

# ITS Executive Steering Committee (ITESC)

Agenda and Materials – May 14, 2015



# Agenda

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## Panic Button Review/Inventory

- D. Vonder Heide

## Mobile Device Policies, Stipends, Contracts

- S. Malisch, D. Vonder Heide

## Anytime Anywhere Access Strategy

- S. Malisch, J. Sibenaller

## Space Management

- K. Wibbenmeyer, J. Sibenaller

## Information Security Risk Assessment

- J. Sibenaller

## Oracle Licensing

- S. Malisch

# Introduction

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## Micro Technology Services, Inc.

- Founded 2004
- Richardson, Texas
- Networked Based Alarm System – Lynx
  - Software (keyboard)
  - Wired and Wireless Buttons
- Major Industries:
  - Health Care
  - Higher Education and K-12
  - Courts



# Landscape



LOYOLA  
MEDICINE

*We also treat the human spirit.®*

## Surveyed AJCU Schools

**Boston College**

**Canisius College**

College of the Holy Cross

Creighton University

Fairfield University

Fordham University

Georgetown University

Gonzaga University

John Carroll University

Le Moyne College

Loyola Marymount University

**Loyola University Maryland**

**Loyola University New Orleans**

Marquette University

Regis University

Rockhurst University

Saint Joseph's University

Saint Louis University

Saint Peter's University

Santa Clara University

**Seattle University**

Spring Hill College

University of Detroit Mercy

University of San Francisco

University of Scranton

Wheeling Jesuit University

Xavier University



anywhere  
anytime

accessLUC

## Phase 1

- Classroom Deployment



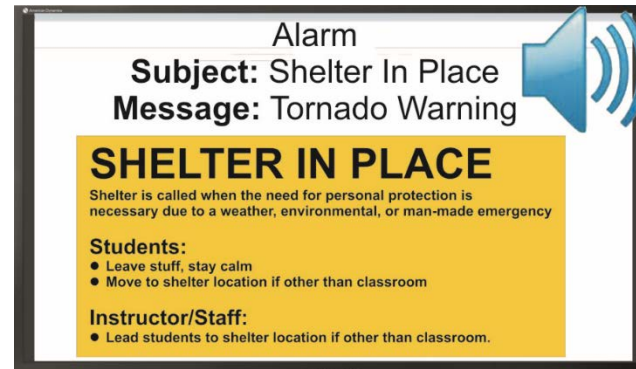
## Phase 2

- Existing Alarm Assessment



## Phase 3

- Evaluate Messaging Features



# Phase 1 – Classroom Deployment

## LynxKeyPro:

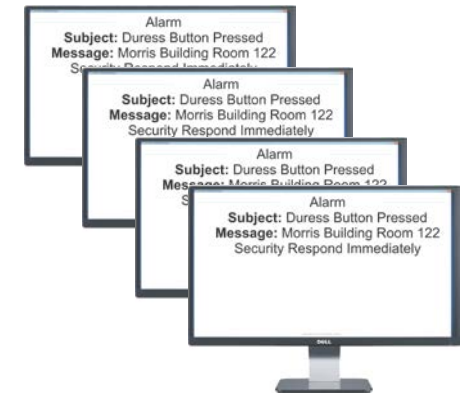
- Hotkey Function
- Notification to Multiple Locations
- Operates on Windows OS
- Logged On, Logged Off, Locked
- Test Function & Audit Reporting
- Disaster Recovery

Deployment to 300 Lakeside Classrooms – Start of School 2015

## Cost:

- Turnkey with 2000 seats & 300 LynxKeyPro - \$23,000\*
- Audio to Campus Safety radios - \$8,000
- Annual support - \$2,900

\* Disaster recovery estimated at an additional 2x cost





# Phase 2 – Existing Alarm Assessment

- 83 Deployed panic alarms / 50% Wellness
- Benefits of Converting:
  - Communication to the Campus Safety radios
  - Enable notification of other personnel in the area
  - Allow testing without turning the system off or ignoring alarms (4Q15)
- Areas for Discussion
  - Creation of policy (who and what)
  - Maintenance inventory
  - Audit alarm testing

