Information Technology Strategic Plan

March 2016

Executive Summary

John A. Logan College (JALC) continues to make considerable investments and advancements in technology deployment and utilization of its technological resources. The mission and purpose of the Information Technology Services Department (ITS) is to provide technology services and support for Faculty, Administration, Staff and Students.

The Information Technology Department is led by the Executive Director Technology, who reports to the Vice President for Business Services & College Facilities. The department has a total staff of twelve, plus additional support from the CampusWorks and Jenzabar contracts. The twelve consists of three directors, one executive director, one coordinator and support staff, plus student workers. This staff is responsible for network support and operations, academic computer labs, telecommunications, web services and desktop technical support. The office is also responsible for administrative computing partially supported by the Jenzabar support contracts, including computer operations. The Jenzabar software is supported and serviced by the Jenzabar and CampusWorks contracts, which is outsourced and supports our user community reporting to the Executive Director Technology.

JALC has identified the following major initiatives towards achieving its goal in supporting the College's technological goals. This three year plan will work towards achieving this goal.

In addition to striving and working towards staying up to date technologically, the IT Department is always providing the highest level of support possible to the College Community.

This plan is a living document or dynamic document that is continually edited and updated. However, this plan may evolve through successive updates, be expanded as needed, and serve a different purpose over time. Living documents are changed through revisions that may or may not reference previous iterative changes.

This document reports on the development of a strategic information technology plan for John A. Logan College. The purpose of the plan is to chart the direction for the development and evolution of information technology infrastructure, services, and support at the College. The plan provides an outline of where the College aspires to be. It does not dictate specific operational solutions, but rather, provides a strategic context within which operational IT decisions can be made. This formally-articulated information systems architecture serves as a set of guidelines (a "blueprint") for making informed decisions about information systems issues, acquisitions, implementations, and ongoing support and maintenance.

The plan delineates the institution's system components across multiple inter-related layers of systems. These architectural layers are buttressed by the institution's articulated information systems philosophy, vision, and guiding IT principles as well as by IT best practices.

For each of the information system's architectural layers, the plan sets forth strategic initiatives that will serve to guide more-detailed annual derivative tactical/operational plans. The plan concludes by summarizing the proposed strategic initiatives, estimated budget and suggesting a target implementation timetable based on perceived priorities and prerequisite relationships, and aligns the proposed initiatives with the institutional vision and goals.

The strategic initiatives that are listed in this plan will touch on, and contribute to meeting and satisfying the College's Vision and Strategic Projects, as documented in the John A. Logan College Five Year Strategic Plan FY 2014-2018 (Work In Progress).

John A. Logan College Five Year Strategic Plan FY 2014-2018 (Work In Progress):

Vision Attributes:

#2   Access:
John A. Logan makes its academic programs, cultural programming, community services, grounds and facilities, and other resources highly accessible to students and the public at large through a variety of locations, modes of delivery, access points, community events, and special services for the disadvantaged.

28   Technology for Instructional Excellence
JALC effectively deploys and integrates information and other technologies that advance learning and give our students / graduates a competitive advantage.

29   Technology for Operational Effectiveness
JALC makes very effective use of technology to optimize the efficiency and effectiveness of College operations and business services.

Proposed Strategic Projects:

2   ERP System
Acquire and successfully implement an Enterprise Management System (ERP) that will give JALC advanced capability to extract and use data for reporting, research and informed decision making.

3   IT Staffing
Hire new staff and / or train existing staff to provide the competencies needed to fully exploit the capabilities of the new ERP system and in doing so support institutional research, reporting, and informed decision making.

