THE UNIVERSITY
OF RHODE ISLAND

THINK BIG WE DO™

Information Technology Review

February 22, 2016

Prepared By:

BerryDunn

Contents

Executive Summary

University of Rhode Island (URI) engaged BerryDunn to conduct an independent review of the current Information Technology (IT) organization, operations, and services, and to lead the University in developing a five-year IT strategic plan. This report describes our review, observations and recommendations, and provides the baseline for the development of a collaborative IT strategic plan for URI.

BerryDunn visited the URI campus in October and December of 2015 to interview University staff, faculty, students, and IT personnel about their experiences and perspectives related to the University's IT environment. This report is based on our analysis of the information gathered during our onsite visit, surveys, follow-up contacts, and IT documentation provided by the University.

Overview of our Report

Our report is organized into three sections:

- Section 1 provides institutional profile information and comparative data on staffing and funding levels at URI compared to national data available from Educause.
- Section 2 presents an overview of strengths, weaknesses, opportunities, and threats (SWOT).
- Section 3 describes specific issues and related recommendations based on our analysis and observation of URI's information technology environment today.

Addressing the core issues and implementing the recommendations described in Section 3 will help URI to build a solid framework for information technology, moving forward.

URI's Current IT Environment

The current IT environment is characterized by both centralized and distributed IT resources. This environment has evolved over time and presents significant challenges, which include:

- Lack of regular communication across IT and with the end-user community;
- Limited IT prioritization and planning;
- An insufficient focus on IT security; and
- Need to better coordinate IT services and staffing at URI

URI lacks a strategic vision for IT. Without a common understanding of strategic priorities, the IT organization has been challenged to make operational decisions to most effectively allocate resources. Consequently, IT is often reacting to user needs on a day-to-day basis, rather than planning proactively to align with institutional priorities.

Technology and personnel spending is extensive beyond ITS. There has been limited attention to identification of where particular services and resources should be located, whether that be in central ITS or distributed locations. The following table provides total IT spending for FY15 at URI and demonstrates that nearly half of IT personnel and a significant portion of IT spend occurs outside ITS.

IT Personnel and Spending Across URI		
Location	Full-time Employee Equivalents[1]	Total Spending (FY 14-15)
ITS (central)	90	$15,452,066
Distributed IT	70	$ 8,811,343
Total	160	$24,263,409

Many of the challenges we observed are reflective of the need to strengthen IT leadership, service delivery, communication, and attention to customer service. Addressing these challenges will better position the University to effectively address strategic and tactical opportunities.

The following areas have been identified as key opportunities to move IT communications and services forward at URI.

IT Planning.

The University's newly-formed IT governance structure should be integral to creating a sustainable IT planning processes to address strategic needs. The core challenges identified in this report will help inform the work of the IT Strategic Governance Committee moving forward.

Governance, Risk, and Compliance.

Further attention is needed to manage risk and compliance in conjunction with the newly-developed IT governance structure. The University has committed limited resources to addressing information security, and it lacks an approved comprehensive security plan to address IT security risk management. URI should establish an ongoing IT Security Risk Management program to more proactively address IT risks and inform security-related IT plans and initiatives.

Organizational Change.

The IT environment (both ITS and non-ITS) needs to better align IT services with needs of students, faculty and staff. URI also needs to improve clarity around IT roles and responsibilities, and break down the silos that have developed over time (both within ITS and across the broader IT community). Restructuring, in conjunction with a renewed focus on IT leadership and communication within ITS will help improve IT effectiveness. This will be especially important to meet academic and research technology needs.

Business Processes and Administrative Systems.

A focus on business process improvement will help URI meet its academic and research mission too by improving system functionality to better meet faculty and research needs. Limited attention has been given to streamlining business processes at URI, and identifying ways to improve the University's use of PeopleSoft and other enterprise systems. Improving processes entails operational and workflow

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[1] Does not include student workers

redesign as well as system changes. Efficiencies gained in administrative areas can potentially free up IT resources to focus on academic and research technology needs.

IT Alignment with the Academic and Research Priorities.

The University should leverage its new IT Governance structure to elevate attention given to academic and research technology needs; especially to support the goals outlined in the URI Academic Strategic Plan 2016-21, from the Joint Committee on Academic Planning (JCAP).* Work completed by the Big Data Collaborative and their vision for data-intensive discovery should also be reviewed and leveraged*.*

Opportunities to Move IT Forward and Quick Wins

There are multiple opportunities to advance the delivery of services to students, faculty, and staff; gain operating efficiencies; and establish IT's credibility through projects that yield improved technology for the University.

The following quick wins will help advance IT at URI:

- Increase technical support to help faculty to leverage Google Apps and fix the Google issues identified by faculty
- Strengthen support for wireless network infrastructure to meet student demand
- Utilize the newly formed IT Governance committee to improve communications about IT
- Raise awareness for Information Security efforts already underway
- Transition to a new help desk service ticketing tool that can be used for project portfolio management

Longer term opportunities include adopting a standard framework for IT security and risk management, improving ITS communication, making IT organizational changes, adopting business process improvements, and placing increased focus on academic and research IT needs.

Implementing effective change will require vision and leadership, project planning, user training, staff training, and appropriate and sustainable funding.

Several appendices are included at the end of this assessment that includes URI participants from interviews and meetings with BerryDunn and additional information about data collection.

Next Steps – Seven IT Planning Work Sessions

Based on the recommendations identified in this assessment, the second phase of our engagement with URI focuses on developing a sustainable, university-wide IT plan that considers priorities, sets expectations, and focuses on positive change. A key component of the planning phase is for BerryDunn to facilitate strategic work sessions that bring together a cross-section of URI stakeholders.

These work sessions take approximately 4-6 hours and involve 10-15 key stakeholders that represent subject matter experts at URI and relevant IT personnel. For example, a work session on Technology to Support Research would likely include research faculty, research administrators, and key technical staff.

Based on our work to date, we have identified seven work sessions that will focus on the following topics and related questions:

- **Infrastructure.** What technology investments should URI focus its attention on to better meet the needs of students, faculty and staff? How can technology be deployed to support teaching, learning, and research in ways that reduce duplication of investment? Are there technologies now managed and operated by URI that can be more effectively deployed?

- **Technology to Support Teaching and Learning.** How can the IT community better support the core mission of URI? What IT roles and services can URI create or re-purpose that will enable students, faculty and researchers to better meet their objectives for teaching and learning? What is the role of IT in supporting online programs?

- **Technology to Support Research and High Performance Computing (HPC).** How can the IT community better support the research mission of URI? What IT roles and services can URI create or re-purpose that will enable faculty and researchers to better meet their objectives? What services need to be created to support an HPC environment?

- **Organization.** What is the right mix of central and non-central resources at the University? How can the IT community improve its coordination and collaboration to eliminate or reduce duplication and strengthen customer service? What training and professional development investments can be made to meet the needs of IT staff across the University?

- **Service Delivery.** What should an IT service catalog look like at URI? What services should be owned by ITS and what services are better served by non-ITS? How will the University manage IT service delivery going forward to improve efficacy, reduce duplication, and increase the value that IT delivers to the URI community?

- **Process Improvement and Enterprise Systems.** How can URI better use the investments it's made in administrative systems to streamline administrative functions? What opportunities exist to reduce customizations and eliminate costs that can be redeployed to support the core mission of URI?

- **Communications and Change Management.** How to increase awareness and understanding of the services and people that support IT? What communication mechanisms can most effectively support improved service delivery? How will URI support change and monitor implementation of IT planning initiatives?

As a first step for the Planning work, a Planning Charter will be created to serve as the roadmap for Phase II. The Charter will identify dates, locations, and key participants for each planned Strategic IT work session. In addition, the University should issue a communication that announces the completion of phase one activities and the purpose and timing of phase two activities once the schedule for planning work sessions has been established.

Section 1 | Institutional Profile and EDUCAUSE Comparative Analysis

This section provides profile information about University of Rhode Island and the current information technology environment.[2]

University of Rhode Island		
Institutional Profile	**FY 2014-2015**	**FY 2013-2014**
Students with Credits Headcount	16,571	16,387
Student FTE	15,404	15,284
Faculty FTE	863	876
Staff FTE	1,708	1,727
Total Institutional Employees FTE (faculty and staff)	2,571	2,603
Total Institutional FTE (students, faculty and staff)	17,975	17,887
Financial Figures		
Total University Operating Expenditures	$761,395,448	$742,189,363
Central IT non-compensation operating spending	$5,617,413	$5,760,742
Central IT compensation spending	$8,571,238	$8,277,899
Central IT capital spending	$792,294	$977,282
Central IT outsourcing spending	$471,121	$180,621
Total Central IT Expenditures	$14,188,651	$14,038,642
Total Central IT spending per Institutional employee	$5,519	$5,393
Total Central IT spending per Institutional FTE	$789	$785
IT Training Expenditures	$59,961	$141,735
Student technology fee	$41 per semester	$41 per semester

IT Staffing – FY 2014 - 2015	
Description	**Count**
Central ITS Staff – FTE[3]	90
Distributed IT Staff - FTE[4]	70.5
Total IT Staff - FTE[5]	160.5
Central ITS Staff FTEs per 1,000 Institutional FTEs	5.0
Total IT Staff FTEs per 1,000 Institutional FTEs[6]	8.9
Central IT Staff as a percentage of institutional employees	3.5%
Total IT Staff as a percentage of institutional employees	6.2%
Student IT Workers FTE[7]	45.3
Student workers as a percentage of All IT FTE[8]	22%

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[2] Note that this data (unless otherwise noted) is for URI's central ITS unit only; does not reflect distributed IT.
[3] Not including students and graduate assistants
[4] Based on self-reported data provided by URI departments and colleges
[5] FTE based on a standard 35 hour work week and does not include student and graduate assistants.
[6] Includes central ITS and distributed ITS; does not include students and graduate assistants.
[7] Includes 39 in central ITS and 6.3 in distributed ITS
[8] Includes ITS and Distributed IT, students and graduate assistants

Other Information about IT at URI		
Chief Information Officer (CIO) Reports to:	Provost & Vice President for Academic Affairs	
Is the IT Officer on the president's cabinet?	No	
Help Desk Hours	**Weekdays**	**Weekends**
What are the hours of the Help Desk?	M-TH: 8am – 9pm F: 8am – 4 pm	Sat: 10am – 4pm Sun: 1pm – 6pm
Key Enterprise Systems		
Enterprise Resource Planning	PeopleSoft	
Learning Management System	Sakai	
Help Desk	Remedy[9]	
Email & Calendar	Google Apps	

EDUCAUSE Comparative Data

EDUCAUSE is a nonprofit association dedicated to helping colleges and universities shape strategic IT decisions at every level within higher education. This section provides a comparative analysis of URI's IT staffing, services, and expenditures based on data reported by other institutions with a Doctoral Carnegie classification in the 2014 EDUCAUSE Core Data Service report.

EDUCAUSE Core Metrics Comparison – Doctoral Institutions 2014-2015		
Description	**EDUCAUSE Data**	**URI FY 2015**
Total central ITS spending per institutional FTE (students, faculty, and staff)	$941	$789
Total central ITS spending per institutional employee (faculty and staff)	$4,807	$5,519
Total central ITS spending per student FTE	$1,176	$921
Total central ITS spending as percentage of institutional expenses	3%	2%
Total central ITS spending as percentage change from previous year	2%	1%
Central ITS non-compensation operating spending as a percentage of total central IT spending	35%	40%
Central ITS compensation spending as a percentage of total central IT spending	56%	60%
Central ITS capital spending as a percentage of total central IT spending	6%	6%
Central ITS training spending per central IT staff FTE	$1,095	$666
Central IT outsourcing spending as a percentage of total central IT spending	2%	3%

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[9] ITS is in the process of implementing Pinnacle as its new Help Desk software

EDUCAUSE Core Metrics Comparison – Doctoral Institutions 2014-2015		
Description	EDUCAUSE Data	URI FY 2015
Central IT staff as a percentage of institutional employees (faculty and staff)	4%	3.5%
Central IT FTEs per 1,000 institutional FTEs	7.1	5.210
Central ITS student workers as a percentage of total central IT FTE	17%	30%

The above data is informative, however, using the EDUCAUSE comparisons for the University of Rhode Island has limits. The limits reflect Educause focus on central IT organizations. Without knowing exact functions that each institution reports to the EDUCAUSE core data survey and the extent of distributed IT at these reporting institutions, conclusions should not be drawn on this data alone.

As identified in the AMRC Report, State of Rhode Island business practices also impact aspects of University fiscal management, human resources classification, job positions, and other factors that are specific to Rhode Island and not reflected in Educause data.

Analysis of EDUCAUSE Data:

The EDUCAUSE comparative data provides one level of benchmarking analysis for consideration. From this data, the following points can be made:

- Central IT spending per institutional FTE (employee, faculty, and students) of $789 is below the EDUCAUSE average of $941.
  - This differential indicates that URI spends $152 less per institutional FTE than comparable institutions across the United States.
- Central ITS student workers comprise 30% of the total central IT FTE, as compared with the EDUCAUSE average of 17%.
- IT training expenditures of $666 are significantly lower than the EDUCAUSE average of $1,095 per central IT staff FTE.

Peer Research

To gain further indications of how URI IT spending and staffing levels compare to URI peer institutions, BerryDunn is working to complete a peer review and benchmarking comparison with three institutions. This comparison among comparable URI institutions will help to identify variances more definitively. The peer institutions identified are:

- University of Delaware
- University of New Hampshire
- University of Toledo

This information will be shared with the University once these comparisons have been developed.

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[10] Calculation does not include student worker FTE

Section 2 | SWOT Analysis

The following table presents a summary of identified strengths, weaknesses, opportunities, and threats in the current Information Technology (IT) environment at University of Rhode Island.

Strengths	Weaknesses
- IT Governance Committee established - IT personnel are eager to help and stakeholders indicate that individuals are able to assist - Joint Committee on Online and Distance Education has established Quality Matters standards for online courses. - GoogleApps was recently implemented for Faculty and Staff to reduce administrative support for email - Broad awareness from Executive Leadership and others that IT plays a critical role in the success of the University	- IT leadership, staff morale, and trust among the ITS units needs improvement - IT organization is structured heavily toward administrative IT support - ITS has gaps in staffing to support academic, educational, and research technology, especially to promote innovation and agility - Lack of in-house technical support for learning management system (LMS), Sakai - Inconsistent communication within ITS and between ITS and non-ITS, as well as the university community - Limited self-service options and no student portal - Gaps in wireless coverage and no self-service for guest wireless provisioning - Lack of formalized and consistent IT training and professional development for technical and functional personnel
Opportunities	**Threats**
- Build upon findings and progress made by Administrative Management Review Committee - Leverage role of IT Governance Committee to jump start the IT planning process - Strengthen the IT landscape with a focus on support for teaching, learning, and research as outlined in the new Academic Strategic Plan. - Develop a new IT strategic plan that builds upon the IT governance structure and results from this IT Organizational Assessment and strategic planning efforts	- Ease of purchasing software on the Internet makes it difficult to maintain consistent security across all software used at URI - IT security – ISO and Security Analyst roles need further definition and visibility to support new threats - Recruitment and retention of qualified IT staff, especially in certain skillsets and technical needs (i.e. security).

Section 3| Report Format and Overview

This section presents issues and recommendations identified during the assessment phase.

Based on our analysis of interviews, surveys and questionnaires, and data collected during the assessment phase, the BerryDunn team identified the following 15 areas of IT.

1. ITS Structure and Staffing
2. IT Resources at URI
3. Training and Professional Development
4. Help Desk
5. Technology to Support Teaching, Learning and Research
6. Technology to Support Administrative Needs
7. Wireless, Mobility, and Network infrastructure
8. Information Security
9. IT Service Portfolio
10. ITS Communication (Internal to ITS)
11. ITS Communication Across the University
12. University IT Governance and Planning
13. Project Intake and Management
14. ITS Budgeting and Forecasting
15. IT Purchasing and Procurement

Each of the 15 areas follows a consistent format that includes the following information:

- **Issues:** Findings based on analysis gained from survey, questionnaires, work sessions, interviews, and other relevant documentation about the University and IT
- **Relevant Data:** Facts, background information, and other data relevant to the issue identified
- **Recommendations:** Recommendation for further action by the University that will be addressed in the development of a university-wide IT Strategic Plan
- **Linkage to AMRC Recommendations:** Specific recommendation and page(s) of report identified
    - The AMRC report was released in October 2013 and had three overarching goals:
        - Increase efficiencies; improve services; and reduce costs
    - The objective is to update the reader on progress made to date as it relates to IT findings contained in the AMRC report. See section 3.1 for more details.

The following assessment is based on our analysis of the current IT environment at URI. The issues identified here represent challenges and opportunities to build a solid framework for strengthening the role of information technology at URI. The recommendations in this assessment will need to be evaluated in developing a university-wide IT Strategic Plan and in accordance with the vision set forth by the newly formed ITgov committee:

Outcomes should further an information technology environment that supports and facilitates the realization of campus, divisional, and departmental goals related to Teaching and Learning, Research, Outreach, and University Administration.

