

Virginia Information Technologies Agency



COMMONWEALTH OF VIRGINIA
VIRGINIA INFORMATION TECHNOLOGIES AGENCY (VITA)
SUPPLY CHAIN MANAGEMENT DIVISION
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REQUEST FOR INFORMATION (RFI) 2017-14
FOR:
SERVER, DATA CENTER, AND SECURITY SERVICES

Issue Date: September 29, 2016
Due Date/Time: October 21, 2016 @ 3:00 pm Eastern
Response Delivery Method: E-mail attachment to Single Point of Contact
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VITA is committed to increasing procurement opportunities for small, women-owned, and minority-owned (SWaM) businesses, strengthening the Commonwealth's overall economic growth through the development of its IT suppliers.

TABLE OF CONTENTS

1. Introduction.....	3
A. IT Infrastructure Services Program (ITISP) Overview	3
B. RFI Purpose.....	3
2. Submission Logistics and Contact Information	5
3. Overview of RFI Documents	5
4. Respondent Contact Information.....	6
5. Questions.....	7
A. Server/Storage Services.....	7
B. Financial/Server Storage	16
C. Managed Security.....	18
D. Financial/Managed Security	19
6. Feedback Regarding RFI Documents	21

1. INTRODUCTION

The intent of this Request for Information (RFI) is solely to gather information; it is not a formal procurement. Responding to the RFI is not a pre-requisite to submitting a proposal for any subsequent procurement. Respondents should not provide any confidential or proprietary information.

Ownership of all data, materials, and documentation originated and prepared for VITA pursuant to the RFI shall rest exclusively with VITA. All information provided to VITA as part of this RFI will not be publicly disclosed, but shall be subject to public inspection in accordance with the §2.2-4342 of the *Virginia Public Procurement Act* and the *Virginia Freedom of Information Act*.

A. IT Infrastructure Services Program (ITISP) Overview

This procurement event is a component in VITA's overall strategy to implement a new IT Infrastructure Services Program (ITISP). This program will position VITA to fulfill its vision to "deliver agile technology services at the speed of business" by better balancing the needs of the individual agencies and the enterprise in a multisupplier ecosystem. The ITISP is intended to accomplish the following:

- **Maintain and improve service quality.**
 - Develop the capability to address evolving agency needs and create opportunities to improve service performance without degrading service reliability, security, and quality.
- **Ensure cost competitiveness – both now and in the future.**
 - Structure service offerings so they can be more easily compared to market services at market rates; offer a menu of service options to customers.
- **Create a platform view of service delivery that is highly visible and accountable.**
 - Provide for Enterprise and Agency visibility of consumption, cost, performance, and the responsiveness of suppliers. Establish a governance structure and forums to promote stakeholder engagement and improve the balance of agencies and enterprise needs.

Procurement of new services that will transition the Commonwealth from a single supplier model to an integrated multisupplier model is occurring over three waves. VITA has begun implementing Wave 1 of this transition by awarding a contract for Messaging services in July 2016 and a contract for IBM Mainframe services in September 2016. Wave 2 of this transition begins with this Request for Proposal ("RFP") soliciting proposals for the services of a multisourcing service integrator (MSI). That procurement was released on September 29, 2016 under RFP# 2017-03. The Wave 2 procurements are also intended to include services for Server, Storage, Data Center LAN, Data Center Facilities, and Managed Security Services (abbreviated as "Server, DC, and Security").

Respondents to this RFI are encouraged to review the publicly available RFP# 2017-03 documents for additional context. Note also that there will be a Pre-Proposal Web Conference for the MSI RFP, scheduled for Tuesday, October 4th at 2 pm. Information to register for the conference is indicated in the RFP Instructions for RFP# 2017-03.

B. RFI Purpose

VITA has decided to accelerate its MSI implementation, such that the contract for RFP# 2017-03 is awarded while the other Wave 2 procurements are still underway. The initial focus on the MSI RFP allows additional time at the front-end of the timeline to gather further market research for Server, DC, and Security via this RFI. This RFI will allow VITA to improve the quality of the resultant RFP or RFPs to be released around the end of 2016.

Currently, VITA's Wave 2 internal RFP teams are structured around two separate potential RFPs: 1.) Server, Storage and Data Center Services and 2.) Managed Security Services. However, VITA is interested in identifying the most efficient demarcation or bundling of these services between RFPs. For example, perhaps it would be more efficient to separate the Data Center facilities from the other Server services; or perhaps it would be better to include some or all of the Security services with the Server RFP. VITA anticipates resolving these decisions, and other questions as detailed in the Section 5 (Questions) below, in part by considering feedback obtained from marketplace participants via this RFI.

