

Upper Iowa University
Strategic Planning

Information Technology
Report, Public Comments & Response

Committee Members:

Ron Crooker

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Information Technology Committee Strategic Plan

Committee members: Ron Crooker, Bob Firth, Becky Wadian, and Terry Smid, Committee Chair

Overview

This report reviews critical IT functions and outlines improvements and additional resources needed for IT to assist in the future of UIU.

	<u>Brief Description</u>	<u>Implementation</u>	<u>Costs</u>
Data center:	<i>The data center is the core of all IT functions and is vital to the success of all IT initiatives. A modern data center will permit UIU to safely store and process all the data requirements of the university and allow the university to be competitive with future IT needs.</i>		
	Build a new university data center	Year 1	\$1,420,000.00
WAN:	<i>The WAN (wide area network) is crucial in connecting the extended university to Fayette and to each other for improved communications and will allow access to new technologies such as video services, server technologies, and will be an important role in future business continuity plans.</i>		
	Installation of new WAN circuits for video services: (3 YR contract) Fayette campus, Milwaukee and Des Moines centers (funding approved)	Year 1	\$0.00
	Continue to add WAN circuits services to existing sites (8): Waterloo, Madison, Prairie, Blackhawk	Year 2	\$127,000.00
	Ft Polk, Ft Riley, Ft Leavenworth, Wausau	Year 3	\$127,000.00
Telephony:	<i>The telephony project will help the university standardize on one telephony platform and improve communications between all areas of the university.</i>		
	Installation of new phone systems for improved communication: Fayette, Des Moines, Waterloo, Madison, & Milwaukee (funding approved)	Year 1	\$0.00
	Continue to add new telephony systems to existing sites (6): est. \$10,000 ea Prairie, Blackhawk	Year 2	\$20,000.00
	Ft Polk, Ft Riley, Ft Leavenworth, Wausau *seek approval from military sites	Year 3	\$40,000.00

Video Services: *The video services will allow instructors to hold classes at multiple locations and could be used for university meetings and other functions.*

Installations of video systems in classrooms:

Fayette, Des Moines and Milwaukee (funding approved)

Year 1 \$0.00

Continue to add video services to existing sites (8): est. \$40,000 ea

Waterloo, Madison, Prairie, Blackhawk

Year 2 \$160,000.00

Ft Polk, Ft Riley, Ft Leavenworth, Wausau

Year 3 \$160,000.00

Storage Network: *Upper Iowa needs to invest in a storage network to securely hold all the data files of the present and for future needs. This system would need to be scalable to meet the needs of projects such as document imaging. This component will play a major role in any business continuity plans the university develops.*

Installation of storage network:

Storage network installed at Fayette

Year 2 \$250,000.00

Business Continuity (DR): *Upper Iowa needs to develop a business continuity plan to maintain university operations in the event of a disruption.*

Establish a committee to review key processes of the university and perform a risk assessment.

Year 1 TBD

Electrical Power Generation: *Upper Iowa needs to implement a electrical power generation system to ensure university power is maintained in the event of an outage.*

Review of power needs and installation of equipment:
Installation of generation equipment

Year 2 \$1,000,000.00

Wireless Technologies:	<i>Upper Iowa will need to maintain, improve and enhance university wireless technologies.</i>		
	Wireless equipment upgrades and replacements	Year 4	\$ 175,000.00
Document Imaging:	<i>Upper Iowa should invest in a document imaging system to assist in individual document retrieval times and help improve efficiencies. This system will also reduce paper volume and consumption.</i>		
	Installation of a university-wide document imaging system: *storage for this project is included in storage network component listed above	Year 2	TBD
Organizational:	<i>Increase the IT staff to support the growing EU and Fayette campus and to provide services such as 24/7 helpdesk, data security, data management, server support, web services support, desktop support for all areas of the university, and assist in the university's economic development plans. (Total of 22 new positions)</i>		
	Hire 2 help desk, 2 center support, 1 Jenzabar support and 1 network engineer (6 total)	Year 1	\$ 332,500.00
	Hire 2 help desk, 1 desktop support, 1 Jenzabar support and 1 network analyst (5 total)	Year 2	\$ 266,000.00
	Hire 8 help desk (24/7 support), 1 server support, 1 Jenzabar support, and 1 center support (11 total)	Year 3	\$ 625,100.00
Travel:	<i>Three of the new staff positions are for the support of the extended university which will require travel expenses.</i>		
	Travel expenses for supporting the extended university	Year 1	\$ 60,000.00
		Year 2	\$ 60,000.00
		Year 3	\$ 90,000.00
		Year 4	\$ 90,000.00
		Year 5	\$ 90,000.00