SECTION 3.1: UPDATE ON AMRC REPORT

The following table provides information on:

- URI progress to-date, as of 2015
- BerryDunn findings relevant to each AMRC recommendation
- Implications for information technology, and next steps

■ Complete	■ In Progress	■ Limited or No Progress to Date

AMRC recommendation		Progress to date	BerryDunn findings	IT implications	Next steps
Issue an RFP for an IT Organization Consultant	■	URI engaged BerryDunn to conduct IT assessment and develop 5-year IT strategic plan	Stakeholders are looking for changes that will help them serve students and improve communications	The current organizational structure, staffing, systems, infrastructure and processes of ITS have been reviewed	URI stakeholders will continue to be engaged throughout the process
Establish an IT Governance Committee	■	Committee formed, Karim Boughida, Dean of Library will serve as Chair	Lack of IT governance has negatively impacted URI IT planning and communications	Without IT governance in place it is difficult to engage stakeholders, prioritize, and plan for strategic IT initiatives	URI needs to formalize the role of the IT Governance Committee and its role within the institution

AMRC recommendation		Progress to date	BerryDunn findings	IT implications	Next steps
IT Strategic Plan		URI engaged BerryDunn to conduct IT assessment and develop 5-year IT strategic plan.	A strategic planning process with engagement and buy in from stakeholders will be effective to promote efficiency, service improvement and cost savings at URI.	BerryDunn will work with URI to develop a strategic plan that will align IT with the goals set forth by the President.	Continuous engagement of stakeholders to foster a collaborative strategic planning process.
IT Process Methodology		Limited	There are no project management tools and no formal project manager positions within ITS.	Not having project management tools within ITS makes it difficult to ensure consistent project intake, prioritization, planning and execution.	Development of project management skills and standards within ITS.
IT Services and Information Technology Staff Skills		Limited. ITS staff have received training on an ad-hoc basis.	There is not a consistent annual training budget or performance review process for ITS.	IT staff do not have adequate training to fully support the systems that end users need.	Establish a training budget and create consistent performance review process for IT employees across URI.
Desktop/Laptop Purchases		Limited	There is no standard device refresh cycle.	Aging hardware becomes costly, inefficient to support, and poses increased security risks.	Adopt a standard device refresh cycle across the entire institution.

AMRC recommendation		Progress to date	BerryDunn findings	IT implications	Next steps
IT Services Approval of IT Purchases		Limited	Multiple systems are being used in different colleges/departments for similar functions.	Multiple systems are inefficient, add complexity, are not economical to support.	Establish and maintain a campus-wide software inventory to improve software purchasing at URI.
Coordination with State of RI and Board of Education (BOE)		Limited	Limited collaboration with State and BOE since release of AMRC.	Additional purchasing power is not leveraged to acquire new technology.	Seek opportunities for further collaboration with State and BOE.
IT Budgeting, Financial Management, and Procurement		Limited	Budget cuts and end of year money have led to inconsistent funding for ITS that contributes to confusion and uncertainty.	Inconsistent funding makes it difficult to budget for new initiatives and maintenance funding after implementation.	Evaluate spending to identify areas of cost savings or reallocation. Communicate priorities for planning.
IT Support Services		The URI ITS website has a link "ITS Services: A-Z"	ITS does not have service level agreements in place with students, faculty and staff.	Outdated service lists are inefficient. SLAs provide structure to support services.	Update IT service list to reflect current services and provide better information on how URI customers can most efficiently obtain services.
Data Analytics		URI has analytics capabilities, but there is no University wide analytics platform.	URI Foundation is using Cognos on their own. URI lacks a consistent reporting and data strategy.	Report data can be inconsistent among Colleges/Departments and URI lacks data standards and a framework for Business Intelligence.	Institute data governance standards to ensure that reporting data is consistent.

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3.1 AMRC REPORT RECOMMENDATIONS

| AMRC recommendation		Progress to date	BerryDunn findings	IT implications	Next steps
In-House Versus Vendor Services for URI		Limited	College/Departments are currently outsourcing services to 3rd party vendors, but there is limited coordination of vendor management to leverage these relationships	Lack of a formal process can lead to inefficiency and in effective use of IT resources	Develop a vendor management approach that strengthens the ability of URI to increase purchasing power and coordinate IT spending more effectively
IT Risk Management		Limited	There are multiple security threats facing URI that need to be addressed	To mitigate the risk of a security breach, IT needs to proactively allocate resources to security	Address the most pressing security issues facing the university and consider the best place within the organization
IT for Research		URI faculty members combined grant funding totaling $1M to purchase a research computer	Plans to build a high performance computing center are in the proposal stages	IT for research not only entails the necessary hardware and software, it will also require human resources	Continue efforts to develop a high performance computing center to support research efforts
Classroom and Online/Distance Technology		Significant pressure since the release of the AMRC report to develop a stronger online presence	URI is in the process of expanding its online course offerings	An effective online presence requires a robust infrastructure and 24X7 support, including help desk	Continue to develop online presence and the technology to support it
Virtual Desktops and Servers		Some progress has been made since the release of the AMRC Report	There are roughly 400 virtual desktops in computer labs and classrooms across campus	Streamlines IT support, Consistent services delivered to multiple VDIs from a central location	Continue to strategically deploy VDIs across the College/Departments

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SECTION 3.2: SURVEY ANALYSIS

- ❖ In October 2015 BerryDunn and URI distributed a survey to 18,119 URI student, faculty and staff email addresses: 8,676 people opened the email and 981 responded. These 981 responses represent an 11% response rate.

- ❖ Survey takers were asked to identify their primary role(s) at the University and could choose multiple. As shown below, 57% of total respondents identified as Students - 47% undergraduate and 10% graduate/doctoral; 17% Faculty; and 23% from Administration/Finance.

- ❖ Please refer to Appendix C for a list of questions.
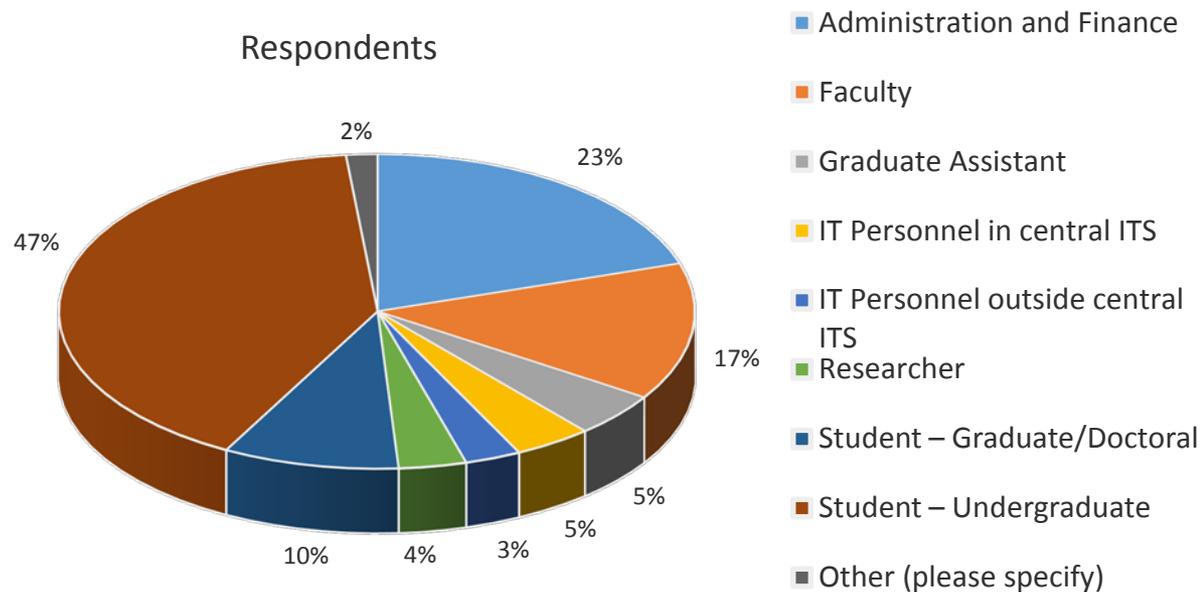
Respondents

■	Administration and Finance
■	Faculty
■	Graduate Assistant
■	IT Personnel in central ITS
■	IT Personnel outside central ITS
■	Researcher
■	Student – Graduate/Doctoral
■	Student – Undergraduate
■	Other (please specify)

2% · 23% · 17% · 5% · 5% · 3% · 4% · 10% · 47%

❖ Survey takers were asked to identify their primary division at the University. As shown below, the highest number of respondents were from the Division of the Provost and Academic Affairs and the Division of Administration and Finance.
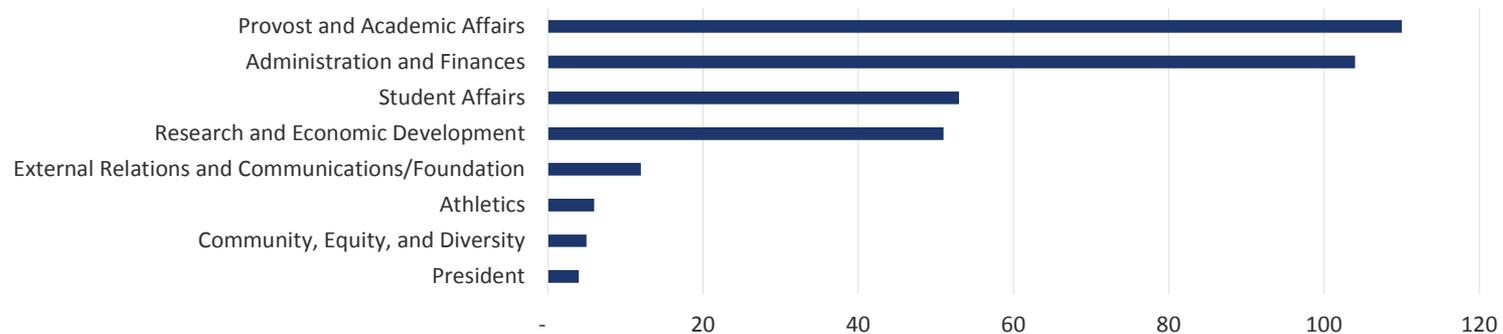

❖ When asked to identify their primary role with technology, more than 83% of respondents identified themselves as functional users.


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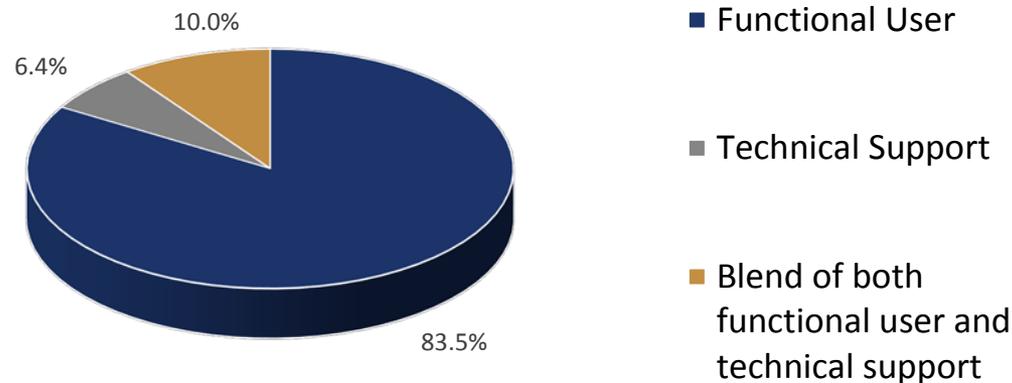
❖ **What specific information technology challenges are most in need of improvement at URI?**
Stakeholders were asked to respond from a standardized list of choices.

n= 547
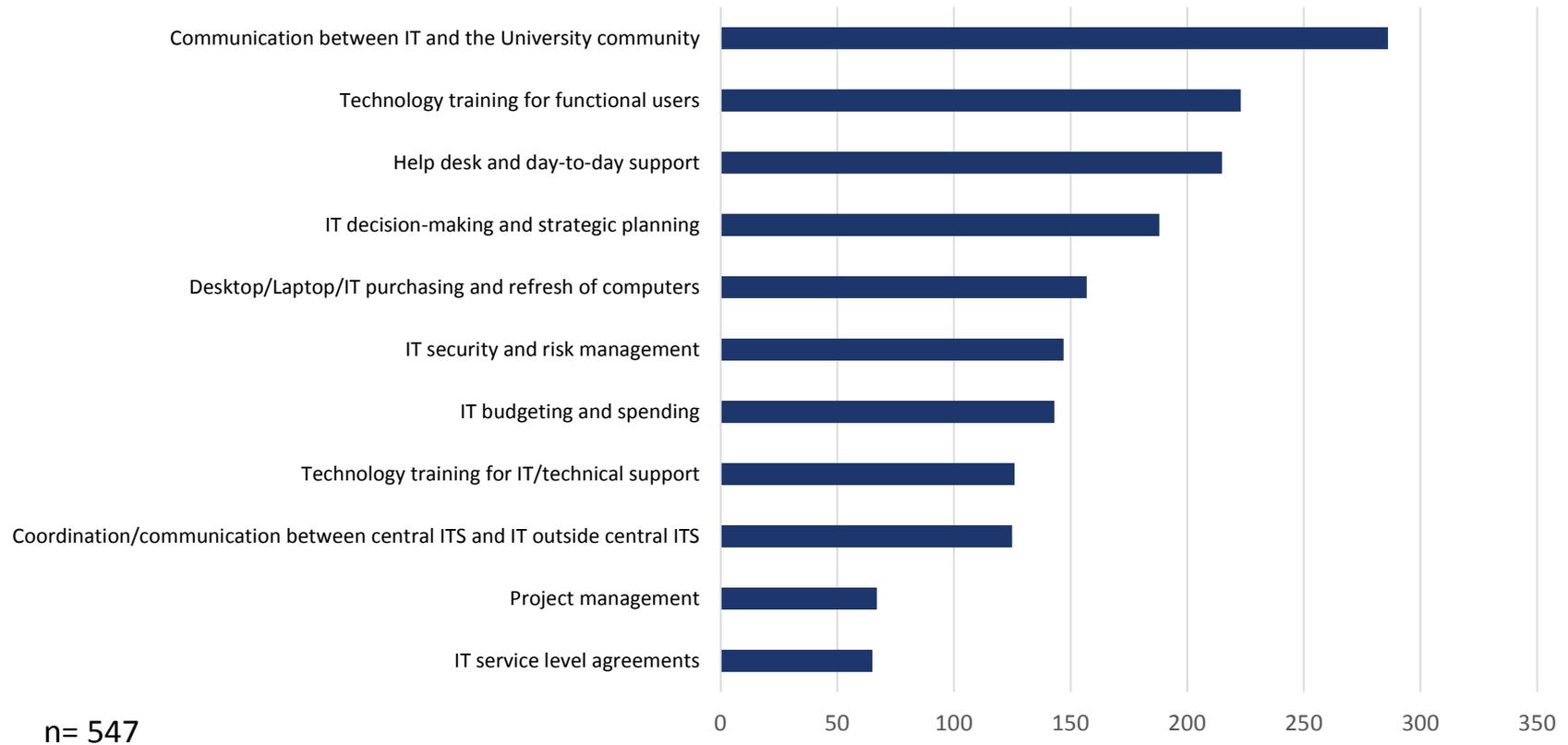
❖ **What specific technology is most in need of improvement at URI?** Stakeholders were asked to respond from a standardized list of choices. The graphic below shows their responses.

n= 555
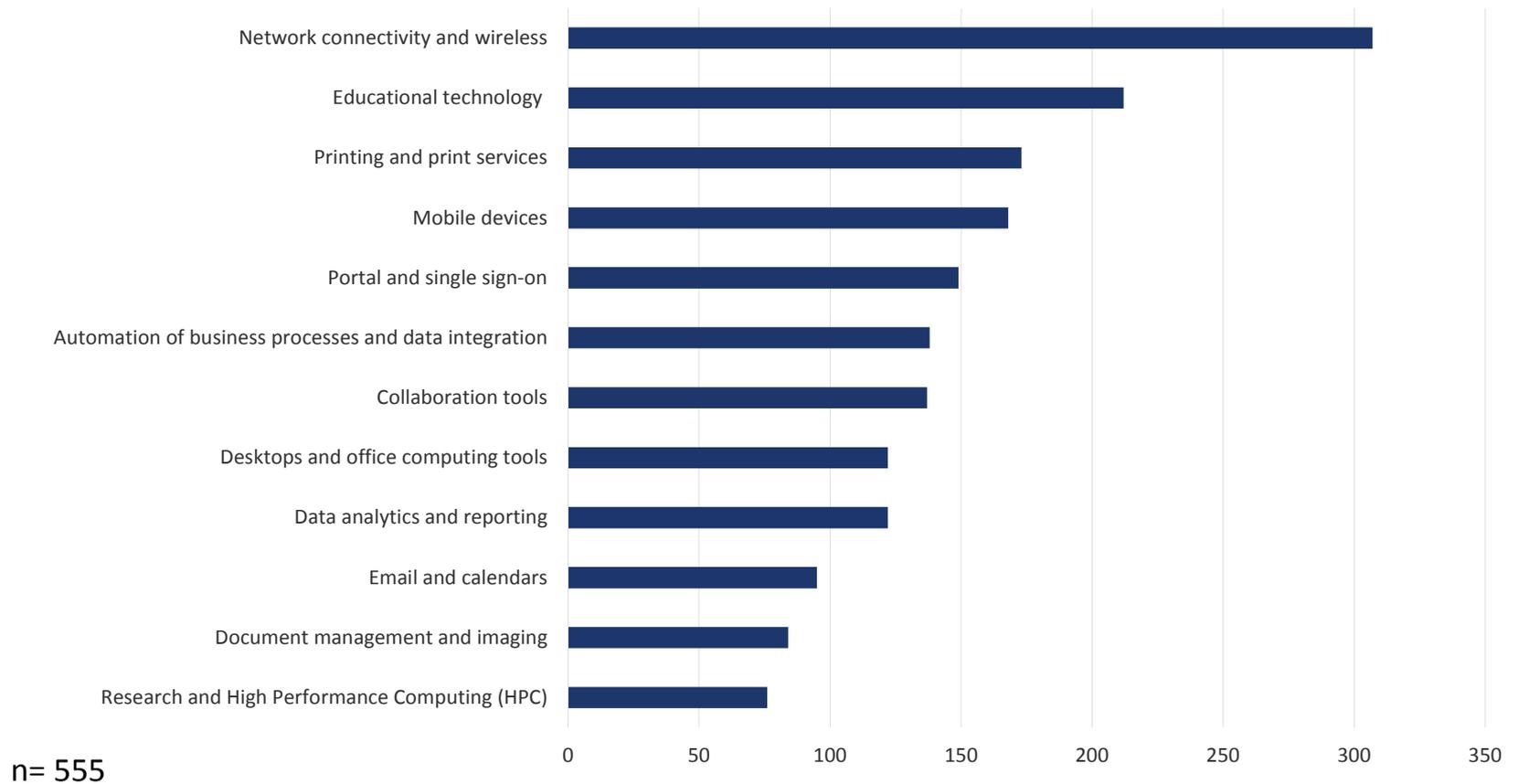
In addition to the university-wide web-based survey, BerryDunn worked with URI to develop and distribute an online questionnaire that was sent to directly to 36 colleges and departments.

