# New Architecture Process, Application and Template



## **Agenda**

- Introduction
- Architecture Charter
- New Architecture Process
- New Architecture Application
- New Architecture Template
- When it Starts



# **Architecture Review Charter**



#### Introduction

This is about a new and exciting Architecture Review Process, Supporting Application and Architecture Overview Template.

There are three different sections for each of the actors in this process –

**Submitter** 

**Approver** 

**Administrator** 

The viewer role has only read rights

This process is going live on November 15th



#### **Architecture Charter**

- 1. We review technologies that are architecturally significant, new or modified, from the SPLM process and Agencies.
- 2. The Architectural Review Board reviews that Architectures are sufficiently documented, and that the Technical aspects of the submission meets VITA standards and best practices.
- 3. Before being considered the VITA tower lead will approve and submit the Architecture Overview. This ensures that the Architecture meets the service/business requirements.
- 4. The members of the Architectural Review Board are:
  - VITA Chief Architect or designee
  - VITA Security Architect or designee
  - MSI Chief Architect or designee
  - MSI Lead Architect or designee
- 5. When an updated VAR comes in, only the updated parts are reviewed
  - Those parts must be clearly identified by the submitter either in the change log or by using document change tracking.



### **Architecture Charter (cont)**

- 6. Meetings are every Thursday
  - Additional meetings can be held as needed.
  - Questions can be asked up to and during the meeting.
- 7. Submissions must be done 3 business days in advance of the Architecture Review
  - For the Thursday meetings, submissions must be in by Monday at Noon
- 8. Agenda's will be managed by the MSI and typically only do 2 reviews per meeting.
  - The Agenda will be sent out by Monday at 5 PM
- 9. Each Submission will only have 25 min to present and answer questions if that is not sufficient, they will come back at the next review meeting



### **Architecture Charter (cont)**

#### 10. Outcomes are:

- Approved
- Questions to be answered (QTBA) expedited approval 3 business days after resubmission all voting members need to approve.
- Rejected must revise and start over after revision has been submitted
- 11. The Architecture Overview template will be used for any new submissions. There are different templates for Enterprise Services and Agencies.
- 12. Any Agency submitting an RFS needs to tag it as "New Technology" if using this template.



### **High Level Process Flow for Architecture Reviews**

- 1. A submitter uploads the Architecture Overview document to the SharePoint site.
- 2. They add the information in the properties popup for the file
- 3. The Lead Architect is auto notified and assigns an MSI Architect to work with the submitter and contacts the VITA tower owner that a submission has been made for their area and that they should look at it.
- 4. The MSI architect and the submitter work to ensure the submission is complete and once they feel it is good to go, they ask to initiate the **Architecture Prelim Approval (APA)** process.
- The Lead Architect starts the APA workflow for the approvers the Submitter, The MSI Architect, the Tower Owner and the Lead Architect.
- 6. Once that workflow has successfully completed, then the document's Status changes to 2-Under Review, the Review meeting is scheduled and the Architecture Review Board (ARB) is notified that there is a document to review.



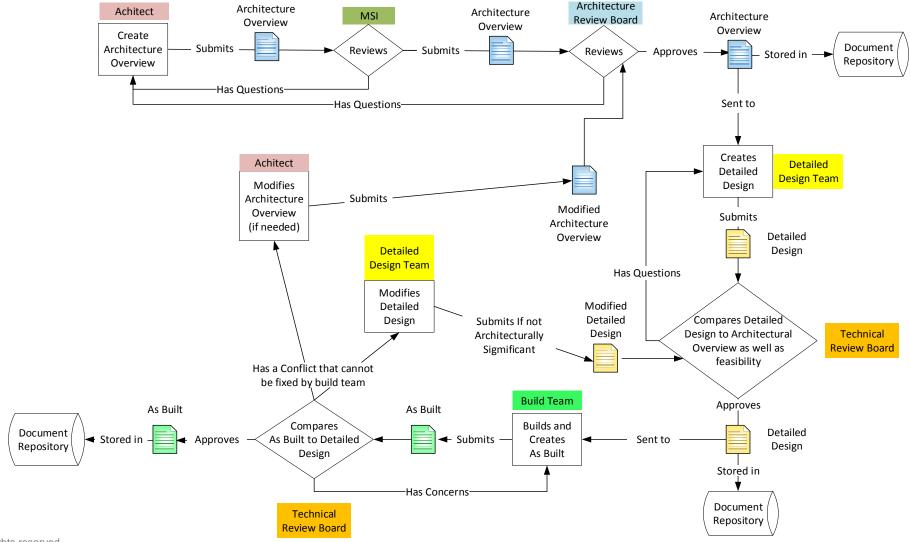
### **High Level Process Flow for Architecture Reviews (cont)**

- 7. The **Final Architecture Approval (FAA)** process workflow is kicked off 3 days prior to the Architecture Review meeting.
- 8. The ARB meets, reviews the submission and asks questions. Outcomes are:
  - Rejected (status 5-Rejected) and the whole process starts over from the submission level.
  - Questions Pending (status 2-Questions Pending) and the FAA workflow restarts and there are 3 days for the ARB to approve.
  - Accepted (the status is set to 4-Approved after all the approvals are in the workflow).