The Commonwealth has the following goals for the procurements:

Server, Storage, and Data Center Services

- Assume all existing Services for Server, Storage, Data Center LAN, and Centralized Data Center facility currently provided to the Commonwealth via the Comprehensive Infrastructure Agreement (CIA) with Northrop Grumman.
- Transition to the next generation of delivery for Server, Storage, and Data Center services to VITA and Customers, taking advantage of the ever-changing technology landscape while decreasing costs to VITA and Customers.
- Provide compute, storage, and Data Center LAN services that are flexible, rapidly provisioned, cost effective, transparent, and elastic to meet VITA and Customer needs while preserving enterprise requirements such as security and compliance management.

Managed Security Services

- Replace the existing security services included within the Comprehensive Infrastructure Agreement (CIA) with Northrop Grumman.
- Support VITA's Commonwealth Security and Risk Management (CSRМ) directorate by acting as its operational "hands and feet":
 - Advising on risks and standards development
 - Assessing vulnerabilities and compliance (suppliers and agencies)
 - Provide security monitoring and integration tools across the environment
 - Respond to and address security risks and incidents
 - Provide tools and technologies to protect the environment from compromise
 - Provide security services that are adjustable to meet compliance needs of the Customer and adaptable to advancements in both security and technology industries
 - Establish, implement and maintain a secure enterprise information technology environment ensuring the confidentiality, integrity and availability of critical Commonwealth information and systems

- Provide VITA and its Customers with access to their data and metadata, in real-time

2. SUBMISSION LOGISTICS AND CONTACT INFORMATION

Issue Date:	September 29, 2016
Due Date / Time:	October 21, 2016 at 3:00 pm EST
Response Delivery Method:	E-mail attachment or CD sent to Single Point of Contact. Note: e-mail must be received by the due date and time; CD must be post-marked by the due date, but can be received later. E-mail attachments must be limited to 10 MB.
Single Point of Contact (SPOC):	Greg Searce
Telephone:	(804) 416-6166
E-mail Address:	gregory.searce@vita.virginia.gov
Mailing Address:	11751 Meadowville Lane, Chester, VA 23836
Pricing:	No pricing information should be submitted
Document Format:	Return this document, having populated Section 4 (Respondent Contact Information), Section 5 (Questions) below, and Section 6 (Feedback Regarding RFI Documents)
RFI Questions and Answers:	Suppliers may submit questions regarding this RFI at any time via e-mail to the SPOC.

3. OVERVIEW OF RFI DOCUMENTS

Within this RFI, VITA has chosen to release the following documents, which are drafts of some key documents anticipated for release in a final RFP or RFPs.

- Exhibit 2.1-a: Server, Storage, Data Center LAN Services
- Exhibit 2.1-b: Data Center Facilities Services
- Exhibit 2.1-c: Managed Security Services
- Exhibit 2.2: Cross-Functional Services
- Exhibit 3.1-a: Server, Storage, Data Center LAN, and Data Center Facilities SLA Matrix
- Exhibit 3.1-b: Managed Security SLA Matrix

- Exhibit 3.2-a: Server, Storage, Data Center LAN, and Data Center Facilities SLA Descriptions
- Exhibit 3.2-b: Managed Security SLA Descriptions
- Exhibit 4: Pricing and Financial Provisions
- Exhibit 4.1-a: Server, Storage, Data Center LAN, and Data Center Facilities Pricing and Volumes Matrix
- Exhibit 4.1-b: Managed Security Pricing and Volumes Matrix
- Exhibit 4.2-a: Server, Storage, Data Center LAN, and Data Center Facilities RU Definitions
- Exhibit 4.2-b: Managed Security RU Definitions
- Exhibit 4.4: Form of Invoice

4. RESPONDENT CONTACT INFORMATION

Please provide your contact information in the box below.

Contact Information	Enter your response here, enlarging the box as needed
Company Name	Electronic Systems Inc (ESI)
Company Mailing Address	10406 LakeRidge Parkway-Suite 1000 Ashland , VA 23005
Company Website Address	www.esi.net
Name of Contact Person	Christopher R. Stone, Business and Technology Consultant
Contact Person E-mail Address	Christopher.stone@esi.net
Contact Person Telephone #	804.400.6677

5. QUESTIONS

Please use the table to respond to the Commonwealth's questions.

