IT Briefing

April 17, 2014

North Decatur Building

4th Floor Auditorium

IT Briefing Agenda

- REDCap
- PS Financials Tools Upgrade
- Infrastructure Update
- Bell Techlogix Presentation
- Identity Management
- eduroam at Emory
- Box.net Update
- Security Update

- Megan Turk
- Michael Davidson
- Jimmy Kincaid
- Matt Woodruff
- Anne Marie Alexander
- Stan Brooks
- David Hauenstein
- Derek Spransy

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Megan Turk

Senior Analyst/Project Manager, RWIT

REDCap: Research Electronic Data Capture

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What is REDCap?

A secure web application designed exclusively to support data capture for research studies. REDCap allows investigators to easily build and manage online study databases.

Supported by the REDCap Consortium (948 active institutional partners in 75 countries)

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Components of REDCap

- A secure web application for building and managing online databases.
    - Online data collection forms and surveys
        - Functionality to include advanced features, such as branching logic, file uploading, and calculated fields
    - Supports both classic and longitudinal studies
    - Accommodates multiple study arms
- Additional project modules include:
    - Project calendar
    - Scheduling module
    - Randomization
    - Ad hoc reporting tools
    - File repository
- Automated export procedures for seamless data downloads into:
    - Excel
    - PDF
    - Common statistical packages (SPSS, SAS, Stata, R)
- Project and data collection translation into several languages including:
    - Chinese
    - French
    - German
    - Portuguese
- Demo: redcap.emory.edu

Controls / Access

- Who can access REDCap?
  - Any individual who has an Emory University ID or Emory Healthcare ID
  - Primary Investigator provides access to a project in REDCap

- Project level access
  - User rights:
    - Highly customizable for data collection instruments, data entry, data manipulation, data exporting, etc.
  - Data Access Group:
    - Allow control over which study participants a user has access to.

- Logging / Audit Trail:
  - REDCap provides a detailed audit trail of all actions or page views executed by a user in a particular project.

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Support / Project Initiation

New Projects

- New projects are created centrally by the REDCap Administrator.
  - Requirements:
    » Complete online REDCap Project Request Survey
    » Review and Sign-off on the REDCap Engagement Package (SLA)
    » Provide a smart key for the $25/month hosting fee.

Support

- Research and Woodruff Health Sciences IT (R-WIT)
  » Email and phone support during working hours.
  - redcap.help@emory.edu
  » Quarterly upgrades to the REDCap database to gain new features and improvements as released from Vanderbilt.
  » Emory REDCap Product Manager:
  - Megan Turk, meturk@emory.edu or 404.727.1275

REDCap

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Mo Davidson

Manager, PeopleSoft Administration Group,

Enterprise Applications

PeopleSoft Financials Tools Upgrade

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Schedule

Per our Strategic Direction:

- PS Tools Environment Overhaul - now –> Go Live 4/21
  - Complete Replacement of All 34 Servers
  - Migrating All Databases from Oracle 10g to 11g
  - Upgrade to PS Tools 8.53.09
- Fit Gap (Application Functionality vs Requirements) Analysis – now –> July 31, 2014
- PS Financials / Compass Upgrade to 9.2 – August 2014 –> March 2016

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PS Financial Tools Upgrade

Questions?

Now, or if later, contact http://compass.emory.edu/

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Jimmy Kincaid
Communications Architect
Architecture & Security Team, Infrastructure
Core Router Update

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Core Router Update

The Emory team spent almost 2 Weeks at Cisco's RTP lab vetting the new core design full scale under simulated load.

During that time, we validated:

- New "SuperSpine" Design
- Resolution of MAC address issues
- Conversion Procedure

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Upcoming Changes

Core Configuration Prep

- Wed 05/14, 9 PM – Midnight

- No impact

Layer 2 Transition 1

- Mon 05/19, 9 PM – 5 AM

- Small impact (Layer 2 Only)

Layer 2 & 3 Transit Redesign

- Wed 05/21, 9 PM – 5 AM

- Moderate impact (Layers 2 & 3)

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Upcoming Changes (cont.)

