

Software Development Forum Overview



Air Force Network Integration Center

Mr. Steven L. Stoner

7 Feb 12



UNCLASSIFIED

- **What?**
 - **Information Sharing**
- **Who?**
 - **SW Developers**
 - **Stakeholders**
- **Why?**
 - **Address Issues W/ Integrating Apps onto AFNet**
 - **DRAFT AFI 33-115**
 - **IT Efficiencies Transformation**
 - **Federal CIO Initiatives**
 - **AF Data Center Consolidation Plan**
 - **SAF/A6 Web Services Policy**
- **How?**
 - **App Hosting/Cloud Computing**
 - **Reduced Set of Infrastructure Protocol Stacks**
 - **Proposed Hybrid Cloud Design**
- **When?**
 - **Next Steps**
- **Conclusions & Recommendations**

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What? Purpose

- **Provide a venue to share information with stakeholders**
 - **Changes taking place across the AF and DoD**
 - **Steps AF is taking to prepare**
 - **Help resolve potential conflicts**
 - **Provide notification of standards**

Who? Target Audience

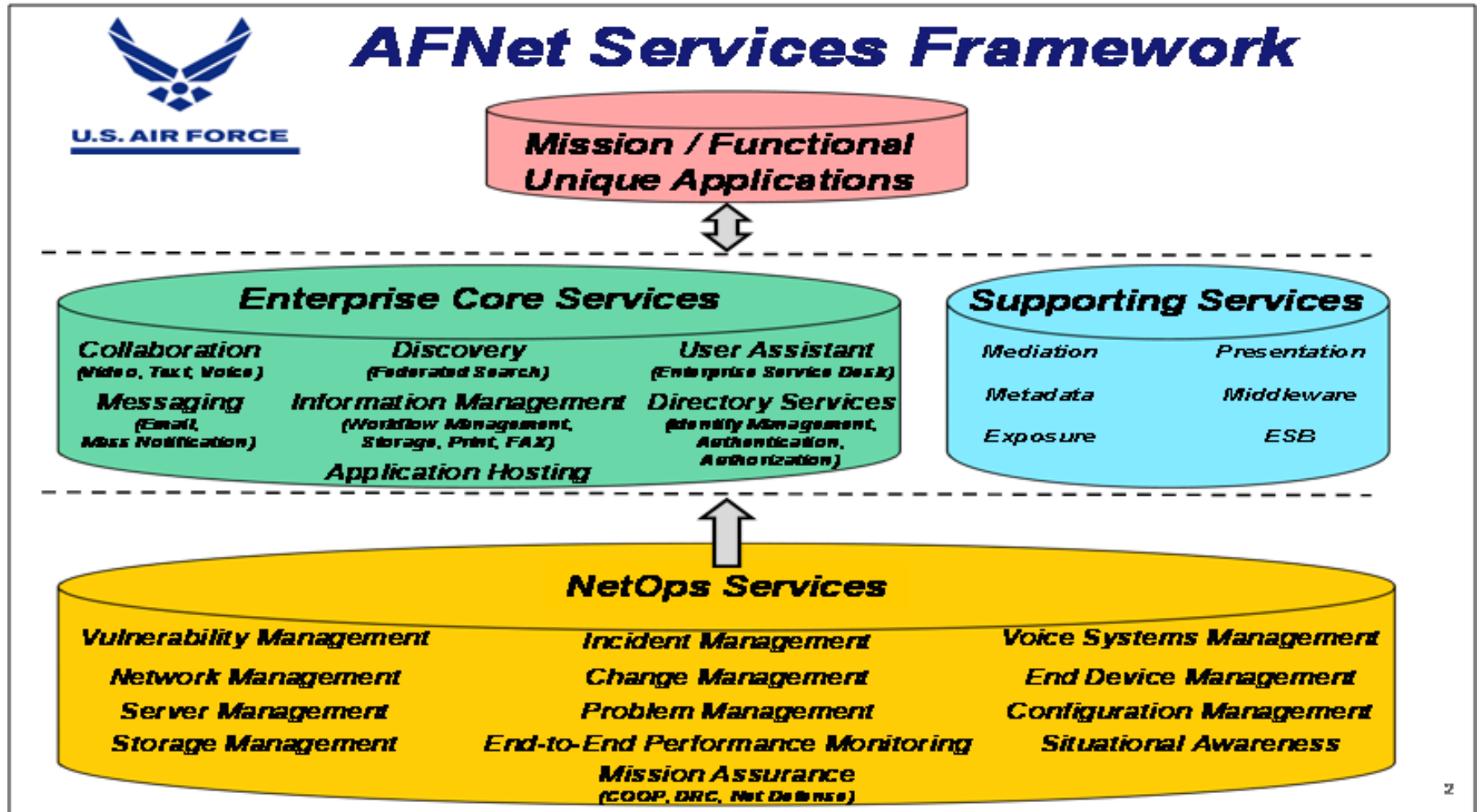
- **Industry and Representatives**
- **SW Developers**
- **Stakeholders & Others Impacted by Changes**
- **Consolidated Enterprise IT Baseline (CEITB) reps**