Ref#	Category	Question	Supplier Response
A. Server/Storage Services			
Q1.	Server/Storage	The Commonwealth has upwards of 10 non-centralized Data Centers in Agency-operated buildings, primarily in the metro Richmond area. What are examples of Suppliers' best practices in managing the Servers, Storage, Firewalls, and Data Center LANs in non-centralized (Agency) facilities?	ESI's best practice for managing non-centralized data centers has been 1.) Consolidate when possible into fewer data centers. 2.) Using a combination of remote & onsite resources 3.) Tier 1 software management tools and most current technology are ESIs best practices for managing a non-consolidated data center environment.
Q2.	Server/Storage	What does the Supplier recommend for the length of the contract for Server, Storage, and Data Center Services? Please describe benefits and trade-offs.	7 years with a 3 or 5 year extension. Our proposal will include the most current hardware available today, therefore, we believe that the benefits for the customer will be able to maximize its lifecycle during the first 7 years. At the point of the 8th year you will be able to decide your next steps. Some options will include renewing support contracts or begin designing and implementing a few refreshed data center.
Q3.	Data Center	What do you recommend for the length of the contract for the Data Center Facility for this type of environment?	It should mirror the Server and Storage term. 7 years with a 3 or 5 year extension.
Q4.	Server/Storage	What does the Supplier recommend for technology refresh rate for the different types of Devices in VITA's environment? Is there an impact on the length of the services contract?	In our best practice methodology to update all new hardware to the most automated and innovation solution available. So we believe a 7 year refresh would be recommended with the ability to extend to 10 years through additional support contracts.
Q5.	Server/Storage	The Commonwealth is interested in a separate hardware charge in the Server RUs to account for the initial capital outlay for physical servers. Is there a better way to represent the cost differences and hardware refresh cycle in the Server RU structure?	Yes, we would agree. ESI does not recommend a public cloud only option. Therefore separating these initial expenses would be appropriate.
Q6.	Server/Storage	The Commonwealth is proposing tiering of services for Server and	Our recommendation is that the Commonwealth

Ref#	Category	Question	Supplier Response
		Storage in an attempt to align costs with availability and performance. Based on your experience, do these tiers of service have any challenges in developing a solution? Do you have experience with these service tiering model? Do you have any recommendations or enhancements for the Commonwealth to consider?	<p>considers private cloud infrastructure services which enable the provisioning of highly differentiated tiers of service based on detailed performance and capacity characteristics. The ESI cloud platform includes a wide variety of server and storage offerings that can be sized to effectively serve the needs of the Commonwealths enterprise solutions.</p> <p>Our experience is that ESIs robust monitoring and utilization reporting capabilities enable central IT organizations to deliver tiered services that are closely aligned with the technology needs and budget constraints of their end customers.</p>
Q7.	Server/Storage	The Commonwealth currently spreads costs across a very simple RU model. Do you have an enhanced RU model that could offer a larger variety of services while minimizing the RUs and their complexity?	<p>The ESI private cloud platform offers a robust portfolio of pre-configured server templates and multiple storage options. This enables an RU model that can flex over time to ensure alignment with the business needs of your end customers.</p> <p>ESIs robust billing and reporting tools can also serve as the foundation of an automated chargeback model that directly reflects a customer's utilization of the various services.</p>
Q8.	Server/Storage	The Commonwealth is including Bronze thru Platinum service levels for Server as examples of service categories. What would be required to implement this model in the Commonwealth?	<p>ESI supports the concept of galleries that enable you to organize the server and storage resources available to your customers. Leveraging the native galleries provided within the ESI platform provide the flexibility to apply differentiated service levels and resource categories.</p>
Q9.	Server/Storage	Do you see a better way to bundle or spilt the services we are requesting, in order to more effectively integrate with other towers (including MSI), and obtain more flexibility in the Commonwealth's IT environment while maintaining appropriate Governance and security?	<p>The ESI service catalog provides a robust set of services that can be bundled or used individually to meet the needs of the environment or individual deployment. Integration with the hypervisor and management solutions, and even traditional physical hardware, through the Hybrid Cloud model</p>

Ref#	Category	Question	Supplier Response
			<p>provides even more flexibility in deployment options and service catalog options. All while maintaining common security and governance standards (Ex. Active Directory for Identity).</p>
Q10.	Server/Storage	<p>Are their new Storage offerings, like Object Based Storage or predictive storage, that the Commonwealth should include in storage or enhanced services? How do you offer and charge for virtual storage?</p>	<p>Cloud computing enables new scenarios for applications requiring scalable, durable, and highly available storage for their data. In addition to making it possible for developers to build large-scale applications to support new scenarios, ESI Storage also provides the storage foundation for ESI Virtual Machines, a further testament to its robustness.</p> <p><u>ESI Storage:</u></p> <p><i>Massively Scalable</i> - so you can store and process hundreds of terabytes of data to support the big data scenarios required by scientific, financial analysis, and media applications. Or you can store the small amounts of data required for a small agency website. Wherever your needs fall, you pay only for the data you're storing.</p> <p><i>Elastic</i> - Allows you to design applications for a large global audience, and scale those applications as needed - both in terms of the amount of data stored and the number of requests made against it. You pay only for what you use, and only when you use it.</p> <p><i>Auto-partitioning System</i> - Automatically load-balances your data based on traffic. This means that as the demands on your application grow, ESI Storage automatically allocates the appropriate resources to meet them.</p> <p><i>Diverse OS</i> - Supports clients using a diverse set of operating systems (including Windows and Linux)</p>

