ITS Executive Steering Committee (ITESC)

Agenda and Materials – May 18, 2016

Agenda

Telephone System Replacement
- D. Vonder Heide

Video Conferencing Direction
- B. Montes, D. Vonder Heide

Disaster Recovery Update
- D. Vonder Heide, J. Sibenaller

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Telephone System Replacement

Presentation to ITESC - Update
May 18, 2016

Brief History

LOYOLA UNIVERSITY CHICAGO

- WTC Installed 1988
  - Software upgrade 2004
- LSC Installed 1988
  - Upgraded in 2007 (JR Razing)
  - Excluded Granada, Simpson & Fairfield

Size & Scope

LOYOLA UNIVERSITY CHICAGO

- 5,700 Telephones
- 9,200 DID Numbers
- 515 Emergency Phones
- 43,000 Outbound Calls
- 3,400 Switchboard Calls
- 15,000 Voicemail Messages

Risks

- Current maintenance contract expires June 2017
- Near end for most options to extend life of current equipment
  - Now WTC and parts of LSC are 28 years old and are EOL
  - Extended maintenance agreement under "best effort" circumstances; Replacement/repair of older equipment is best effort from Avaya
  - Harvested parts from old system from Jesuit Residence
  - Upgraded software to stay appropriately current
    - WTC was 2004 / LSC was 2007
- Equipment Power Source is Obsolete
  - AC/DC issue (LT, CLC, Maguire, Simpson, Granada)
- Call accounting no longer supported (rates, area codes, in-bound calls)
- Project has been deferred for five years

Migrate to Current TDM Platform

Dumbach Data Center

Landscape

- TDM, SIP/VoIP, Cloud ... blended

Gartner - Avaya Validation

- Ability to leverage existing sets
- Initial investment less
- Minimal disruption to user community
- Concern of network stability
- PBX Retirement Strategy vs Rip & Replace
  - Loyola will still need to make continued investments in our telephony environment over time

Source: Gartner (October 2015)

Recommendation

Based on the age and support concerns of our current telephony environment our recommendation is to upgrade our existing system with an Avaya solution.

Understanding our current financial situation we explored how the current Avaya proposal can be reduced, including the procurement of refurbished equipment.

So that all options can equally be assessed, we researched obtaining a 3rd party contract for our existing equipment.

Avaya Upgrade or Replace Options

Option 1:
- Replacement/Upgrade of existing systems

Option 2:
- Extend maintenance w/ adding 3rd party support.

Option 3:
- Complete 3rd party support

Option 4:
- Replacement/upgrade with refurbished hardware components

Option 1: $783,790 to upgrade existing systems to latest release with new parts.

Option 2: Avaya will not engage until six months prior to contract termination, current annual $276K. 3rd party to support power systems is an additional $16,600 annually – best effort.

Option 3: Best effort. ~$250,000 includes power support costs.

Option 4: $685,125 to upgrade existing systems to latest release with refurbished equipment.

Cost Comparison

	Avaya	New	Refurbished
Hardware / Software Costs		$522,160	432,466
Labor		$190,376	190,376
Contingency - 10%		$71,253	$62,284
Total		$783,790	$685,125
Revised Maintenance ***		$185,000	$185,000

*** Current annual maintenance is $276,000

Draft Timeline
(Driven by contract expiration June 2017)

Project Presentation
3/29/2016

Implementation Planning with Vendor Completed
7/12/2016

LSC Upgrade Completed
1/13/2017

Maintenance of old system expires
6/30/2017

2016	Q1	Q2	Q3	Q4	Q1 2017	Q2	Q3	2017

8/15/2016
Contract Executed

4/13/2017
WTC Upgrade Completed

5/18/2016
Revised Budget Presentation

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A Need for a New Standard…

- Proprietary Video Conferencing Technologies Limit Places to Meet and Require Onsite Support

- New Technologies Increase Complexity (i.e. tablets, phones, wide-range of cameras and microphones)

- Need for Mobile Conferencing as a Norm (i.e. Personal and Mobile "End Points and "Join From Anywhere")

- Successful Use of Personal Technologies and "Do it Yourself"

Current Conferencing LUC Landscape…

- **Traditional Video Conferencing**
    - *Lifesize* Technology Proprietary Point-to-Point Conferencing
    - Approximately 18 Spaces Across LUC Using Lifesize Technology
    - Requires ITS Intervention for Support

