

RECOMMENDATIONS REVIEWED AND SUPPORTED BY DEL KIMBROUGH & KSU IT COMMITTEE

OWG 45: University Website:

1. Recommends that the new institution develop a centralized authority for the website:

The committee identified as a risk the potential of the new institution's website not having a standard, which includes Web standards and compliances. Ensuring that the university can improve support for web development and publishing practices. While simplifying web services technology through one system and having a place for the university website needs to be addressed in a timely manner.

2. Recommends that the WordPress Content Management System (CMS) be used to produce the start of the new University website continuing with the current ASU CMS, hosted by GoWP. Followed by a transition to purchase OU Campus CMS produced by OmniUpdate:

The committee identified as a risk the potential of the new institution's website not being completed by the deadline, if waiting on purchases of OU Campus CMS. So, the committee has decided to recommend using the current ASU platform to start development of the website. Simplifying the content through one CMS will provide consistence of the new ASU brand.

OWG 60: IT Back-End Systems:

1. Recommends that A/V (Audio/Visual) systems in labs and classrooms on both the DSC and ASU campus, along with the Cordele center, adhere to a standard experience. The standard will include the user interface present in the room as well as the technology selected when designing future implementations:

A standard experience for classroom AV will keep instructors from having to learn how to operate multiple technology types. This will decrease the amount of time a teacher is spending operating technology and increase the amount of time for teaching.

2. Recommends developing an Enterprise Wide Technical Architecture document that will outline the data center design for the new University:

Recommends consolidating the Enterprise Primary and Secondary Data centers at both sites to provide seamless, highly available, and highly reliable services to the faculty, staff, students, graduates, alumni, and guests in accordance with the Enterprise Wide Technical Architecture documentation.

3. Recommends that application databases that are duplicated between DSC and ASU be consolidated. Any MS SQL application database that is not a duplication will be consolidated under one database server if application requirements permit. All databases used by the new university will meet standards and policy set by the university:

To state how existing and new databases will be handled by the new university.

4. Recommends that the current datastores for both campuses be used for the new university. Support and life cycle will need to be checked for the hardware supplying storage for the datastores to ensure the best reliability. Any hardware that is end of life will need to be replaced:

To state how existing and new databases will be handled by the new university.

5. Recommends that the new University implement a strategy that will eliminate duplication of service and consolidate all of the services into a single network schema:

Recommends consolidating the Network Schema and logical network design between both sites into a single document addressing IP address space overlap. Design a change management process to manage this document.

6. Recommends that all server operating systems remain compliant with all policies and meet the requirements as described in the Enterprise Wide Technical Architecture documentation:

Server Operating systems will be reviewed and updated at both sites in accordance to the technology needs at the new university and in accordance with the Information Security Office best practices and configuration documentation. Through site to site connectivity and the extension of domain name spaces improved backups, disaster recovery, and service availability will be realized.

7. Recommends that all servers and clusters remain compliant with all policies and meet the requirements as described in the Enterprise Wide Technical Architecture documentation:

All proposed servers and clusters will be reviewed and approved by the IT technology review process and by the designated data center operations POC prior to procurement. All server and cluster placement within any enterprise data center will be at the discretion of the data center operations POC. Servers and clusters will adhere to all guidelines outlined within the current device standards, life cycle replenishment, and those outlined in the EWTA.

8. Recommends that all servers be subject to security scanning as coordinated by the CISO and will remain in compliance according to policies and processes for the new University. All servers will be subject to:

- **Annual firewall audit**
- **Adhere to University security policies associated with OS patching and antivirus protection**
- **Maintain current backups and follow established procedures for disaster recovery**
- **Review and update at both sites in accordance to the technology needs of the new university:**

To provide the layout of how operating systems will be provisioned and managed by the new university.

9. Recommends that the WordPress Content Management System (CMS) be used to produce the start of the new University website continuing with the current ASU CMS, externally hosted. Followed by a transition to purchase OU Campus CMS produced by OmniUpdate:

The committee identified as a risk the potential of the new institution's website not being completed by the deadline, if waiting on purchases of OU Campus CMS. So, the committee has decided to recommend using the current ASU platform to start development of the website. Simplifying the content through one CMS will provide consistency of the new ASU brand.

10. Recommends replicating current SSID services (unique ID naming wireless networks) on both campuses, in case some of the assumptions or back end requirements has not been meet at the time of roll out:

Unify services through similar hardware implementations and topologies. Provide a roadmap for the system to grow in a way that can accommodate the increasing demand for bandwidth and services.

