ITAC Meeting  
December 8, 2011 8:30-10:00

Location: GSC: Rm 2605  
Recorder: Lori O’Bannon

Attendees: Ron Szabo, Becky Carr, Juan Garza, John Norton, Jeff Mc Cabe, Erick Beck, Fred Fisher, David Sweeney, Stephen Balfour, Chuck Braden, Steve Conway, Jim Rossier, Rick Young, Andy Bland, Allison Oslund, Michelle Osterholm, Adam Mikeal, Henrick Schiedeche

Guest Attendees: Pete March Banks, Walt Magnussen: Director of Telecommunications, Chris Norton: Assistant Director for Telecommunications, Mathew Almand, Chief Networking Engineer, and Networking & Information Security

Item 1: Approval of Minutes: Unanimously approved

Item 2: Moved up to allow folks to leave and work on the response efforts. Emergent addition to the agenda: Fiber Incident Report: NIS and TCOM presentation

- Chris Norton, Assistant Director for Telecommunications relayed there are approximately 1600 strands of fiber in a 65 to 70 foot section affected in the steam tunnel.
- Every strand of the fiber is in some way melted and/or damaged.
- Chris stated his team is working diligently with Mathew Almand’s team to identify the circuits and prioritize repair efforts.
- TCOM/NIS Operation’s Team are doing as much prep work as much as possible before Sat, Dec. 17th.
- Will begin full fiber restoration and repair after graduation on Sat., Dec 17th.
- Tuesday night: Fiber “by pass” successfully performed by NIS/Mathew Almand’s team. Transitioned data centers and key critical infrastructure on campus damaged fiber over to new circuit.
- Operation’s Team: (TCOM / NIS) prioritized critical needs- the focus is on Fire and Life Safety, Academic, eLearning and research (outreach is the” back of the line.”)
- Cell Phone coverage has been severely diminished. Today, Dec 8, 2011, A T & T is deploying emergency cell on wheels that will be in 3 locations on campus. Once here, there should be an improvement to cell phone coverage.
- Rick Young asked about the DAS bundle. Chris Norton responded that DAS not identified as a critical service; yet is identified as part of the “everything else,” part of the bundle that will be repaired, beginning the 17th.
- If all goes well a project completion lose deadline for repair is Tuesday 21st or 22nd.
- David Sweeney asked Chris Norton to define critical circuits/services. Chris Norton said he would defer to Matthew Almand for that question.
Matthew Almand stated critical services were:

- Data Center to Data Center communication
- Cheryl Cato’s group: virtualized infrastructure was severely impacted
  - Infrastructure’s storage network was on was on some bad fiber, they were having to take servers off line, some servers were failing.
  - In preparing the bypass to repair critical services, a 48 strand cable was put in; used 16 strands to bring up their storage area.
- The team identified some data redundant router to router network links that were downed.
- Preparation for the chancellor’s move transferred the campus connection to the metro optical network that goes to Connally and SAGO. Presently working on providing additional redundancy to Connally
- Mathew Almand stated should be some more announcements late Friday night early Sat morning to better insulate the process once work begins on the 17th.
- The team will do the best job possible to keep services up and running. The damaged fiber is presently functioning okay. However, when it is time to cut fiber for repair, services will roll off the network. It is hard to predict exactly what and who will be affected at an exact precise time.
- Allison Oslund stated Matthew Almand and Chris Norton are working to identify what is on those strands, so a list can be provided to folks of the areas that potentially could be impacted. (Best case scenario)

