clearly state all applicable fees (i.e. convenience, credit card, etc.) charged to a customer for conducting a payment? Please explain.	<b>Y</b>	<p>The solution will clearly state all applicable fees, including convenience and processor fees.</p>

<b>PMT-16</b>	Will the Solution payment process make known all applicable fees during the session, prior to confirmation of payment, and require that the customer affirmatively consent to the confirmation of payment before processing the payment transaction? Please describe.	Y	The solution will clearly present the fees during the process of the session and will require consent in accordance with both PCI DSS and NACHA.
<b>PMT-17</b>	Will the Solution clearly state that convenience and/or credit card fees are not associated with the website owner? Please describe.	Y	The solution will state that applicable convenience fees and processor fees are not associated with the website or application owner.
<b>PMT-18</b>	Will the Solution provide payment processing of credit card, e-check, and ACH payments at rates/fees that are comparable to those offered by other national payment processors? Please describe.	Y	The processor rates for the solution are comparable to those offered by national payment processors.
<b>PMT-19</b>	Will the Solution provide statements and/or receipts with fees states separately and distinctly? Describe.	Y	The solution provides the capability to return an itemized receipt upon completion of the transaction.
<b>PMT-20</b>	Will the Solution require customer approval of fees prior to initiating credit authorizations? Describe.	Y	The solution requires that the customer approve all applicable fees prior to submission of the payment authorization/ processing.
<b>PMT-21</b>	Will the Supplier seek review and approval of VITA and the website owner prior to changing any convenience fees? Please describe.	Y	Convenience fees are universally applied and will not be changed without prior consent and approval from VITA.  Requirement PMT-17 states convenience fees are not associated with the website owner, and therefore, implies website owner consent is not required in PMT-21.
<b>PMT-22</b>	Will the Solution include the ability for a website owner to be the merchant of record? Describe.	Y	The solution can support this requirement but will require a custom solution architecture.

<b>PMT-23</b>	Will the Solution provide all equipment and software for the purpose of accepting credit card, debit card and e-check payments? Please describe.	<b>N</b>	The solution provides for online and card-not-present transactions only and does not supply hardware or devices for processing (e.g., chipping/ swiping) physical cards on site.  If required, AISN can work with specific agencies on specific use cases to create a custom solution that supports card-present transactions.
<b>PMT-24</b>	Will the Solution provide Interactive Voice Response (RVR) payment options? Please describe.	<b>Y</b>	The solution can be integrated with existing IVR systems but may require a solution request.
<b>PMT-25</b>	Will the Solution provide foreign language payment options? Please describe	<b>Y</b>	The solution can provide translation into foreign languages but may require a solution request.
<b>PMT-26</b>	Will the Solution supply real time reporting capabilities to identify and confirm payments made through the system? Please describe.	<b>Y</b>	The solution can provide access to a real-time reporting dashboard allowing the agency to manage payments/ refunds, respond to disputes, search for transactions, and create reports.
<b>PMT-27</b>	Will the Solution provide the website owner with a specified account number or identifier to allow proper posting of payments by website owners to accounts receivable? Please describe.	<b>Y</b>	The solution provides unique account numbers for each website/ application owner to allow for proper posting and deposit of payments.

<b>PMT-28</b>	Will the Solution be interfaced with existing billing information as provided by the website owner? Please describe.	<b>Y</b>	<p>The solution can integrate with existing systems for managing constituent accounts and billing information.</p> <p>Integration with existing billing information may require a request for solution but can be accomplished in a variety of methods, including script integration into an application or custom code posts to a central payment gateway.</p>
<b>PMT-29</b>	Will the Solution include a process/file to update data in existing systems as an automated posting transaction? Please describe.	<b>Y</b>	<p>The solution can integrate with existing systems for managing constituent accounts and billing information.</p> <p>Integration with existing may require a request for solution but can be accomplished in a variety of methods, including script integration into an application or custom code posts to a central payment gateway.</p>
<b>PFM-30</b>	Will the Solution ensure electronic deposit of payments into website owner defined bank accounts within 24 hours of payment? Please explain.	<b>N</b>	<p>Nothing in the solution itself would prevent deposit of payments into website owner defined bank accounts within 24 hours.</p> <p>In practice, the actual time to deposit is controlled by the processing rules established by contract between COV and the selected payment processor, such as Elavon.</p>