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- **AFSPC Directed AFNIC to establish and host a forum to address integrating and supporting applications on (onto) the AFNet due to recent issues with deployment and on-boarding of applications on the AFNET**

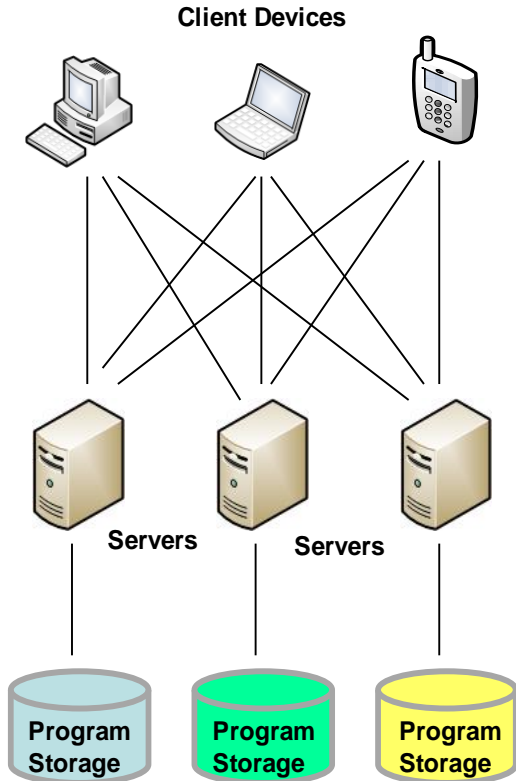
- **Multiple AF internal/external initiatives driving change**
 - ❑ **AFI 33-115 Rewrite (AFNet Services Framework)**
 - ❑ **AF Active Directory/Exchange Migration**
 - ❑ **AF IT Efficiencies**
 - ❑ **Federal Data Center Consolidation Initiative/ AF Data Center Consolidation**
 - ❑ **AF CIO Web Services Migration**
 - ❑ **Service Development and Delivery Process (SDDP)**
 - ❑ **Systems Deployment and “On-Boarding” Issues**

There is need to provide near term support for net-centric Mission/Functional Applications