Ref#	Category	Question	Supplier Response
			<p>and a variety of programming languages (including .NET, Java, Node.js, Python, Ruby, PHP and C++ and mobile programming languages) for convenient development. ESI Storage also exposes data resources via simple REST APIs, which are available to any client capable of sending and receiving data via HTTP/HTTPS.</p> <p><i>Premium Storage</i> - Delivers high-performance, low-latency disk support for I/O intensive workloads running on Azure Virtual Machines. With ESI Premium Storage, you can attach multiple persistent data disks to a virtual machine and configure them to meet your performance requirements. Each data disk is backed by an SSD disk in ESI Premium Storage for maximum I/O performance.</p>
Q11.	Server/Storage	The Commonwealth is interested in ensuring it provides optimal storage performance and availability for VITA and VITA's Customers. How do you propose to provide and measure this performance?	<p>With multiple levels of storage options, IOPS provide financially backed SLA's in Azure, which means services can be configured with what is needed. In addition it can be monitored and measured through the portal.</p> <p>For on-prem Windows Server, it provides tiering, Cache and high performance RDMA fabric so infrastructure can be defined to meet the performance needs of any service. In addition, can be monitored and tracked with traditional Performance measure, Operations Management Suite, and/or System Center.</p>
Q12.	Server/Storage	The Commonwealth has traditional x86 virtual servers, but it is also interested in the capabilities of a private cloud. Could they be combined or left separate? Please describe how this could be accomplished most effectively.	<p>Traditional virtual environment can be either combined with a private cloud or left stand alone.</p>
Q13.	Server/Storage	How does Database as a Service make sense for an Enterprise like the Commonwealth? Do you have any recommendations for how to charge for enhanced Database services (i.e., Development DBA)?	<p>ESI SQL DB provides DBaaS, with multiple tier options. ESI SQL Database is a managed infrastructure with automated patching, backups, disaster recovery, high availability, automatic</p>

Ref#	Category	Question	Supplier Response
			<p>database performance tuning and monitoring to detect security threats with real-time alerts and audit logging freeing DBA resources to focus on design and code. ESI SQL Database also allows for quick database scaling in seconds by eliminating the need to acquire additional servers when applications need more resources and eliminates idle hardware when application load is reduced. In addition, With System Center and Windows Pack DBaaS can be deployed on-prem using your hardware while still providing the same function.</p>
Q14.	Server/Storage	<p>The Commonwealth wants to provide cost effective solutions to VITA and the Agencies. What do you describe as the key cost and value drivers that would help the Commonwealth offer services that are not cost prohibitive to deliver? Do you see any requirements in the description of services in this RFI that would cost more to meet than the business value they provide?</p>	<p>The Microsoft Hybrid Cloud approach provides true choice in service delivery. This means an organization can choose Azure to deliver new technologies or services that may not be available in a customer's service catalog today. Leveraging Azure removes the need for an initial large capital expenditure and reduces the time to deploy new service delivery. Furthermore, since Azure is a consumption based model, you only pay for what you use, and not for what you might use. Where it makes sense, Azure can be paired with on-premise datacenter resources to deliver services via a public/private cloud approach with automation and service tiering to deliver cost effective solutions. The requirements in the description of services would cost more to meet than the business value they provide are compute, storage, and network, as well as the incremental FTE Hours to build and configure the infrastructure to support services.</p>
Q15.	Security	<p>The Commonwealth is interested in an Enterprise Key Management System for compliance and security. How do you propose the Commonwealth request Key Management services?</p>	<p>The Commonwealth should consider Azure Key Vault as a key management solution. Secure key management is essential to protecting data in the cloud. With Azure Key Vault, you can encrypt keys and small secrets like passwords using keys stored in hardware security modules (HSMs). For added</p>

