IT Briefing

8/18/11
7/21/11

Agenda

- Wireless Certificate Issue
- Back-to-School
- Amcom Upgrade Project
- DWDM Fiber Rings
- AV Consolidation Project
- Security Update

- John Ellis / Alan Cattier
- Alan Cattier
- Felicia Bianchi / Jay Flanagan
- Perry Eidson
- Brad Judy
- Brad Judy
Wireless Issues

Alan Cattier
John Ellis
What Happened?

- The certificate verifying Emory Unplugged is expiring
- The certificate is a Verisign certificate
- UTS renewed the certificate with Verisign
- Verisign now requires an intermediary certificate to change frequently for increased security.
- The intermediary certificate requires different wireless profile settings on Windows machines
Wireless Issues

What Happened?

• When the new certificate was introduced:
  – Some Windows machine could not authenticate the certificate
  – Some mobile devices required multiple authentications of the certificate
  – Some devices, primarily Mac laptops, accepted the certificate without a problem
  – Range of devices and OS’s displayed a range of responses
So What Did We Do?

- Based on a lack of understanding of the full impact of the Certificate swap, we rolled back to Emory’s old certificates at approximately 11:30 last night.

- Users this morning may find they need to accept a certificate for WPA-Radius2.Eu.Emory.Edu, particularly on their mobile devices. Some devices, particularly laptops, should make the transition seamlessly.
The Plan

- On Board all incoming students to the old certificate knowing that our automated configurators and scripts for allowing them on to EmoryUnplugged do not include the settings required by the new certificate.

- Immediately contact Verisign to determine if there is a way to renew the certificates without forcing profiles changes in the EmoryUnplugged user community.
Wireless Issues

Communicating

- We are working to discover a solution that forces the least amount of change for Emory Unplugged users in this busy time of year while still assuring the security of Emory’s wireless network.

- We will be communicating regularly and working with the Local support community to provide updates of the character of the looming change.
Overview

• This is only a temporary fix
• The old certificate will expire on September 9th and cannot be extended
• We will have to accommodate and authenticate a new certificate
• Hopefully, this will not require profile configuration changes for Emory Unplugged users, but it may
• We will provide regular updates
Questions
Back-To-School

Alan Cattier
So What’s Happening

- Traditional weekend welcoming students both back and to the Emory network
- Thank you to the many people in this room who make this such a positive experience for those arriving at Emory
- This year we’re pushing for a primarily Unplugged experience
- Working with Campus Life, have added over 200 AP’s in Atlanta, 20 at Oxford
Background

- Working to shut off all wired ports in ResNet, except those that are requested and paid for by students
- To facilitate the process, we have hired a wireless intern, recent EC graduate Haynes Chewning, to assist us with student wireless issues
- We have a robust partnership with Campus Life to deliver quality wireless
Caring for the Student Experience

• Charge of the Student Services group within UTS

• The Clean Room, a Student Services service, is now Student Technology Support

• They are located at the back of the Computing Center at Cox Hall, and available to Emory students

• Update in December on our progress
Questions
Amcom Upgrade Project

Felicia Bianchi
Jay Flanagan
What is AMCOM?

- SimonWeb
- ENotify
- On Call calendar
- Paging
Why are we doing this?

**Dates**

- OnCall Calendar Admin training  
  August 24 and 31
- Go live 6 am September 8
Our version will no longer be supported.
New enhancements include:

- New features
- Robust security
- New technology
- Greater support
- Increased hardware reliability
- Ability to integrate with other systems
Key Enhancements

- Receive pages on your smartphone
- Messages will continue to tone until acknowledged
- Paging and corporate directory search and transfer using your speech
- SimonWeb personal profile improvements
- Voice personal configuration
- New reporting providing direct feedback to TEC regarding doctor/patient response
• Online training provided for Simonweb, OnCall Calendar and e.Notify
  – anywhere
  – anytime
• Formats:
  – Online short videos (iTunesU)
  – PDF reference material
Users not reviewing training material

Users not used to logging in to access paging

Photo Credit: image by avyfain from http://www.flickr.com/photos/avyfain/3052213656/sizes/l/in/photostream/
Questions
DWDM Fiber Rings

Perry T. Eidson
“The” Fiber Ring Is More Than One!
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- Border Ring
- Core Ring
- Executive Park/EUOSH Ring
- Oxford Point to Point Spur
“The” Fiber Ring Is More Than One!