Further comments from Matthew

- Mathew stated Life Safety is paramount.
- Mathew conveyed the logistical positions of fiber incident.
  - At Evans, the steam tunnels crosses at the far west side of Evans right at Cushing Library.
  - Fiber on the south side was not damaged.
  - However, fiber on the north side, which also runs to west campus, is in the damaged section
- NIS team has identified fire alarm circuits; confidently believe they can bring up the fire alarms.
- Matthew tries to convey the complexities of the situation. To explain the physical connection of the fiber layout relative to the data network is logically very difficult.
  - It is all very different. It would tough to give an accurate estimation of specific buildings that will be down at an exact period of time.
  - As work begins, it is a better to assume multiple failures will occur during the stated repair time frame.
- Matthew stated Verizon will begin splicing 100 yards up from the damaged area. In doing so, there will be vibrations sent down the cable. When we see a failure, it may snow ball, and there is no way to predict what will occur as a result of that. All is very fragile.
- Mathew Almand responded work will begin Dec. 17th; and agrees, if all goes well can be completed by the Dec. 21st or 22nd.
• **Henrick Schiedeche** asked when you expect the completion of the repair. Henrick further suggested that the ITAC reps go back to their department/faculty to explain the situation, so they can be prepared for the entire event. **Henrick also** asked could the steam issue occur again.

  • **Chris Norton** illuminated currently there is a mass of glass in the steam tunnel. The team is gravely afraid that there will be a cascading event. Once the work begins, it will be become increasingly difficult to determine the outcome moment to moment.

  • **Chris Norton** stated, another incident is very possible.

  o Chris’ understanding of what caused the incident, form utilities, is the steam pipe had an expansion joint, a connection which allows the pipe to expand and contract to heat and cold, etc.

  o It is that conduit expansion joint that failed, and caused the steam to leak and melt the fiber.

  o Within the steam tunnel system, there are dozens if not 100s of expansion joints throughout the steam tunnel system. In the very near future, TCOM and NIS will attempt to determine/identify an alternate path that does not go through the steam tunnel system.

  o However, because of how easy it was to modify fiber optic path in the steam tunnel system, the campus is still potentially vulnerable.

• **Walt Magnussen: Director of Telecommunications**

• **History:**

  • **Walt Magnussen, Director of Telecommunications asserts** other Universities have experienced a steam tunnel incident. (Both Notre Dame and LSU had a fire/fiber incidents in their steam tunnel about a year ago).

  • **Walt Magnussen** states that presently on our campus it is almost impossible to come up with an alternate route that will be secure for utility infrastructure other than the steam tunnels.

  • The only other way to establish alternate routes is to perform boring. This campus, is over 100 years old, there are very old utilities in one place. (A lot of traffic).

  • Presently, have redundant paths for fiber for 95 percent of routes.

  • There is a very small piece of steam tunnel area that had potential for catastrophic failure, and unfortunately, this was the place that was hit.

  • This vulnerability was identified as an issue 1-2 years ago. Subsequently, the University began investigating/creating two additional routes. However, both paths were costly and time consuming.

  • The Routes were to possibly coincide with the facilities crew additional electrical power line installation that would be running from east campus to west campus.

    o One off campus path was running to Northgate area

    o The other path in the Heldenfelds area.

  • (They would be doing the digging.) Several groups were working on a relief plan all along; unfortunately, we were hit before blueprint was completed.
• **Present Structure of Tunnel System:**
  - The tunnels vary in size starting at 6 feet wide, and 6-7 feet in height to so narrow one can barely crawl through the space.
    - Throughout the tunnel there are large steam lines, electrical lines, and water lines. These utilities have to have priority. Fiber is run up under and over steam, electrical and water lines.
    - Fiber circuits are the “bottom feeders, “It is easier to move fiber than it is a 16 inch steam line.
  - **Walt Magnussen presents power point slides depicting the “Fiber Outage.”**
    - To include the chronology of events, a picture of the steam tunnel of damaged fiber, and the prioritized plan. The picture of the segment of fiber route impacted melted fiber depicts 23 cable lines. The largest cables have 288 fibers; the smallest cable has 12 fibers. A lot of glass in the area; presently, the glass is supporting the cable right now.
    - This cross section of fiber affected is the most densely populated area of fiber on campus. The second largest densely populated area is located in the basement of Evans in the Mag. suite.
    - Walt goes over the chronology of events form Dec 4th-projected through tomorrow, Dec 9th (See Walt Magnussen’s attached presentation)
    - The critical fiber response team is meeting again, and all communiqué will go through the communications team. Everyone also informed via updates on [http://problemhancement.tamu.edu](http://problemhancement.tamu.edu).