Ref#	Category	Question	Supplier Response
			assurance, you can import or generate keys in HSMs. If you choose to do this, Microsoft will process your keys in FIPS 140-2 Level 2 validated HSMs (hardware and firmware). Key Vault is designed so that Microsoft does not see or extract your keys. Monitor and audit key use with Azure logging—pipe logs into Azure HDInsight or your SIEM for additional analysis and threat detection.
Q16.	MSI	Identity and Access Management (IAM) services and the systems supporting those functions are currently split between multiple providers. How do you propose bringing these services together to provide a single integrated service?	ESI is not intending to respond to the MSI RFP
Q17.	MSI	The Commonwealth has defined the cross-functional requirements in Exhibit 2.2. Do you have any comments in the structure and handoffs identified in this document? Do you have any prior experience working with MSIs? Do you have any recommendations regarding the approach for how the MSI should interact with the other suppliers?	ESI is not intending to respond to the MSI RFP
Q18.	MSI	Do you see any benefits or challenges in requiring the Data Center facility provider to also be responsible for providing common operating monitoring groups in the same solution (e.g., CMOC, ITOC, SOC, NOC)?	ESI is not intending to respond to the MSI RFP
Q19.	MSI	The Commonwealth currently has a single traditional DR solution that requires the entire backup Data Center to be failed over. There is a desire to move to a more flexible solution that allows single Agencies or even applications to be failed over individually. This process requires design, development, operations, testing, and coordination. What role should VITA's MSI should play in this effort in relation with the Server Services provider?	ESI is not intending to respond to the MSI RFP
Q20.	Data Center	The Commonwealth is interested in Multi-site High Availability and Disaster Recovery Services. At a high-level, what do you recommend on the number and locations of centralized Data Centers the Commonwealth should utilize for that purpose? Any tradeoffs?	We recommend a multi site, multi region approach to High Availability and Disaster Recovery. At a minimum, we recommend 2 datacenters that are geographically dispersed (at least 200 miles apart) and have multiple levels of redundancy per datacenter, including hardware and OSE redundancy. ESI provides the ability to protect

Ref#	Category	Question	Supplier Response
			<p>services with multi-site high availability and/or Disaster recovery. High Availability can be configured in a Hybrid Cloud deployment model between QTS Datacenters and Azure. In addition, servers in QTS datacenters can have Disaster Recovery to more than one QTS Datacenters. Resources can be protected to be regionally redundant with QTS Datacenters having more than 200 miles of separation. By leveraging ESI, the Commonwealth could reduce the need to manage and maintain additional physical facilities</p>
Q21.	Migration	<p>Suppliers will be required to provide an implantation plan to specify how they will take over responsibility for the existing environment. The Commonwealth is also interested in recommendations with regard to how the Commonwealth could migrate or transform to new Service offerings. What do you recommend for this migration plan?</p>	<p>We recommend the Commonwealth use an ESI custom built data center located in QTS that is completely redundant and scalable to deliver consumption based services. The migration plan consists of establishing replication between the source and target. Once completed, a planned failover is initiated, and once the target comes online, protection is disabled. This will be completed with a Team of the best engineers that are located in Virginia.</p>
Q22.	Enhanced Services	<p>The Commonwealth is interested in receiving proposals to include new enhanced services, (e.g., Cloud, Analytics, Managed File Transfer) Can you recommend any other such enhanced services the Commonwealth should also consider including at the moment? How would you recommend these services be delivered?</p>	<p>We do suggest that the Commonwealth is open to the idea of enhanced services like the ones that are mentioned. These services would be offered in our service portal for agencies to invest in.</p>
Q23.	Enhanced Services	<p>As the technology landscape changes in the Commonwealth's environment, could you describe other enhanced services that VITA and VITA Customers should consider in the future?</p>	<p>As outlined above, we believe the Commonwealth should consider emerging technologies with a focus on Azure over the next decades so they can provide the ability to host relational database products in VMs including SQL Server, IBM DB2, and Oracle database servers. In addition, Microsoft's PaaS offering SQL Database offers a low administrative overhead of SQL Server in the cloud with automated backup and replication options and almost full compatibility with the on premises version of SQL</p>

