

Infrastructure and Architecture Roadmap (November 2018)

Parent/Master Projects	1H - FY19 (Jul - Dec 2018)	2H - FY19 (Jan- Jun 2019)	1H - FY20 (Jul - Dec 2019)	OneIT Strategy Alignment	Interdependancy with other council domain	Priority	Area of Expertise
Cloud Network and Services Access	Conduct reviews with key stakeholder on the needs for connectivity to AWS and Azure. Review the Policy and Services implications and make recommendations. (D Kelly)	Based on recommendations develop network connectivity to AWS and Azure. Develop Tools and Implementation Guides to help campus move services to the cloud (D Kelly)		Innovation E		Level 1: High (Committed Goals)	Data Center
Replicating our authentication Infrastructure in "the Cloud"	Upgrade campus ADFS to support password syncornization with Azure AD (D Metzler)	Evaluate the placement of a Shibboleth Identify Provider (IDP) moved to hosted cloud service (Azure and/or AWS) (J O'Konek, D Metzler)		Innovation E	Inforamtion Risk and Policy	Level 1: High (Committed Goals)	Data Center
Data Center Automation		Migrate on-prem Sharepoint SST site and workflows either to Sharepoint in the cloud or to Universal Workflow and a new MS SQL inventory backend. (JJ Urich)		Effectiveness and Efficiency E		Level 1: High (Committed Goals)	Data Center
Develop a monitoring solutions to inventory equipment, monitor utilization, alert on out of bounds conditions and keep historical performance data on systems.		Develop a plan to replace Monitoring and Alerting with SPONG and SCOM for SST systems (JJ Urich)		Effectiveness and Efficiency E		Level 2: Medium (Flexible timeframe)	Data Center
OneIT Data Center Consolidation Phase II: enterprise data center MEP management and operations	Consolidate enterprise data center Mechanical Electrical and Physical (MEP) management and operations, College of Engineering at the Seaman Center (SC). (J Protheroe)	Evaluate the consolidate enterprise data center Mechanical Electrical and Physical (MEP) management and operations, Department of Public Safety at University Capital Center (UCC) and Visualization Lab Server Room at Pajajohn Bio Discovery Building (PBDB) (J Protheroe)		Effectiveness and Efficiency E		Level 2: Medium (Flexible timeframe)	Data Center
HCIS Data Center Phase I: enterprise data center MEP management and operations			Consolidate enterprise data center Mechanical Electrical and Physical (MEP) HCIS managed data centers Building (J Protheroe)	IT Evolution A		Level 3: Low	Data Center
Google Cloud Suite	Testing how the Google and Microsoft cloud services will interact with each other leveraging our Directory Service Authentication. (O'Konek, D, Metzler)			Innovation E		Level 1: High (Committed Goals)	Data Center
Storage Refresh	Add capacity to the NetApp storage system (K Keyser)		Evaluate Equalogic storage service. Recommend alteinrve solution to replace iSCSI service. (JJ Urich)	Effectiveness and Efficiency E	General IT Services	Level 1: High (Committed Goals)	Data Center
Server Refresh		Refresh AIX systems running Oracle (JJ Urich)		Effectiveness and Efficiency E	Administrative Data and System Governance	Level 1: High (Committed Goals)	Data Center
RHEL to CentOS migrations			Develop a Cross Funcational team for CentOS support. Services to include automated system deployment and patch management using SpaceWalk (JJ Urich)	Effectiveness and Efficiency E	Research Computing	Level 2: Medium (Flexible timeframe)	Data Center