• **Other Fiber incident issues relayed**
  - Fiber is secured in data center, so internet is up. Fire & Safety are targeted critical services; we cannot give exact timeline of repairs. Therefore encourage people on main campus to work from home.
  - There is a plan for the restore process, and the Operations Team is working on the “house of cards falling,” plan B.
  - The Verizon sonnet ring will be rolled over to the by-passed fiber: affected Bush School, Wehner ORM, Commissary, and 3000 telephone lines on it.
  - T mobile macro powered based on top of Harrington and Sprint is also a macro powered, located at Olsen: small chance could be affected. Verizon wireless, not a lot of users, probably not going to respond. (Res life does a study over 50-70 percent of students have AT&T cell service).
  - Verizon is the contractor who will be the performing all the fiber splicing. The glass has to be prepared inside the truck; it is a precise process with no margin for error. Limited work space within the controlled areas, working on both ends, over 3000 fibers have to be spliced.
General Comments

- **Juan Garza** asked, while everyone is at home, his dept. has to distribute 100 million dollars of money the first part of January. Will the pavilion be okay? The response was yes, they should have connectivity.

- **Matheew Almand** said best case there will be several outages throughout the work progress. Cannot determine when and where, nor the length of the outages. Additionally **Matthew Almand** projected he did not anticipate significant outages for the West campus.

- **Rick Young** asked for access of the slides to show administration means to calm them. Allison stated trying to be transparent, and inform the campus this will affect them in a real way. Yet, we do not want to alarm people.
  - Pete and Pierce to make that decision. The PDF map cannot be released for security reasons. People can see the exact location of infrastructure resources.
  - **Allison Oslund** stated okay with sharing Walt’s presentation with the group, less the Homeland security maps. **Pete** agrees. **Walt** will send presentation to **Allison**, and she can disseminate to ITAC group.
  - **David Sweeney** and **Rick Young** state they will present Walt’s presentation to their group and not send it to their group. (It is not their presentation to distribute)

- **Andy Bland** stated he believes the charge of the ITAC community is to be an advocate for these groups and their efforts, keep it positive, and take that message back to their departments.

- **Becky Carr** asked, will we have a list of each building update? Countered, that is not possible, right now, the way the fiber is installed, it is like a spider web that goal was the original intent; however, now that may not be possible.

- **David Sweeney** understands magnitude of the situation, and thanks the groups, and feels confident that he can go back to his departments better informed of the situation.

- Pete further asked folks to not put any of this information on Facebook or any other social media.

**Item 3: New IT Trends (David Sweeney: Presentation: Apple App Store Volume Purchase Program)**

(Attached: David Sweeney’s presentation outline)

- David identified testing Apple App on both non-technical and technical users- getting feedback.
- The goal is to get in on the front end of this Apple App Store program.
- Security is an issue; there are big questions, currently no answers for the identified concerns.
- Once applications are purchased, the person installs application device on their personal iTunes account. Software license follows that personal account, not TAMU. This is an issue to be mitigated.
- Prior to now, have had not had a method to purchase business applications. Now we do.
**Item 4: Dr. Cantrell’s Presentation IT forum to campus, tomorrow, December 9, 2011. Through Allison he is soliciting feedback from ITAC to add to presentation. Allison expounds on the charge:**

- **Allison Oslund** states that Dr. Cantrell’s soliciting response to add ITAC’s perspective on Vision 2020: The charge is: “How does the IT community at Texas A&M hold themselves accountable to staff, faculty, and students to both achieve and accommodate the needs of departments and units?”
- Dr. Cantrell believes that the IT community is very important to the University. He is both soliciting response from IT community relative to the idea of centralized IT; and further wanting to add ITAC’s perspective for Vision 2020.
- The purpose is for ITAC to come along side of Dr. Cantrell. He wants ITAC’s perspective to add to IT Forum presentation,

