

Utah Education Network Steering Committee

August 18, 2006

**UTAH EDUCATION NETWORK
STEERING COMMITTEE**

A G E N D A

AUGUST 18, 2006

9:00 a.m. -
11:00 a.m.

Committee of the Whole / Business Meeting

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Please place these materials in your Steering Committee Binder.

FY 2007 UTAH EDUCATION NETWORK STRATEGIC PLAN - ACTION

Issue

The FY 2007 UEN Strategic Plan is now ready for final review and approval by the Steering Committee. It was presented in draft form during the June Steering Committee meeting. Since then, it has been revised extensively based on valuable feedback from the Higher Education and Public Education advisory committees, further review by UEN staff, and recommendations from members of the Steering Committee.

Background

The development of the fiscal year 2007 Strategic Plan began in the spring as focus group meetings at higher education institutions throughout the state were conducted by Wayne Peay and Cyd Grua, representing the Higher Education Advisory Committee. In addition, the Public Education Advisory Committee sent surveys to teachers and administrators to receive suggestions. In May, Instructional Services and Technical Services planning retreats were held. A draft version of the Plan was then prepared by UEN staff and presented as a discussion item at the June Steering Committee. That draft was reviewed by other stakeholders, including members of the Public Education and Higher Education Advisory Groups.

The FY 2007 Strategic Plan includes the Mission, Vision, Organization, Values and Need statements that the UEN Steering Committee adopted three years ago. These statements govern the work of all UEN staff. The Need section of the plan has been updated to reflect the current environment in which the plan goals will be implemented. The Higher Education Advisory Committee has recommended that the following four global practices be incorporated into its strategic vision statements. These four “aspirations” were strongly and consistently articulated by USHE representatives as critical to a positive and productive working relationship between higher education and its network.

1. Two-way Communication – Improve and increase TS-IS and network-stakeholder communication; promote UEN services broadly; include stakeholders in strategic planning, project identification, and implementation; promote communication among USHE institutions.

2. Joint Strategic Planning – Actively involve higher education in the process of identifying new projects for both Instructional Services and Technical Services. Revisit this collaborative process of evaluation, assessment, and planning periodically throughout the year.
3. Common Network Operations – Demonstrate best practices in Information Technology Services Management (ITSM), broadly share insight into ITSM, and assist campuses in adopting similar practices appropriate for a single institution.
4. Information Sharing/Leadership in Emerging Technologies – Be THE source for technology and technology related issues. Encourage information sharing among USHE institutions by distributing information on IT topics and by encouraging campus stakeholders to contribute their expertise to network facilitated discussion.

We encourage the Steering Committee to discuss whether and how these four vision statements may be incorporated into the Strategic Plan.

The FY 2007 Strategic Plan includes 7 goals, and objectives and tasks that are intended to further progress toward completion of those goals. The seven goal areas are:

- Goal I. Wide Area Network: Operate, maintain, and expand a reliable and secure high speed network, connecting every public school, college, university and public library in Utah.
- Goal II. Educational Web Resources: Aggregate and deliver a suite of high quality Web-based educational resources to support best practices in teaching and learning.
- Goal III. Enterprise Solutions: License, host and maintain statewide enterprise solutions supporting public education, higher education, and libraries.
- Goal IV. Distance Learning: Deliver Distance Learning classes and programs offered by public and higher education that use real time and on demand, reliable, high quality video conferencing technologies.
- Goal V. Broadcast Services: Educate, engage, and enrich the lives of Utah citizens through broadcast programs and services with UEN-TV.
- Goal VI. Professional Development: Provide professional development opportunities to improve the quality of K-20 instruction and assure effective implementation of technology in education.
- Goal VII. Governance and Accountability: Coordinate educational technology governance across the state, and be accountable to our stakeholders through communication, measurement, and reporting on UEN services.

