IT ARCHITECTURE & INFRASTRUCTURE COMMITTEE (AIC) MEETING NOTES

FRIDAY, May 14, 2010

Attendees: Liz Aebersold, Cam Beasley, David Burns, Betsy Busby, David Cook, Mike Cunningham, Brad Englert, William Green, Mike Harvey, Ty Lehman, Mark McFarland, Roland Rocha, Roy Ruiz, Charles Soto, Shannon Strank Angela Svoboda
Absent: N/A

Agenda Items

I. *AIC Subcommittee – SITAC 5.1 & 5.2 (William Green)*

Progress is being made on both SITAC Recommendations 5.1 (*Establish required and recommended standards for campus network operations*) and 5.2 (*Establish minimal baseline network requirements to be met at department and campus levels*).

The subcommittee for 5.1 met last week and agreed to a timeline. Feedback on the Network Operations Manual is being gathering this month from technical staff across campus, an outline will be developed in June and a draft will be available for review by August. During August and September the draft will be widely circulated to TSCs for their input on establishing minimum standards for campus network operations.

To engage the network support community on campus, a draft of the proposed manual will be posted to the campus-wide IT Forum and Town Hall style meetings will be held and include small group discussions. There is a commitment to getting feedback and insight from campus technical staff on whether the proposed minimum network standards reflect where the university needs to be.

By the end of the summer, we should be able to establish minimal baseline network requirements to be met at department and campus levels, SITAC 5.2. We can do this as we receive feedback on 5.1 since both recommended standards and minimal baseline network requirements will be addressed in the final Network Operations Manual.

Concern was expressed about the cost ramifications of any proposed changes. There was tacit agreement among committee members that AIC had been asked to make a technical recommendation based on what is best for campus, not how to budget. 5.2 is not anticipated to have a dramatic impact; 5.1 could have a direct impact on personnel and staffing needs.

Brad reminded the group that the SITAC charge was to get campus wide network standards in place, measure to see where we are, and over time address budgetary concerns. AIC needs to make a good technical recommendation and let funding issues be resolved by the OIT committee and SITAB. The AIC recommendations may ultimately be revised or changed depending on feedback from OIT and SITAB.

Next steps include posting the draft and sending out an email to 150 or so TSCs inviting them to provide feedback and join in a discussion about network standards and requirements. Due to end of semester pressures, it is likely a number of staff won't be able to attend additional meetings so a suggestion was made to make the meetings available via Adobe Connect. This will be investigated and reported at the next AIC meeting in June.

II. AIC Subcommittee – Mainframe and Developers (David Burns)

The position paper on moving from the Mainframe to an Open System was reviewed. A fundamental conclusion is that a "Lift and Shift" solution won't go far enough in addressing the impact of changing environments on our campus.

One suggestion is to create a task force with members from multiple IT governance committees and campus to look at what tools are needed for administrative application development. This task force should include representatives from the business side of application development. It may be less expensive in some instances to change the business process rather than devote resources to application development. The task force would need to be created under the auspices of IT governance.

Software AG has presented their findings to both BSC and AITL. The purpose of the Software AG analysis was to see if we could do application development on campus cheaper in an Open System environment. According to the final report it would take 12 years or more to get a Return on Investment if the university chooses to go in this direction.

In reviewing the final report, some assumptions have been made that we don't agree are true and in many ways the proposed solution don't seem to go far enough. For example, should we continue with Natural and Adabase? BSC has tasked AITL with drafting a list by the end of the summer of what is important, including what we need to know and consider about business needs on campus.

Brad reminded the group that SITAC recommended the creation of a Master Plan for campus-wide administrative systems to provide a comprehensive roadmap for work to be done in the future. We are well positioned for this planning effort to begin in the fall semester, especially with the effort AITL has been requested to do over the next several months.

Questions were raised about how best to facilitate collaboration and communication during a transition from the Mainframe to an Open System environment. Brad suggested that building a common interface that makes necessary tools available can help with bridging systems during a migration. He also reminded the group that last summer, folks on campus were saying that the university could not move off of the Mainframe because we are all so tightly integrated. Now we know this simply isn't true. We are already doing custom development in an open environment. It will help if we can acknowledge this and move forward, rather than continue to stay in limbo.

The committee agreed that AIC needs to identify individuals who can work with AITL over the summer; everyone was requested to make recommendations to David Cook by the middle of next week. One reason for doing this is to be sure that the working group doesn't just bless what is going on. AIC as a group would like to review the charter of this particular working group to better understand the scope of what is to be done. The details are going to be the issue; since we are starting on the same page with the principles. We need to be sure that we don't assume this AITL working group is addressing our concerns; this may not be a part of their mandate.

Everyone was reminded that the Mainframe has kept the campus technical community focused on the same thing, and that we will need to be careful about the campus splintering in a distributed environment. We need to be strategic, focusing on what WILL be essential in the future. This could well change priorities.

For capital budget planning purposes, ITS needs to know if the university is maintaining the Mainframe or going to an Open Environment. No matter what we do, we need a bridge with the Mainframe.

The committee agreed to send the position paper to BSC and to ask to participate in the upcoming work of the AITL; part of that communication is letting BSC know that AIC wants to recommend some additional members and work collaboratively to provide the info requested by the end of the summer.

Refer to the *AIC Comments Regarding the Administrative Application Environment* included at the end of these notes for more details.

III. UPDATES:

Laptop Encryption (Cam Beasley)

Cam reviewed the findings of the whole disk encryption product evaluation with the committee.

A team of people from within ITS and across campus defined basic functionality requirements then evaluated six whole disk encryption products against the requirements. Though PGP is widely used throughout higher education, it has recently been acquired by Symantec, raising issues for many who prefer not to have whole disk encryption as part of a larger security suite of products.