Layer 2 Transition 2
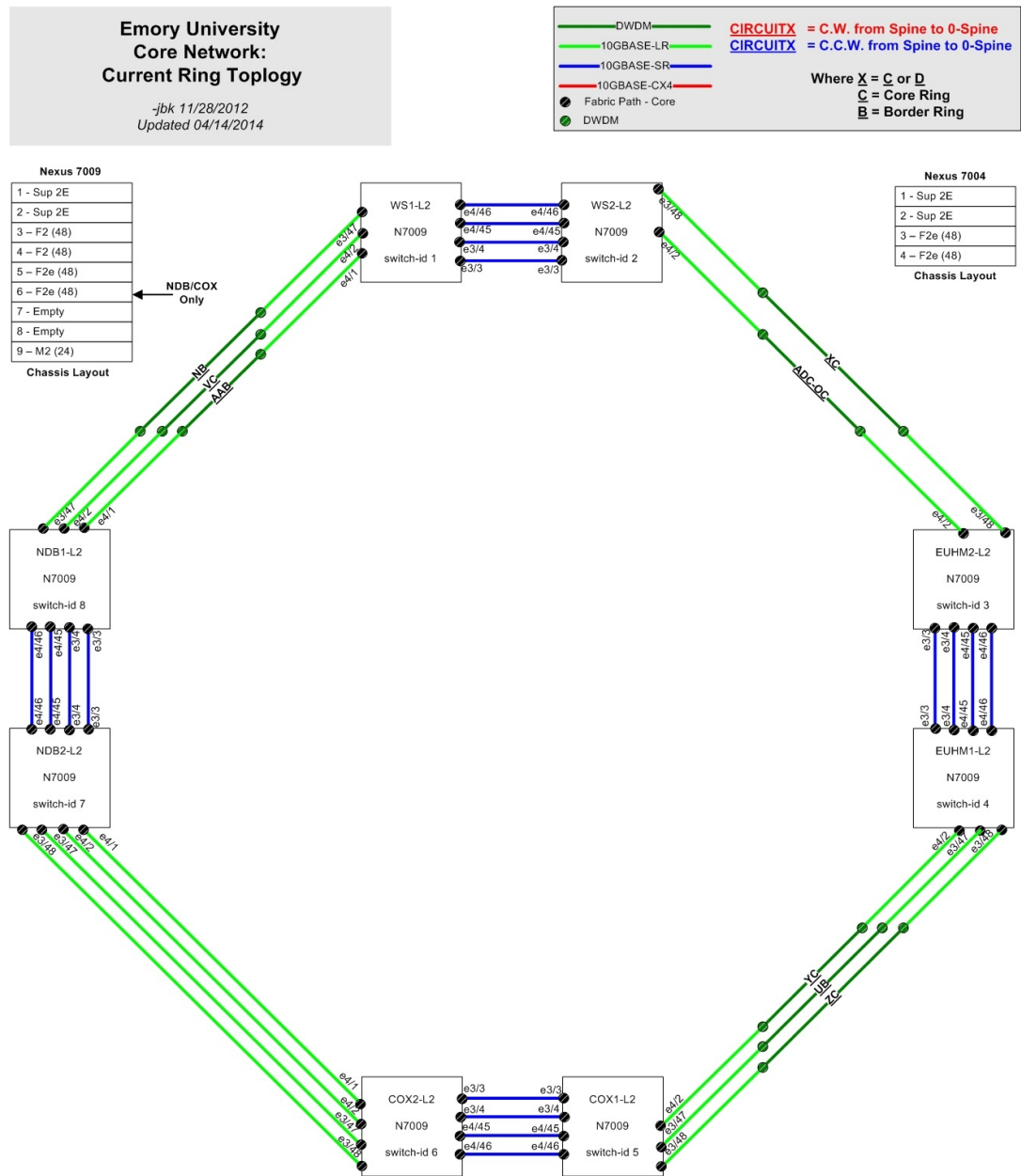
- Mon 05/28, 9 PM – 5 AM

- Small impact (Layer 2 Only)

Individual Chassis Conversion (x8)

- Wed 05/28, 9 PM – 1 AM

- Moderate impact (Layers 2 & 3)

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Starting Point

Current Ring Topology:

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Core Router

Layer 2 Transition 1 (05/19)

- Hybrid Ring & Star Topology
- Introduces new "**SuperSpine**"
- Nodes (Nexus 7004)

Layer 2 & 3 Transit Redesign (05/21)

- Update FabricPath Layer 2 transit to take advantage of new Star topology

- Build new broadcast-based transit networks to be used by all routing protocols (OSPF, PIM-SM, RIP, etc.)