PC Replacements: *Upper Iowa needs to place all desktop and laptop hardware on a scheduled rotation to keep the technology current.*

University computers, includes new computers each year and replacements:	Year 1	\$	195,000.00
	Year 2	\$	250,000.00
	Year 3	\$	260,000.00
	Year 4	\$	220,000.00
	Year 5	\$	250,000.00

Server Replacements: *Upper Iowa needs to place all server related hardware on a scheduled rotation to keep the technology current.*

Refresh server technologies to keep current:	Year 1	\$	25,000.00
	Year 2	\$	30,000.00
	Year 3	\$	25,000.00
	Year 4	\$	25,000.00
	Year 5	\$	30,000.00

Network Infrastructure: *Upper Iowa needs to invest in the network infrastructure for continued growth*

Refresh network technologies to keep current:			
Install ducted conduit between buildings for new fiber optics	Year 2	\$	75,000.00
Install new fiber optic cables between buildings	Year 2	\$	115,000.00
Replace network core switches	Year 2	\$	100,000.00

Software: *There will be maintenance and support costs for the software packages used at UIU. This includes an option to provide MS Office to all students; not a current option.*

PowerFAIDS and Microsoft Campus Agreements	Year 1	\$	121,000.00
PowerFAIDS and Microsoft Campus Agreements	Year 2	\$	130,680.00
PowerFAIDS and Microsoft Campus Agreements	Year 3	\$	141,135.00
PowerFAIDS and Microsoft Campus Agreements	Year 4	\$	152,425.00
PowerFAIDS and Microsoft Campus Agreements	Year 5	\$	164,619.00
Jenzabar	Year 5	\$	1,029,000.00

INFORMATION TECHNOLOGY REPORT COMMENTS

Comment 1: Welcome

Welcome to our comment page for the Information Technology strategic planning report. Please enter your comments and let the committee members know if you have any questions. We look forward to hearing from you.

Terry Smid

Comment 2: The glue that binds every thing else

I would like to say that with out a strong IT (Information Technology) department most of the strategic plans proposed will find success challenging. IT will be the glue that is necessary to bind together all of the strategic improvements necessary to move the University forward in this era of technology.

We must give IT a strong foothold to help us move forward.

Thank you,

Ronald Crooker

Comment 3: 03 October 2007

While I would like to “engage in a campus-wide dialog” as requested by Dr. Walker, I note that these pages are accessible to the general public.

Although we have nothing to hide, this dialogue may prove to be more dynamic and effective if taken off-line. While the general public can be privy to the process itself, would it not better serve the university to keep the content at this point within the university community?

I submit this comment with the utmost respect for our historic values and institutional heritage.

DSerra

Comment 4: Information Technology

Upper Iowa University just went wireless, which is a step in the right direction. Continuing to upgrade and stay current with technology is important in order to attract all students, because this generation and subsequent generations are not only going to want it

but will expect it. Computers are the present and the future and UIU cannot afford to lag behind. Although this looks like a lot of money budgeted, I personally feel it will have a huge pay off down the road.

I think there should be money added for a laptop program so we can go paperless, too. My daughter (college sophomore) submits the majority of her papers online, which are also run through an online plagerism site.

One more thing ... hopefully one day we can get our IT team -- Terry, Matt, Paul and Jake -- their own offices someday, too, and get them out of those cubicles! :-) They do a splendid job for us!

Sheila Miller

Comment 5: IT Strategic Plan Comments

Overall the IT plan appears to describe a very positive, well organized set of projects designed to improve IT at Upper Iowa University. In addition, the IT plan seems to be an important part of UIU leadership's global, technology based, student oriented vision.

1. IT System Management /Organizational – I recommend that UIU use ITIL (Information Technology Infrastructure Library) best practices as guidelines for managing the IT infrastructure. It has become the de facto standard across Europe and the US for most large enterprises and many universities. ITIL defines two main components – service delivery and service support and each describes five functions. Service support includes incident management, configuration management, change management, release management, problem management. While service delivery involves service level management, capacity management, financial management, availability management, and IT continuity management. These two components are linked via the service desk and service catalog. Moreover, ITIL includes best practices for security management, and other infrastructure management functions. It has been my experience that implementing the service desk, incident, and problem management functions improves overall IT service by facilitating a more effective problem resolution process. Also, consider using IT interns to support some of the service desk functions.