The questionnaire was designed to help our team gain an understanding of the distributed IT resources across campus.

Question topics included:

- Annual technology spending including IT personnel

- Number of full-time equivalent IT employees and how they are funded

- Time allocation of IT resources

- Services provided to Colleges and Departments by ITS

- Software supported by Colleges and Departments

- Hardware supported by Colleges and Departments and the physical/environmental controls in place

- Service Level Agreements with ITS

- Sensitive data and how it is protected

Analysis included in this assessment is based on self-reported information.
Please refer to Appendix D for a list of questions asked of colleges and departments.

SECTION 3.3: IT ASSESSMENT ISSUES AND RECOMMENDATIONS

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This section identifies issues and recommendations and uses the following presentation format.

Core Issues Identified
➢ **Issues:** Findings based on analysis gained from survey, questionnaires, work sessions, interviews, and other relevant documentation about the University and IT
❖ **Relevant Data:** Facts, background information, and other data relevant to the issue identified
❑ **Recommendations:** Recommendation for further action by the University
Linkage to AMRC Recommendations: Specific recommendation and page(s) of report identified

15 issues and related recommendations have been organized into 3 focus areas:

- IT Organization
- IT Services
- IT Communications and Planning

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List of Issues Identified

IT Organization

3.3.1 ITS Structure and Staffing

3.3.2 IT Resources at URI

3.3.3 Training and Professional Development

IT Services

3.3.4 Help Desk

3.3.5 Technology to Support Teaching, Learning and Research

3.3.6 Technology to Support Administrative Needs

3.3.7 Wireless, Mobility, and Network infrastructure

3.3.8 Information Security

3.3.9 IT Service Portfolio

IT Communications and Planning

3.3.10 ITS Communication (Internal to ITS)

3.3.11 ITS Communication Across the University

3.3.12 University IT Governance & IT Planning

3.3.13 Project Intake and Management

3.3.14 ITS Budgeting and Forecasting

3.3.15 IT Purchasing and Procurement

3.3.1 - ITS Structure and Staffing

3.3.2 - Training and Professional Development

3.3.3 - IT Resources at URI
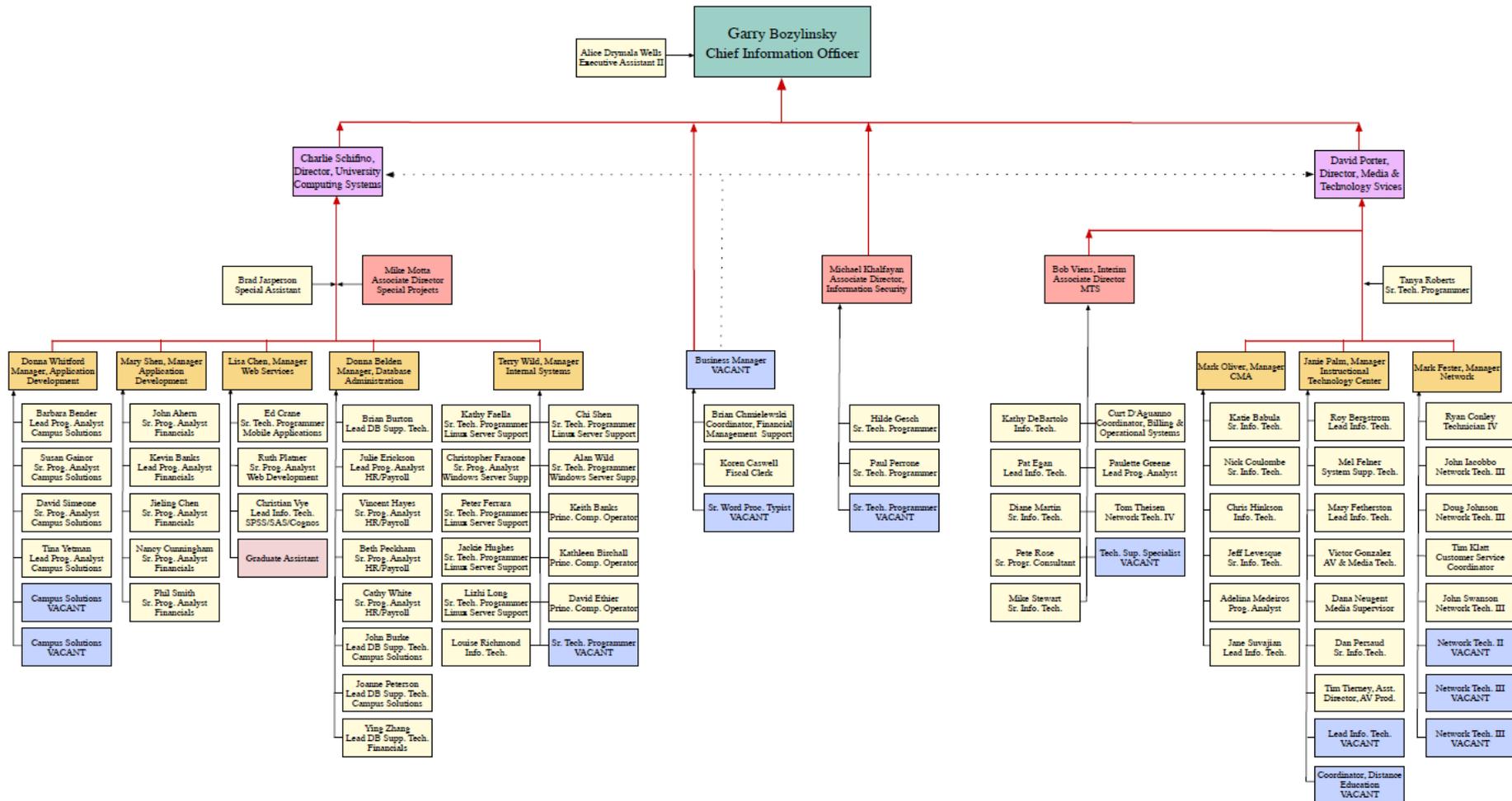
Chart as of November 2015

Issues:

➤ ITS organizational structure delineates administrative and academic functions into silos that can impact service efficacy.

➤ Clearly defined roles (knowing "who does what") and where to turn for assistance is challenging to the campus constituency and IT staff themselves. While ITS (central IT) staff numbers are within industry standards the organization is hindered by its "break-fix" culture, especially in support for administrative systems such as PeopleSoft.

➤ Staff positions in UCS have no designated Business Analyst roles; impacting their ability to fully learn stakeholders' business processes and respond proactively vs reactively.

➤ ITS has not adopted project management and service management practices, which would bring improved service and value to the organization.

➤ Functions that are missing or limited in ITS include: Project Manager; Trainer; SQL skillsets, system testing and software change management, sufficient network infrastructure support; sufficient Sakai LMS resources.

➤ ITS has not consistently managed staff positions, including repurposing vacancies and revising job descriptions for new skillsets needed by the University. Staff has been challenged by vacancies of long duration; and job requirements that are not aligned with job descriptions, which have not been updated to reflect the rapid pace of change in technologies.

➤ ITS, like most IT organizations, is challenged to recruit and retain professional IT employees, especially in specialty areas such as Information Security.

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Relevant Data:

❖ The following chart illustrates the current vacant positions with ITS, as of November 2015. Vacant positions can impact the efficacy of IT support and service delivery, and need to be reviewed when they become vacant; to consider the need to fill, restructure or repurpose.

Information Technology Services (ITS) Organization*	Positions	Vacant Positions*	Vacancy %
Chief Information Officer	1		
Executive Assistant	1		
University Computing Systems (UCS)			
Director	1		
Associate Director Special Projects	1		
Special Assistant	1		
Application Development/Campus Solutions	7	2	29%
Application Development/Financials	6		
Web Services	4		
Database Admin & Application Dev/HR-Payroll	9		
Internal Systems	13	1	8%
Business Services/Financial Management	4	2	50%
Information Security	4	1	25%
Media & Technology Services (MTS)			
Director	1		
Sr. Tech. Programmer	1		
Associate Director/MTS, Help Desk, Other	10	1	10%
CMA	7		
Instructional Technology Center	10	2	20%
Network	9	3	33%
TOTALS	90	12	13%

*Data from ITS Organizational Chart of November 2015; excluding 1 Graduate Assistant (Web Services).
No other positions on the organizational chart are identified as student positions

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Recommendations:

❏ The job descriptions of all employees within the department should be assessed. Any job titles and descriptions that do not align with current responsibilities should be updated.

❏ URI needs to continue to search for candidates for vacant positions. Increasing network support capabilities within ITS should be a first priority.

❏ ITS should conduct a review of the human resources that are currently allocated to support PeopleSoft, and more broadly UCS. There is an opportunity to revise job descriptions from duties focused on reactive "break-fix" mode to more proactive business analyst functions. Moving away from the silos of application development and support within UCS would also improve efficacy.

❏ As ITS moves to implement project portfolio and service management processes across the organization, there may be opportunities to reallocate some resources to other critical functions.

❏ The University needs to consider restructuring the ITS organization, using knowledge gained from this assessment, and in light of understanding of a new five-year IT strategic plan priorities. Particular focus should be given to resources needed to support academic and research technology to better support the core mission of URI.

Linkage to AMRC Recommendations: N/A

Understanding the Presence of IT Resources Across URI

After conducting onsite work sessions with stakeholders in October, BerryDunn designed an online questionnaire to solicit information about the IT resources in addition to ITS (central IT) at the University.

This included outreach to specific colleges and departments. The questionnaire contained 21 questions and consisted of four sections.

- Part I – Staffing & Funding

- Part II – Services, Planning, and Decision Making

- Part III – Infrastructure

- Part IV – Security

Questionnaire Distribution

The questionnaire was sent to representatives from each college or department in an email from the URI Project Liaison. The email communication included instructions to complete the questionnaire and outlined the information that would need to be gathered in advance. One response was completed for each college or department.

All 36 colleges and departments that were asked to participate completed the questionnaire.

Issues:

> The University's model of IT service delivery relies on central (ITS) and distributed IT (non-ITS) staffing and funding resources. This model has evolved over time, with minimal formal planning on how to best structure IT service delivery to promote the most effective use of resources.

> Given the lack of formal planning, central and distributed IT units are challenged to efficiently and effectively assess and plan for needs, provide services, and minimize duplication. Service delivery is challenged by limited focus on the "common good" and greater focus on competing for resources.

> Needs of functional stakeholders can sometimes be impacted by gaps in communication and collaboration among central ITS and distributed resources. For example, departments have initiated projects that require ITS involvement and then experienced delays in ITS assistance that impact project completion.

Relevant Data:

❖ IT services and support are provided and funded within central ITS and distributed locations across the University.

❖ See the next several slides for details of resource allocation informed by questionnaire results from 36 colleges and departments about their distributed IT resources.

IT Staffing Resources

Distributed IT
46%

Central ITS
54%

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THE UNIVERSITY OF RHODE ISLAND
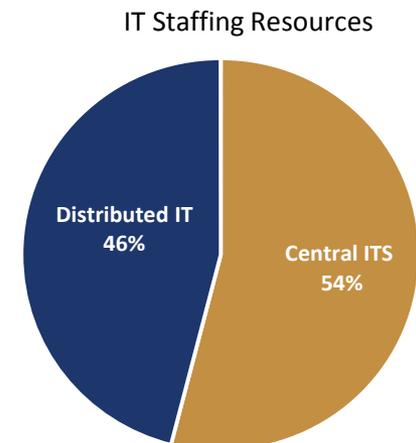
Relevant Data – Distribute IT:

❖ Colleges and departments spend $4M on technology and more than $4.7M on 70.5 FTE staffing resources annually.

❖ Total IT spending in the URI distributed IT (non-ITS) environment is more than $8.8 million.

*Data is self-reported by URI

Division	College or Department	FTE	Technology Spending	Personnel Spendig	Total Spending
	Distributed IT Environment				
Administration & Finance	Budget Office	0	$ 450,000	$ 200,000	$ 650,000
	Human Resources	1	$ 35,000	$ 75,000	$ 110,000
	Office of the Vice President	0	$ 2,000	$ -	$ 2,000
	Controller's Office	7	$ 220,000	$ 314,000	$ 534,000
	Public Safety	1	$ 80,000	$ 90,000	$ 170,000
	Alton Jones Campus	0	$ -	$ -	$ -
Athletics	Athletics	0.5	$ 55,500	$ 18,200	$ 73,700
External Relations & Communications	Alumni	4	$ 39,000	$ 346,000	$ 385,000
Foundation	Foundation	5	$ 40,000	$ 312,000	$ 352,000
President	President	1	$ 6,000	$ -	$ 6,000
Provost & Academic Affairs	College of Arts and Sciences	6.25	$ 60,000	$ 539,300	$ 599,300
	Business	3	$ 434,100	$ 93,000	$ 527,100
	College of Continuing Education	3	$ 40,000	$ 244,700	$ 284,700
	College of the Environment and Life Sciences	2	$ 90,000	$ 255,000	$ 345,000
	College Engineering	5	$ 22,500	$ 115,400	$ 137,900
	Graduate School of Oceanography	5	$ 292,200	$ 689,200	$ 981,400
	Graduate School	2	$ 103,000	$ 135,000	$ 238,000
	College of Human Science and Services	0.5	$ 124,900	$ 34,200	$ 159,100
	College of Nursing	1	$ 160,000	$ 82,500	$ 242,500
	Library	1	$ 374,000	$ 88,000	$ 462,000
	College of Pharmacy	1	$ 42,000	$ 130,000	$ 172,000
	University College for Academic Success	2	$ 360,000	$ 150,000	$ 510,000
	Undergraduate Admissions	2	$ 47,500	$ 83,300	$ 130,800
Research & Economic Development	Research and Economic Development	1	$ 93,000	$ 102,000	$ 195,000
	Transportation	0	$ 4,000	$ -	$ 4,000
Student Affairs	Conferences	0	$ 6,500	$ -	$ 6,500
	Counseling	0.5	$ 16,000	$ 25,000	$ 41,000
	Dining Services	1	$ 130,000	$ 99,300	$ 229,300
	Health Services	1	$ 80,000	$ 112,000	$ 192,000
	Housing	6	$ 500,000	$ 360,000	$ 860,000
	Memorial Union	1	$ 20,000	$ -	$ 20,000
	Campus Recreation	3	$ 37,500	$ 2,500	$ 40,000
	Student Life	2	$ 13,000	$ 3,000	$ 16,000
	Talent Development	1.75	$ 20,000	$ 80,000	$ 100,000
	Bookstore	0	$ 35,000	$ -	$ 35,000
Total		70.5	$ 4,032,700	$ 4,778,600	$ 8,811,300

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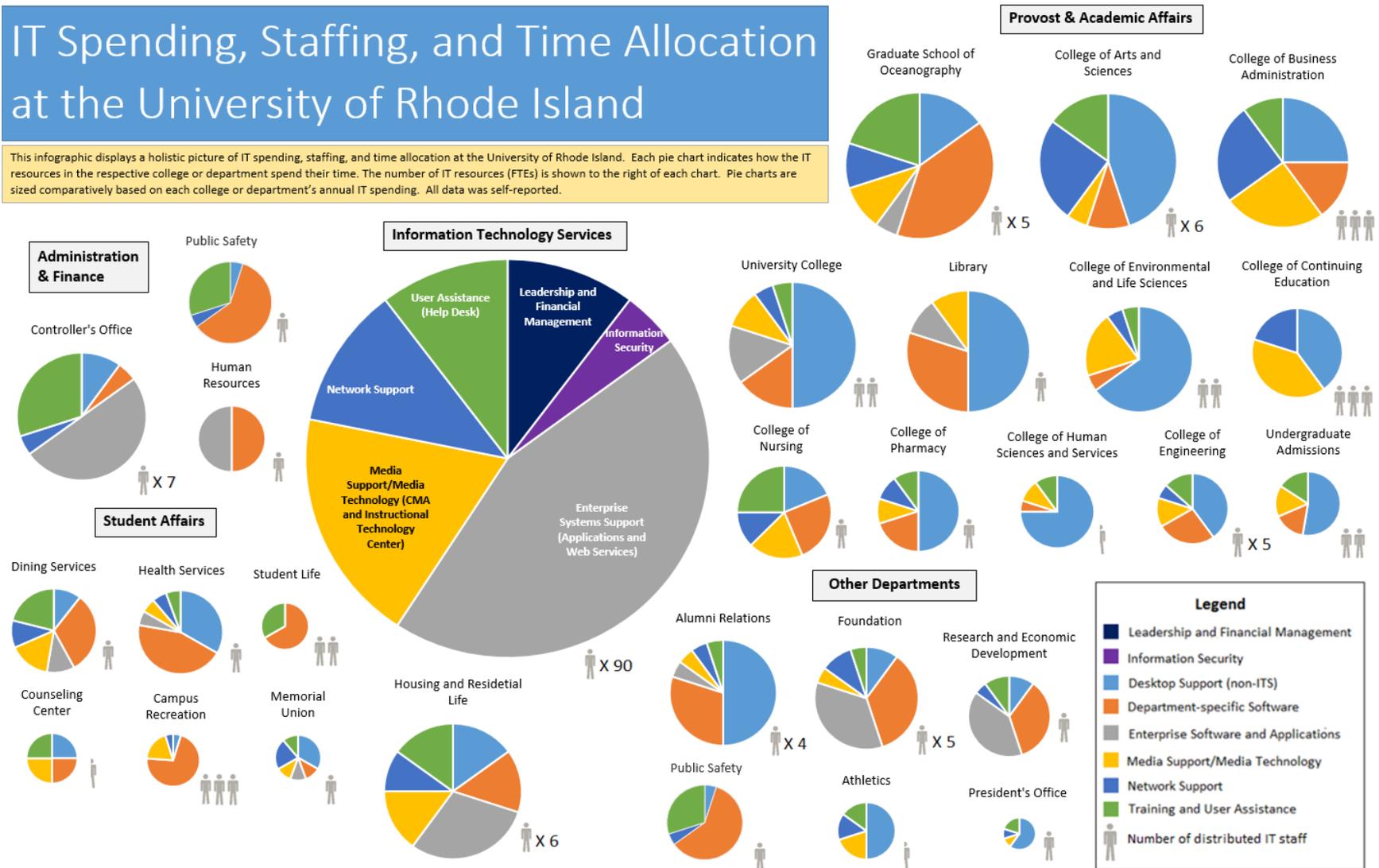
Relevant Data – Distributed IT and Central ITS:

❖ The following tables show staffing resources within distributed IT locations and central ITS; including percentage of time spent on particular IT functions.

