

Chief Information Officer Update



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*Imagine, Create, and
Secure a Stronger Peace...*



**NATIONAL DEFENSE
UNIVERSITY**
Washington, D.C.



"Good to Great"



Where We Were



Good

Where We Are (JET 1.0)



Great

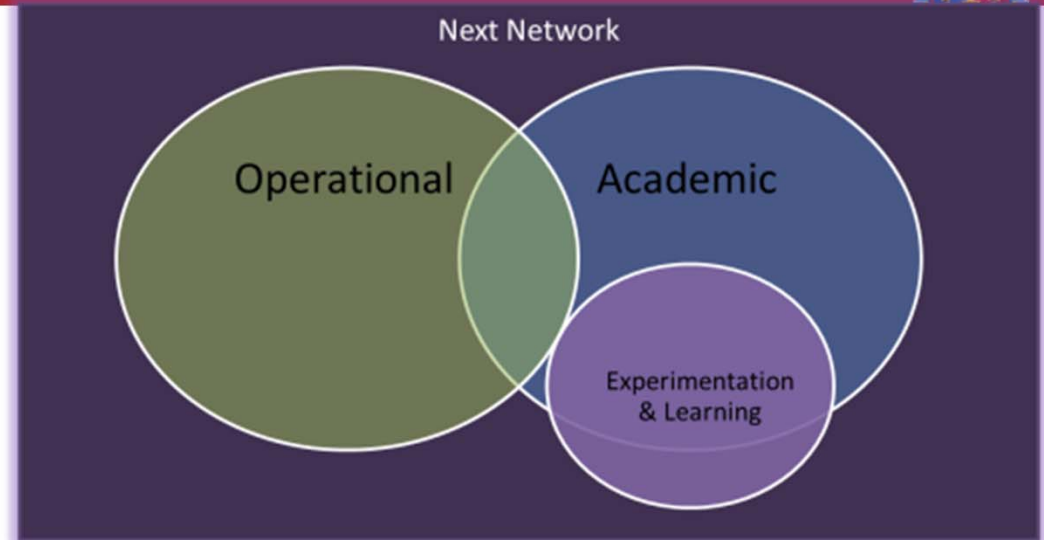
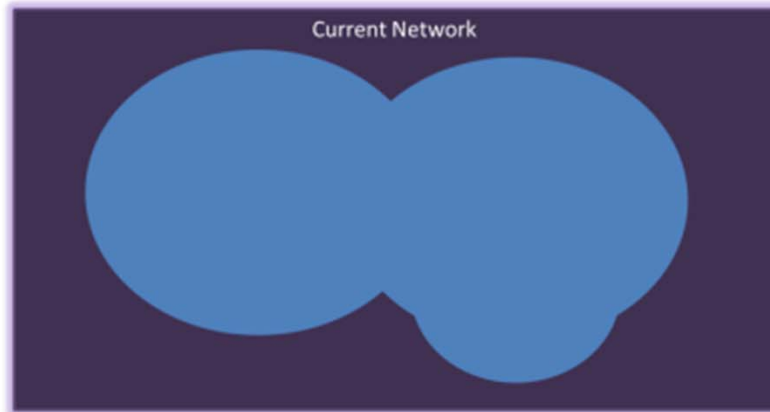
Where We Going (JET 2.0)

Cloud	Completely Locally hosted High duplication Low Reliability Inefficient 5 student systems	Google cloud, Defense Media Activity (DMA), Blackboard (BB) 52 server decom'd	Academic Operational Simulation Integrated Academic Computing Environment
Connected	Non-Compliant Network Worst of the Worst	Compliant Network Wireless BYOD Limited DoD Network	DOD network Wireless BYOD Best of the Best
Collaborative	No Collaborative Space	Sharepoint Google Cloud	Cloud provided capability Operational and Academic
Assured	Terrible inspection record 75 Vulnerabilities per station 300 VLANs No port security	Excellent CCRI, 83.6 <1 per workstation 30 VLANs Modern 802.1x	Model Organization Sustained Process MPLS

