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)
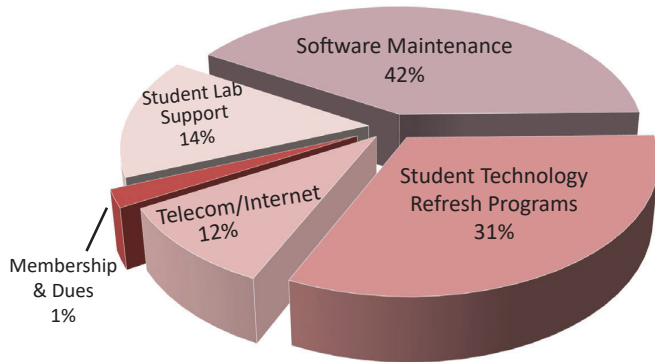- Students bring 4.5 enabled devices to campus

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 Emerge classes; 1 co-taught a Leadership Institute

Staff Significant Awards and Certifications

- Recipients of University Staff Council Kay Egan Award and Team Spirit Award
- Loyola 360 First Year Retreat Staff Leader Award
- "Outstanding Campus Partner" Award from Division of Student Development
- Certified LGBTQIA Safe Space
- Institute for Emerging Leadership in Online Learning from Penn State Certification
- SANS Certifed in Forensics Examining, Web Application Penetration Testing and Systems and Network Auditing
- AJCU William O'Hearn Service Award

FY18 Technology Fee Allocations

Software Maintenance 42%
Student Technology Refresh Programs 31%
Student Lab Support 14%
Telecom/Internet 12%
Membership & Dues 1%

Information Security
FY18 Top 10 Threats Blocked

Reputation	355,792,000	Messages blocked from known spam senders.
Malware	40,156,000	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	634,000	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
- PROLAW Scholars Network Applicaton and Database
- Hybrid On-line ABSN Degree Program
- Examity Integration with Sakai

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

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

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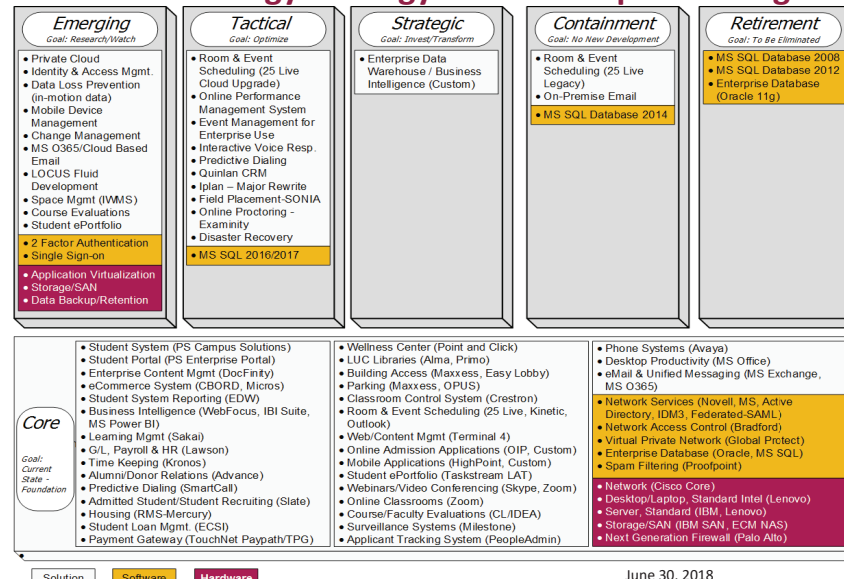- IT Disaster Recovery (9)

Continuous Service Development
- Business Intelligence/Data Warehouse (7)
- Enterprise Content Management (3)
- 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 Goal: Research/Watch	Tactical Goal: Optimize	Strategic Goal: Invest/Transform	Containment Goal: No New Development	Retirement Goal: To Be Eliminated
• Private Cloud • Identity & Access Mgmt. • Data Loss Prevention (in-motion data) • Mobile Device Management • Change Management • MS O365/Cloud Based Email • LOCUS Fluid Development • Space Mgmt (IWMS) • Course Evaluations • Student ePortfolio • 2 Factor Authentication • Single Sign-on • Application Virtualization • Storage/SAN • Data Backup/Retention	• Room & Event Scheduling (25 Live Cloud Upgrade) • Online Performance Management System • Event Management for Enterprise Use • Interactive Voice Resp. • Predictive Dialing • Quinlan CRM • Iplan – Major Rewrite • Field Placement-SONIA • Online Proctoring - Examinity • Disaster Recovery • MS SQL 2016/2017	• Enterprise Data Warehouse / Business Intelligence (Custom)	• Room & Event Scheduling (25 Live Legacy) • On-Premise Email • MS SQL Database 2014	• MS SQL Database 2008 • MS SQL Database 2012 • Enterprise Database (Oracle 11g)

Core Goal: Current State Foundation		
• Student System (PS Campus Solutions) • Student Portal (PS Enterprise Portal) • Enterprise Content Mgmt (DocFinity) • eCommerce System (CBORD, Micros) • Student System Reporting (EDW) • Business Intelligence (WebFocus, IBI Suite, MS Power BI) • Learning Mgmt (Sakai) • G/L, Payroll & HR (Lawson) • Time Keeping (Kronos) • Alumni/Donor Relations (Advance) • Predictive Dialing (SmartCall) • Admitted Student/Student Recruiting (Slate) • Housing (RMS-Mercury) • Student Loan Mgmt. (ECSI) • Payment Gateway (TouchNet Paypath/TPG)	• Wellness Center (Point and Click) • LUC Libraries (Alma, Primo) • Building Access (Maxxess, Easy Lobby) • Parking (Maxxess, OPUS) • Classroom Control System (Crestron) • Room & Event Scheduling (25 Live, Kinetic, Outlook) • Web/Content Mgmt (Terminal 4) • Online Admission Applications (OIP, Custom) • Mobile Applications (HighPoint, Custom) • Student ePortfolio (Taskstream LAT) • Webinars/Video Conferencing (Skype, Zoom) • Online Classrooms (Zoom) • Course/Faculty Evaluations (CL/IDEA) • Surveillance Systems (Milestone) • Applicant Tracking System (PeopleAdmin)	• Phone Systems (Avaya) • Desktop Productivity (MS Office) • eMail & Unified Messaging (MS Exchange, MS O365) • Network Services (Novell, MS, Active Directory, IDM3, Federated-SAML) • Network Access Control (Bradford) • Virtual Private Network (Global Prtect) • Enterprise Database (Oracle, MS SQL) • Spam Filtering (Proofpoint) • Network (Cisco Core) • Desktop/Laptop, Standard Intel (Lenovo) • Server, Standard (IBM, Lenovo) • Storage/SAN (IBM SAN, ECM NAS) • Next Generation Firewall (Palo Alto)

Solution   Software   Hardware

June 30, 2018

Information Technology Services

Technology@Loyola
INFORMATION TECHNOLOGY SERVICES   LOYOLA UNIVERSITY CHICAGO

FY18 Summary

LOYOLA
UNIVERSITY CHICAGO

July 2018

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

Weekly
- 790 Help Desk tickets
- 475 checkouts from Media Lab
- 35 classroom support calls
- 310 Loyola Secure Access sessions
- 115 Hoonuit Learning tutorials viewed

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

Annually
- 73.9M network attacks blocked
- 213,240 visits to mobile LOCUS
- 598,000 Business Intelligence reports run

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 prioritizaion twice annualy. The ITS project portfolio has averaged over 510 projects, the ITS project portfolio size (effort of projects) has also grown over 12% annually for the past five years.

FY18 Projects by Strategic Alignment

- Academic & Faculty Support — 12%
- Administrative Initiatives — 42%
- Continuous Service Development — 27%
- Infrastructure — 13%
- Student Technology Support — 6%
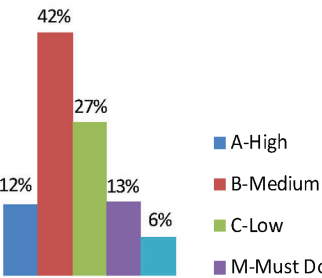
FY18 Projects by Priority

- A-High — 36%
- B-Medium — 41%
- C-Low — 11%
- M-Must Do — 12%
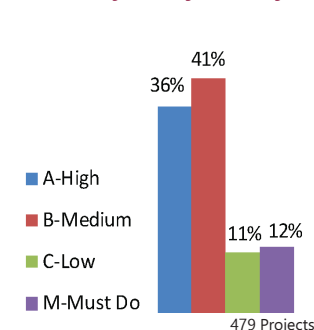
479 Projects

Strategic Category	FY18 Q1-Q2 Completed Projects	FY18 Q3-Q4 Completed Projects	FY18 Total Projects	FY18 % of Total
Academic & Faculty Support	5	4	9	8%
Administrative Initiatives	21	23	44	42%
Continuous Service Developmen	12	12	24	23%
Infrastructure	9	12	21	20%
Student Technology Support	0	8	8	8%
	47	59	106	100%

Grow... information systems and services to optimize performance

Streamlining 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 changes 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.

Other Highlights
- Underlying technologies for the **LOCUS student information system underwent a major technical 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 tile/tab based 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 variou 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.

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:
- 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 generated for every dollar spent. This is Phase I of a multi-phase project. Additionally, this model has "drill-down" capability to view course, student and instructor detail.
- 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 fo 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 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.