WinMagic Data Security—which is used extensively throughout government and has the National Security Administration's approval level of "Secret"— is the product the team recommends for use on campus. The company is private and doesn't advertize much, but they are doing good things. WinMagic does everything we want, without being shiny, flashy or fancy. We have been able to negotiate good discounts that are close to 93% off. State law requires escrow of encryption passkeys and WinMagic meets this requirement.

Members raised questions about what this choice means for campus. Cam assured the group that recommendations would be provided for unmanaged environments in addition to full assistance for customers who would be moved to the new system. Many units are undergoing audits due to the special bulletin about encrypting mobile devices including USB devices connected to hard drives. A big plus with WinMagic is that all devices can be encrypted with this system.

Cam clarified that Category I data is the threshold for encryption; if it is FERPA protected data it must be encrypted. WinMagic meets the straightforward requirements of encrypting all Category I data is Category I and escrowing all required data. Mike said that OIT agrees we need a better tool for campus and that Cam and Lee Smith will discuss whole disk encryption at the next meeting. It was suggested that researchers from Pickle be invited to review the tool as well.

Additional discussion raised the following questions and comments:

- "How do we move from Y to X?" In some instances, units may have to decrypt and re-encrypt everything. Planning the process will make it run smoother; when feasible, a group could be deployed to help units accomplish the move.
- "What is the risk to campus if we lose the information?" We have to make the same effort whether it is a drop of oil or 500 gallons of oil; this is the legal requirement.
- The encryption goals for campus and the encryption product may be different. WinMagic is the technical solution, but we need to know the problem to know if we are recommending the correct tool.
- Because we don't know or control what our users are going to do, we have to encrypt. It's that simple.
- To what extent does this new solution extend beyond managed environments?

The group agreed to charter the group Cam has been working with and endorsed them to proceed technically.

Refer to the *Whole Disk Encryption Product Evaluation* included at the end of these notes for more details.

Footprints (Cam Beasley)

Cam gave an overview of how Footprints had been selected to replace Remedy as the ticketing system for ITS and what the change in system will mean for campus customers.

The product evaluation team discovered that many peer institutions are moving from Remedy. Footprints not only does what we want and need it to do, it is already being used on campus. A charter is being established for Footprint implementation. We are currently creating the work breakdown structure for the transition, paying particular attention to how ITS builds the workflow process around incidents. It's important that everyone speaks the same language on this. Once there is agreement at the manager level on the process, the plan will be vetted with ITS directors. Our timeframe is to begin the conversion in the Fall 2010 semester. We have to build in enough training on the use of

the product so that all ITS staff are prepared. We can make the training available via screen casts for our customers who will be converting to Footprints.

For customers, such as Engineering, who are currently using ITS for Tier 1 support, the current workflow will tap in to ITS workflow. Footprints will escalate tickets from Tier 1 to different environments on campus. McCombs, Engineering, and Liberal Arts will all review our workflow strategy; we are also working with the Jackson School, Architecture and Fine Arts. Current customers will keep using Remedy until ITS migrates all tickets to Footprints. To better assist customers, documentation will be shared on the Wiki and folks across campus will have access to this resource.

Refer to the *Incident Tracking Product Evaluation* and *Footprints Implementation Charter* included at the end of these notes for more details.

DAS (Sandra Germenis)

Sandra Germenis, Senior IT Manager in ITS, gave an update on the Distributed Antenna System (DAS) on campus. As a result of the DAS, the university has had a number of conversations with carriers about bolstering coverage around large events and providing additional nodes for new constructions. Though originally designed for outdoor coverage, we expect the DAS to facilitate improved indoor cellular coverage as well.

We continue to need and want feedback from campus on how things are working, where people experience difficulties, what can be done to improve cellular coverage. Our role is as the advocate for customers on campus; we are not the ones providing the service, but the ones working with the carriers to be sure customer needs are met. Sometimes problems impact everyone – AT&T, Sprint and Verizon all felt the pain when there was no coverage at the stadium for the first football game last year. There were only 4 directional antennae then; now we have 78. From the carriers' point-of-view, there has to be enough of a customer base for a return-on-investment. In the case of the stadium, this point was eloquently made.

We continually need to manage customer expectations by paying attention to carrier expectations. Though there have certainly been customer complaints about coverage that have led to happy endings this will not always be the case. There are currently ten active construction projects on campus; we have to insert DAS cellular needs into the planning process as early as possible. People expect mobility when they come to campus, and generally this means they are dissatisfied with any dropped calls. By the second or third game this fall, the DAS should be ready for an AIC evaluation of how things are going.

William shared that current offerings don't scale well because we are at a point in the technology where it will be another three years before there is a good solution we can use on campus. We can and will work with vendors; it is not that there aren't any options just that what is currently available requires significant money. The committee felt that cellular coverage should be included in the network standards. In a limited way, this can be done. The presence and scope of frequencies on campus is something we can control,

and we can certainly have input on the service levels we expect, but it is up to the carriers to determine what they will do. A minimum level of coverage can be promoted to the carriers and included in our minimum standards. William will do this as part of SITAC 5.1 and 5.2.

Refer to the *Distributed Antenna System Presentation* at the end of these notes for more details.

OIT (Michael Harvey)

In the interest of time, Mike referred the committee to the most recent OIT meeting notes for details on what had been discussed at the last meeting. He briefly highlighted that the Longhorn Innovation Fund for Technology (LIFT) is moving forward, that OIT will have Lee Smith at the next meeting to clarify policy issues regarding encryption, and that there is consensus that when there is a decision that is going to impact IT, it should go through governance from here on, no exceptions.