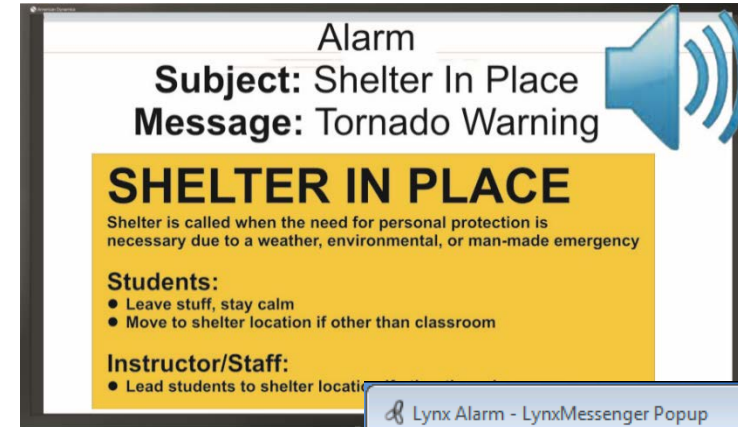


1	Campus	Building	Floor	Room	Hard Wired	Wireless	Model	Connect to Dispatch	Purpose	Tested Date
2	WTC	25 East Pearson	1st	HUB	yes			Maxxess	Bursar/Campus Card	3/3/2015
3	WTC	Lewis Towers	15th	1500 - Recep	yes			Maxxess	President Office Reception Desk	3/3/2015
4	WTC	LUMA	2nd	Desk	yes			Maxxess	Museum Retail Shop	3/3/2015
5	LSC	Bellarmino Hall	1st	Lobby	yes			Maxxess	Resident Hall Monitors Desk	3/2/2015
6	LSC	Burrowes Hall	1st	Desk	yes			Maxxess	Reception Desk	3/3/2015
7	LSC	Campion Hall	1st	Desk	yes			Maxxess	Resident Hall Monitors Desk	3/2/2015
8	LSC	Cudahy Library	1st	Desk	yes			Maxxess	Circulation Desk	2/25/2015
9	LSC	Damen	1st	N Desk	yes			Maxxess	Information Desk	2/25/2015
10	LSC	Damen	3rd	North		Yes	DXR 702	Maxxess	Student Affairs	2/25/2015
11	LSC	Damen	3rd	South		yes		Maxxess	Student Affairs	2/25/2015
12	LSC	Damen	3rd	Receptionist		yes		Maxxess	Student Affairs	2/25/2015
13	LSC	Dinobli	1st	Desk	yes			Maxxess	Resident Hall Monitors Desk	3/2/2015
14	LSC	Felice's Pizza	1st	counter	yes			Maxxess	point of Sale Station	Closed

# Phase 3 – Messaging Features / Opportunities

## Messaging Options

- Messages to be pushed to any combination of workstations
  - Full, 75%, 25%, Scroll
- Groups created with individual icons
- UMC message boards





# Next Steps

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## Immediate

- Confirm notification configuration
- Begin classroom deployment
- Assess disaster recovery requirements

## Midrange

- Assess existing alarms for conversion
- Formalize governance, support and testing

## Longer Term

- Evaluate message delivery and group messaging



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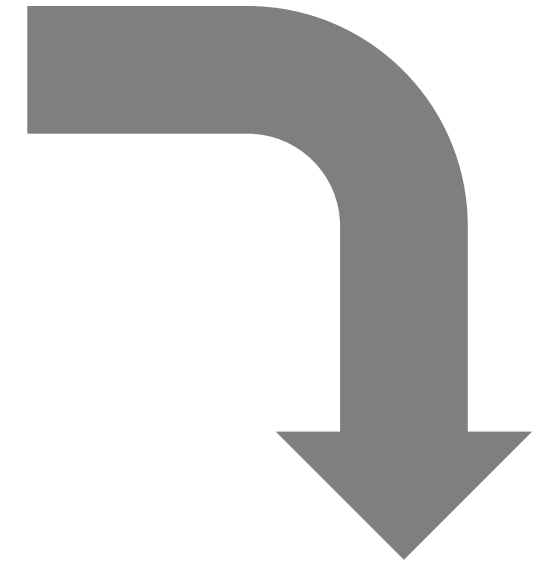
# IT Strategic Direction

## “Anytime Anywhere Access”

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- Concepts

- Faculty/Staff/Student:  
“I can fulfill my relationship with Loyola from wherever I am.”
- Easy to use
- Web/portal-based
- Secure
- Self service
- University:  
How do we “elegantly give up control?”