Non-ITS / Distributed IT Staff			
IT Services and Support Functions	Percentage of Time on IT Functions	Total Hours/Week on IT Functions	FTE Equivalencies of Time Spent
Desktop Support	28%	695	20
Department-Specific Software	22%	535	15
Enterprise Software (ERP, SIS, LMS)	8%	196	6
Media Support/Media Technology	11%	260	7
Network Support	7%	178	5
Other	15%	366	10
Training and User Assistance	10%	238	7
Totals	100%	2,468	70

ITS Staff			
IT Services and Support Functions	Percentage of Time on IT Functions	Total Hours/Week on IT Functions	Actual FTE Positions in ITS
Desktop Support - Help Desk	12%	350	10
Enterprise Software (UCS)	44%	1400	40
Information Security	4%	140	4
Leadership and Financial Management	10%	315	9
Media Support (CMA, ITC)	20%	630	18
Network Support	10%	315	9
Totals	100	3150	90

Data for distributed IT is self-reported and data for central ITS is from Organizational Chart of November 2015. No students or graduate assistants are included. FTE staffing is based on 35 hours per week.

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Relevant Data:

❖ University spending on IT, for staffing resources and technology, reflects the existing IT service delivery model.

❖ The chart below summarizes FY 2014-15 expenditures that include:
  • $14.2 M in ITS plus $1.2 M in capital projects and outsourcing
  • $ 8.8 M in Distributed IT (non-ITS) locations

IT Service Delivery & Spending					
Location	**FTE & Ratios**	**Technology Spending**	**Personnel Spending**	**Capital & Outsourcing**	**Total & Ratios**
ITS	90 (56%)	$5,617,413	$8,571,238	$1,263,415	$15,452,066 (64%)
Distributed IT	70 (44%)	$4,032,700	$4,778,643	N/A	$ 8,811,343 (37%)
Total	160 (100%)	$9,650,113	$13,349,881	$1,263,415	$24,263,409 (100%)

❖ Within technology and personnel spending, there has been limited attention to identification of where particular services and resources should be located i.e. in central ITS or distributed locations. Lacking this identification, the University is challenged to reduce redundancies, fill missing services gaps, and maximize its investment in IT.

Data for Central ITS and Distributed IT is self-reported and consistent with EDUCAUSE Core Data Survey information. Personnel figures do not include students or graduate students. FTE staffing is based on 35 hours per week.

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Relevant Data:

❖ In the questionnaire responses, 90% of colleges and departments indicated that network infrastructure should be provided by central ITS. At the same time, 44% indicated that they manage a portion of their own network.

❖ Also in the questionnaire responses, more than 65% of colleges and departments indicated that web and server hosting should be provided by central ITS. At the same time, 62% indicated that they host their own servers.

❖ This data collected from distributed IT resources points to need for of a consistent approach in planning for where particular IT services should be provided.

❖ Although distributed IT resources may recognize that managing network and server hosting services should be central ITS' responsibility, this is not happening consistently. Gaps in communication, collaboration, and trust – between central ITS and the colleges and departments – are likely factors.

Colleges and departments managing networks
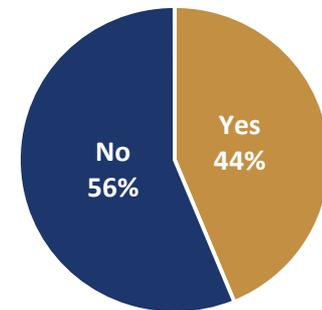
**College and departments hosting servers**

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35
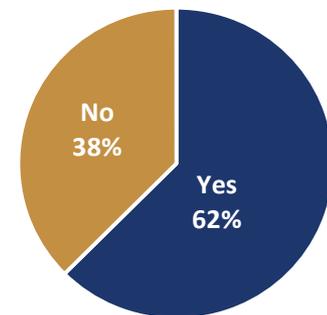
Relevant Data:

❖ URI colleges and departments (36 total) were asked to indicate which IT services they **currently receive** from central ITS.* The top 5 services they chose are: e-Campus, Email, Help Desk, Wireless, and LISTSERVE list.

❖ They were then asked to indicate which IT services that **should be** provided by ITS.


Services Currently Provided to Colleges and Departments

Services That Should be Provided by ITS

* List of services matched services on ITS website

36
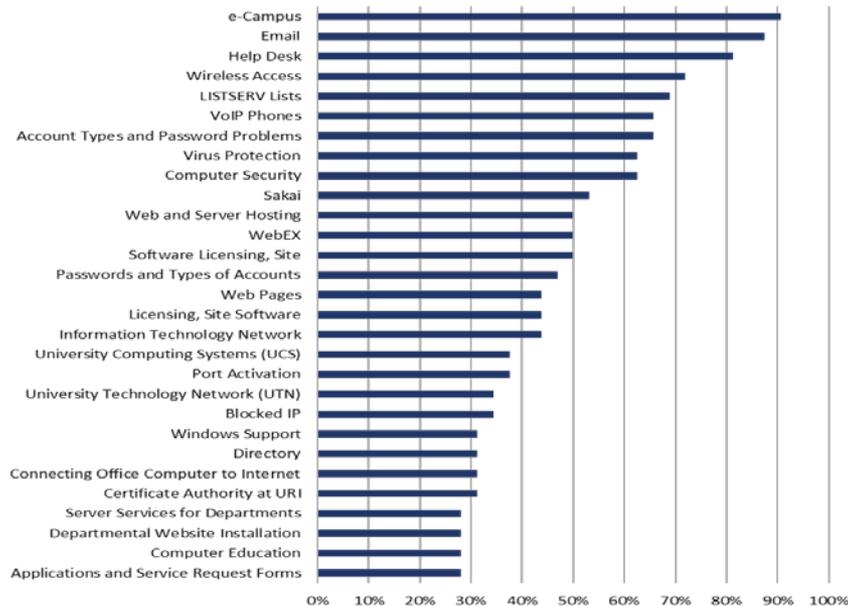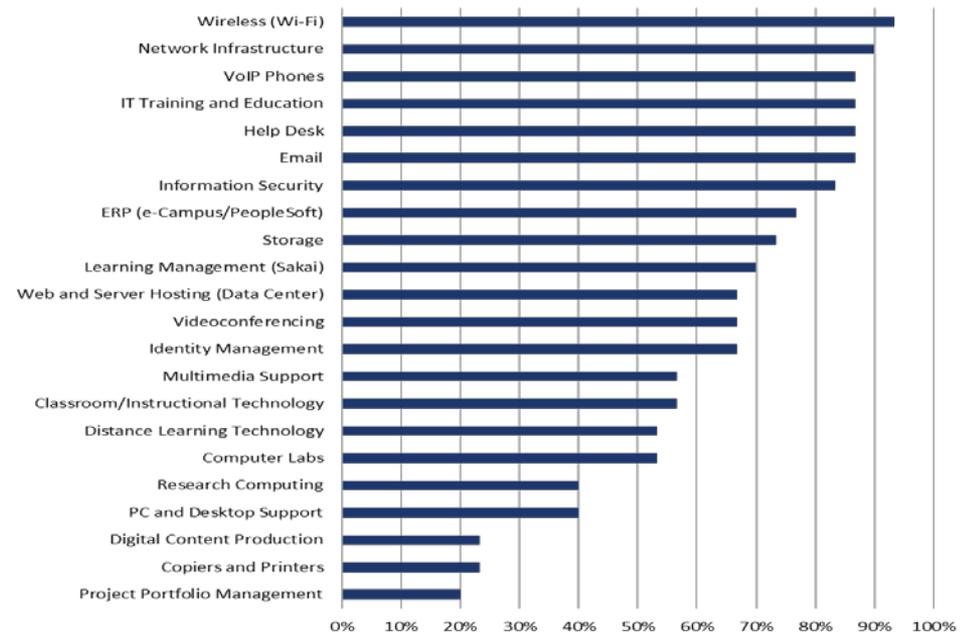
Recommendation:

This Venn diagram shows technology services that colleges and departments report they **currently receive from central ITS** and **should receive from central ITS**. Matches between the current and should-be services are listed in the circles' intersection. Gaps between current and desired services are indicated in **RED**.

Services we currently obtain from ITS

1. **E-Campus and ERP**
2. **Email**
3. **Help Desk**
4. **Wireless Access**
5. LISTSERV Lists
6. **VoIP Phones**
7. Accts/Passwords
8. Virus Protections
9. **Computer Security**
10. **Sakai LMS**
11. **Web/Server Hosting**
12. WebEx
13. Software Licensing
14. Passwords/Accts
15. Web Pages
16. Licensing
17. IT Network
18. UCS
19. Port Activation
20. University Tech Network
21. Blocked IP
22. Windows Support

Email
E-Campus & ERP
Help Desk
Info/Computer Security
Sakai LMS
VoIP Phones
Web/Server Hosting
Wireless Access

Services we should obtain from ITS

1. **Wireless Access**
2. Network Infrastructure
3. **VoIP Phones**
4. IT Training/Education
5. **Help Desk**
6. **Email**
7. **Information Security**
8. **E-Campus and ERP**
9. Storage
10. **Sakai LMS**
11. **Web/Server Hosting**
12. Videoconferencing
13. Identity Management
14. Multimedia Support
15. Classroom/Instructional Tech
16. Distance Learning Tech
17. Computer Labs
18. Research Computing
19. PC & Desktop Support
20. Digital Content Production
21. Copiers & Printers
22. Project Portfolio Mg

BerryDunn *Data source: self-reported in web-based questionnaire responses, BerryDunn & URI November 2015.

Issues:

➢ Professional development for IT has received limited attention. All IT personnel benefit from on-going training and formal feedback mechanisms.

➢ Staff have not consistently been able to select and attend conferences, professional events and training sessions on technical topics, higher education IT trends and innovation, IT security, soft-skills, customer service, and more.

Relevant Data:

❖ What needs the most improvement at URI? In the recent IT survey, 41% of responses (223) were "Technology training for functional users"; and another 23% (125) responses were "Technology training for IT/technical support".

n= 547
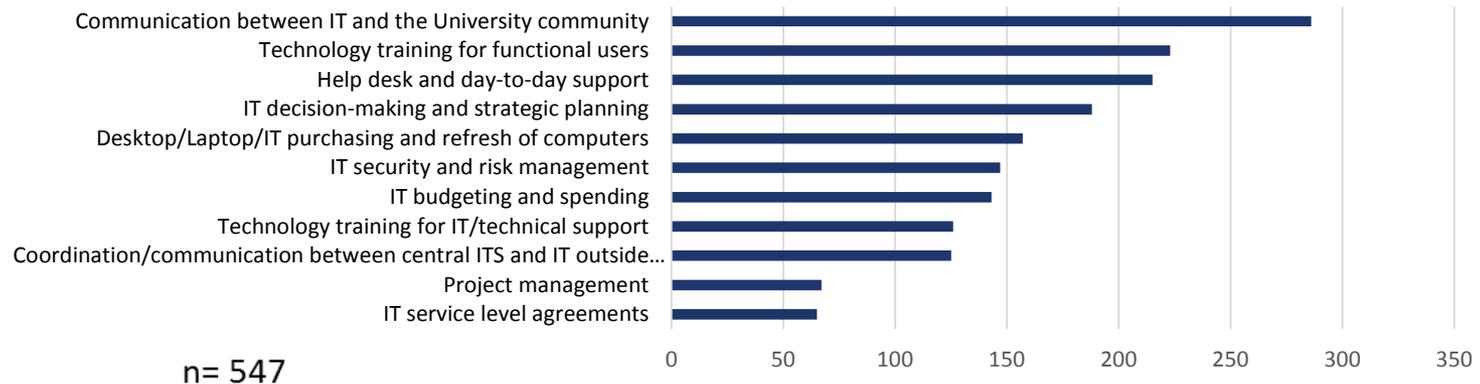
Relevant Data:

❖ There are no dedicated training personnel within the ITS department. There is no dedicated IT training budget, although one-time and carry-over only funds have been available intermittently.

❖ There are no annual training requirements for ITS and distributed IT employees, and no structured way for employees to plan and participate in on-going professional development.

❖ IT training providing during and after the onboarding process for faculty and staff varies by college and department.

Recommendations:

❑ Establish a formalized IT professional development program with a consistent training budget. Training should be provided for both central IT and distributed IT resources, including a focus on soft skills such as customer service, communications, and planning.

❑ Consider providing training in ITIL service standards for IT personnel; especially for those in Help Desk and other support roles.

❑ Technical expertise needs to be sharpened in areas that will help the University with strategic innovation; such as application and desktop virtualization, cloud computing, identity management, and new technologies for research and academic computing needs.

❑ More frequent and formalized training opportunities need to be provided for functional users.

3.3.4 Help Desk

3.3.5 Technology to Support Teaching, Learning and Research

3.3.6 Technology to Support Administrative Needs

3.3.7 Wireless, Mobility, and Network infrastructure

3.3.8 Information Security

3.3.9 IT Service Portfolio
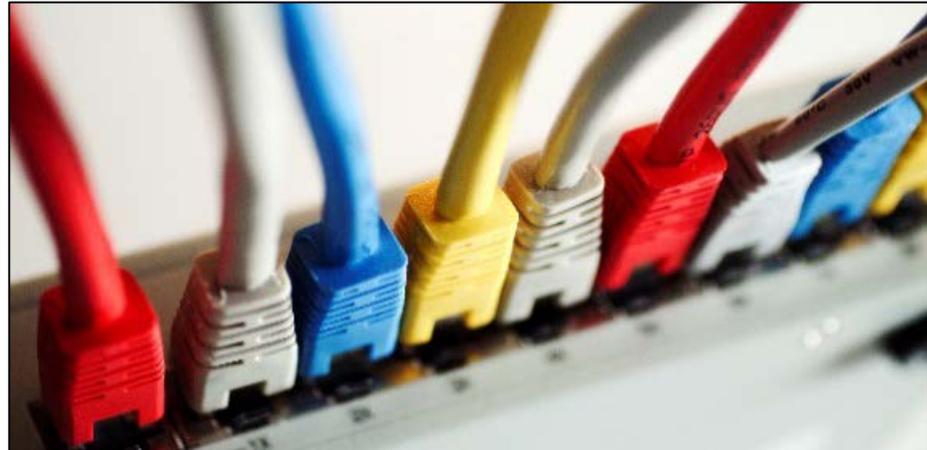
Issues:

➢ The help desk is primarily staffed by student workers who provide Tier 1 support and lack expertise to resolve more complex issues.

➢ Users experience inconsistencies with issues that are escalated to Tier 2 status for attention from appropriate ITS staff. Given lack of clear processes, end users often bypass help desk and contact specific IT staff resources for their support needs.

➢ End users do not consistently receive follow-up communication about the status of requests when they are routed from help desk to ITS staff.

Relevant Data:

❖ More than 70% of URI Help Desk FTEs are student workers.

❖ URI has fewer help desk FTEs per 1,000 institutional FTEs than the average public doctoral institution.

❖ There are tiers of digital training and formal objectives for student workers at the help desk to receive advances in pay or grade.

Help Desk FTEs per 1,000 Institutional FTEs

Figures do not include student workers

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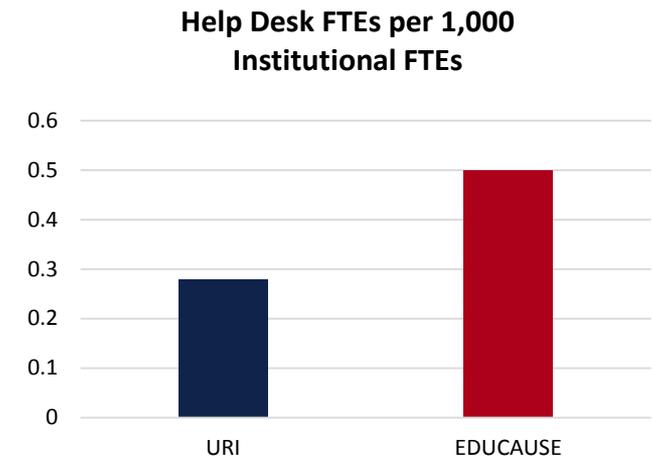
Recommendations:

❑ Consider adopting ITIL standards for help desk, such as creating a single point of contact (SPOC) to strengthen University-wide coordination of support and service.

❑ Help Desk staff should be trained in areas where there are gaps between their skill sets and the types of requests that they are expected to address.

❑ The help desk should establish clear service level objectives in terms of time to resolution for different types of requests, acknowledging that some request types may require more time than others. These times should be communicated to the campus community and triggered by the submission of a new request.

❑ Leverage self-service capability for end-users by implementing easy ways for them to change passwords, identify account problems, and do other routines tasks themselves, alleviating the need to contact Help Desk resources.

❑ In reviewing the current ITS organizational structure, consider the need for full time, service-oriented help desk technicians to bring management background and technical skills needed.

❑ Online programs will require 24x7 support and need to be considered in strengthening help desk availability and services.

**Linkage to AMRC Recommendations**: ITS Support Services (pg. 52)

Issues:

➢ There are gaps in vision, engagement, collaboration, planning, and resources that are impacting support of faculty, researchers and students.