IV. AIC Prioritization & Milestone Review

There was not sufficient time to have the AIC prioritization and milestone review. Mike asked the committee members to review the handouts and let him know if they agree the committee is focusing on the right priorities in the right order. If something is missing from the planned agendas, when can and should it be added?

Chairs have outlined agendas through August for the different IT governance committees. Reviewing what other committees are focusing on can help AIC align its work in the most productive way.

The AIC agenda roadmap is due for an update. We can add details and adjust dates depending on topics to be considered over the summer. Please let Mike know any ideas or suggestions before the Committee Chairs meeting next Tuesday.

One SITAB decision that impacts AIC members directly is that the President is requesting committee appointments be pushed out a year. This means current appointments to the committee will be extended. Mike stressed that the first item of business in the September 2010 meeting is to elect a new chair. There was strong agreement in SITAB that the IT governance process is working; the President shared that he thinks IT governance is “brilliant.”

V. Review and Close

Subcommittee members will be contacted by Mike and governance support staff regarding meetings and agendas.

Next meeting: June 11, 9-10:30 a.m., FAC 228D

Decisions:

- AIC would like to recommend to BSC additional members to work collaboratively with AITL in providing the information requested by the end of the summer.
- Committee agreed that a minimum level of cellular coverage should be included in the network standards.
- Committee chartered Cam's group that has been working on laptop encryption to proceed with developing technical recommendations.

Action items:

- ❑ All committee members to submit comments and feedback regarding the 20100506 Agenda Roadmap and the AIC Project Schedule to Mike by Monday, May 17, 2010. (AIC committee members)
- ❑ All committee members to submit nominations to David Cook of individuals to work with AITL over the summer. (AIC committee members)
- ❑ Updates to be made to the position paper on Mainframe and Developers. (David)
- ❑ Draft of proposed Network Operations Manual to be posted to IT Forum and invitations to be sent to approximately 150 TSC across campus inviting them to Town Hall meetings to discuss the proposed standards. (William)
- ❑ Send a draft of the *Administrative Application Environment* position paper to BSC (Mike)

Topics for next meeting:

- TBD

All referenced documents follow.

Meeting notes from the most recent IT governance committee meetings are available:

- Strategic IT Accountability Board
- Operational IT Committee
- Business Services Committee
- Research and Educational Technology Committee

Architecture and Infrastructure Committee's Comments Regarding the Administrative Application Environment:

1. We agree with the current need to address mainframe hardware as timely and necessary.
2. We believe we have outgrown our current software architecture and tools, regardless of whether they are running on a mainframe or open systems. We need a comprehensive assessment of the current application development toolset and architecture.
3. We recommend a joint task force between BSC, AITL, and AIC to determine the best set of tools, architecture, and design principles for campus (ref 9.1-9.3 SITAC Report).

Background:

During the February meeting of the Architecture and Infrastructure Committee there were several agenda items which were related to business applications, application development, and the infrastructure needed to support them. Prompted by discussions around these items, the committee wishes to raise some issues of concern with the other IT governance committees regarding these vitally important aspects of campus IT.

We agree that the current project to evaluate the feasibility and costs of shifting the University's primary application environment from the mainframe to Unix/Linux server clusters is necessary and timely. However, we believe that a more comprehensive assessment needs to be undertaken to determine if the current application development toolset and environment are flexible and robust enough to serve our needs.

The "lift and shift" approach, which does not address the current and future business needs served by the applications and data being moved, is focused on the immediate problem of the cost and vendor lock-in associated with IBM mainframe replacement. A more concerted effort should be made to examine our applications and our current and anticipated business needs, and to evaluate moving data and applications to environments that better meet those needs. Rather than move everything, we should take this opportunity to remove appropriate data and applications from the mainframe environment before we shift.

We also believe that the University's business needs may have outgrown our technical/system architecture in ways that go beyond the issue of mainframe capacity. Examples of these needs include the following:

- The need for access to data from multiple sources
- The need for flexibility in the development environment
- The pace and complexity of application development across campus

The proprietary nature of our development environment requires us to grow our own developers, which is leading to supply/demand issues that are not easily solvable. We believe a more comprehensive set of tools, architecture, and design principles would enable us to leverage solutions built on industry standards and to develop a service-oriented architecture which would increase our flexibility and allow the university to lower the cost of developing applications that solve business problems.

Additionally, we believe it is essential that the University focus similar attention to business side of the application development process. We consistently invest time and

effort in software solutions without fully examining the costs, especially when developed in-house. We attempt to solve business problems using applications, rarely examining if changing the underlying business process may be a more cost effective solution. As an institution we need to do a better job of evaluating needs, costs, and the return on the investments we are making in our applications and environment. Improving this dimension of our application development process will lower costs, improve delivery, and allow for more effective governance. We would anticipate that this issue would be explored by the joint committee we've called for and should also be considered by each of the governance committees.

Whole Disk Encryption Product Evaluation [2010-May-14]

Summary: A small group consisting of representatives from ITS Systems, ITS Managed Desktop Support, Information Security Office, College of Education, School of Engineering, and the department of Electrical Engineering was tasked with providing a high level evaluation of six whole disk encryption products: McAfee Safeboot (incumbent), PGP Whole Disk Encryption, Checkpoint Whole Disk Encryption, WinMagic SecureDoc, Apple Filevault, and Microsoft BitLocker. The group was asked to evaluate the different products based on a number of common criteria, but was asked not to consider cost in their evaluations. The recommendation, based on feedback from this group, is to move forward with a technical evaluation of WinMagic SecureDoc, reserving PGP Whole Disk Encryption as a secondary option.

Methodology: The group established a list of prioritized requirements and evaluated how well each product met those requirements through vendor calls, product demonstrations, and discussions with current customers.