- **Pete Marchbanks** encourages folks to go to Dr. Cantrell’s web site: vpapit.tamu.edu. Dr. Cantrell outlines some of his strategic initiatives. ITAC is important to achieving those goals. Pete outlines and summarizes some of Dr. Cantrell’s key issues and concerns, and adds his personal observations.
  - ITAC has a very important role on campus, it serves to integrate the IT groups on campus to assist in achieving the larger IT goals
  - Strategic plan is to add a 3rd machine room.
  - The OC: makes University services available with one call 24 hours a day.
  - The Network needs a lot more money. Everybody uses the network. If we are not up, no one can accomplish work. Additional money is needed. Perhaps have to achieve that funding from upper administration.
  - The fiber incident is an example of how important networking is, and how it impacts everyone. For example: Pete’s asks: “How will we leverage the cost of this fiber repair?”
  - Identity Management: improving level of security. Authorization/ access accomplished in a centralized manner, using CAS, improves security and offers a unified front to auditors.

- **General observations and discussion were opened up and responses for feedback included:**
  - Centralize IT increases the delivery and quality of services provided to students and faculty.
  - A move to centralized IT in the future may perhaps occur slowly, but it is necessary. It is important to integrate systems to achieve a higher level of service.
  - An objective for the IT community is to at least get us moving in that direction. A charge to ITAC from Dr. Cantrell is for ITAC is to help support the charge to achieve the University’s goals for 2020.

- **Juan Garza illuminated:** What does the IT community do for higher education?
  - Shared services in higher education, the strategic initiative is to help the University as a whole, not just “our own” departments individually.
  - Juan encourages ITAC to step up and move forward. The concept of centralized IT is not an attack on each other, and departments.
  - It is a lofty goal to come together and create an impact to improve services.
Though a large charge, a necessary one. Our departments need to talk to each other, partner and fund infrastructure. It is not “CIS, our group, your group, it is Texas A & M. In doing so, we are holding each other accountable in the process.

- **Ron Szabo** poses the dilemma of succinctly conveying: How can ITAC play a role to speak to some issues raised in this presentation?
  - ITAC needs to show cohesive support, speak with one voice. ITAC needs to support shared services, centralized IT concept, and engage entire campus.
  - The time is right, can’t remain decentralized.
  - ITAC needs to make recommendations on emerging technology.
  - ITAC can be an integrated voice across campus for the diversified IT units, as well as a serve as a unified voice in support of centralized IT.
  - Ron’s quandary is how do you convey that?

- **Becky Carr** imparts her vision of ITAC
  - ITAC embodies the process of both IT experimentation, communication and successively, imparting the impact of the process to the greater ITAC body.
  - For example: the smaller units, try out services, and then experiment how it worked; next go to CIS to accomplish implementation, iron out security issues and, in doing so, may perhaps determine a larger campus wide need.
  - (Front end trials that may result in centralized efforts down the road. Communication happens in ITAC, discussion occurs utilizing topics: “IT trends” segment of ITAC meeting.
  - ITAC is a large part of the accountability process, for example “Essential Element’s subcommittee is an organized group, working diligently to come up with a means of operating that will be implemented and have a positive far reaching campus wide benefit.
  - “ITAC is the bridge that brings de-centralized groups together with the centralized groups on campus.”
  - Should not convey “we and they,” rather “us.”

**Allison Oslund** will work with ITAC’s executive steering committee to come up with a slide or two for tomorrow’s presentation. A lot of feedback was provided! How to condense an amalgamated response to a couple of slides is a challenging task.

**Post meeting:** the IT forum’s presentation was changed to a Fiber Incident response update.