- Replace existing point-to-point style transit networks which are optimized for ring topology

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Core Router Update

- Layer 2 Transition 2 (05/28)

- Full Star topology

- Ring topology eliminated
- MAC issue still present

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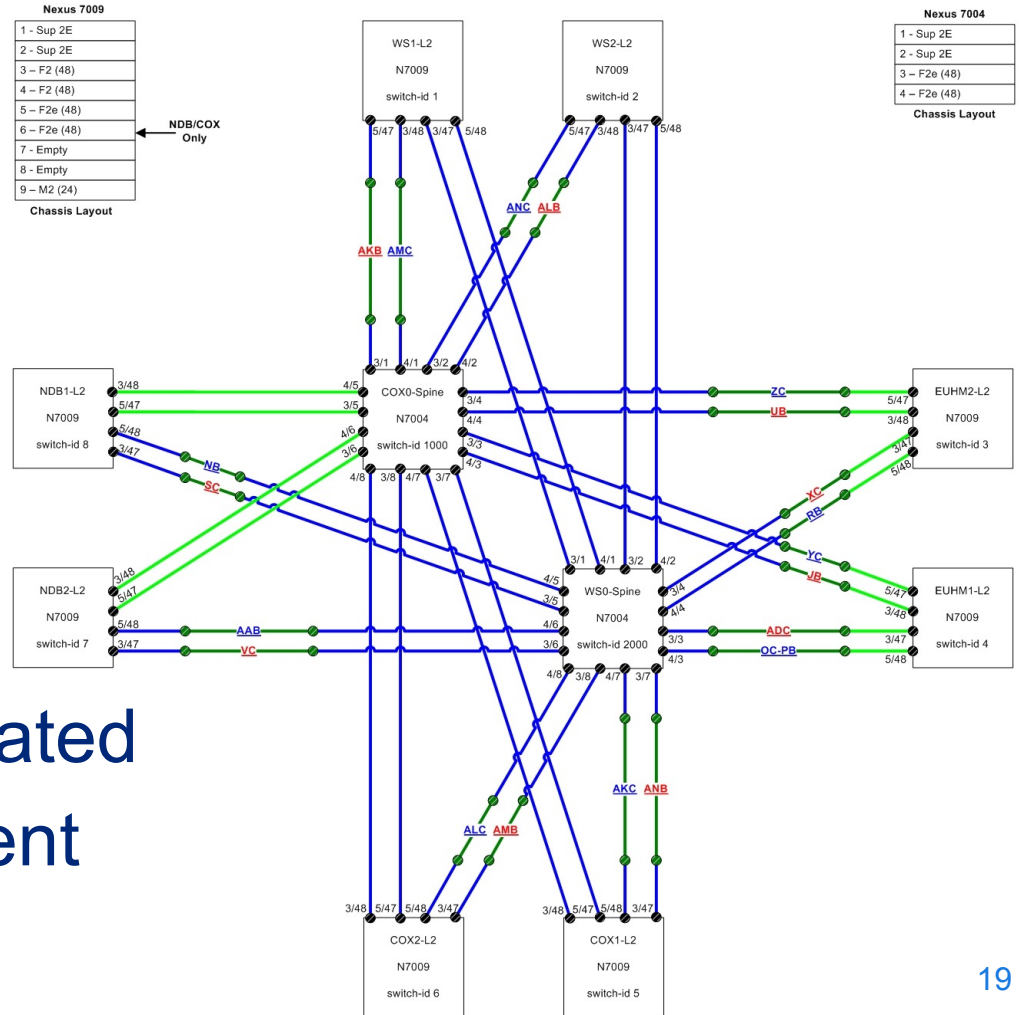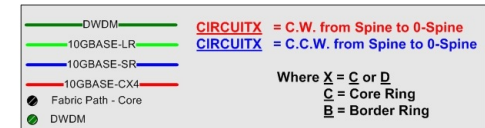
Core Router Update