Step by step instructions on how to do use the application is later in this presentation



## **How Architecture Fits into the Overall Implementation Process**





# **New Architecture Applicaiton**



### **The New Architecture Review Application**

#### The site is <a href="https://center.share.virginia.gov/msi/asd/ArchRev/">https://center.share.virginia.gov/msi/asd/ArchRev/</a>



Architecture Review / E

EDIT LINKS

Search this site

#### Architecture Review

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Documents

Architecture Review

Architecture Approval Tasks

Architecture Review Notebook

Site Contents

EDIT LINKS

#### Newsfeed

Start a conversation

It's pretty quiet here. Invite more people to the site, or start a conversation.

#### Architecture Review Schedule

November, 2019

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
27	28	29	30	31	1	2
				12:00 am -		
				Unisys SSC		
3	4	5	6	7	8	9

#### **Architecture Review Documents**

#### • new document or drag files here

~	ID	Name	STS	Status 🕈
	95	Atos MSS CASB For DHBDS <b>≭</b>	 MSS	1-Submitted
	71	SAIC MSI Salesforce LDAC Service	 MSI	1-Submitted
	96	Unisys SSDC AWS Cloud Service #	 SSDC	1-Submitted
	91	Unisys SSDC Azure Cloud Service	 SSDC	1-Submitted



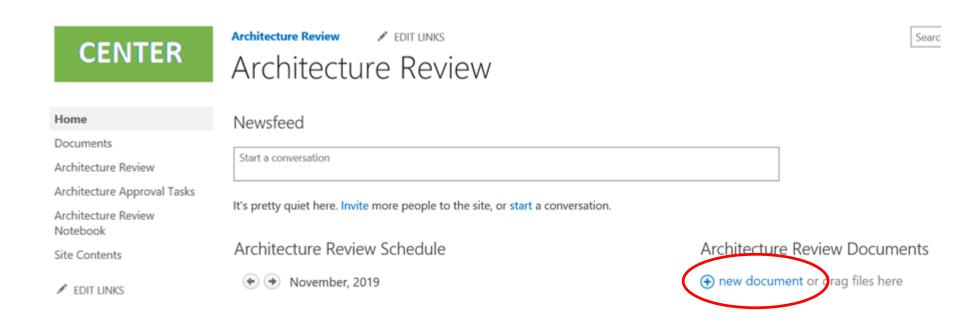
# **Submitter View**



#### **Submitter Start**

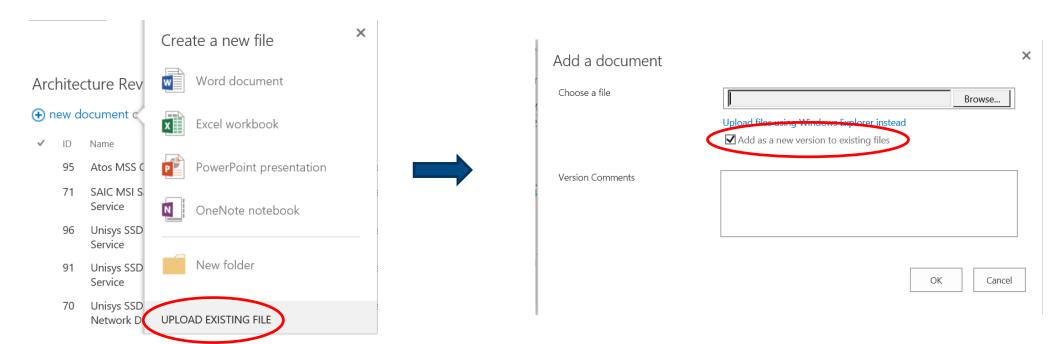
#### Step 1 – Upload your architecture using the "+ new document" url.

