FY18 FACTS

Data Centers & Networks
Loyola’s Lakeside data centers house 800 devices including servers, appliances, and equipment:
- Over 806 Terabytes of online storage;
- 202 Terabytes of e-mail storage;
- 93 physical enterprise class servers and over 373 virtual servers;
- 2,675 wireless access points covering 95% of Loyola’s buildings;
- 57,000 devices registered on the wireless network;
- 14 GB combined internet bandwidth (10.5 LSC, 3 WTC, .5 HSC);
- Students bring 4.5 enabled devices to campus.

Other Facts
- 10 presentations were delivered by ITS staff members at leading technology and higher education venues;
- 6 ITS Staff members taught in adjunct positions;
- 5 ITS Staff members taught Emerging classes; 1 co-taught a Leadership Institute.

Staff Significant Awards and Certifications
- Recipients of University Staff Council Kay Egan Award and Team Spirit Award;
- "Outstanding Campus Partner" Award from Division of Student Development;
- Certified LGBTQA Safe Space;
- Institute for Emerging Leadership in Online Learning from Penn State Certification;
- SANS Certified in Forensics Examining, Web Application Penetration Testing and Systems and Network Auditing;
- AICU William O’Heain Service Award;

FY18 Technology Fee Allocations

Software Maintenance 42%
Student Lab Support 14%
Membership & Dues 12%
Telecom/Internet 12%
Student Technology Refresh Programs 31%

Information Security FY18 Top 10 Threats Blocked

Reputation 3,557,921,000 Messages blocked from known spam senders.
Malware 49,155,000 Internet traffic that contains known malware.
Firewall 15,765,000 Messages that failed specific organizational policies.
Application Attack 8,244,000 Internet traffic targeted at an application.
Spam 5,627,000 Messages blocked and tagged as spam.
Other 2,520,000 Messages blocked for other reasons.
Questionable Activity 1,902,000 Misordered or uncommon network traffic.
Anti-Virus 639,000 Messages that contain a known virus.
Coordinated Attack 613,000 Similar traffic coming from multiple sources.
Network Phishing 381,000 Internet traffic from a known phishing source.

FY19 & BEYOND

MAJOR INITIATIVES - FY19 Q1-Q2

Academic and Faculty Support
- LOCUS Enhancements (6);
- Evaluate SONIA Field Management Software;
- PRO LAW Scholars Network Application and Database;
- Hybrid On-line ABSN Degree Program;
- Examiinity Integration with Sakai.

Student Technology Support
- LOCUS Fluid Page Rollouts;
- Upgrade Campus Card System.

Administrative Initiatives
- Lawson/Kronos Enhancements (11);
- Advancement Systems (7);
- Space and Asset Management System Search and Implementation;
- Transition 25Live to the Cloud;
- iPlan - Major Re-write;
- Quinlan CRM;
- Online Performance Management System - Phase 2.

Infrastructure
- Campus Construction Initiatives (4);
- Information Security Program;
- LUHE/LUC/HSD Technology Program (2);
- IT Disaster Recovery (9).

Continuous Service Development
- Business Intelligence/Data Warehousing (7);
- Enterprise Content Management (7);
- Secure Documents for Financial Aid.

Initiatives under development include:
- Deploy solution to improve inventory and security for the Apple environment;
- Acquire a new password management solution that secures and stores passwords;
- Equip Campus Safety officers with body worn cameras for video capture;
- Upgrade card reader hardware in over 50 buildings;
- Support RFP process for course evaluations;
- Plan for migration to Sakai v12;
- Leverage new Fluid pages and navigation schema in student system LOCUS;
- Expand the information security awareness program & cyber security protection layers;
- Transition 25Live Campus Reservations to cloud services;
- Re-write and extend fundamental functionality of Installment Plan ("iPlan").

LUC Technology Strategy - A Roadmap for Change

Emerging
- Cloud
- Mobile
- Web
- Social
- Big Data
- Visualization
- Analytics
- Machine Learning
- Data Management
- Cloud Computing
- Cloud Storage
- Cloud Security

Tactical
- vCenter
- vSphere
- vApps
- NSX
- Security
- VMware Horizon View
- ThinApp
- VSG
- ZENworks

Strategic
- Campus Data Services
- Business Intelligence (COSI)
- Cloud Computing
- Cloud Storage
- Cloud Security
- vCenter
- NSX
- Security
- VMware Horizon View
- ThinApp
- VSG

Containment
- VMware Horizon View
- ThinApp
- VSG

Retirement
- VMware Horizon View
- ThinApp
- VSG

June 30, 2018

Information Technology Services
LOYOLA UNIVERSITY CHICAGO
Run... ongoing operations

Sample Service Volumes

- Daily
  - 1,358,000 e-mails received
  - 15,500 student accesses to email from a mobile device
  - 13,950 logins to LOCUS
  - 5,150 total printed pages by Digital Media Services
  - 31,075 visits to luc.edu, 28% from mobile devices

- Monthly
  - 225 Sakai support calls
  - 25,140 computer lab logins
  - 665 new lecture capture recordings
  - 60 new videos to the video repository

Enterprise Highlights

- 300 technology-equipped classroom spaces
- 1,385 Business Intelligence users
- 2,030 Faculty and Staff PC’s upgraded to Windows 10
- 1,820 Student lab and Classroom PC’s upgraded to Windows 10

Portfolio Summary

The Information Technology Executive Steering Committee (ITESC) provides ITS governance and project oversight, including IT project portfolio prioritization twice annually. The ITS project portfolio has averaged over 2,100 projects, 31% of 10,000 projects over the past five years.

FY18 Projects by Strategic Alignment

<table>
<thead>
<tr>
<th>Strategic Category</th>
<th>FY18 Q1-Q2 Completed Projects</th>
<th>FY18 Q3-Q4 Completed Projects</th>
<th>FY18 Total Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic &amp; Faculty Support</td>
<td>42%</td>
<td>42%</td>
<td>42%</td>
</tr>
<tr>
<td>Administrative Initiatives</td>
<td>27%</td>
<td>27%</td>
<td>27%</td>
</tr>
<tr>
<td>Continuous Service Development</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Student Technology Support</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
</tr>
</tbody>
</table>

FY18 Projects by Priority

<table>
<thead>
<tr>
<th>Strategic Category</th>
<th>A-High</th>
<th>B-Medium</th>
<th>C-Low</th>
<th>M-Must Do</th>
<th>Total Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic &amp; Faculty Support</td>
<td>42%</td>
<td>12%</td>
<td>11%</td>
<td>41%</td>
<td>47%</td>
</tr>
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Other Highlights

- Underlying technologies for the LOCUS student information system underwent a major technology upgrade in preparation for the new modern and responsive user interface platform called Fluid. One of the biggest impacts of the Fluid technology is that LOCUS pages will be device agnostic. Fluid also provides the same base level access to functionality versus the classic hierarchical menu navigation.

- Internet facing firewalls were replaced to further protect data traffic to and from the University. This enhancement automatically inspects, analyzes and blocks various types of traffic further strengthening our information security environment.

- The Trinity/LUHS conversion from Lawson to Workday for Finance/HR systems required a substantial effort within Finance, Human Resources, Information Technology Services and the Health Sciences Division to continue to offer uninterrupted pay and benefits for faculty physicians working for both organizations.

- Campus Recreation migrated from RecTrac to Fusion to manage the Halas Rec Center. This change has improved the department’s operations, security of information and service to students. The software also offers easy administration and expanded mobile and self-service options for students and Rec Center guests.

- Loyola separated identity management technology from Trinity/LUHS. In this separation, system complexity was reduced, operational stability improved and each organization can adopt technology initiatives better tailored to their organizations.

- Following the separation of identity management technology from Trinity/LUHS, ITS upgraded existing identity management infrastructure; these improvements position Loyola to begin analyzing opportunities for process improvements for provisioning and de-provisioning of access.

- The “Revenue-to-Expense Model” for Academic units tracks the revenue and expenses of a given Academic Department and uses that data to generate the Revenue-to-Expense ratio (Net Tuition Revenue / Expenses), which basically measures revenue generation for every dollar spent. This is Phase I of a multi-phase project.

- The “Weekly Performance Summary Report” for Advancement offers “real-time” summaries of fundraising progress towards goals, along with assessing performance from week to week and year to year.

- The “Advancement Donor Progress Report” for Advancement focuses on alumni giving. The dashboard produces dynamic comparisons for the goals for gifts and the pace as to meeting the goals.

- A “Student Enrollment Model” for Enrollment Management provides views of student enrollments, enrollments by cohorts, orientation participation, and enrollments by term and business day.

General Data Protection Regulation (GDPR)

The General Data Protection Regulation (GDPR) is a data privacy and protection law which became effective May 25, 2018. It is a European Union (EU) law that requires entities which collect and process personal data belonging to people located in Europe to abide by a more stringent privacy and security requirement. A GDPR working group was formed to comply with the requirements of GDPR. Key deliverables included data mapping survey results, a vendor engagement process, a new University GDPR website (https://luc.edu/gdpr), a GDPR privacy notice, updated policies and incident response plan, a process to obtain GDPR-required consent where necessary, and a process to receive, route, and fulfill requests made by data subjects.

Loyola Digital Experience

A new technology direction is in the developing stages called the “Loyola Digital Experience,” or LDE. This new direction has three themes:

1. Foundational, underlying technology that enables delivery of the next best digital experience for students, faculty and staff.
2. Transformational technologies that deliver dashboards for real-time decision-making, and platforms to enable digitization and innovation.
3. A simple, secure and seamless consumable experience that is device independent and available anytime, anywhere.

This strategy will take shape and be further influenced by the next University strategic plan.

Run... ongoing operations

Grow... information systems and services to optimize performance

Streaming Technology Services

Over the course of the fiscal year, Information Technology Services, the Faculty Center for Ignatian, Pedagogy, and the Office for Online Learning worked together to sunset duplicative technologies and streamline services. The provided Loyola students, faculty, and staff a better experience while making more efficient use of Loyola’s technology, teaching, and learning support resources and reinvested savings in new initiatives. As part of the process ITS and its partners:

- Increased retention of Sakai course and project site data from 18 months to two years.
- Consolidated video recording and repository services using the Panopto system.
- Streamlined online classroom, webinar, and meeting services using Zoom.
- Migrated to Microsoft’s OneDrive for Business for file storing and sharing services. Over 13,000 accounts and 7.7 TB of data was transitioned to OneDrive during the migration.

Improvements at the John Felice Rome Center

This past spring, several infrastructure improvements were completed for the John Felice Rome Center (JFRC), transforming technology at this campus to mirror that at LSC, WTC and HSC. Students, faculty and staff can now login to all computers and the wireless network at JFRC using their Loyola UVID. Additionally, a dedicated connection was established between Chicago and JFRC eliminating the need for VPN and provided direct access to internal resources such as Lawson, network drives, and employee self-service. Infrastructure and configuration changes now allow ITS to directly manage and monitor systems at the JFRC.

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New technologies and processes that fundamentally promote change.

Transform... new technologies and processes that fundamentally promote change.

Development of Business Intelligence Dashboards

Information Technology Services, partnered with the President’s Office, Finance, and the Office for Institutional Effectiveness (OIE), Advancement, and Enrollment Management to develop executive dashboards to support the financial and executive decision-making process. Initial deployments of the dashboards included:

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