- Chassis starting point prior to Leaf/Spine conversion

- MAC issue still present
- L2 and L3 VDC in Star topology

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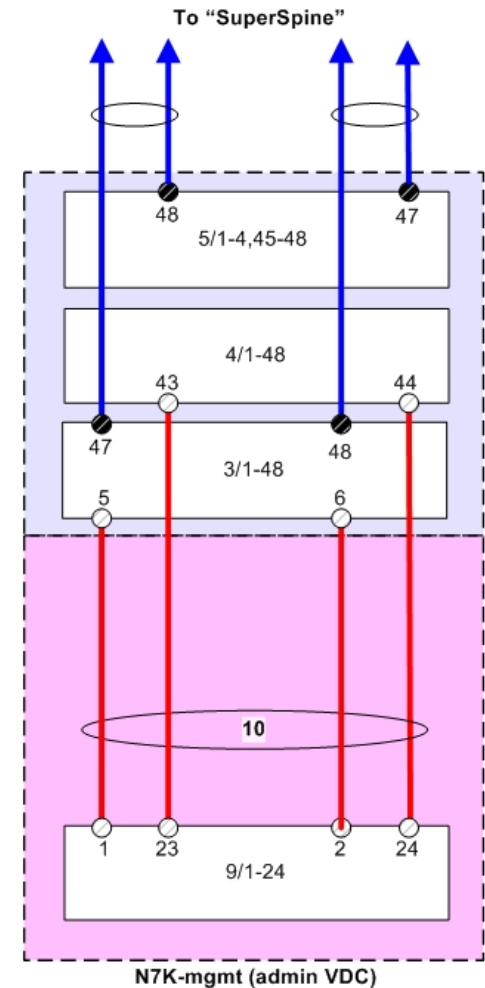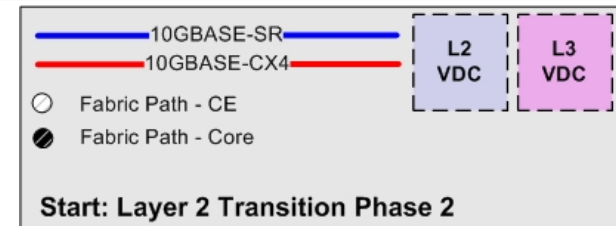
Core Router Update

- Chassis diagram after Leaf/ Spine conversion

- MAC issue resolved
- Multiple leafs and tiered spine in a Star topology
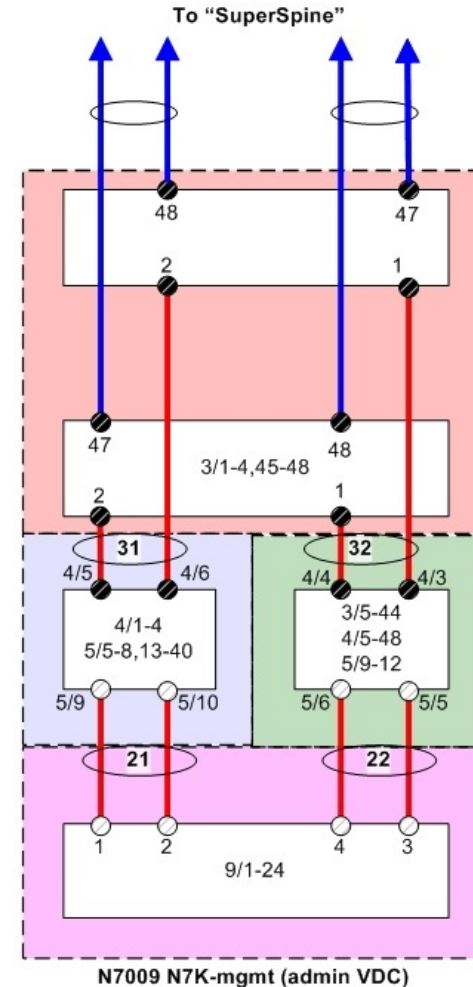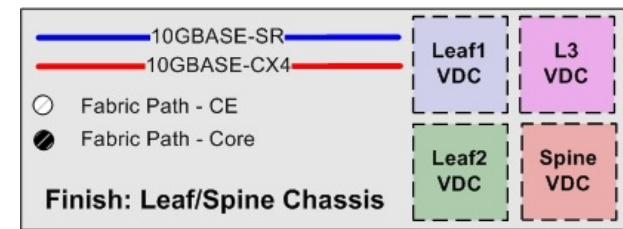
Core Router Update