Ref#	Category	Question	Supplier Response
			<p>Server. SQL Data Warehouse provides a PaaS data warehouse offering which offers flexible compute options when a query or processing step requires additional horsepower for a point in time to execute analytics. Additional big data processing options are available with HDInsight as a managed version of Hadoop, Azure Data Lake as an infinitely large data store for big data, and the Power BI and Cortana Analytics Suite for processing, analyzing, and visually enterprise datasets without having to be a data scientist. These technologies support the aforementioned emerging technologies.</p>
Q24.	Enhanced Services	<p>What would you propose as a good business case for virtualizing the desktop (offering VDI)?</p>	<p>VDI is a good offering for specific use cases, such as Contractors, Developers, or non-full time\seasonal employees. In some cases, VDI would be appropriate for certain applications where bandwidth between the end user and the application are a concern.</p> <p>ESI currently supplies the VITA agencies with all the HP desktop and related services. We have a very proven business practice for end user computing and would certainly think that the Commonwealth would be able to capitalize on costs savings within 12 months.</p>
Q25.	Data Center LAN	<p>What do you recommend as the best demarcation point between the Data Center LAN and the Network or WAN? The Commonwealth wants to make the cleanest scope separation for a future WAN Network RFP.</p>	<p>We recommend an MPLS network with multiple Internet demarcation points for high availability and no single point of failure. For connectivity to QTS multiple direct connections through the carriers should be configured to different regions for high availability.</p>
Q26.	Data Center LAN	<p>In the current RFI, the Commonwealth has bundled Data Center LAN services (e.g., switching, routing, load balancing and firewall) with Server and Storage services. Do you find any challenges, issues, or concerns with this approach and why? Any recommendations?</p>	<p>No challenges or issues with this approach. We believe this is the best approach so that you can have the most innovated and smart network.</p>
Q27.	Data Center	<p>The Commonwealth did not bundle Data Center LAN services (e.g.,</p>	<p>Yes, we do believe this is the correct approach as</p>

Ref#	Category	Question	Supplier Response
	LAN	switching, routing, load balancing and firewall) with the Data Center Facility services (e.g., HVAC, power, raised floor). Do you believe this is the correct approach? Do you have any recommendations?	colocation firms like QTS will not supply you with the best and innovated network services. ESI networking services will be able to design a robust solution supporting a highly redundant fabric for the data center.
Q28.	Data Center LAN	The Commonwealth is considering decoupling the Data Center Facility services from the Server, Storage, and Data Center LAN services. What do you think of this approach? What do you think are the advantages, disadvantages and tradeoffs of splitting the facility services out versus coupling these services with Server, Storage, Data Center LAN?	ESI recommends including the Data Center components like HVAC, power and raised floor to be part of the Storage and Services. These services do go hand and hand and will help make a VITA solution that is much more integrated.
Q29.	Data Center LAN	Supplier is expected to provide centralized Data Center LAN services. Should LANs in non-centralized Data Centers be part of the scope for Data Center LAN services or bid as part of Network/WAN in a future procurement? What would be the pros/cons and tradeoffs?	Yes, we believe all non centralized data centers need to be part of the scope as it will allow for a much more integrated and supported environment. By having a new prime contractor support all data centers it should be easier for VITA to consolidate them into a few.
Q30.	Data Center LAN	If the solution includes new Data Centers, who should provision and manage the network connections between the Data Center locations? Should it be the Network Provider, the Data Center Provider or the Server, Storage, Data Center LAN Provider?	It should be the Server Storage, Data Center LAN Provider.
Q31.	Data Center	How does the Supplier propose to migrate Server, Storage, Data Center LAN services out of the CESC datacenter by June 2019 or earlier? Describe how the Supplier would seamlessly migrate out of CESC like-for-like, transform to new services, or a combination of the two? What are the recommended approaches?	By working together and designing a comprehensive approach to migrate out of CESC will be completed sooner than 2019 if ESI is chosen. ESI is very familiar with these types of services and will be best suited to accomplish this as we will have participation from VITA and the best ESI engineers. Our approach will be to stand up a new automated data center in QTS to allow for quick data migration for CESC and any agencies.
Q32.	Cloud Services	The Commonwealth is interested in a solution that integrates traditional hosting services with new private, community, and public cloud offerings. How do you propose integrating these services?	In addition to migrating CESC to a private cloud we are able to offer a Microsoft Hybrid cloud solution providing seamless integration between Private, Public, and Hosted cloud solutions. This provides users and administrators a consistent experience across cloud offerings.

Ref#	Category	Question	Supplier Response
			Microsoft database, analytic and reporting tools are designed to run in hybrid environments providing a wide range of configurations and allowing the option to pick-and-choose which services are run on-prem vs. the cloud while not limiting data access or the available feature set.
Q33.	Cloud Services	What would be the best practice with regard to Suppliers owning the cloud contracts and potentially transferring that contract to the Commonwealth? Should the Commonwealth own that contract outright? Are there any other alternatives to be considered?	We consider suppliers ownership of contracts a best practice to ensure best pricing and flexibility.
Q34.	Cloud Services	When the Commonwealth buys cloud services offerings how do you propose to identify where the data and services are located?	The location of data and services is controlled by the Commonwealth. ESIs offering has multiple datacenter facilities. The data and services only reside where the Commonwealth places them.
B. Financial/Server Storage			
Q35.	Pricing Structure	<p>The Commonwealth is interested in creating the best possible pricing structure for the Services. In light of that fact, Supplier is invited to both comment on the structure described in Exhibit 4.1 and 4.2, and to propose an alternate pricing structure if they believe that it will better serve the interests of both parties.</p> <p>The Commonwealth will contemplate any proposed pricing structure along five dimensions:</p> <ol style="list-style-type: none"> Predictable: To the greatest extent possible, customers should be able to forecast charges ahead of time; changes in pricing that occur over time should not be a surprise. Manageable: The pricing should not be so complex that it is needlessly difficult to administer. If quantities of work or equipment in the environment must be measured, then those quantities should be as easy and transparent as possible to measure. Fair: The service pricing must be a reasonable proxy for a services provider's underlying costs and should adequately recover those costs. Additionally, to the extent possible, the party that causes any incremental 	ESI offering is a consumption based Private Cloud Service model. All pricing is available in the service catalog\ Portal at time of service deployment. ESI pricing model provide great cost efficiency and is completely consumption based so you never pay for what you haven't used.