11. Recommends the use of Cisco-Meraki on both campuses:

Both campuses use Cisco infrastructure.

12. Recommends that all servers remain compliant with all policies and meet the requirements as described in the Enterprise Wide Technical Architecture documentation:

Provide recommendations for standards, best practices, and the inclusion of a collaborative ongoing review to ensure any updates are vetted and compliance is met. Identify and recommend the implementation of any technologies to improve operations, disaster recovery, and business continuity.

13. Recommends that Albany/Dartmouth adhere to an A+B=C (where A = Albany and B = Dartmouth and C = New Environment) approach when consolidating the indoor digital sign systems. Rise Vision will be used for the new environment:

ASU has been using Rise Vision for about two years and can easily add DSC displays to the managed network. The new ASU will leverage the free components of Rise Vision cloud environment.

14. Recommends the tracking of technology assets via a central software system, with the goal of identifying mission-critical assets and facilitating asset reporting:

The consolidated institution should develop an enterprise inventory tracking process, utilizing a central asset management system. Through this asset tracking system, the consolidated institution will have reporting available regarding asset inventory, surplus, and mission-critical assets. Likewise, it will facilitate the annual process to review and inventory the consolidated institution's assets.

15. Recommends providing a dedicated network connection between the East & West Campuses:

Provide a link between the East and West campuses to enable data communication and collaboration. PeachNet provides data connectivity to both sites and can provide the connection. There will be initial startup costs and a recurring monthly fee to provide a bandwidth connection of 2x 10gb/s.

16. Recommends the consolidated institution develop reporting which alerts IT Services in the event that confidential information (SSN, Banking Information) is uploaded to the public web space:

In alignment with the consolidation recommendation, Albany State redacted all sensitive information in the public web space. Through the use of proactive alerts, the consolidated institution will be able to initiate an immediate removal of identified data and develop a better understanding of the use of confidential data at the consolidated institution.

17. Recommends that all application databases that are duplicated between West and East Campuses will be consolidated:

Any MS SQL application database that is not a duplication will be consolidated under one database server if application requirements permit. All databases used by the new university will meet standards and policy set by the university. The current datastores for both campuses will be used for the new university. Support and life cycle will need to be checked for the hardware supplying storage for the datastores to ensure the best reliability. Any hardware that is end of life will need to be replaced. To state how existing and new databases will be handled by the new university.

18. Recommends that the new university consolidate campus domains into one:

This implementation strategy will eliminate duplication of service and consolidate all of the services into a single managed domain.

19. Recommends that the new institution adopt the A+B=A model where the A is the east campus domain and B is the west campus domain:

This implementation strategy will eliminate duplication of service and consolidate all of the services into a single managed domain.

20. Recommends consolidating the technology hardware, software, administration, maintenance, and change management to provide a centralized point of control for the Enterprise firewalls:

Maintain the management of both enterprise firewalls utilizing the Cisco/ Palo Alto system implemented at the East Campus. Implement a consolidated change management process for the rule base and policy. Perform an internal assessment of the rules associated with the devices.

21. Recommends that the consolidated institution develop Disaster Recovery and Continuity of Operations Planning documents for critical systems, helping to ensure the availability of services in the event of disaster or significant service disruption:

Disaster plans should be developed for all critical systems and tested on an annual basis. This testing will help ensure service availability and will be in alignment with USG recommendations regarding Disaster Recovery Planning and Testing.

22. Recommends that the consolidated institution develop an Incident Response Policy and Processes, in alignment with USG requirements:

As recommended in the February 2016 USG IT Audit, the consolidated institution will develop an incident response process which proactively seeks the identification of incidents, containment of an incident when identified, recovery from the incident in a time-effective manner, and preservation of evidence.

23. Recommends that Information Technology policies should be developed for the new institution which align with USG requirements regarding technology and clearly communicate the acceptable use of technology resources for the consolidated institution:

Per the USG IT Audit conducted in February 2016, the consolidated institution should develop and clearly communicate IT policies to the campus. Once developed, these policies will serve as the foundation for IT use at the consolidated institution and will be reviewed on an annual basis.

24. Recommends (in partnership with Procurement) developing an IT procurement process which serves as a clear entry-point for IT purchases at the consolidated institution:

The creation of a clear IT Purchasing process and portal will facilitate the review of proposed/requested IT services and ensure that USG compliance, data privacy and system availability are taken into consideration with all proposed solutions.

25. Recommends providing Security Education, Training and Awareness to students, faculty and staff of the new university which align with USG security training requirements:

As recommended in the February 2016 USG IT Audit, the consolidated institution should develop security awareness training for the consolidated institution and conduct the training annually. This training can be supplemented with other resources such as an IT Services security awareness website and compliance workshops in partnerships with administrative and academic support departments.