The strategic initiatives are as follows:

Network-Related Strategic Initiatives
    Network-1: Remediate the College Network Security
    Network-2: Implement College-Wide Network Security Plan & Recommendations
    Network-3: Implement a BYOD Initiative
    Network-4: Evaluate & Implement a VoIP Telephone System
    Network-5: Improve the College Firewall
    Network-6: Server Upgrades
    Network-7: Data Cabling Refresh Plan
    Network-8: Fiber Backbone Upgrades

Hardware-Related Strategic Initiatives

       Hardware-1: Improve Conditions in the Data Center
       Hardware-2: Implement an Enterprise Storage Solution
       Hardware-3: Improvements to Virtual Server Environment
       Hardware-4: Inventory Replacement & Lifecycle Plan for IT Infrastructure
       Hardware-5: Inventory Replacement & Life Cycle Plan (Users, Labs, Smart Classrooms):
       Hardware-6: Develop a Formal Hardware Acquisition Process
       Hardware-7: Devise Charging Stations

Data-Related Strategic Initiatives

       Data-1: Implement a User-Friendly Ad Hoc Reporting System (Jenzabar)

Software-Related Strategic Initiatives

       Software-1: Identity Management Upgrades
       Software-2: Maximize Jenzabar CX/JX
       Software-3: Complete Software Inventory and Life Cycle
       Software-4: Implement a Software Acquisition Process
       Software-5: Server/Service Monitoring

Organization-Related Strategic Initiatives

       Organizational-1: Develop a Best Practice Support Model
       Organizational-2: Create Formal Business Continuity/Disaster Recovery Plans
       Organizational-3: Complete Jenzabar Deployment

Instruction-Related Strategic Initiatives

       Instructional-1: Articulate Smart Classroom Design Standards
       Instructional-2: Implement Smart Classroom Management Process
       Instructional-3: Investigate New Instructional Technologies
       Instructional-4: Investigate the Use of Video Conferencing College-Wide
       Instructional-5: Relocation of Student Access Computer Lab
       Instructional-6: Renovation of Instructional Computer Labs

These initiatives must be carefully reviewed and analyzed, estimating their costs and benefits, both tangible and intangible, determining their feasibility from operational, technical, economic, and organizational perspectives, and setting appropriate FY 2017 to FY 2019 tactical initiatives.

This initial strategic information technology plan should not be viewed as an end to IT planning but rather as a beginning. It will immediately generate a one-year tactical/operation plan to guide IT acquisitions and decisions for fiscal year 2017. The experiences gained during the implementation of that one-year operational plan will provide feedback to further inform and shape the long-term strategic plan. The strategic plan can therefore be adjusted annually, based on budget, funding and priorities. Minimally, it will be revisited in detail every three years. It is thus intended to be a "living document," responsive to the needs and aspirations of its constituents.

Network-Related Strategic Initiatives

Network-1: Remediate the College Network Security

John A. Logan College's (JALC) network is part of the college's critical information systems, JALC engaged CampusWorks to assess the current network environment related to security, intrusion testing, and compliance. The assessment has been completed and a plan developed with recommended changes and/or improvements. Remediation is an ongoing effort with continuous testing and regular upgrades. CampusWorks will work with JALC IT Staff to provide continual guidance in remediating network security and assist in the testing. CampusWorks is acting as the Chief Information Security Officer (CISO) through our agreement that extends through October 2017.

> *Target Date for Completion:*   Annually

> *Estimated Budget Impact:*   NONE
> (Potential Financial Impact based on Findings/Remediation)

Network-2: Implement College-Wide Network Security Plan & Recommendations

In support of the goal of protecting John A. Logan College's (JALC) vital information asset, and focused on improving the security of the college's critical information systems, JALC engaged CampusWorks to develop and strengthen the protection utilized for the data entrusted to JALC from potential students, parents, currents students, past students, adult learners, alumni, faculty and staff. CampusWorks will provide guidance to protect JALC information assets from ever-present cyber threats that affect all of the internet world. CampusWorks will provide continual guidance in developing a unified cybersecurity framework and assist in the implementation of the information security plan that is based in a college-wide culture of security. CampusWorks is acting as the Chief Information Security Officer (CISO) through our agreement that extends through October 2017.

> *Target Date for Completion:*   Annually

> *Estimated Budget Impact:*   NONE
> (Potential Financial Impact based on Findings/Remediation)

Network-3: Implement a BYOD Initiative (Policy)

The purpose of this policy is to define accepted practices, responsibilities and procedures for the use of personally owned mobile devices that John A. Logan (JALC) authorizes to connect to enterprise systems. This policy defines the commitment requirement, provides guidance for the secure use of end-user mobile devices and makes it clear there is no reimbursement for personal purchase of mobile endpoint devices, including mobile phones, smartphones and media tablets.

At the core of this policy is the concept that the employee, through an opt-in decision, trades control over his/her personal device in exchange for access to corporate resources (such as the network and email). It is important that the consequences and obligations of this arrangement are well-understood.

Mobile devices are a valuable tool in conducting business. It is critical that JALC protect and maintain user safety, security and privacy, while simultaneously protecting enterprise information assets while using these tools. Use of mobile devices supplied by or funded by JALC shall be primarily for enterprise business. However, JALC will permit the use of personally owned devices, subject to the following broad guidelines:

The decision to be eligible to use a personally owned mobile device for organization business will be based on a documented business need and appropriate management approval. Guidelines for eligibility need to be defined.

> *Target Date for Completion:*   Annually

> *Estimated Budget Impact:*   NONE
>   (Potential Financial Impact based on Software/Services)

Network-4: Evaluate & Implement a VoIP Telephone System

The College's IT Department supports 676 Phones, including 657 Voicemail accounts, on a daily basis. This system is run on Nortel and CS1000 equipment, utilizing our network infrastructure. Frontier provides 3rd party support (8am – 5pm / M-F) at a cost of approximately $25,000 annually.

The College's current phone system, both hardware and software, needs to be upgraded to support the services needed by the college community. The operating system is running on windows 2003, which has reached the end of useful life and does not provide any updates. The hardware and software that is supported by AVAYA has costly upgrades, at which the college is 3 versions/releases behind, that supports the aged system. This leaves the College at great risk and exposure. IT may not be able to recover from a hardware or software failure on a timely basis, and would not be able to accurately, based on the type of failure, assess the cost to recover. This exposes the College to a potential outage, that they cannot recover from, nor receive support, to replace the hardware or configure and repair the software. The vendor which supports the maintenance contract for the current phone system estimates it may take up to 2 weeks (No Phones) to recover from an outage or repair. This is due to the age of the system and the availability of replacement parts, depending on the type of outage and repairs required.

The college needs to evaluate, plan and implement a VOIP (Voice Over IP) supported system.

> *Target Date for Completion:*   FY '18

> *Estimated Budget Impact:* $ 500,000.00 (Rough Estimate / One Time)
>   Plus Annual Maintenance of new system

Network-5: Improve the College Firewall

The college firewall has been in place for one year. Improvements to the firewall include general tuning of services. Know stable firmware upgrades will be applied as needed. Application upgrades and firmware updates are a part of Dell's Pro Support Plus services which are good until FY18, at which time the services will be required to be renewed in order to continue up to date virus, malware, and know cyber threat protection. Required internal audits of the systems configuration shall be enacted to provide assurances that JALC's network resources are not inadvertently exposed either by malicious intent or un-intentional misconfigurations. As more and more resources are utilized by hosted or cloud resources, it is imperative the requests for new services at JALC which require the College Firewall to be undergo configuration changes, that those changes are not made without thorough review of risk versus benefit has been requested and approved.

> *Target Date for Completion:*   Annually

> *Estimated Budget Impact:* $5,000.00

Network-6: Server Upgrades

Whether physical or virtual server, JALC's data center on campus is a vital piece of the infrastructure which hold vital and secure data, as well as all authentication user accounts. Server upgrades are to be maintained to insure that sufficient compute and storage space is available for JALC vital backups both on site and off site. With this plan IT shall monitor EOL timelines for Operating Systems to insure that security and vulnerability patching is always an option. Non supported legacy systems will be upgraded or removed from the infrastructure. Risk to JALC can be mitigated by planning for yearly refreshes of equipment that supports vital infrastructure and services.

> *Target Date for Completion:*   Annually
>
> *Estimated Budget Impact:* $75,000.00

Network-7: Data Cabling Refresh Plan

Supporting data reliant technologies relies more on a solid infrastructure. Data cabling in many of JALC's areas is running on older copper in which in appropriate installation was performed, or code violations exist. The plan would be to assess existing copper data cables, and plan for their reinstallation with up to date and compliant data cables.

> *Target Date for Completion:*   Annually (Estimated 3 to 4 years)
>
> *Estimated Budget Impact:* $50,000.00 (Annually)

Network-8: Fiber Backbone

Fiber Optics are what delivers the network (Wired/Wireless) across JALC's main campus. Many of the Network Closets are connected with OM1 Multi Mode fiber which was designed to handle 100Mb/sec bandwidths. Issues are continuous with the existing Fiber, which was installed in 1994. JALC's switches now support 10Gb/sec speeds with redundant connections. Known issues with our switch closets connections will be remediated be installing a standards compliant Fiber Backbone which is to be designed not only to address today's needs, but tomorrows as well.

> *Target Date for Completion:*   FY '18 – FY '19
>
> *Estimated Budget Impact:* $250,000.00

Hardware-Related Strategic Initiatives

Hardware-1: Improve Conditions in Data Center

The JALC Data Center hold most of the college's critical infrastructure. Controlling physical access will be priority one, by replacing door locks accessible by JALC's A key, and providing a mechanism for auditing access to the room. Other improvement such as better labeling and cable management will provide a better working environment, and insure that the college's access to resources in not in adversely affected by an un intentions power cable or data cable disconnect. Improvements to the server cabinets will be addressed as well to insure efficient cooling according to best practices is following.

> *Target Date for Completion:*   Annually
>
> *Estimated Budget Impact:*   NONE

Hardware-2: Implement an Enterprise Storage Solution

Data is entrusted to the institution. A solid practice of awareness and training with regards to this data shall be implemented. Personally Identifiable Data as well as other data puts the institution at risk if stored improperly, or managed inappropriately. JALC will implement best practices, and make available areas that may be used for storage of such material. Data classification will be required as part of the initiative, which shall drive the location and storage of the data. Training and policies shall be developed as well to compliment the intuitive.

> *Target Date for Completion:*   Annually

> *Estimated Budget Impact:*   NONE
> (Potential Financial Impact based on Software/Services)

Hardware-3: Improvements to Virtual Server Environment

JALC has implemented a virtual server environment to better utilized server resources, and provide maximum uptime for users. Servers and contained data are backed up on a scheduled bases. Critical servers that require the most availability to our users would benefit by being replicated to another location on JALCs main campus. If one of these servers were to fail, recovery from back could take hours to days depending on the situation. Utilizing replication could bring a server back online in minutes. JALC Network Infrastructure has a plan in place for replication to the JALC Annex Data Center. Items to address would be the purchase of additional Server/Network Hardware. Inspection of the current emergency power at the Annex and the addition of UPS Battery Backups to maintain uptime during power outages.

> *Target Date for Completion:*   FY '18

> *Estimated Budget Impact:*   65,000.00

Hardware-4: Inventory Replacement & Lifecycle Plan for IT Infrastructure

JALC Network Infrastructure maintains an extensive inventory of Enterprise level Servers/Storage/Network equipment. A plan that will monitor EOL for the inventory will be put into place. EOL appliances pose a risk to the institution in that manufacture support for security patches and replacement parts are not possible, which risks a halt in services to the institution for extended periods. All aspects of the college depend on maximum uptime and compliance, which refreshed equipment is able to meet. This plan is to also include inventory of UPS (Uninterruptible Power Supplies) that are utilized on all of the Network Infrastructures equipment. An assessment of power consumption needs has been developed, and partial deployment has been initiated in FY16 of UPS's. Lifecycles are estimated between five to seven years for hardware, but may include replacement of batteries in these devises. As power blips and outages occur regularly at JALC, not replacing and maintaining UPS's will result in user downtime on the colleges' phone system, wired/wireless network, and user access to systems such as the ERP. Monitoring of the power on JALC Infrastructure is important as well. If the colleges Emergency Power fails, the Data Center needs to be gracefully shutdown. Without monitoring and automation of this action, the college could lose substantial amounts of critical data.

> Target Date for Completion: Annually

> Estimated Budget Impact: $40,000.00

Hardware-5: Inventory Replacement & Life Cycle Plan (Users, Labs, Smart Classrooms)

JALC supports a four-year life cycle on all essential, College-owned computers. A centralized, inventory replacement plan will consist of all primary workstations for eligible, full-time users and priority instructional computer labs. IT shall maintain and periodically update this inventory replacement plan, so that stakeholders can adequately budget for such yearly replacements. Specific guidelines regarding replacement hardware specifications shall be established and updated yearly by IT, such as model standardizations, hardware/software compatibilities and warranty coverage. Computers that get replaced as part of the four-year life cycle, can be redeployed and used to upgrade non-primary instructional computer labs and smart classrooms, whenever deemed possible. Any remaining replaced computers will be redeployed as emergency spares, given away as donations or sent to recycling.

Certain situations may exist where specialized computer hardware may be required, beyond the normal college-wide standards set forth for replacement. This may be the case in some of the college's high tech curricula and is an integral component for an educational program as well as a marketing tool for attracting new students.

Target Date for Completion: Annually

Estimated Budget Impact: $200,000.00

Hardware-6: Develop a Formal Hardware Acquisition Process

All computer technology must be processed through IT and be approved by the Director of Desktop Technology or Executive Director of Integrated Technology, before being sent to Purchasing. Currently, the procedure to acquire computer hardware on campus is managed with the IT workflow process or by requested directly through the IT Help Desk. John A. Logan College uses a single vendor for the purchase of Dell computers. IT needs to formally develop, document and maintain, along with all of the acquisition steps involved in the process, an updated list of standardized, supported hardware that is consistent with present JALC Purchasing Policy. This updated computer hardware acquisition process will be posted on the IT SharePoint site.

Target Date for Completion: FY '17

Estimated Budget Impact: NONE

Hardware-7: Devise Charging Stations

Students are ever increasingly adding devises to their personal inventory of which they use in their learning activities here at JALC. All these devises have power and battery charging requirements. As part of an initiative to address the students need to be connected, and insuring that their devises are available for class, a plan is to be developed that will address the need for charging stations in select areas of the campus that would be most utilized.

Target Date for Completion: FY '17

Estimated Budget Impact: $25,000.00

Data-Related Strategic Initiatives

Data-1: Implement a User-Friendly Ad Hoc Reporting System (Jenzabar)

The college should explore and evaluate a method to enhance it's reporting capabilities, either within the Cognos software or other third party alternatives. One option to explore is event driven reporting. This is a process that is built into Cognos that runs queries to see if certain "data events" (aka.. changes to registration or financial aid records) happen in the database and that would trigger a report job to be run. This report could be in form of an email to alert the recipient. Of course this all depends on if there are data points that could allow the process to trigger the event. This would take further research.

Dashboard reporting would be another capability that should be explored and implemented. Dashboards should be created for departments that require regular data, for decision making.

> *Target Date for Completion:*　　　FY '17
>
> *Estimated Budget Impact:*　　　TBD

Software-Related Strategic Initiatives

Software-1: Identity Management Upgrades

JALC maintains a series of Directory Servers for the purpose of authentication of Identities. Current identities are in excess of 60,000 users. The authentication process determines whether someone or something is, in fact, who or what it is declared to be. Authentication validates the identity of the person. Maintaining up to date identities is the goal of this plan. Forefront Identity Manager is being deployed to insure that identities are up to date, and provisioned/de-provisioned appropriately. Timely processes related to Identity insure maximum uptime for Staff and Students, as well the process removes Identities that no longer are allowed to have access. Annual maintenance with a 3rd party provider, such as CampusEAI will be addressed in the budget line as well.

> *Target Date for Completion:*　　　Annually
>
> *Estimated Budget Impact:*　　　$15,000.00 (Ongoing Annual Maintenance)

Software-2: Maximize Jenzabar CX/JX

The college has made a multi-million dollar investment in a new ERP (Jenzabar) system. In order to maximize the return on investment, the IT department, working with the Integrated Technology Governance Committee and the Administrative Services Committee will:
- Identify and remediate root cause(s) of performance
- Set performance standards
- Provide technical and functional expertise (in-house or via third party)
- Work with users to identify priorities and implement solutions
- Educate user teams on best practices on using the product
- Create and implement an upgrade/patch/regulatory maintenance schedule
- Identify, evaluate and implement new (or required) software (product) releases

> *Target Date for Completion:*　　　Annually (On Going)
>
> *Estimated Budget Impact:*　　　NONE
> *(Potential Budget Impact related to New Products/Services Required/Upgraded/Purchased)*

Software-3: Complete Software Inventory and Life Cycle

The IT department has identified enterprise wide software licenses and has been purchasing and managing license renewals, including Adobe CLP, Borderland Deepfreeze, EMS, Netop Vision, Track-it! and the Microsoft Campus agreement. Software life cycle planning recognizes the importance of software applications to work processes, the need to retain compatibility with installed operating systems, peripherals, and other applications, the need to carefully plan timely upgrades and replacements, and the need to manage software installations to comply with licenses. Life cycle planning is not simply aspiring to apply every upgrade, but budgeting, monitoring, and implementing the plans. Currently, IT maintains a College wide software inventory within both the Kace appliance and Track-it! Help Desk software. IT needs to consolidate these records into a single, managed master inventory, either by using Kace or Track-it!, in addition to performing a complete system inventory of all software licenses, terms and conditions, and associated life cycle replacement plans and budgets.

> *Target Date for Completion:*   FY '17
>
> *Estimated Budget Impact:*   NONE

Software-4: Implement a Software Acquisition Process

All software purchases must be processed through IT and be approved by the Director of Desktop Technology or Executive Director of Integrated Technology, before being sent to Purchasing. Presently, not all software requests go directly through IT and individual Pcard purchases bypass these processes. IT needs work with the Director of Purchasing and Auxiliary Services to formally develop, document and maintain, along with all of the acquisition steps involved in the process, an updated list of standardized, supported computer software while corresponding with present JALC Purchasing Policy. This updated software acquisition process will be posted on the IT SharePoint site.

> *Target Date for Completion:*   FY '17
>
> *Estimated Budget Impact:*   NONE

Software-5: Service/Server/Net Infra Monitoring

Customer service depends on many difference aspects. One aspect is service monitoring software, which when utilized appropriately can help to resolve service outages and security incidents before the institution notices. With more demand put on JALC Infrastructure, risk of not having monitoring insight could pose a threat to data and access of that data including Public Health Safety systems. IT will build upon it monitoring backbone by developing improvements to those systems such as server resources. Additional monitoring is being planned for, and will include in depth flow/bandwidth monitoring, as well additional interface monitoring will be included.

> *Target Date for Completion:*   FY '17
>
> *Estimated Budget Impact:* $8,500.00 First Year / Annually $ 4,500.00

Organizational-Related Strategic Initiatives

Organizational-1: Develop a Best Practice Support Model

The growth and proliferation of technology in institutions of higher education has placed unprecedented demands on IT organizations. Institutions see technology as a pathway to becoming and remaining competitive. Faculty require a variety of technology resources to enhance teaching and assist in achieving learning outcomes. Students use technology to enhance the learning experience and to acquire marketable skills for the workplace. Institutions use technology as a marketing tool and resource to business partners and community groups. Administrators use technology to enable distance education initiatives and workforce development efforts. All of these drivers, and more, define the need for well-supported technology. The challenge for institutions of higher education is to construct a robust, effective and affordable technology support model. Without an effective support model, the investment in technology cannot be fully leveraged. An ineffective support model may result in faculty abandoning technology altogether and may drive an institution into a diminished competitive position in higher education.

Currently, IT does provide for a single point of contact in the Help Desk services office during normal business hours and on a limited after hour basis to handle IT interruptions. However, in an age of 24x7 teaching and learning, JALC needs to plan for a 24x7 support model (168 hours per week).

The College can supplement on-site support with an outsourced 24x7 help desk by partnering with service providers who focus on higher education.

IT does have the management and tracking capabilities of all incoming problems by utilizing an older version of Track-it! help desk management software for the IT support staff, however this lacks self-service tools for end users (students, faculty, and staff) or a knowledgebase to provide support staff with clear, common information. Procurement and implementation of the latest Track-it! version would enable support staff and end users a starting point of an effective support model. The heart of an effective support model is a well-trained staff that has the tools necessary to do their jobs. Often IT has a poor reputation, with complaints revolving around lack of responsiveness, timeliness, and effectiveness. An effective support model begins with employing enough well-trained support staff to successfully manage the technology environment. In addition, there is a need to define and implement service level agreements (SLAs) to govern the delivery of IT services to all constituents and ensure that IT is responsive to JALC needs.

Target Date for Completion:	FY '17
Estimated Budget Impact:	TBD *$ Outsourcing 24x7 Support* *$11,000 Track-It / 3-year License*

Organizational-2: Create Formal Business Continuity/Disaster Recovery Plans

A Disaster Recovery Plan can be defined as the ongoing process of planning, developing and implementing disaster recovery management procedures and processes to ensure the efficient and effective resumption of critical functions in the event of an unscheduled interruption.

The Disaster Recovery Plan will address specific actions that College should take following a system disruption or emergency. IT contingency plans should be clear, concise, and easy to implement in an emergency. Where possible, checklists and step-by-step procedures should be used.

The Disaster Recovery Plan must contain detailed information on how to continue business operations and perform all tasks required to do so while the computer hardware, network and data are being recovered. Technical capabilities need to be documented and designed to support operations and should be tailored to the College requirements. The order in which systems are to be recovered and at what level of functionality based upon a Business Impact Analysis need to be fully documented. Not all systems may need to be recovered simultaneously or to 100% for the system to begin functioning.

John A. Logan College is in the process of developing a comprehensive contingency planning program. Each college department will need to develop IT contingency plans that contain detailed roles, responsibilities, teams, and procedures associated with restoring an IT system following a disruption.

Target Date for Completion: FY '18

Estimated Budget Impact: TBD

Organizational-3: Complete Jenzabar Deployment

The college continues to make major strides, and meet milestones, towards completing the initiatives related to the conversion from APECS to Jenzabar CX/JX. Some initiatives that still need to be addressed are as follows:

- Implement Student Retention Module (FY '17)
- Implement Payroll Module (FY '18)
- Implement Human Resources Module (FY '18)
- Evaluate and Identify a Data Warehouse solution to support reporting
- Data Cleanup (On Going)

The above initiatives need to be prioritized, and the module team leads need to be involved in the setup and testing. Resources need to be identified to have a successful implementation. This includes, but not limited to, people and the potential impact on the budget.

Target Date for Completion: FY '17 & FY '18

Estimated Budget Impact: TBD

Instructional-Related Strategic Initiatives

Instructional-1: Articulate Smart Classroom Design Standards

JALC Smart Classrooms are generally equipped with networked computers, LCD projectors, document cameras, and multimedia source equipment (DVD/VHS players) either directly connected to the projectors or computers. Written smart classroom design standards have never been documented and smart classroom design was generally inconsistent throughout the College. Clarity on what constitutes the default smart classroom technology configuration is needed. Agreement on what smart classrooms need to be configured to support specific specialized content requirements and how those smart classrooms will be supported needs documented.

Target Date for Completion: FY '17

Estimated Budget Impact: NONE

Instructional-2: Implement Smart Classroom Management Process

Smart Classroom technology support is understood to be production-critical, with coverage provided during all or most class times. Presently, IT procures, installs and supports all smart classroom technologies at the College. IT needs more learning opportunities to test and adopt different technologies to enhance the teaching and learning environment, such as standardized A/V controls or switches and other emerging technologies. IT is currently managing the regular replacement of smart classroom technology and in the process of developing a through a well-defined life cycle replacement plan, in order to facilitate future budget planning.

> *Target Date for Completion:*   FY '17

> *Estimated Budget Impact:* $50,000.00 Annually

Instructional-3: Investigate New Instructional Technologies

IT and the Integrated Technology Committee should lead a charge in facilitating supportable systemic implementations of new and emerging instructional and administrative technologies. New and emerging technology solutions should be investigated as collaborative projects involving faculty, staff, and administrators.

> *Target Date for Completion:*   FY' 17

> *Estimated Budget Impact:*   TBD

Instructional-4: Investigate the Use of Video Conferencing College-Wide

JALC has only a few video conferencing facilities that are currently used exclusively for administrative and instructional meetings. Potential instructional applications include utilizing faculty to deliver specialized courses to extension centers, enhancing course offerings to local school districts, extending and supplementing instructional programs, etc. Most, if not all, video conferencing technology is implemented in conference rooms. Classroom-based interactive video conferencing design presents some additional challenges but should be investigated more thoroughly to determine the added value it brings to classroom instruction. The proposed technology will be standardized for not only the classrooms, but also those conference rooms that are identified across the campus.

> *Target Date for Completion:*   FY '18

> *Estimated Budget Impact:*   TBD

Instructional-5: Relocation of Student Access Computer Lab

IT student workers oversee and manage the operations of the College's main student access computer lab (C238) and when the need arises for a full-time IT staff member to be present, the distant nature sometimes presents a challenge, when time is of the essence to assist student related issues. The relocation of this student access computer lab, closer to the IT Offices would benefit, both the user and staff response times. This would also seem to be a more desirable location for many students that enter the College through the E-wing entrance, near where many of the computer lab courses are already being taught in lower E-wing and right-off the E-wing lounge area. In addition, by creating a new student access lab in lower E-wing (E117 – E121), the current computer lab (C238) could be converted into a conventional Instructional computer lab and used for more computer lab courses, with the addition of a simple A/V setup.

> *Target Date for Completion:*   FY '18
>
> *Estimated Budget Impact:*   TBD

Instructional-6: Renovation of Instructional Computer Labs

In order to complement and standardize the formal computer labs spaces on campus, IT has identified several computer labs that are in need of renovation, because of either poor instructional design or to increase computer lab manageability. Computer labs E201, E203, and E204 were designed and created for an older model of Instruction and contain older, EOL network cabling and jacks within the desks that need to be replaced. By standardizing on the current design and layout of the newer computer labs on campus, these rooms could be reconfigured, either reuse or build new furniture, and have the new installations of data/power drops completed during a down time or break in Instruction. In addition, the quickly designed and built computer lab in E119, IT software training lab, needs to be included if this is to be considered long-term use. This could be redesigned as a standalone computer lab or together to accompany a new student access computer lab in the E-wing.

> *Target Date for Completion:*   FY '18
>
> *Estimated Budget Impact:*   TBD