Peer institution summary: A number of higher education institutions currently use PGP. PGP was the second highest ranked product by the group, but it was discovered that other universities seemed to be concerned about the product's future since PGP was recently acquired by Symantec and will be incorporated into the larger Symantec suite of tools (no longer a standalone encryption product). UT-Arlington was also in the process of evaluating WinMagic SecureDoc when they learned of our work. They have since paused their efforts to see which product we pursue (UT-Arlington ended their Safeboot license and is not interested in PGP since the recent acquisition).

University	Whole Disk Encryption Product
UC Berkley	Checkpoint (currently only for PCs)
Indiana	PGP
U Michigan	BitLocker & FileVault (not centrally managed)
Ohio State	PGP
U Pennsylvania	PGP
Texas A & M	PGP
Texas Tech	PGP

While WinMagic's product is not widely deployed in higher education, it is the encryption choice for a number of companies or agencies with serious encryption demands (e.g., NSA, IRS, DHS, Black Hat, Suiss Bank).

Requirements Matrix Summary Results	Safeboot	Checkpoint	PGP	WinMagic	FileVault	Bitlocker
Functionality	61	56	71	76	20	61
Search and Reporting	14	11	14	14	0	14

Usability	8	16	19	19	5	11
Total	**83**	**83**	**104**	**109**	**25**	**86**

Detailed Matrix Results	**Safeboot**	**Checkpoint**	**PGP**	**WinMagic**	**FileVault**	**BitLocker**
Basic Functionality	**61**	**56**	**71**	**76**	**20**	**61**
Supports both PCs and Macs	No	Yes	Yes	Yes	No	No
Both clients can be managed via a single management console	No	No	Yes	Yes	No	No
Supports non-domain users via a single management console	Yes	No	Yes	Yes	Yes	Yes
Supports granular system admin controls at the department level	Yes	No	No	Yes	No	Yes
Supports technician recovery/access	Yes	Yes	Yes	Yes	No	Yes
Supports multiple recovery options	Yes	Yes	Yes	Yes	No	Yes
Supports pre-boot authentication	Yes	Yes	Yes	Yes	No	Yes
Supports two-factor authentication	Yes	Yes	Yes	Yes	No	Yes
Supports TPM crypto-processors	Yes	Yes	Yes	Yes	No	Yes
Supports multiple active keys for a single encrypted volume	Yes	Yes	Yes	Yes	Yes	Yes
Secure solution for multi-user systems	Yes	Yes	Yes	Yes	Yes	Yes
Most functionality for the Mac is same as is offered for Windows	No	No	Yes	Yes	No	No
Encrypts whole disk, partition tables and MBR	Yes	Yes	Yes	Yes	No	Yes
Allows for select partitions to be encrypted	Yes	Yes	Yes	Yes	No	Yes
Encrypts swap space	Yes	Yes	Yes	Yes	Yes	Yes
Encrypts the hibernation file, if hibernation is supported	Yes	Yes	Yes	Yes	No	Yes
Search and Reporting	**14**	**11**	**14**	**14**	**0**	**14**
Ease of reporting	Yes	Yes	Yes	Yes	No	Yes
Reports by sub group(s)	Yes	No	Yes	Yes	No	Yes
Search for various assets	Yes	Yes	Yes	Yes	No	Yes
Audit log for recovery	Yes	Yes	Yes	Yes	No	Yes
Usability	**8**	**16**	**19**	**19**	**5**	**11**
Straightforward user interface	No	Yes	Yes	Yes	Yes	Yes
Can disable multiple logins, if so desired (in Windows)	Yes	Yes	Yes	Yes	No	Yes
Can share encrypted portable media with others, if so desired	No	Yes	Yes	Yes	No	Yes
Users are able to control who they can share media with (e.g., password)	No	No	Yes	Yes	No	No

Asset/User management (adding devices and humans is straightforward)	Yes	Yes	Yes	Yes	No	No
Total	**83**	**83**	**104**	**109**	**25**	**86**

Next Steps: At this point, the evaluation group would like to ask OIT for approval to pursue a technical evaluation of Winmagic SecureDoc with the intent to purchase it should the evaluation be deemed a success.

Pricing: WinMagic has agreed to offer U.T. Austin a ***93%*** discount off of their list

Costs		Year-1	Year-2	Year-3	Total
Initial Purchase	Software	$59,000	$0	$0	$59,000
	Hardware /Storage	$5,000	$5,000	$5,000	$15,000
	System Mgmt	$5,600	$5,600	$5,600	$16,800
	App Mgmt	$15,000	$15,000	$15,000	$45,000
Ongoing	Software Support	$16,000	$16,000	$16,000	$48,000
	Total Estimated Costs	$100,600.00	$41,600.00	$41,600.00	$183,800.00

pricing, as a competitive upgrade option. WinMagic has further agreed to significantly reduce the ongoing maintenance fees (***86%*** off) if we were to agree to

Costs		Year-1	Year-2	Year-3	Total
Current Costs	Software	$0	$0	$0	$0
	Hardware /Storage	$5,000	$5,000	$5,000	$15,000
	System Mgmt	$5,600	$5,600	$5,600	$16,800
	App Mgmt	$15,000	$15,000	$15,000	$45,000
Ongoing	Software Support	$25,000	$25,000	$25,000	$75,000
	Total Estimated Costs	$50,600.00	$50,600.00	$50,600.00	$151,800.00

purchase 3-years upfront. This pricing will also be made available to other U.T. campuses.

Table-1: Estimated Total Cost of Ownership: WinMagic SecureDoc (8,000 User Licenses)

Table-2: Estimated Total Cost of Ownership: McAfee Safeboot (5,000 Users Covered -- no Mac Option Available)

The initial software cost for WinMagic is ***34%*** less than what the university previously invested in Safeboot (***$84,000 in 2007***), plus it covers more user licenses and more platforms. It is also worth noting that WinMagic would save the university ***$27,000*** over 3-years in software maintenance and would offer a federated, centralized solution that supports Macs, Linux, and PCs.