- Comprehensive core diagram after full conversion

- Temporary N6001s for wireless controllers

- N7009s have F2 & F2e modules (16k MACs)
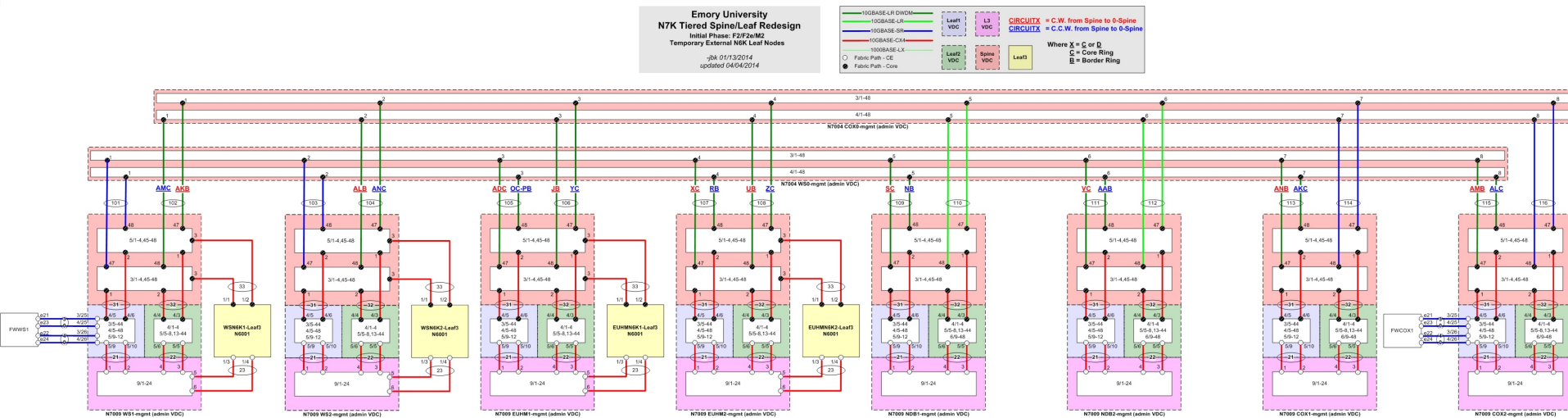
Core Router Update

- Comprehensive core diagram: F3 End State
- F2/F2e modules in all N7009s replaced with F3 modules (64k MACs)
- All temporary N6001s (Leaf3s) retired
- Not scheduled
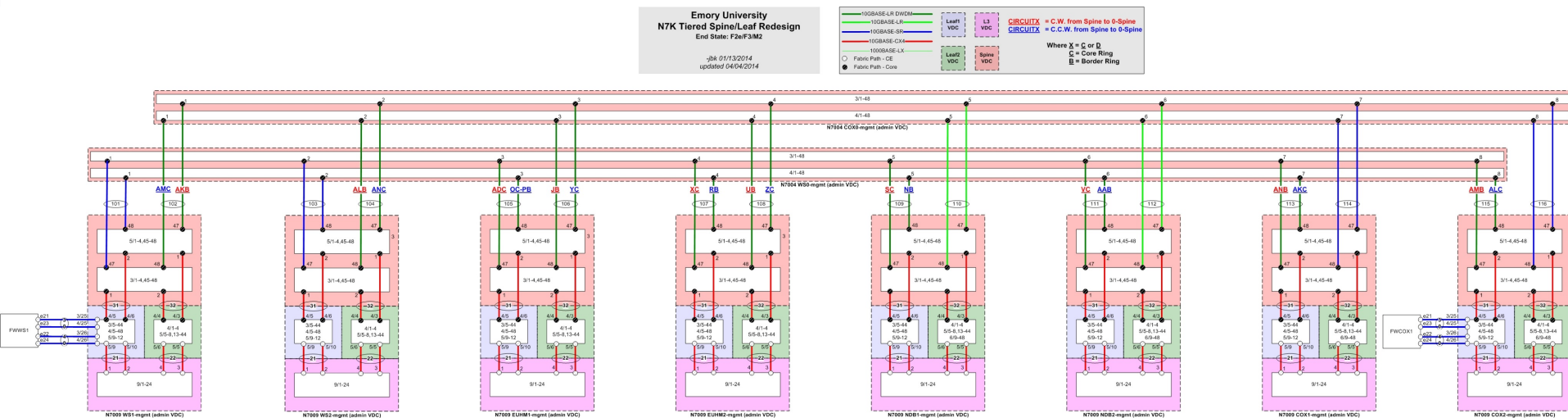
Infrastructure Project Update

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Matt Woodruff

Manager, Technical Services, Bell Techlogix

Bell Techlogix

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Bell Techlogix

- Current Services offered to Emory
- Additional Services

Any additional questions/concerns: emory@belltechlogix.com

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Bell Techlogix

Questions?

