UNIVERSITY OF SOUTH CAROLINA

IT Executive Board

March 2019

Agenda

I. Welcome and introductions

II. Unite IT Proposal
- Approve Phase I - Pilot

III. Business Intelligence & Analytics Proposal
- Approve Phase I

IV. Project Updates

V. Q & A

UNITE

UNIVERSITY OF SOUTH CAROLINA

What’s the problem?

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IT Assessment Project
Final Report

March 18, 2016

accenture

High performance. Delivered.

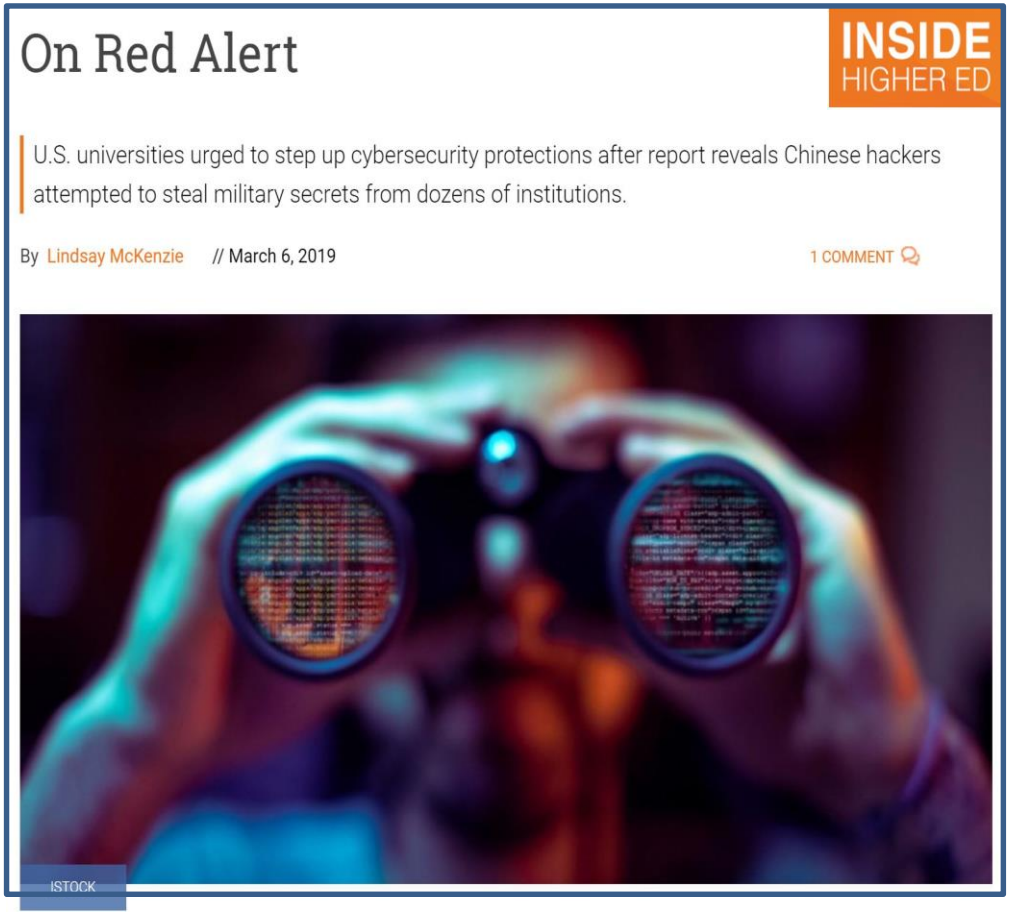
Risk

it takes “an entire institution working collaboratively to keep us safe.”

research repositories are “often outside the purview of the office of information technology.”

information security staff have “no--or very little--visibility” into research projects at universities

"Universities must rebalance personal preferences in how technology is used and managed with policies and procedures that effectively mitigate institutional risk.



On Red Alert

INSIDE HIGHER ED

U.S. universities urged to step up cybersecurity protections after report reveals Chinese hackers attempted to steal military secrets from dozens of institutions.

By Lindsay McKenzie // March 6, 2019 1 COMMENT

ISTOCK

What’s the solution?