- **Small Group Administrative Meetings**
    - *Skype for Business* (SFB) as Part of Microsoft Enterprise Agreement Hosted on LUC's Network
    - Individual\Department Initiated
    - Available to All Students, Faculty, Staff via Outlook and Browser

- **Synchronous Online Classrooms**
    - *Adobe Connect* Hosted on LUC's network
    - Available to Instructors with LUC Training and a Host License
    - Instructor Initiated
    - Rich in Features Typical of Classroom Settings (i.e. Breakout Rooms, Online Polling, Room Templates)
    - *Big Blue Button* Hosted in the Cloud (Similar to Adobe Connect and Fills Gaps, i.e. Open Rooms for Student Groups)

- **Webinars & Training**
    - *Adobe Connect* Hosted on LUC's Network
    - Available to Staff with LUC Training and a Host License
    - Department Initiated
    - Excels at Traditional "Single Speaker", Chat, and Q&A Sessions to Large Audiences

Size and Scope …

- **Video Conferencing Spaces (LSC & WTC)**
  - 5 of ~41 Conference Rooms Outfitted With **LifeSize** Technology (one other outfitted with Built-in Audio\Video)
  - 245 Classrooms; 27 (11%) With Built-In Audio\Video
  - ~90 Requests for Onsite Video Conference Support in FY'16 (4 per week; support required at multiple campuses)

- **Small Group, Office, and Desktop Background (Skype for Business capable)**
  - Over 800 Monitors With Built-In Speakers and Microphone (~30% of LUC Desktops)
  - Skype for Business App Built-In to Desktop Image

- **Synchronous Online Classrooms**
  - **Adobe Connect**
    - 374 Sakai Course Sites Used Adobe Connect During the Past Academic Year
    - 233 Faculty Hosted Online Class Sessions Using Adobe Connect
    - 5,617 Hours of Online Meeting (~ 33 Weeks of Online Class Sessions)
  - **Big Blue Button (Pilot)**
    - 29 Sakai Course Sites Used Big Blue Button During the Past Academic Year
    - 23 Faculty Hosted Online Class Sessions Using Big Blue Button
    - 86 Hours of Online Meeting (~ 3.5 Weeks of Online Class Sessions)

- **Webinars & Training**
  - 74 Departmental Staff Hosted Webinars Using Adobe Connect in FY'16
  - 1,700 Hours of Standard Webinars Hosted by Staff in FY'16 (~85 Hours Per Week)
  - 6 **Large** Webinar Room (500-Seat) Sessions in FY'16
  - 16 Staff Hosted **Large** Webinars Using Adobe Connect in FY'16
  - 100 **Large** Webinar Hours in FY'16 (~5 hours per week of **Large** Webinars)

Initiatives …

- **"Sunset" Traditional Video Conferencing - *Lifesize***
  - Replace **Lifesize** Technology with Standard USB and IP-Based Audio and Video Technology
  - Integrate Meeting Rooms with Standard Hardware Based on LUC Desktop Standards
  - Replace **Lifesize** with Web-Based, Self-Service Functionality
  - Make Conferencing Available to All LUC without ITS Intervention
  - Provide an "Easy to Use" Solution
  - Pilot **ZOOM** as a replacement for **Lifesize**

- **"Optimize" Small Group Administrative Meetings - *Skype for Business***
  - Optimize On-Premise Skype Solution
  - Reach-out to Departments for Skype Orientation and Training
  - Encourage Use of Skype for Small Group, 1:1, and Faculty Office Hours

- **"Broaden" Synchronous Classrooms - *Adobe Connect and Big Blue Button (discuss sunset of Big Blue Button)***
  - Optimize Adobe Connect for Online Classes
  - Help Faculty Enhance Their Use of Features of Adobe Connect and Big Blue Button

- **"Extend" Webinars & Training**
  - Promote Webinars as a Valid and Desired Offering
 - Make Available Features Such as Captioning and Translation Services For Events

"Optimize" Small Group Administrative Meetings
Skype for Business

- Optimize Skype Solution

- Reach-out to Departments for Skype Orientation and Training

- Encourage Use of Skype for Small Group, 1:1, and Faculty Office Hours

  - ✓ Targeting multi-campus locations:

  - ✓ Residence Life

  - ✓ University Marketing and Communication

  - ✓ Advancement

  - ✓ Wellness Center

  - ✓ Quinlan School of Business

  - ✓ Athletics

  - ✓ Many declined the invitation

"Optimize" Small Group Administrative Meetings
Skype for Business
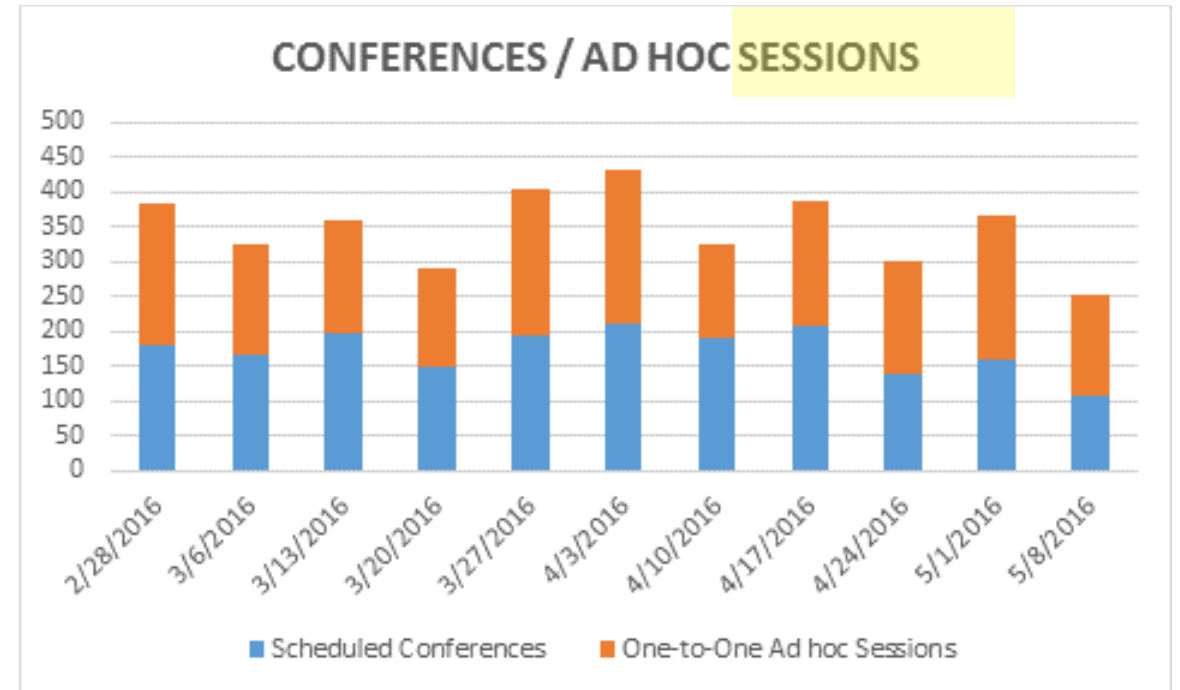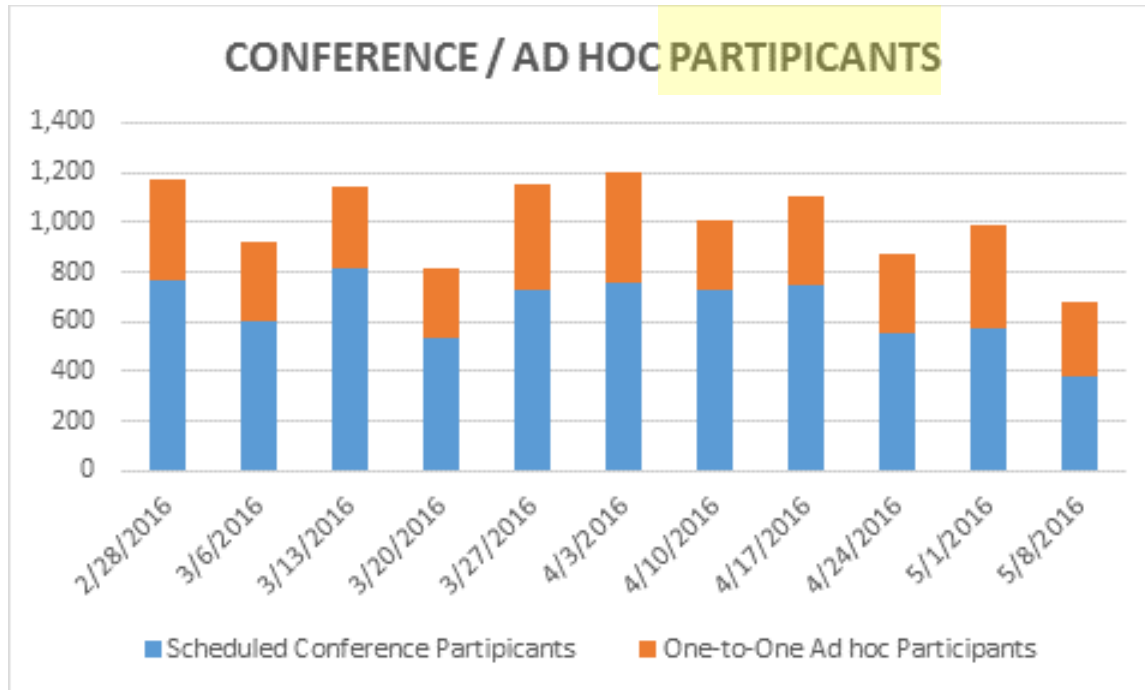
"Sunset" Traditional Video Conferencing
Lifesize