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Anne Marie Alexander

Manager, Identity Management, Integration

Identity Management Project Update

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Milestones

June
- Implement new Identity Manager
- July – August as warranty period

October
- Service account owners begin testing
- October – November: critical time

January
- Implement new LDS by early January

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Authentication - Current state

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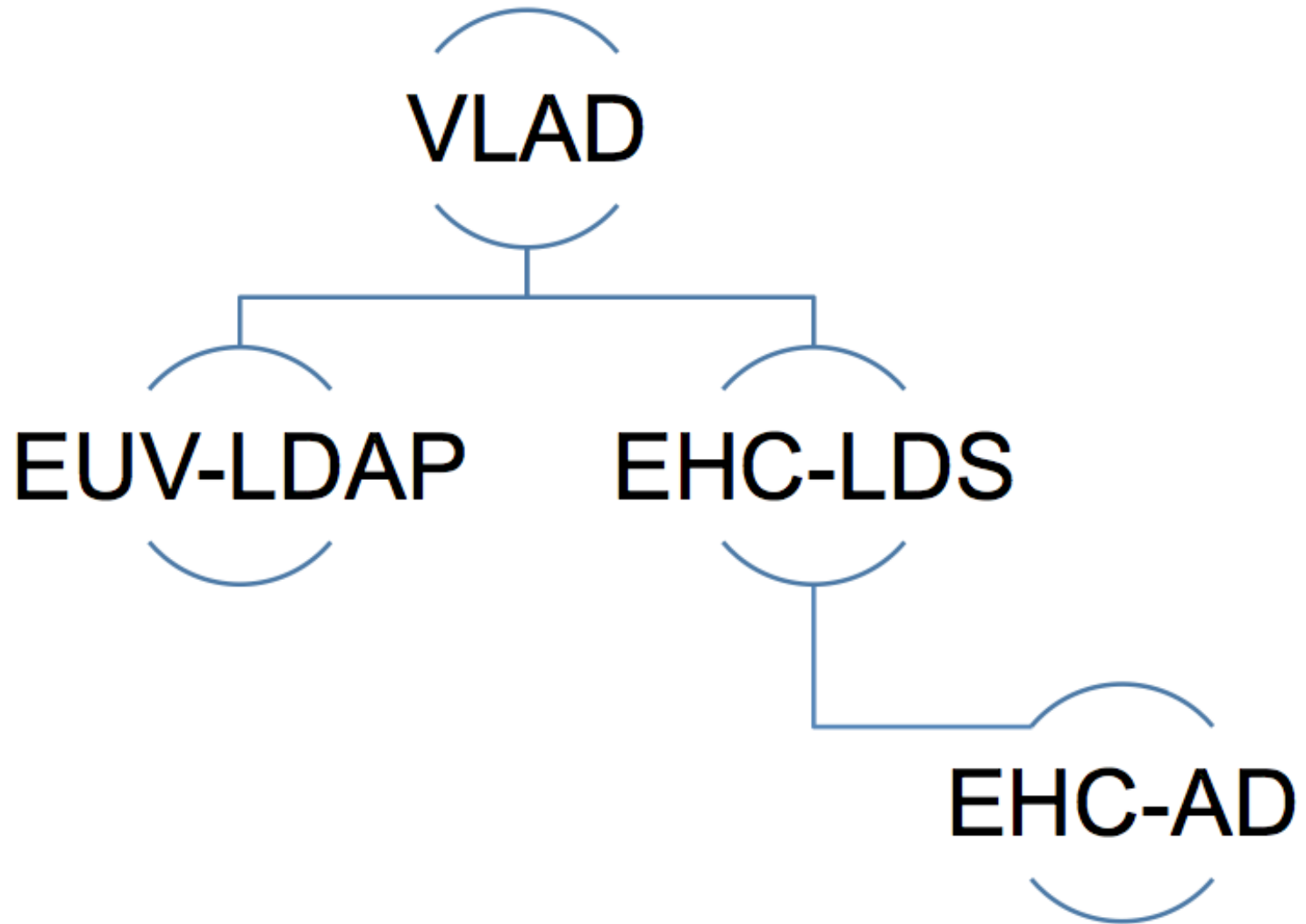
Authentication – Future state