Incident Tracking Product Evaluation [2010-April-09]

Summary: A small group consisting of representatives from ITS Networking, ITS User Services (Help Desk and Managed Desktop Support), ITS Systems (Remedy Management and Managed Server Support), and an ITS customer (the College of Fine Arts) was tasked with providing a high level evaluation of three incident tracking products: Numara's Footprints, Web Help Desk, and BMC's Remedy 7.6 [MySoft and BMC Service Desk Express were later added]. The group was asked to evaluate the different products based on a number of common criteria, but was asked not to consider cost in their evaluations. The clear recommendation, based on feedback from this group, is to move forward with Footprints.

Methodology: Before the evaluation began, the group established a list of prioritized requirements and evaluated how well each product met those requirements through vendor calls, evaluation (demo) environments, and interviews with current customers (both on campus and external customers).

Peer institution summary: Other universities seem to be moving from Remedy to other products, or are currently using Footprints and are happy with it. The two still using Remedy have no plans to change, but didn't express overwhelming satisfaction with the product.

University	Incident Tracking Product
UC Berkley	Footprints, just moved from Remedy
Indiana	Footprints
U Michigan	Remedy
Ohio State	Service-now, just moved from Remedy
U Pennsylvania	Remedy
Texas A & M	Footprints
Texas Tech	Footprints

Requirements Matrix Summary Results	Footprints	Web Help Desk	Remedy	MySoft	Service Desk Express
Incident	57	57	52	32	47
Search and Reporting	31	23	8	5	19
Usability	41	34	22	18	36
Wish List	32	11	10	5	14
Total	**161**	**125**	**92**	**60**	**116**

Notable quotes from the evaluation group members regarding Remedy version 7.6:

"It still does what it did, in the same unimaginably complex and non-intuitive fashion."

“I think the interface is horrendously complicated for both users and customers, it takes an inordinate amount of developer support for initial customization and ongoing modifications, it's expensive, and I don't think it is a product that I'd feel comfortable handing off to our customer base for "self service" functionality.”

“If we are to become a more homogenous IT community then we will need tools that are accessible enough for all users and groups who need to interface with one another. Numara’s Footprints is the only ticketing system we’ve evaluated thus far to meet our enterprise needs because it has the ability for individual workspaces to self-provision customizations while still offering case-by-case coding solutions. As for Remedy 7.6 I find that its complicated workflow and extensive need for development is a liability for those who both use and provide resources to maintain it.”

Detailed Matrix Results	**Footprints**	**Web help desk**	**Remedy**	**MySoft**	**Service Desk Express**	**Priority**
Incident	**57**	**57**	**52**	**32**	**47**	
Email to ticket conversion	Yes	Yes	Yes	No	Yes	**5**
Encryption (cat-1)	Yes	Yes	Yes	No	No	**5**
Federated/flexible ticket routing and delegation	Yes	Yes	Yes	Yes	Yes	**5**
Permissions for groups external to ITS	Yes	Yes	Yes	No	Yes	**5**
SLA management	Yes	Yes	Yes	No	No	**5**
TED/LDAP/AD authentication	Yes	Yes	Yes	Yes	Yes	**5**
Auto escalation of aged tickets	Yes	Yes	Yes	Yes	Yes	**5**
Exportable data to transition/exit strategy	Yes	Yes	Yes	Yes	Yes	**5**
Tie time worked to incident	Yes	Yes	No	Yes	Yes	**5**
Identification of sub-groups of customers	Yes	Yes	Yes	No	Yes	**5**
Customization (in house/vendor)	Yes	Yes	Yes	Yes	Yes	**4**
Template/decision tree	Yes	Yes	Yes	Yes	Yes	**3**
Search and Reporting	**31**	**23**	**8**	**5**	**19**	
Ease of reporting	Yes	Yes	No	No	Yes	**5**
Ticket categorization	Yes	Yes	Yes	Yes	Yes	**5**
Reports by sub group(s)	Yes	Yes	No	No	No	**4**
Audit log that's reportable/searchable	Yes	No	No	No	Yes	**4**
Decent search (less query more natural language/GUI)	Yes	Yes	No	No	No	**4**
Auto reporting	Yes	Yes	Yes	No	Yes	**3**
Top searches	Yes	No	No	No	No	**2**
Save searches (on server not locally/for group not just ind.)	Yes	Yes	No	No	Yes	**2**

Most recent searches reports	Yes	No	No	No	No	**2**
Usability	**41**	**34**	**22**	**18**	**36**	
Tech interface (not ambiguous, simple necessary fields, email notifications)	Yes	Yes	No	No	Yes	**5**
Web portal	Yes	Yes	Yes	Yes	Yes	**5**
Cross platform	Yes	Yes	Yes	No	No	**5**
Customer interface	Yes	Yes	Yes	Yes	Yes	**5**
Training (help with creating in house training)	Yes	No	Yes	Yes	Yes	**4**
All relevant tickets in one place, easy to see status	Yes	Yes	No	No	Yes	**4**
Easier to parse notification subject lines (more informative)	Yes	Yes	No	Yes	Yes	**4**
Role based authentication	Yes	Yes	No	No	Yes	**3**
Role based views (tech/customer/manager/director)	Yes	No	Yes	No	Yes	**3**
User management (adding technicians and ease of use)	Yes	Yes	No	No	Yes	**3**
Wish List	**32**	**11**	**10**	**5**	**14**	
Integration with change	Yes	No	Yes	No	No	**4**
Incident following	Yes	Yes	No	No	Yes	**4**
Source code tracking	Yes	No	No	No	No	**3**
Asset association to customers	Yes	No	No	No	Yes	**4**
Work Logging & Projects	Yes	No	No	No	No	**4**
Task management	Yes	No	No	No	Yes	**3**
Incident collaboration	Yes	No	No	No	No	**3**
Asset Management	Yes	Yes	Yes	Yes	No	**2**
Problem/Change management	Yes	Yes	Yes	No	No	**1**
Appointment scheduling	Yes	Yes	No	No	No	**1**
Knowledge base functionality	Yes	Yes	Yes	Yes	Yes	**1**
Support options	Yes	Yes	Yes	Yes	Yes	**1**
Transition support for upgrades	Yes	Yes	Yes	Yes	Yes	**1**
Total	**161**	**125**	**92**	**60**	**116**	

