ITS Executive Steering Committee (ITESC)

Agenda and Materials – May 14, 2015
Agenda

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
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

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
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

<table>
<thead>
<tr>
<th></th>
<th>Campus</th>
<th>Building</th>
<th>Floor</th>
<th>Room</th>
<th>Wired</th>
<th>Wireless</th>
<th>Model</th>
<th>Connect to Dispatch</th>
<th>Purpose</th>
<th>Tested Date</th>
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<td>Bursar/Campus Card</td>
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<tr>
<td>3</td>
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<td>LUMA</td>
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<td>Resident Hall Monitors Desk</td>
<td>3/2/2015</td>
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<td>Circulation Desk</td>
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<td>Damen</td>
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<td>N Desk</td>
<td>yes</td>
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<td>Maxxess</td>
<td>Information Desk</td>
<td>2/25/2015</td>
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<td>Damen</td>
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<td>Police's Pizza</td>
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<td>Counter</td>
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<td>Maxxess</td>
<td>point of Sale Station</td>
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Phase 3 – Messaging Features / Opportunities

Messaging Options

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

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
Agenda

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IT Strategic Direction
“Anytime Anywhere Access”

• 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?”
IT Strategic Direction
“Anytime Anywhere Access”

• 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

AAA Mission/Goal

Current State → Actions → Future State

AAA Statements/Definitions
**Anywhere Anytime Access Strategy**

<table>
<thead>
<tr>
<th>Current State</th>
<th>Future State</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Multiple sign-ons</td>
<td>• Single sign-on</td>
</tr>
<tr>
<td>• Limited accessibility</td>
<td>• Accessibility by role</td>
</tr>
<tr>
<td>• Random application locations</td>
<td>• Portal/home page</td>
</tr>
<tr>
<td>• Loyola assigned/approved devices</td>
<td>• Device agnostic</td>
</tr>
<tr>
<td>• Multiple steps to accomplish a single task</td>
<td>• Streamlined execution of tasks</td>
</tr>
<tr>
<td>• Data is difficult to find</td>
<td>• Data easily locatable</td>
</tr>
<tr>
<td>• Disparate infrastructure across campuses</td>
<td>• Unified infrastructure across campuses</td>
</tr>
<tr>
<td>• Software delivery through LUC workstations</td>
<td>• Virtualized desktop and application access</td>
</tr>
<tr>
<td>• Partial DR plans and environments</td>
<td>• Tested and maintained DR environments</td>
</tr>
<tr>
<td>• Help desk password reset</td>
<td>• Self service password reset</td>
</tr>
<tr>
<td>• Single factor authentication, VPN certificate</td>
<td>• Multi-factor authentication</td>
</tr>
<tr>
<td>• Basic information security awareness</td>
<td>• Information security education program</td>
</tr>
<tr>
<td>• Complicated security architecture</td>
<td>• Simplified and transparent security architecture</td>
</tr>
<tr>
<td>• Reactive security actions/protection</td>
<td>• Proactive risk-based security program/decisions</td>
</tr>
<tr>
<td>• Content presentation is inconsistent</td>
<td>• Content presentation is device agnostic</td>
</tr>
<tr>
<td>• Support via direct contact</td>
<td>• Robust self-service support environment</td>
</tr>
<tr>
<td>• Ad-hoc service definitions</td>
<td>• Well defined service offerings</td>
</tr>
<tr>
<td>• Decentralized technology services support</td>
<td>• Centralized technology services support</td>
</tr>
<tr>
<td>• Service levels based on best effort</td>
<td>• Service level agreements defined</td>
</tr>
<tr>
<td>• Summary data dispersed</td>
<td>• Dashboards</td>
</tr>
</tbody>
</table>

**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)

---

**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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Oracle Licensing
  • S. Malisch
# Risk Assessment – Review

## Likelihood

<table>
<thead>
<tr>
<th>1. Not foreseeable within 5 years</th>
<th>2. One occurrence within 5 years</th>
<th>3. Multiple occurrences within 5 years</th>
<th>4. Foreseeable within the year</th>
<th>5. Multiple times this year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</table>

## Impact

<table>
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<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

## Risk

<table>
<thead>
<tr>
<th>Strategy Plan</th>
<th>Management</th>
<th>Impact</th>
<th>Risk</th>
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</thead>
<tbody>
<tr>
<td>1. Evaluate the potential risk</td>
<td>2. Implement risk mitigation strategies</td>
<td>3. Assess the likelihood and impact of each risk</td>
<td>4. Prioritize risks based on likelihood and impact</td>
</tr>
</tbody>
</table>

- **Likelihood**
  - Strategy Plan: Review the potential risk
  - Management: Implement risk mitigation strategies
  - Impact: Assess the likelihood and impact of each risk
  - Risk: Prioritize risks based on likelihood and impact
  - Monitoring: Monitor and review risks over time

- **Impact**
  - Strategy Plan: Review the potential risk
  - Management: Implement risk mitigation strategies
  - Impact: Assess the likelihood and impact of each risk
  - Risk: Prioritize risks based on likelihood and impact
  - Monitoring: Monitor and review risks over time

## Table

<table>
<thead>
<tr>
<th>Risk Source</th>
<th>Likelihood</th>
<th>Impact</th>
<th>Risk</th>
</tr>
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<tbody>
<tr>
<td>Educational</td>
<td>Medium</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Campus Life</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Emergency Operations</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Research</td>
<td>Medium</td>
<td>Low</td>
<td>Medium</td>
</tr>
</tbody>
</table>

## Diagram

```
Likehood      Impact = Risk
```

## Additional Information

- **Likelihood**
  - Strategy Plan: Review the potential risk
  - Management: Implement risk mitigation strategies
  - Impact: Assess the likelihood and impact of each risk
  - Risk: Prioritize risks based on likelihood and impact
  - Monitoring: Monitor and review risks over time

- **Impact**
  - Strategy Plan: Review the potential risk
  - Management: Implement risk mitigation strategies
  - Impact: Assess the likelihood and impact of each risk
  - Risk: Prioritize risks based on likelihood and impact
  - Monitoring: Monitor and review risks over time

- **Risk**
  - Strategy Plan: Review the potential risk
  - Management: Implement risk mitigation strategies
  - Impact: Assess the likelihood and impact of each risk
  - Risk: Prioritize risks based on likelihood and impact
  - Monitoring: Monitor and review risks over time

## References

- [Risk Assessment Framework](http://example.com/risk-assessment-framework)
- [Likelihood vs Impact Matrix](http://example.com/likelihood-impact-matrix)
- [Risk Management Strategies](http://example.com/risk-management-strategies)
## Risk Assessment – Results

<table>
<thead>
<tr>
<th>Risks</th>
<th>Assessed</th>
<th>Unique</th>
<th>Treatments</th>
<th>Themes</th>
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<tbody>
<tr>
<td></td>
<td>Projects</td>
<td>Programs</td>
<td>Total</td>
<td>Total</td>
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<tr>
<td>High</td>
<td>24</td>
<td>19</td>
<td>11</td>
<td>4</td>
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<td>Medium</td>
<td>76</td>
<td>49</td>
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<td>7</td>
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<tr>
<td>Accept</td>
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<td>13</td>
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<td>-</td>
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<tr>
<td></td>
<td>113</td>
<td>81</td>
<td>20*</td>
<td>8*</td>
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</table>

* denotes unique items
Risk Assessment – High Risk Themes

• 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

• 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
Agenda

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Oracle Licensing Opportunities

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

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<th>Cost Type</th>
<th>Amount</th>
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<tr>
<td>One Time Purchase Cost</td>
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<tr>
<td>Ongoing Maintenance Cost</td>
<td>$211,228.47</td>
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</table>

**FY15 Oracle Campus License Total**: $500,226.50

## T2. Campus License Funding Source Breakdown

<table>
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<th>Funding Source</th>
<th>FY15 Available</th>
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<tr>
<td>Maintenance</td>
<td>$155,201.38</td>
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<tr>
<td>Lawson Capital</td>
<td>$100,000.00</td>
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<tr>
<td>BCDR Capital</td>
<td>$146,000.00</td>
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</table>

**FY15 Total Available Funds**: $401,201.38

**FY15 Total Funds Needed for Campus License**: $99,025.12

## T3. FY16-FY19 Ongoing Oracle Maintenance Projections

<table>
<thead>
<tr>
<th>FY</th>
<th>Planned Maintenance</th>
<th>Actual Maintenance¹</th>
<th>Campus License Maintenance</th>
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<tr>
<td>FY16</td>
<td>$185,761.45</td>
<td>$208,941.45</td>
<td>$211,228.47</td>
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<td>FY17</td>
<td>$195,049.52</td>
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<td>FY19</td>
<td>$215,042.10</td>
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</table>

**Total**: $800,655.07

**Total Funds Needed for Campus License**: $900,563.76

**Total**: $844,913.88

**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.
4. LUC to ensure that FY20 and ongoing maintenance does not increase more than 5% of the FY19 cost.
Oracle Licensing Opportunities

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

<table>
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<tr>
<th>Contract Options</th>
<th>FY15 Year 1</th>
<th>FY16 Year 2</th>
<th>FY17 Year 3</th>
<th>FY18 Year 4</th>
<th>FY19 Year 5</th>
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<td>Renewing 1 Year at a Time</td>
<td>$331,757.97</td>
<td>$336,648.10</td>
<td>$346,747.54</td>
<td>$357,149.97</td>
<td>$367,864.47</td>
<td>$1,740,168.05</td>
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<tr>
<td>5 Year Renewal</td>
<td>$331,757.97</td>
<td>$326,842.81</td>
<td>$326,842.81</td>
<td>$326,842.81</td>
<td>$326,842.81</td>
<td>$1,639,129.21</td>
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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

Notes:
1) The total cost represents a consolidated cost for PeopleSoft, WebLogic, Oracle Data Masking and Oracle System Monitoring.
2) Year 1 includes co-terming 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.
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<th>Time</th>
<th>Topic</th>
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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**