Administrator is automatically notified of the upload and a MSI Architect is assigned to work with you on it to prepare it for review





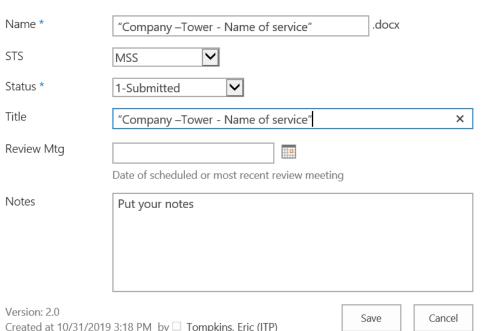
Step 1a - If this is an update to an existing Architecture, name it exactly the same as the existing one so that the versioning is maintained automatically. Also ensure that the check box checked for the item "Add as a new version to existing files" is checked. You should set an alert on your submission to make sure you are informed of changes to it as they happen.





#### **Step 2 - Fill in the properties page (pops up after upload):**

- 1. Name is "Company or Agency–Tower (not needed for agency)–Name of service" "SAIC–MSI–Example Service" or "DSS-Example Application"
- 2. STS is the acronym for the tower or agency
- 3. Status is "1-Submitted"
- 4. Notes: add any notes for this version
- 5. Do not fill in any other of the fields

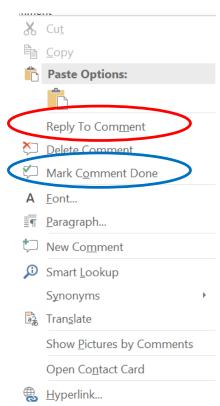




Created at 10/31/2019 3:18 PM  $\,$  by  $\Box$  Tompkins, Eric (ITP) Last modified at 11/1/2019 3:02 PM  $\,$  by  $\Box$  Sellers, Barry (ITP)

# Step 3 - You and MSI Architect work together to prepare the document for the **Architecture Prelim Approval (APA)** process.

- All edits need to be done through the SharePoint site either using the web editor or Word. As a last resort, check it out and check it back in.
- If you make changes and add a comment explaining it
- If you just want to make a statement or ask a question add a comment.
- If you are addressing a comment, reply to the original comment
- If you are reviewing someone's answer to your comment and you feel it is addressed, mark your comment as done





# **Submitter Step 3 (cont)**

A reply to a comment looks like this  $\rightarrow$ 

A comment marked as done looks like this ->

Sellers, Barry D.

This an initial comment

Sellers, Barry D.

This is a reply

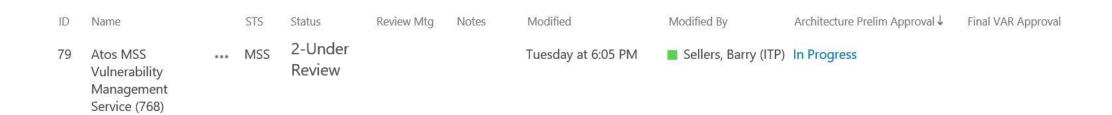
Sellers, Barry D. This is a second comment

**Sellers, Barry D.** A few seconds ago This is the reply



Step 4 – Once the submitter and the MSI Architect are satisfied that the document is ready, they inform the MSI Lead Architect for one more final review.

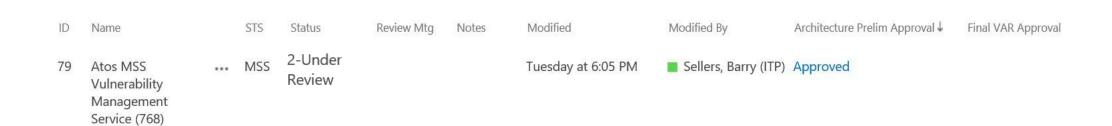
If it passes that review, all changes are accepted and the comments are removed in preparation for the **Architecture Prelim Approval (APA)** process. And the APA workflow starts.





If there are any questions asked during the APA Process, the Submitter answers them in the document under review. The APA Approvers are:

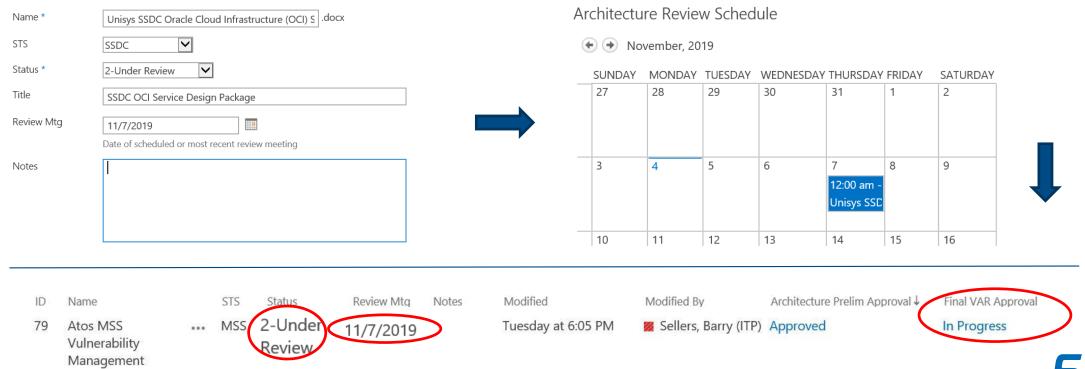
- 1. The VITA Tower Owner (if Enterprise) that it meets the business requirements or
- 2. The Agency AITR (if Agency) that it meets the business requirements
- 3. The STS Lead Architect that it meets the tower's requirements
- 4. The MSI Lead Architect that it meets the Technical Requirements





Step 6 - Once the APA Process has all the approvals, the submission will be scheduled for the next avalible meeting of the **Architecture Review Board (ARB)**. The submitter must attend.

The Review Date is set in the Properties of the document and the submission is put on the Agenda.



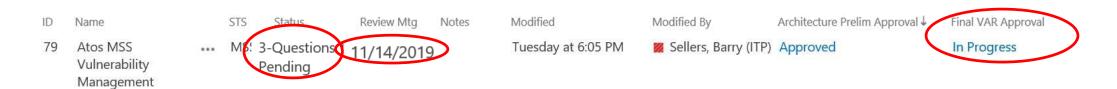


Service (768)

Step 7 - The **ARB** begins reading he document and making comments. You should respond as quickly to any comments as possible (through alerts set on the submission) so that all questions can be answered before the meeting to ensure a quick approval.

At the ARB meeting, you will be asked questions and you will need to answer them as well as change them in your submission.

If there are outstanding questions, you will be put on the next meeting's agenda and your submissions status will be changed to **3-Questions Pending**. To speed the approval process, inform the MSI lead Architect when your updates are complete so the **Final Architecture Approval (FAA)** workflow can be restarted and approvals can be collected.

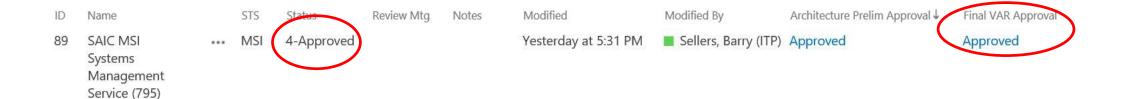




Service (768)

### **Submitter Final Step**

Step 8 – After all approvals have been received, the FAA will show Approved and the Status will be set to **4-Approved**. At this point you can move to the next stage of you overall process.





# **Approver View**



Step 1 - You will receive an email similar to the one below. You need to click on the blue link below to open the document.

Task assigned by Sellers, Barry (ITP) on 10/16/2019.

Due by None

Approval started by Sellers, Barry (ITP) on 10/16/2019 5:26 PM

Comment: Please review and decision if this Architecture Document is ready for Architecture Review Board consideration.

To complete this task:

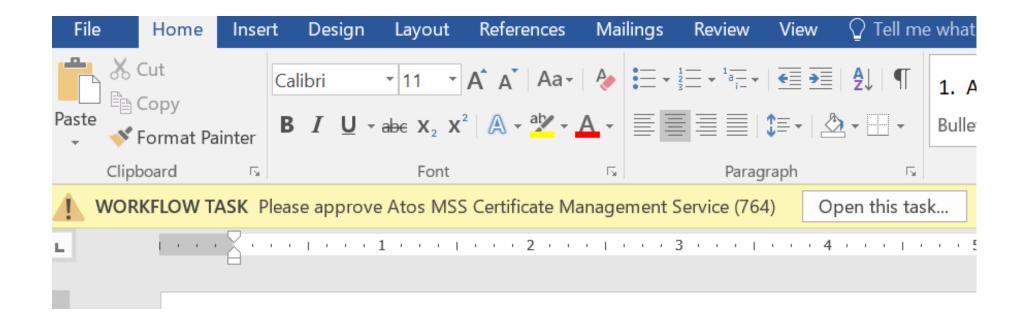
- 1. Review SAIC MSI Systems Management Service (795)
- 2. Perform the specific activities required for this task.
- 3. Use the Open this task button to mark the task as completed. (If you cannot update this task, you might not have access to it.)



