IT Town Hall – June 2013

Len Peters
University CIO and Associate Vice President

Yale Information Technology Services
Organizational Updates

• 3 year Strategic Plan
• New CTO role
• Careers in IT
• Women in IT – WIT@Yale
• Broadening of the mentoring program
• Team Recognition
AGENDA

Current State and Trends

Functional Performance
• Provide both an overview and detailed metrics of how IT resources are performing.

Portfolio Management and Operating Plans
• The IT agenda, portfolio, program, and operating model. IT’s alignment to the objectives and strategy. IT’s identity and place within Yale.

Vision
• Where technology is going in Higher Education and how it is likely to affect Yale.
CURRENT STATE AND TRENDS
Why is IT a Dilemma?

- 90% maintenance*
- Crippling backlog
- Unbalanced demand
  - Deferred maintenance
  - Minus >1 Release schedule
  - Risk mitigation
  - Compliance
- Unknown university-wide initiatives, effort and spend

*routine services is 81% but factoring in lifecycle replacements it increases to 90%.
The Yale Technology Landscape

Multitude of pages of paper forms

Disconnected systems requiring duplicate data entry

No standard community, reporting or collaboration offerings
Historically, Yale departments have developed systems to meet specific needs in multiples.
Current State of ID Management

Evolved over time
Manual
Error Prone
Costly
Higher Ed Technology Expectations

The technology revolution is already driving higher expectations as our constituents interact with state-of-the-art consumer technology side-by-side with applications developed and supported by Yale.

• Consumerized
  – Functions and feels like systems found on the consumer web

• Personalized
  – Understands who I am in the context of what I am doing

• Democratic
  – Enables end users to configure and build independent of IT

• Social
  – Includes a useful, integrated social component

• Mobile
  – Functions effectively on smart phones and tablets
Yale is exploring a multitude of new opportunities, most somehow connected to the evolving cloud landscape.
### 5 Years from now, what % of software cost will be subscriptions?

![Graph showing the cost of Cloud Apps Subscriptions, On Premise Software, Total Software from Prior to FY12 to FY17](image)

<table>
<thead>
<tr>
<th>Year</th>
<th>Cloud Apps Subscriptions</th>
<th>On Premise Software</th>
<th>Total</th>
<th>Notes/Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to FY12</td>
<td>$0.5</td>
<td>$8.3</td>
<td>8.8</td>
<td></td>
</tr>
<tr>
<td>FY12</td>
<td>$1.4</td>
<td>$7.9</td>
<td>9.3</td>
<td></td>
</tr>
<tr>
<td>FY13</td>
<td>$3.9</td>
<td>$7.2</td>
<td>11.1</td>
<td>Includes $2.3 increase from Workday subscription</td>
</tr>
<tr>
<td>FY14</td>
<td>$5.0</td>
<td>$6.1</td>
<td>11.1</td>
<td></td>
</tr>
<tr>
<td>FY15</td>
<td>5.6</td>
<td>$5.5</td>
<td>11.1</td>
<td>Doc Mgmt and ESB $0.6; PaaS = $1.4 increase phased in over FY14-16; Reduction from Oracle licensing ~1.0 FY15-17</td>
</tr>
<tr>
<td>FY16</td>
<td>6.5</td>
<td>$3.9</td>
<td>10.4</td>
<td>Microsoft Office move to cloud could save $0.4 on Total</td>
</tr>
<tr>
<td>FY17</td>
<td>7</td>
<td>$3.1</td>
<td>10.1</td>
<td></td>
</tr>
</tbody>
</table>
How will IT impact Yale?

• Acceleration
• Disruption
• New models
• Skills
• Productivity
• Budgets
• Disintermediation
• Even bigger data
• Security costs continue to rise
• Analytics
FUNCTIONAL PERFORMANCE
Technology Strategic Committees

University Officers and Deans

CIO and IT Leadership

ITS Advisory Committee (ITSAC) (Provostial Committee)
Acts as an advisory and sounding board for ITS services, policy and issues that impact the campus at large.

Technology Initiatives Committee (TIC) (University functional and technology leaders)
Provides strategic oversight for the TOC as well as IT capital and strategic planning cycles. Proposes annual technology portfolio to University Officers.

Technology Operations Committee (TOC) (Campus Technology Leaders)
Oversees the implementation of projects, programs, budgets, external spending, and holds overall accountability for the day-to-day management of the IT portfolio of projects.

ITS Research Technologies (Faculty and Researchers)
Provides a community and forum to share expertise and perspective and directs strategic direction for research technologies, recommending and overseeing related programs.

Information Security & Policy (Faculty, Staff and Administration)
Provides a community and forum to share expertise and perspective. Directs strategy and implementation related to the area of information security and technology policy, recommending and overseeing related programs.

Clinical Research Technologies (Faculty and Researchers)

Development & AYA Technologies (Faculty and Researchers)

Teaching & Learning (Faculty, Students and Staff)
Provides a community and forum to share expertise and perspective. Directs strategic direction for institutional technologies, recommending and overseeing related programs.

Institutional Technologies (Faculty, Students and Staff)
Provides a community and forum to share expertise and perspective and directs strategic direction for administrative technologies, recommending and overseeing related programs.

Academic Administrative Technologies (Staff and Administration)
Provides a community and forum to share expertise and perspective and directs Enterprise Resource Planning at the University, recommending and overseeing related programs.

ITS Portfolio Management

Special Interest/Program Committees

Business Systems (Staff and Administration)
ITS Operating Budget

<table>
<thead>
<tr>
<th></th>
<th>Target</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY13 Budget</td>
<td>$110.1m</td>
<td>--</td>
</tr>
<tr>
<td>FY14 Parameter Budget</td>
<td>$115.7m</td>
<td>$0</td>
</tr>
<tr>
<td>– Grown by Parameters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY14 Non-Discretionary</td>
<td>$120.1m</td>
<td>$0</td>
</tr>
<tr>
<td>– Incremental service expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– To be funded from I&amp;A savings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY14 Proposed w/ asks</td>
<td>$121.5m</td>
<td>$1.0m</td>
</tr>
<tr>
<td>– Incremental FTE requests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(9 for Academic IT and 4 for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>web)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# FY13 ITS Productivity Goals

<table>
<thead>
<tr>
<th>Incremental Costs (FY12 into FY13)</th>
<th>Cost ($M)</th>
<th>Productivity Savings Objective</th>
<th>Saving ($M)</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Committed SSG FY12 cut not realized</td>
<td>1</td>
<td>Contractors</td>
<td>1.0</td>
<td>In progress</td>
</tr>
<tr>
<td>Incremental Opex Software on FY12 approved projects</td>
<td>1.95</td>
<td>Software and Hardware maintenance</td>
<td>0.95</td>
<td>On target</td>
</tr>
<tr>
<td>Incremental Security opex non staff</td>
<td>0.5</td>
<td>Telecom</td>
<td>0.5</td>
<td>On target for campus</td>
</tr>
<tr>
<td>18 New Positions for new org includes security</td>
<td>1.8</td>
<td>Absorb from Current Headcount</td>
<td>1.8</td>
<td>On target</td>
</tr>
<tr>
<td>Rent (135 College)</td>
<td>0.11</td>
<td>Aim to Address in fy14</td>
<td>0</td>
<td>Deferred</td>
</tr>
<tr>
<td>Project OPEX Shortfall</td>
<td>2.2</td>
<td>Infrastructure Savings</td>
<td>2.41</td>
<td>On target</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>7.56</strong></td>
<td></td>
<td><strong>6.66</strong></td>
<td></td>
</tr>
</tbody>
</table>

$900,000 F&BO Funding allocation
## FY13 ITS Productivity Achievements

<table>
<thead>
<tr>
<th>Services (where underlying costs are held flat or reduce)</th>
<th>Service increase since April 2012</th>
<th>Current service February 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Access Points</td>
<td>17.8%</td>
<td>6069</td>
</tr>
<tr>
<td>Simultaneous Network Devices Connected</td>
<td>27.0%</td>
<td>17780</td>
</tr>
<tr>
<td>Unique Network Devices each day</td>
<td>26.7%</td>
<td>38000</td>
</tr>
<tr>
<td># Virtualized Server Utilization</td>
<td>23.5%</td>
<td>1200</td>
</tr>
<tr>
<td>Storage under management (PB)</td>
<td>27.5%</td>
<td>5.1</td>
</tr>
<tr>
<td>Staff Turnover</td>
<td>6.8%</td>
<td>425</td>
</tr>
<tr>
<td># staff positions on headcount repurposed</td>
<td>4.2%</td>
<td>18</td>
</tr>
<tr>
<td>Incremental Software Maintenance Savings</td>
<td>11.2%</td>
<td>On total spend of $6,487,829</td>
</tr>
<tr>
<td>Helpdesk Speed to Answer (Seconds)</td>
<td>79.5%</td>
<td>30</td>
</tr>
<tr>
<td>Helpdesk Call Abandonment Rate</td>
<td>32.2%</td>
<td>7.8%</td>
</tr>
<tr>
<td>Work Orders Completed on time</td>
<td>-4.9%</td>
<td>91.7%</td>
</tr>
</tbody>
</table>

### Direct Savings passed back to Faculty and Staff

<table>
<thead>
<tr>
<th>Service</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telecom Mobile Rate Reduction</td>
<td>21%</td>
</tr>
<tr>
<td>Virtual Server Rate Reduction</td>
<td>8%-28%</td>
</tr>
<tr>
<td></td>
<td>$40-$175/month</td>
</tr>
</tbody>
</table>
**Technology at Yale**

**Collaboration**
- Box.com
- New ITS Website
- Rollout of IT Governance model

**Emerging Technology**
- Cloud Computing adoption
- Virtual Desktops
- Yale’s Private Cloud - Infrastructure as a Service (IaaS)

**Research**
- eLab Notebooks
- Science Network – NSF Grant
- Added 1PB of storage
- Added 70 compute nodes to HPC
- Proposal Development Deployment
- West Campus Data Center expansion
- Conflict of Interest compliance

**Teaching & Learning**
- Doctor of Nursing Online Program
- Lecture Capture adoption
- MOOC evaluation
- TEAL Classroom
- CSSSI

**Foundational Technology**
- Gmail rollout and Office 365 evaluation
- Identity and Access Management Strategy
- Resilient IT
- Serviced-based framework for IT management
- Service Oriented Architecture (SOA)
- Strategic security enhancements
- Improved wireless capacity and coverage

**Administrative Systems**
- HR and Shared Services on Force.com
- Oracle to Workday
- Significant enhancements in student and faculty administrative systems
- DARCY
- Facilities Mobile Phase 1 completed
- Yale Budgeting Tool (YBT)
- Epic rollout
- Oracle R12 Upgrade

**Staff Development**
- New ITS teams and trends

**Fiscal Management**
- Resource shifting – Maintenance to Mission
- University wide savings of at least $500K in cell phone rates
- $6.6million productivity
## ITS Performance Metric Summary for 3 Months Ending 03/31/2013

<table>
<thead>
<tr>
<th>Metric Description</th>
<th>Units</th>
<th>Actual</th>
<th>Target</th>
<th>Baseline</th>
<th>Delta</th>
<th>Performance to Target</th>
<th>Performance Trend (vs. Prior Period)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BUDGET</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Year Projection, Surplus (Deficit)¹</td>
<td>$</td>
<td>$</td>
<td>-</td>
<td>$</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighted Financial Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OPERATIONAL EFFICIENCY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reopened incidents within Tier ¹²</td>
<td>%</td>
<td>1.5%</td>
<td>2.5%</td>
<td>1.5%</td>
<td>-1.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributed Support (Work Orders Completed on Time)</td>
<td>%</td>
<td>97.8%</td>
<td>95.0%</td>
<td>95.1%</td>
<td>2.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speed to Answer Phone Calls at Service Desk³</td>
<td>Seconds</td>
<td>30</td>
<td>41</td>
<td>23</td>
<td>-11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighted Efficiency Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EFFECTIVENESS &amp; QUALITY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security Indicators</td>
<td>Count</td>
<td>547</td>
<td>450</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call Abandonment Rate (Total abandoned)</td>
<td>%</td>
<td>7.0%</td>
<td>10.0%</td>
<td>9.3%</td>
<td>-3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major Incidents</td>
<td>Count</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure Services Reliability</td>
<td>%</td>
<td>100.0%</td>
<td>99.5%</td>
<td>99.9%</td>
<td>0.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Business and Academic Applications Reliability</td>
<td>%</td>
<td>100.0%</td>
<td>99.5%</td>
<td>100.0%</td>
<td>0.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighted Effectiveness Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SERVICE PERFORMANCE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AM&amp;T Satisfaction Survey²</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributed Support-Point of Delivery Satisfaction Survey²</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighted Satisfaction Score</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. GA and excludes I&A.
2. Reopened incidents within Tier 1 is a new measurement. Target per Jeff Capuano. Baseline is FY13 Q1 value.
3. Help Desk Speed To Answer Calls Target is Industry per Gartner. Baseline is Yale FY-08 per Gartner.
4. Data was not available from March 09 through September 09 due to modification of the module. It became operational the 3rd week of September.
5. Baseline data collected from the period April 09 to June 09. (Except where otherwise indicated)
Percentage Improvement of QBR Metrics from 2011 Through 2013

*All key metrics have shown improvement over the two-year timeframe.*

**Includes Reliability of the Network and Reliability of the Major Systems**

- Infrastructure Notes:  
  Access Points increased by 20.3%.  
  Peak Simultaneous Usage increased by 42.3%.  
  Currently 38,580 Daily Unique Devices in use.  
  2011 Device baseline is estimated to be 27,600.
2011 Community Satisfaction

2011 Tech Qual Rankings

- Wired network
- Wireless network
- Reliable network
- Mobile device
- Univ. website
- Systems easy, helpful
- Systems timely, relevant info
- Online services performance
- Tech in classrooms
- Knowledgeable staff
- Timely resolution
- Feedback opportunities
- Community of end users
- File storage
- Remote access
- Email & calendaring
Overall Satisfaction with Yale ITS

99% Confidence Level with a margin of error of +/- 1.9%
Faculty and Staff Satisfaction - ITS Foundational Services

<table>
<thead>
<tr>
<th>Service</th>
<th>% Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email and calendaring</td>
<td>81.7%</td>
</tr>
<tr>
<td>ITS Spam Filtering Service</td>
<td>83.4%</td>
</tr>
<tr>
<td>Yale Network connectivity</td>
<td>84.4%</td>
</tr>
<tr>
<td>Virtual Private Network (VPN)</td>
<td>63.5%</td>
</tr>
<tr>
<td>Cellular Service on Campus</td>
<td>57.9%</td>
</tr>
<tr>
<td>ITS Backup Services</td>
<td>76.0%</td>
</tr>
<tr>
<td>Audio-Visual Services</td>
<td>74.5%</td>
</tr>
<tr>
<td>Web, Video and Audio Conferencing</td>
<td>65.2%</td>
</tr>
<tr>
<td>Yale Website and Publishing Services</td>
<td>59.0%</td>
</tr>
</tbody>
</table>

Faculty and Staff Satisfaction - Applications

<table>
<thead>
<tr>
<th>Service</th>
<th>% Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discoverability/search ability of digitized materials</td>
<td>55.1%</td>
</tr>
<tr>
<td>Software Library</td>
<td>77.8%</td>
</tr>
<tr>
<td>Qualtrics Survey Tool</td>
<td>74.4%</td>
</tr>
<tr>
<td>Lynda.com</td>
<td>82.5%</td>
</tr>
<tr>
<td>Secure File Transfer</td>
<td>73.9%</td>
</tr>
<tr>
<td>My Pay &amp; Information</td>
<td>81.1%</td>
</tr>
<tr>
<td>My Benefits Application</td>
<td>79.2%</td>
</tr>
<tr>
<td>Classes*v2</td>
<td>72.3%</td>
</tr>
<tr>
<td>Faculty Grading System</td>
<td>80.7%</td>
</tr>
<tr>
<td>Course Information Management System</td>
<td>54.5%</td>
</tr>
</tbody>
</table>
Faculty and Staff Satisfaction - People and Places

- Center for Media and Instructional Innovation: 64.9%
- ITS Film Study Center: 81.2%
- ITS Instructional Technology Services: 73.7%
- ITS Photo and Design Services: 83.9%
- Social Science Research Services: 56.3%
- Stat Lab Services: 73.9%
- ITS High Performance Computing: 66.2%
Student Satisfaction - ITS Foundational Services

<table>
<thead>
<tr>
<th>Service</th>
<th>% Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email and calendaring</td>
<td>80.2%</td>
</tr>
<tr>
<td>ITS Spam Filtering Service</td>
<td>79.5%</td>
</tr>
<tr>
<td>Yale Network connectivity (wireless and wired)</td>
<td>75.0%</td>
</tr>
<tr>
<td>Virtual Private Network (VPN)</td>
<td>80.9%</td>
</tr>
<tr>
<td>Cellular Service on Campus</td>
<td>71.9%</td>
</tr>
<tr>
<td>Yale Website and Publishing Services</td>
<td>55.5%</td>
</tr>
</tbody>
</table>

Student Satisfaction - Applications

<table>
<thead>
<tr>
<th>Application</th>
<th>% Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discoverability/searchability</td>
<td>46.1%</td>
</tr>
<tr>
<td>Software Library</td>
<td>74.4%</td>
</tr>
<tr>
<td>Qualtrics Survey Tool</td>
<td>76.0%</td>
</tr>
<tr>
<td>Lynda.com</td>
<td>82.4%</td>
</tr>
<tr>
<td>Secure File Transfer</td>
<td>80.0%</td>
</tr>
<tr>
<td>Classes*v2</td>
<td>75.0%</td>
</tr>
<tr>
<td>Box.com</td>
<td>74.4%</td>
</tr>
</tbody>
</table>
PORTFOLIO AND OPERATING PLAN
FY14 Demand and Available Resources

### Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Funding Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITS Funding</td>
<td>$30,500,000</td>
</tr>
<tr>
<td>External Funding</td>
<td></td>
</tr>
<tr>
<td>Science Development Fund</td>
<td>$4,000,000</td>
</tr>
<tr>
<td>Facilities Capital Fund</td>
<td>$3,110,000</td>
</tr>
<tr>
<td>Yale School of Medicine</td>
<td>$262,682</td>
</tr>
<tr>
<td>Other Fund Sources</td>
<td>$158,598</td>
</tr>
<tr>
<td>Total External Funding</td>
<td>$7,531,280</td>
</tr>
<tr>
<td>Total All Funding Sources</td>
<td>$38,031,280</td>
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</table>

### Constraints

<table>
<thead>
<tr>
<th>Demand by Fund Source</th>
<th>FY14 Total Costs</th>
<th>Est. Capital Costs</th>
<th>Est. Operating Costs</th>
<th>Labor Hrs (All Projects)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITS - Ready to Serve</td>
<td>$14,377,806</td>
<td>$10,730,063</td>
<td>$3,647,743</td>
<td>50,297</td>
</tr>
<tr>
<td>ITS - Other Programs</td>
<td>$57,852,011</td>
<td>$29,467,039</td>
<td>$28,384,972</td>
<td>317,395</td>
</tr>
<tr>
<td>Externally Funding</td>
<td>$9,851,070</td>
<td>$0</td>
<td>$0</td>
<td>16,534</td>
</tr>
<tr>
<td><strong>Total Portfolio Demand</strong></td>
<td><strong>$82,080,887</strong></td>
<td><strong>$40,197,102</strong></td>
<td><strong>$32,030,715</strong></td>
<td><strong>384,226</strong></td>
</tr>
<tr>
<td><strong>Total Available Capacity</strong></td>
<td><strong>$38,031,280</strong></td>
<td><strong>$22,000,000</strong></td>
<td><strong>$8,500,000</strong></td>
<td><strong>109,000</strong></td>
</tr>
<tr>
<td>Variance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>-116%</strong></td>
<td><strong>-83%</strong></td>
<td><strong>-277%</strong></td>
<td><strong>-253%</strong></td>
<td></td>
</tr>
</tbody>
</table>
How the TIC Built the Portfolio

Recommended

<table>
<thead>
<tr>
<th>In</th>
<th>Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>.4%</td>
<td>99.6%</td>
</tr>
<tr>
<td>32%</td>
<td>68%</td>
</tr>
<tr>
<td>8%</td>
<td>92%</td>
</tr>
<tr>
<td>61%</td>
<td>39%</td>
</tr>
<tr>
<td>100%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Core Systems

Academic Initiatives

Foundational Technology

Compliance and Risk Mitigation

Work Underway that we Agree to Finish
FY14 Recommended Portfolio

- $2.2 M delta on Opex which will be managed to the $8.5M budget
Roadmap

Investment (in millions)

FY14 FY15 FY16 FY17 FY18 FY19 FY20

$40

$35

$30.5

% of total labor spent on maintenance

100%
90%
75%

Time available for innovation

IaaS
IAM

Oracle migration

Workday HR Workday Finance

SOA

Data Mgmt

Darcy/ Reporting

Hub

Web

LMS... SIS...

*Illustrative
A C A D E M I C  IT  S O L U T I O N S  ( A I T S )
FY14 PROPOSED ORGANIZATION

Kairiss, Edward
Senior Director, Academic Services

Belanger, Arthur
IT Proj Mgr

Flowers, Themba
Manager, IT

Guy, Mikhael
Science Research Software Spec.

Campbell, Richard
Statistical Support Spec, Social...

Hardman, Gloria
Academic Technologist

Regan, Matthew
Software Engineer

Kirkpatrick, Robert
Academic Technologist

Open (REQ#19750BR)
Academic Technologist

Patterson, Pamela
Academic Technologist

Proposed FY14 Position

Proposed FY14 Position

Proposed FY14 Position

Chris Bellerjeau
Director, Learning Environments

Graves, John
Manager, Communication and C...

Snyder, Matthew
Multimedia Education Specialist

Siwicki, Jeffrey
Manager, Audio/Visual Design

Anastasio, Joseph
Sr Business Systems Analyst

Dobuzinsky, George
Sr Business Systems Analyst

Lolis, Elpida
Senior IT Project Manager

Open (REQ#18597BR)
Deputy CIO for Academic Solutions

Gauthier, Andre
Director, High Performance Com...

Aliwalas, Ricardo
Senior Operating Systems Progr...

Wright, Roy
HPC Systems Specialist

Gluchosky, Paul
Manager, IT

New FY13 Position
Director, Specialist Storage

Proposed FY14 Position

Proposed FY14 Position

Proposed FY14 Position

Proposed FY14 Position

Proposed FY14 Position

Panko, Kenneth
Director, Academic Project Devel...

Hirsch, David
Director, Academic IT Strategy

Scungio, Stephanie
IT Associate Director

Open (REQ#16650BR)
Senior Director, ITS Research Tech

Gauthier, Andre
Director, High Performance Com...

Aliwalas, Ricardo
Senior Operating Systems Progr...

Wright, Roy
HPC Systems Specialist

Gluchosky, Paul
Manager, IT

New FY13 Position
Director, Specialist Storage

Proposed FY14 Position

Proposed FY14 Position

Proposed FY14 Position

Proposed FY14 Position

Proposed FY14 Position

Proposed FY14 Position

Proposed FY14 Position

Planned in FY13

Proposed for FY14
WHAT MUST WE DO?
**Aligning Mission, Vision, Goals, and Strategy**

*ITS Mission:* deliver the highest level of service possible to students, faculty, and staff, and demonstrate technology leadership that furthers the University’s mission

<table>
<thead>
<tr>
<th><strong>Vision</strong></th>
<th><strong>Fiscal perspective</strong> - If we succeed, what was the demonstrated ROI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rationalize IT Assessments for common good</td>
</tr>
<tr>
<td></td>
<td>Improve overall mission-aligned Academic IT Services</td>
</tr>
<tr>
<td></td>
<td>Reduce capital costs</td>
</tr>
<tr>
<td></td>
<td>Decrease GA costs and incorporate recovered common-goods into GA</td>
</tr>
<tr>
<td></td>
<td>Grow Academic IT investments &amp; resources</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Value-added to the client</strong> - To achieve the mission, how do we need to look to students, faculty, and non-ITS staff?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement bi-directional University-wide governance</td>
</tr>
<tr>
<td>Increase satisfaction levels to &gt;90%</td>
</tr>
<tr>
<td>Digitize IT services</td>
</tr>
<tr>
<td>Exploit partnerships and grant opportunities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Internal Processes</strong> - To satisfy our community, what processes do we need to do really well?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce systems maintenance costs</td>
</tr>
<tr>
<td>Consolidate and reduce Data Center footprint</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Learning and Growth</strong> - To achieve our vision, how does ITS need to learn and change as an organization to develop our staff and improve?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve workplace satisfaction</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
IT Opportunities

Technology Leadership

• Enabler of innovation, particularly mission specific
• Driver of productivity

Obtain functional productivity

Central governance not centralization

• Gain greater visibility centrally on university-wide IT investments

Functional teams contribute to IT investments

• IT as Brokers

Campus-Wide strategy for learning management ecosystem

Campus-Wide approach for a common web & mobile experience and support

Vision for the future of Student Information Systems
**Transform the Technology Landscape**

**Consolidate**
- Various Independent School Systems
- Many redundant systems and technologies
- Reduce Technology Architecture Footprint
- Reduce Overall TCO

**Standardize**
- Complex mix of Standards, Frameworks and Architectures
- Lack of Enterprise Processes
- Create the Application Blueprint Standard
- Improve Process Speed and Efficiency

**Streamline**
- Multi-tiered Layers of Application Complexity
- No Application Integration
- Reduce Application Layers (EAI) or (SOA)
- Consolidate Databases
- Eliminate Legacy Systems

**Yale University Data Centers**

Client Side
- HTML
- Java Applets
- JavaScript

Server Side
- JSP
- Servlets
- EJB
As we move towards a constituent-centric vision, Yale can focus first on developing a world-class system of engagement integrated with legacy systems of record. Ultimately, Yale should have an opportunity to rationalize toward fewer, up-to-date systems of record.
Create an N-Tier Architecture

Fundamental Strategies
- User-centricity
- Cloud First
- Mobile Enabled
- Social
- Service Management

Business Intelligence & Data Analytics

- Software as a Service
- Platform as a Service
- Infrastructure as a Service

- MOOCs
- Build Your Own
- Bring Your Own

- Social Media
- Web 2.0 +
- Learning Management
- Student Information
- Finance
- Institutional Applications
- Faculty Information & Human Resources

- SOA
- IAM
- HUB

Big Data
Adopt Constituent-Centric Technology

Historically, Yale departments have developed systems to meet specific needs in multiples.

We have a terrific opportunity to adopt a constituent-centric perspective and deliver an integrated experience for students, faculty and staff.
Enable a new Technology Experience

The online experience includes interactions, content and transactions associated with all aspects of life at Yale.
Become a Service Centric Team

- Service Owners
- Publish/Marketed
- Measured
- Reduce Variation
- Improved Capabilities
- Community Satisfaction
- Service Level Targets
- Create Operating Plans
- Survey Community
- Determine Service Level Capability