➢ While MTS provides many services that support teaching and learning, the majority of ITS resources (especially within UCS) support administrative systems. Stakeholders we interviewed believe that more focus on research, academic and educational technology is needed at the University.

➢ To fill gaps in ITS resources and services to support teaching, learning, and research, colleges and departments have developed their own IT resources to meet their needs. While these resources are able to address some academic and research needs, there are few formalized ways for central ITS and distributed IT resources to collaborate on service delivery, including topics such as; assessing users needs, project and system planning, and support issues.

➢ While research is a strategic focus of URI's mission, there are gaps in technology services and systems needed to support this mission. Of particular concern are issues around storage and backup; secure wireless; statistical tools; support and training; and lack of understanding of research needs by the central ITS department.

Relevant Data:

❖ **"What technology is missing/needing improvement at URI?"**

  ❖ In the BerryDunn IT survey 52% of responses identified technology to support teaching, learning and research as a gap.[1]
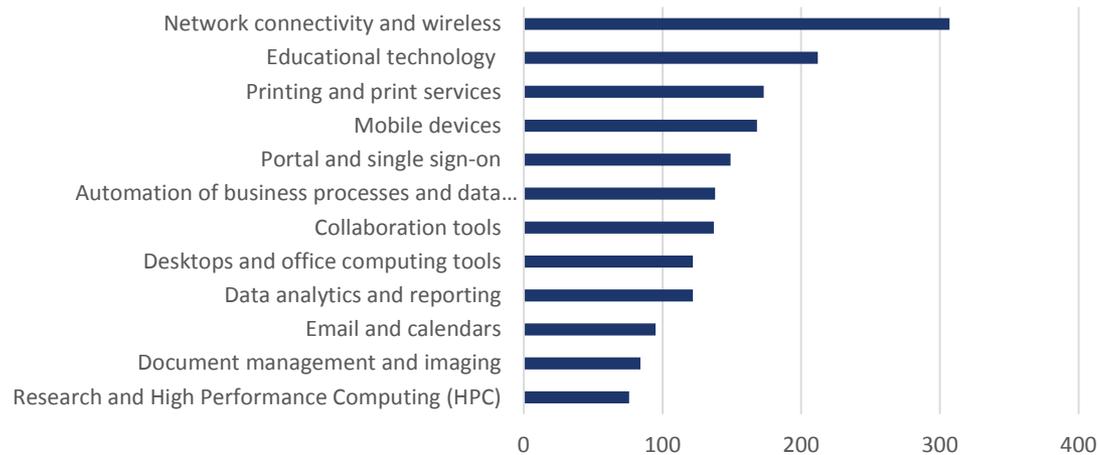
❖ Stakeholders have been frustrated by the University's Sakai LMS; specifically with the lack of ITS resources to support it. In the IT survey, students identified the LMS as "critical to their success at URI" (in addition to wireless access); and expressed dissatisfaction with the volume of LMS down-time.

[1] 38% of responses (212 of 555 total) indicated "educational technology"; and another 14% (75) indicated "research and High Performance Computing."

Recommendations:

❑ The University should consider the organizational structure for central ITS and how resources can be more effectively used for educational and research needs at URI. In addition please refer to pages on Organizational Structure.

❑ The University will benefit from greater engagement of ITS with faculty and researchers. This expanded engagement includes: on-going discussion, planning, implementation, and support for technology to support current and innovative teaching, learning and research needs.

❑ The University should leverage its new IT Governance structure and strategic IT planning to elevate academic and research technology needs; especially to support the goals outlined in the URI Academic Strategic Plan 2016-21, from the Joint Committee on Academic Planning (JCAP).* Work completed by the Big Data Collaborative and their vision for data-intensive discovery should also be evaluated and factored into the University's IT strategic planning process.

❑ After significant work by the Joint Committee on Online and Distance Education, the University is moving to a vendor-supported version of Sakai, which may improve LMS service delivery. However, faculty lack trust in central ITS and their ability to support their academic technology needs. ITS leadership should address this concern with key stakeholders, to understand how to more effectively support technology for teaching, learning and research in the future.

*http://web.uri.edu/academic-planning/college-department-and-division plans/

Issues:

➢ While the University is providing technology to support administrative needs, gaps in technical services, support, and training are impacting business operations; as described below.

➢ UCS supports the PeopleSoft (PS) administrative systems and operates mostly in "break-fix" mode; reacting to user needs, fixing problems, doing upgrades as needed. Limited attention has been given to project intake and management and proactive management practices, which will improve use of UCS resources.

➢ The University owns PeopleSoft modules which have not been implemented according to the AMRC report and confirmed with ITS personnel.* These modules can provide functionality to replace manual operations done or with shadow systems within administrative departments today.

➢ Limited attention has been given to business process analysis and improvement. End-users largely match business processes to PS software functionality, or have customized PS to meet their individual needs without understanding the "downstream impact" of these modifications. Technical personnel respond to user requests with no formalized means to assess business processes; and limited ways to identify functional and technical processes to be initiated, improved, or ceased.

➢ PeopleSoft releases regular upgrades; and at the same time the University has made significant customizations to the delivered system functionality of the student information system (these are detailed on the next two pages) . Supporting continual upgrades and customizations strains staff resources. Staff are also challenged to keep up with learning new PS ERP functionality that could benefit users; and are impeded by the lack of ongoing technical training to expand their knowledge and skillsets.

*Data from AMRC Report, p. 31

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Relevant Data:

❖ PeopleSoft is a complex ERP system and its management and support require coordination among many IT resources that include database administration, programmer/analysts, security, server and hardware. ITS organizational challenges have impacted service coordination and delivery. See slides which address this in more detail; especially "Communication Within ITS" and "ITS Structure and Staffing".

❖ URI has customized PeopleSoft software since first implemented, as illustrated below.

System Changes from Delivered
n=746
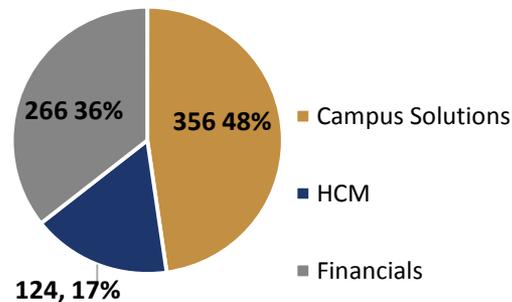
System Bolt-Ons*
n=11,604
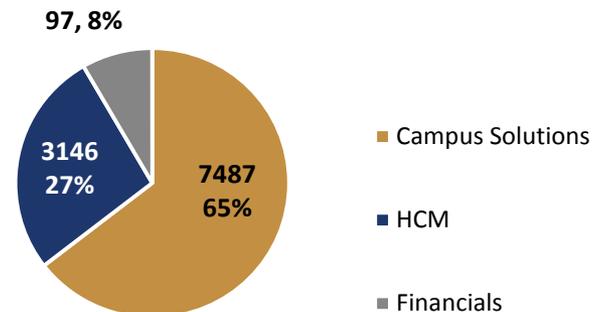
❖ The highest number of customizations are for Campus Solutions student information system; and the highest daily maintenance is needed for the Human Capital Management module.

*Data provided by ITS, November 2015. "Bolt-ons" are programming modules added in-house to PS code.

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Relevant Data:

❖ URI has made customizations, largely in Campus Solution SIS. While IT has made relatively few changes to delivered functionality from PeopleSoft, they have created a significant amount of new customized processes.

❖ New customizations have been made in response to user requests, mostly via Oracle's PL/SQL programming tools. While customized programming can provide increased functionality, customization increases maintenance costs and requires more maintenance resources over time.

Custom Processes
n=1,302

Legend: ■ Campus Solutions ■ HCM ■ Financials
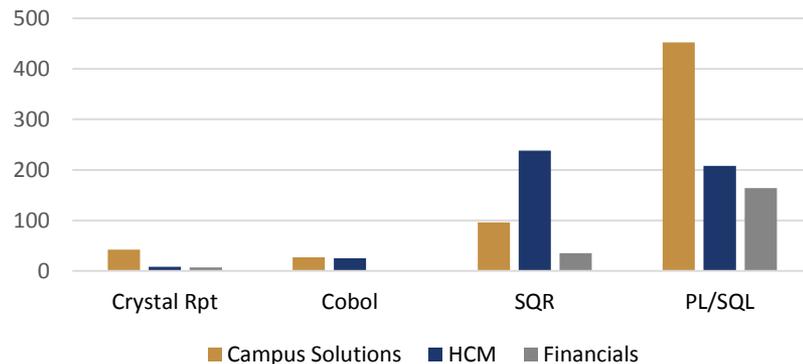
Processes Modified from Delivered
n=100

Legend: ■ Campus Solutions ■ HCM ■ Financials

*Data provided by ITS, November 2015
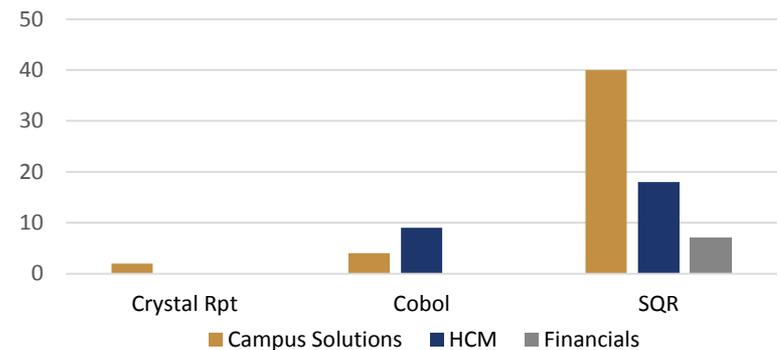
Recommendations:

❑ ITS and UCS should change its focus from "break-fix" mode for systems to a more pro-active approach to supporting administrative needs. More attention should be given to project intake and proactive management practices, which could improve resource utilization. Gain input from UCS staffing resources, and incorporate their ideas about how to provide technology support services to reduce focus on break-fix.

❑ The University should examine the PeopleSoft modules which have not been implemented, but are owned by URI. Working with functional stakeholders, ITS should assess the business needs for these modules, and determine if they will provide functionality to replace operations currently done manually or with shadow systems, within administrative departments.

❑ Attention needs to be given to business process analysis and improvement. This effort includes forming a Business Process Improvement sub-committee of the IT Steering Committee, to begin a BPI initiative. Focus on BPI should include process mapping, analysis, and identification of ways to initiative, improve, or cease doing particular functions.

❑ The University should examine the feasibility of outsourcing management of regular upgrades, to determine impact on staffing resources. Time spent engaged in upgrades by UCS staff could potentially be used for business analyst functions, to better understand the end users' business operations and improve processes.

❑ Technical staff need to have access to consistent technical training to update their knowledge and skillsets; and learn new PS ERP functionality.

**Linkage to AMRC Recommendations:** Administrative Processes Subcommittee, (pg. 20)

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Issues:

➢ URI is challenged to keep pace with the ever-expanding demand for wireless connectivity and BYOD (bring your own device); as well as network infrastructure to support increasing information technology needs.

➢ There are gaps in delivery of mobile applications that could enhance system use "anytime and anywhere" for students, faculty, researchers, and staff.

Relevant Data:

❖ Students often prefer "anytime and anywhere" access to technology and report wireless access (and the LMS) as critical to their success at URI.*

❖ URI stakeholders may have 3 or 4 devices to connect to the Internet, and cite challenges in wireless connectivity.

❖ Sections of the University, including the library, certain residence halls, and other locations have limited/no/or unreliable wireless access.

❖ ITS and user stakeholders are concerned about the ability to keep pace with network infrastructure needs.
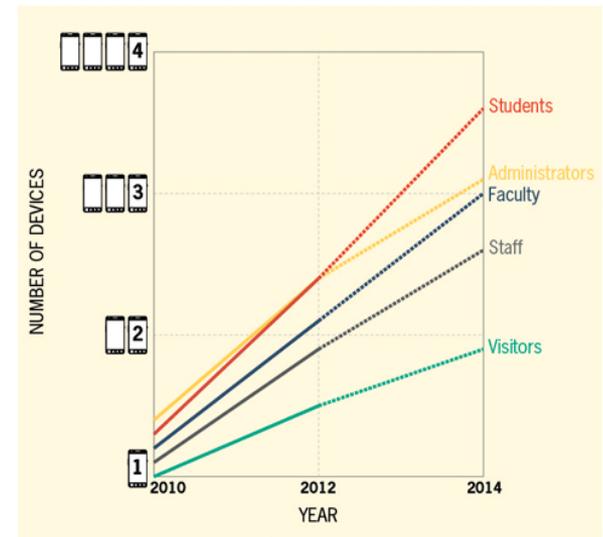
Source: Eden Dahlstrom and Stephen diFilipo, *The Consumerization of Technology and the Bring-Your-Own-Everything (BYOE) Era of Higher Education*, ECAR Research Report (March 2013)

*from results of BerryDunn IT Survey to URI stakeholders, October 2015.

Recommendations:

❑ The University needs to expand the campus and off-site wireless network capabilities; in addition to supporting network infrastructure capacity.

❑ Wireless expansion should include input from campus stakeholders. Heat map surveys can be an effective tool to identify any "dead zones" that need adjustment or new equipment.

❑ A mobile strategy should be developed to integrate mobile devices seamlessly into the student experience.

Linkage to AMRC: N/A

81% of students use mobile devices to study up 40% since 2013

77% of students say adaptive technology has helped them improve their grades

62% of students say that technology helps them feel better prepared for classes

48% of students say that technology helps save them time
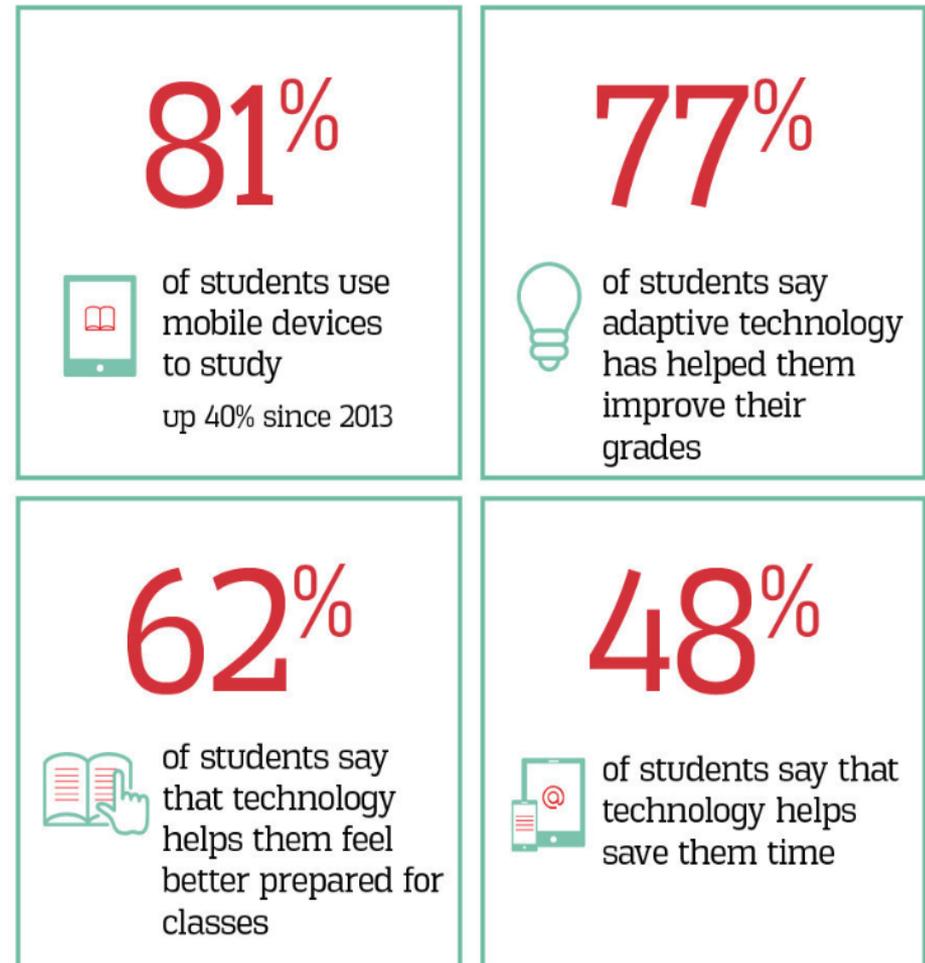
Results based on survey of nearly 1,700 college students aged 18+ who are currently enrolled in higher education institutions across the U.S

Issues within ITS:

➢ URI has dedicated resources (Information Security Officer – ISO) to address information security but lacks a comprehensive security plan to address IT security risk management across the University.

➢ Concerns remain that current skillsets of personnel serving in security analyst roles are not up to date. In response, the ISO has utilized several undergraduate students who bring security expertise, but do not provide team continuity as they depart upon graduation.

➢ Various factors have impeded IT security efficacy. These include, but are not limited to:

  ➢ Security policies are in-place, but there are perceived gaps in the ability of the ISO and Information Security Advisory Council to enforce these policies.

  ➢ Lack of awareness on the importance of IT security and security management as a University priority for all personnel.

  ➢ URI does not have a comprehensive training program to increase awareness and understanding of existing information security policies, potential risks, and mitigation practices.

  ➢ In some cases, URI stakeholders are unaware that formal guidelines for incident response have been developed by ITS. This is indicative of gaps in communications and information security awareness on campus.

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Issues across the University:

- ❖ Who handles sensitive data?
    - ❖ Of the 36 colleges and departments surveyed (28 responses), 85% indicated that they handle sensitive data.
- ❖ About 75% of these indicate that they have policies and procedures in place.
- ❖ Only 24% of the 28 colleges and departments that responded have incident response plans in place to handle data breaches.

Does your division work with sensitive data?