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Data Center Infrastructure Management (DCIM) Implementation		Complete the tracking of all datacenter in DCIM (ITF, LC, EMRB, PH)	Complete the tracking of all datacenter in DCIM (ITF, LC, EMRB, PH and Engineering)	Effectiveness and Efficiency E		Level 2: Medium (Flexible timeframe)	Data Center
Remote access infrastructure	Refresh Raritan PDU remote access infrastructure at Information Technology Facility (ITF) and Lindquist Center (LC). (J Protheroe)			Effectiveness and Efficiency E		Level 1: High (Committed Goals)	Data Center
HawkID	Plan the migrations of CCOM Basic Science Staff off Healthcare ID and onto HawkID services	Move CCOM Basic Science Staff off Healthcare ID and onto HawkID services		Data A		Level 1: High (Committed Goals)	Directory Services
Google Cloud Suite	Provisioning Google GCP and Microsoft cloud services will interact with each other leveraging our Directory Service Authentication and e-mail. (O'Konek, D, Metzler)			Innovation A	General IT Services	Level 1: High (Committed Goals)	Directory Services
Telephony	Deploy the Session Border Controller network to allow ITS and HCIS telephone infrastructure to talk with each other. (S. Troester)			IT Evolution A	General IT Services	Level 1: High (Committed Goals)	Enterprise Communications
Telephony	Deploy Analogy Gateway to 3 locations on campus (S. Troester)	Deloy e-Fax with HCIS to campus (S. Troester)		IT Evolution A	General IT Services	Level 1: High (Committed Goals)	Enterprise Communications
Virtual Desktop Infrastructure	Evaluate service for GPU computing using VDI. (M McLaughlin)	Deploy service for GPU computing using VDI. (M McLaughlin)		Innovation A	Research Computing	Level 2: Medium (Flexible timeframe)	Campus Partners
Upgrade VMware ESX			Upgrade VMware ESX support for Containers (M McLaughlin)			Level 2: Medium (Flexible timeframe)	Campus Partners
State Hygienic Lab Network	Develop a plan to migrate services for legacy equipment to standard OneIT service (Desktop, Networking, HawkID)	Migrate Services from legacy equipment to standated OneIT services (Desktop, Networkng, HawkID)		Effectiveness and Efficiency E	Administrative Data and System Governance	Level 1: High (Committed Goals)	Network Services
Edge electronic	Develop and deploy a POE Service to campus (C. Meier, G. Stumpf)	Develop a plan to refresh network electronics. Service Review of campus Edge Network (G Falsetti, C Meier)		Innovation C		Level 1: High (Committed Goals)	Network Services
Distributed Denial Of Service (DDoS) Prevention for Campus	Develop a campus DDoS defense strategy. This would be enabling on-demand black-hole of network traffic, presistent traffic filters, analyzing traffic, potentailly network scrubing and finally off premise mitigation.			Risk/Security A		Level 1: High (Committed Goals)	Network Services

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Aruba OS 8	Upgrade ArubaOS 8 and Implement Mobility Master Architecture (N Johnson)			Effectiveness and Efficiency E		Level 1: High (Committed Goals)	Network Services
Port Consolidation	Port consolidation for Biology Building (BB), University Capital Center (UCC) and Papajohn Bio Discovery Building (PBDB) buildings on campus (C Meier, G Stumpf)			Effectiveness and Efficiency E		Level 1: High (Committed Goals)	Physical Infrastructure
New Golf Facility Commissioning		Commission new golf facility (G Stumpf)				Level 2: Medium (Flexible timeframe)	Physical Infrastructure
Cabling standards	Review cabling standards within buildings (G Stumpf)					Level 2: Medium (Flexible timeframe)	Physical Infrastructure
Server Efficiency		Integrate Big Brother configuration for all windows servers via Puppet		Effectiveness and Efficiency E		Level 2: Medium (Flexible timeframe)	Data Center
Server Efficiency		Combining the open source Puppet solutions into a Puppet Enterprise solution. Lead a steering committee on direction and standards for campus.		Effectiveness and Efficiency E		Level 1: High (Committed Goals)	Data Center
Dev/Ops	Deploy Test GitLab for campus	Consolidate existing Source Control systems into centrally support GitLab for campus	Decommission BitBucket	Effectiveness and Efficiency E	General IT Services	Level 1: High (Committed Goals)	Data Center