



Joint Training Enterprise Architecture

WJTSC M&S WG
19 September 2012



Mandate for Change



- Reduce JLVC Operating & Sustainment Costs
- Keep pace with the operating environment
- Joint Force 2020
- CE2T2 Program Goals and Objectives (PG&O)
 - Systems Engineering Plan
 - Network Services / Enterprise Services
- 2012 National Defense Authorization Act (NDAA)
- DOD CIO Enterprise IT Strategy
- DOD CIO Cloud Computing Strategy
- Joint Information Environment (JIE)

Affordable, Adaptive, Agile Joint Training Environment



Mandate for Change



Reduce IT Cost

Inefficient resources: infrastructure, space, energy and staff

Improve Availability

60% of outages are caused by misconfigurations

Improve Service Agility

Reduce deployment times by up to 80%

Manage Governance, Risk and Compliance

Basic controls are not well defined or enforceable

Enable Virtualization and Cloud Computing

Increased cost to manage complex environments

Affordable, Adaptive, Agile Joint Training Environment



Current State: Dedicated Training Networks



EXERCISE CONTROL (Email, VOIP, VTC, Portal, JS Apps, JTEMS, JDIS) MOD & SIM



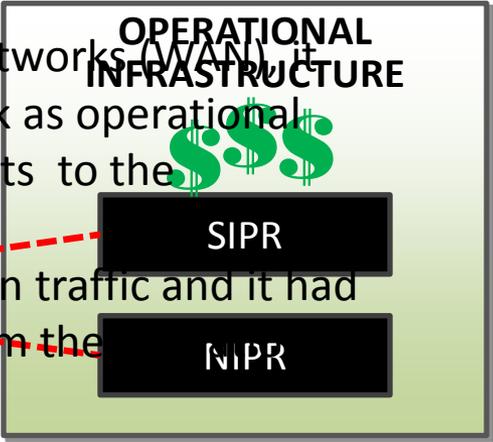
DEDICATED TRAINING NETWORK
NCTE

DEDICATED TRAINING NETWORK
JTEN

DEDICATED TRAINING NETWORK
DMON

DEDICATED TRAINING NETWORK
STEN

DEDICATED TRAINING NETWORK



CONNECTION INFRASTRUCTURE

- When the DOD moved into LVC training over wide-area networks (WAN), it was not possible to run simulations over the same network as operational traffic, although it was necessary to send simulation outputs to the operational network.
- Therefore, a separate network was necessary for simulation traffic and it had to have connection infrastructure to pass traffic to and from the network.