- **Replace Lifesize Technology with Standard USB and IP-Based Audio and Video Technology**

  - ❑ Room Standards Established for Recommended Hardware for Department Purchase
  - ❑ Documentation, Recommendations, Website Updating
  - ❑ Specify Hardware for Refresh for Existing Lifesize Infrastructure (~9 Rooms)

- **Piloted ZOOM as a Replacement for Lifesize (Jan-May '16)**

  - ❑ Test and Pilot Zoom with 25 Selected Participants
  - ❑ Get Feedback
  - ❑ ZOOM Pilot
    - ✓ 161 Meetings
    - ✓ 817 Participants
    - ✓ 29,638 Minutes of Meetings

Recommendations …

"ITS is expanding a pilot to offer a new video conferencing service that will replace our current proprietary solution. The proposed product, Zoom, requires little to no outside intervention and can accommodate a variety of meeting sizes and meeting locations. Zoom will be one of a suite of video services, including Skype for Business and Adobe Connect, used to meet the meeting and collaboration needs of our students, faculty, staff. Broader availability planned for Fall 2016."

1. Bring ZOOM to Forefront as Administrative Conferencing Solution

2. Establish Replacement Plan and Funding for Lifesize Hardware Replacement (note: ZOOM supports proprietary hardware currently in-place)

3. Publish best-practice behaviors for good video-conference experiences

4. Reach Out to Academic Technology Committees (ATC, CCBOL) to develop "Field Trials" for the Fall Term Using ZOOM as a Synchronous Classroom Technology.

5. Reach Out to "Webinar" Units (i.e. Admissions, Advancement, HR, etc.) to Use ZOOM for Webinars

6. Continue to Upgrade Classrooms with Built-In Audio\Video

Recommendations …

Meeting Types & Recommended Solutions	ZOOM	SKYPE for Business	Adobe Connect
• Large Group Meetings • Traditional VC Room to Room (i.e. Committee Meetings) • More than 10 Participants with a Few of Mobile Attendees • Examples: ITESC, Faculty Council, ATC, ISAC	⭐		
• Inter-Departmental Meetings • Multiple Desktop\Mobile Participants • Less than 10 Participants • Examples: Small Project Team Meetings, Faculty Online Office Hours, Online 1:1 Meetings, Ad-hoc Meeting with Basic Functions (i.e. chat, Audio, Video)		⭐	
• Online Classrooms Using Many functions (i.e. Polls, Breakout Rooms) • Webinars with Single Speaker and Chat Participants • Any Number of Participants • Examples: Admissions Open House, IES Symposium			⭐

Recommendations …

Zoom Announces Native Skype for Business Interoperability

March 30, 2016 | Telepresence Options

New Interoperability Bolsters Enterprise Communication Platform's Performance for Microsoft Office 365

SAN JOSE, CA--(Marketwired - March 29, 2016) - Zoom Video Communications, Inc., a leading provider of video communications services, today announced the addition of native interoperability with Microsoft Skype for Business (formerly Lync) to its enterprise video conferencing platform.