- ■ Yes
- ■ No

15%

85%
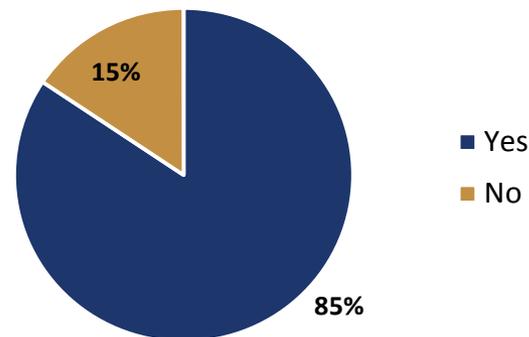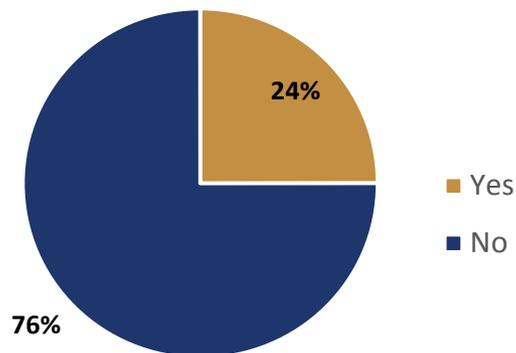
Controls in place to protect sensitive data

Policies and procedures in place	
Controlled access i.e. Control lists	
Required training	
Encrypted communications	
Prohibiting access to PII on portable and mobile devices	

0%   10%   20%   30%   40%   50%   60%   70%   80%   90%   100%

Incident response plans in place

24%

- ■ Yes
- ■ No

76%

BerryDunn
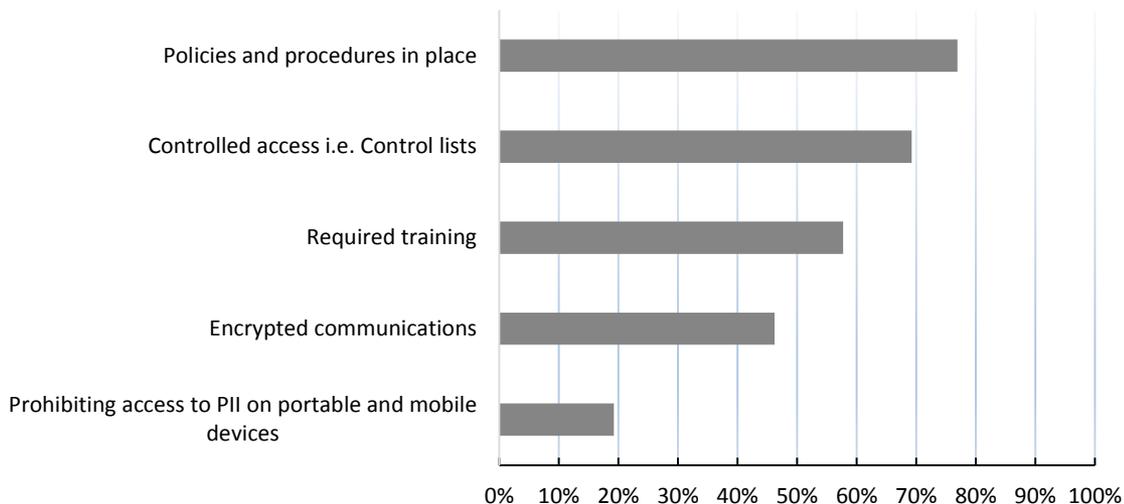
Relevant Data:

❖ The University has experienced breaches, including an incident in 2013 that involved data on about 1100 faculty and students.

❖ New RI state legislation regarding breach notification goes into effect in 2016 and all state institutions will be required to have a security plan. The full requirements of this legislation are not yet available but will impact the University.

❖ This graphic shows the cost of a data breach as calculated in the Verizon 2015 Data Breach Investigations report.

Verizon average cost/record of $0.58

Ponemon's 2014 cost/record of $201 (up to 100k records)

Verizon estimate with new model
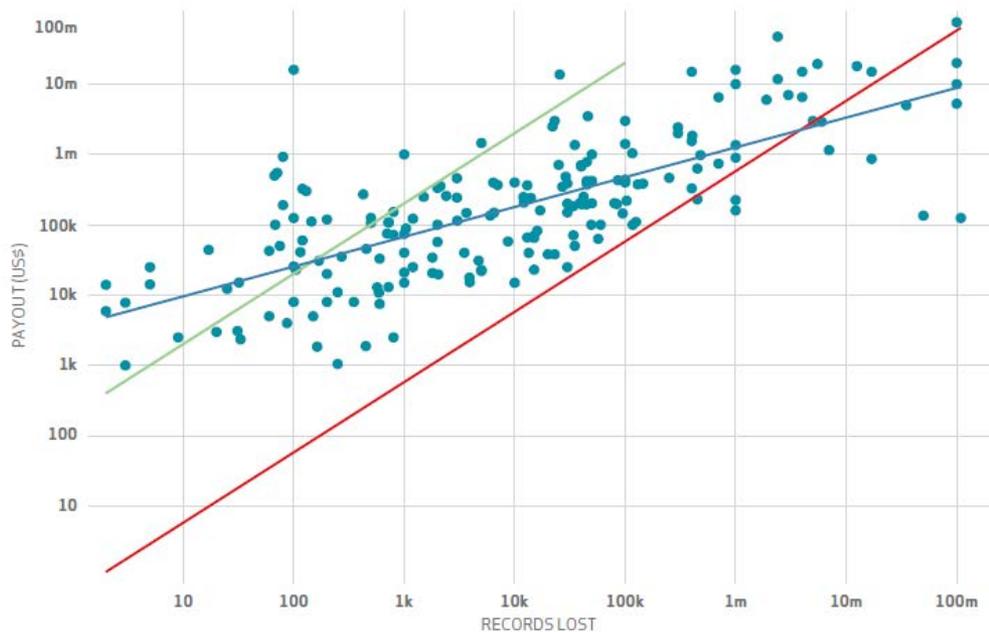
Source: Verizon 2015 Data Breach Investigations Report

Recommendations:

❑ Executive level leadership need further understanding of information security and its critical importance to the University's reputation.

❑ In order to effectively support IT Governance, Risk, and Compliance (GRC), the ISO needs to have access to management and the ITAC for planning and decision-making consideration.

❑ Establish an ongoing IT Security Risk Management program in order to proactively monitor and manage IT risk. The program should inform security-related IT plans and initiatives.

❑ Establish a comprehensive awareness program for all University personnel that will focus on increasing IT security understanding and security risk management practices.

❑ Establish and enforce consistent policies and procedures for handling sensitive data across the University.

❑ Require colleges and departments to develop and maintain incident response plans for security breaches.

❑ Inventory servers and other data repositories not in a secure data center and determine if these machines can be migrated to the data center to reduce risk.

❑ Adopt a framework, such as ISO 27000 to structure and control IT security architecture.

Linkage to AMRC Recommendations: IT Risk Management (pg. 54)

BerryDunn

Issues:

➢ Users report confusion about what IT services are provided across campus and who to contact to access the services.

➢ End users of systems will often contact members of IT that they know personally rather than using the known support channels for assistance. In some cases, published support channels do not accurately depict how services are being provided, which can be confusing to stakeholders.

Relevant Data:

❖ Although a list of IT services is provided on the ITS website, the website is difficult to navigate and often outdated. Links to each service do not provide consistent information.

❖ Only 19% of University colleges and departments indicate that they have Service Level Agreements with ITS; and the majority of these agreements are for server hosting only.

Recommendations:

❑ ITS should refine the existing list of services to provide an accurate and current IT Service Catalog that includes: description of the service, service owner, when the service is available and to whom, and costs associated with the service.

❑ ITS should develop more Service Level Agreements with colleges and departments, especially in conjunction with development of a "Common Good" model for IT service delivery at the University. See next page for example of "Common Good" decision tree.

Linkage to AMRC Recommendations: N/A

3.3.10 ITS Communication (Internal to ITS)

3.3.11 ITS Communication Across the University

3.3.12 University IT Governance & IT Planning

3.3.13 Project Intake and Management

3.3.14 ITS Budgeting and Forecasting

3.3.15 IT Purchasing and Procurement

Issues:

➢ Communication within IT has been inconsistent and impacted by the lack of effective communication channels.

➢ The IT department has no formal calendar for regularly-scheduled meetings among the IT units and the full department; nor with the distributed IT resources outside of ITS.

➢ Each IT unit manages its operations independently. These independent units have been challenged to maintain a shared vision.

➢ Lack of regular communications has led to diminished staff morale; as well as clarity around roles, responsibilities, project objectives, and service expectations for ITS.

Relevant Data:

❖ The physical location of ITS personnel is removed from most of the customers at URI. In addition much of ITS leadership is physically located away from ITS staff. This lack of proximity impedes consistent and frequent communication with department personnel within the ITS environment.

Issues:

➢ Lack of communication and collaboration between central ITS and the campus community; and between central ITS and non-central ITS resources is a significant concern across the University. This lack of communication impacts IT service delivery and impedes the ability of ITS to be an effective strategic partner to the institution.

➢ Information about ITS initiatives, changes in systems, disruptions to service, and other issues is not consistently communicated to the campus community.

➢ Similarly, University initiatives have not been consistently communicated to ITS, often waiting until there is an immediate need for IT's attention or support.

➢ There have been limited forums for IT and University stakeholders to discuss technology needs and services.

➢ Stakeholders also desire more timely notification of outages, including updates on outage status and resolution.

➢ Distributed IT resources, located outside of central ITS, are also negatively impacted by these communication challenges.

Relevant Data:

❖ What needs the most improvement at URI?

    ❖ In the recent IT survey, 52% of responses (286) were "Communication between IT and the University community"; and another 23% (125) responses were "Coordination/communication between central ITS and IT outside ITS.

Communication between IT and the University community	
Technology training for functional users	
Help desk and day-to-day support	
IT decision-making and strategic planning	
Desktop/Laptop/IT purchasing and refresh of computers	
IT security and risk management	
IT budgeting and spending	
Technology training for IT/technical support	
Coordination/communication between central ITS and IT outside…	
Project management	
IT service level agreements	

n= 547

❖ An example that illustrates this concern: ITS recently changed the format for graduate students' email addresses from "my.uri.edu" to "uri.edu." Communication about this change in advance or during transition, was limited or non-existent.

Recommendations:

❑ URI needs to establish and promote more communication around IT at the University. The recent establishment of ITgov (IT Governance framework) should help to promote and increase communication across the campus.

❑ A major element of improved communication should be increased visibility between the CIO and the campus community. In addition, members of the recently formed ITRSC will have a role in maintaining a consistent flow of communication to the University community.

❑ Other, specific strategies to improve communication include; the use of a quarterly newsletter that updates the campus on current IT initiatives and new service offerings, the development of regular email communications to end users and a strong social media presence.

❑ Within central ITS, standard operating procedures should be developed and implemented for initiating communication with impacted stakeholders as soon as IT becomes aware of an outage. Communication should include initial notification of the outage, status updates on outage remediation, and notice of outage resolution.

Linkage to AMRC Recommendations: IT Services Communications (pg. 42 – 43)

BerryDunn

Issue:

➤ URI has lacked a university-wide governance structure to support strategic IT planning and decision-making. Without effective governance URI has been challenged to plan for, identify priorities, allocate resources, and manage outcomes. Lack of a formalized governance structure has also impacted management and planning of risk and compliance, including IT security.

Relevant Data:

❖ The AMRC report identified gaps in IT governance, strategic partnership, and strategic planning and recently formed an Information Technology Review Committee, tasked with serving as the IT governing body for the University.

❖ The University has engaged BerryDunn to develop an IT Organizational Review Assessment and IT Strategic Plan that will serve as a foundation for change management and sustainable IT planning.

Recommendations:

Use the newly formed IT governance structure to serve as the Core Team for IT Strategic Planning in the Spring 2016, and knowledge gained from the IT Organizational Review.

❑ Clearly define and communicate the roles of ITGov and CITICCN to the campus to ensure clarity of purpose for both entities.

❑ Additional information about GRC (governance, risk and compliance) can be found in this article: http://www.educause.edu/library/resources/it-governance-risk-and-compliance-higher-education

Linkage to AMRC Recommendations: Strategic Partnership and IT Governance (pg. 40 – 46)

Issues:

- ➢ ITS does not have an established project management framework and there are no formalized or consistent project management practices or system tools in use.
- ➢ The lack of formalized project management practices is challenging to ITS personnel and the University community. There are gaps in project analysis, intake, prioritization, assignment, tracking, and completion of deadlines.
- ➢ ITS staff have been limited in their ability to provide business analyst and project management services because the majority of their time and effort is focused on "break-fix" needs.

Relevant Data:

- ❖ ITS uses various lists and spreadsheets to track projects within leadership, fiscal management, security, UCS, and MTS; with limited uniformity and consistency of project communication across the units, departments, and campus community.

- ❖ URI lacks continuity in tracking service management requests that escalate to project requests or connect to existing projects.

- ❖ The ITS Project Portfolio listed on the ITS website is missing project prioritization, dependencies, staff and financial resources, start and end-dates, and timelines; and does not represent a mature project portfolio practice. See http://web.uri.edu/its/its-project-portfolio/

Recommendations:

❑ ITS should develop and implement formalized processes for project management (PM). These processes should include criteria for project definition, scope, resource allocation, timelines, and milestones. Once developed, these processes should engage stakeholders and involve ITS and other IT resources.

❑ MTS management is implementing a new software tool for help desk service ticketing (Pinnacle) and would like to use the same tool for IT project management. Adopting a common tool to manage services and projects will improve the tracking of end user needs across ITS units that are currently siloed.

Top 5 Benefits of Project Portfolio Management (PPM)	
Alignment:	Projects are more in-line with the institution's strategy
Execution:	The institution's strategic plan is better executed
Satisfaction:	Project customers are satisfied
Balance:	The portfolio shows a good balance of projects
Focus:	The institution prioritizes the right projects
Source: "The State of Project Portfolio Management (PPM) 2013", by PM Solutions	

Linkage to AMRC Recommendations: IT Process Methodology (pg. 47)

BerryDunn

Issues:

➤ ITS has been challenged to effectively identify and prioritize IT expenditures, due to a number of internal and external factors related to funding. These have included budgetary limitations and reductions, reliance on One-Time-Only (OTO) funding, and lack of an IT governance process for decision-making.

➤ There is no formal technology refresh cycle.

Relevant Data:

❖ ITS experienced a budget cut of over $1.5 million in 2009. Since then they have received additional budget cuts amounting to $966k.

❖ In recent years, ITS expenses have increased, with no equivalent increases in the overall budget.

❖ IT equipment has been replaced inconsistently across the University.

Total ITS Budget

BerryDunn
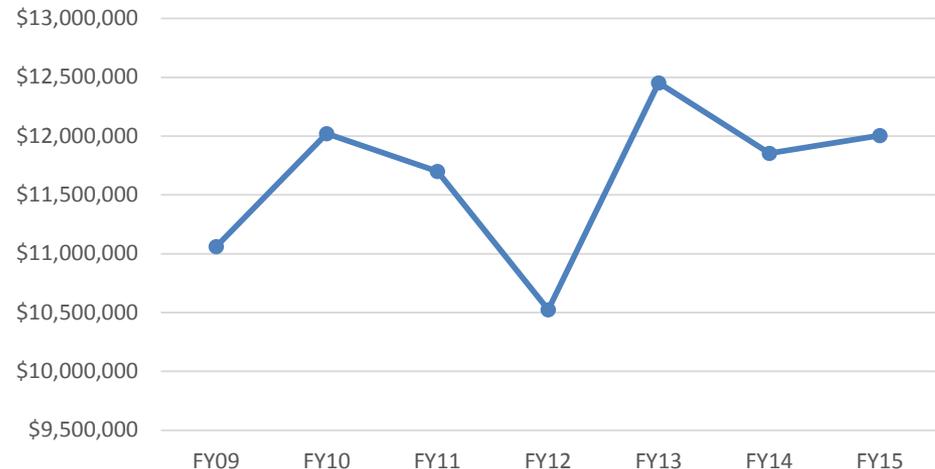
Relevant Data:

❖ While OTO funding can be challenging to plan and use strategically, OTO levels have remained consistent, at about 8% of the overall IT budget, for the past three years.

FY 13   FY 14   FY 15
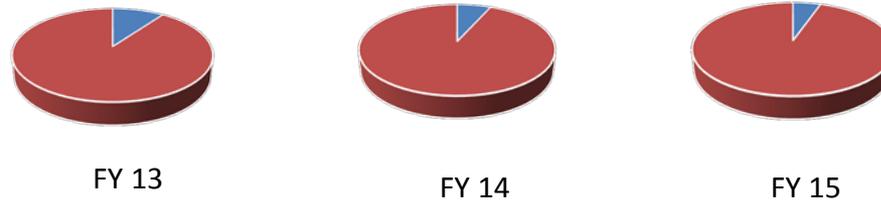
Recommendations:

❑ Develop actionable plans for yearly use of potential OTO funding. These plans should be aligned with the mission of the institution and allow for quick adaptation to actual OTO funds allocated.

❑ Implement a sustainable technology refresh cycle for computers, network devices, servers, and other peripherals that are managed by URI.

❑ Utilize the new University IT Governance structure and IT strategic planning process to provide direction and oversight to ITS in determining budgetary priorities.

Link to AMRC Recommendations: IT Budgeting, Financial Management, and Procurement (pg. 51)

3.3.15 - IT PURCHASING AND PROCUREMENT

Issues:

➢ Purchasing and procurement of IT has been challenged by processes that are not set up for ease and efficiency; sometimes resulting in barriers to providing technology expediently at optimal pricing.

Relevant Data:

❖ The State of Rhode Island has authority for URI purchasing, and not all purchasing can be processed entirely within the University. The University can purchase some IT items for research without state approval. This variation in purchasing regulations can cause confusion and impede approval processes.

❖ Purchasing and procurement regulations can be very complex. For example, all vendors on a state Master Price Agreement (MPA) must be contacted about potential purchase. If they do not respond then the potential buyer may need to explain why, in detailed memos. There are limited ways to streamline processes if needed services or goods do not appear on the MPA.

❖ There is no formalized, centralized and coordinated purchasing function within ITS. Individual staff and managers must individually navigate the purchasing complexities, which requires significant time.