26. Recommends implementing a system scanning and remediation process which will increase security of IT systems campus-wide:

As detailed in the February 2016 USG IT Audit, the consolidated institution should implement a system which provides system administrators a vulnerability assessment of their systems and remediation recommendations. This assessment will be conducted no less than annually and ensure that IT systems at the consolidated institution are in alignment with campus policies and that the services are being offered in a secure manner.

27. Recommends retaining existing VOIP systems for east and west campuses with no change at this time:

- Continue to research VOIP cost for merging both campuses VOIP systems into one system which will empower us to select the most cost efficient vendor for our new ASU.
- Maintain a campus directory to include east and west campuses on the new university website providing easy access for employees.
- Educate both campuses regarding directory lookup.
- Public Safety Command Center phone, elevators and fire alarms will remain as it is both radio frequency and analog lines.

28. Recommends that IT Services collaborate with Human Resources to develop policy and procedures which validate logical and physical access during hiring, role changes, and separation:

In alignment with the February 2016 USG IT Audit finding, partnering with Human Resources to develop process associated with on-boarding, transfer, and exit activities will help ensure that logical and physical access to systems at the consolidated institution are properly managed.

OWG 61: Business Services:

Recommends consolidation of both West and East Campus' Connect5 Emergency Alert Systems under single management:

The consolidated system should be managed by the ASU PD at the east command center and utilized to send out emergency messages to both the east and west campuses as needed. Data uploads will continue to be managed by Information Technology Services at both the east and west campuses until the big bang and ADP consolidation provides the ability to automate data uploads.

OWG 62: IT General Support: Desktop Management - Domain Integration:

1. Recommends providing the new U with enterprise hardware and software support for both Mac and iOS devices that offer user flexibility while meeting educational needs. Mac support also aims to provide the level of service currently available for our PC users in imaging, patching and security. Mac support can also deliver a customized experience for faculty, staff and student labs providing specialized software and settings:

First reconcile all institutional Mac and iOS devices between both campuses. From there, create a plan to offer a comparable level of support as PC users through means such as LanDesk, Meraki MDM, the current Apple Xserver and Apple's DEP program.

2. Recommends that in the first year of the consolidation there will be a one-way trust relationship between both campuses' current domains. This will allow authentication and access to resources at both sites that are available through Active Directory. When the New U domain is constructed, the Active Directory structure will meet the needs of the new university:

Pre-consolidation, a one-way trust relationship will be created between the campuses to allow users to work between campuses while still receiving their needed Active Directory access. A single domain will be adopted for the new U which will meet the needs necessary.

3. Recommends that the new University utilize LanDesk as their desktop imaging solution. DSC currently utilizes LanDesk for their imaging needs while ASU currently uses SCCM. New images will be created and deployed at both campuses for a unified end user experience:

Imaging is the process of centrally managing, architecting, and maintaining standardized snapshots of the desktop operating system. LanDesk is currently used at both Institutions but at different capacities.

4. Recommends creating a new patch management process which allows ITS to strategically patch end-user machines. It is recommended we utilize LANDesk for patching computers with Windows OS and general updates. Apple Remote Desktop will be used to patch Apple computers with Mac OS:

Apple Remote Desktop and LANDesk allow for easy remote installation and patching with minimal end user disruption. Patching is designed to update computer programs in an effort to increase application.

5. Recommends that the new University create and implement a living document to house all IT supported device standards across the University. The EWTA (Enterprise-Wide Technical Architecture) will be publicly available for customer reference and include supported items such as desktops, tablets, servers, A/V equipment, printers etc. A centralized IT procurement process/IT review will be in place as well:

A one-stop-shop for what devices the University will support is vital to communicate internally and externally. The EWTA will provide this reference and will be reviewed on an annual basis for updates. A formal IT review will also be in place for all technology purchases to verify the purchase is in line with the established EWTA.

6. Recommends that the new university utilize LanDesk Kaspersky which is already in production at both campuses and offers antivirus, antimalware, and the required reporting tools which will be leveraged to enforce end-point security and monitoring:

Endpoint security is a software-based level of protection on all faculty/staff and lab workstations that protects the workstation from malware and unwanted intrusions. Both campuses are currently using LANDesk Kaspersky for their endpoint security solution.