Step 2 - you need to put comments and/or corrections in the document under review in place – by clicking on the document name (opening it in the online Viewer) and selecting "EDIT DOCUMENT" from the tool bar. Then you can select "Edit in Word" (to bring it to your desktop) or "Edit in Word Web App" to begin editing. If you can only download the file, when you upload it make sure the name is the same as the name displayed in the site and that with the check box checked for the item "Add as a new version to existing files". This maintains the versioning history for the document.

- The email where you were informed of the document being under review has a link to the workflow task or if you are using outlook, a button on the task bar titled ""Open this Task", where you can comment on, approve, reject, request a change, reassign or cancel that task.
- You can also always get to your tasks in Center in this folder by clicking on this link "<u>Architecture Approval Tasks</u>" or by going to the "Architecture Review" site <a href="here">here</a> and selecting the "<u>Architecture Approval Tasks</u>" from the side bar.
- When you are ready to decide the state of the Architecture Document, you need to go to the
  workflow form and select the button. If any of the approvers reject the document, that workflow
  ends for all approvers and the MSI Lead Architect will restart that workflow anew after the rejection
  reason is resolved.

Step 3 – When you open the document it will look like the one below. After you review and comment on the document, save it and click on the "Open this Task" button.

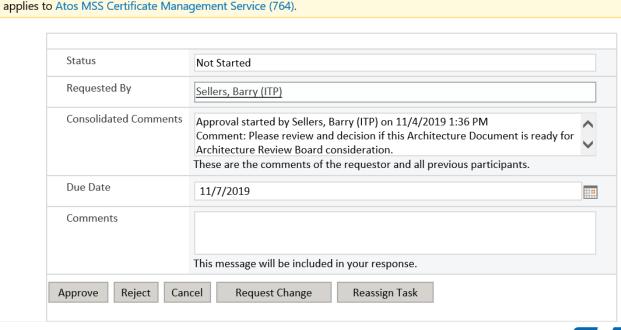




Step 4 – The windows below opens. Read the Consolidated Comments and make any new comments on the general state of the document in the Comments section (not required). Your role is now complete

#### **Buttons:**

- Approve sets your response to approved and completes the task
- Reject sets your response to reject and completes the task
- Cancel closes the task box, but does not complete the task
- Request Change cannot be used currently
- Reassign Task lets you assign this task to someone else





# **Architecture Overview Template**



### **General Information About the Template**

- There are 2 Templates One for Enterprise Services and one for the Agencies. The one for Enterprise Services is titled "Enterprise Services Architecture Overview Template.docx" and the one for Agencies is titled "Agency Architecture Overview Template.docx"
- Each section has information about what goes in each area in light blue text and it also has example data as well.
- All diagrams are in embedded Visio Diagrams to make it easier to have consistent diagrams.
- You will notice the beginnings of the application of check boxes this should make it easier to select standard patterns that need no additional information. Look for more check boxes in the future as we get more standard patterns documented.



## **Title Page**



#### **Architecture Overview**

Tower Acronym – Service Title

Version x.x

Type these items here "Your Tower Acronym - Service Title" and the Version Number



# **Revision History**

#### **Revision History**

Date	Author	Version	Change reference

t review:
t review:

<this is one year after the approval>

Fill in the Date, Your name, the version number and what changed.

Once your Architecture is approved, fill in the "Date of next review" with a date one year out



### **Purpose**

#### 1. Purpose

<Note: all diagrams are in embedded Visio Diagrams>

#### 1.1 Service Description

<For Enterprise Services

- The official service description from Phase 1 SPLM
- List of the RUs covered by this Architecture Overview (BR)
- How this fits in the technology roadmap
- Is this an addition to an existing service or a new one.(BR)
- VITA Service Owner and area>

#### 1.2 Summary

< This is from the contract document 2.3.1

Fill in the requested Service Description data from Phase 1 of SPLM in the Service Description Area Fill in the Contractual information from Exhibit 2.3.1 in the Summary section

### **Solution Component Overview**

#### 1.3 Solution Component Overview

<This is where vendor marketing info should be used to answer the below questions.</p>

- What is it
- What business requirements are you solving for
- Features
- Benefits
- How it works
- Other possible Business Requirements it might be able to solve >

This is the area where the Vendor marketing data should be used to answer the questions about what it is, how it works, where it lives, features and benefits.