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Recommendations:

❑ The University should leverage its e-procurement software system to streamline IT purchasing.

❑ The University should implement a technology refresh cycle and asset management practices that align with budgetary and purchasing timelines and processes.

Linkage to AMRC Recommendations: IT Budgeting, Financial Management, and Procurement

SECTION 3.4: NEXT STEPS

- Issue Assessment to Project Steering Committee and gather Steering Committee Feedback

- Conduct Peer Research

  - ✓ University of Delaware

  - ✓ University of Maryland

  - ✓ University of New Hampshire

- Issue Project Charter to Guide Development of IT Strategic Plan

- Meet with IT Planning Core Team (IT Governance Committee)

- Organize, schedule and complete strategic work sessions (Spring 2016):

  - ✓ Infrastructure

  - ✓ Technology to Support Teaching and Learning

  - ✓ Technology to Support Research and High Performance Computing (HPC)

  - ✓ Organization

  - ✓ Service Delivery

  - ✓ Process Improvement and Enterprise Systems

  - ✓ Communications and Change Management

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President's Transformational goals for 21st Century

Consider the following strategic goals in developing the IT Plan:

1. Create a 21st century 24/7 learning environment.

2. Increase the magnitude, prominence, and impact of research, scholarship, and creative work.

3. Internationalize and globalize the University of Rhode Island.

4. Build a community at URI that values and embraces equity and diversity.

ASSESSMENT APPENDICES

* For Appendix C, please note that the question numbering in the survey is not in numerical order, but instead reflects the survey logic

THE UNIVERSITY OF RHODE ISLAND

Start	Tuesday October 13		Start	Wednesday October 14		Start	Thursday October 15		Start	Friday October 16		Start
	BerryDunn 1	BerryDunn 2		BerryDunn 1	BerryDunn 2		BerryDunn 1	BerryDunn 2		BerryDunn 1	BerryDunn 2	
7:00	BerryDunn Travels to URI - Kingston		7:00	BerryDunn Travels to URI - Kingston		7:00	BerryDunn visits Oceanography School		7:00	Anne Marie Coleman, AVP HR & Labor Relations (Kingston Campus, Human Resources, 3rd floor)		7:00
8:00			8:00			8:00			8:00			8:00
8:30	Mike Khalfayan, Information Security Officer (210 Flagg Rd)		8:30	Division of Research and Economic Development (Library Conf. Room A)	Council for Research (Library Conf. Room B)	8:30	Graduate School of Oceanography (Coastal Institute Auditorium, South Ferry Rd, North Kingstown RI)		8:30	ITS Staff Open Forum (ITS staff, no Managers or Directors, to participate in Q&A session)(Library - Galanti Lounge)		8:30
9:00			9:00			9:00			9:00			9:00
9:30			9:30			9:30	Return to Campus in Kingston		9:30			9:30
10:00	Meet with Mike Motta, walking tour of key technology sites on campus (210 Flagg Rd)		10:00	Follow up and Report Development		10:00	Community, Equity and Diversity (Memorial Union 354)	Library (Memorial Union 314)	10:00	Follow up and Report Development		10:00
10:30			10:30	University College for Academic Success (Library Conf. Room B)	Enrollment Services, Enrollment Management, Institutional Research (Library Conf. RoomA)	10:30			10:30	Computing Systems Managers (Library HELIN Conf. Room)	Media and Technology Service Managers (Library Conf. Room A)	10:30
11:00	Meet with CIO and IT Directors (Library Conf Room B)		11:00			11:00	Alumni Relations & Foundation (Memorial Union 354)	Athletics (Memorial Union 314)	11:00			11:00
11:30			11:30			11:30			11:30			11:30
12:00	Lunch		12:00	Lunch		12:00	Lunch		12:00	Lunch - Close out meeting with Mike Motta		12:00
12:30			12:30			12:30			12:30			12:30
1:00	College of Arts and Sciences & College of Business Administration (Library Conf. Room A)	College of Environment and Life Sciences and College of Engineering (Library Conf. Room B)	1:00	College of Human Science and Services, College of Pharmacy, College of Nursing (College of Pharmacy Bldg - Room 403)	Student Affairs (Memorial Union 301)	1:00	Office of Advancement of Teaching & Learning (Library Conf. Room A)	External Relations & Communications (Library Conf. Room B)	1:00	BerryDunn Departs URI- Kingston		1:00
1:30			1:30			1:30			1:30			1:30
2:00			2:00			2:00			2:00			2:00
2:30	Follow up and Report Development		2:30	Follow up and Report Development		2:30	Follow up and Report Development		2:30	College of Continuing Education (Allan Lewis, Amand Zelazo - Room ??) (Feinstein Providence Campus)		2:30
3:00			3:00	Follow up and Report Development	Ugrad Admissions, Grad Admission, Grad School, Int'l Students & Scholars, Global Strategis & Academic Partnerships (Green Hall Great Room)	3:00			3:00			3:00
3:30	Joan Peckham Big Data Research Group (Library Conf. Room B)	Faculty Seante IT & Executive Committees (Library Conf. Room A)	3:30			3:30	Division of Admin and Finance (Memorial Union Room 360)	Division of Admin and Finance - VP & direct reports (Library Conf. Room B)	3:30			3:30
4:00			4:00	Reserve for additional interview time		4:00			4:00	BerryDunn Departs		4:00
4:30	Check in with Mike Motta		4:30			4:30			4:30			4:30
5:00 PM	BerryDunn Internal Planning		5:00 PM	Open Forum - Student Focus Group (Awaiting confirmation through Amanda Rode - Memorial Union Student Senate Room)		5:00 PM			5:00 PM			5:00 PM

BerryDunn

Monday December 14, 2015

2:00 – 2:30/2:45pm	President & Senior Leadership Team	Green Hall – President's Conference Room (First Floor)
3:00 – 4:00	Dave Porter, ITS	Chafee Hall, Room 217
4:30 – 5:30	Gerry Sonnenfeld, Research and Economic Development	Carlotti – Second Floor Room 215

Tuesday December 15, 2015

8:00 – 9:30	Charlie Schifino, ITS	210 Flagg Rd, First Floor Room
10:00 – 11:00	Linda Barrett, Director – Budget & Financial Planning	Adams House (Upper College Road)
1p.m.-2p.m.	Don Dehayes and Christina Valentino, Executive Sponsors	Green Hall – Provost Office
2:30 – 3:30	Sharon Bell, Controller	Carlotti – Controller's Office

Wednesday December 16, 2015

8:30 – 9:30	Faculty Open Session	Memorial Union – Atrium 2
10:30 – 11 a.m.	Council of Deans	Green Hall, President's Conference Room
11 – 12:30	Garry Bozylinsky, CIO, ITS	Library

Appendix C – Institution-wide Survey
Questions received by all respondents

1. What is your University role(s)? (check all that apply)

- ☐ Administration (Academic and Non-Academic) and Staff
- ☐ Faculty (FT, PT, and Adjunct)
- ☐ Graduate Assistant
- ☐ IT Personnel in central ITS
- ☐ IT Personnel outside central ITS
- ☐ Researcher
- ☐ Student – Graduate/Doctoral
- ☐ Student – Undergraduate

Other (please specify)

[   ]

8. What is your role with technology at URI?

- ○ Functional User
- ○ Technical Support
- ○ Blend of both functional user and technical support

If Blend of both; please describe:

[   ]

9. Where do you obtain your primary IT technical services and support?

○ From central ITS

○ From outside central ITS

○ A combination of both

○ I don't know

Comments

[   ]

10. What works well for IT services and support at URI?

[   ]

11. What do you think needs the MOST improvement at URI? (select the top FOUR)

☐ Communication between IT and the University community

☐ Coordination/communication between central ITS and IT outside central ITS

☐ Desktop/Laptop/IT purchasing and refresh of computers

☐ Help desk and day-to-day support

☐ IT budgeting and spending

☐ IT decision-making and strategic planning

☐ IT service level agreements

☐ IT security and risk management

☐ Project management

☐ Technology training for IT/technical support

☐ Technology training for functional users

Other (please specify)

[   ]

12. What technology do you consider missing or needing improvement at URI? (select the top FOUR)

- ☐ Automation of business processes and data integration
- ☐ Collaboration tools
- ☐ Data analytics and reporting
- ☐ Desktops and office computing tools
- ☐ Document management and imaging
- ☐ Educational technology (classroom, labs, online/distance education)
- ☐ Email and calendars
- ☐ Mobile devices
- ☐ Network connectivity and wireless
- ☐ Portal and single sign-on
- ☐ Printing and print services
- ☐ Research and High Performance Computing (HPC)

Other (please specify)

☐

Questions for students only

3. Please select the College where you are earning your degree(s): (choose all that apply)

- ☐ College of Arts and Sciences
- ☐ College of Business Administration
- ☐ College of Continuing Education (Feinstein Providence Campus)
- ☐ College of Engineering
- ☐ College of the Environment and Life Sciences
- ☐ College of Human Science and Services
- ☐ College of Nursing
- ☐ College of Pharmacy
- ☐ University College for Academic Success
- ☐ Graduate School of Oceanography

Other (please specify)

☐

4. What particular IT services are critical to your success at URI?

5. How can the University improve these critical services?

Question for faculty and staff only

2. What is the primary Division(s) in which you work, at the University? (check all that apply)

☐ Please check this box ONLY if you are an active student (grad or undergrad) at URI.

☐ Administration and Finances

☐ Athletics

☐ Community, Equity, and Diversity

☐ External Relations and Communications/Foundation

☐ President

☐ Provost and Academic Affairs

☐ Research and Economic Development

☐ Student Affairs

6. Think about your "typical day" at University of Rhode Island. As you look ahead to the next five years, how can technology enhance your ability to succeed, innovate, and grow?

7. What changes to current technology strategies, services, and systems will be needed to realize your vision?

Attachment D – Departmental Questionnaire

The objective of this questionnaire is to provide BerryDunn with background information about Information Technology (IT) services and resources that are used and/or supported by your College or Department. This information will help BerryDunn better understand challenges and general perspectives about IT services at URI today.

This questionnaire includes four parts:

a. Part I – Staffing & Funding
b. Part II – Services, Planning, and Decision Making
c. Part III – Infrastructure
d. Part IV – Security

1. Division

○ Administration & Finance

○ Athletics

○ Community, Equity & Diversity

○ External Relations & Communications

○ Foundation

○ President

○ Provost & Academic Affairs

○ Research & Economic Development

○ Student Affairs

Other (please specify)

[   ]

2. College or Department.

○ Alumni Relations & Foundation

○ Athletics

○ College of Arts and Sciences

○ College of Business Administration

○ College of Continuing Education

○ College of Engineering

○ College of Environment and Life Sciences

○ College of Human Science and Services

○ College of Nursing

○ College of Pharmacy

○ Community, Equity and Diversity

○ Council for Research

○ Division of Admin and Finance

○ Division of Research and Economic Development

○ Enrollment Management

○ Enrollment Services

○ External Relations and Communications

○ Global Strategies and Academic Partnerships

○ Graduate Admissions

○ Graduate School

○ Graduate School of Oceanography

○ Institutional Research

○ International Students & Scholars

○ Library

○ Office of Advancement of Teaching & Learning

○ Student Affairs

○ Undergraduate Admissions

○ University College for Academic Success

Other (please specify)

[   ]

Part I: Staffing & Funding

3. On an annual basis, how much do you spend on technology and the personnel needed to support technology? Technology includes software, computers, networks, projects, contractors used for projects, and other non-employee spending. Personnel includes employees who provide technology support in your College or Department.

Answers containing punctuation will not be accepted. Please enter only numeric values. EX. "30000" not "30,000".

Technology One-Time Spending

Technology Recurring Costs

Personnel One-Time Spending

Personnel Recurring Costs

Part I: Staffing & Funding

4. Use the text boxes to identify all positions in your College or Department that support, maintain, or manage IT. Use full position titles and Identify all that apply.

Position 1

Position 2

Position 3

Position 4

Position 5

Position 6

Position 7

Position 8

5. For all positions identified in the previous question, use the drop down lists to indicate the full-time equivalent and how the positions are funded.

	Funded by your College or Department	Funded by ITS	Other funding source
Position 1			
Position 2			
Position 3			
Position 4			
Position 5			
Position 6			
Position 7			
Position 8			

Please describe 'Other' and include any additional comments

PART II: Services, Planning, and Decision Making

6. Identify all IT services provided to your College or Department by ITS - based on the services listed here. Select all that apply.

Source: http://web.uri.edu/its/it-services-a-z/

☐ Account Types and Password Problems
☐ Applications and Service Request Forms
☐ Audience Response Systems (Clickers)
☐ Audiovisual Equipment Loan
☐ Audiovisual Production Services
☐ Blocked IP
☐ Certificate Authority at URI
☐ Class Roster Instructions
☐ Classroom Equipment Loan and Reservation
☐ Classroom Support

☐ Macintosh Support
☐ Mentoring
☐ Microcomputer Laboratories
☐ Multimedia Support
☐ On-Line Instructional Materials
☐ Operating Schedule
☐ Passwords and Types of Accounts
☐ Podcasting
☐ Port Activation
☐ Printing

- [ ] Clickers (Audience Response Systems)
- [ ] Computer Documentation
- [ ] Computer Education
- [ ] Computer Lab Reservation
- [ ] Computer Security
- [ ] Help Desk
- [ ] Computing Facilities
- [ ] Connecting Office Computer to Internet
- [ ] Databases and Research Support Tools
- [ ] Departmental Website Installation
- [ ] Digital Content Production
- [ ] Digital Production Resource Center (DPRC)
- [ ] Directory
- [ ] Distance Learning
- [ ] Documentation, Computer
- [ ] Electronic Classrooms
- [ ] e-Campus
- [ ] Email
- [ ] Equipment Loan and Reservation (Classroom)
- [ ] Exam Grading (OMR)
- [ ] Information Technology Network
- [ ] Instructional Computing Facilities
- [ ] Instructional Technology Center
- [ ] Instructional Technology & Media Services
- [ ] Language Learning Resource Center
- [ ] Licensing, Site Software
- [ ] LISTSERV Lists

- [ ] Providence – URI, ITS
- [ ] RamConnection Services
- [ ] Reserving Computer Lab
- [ ] Sakai
- [ ] SAS On Demand for Academics
- [ ] Schedule, Computing Facilities
- [ ] Security for Your Computer
- [ ] Self-Paced Instructional Materials
- [ ] Server Services for Departments
- [ ] Short Courses
- [ ] Software Licensing, Site
- [ ] Student Technology Assistance Program
- [ ] Statistical Resources and Databases
- [ ] Statistical Software Site Licenses
- [ ] Technology Toolkit
- [ ] Temporary Computer ID (ETAL)
- [ ] University Computing Systems (UCS)
- [ ] University Technology Network (UTN)
- [ ] Videoconferencing
- [ ] Virus Protection
- [ ] VoIP Phones
- [ ] WebEX
- [ ] Web Pages
- [ ] Web and Server Hosting
- [ ] Windows Support
- [ ] Wireless Access
- [ ] Zimbra Logon

7. Select any areas where your College or Department manages software without ITS support.

☐ Academic Advising	☐ ID Management
☐ Advancement	☐ Imaging
☐ Budgeting	☐ Payroll
☐ Bursar/Cashiering	☐ Procurement
☐ Document Management	☐ Recruiting and Admissions
☐ Email Marketing	☐ Reporting
☐ Financial Aid	☐ Scheduling
☐ Housing/Dining	☐ Student Records
☐ Human Resources	☐ Timekeeping

Other (please specify)

[   ]

8. List the software you support.

[   ]

PART II: Services, Planning, and Decision Making

9. Provide your best estimates for the percentage of time your area spends on the following functions, in providing technical support to your College or Department.

For example, if you spend roughly half of your time on department-specific software then indicate 50%.

	Percentage
Desktop support	[ ]
Department-specific software	[ ]
Enterprise software (ERP, SIS, LMS)	[ ]
Media Support/Media Technology	[ ]
Network Support	[ ]
Training and User Assistance	[ ]

Other (please specify)

[   ]

PART II: Services, Planning, and Decision Making

10. Do you have Service Level Agreements with ITS for any IT services provided to your College or Department?

○ Yes

○ No

Other (please specify)

[   ]

11. List Service Level Agreements.

[   ]

PART II: Services, Planning, and Decision Making

12. Identify all IT services that you think should be provided centrally by ITS. Select all that apply.

☐ Classroom/Instructional Technology   ☐ Learning Management (Sakai)

☐ Computer Labs   ☐ Multimedia Support

☐ Copiers and Printers   ☐ Network Infrastructure

☐ Digital Content Production   ☐ PC and Desktop Support

☐ Distance Learning Technology   ☐ Project Portfolio Management

☐ Email   ☐ Research Computing

☐ ERP (e-Campus/PeopleSoft)   ☐ Storage

☐ Help Desk   ☐ Videoconferencing

☐ Identity Management   ☐ VoIP Phones

☐ Information Security   ☐ Web and Server Hosting (Data Center)

☐ IT Training and Education   ☐ Wireless (Wi-Fi)

Other (please specify)

[   ]

PART III: Infrastructure

13. Does your College or Department host any servers?

○ Yes

○ No

PART III: Infrastructure

14. Are there physical controls in place? Select all that apply.

☐ There are no physical controls in place

☐ Dedicated Space (not mixed-use)

☐ Access Control/Door Locks

☐ Physical Key

☐ Combination Lock

☐ Card Access System

☐ Surveillance System

Other (please specify)

[   ]

15. Are there environmental controls in place? Select all that apply.

☐ There are no environmental controls in place

☐ Uninterruptible Power Supply (UPS)

☐ Generator

☐ Dedicated Cooling Unit

☐ Raised Floors

☐ Water/Moisture Monitoring

☐ Fire./Smoke Monitoring

☐ Temperature Monitoring

☐ Fire Suppression System

Other (please specify)

[   ]

16. Does your College or Department have a disaster recovery plan for internally hosted systems?

○ Yes

○ No

Other (please specify)

[   ]

PART III: Infrastructure

17. Does your College or Department manage its own network, or components of the network (wired or wireless)?

○ Yes

○ No

Other (please specify)

[   ]

18. Does College or Department have a recurring source of funding for refreshing/replacing IT infrastructure (computers, software and hardware)?