*anywhere*  
*anytime*  
**accessLUC**

# IT Strategic Direction

## “Anytime Anywhere Access”

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- Technology Implications
  - Reduce or eliminate constraints of things like VPN, Loyola Software, network drives
  - Portal
  - Virtualization
  - Desktop Management
  - Application streaming
  - Cloud-based
  - Increased device independence



# Anytime Anywhere Access...

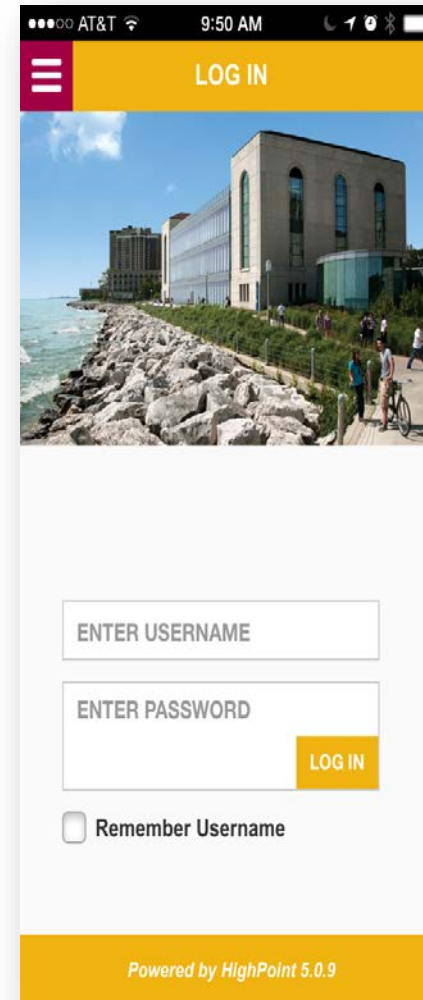
**Vision – Student/Faculty/Staff: “I can fulfill my relationship with Loyola from wherever I am.”**

## Progress

- Cloud based storage - *Box*
- Improved mobile presence – *Highpoint Mobile*
- Addition of web-based and self-service applications
- Campus wireless expansion – *HSD, Gentile*
- Eduroam federated network access
- Broader and stronger security controls
- Online Learning – *Atomic Learning*

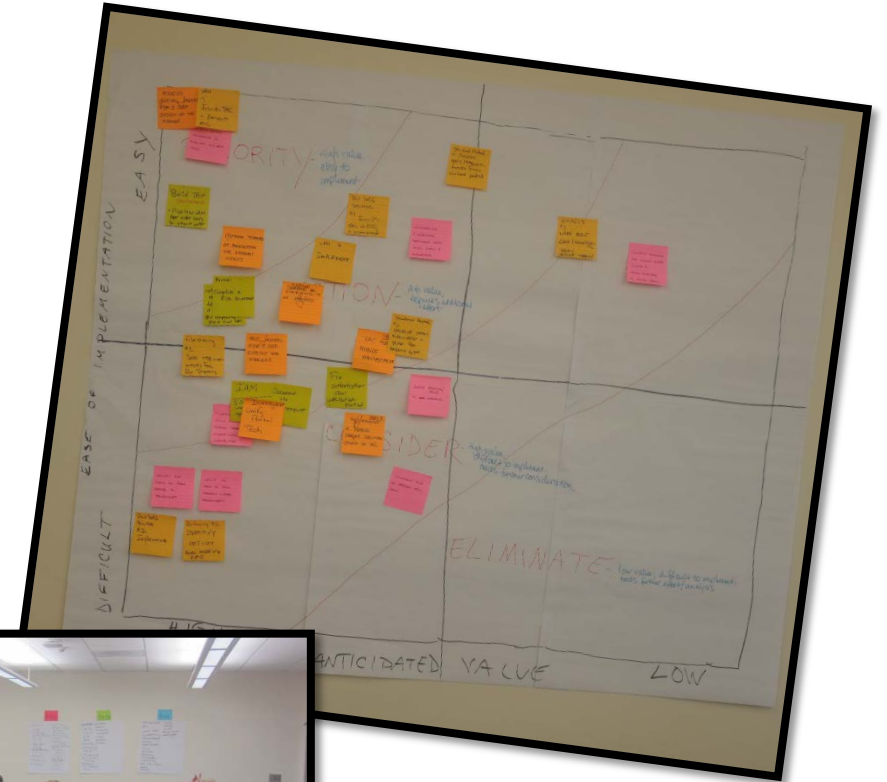
## Future Direction

- VPN Replacement
- Password Management Upgrade
- Private cloud based storage - *SharePoint*
- Identity & Access Management Strategy
- Desktop Virtualization
- Increased Device Independence





