

Network Redesign Program


Part of The Network Master Plan

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Presentation Topics

- ❖ Overview of The Network Master Plan (NMP)
 - ❖ Update on NMP
 - ❖ Network Redesign Program (NRD)
 - ❖ NRD Status and Next Steps
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The Network Master Plan


- ❖ Started in February 2012
 - ❖ Collaboration with Many Campus Partners
 - ❖ FM, UAPD, CALS, ResLife, FSO, PD&C, Pharmacy, Athletics, Bio5, ITSAB, REA, COM, COPH, Humanities
 - ❖ Purpose – Replace, Refresh, Modernize Communication Infrastructure
 - ❖ Strategic in Nature
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NMP Strategic Goals


❖ Designed to Meet Institutional Goals

- ❖ Increase Research
- ❖ Increase Technological Support of Academic Mission
- ❖ Student and Faculty Recruitment and Retention

❖ Enterprise Goals

- ❖ Greater Mobility for Campus Community
 - ❖ Greater Efficiency in Managing Infrastructure Technologies
 - ❖ More Robust and Resilient Networks on Campus
 - ❖ Greater Flexibility in Delivery of Voice, Data, and Video Services
 - ❖ Increase Cellular Connectivity and Capacity on Campus
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Items Covered in NMP

- ❖ Telephony
 - ❖ Cellular (voice / data)
 - ❖ Building Infrastructure (inside plant)
 - ❖ Between Building Infrastructure (outside plant)
 - ❖ Network Core, Building Routers, Edge Routers, Firewalls
 - ❖ Telecommunication Rooms
 - ❖ Wireless
 - ❖ Television
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Building Categorization

❖ Building Categories

- ❖ Critical Life Safety
- ❖ Research
- ❖ Core Academic Buildings
- ❖ Academic Support
- ❖ Housing
- ❖ Institutional Support
- ❖ Operations & Maintenance
- ❖ Athletic
- ❖ Other

❖ Buildings Categorized Based on Infrastructure Needs and Costs

NMP Updates

- ❖ Designed to Meet Institutional Goals
 - ❖ Increase Research
 - ❖ Creation of Research DMZ
 - ❖ Increase Technological Support of Academic Mission
 - ❖ 3 Buildings have been upgraded
 - ❖ Utilized the NMP categorization and priority matrix to determine

NMP Updates

❖ Enterprise Goals

- ❖ Greater Mobility for Campus Community
 - ❖ All residence halls ~ 703 APs
 - ❖ Student Union / Bookstore
 - ❖ 27 Additional Buildings ~ 1000 APs
 - ❖ Outdoor upgrades: West Campus & Mall
- ❖ Increase Cellular Connectivity and Capacity on Campus
 - ❖ DAS Project Phase I – Completed
 - ❖ DAS Project Phase II – In Progress

NMP Status

❖ Enterprise Goals

- ❖ Greater Flexibility in Delivery of Voice, Data, and Video Services
 - ❖ MPLS Building Upgrade from 1Gb to 10Gb
 - ❖ Increased the Number of VoIP phone ~ 4000 devices
- ❖ Greater Efficiency in Managing Infrastructure Technologies – NRD
- ❖ More Robust and Resilient Networks on Campus – NRD

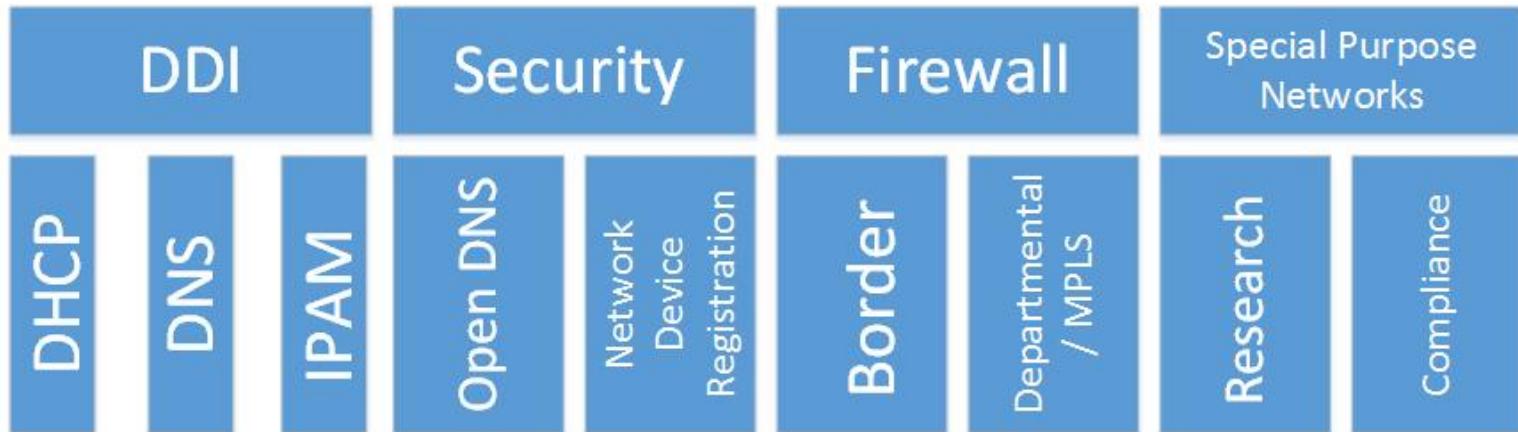
NeRD



Network ReDesign Program

Network Re-Design

Network Core Equipment Replacement



Network Management



NRD Projects Status

❖ Enterprise Goals

❖ Greater Efficiency in Managing Infrastructure Technologies

❖ Network Management Project – Completed

❖ DDI Project

❖ Phase I – Completed

❖ Phase II – In Progress

❖ Evaluation of Market Leading Solutions – Completed

❖ Recommendation – In Progress



NRD Projects Status

❖ Enterprise Goals

❖ More Robust and Resilient Networks on Campus

❖ Network Core Refresh Project – In Progress

- ❖ Purchased New Core Equipment

- ❖ Upgraded Power and Cooling Infrastructure

- ❖ Equipment Installed and Initially Configured

Next Steps NRD

- ❖ DDI Project
 - ❖ Complete the Recommendation
 - ❖ Launch Phase III – Procurement, Installation, Training
- ❖ Network Core Refresh
 - ❖ Validate Initial Configurations and Refine as Needed
 - ❖ Migration of Building Distribution and Edge Routing
 - ❖ Configuration and Migration of Firewall Rules

Next Steps NRD

- ❖ Define and Launch OpenDNS project
- ❖ Define and Launch the Secure the Perimeter project

Questions



Heading