2. Other IT related suggestions. Consider the following: a. Implementing an online requisition system. b. Using Outlook shared calendaring for meeting scheduling and resource reservations. c. Providing laptops to students in information related disciplines. d. Evaluating the use of eBooks. e. Video capture and web streaming/podcasting delivery of lectures.

3. Data center – since there are significant costs involved a cost/benefit analysis is recommended. In addition, a capacity plan should be developed to project processing needs and space requirements. Technological improvements tend to reduce component size requirements, and therefore, space requirements may be less than anticipated. The plan should also document additional justifications for the data center, for example, if and

how the e-center will utilize the data center. Consider implementing a Web and Network operations areas to monitor infrastructure availability, performance, and security.

4. **WAN** – Consider investing in high bandwidth dedicated lines to support network traffic (data, voice) between sites. A network impact and capacity assessment is recommended.

5. **Telephony** – Standardization – excellent recommendation should be a trivial exercise to develop a cost benefit.

6. **Video Services** – excellent recommendation.

7. **Storage Network** – another excellent recommendation. If you are not already doing so, I strongly recommend using NAS devices on a gigabit backbone network as opposed to using a SAN for file servers and backup. At least perform a comparative analysis. I have extensive experience with performance testing NAS and SAN equipment.

8. **Business continuity plan** – excellent and important need. Consider using external sites to archive backups. The ITIL Continuity Management function provides a set of best practices that should be reviewed.

9. **Power** – Excellent recommendation - UPS is extremely important in order to maintain availability objectives.

10. **Wireless and Wired network** - Yes on the wireless – should be expanded. Consider upgrading the wired network to GB Ethernet – for high bandwidth applications.

11. **Document Imaging** – or Document management system – yes highly recommended. Consider using an open source facility.

12. **PC, Server, and Network Upgrades** – Excellent recommendation, but I suggest that an impact assessment, capacity plan, and cost benefit analysis be documented to support the upgrades.

Joseph Elarde

END OF INFORMATION TECHNOLOGY COMMENTS

Information Technology Team Response to Public Comments

Comment 2: The glue that binds everything else

Committee response: We agree that IT will continue to play an important role in the strategic planning of the university. Thank you for the comment.

Comment 4: Information Technology

Committee response: We agree that technology will assist in attracting and retaining students.

In regards to the laptop program the committee has the following recommendations:

- Request input from other areas of the university.
- Determine how such a program would affect tuition.
- Consider a pilot program for IT and MIS majors and the impact on support staff to maintain a laptop program.

Thank you for the comment.

Comment 5: IT Strategic Plan Comments

Committee response point 1: The committee has the following recommendations:

- The IT committee would attend a training session conducted by Dr. Elarde to further understand the ITIL organization and the benefits of following their suggested guidelines.
- Work with Dr. Elarde to develop a plan to integrate qualified IT majors as interns in the university's IT department.

Committee response point 2: The committee has the following recommendations:

- a. Agree with the comment and technology is in place for an online requisition system but the process needs to be developed. Perhaps an AQIP team could be used to define the process.
- b. Agree with the comment. Training needs to be developed in regards to the use of shared calendars. This technology is in place but is not being utilized.
- c. Our response to a laptop program was outlined in comment 4.
- d. Research current offerings by the library and make users aware of these offerings.
- e. Agree with the comment as it is consistent with the current plan.

Committee response point 3: We agree with the comment on the data center as it is consistent with the current plan. In regards to the point made on implementing a web and network operations area the current data center plan has an area dedicated to an operation center as this is a very important component of a data center.

Committee response point 4: We agree with the comment on the WAN lines as it is consistent with the current plan.

Committee response point 5: We agree with the comment on telephony as it is consistent with the current plan.

Committee response point 6: We agree with the comment on video services as it is consistent with the current plan.

Committee response point 7: We agree with the comment on storage networks. We recommend that additional research be completed on SAN and NAS technologies to determine the best fit for UIU.

Committee response point 8: We agree with the comment on a business continuity plan as it is consistent with the current plan. The committee does recommend following best practices in this area.

Committee response point 9: We agree with the comment on power as it is consistent with the current plan.

Committee response point 10: We agree with the comment on wireless and wired networks as it is consistent with the current plan.

Committee response point 11: We agree with the comment on document imaging and recommend further research be completed to determine the best solution for UIU.

Committee response point 12: We agree with the comment on PC, Server, and Network upgrade as it is consistent with the current plan.

Thank you for your detailed comments