The introductory organizational statements and Goals I – VII of the 2007 Strategic Plan are included in Attachment A. Included as Attachment B and C is a review of the draft Plan provided by the Higher Education Advisory Committee and our response to that review that reflect additions in the final draft.

Recommendation

It is recommended that the Steering Committee review the Mission, Vision, Organization, Values and Need statements of the FY 2007 Strategic Plan and determine whether or not the additional vision statements recommended by the Higher Education Advisory Committee should be incorporated. It is further recommended that Goals I – VII and the objectives and tasks associated with those goals be reviewed, discussed, modified if necessary, and approved.

TAB 13 ATTACHMENT A

FY 2007 UTAH EDUCATION NETWORK STRATEGIC PLAN - DRAFT

Mission

Our mission is to provide Utah students and educators access to statewide electronic networks and systems for the delivery of educational services that improve the quality of student achievement, communications and efficiency of services.

Vision

High quality educational services will be delivered, regardless of location or time, through seamless, technology rich networks linking schools, colleges, universities, libraries, world-wide information networks, businesses and homes.

Organization

The Utah Education Network is a consortium of public education partners, including the Utah System of Higher Education and its ten universities and colleges and Utah Electronic College; the Utah State Office of Education, local school districts and the Utah Electronic High School; and the state's Library system.

Values

- We value access to high quality education experiences, regardless of location or time, for all Utah citizens.
- We value strong educational leadership.
- We value cooperation, collaboration, and working together as partners.
- We value fiscal responsibility and providing cost effective services.
- We value accountability for the quality of service we provide, and we measure and report that accountability.
- We value innovation, and make decisions based on research.
- We value integrity, and only make promises we can keep.
- We value honest, open, and clear communication among all parties, and encourage expression of differing opinions that lead to mutually acceptable unified actions.
- We value talented educators and staff members and support training needed to maintain and increase their competence.

Need

Utah's public schools, colleges, and universities depend on the Utah Education Network to perform their missions. UEN provides Internet and network connectivity to every public school and college and university through the UEN wide area network; manages

two video conferencing systems; hosts enterprise-level software applications for our public and higher education partners; offers instructional programming through a 24/7 television station; supports a growing range of rich educational resources at UEN's Web site, *www.uen.org*; and supports the technology professional development needs of Utah teachers. By providing these services, UEN has enriched the lives of hundreds of thousands of students who take classes, earn degrees or professional certifications, or receive their GED.

The Internet is the data and communications distribution system used to deliver hundreds of administrative, academic and student support applications affecting every student, educator, and staff member countless times each day. For thousands of Utah students and educators, it is their school, classroom, meeting place, and library. The Internet must be accessible to every educator, student, administrator, and staff member from any location and at all times. UEN must provide a single point of access for educators and students to easily and reliably gain access to those Internet resources that support educational needs identified by our stakeholders to be provided at a statewide level through *www.uen.org*. The demand for increasing network capacity in public and higher education is proven by the fact that UEN network traffic has been doubling every 18 months to 2 years.

Providing technologically delivered classes and programs for thousands of students and hundreds of educators every day is an increasingly important responsibility of Utah's schools, colleges, and universities. In the Utah System of Higher Education, enrollment in online, technology-enhanced, EDNET, satellite-delivered, and KUEN classes has grown dramatically for the past several years. About one in four college students now enrolls in at least one technologically-delivered course each term. Enrollment in the Utah Electronic High School has also increased enormously. There are now more than 50,000 enrollments in the Utah Electronic High School.

Because of the trends described above, educators, public and higher education staff members, and UEN employees must be technologically competent. UEN must play a key role in providing training to its own staff members, and to teachers, faculty members, and technology staff members in educational organizations throughout the state.

UEN is driven by the needs of education. As it responds to more diverse needs, it grows in complexity, and supports more services at more locations. The result is increased pressure on all of us to coordinate, plan, and make decisions collaboratively for the mutual benefit of all regions of the state and all levels of education. Improved coordination of IT policies and backbone infrastructure will guarantee effective sharing of resources, lower prices through joint purchasing, and assure efficient use of technical support and training as UEN staff members work collaboratively with their public and higher education colleagues. Gaps in effective coordination, planning, and governance must be identified and eliminated.