Defines "Enterprise Core Services" includes Application Hosting

As - Is Infrastructure

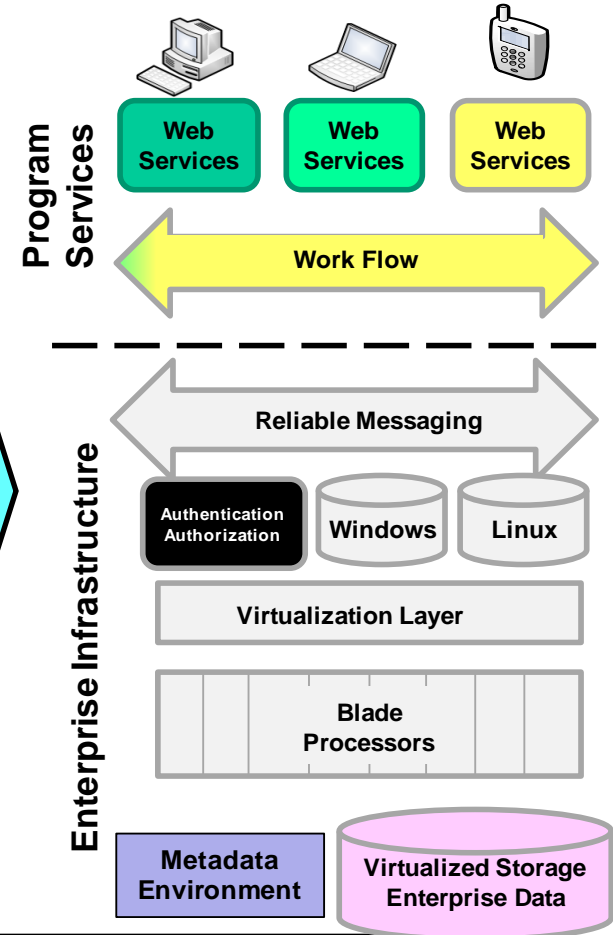


Transformation

Program-centric Infrastructure

- Web Services
- Increased Flexibility
- Reduced Duplication
- Enterprise Authentication & Authorization
- Increased Security
- AF-wide Access
- Virtualization
- Reduced HW Rqmts
- Reduced Facilities Costs
- Blade Processors
- Reduce Data Center Rqmts
- Enterprise SW Licenses
- Increased Standardization
- Reduced Cost
- Virtualized Storage
- Increased Responsiveness
- Enterprise Data
- Authoritative Data Sources
- Data De-duplication

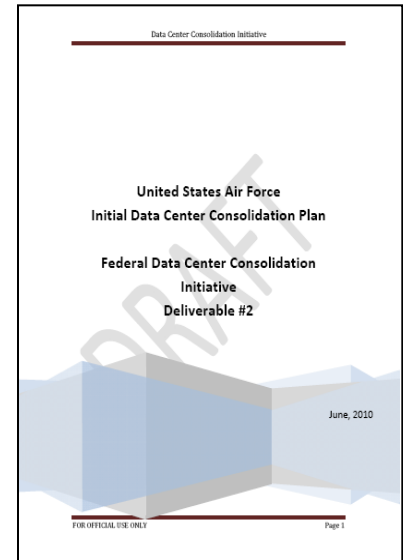
To - Be Infrastructure



Different development teams in the enterprise, if not properly guided or monitored, may tend to choose the path of least resistance or resort to technologies that they are familiar with, which can add to integration complexity. Take Charge of Application Integration Chaos; A-G Magazine, 15 Sep 10

25 Point Implementation Plan to Reform Fed IT Management

- **Cloud technologies and Infrastructure-as-a-Service enable IT services to efficiently share demand across infrastructure assets, reducing the overall reserve capacity across the enterprise**
- **Agencies must focus on consolidating existing data centers, reducing the need for infrastructure growth by *implementing a “Cloud First” policy for services, and increasing their use of available cloud and shared services.***
- **Through the Federal Data Center Consolidation Initiative, a minimum of *800 data centers will be closed by 2015***




AF Data Center Consolidation Plan

- **... a data center is defined as a single facility or combination of facilities that contain an aggregate total of 15 or more servers, 1 mainframe, or more than 1000 square feet dedicated to housing servers, storage devices, and network equipment.**
- **Several AF programs of record are currently evaluating different commercial, DISA, and Intel Community approaches toward cloud computing ...**
- **In addition to balancing cost savings, a chief consideration for mission systems is mission assurance.**

... all new Information Technology capabilities will be developed in accordance with the Web-based Services provisioning model

... Enterprise sustainment to include centralized hosting, management, and deployment centralized hosting is based on an operational effectiveness evaluation.

... DISA is the preferred hosting service provider.


DEPARTMENT OF THE AIR FORCE
WASHINGTON DC

OFFICE OF THE SECRETARY

MEMORANDUM FOR SEE DISTRIBUTION JAN 6 2011

FROM: SAF/CIO A6
1800 Air Force Pentagon
Washington, DC 20330

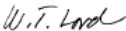
SUBJECT: Air Force Transition to Web-Based Standards and Protocols Policy

1. Web-Based Standards and Protocols afford the Air Force an opportunity to rapidly field information capabilities for the Warfighter, while eliminating the expense of developing and sustaining multiple one-off interfaces. To take advantage of this new policy and provide users access to and better integration of data, all new Information Technology capabilities will be developed in accordance with the web-based services provisioning model outlined below, unless a business case based waiver has been approved by SAF/AQ, SAF CIO/A6, and SAF/TUS(M).