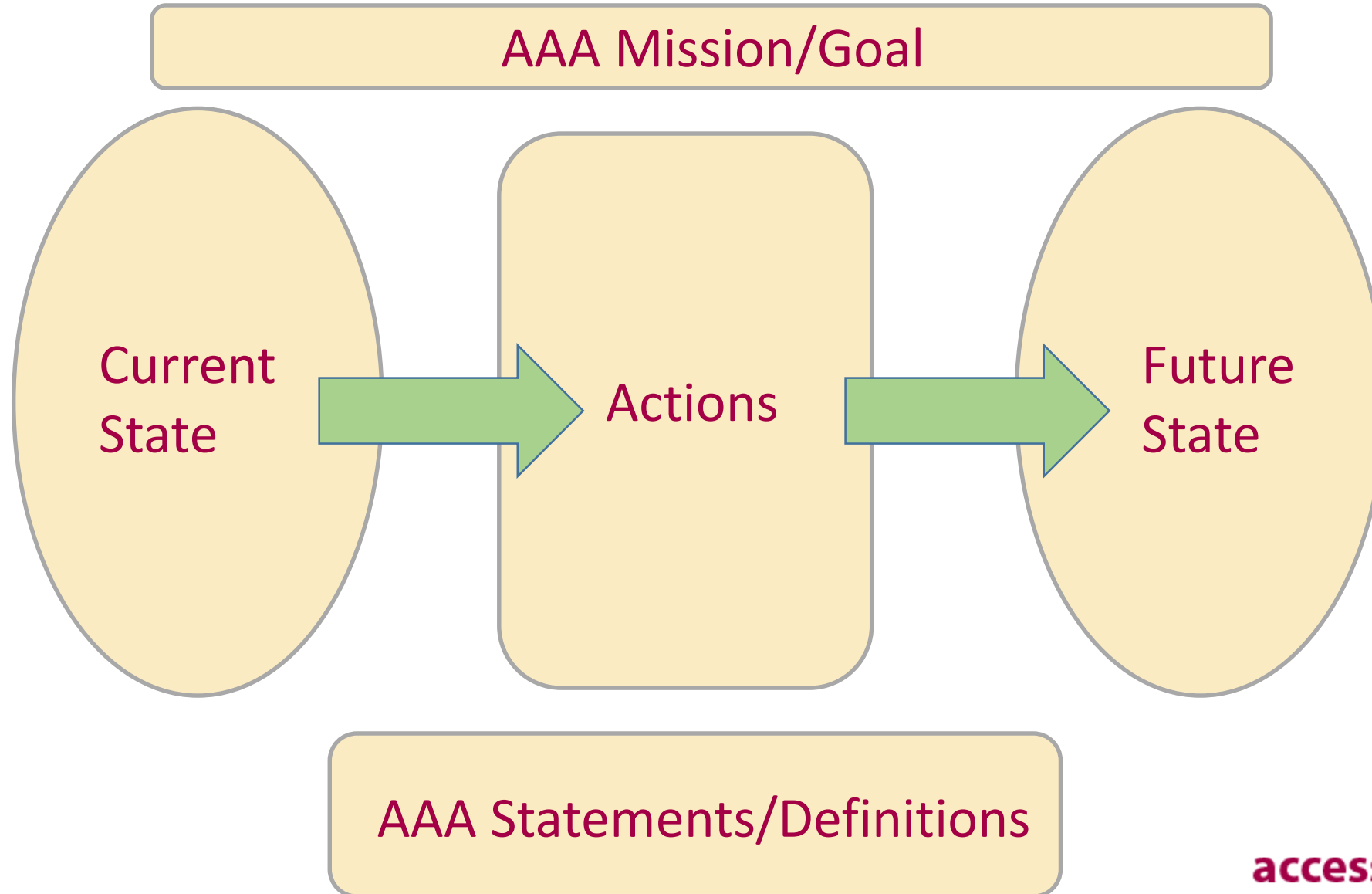
# Anytime Anywhere Access Strategy Update





# Anytime Anywhere Access One Page Strategy

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## Anywhere Anytime Access Strategy