There continue to be significant challenges facing us during the coming year. It is our goal to complete the final phases of our network infrastructure and EDNET conversion projects which were begun several years ago. These projects position us to effectively respond to growing Network bandwidth demands and to meet the need for essential, technology-based educational services. The economy of Utah is sound, but state financial resources must be carefully prioritized to meet numerous compelling needs that compete for available state resources. UEN must achieve the greatest value possible from limited state resources, and continue to aggressively seek grants

and other revenue sources to augment state funds. And we must carefully prioritize Network projects to gain the greatest benefit from the dollars we spend.

Strategic Goals, Objectives and Tasks

I. Wide Area Network

Operate, maintain, and expand a reliable and secure high speed network, connecting every public school, college, university and public library in Utah.

To achieve this goal, UEN will pursue the following objectives:

A. Operate and maintain the UEN network based on best practices and standards.

1. Catalog and maintain a circuit database.
2. Catalog and maintain an IP management database.
3. Develop and support an Internet content filtering system for K-12 and Libraries.
4. Standardize how we develop and rollout future network deployments.
5. Monitor the backbone to identify bandwidth, security, and utilization issues; and to increase capacity as necessary.
6. Monitor endsites to identify bandwidth, security and reachability.
7. Continue to develop tools which provide essential information about the network.
8. Increase Network Operations and Field Operations Staff.
9. Strengthen operational coordination between Technical and Instructional Services departments and staff members.
10. Develop tools and reports to better manage network assets.

B. Increase reliability of the network to 99.999%.

1. Provide redundancy for UEN critical services and network connections.
2. Increase network effectiveness at locations where diverse paths exist, i.e. fast re-route, efficient routing, etc.
3. Continue to explore diverse path options throughout the backbone.
4. Develop a plan to provide a redundant handoff point for district offices.
5. Perform scheduled maintenance according to best practices and standards.
6. Monitor and respond to network outages.

C. Increase network capacity by upgrading remaining higher education campuses and secondary schools to high speed broadband connectivity.

1. Complete phase 3 and phase 4 ethernet projects.
2. Manage high bandwidth sites and provide additional resources allowed by UEN policy.
3. Continue to use E-Rate funds to develop broadband access throughout the state.
4. Explore additional needs for UEN Points of Presence (PoP) sites.
5. Explore options with regional service centers to increase bandwidth to Escalante Valley, Antimony and Koosharem.
6. Work with UTOPIA and other community networks to leverage network resources.
7. Encourage cooperation between local telephone companies and community networks.

D. Work with USOE and school district leaders to develop a strategy to provide high capacity network connections to remaining elementary schools.

1. Continue to work with Districts that have allocated funds for broadband elementary connectivity.
2. Work with the State Office of Education and Districts to evaluate statewide approaches to increase bandwidth capacity to elementary schools.

E. Provide support to district and higher education technology staff to ensure that the enhanced capacity and reliability of the network is fully utilized.

F. Expand Internet capacity to meet growth in network traffic.

- a. Explore additional alternate Internet Point of Presence (PoP) sites.
 1. Explore, develop and implement ways to keep local network traffic local.
 2. Work with CENIC and FRGP to develop NLR TransitRail for national peering opportunities.

G. Protect the network through improved security and security practices.

1. Continue UtahSAINT user group.
 - a. Keep current and publish security contacts list.
 - b. Conduct weekly and ad hoc security calls.
 - c. Plan and conduct two security conferences per year.

- d. Support other State security activities.
- e. Develop single-issue forums for specific needs.
- 2. Provide leadership role for security expertise and assistance as required by districts and higher education institutions.
 - a. Conduct and coordinate outside security assessment.
 - b. Assist with security configuration and design.
 - c. Provide security monitoring and reports.
- 3. Work with Steering Committee to develop security policies.
- 4. Continue to develop security monitoring tools.
- 5. Work with state CIO and institutions to support USHE security audits as required.

