

Application Rationalization

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What applications do you have?

Application inventory

- **Application definition**
 - Custom developed applications
 - Organization-modified COTS vs. out-of-box COTS –
 - Modifications that are made to support specific mission requirements
 - O&M funds expended
 - Mobile applications included
- **IT or Manual System**
 - Official authoritative repository or as-required data calls
 - Frequency of update
 - Utilization of accounting codes for applications
 - One-to-one or many-to-one
 - Year end funding or sustained program



Application characteristics?

Application inventory

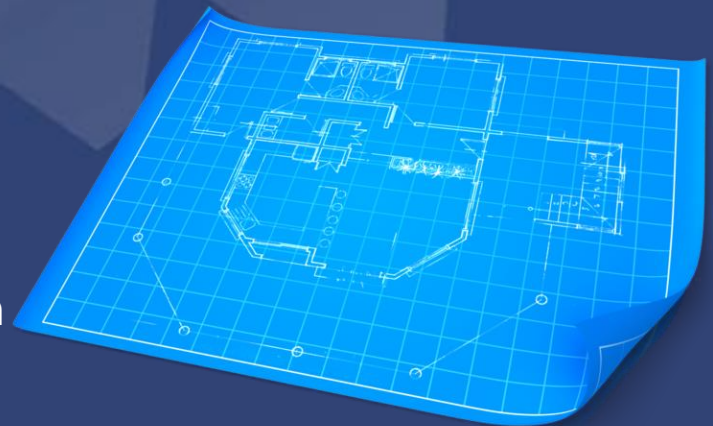
- **Application Engineering Analysis**
 - Application dependencies on other applications – supply/receive information
 - Data Center Location of supporting applications
 - Data Center Location of supported applications
 - Supporting COTS
 - Licensing
 - State of supporting COTS – specific release (current, end of life)
 - Supporting HW
 - End of Life analysis
 - Dependencies
 - User Locations
 - Number of workers
 - Workload variations per site



Why do you need these apps?

Enterprise Architecture

- **Missions/Goals/Objectives**
 - Capabilities required to support organizational missions/goals/objectives
 - prioritize if possible
 - Capabilities segmented into business and infrastructure (and for DoD, war fighting and defense intelligence); infrastructure supports all
 - Data that is required to support the missions/goals/objectives
- **Mapping capabilities that each application supports**
 - Coarse vs fine grain capabilities –
 - Need to get to a discriminating level
- **Mapping of data**
 - Data that is used by each application
 - Data the is supplied by each application



What apps are providing the same capabilities?

Application and data maps support rationalization process

- What percentage of capabilities is each application supporting?
- What applications are supporting the same organizational capabilities (how many, what priorities, overlaps)?
- What applications are providing data to other applications – are these authoritative data sources?
- What applications are using the same data? – potential for consolidation
- What applications are stand alone? – do they provide specialized capabilities that are needed or can be consolidated?

Who uses these apps?



Demographic User Viewpoint

- Where is the user community locations for a capability – on-site locations, spread across the globe, virtual, ...?
- Where are the applications that support this specific capability?
- Are there current performance issues regarding response time at some user locations?
- Are there any special maintenance issues with these applications (usually from service desk tickets)?
- Is the capability being provided as required by the user?

Rehosting of the applications?

- **Will this rationalization effort include:**
 - Migration to a different data center –
 - On premise centralized facility
 - Commercially provided facility
 - Multiple application instances due to geographic performance limitations or COOP
 - Localized application instances supporting a federated data approach
- **Will rationalization support standardization including:**
 - Application platforms (e.g., web server) and services
 - Security requirements/Logging and incident response
 - Identity Access Management
 - Consideration of COTS Enterprise Level Agreements



Choices



- **Eliminate the application**

- Redundant
- Too costly to change
- Not meeting user requirements

- **Keep the application**

- Update the application to support additional capabilities (as from those eliminated applications)
 - Redesign of application
 - Difficulty of surgically moving a capability from one application to another
 - Retesting/certification of application
 - Dual old/new operations
 - Contract changes
- Engineering analysis supports cost/time estimates
 - Change in platform/infrastructure tools; data center migration
 - Application/data interdependence constraints

- **Develop/Select a new application replacing several apps**

- SaaS options with some customization
- New development/procurement effort

What are the cost-benefit-risk factors?

- **Benefits**

- Supplies multiple organizational capabilities
- Produces authoritative data
- Serves a large user population
- Can be easily migrated to a different data center
- Reduces overall costs of operation

- **Costs**

- Update costs: migration, testing, recertification, dual old/new operations, retraining, support/development contract modifications
- App termination costs: support contracts
- Commercial cloud vs. on-premise data centers differential (processing/storage/operations)

- **Risks**

- Schedule delays in replacing capabilities
- User acceptance: re-education, acceptance
- New computing environment costs and operational issues



Pulling this all together

- Multiple factors need to be considered
 - Current inventory capabilities – supporting or duplicative/inadequate
 - Engineering analysis for change
 - Current app lifecycle phase and associated support contract
 - Technical/operational support for migration/change
- Priorities need to be established especially in regards to capabilities and to migration
- User support needs to be established for changing applications/processes
- Strong governance is necessary to move the rationalization forward

A photograph of a woman standing on a subway escalator. She is wearing a blue jacket and a patterned shirt, and is looking down at her phone. The escalator is in a subway station, with a blue carpeted floor at the bottom. The background is dark, and there are other escalators visible. The quote by Albert Einstein is overlaid on the image in white text.

**The world as we have created it is a process of our thinking,
It cannot be changed without changing our thinking.**

Albert Einstein

Questions/Discussion