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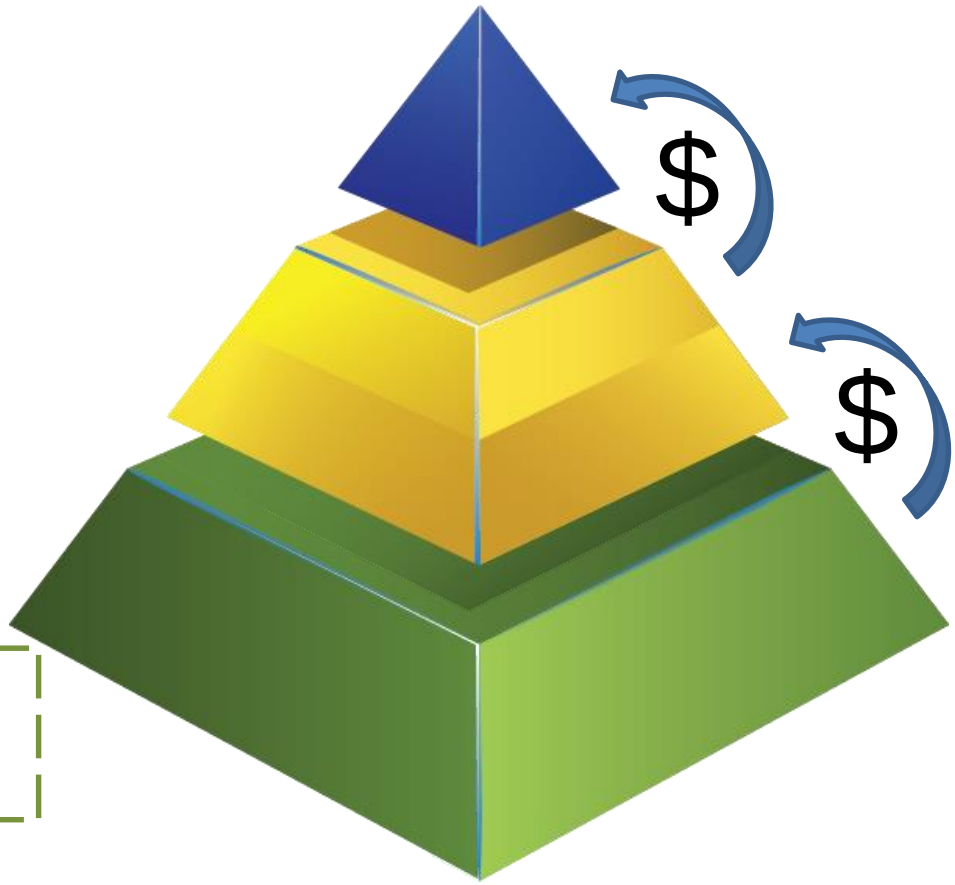
Strategic
High Risk – High Reward
"Game Changing"

Optimization
Incremental Improvement
"Slow & Steady Progress"

Support
Maintaining existing IT solutions?
"Debt Service"



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Possible Projects

- Data Center consolidation (17)
- Application Portfolio management (300+)
- Improve career paths for IT professionals
- Business Intelligence/Data Analytics Center of Excellence
- End User Support model (30+)
- Purchasing agreements
- Security consistency
- Project Management Office
- Data Management/Storage
- Classroom Support
- Human Resources Processes
- Communication and Collaboration
- Governance and transparency
- Computer Network Management
- Identity Management

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Guiding Principles

- ***NOT*** a headcount reduction exercise
- Reinvest savings in IT Strategic Priorities
- Project based implementation
- IT Executive Board serves as governance
- Business case driven

Business Case Overview: IT-04

Business Case ID	Description
IT-04 **Using Technology Innovations to reduce the Total Cost of Ownership (TCO)**	▪ Utilize Technology Innovations to Reduce the Total Cost of Ownership (TCO) for Technology Infrastructure across all three universities

Current State Landscape and Challenges:

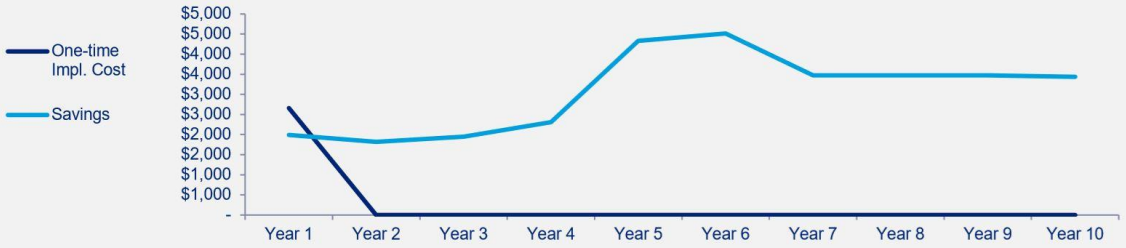
- **Significant annual desktop spend** – Over 30,000 traditional desktops are in use across all the three universities, resulting in significant annual desktop spend to refresh (estimated at $7-8M per year[1]); this points towards a potential opportunity to utilize technology innovations like thin client devices, which provide similar functionality as desktops, but can be potentially more cost effective in the long-run
- **Local printer usage** – Over 4,900 local printers were inventoried during Phase 2, as being deployed across all the three universities. Typically, a local printer is directly connected to a workstation and is typically only used by one user to print. In general, such printers are more prone to support issues, and may be unnecessary, as networked printers may be available (or made available) to serve such printing requests more cost effectively
- **Reasonably efficient print paper usage** – Paper printer reporting metrics indicate that the three universities are reasonably efficient in terms of using printing features like duplex printing (with metrics ranging from 45% to 75% duplex). These metrics can be increased higher through communications, change management and leveraging printer technology features, pointing to an opportunity to reduce some printing costs
- **Complex IT support model** - for end-user computing and printing support, wherein some desktops and laptops are supported by central ITS and others by distributed ITS teams; Additionally, the desktop configuration variations within and across the three universities increases the maintenance efforts for these teams

Business Case Overview: IT-04

Future State Solution

- Two key transformational initiatives should be considered as part of this overall initiative, as described below.
- **Consider a Desktop Transformation initiative** - Use virtual desktop infrastructure (VDI) to reduce the cost of acquisition, support, and management of some proportion of end-of-life (EOL) physical desktops, without sacrificing ease of use or functionality, for users within all the three universities. This architecture could also help provide utility savings across the three universities and enable standards to be determined for these devices
- **Consider a "Print Green" initiative -** Consolidate local printer usage and migrate end-users to networked printers across the universities. Enhance efficient paper usage by using technological methods on local and networked printers to encourage enhanced usage of capabilities like duplex printing. Consider a streamlined desktop and printer refresh program across the universities to enable effective reporting on progress

Cost-Savings Summary ($000s)



One-time Implementation Costs	2,660	-	-	-	-	-	-	-	-	-
Ongoing Savings/Cost Reductions[1]	1,989	1,821	1,951	2,311	4,330	4,516	3,475	3,475	3,475	3,435
TOTAL Benefits	(671)	1,821	1,951	2,311	4,330	4,516	3,475	3,475	3,475	3,435
Cumulative Benefits	(671)	1,150	3,101	5,412	9,742	14,258	17,733	21,208	24,683	28,118

Expected Qualitative Benefits

- Ability to better safeguard sensitive data, due to pooled storage of data within data centers
- Reduced complexity of maintenance & support of thin client and local printer devices
- Environmental savings from enhancing printing options that enable savings of paper
- Enable better standardization of desktop landscape
- Improved metrics tracking to assess printing performance
- Potential for streamlined desktop refresh activities

Proposed Performance Measures

- Desktop and thin-client procurement rates and costs
- Paper-cut summaries indicating coverage of networked machines and printing metrics (like simplex/duplex printing etc.)
- Number of local printers supported

Time to Implement[1]

- Short: 0-6 Months
- Medium: 6-18 Months
- Long: 18 Months or Longer

Short	Medium	Long

Business Case Summary: IT-04

Timeline

Key Activity	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 7	Quarter 8	Quarter 9	Quarter 10
"Print Green" Strategy										
Operationalize "Print Green" Strategy		*Print Green Transformation*								
VDI Architecture Design & Roll-out Strategy										
Build, Test & Pilot (VDI)										
VDI Implementation Waves			*Desktop Transformation*							