○ Yes

○ No

Other (please specify)

[   ]

PART IV: Security

Please consider the provided definitions to help inform your answers to the questions below.

Sensitive Information – Includes the following types of data:

• Medical records covered by the Health Information Portability and Accountability Act (HIPAA)
• Banking and credit card records covered by the Payment Card Industry (PCI) data security standards
• Academic records covered by the Family Education Right and Privacy Act (FERPA)
• Personally Identifiable Information (PII)

Personally Identifiable Information (PII) - Includes any individual or combination of data elements that, if disclosed without authorization, identifies a specific individual and could place the individual's privacy at risk

19. Does your division work with sensitive data?

○ Yes

○ No

20. If so, are there controls in place to ensure that it is protected? Select all that apply.

☐ Policies and procedures in place

☐ Required training

☐ Controlled access i.e. Control lists

☐ Prohibiting access to PII on portable and mobile devices

☐ Encrypted communications

Comments

[   ]

21. Does your College or Department have an incident response plan to handle breaches involving sensitive data?

○ Yes

○ No

Other (please specify)

[   ]

ITS Profile			
Institutional Background (use IPEDS data please)	**FY 2014-2015**	**FY 2013-2014**	**ITS Comments**
Student Headcount			
Student FTE			
Total Faculty FTE			
Non-Adjunct Faculty FTE			
Adjunct Faculty FTE			
Staff FTE			
Financial Figures			
Total University Expenditures			
Total Central IT Expenditures (ITS)			
Central IT noncompensation operating spending			
Central IT compensation spending			
Central IT capital spending			
Central IT training expenditures			
Central IT outsourcing spending			
Is there a student technology fee? If so, please list.			
IT Staffing and Organization			
IT Department Staff – please attach the most recent org chart			
IT Department Staff – FTE			
Non-IT Department Staff – FTE (if applicable)			
Student IT Employees – FTE			
Other IT Staffing Resources including contractors – FTE			
Is the IT Officer on the presidential cabinet?			
Are IT services centralized, or are there other IT service providers on campus? Please Explain.			
Does IT provide academic technology services? Please Explain.			
Where do faculty go for training and help with technology for teaching and learning? (e.g. - Center for Teaching and Learning)			
Is there a dedicated Project Management function in IT? (yes/no)			
IT Security			
Are there written Security Policies?			
Has the university adopted a security framework? (e.g. NIST, ISO, SANS)			
Help Desk and IT Services			
How many full time FTEs staff the help desk?			
How many student worker FTEs staff the help desk?			
What are the hours of the Help Desk? (Weekdays and Weekends)			
Do you support student-owned technology?			
Based on the services provided here: http://web.uri.edu/its/it-services-a-z/			
Does URI consider this a IT Service Catalog?			
How is this list maintained and updated?			
Does ITS have Service Level Agreements (SLA) for these or other services? If yes, please describe			
Top 5 Existing IT Projects as Reported by Cost	**Planned Cost**		
Top IT Projects Planned or Needed and Other Comments			

Software Inventory						
Please include software with a contract of at least $5,000 per year (include all major systems such as ERP, LMS, Imaging, etc.) **Identify product and vendor for each functional area listed below**	**Production (Yes/No)**	**Version Owned**	**Is this being provided as a "Software as a Service" (SaaS) (Yes/No)**	**Vendor Costs for year ending FY 2014 - 2015**	**What month and year does this contract expire? Example enter "03/16" for March 2016 Expiration**	**Comments are welcome (customization, maintenance, support, etc.)**
Advancement/Development-Related Software				$ -		
Finance-Related Software (include Budgeting software)				$ -		
Imaging/Document Management				$ -		
Human Resources/Payroll/ Timekeeping-Related Software				$ -		
Housing/Meal Plans				$ -		
Student Information Systems (Admissions, Advising, Bursar, Financial Aid & Registrar)				$ -		
Student-Related Software (ID/One Card, etc.)				$ -		
Imaging/Document Management				$ -		
Reporting/BI/Data Warehouse				$ -		

Learning Management System				$ -		
Facilities				$ -		
Other				$ -		
					$ -

Infrastructure

	Please provide your answers in this column:	Comments
Does ITS have a technology refresh plan to replace infrastructure based on industry standards for equipment lifecycle? If yes, please describe		
Core Network Connectivity Speed		
WAN Provider Name (vendor(s)		
Identify the # of servers (physical and/or virtualized) that are in production		
% of virtualized servers		
Are all production servers under warranty? If no, please indicate why.		
Database (please include vendor, product used and version in production today)		
Please describe your storage area network (SAN), or your storage system if different than a SAN.		
Do you have a current Disaster Recovery Plan (DRP) that provides details on infrastructure and hardware that you can share with BerryDunn? If yes, please provide when it was last updated and share the table of contents for this document (here or as an attachment).		
Do you have a current Business Continuity Plan (BCP) that provides details on infrastructure and hardware that you can share with BerryDunn? If yes, please provide when it was last updated and share the table of contents for this document (here or as an attachment).		
Percent of infrastructure utilized during peak business hours		
% Downtime (Peak Hours)		
% Downtime (Non-Peak)		
How many data centers on campus?		
Is there an off-site data center replication?		
Additional Comments		

ITS Job Descriptions	# of Positions	Estimated Annual Salary	Shared Position with dept. outside of ITS? If yes, please describe
Please provide detailed description specific to each position. These may be sent via email, or if they can be accessed on the Internet, please provide URL.			
Chief Information Officer			
Director			
Associate Director			
Manager			
Coordinator			
Lead Prog. Analyst			
Sr. Prog Analyst			
Sr. Tech. Programmer			
Lead Info. Tech.			
Info. Tech.			
Lead DB Supp. Tech			
Princ. Comp. Operator			
Sr. Word Proc. Typist			
Sr. Progr. Consultant			
Network Tech. III			
Network Tech. III			
Network Tech. IV			
Tech Sup. Specialist			
System Supp. Tech			
Please add any other job descriptions NOT listed			

Name	Title	Department
Jared Abdirkin	Assistant dean	Engineering
Linda Acciardo	Director	Marketing & Communications
Sam Adams	Assistant Dir. Emergency Mngmt	Public Safety
Tracey Angell	Assistant Director of Purchasing	Administration
Christy Ashley	Assistant Professor	Marketing CBA
Katie Babula	Sr. Info Technologist	ITS
Kevin Banks	Lead Programmer	ITS
Stephen Barnabe	Lead Info Technologist	Health Services
Chris Barrett	Sr. Info Technologist	Enrollment Services
Laura Beauvais	Vice Provost, Faculty Affairs	Academic Affairs
Donna Belden	DBA Manager	ITS
Sharon Bell	Controller	Administration & Finance
Roy Bergstrom	Lead Info Technologist	ITS
Thorr D. Bjorn	Director of Athletics	Athletics
Sharon Blackmar	Exec Assistant to VP	Administration & Finance
Gary Boden	Sr. Info. Technologist	Institutional Research
Jessica Boisclair	Assistant Dean, Nursing	College of Health Sciences and Services
Cindy Bonn	Dean	Undergraduate Admissions
Karim Boughida	Dean of Libraries	Library
Tom Boving	Professor	College of the Environment and Life Sciences
Robert Bowen	MIS Manager CRC/GSO	Graduate School of Oceanography
Peg F. Boyd	Associate Dean	College of Business Administration
Garry Bozylinsky	CIO	ITS and Current Member of CITICCN
Charlotte Britland	Business Manager	W. Alton Jones
David Brown	Lecturer	Computer Science
Winnie Brownell	Dean	College of Arts & Sciences
Kevin Bryan	Technologist/Programmer	Computer Science
Donna Buckley	Manager	Capital Projects
Pat Burbank	Associate Dean, Nursing	College of Human Sciences & Services
Joanna Burkhardt	Director, Branch Libraries	Library
Erin Burry	University Affiliate	The Ryan Center
Ginny Byrnes	Functional Specialist, Controller	Administration
James Cacciola	Assistant Controller, Payroll	Administration
Eileen Campanale	Assistant Director	Office of Sponsored Projects
Patricia Casey	Associate Athletic Director	Athletics
Joshua Caulkins	Assistant Director	Office for the Advancement of Teaching & Learning
Jieling Chen	Sr. Programming Analyst	ITS

Name	Title	Department
Lisa Chen	Internet Technology Manager	ITS
Shaw Chen	Associate Dean	College of Business Administration and Current Member of CITICCN[1]
Peter Chin	Sr. Info Technologist	Environ Life Science & Engineering
Brian Chmielewski	Interim Business Manager	ITS
Robert Clarke	PS Memorial Union	Student Affairs
James Cocozza	Student	Student Senate
Deb Cole	Financial Reporting Analyst	Administration
Anne Marie Coleman	Assistant VP	Human Resources
Dwight Coleman	Director, Inner Space Center	Graduate School of Oceanography
Jason Colonies	IT for Athletics	Athletics
Karin Conopask	Director of Development	College of Human Sciences & Services
Bruce Corliss	Dean	Graduate School of Oceanography
Peter Cornillon	Professor	Graduate School of Oceanography
Liliana Costa	Assistant to VP	Administration & Finance
Sarah Couch	Interim Mgr of Web Comm	Communications & Marketing
Nick Coulombe	Sr. Info Technologist.	Modern & Classical Languages & Lit
Nancy Cunningham	Sr. Programmer	IT
Michelle Curreri	Chief of Staff	Office of the President
Catherine Curtin-Miller	Director, Finance & Admin	College of Human Sciences & Services
Ryan Curtis	Student	Student Senate
Sheri Davis	Events/Marketing Memorial Union	Student Affairs
Donald H. DeHayes	Provost and VP for Academic Affairs	Office of the Provost
Paul DePace	Director	Capital Projects
Christine Dias	Cood. Rec. Facilities	Campus Recreation
Maria DiSano	Senior Internal Auditor	W. Alton Jones
Chandu Dondeti	Data Analyst/Webmaster	Environ Life Sciences & Engineering
Thomas R. Dougan	Vice President	Student Affairs
Nancy Eaton	Associate Dean	College of Arts & Sciences
Maling Ebrahimpour	Dean, CBA	College of Business and Current Member of CITICCN
Patrick Egan	Lead Info. Technologist, CBA/ITS	ITS
Chris Faraone	Sr. Technologist/Programmer	ITS
Marilyn Felner	Sys Sup Technologist MTS	ITS
Christine Ferrone	Associate Director RIGEC	College of Human Sciences & Services
Mark Fester	Network Manager	ITS
Mary Fetherston	Lead Info Technologist	ITS
Jay Fogelman	Associate Professor	College of Education and Current Member of CITICCN
Stephen Gagnon	IT Staff	University College for Academic Success

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[1] CITICCN = Committee on Information Technologies, Infrastructure, Computing, Communications, and Networking

Name	Title	Department
Susan Gainor	Sr. Programmer Analyst	ITS
Lisa Gates	Chief Accountant	Administration & Finance
Peyton Gibson	Financial Administrator	Facilities
Elizabeth Gil	Director of Purchasing	Administration
Michael Gilligan	Student	Student Senate
Diane Goldsmith	Director	Office for the Advancement of Teaching and Learning
David Hansen	Associate Dir PS Financials	Administration
Brian Haskell	Project Manager	Capital Projects
Jodi Hawkins	Director	Campus Recreation
David Hayes	Coordinator, Academic Enhance. Ctr.	University College for Academic Success
Laurie Hebert	Lead Info Technologist	Enrollment Services
Sara Hickox	Director-Office of Marine Programs	Graduate School of Oceanography
Cheryl Hinkson	Associate Director, Budget & Fin Plng.	Administration
Shaune Hogan	Manager Financial Systems	Administration
Jim Hopkins	President	Foundation
Jack Humphrey	Sr. Associate Director	Registrar
Tyler Inkley	Student	Student Senate
Amanda Izenstark	Reference & Instructional Design Librarian	Library
Stephen Jaegle	Digital Forensics and Cyber Security Center	Computer Science and Statistics
Carnell Jones	Director	Enrollment Services
Eric Kaldor	Assistant Director	Office for the Advancement of Teaching and Learning
Shaun Kavanagh	Lead Info Technologist	Dining Services
Sandra Ketrow	Professor, Communication Studies	College of Arts & Sciences
Michael Khalfayan	Associate Director of Info. Security	ITS
Chamnan Khoy	IT Staff	University College for Academic Success
John Kirby	Dean	College of the Environment and Life Sciences
Sharon Kirk	Info Technologist	Enrollment Services
Joelle Koster	Chair, Faculty Senate	Professor, Department of History
Deb Lafen	Assistant Business Manager	Graduate School of Oceanography
Diana Laferriere	Business Manager	College of Human Sciences & Services
Paul Langhammer	Sr. Associate Director, Financial Aid	Enrollment Services
Ian Lester	Manager of Tech Services	College of Human Sciences & Services
Allan Lewis	Sr. Information Technologist	ITMS-Providence
Dean Libutti	Vice Provost	Enrollment Management
Charles Lomolino	Student	Student Senate
Julia Lovett	Digital Initiatives Librarian	Library and Current Member of CITICCN
Angelo Lucia	Professor, Chemical Engineering	Chemical Engineering

Name	Title	Department
Linda Lyons	Assistant Dean	University College for Academic Success
Bob MacDonald	Sr. Info Technologist	ITS
Diana MacDonald	Coordinator-Budget/Fin Plan/Op Sys	Administration
Todd Madison	Sr. Info Technologist, Nursing	College of Health Sciences and Services
Kelly K. Mahoney	Executive Director	External Relations and Communications
Karen Markin	Director	Office of Sponsored Projects
John Marshall	IT Support – Facilities	Administration
William Matteson	Director, Property & Supp Services	Administration
Steven Mello	Director	Dining Services
Tom Miller	Director Administration	Graduate School of Oceanography
Deborah Mongeau	Chair, Public Services	Library
Patricia Morokoff	Associate Dean	College of Arts & Science
Ann Morrissey	Special Assistant to the Provost	Provost's Office
Mike Motta	Associate Director	ITS
Sanjay Mupparapu	Research Associate/Data Analyst	Office of Research and Economic Dev.
Paula Murray	Sr. Information Technologist	Human Resources
Winifred Nwangwu	Director	Office of Sponsored Projects
Maggie Oliver	Student	Student Senate
Mark Oliver	Manager	ITS
Jimmie Oxley	Professor	Chemistry
Dave Palazzetti	Director of GSO Facilities	Graduate School of Oceanography
Mary Jane Palm	Manager, Instructional Technologist & Media Services	ITS
Sarah Patterson	Student	Student Senate
Beth Peckham	Sr. Programmer Analyst	ITS
Joan Peckham	Professor and Chair	Computer Science and Statistics
Kristina Perrelli	Director, New Student Programs	University College for Academic Success
Paul Perrone	Sr. Technologist/Programmer	ITS
Dan Persaud	Sr. Info Technologist	ITS
David Porter	Director, MTS	ITS
Joannah Portman-Daley	Assistant Director Online Education	Office for the Advancement of Teaching and Learning
Brian Quilliam	Associate Dean	Pharmacy
Damon Rarick	Faculty Senate Executive Committee	Associate Professor, Languages
Andree Rathemacher	Head, Library Acquisitions	Library
William Renehan	Director of Research	Pharmacy
Ellen M. Reynolds	Director	Health Services
Richard Rhodes	Associate Dean, Research	Center for Environment & Life Sciences
Paul Ricci	Sr. Info. Technologist	Public Safety
Jayne Richmond	Dean	University College for Academic Success
Colleen Robillard	Budget/Financial Analysts	Administration
John Rooney	Coordinator, Transfers	University College for Academic Success

Name	Title	Department
Deborah Rosen	Associate Dean	Business
Bob Sand	Manager GSO Computer Center	Graduate School of Oceanography
Charles Schifino	Director, UCS	ITS
John Sears	Assistant VP, Director of Housing	Housing
Anne Seitsinger	Associate Dean	College of Human Sciences & Services
Chi Shen	Sr. Technologist/Programmer	ITS
Mary Shen	Applications Manager	ITS
Yang Shen	Professor	Graduate School of Oceanography and Current Member of CITICCN
James Smith	Professor	Chemistry
Phil Smith	Sr. Programmer Analyst	ITS
Gerald Sonnenfeld	Vice President for Research & Economic Development	Division of Research and Economic Dev.
Alfred J. Speredelozzi	Computer Systems Manager	College of Engineering
Gina Sperry	Associate Athletic Director	Athletics
Kim Stack	Director, Career & Experiential Educ.	University College for Academic Success
Mary Sullivan	Interim Dean, Nursing	College of Human Sciences & Services
W. Michael Sullivan	Faculty Senate Executive Committee	Professor, CELS
Phil Teixeira	Sr. Info Technologist.	Provost & President's Offices
Naomi R. Thompson	Associate Vice President	Community, Equity & Diversity
Steve Thompson	Specialist	Administration
Kathleen Torrens	Professor	Communication Studies
George Tsiatas	Faculty Senate Executive Committee	Professor, Engineering
Christina L. Valentino	Vice President for Administration and Finances	Division of Administration and Finance
Jean VanLouyghen-Potter	Executive Assistant	College of Human Sciences & Services
Bob Viens	Associate Director, Help Desk and Telecom	ITS
Christie Ward-Ritacco	Assistant Professor	Kinesiology
Jacqueline Webb	Chair, council for Research	Professor, Biological Sciences
Donna Whitford	Application Manager	ITS
Paul Whitney	Director URI Bookstore	Student Affairs
Terry Wild	Internal Systems Manager	ITS
Tina Yetman	Lead Programmer Analyst	University College for Academic Success
Nasser Zawia	Dean	Graduate School & Graduate Admissions
Amanda Zelazo	Sr. Info Technologist	ITMS-Providence
Zhongying Zhang	Lead DB Support Technologist.	ITS