Future State: Converged Infrastructure



EXERCISE CONTROL
(Email, VOIP, VTC, Portal, JS Apps, JTEMS, JDIS)
MOD & SIM



DEDICATED TRAINING NETWORK
NCTE

DISA

OPERATIONAL INFRASTRUCTURE

OPERATIONAL INFRASTRUCTURE

TRAINING

OPERATIONAL INFRASTRUCTURE

TRAINING

DEDICATED



SIPR

Site B

NIPR

Training

Site B

SIPR Network
in the
one
Training Site A

NIPR

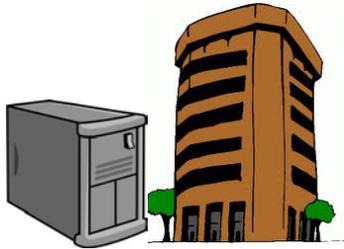
Training Site A



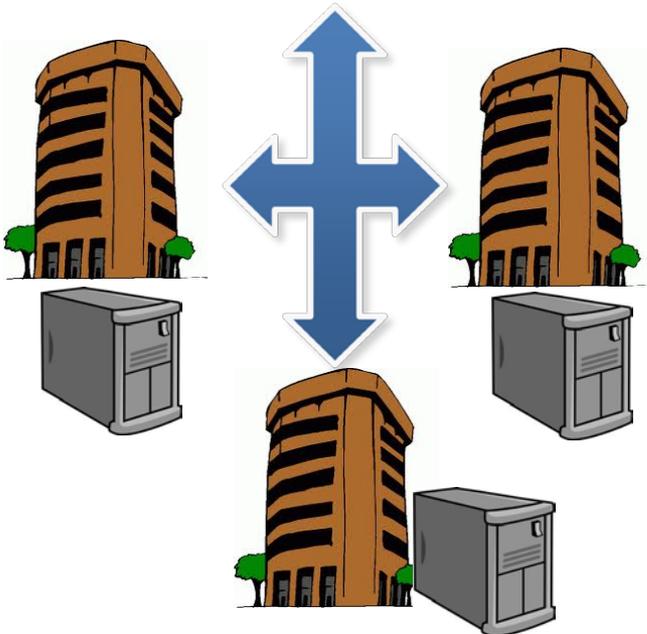
JTEA Cloud Delivery Model



Status Quo

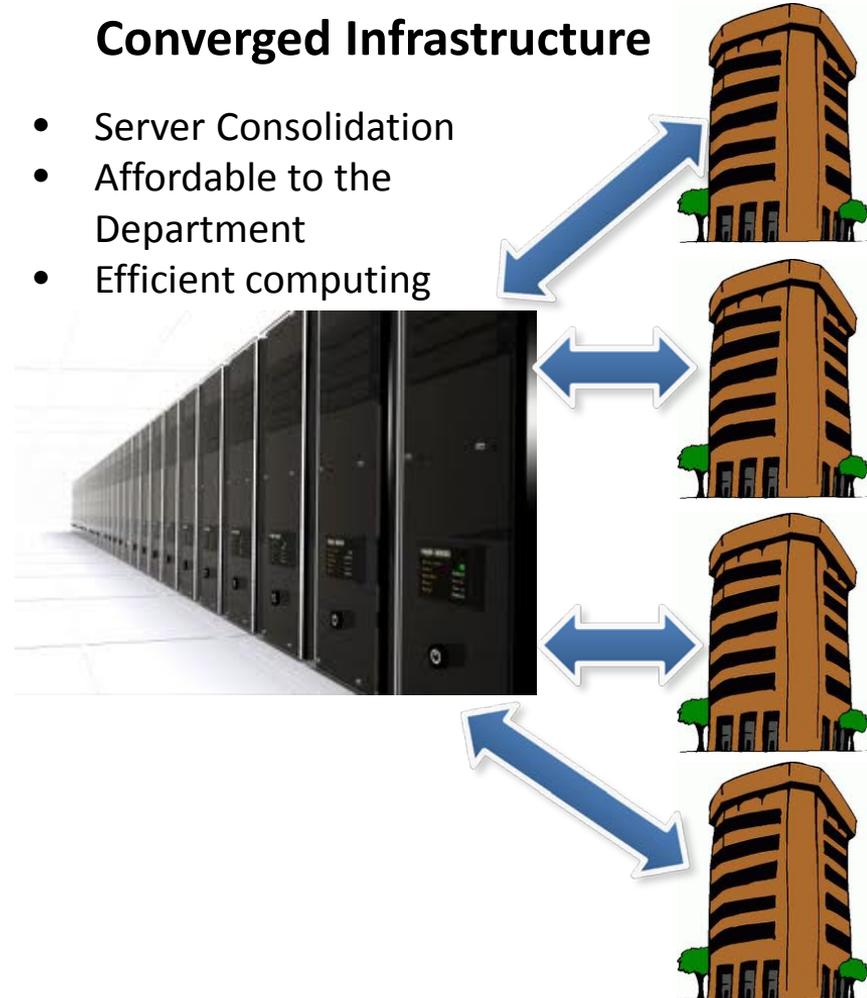


- Server sprawl
- Expensive and duplicative of capability
- Inefficient computing