Next Steps: At this point, the evaluation group would like to ask that senior management strongly consider approving a planned migration from Remedy to Footprints. Planning for this migration would need to begin very soon to ensure there is ample time for testing throughout the summer in time for the start of the fall semester.

Licensing: Since the university already owns a site-license to Footprints (College of Engineering), ITS would only have to purchase additional user licenses. It may also be in the best interest of the campus to have ITS take over responsibility of the Footprints license from Engineering, if they are agreeable.

Project Charter: Footprints Implementation

Executive Summary

This project will focus on planning for the deployment of a new ITS-wide support ticketing solution (Numara Footprints). Footprints will replace BMC's Remedy, which has been in place (to some extent) since 2003. This migration will also allow ITS to change its ticket categorization criteria to refocus on the services identified in the new zero-based budget.

Business Need and Background

The existing tool is not widely adopted on campus and is difficult to learn and use. ITS needs a solution that will offer more streamlined ticketing and reporting capabilities so as to ensure a consistent support approach across all ITS units. Such a solution would ultimately ensure wider adoption on campus so that the ITS Help Desk can truly serve as the IT support gateway on campus.

Project Description

ITS Help Desk and ITS Systems will work to create a test and production environment for Footprints, leveraging ITS virtual servers and the ITS Enterprise MS-SQL service. The implementation team will also work with ITS units and customers to ensure support workflow (e.g., ITS internal, departmental customers, self-service) is adequate and service categorizations are consistent ITS zero-based budget and customer needs. The implementation team will also develop a training program (leveraging Tier-2 Help Desk employees) to ensure all ITS units are comfortable with the new tool, categorizations, workflow, reporting, etc. The team will also develop a transition plan, working with ITS OSCM, to ensure that the changes are being properly communicated. Footprints will start receiving support tickets once support workflows have been established in Footprints, load tested, evaluated for security weaknesses, etc. Remedy tickets will be closed out by a set date and re-created in Footprints if they need to continue past the close date. Remedy will be retired once all Remedy cases have been verified as closed or copied. All existing Remedy data will be exported and accessible for reporting needs or other research.

Project Goals

The primary objective of this project is to transition existing support workflows from Remedy to Footprints without a negative impact to existing support services. Secondary objectives include properly training ITS staff (and other major customers) on the use of Footprints, empowering the ITS Help Desk to streamline support workflows, and consolidating the various ticketing solutions on campus over time.

Schedule and Milestones

Milestone/Deliverable	Target Date
Development server operational (designed to transition to production)	May 10 - May 21

TED / AEMS / AAD integration completed	May 10 - May 21
Load testing and ISO assessment completed	May 24 - May 28
Develop support workflow and group assignment structure for ITS (using Zero-based budget)	May 24 - Jun 25
Determine SLA structure to be used in Footprints	Jun 14 - Jun 25
Develop use cases for projects and other workflows (DOS, iDesk, e-Help triage, etc)	Jun 28 - Jul 9
Develop training (technicians, workspace administrators, Directors/managers)	Jul 12 - Jul 30
Develop support documentation for the use of Footprints	Aug 2 - Aug 13
Develop self-service workflow	Aug 16 - Aug 20
Footprints application configuration completed	Aug 20, 2010
Train ITS staff (conducted by respective Tier-2 reps)	Aug 23 - Sep 13
All ITS staff and Help Desk contracted customers move to new ticket entry	Sep 13 - Sep 30
Close out all cases in Remedy (re-create any that need to continue in Footprints)	Sep 30, 2010
Evaluate to ensure everything is going as expected	Sep 30 - Oct 15
Migrate any remaining groups or customers	Oct 15 - Oct 29
Ensure all Remedy cases are closed or copied over	Nov 01, 2010
Export all Remedy data for reporting, trending, etc.	Nov 12, 2010
Officially retire Remedy	Nov 19, 2010

Scope

This project will focus on transitioning all existing Remedy workflows to Footprints, providing training to ITS staff and all Help Desk contracted customers, and developing templates for ITS units and other campus departments to use should they elect to transition their locally managed support workflow to Footprints. This project does not attempt to define a detailed transition plan for groups using other ticketing solutions.