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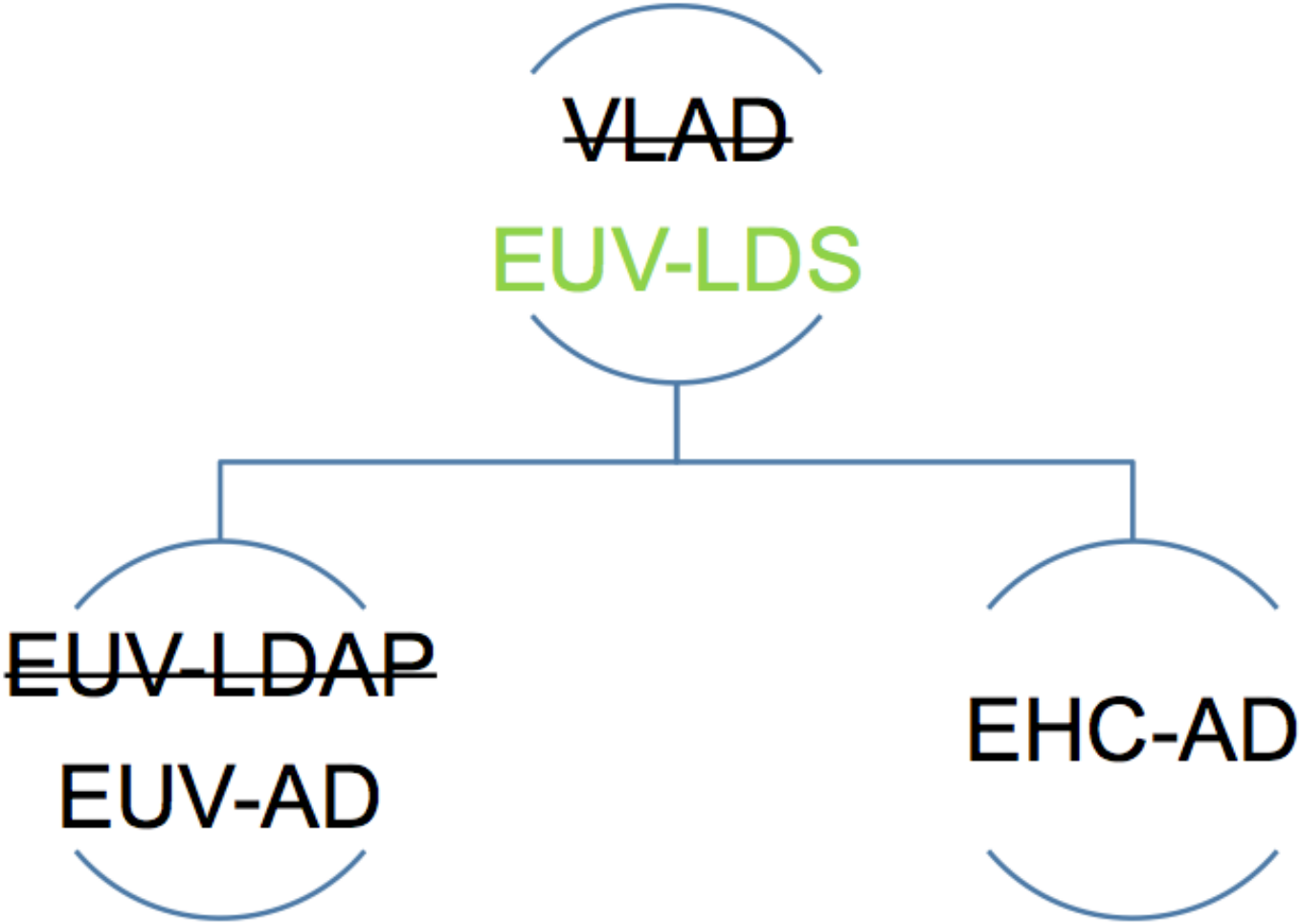
Identity Management Update

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eduroam at Emory
What the Heck is It?

Stan Brooks
LITS/UTS Network Architecture

What is *eduroam*?

- ***eduroam*** = ***edu**cation **roam**ing*
- Worldwide roaming access service for the international research and education community
- Allows students, faculty, researchers and staff to connect to Wi-Fi at participating institutions
  - Access is free, authenticated, and secure (encrypted)
  - Connect to a special "***eduroam***" SSID at participating institutions

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What is *eduroam*?

- International organization that supplies federation for authentication of Wi-Fi access
  - United States (https://ww.eduroam.us/)
  - Europe (https://www.eduroam.org/)
  - Asia/Pacific (http://www.eduroam.edu.au/)
- Initiative started in 2003
- Confederation (federation of federations)
- Internet2 Consortium Net+ Service in USA

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Why should I Care?

