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*Please place these materials in your Steering Committee Binder.*
Committee of the Whole

Tab 23

UEN Steering Committee Schedule for 2007 - Action

Issue

UEN Steering Committee meeting dates for 2007 are proposed.

Background

It is proposed that the UEN Steering Committee approve the following dates for the 2007 Steering Committee Meetings. Based on the schedules from the Board of Regents, Board of Education, State Superintendents Association and UEA meetings, we believe these dates avoid conflicts.

On these dates, we anticipate that the Steering Committee will meet in a Committee of the Whole at 9:00 a.m. and then break into Instructional Services and Technical Services Subcommittee meetings at approximately 10:30 a.m.

Proposed 2007 Meeting Schedule

February 16
April 27
June 15
August 17
October 19
December 21

Recommendation

It is recommended that the Steering Committee discuss and approve the proposed meeting schedule for the 2007 Steering Committee meetings.
In August, the Steering Committee recommended that the UEN Mission, Vision, Values Statements contained in the draft of the FY 2007 Strategic Plan be assessed and updated to reflect the current environment.

In the October Steering Committee meeting, UEN staff reported on a retreat held in September to discuss the Mission, Vision, Value Statements. Retreat attendees from all departments of UEN evaluated the current statements and developed new or revised statements. These statements were presented in draft form to members of the Higher Education and Public Education Advisory Groups for comments. Both groups provided good feedback and support for the final revisions of each statement. It was also suggested that UEN review and evaluate these statements on a biennial or annual basis. A final draft of each statement is presented here for consideration and approval by the Steering Committee.

Purposed Mission Statement

“We network to create educational opportunities, connect people and collaborate with partners in serving Utah communities.”

The background themes that led to the wording of the UEN Mission Statement are as follows:

- **“We network”**
  - We network electronically and we network people.
- **“to create educational opportunities”**
  - Through networking educational opportunities of all types are created.
- **“connect people”**
  - People are connected to each other: Educator to educator, educator to student, parent to teacher, the connection possibilities are endless.
- **“collaborate with partners”**
  - Collaboration with all of our partners (educational, vendors, etc.) that provide educational services, and opportunities.
• “in serving Utah communities”
  ◦ All Utah communities benefit.

**Proposed Vision Statement**

Be Utah’s most trusted, accessible and recognized partner for innovation in education.

The background themes that led to the wording of the Vision statement are as follows:
- “Be Utah’s most” – The best, finest, preeminent, etc. in the following areas
- “trusted” – can always be relied upon
- “accessible” – both services and people available
- “and recognized” – widely respected by partners
- “partner” – providing solutions by work with others
- “innovation in education.” – pushing technology research and new ideas for untapped possibilities in education

**Proposed Values Statement**

Caring – Supporting our co-workers, customers and community
Leadership – Advancing relationships and encouraging ideas
Integrity – Keeping promises and honoring accountability
Communication – Listening to meet needs
Service – Benefiting our partners

**Recommendation**

It is recommended that UEN Steering Committee take action on the following items:
- Review and approve the proposed Mission, Vision and Values Statements presented in the above report.
- Institute a biennial or annual review of these statements.
Issue

UEN Professional Development wishes to adopt a Field Trip Liability Waiver Form to reduce risk and liability from accidents which may occur to professional development class participants when they are completing activities associated with GPS classes.

Background

The GPS in the Classroom and Community Mapping classes both require participants to complete “field work” using GPS units out in the community during class time. We felt concern about possible liability if any participants were involved in car or pedestrian accidents while in class, but away from supervision.

After discussing various scenarios with Jerry Allred, head of Risk and Insurance Management at the University of Utah, he agreed that it would be appropriate for us to use the University of Utah Waiver of Liability for Field Trips form without modification.

Each course participant will be required to sign the form, and forms will be kept on file at the UEN Professional Development office for 2 years following each class.

Recommendation

UEN Professional Development recommends that we adopt the University of Utah Field Trip Liability Waiver form for use in our GPS in the Classroom and CMAP GIS/GPS classes.
ASSUMPTION OF RISK, WAIVER OF LIABILITY AND INDEMNIFICATION AGREEMENT

This Agreement must be completed in order to participate in the activities associated with this program and course.

Participant (print full name):
________________________________________________________________________

Program:
________________________________________________________________________

Course:
________________________________________________________________________

I, the undersigned, am either the Participant named above or the parent and/or legal guardian ("Guardian/Parent") of the minor Participant named above. I am familiar with the curriculum and the activities which take place in the above named course.

TERMS AND CONDITIONS

I will participate or authorize the Participant to participate in the above program and course at the University of Utah (the "Program"). I understand that such participation can include foreseeable and unforeseeable risks and other hazardous activities inherent in the program which may expose the participant to illness, injury, or death. Participant or guardian/parent freely and voluntarily participates or allows participation in the program with the knowledge of the danger involved and hereby agrees to assume and accept any and all risk of injury or death.

WAIVER, RELEASE AND INDEMNIFICATION

Participant or Guardian/Parent of Participant understands and acknowledge that the University of Utah ("University") is not an insurer of Participant's behavior, actions or participation in the program, and that the University assumes no liability whatsoever for personal injuries or property damages to Participant or to third persons arising out of Participation in the Program activities. Participant or Guardian/Parent hereby agrees to release, waive, covenant not to sue, indemnify and
hold harmless the University, and all of their officers, employees and agents (collectively the "Releasees") from any and all liability, claims, demands, actions and causes of action whatsoever arising out of or related to any loss, damage, or injury, including death, that may be sustained by Participant or loss or damage to any property belonging to Participant arising out of or related to participation in the above named Program, and excepting only such loss, damage or injury as may be caused by the sole negligence of any Releasee.

Participant of Guardian/Parent of Participant agrees that the site of any lawsuit arising out of or related to participation in the Program shall be Utah and that this Agreement will be governed by and construed in accordance with the laws of the state of Utah, without application of any principles of choice of law.

Participant does not have any medical conditions that would prevent participation in course Program.

Participant has adequate health insurance to cover the costs of treatment in the event of any injury.

Participant shall pay any attorney fees or costs incurred by the University in enforcing this Agreement.

If any portion of this Agreement is held to be invalid by a court of law, then it is agreed and intended that all the remainder shall, notwithstanding, continue in full force and effect.

PARTICIPANT OR GUARDIAN/PARENT OF PARTICIPANT HAS CAREFULLY READ THESE TERMS AND FULLY UNDERSTANDS THEIR CONTENT AND IS AWARE THAT THIS IS A RELEASE OF LIABILITY AND A CONTRACT BETWEEN PARTICIPANT OR GUARDIAN/PARENT OF PARTICIPANT AND THE RELEASEES AND SIGNS IT OF HIS OR HER OWN FREE WILL.