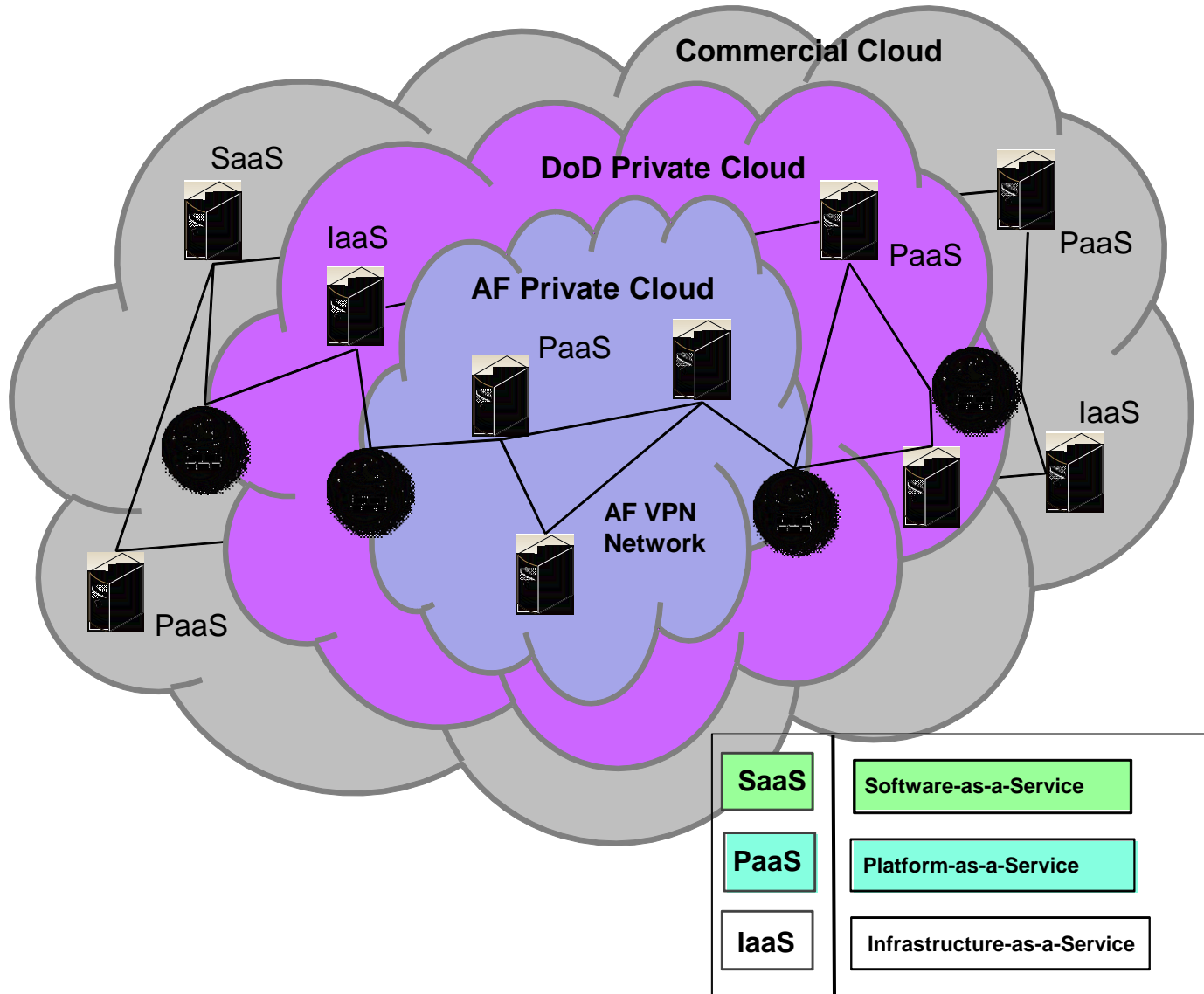
2. The web-based service provisioning model includes the following key elements:

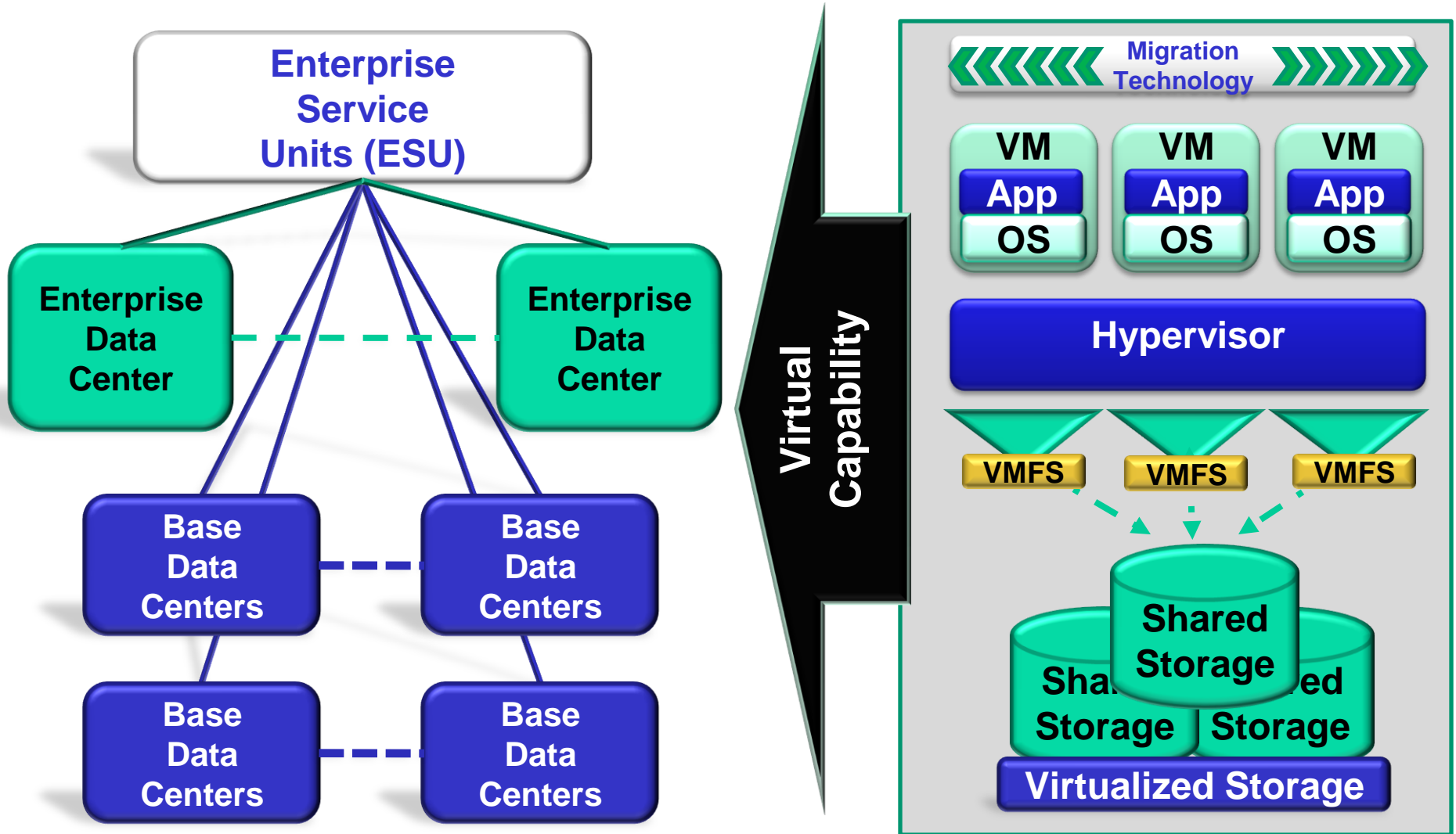
- a. Bounded User Requirements – all information assets described through detailed business process re-engineering and generating Quality of Service, performance, and access rules consistent with associated architecture products, support plans and Service Level Agreements.
- b. Web enabled – data made discoverable and accessible using open, standard, lightweight protocols and techniques.
- c. Clientless – all web services/applications accessible securely via standard HTML-based web browsers from an AF standard desktop or other edge devices.
- d. Strong two-way authentication (Public Key Infrastructure (PKI)-based when available) – access controls based on the DoD PKI credentialing model, in accordance with NSPD-49 and FY 2010 NDAA (Title 10, US Code Section 2274).
- e. Enterprise sustainment to include centralized hosting, management, and deployment – centralized hosting is based on an operational effectiveness evaluation. The hosting environment should include an end-to-end testing and performance monitoring capability. DISA is the preferred hosting service provider.