Activity Details

- **"Print Green" Strategy -** Determine university-specific incentives & measures to help reduce local printer usage, and reduce paper consumption for printing
- **Operationalize "Print Green" Strategy -** Roll-out communications, incentives and measures, and setup periodic performance reporting controls
- **VDI Architecture Design & Roll-out Strategy -** Determine the best target VDI architecture[1] for UNI and SUI, and determine target sets of users for roll-out waves
- **Build, Test & Pilot (VDI) -** Prior to production roll-outs
- **VDI Implementation Waves –** Production waves across various categories of users

Opportunity Scope

Within Business Case – Desktop Transformation (VDI)

- Desktop counts and understanding profiles of usage based on central and distributed IT team data
- Review of software licenses like Microsoft office and VMware, for usage within VDI environments

Within Business Case – "Print Green"

- Local and network printer counts and usage patterns based on central and distributed IT team discussions
- Network printing metrics from Papercut

Outside of Business Case – Desktop Transformation (VDI)

- UIHC-supported desktops including College of medicine
- Recommendations on specific VDI solutions or identification of preferred vendors for services
- Review of business software's for licensing impacts

Outside of Business Case – "Print Green"

- UIHC / College of medicine related IT assets
- Recommendations on specific printing solutions or identification of preferred vendors for services

Potential Issues/Risks

- Change resistance from current desktop users, who may have insufficient information about thin-client devices
- Change resistance from local printer users, who may not be aware of benefits of using network printers
- Need to account for total cost of acquisition and ownership of desktops across the entire system – as savings needs to be determined across the total cost spend on desktops / printers, regardless of funding entity
- Detailed software licensing impacts and mitigation strategies related to desktop virtualization
- The investment profile for VDI infrastructure may be lumpy, and will need to be determined during design

Assumptions

Within Business Case – Desktop Transformation (VDI)

- Cost of VDI infrastructure and thin-client devices modeled on existing architecture within the BOR universities
- Adoption rates for VDI based on review of usage profiles across desktop users, with central & distributed IT teams
- Infrastructure investment for VDI infrastructure could be funded by reallocating some money otherwise allocated to refreshing desktops.

Within Business Case – "Print Green"

- Local printer metrics based on self-reported data from central & distributed IT teams from all three universities
- Printer and desktop refresh rates modeled based on self-reported frequencies
- Sufficiency of network printers for most users
- Reduction of paper through some redirection to digital printing is not assumed, but could be an opportunity

Next Steps

- Develop "Print Green" Strategy across the universities
- Develop VDI architecture, and refine VDI user profiles - to determine target set of users for roll-out waves
- Refine inventory and TCO for desktops and printers across each university to ensure full coverage
- Refine investment profile taking into account VDI design

Business Intelligence & Analytics Proposal

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A Strategic Path Forward

Helio CAMPUS

Better Data. Brilliant Insights.

UNIVERSITY OF MARYLAND 1856

UNIVERSITY OF SOUTH CAROLINA

HelioCampus

Exclusive to higher education

Packaged solution

Tech stack

Data models for systems we use

Expert human resources, including Data Scientists

Logical core data models for Banner & PeopleSoft

Student – HR - Financials

Join records across data domains

Expert, disciplined processes, inquiry, and findings

Helio CAMPUS
Better Data. Brilliant Insights.