H. Support the high capacity/high speed network needs of university researchers.

- 1. Continue participation in national and regional network partnerships (Internet 2, National Lambda Rail, The Quilt, and Western Lights).
- 2. Develop the SURIN Board as directed by the UEN Steering Committee.
- 3. Provision network to accommodate research requirements.
- 4. Work with UDOT and DTS to place fiber between U of U and USU to support research.
- 5. Investigate UEN's role with USTAR project.
- 6. Support development of Utah Fiber Infrastructure Project.

I. Provide technical leadership and staff/stakeholder development.

- 1. Undertake outreach and promotion efforts of Wide Area Network projects.
- 2. Work with the Steering Committee to formalize Regional Technical Forums.
- 3. Define expectations (i.e., frequency of meetings, leadership roles, format, participants, etc.) of regional technical forums.
- 4. Establish annual reporting relationship between regional leaders and UEN Steering Community.
- 5. Provide leadership in technical training: including expanded regional training, greater depth, more frequent and topic-specific training at tech summits, and refined security training.
- 6. Increase opportunities for collaboration of all UEN stakeholders.
- 7. Strengthen the UEN working relationship with TCC.
- 8. Provide leadership in technical product selection.
- 9. Define best practices and help choose/direct vendor selection based on UEN's knowledge and experience.

10. Provide training and leadership in the area of improving LAN reliability and speed on a local level.
11. Expand advocate program to libraries, USDB, Charter Schools.
12. Support USHE IT staff in efforts to increase operational expertise across all institutions and explore possibility of taking advantage of virtual staff or staff leasing.
13. Plan with USHE institutions a coordinated effort to provide ITIL training and planning for appropriate staff, and to extend the ITIL principles to USHE institutions.
14. Support the CIO's and TCC to research and develop a disaster recovery plan for network and planning to provide back up equipment and staffing for emergency situations.

II. Educational Web Resources

Aggregate and deliver a suite of high quality Web-based educational resources to support best practices in teaching and learning.

To achieve this goal, UEN will pursue the following objectives:

A. Host, support, and maintain Web projects and services.

1. Coordinate lesson plan development and publishing with USOE.
2. Expand and maintain core curriculum resource database.
3. Support USOE Web pages in coordination with specialists.
4. Support UTIPS in coordination with USOE.
 - a. Host and maintain a UTIPS Server.
 - b. Participate in leadership and user group meetings.
5. Redesign and update IVC/Distance Education Web page to reflect UENSS and organizational changes.
6. Update Utah ITV Web page.
7. Provide graphic and design support as requested.
8. Conduct Web site and link clean-up.
9. With KUED, redesign UEN-TV Web site for new scheduling software, printable program schedule, digital program streams and viewer services.
10. Update Technical Services pages.
11. Complete my.uen into Java portlets project and then beta test, launch, provide training and promotion.
12. Conclude Universal Locker pilot, act on pilot results to define UEN role with ePortfolio and update plan accordingly.
13. Gather, review, and report on monthly Web statistics.

14. Explore innovative Web applications (blogs, wikis) and how they apply in education; post information about this.
15. Undertake communication, outreach, promotion of Web projects.

B. Develop and implement new and expanded Web resources.

1. Develop higher education monthly professional developments events registration and information page.
2. Facilitate stakeholder mailing list groups (listserv) with updated software and user training.
3. Investigate new ways to post UEN plan and updates online.
4. Update UEN.org parent pages with Internet Safety content.