Project Management and Governance

Role	Name(s)/Title(s)	Responsibilities
Executive Sponsor(s)	Cam Beasley (Interim Director, User Services) *[Co-sponsored by new Sr. IT Manager of User Services, TBD]*	Ensures governance groups, senior management, and other campus leaders are aware of the project's progress and that they are being properly engaged.
Project Manager	Alayna Wadleigh	Ensures all project's timeline stays track and plan is kept updated, ensures all key parties are engaged and communicated with.
Technical Lead	James Russell / Sergio Martin (back-up)	Coordinates technical work and other technical staff resources that might be needed
Project Team	Most Help Desk Tier-2 staff James Curry Ryan Starck	Assists with the development of workflow structure, assignment group structure, SLA structure, service categorizations, use cases, training, support

	Kenneth Finnegan Terry Gibson Jason Craft Kim Johnson Michelle Mckenzie	documentation, and templates for adding additional future workflows.
Information Security Office	Risk Management Team	Conducts security assessment of system and application environment
Stakeholder(s)	Contracted Help Desk customers: Brad Johnston Eric Hepburn Ty Lehman Mark Jacaman | Lisa Stolf (add others)	Actively dialogue with this group to ensure their needs are being considered with the migration. Involve them on the planning of customer workflow, training, etc.
Other Footprints Users on Campus	David Burns Patrick Boyd Bob Gloyd	Periodically meet with them to ensure this group is informed of the project's progress

Project Facilities and Resources

This project will leverage ITS virtual servers and the ITS Enterprise MS-SQL service for test and production environments. The following are the estimated operational costs for this service. This service should comply with the expectations set forth in the existing Help Desk SLA.

All ITS units will be impacted by this project. All Help Desk contracted customers will also be impacted by this change. End-users interacting with the Help Desk or other ITS service units will also be impacted to some extent.

Costs		Year-1	Year-2	Year-3	Total
Initial Purchase	Software	$75,989	$0	$0	$75,989
	Hardware /Storage	$5,000	$5,000	$5,000	$15,000
	System Mgmt	$5,600	$5,600	$5,600	$16,800
	App Mgmt	$45,000	$45,000	$45,000	$135,000
Deployment	Training	(5-days free)	$0	$0	$0
	Staff Time 2FTE@ 40% [2mos] 1FTE@20% [2mos] + 20% contingency + fringe costs	$10,000	$0	$0	$10,000 (Does not include Sr Staff time in mtgs or student time)
Ongoing	Software Support	$0	$16,000	$16,000	$32,000
	Total Estimated Costs	$141,589	$71,600	$71,600	$284,789

Risks

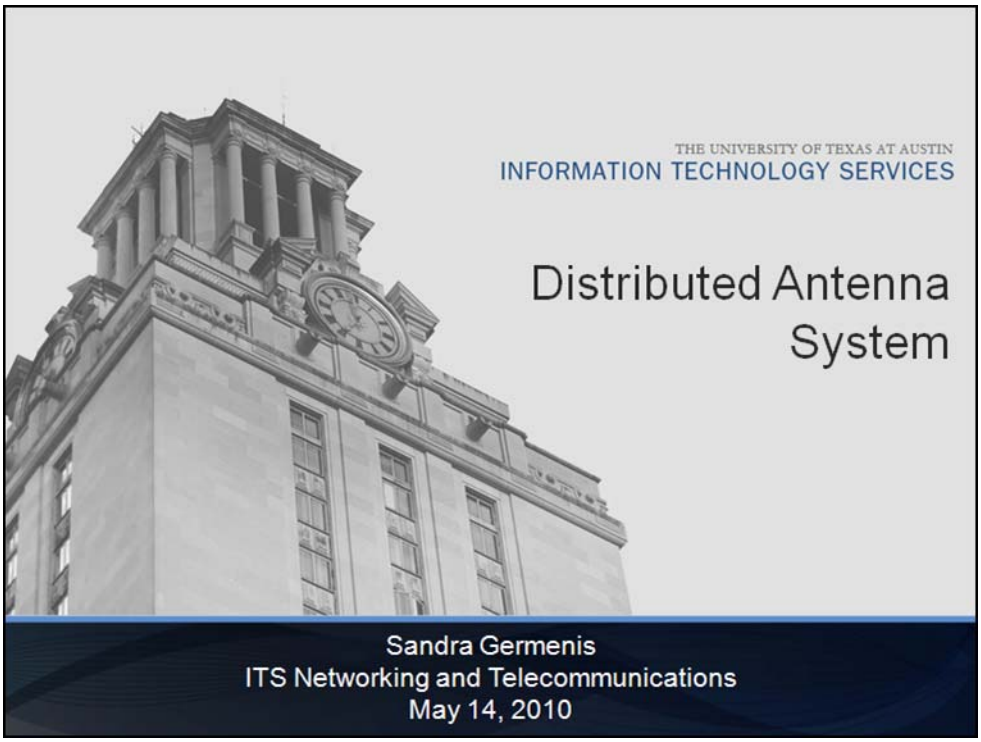
BMC Remedy maintenance and support end November 30, 2010

Staff availability (UDC migration is expected to consume many resources)

More Footprints user licenses are required to be purchased

Revision History

Version	Date	Description
V 1	2010-05-08	Initial draft completed
V 2	2010-05-14	Added to customer list



THE UNIVERSITY OF TEXAS AT AUSTIN
INFORMATION TECHNOLOGY SERVICES

Distributed Antenna System

Sandra Germenis
ITS Networking and Telecommunications
May 14, 2010

THE UNIVERSITY OF TEXAS AT AUSTIN
INFORMATION TECHNOLOGY SERVICES

DAS Drivers at UT Austin

- Increase in requests from carriers for roof top locations
- Expectation from campus populations for ubiquitous coverage, mobility
- Public safety needs
- Carrier agnostic, low cost, low maintenance

Commitment to Carriers

- DAS build-out for 4 carriers
- 20 antenna sites
- 1 neutral host base station
- 1 stadium base station
- Active partnering for large events
- Opportunities to add indoor/outdoor sites

THE UNIVERSITY OF TEXAS AT AUSTIN
INFORMATION TECHNOLOGY SERVICES

Stakeholder Communication

- Set realistic expectations for coverage
- Encourage campus feedback on carrier specific and location coverage
- Clearly define role of campus and ITS in provision of service

DAS Deployment … Done?