- Emory is an *eduroam* member institution
  - Became an IdP in early 2013
    - IdP = Identity Provider
      - Authenticates home institution users at remote institution sites
  - Will became an SP in Mid-2014
    - SP = Service Provider
      - Broadcasts *eduroam* SSID at home institution
- End users have been successfully using *eduroam* both on and off Emory's campuses

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How *eduroam* works

- SSID to use: *eduroam*
  - SSID is secured using WPA/2-Enterprise
    - The same security used on *EmoryUnplugged*
- Login Credentials
  - Login ID has a domain appended to users' NetID:
    - jtkirk@starfleetacademy.edu
  - Login Password is users' normal password
  - Emory users would use their NetID appended with @emory.edu
    - jsmit99@emory.edu

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eduroam at Emory University

- ## *eduroam* User Access
  - ### Emory's Campus
    - Users are placed on Guest Access Subnet (Border Core)
    - Users have no protocol or destination restrictions
      - vs Guest Access – Web/Secure Web only
    - Users have no bandwidth limitations
    - Users look like they are coming from the Internet to internal Emory resources
      - This will limit access to some Emory resources for *eduroam* users
  - ### Other (non-Emory) Locations
    - Depends on the institution and their local policies

eduroam at Emory University

- Who can use *eduroam*?
  - Anyone with a Emory University NetID can login to *eduroam*
    - Must have an emory.edu domain login
    - Includes sponsored accounts
- Who cannot use *eduroam*?
  - Emory Healthcare users cannot use their Emory Healthcare ID for *eduroam* access
    - Healthcare employees must use their Emory University logon credentials if they have them for *eduroam* access

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eduroam at Emory University

- ## When is *eduroam* Available?
  - Plan: Tuesday morning after Commencement (05/13/14)
- ## Where is *eduroam* Available?
  - *eduroam* is available at most Emory University buildings on Emory University's campuses
    - Most Academic Buildings
    - Residence Halls
- ## Where is *eduroam* NOT Available?
  - *eduroam* is not available in Emory Healthcare facilities
    - Not available in Emory Hospitals
    - Not available in Emory Clinics
    - Not available at Emory remote locations – Emory campuses only

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eduroam Resources

- *eduroam* Websites:
  - United States - https://ww.eduroam.us/
  - Europe - https://www.eduroam.org/
  - Asia/Pacific - http://www.eduroam.edu.au/
- *eduroam* Wiki Pages:
  - Main page - https://confluence.terena.org/display/H2eduroam/%27How+to….%27+%28deploy%2C+promote+and+support%29+eduroam
  - How to offer Helpdesk Support - https://confluence.terena.org/display/H2eduroam/How+to+offer+helpdesk+support+to+end+users
- Emory Wiki Page:
  - https://wiki.service.emory.edu/display/infrastructure/eduroam+at+Emory

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Questions/Discussion

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David Hauenstein

Manager, Enterprise Storage, Infrastructure

Box.net Update

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Box.net Update

Questions?

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Derek Spransy

Sr Information Security Specialist, Information Security

IT Security Update

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BitLocker Project – What to know

- Go-live scheduled for 4/30/14

- MBAM+BitLocker for Windows and FileVault2 + Emory's FileVault Management Tool are the <u>only</u> FDE tools that will satisfy policy 5.12

- No date set for PGP decommission

- All PGP deployments should stop after MBAM becomes available

- Look for Local-L message with links to 'Getting Started' documentation

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Heartbleed

- Major vulnerability that affects Ope
  SSL 1.0.1 – 1.0.1f
- Patched by 1.0.1g
- Flaw in heartbeat mechanism allows for unauthenticated disclosure of system memory contents, passwords, encryption keys, certificates, PII.
- **You have affected systems**
- Thoroughly check your environment for systems that need patching

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The Obvious and Not So Obvious

- Web servers serving HTTPS content
- But what about:
  - Embedded devices
  - Printers
  - Video conferencing equipment
  - Windows w/ OpenSSL
  - Software compiled with OpenSSL
  - Smartphones
  - On and on
- Many vendors are still evaluating their products and haven't released patches.
- Client-side vulnerabilities also exist.

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Heartbleed – Emory's Response

- Enterprise Security will continue to scan the network and provide lists of affected systems to IT Directors for remediation

- We have had mitigations in place for over a week

- Mitigations != No need to patch

- The only true fix is to patch

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Security Update

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Thank you for coming!

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