_____ I am signing this Agreement for myself as Participant. I acknowledge that I am eighteen (18) years of age and that I understand the terms of this Agreement. I also acknowledge that this Agreement shall bind my heirs and personal representatives.

______________________________  __________
Signature of Participant                        Date

_____ I am signing this Agreement on behalf of a minor Participant. I acknowledge that I am the Guardian/Parent of the Participant and that I understand the terms of this Agreement. I also acknowledge that these terms shall bind my heirs and personal representatives and the heirs and personal representatives of Participant.

______________________________  __________
Signature of Legal Guardian and/or Parent of Participant

Date

Participant's Insurance I.D. number and insurance carrier, carrier address and phone number:

__________________________________________________________________

____________________________________________________________

__________________________________________________________________

____________________________________
### Issue

On February 1, 2007, the UEN contract with 360 Networks (formerly Touch America) will expire. In August UEN circulated an RFP to solicit bids to replace this contract and to explore options for two other Internet contracts that expire in 2008.

### Background

The three main purposes of the RFP were to 1) Replace expiring contracts, 2) Increase Internet bandwidth and to 3) Further diversify access to the Internet for the network and our customers.

Eleven companies responded with options for the network. The response to this RFP is by far the most extensive and complicated that we have seen. It also involved the best pricing and some of the best solutions that we have seen so far.

A group of eight individuals from Technical Services (Engineering, NOC and Administration) and UEN finance, accounting and administration evaluated the responses over a six week period.

Solutions throughout the state were proposed, but the only technically and financially viable options were those delivered to Dolores Doré Eccles Broadcast Center (EBC), Salt Lake Community College (SLCC) and Dixie State College of Utah (Dixie).

After evaluating the options the committee identified a solution that will more than double the overall contracted network Internet capacity (from just under 2GB to 4GB) and will reduce expenditures by at least $100,000 per year. The solution involves three awards for business, 1) Increase of commitment to Broadwing to a full GigE, half of which will be delivered at the current Dixie location and half that will be delivered to the SLCC POP, 2) Award of a full GigE to Qwest to be delivered at EBC to replace the expiring 360 Networks contract and 3) A connection to Cogent via NLR (National Lambda Rail) and our FRGP (Front Range Gigapop) partners in Denver, Colorado.

In addition, the network is in negotiations with one of our existing partners to reduce the per Megabit cost of our current contract. If we are successful, we could add an additional 400 MB to the network at no additional cost.

Award letters have been sent to the respondents by purchasing and contract negotiations are now underway to meet the E-Rate filing deadline in early February 2007.

The Qwest connection is planned to be installed as soon as possible after the 360 contract expires. The expanded bandwidth with Broadwing and Cogent will be installed sometime after July 2007 in anticipation of E-Rate funding.
The network is already participating in the phase zero test of Transit Rail and continued participation once it is launched is anticipated to be $50,000 per year per GigE of bandwidth ($4.17/Mb).

Once all the new services are in installed the 4 Gig of bandwidth will be delivered as below:

**Bandwidth summary**
1. American Fiber Systems – 600 mb delivered to EBC
2. Broadwing – 1 Gig 50% delivered to Dixie 50% delivered to SLCC
3. Cogent – up to 1Gig delivered to EBC via NLR. Minimum commitment is 200 mb, but we will most likely contract for 400 Mb to start.
4. Qwest – 1 Gig delivered to EBC
5. Transit Rail – 1 Gig

**Award Highlights**
1. More than doubles the current contracted Internet bandwidth for the network.
2. Connects the network directly to five major tier-1 networks and one national peering network.
3. Reduces Internet expenditure by at least $100,000 per year, and perhaps more.
4. Adds an Internet point of presence at SLCC.
5. Removes the outbound restriction on the Broadwing connection. The network will now be able to utilize the entire 1 Gig in both directions rather than having to limit outbound bandwidth to Broadwing at 300 Mb.
6. Reduces the per Mb cost of bandwidth to Broadwing by more than one half.

**Recommendation**

It is recommended that the Steering Committee approve the contracting, ordering and installation of the amended contract with Broadwing and the new contracts with Qwest and Cogent.
Dixie State College of Utah, Utah Valley State College (UVSC) and Utah State University (USU) desire real-time integration between their Banner student information system and the Vista course management system. Migration to Vista and integration with the University of Utah is not part of this particular project.

Integration provides course catalog management and near real-time account creation and enrollment of students into courses within Vista.

**Background**

**Overview Integration**

Integration between Banner and Vista requires installing the Luminis Data Integration Suite (LDIS) on a server at the institution. The institution then configures Banner to export IMS compliant student enrollment data to the Luminis Learning Management Gateway (part of LDIS). The Luminis Message Broker notifies Vista of updates and passes enrollment data to Vista. Grades from Vista’s gradebook pass back to Banner through this same process.

**Project Initiation**

Internal planning for this project began at UEN in April 2006. At that time only UVSC was committed to moving ahead with integration. USU was considering it. No
Discussions about integration had taken place with Dixie. Anticipating the need for careful planning coordination among several functional areas within UEN and the institutions, UEN contracted Rene Weston-Eborn to assist with project planning and communications. Rene has experience with integration both from her time directing Weber State University’s Vista implementation Project and subsequent work as a WebCT employee.

In June 2006 Dixie State College informed UEN of plans to purchase the LDIS. This seemed to be a perfect opportunity to pilot the integration tasks on a smaller scale before attempting a large institution like UVSC or USU.

**Project Milestones**

1. Assemble core UEN team, internal planning – Apr. 2006 (Complete)
2. Project kick-off with USU and UVSC – Jun. 2006 (Complete)
3. Project scoping, service inventory and individual work plans with institutions – Jun. to Sep. 2006 (In-progress)
4. Upgrade UEN Vista instance to version 4 - Aug. 2006 (Complete)
5. Dixie and USU purchase the Luminis Data Integrator from Sungard SCT - Fall 2006 (Complete)
6. Create Vista test lab environment at UEN - Sep. 2006 (Complete)
7. Schedule integration work with institutions and Sungard SCT consulting (vendor for Banner and LDIS) – Sep. 2006 (Complete for Dixie, In-progress for UVSC, USU)
8. Develop data encryption solution for data transfers between institution and UEN (In-progress)
9. Integrate Dixie – Nov. 2006 (In-progress)
10. Integrate UVSC – Dec. 2006 (at risk)

**Resources Involved**

UEN Team
- Vista service manager – Cory Stokes
- Computer operations manager – Bryan Peterson
- Project coordinator – Rene Weston-Eborn
- Vista system administrator – Jerry Matson
- Vista software developer – Thom Gourley

Institution Teams
- Banner System administrator
- Banner data export lead
• Network infrastructure technical lead
• Vista institution administrator
• Vista course migration support staff

Vendor Support
• SunGard SCT Banner/LDIS consultant
• Blackboard Vista integration consultant

Progress Summary
Internal preparation work at UEN has progressed well. The UEN upgraded the Vista environment to version 4 and installed hardware and software needed to support a test environment to use for connecting to Banner test systems at the institutions. UEN’s Vista team met initially with institution representatives and outlined information gathering and project communication tasks.