C. Promote new and existing UEN Web services through technology, outreach, special events and media relations.

1. Produce and distribute NetNews Newsletters for public education and higher education; coordinate list management and subscriptions with Web team.
2. Promote UEN services and resources with online UEN NetNews features on UEN.org.
3. Feature uen.org at statewide conferences and exhibits.
4. Promote revised my.uen personalization features.
5. Explore partner contribution channels through photos, blogs.
6. Evaluate newsletter metrics and make decisions based on data.
7. Investigate RSS Syndication and other technologies for delivery of UEN NetNews and other information services.

D. Support administrative activities for the uen.org site.

1. Update the Acceptable Use Policy.
2. Formalize the Web “sunset policy” for retiring Web applications.
3. Gather, review, and post monthly Web statistics.
4. Conduct UEN.org usability focus group testing; develop strategy based on this evaluation.

III. Enterprise Solutions

License, host and maintain statewide enterprise solutions supporting public education, higher education, and libraries.

To achieve this goal, UEN will pursue the following objectives:

A. Host, support and maintain existing enterprise solutions and train managing personnel.

1. Service: Vista Course Management System
 - a. Act as support escalation agent between Vista institutions and Vista support and Respondus support.
 - b. Conduct regular Vista administrator coordination meetings.
 - c. Provide scripted enrollment service for participating institutions.
 - d. Provide institution administrator training.
 - e. Coordinate shared faculty and student training materials development.
2. Service: BlackBoard Course Management System
 - a. Act as support escalation agent between UEHS and Blackboard support.
3. Service: Pioneer Library
 - a. Maintain and update Pioneer Library access IP address listings.
4. Service: Digital Media Service
 - a. Upgrade TeleScope software.
 - b. Add UIMC licensed video titles.
 - c. Add licensed PBS video titles.
 - d. Add KUED productions.
 - e. Add Telecourses where rights permit.
 - f. Migrate UCME legacy database and media into Digital Media Service.
 - g. Identify, license and add media items.
5. Service: Infrastructure Foundation
 - a. Update SAN Storage Domain Servers to latest software version.
 - b. Upgrade and patch server OS.
 - c. Extend enterprise/backup recovery system to all servers and DMZs.
 - d. Cycle out server hardware older than 5-6 years.

B. Implement new enterprise solutions, services, and expand existing functionality to meet stakeholder needs

1. Service: Vista Course Management System
 - a. Upgrade production environment software to Vista 4.
 - b. Migrate Utah State University to the UEN hosted Vista instance.
 - c. Migrate Utah Valley State College to the UEN hosted Vista instance.
 - d. Develop a central 24/7 Vista helpdesk/ searchable knowledge base capability for USHE students and faculty.

- e. Develop Service Agreements and service documentation with hosted institutions.
 - f. Develop automated weekly section backup process.
 - g. Conduct CMS needs analysis with K-12 stakeholders.
2. Service: BlackBoard Course Management System
 - a. Implement Blackboard Enterprise Software supporting the Utah Electronic High School.
 3. Service: Pioneer Library
 - a. Investigate and prototype a solution to search across multiple Pioneer Library databases.
 4. Service: Digital Media Service
 - a. Connect DMS to KUEN datacasting systems sending media to youth-in-custody facilities.
 - b. Enable DMS based Video-on-demand capability for KUED
 - c. Create access for USHE telecourse students.
 - d. Pilot test and develop workflows for Codian to DMS digital course repository; make recommendations for ongoing service.
 - e. Investigate using DMS to support UVSC Shadow Pages functionality for CMS systems.
 - f. Conduct needs analysis examining user submissions to eMedia.
 - g. Support U.S. Department of Education captioning grant, if funded.
 5. Service: Infrastructure Foundation
 - a. Mirror all SAN storage for completely redundant systems.
 - b. Upgrade remaining data center racks to support managed power, four post server hardware, system lights-out management, and cable management.
 - c. Extend enterprise backup/recovery systems, tape drives and fabric bandwidth.
 - d. Explore possible co-location of storage area network mirrors.
 - e. Explore and implement VPN, and/or encrypted tunnel methods in support of Full SIS integration and SIS Batch enrollment to CMS.

C. