



# **CAMPUS ENGAGEMENT REPORT FOR TRANSFORM IT**



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VERSION 2**

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# Campus Engagement Report for Transform IT

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## Campus Engagement Report for Transform IT

### Executive Summary

Transform IT is the University of Oregon's program that will rationalize (make more logical and consistent) the delivery of information technology (IT) services on campus to better support the University of Oregon's strategic academic and research missions. The university currently has 28 unique IT departments on campus supporting administrative and academic units, while many research organizations rely on internal resources to fill the IT gap.

The goal of the Transform IT Campus Engagement Project (CEP) is to gather high-level information needed to prioritize the assessment of the current IT services offered to campus and provide this report to the chief information officer of the University of Oregon.

A four-member project team was established, consisting of two project managers and two business analysts who paired up to interview 52 departments (28 IT units and 24 research units in Appendix G) across campus starting in February 2018. Interview questions were developed by consulting recent IT reports completed by the Baker Tilly Group, Moran Consulting, and Harvey Blustain as well as existing services found in the UO Service Portal service catalog ([service.uoregon.edu](http://service.uoregon.edu)). Special attention was made to not repeat previous work and to be cognizant of the amount of effort required of interviewees.

The effort to gather this information includes identifying the services that are provided and available, reporting gaps in service support, and documenting the types of offerings supported within each service and which IT units deliver them.

Although the data collected tells one part of the story about the state of IT at the university, another part of the story is the anecdotes heard while speaking with representatives of 52 units, which the data does not necessarily represent. The data collected cannot represent the vocal emphasis during conversation, nor can it represent the value that the UO IT community's personnel represent at large. These anecdotal comments were captured to the best of our ability and are documented as a separate effort. Qualitative analysis will be an integral part of each service migration project to ensure that, minimally, service levels and satisfaction are maintained—and improved, if possible. We will likely also employ less anecdotal means of gathering satisfaction to complement the individual commentary during that process as well (surveys and so forth).

This report outlines this data and additional observations. It will be a guide for how we move forward through the rest of the Transform IT Program over the upcoming years.

The following are considered out of the CEP's scope:

- how services should be delivered
- which departments should or should not deliver services
- staffing assignments
- non-IT-related services

## Campus Engagement Report for Transform IT

### Previous Consultant Engagements

The table below provides an account of previous consultant engagements, a summary of their stated purpose, and how these engagements relate to the Transform IT's Campus Engagement Project (CEP) and the Transform IT Program. We will focus on the previous consultant engagements that have led us to the current state of Transform IT.

#### Previous Consulting Engagements

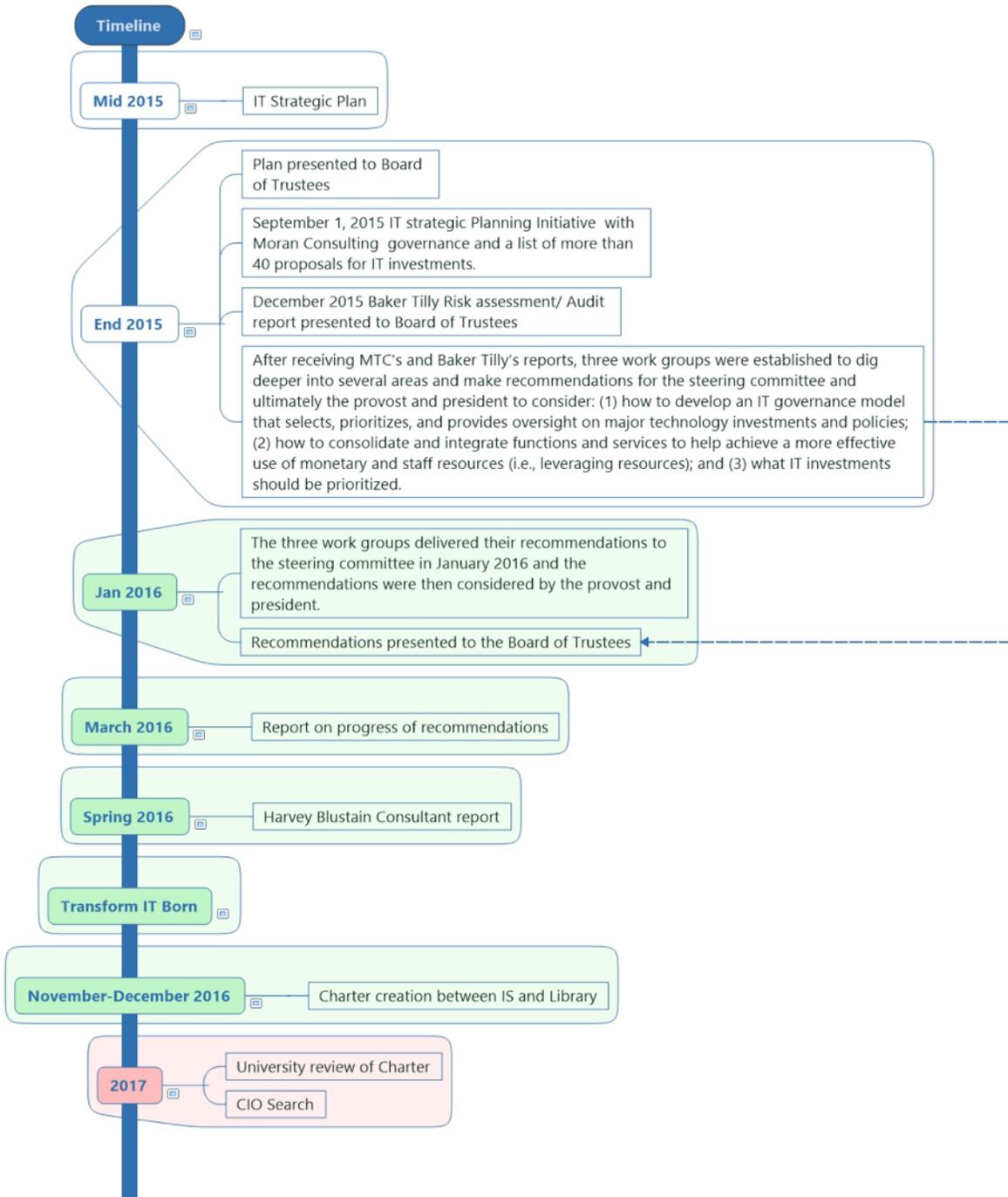
Consultant	Purpose	Date
Baker Tilly	Information risk assessment	December 2015
Moran Technology Consulting	IT strategic planning	November 2015
Harvey Blustain	Staffing and utilization	Spring 2016
Transform IT	Rationalize services	Summer 2016
CEP	Collect service information	February 2018

Transform IT was born in the spring of 2016 after the staffing and utilization report. Efforts toward staffing and utilization continued while the university started its search for a new CIO; in May 2017, the University of Oregon hired Jessie Minton. With new leadership in place, a service-based focus was implemented to rationalize IT services and their delivery to campus units to better support the university's strategic, academic, and research missions. The Transform IT Program was created, and the CEP was the first project initiated under the Transform IT Program.

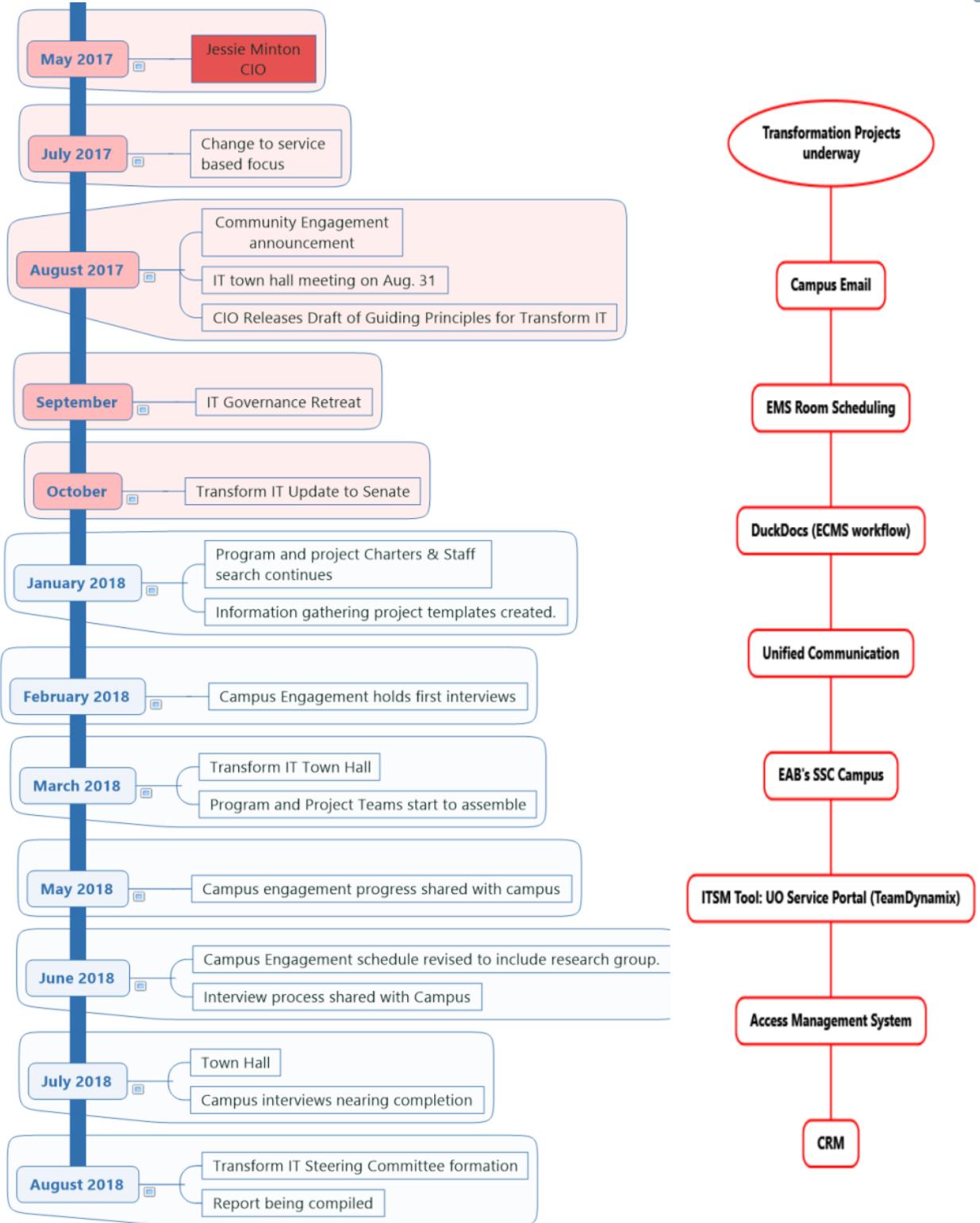
The CEP is the university's first effort conducted without the use of third-party consultants. Utilizing as much data as possible from previous consulting engagements, the project team set out to gather and catalog IT services being provided across campus. This project was expanded to include all campus units including Information Services and research units, centers, and institutes.

# Campus Engagement Report for Transform IT

## Transform IT Timeline



# Campus Engagement Report for Transform IT



## Campus Engagement Report for Transform IT

# Defined Scope

### Defined Report Scope

Deliverables in the scope of the Campus Engagement Report consist of the following:

- Identifying and documenting all UO departments that deliver IT-related services
- Identifying and documenting all IT services that are offered by all departments
- Creating a “service map” that shows the relationship of services offered by the different departments at the UO
- Describing each service offered by each department
- Identifying and documenting the audience for each IT service offered by each department (faculty and staff members, students, researchers, and others)
- Identifying the estimated work hours per week devoted to each service
- Identifying and documenting the total IT budget per unit, comprising an FTE budget—including OPE (charges for other payroll expenses)—a student employee budget, and an operating budget
- Gathering the total FTE for each IT unit

### Not within the Scope of the Report

- Identifying and documenting existing IT skills on campus by employee
- Making final determination for how services will be delivered as part of Transform IT
- Recommending what departments should or shouldn't deliver services
- Recommending staffing assignments and/or the reduction of IT staff on campus
- Collecting IT unit revenue and cost information
- Collecting financial or service hours data for research
- Non-IT-related services

# Campus Engagement Report for Transform IT

## Service Inventory and Data Collection

### Approach

To create an inventory of IT services provided throughout the university and validate existing information about those services, the CEP used a four-phase approach for gathering information and data on IT services on campus: plan, interview, analysis, and report.

#### Plan

- Consulted the Transform IT Program charter for project objectives
- Identified list of CEP report deliverables
- Identified key stakeholders from IT and research units
- Identified previous consultant reports that contained information and data on IT services offered in the individual units
- Identified a consistent framework for categorizing campus IT service categories using the UO Service Portal service model
- Created the IT service [glossary \(Appendix F\)](#) and a corresponding IT service inventory spreadsheet (based on the UO Service Portal service model) to distribute to IT units as a common reference point
- Defined “service” for the purpose of this project as “a means of delivering value to customers by facilitating the outcomes the customer wants to achieve without the ownership of specific costs and risk. In other words, when we do something for our customers that gives them something they want or value, we’re providing a service.”
- Developed interview questions and templates to capture in-scope charter deliverables and aggregate service inventory by IT unit (based on the UO Service Portal categories)
- Created a project plan and process for conducting interviews and gathering data

#### Interview

- Prior to the scheduled interview, a service inventory spreadsheet was prepopulated with data from previous consultant reports, if applicable, and sent to interviewees
- Interviews consisted of a project manager asking a set of interview questions while a business analyst recorded the data in a Confluence page. Each interview was approximately 60 to 90 minutes
- After each interview, the business analyst updated the service inventory spreadsheet with data from the interview and then sent it back to the interviewees for validation. Each unit had 10 business days to validate data present in the service inventory spreadsheet
- Validation of the service inventory spreadsheets by each IT unit was encouraged, but optional. Nonresponses were considered “final” (or validated by default) after a second courtesy email validation reminder

## Campus Engagement Report for Transform IT

### Analysis

- Finalized interview notes and service inventory spreadsheet data from the units
- Validated data for each unit compiled into one Excel spreadsheet for analysis
- Loaded spreadsheet into Tableau Desktop to create graphics of aggregated data results in each service area and requested data deliverable
- Reviewed the following data: department budgets, staff hours per service area, services offered and/or consumed by each unit, and the groups (e.g., faculty and staff members, students) served for the individual services

### Report

- Documented all IT services to gain insights to common services with the potential for consolidation at an enterprise level (and also unique services that should remain at the unit level)

## Inventory Collection and Validation Process Flow

- [CEP inventory collection and process flow diagram](#)

### Tools Used

- Outlook Exchange email communications (introduction and interview invitations)
- Visio (project process modeling)
- Excel spreadsheets (provided to IT units to self-report service inventory data)
- Confluence questionnaire (to record live feedback data during Interviews)
- Voice recordings (must be agreed to by interviewees)
- Master Excel spreadsheet (to enter, aggregate, and chart reported data)
- Microsoft Word (report)
- PDF (report sharing)
- Tableau Desktop (business intelligence data-visualization tool to load Excel data and to chart results)

## Campus Engagement Report for Transform IT

### Assumptions, Limitations, and Constraints

#### Assumptions

- **Staff hours: Data consists of reported “estimates” that varied by unit.** As the campus engagement effort was a high-level exercise to begin engaging IT units in conversation about IT services provided and where most of their support time is spent during a typical week, the data collected is based on best estimates only—and was aggregated as such. While some respondents provided information based on a 40-hour work week per employee, others provided data for a 60-hour work week or included additional hours for seasonal activities. Calculations of hours per employee from this data will not yield accurate results, nor were they intended to.
- **IT unit budget estimates.** Similarly, self-reported FY 2018 budget information for staff members (including OPE), student employees, and operational expenses were also collected to obtain a high-level view of IT unit budget allocation for exploratory purposes only (and should not be used as accurate values for more detailed calculations).
- **Where budget information was not provided,** IT unit budgets were derived by the Information Services business office using Banner and/or IDR data for FY 2017.
- **CAS IT support covers the College of Arts and Sciences dean’s office** and the 45 units within CAS.

#### Constraints and Limitations

- **Staff hours**—Of the 28 campus IT units who participated in CEP interviews, 26 were able to provide estimated staff hours spent per service (92 percent).
- **IT unit budgets were also not used to represent costs and revenues** because no charge-back fees for services were considered in the current exploratory project phase. Detailed cost and revenue calculations and charge-backs per IT unit may be further investigated in project phases.
- **Exclusion of specific IT service areas.** As the UO Service Portal service model was used as the framework for the more traditional IT services inventoried, specific and evolving IT service areas (such as project management, business analysis, and IT cross-consulting) were not addressed in this project phase, but have been noted for future investigation, as time spent by some IT units in these areas was significant (a reported 62 hours per week).
- **Exclusion of faculty members and students when collecting “IT gap or improvement” feedback.** In the Campus Engagement Project, “engagement” was defined for this phase to include directors of IT units on campus who provide IT services (and was then expanded to include directors or heads of research units on campus). Faculty members and students were not a part of the “engagement” objective for this phase but may be included in the future.

## Campus Engagement Report for Transform IT

# Administrative and Academic IT Review (28 IT Units)

(For research data see the "Research" section)

## Number of IT Units Providing Similar Services

Category	Service	ADV	AE/OP/E	ATH	BAIO	BID	FASS	CAS	CS	DSGN	COE	SAIT	ECC	ENG	EMEDLL	HEALTH	IS	JACUA	JWJ	LAW	LCB	LIB	PSYCH	SOIC	SOMD	R&I	ITC	HOU	PLC	TOTAL
Collaboration	File Sharing																												28	
	Video Conferencing																													28
	Email & Calendaring																													28
	Websites																													26
	Instant Messaging																													22
	Digital Signature																													19
	Telephone																													16
IT Service Desk	Printing																													27
	Equipment Checkout																													27
	Desktop Support (Including imaging, etc.)																													25
	Help Desk (Walk-Up)																													20
	Software & App Development																													16
IT Professional Services	Training (Device/User/Software)																													25
	Storage (Faculty & Staff)																													24
	Data Back-up																													24
	Servers (VM)																													23
	System Administration																													22
	Servers (Physical)																													19
Security	Network Management (Routers/VPN)																													7
	Duck ID Account & Access Credentialing Agent																													23
	Security Awareness Training																													22
	Data Security																													13
	Vulnerability Scanning																													12
	Logging/Monitoring																													10
Teaching & Learning	Firewall - (Non-IS)																													9
	AV Support																													25
	Classroom Support (Non-CMET)																													18
	Lab Management																													13
	Educational Technology Consulting																													11
Administrative	Teaching & Learning Systems																													10
	Business Applications																													23
Other	Contracted Services																													18
	Internal Repository																													23
Knowledge Management	External Repository																													18
	Purchasing Agent																													23

IT Service Provided  
IT Service Not provided

The table of services model (above), whose categories are used within the UO Service Portal, was used as a framework with which to structure the collection of service inventory from the 28 UO campus IT units. The table structure was used both for self-reported spreadsheet data as well as interview questions. Binary data (yes = 1, no = 0) was recorded for each service inventoried.

Although the number of IT units providing a particular service was aggregated, this total unit number used alone is meaningless, and must be used with other criteria when evaluating potential services to investigate. For example, printing support is offered by 27 of the 28 units, but would not be a logical candidate for consolidation because printing is already quite centralized with the wide utilization of the third party CTX contract.

## Staff Hours per Service

The below chart shows what the bulk of IT FTE (247 FTEs across campus) is being used for. The data and chart can be seen in three large sections. The top three FTE areas can be considered:

## Campus Engagement Report for Transform IT

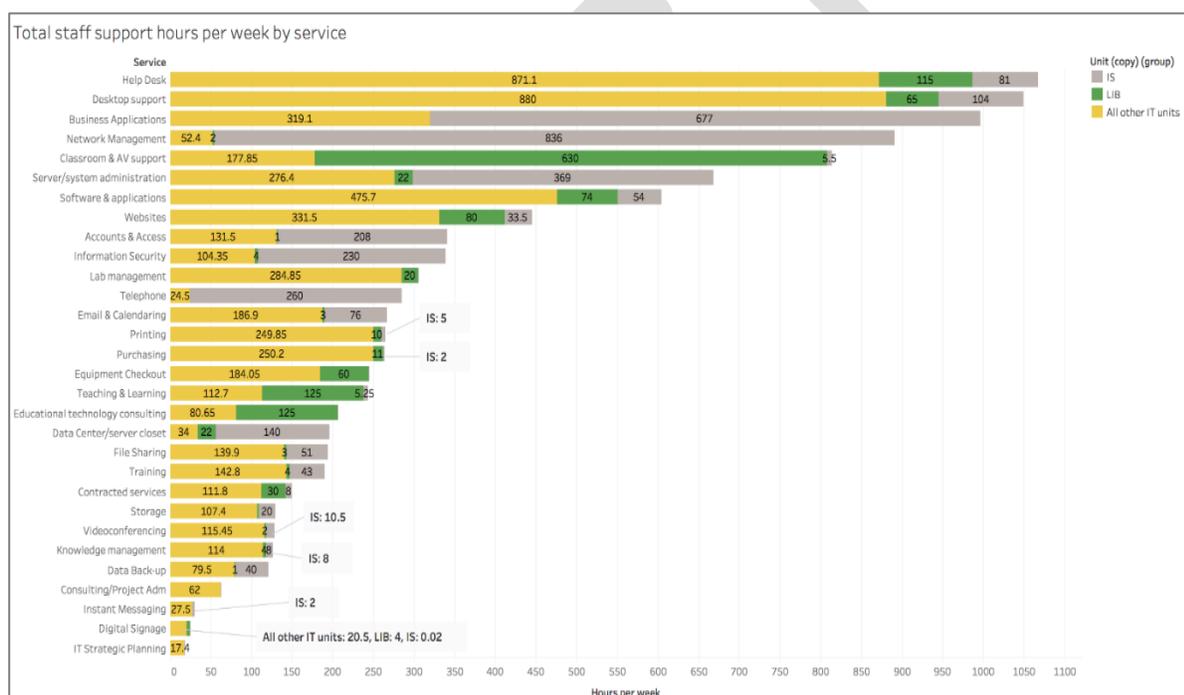
- Help Desk
- Desktop support
- Business application support

The second tier of FTE hours could be considered:

- Networking
- Classroom support
- Servers and systems administration

The third tier would be everything else represented on the chart.

A large portion of FTE hours are spent on help desk and desktop support-related services. In addition, most of this work is being done outside of Information Services.



Other observations:

- The university is spending a reported 10,654 hours per week on all IT services
- Business application support, networking, data center-related services, and telephony are mostly being performed by Information Services
- When contracted services and business applications are combined to represent on-premise and cloud business applications, however, almost 40 percent support is outside Information Services
- Systems and server administration is nearly equally being done by Information Services and those outside of Information Services, as are accounts and access and information security (security awareness, vulnerability scanning, firewalling, data encryption, and so forth).
- Most website services are being done outside of Information Services
- UO Libraries is providing 77 percent of all classroom and AV support and 60 percent of educational technologies
- Five times as many hours are spent outside Information Services on file storage support

## Campus Engagement Report for Transform IT

- The university spends 24 percent of all IT time servicing user computers
- Roughly one-third of the hours spent on data center and server closets work is being done outside of Information Services

### Dedicated IT Units and Supporting IT Units

The following table represents administrative and academic units on campus that have dedicated IT units (dark blue) and units that receive IT support from other units (light blue). In each instance, the number of total IT staff members for the providing unit has been included in the column to the far right as a basic reference point only.

Reporting Unit	Unit	Dedicated IT Unit	Supporting IT Unit(s)	# of Dedicated IT Staff (FTE)
Senior VP & Provost	Information Services	IS		99
	Business, College of	LCB		6
	Office Provost and Academic Affairs	JWJ		4
	Library	LIB		35
	Undergraduate Studies	SAIT/TLC		6
	Honors College		JWJ	4
	Music and Dance, School of	SOMD		2
	College of Design	DGN		4.5
	Law, School of	LAW		4
	International Affairs		JWJ	4
	Journalism & Communicatn, School of	SOJC		5.5
	Arts & Sciences, College of	CAS (23.25)	BIO, ENG, CIS, PSYCH, YLC (9.25)	23.25
	Education, College of	COE (3)	EC Cares (5.5)	3
	Graduate School		JWJ	4
	UO Portland	PDX*		* Included in other totals
	Senior VP & Provost	JWJ		4
	Institutional Research		JWJ	4
Academic Affairs		JWJ	4	
VP Student Life	VP Student Life Administration	SAIT		5
	Dean of Students & AVP Stdnt Life	SAIT		5
	VPSL Holden Center	SAIT		5
	Student Union, EMU	SAIT		5
	Career Center	SAIT		5
	Physical Education and Recreation	SAIT		5
VP Finance & Administration	Human Resources		JWJ	4
	Police Department	UOPD (1)	FASS (6)	1
	Printing & Mailing Services		CAS	3
	Business Affairs Office	BAO		7
	VP Fin & Admin Operations		JWJ	4
	Budget and Resource Planning		BAO	7
	Campus Planning and Facilities Mgmt		FASS	6
	Safety and Risk Services		JWJ	4
	Parking and Transportation		FASS	6

## Campus Engagement Report for Transform IT

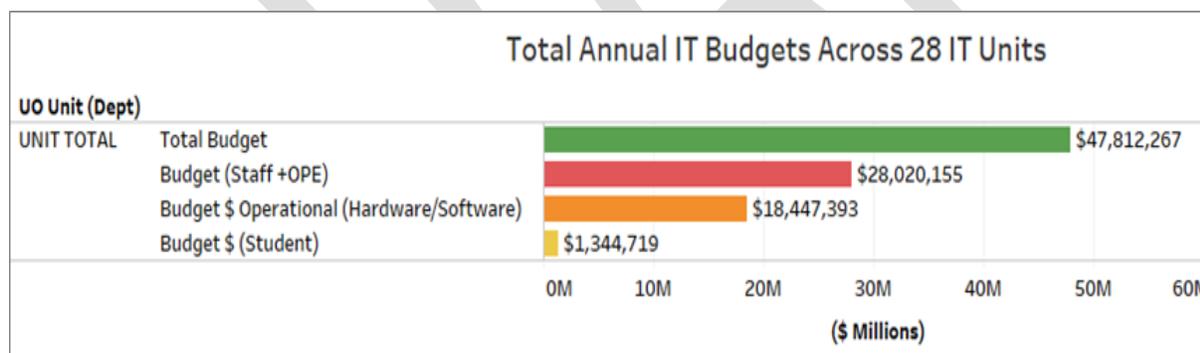
Student Services & Enrollment	University Housing	HOU (4)	SAIT (5)	4
	Academic Extension	AE/CPE		2
	University Health Center	HEALTH (4)	SAIT (5)	4
	University Counseling Center	HEALTH (4)	SAIT (5)	4
	Enrollment Management	ENROLL		4
VP University Advancement	VP University Advancement	ADV		4
	University Advancement	ADV		4
VP for Equity & Inclusion	VP for Equity & Inclusion		JWJ	4
President of the University	President Administrative Operations		JWJ	4
	Knight Campus		JWJ	4
	Athletics	ATH		3
	Office of Internal Audit		JWJ	4
VP University Communication	University Communications		ADV	4
VP Rsch, Innovation & Graduate	Research	R&I		4
Jaqua Learning Center	Jaqua Learning Center	JAQ		1.5
University Secretary	Office of the University Secretary		ADV	4
General Counsel Operations	Purchasing & Contracting Services		JWJ	5
	General Counsel		JWJ	5

## Annual IT Budget

As part of our data collection for the Campus Engagement Project, 28 IT units were asked to provide estimates of their annual IT budgets which included the following:

- Staff (including OPE) budget
- Student employee budget
- Operational budget (hardware and software)

The chart below represents the total IT budget across 28 IT units (\$47,812,267) as well as the annual budget aggregates for each of the individual areas.



The objective of collecting information across the various campus IT units was to attempt to calculate a rough estimate for how much the IT units across campus are spending as a whole to support individual IT Services.

Information supplied:

- Total IT budget across 28 units—\$47,812,287
- Subtracted budget totals for two IT units that had not provided hours per service—\$47,214,733)
- 26 IT unit hours per week providing IT services = 10,636 hours

## Campus Engagement Report for Transform IT

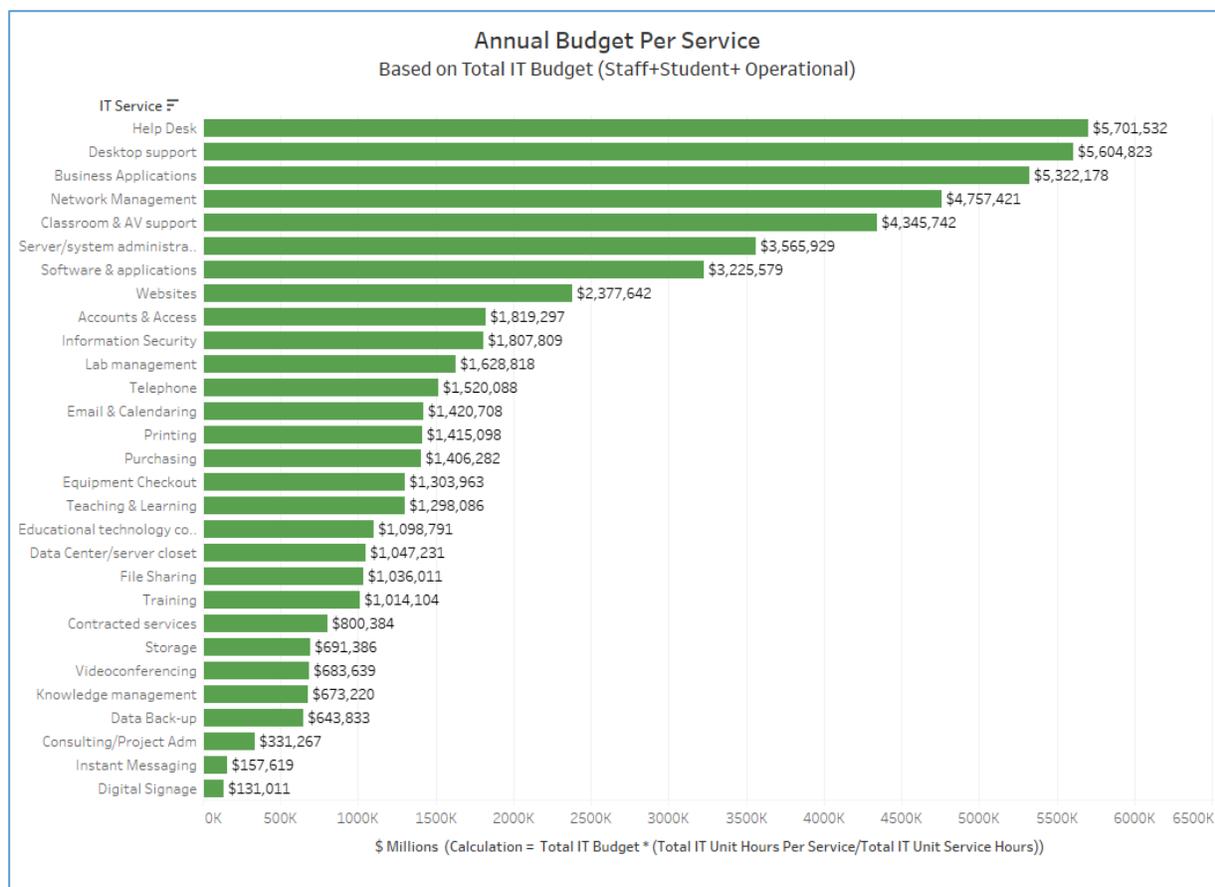
IT Service	26 IT Unit Total Hours Per Service (Per Week)	% Service Hours Per Service (Per Week)	Estimated Annual IT Budget Per Service
Help Desk	1067	10.03%	\$4,736,912
Desktop support	1049	9.86%	\$4,656,565
Business Applications (CRM)	996	9.37%	\$4,421,740
Network Management	890	8.37%	\$3,952,532
Classroom & AV support	813	7.65%	\$3,610,503
Server/system administration	667	6.27%	\$2,962,623
Software & applications	604	5.68%	\$2,679,856
Websites	445	4.18%	\$1,975,378
Accounts & Access	341	3.20%	\$1,511,497
Information Security	338	3.18%	\$1,501,953
Lab management	305	2.87%	\$1,353,245
Telephone	285	2.67%	\$1,262,910
Email & Calendaring	266	2.50%	\$1,180,344
Printing	265	2.49%	\$1,175,683
Purchasing	263	2.47%	\$1,168,358
Equipment Checkout	244	2.29%	\$1,083,351
Teaching & Learning	243	2.28%	\$1,078,468
Ed Tech Consulting	206	1.93%	\$912,891
Data Center/server closet	196	1.84%	\$870,054
File Sharing	194	1.82%	\$860,732
Training	190	1.78%	\$842,532
Contracted services	150	1.41%	\$664,970
Storage	129	1.22%	\$574,413
Videoconferencing	128	1.20%	\$567,977
Knowledge management	126	1.18%	\$559,321
Data Back-up	121	1.13%	\$534,906
Consulting/Project Adm	62	0.58%	\$275,221
Instant Messaging	30	0.28%	\$130,952
Digital Signage	25	0.23%	\$108,846
<b>Grand Totals</b>	<b>10,636.22</b>	<b>100.00%</b>	<b>\$47,214,733</b>

For each IT service we calculated the percent equivalent of each from the total IT support hours per week and then multiplied each percent by the total estimated IT unit budget of the 26 units that provided information on IT support hour per week.

### Annualized Budget per Service Calculation

The aggregate IT unit support hours per IT service per week divided by total IT service hours per week multiplied by total IT budget equals the annualized budget per IT service.

## Campus Engagement Report for Transform IT



What the total budget calculation includes:

- Total annual IT budget (across 26 units)
- FY 2018 or FY 2017 information
- (Staff budget + OPE) + (Student budget) + (Operations: hardware and software)

What it does not account for:

- Administrative costs
- Differing staff and student hourly rates
- Disparity in costs to provide specific IT services (e.g., networking vs. help desk vs. IT project management consulting)

Caveat

- With self-supplied budget data (and no additional information detailed such as costs or charge-back revenues for particular services in specific IT units), the above “budget per service” calculation is intended to provide only a high-level starting point when considering possible financial resources used for IT services across campus, and *should not* be viewed as a truly representative measure. It is assumed that more precise and representative financial data will be collected in the Transform IT projects to follow.

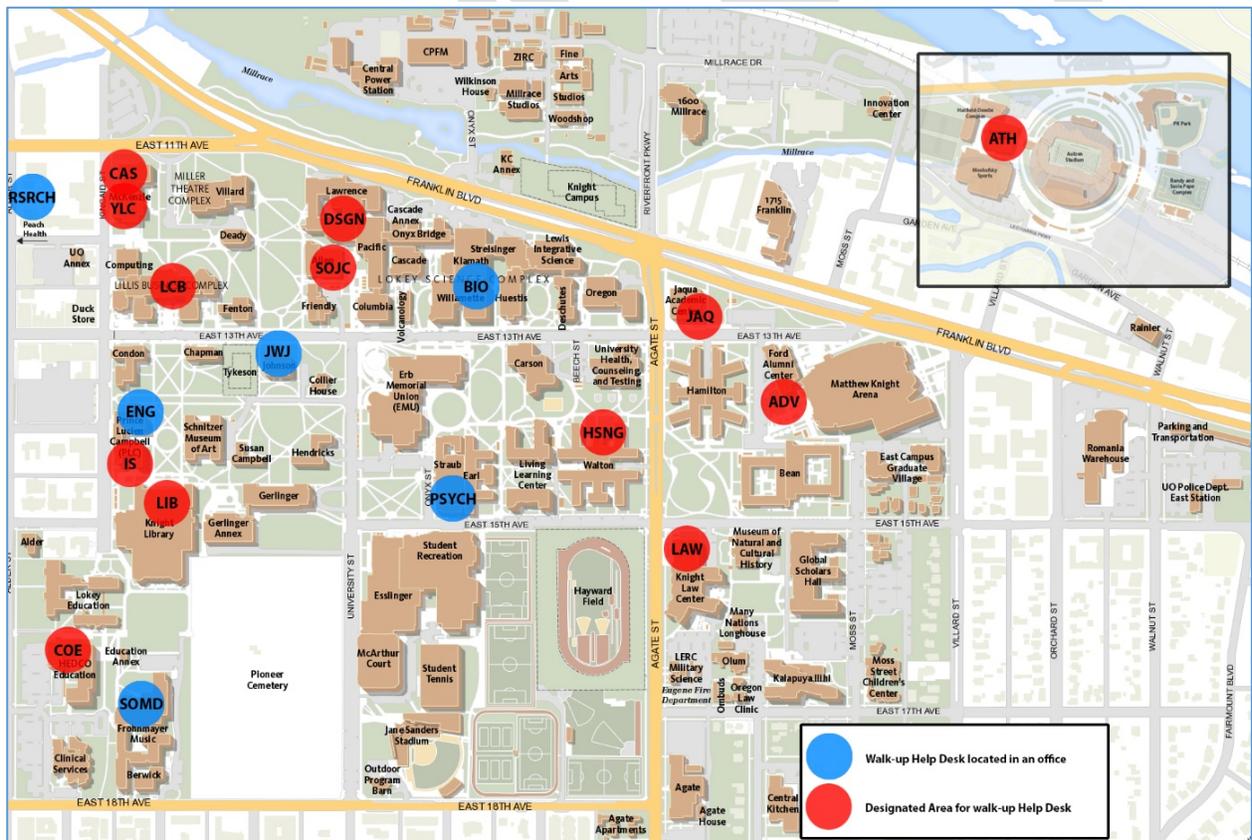
## Campus Engagement Report for Transform IT

# Administrative and Academic IT Services Reviewed

## Help Desk

The help desk is a unit comprising dedicated staff members who act as a single point of contact for clients and are responsible for technology support, including but not limited to desktop and device support, tier-one troubleshooting, escalating and triaging tickets to appropriate resources, and handling break-fix issues. Support may include visits (in-person or virtual) to an office-workspace or the end-user coming to a dedicated space.

- Number of units:
  - Walk-up help desk: 20 units
  - Help desk with student employees: 20 units
  - Help desk providing support for student devices and/or applications: 15 units
- Total staff hours: 1,067 hours per week
- Locations: The blue dots on the map below represent help desks and related services that are delivered from the office of an IT staff member. The red dots represent dedicated help desk areas that are typically staffed by IT personnel waiting for users to approach the desk for support, and researching issues to resolve open tickets.



## Observations—Help Desk

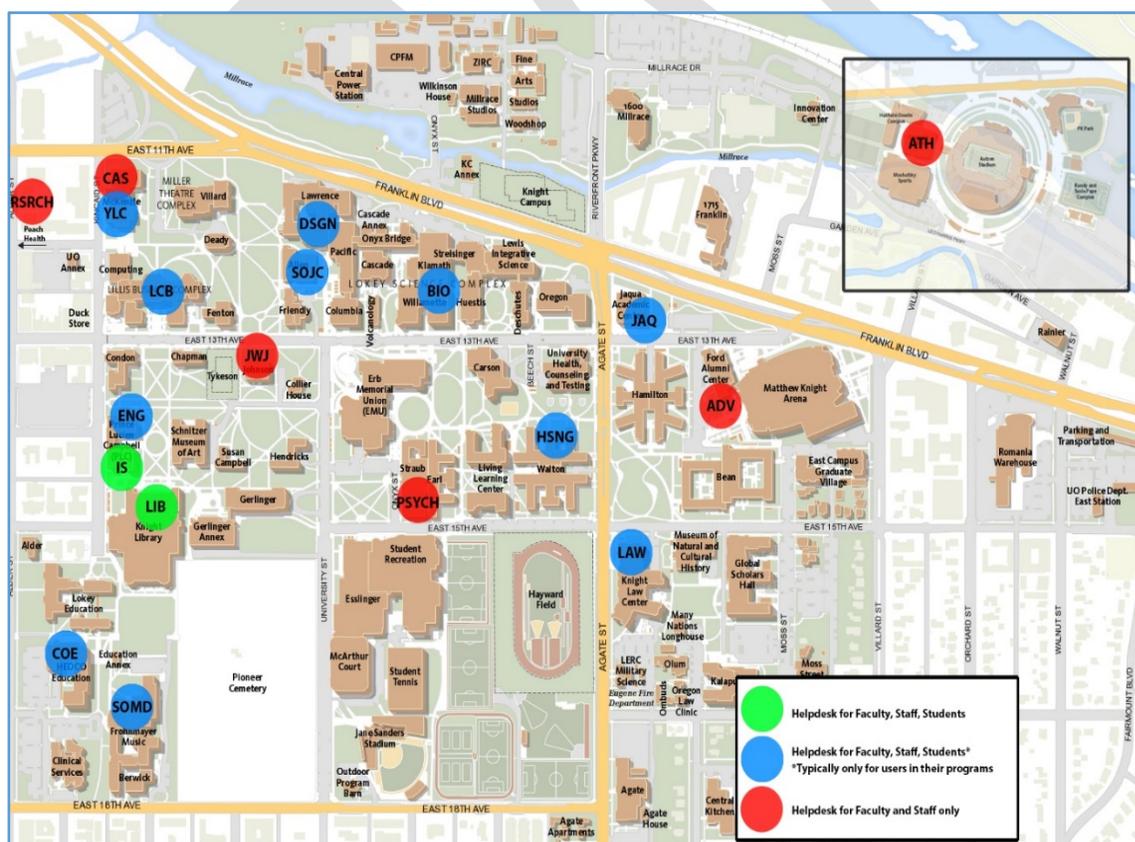
## Campus Engagement Report for Transform IT

Help desk has been identified as the largest consumer of FTE hours in IT on campus. As reported by IT units, the UO spends 1,067 hours a week on help desk services, with 986 of those hours coming from units outside of Information Services and 81 hours from within Information Services.

### Desktop Support Services

These services are related to providing support for desktop computers, laptops, and devices, including associated operating system and application software.

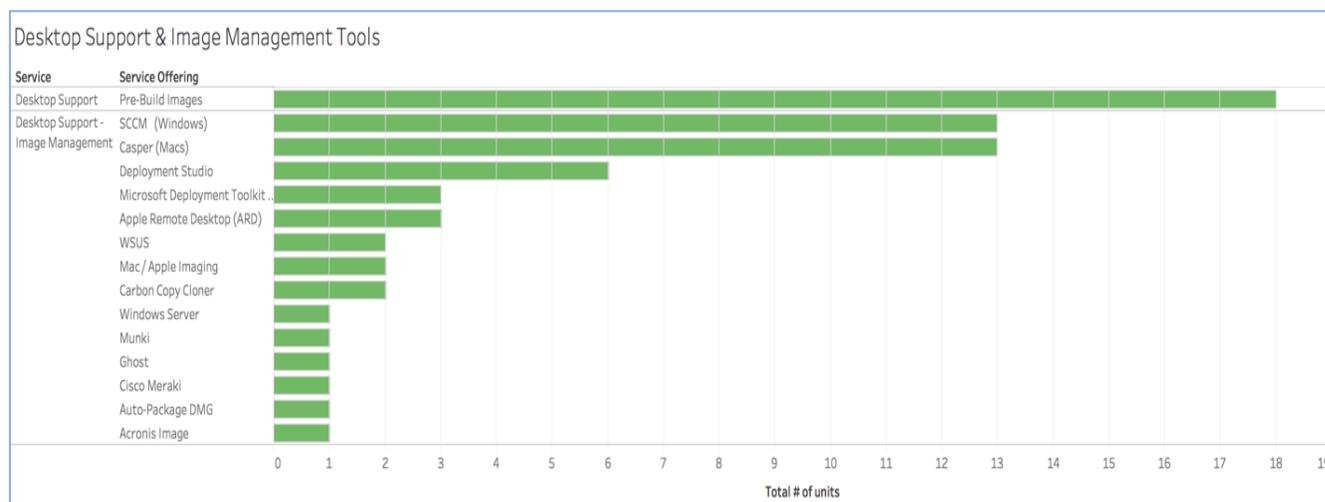
- Number of units:
  - On campus, in-office desktop support—26 units
  - Remote desktop support—21 total units
    - Units using Bomgar application for remote desktop support—17 units
    - Other remote desktop support—4 units
  - Off-campus desktop support—17 units
- Total staff hours: 1,049 hours per week
- Locations: The map below demonstrates variation in those supported and the IT help locations across campus. The red dots are locations typically only supporting faculty and staff members, while the blue dots also offer IT support services to students. Typically, the units offering services to students only offer those services to students in their programs. The exception to this are the Information Services and library help desks who offer IT services and support to all users, represented by green dots.



### Observations—Desktop Support

## Campus Engagement Report for Transform IT

Part of desktop support includes the tools used to support campus desktop computers. When IT units purchase new computers, often they will copy a prebuilt image onto the computer, thereby standardizing and preconfiguring the software available to their users. Imaging computers reduces errors, increases software customization, and expedites computer deployment; in the long run, this saves the university money. Below is a chart illustrating the number of units utilizing imaging computers and the number of tools used to build and deploy computer images.



Desktop services is the second-largest source of FTE hours behind help desk services. Across campus, IT units have reported to be spending 1,049 hours per week on desktop support services, with 945 of those hours coming from outside of Information Services, and 54 from within Information Services.

Combining help desk services and desktop support (both services are supporting user computers), FTE hours amount to 2,116 hours per week at the UO. The next largest source of FTE for comparison is business application support with 995 hours per week. It is worth pointing out that help desk services and desktop support are lower-cost services relative to other IT services at the university.

## Business Applications—On-Premise and Contracted

These are enterprise services that support the administrative and business functions of the UO. They include document management, business intelligence, reporting, finance, human resources, student information systems, advancement, and research administration. These applications are deployed and delivered on-premise or as a contracted cloud-based service.

### On-Premise

- Number of units: 23 units
- Total staff hours: 996 hours per week
- Unique service offerings: IT units self-reported a total of 61 different business applications being supported (listed below)

*Note: The list below is not an all-inclusive nor entirely accurate list of business applications on campus.*

## Campus Engagement Report for Transform IT

ERP—Banner	Campus Cash	Localist
Document Imaging	Canto Cumulus	Lutron (lighting control)
IDR Cognos	Content Delivery Network	Manitou (alarm monitoring)
AppWorx—job scheduling	Coriomaster (video wall)	Maxient
CRM	CS Gold	Mobius app for art museum
Duck Docs	Dell Open Manage	MSSQL server
File Maker Pro	Directory Services	Oracle collection database
Milestone	Dispatch System	People Counters/Trafsys
QuickBooks	Duck Web	ResourceSpace (DAM)
Time Clocks—Kronos	E-Commerce application	RezStar
UO Spaces	EHS Assistant for Safety	Schnider (electric meter)
Third Millennium	FIG Database	Siemens building control
Aces2—Admissions (law)	FOIAXpress app	Simplicity Career Services
Advisor Trac	Forms.uoregon.edu	Sunapsis
Advocate (conduct system)	Fusion	TicketMaster
AIM	FYP Student Portal	Ticket Trac
AlcoholEdu/Haven	Genbook	Titanium
BecSys (PEREC pool)	GIS Application	Web service/API Gateway
CAAMS App (affirmative action)	lcsp.uoregon.edu	Wonderware
Campus Call (Telefund)	ID Works	Work management tool

### Contracted

Other services not listed above that are contracted with a vendor to provide services to your unit:

- Number of units: 17 units
- Total staff hours: 150 hours per week
- Unique service offerings: 43

IT Unit	Contracted Services					
ATH	Ticketmaster					
AE/CPE	Audio Visual Bend					
BAO	Campus Guard (QSA Form)	QuickPay (With NelNet)	Concur	ESI	Flywire	US Bank Singlepoint
BAO (cont.)	Elavon Converge	1099 Pro	PayPrint	Otter		
BIO	Equipment Services and Repair					
CAS	PCS Web Services Contracting Pool					
CIS	Apple	Eaton				
ENROLL	Campus Management Corporation	Apple				
FASS	AssetWorks					
HEALTH	Eaglesoft (dental clinic)	Legacy EHR Practice Partner	Medicat HER (RDP)	Onsite Lab-Harvest (lab Interface)	ProPharm (pharmacy)	HI (physical therapy)
HOU	Kronos					

## Campus Engagement Report for Transform IT

LIB	Alma and Primo (ExLibris vendor)	Diversified	Orbis Cascade Alliance			
LCB	Digital Measures	Salesforce				
SAIT	Maxient					
JAQUA	Delta AV	Pacific Office Automation				
SOJC	Canon	Smartsheet	Ustream	Vimeo		
SOMD	Piano People					
TLC	Ideal Logic					

*Note: As part of the Enterprise Software Committee's campus software audit in 2016–17, additional business applications may be found in Appendix K.*

### Observations—Business Applications

As the needs of campus have grown, so have the number of applications to support those needs. From the data gathered, there appears to be multiple business applications being used on campus that support very similar services. There are also many applications that support unique needs identified by multiple groups on campus.

There are applications that are purchased by departments without consulting members of either their own IT department staff or central IT staff. For example, five separate customer relationship management (CRM) applications reported were reported to be supported by IT departments on campus; however, in the FY 2016 audit, the Enterprise Software Committee found that there are actually 17 CRM applications being used on campus.

The Enterprise Software Committee (ESC) used the following standard definition for business applications: “Business software or a business application is any software or set of computer programs used by business users to perform various business functions. These business applications are used to increase productivity, to measure productivity and to perform other business functions accurately.” The software listed in Appendix K represents software the committee considered business applications. In FY 2015–16, 415 financial transactions totaling \$4,815,006.55 were found during the software audit. The software data was sourced from Banner, Purchasing and Contracting Service’s purchase order records, index transactions, academic support account transactions, and UO procurement card processing data. The audit led to some recategorization and changes to software-related record-keeping within Banner. New Banner codes were established, and new definitions were created to assist users entering software procurement data in a more efficient manner.

## Network Management

This includes maintenance of items required to offer to provide network connectivity (such as routers, switches, firewalls, and virtual private network devices) or jack activation and support.

- Number of units
  - Provide routers, switches, firewalls, VPN devices—7 units
  - Manage jack activation and support—18 units
- Total staff hours: 890 hours per week (94 percent of networking hours provided by Information Services)
- Unique service offerings: not applicable

## Campus Engagement Report for Transform IT

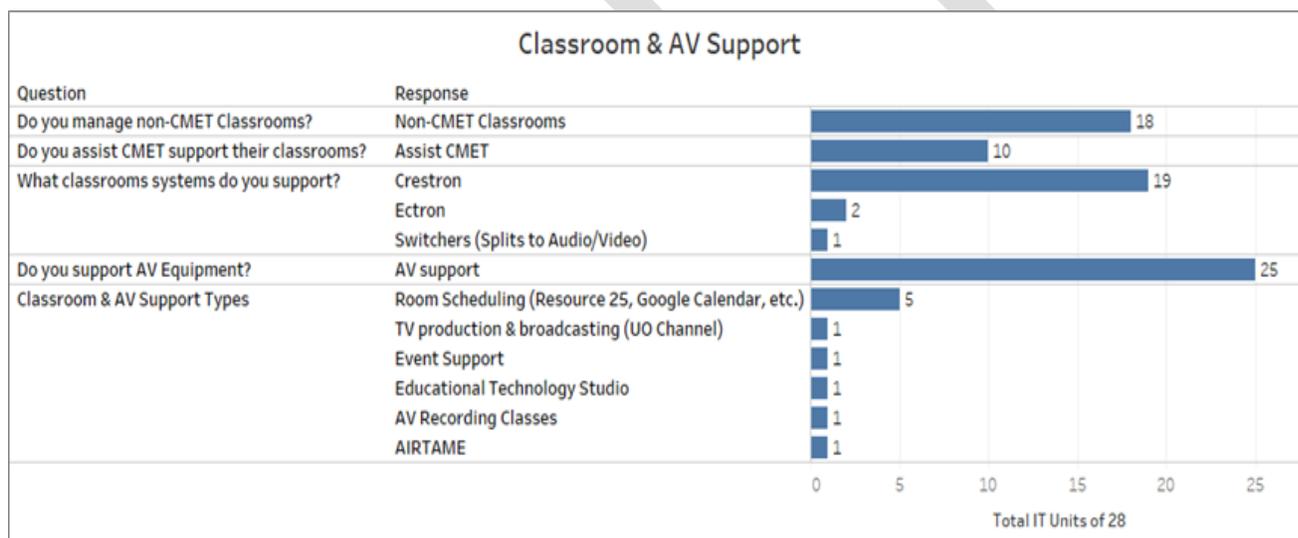
### Observations—Network Management

Although a total of 18 IT units reported that they provided jack activation support and seven units reported that they supported routers, switches, firewalls, among others, the total support hours per week for networking as a service was provided by central IS at 836 out of 890 hours (or 94 percent).

### Classroom and AV Support

These services ensure classrooms are suitably equipped and functional to meet the needs of the education experience.

- Number of units: 25 units
- Total staff hours: 813 hours per week
- Unique service offerings: 3–6



### Observations—Classroom and AV

A reported 77 percent of campus classroom and AV technology support is provided by the Library (CMET). The remaining 23 percent support for non-CMET supported classroom and AV technology is provided by the distributed IT units or third parties.

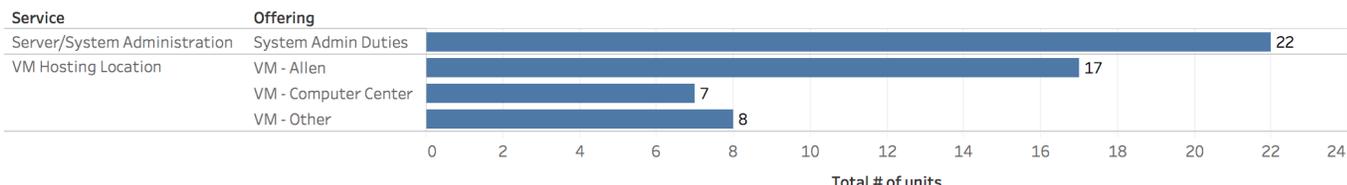
# Campus Engagement Report for Transform IT

## Server-Systems Administration

Ensuring the provisioning, hosting, and administration of servers—physical and virtual.

- Number of units: 22 units
- Total staff hours: 667 hours per week
- Unique service offerings: not applicable

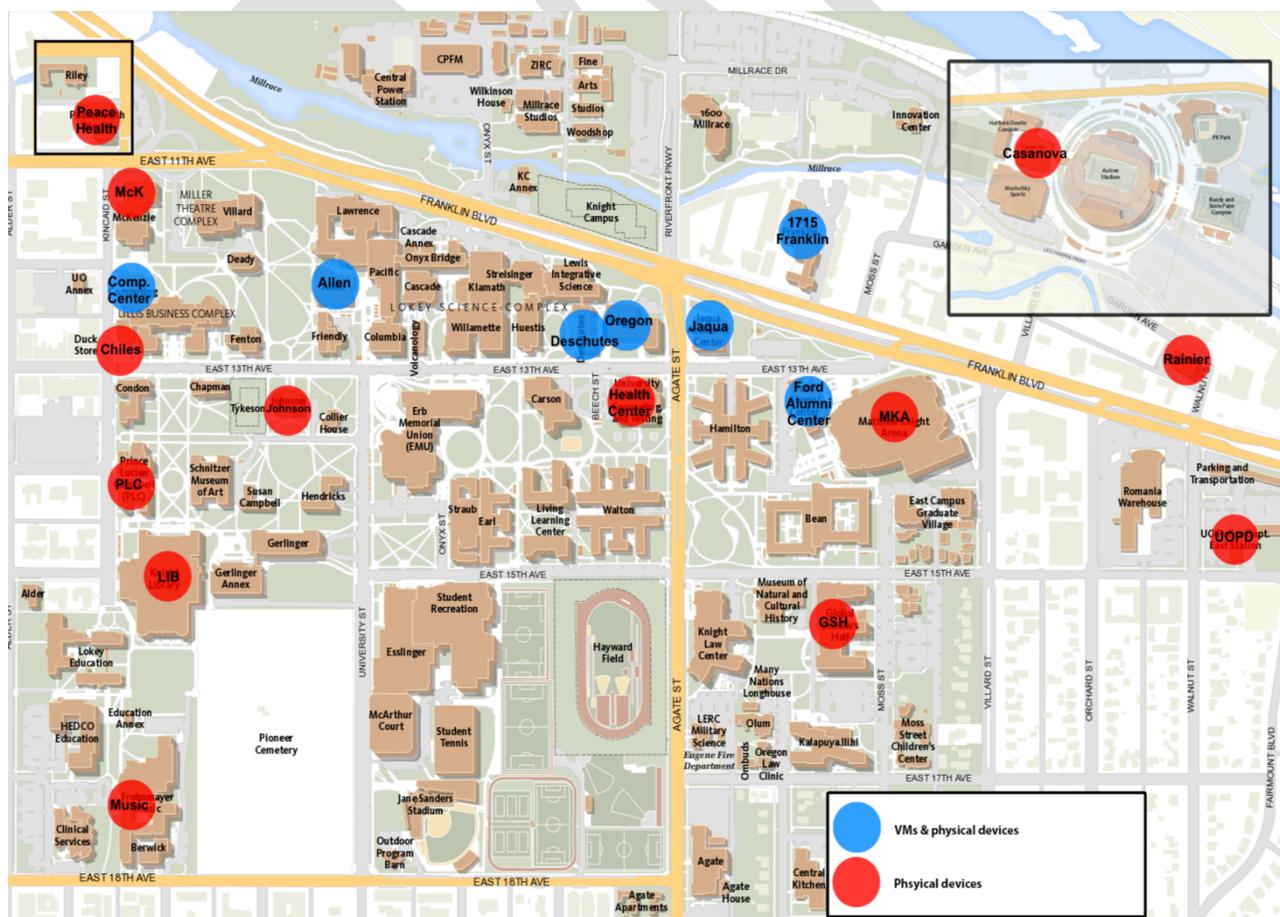
### Server/Systems Administration



### Observations—Server-Systems Administration

Almost half (298 hours or 45 percent) of the server-systems administration taking place on campus is performed by distributed IT units, while Information Services is providing 369 out of the 667 hours (or 55 percent) of server-systems administration.

Most virtual machines (VMs) are hosted in the Allen Hall Data Center, while other VMs are hosted in the Computing Center and other places around campus. Refer to the map below for a visual of where VMs and physical devices are hosted on campus.



## Campus Engagement Report for Transform IT

Other VM observations:

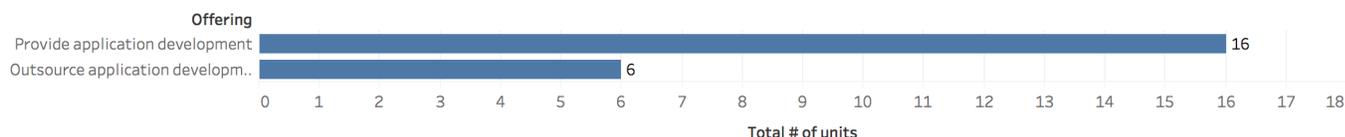
- 9 units reported purchasing their own VM license
- Over the past two years, VMs have grown by almost 58 percent. In 2016, there was a total of 818 VMs on campus, and as of this year there is a total of 1,292 VMs. In other words, IT staff members have made a concentrated effort to virtualize physical devices over the past two years.
- Even though there is a total of 1,292 VMs, staff members reported a total of 852 physical devices on campus. Information Services accounts for the majority of physical devices on campus—717 devices (or 84 percent). The rest of the physical devices (135 or 16 percent) were reported by distributed IT staff members.

## Software and Application Development

Development of services and applications that are related to software licensing and distribution and software-as-a-service applications.

- Number of units: 16 units
- Total staff hours: 604 hours per week
- Unique service offerings: not applicable

Software/Application Development



### Observations—Software and Application Development

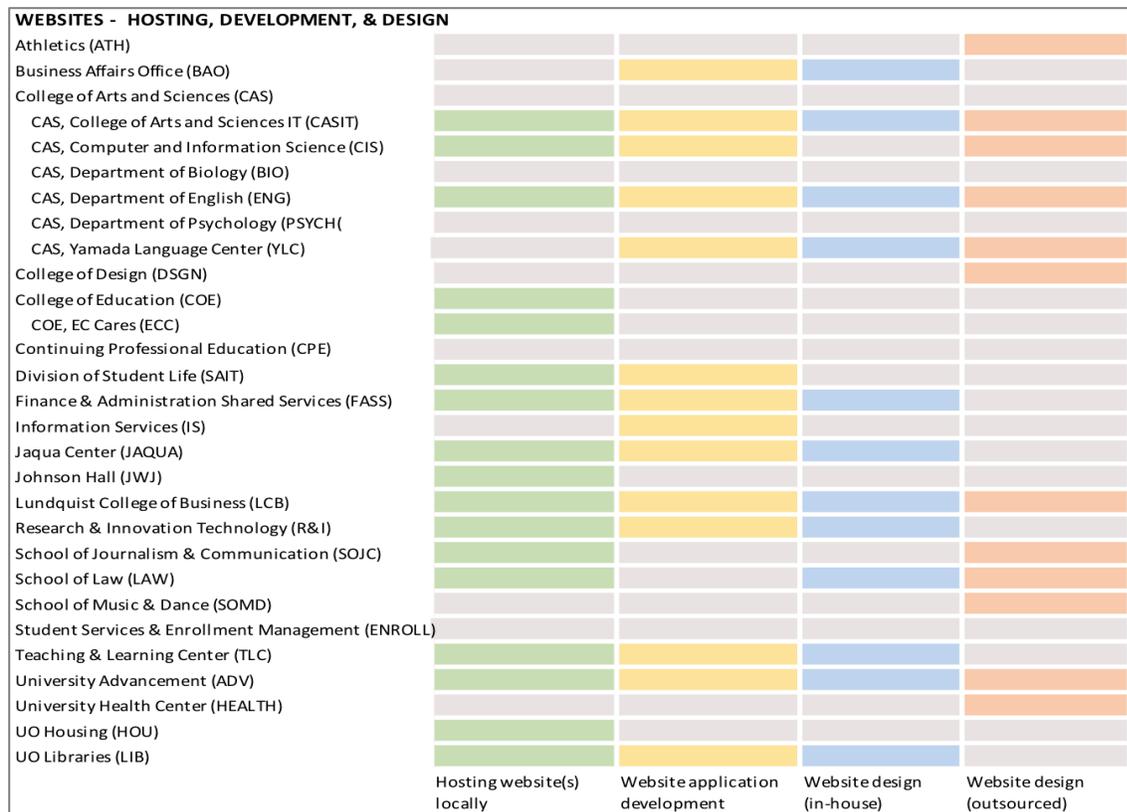
A majority of IT units (16 or 57 percent) are doing some kind of application or software development. Units are either developing new applications or software or developing existing applications or software to better meet their needs (e.g., writing queries, API development, integrations with other applications, and so forth).

## Websites: Hosting, Development, and Design

These are tools, services, and products that support website and mobile application development, hosting, and media development.

- Number of units:
  - Hosting websites—17 units
  - Doing website application development—15 units
  - Doing website design in house—21 units
  - Outsourcing website design—12 units
- Total staff hours: 445 hours per week
- Unique service offerings: 7

## Campus Engagement Report for Transform IT



The chart above shows what units are involved with different aspects of web hosting, web development, and web design.

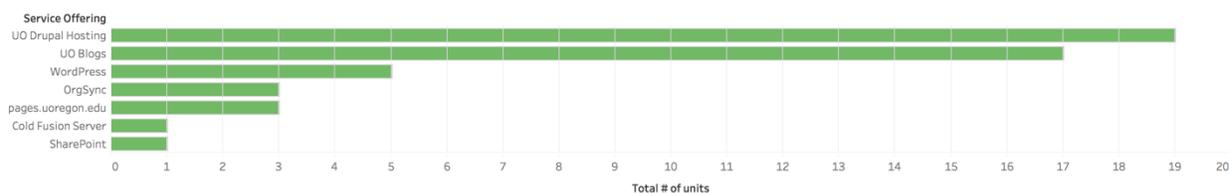
- Web hosting—providing storage space and access for websites
- Web development—building, creating, and maintaining a website, computer program, or a set of programs to perform tasks that a unit requires for business operations
- Web design—creating websites (including web page layout, content production, and graphic design)

A colored square within a row represents work being done by a unit, related to the service described in the columns.

### Observations—Websites

During the interviews, it was noted that there is a great need for web development work, which at times necessitates faculty members, researchers, and other staff members to try to assume the role of a developer, even though they believe they should be focusing on their primary work. Units are generally aware of the differences between WordPress and Drupal (refer to chart below for other website platforms used on campus).

Website Platforms



## Campus Engagement Report for Transform IT

In addition, application development is recognized differently than course design by units, and a department's needs are different from the faculty's needs as far as development and design is concerned. Because of this difference, it was suggested that a future development talent pool for administrative needs be separate from the talent pool available to the faculty's needs.

The United States has laws about accessibility standards and guidelines for websites. The main goal of accessibility standards and guidelines is to design websites everyone can use. When creating web materials, paying close attention to formats makes it easier to incorporate accessibility features. The UO currently seems to have an FTE shortage to not only keep up with these standards but to go back and retro-design existing pages that do not meet the standards. The current model and distribution of the FTE could be examined in more detail.

Units reported the following:

- Faculty would rather work one-on-one with a single developer for the life a project and that the developer have the skills specific to academics
- Business offices or units can work with many developers to complete the needs of the department, the department's web presence, or business processes

## Duck ID Accounts and Access: Credentialing Agents

- Number of units: 22 units
- Total staff hours: 341 hours per week
- Unique service offerings: not applicable

### Observations—Duck ID Accounts and Access

A majority of IT units have one to two credentialing agents on staff in their department. This allows the IT staff to troubleshoot account-related issues and reset their user's Duck ID password if needed. Although a total of 341 hours per week are spent on Duck ID accounts and access, a majority (208 or 61 percent) of the hours per week are provided by Information Services.

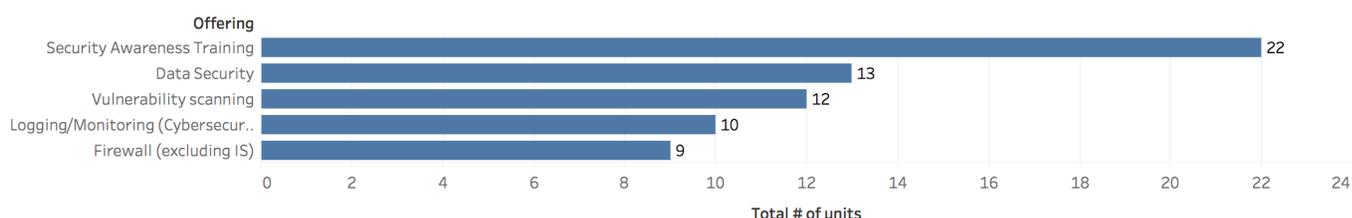
## Information Security

These are services that support security, data integrity, and compliance for institutional activities, including services that provide a secure computing environment for end-users.

- Number of units:
  - Security awareness training—22 units
  - Data security services—13 units
  - Vulnerability scanning—12 units
  - Logging and monitoring—10 units
  - Firewall (not provided by Information Services)—9 units
- Total staff hours: 338 hours per week
- Unique service offerings: not applicable

## Campus Engagement Report for Transform IT

### Information Security



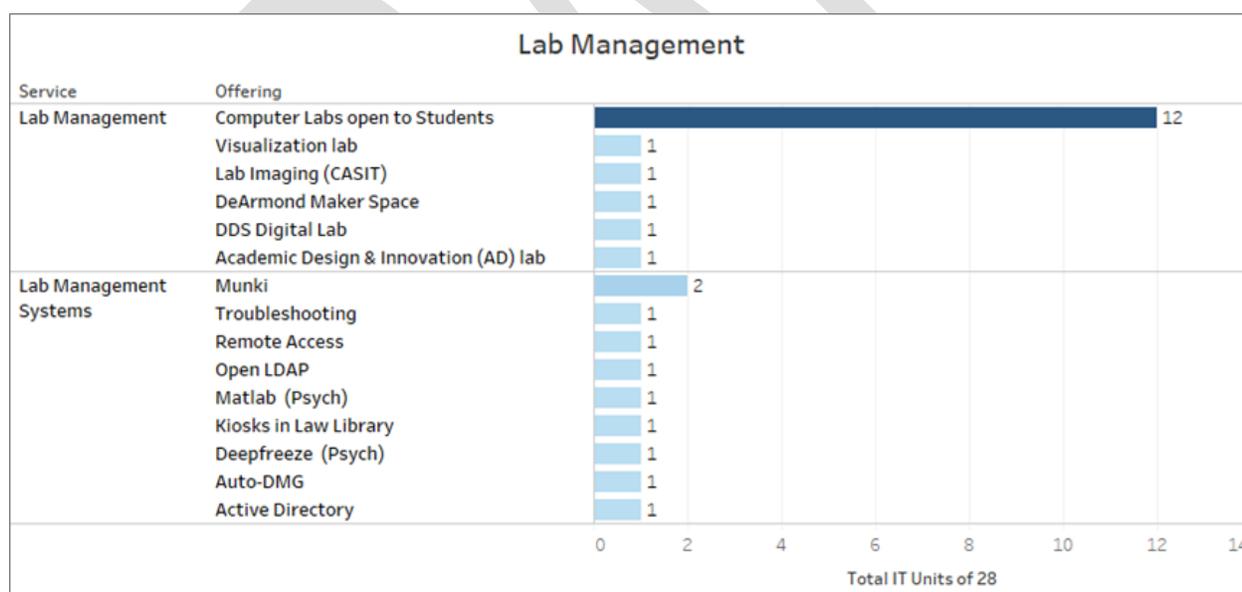
### Observations—Information Security

Most IT units are providing security awareness training for their users through emails to the faculty and staff, in-person training, and one-on-one conversations. A few units are working with the Information Security office to roll out the Securing the Human program.

### Lab Management

These are services and tools related to supporting and managing instructional labs.

- Number of units: 12 units (offer labs to students)
- Total staff hours: 305 hours per week
- Unique service offerings: 9 (lab management systems)



### Observations—Lab Management

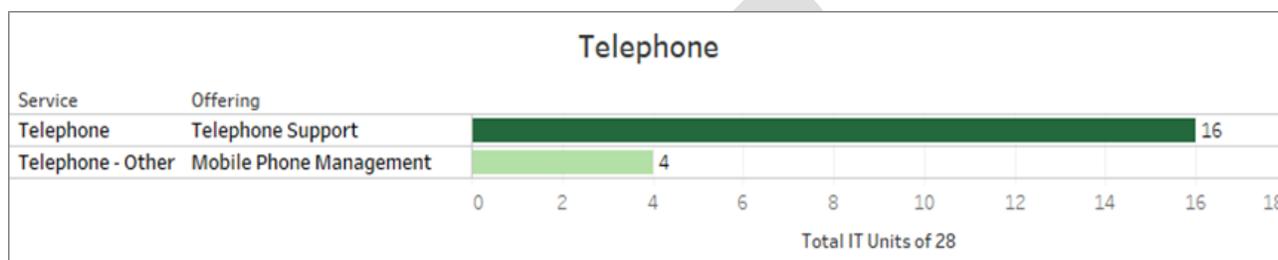
Twelve units reported that they are managing labs—Department of Computer and Information Science, College of Design, College of Education, Department of English, John E. Jaqua Academic Center for Student Athletes, Johnson Hall (for the Clark Honors College), Lundquist College of Business, UO Libraries, Department of Psychology, School of Journalism and Communication, School of Music and Dance, and the Teaching and Learning Center. Many use imaging as an efficient way to provide consistent and secure user experience in the labs.

## Campus Engagement Report for Transform IT

### Telephone

These are services related to telephony, including voice services, teleconferencing, voicemail, and so forth.

- Number of units: 16 units
- Total staff hours: 285 hours per week
- Unique service offerings: not applicable



#### Observations—Telephone

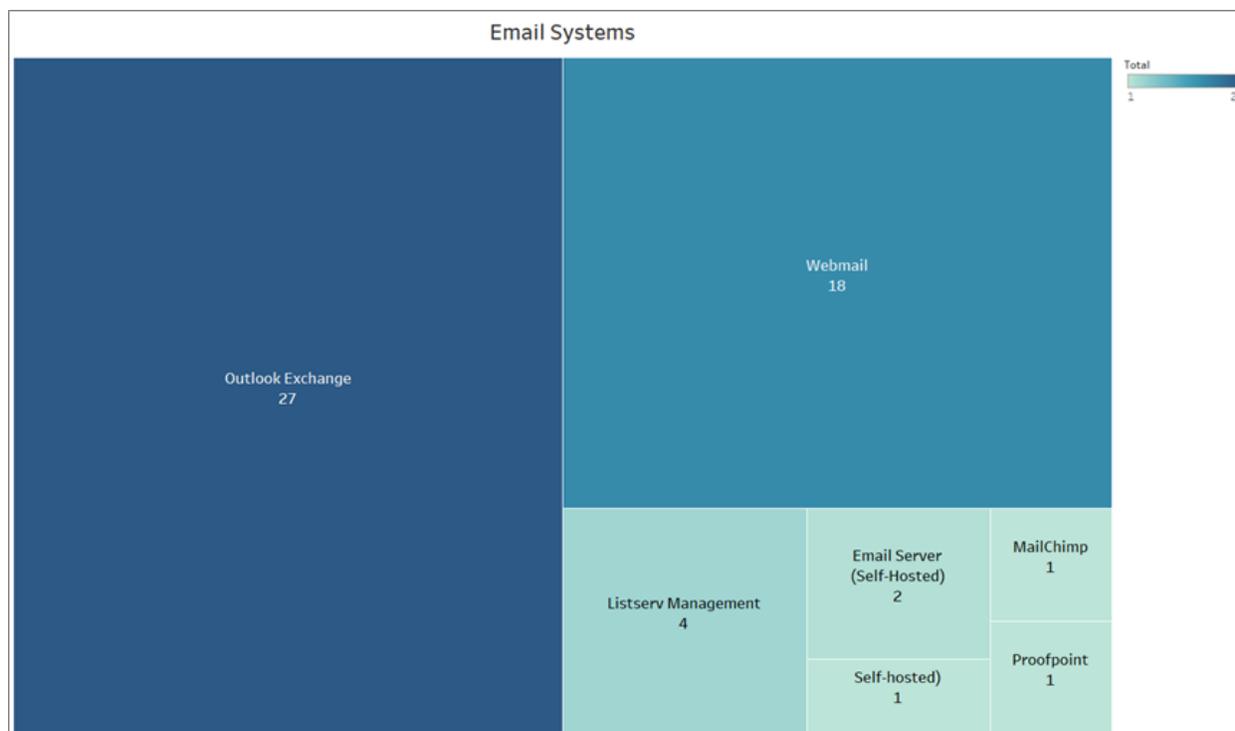
The 16 units that reported providing telephone support provide very basic troubleshooting for desk phones and also fill the role as phone coordinator for their department. In addition, four of the 16 units (Information Services plus three other units) reported that they also provide telephone support for users who have a mobile phone purchased by the university. While a total of 285 hours per week were reported for telephone support, Information Services provides most (260 or 91 percent) of the telephone support hours reported.

### Email and Calendaring

These are services associated with email, calendaring, contacts, broadcast mail, enterprise-wide mailing list management, and spam.

- Number of units: 28 units
  - Exchange: 27
  - Webmail: 18
  - Other mail services—9
- Total staff hours: 266 hours per week
- Unique service offerings: 7

## Campus Engagement Report for Transform IT



### Observations—Email

The two predominant email systems in use on campus:

- Exchange—offered to all faculty and staff members
- Webmail—offered to all students

In addition, the UO Police Department hosts a separate Exchange server for security purposes, and a few departments have chosen to host separate email systems.

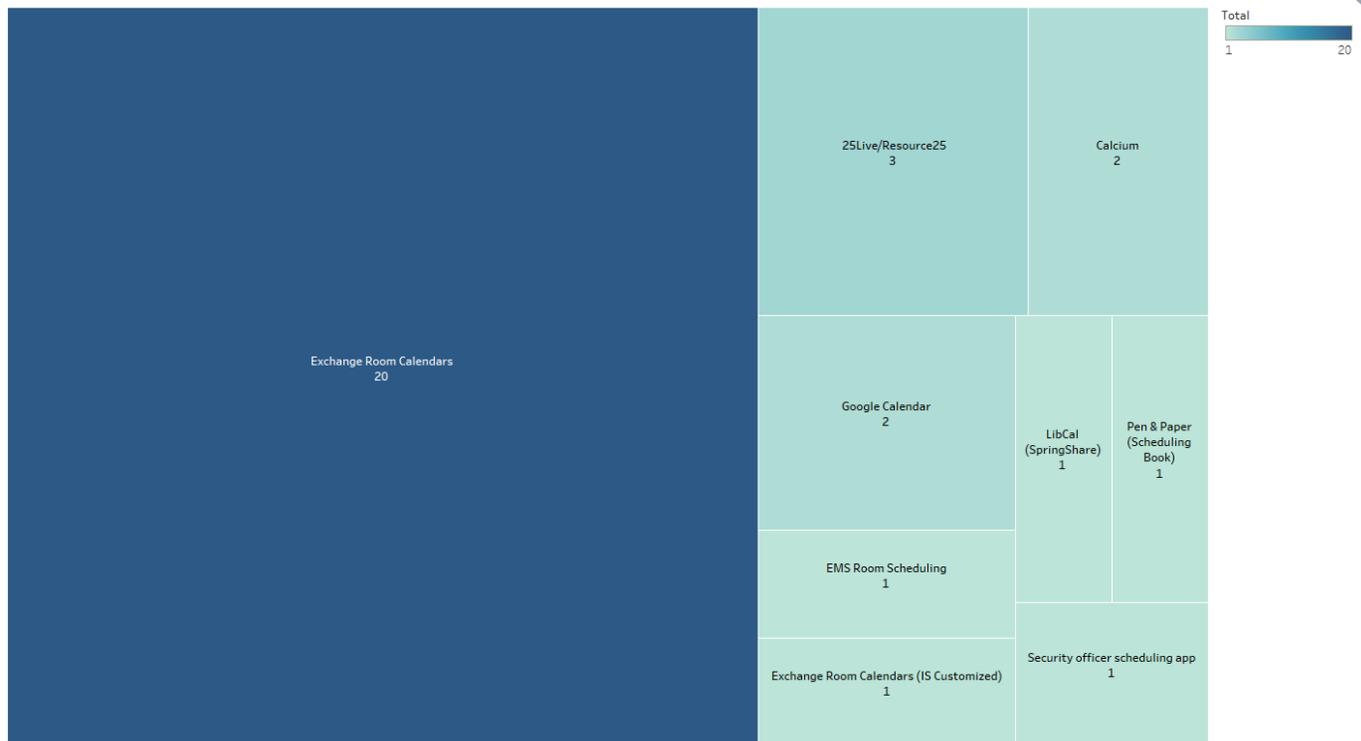
It was also noted in the interviews that Exchange administrators said they receive most of their support from other unit Exchange administrators rather than from central Information Services Exchange administrators.

### Calendaring Applications

- Number of units: 28 units (classified with email)
  - Exchange: 20
  - Unique service offerings: 8
- Total staff hours: 266 hours per week (classified with email)

## Campus Engagement Report for Transform IT

### Calendaring Applications



### Observations—Calendaring

It is evident that Exchange room calendars are adopted and in use by most IT departments on campus. There were eight other applications being used for room calendaring, with three of those applications being used by two departments each.

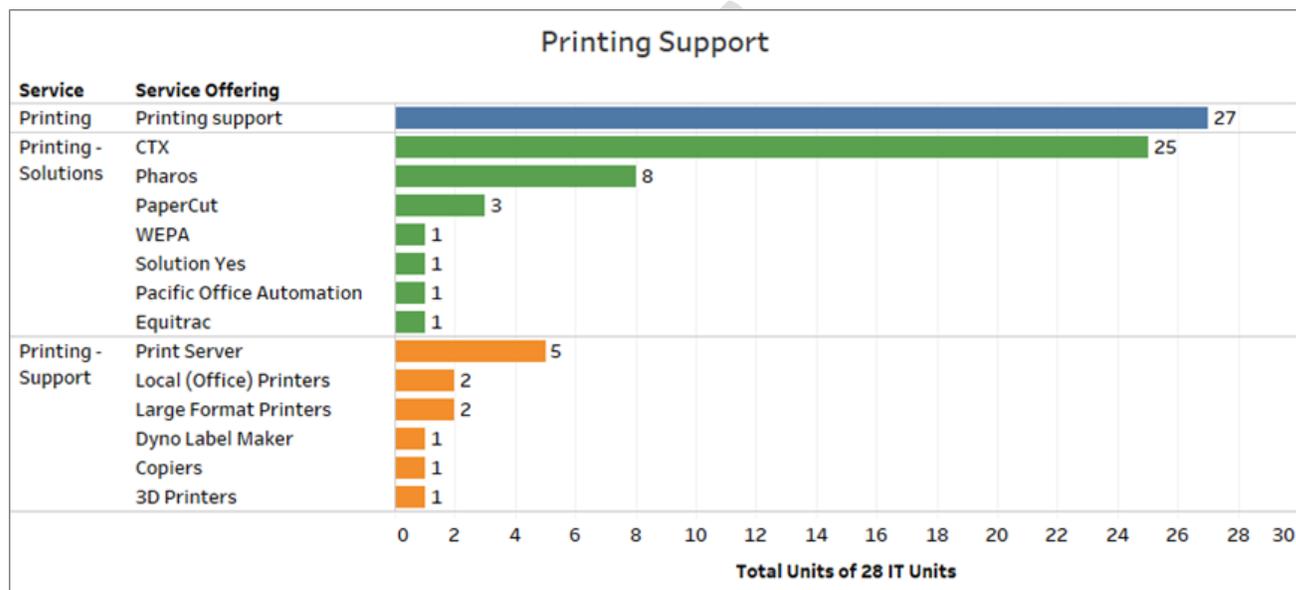
In August 2018, the UO purchased EMS, an enterprise room scheduling and events calendaring system, which is scheduled to go live sometime in mid-December 2018. The application will be available at no charge to all campus units. EMS will be used for managing and coordinating space and resource assignments for academic courses and university events and will provide a single source of information about campus activities.

## Campus Engagement Report for Transform IT

### Printing

These are services related to providing support for printing.

- Number of units: 27 units
- Total staff hours: 265 hours per week
- Unique service offerings: 6



#### Observations—Printing

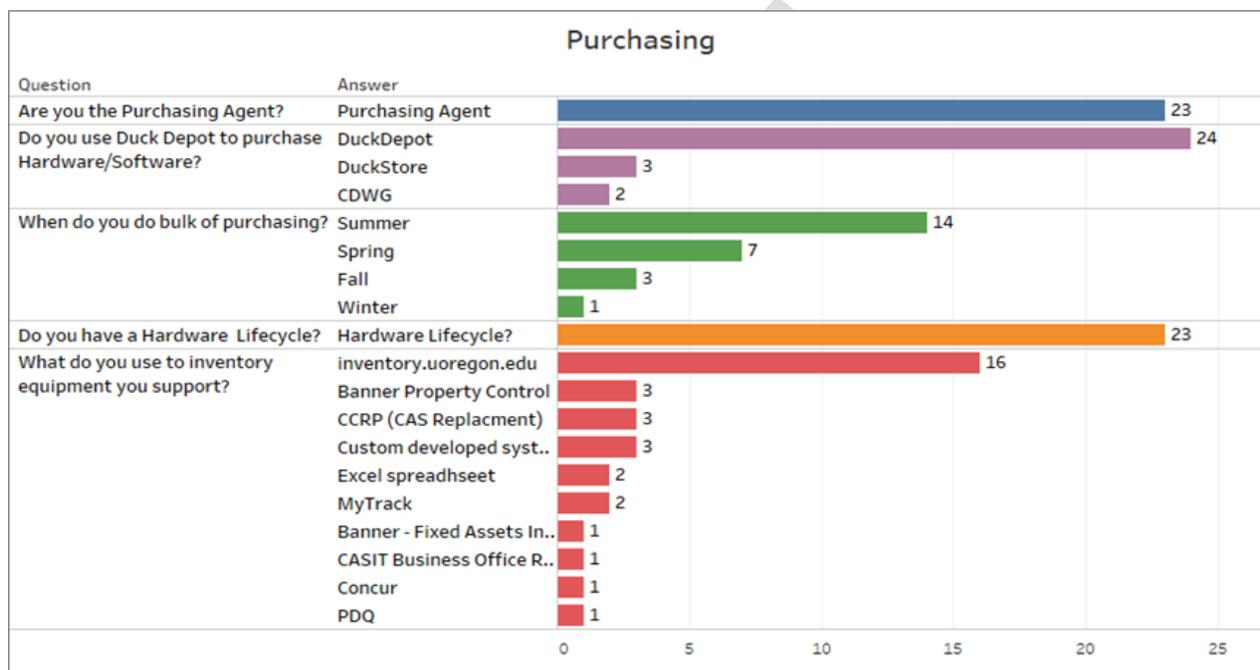
Our survey found 27 of 28 IT units provided printing support. Of those, 25 utilize the contracted CTX service as a printing solution.

## Campus Engagement Report for Transform IT

### Purchasing and Asset Management

This is the process used to purchase departmental equipment, including the hardware life cycle, the time of year equipment is purchased, and where asset information is stored.

- Number of units: 25 units
- Total staff hours: 263 hours per week
- Unique asset tracking offerings: 10



#### Observations—Purchasing

Generally speaking, the IT directors in each IT unit on campus are acting as the purchasing agent for IT-related purchases for their departments.

Most IT units are using Duck Depot for purchasing IT-related items. Others have mostly “home-grown” systems or online purchasing systems (CDW-G and Dell) that they use. This is mostly due to familiarity.

Approximately 16 IT units are also using inventory.uoregon.edu to catalog their IT-related hardware.

Twenty-three IT units have adopted a hardware life cycle replacement policy although the length of those life cycles vary across departments from three to five years. There are also differing life cycles for server-based equipment. Not all departments are able to have a life cycle for their servers because of unit funding models. It was noted that there are many servers that are beyond expected life cycle replacement age and they are still in use. Again, this is due to inconsistent funding models for replacing server hardware. Often these are purchased with “one-time money,” so replacing them is not planned for.

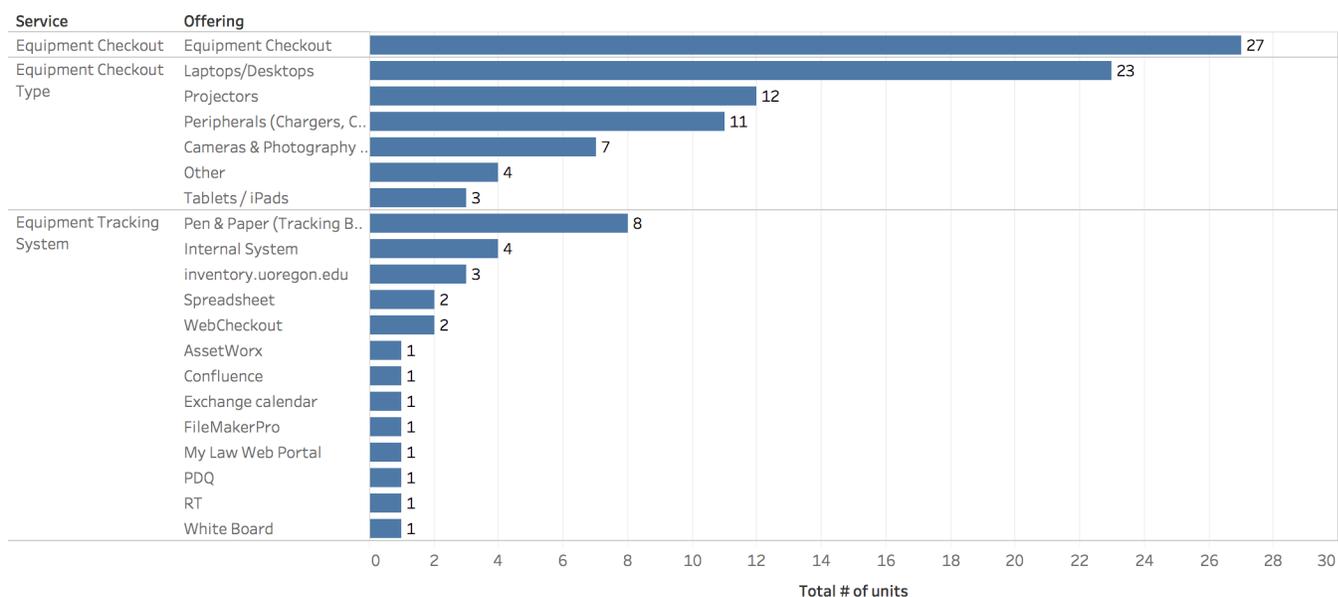
## Campus Engagement Report for Transform IT

### Equipment Checkout

These are tools and products related to checking out equipment.

- Number of units: 27 units
- Total staff hours: 244 hours per week
- Unique service offerings: 13 (different equipment tracking systems used)

#### Equipment Checkout



#### Observations—Equipment Checkout

Every unit except Information Services provides some kind of equipment loan or checkout. Most units check out or loan laptops and desktops to their users, as well as projectors and peripherals. Units reported 13 different systems for tracking checked-out equipment, ranging from simple pen and paper to homegrown systems.

### Teaching and Learning Systems

These are services associated with instructional technology and tools that support teaching and learning, including learning management systems (LMS), course evaluations, lecture capture, and other academic tools for faculty members and students.

- Number of units: 10 units
- Total staff hours: 243 hours per week
- Unique service offerings: 14

#### Observations—Teaching and Learning

The 10 IT units who offered support for teaching and learning systems tended to do so for multiple systems at the same time. For example, several units who offered support for Canvas might also support the Distance Education LMS and also the e-Learning system. As expected, it



## Campus Engagement Report for Transform IT

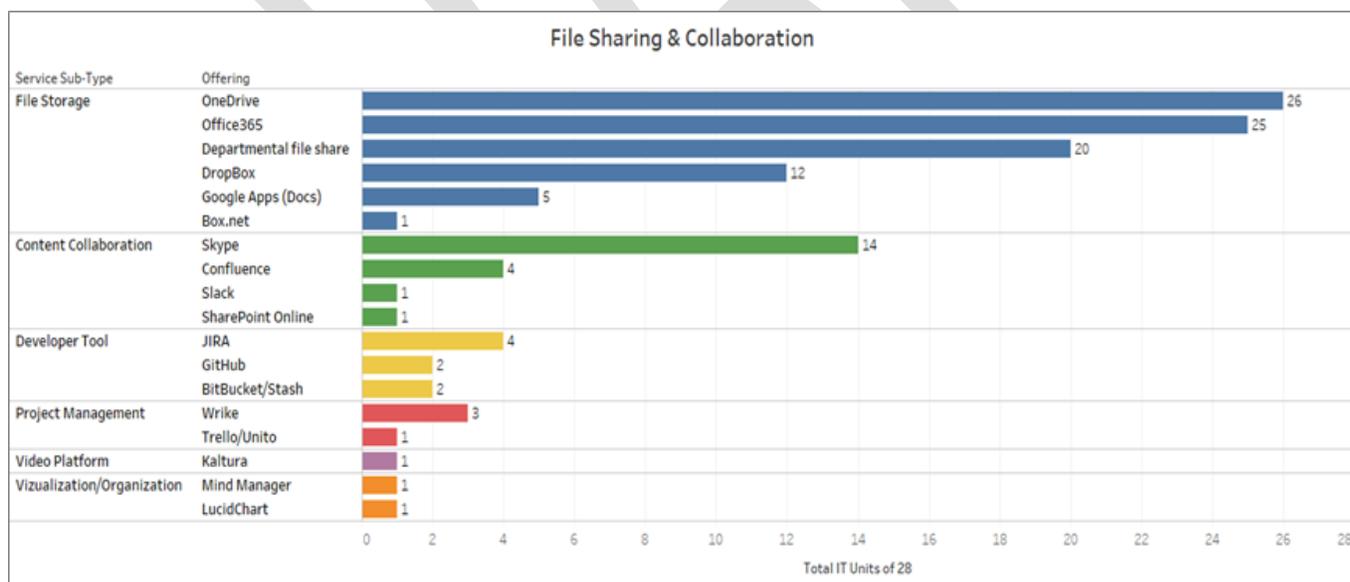
### Observations—Data Centers and Server Closets

Even though 18 units reported maintaining a server closet, almost 75 percent of staff hours spent per week on data centers and server closets is done within Information Services. In other words, for distributed IT units, maintaining a server closet doesn't take up much of their time per week. In addition, 17 units reported utilizing data center colocation services (i.e., Allen Hall). Most of the units interviewed did report on intentions for moving physical equipment out of server closets and into a central data center.

### File Sharing

These are services used to collaboratively share files with other users, both internal to the UO and external to constituents outside of the University of Oregon. This includes the ability to view, edit, and display electronic files.

- Number of units: 28 units
- Total staff hours: 194 hours per week
- Unique service offerings: 18
  - File storage: 6
  - Content collaboration: 4
  - Developer tool: 3
  - Project management: 2
  - Video: 1
  - Visualization: 2



### Observations—File Sharing

As seen with other IT services and solutions on campus, many options are available to campus users to accomplish many file-sharing tasks. Bundled inside the file-sharing heading are applications that do many different things. The chart representing file sharing and collaboration applications needs careful scrutiny before making a decision based on the data represented. For example, Kaltura is a video platform and video streaming service while Skype is used to

## Campus Engagement Report for Transform IT

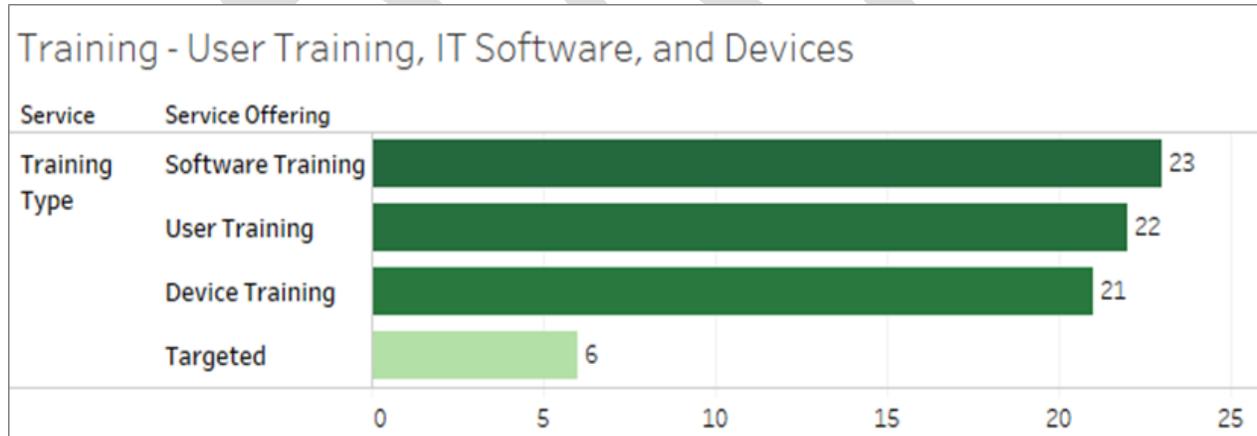
talk, chat, and collaborate. Many tools provide many services and very few limit themselves to providing only one service.

Though Office 365 and OneDrive are the most widely used in this subject heading, many of the respondents expressed some level of frustration with the current deployment. We were told that this frustration has prompted groups to use or purchase other solutions such as Dropbox or Google Drive. Sharing and permissions difficulties were a commonly expressed as reason for not using OneDrive, as are collaborative access, synchronization problems, lack of administrative control over the service, and missing features. OneDrive is the single campus solution currently in use that is actually compliant with the Family Educational Rights and Privacy Act of 1974 (FERPA), the Health Insurance Portability and Accountability Act of 1996 (HIPAA), and the Payment Card Industry Data Security Standard (PCI). The UO does not have a business associate agreement (BAA) in place with any other solution to date. This subject is another area offering a rich environment for further exploration.

### Training

These are training services for customers on IT applications and/or systems.

- Number of units: 25 units
- Total staff hours: 190 hours per week
- Unique service offerings: 4



#### Observations—Training

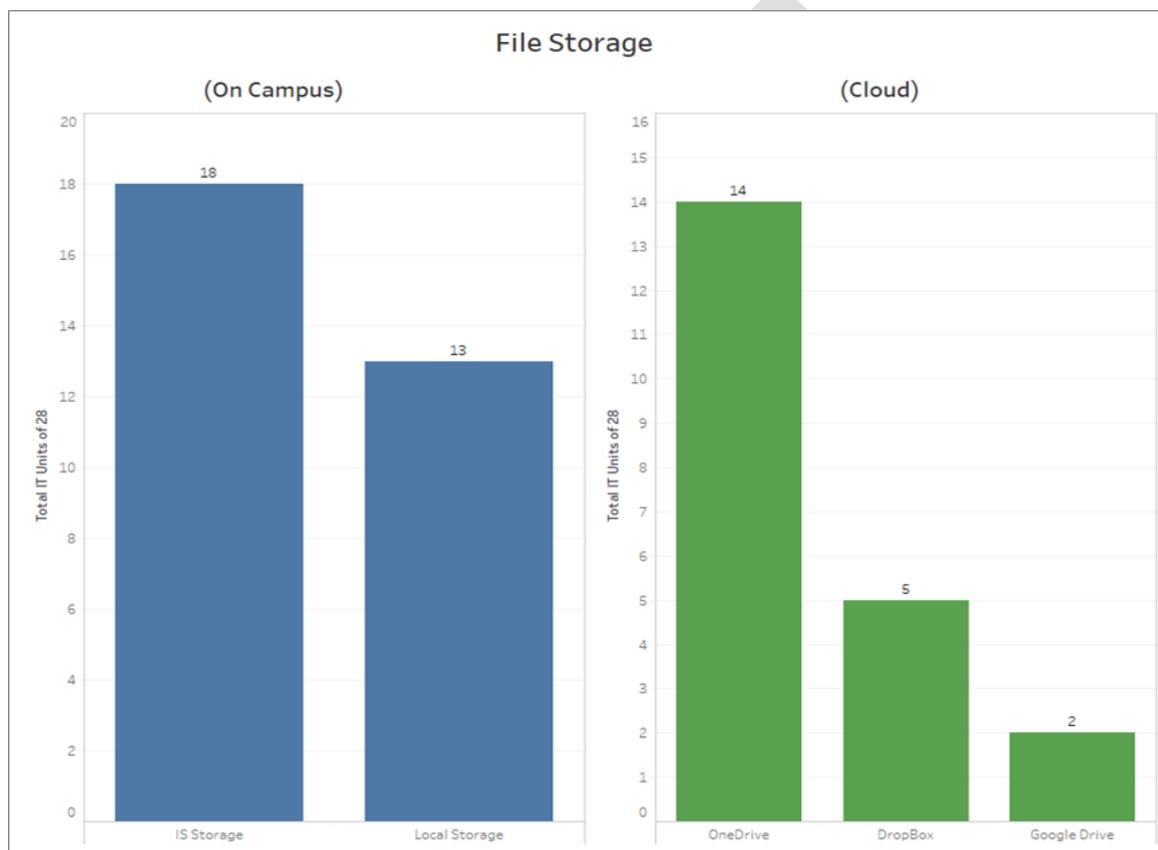
A total of 25 IT units reported they provide IT training to their user groups, 23 units provide software training, 22 provide user training, 21 provide device training, and six provide targeted training.

## Campus Engagement Report for Transform IT

### File Storage

This is back-end technology and services that are required to maintain storage capabilities, including server storage and data backups.

- Number of units: 24 units
- Total staff hours: 129 hours per week
- Unique service offerings: 5



#### Observations—File Storage

Saving files to a file server on campus can be broken into two distinct categories: files stored locally (on premises) and files stored off-campus in the cloud. Information Services storage and local storage both represent files stored on campus on UO hardware, while OneDrive, Google, and Dropbox are cloud storage services. Some units have started storing their files in the cloud due to the high cost of buying more local commodity hardware. The trend of moving file storage to the cloud continues to be seen on campus as more users and units move workflow to the cloud.

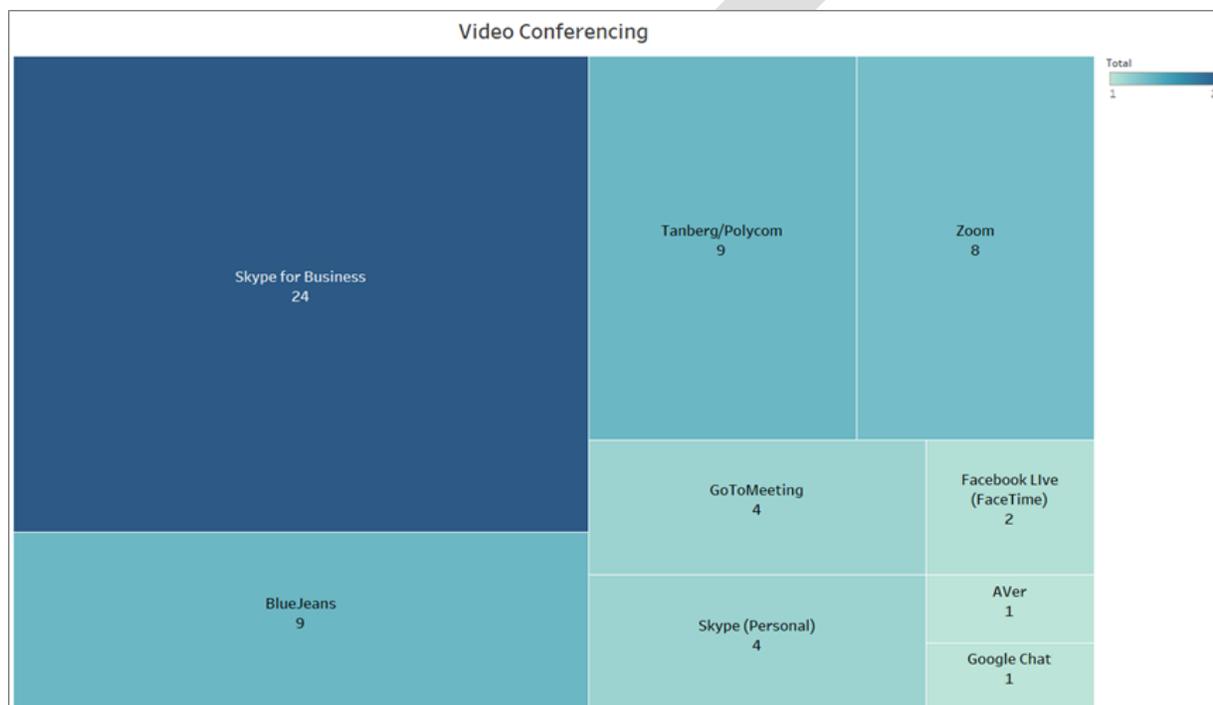
Data storage, and in particular a cloud-based storage system, was the most frequently mentioned “wish list” service discussed.

## Campus Engagement Report for Transform IT

### Video Conferencing

These are services that use sound and video from each participant in real time with other participants in other physical locations, enabling those participants to have a real-time exchange.

- Number of units: 28 units
- Total staff hours: 128 hours per week
- Unique service offerings: 9



#### Observations—Video Conferencing

There are nine different web- and application-based video conferencing systems in use on campus, and there are two hardware-based video conference systems in use.

Several people expressed frustration with Skype for Business because of its quality of service and connection problems. Others expressed frustration with the costs of BlueJeans. Zoom has gained some popularity on campus.

It was also noted that many people (especially members of the research faculty) are using personal Skype accounts for video conferences, though they note that it is better for one-on-one meetings rather than one-to-many or many-to-many.

Video conferencing is another area where people expressed a desire for campus to unite on a single platform, as long as that platform performs well in our environment and with users from other locations.

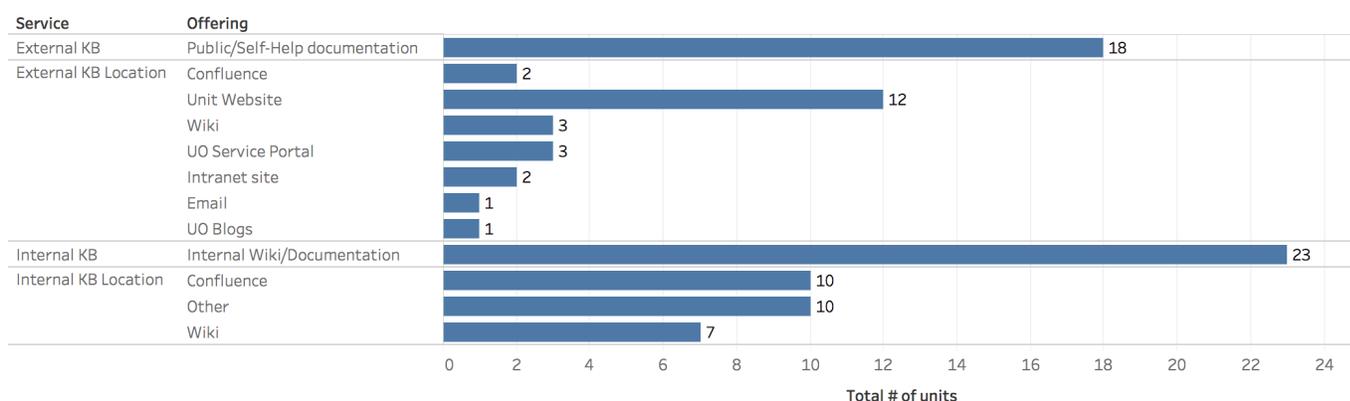
## Campus Engagement Report for Transform IT

### Knowledge Management

These are internal and external wiki and documentation repositories, including self-help documentation for end-users.

- Number of units:
  - External knowledge base—18 units
  - Internal knowledge base—23 units
- Total staff hours: 126 hours per week
- Unique service offerings: 12

#### Knowledge Management



#### Observations—Knowledge Management

Most IT units have an internal and/or external knowledge base (KB). A KB contains how-to guides, troubleshooting information, and answers to common questions. Seven different locations are being used for external KBs. Most are stored on the unit's department website. Some units are using the central Confluence software; others have purchased their own license.

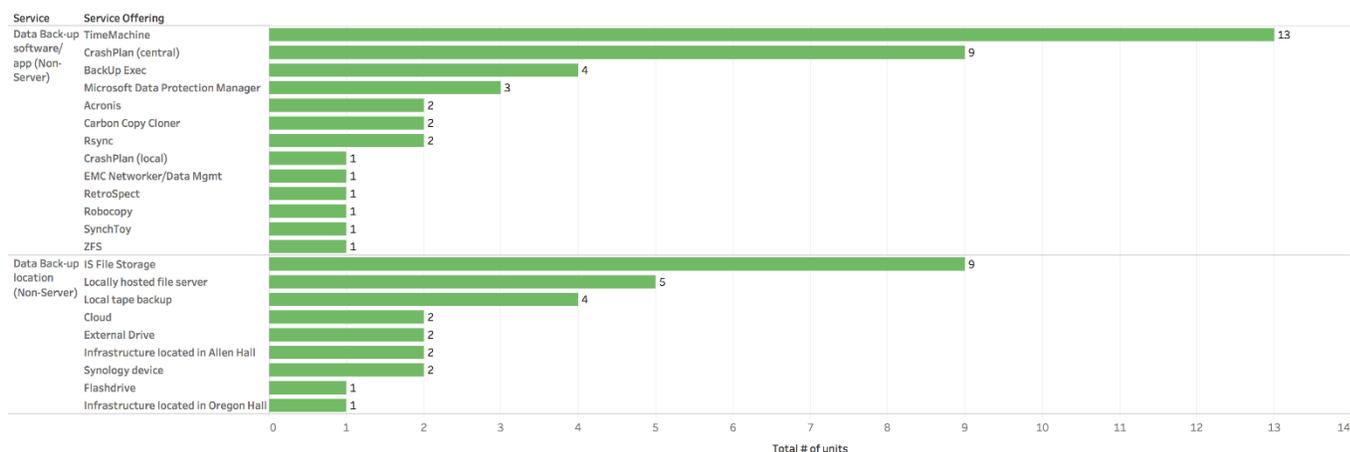
### Data Backup

These are technology and services required to back up data.

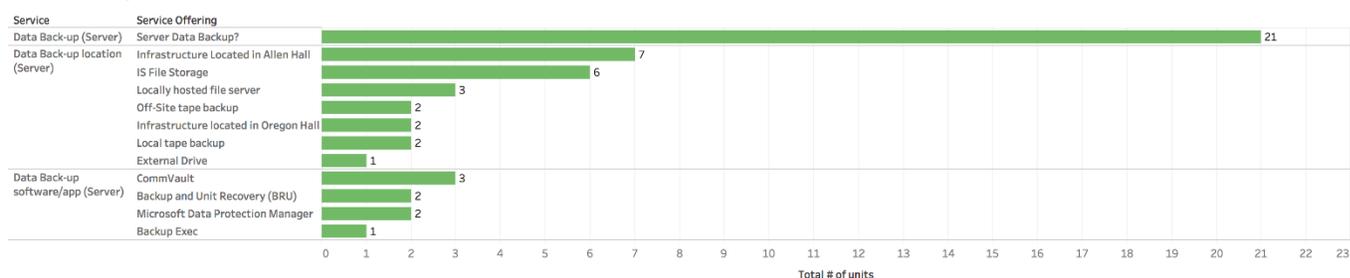
- Number of units: 24 units
- Total staff hours: 121 hours per week
- Unique service offerings: 13 nonservice, 4 server
- Locations: 9 nonservice, 7 server

## Campus Engagement Report for Transform IT

### Non-Server Back-up Location & Software Used



### Server Back-up Location & Software Used



## Observations—Data Backup

There are many kinds of data backup services on campus that help the UO ensure that data is secure and critical information is not lost in a natural disaster, by accident, or through any other kind of emergency. Data backup has been separated into server backup and nonserver (or desktop) backup.

### Nonserver backup

It should be noted the leading Time Machine service offering noted in the chart above is a Macintosh-only desktop-only solution in which a user connects an external hard drive (typically around \$85.00) to their desktop computer as a backup solution. This practice should not be considered an enterprise solution for Mac users. Several other nonserver service offerings listed should also be considered nonenterprise solutions. The most prevalent enterprise solution is CrashPlan, offered by Information Services, available for Windows and Macintosh computers, and the cost per license is \$82.50 annually.

Most desktop data being backed up outside of a locally connected hard drive is being done by backing up data to a networked Information Services file share, or a local departmental server offering file shares to their users.

The number of nonstandard methods and tools used to back up nonserver data offers an opportunity for further exploration of the services offered.

## Campus Engagement Report for Transform IT

### Server Backup

Server data is being backed up, and mostly in appropriate data centers. We learned several local servers were targeted for retirement or relocation to a data center within a year, which will increase the servers in appropriate data centers numbers. Server-side data backup software solutions are diverse and offer an opportunity to dive deeper into discovering whether a unified method and license would be in the university's best interest.

### Consulting and Project Administration

IT consulting and project administration bring specialized skills and knowledge to assist departments campus-wide make the best possible business decisions. Project managers or consultants provide oversight and leadership in executing projects from planning to completion.

- Number of units: 1 unit (reported outside of service inventory questionnaire)
- Total staff hours: 62 hours per week

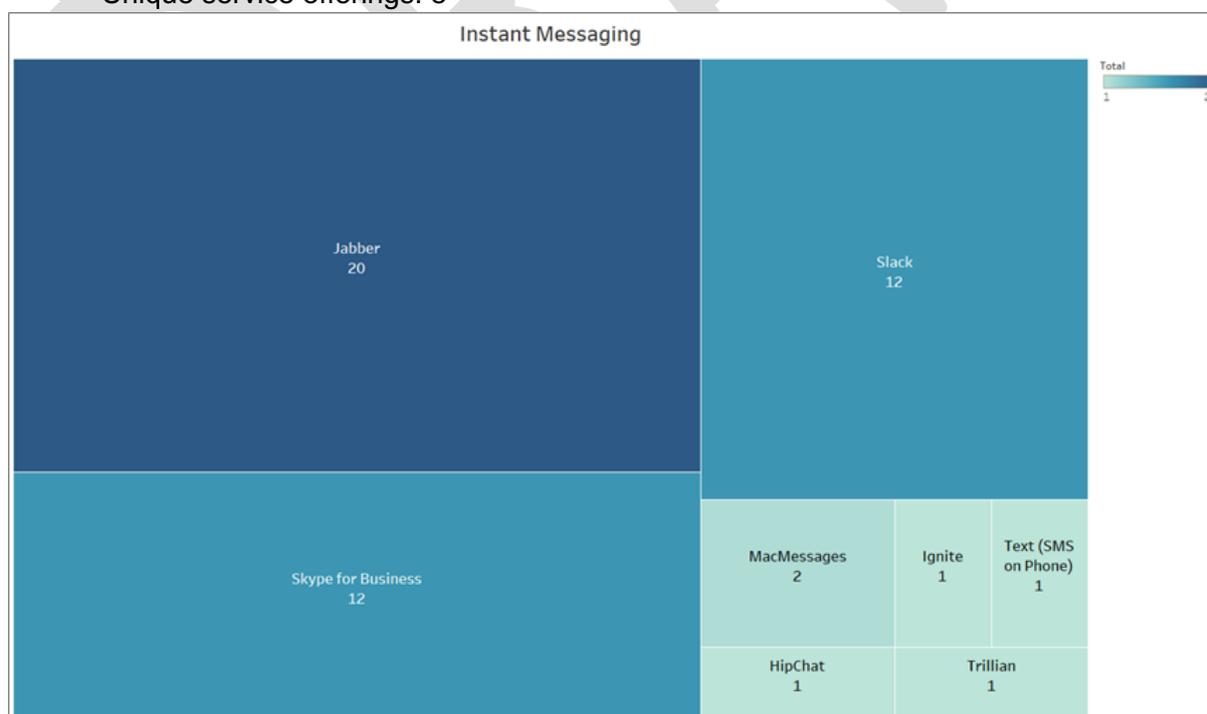
### Observations—Consulting and Project Management

Two units have reported they are providing project management services: Information Services and the College of Arts and Sciences Information Technology Support Service.

### Instant Messaging

Services used to transmit electronic messages instantly from one user to another.

- Number of units: 22 units
- Total staff hours: 30 hours per week
- Unique service offerings: 8



## Campus Engagement Report for Transform IT

### Observations—Instant Messaging

Most IT units are using some form of instant messaging (IM) within their departments and some use IM to communicate with other departments. Most reported that their need was within their department.

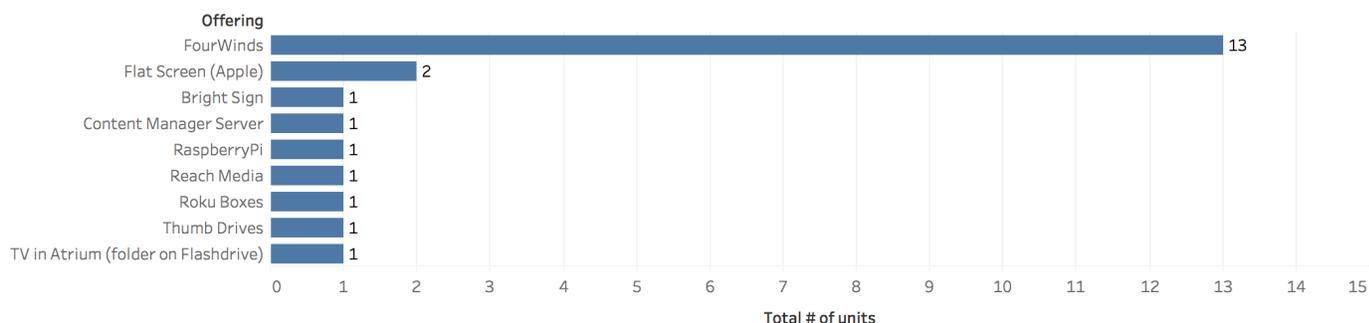
Although Jabber was the more prevalent IM platform, Slack continues to be very popular. More groups are beginning to use Skype for Business instant messaging as well. There are opportunities to look into ways to offer a common IM platform. It was noted during the interviews that the people using Slack like the feature set it includes.

### Digital Signage

Digital signage services create a campus-wide network of digital signs and interactive displays.

- Number of units: 22 units
- Total staff hours: 25 hours per week
- Unique service offerings: 9

#### Digital Signage



### Observations—Digital Signage

59 percent of the units who reported using a digital signage service are using the centralized FourWinds service.

### IT Strategic Planning

IT Strategic planning defines the strategy an organization will implement to enable its IT infrastructure and portfolio to operate and function in line with its business objectives, ensuring the enterprise IT provides optimum output and services that directly support the organization's core mission, strategy, and priorities.

- Number of units: 8 units
- Total staff hours: 17 hours per week

### Observations—Strategic Planning

Of the 28 IT units interviewed, eight units (28 percent) reported they engaged in IT strategic planning.

## Campus Engagement Report for Transform IT

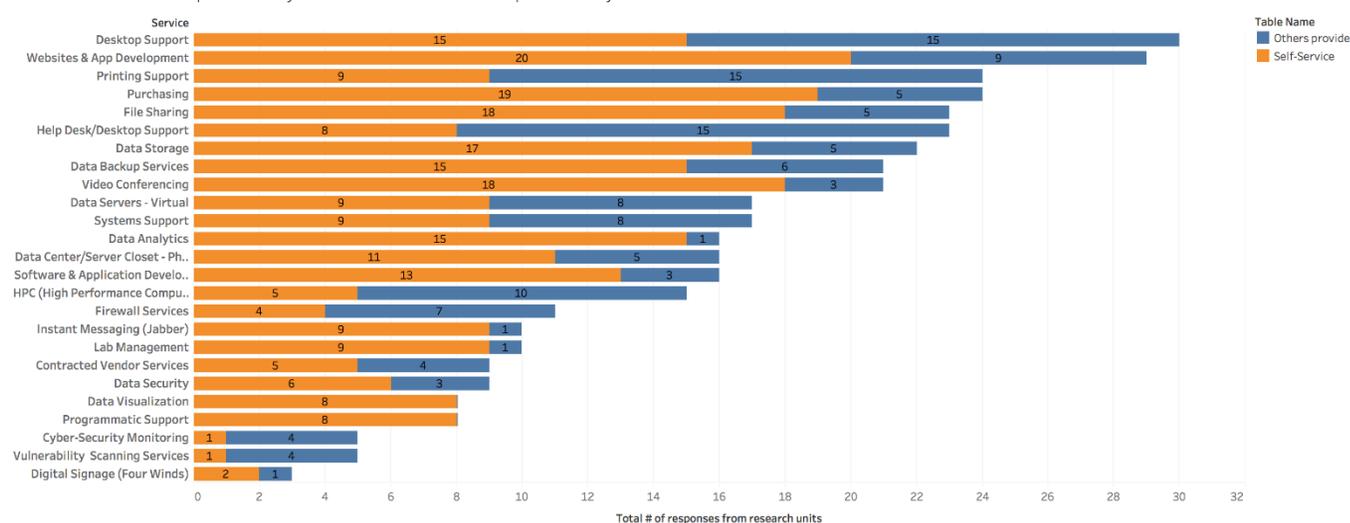
# Research

## Research Observations

Research groups on campus have not been a part of previous IT reports and individuals with whom we met were pleased to be considered part of the Transform IT process. The CEP team was able to meet with all of the identified research groups (24 of 24).

The question set used for research units was different than those used for academic and administrative IT units since the scope and nature of IT is different among these groups. The chart below combines services research provides for themselves and services others provide for research.

Overview of services provided by research units & services provided by someone else



The greatest area of desired interest for the research community:

- Programmatic support or consultation

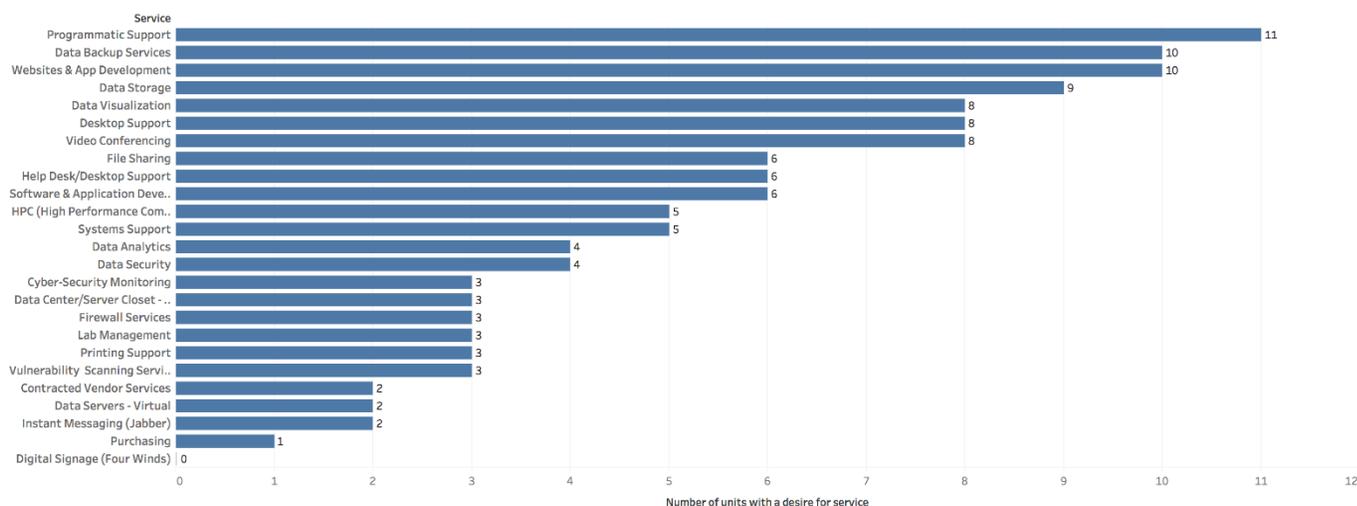
The next most needed services:

- Data backup
- Storage solutions
- Website development
- Application development
- Desktop support

These needed service areas come with conditions, such as working with a single IT professional rather than by a ticket that then gets routed to several IT staff members. Time is one of the greatest commodities to research and any time spent managing IT support will not be a beneficial service to research.

## Campus Engagement Report for Transform IT

Desired services by research units



## Observations

### **Cultural Challenges**

A historical distrust by research units of enterprise services and solutions persists on campus. Those interviewed recalled times when services were provided one day and then withdrawn without warning the next, or a “campus-solution” being initiated without secure funding for the long term leading to a discontinuation of the service some time later. Researchers mentioned a long-standing distrust of central services, preferring to provide these services themselves. Data storage and systems administration are two examples of areas where research groups prefer to provide for themselves. Doing so offered a way of guaranteeing uninterrupted continuation of their research and fulfilling obligations to their granting agencies. In a few cases, a graduate student’s role is to guarantee the continuation of IT service for a research unit. Many groups expressed that they can provide service better and for less money than a centralized solution can offer.

### **Downtime**

One example of interrupted workflow for a research group is when Information Services has scheduled service downtime, though some of our research units collaborate and offer services globally 24 hours a day. The UO’s scheduled systems downtime in the middle of the night (Pacific Standard Time) disrupts the services and collaboration a researcher offers to those on the other side of the world, during their business hours. A suggested solution would be for the UO to offer cloud-based services that typically have no scheduled downtimes, such as Amazon’s S3 services. Research groups believe the data centers on campus cannot compare to the security, the number of personnel, the infrastructure, the cost to our research groups, nor the uptime of a platform like Amazon’s services. Given the choice, many research groups would rather use Amazon’s services, which also do not have the speed restrictions found on campus for high-speed data transfer and collaboration. Downtime, speed bottleneck, permissions-request processing, inflexibility, high cost, and lack of complete control over data are also seen as negatives to using centralized UO resources.

## Campus Engagement Report for Transform IT

### ***IT Support***

The rules surrounding who receives support is inconsistent for research groups across campus. Research support is often seen as having been established unfairly. In some instances, a graduate student is not allowed hardware support while the sponsoring faculty member is. To avoid this situation, the faculty researcher will ask for support for “their own” hardware when it is in fact the graduate student’s hardware.

### ***Infrastructure Management***

Research groups expressed a desire to manage their own IT infrastructure, stating that they are responsible for their grants, their research, their relationship with granting agencies such as the NIH and NSF, and so forth. Researchers do not want to risk those relationships (nor funding opportunities) by introducing what they view as unstable centralized service into their workflow.

### ***Computing Needs***

Researchers also want to compute in-line with their research rather than having their computing habits dictated or altered to suit UO IT infrastructure. Research groups believe UO IT should conform and support their workflows rather than research conforming to UO IT workflow. As such, many groups have their own hardware infrastructure in place and take care of the administration duties, which are provided by either the researcher or a graduate employee.

### ***Analytic Support***

In conclusion, research groups do not want analytic support nor student assistance with their IT issues and would prefer to work with professional IT support staff when assistance is needed. They would prefer to have a professional a la carte menu of services to call upon when needed.

## Campus Engagement Report for Transform IT

# General Campus-wide Observations

The project charter does not include making recommendations. However, the following are observations gathered and noticed when speaking with groups and units. The sentiment was often expressed that IT staff members on campus are offering a broad range of IT services with limited resources (staff and money).

### ***Uniqueness***

Units want to cooperate and share resources, yet they want to provide their own solutions due to the unique nature of their department and constituency. Many units described how they, their customers, and their services were unique and should be considered so.

### ***Cost of Creativity***

Universally across IT on campus, there is a sense of pride in the work being done and the inventiveness in which it is delivered. Oftentimes budget or personnel shortfalls do not deter our IT personnel from successfully delivering services to their customers mostly through resourcefulness and determination. While the efforts our units have had to go through to deliver service should be applauded, it has also led to further decentralization by units having to come up with their own solutions rather than buying into a centralized service that may cost more to buy into than the alternative solution.

### ***Previous Reports***

As noted in the Baker Tilly report, “IT services are delivered to faculty and staff members, students, and other university community members by all IT units. While not all IT units provide the same types or levels of services, many of the services are duplicated across IT units (e.g., end-user support, application development).” Baker Tilly’s findings are described as a risk assessment. Most risks were presented as a lack of cooperation among units and having a negative financial impact to the university. These findings align with our observations and data collected during the Campus Engagement Project. However, units generally prefer to provide IT services by themselves for their customers.

### ***Haves and Have-Nots***

In terms of IT support and services provided across campus, there is a culture of the “haves and have-nots.” Units with adequate resources can provide for themselves, while those without adequate resources cannot provide nor afford to contract for adequate IT support. This disparity plays a part in increased security risks and the continuation of Wi-Fi “dead-spots” across campus as units are expected to provide funding for their own Wi-Fi base stations for area coverage. Some units operate by receiving handed-down older computers already past their life cycle donated by larger units, free software solutions, and very long Ethernet cables rather than Wi-Fi. On the other side of the spectrum, larger units typically create their own solutions when needed rather than opting for a standard yet nonenterprise system already on campus. The funding disparity leads to systems that are difficult to support, have associated security issues because of their age, an inconsistent Wi-Fi footprint visible to students, faculty members, and visitors, and an increase to the decentralized IT model the UO is attempting to turn away from.

## Campus Engagement Report for Transform IT

### ***Faster Service***

One common reason for units wanting to provide their own service was timeliness. Units do not want to wait a great deal of time for a response or a solution, nor do they want their submitted service-request ticket repeatedly passed to different solution providers. Many units mentioned that they can provide IT service faster than a centralized service would be able to offer. Units also repeatedly suggested that the relationships and trust they have formed with their customers is important and should be considered when formulating Transform IT solutions. A frequently heard concern was that common mediocrity would be the new normal (rather than the existing exceptional service now enjoyed by units) if the UO moves to a centralized service solution.

### ***Necessity of Collaboration***

There are many cases where IT units have collaborated to provide services to other functional areas of the University because of a lack of an available enterprise solution. An example would be for Time and Attendance software in the form of a Kronos license, which several units have bought into. While some IT units offer support for Kronos, others do not. As the Baker Tilly report notes, this practice introduces risks because the nonenterprise hosting IT unit offering an enterprise solution can affect many of the other IT units due to the level and complexity of the collaboration between IT units. Another example of collaboration is Exchange administrators within units supporting each other rather than relying on enterprise support from Information Services.

Many units would like to offer their services to other units on a formal basis, while other units want more collaboration and sharing of common services. This contrasts with some units that could be considered "IT silos," units that would rather remain isolated, stating they know they can offer better services on their own.

### ***Collaboration***

There was a good deal of frustration expressed around collaboration tools available to the UO community. This includes both file-sharing applications as well as video conference solutions. This has led to a proliferation of tools being used. Sharing and permissions difficulties are a common frustration, as are collaborative access with noncampus users, synchronization problems, lack of administrative control, missing features, and downtime. Another concern in this area is FERPA, HIPAA, and PCI compliance, and many tools do not provide assurances for compliance. It appears that there is opportunity for the university to improve and unify campus in the area of collaboration tools.

### ***Transform IT***

Units want to proceed with Transform IT sooner than later. Many expressed frustrations with the length of time this project is taking, yet they agreed with the steps being taken and the manner the UO is proceeding.

### ***Changes through Time***

Contrary to the previous reports, we have noticed a reduction in the number of data centers and distributed systems across campus. Hardware racks have been consolidated and physical servers have been virtualized into a centralized VM solution. Very few physical servers remain deployed in units, and many have been targeted for retirement or virtualization within a year or

## Campus Engagement Report for Transform IT

less. Another difference between the reports is most units are now using Exchange for email and calendaring.

### ***Autonomy***

While there are many that want someone to provide core services for them, there remain those who want to retain their IT autonomy. For instance, several units can still move their own jacks from within switch closets, while a few more wish they could do the same. Other units were glad to not have the responsibility for core services such as moving jacks. The reason units want to retain the ability to provide their own services is again due to their desire for faster service at a lower cost, as mentioned above.

Several smaller units have on-staff IT personnel we might call “jack of all trades,” which made it difficult to identify exactly what services they offered.

Some personnel in the form of “solitary IT islands” would like to have backup so that when they are away from campus, the services they offer can continue in their absence.

### ***Common Suite of Services***

Many units expressed a desire for a common suite of services for all UO community members regardless of reporting structure. In addition to existing services, many suggested this suite of “free” services should include common training and documentation, desktop support, a formal campus-wide cloud-based data storage and backup service (other than OneDrive), and Wi-Fi without dead spots covering all of campus without a fee to units. Several units expressed an interest in a consultation service in which a consultant could meet with a unit and listen to their challenges, offer solutions based on existing enterprise services, and offer a road map or plan forward for the unit.

### ***Development***

Tangential to the have and have-not observation, it was noted during the interviews that there is a great need for development work, which currently necessitates faculty members, researchers, and other staff members trying to assume the role of a developer when they believe they should be focusing on their primary work.

## Campus Engagement Report for Transform IT

### Next Steps

- Review results with Jessie Minton, vice provost for information services and chief information officer
- Hold Transform IT workshop for IT directors and staff members
  - October 1–2, 2018
- Present results to Transform IT steering committee and service transition committees to review and determine service areas to investigate in greater detail
  - November 2018
- Begin service migrations
  - January 2019

## Campus Engagement Report for Transform IT

### Appendices

[Appendix A—IT Unit—Interview Questions \(Link\)](#)

[Appendix B—IT Unit—Service Inventory Spreadsheet \(Link\)](#)

[Appendix C—Research Interview Questions Matrix \(Link\)](#)

[Appendix D—IT Unit—Excel Response Raw Data \(Link\)](#)

[Appendix E—Research Department—Excel Response Raw Data \(Link\)](#)

[Appendix F—Glossary](#)

Term	Definition
General Terms	
Service	A means of delivering value to customers by facilitating the outcomes the customers want to achieve without the ownership of specific costs and risks (i.e., when we do something for our customers that gives them something they want or value, we're providing a service).
Service Offering	The specific technology-focused activity or product used to deliver a service. These can be software bundles, custom application solutions, or other technology that enables a service offering.
Service Type	A logical grouping of services that benefit from being managed together. These are high-level groupings and are not visible to customers. Service types should reflect the strategic goals of the institution and align with the overall governance model for IT services.
Collaboration Service Types	
Collaboration	Services that facilitate the creation, sharing, and exchange of information and ideas with communities of interest.
Email and Calendaring	Services associated with email, calendaring, contacts, broadcast mail, enterprise-wide mailing list management, and spam.
Telephone	Services related to telephony, including voice services, teleconferencing, and voicemail.
Video Conferencing	Services that use sound and video from a number of participants in separate physical locations, allowing those participants to have a real-time exchange.
Websites	Tools, services, and products that support website and mobile application development, hosting, media development, and so forth.

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End-Point Computing Service Types	
Desktop Support	Services related to providing support for desktop computers, laptops, and devices, including associated operating system and application software.
Digital Signage	Digital signage services create a campus-wide network of digital signs and interactive displays.
Equipment Checkout	Tools and products related to borrowing equipment.
Printing	Services related to providing support for printing.
Software and Applications	Services and applications that are related to software licensing and distribution and software-as-a-service (SaaS) applications.
IT Professional Services Service Types	
Data Backup	Technology and services required to backing up data.
Data Center–Server Closet	Management of physical data centers and/or server closets.
Network Management	Includes maintenance of items required to offer network connectivity.
Server and Systems Administration	Provisioning, hosting, and administration of servers—physical and virtual.
Storage	Back-end technology and services required to maintain storage capabilities, including server storage, data backups, and so forth.
Training	Training services for end-users on IT applications and systems
Security Service Types	
Accounts and Access	Services in support of authentication, access, and role-based provisioning to ensure secure and appropriate authentication to UO services.
Information Security	Services that support security, data integrity, and compliance for institutional activities. Includes services that provide a secure computing environment for end-users.
Teaching and Learning Service Types	
Classroom and AV Support	Services to ensure classrooms are suitably equipped and functional to meet the needs of the education experience.
Educational Technology Consulting	Services to ensure that faculty members and other course creators have the knowledge and assistance needed to optimize their effectiveness in using teaching and learning technologies.

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Lab Management	Services and tools related to supporting and managing instructional laboratories.
Teaching and Learning	Services associated with instructional technology and tools that support teaching and learning. Includes learning management systems, course evaluations, lecture capture, and other academic tools for the faculty and students.
Administrative Service Types	
Business Applications	Enterprise services that support the administrative and business functions of the university. Includes document management, business intelligence, reporting, finance, human resources, student information systems, advancement, and research administration.
Other Service Types	
Contracted Services	Other services not listed above that are contracted with a vendor to provide services to your unit.
Functions	
Help Desk	A unit made up of dedicated staff members who act as a single point of contact and are responsible for technology support, including but not limited to desktop and device support, tier-one troubleshooting, escalating and triaging tickets to appropriate resources, and handling break-fix issues. Support may include visits (in-person or virtual) to an office or workspace or the end-user coming to a dedicated space.
Processes	
Knowledge Management	Internal and external wiki and documentation repository; includes self-help documentation for end-users.
Purchasing and Asset Management	The process used to purchase departmental equipment, includes the hardware life cycle, time of year equipment purchased, where asset information is stored, and so forth.

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### Appendix G—List of IT and Research Units Interviewed

#### IT Units

- Athletics (ATH)
- Business Affairs Office (BAO)
- Charles H. Lundquist College of Business (LCB)
- Continuing Professional Education (CPE, formally known as Academic Extension [AE])
- College of Arts and Sciences (CAS)
- College of Design (DSGN)
- College of Education (COE)
- Department of Biology (BIO)
- Department of Computer and Information Science (CIS)
- Department of English (ENG)
- Department of Psychology (PSYCH)
- Division of Student Life (SAIT)
- Early Childhood Coordination Agency for Referrals, Evaluations, and Services, known informally as EC CARES (ECC)
- Finance and Administration Shared Services (FASS, formally known as Campus Operations)
- Information Services (IS)
- John E. Jaqua Academic Center for Student Athletes (JAQUA)
- Johnson Hall (JWJ)
- Office of University Housing (HOU)
- Research and Innovation Technology (R&I)
- School of Journalism and Communication (SOJC)
- School of Law (LAW)
- School of Music and Dance (SOMD)
- Student Services and Enrollment Management (ENROLL)
- Teaching and Learning Center (TLC)
- University Advancement (ADV)
- University Health Center (HEALTH)
- UO Libraries (LIB)
- Yamada Language Center (YLC)

#### Research Units

- Center for Brain Injury Research and Training (CBIRT)
- Center for Cybersecurity and Privacy (CCSP)
- Center for High Energy Physics (CHEP)
- Center for the Study of Women in Society (CSWS)
- Center on Teaching and Learning (CTL)
- Committee on the Advancement of Women in Chemistry (COACH)
- Department of Earth Sciences (ES)
- Education and Community Supports (ECS)
- Institute for a Sustainable Environment (ISE)
- Institute of Ecology and Evolution (IEE)
- Institute of Molecular Biology (IMB)
- Institute of Neuroscience (ION)

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- Institute of Theoretical Science (ITS)
- Materials Science Institute (MSI)
- Northwest Indian Language Institute (NILI)
- Oregon Advanced Computing Institute for Science and Society (OACISS)
- Oregon Center for Optical Molecular and Quantum Science (OMQ)
- Oregon Humanities Center (OHC)
- Oregon Institute of Marine Biology (OIMB)
- Prevention Science Institute (PSI)
- Research Advanced Computing Services (HPCF, formally known as the HPCRCF)
- Robert and Beverly Lewis Center for Neuroimaging (LCNI)
- Sponsored Project Services (SPS)

### Appendix H—Previous Consultant Reports Links

- [Baker Tilly Report \(Link\)](#)
- [Harvey Blustain Report \(Link\)](#)
- [Moran Consulting Report \(Link\)](#)

### Appendix I—FTE By Unit Change since Baker Tilly Report

In addition to the timeline detailing Transform IT changes through time, the following chart illustrates the changes in FTE that have occurred since the Baker Tilly Report in 2015. Specifically, 10 units have seen a decrease in the number of FTE, while seven units have seen no changes, and five units have seen an increase in FTE. Overall, however, the campus has experienced a 2.3 percent decrease in the number of IT staff members on campus (i.e., a loss of approximately 5.5 FTE).

How FTE by unit has changed since Baker Tilly Report

Unit	BAKER TILLY (2015)	CAMPUS ENG. (2018)	Net gain/loss	% Change
RSRCH	2	4	2	100%
EC CARES	4	5.5	1.5	38%
HEALTH	3	4	1	33%
LIB	27.5	35	7.5	27%
IS	94	99	5	5%
ADV	4	4	0	0%
ATH	3	3	0	0%
BAO	7	7	0	0%
HOU	4	4	0	0%
LAW	4	4	0	0%
SAIT	5	5	0	0%
SOMD	2	2	0	0%
SOJC	6	5.5	-0.5	-8%
DSGN	5	4.5	-0.5	-10%
ENROLL	5	4	-1	-20%
JWJ	5	4	-1	-20%
COE	4	3	-1	-25%
FASS	8	6	-2	-25%
LCB	8	6	-2	-25%
PSYCH	3	2.25	-0.75	-25%
AE	3	2.04	-0.96	-32%
CAS	37	24.25	-12.75	-34%
Total	243.5	238.04	-5.46	-2.3%

## Campus Engagement Report for Transform IT

### Appendix J—Report Charts

- [IT support hours per week by service \(Link\)](#)
- [IT support hours per week by unit \(Link\)](#)

### Appendix K—Enterprise Software Committee Business Applications Audit List

Title or Company	Type
GSD Associates, Inc.	Asset management
Sassafras Software, Inc.	Asset management
Trapeze Software Group, Inc. (DBA AssetWorks, LLC)	Asset management
Canto Software, Inc.	Asset management
OnShore Development, Inc.	Asset management
Managing Editor, Inc.	Asset management
Bar*Barcode Giant	Asset management
Cel*Extensis	Asset management
Industrial Software Solutions (DBA Wonderware PacWest)	Building management
Chown, Inc.	Building management
Operation Technology, Inc.	Building management
Insperity Employment Screening	Building management
CareerLeader, LLP	Building management
Franklin Estimating Systems	Building management
Tech Tammina, LLC	Building management
Kuali Foundation, Inc.	Building management
PG Calc, Inc.	Customer relationship management
SofterWare, Inc.	Customer relationship management
Data Source of Loudoun, Inc. (DBA HEP Development Services)	Customer relationship management
Symplicity Corporation	Customer relationship management
Targetx.com, LLC	Customer relationship management
Inteum Company, LLC	Customer relationship management
Eugene Software Solutions, Inc.	Customer relationship management
Campus Management Corp	Customer relationship management
AGILECRM-8009800729	Customer relationship management
Campus Management	Customer relationship management
E3 Software	Customer relationship management
Kickserv	Customer relationship management
Little Green Light	Customer relationship management
Vtiger.Com	Customer relationship management
CBI*Atlas.TI	Data, analysis, statistics
Dedoose	Data, analysis, statistics
Estima	Data, analysis, statistics
Graphpad Software	Data, analysis, statistics
Iconosquare	Data, analysis, statistics
Implan Group, LLC	Data, analysis, statistics
Kissmetrics	Data, analysis, statistics
Mindware Technologies	Data, analysis, statistics

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Muthen and Muthen	Data, analysis, statistics
Paypal *Graphpad	Data, analysis, statistics
QSR International Americ	Data, analysis, statistics
Qualtrics	Data, analysis, statistics
Tex*Overwatch Systems	Data, analysis, statistics
www.wavemetrics.com	Data, analysis, statistics
Westat	Data, analysis, statistics
Ride Systems, Inc.	Data, analysis, statistics
Dorian Business Systems, Inc.	Data, analysis, statistics
Idera	Data, analysis, statistics
Systat Software, Inc.	Data, analysis, statistics
QLC, Inc. (DBA TABS, Inc.)	Data, analysis, statistics
Paciolan, Inc.	Data, analysis, statistics
Reed Elsevier, Inc.	Data, analysis, statistics
Biomatters, Inc.	Data, analysis, statistics
Synergy Sports Technology, LLC	Data, analysis, statistics
GradLeaders, Inc.	Data, analysis, statistics
International Business Machines Corp. (IBM)	Data, analysis, statistics
Qualtrics, LLC	Data, analysis, statistics
Atlas Systems	Data, analysis, statistics
Vernier Software and TEC	Data, analysis, statistics
FileMaker, Inc.	Databases
Delicious Monster Software	Databases
Filemaker, Inc.	Databases
IN *SQL Sentry, Inc.	Databases
Oracle USA, Inc.	Databases
Lexmark	Electronic content management system
ShiftPlanning, Inc.	Employee and business management
Whentowork, Inc.	Employee and business management
CBI*Cleverbridge, Inc.	Employee and business management
Automic Software, Inc.	Event-related potentials
Runner Technologies, Inc.	Event-related potentials
Ellucian Support, Inc.	Event-related potentials
Oracle America, Inc.	Event-related potentials
College Scheduler, LLC	Events and calendar management
Attendease Event Reg	Events and calendar management
Brownbearsw.com	Events and calendar management
Calendar Wiz, LLC	Events and calendar management
Scheduleonce, LLC	Events and calendar management
Dharanet, LLC (DBA Grupio)	Events and calendar management
Seattle Technology Group, Inc.	Events and calendar management
CollegeNet, Inc.	Events and calendar management
Localist Corporation	Events and calendar management
Profit Systems, Inc. (DBA EventPro Software)	Events and calendar management
Guidebook, Inc.	Events and calendar management
Avtech Software, Inc.	Facilities and building management
Building Systems Design	Facilities and building management
SpecTech, Inc. (DBA MPulse Maintenance Software)	Facilities and building management
Software Toolbox, Inc.	Facilities and building management

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eMaint Enterprises, LLC	Facilities and building management
Fastspringsoftware.com	Finance and Business Processing
Freshbooks	Finance and Business Processing
Intuit *Quickbase	Finance and Business Processing
Intuit *Quickbooks	Finance and Business Processing
Paypal *Cleverbridg	Finance and Business Processing
Sage Software, Inc.	Finance and Business Processing
<a href="http://www.cleverbridge.net">www.cleverbridge.net</a>	Finance and Business Processing
Piracle, Inc.	Finance and Business Processing
CalcXML, LLC	Finance and Business Processing
1099 Pro, Inc.	Finance and Business Processing
Higher One, Inc.	Finance and Business Processing
Fitch Enterprises, Inc. (DBA Emerald Business Systems)	Finance and Business Processing
Cleverbridge, Inc.	Finance and Business Processing
Zuora, Inc.	Finance and Business Processing
OQ Measures, LLC	Health-care management
Ahlers and Associates	Health-care management
Optuminsight, Inc. (DBA Optum)	Health-care management
Zebu Compliance Solutions	Health-care management
McKesson Corporation (DBA McKesson Pharmacy Systems, LLC)	Health-care management
Titanium Software, Inc.	Health-care management
Navicure, Inc.	Health-care management
Kalos, Inc.	Health-care management
Orchard Software Corporation	Health-care management
Medicat, LLC	Health-care management
UpToDate, Inc.	Health-care management
Kronos, Inc.	Human resources management
PageUp People Pty, Ltd.	Human resources management
uWork com, Inc. (DBA Covendis Technologies)	Human resources management
CSO RESEARCH, Inc.	Human resources management
CYFE, Inc.	Human resources management
WILD APRICOT	Human resources management
Four Winds Interactive, LLC	Information distribution
Coyote Creek Consulting, Inc.	Intranet and IT communications
Atlassian Pty, Ltd.	Intranet and IT communications
ATLASSIAN	Intranet and IT communications
Silke Communications, Inc.	Intranet and IT communications
SHI International Corp; TeamDynamics	IT service management
AINS, Inc.	Legal
Pacer Service Center (DBA US Courts AO-Pacer Service Center)	Legal
West Publishing Corporation	Legal
Indiana University	Legal
Blackboard, Inc.	Learning management system
University Corporation for Advanced Internet Development (Internet2)	Learning management system
HTL*Hightail	Marketing and sales management

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Clarix Technologies, Inc.	Office and productivity
Marquam Group, Ltd.	Office and productivity
NetCentric Technologies, Inc.	Office and productivity
Authorea, Inc.	Office and productivity
Webgroup Media, LLC	Office and productivity
Tableau Software, Inc.	Office and productivity
Bluebeam Software, Inc.	Office and productivity
Versatile Information Products, Inc.	Office and productivity
Open Text, Inc.	Office and productivity
Smartsheet.com, Inc.	Office and productivity
CDW, LLC (DBA CDW Government, LLC)	Office and productivity
Nuance Communications, Inc.	Office and productivity
Microsoft Corporation	Office and productivity
Adobe Systems, Inc.	Office and productivity
Organization for Educational Technology and Curriculum (OETC)	Office and productivity
Tableau Software, Inc.	Office and productivity
Adobe *Acropro Subs	Office and productivity
Adobe *Creative Cloud	Office and productivity
Avangate*Abbyy.Com	Office and productivity
Bluebeam Software, Inc.	Office and productivity
Cbi*Parallels	Office and productivity
Issuu	Office and productivity
Monotype, GmbH	Office and productivity
Omni Development, Inc.	Office and productivity
Orbit Enterprises, Inc.	Office and productivity
Paypal *Wigglyamps1	Office and productivity
Peernet, Inc.	Office and productivity
Piktochart	Office and productivity
Slack	Office and productivity
Smartsheet	Office and productivity
Transcribe	Office and productivity
Avangate*Axes4.com	Office and productivity
Pharos Systems International, Inc.	Printing services
PaperCut Software International Pty, Ltd.	Printing services
Office Imaging, Inc.	Printing services
Whittier Mailing Products, Inc.	Printing services
Alder Technology, Inc.	Printing services
Ricoh USA, Inc.	Printing services
Xerox Corp	Printing services
Printronix	Printing services
Wrike, Inc.	Project management
AEC Software	Project management
Fog Creek Software, Inc.	Project management
Teamwork.com Projects	Project management
Trello	Project management
Uxpin.com, +48694939957	Project management
Workflowy	Project management
Wrike.Com	Project management
LEA Data Technologies	Safety and risk aversion

## Campus Engagement Report for Transform IT

TLO Transunion	Safety and risk aversion
MicroNiche, Inc.	Safety and risk aversion
Motorola Solutions, Inc.	Safety and risk aversion
Kevin R. Potter (DBA KRP Data Systems)	Safety and risk aversion
Firstline Business Systems, Inc.	Safety and risk aversion
Bold Technologies, Ltd.	Safety and risk aversion
End2End Public Safety	Safety and risk aversion
Social Sentinel, Inc.	Safety and risk aversion
On Site Systems, Inc.	Safety and risk aversion
Aegis Identity Software, Inc.	Safety and risk aversion
Aronson Security Group	Safety and risk aversion
CBORD Group, Inc.	Safety and risk aversion
SVC Corporation (DBA DGM Systems)	Safety and risk aversion
Posglobal.com	Sales and marketing
Squarespace, Inc.	Sales and marketing
Stacy L. Rollins (DBA SLR Associates)	Sales and marketing
Reach Sports Marketing Group, Inc.	Sales and marketing
CAM Commerce Solutions, Inc.	Sales and marketing
Bartizan Connects, LLC	Sales and marketing
Blu Sky Web Solutions, LLC (DBA Blu Sky Creative Services)	Sales and marketing
College Source	Student management
In *Front Rush, LLLC	Student management
Leepfrog Technologies, Inc.	Student management
Glo-Bus Software, Inc.	Student success
BrainPOP, LLC	Student success
Redrock Software Corp	Student success
Springshare, LLC	Student success
Terra Dotta, LLC	Student success
Parchment, Inc.	Student success
CollegeSource, Inc.	Student success
National Education Loan Net/Peterson's Nelnet, LLC/CUnet, LLC	Student success
Articulate Global, Inc.	Student success
Kivuto Solutions, LLC	Student success
Livescribe, Inc.	Student success
Solidprofessor	Student success
Top Hat Student	Student success
InterviewStream, Inc.	Video conferencing and streaming
Blue Jeans Network, Inc.	Video conferencing and streaming
Panopto, Inc.	Video conferencing and streaming
Wowza Media Systems, LLC	Video conferencing and streaming
www.getmovi.com	Video conferencing and streaming
Applian Technologies	Video conferencing and streaming

### Appendix L – Transform IT Workshop – Overview

At a two-day Transform IT retreat held by Jessie Minton, chief information officer, a group of 50 attendees discussed definitions, values, and principles that will be used to help guide the evaluation and potential restructuring of technology services.

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The retreat was attended by faculty, staff, administrators, students, and IT staff.

During the first day of the retreat, attendees reviewed the university's values, mission, and goals, developed a set of values to guide future Transform IT projects (Appendix M), discussed those values and how they fit with the university values and goals, and then incorporated those conversations into the development of guiding principles (Appendix N) for Transform IT.

On the second day of the retreat, attendees discussed the advantages and disadvantages of structuring specific services as enterprise (e.g. campus-wide), hybrid, or specialized (offered only at the department level). During these discussions, Campus Engagement project staff collected the key points discussed at each table and synthesized key points into a summary (Appendix O).

The deliverables from the two-day Transform IT retreat will be summarized and presented to the Transform IT Steering Committee.

### Appendix M – Transform IT Workshop - Program Values

In support of the university's values, we found the following centric values paramount for the Transform IT Program:

- We value a positive customer experience and seek to foster services that are responsive, accessible, and enable student, faculty, staff, and researcher success.
- We value a culture that promotes innovation, creativity, and collaboration.
- We value the development and retention of IT staff through training and clear career paths.
- We value our shared charge to promote sustainability, create a secure environment, utilize economies of scale, and efficiently use resources.
- We value customer engagement and building relationships through open communication, transparency, and trust.

### Appendix N – Transform IT Workshop - Guiding Principles

Principles to be used as an IT community to make decisions for the best interest of the university.

#### DECISION MAKING

- Decisions will be made based on supporting data and evidence.
- Decisions should take into consideration public perception and university reputation.
- Fairness, inclusivity, and equity will be prioritized in all decision making.
- Decisions will be communicated with the “why” the decision was made.

#### GOVERNANCE

- A shared governance model will be used through collaboration and transparency.

#### SERVICE DELIVERY

- A common service management framework/lifecycle will be followed.

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- Services will be in support of and address business needs.
- Services will be documented and accessible to end users.
- Service design will support and further the university's diversity, equity, and inclusion goals.
- Service changes should yield an improvement in value and/or efficiency while maintaining the integrity of the service.
- Services will be implemented in collaboration with IT governance.
- Services will be delivered with the necessary resources, training, and documentation.
- Duplication and single points of failure will be reduced.
- Services will be continually reviewed and improved.
- Service and resource gaps will be assessed.
- Legacy services will be retired.

### STAFF

- We will endeavor to match career paths in alignment with staff capabilities and aspirations.
- We will endeavor to increase staff knowledge and competencies through training and professional development.
- Leverage existing resources and consider promoting from within.

### FUNDING

- A sustainable funding model will be used.
- We will use resources (money and people) efficiently.
- We will be transparent about how cost savings are reinvested.

### CULTURE

- IT values will support the university's values.
- A culture of transparency and open communication will be fostered.
- Cross-campus collaboration will be encouraged and supported.
- Periodic analysis of progress will be done.
- We are committed to adjusting approach based on feedback.
- Staff will be open to change.

### CUSTOMER EXPERIENCE

- All stakeholders will be engaged.
- We are committed to open and improved communications to customers.
- Services will be user-centered.
- We are committed to user-focused processes and service design.

### BEST PRACTICES

- We are committed to following shared standards, such as ITSM and PMI.

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- Compliance obligations will be met.
- We are committed to continuous assessment and iteration through learning from our mistakes.

### Appendix O – Transform IT Workshop – Day 2 Service Summaries

#### Help Desk/Desktop Support

##### Common opportunities

- Standardization and compliance
- Developing a community of practice and shared knowledge base
- Consistent user experience
- Catalog of services
- Single point of contact/avoid “bouncing” the customer around
- Single tool for gathering data (e.g. ticketing) and improved escalations
- Utilize student employees
- Cross training opportunities
- Opportunity for advancement

##### Common challenges

- Trust levels of customers
- Getting customers to adapt change
- Minimum levels of service may not address all needs/how to define minimum level of service
- Number of unmanaged machines
- Untangling the uniqueness within local IT departments (e.g. units support different hardware, images, operating systems, etc.)
- Lack of current standardization across organizations
- Creating environments needed for specialized services that will have to be maintained
- Staff have specific and contextual knowledge in local areas
- Geographic challenges within the same unit/proximity to users
- Understanding all business processes
- Effective training model/training new student workers (who are always graduating)

##### Common mitigation factors

- Marketing and communication of change
- Share and build domain knowledge (i.e. knowledge base)
- Centralized training
- Start with procurement/reduce the number of computer models
- Maintain customer relationships/work on building new relationships

##### Deeper dive/parking lot

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- Definition of “tier 1” support
- Development of IT glossary

### Storage and Backup

#### Common opportunities

- Economies of scale
- Different levels of storage based on needs/flexible storage options
- Improved security and compliance
- Disaster recovery/resiliency
- Training for customers
- Offer a “menu” of storage services based on certain criteria (e.g. speed, size, resiliency, and business continuity)
- Services/service offerings could be built upon storage
- Enforced retention policies

#### Common challenges

- Cost of current backup solution (i.e. CrashPlan)
- Price considerations for cloud/on-prem solutions (i.e. needs to be competitive or people will buy different services)
- Training users to follow retention policies
- Removing data that is no longer needed/retention policies
- Data classification and how it is managed for storage and backup
- Variety of data types and their needs (e.g. video data vs Word docs)
- Compliance (e.g. HIPAA, FERPA, PCI, research regulations, etc.)
- Data protection guarantee for cloud storage services

#### Common mitigation factors

- Training for users
- Data lifecycle management practices
- Development of policies
- Consistent file delivery/file sharing capabilities

### Websites

#### Common opportunities

- Central platforms for hosting
- Uniform look and feel/consistent site design
- Improved security and compliance
- “Self-service” that makes creating a website easier
- Development of policies and best practices

#### Common challenges

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- Having enough resources to provide web services
- Site maintenance and ensuring content is up-to-date
- Lack of content resources/contributors
- Site integrations (e.g. APIs, plugins, etc.) to meet specialized needs
- Accessibility compliance and enforcement
- Site ownership

### Common mitigation factors

- Training on accessibility and security best practices
- Marketing the tools available to users
- Develop tools for maintaining sites
- Development partnerships and community of practice

### Deeper dive/parking lot

- Defining websites
  - External-facing websites that we are responsible for the compliance, security, etc. for.
- Definition of accessibility
  - Data access on a website vs accessibly by hearing and/or visually impaired users?
  - Need to think and consider both
  - Consider mobile friendliness
- Need to engage central Communications in this conversation to better understand their role and web services they provide.

## Business Applications

### *MSSQL*

#### Common opportunities

- Increased security
- Scalability
- Creates career path opportunities
- Increased efficiency and redundancy

#### Common challenges

- Training at an enterprise level
- Ability to “unhinge” applications currently connected to and dependent on SQL server
- Sizing

### *Kronos*

#### Common opportunities

## Campus Engagement Report for Transform IT

- Reduce errors/better compliance with state and federal laws
- Increased accuracy of time reporting/reduces risk for wage and hour claims
- Consistent and standard process
- Low FTE support required/reduction in administrative hours

### Common challenges

- Cost
- Culture shift/buy-in
- Different classes of employees/need to have more than one pay period potentially
- Complexity (e.g. bargaining agreement)

### *GIS*

#### Common opportunities

- Encourage collaboration across campus
- Governance

#### Common challenges

- Security requirements
- Silos/turf of product may be difficult

### *Inventory.uoregon.edu*

#### Common opportunities

- Tracking diverse inventories
- Risk management
- Consistency

#### Common challenges

- Banner integration
- Home built application
- No UO-wide policies

### *Forms.uoregon.edu*

#### Common opportunities

- Resourced
- Central platform
- Expanding use
- Eliminating paper
- Easing workflows
- Developed onsite – more flexible

#### Common challenges

## Campus Engagement Report for Transform IT

- Security
- Marking/consulting
- Different solutions accomplishing similar functionalities
- Developed onsite – upgrading
- Prioritizing new forms and features

DRAFT