The new integration allows Skype for Business users to seamlessly call into a Zoom meeting

Financial Impact …

- "Sunset" of Lifesize - Returns ~$10K to Operating Budget

- Annual License of ZOOM Enterprise - ~$43K

- Adobe Connect Currently Funded ~$25K Annually – Potential Future Source

- Big Blue Button Funded ~5K Annually – Potential Future Source

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Disaster Recovery Review

- Status Update
- Budget Discussion/TCO Review
- Business Continuity Partnering
- ITS Staffing
- Tier 2/3 Handling

Disaster Recovery Update

Tier	Initiative	DR Plans	Initial Modular Test	Annual DR Plan Update	Annual Modular Retest
M	Network*	On Hold – Operating Funding	TBD	TBD	TBD
M	DNS	Complete	Complete	In Progress	Under Review
M	VPN	Complete	Complete	Q4 FY16	Q4 FY16
M	Oracle*	Complete	Complete	Complete	Under Review
M	SQL	Complete	Complete	Complete	Under Review
M	WebFocus	Complete	Complete	Q4 FY16	Q4 FY16
1	LUC.edu	Complete	Complete	Complete	Under Review
1	Enterprise Server	Complete	Waiting	TBD	TBD
1	Adobe	Complete	Complete	In Progress	TBD
1	Exchange*	Complete	Complete	Complete	Under Review
1	Locus*	Complete	Complete	Q4 FY16	Q4 FY16
1	Cognos ETL	Complete	Complete	Q4 FY16	Q4 FY16
1	Lawson	Complete	Complete	Q4 FY16	Q4 FY16
1	Kronos	Complete	Complete	Q4 FY16	Q4 FY16
1	CBORD	On Hold – Operating Funding	TBD	TBD	TBD
1	T-4	In Progress	6/16 Planned	TBD	TBD
1	Maxxess	In Progress (more BC than DR)	TBD	TBD	TBD

Indicates where the BCDR infrastructure and plans were used during a recent outage/incident

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Disaster Recovery Budget

Item Description	Capital (One Time)				Operating (Recurring)	
	FY14	**FY15**	**FY16***	**FY14-16 Total**	**FY16 Additional Costs (Option 1)**	**FY16 Additional Costs (Option 2)**
Oracle	$0	$146,000	$40,000	**$186,000**	$0	$0
SQL Database	$16,000	$0	$0	**$16,000**	$0	$0
DNS	$103,875	$0	$0	**$103,875**	$0	$0
Network	$0	$405,000	$380,000	**$785,000**	$13,000	$35,500
Phone System	$0	$40,000	$0	**$40,000**	$0	$0
Locus Full	$30,000	$0	$0	**$30,000**	$0	$0
Adobe	$7,500	$0	$0	**$7,500**	$0	$0
Lawson Full	$0	$7,000	$0	**$7,000**	$0	$0
T4	$0	$0	$0	**$0**	$0	$0
CBORD, Micros	$0	$0	$70,500	**$70,500**	$10,320	$10,320
Application Testing Consulting	$20,000	$30,000	$0	**$50,000**	$0	$0
Contingency (20%)	$35,475	$125,600	$49,050	**$210,125**	$0	$0
	$212,850	**$753,600**	**$539,550**	**$1,506,000**	**$23,320**	**$45,820**