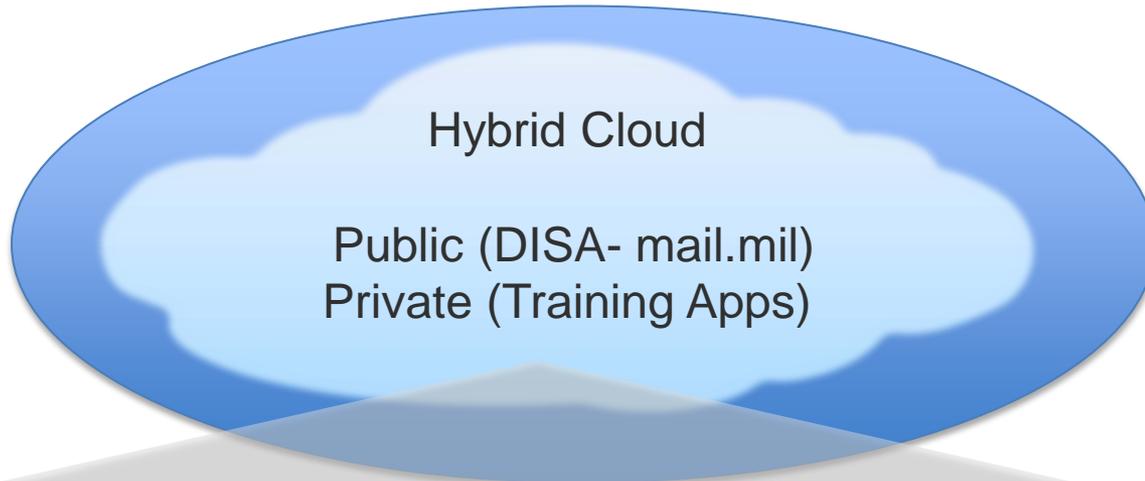
Converged Infrastructure

- Server Consolidation
- Affordable to the Department
- Efficient computing



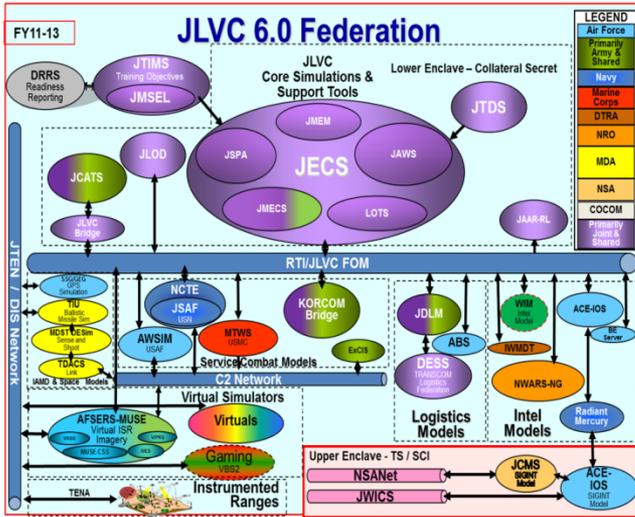


Training Content as a Service on the GIG





Joint M&S Within the IT Enterprise

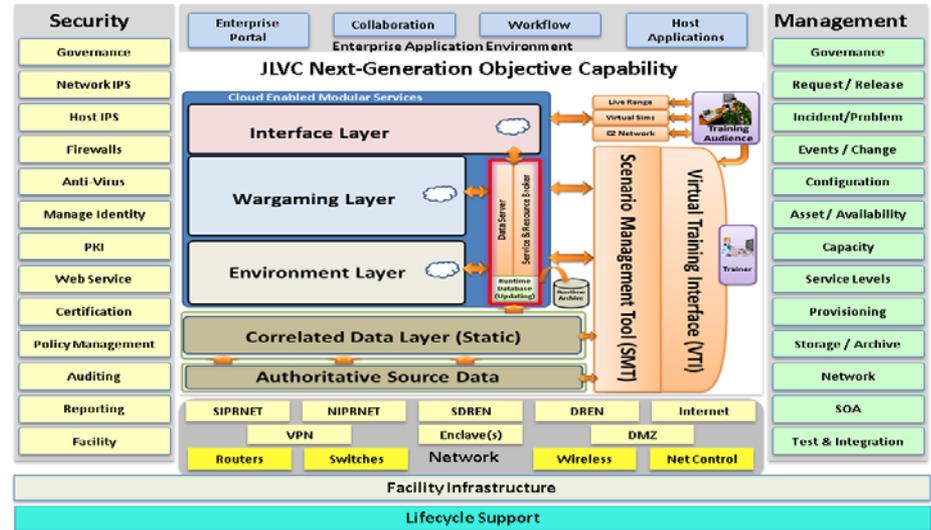


Refresh at the speed of the Adaptive Enterprise Architecture

Change at the speed of the operational environment

Notional Future Enterprise Architecture

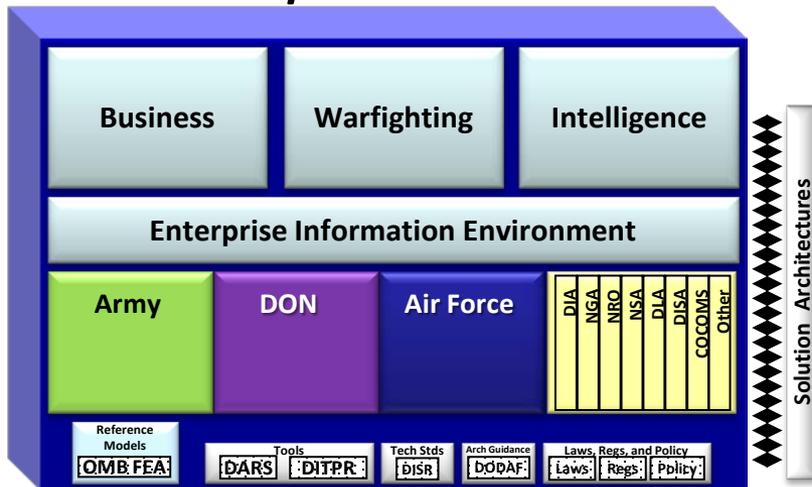
Joint Modeling and Simulation within the IT Enterprise