Collaborative Connected Cloud Assured
Govern-able Update-able Use-able Monitor-able



NDU Computing Environment



- **Currently a one size fits all conundrum that results in the “worst of the worst” Network issues.**

– Current Conditions

- Google Cloud and Blackboard provide students and faculty access to academic resources
- NDU unable to connect directly to Joint Staff and Pentagon for collaboration and coordination
- NDU denied access to DOD resources like HR and RM systems
- Difficult to enable Outreach and Alumni tools with DOD rules
- Lack flexibility to conduct exercises and experiments
- Staff lacks access to student and faculty resources
- Network protections must meet high level of compliance
- Low economies of scale and low value proposition

- **Re-Shape the NDU Computing Environment to better Support the Academic, Operational and Simulation functions of the University**

– Outcomes

- Faculty and Students can access course materials and library services on the device of their choice in the location of their choice
- NDU is “natively” connected to DoD Systems, The Joint Staff, and the Combatant Commands
- NDU has flexibility in executing Outreach and Research
- NDU has the ability to reinforce learning through the execution of Enterprise level Modeling and Simulation events
- Enhanced Collaboration between Faculty, Students and Staff
- The network is protected based upon the level of risk
- Efficient use of Resources while Enhancing Functionality



SUPPLEMENTS



Outcomes from CIO Strategic Plan



- ✓ **1. IT Strategic Plan developed**
- ✓ **1. Develop and Execute Configuration Management Program**
- ✓ **2. Enforce IA standards and implement compliant Network**
- ✓ **3. Ensure Network is Governable, Usable, Updateable, Monitorable**
- ✓ **4. Implement training plan that ensures all users have skills to effectively use the new technologies.**
- ✓ **1. Manage Number of servers**
- 2. Find economies of scale**

- ✓ **1. Increase access to University resources through use of mobile technology.**
- ✓ **2. Implement a single enclave computing environment.**
- 3. Maintain connection to students, faculty and alumni through modern library and alumni relations technology.**
- 1. Implement collaborative computing environment in the internet and intranet domains.**
- 2. Develop exercise support tools.**
- 3. Increase distance learning capabilities.**



The Challenge

CCRI Pass – Excellent, 83.6
Significant Server reduction
Reduced Duplication
Increased Discipline
Increased Awareness
Improving Capability

Resource
Management

Culture
Change

Assured

Cloud

Connected

Collaborative

Difficult to Govern
Impossible to Update
Unresponsive/Unusable
Expensive to Monitor



Good

Govern-able
Update-able
Use-able
Monitor-able



Primary Transition Tasks

CCRI

- Mitigate CAT 1 security findings
- Re-engineer network
- Improve HBSS configuration
- Third party software updates
- Network Access Control
- Network Monitoring
- Activity Logging/Auditing
- Configuration Mgmt

SCCM/SCOM
Win7 Migration
Support Contract Transition
ITD Consolidation
Active Directory Reconfiguration

Budget Profile
Project Mgmt
Personnel
NIPR v. Comm ISP

Progress



Strategic Outline



2013

Client Modernization ✓
ITD Consolidation ✓
Google Apps for government+ ✓
Sharepoint ✓
Correct CAT 1's ✓
Systems Analysis Project Management ✓
SIS ✓
Lifecycle Replacement ✓
GU²M ✓

2014

Enterprise Email Collaboration ✓
Single Enclave ✓
Business Process Improvement ✓
Web Content Management ✓
System Migration & Consolidation ✓
NIPR Migration ✓
Physical Network Upgrade ✓
Lifecycle Replacement ✓

2015

Cloud Transitions
Improved Connectivity
Lifecycle Replacement

2016

Integrated Information Environment

Cloud Connected Collaborative Secure

Lifecycle Replacement

Good

Functionality and Usability





Current Network Challenges



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Transformation Goal



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 - The network is protected based upon the level of risk
 - Efficient use of Resources while Enhancing Functionality