7. Recommends consolidating file sharing and print services into a single solution for the new university. Department and individual shares will be provided for faculty and staff. Students will be directed on how to use OneDrive for file storage. SharePoint will be consolidated into one instance to exist in Office 365 SharePoint:

To layout the direction the new university will take as it concerns supplying file storage and network printer support for the campus community.

8. Recommends that the new University create and implement a new strategy for stream-lined processing of IT inventory. Documenting and tagging of new and current inventory using the program, Samanage. This approach will help alleviate technology auditing pressures and create a unified inventory system across all campuses:

The new processes will encompass everything from receiving new IT inventory, to the tagging process for inventory auditing, to the surplus processing for obsolete equipment. The new University will benefit from accurate tracking of inventory and help with the process of replenishment. The new practices will involve all campuses and create a stream-lined process to handle all aspects of IT Inventory Management.

9. Recommends continuing to offer the training portfolio of services currently in existence by the East & West campuses. The processes and services defined and agreed upon by the intersecting units are based on the premise of avoiding a reduction of service:

Determine the areas, processes and level of support for technology training services for faculty, staff, and students.

10. Recommends that service offerings are reviewed based on viability and needs analysis and a subsequent prioritization of these training needs be made as a direct result of the consolidation:

Determine the areas, processes and level of support for technology training services for faculty, staff, and students.

11. Recommends developing processes that are clearly defined and agreed upon by the adopting units based upon the final decision of the consolidation organizational structure by developing workflow processes, training IT personnel on proper ITIL workflow and develop ITIL templates for easy adoption:

ITIL (Infrastructure Technology Infrastructure Library) is designed to standardize the selection, planning, delivery and support of IT services to the institution. Adopting these principles and instilling them into day-to-day operations will not only make our team more efficient, but increase our customer satisfaction.

12. Recommends that both campuses implement a model of support and preventative maintenance to computer labs. Current computer labs will be inventoried by Service Desk personnel. ITS Student workforce will perform bi-weekly “health checks” on computers in labs and report back any issues to Desktop technicians. ITS will deploy the software, “LabStats,” to track computer and software utilization:

Lab management is the processes and procedures used to manage large groups of computers (computer labs). These classrooms are vital to instruction so making sure these workstations are updated, maintained and in proper working order is imperative.

13. Recommends consolidating all similar existing enterprise licensing into one agreement. All enterprise vendors are to be notified prior to July 1, 2017 of the intent to continue or discontinue services, any relevant information with regards to projected FTE/Seats required, adjusted standard renewal/anniversary date of July 1, 2017 to align with the FY budget (if not already), request any legal amendments or contract changes that may be required, and quote for future budgetary purposes:

All outstanding Divisional Departmental (OWG 61) licensing will be addressed accordingly/as required through the IT request process and will be requested to adjust to reflect the new university as needed prior to approval. Develop a licensing and maintenance process to ensure that the services which were adopted by the new University will continue without any interruption.

14. Recommends adopting a life cycle replacement cycle that includes annual refreshes of IT functional assets. Assets to be life cycled include faculty/staff/classroom/computer lab computers, Classroom Audio Visual equipment, Security cameras and Infrastructure equipment (servers, storage, wired networking and wireless networking):

Adhering to a true life cycle on the above assets will assure ASU ITS is meeting all current and future technology needs.

15. Recommends combining and creating a new unified Service Desk that supports all users across all campuses. The new Service Desk will utilize cloud-based software, Samanage, to track and document work order systems. New ServiceDesk workflow will increase both efficiencies, response times and customer service:

It is recommended that we implement a single system to track and document customer requests at both campuses. Samanage is a cloud-based system that integrates with inventory management suite to offer a single system for both service desk and asset management. Samanage is built around ITIL concepts. This new system will provide a fresh foundation for both campuses moving forward.

16. Recommends consolidating SharePoint into one instance to exist in Office 365 SharePoint:

To provide a unified document management and collaboration tools for all personnel of the new university to facilitate document sharing and collaboration with one another across the entire university. It Through this implementation, it will address concerns about the document management and collaboration tools to support the campus community. Additionally, it will unify the standards of both institutions and reduce annual costs.

17. Recommends consolidating file sharing and print services into a single solution for the new university:

Department and individual shares will be provided for faculty and staff. Students will be directed on how to use OneDrive for file storage. Through this implementation, it will address concerns about supplying file storage and network printer support to campus community. Additionally, it will unify the standards of both institutions and reduce annual costs.

OWG 63: Research Computing:

1. Recommends maintaining two existing research clusters and investigate emerging technologies after consolidation:

The east campus performs the majority of the computational research, and operates two research clusters: One is maintained by the IT department and the other is maintained by the Math and Computer Sciences department. The recommendation is to keep what exists, and for the IT department to work with researchers to investigate emerging technologies.