revised/reduced budget
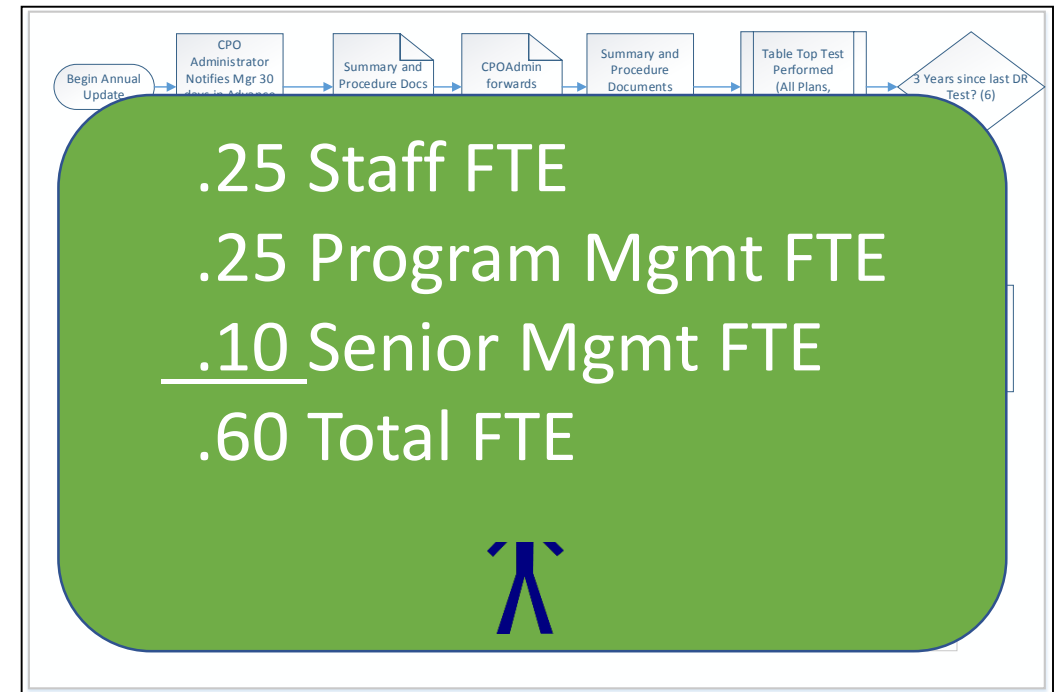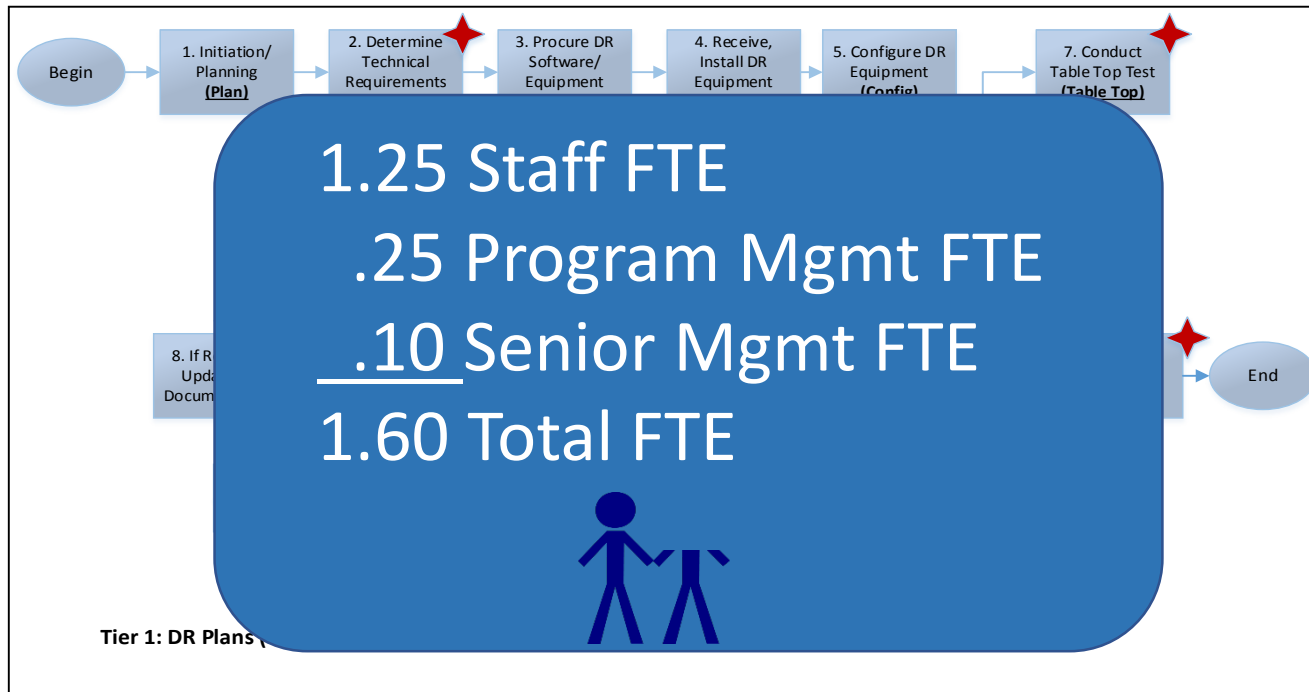
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Disaster Recovery – TCO Review

Create DR Plans
- Documentation and Design
- Table Top Testing
- Modular Testing

Update/Maintain DR Plans
- Review Documents
- Table Top Testing
- Modular Testing