Loyola's technology architecture strategy supports:

- Schedules which are 24/7 in nature. (Anytime)
- An LUC community which is mobile. (Anywhere)
- Straightforward and appropriate access to systems. (Access)

### Current State

### Future State



Accessibility

- Multiple sign-ons
- Limited accessibility
- Random application locations
- Loyola assigned/approved devices
- Multiple steps to accomplish a single task
- Data is difficult to find

- Single sign-on
- Accessibility by role
- Portal/home page
- Device agnostic
- Streamlined execution of tasks
- Data easily locatable



Infrastructure

- Disparate infrastructure across campuses
- Software delivery through LUC workstations
- Partial DR plans and environments

- Unified infrastructure across campuses
- Virtualized desktop and application access
- Tested and maintained DR environments



Security

- Help desk password reset
- Single factor authentication, VPN certificate
- Basic information security awareness
- Complicated security architecture
- Reactive security actions/protection

- Self service password reset
- Multi-factor authentication
- Information security education program
- Simplified and transparent security architecture
- Proactive risk-based security program/decisions



Services

- Content presentation is inconsistent
- Support via direct contact
- Ad-hoc service definitions
- Decentralized technology services support
- Service levels based on best effort
- Summary data dispersed

- Content presentation is device agnostic
- Robust self-service support environment
- Well defined service offerings
- Centralized technology services support
- Service level agreements defined
- Dashboards

Students/Faculty/Staff/Alums/Friends...

*“Technology at Loyola enables me to fulfill my relationship in a simple, secure and seamless way.”*



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# Risk Assessment – Review



Impact Scores	Mission	Objectives	Obligations
1. Negligible	<i>Loyola University's purpose. The benefit Loyola brings to students, faculty, staff, and the public.</i> Education – no impact to producing effective professionals Campus Life – no impact to safety or campus function. Community Outreach – no impact to serving the community Research – no impact on ability to conduct research.	<i>Loyola University' goals. Success metrics that Loyola intends to achieve.</i> Strategic Plan – No impact to plan. 4-Year-Plan – No impact on graduation timing. Budget – On budget. Fundraising – On plan. Bond Rating – On plan. Competitive Tuition – Increases are below peer universities. Accreditation – no impact to accreditation Quality Student – No reduced interest from quality students.	<i>Responsibilities that Loyola University has to employees, students, partners and the public.</i> PII – PII is not exposed to unapproved persons. FoI – Open information is efficient to obtain. Compliance – No compliance concerns. Academic Integrity – Grades, achievements, publications are stated correctly. System Integrity – Systems retain integrity.
2. Low	Education – some programs may not support professional standards to their potential. Campus Life – may have an impact that creates no safety hazards. Community Outreach – non-material reduction in service. Research – inconvenience in conducting research.	Strategic Plan – Impacts to the plan would be within variance. 4-Year-Plan – Few students may delay graduation by a semester. Budget – Within variance of budget. Fundraising – Impact to goals are within variance. Bond Rating – Within allowable variance. Competitive Tuition – Increases are on pace with peer universities. Accreditation – some requirements may be compromised, short of failure. Quality Student – Low reduced interest from quality students.	PII – PII may be shared with unapproved personnel without impact to individuals. FoI – Open information may be inefficient to obtain. Compliance – A recoverable non-compliance may result. Academic Integrity – False representations may be correctable without impact. System Integrity – Systems may fail to operate as designed with no impact to others.
3. Medium	Education – some programs may not produce competent professionals. Campus Life – may create temporary hardships, short of a safety hazard. Community Outreach – some service projects may be reduced, or stopped. Research – some research projects or strategic projects may cease.	Strategic Plan – Plan would need adjustment. 4-Year-Plan – Many students may delay graduation. Budget – Exceeding budget beyond variance. Fundraising – Missed goals require change in fundraising plan. Bond Rating – Reduced, but recoverable with planned response. Competitive Tuition – Increases slightly exceed peer universities. Accreditation – some requirements may materially fail, but are repairable. Quality Student – Notable reduced interest from quality students.	PII – Fewer than 100 PII records may be shared with unapproved people. FoI – Open information may be difficult to obtain. Compliance – May cause a non-compliance that could harm others. Academic Integrity – False representations with non-physical harm to a few System Integrity – Systems may create annoyance or inconvenience to others.
4. High	Education – multiple programs may not produce competent professionals. Campus Life – may create extended hardships, including a safety hazard. Community Outreach – multiple service projects may be halted. Research – many research projects may not be conducted.	Strategic Plan – Requires significant re-scoping of plan. 4-Year-Plan – Significant number of students not on "4-Year-Plan." Budget – Significant impact on other budgets. Fundraising – Missed goals require change in budgets. Bond Rating – Reduced, with uncertain recovery. Competitive Tuition – Increases significantly exceed peer universities. Accreditation – violations may put Loyola on probation. Quality Student – inability to attract quality students.	PII – More than 100 PII records may be exposed in a single instance. FoI – Open information may not be attainable. Compliance – A non-compliance that may harm many others could result. Academic Integrity – False representations allowing harm to many. System Integrity – System use may violate laws, or do significant damage to others.
5. Catastrophic	Education – the University may not produce competent professionals in any field. Campus Life – may cease campus functions and create safety hazards. Community Outreach – any service outreach may not be conducted. Research – ability to conduct any research may be halted.	Strategic Plan – Plan is stopped. 4-Year-Plan – Significant loss of matriculated students. Budget – Loss of ability to purchase or pay. Fundraising – Missed goals require adjustment of University corporation. Bond Rating – Delisted or failed bonds. Competitive Tuition – Target students cannot afford to attend/matriculate. Accreditation – accreditation may be revoked. Quality Student – Quality students leave the University prior to graduation.	PII – Multiple or sustained PII breaches may result. FoI – Loyola may not be able to grant access to any public information. Compliance – Many others are harmed through the non-compliance. Academic Integrity – False representations allowing great harm. System Integrity – Systems may continuously harm others.