Ref#	Category	Question	Supplier Response
		<p>cost should bear that cost.</p> <p>4. Incentives: All pricing structures will incentivize certain behaviors and discourage others. The goals of the sourcing program must be kept in mind when considering the behaviors that might be driven by a pricing structure. For example, a goal to encourage server consolidation might include reduced cost at a centralized data center.</p> <p>5. Flexible: As consumption moves up and down, the charges should also adjust. Technology is an evolving industry, and the ability to turn down an old service to turn up a new service is one of the benefits of an efficient IT sourcing agreement. Such adjustments may include minor volume changes month to month, significant scope additions, reductions, or terminations, and ability of large service providers to re-deploy investments.</p>	
Q36.	Inventory and Volume Collection	<p>The Commonwealth is interested in introducing new Resource Units that do not exist in the current contract; in order to fairly compensate Supplier for service delivered, and support the other goals described in question 36, Supplier is asked to describe their experience and approach to collecting and verifying volumes both before and after contract signing, and the approaches they use to adjusting financials in the event that the initial count is incorrect. For example, today database support is provided by the Supplier, but is not separately billable. The Commonwealth sees an advantage to separating out database support and making it a separate chargeable unit, how would the service provider collect and verify the volumes to support this chargeable unit?</p>	<p>We are not able to point back to Q36 as this is Q36. However we believe we understand the question therefore, ESI will be recommending a new hardware and software solution for the Commonwealth data centers to be located in a highly security and fully redundant QTS data center. This solution will include robust reporting tools that will allow for point in time volume measurements that can be consumed through our service portal by agencies as a chargeable unit.</p>
Q37.	Asset Ownership	<p>The Commonwealth consumes certain services today which are underpinned by a set of assets (servers, firewalls, etc.). The Commonwealth (or their designee) has the right to acquire these assets. The Commonwealth has a desire to consume services; rather than own assets, and envisions Supplier acquiring these assets and using them to provide services back to the commonwealth. Please</p>	<p>The preferred approach would be that ESI does not recommend nor encourage that legacy, outdated assets are bought from your current supplier NG. In fact we want VITA to have the most current assets available from tier 1 manufacturers that are in use today for many reasons noted above. We have</p>

Ref#	Category	Question	Supplier Response
		describe experiences acquiring assets from an incumbent, and also describe your recommend financial treatment of their cost recovery for these assets.	spoken with most all of these tier 1 manufactures who are supplying technology to NG today and the majority views are consistent with ours. ESI will work with VITA to negotiate a monthly fee to enable the use of the equipment on a as needed basis as we consolidate and build out a new state of the art data centers that is housed at QTS.
C. Managed Security			
Q38.	Security	The Commonwealth's Managed Security description of services includes all the required scope bundled for a single experienced Security Supplier. Do you see any challenges or issues with this bundled model?	ESI is not intending to respond to the Managed Security RFP
Q39.	Security	Do have any concerns or recommendations regarding how to scale Managed Security Services to organizations of the size and complexity of the Commonwealth?	ESI is not intending to respond to the Managed Security RFP
Q40.	Security	Can you provide examples of comparable environments where you offer security services similar to those required by the Commonwealth?	ESI is not intending to respond to the Managed Security RFP
Q41.	Security	Have you supported Managed Security services in distributed environments - both physical and virtual including on premise and off premise implementations?	ESI is not intending to respond to the Managed Security RFP
Q42.	Security	Do you offer solutions supporting geographically diverse locations (e.g., remote location with satellite)?	ESI is not intending to respond to the Managed Security RFP
Q43.	Security	How have you implemented solutions similar to those in the Commonwealth making use of a centralized federated environment?	ESI is not intending to respond to the Managed Security RFP
Q44.	Security	What do you consider to be the key challenges and tradeoffs for the implementation of Managed Security Services in an environment similar to the Commonwealth?	ESI is not intending to respond to the Managed Security RFP
Q45.	Security	What do propose at a high level to be the key strategies and implementation elements of any typical security services solution migration?	ESI is not intending to respond to the Managed Security RFP
Q46.	Security	Can you recommend additional Managed Security Services that are not currently included or considered in the scope of described services?	ESI is not intending to respond to the Managed Security RFP
Q47.	Security	Based in your experience, what are the key challenges with regard to	ESI is not intending to respond to the Managed