- DKR Stadium capacity problems
- Other large venue capacity problems
- In-building coverage requests
  - Requires negotiation with carriers
  - Neutral host systems are expensive
  - Scalability issues

THE UNIVERSITY OF TEXAS AT AUSTIN
INFORMATION TECHNOLOGY SERVICES

DKR Stadium Antenna Locations – before…

Stadium Capacity – 101,000; 4 scoreboard antennas

DKR Stadium Antenna Locations – after plan…

Stadium Capacity 101,000 – 78 directional antennas in seating areas

THE UNIVERSITY OF TEXAS AT AUSTIN
INFORMATION TECHNOLOGY SERVICES

DAS Rollout & Lessons Learned

- Outdoor coverage is good
- Improved indoor coverage in many areas
- Carrier participation – speed is slow
- Large venue – special considerations
- Managing campus expectations – cellular network still dependent on carriers

THE UNIVERSITY OF TEXAS AT AUSTIN
INFORMATION TECHNOLOGY SERVICES

Moving Forward…..

- Maintenance, customer service issues
- Clearly define roles for Campus and carriers
- New construction and renovation – integrate DAS indoors/outdoors
- Higher expectations for mobility – especially indoors

THE UNIVERSITY OF TEXAS AT AUSTIN
INFORMATION TECHNOLOGY SERVICES

Questions:

Sandra Germenis
contact info: sgermenis@austin.utexas.edu
www.utexas.edu/its/das

20100506 Agenda Roadmap

	March 5	April 9	May 7	June 4	July 2	August 6
BSC	Happenings in Admissions	Happenings in Admissions	Happenings in Accounting	Happenings in?	Happenings in?	
	Old Business: a. ID Management Strategy b. Web Interface Standards	Old Business: a. UT Campuses to PeopleSoft b. Mainframe Assessment Report	Old Business: a. b. Content Management Systems (a la Stellent)	Old Business: a. “attached a file” functionality b. Web Refresh update	Old Business: a. HRMS – Fred/Mary/Renee b.	
	Current Business: a. Mainframe Migration Assessment b. Administrative Systems Master Plan c. UT campuses to PeopleSoft	Current Business: a. Business Continuity Planning	Current Business: a. Mainframe Migration Assessment Report b. ITS FY 09-10 Operating and Capital Budget c. SITAC #9: Administrative Systems Master Plan	Current Business: a. Mainframe Load Balancing b. SITAC #9: Administrative Systems Master Plan	Current Business: a. Mainframe Load Balancing b. SITAC #9: Administrative Systems Master Plan	
	New Business: a. Business Continuity Planning b. Next meeting April 9 c. Volunteer to discuss happenings in their area?	New Business: a. ITS FY 09-10 Operating and Capital Budget b. Next meeting May 7 c. Volunteer?	New Business: a. b. Next meeting June 4 c. Volunteer?	New Business: a. b. Next meeting July 2 c. Volunteer?	New Business: a. b. Next meeting August 6 c. Volunteer?	

	March 12	April 9	May 14	June 11	July 9	August 13
		ITS FY 09-10 Operating (Zero-Based) and Capital Budget	Adopt minimum standards document			
	Storage Project Phase I update	Laptop Encryption subcommittee (Cam)	Laptop & Desktop encryption recommendation for OIT	Data Storage Phase II recommendations		
AIC	Review of milestones spreadsheet		VoIP			
	Update from David Burns on statement about software development efforts and future sustainability (subcommittee)	Mainframe software development statement (subcommittee)	Unified Communications			
	Minimum Network Standards	RFP for 3rd Party WiFi	Network Operations Manual			

	Data Storage Phase 2 update (Anh)	Student email recommendation			
	Data Center/VM rates (Mike Cunningham)	Data Center			
		Help Desk Ticketing System (Footprints)			
		Service levels (formerly known as SLAs)			

	April 1	April 15	May 20	June 17	July 15	August 19
R&E	Sharing Innovation – Jim Kerkhoff	ITS FY 09-10 Operating (Zero-Based) and Capital Budget				
	Innovation $500,000 allocations: solicitations	Blackboard Governance Update	Review AIC's recommendations for minimum network standards	Innovation $500,000: proposals and decision	Notify award recipients after July 15	
	Student email	Student email update	Student email decision			
	Blackboard Taskforce Update				Learning Management System	

Online distance learning & technology in classrooms from SITAC (Initiative 8: Create Clear Vision and Direction for Instructional Technologies)				

	March 24	April 28	May 26	June 23	July 28	August 25
OIT	Standing items: Updates from * AIC * BSC * R&E					
	ITAC $9.5 million forensics: * name subcommittee * update docs and research	IT Plans: ITAC $9.5 million previous decisions and memo requiring summaries and reports	AIC's minimum network standards document	Innovation $500K: approval of recommendations from R&E	ITAC subcommittee recommendations	
			Student email decision from ITS			
	ITS FY 09-10 Operating & Capital Budget	ITS FY 10-11 Operating & Capital Budget: * feedback from other committees on FY 09-10 budget * priorities & recommendations for SITAB	Budget clean-up	Restrictions on Web access (this also drives bandwidth, which figures into the budget discussion)		
			AIC's recommendation for laptop encryption			
		Data center/VM rates (Brad)	ITS rates			

		Mainframe Migration Assessment review and decision			Refresh plans

	March	April	May 3	June	July	August ???
SITAB			ITS Budget direction			ITS FY 10-11 budget unveiling
			IT plans			
			Sub-chair (Leslie?) if President can't attend			
			Data center/VM rates? (Brad)			

	March	April	May	June	July	August
Governance Support Staff	Meet with committee chairs: governance roadmap			Committee Refresh		
	Innovation $500,000: * Meet with Dan Stanzione * Solicitation draft/template					
	Prepare operating (zero-based) and capital budgets in advance of OIT meeting (March 24)					