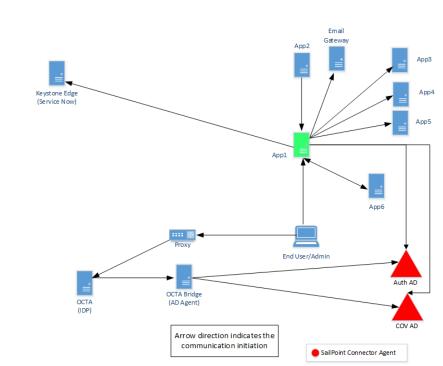
Make sure you are only talking about what <u>is</u> being implemented.



## **Logical View**

#### **Application Logical Layer Drawing**

< Create a drawing that shows the logical connections of how your system interacts with other systems



This diagram represents the logical connections of how your system interacts with other systems.

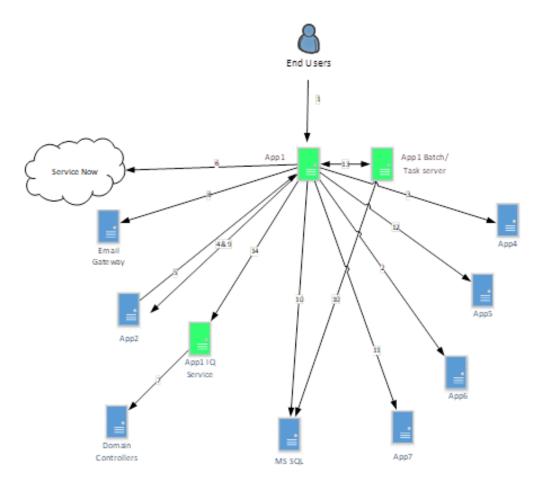
Your system needs to be in the designated in a different color (green here).

### **Application Communications**

#### Must include:

- All systems that your service is communicating with
- All ports being used
- Communication direction between systems – if bidirectional, you need 2 lines and 2 rows in the Ports table.
- Delineate between which systems are in your service and which are not via colors
- Number the paths of communication
- Drawings and the ports tables must match
- Make sure that all communications listed in the text body of this document are listed
   such as systems you are dependent on and systems that will depend upon you.

#### SailPoint – Port View





### **Ports Table**

3.Interface Descriptions					Fill in only if batch					
Name and Number	Description	Source (from)	Target (to)	Port and Protocol	Is it Batch?	How often	size	File type	Interface Disposition (reuse, new, updated)	Scope (not shared, multi- agency or Commonwealth
1	Web Access Interface	End-user	App1	TCP/443 HTTPS	N				New	Commonwealth
2	Аррб	App6	App1	TCP/5989 WBEM	N				New	Commonwealth
3	App4	App1	App4	TLS/514, TCP/9997 App4	N				New	Commonwealth

This table must match what is in the drawing and what is in the document.

Omissions or incorrect information will cause this Architecture to have to be reapproved to add Ports

# **Ports Table (cont)**

#### **General Ports Information**

- 2 way Encrypted Communications
- LDAPS TCP/636 or TCP389 over TLS No clear text 389
- HTTPS TCP/443 no port 80
- SQL one port of TCP/50000 500100 no port 1433
- SNMP v3 not earlier versions



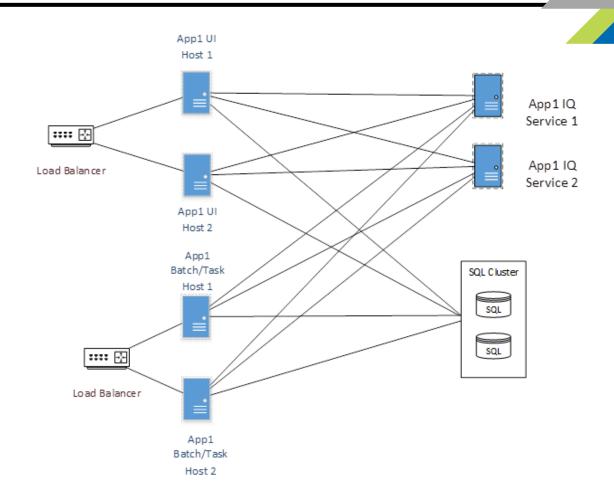
# **Operational Diagrams**

#### Resiliency Diagrams:

This is required for all production enterprise services as they serve more than one agency

This depicts only the parts and pieces of your system – Servers, appliances, load balancers, firewalls and database instances

A diagram per environment – production, test, development and disaster recovery





# **Disaster Recovery**

You need to detail RTO, RPO, Backup Location and Backup retention and how they are being accomplished.