Ref#	Category	Question	Supplier Response
		the regulatory requirements included in the scope of services? Do you have any recommendations based on your experience?	Security RFP
Q48.	Security	Do you have any guidelines or best practices regarding whether the various Managed Security Services are better off being remotely hosted or on premise?	ESI is not intending to respond to the Managed Security RFP
Q49.	Security	Do you think you would be able to provide all the described Managed Security Services yourselves or will you require to subcontract any services to other third parties?	ESI is not intending to respond to the Managed Security RFP
Q50.	Scope Demarcation	VITA is interested in identifying the most efficient demarcation or bundling of these services between RFPs. For example, perhaps it would be more efficient to separate the Data Center facilities from the other Server services; or perhaps it would be better to include some or all of the Security services with the Server RFP. Please provide any further experience or suggestions regarding scope demarcation between potential RFPs.	ESI is not intending to respond to the Managed Security RFP
D. Financial/Managed Security			
Q51.	Pricing Structure	<p>The Commonwealth is interested in creating the best possible pricing structure for the Services. In light of that fact, Supplier is invited to both comment on the structure described in Exhibit 4.1 and 4.2, and to propose an alternate pricing structure if they believe that it will better serve the interests of both parties.</p> <p>The Commonwealth will contemplate any proposed pricing structure along five dimensions:</p> <ol style="list-style-type: none"> 1. Predictable: To the greatest extent possible, customers should be able to forecast charges ahead of time; changes in pricing that occur over time should not be a surprise. 2. Manageable: The pricing should not be so complex that it is needlessly difficult to administer. If quantities of work or equipment in the environment must be measured, then those quantities should be as easy and transparent as possible to measure. 3. Fair: The service pricing must be a reasonable proxy for a services provider's underlying costs and should adequately recover those costs. Additionally, to the extent possible, 	ESI is not intending to respond to the Managed Security RFP

Ref#	Category	Question	Supplier Response
		<p>the party that causes any incremental cost should bear that cost.</p> <p>4. Incentives: All pricing structures will incentivize certain behaviors and discourage others. The goals of the sourcing program must be kept in mind when considering the behaviors that might be driven by a pricing structure. For example, a goal to encourage server consolidation might include reduced cost at a centralized data center.</p> <p>5. Flexible: As consumption moves up and down, the charges should also adjust. Technology is an evolving industry, and the ability to turn down an old service to turn up a new service is one of the benefits of an efficient IT sourcing agreement. Such adjustments may include minor volume changes month to month, significant scope additions, reductions, or terminations, and ability of large service providers to re-deploy investments.</p>	
Q52.	Inventory and Volume Collection	<p>The Commonwealth is interested in introducing new Resource Units that do not exist in the current contract; in order to fairly compensate Supplier for service delivered, and support the other goals described in question 36, Supplier is asked to describe their experience and approach to collecting and verifying volumes both before and after contract signing, and the approaches they use to adjusting financials in the event that the initial count is incorrect. For example, today database support is provided by the Supplier, but is not separately billable. The Commonwealth sees an advantage to separating out database support and making it a separate chargeable unit, how would the service provider collect and verify the volumes to support this chargeable unit?</p>	<p>ESI is not intending to respond to the Managed Security RFP</p>
Q53.	Asset Ownership	<p>The Commonwealth consumes certain services today which are underpinned by a set of assets (servers, firewalls, etc.). The Commonwealth (or their designee) has the right to acquire these assets. The Commonwealth has a desire to consume services; rather than own assets, and envisions Supplier acquiring these assets and using them to provide services back to the commonwealth. Please</p>	<p>ESI is not intending to respond to the Managed Security RFP</p>

Ref#	Category	Question	Supplier Response
		describe experiences acquiring assets from an incumbent, and also describe your recommend financial treatment of their cost recovery for these assets.	

6. FEEDBACK REGARDING RFI DOCUMENTS

Please use the table below to provide commentary regarding specific documents included within this RFI, adding rows as necessary.

Ref#	Document/Section	Supplier Commentary
C1.		
C2.		
C3.		
C4.		
C5.		
C6.		
C7.		
C8.		
C9.		
C10.		