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Growing Client Community

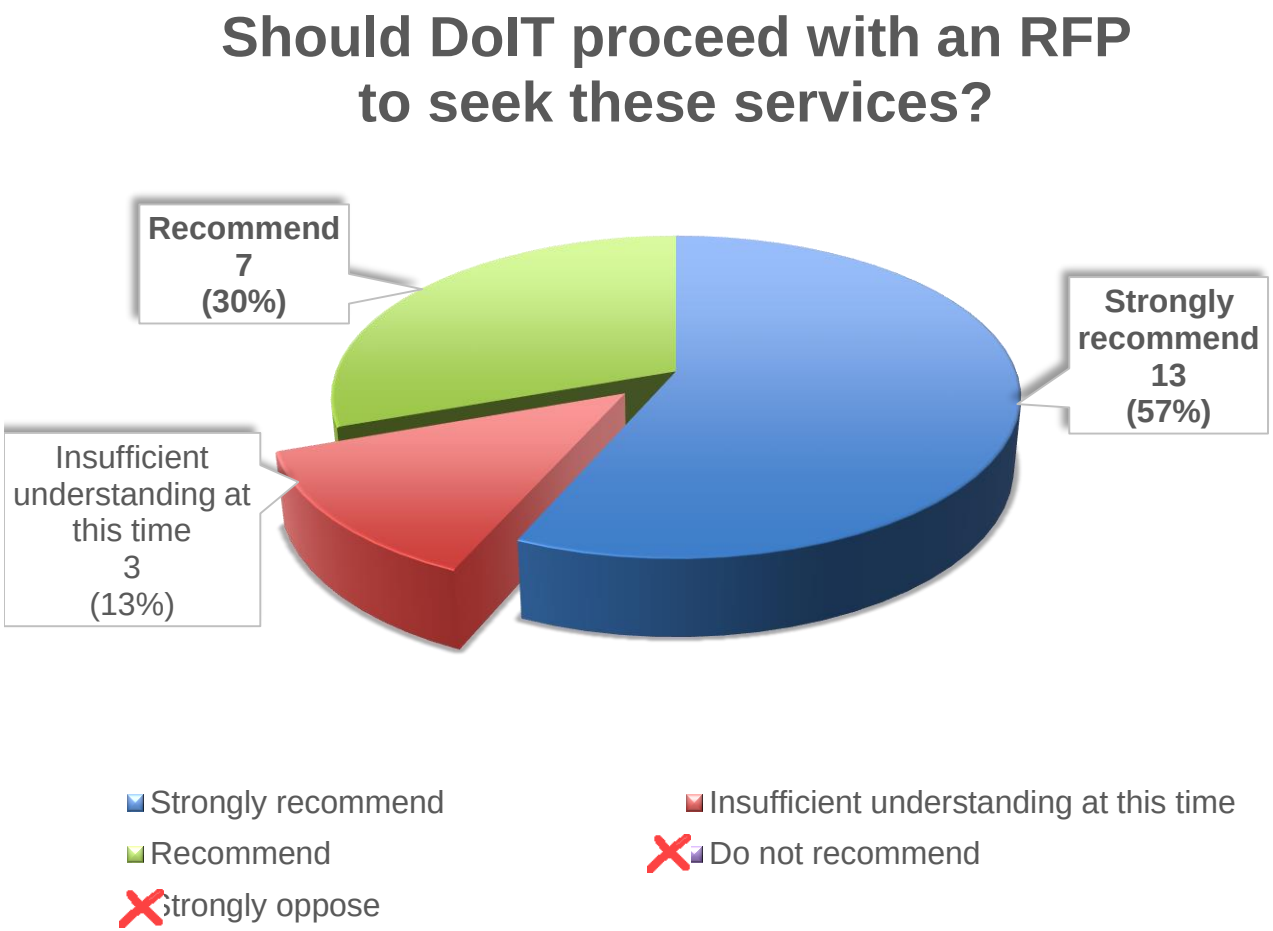
Institutions across every segment of higher education

George Mason University
University of Maryland University College
UMass Lowell
Ithaca College
Clark University
Harford Community College
The University of North Carolina System
aacom
The University of Southern Mississippi
University of Delaware
UNCW
UMass Dartmouth
ECSU Elizabeth City State University
UMass Amherst
Claremont Graduate University
University System of Maryland
UNC Charlotte
St. Edward's University Austin
University of Maryland
Middlesex Community College
Western Carolina University
USMx
The University of North Carolina Greensboro
Frostburg State University
UMass President's Office