- Border Ring
- Core Ring
- Executive Park/EUOSH Ring
- Oxford Point to Point Spur

Potential
- St Joseph/Perimeter Clinic/Johns Creek
- 235 Peachtree St (Hospitals Business Office)
Quick History
Quick History

- Project conceived in late 1990s but not enough critical mass in any of the independent communications entities
- Restarted in 2001 shortly after creation of NetCom
- Fiber provider and equipment vendor chosen in 2002 – contracts signed
- Fiber construction – late 2002/early 2003
- Cutover in March 2003
Quick History
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Initially conceived as 3 rings with specific purposes
• Border Ring for external/DMZ type of traffic
• Core Ring for internal HIPPA/FERPA type of traffic
• SONET Ring for TDM voice services
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- Border Ring for external/DMZ type of traffic
- Core Ring for internal HIPPA/FERPA type of traffic
- SONET Ring for TDM voice services

Initially served the following locations:

- Cox Hall, NDB, Briarcliff, Grady, 56 Marietta, Midtown
- Added Oxford, 59 Exec, White St and EUOSH
Quick History
Quick History

56 Marietta is a Telecom Hotel
• Multiple Internet Service Providers
• Multiple Fiber Providers
• No/Low Cost Interconnection to Providers
• “Meet Me” Room for Interconnection
• Emory Has Two Cabinets in Meet Me Room
• Meet Voice and Data Providers
• Meet Fiber Provider for Link to Oxford
Ring Layout – Border, Core, SONET

- Oxford
- 56 Marietta
- Grady
- Briarcliff
- White St
- Midtown
- NDB
- Cox Hall

Lines:
- Blue: Border
- Red: Core
- Green: SONET
Ring Layout – All Nodes Current and Proposed

Oxford

Grady

Briarcliff

56 Marietta

235 Peachtree

White St

Midtown

NDB

Cox Hall

EUOSH

59 Exec Park

Border

Core

Johns Creek

Exec Park

Johns Creek

St Joseph

Perimeter
What Is DWDM?

DWDM = Dense Wave Division Multiplexing

Wavelength = Lambda = \( \lambda \)

Operates in Infrared Spectrum
What Is DWDM?
What Is DWDM?

– Each Client Side Interface Is Assigned a Wavelength
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- Optical-Electrical-Optical Conversion Done at Interface to DWDM
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- Optical-Electrical-Optical Conversion Done at Interface to DWDM
- Single Mode Optical Signal @ 1310nm Converted to Electrical Pulses and Then Converted to Assigned Wavelength Such As 1555.52nm
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- Optical-Electrical-Optical Conversion Done at Interface to DWDM
- Single Mode Optical Signal @ 1310nm Converted to Electrical Pulses and Then Converted to Assigned Wavelength Such As 1555.52nm
- Highly Accurate Prisms Are Used to Add/Drop Wavelength
What Is DWDM?

- Each Client Side Interface Is Assigned a Wavelength
- Optical-Electrical-Optical Conversion Done at Interface to DWDM
- Single Mode Optical Signal @ 1310nm Converted to Electrical Pulses and Then Converted to Assigned Wavelength Such As 1555.52nm
- Highly Accurate Prisms Are Used to Add/Drop Wavelength
- May Be Any Speed From 10 Meg to 100 Meg to 1G to 10G to 40G to 100G (not commercially deployed yet)
What Is DWDM?
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What Is DWDM?

Data Center

DWDM

O-E-O

Fiber Ring

Location A

Location B

Location C
What Is DWDM?

![Diagram of DWDM Fiber Rings]

- Data Center
- DWDM
  - O-E-O
- Fiber Ring
- Location A
- Location B
- Location C
What Is DWDM?

- Data Center
- DWDM
- Location A
- DWDM
- Location B
- DWDM
- Location C

Same 1310nm wavelength
Questions
AV Consolidation project

Brad Judy
AV Consolidation

Goal

– Select and deploy a consolidated endpoint security solution for University and Healthcare

Motivations

– Reduce overall licensing costs
– Improved effectiveness and incident response
– Consistent user experience for bridge users
High Level Schedule: May 2011 – Aug 2012

- May/June: Requirements Gathering & RFI Creation
- July/Aug: Vendor RFI Responses & Presentations
- Sept/Oct: Proof of Concept
- Nov/Dec: Security, Architecture, & Governance Reviews
- Jan/Feb: Product Implementation
- Mar/April: Client Migrations
- May/June: Project close

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More info

- Search for AV in the OIT wiki - https://wiki.service.emory.edu/
- Team email: AVCONSOLIDATION-L@LISTSERV.CC.EMORY.EDU
- More updates in future briefings
Questions
Security Update

Brad Judy
Living in “the Cloud”

- Keep a backup of your files
- Pay attention to privacy settings

Next month: Password security
SQL Injection vulnerabilities

- OIT Security did some searching for potentially vulnerable sites
- 33 out of 34 identified vulnerable sites have been fixed
- Likely more undiscovered vulnerabilities out there
Questions
Thank you for coming!