L i k e l i h o o d	5. Multiple times this year	5	10	15	20	25
	4. Foreseeable within the year	4	8	12	16	20
	3. Multiple occurrences within 5 years	3	6	9	12	15
	2. One occurrence within 5 years	2	4	6	8	10
	1. Not foreseeable within 5 years	1	2	3	4	5
		1. Negligible	2. Low	3. Moderate	4. High	5. Catastrophic
		Impact				

# Risk Assessment – Results

	Risks		Treatments			Themes
	Assessed	Unique	Projects	Programs	Total	Total
High	24	19	11	4	15	12
Medium	76	49	16	7	23	24
Accept	13	13	-	-	-	-
	113	81	20*	8*	28*	31*

*\* denotes unique items*

# Risk Assessment – High Risk Themes

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- T01. A shortage of skilled information security specialists.
- T02. Change management processes are not consistently applied throughout the university in a manner that ensures changes are made and approved based on risk and security best practices.
- T03. End-user systems may not have security controls enforced on them, but only required by policy.
- T04. Information systems are not uniformly inventoried, nor are their configurations or states of vulnerability known.
- T05. Internet-provided services are used to share data, but are not under the control or policies of the University.
- T06. Network cables / connections are not secured against accidents or intentional sabotage.
- T07. Passwords for user accounts are inherently vulnerable to guessing, oversharing, or exposing to unauthorized parties.
- T08. The security audit and effectiveness measurement functions that are applied to the most sensitive systems are not applied to all at-risk systems.
- T09. Security incident and event management does not yet cover all systems that create a risk to protected information.
- T10. The vulnerability management program does not yet include a scheduled process for regularly scanning and resolving systems against known vulnerabilities, or established hardening standards.
- T11. University community members may not have appropriately detailed instructions for handling information in a secure or legally compliant manner.
- T12. Wireless routers are not yet secured against foreseeable attacks by hackers who are in the vicinity of Loyola campuses.



# Risk Assessment – Next Steps

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- Assess dependencies of treatments to risks
- Size the treatments
- Assign Owners & Participants to treatments
- Evaluate the value/impact of completing a treatment
- Assess dependencies of treatments to other ITS projects
- Prioritize treatments
- Create a master schedule of work (multiple years)
- Begin remediation
- Report progress continually

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# Oracle Licensing Opportunities

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1. Move from Named User License (NUL) for database to a Campus Site License model Assess dependencies of treatments to risks
  - Changes in server technology have made NUL model cost prohibitive and undesirable for ideal database architecture and performance
  - Additional licenses required for Lawson and BCDR (would have added \$350K in new costs alone under NUL model)
  - Contract executed Feb 2015 and represents a \$56K savings over next four years with added flexibility to develop optimal database architecture for Student System, Lawson, BCDR, and available for other business/classroom use