March 2019

University of South Carolina

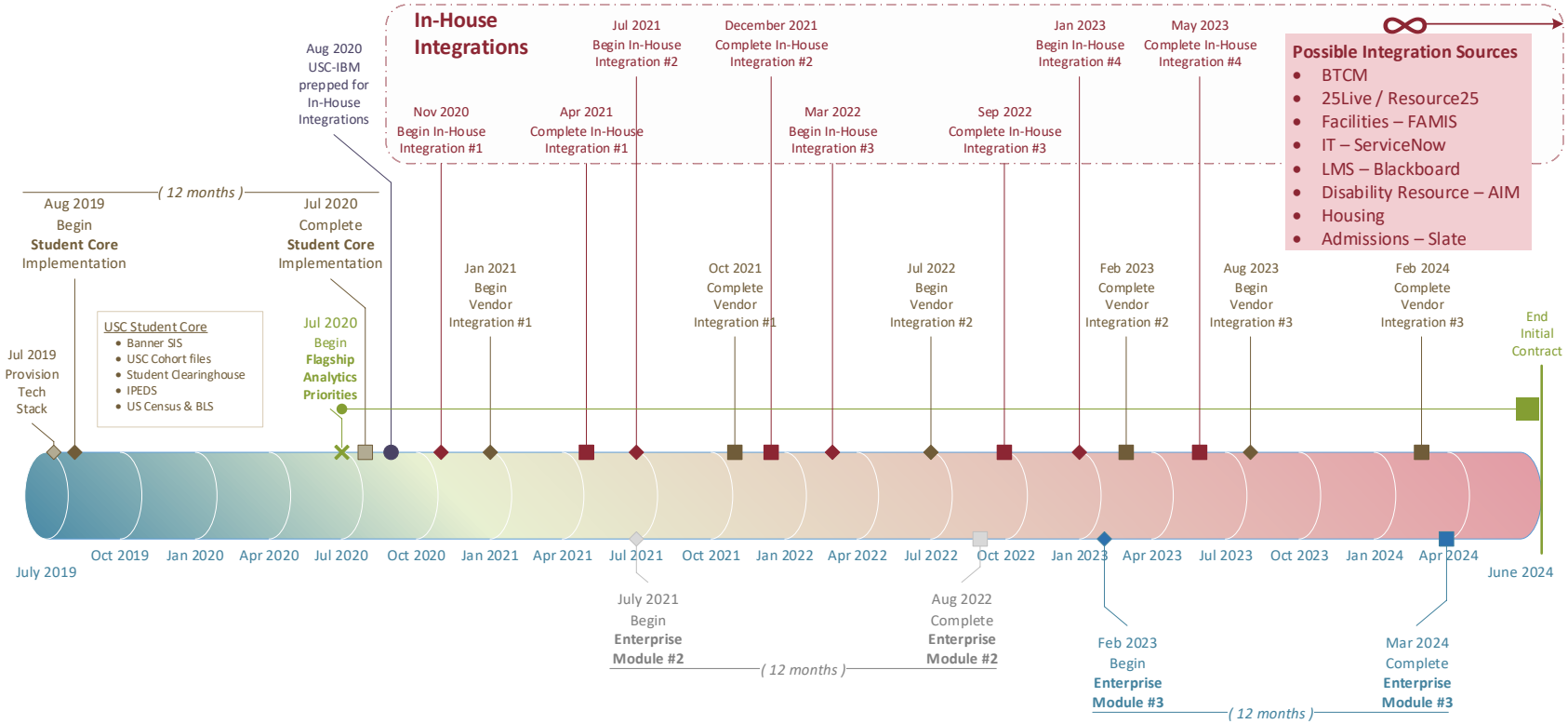
UofSC Feedback



Detailed Timeline

USC Data & BI Capabilities Enhancement Project

Conceptual Scope of Work – **3 Enterprise Domains – $4 Million – 5 Years**



Enterprise Data Domains – USC System-wide

- Student – Banner
- Financials – PeopleSoft
- Human Resources – PeopleSoft

Version 02/26/2019 – M Kelly

UNIVERSITY OF SOUTH CAROLINA

Project Updates

Top Projects – Executive Summary
March 2019

Project/Initiative	Portfolio	Sponsor	Overall	Scope	Complete	Budget	Actual Spend	Start Date	Target Date	Schedule	Comms
Peoplesoft HCM (Phase 1)	Administrative Systems	Jeff Farnham			**90%**	$24,255,000	$15,165,734	12/4/2017	**7/31/2019**		
Advancement CRM (BB CRM)	Administrative Systems	Paula Harper - Bethea			**3%**	$2,599,240	$54,483	5/1/2018	**7/31/2020**		
IAM from the Mainframe	Administrative Systems	Randy Shelley			**95%**	$1,600,000	$1,188,815	1/8/2018	**7/31/2019**		
Network Core and Firewall Upgrade	Internal IT Services	Ron Scherba			**30%**	$10,681,372	$11,327,869	8/27/2018	**12/30/2020**		
Fac-Staff Mail Migration	Internal IT Services	Ron Scherba			**89%**	$450,000	$359,145	8/18/2015	**6/30/2019**		
Software Service & Delivery (Phase 4)	IT Service Management	Janeen Blanton			**16%**	$624,000	$313,940	1/2/2019	**8/1/2019**		