Delays developed in August and September as both UVSC and USU went through staff changes and reorganizing. Project communications between UEN and the institution teams were disrupted during this time. As a result, service inventory documents, project scoping and detailed work plans have not been completed with UVSC and USU. UEN is attempting to reestablish regular project communications with the correct institution team members so we can finish gathering necessary project planning information.

Dixie State College informed UEN that they had scheduled integration consulting with SunGard for early November. This pushed Dixie’s integration to the front of the line. The work has not progressed as smoothly as anticipated. The UEN and Dixie systems are communicating, but have not successfully transferred accurate course or enrollment data at this time. We are having difficulty keeping SunGard SCT consultants engaged on the project enough to efficiently work through the issues. Because of these delays the Vista test environment is not yet available to UVSC to begin their integration testing.

Risks
The foremost risk to successfully completing integration for these schools surfaced in late November when USU forwarded information they received from the Georgia System of Higher Education indicating that integrating multiple Banner systems to a single Vista instance may not be possible. UEN is contacting Blackboard and SunGard SCT to for clarification. Proven batch processing alternatives to integration do exist.

UEN needs to finalize project scoping and planning documentation with teams at UVSC and USU before we can proceed further. Reestablishing regular project communications with each institution and following a coordinated project plan is critical to avoiding implementation delays.

Issues that arise during integration for one institution delay integration work for the other institutions. However, the experience UEN gains with the integration process should help us work through the subsequent integrations more efficiently.
Recommendation

This is an discussion item requiring no further Steering Committee action.
Issue

Activities are ramping up for the CPB Digital Services Fund grant called “Datacasting Educational Media to Youth in Custody.” This report summarizes recent work for the project (a.k.a. YIC). Attachment A contains a copy of the most recent report to CPB.

Background

Digital TV

In 2002 when UEN-TV first broadcast in digital signal, the Utah legislature and national funders, including CPB, invested in digital transmitters and equipment as part of the FCC mandate to broadcast in digital signal by 2006. Recently, the FCC has also mandated that analog signal be shut off by 2009, with complete digital broadcast service nationwide.

Digital TV signal gains spectrum for consumer applications through the analog give-back, but also enables new services through digital signal. UEN-TV has been multicasting two standard-definition broadcast channels since 2002 – the main channel (a parallel of the analog channel) is 9.1 and the Annenberg Media channel is 9.2. One additional service that has yet to be fully realized is datacasting. More information about UEN’s digital signal is online at www.uen.org/tv/dtv.shtml

Datacasting

Datacasting means sending out data applications, such as course content, through the broadcast signal. The YIC grant is a catalyst for UEN to develop this new delivery model. The service provides needed equipment, training, and an opportunity for collaborative work to UEN – in addition, the service provides content resources to a population that would not have Internet access as part of the conditions of their incarceration.

Through this project, UEN will send the 1400+ titles in the K-12 eMedia service through digital television signal to 13 Youth in Custody centers. The content will reside on the local LAN and be available in teacher planning kiosks and display stations provided by the Utah State Office of Education YIC department. The grant provides teacher training, evaluation, funding to encode the PBS titles, funding to encode the Utah Collections Multimedia Encyclopedia and develop Utah Metadata Application Profile 2, expansion of the UEN Storage Area Network and staff training.
Additionally, the project has provided an opportunity for different UEN departments to work together in new ways. This innovation has been challenging, in that staff are pressed to think outside the box as they build this new delivery system. Cross-departmental coordination with the broadcast engineering, enterprise applications, software development and UEN engineering groups has been key to moving the project forward.

**Recommendation**

This is a discussion item requiring no further Steering Committee action.
This is the second of three reports as outlined on page C-1 of the Grant Agreement. This report includes project and budget activity during April 1, 2006 through November 30, 2006. Upon CPB approval, this report fulfills requirements for disbursement of $70,000 toward the project.

**Project activities:**

1. **Administrative and planning**
   a. Project team meetings were held every two weeks during this period. Team members reviewed the site surveys, developed RFP for the storage array network and Triveni equipment, assessed the user interface available through the Triveni application constructor, completed the content inventory and use case scenarios.
   b. The project manager participated in a full day meeting with Youth in Custody directors on November 9, 2006. This meeting was to reorient YIC staff on the project since there had been so many delays. The project information was met with enthusiasm and resounding support from YIC centers. Memoranda of Understanding will now be developed with each center.

2. **Design and Equipment**
   a. Triveni was selected as the Datacast hardware and software provider for our project. The project team under direction of UEN engineer Dave Maw reviewed the components of the bid, and elected to include the Skyscraper upgrade, Application Constructor, and on-site training. University forms for acquisition were processed by our purchasing department and cognizant vice president. Decision was made by project team to have Triveni also construct the 15 end-site receive computers to assure compatibility, reduced staff time constraints, and maximize cost efficiencies. PO's for this purchase were issued on November 28, 2006. This amount is reflected in the budget report.
   b. Kevin Dutt, UEN field engineer, began purchase and installation of receive antennas and cabling. All 13 centers will require installation of a rooftop antenna. Installation of these sites is slated for completion in the next three months as weather allows.
   c. On November 20, 2006 field engineer Scott Larsen conducted DTV receive tests with a portable receiver at the southernmost and northernmost sites in this project. While some concerns arose with receive capabilities at the southernmost site in Springville, Utah, the
engineering staff believes this will be overcome with installation of an appropriate antenna.

3. Content Resources
   a. Encoding: UEN contracted with our partner organization at the University of Utah, Media Solutions, to complete the encoding and metadata protocols for the service. As of November 30, the media count is 1,396 and far exceeds the 200 titles outlined in the original grant. Media titles that will be Datacast for this service have all been encoded, indexed, and added to the IP version of the service called eMedia. Titles are distributed as follows:
      i. K-12 Core Curriculum - 427 titles
      ii. PBS (American Experience, Ken Burns, Liberty’s Kids) - 416 titles
      iii. KUED (Nathan’s Story, No Safe Place, documentaries) - 83 titles
      iv. UEN-TV (eBiomedia, NASA) - 342 titles
      v. Telecourses collection (University of Utah, GED, Workplace Essential Skills series) - 116 titles
      vi. General collection (science interviews, public affairs) - 12 titles
   b. Storage: In November, UEN acquired additional storage and switch ports to expand the storage array network. This purchase is reflected in the budget report. Once this SAN equipment has been installed, 8,840 additional titles will be migrated to the service:
      i. K-12 Core Curriculum (recent purchases) – 200 titles
      ii. Telecourses (University of Utah) – 80 titles
      iii. PBS – 150 titles
      iv. Utah Collections Multimedia Encyclopedia (8000 titles)
      v. UEN Professional Development Resources (~200)
      vi. PDF Teacher Guides for many of the videos (~200)
      vii. Veteran’s Oral History lectures – (10)
   c. Data Migration: In April, UEN completed a consulting engagement with North Plains, developers of the TeleScope software used to index and provide the user interface for our digital asset service. The purpose of the engagement was to develop a data migration strategy from File Maker Pro to TeleScope. This work is significant because it allowed us to alter our existing metadata model, referred to as UMAP1 (Utah Metadata Application Profile), and replace it with an updated version referred to as UMAP2. This expanded metadata scheme more closely aligns with industry standards such as Dublin Core and IEEE. This work also allowed us to migrate 8,000 digital assets in our Utah Collections Multimedia Encyclopedia to new protocols. Once the SAN is installed, the migration to production will complete this work. The TeleScope engagement was also significant, in that it built a foundation for us
to readily share metadata with external applications, including PBCore.

4. Implementation
   a. End Site Machines: Three types of end site machines have been designed, but not yet purchased: server, teacher planning station, teacher presentation kiosk.
      i. The end-site servers designed to collect the Triveni feed have been designed and included in the Triveni bid. Engineers have designed a closed, Linux-based system at the receive sites that will require very little maintenance or service.
      ii. The teacher’s planning station will be a typical desktop computer with multimedia capacity located in a teacher planning area. The Utah State Office of Education has contributed funding for the teacher planning and display kiosk equipment.
      iii. The display computer will be mounted to an industrial-grade pole on wheels, along with a monitor display screen, so the teacher can easily move it from room to room. This design is particularly well suited to the Youth in Custody sites, because most have very small classrooms, and there is concern about mounting projectors or other high-end equipment in a permanent location.
      iv. Finally, each teacher will receive a small 5 Gig Hard Drive about the size of a hockey puck. Teachers will learn how to download media to this very portable device in order to facilitate planning and development of customized learning programs.

5. Ongoing support
   a. Training has been scheduled for the 80-85 teachers in the project. Workshops will be offered on three consecutive days (March 21, 22, 23) in the UEN training lab at the University of Utah College of Education.
   b. The operating system and end user application will also be Datacast, so any upgrades can happen remotely, without the need to expand field support staff. With limited resources, this has proven to be a significant advantage that we hope will be realized through the upcoming testing and implementation periods.

6. Next Steps
   a. The project management team continues to meet biweekly. Work packages have been divided into six phases, including the current phase, continuing through June 2007. Upcoming activities include:
      i. Triveni installation and training
ii. SAN installation
iii. Data migration from eMedia (Telescope) to Skyscraper
iv. Develop the end user interface using Triveni Application Constructor
v. Complete MOU with each site administrator
vi. Complete installation of antennas, cabling, and end site equipment
vii. Test datacasting in lab environment
viii. Deploy receive equipment, planning and display kiosks
ix. Develop training materials
x. Conduct teacher training and assessment
xi. Follow up support for teachers and engineering
xii. Reports and updates as needed

Report submitted by:
Laura Hunter, DSF Datacasting to Youth in Custody Project Manager
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lhunter@uen.org
UTAH EDUCATION NETWORK STEERING COMMITTEE
October 20, 2006 – 9:00 a.m.


Welcome and Introductions
Gary Wixom welcomed everyone to the meeting.

Committee of the Whole

Tab 3 – New UEN Steering Committee Members
The committee would like to welcome the newest members. Ronda Menlove, Vice Provost for Regional Campuses & Distance Education at Utah State University and Gary Koeven, the Dean of Information Services at Dixie State College will both hold 4 year terms on the Steering Committee.

A motion was made and seconded to accept the new members to the Steering Committee. THIS MOTION PASSED WITH ALL VOTING IN FAVOR.

Tab 4 – FY 2008 Budget Request
Mike reported on the FY 2008 UEN budget request which will require final approval by the Steering Committee before being submitted to the Legislature for its consideration. The deadline for submitting budget requests to the Governor’s Office of Policy and Budget (GOPB) was September 25th. In order to meet that deadline, UEN already
submitted a preliminary FY 2008 budget request to the Governor’s Offices.
The summary of items for the FY 2008 Budget Request is as follows:

- Finish the final phase of the major network infrastructure improvements we have made in the past several years.
- Complete the final phase of converting the EDNET system to IP-based videoconferencing technology.
- Host a critical enterprise course management system (Vista) for the University of Utah, Utah State University, and Utah Valley State College, plus the four Institutions already supported.
- Replace the UEN Satellite System with IP-based videoconferencing technology.
- Request funding for critical staff retention.

For more detailed information on the FY 2008 Budget Request please see Tab 4.

A motion was made and seconded to approve the FY 2008 Budget Request. THIS MOTION PASSED WITH ALL VOTING IN FAVOR.

Tab 5 – Quarter One Progress Report on FY 2007 & Strategic Plan
Laura Hunter reported to the Steering Committee that this report is done quarterly and is a progress report. This report includes any activities conducted during July, August, and September of 2006 in all UEN departments. For a complete detailed list of the seven goals and highlights, please see Tab 5. Committee investigates the issues outlined above. The following dates were proposed:

Tab 6 – Mission Vision, Values Updates
Claire Gardner reported on the retreat that was held in September to determine changes in the UEN Mission, Vision and Values statements. When the staff was working on these new statements they took into consideration the recommendations that were articulated by the Higher Education Advisory Committee. Those recommendations were as follows:

1. Two way communication
2. Joint Strategic Planning
3. Common Network Operations
4. Information Sharing/Leadership in Emerging Technologies

Listed below in draft format are the new statements that the staff came up with at the retreat.

- Mission—We network to create educational opportunities, connect citizens, and collaborate with partners, serving Utah communities.
- Vision—Be Utah’s most recognized, trusted, and accessible partner for innovation in education.
- Values—Caring—supporting our co-workers, customers and community
Leadership-advancing relationships and encouraging ideas
Integrity-keeping our promises
Communication-listening to meet needs
Service-benefiting our partners

These draft statements will be shared with the Higher Education and Public Education Advisory Committees for feedback. The hope is to have the statements ready for final consideration by the next Steering Committee. For all of the detailed information regarding these new statements, please refer to Tab 6.

**Tab 7 – SURIN Report**

The State of Utah Registry for Internet Numbers (or SURIN) is an organization created for the purpose of establishing IP address allocation policies throughout the Network. This is a report on progress and activities in this developing project.

UEN and TCC have been working together to organize the SURIN governing body. Letters were mailed to the senior management of the entities approved to appoint individuals to fill SURIN board positions. These entities include:

- Utah Education Network
- Utah Technology Coordinator Council
- Utah State Office of Education
- Utah System of Higher Education
- Utah State Library
- State of Utah Chief Information Officer

Each entity was asked to provide SURIN board appointments by written notification no later than November 3, 2006. Follow-up calls will be made to ensure that this request is thoroughly understood and supported. UEN and TCC would like to host the first SURIN Board meeting on December 6, 2006.

**Tab 8 – Steering Committee Meeting Minutes**

A motion was made and seconded to approve the minutes from the previous meeting. **THIS MOTION PASSED WITH ALL VOTING IN FAVOR.**

The next Steering Committee meeting will be held on December 15, 2006, at the Dolores Doré Eccles Broadcast Center.

The meeting then adjourned for subcommittee meetings. The minutes from each subcommittee appear below.

Tab 10 – 2005-2006 UEN Professional Development Annual Report - Discussion
During the 2005-2006 year, the UEN Professional Development department has seen a significant increase over past years and until this year, has met demand without additional personnel. This year is the first that Professional Development has been forced to turn down requests. A full report is included in October Instructional Services Subcommittee materials detailing the activities of the Professional Development department over the past year.

Action – An additional staff member will be discussed in the next budget cycle

Tab 11 – eMedia Service Status Report - Discussion
The eMedia educational media download service just passed its 1-year service date. As of 10/20/06, eMedia contains 1157 full-length media resources and averages 2500 visitors per month.

UEN completed digitization the KUED productions currently licensed for education distribution, and 305 of 550 licensed PBS titles. The remaining PBS titles will be completed by mid-December.

Action – This is a discussion item requiring no further Instructional Services Subcommittee action.

Tab 12 – Web Conferencing Tool Investigation Status Report - Discussion
At the request of the Instructional Services Subcommittee, UEN is examining the feasibility of licensing a Web conferencing and collaboration tool on behalf of all the higher education institutions and the K-12 system.

Cory Stokes and Bryan Petersen are developing meetings with a Web conferencing tool committee from Salt Lake Community College to discuss collaboration on a consortium license. SLCC agreed to work together with UEN, while reserving the right to separate if the collaborative process does not progress rapidly.
Attendees: Charice Black, Barry Bryson, David Devey, Jeff Egly, Eric Hawley, Stephen Hess, Gary Koeven, Lisa Kuhn, Don Mahaffey, Eric Mantz, Casey Moore, Kevin Quire, Jim Stewart, Cory Stokes, Bruce Todd and Ray Walker.

Announcement

Jim Stewart returned from the Front Range Gigapop meeting yesterday. The management committee voted unanimously to come through the University of Utah and to get their access to I2. We will use the NLR link to do that. New Net is putting a new switch here for the layer 3 routing and not in Denver. They will come through and work with us. The benefit to us will be that New Net will pick up half of the cost.

We will also be able to drop our local loop cost and will be able to use the NLR Cisco switches here and L3 to hook up to New Net. The savings will be about $200,000 dollars a year. We may also be able to E-Rate part of this and receive further cost savings up to $60-70,000.

Tab 18 – Regional Priorities Report - Discussion

Jim Stewart has reviewed the requests that made it to the Regional Priority list. Of the 123 requests, twenty-four have been completed and 54 items have had resources assigned or some work has been done on them. Fifteen items will go through the RFP (Response for Proposal) process. Twenty-two items are in the pending/hold mode. Some are Phase 3 Ethernet or video projects that are waiting funding to move forward. They will be completed pending funding. There are three items left which have received no attention. These items have been given to Troy Jessop for assignment. Clarification is needed on five of the remaining requests.

Elementary school requests will be part of FY09 requests.

Dennis Sampson has been assigned to work with the regions on their request for firewalls and bridges. He has very good skills in looking for grants and has some ideas about where to look for money. Dennis will be in contact with the regions.

Although there are limited dollars this year, we are still going to get to 90% of the funding requests.

Tab 19 – Internet Access and Wide-Area-Network Ethernet FRP Report - Discussion

Barry Bryson reported on the two RFP’s that are currently out for bid. We have asked for proposals from Denver and California. Between now and August of 2008, all of our contracts for internet will expire. We have two of them that will come up within the next E-Rate cycle.

The Internet RFP was released in August requesting proposals for internet access into all ten of our Points of Presence (POPs) throughout the state. Our goal is to get to a minimum of 4 gig. The proposals for the Internet came in yesterday. Eleven vendors
have responded. Twelve potential interested bidders attended our pre-proposal conference in September.

The WAN Ethernet RFP was released yesterday by University of Utah Purchasing. It is due back at the end of November. There are fifteen schools included in this RFP. They are primarily new schools, schools that have been missed for some reason and Washington County where the vendor could not meet the pricing.

We will evaluate the Internet RFP throughout November. The Ethernet RFP is due the end of November. The 360 contract expires in February. The American Fiber Systems contract expires in May 2008 and Broadwing expires in August 2008.

Front Range Gigapop is evaluating having a third vendor for Internet. They are looking at peering with us and swapping so we can take some of their traffic across our routes and we would put some of our traffic across their connections. We wouldn’t actually swap dollars or buy from one another. We would back each other up. We will be meeting at the WestNet meeting in January to finalize a proposal to bring to the committee. This is a way to increase our internet bandwidth and diversity.

E-Rate for Service Centers – Ray Timothy of USOE has written a letter requesting E-Rate qualification for regional service centers. USAC responded back and wanted more information on the state’s definition of a public school and the actual services the Regional Service Centers are performing. Lisa Kuhn is working on a response to USAC and should get it out sometime next week. She feels optimistic about it. It may be resolved for this coming funding year.

There are two aspects to the Ethernet RFP. First is the final wrap up of the last few sites. Sites keep on trickling in and now we are up to requests for over twenty sites. Second, there are also some backbone ramifications to this request. A request has been made for Gig and 10 Gig from Blanding to San Juan District Office, to Kanab, to Kane District Office, and from the Kane District Office to Dixie College. We also want to get gig access between Roosevelt and Price. Alternate routes submitted by the vendors will be considered.

**Tab 20 – Enterprise Course Management System Update - Discussion**

We are working closely with WebCT and Blackboard. Mike Petersen received an indication yesterday from Glen Prior at SUU that they would like to participate in the Vista consortium. This will be a request for next year. It is a significant endorsement of the logic of a centrally hosted enterprise application. This is a benefit to multiple institutions.

The upgrade to the Vista 4.0 was integrated this summer. The integration with the SIS has a lot of leverage. Integration across multiple institutions makes it more valuable that integration at just one institution.

**Tab 21 – Ethernet Project Installations Update - Discussion**

A few sites remain in Phase 2 due to right of way and site improvements needs. These have been pulled in to the Phase 3 portion of the project. Phase 3 consists of two projects. One is the upgrade to each of the UEN POP’s to 6500’s. This process has been underway and has been recently completed with the exception of the GSR offering at UEN. Due to some power improvements that must be completed at UEN, that will
be the last portion of the POP improvements. The second aspect of this project is the needed site improvements for 51 sites. The intention of UEN is to complete the bulk of the project by the end of this calendar year. The on site improvements will drive how this will come together. Four locations have been identified with right of way issues. All site surveys and engineering are complete. All the hardware is in. Some of the district offices will be coming on line soon.

A firm date can not be given for the Ethernet down to Price. CVDS shut off to Cache Valley is contingent upon the transition over to the MPEG 2 solution. We are passing video over it now. Once we resolve some issues we will be looking at two weeks as an estimate.

Brigham City District Office to Bridgerland ATC have agreed to move into the Phase 4 project. We brought Snow College on line to the backbone. The CVDS southbound trunks have been shut down.

Tab 22 – UEN Satellite System Update - Discussion

The UEN Satellite project planning has been focusing on the upgrades to our MCU (Multipoint Control Unit) capacity, including our scheduling and applications that manage the system. We have been investigating end site configurations that meet our needs as well as something that can provide a solution in a very short amount of time to put in a substantial number of classrooms around the state. We are going to approximately 50 areas statewide and 185 classrooms. Over the past three weeks we have met with Tandberg, Codian and Radvision. We are exploring improvements at USU and EBC to replace or trade in MCU’s at those two locations to monitor the new Scopia MCU’s which are the new line that Radvision is carrying.

We are looking at two of the Scopia’s with the Satellite project to replace one at Utah State and one here at Eccles Broadcast Center.

Utah State would potentially help UEN put in a newer bridge in the Basin. We will begin to plan for issues related to this.

This project would not be possible without the Ethernet improvements we have made up to this point. We still have some challenges to approximately fifty of the conversion sites. It is essential that Utah State University and UEN work very closely together on this huge conversion project.

Please note: detailed information and discussion of the issues are included in the materials prepared for the meeting. These materials are available online at www.uen.org/steering/html/materials.html. Please refer to them for additional reference.
**Issue**

Ongoing work by the IP Video Committee is no longer needed. UEN recommends disbanding the IP Video Subcommittee and moving toward ad hoc committees organized around specific policy issues.

**Background**

Committee members may recall that UEN established a joint IP Video Subcommittee comprised of instructional and technical sub teams during the inception of the IP Video project. Most of the issues those committees dealt with have now been put into practice, including conversion from analog to digital, scheduling priorities, standardized quality of services issues, recommendations on IVC equipment, and revisions to the Distance Education Web site.

Since these conversion issues are now resolved, the committee believes there is no longer a need for ongoing meetings. Staff and committee members recognize that additional policy work is needed, however, and recommend formation of ad hoc committees around specific issues as they arise. Committee membership of the ad hoc groups will come through recommendations from the higher education and public education advisory committees and existing stakeholder groups, such as the Vista Administrators and Distance Education Directors.

**Recommendation**

It is recommended that the Instructional Services Subcommittee approve dissolution of the IP Video Subcommittee and development of ad hoc committees as needed.
UEN’s newly developed Distance Education Catalog is planned to be released by January 31, 2007. The goal of this catalog is to provide Utah’s high school counselors and other school administrators, students and parents an online tool with which to search more than 800 course offerings delivered at a distance from public and higher education institutions. This information will assist the high school counselor to help students to register for classes to fulfill high school graduation requirements.

This online catalog replaces an Excel document, which was an interim solution until the development of this online tool. Attachment A displays the options that a user can select to search the catalog.

The UEN Distance Education Catalog is an online database of course offerings from public and higher education delivered via EDNET, Satellite, Interactive Video Conferencing, and UEN-TV. UEN created this catalog to assist high school counselors in their role in helping students to develop their class schedule for the current or coming academic school year. These classes provide students the opportunity to receive either high school units and/or college credits.

This tool is different from the existing Excel document because it provides an easy-to-use interface for users to search for classes by term, subject area, credit hours, among other class relevant options. In addition, the results can be printed or downloaded. The catalog is due to be released no later than January 31, 2007; however, it is anticipated that it will be released earlier.

This is an discussion item requiring no further Instructional Services Subcommittee action.
Issue

UEN’s Web services experience significant traffic growth each year. Visits to uen.org have tripled over the last two years. While we often report on the latest projects, often the most visited and used resources are services created years ago that just quietly deliver useful educational resources to educators and students world-wide.

Background

Each month UEN’s Web Services department uses WebTrends software to generate usage reports. These reports are used to identify usage trends critical for project planning and decision-making.

UEN posts the updated Web Services Report each month at www.uen.org/ueninfo

Attachment A shows the Top 25 Web Services for the 2005-06 school year and eight Web visitor trend graphs for our most popular resources: uen.org, Lesson Plans, Activities, Tours, my.uen, Theme park, UEN-TV and Curriculum Search.

Here are a few noteworthy trends:

• Since our last report to the Instructional Services Subcommittee in December 2004, visits to uen.org have increased significantly. For example, in March of 2004 uen.org received approximately 550,000 visitors and in March 2006 we had over 1,400,000 visitors, an increase of 155%.

• In March 2006 UEN’s Lesson Plans received over 430,000 visits, which continues the trend of being UEN’s second most popular online resource. (Pioneer Online Library is the most visited service.)

• Since the rebranding of UEN-TV, visits to the station’s Web site have jumped significantly. In March 2004 there were just over 6,600 visits and those numbers increased to over 47,500 visits in March 2006.

UEN’s Web services are maintained by a team of 3 Web designers supported by 8 Web software developers. If you have questions about UEN Web Services, please contact Karen Krier (karen@uen.org) or Cory Stokes (cstokes@uen.org).

Recommendation

This is an discussion item requiring no further Instructional Services Subcommittee action.
The 2006-2007 Utah Educators Resource Guide features media, tools and support to invigorate teachers and their students. The publication is an annual collaborative project of UEN, KUED 7, Utah State Office of Education and Utah Instructional Media Consortium. It has been distributed to more than 31,000 educators and will be used in teacher training and special events throughout the year. Copies of the 2006-2007 Utah Educators Resource Guide will be distributed at the December Steering Committee meeting.

This year’s expanded 104-page Guide includes 63 pages of video programs and series available on UEN-TV, KUED, eMedia and UIMC. These listings are organized by the Utah Core Curriculum including American Indian Education, Arts - Visual and Performance, Civics/American Government, Family and Consumer Sciences, Financial Literacy, Healthy Lifestyles, Language Arts, Mathematics, Music, Social Studies, Study Skills and World Languages. In addition, the Guide provides articles on technology in education, professional development, online safety, homework help, adult education, college and career planning, KUED resources, eMedia and Pioneer, Utah’s Online Library.

The Guide also includes a poster-size insert, the 2006-2007 Utah Video Fast Finder. It features a color-coded listing of all of the 2006-2007 Instructional Television resources on UEN-TV, KUED 7 and eMedia. This insert also features program schedules for UEN-TV and KUED 7, as well as 12 Monthly Themes and graphic overviews of the K-12 Educators and Utah Instructional Television Web pages.

The 2006-2007 Utah Educators Resource Guide is distributed by direct mail to teachers throughout the state. It is also given to educators attending UEN Professional Development training and at special events throughout the year. The Guide is also being distributed to Utah public libraries. The UEN Department of Public Information and Communications produces the annual Utah Educators Resource Guide.
The Utah Educators Resources Guide - Stats at a Glance

- 37,000 Guides printed
- 31,013 Guides direct mailed to Utah educators
- 5,987 Guides distributed to partners
- 368 video programs listed
- 261 related Web site listings
- 104 pages total pages
- 63 pages of Utah Core Curriculum program listings
- Program schedules for UEN-TV and KUED
- 14 Utah Core Curriculum categories
- 12 monthly themes and events with related video and online resources
- 6 page A-Z Video Resource Index
- 6 page KUED 7 resources and productions section
- 3 full color promotional pages for uen.org, KUED 7 and eMedia
- 1 full color insert of Utah Instructional Television at a Glance

**Recommendation**

This is an discussion item requiring no further Instructional Services Subcommittee action.
Issue

A need for new policy and procedures regarding administrative meetings (both scheduled and ad hoc) has been brought to our attention recently. This report outlines some of the issues and recommends formation of a small working group.

Background

During the conversion from analog EDNET to IP-based video conferencing, members of the IP Video Steering Team and Instructional Services Subcommittee approved policy regarding quality of service issues with scheduled courses. As equipment availability continues to expand, more institutions are using the EDNET system for administrative meetings in addition to regularly scheduled courses. UEN does not presently have policy surrounding the quality of service issues for administrative use. A thorough needs assessment on this issue would help inform UEN staff and manage expectations of the meeting participants at the various sites. Issues that could be explored by this committee include:

- minimum equipment standards for meetings
- scheduling needs for ad hoc and pre-scheduled meetings
- issues with audio and video quality to allow for quality participation
- expectations of our stakeholders
- system and staff capabilities

UEN staff asks for recommendation of 3-5 representatives to serve on a committee to explore issues surrounding administrative meetings over the EDNET system, and help provide guidance and direction for policy and procedures on this issue.

Recommendation

It is recommended that members of Instructional Services Subcommittee appoint 3-5 stakeholders, working with UEN staff, as part of an administrative meetings committee and report on their progress at the February meeting.
Members of the Public Education Advisory Committee met on December 4, 2006. The Higher Education Advisory Committee met on December 7, 2006. Rick Gaisford and Cyd Grua will report on the activities of the two committees.

Background

The Public Education Advisory Committee discussed the following items:

- UEN Mission Statement
- IP Video Committee
- ePortfolios
- Blogging
- Mini-Grants
- Service Level Agreements
- UEN Projects
- GIS Software License
- 21st Century Teaching and Learning Initiative

The Higher Education Advisory Committee discussed the following items:

- UEN Mission Statement
- IP Video Committee
- Higher Education Professional Development
  - Over the EDNET system on the following days:
  - January 22, February 26, March 26, April 23, May 21
- Quality of Service Issues with Video Conferencing

Recommendation

This is a discussion item requiring no further Instructional Services Subcommittee action.
Issue

UEN has funded since the network was started dial-in access for school district administrators, teachers and staff in a number of school districts. Attachment A lists all of the schools and districts and monthly cost of this service. For consistency, and to focus on our key services, we now propose that any dial-in access would be provided and paid for by school districts.

Background

UEN currently funds circuits and provides network hardware and network support to accommodate dial-in access to some school district offices and public schools. This service started at about the same time UEN began providing Internet service and has continued ever since. At the inception of providing this service commercial Internet Service Providers were not available or affordable in many cases.

UEN provided dial-in access is a no cost means for school district administrators, teachers and staff to access their district’s network and the Internet from home using a modem.

Over time many school districts have discontinued this service or assumed the expense for providing it. Attachment A shows UEN continues to spend nearly $17,000 annually on circuit charges for dial-in access in a total of 14 school districts.

Recommendation

Over time UEN’s priorities have changed with a current focus on network improvements to each of Utah’s 40 school district offices and secondary schools. Funding of these network improvements require UEN to reevaluate the funding and support of some legacy services. It is our recommendation that funding for dial-in access be transferred to each of the school districts.
### Dial-In Access Circuit Charges

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<tr>
<th>Description</th>
<th>City</th>
<th>District</th>
<th>Telco</th>
<th>Service Type</th>
<th>Monthly</th>
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<tr>
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**Total Circuit Charges - 1 Month**  
$1,390.75

**Total Circuit Charges - 1 Year**  
$16,689.00
**Issue**

The UtahSAINT organization which was formed in conjunction with UEN, has been developing tools and information which allows greater security collaboration for issues and incidents. This initiative has developed as UEN partners have identified increased needs and greater interest in improving network security.

**Background**

Since its inception, the UtahSAINT has been synonymous with weekly conference calls and the annual UtahSAINT conference. New initiatives from UEN include a wide variety of tools and information to better facilitate the distribution of security related information and processes. The services being rendered by the UtahSAINT now include the following:

- **UtahSAINT Web site** – www.utahsaint.org
  The front-end of information regarding the UtahSAINT and its efforts

- **UtahSAINT Wiki** – http://wiki.utahsaint.org
  A collaborative site for documentation of security handling and process issues, and also incident documentation.

- **UtahSAINT Blog** – http://blog.utahsaint.org
  A news and related outlet for articles and issues regarding security both locally and beyond. This outlet allows all UtahSAINT members to provide their thoughts on services and topics which may not generally be available on their own.

- **UtahSAINT Conference** – http://conference.utahsaint.org
  This is the location for information about upcoming UtahSAINT conferences, and will house all information and presentations from past conferences for reference as well. The next UtahSAINT conference will be held January 2007.

In addition to these current new resources, many services are planned for the near future in order to provide even more in-depth security information and training. Those services will be:
• **UtahSAINT Library** – [http://library.utahsaint.org](http://library.utahsaint.org)
  This library will be a single reference point to research and read white-papers documenting security tactics and threats, and how to mitigate them. Keeping up-to-date on current exploitation tactics is one of the most difficult tasks facing networking staff today. The UtahSAINT Library will help our partners deal with this issue and provide resource material on demand.