# Oracle Database Campus Site License Financials

## T1. Campus License Purchase Cost Breakdown

One Time Purchase Cost	\$288,998.03
Ongoing Maintenance Cost	\$211,228.47
<b>FY15 Oracle Campus License Total</b>	<b>\$500,226.50</b>

## T2. Campus License Funding Source Breakdown

Funding Source	FY15 Available
Maintenance	\$155,201.38
Lawson Capital	\$100,000.00
BCDR Capital	\$146,000.00
<b>FY15 Total Available Funds</b>	<b>\$401,201.38</b>
<b>FY15 Total Funds Needed for Campus License</b>	<b>\$99,025.12</b>

## T3. FY16-FY19 Ongoing Oracle Maintenance Projections

FY	Planned Maintenance	Actual Maintenance <sup>1</sup>	Campus License Maintenance
FY16	\$185,761.45	\$208,941.45	\$211,228.47
FY17	\$195,049.52	\$219,388.52	\$211,228.47
FY18	\$204,802.00	\$230,357.95	\$211,228.47
FY19	\$215,042.10	\$241,875.84	\$211,228.47
<b>Total</b>	<b>\$800,655.07</b>	<b>\$900,563.76</b>	<b>\$844,913.88</b>

### Notes:

1. Original BCDR Capital Plan was \$22,800 increase to Ongoing Annual Maintenance; Actual Cost \$45,980 Increase to Ongoing Annual Maintenance (Delta: \$23,180)
2. Additional \$206,500 (one time) allocated for Oracle in FY16 BCDR Capital-funds can be used to offset unplanned maintenance increase and/or be returned to capital Pool.
3. Pricing contingent upon LUC issuing a multi-year PO by the end of February, 2015.
4. LUC to ensure that FY20 and ongoing maintenance does not increase more than 5% of the FY19 cost.

# Oracle Licensing Opportunities

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2. Move from annual renewal to five year licensing commitment for Campus Solutions (Oracle/Peoplesoft Student System) and related products
  - Offers a freeze in maintenance renewal costs through Year 5 for a five-year cost savings of ~\$100K (5% accelerator cap re-activated after Year 5)
  - Ability to move to new platform would likely take five years to assess and execute; no plans currently
  - Consolidates contracts for four related Oracle products supporting student system into a single co-terminus maintenance renewal
  - Must be executed May 2015

# Oracle Campus Solutions(+) Five Year Maintenance Agreement Financials

Contract Options	FY15 Year 1	FY16 Year 2	FY17 Year 3	FY18 Year 4	FY19 Year 5	Total
Renewing 1 Year at a Time	\$331,757.97	\$336,648.10	\$346,747.54	\$357,149.97	\$367,864.47	<b>\$1,740,168.05</b>
5 Year Renewal	\$331,757.97	\$326,842.81	\$326,842.81	\$326,842.81	\$326,842.81	<b>\$1,639,129.21</b>
Cumulative Savings over 2 Years		\$9,805.29				
Cumulative Savings over 3 Years			\$29,710.02			
Cumulative Savings over 4 Years				\$60,017.18		
Cumulative Savings over 5 Years					\$101,038.84	<b>\$101,038.84</b>

**Notes:**

- 1) The total cost represents a consolidated cost for PeopleSoft, WebLogic, Oracle Data Masking and Oracle System Monitoring.
- 2) Year 1 includes co-termining 4 different contracts to same expiration date (more than 365 days of coverage) resulting in slightly higher cost than Year 2 under the 5 year agreement.
- 3) By doing a multi year PO we are freezing the maintenance through FY19 and will see the standard 5% increase in FY20 over the FY19 cost.



# 2014-2015 ITESC Schedule

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## **January 29, 2015 - Thursday, 1:30-3:30 PM**

- Technology Scorecard
- POR & New Technology Changes
- Information Security Risk Definition
- AAA Strategy Update
- Client Outreach Meetings

## **May 14, 2015 - Thursday, 1:30-3:30 PM**

## **June 25, 2015 - Thursday, 1:30-3:30 PM**

- Project Portfolio Prioritization

## **August 13, 2015 - Thursday, 1:30-3:30 PM**

## **November 5, 2015 - Thursday, 1:30-3:30 PM**

## **December 15, 2015 - Tuesday, 1:30-3:30 PM**

- Project Portfolio Prioritization