RTO = Recovery Time Objective – time from service loss to restoration ex. RTO = 2 hours

RPO = Recovery Point Objective – length of time that data loss has occurred in ex. RPO = 15 Min

ex. Iron Mountain

Backup retention time: \_\_\_\_\_

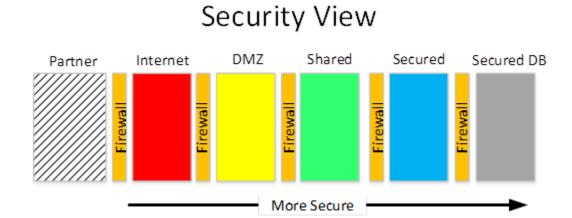
ex. 3 Years



# **Network Security Diagram**

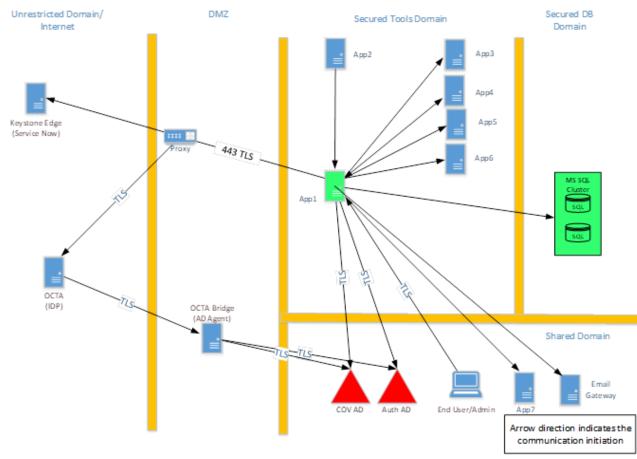
What it is - this is where you put the Network security area you system is located - the Yellow lines are firewalls. These are the Predefined Security Buckets your component lives in:

- Internet This is outside any control of the Commonwealth
- DMZ This is the area where devices that must have incoming access from the internet live
- Shared Open to all internal users
- Secure sensitive data and systems must exist in here
- DB Secure DB's not on a server, must live in a separate secure security domain
- Partner this where a secure, dedicated path to systems across the internet





# **Network Security Diagram (cont)**



This diagram is a view that adds firewalls and depicts where your system is split across firewalls.

Make sure to color your system to make sure we know what you are responsible for

Redefining Ingenuity

# **Identity, Authentication and Authorization Information**

<b>User Identity Source</b>	<b>Authorization source</b>	<b>Provisioning source</b>	
<this are="" is="" stored="" users="" where="" your=""></this>	<where authorization="" is="" method="" source="" the=""></where>	<how are="" provisioned="" the="" users=""></how>	
$\square$ AD	☐ Active Directory < Domain>	☐ <u>SailPoint</u>	
☐ External	☐ Groups		
☐ Other	List	☐ <u>Other</u> <fully describe=""></fully>	
	Attributes		
Authentication source	List		
<where authentication="" is="" method="" source="" the=""></where>	☐ <u>SLDAP_</u> <database (oud,="" and="" etc)<="" name="" td="" type=""><td>&gt;</td></database>	>	
□ AD	☐ Groups		
☐ Okta (SAML)	_		
☐ SLDAP	☐ <u>Attributes</u>		
☐ Local – Justify	☐ <u>Other</u> <fully describe=""></fully>		

These check boxes should make it easier to fill this in.



# **Service and Privileged Account Information**

#### Service and Privileged Accounts (you must use CyberArk)

<Privileged accounts needed with purpose, permissions and system.>

Number	Proposed Name	Description	Permissions	System
1		Domain LDAP Bind account(s)	Read all AD objects	COV and AUTH AD

You have to identify any accounts that have more permissions than the general user population – typically administrative and batch operations.

You have to supply a proposed name for the account as well as the permissions in the systems it needs



### **Software Information**

#### 6.Software

Name	Version	Date of release	Is this the latest GA version	If not, what is the latest GA Version
App1	8.0		No	10.0

You need to list the software needed for your system, the version you are intending to deploy and if it is not the latest version, you need to tell us what the latest version is.

If it is not the latest Generally Available (GA), you will need to come up with a plan immediately to bring it up to no older than GA-1 (aka N-1)



### **Data Information**

#### 7.Data

#### 7.1 Data Flow Diagram

<Includes all data flows to and from the system to outside sources>

- 7.2 Data that cannot exist in your system
  - ☐ FTI
  - □ PCI
  - ☐ PII
  - □ Other

You have to identify Data flows in and out of your system as well as any protected data that cannot exist in your system



# **Integration Patterns**

# 8. Integration Patterns for other services to consume your service

<This section calls out the integration patterns will utilize for other service to consume (what you publish to other applications). Can be API's or protocols that you publish so that others can easily integrate with you.>

#### 9. Systems Dependent on Your Service

<This section calls out which systems are expected to consume your service>

For example, if this system was one of the required integration services, then you would say all systems in the Commonwealth

As part of your submission, you have to have integration patterns created so that your service can be consumed. Also you need to know at least the expected systems that will be dependent on you.