• **UtahSAINT PodCast** – [http://www.utahsaint.org](http://www.utahsaint.org)
  Another big challenge is getting the live information out to all UtahSAINT members simultaneously. Scheduling conflicts make it impossible for all members to regularly participate in the weekly UtahSAINT call. This PodCast will make the call available to all UtahSAINT members for download and review any time, as schedules permit.

• **UtahSAINT Mail** – [http://mail.utahsaint.org](http://mail.utahsaint.org)
  This will be used to provide information and discuss topics that are important for the group.

• **UtahSAINT Forums**
  This is planned to add extended capabilities for the Wiki, and may be cancelled if the Wiki is deemed adequate.

**Recommendation**

This is a discussion item requiring no further Technical Services Subcommittee action. However, comments about the initiatives that have been implemented and planned for the future are encouraged.
UEN Network Operations Center Update - Discussion

Issue

The UEN Network Operations Center has recently changed its network monitoring system and has improved network monitoring capabilities.

Background

UEN has used the NOCOL network monitoring system for the past several years as our primary monitoring tool. NOCOL has worked well and provided an adequate view into the health of the network. With the recent addition of Ethernet circuits the limitations of NOCOL application have prompted UEN to explore a more robust monitoring system providing tools better suited to the current and future network configuration. UEN Technical services has recently reviewed the effectiveness of several systems and determined that as the network continues to grow in size and complexity we must change our monitoring processes and tools as well.

As a result of these evaluations, and with very little cost, we have greatly increased our network monitoring view. The low cost of these new tools will allow us to use them while continuing to evaluate and implement other tools as we better understand the inner workings of the network and as our needs change. We will continue to evaluate tools to fill some of the identified gaps. New developments in monitoring applications are always occurring as this segment of the industry matures.

Examples of gaps that have been identified and tracked by UEN are:

- General reporting deficits in “quality of service”
- Identification of brief or “near-zero” outages
- Management of device inventory and equipment
- Improved information flow to more quickly identify failure causes

UEN will continue to emphasize tools development, implementation and usage to provide improved network monitoring, operations and information. Effective tools will improve network reliability and will increase troubleshooting effectiveness as outages occur.
Recommendation

This is a discussion item requiring no further Technical Services Subcommittee action.
Issue

The State of Utah Registry for Internet Numbering (SURIN) initiative was approved by the UEN Steering Committee at the June 2006 Steering Committee meeting. Since that time UEN has been engaged in several activities, including developing a member-searchable database to catalog and manage both IPv4 and IPv6 address space.

Background

Initially a major component of UEN support for the SURIN project is the development of a member-searchable database. This database is intended to catalog all UEN managed IPv4 and IPv6 address space.

UEN established a project using the IP Control application, which is designed for IP address management. UEN staff have spent many hours installing the IP Control applications and populating the associated databases with IP address data. The initial data input in support of this project is now complete. The application is member-searchable. This is a key accomplishment in moving forward with the SURIN project.

UEN staff will demonstrate the IP Control application at the December 2006 Technical Services subcommittee meeting. This will allow committee members and others to become familiar with the features of the IP Control application and database. Questions and input arising from this demonstration will give UEN valuable input as we prepare for future SURIN meetings.

Recommendation

This is a discussion item requiring no further Technical Services Subcommittee action.
**Issue**

This report summarizes activities currently underway involving UEN and Utah State University (USU) staff to plan for the conversion of the UEN Satellite System (UENSS) to IP-based Videoconferencing.

**Background**

By mid-December USU will provide a finalized list detailing the total classrooms and locations that will need to be converted to IP Video equipment. This information will be used to complete the data infrastructure and classroom site survey over the following few weeks. Upon completion of the site surveys, UEN Network Operations and Network Engineering staff will complete a Wide Area Network assessment. This assessment will provide detail for implementing needed circuit improvements. USU will be providing all of the Local Area Network equipment and infrastructure improvements to complement these circuit changes.

Site surveys will also allow UEN to develop classroom configurations. Once these configurations are determined the appropriate equipment can be ordered and installation timeframes determined. UEN has installed approximately 50 IP Video sites in each of the past two summers. With the next video phase and the UENSS conversion, the expected number of site installations needed this summer is approximately 230. For this reason UEN anticipates dedicating a large number of staff to these installations. This will also limit our ability to engage in other projects this summer.

**Recommendation**

This is a discussion item requiring no further Technical Services Subcommittee action.
Issue

This report provides a status report on causes and significance of recent GeoMax outages impacting the UEN Network. Qwest staff will be present with UEN NOC staff to discuss this issue with members of the Technical Services Subcommittee.

Background

UEN, in partnership with Qwest Communications, has been working to expand the GeoMax Backbone. As a result of this expansion, UEN’s Backbone has experienced some significant problems, causing several unplanned network outages. UEN is very concerned about the causes of these outages and the processes used by Qwest to facilitate network changes. UEN and Qwest are working to address and resolve these issues. Listed below are the specific details associated with the outages:

Issues being addressed with Qwest Communications

- Communication during an unscheduled outage is inadequate.
- Qwest’s Monitoring is presently limited to Optical Hardware on the GeoMax Backbone, this has proven to be inadequate to accurately identify and isolate “in network” problems.
- Qwest spares for GeoMax are not geographically dispersed to facilitate the most rapid response to hardware failures. This has prolonged the response time to resolution.
- Decision making on outage procedures is not being made in a timely manner when an outage is going to exceed the maintenance window.

Outage Detail

We have experienced outages of significance on the following dates as a result of problems on the GeoMax Backbone:

- Oct 21st – Qwest issued conflicting, non-coordinated orders resulting in a Backbone disconnect in Provo and with no associate connect order being executed. This also compromised the light levels for the fiber optic equipment in the Provo Central Office (Qwest facilities).
• Nov 2nd and 3rd – Light level issues continued in the Provo area causing brief, unscheduled outages.

• Nov 11-12th – Major outage resulted from burned up optics during scheduled maintenance. Ongoing issues from the Oct 21st incident were also present.

• Dec 2-3rd – Moderate outage occurred due to high noise level on newly installed links. This outage was unrelated to the light level issues, however, still related to new circuits installations in the Juab area.

Due to the size and complexity of UEN’s Northern and Southern Backbones, there remain significant challenges related to the installation of new services in Carbon and Juab Counties. UEN remains concerned regarding the impact of these recent outages. It is essential that Qwest make improvements in their change management processes to reduce or eliminate the potential for additional outages as further work is done to bring these new services on line. Qwest is making great efforts to ensure that any further problems are minimized. Qwest is also conducting a complete GeoMax system audit to identify and correct network vulnerabilities. UEN is planning further discussions with Qwest Network Monitoring Services (NMS) to improve the quality of network monitoring and improve communication during outage events.

**Recommendation**

This is a discussion item requiring no further Technical Services Subcommittee action.