1.25 Staff FTE
.25 Program Mgmt FTE
.10 Senior Mgmt FTE
1.60 Total FTE

.25 Staff FTE
.25 Program Mgmt FTE
.10 Senior Mgmt FTE
.60 Total FTE

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Disaster Recovery – BC & Staffing

Business Continuity Partnering

- o Assess department's BC plans against RTO's & RPO's
- o Begin to establish ITS's BC plan

ITS Staffing Changes

- o Ann – Engagement terminating -> target open position
- o Jim – Program ownership & ongoing governance
- o Dan – Partnership with BC program

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Disaster Recovery – Tier Handling

Technology and Enterprise Business Systems	Rank by ITESC	Recovery
Network Services (Core, DNS, AD, VPN)		Mandatory
Storage Services (SAN)		Mandatory
Enterprise Database Services (Oracle, SQL, LuWARE, WebFocus[1])		Mandatory
LUC.edu Website	1	Tier 1 (1-5 days)
eMail (Exchange)	2	Tier 1 (1-5 days)
Student System (PS Campus Solutions), including Portal	3	Tier 1 (1-5 days)
Learning Mgmt (Sakai LMS)	4	Tier 1 (1-5 days)
Adobe Connect	5	Tier 1 (1-5 days)
Lawson (people info, payroll, financials)	6	Tier 1 (1-5 days)
Kronos (timekeeping, payroll feed)	7	Tier 1 (1-5 days)
Phone and Voice Mail Systems (Avaya)	8	Tier 1 (1-5 days)
eCommerce System (CBORD, Micros - removed)	9	Tier 1 (1-5 days)
Building Access (Maxxess, Easy Lobby)	10	Tier 1 (1-5 days)
Enterprise Data Warehouse (EDW) - RDS Retired	11	Tier 1 (1-5 days)
Payment Gateway (TouchNet Paypath/TPG)	12	Tier 1 (1-5 days)
Student Recruiting (SLATE)	13	Tier 1 (1-5 days)

Technology and Enterprise Business Systems	Rank by ITESC	Recovery
Room & Event Scheduling (R25 Suite, Kinetics, Outlook)	14	Tier 2 (6-10 days)
Student Loan Mgmt. (ECSI)	15	Tier 2 (6-10 days)
Parking (Maxxess, DataPark)	16	Tier 2 (6-10 days)
Admitted Student Portal (Custom)	17	Tier 2 (6-10 days)
Classroom Control System (Crestron)	18	Tier 2 (6-10 days)
Surveillance Systems (Milestone)	19	Tier 2 (6-10 days)
Mobile Applications (Blackboard, Custom)	20	Tier 2 (6-10 days)
Housing (RMS)	21	Tier 2 (6-10 days)
Wellness Center (Point and Click)	22	Tier 2 (6-10 days)
Enterprise Content Mgmt (DocFinity)	23	Tier 2 (6-10 days)
LUC Libraries (Voyager)	24	Tier 2 (6-10 days)
Predictive Dialing (SmartCall)	25	Tier 3 (>10 days)
Student ePortfolio (Taskstream LAT)	26	Tier 3 (>10 days)
Course/Faculty Evaluations (Snap, Opinio)	27	Tier 3 (>10 days)
Alumni/Donor Relations (Advance)	28	Tier 3 (>10 days)
Faculty Salary Planning (Custom)	29	Tier 3 (>10 days)
Staff Salary Planning (Custom)	30	Tier 3 (>10 days)

Legend:
Mandatory: Infrastructure that must be recovered first
Denotes a Third Party Hosted System

2016 ITESC Schedule - Tentative

March 29, 2016 - Tuesday, 1:30-3:30 PM
- Space Management Needs Analysis
- Phone System Replacement-Strategy
- Information Security Update
- Disaster Recovery Update-Brief
- LUHS Workday Migration-LUC Process Analysis

May 18, 2016 - Wednesday, 1:30-3:30 PM
- Phone System Replacement
- Disaster Recovery Update
- Tech Briefing

June 23, 2016 - Thursday, 1:30-3:30 PM
- Project Portfolio Prioritization

September 22, 2016 - Thursday, 1:30-3:30 PM

November 17, 2016 - Thursday, 1:30-3:30 PM

December 15, 2016 - Tuesday, 1:30-3:30 PM
- Project Portfolio Prioritization

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