# **Integrations**

### 10. Integrations

<This section calls out the Approved Integration method for integration with services you consume. As well as all the systems your service is dependent on. This section will be updated with additional patterns as they are approved>

I am working with each Integration teams and have their approval of the below approaches

You have systems that you must integrate with as a Tower for VITA – at a minimum you must acknowledge that you are working with the integration teams



# **Example integration**

#### MSI Key Stone Edge (KSE)

REST Push / Pull – Tower systems will push new records & updates to Keystone Edge™ and pull new records & updates as well.
<u>Push-Ping-Pull</u> – To avoid polling KSE, The Push/Pull refers to REST web service invocations by the STS while the Ping refers to KSE email notification when a ticket updates. When KSE Ticket update occurs, are email notification to the STS is sent to trigger a PULL web service call to fetch the ticket changes.
<u>Other Approach</u> – Please describe below the approach that has been approved for only your system:



# **Business Services Mapping**

#### 11. Business Services Mapping

#### Consume

<This is the listing of all the VAR's your architecture consumes>

Number Name		Description		
770	Unisys - Private Cloud High- level Design	How the Virtual Infrastructure is setup		

#### **Publish**

<This is the listing of all Resource Units or Contractual deliverables that architecture publishes>

Resource Unit Title	Description of Resource Unit
Server Small	Server with 1 vCPU, 8 Gb Ram and 100 GB of Storage

You need to list all the Architecture Overviews/VAR's that you consume – initially you might need help with this. You also need ot publish your Resource Units here as what you publish

### **Related Documents**

#### 12. Related Documents

SSP: <document and="" date="" name="" submission=""></document>
Status:   Not Started In Process In Review Approved
ECOS: < Document Name and submission date > - Only needed if there is a Cloud aspect to your service
Status:   Not Started In Process In Review Approved
Any Exceptions you need: <document and="" date="" name(s)="" submission=""></document>
Status:   Not Started In Process In Review Approved One line per exception>
Disaster Recovery Plan: <document and="" date="" name="" submission=""></document>
Status: ☐ Not Started ☐ In Process ☐ In Review ☐ Approved
New Hardening Standard(s) for your Service: <document and="" date="" name(s)="" submission=""></document>
Status:   Not Started In Process In Review Approved One line per standard>
Integration Pattern(s) for your Service: <document and="" date="" name(s)="" submission=""> How does another system integrate with yours?</document>
Status:   Not Started In Process In Review Approved One line per pattern>
Archer: <application and="" date="" id(s)="" submission=""></application>
Status:  Not Started In Process In Review Approved One line per pattern>

You need to produce these documents eventually, this is just an acknowledgement as to the stage you are in for the production of these additional documents

# **Appendix**

### 13. Appendix

<Any additional information that you want to add that you feel is helpful>

#### References

<Any web sites references you feel would help answer questions>

Good Information - <a href="https://www.google.com">https://www.google.com</a>

#### **Terms and Acronyms**

<this is where your acronyms go>

You need to put useful links and references here that would help your Architecture. It is also where your terms and acronyms go.

# **Example Terms and Acronyms**

Item	Description
Configuration Management System (CMS)	Configuration Management System is a set of tools, data, and information that is used to support Service Asset and Configuration Management process
Continual Service Improvement (CSI)	A stage in the lifecycle of a service. Continual service improvement ensures that services are aligned with changing business needs by identifying and implementing improvements to IT services that support business processes. The performance of the IT service provider is continually measured and improvements are made to processes, IT services and IT infrastructure in order to increase efficiency, effectiveness and cost effectiveness. Continual service improvement includes the seven-step improvement process. Although this process is associated with continual service improvement, most processes have activities that take place across multiple stages of the service lifecycle.
Critical Success Factor (CSF)	Something that must happen if an IT service, process, plan, project or other activity is to succeed. Key performance indicators are used to measure the achievement of each critical success factor.
Design Coordination (DEMC)	This is the abbreviation for the Design Coordination process



### **Questions?**

# Any follow-up questions/concerns for SAIC, reach out to:

Barry Sellers - Barry.D.Sellers@saic.com

The deck is located here: https://asd/ArchRev/Shared Documents/Architecture Review information

