

# IT Open Forum

June 19<sup>th</sup>, 2014

Eng 285/287

# Open Forum Q&A Instructions

- **WebEx Users:**
  - Recorded demos will play back through your computer speakers.
  - To submit a question via WebEx, please use the Q&A panel in the bottom-right corner of your WebEx window.
  - The 'Ask' field should default to 'All Panelists', please be sure to send your questions to 'All Panelists', as questions sent to 'Host' or 'Presenter' will not be seen by the people monitoring the Q&A stream."
- WebEx Presentation with Q&A will be posted on its website after this event.

# Agenda

- **SJSU Data Centers – Then and Now**
- **IT Services Summer Projects**
- **Workstation Refresh**
- **Data Center Certification**
- **Info Security Training on Skillport**

# SJSU Data Centers – Then and Now

Greg Porter

# SJSU Data Centers – Then and Now

## Legacy On-Campus Data Center in CC

- Servers and storage used for VMs cobbled together, not purpose built
- 5+ years old, end of life, unsupported
- Equipment is getting to “that age” – and starting to fail regularly



# SJSU Data Centers – Then and Now

## New SJSU Primary Data Center

- In brand new Belarmino Data Center, Stockton
- Brand new physical plant at Delta College
- Brand new purpose built server infrastructure
  - Cisco Unified Computing System “FlexPod” – Cisco blade servers, NetApp storage
- **10X+ CPU and storage capacity compared to legacy servers here in CC**



# SJSU Data Centers – Then and Now

## Is the new stuff any good?

- **We have been using it for over a year**
- **Majority of our systems are on it**
  - When you use your VOIP phone, you are using it
  - When you sign into wireless, you are using it
  - When you use FTS or other apps, you are using it
- **The servers and storage are rock solid and reliable**
- **All new virtual machines are built at Delta**
  - We have over 150 VMs at Delta now, and growing....

# SJSU Data Centers – Then and Now

## ITS Computing Services #1 Project Now

- **CS1302 Migration to Delta**
  - Evacuate VMs from legacy data center on campus
  - Occupy Delta
  - Completed by Aug 15, 2014
- **Started at beginning of year**
- **About 100 VMs to deal with**
  - 60% done, about 40 VMs remain
  - Remaining VMs are “the hard ones”
  - On track to finish by Aug 15



# SJSU Data Centers – Then and Now

## Hey!! I want a VM...

- **We are getting much faster**
  - Used to take months, then it took weeks, now it's days
- **No more paper!**
  - Use iSupport
  - Open a new change, pick New VM template
  - iSupport VM workflow tracked and monitored better
  - Simple VM request completed in less than one business week

A blue button with a white border and a dark blue background, featuring the text "SUBMIT A TICKET" in white, bold, uppercase letters, followed by a white right-pointing arrow icon.

**SUBMIT A  
TICKET** ▶

# ITS Summer projects

John Briar

# IT Services Summer Projects

1. **Next Gen**
  - Cores
  - NGN Firewalls
  - NGN Building Migrations
2. **Data Center Certification**
3. **VDI Labs**
4. **Server Migrations**
5. **Unified Communications Deployment**
6. **Classroom Telephones**
7. **Contact Center Implementations**
8. **OU Campus Version 10 Upgrade**
9. **Degree Progress Workflow**
10. **SOTE Reporting**
11. **WiFi Updates**
12. **WebEx Enabled Telepresence**



# Workstation Refresh Program



**Mike Cook**

# Workstation Refresh Program – Lab Progress

- **Total Count 1646 Workstations & 1426 Monitors Delivered & Installed since 1/1/2014!**
  - Academic Success Center (Clark Hall)
  - Athletics
  - Peer Connections
  - SSC Open labs and Front Counter
  - University Housing
  - English
  - ALL College of Business
  - ALL College of Applied Sciences and Arts
  - ALL College of Science
  - ALL College of Social Science
  - ALL 94 spaces in the College of Engineering
  - ALL College of Humanities and Arts
  - ALL College of Education
  - All College of International and Extended Studies
  - King Library Checkout Laptops and Desktop Labs
  - Moss Landing Marine Labs

# Workstation Refresh Program – New Services

**Virtual Desktops**

**Patch and Workstation Management**

**Active Directory Consolidation**

# Workstation Refresh Program

## Workstation Refresh Web Page

<http://its.sjsu.edu/services/workstation-refresh/workstation-configuration/index.html>

# Data Center Certification

Mike Cook



# Data Center Certification



## Background



## What were the commonalities?

- Background Checks
- Data Center Access
- Facility Access Control and Monitoring
- Alarm Systems
- Fire Protection
- Emergency Power
- Procedures and Training
- Satellite Data Centers

# Action Items

## Identify the requirements for L1 data centers AND create a standard for SJSU

- Access Control
- Background Checks
- Electronic Locks
- Management Control
- Employee Separation Procedures
- Key Cards
- Master Keys
- Security Alarms
- Moisture Detection
- Smoke Detection
- Environmental Reporting
- Earthquake Protection
- Fire Suppression
- UPS Power
- Generator Power
- Firewalls
- Emergency Training
- Disaster Recovery Plans
- Off-Site Backups
- Video Surveillance
- Labeling
- Policies
- Cooling

### SAN JOSÉ STATE UNIVERSITY

#### Introduction and Purpose

This standard defines the requirements for security controls of machines hosted in SJSU data centers. This standard is composed to explicitly comply with ICSUAM 8000, California SAM, local, State, and Federal law.

#### Scope

This standard applies to all SJSU State, Self-Fund, and Auxiliary ("campus") computer systems and facilities, with a target audience of SJSU Information Technology employees and partners. This standard applies to any machine storing unencrypted Level 1 data at rest, any machine providing internet-facing services outside the campus border firewall (i.e. Web Servers), and campus "core" network aggregation points Music and Macquarie Hall.

#### Standard

##### Storage of Unencrypted Level 1 Information is prohibited

For any machine on the campus, storing level 1 unencrypted data at rest is prohibited unless that machine is hosted in an approved SJSU data center. For information classification and handling of Level 1 sensitive data, refer to the Information Classification and Handling Standard.

**Comment [01]:** Do you think that this might be revealing too much information to a potential attacker who is able to view this standard, knowing where the campus core network aggregation points are. Does this absolutely need to be in here? Just food for thought.

## SJSU Locations & Where are we now

- **Computer Center**
- **SJDC – Delta**
- **210 N. Fourth Street**
- **Moss Landing Marine Labs**
- **Spartan Shops**
- **MLK Library**
- **University Police**
- **Investigating Others**

# The Numbers

**We have 31 physical locations with servers**

**6 locations already have no level 1 data**

**The technicians have identified ~259 servers with L1 data on them**

**164 of the L1 servers are already in locations we are certifying.**

**We have ~95 servers to migrate**

**Approx. Half of these are domain controllers which can be resolved by joining SJSUAD**

# Info Security Training on Skillport

Mike Cook

# Questions?



# More Questions?

- **Data Centers – Then and Now**

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- **Workstation Refresh Update, Info Security training,  
Data Center Certification**

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- **IT Services Summer Projects**

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