2. Recommends that the IT department work closely with Office of Research and Sponsored Programs to define data security policies and research procedures for the new U:

The east campus performs the majority of research, but does not have data security policies and procedures defined. This puts the institution at risk of mishandling research data. ORSP develops policies and procedures for research, including undergraduate research. IT and ORSP should work together to define research data, needs, policies and procedures for the new U.

3. Recommends that the IT department work closely with Office of Research and Sponsored Programs during the proposal stage so that the IT department can support the technology needs of newly-funded grants and contracts:

Several funded grant projects assumed the IT department had resources that did not exist. As a result, full implementation of grant work was delayed. Including the IT department early in the grant-making process would allow the department to vet the technology requirements of new grants and provide input to proposing PIs on IT implications and associated costs.

OWG 64-A: IT: Student/Faculty Services (Authentication, Email):

1. Recommends that the new university be under one Office 365 tenant for faculty, staff, and student email:

The East Campus faculty and staff email accounts are planned to be migrated to Office 365 before the end of the year. Migration of the West Campus faculty, staff, and students into the current East Campus Office 365 tenant will need to be planned. Professional services will be engaged to ensure a smooth transition of accounts.

Email data for the West Campus students will not be migrated to new mailboxes but directions will be provided on how to move emails the students want to keep.

2. Recommends consolidating and configuring all supporting systems to interoperate with the identified email recommendations for all class of services:

Enterprise MTA (Mail Transfer Agent):

- All external mail will be handled by the current production solution provided by Barracuda Networks.
- Custom rules will be developed to handle all mail requests assigned to the @darton.edu domain resulting in delivery to the appropriate @asurams.edu customer

Distribution Groups:

- Distribution Groups functions/configurations will continue to operate as intended due to rule sets existing at the enterprise MTA.
- Existing groups on the West Campus domain will be migrated to one of the production East Campus domain servers based on service requirements.
- All new requests will be handled via a service ticket and provisioned in the asurams.edu domain.

Email Archive:

- Arcmail and 365 Litigation Hold will be used to archive email for the new university.

3. Recommends that the new university use Active Directory for identity and access management:

Account creation for faculty, staff, students, and guests will be handled from this system. Access to file shares, printing, and most applications will be dictated by the accounts created in Active Directory. To state what system will be used for identity and access management.

[OWG 64B: Student/Faculty Services \(Banner, DegreeWorks\):](#)

1. Recommends that ASU/DSC adhere to an A+B = C (where A = ASU and B= DSC and C = New Environment) approach when consolidating the Banner Systems:

Advantages of following this approach:

1. Provides the best opportunity for cleaning up data with a focus on future audit readiness
2. Provides flexibility to define the validation tables for new university while allowing the most effective new business practices to be the driving factor
3. The new course catalog will have a fresh slate as of the consolidated term as the pre-consolidation course work will not require validation
4. Financial aid gets a fresh aid year start with the C model for aid year 17/18 and it allows for continued separation of intersecting student data in the A and B instances for Spring 2017 and Summer 2017 term aid year 16/17.

2. Recommends that the consolidated “C” Banner environment be hosted with ITS Athens:

Advantages of following this approach:

1. East Campus Banner Environment is currently hosted by ITS Athens
2. Reduce tasks associated with design and set-up for consolidation “C” environment
3. Prevents the possibility of incurring additional resources and costs that would occur from creating a new “C” environment locally
4. Excellent support provided by ITS Athens hosting services for East campus current production environment.

3. Recommends that the IDs (Student, Faculty and Staff) in the consolidated “C” Banner environment will begin with 900xxxxxx:

Advantages of following this approach:

1. For the IDs, East Campus currently have 906xxxxxx for Students, 906xxxxxx for Staff and 986xxxxxx for Faculty. Some Staff members also have 986xxxxxx. West campus have only 919xxxxxx
2. Having a new number sequence will provide the opportunity to clean current mix-up of IDs.

4. Recommends that West Campus’ Luminis Portal (MyDC) will be decommissioned for Fall 2017:

- Luminis is portal product from Ellucian and Ellucian has announced December 31, 2016 to be the “End-of-Life” for this product.
- East Campus, Banner SSB system is directly accessible by the Students, Faculty and Staff. West campus, Banner SSB is accessible through Luminis Portal.
- In the New University – Banner SSB will be the single point of entry
- All current access points to Luminis on the West Campus will be reviewed and communication regarding new points of entry will be communicated.

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