Validated Operational Architectures / JMT

Accessible
Sustainable
Discoverable

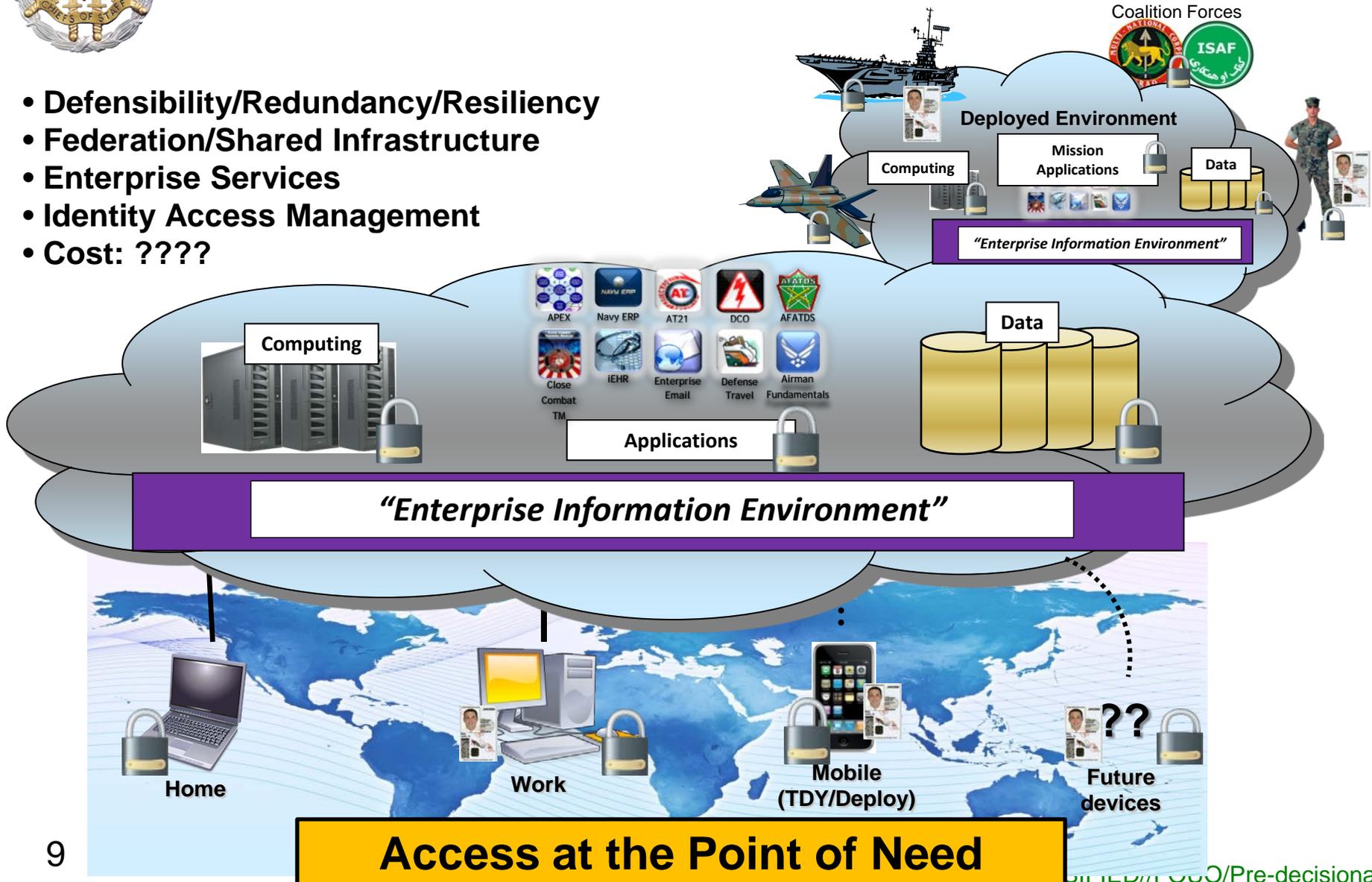
Federated Operational Architectures



Joint Information Environment End State



- Defensibility/Redundancy/Resiliency
- Federation/Shared Infrastructure
- Enterprise Services
- Identity Access Management
- Cost: ????





Closing Remarks