3. This framework is intended to take full advantage of the speed of IT innovation, improve acquisition cycle time and to foster an environment for mission-focused and time-critical deliveries that support the full spectrum of IT applications. My POC is Mr. Mike Sheridan, DSN 425- 6327, Michael.Sheridan.ctr@pentagon.af.mil.

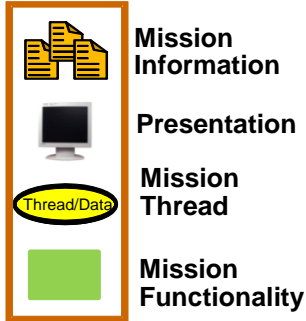

WILLIAM T. LORD, Lt Gen, USAF
Chief of Warfighting, Integration and
Chief Information Officer

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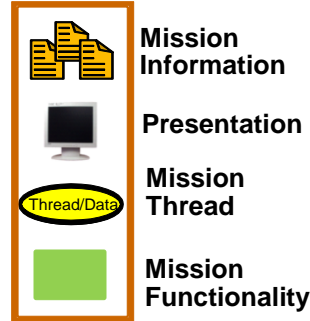




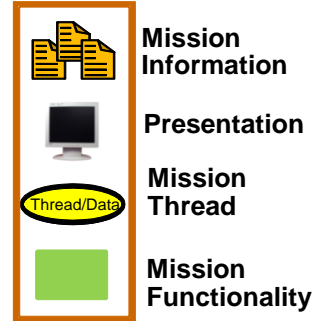
RTS



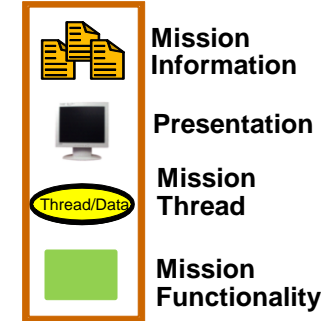
Oracle



.Net



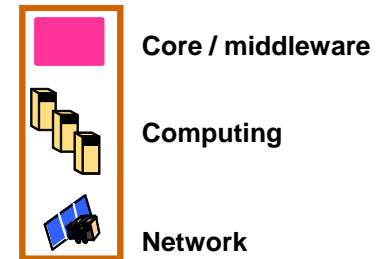
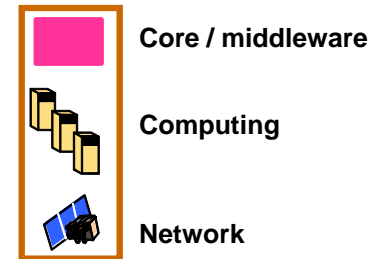
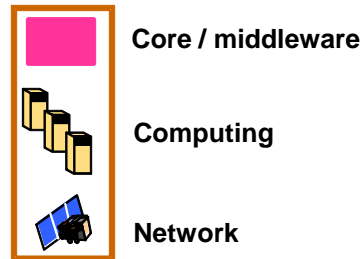
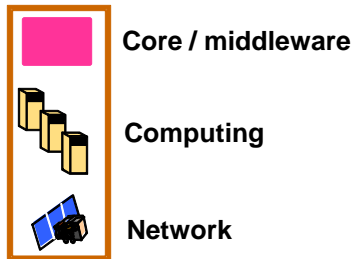
JRE



RTS = Real Time Services

JRE = Java Runtime Environment

40-70%
Of
Each
Stovepipe



Core, Common Services Appropriately Scaled and Replicated By The Enterprise:

- Near term: collectively provided via shared services across many programs
- Long term: Common services funded and evolved as an Enterprise capability

NOTIONAL

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Desired End State

- 1. Standardized SW “stacks”**
- 2. Standardized SW development environment**
- 3. Standardized SW development process/procedures/configurations**



The Software Development Forum will inform the community:

- Changes across the AF and DoD
- Steps AF is taking to prepare
- Help resolve potential conflicts
- Provide notification of standards as they are developed



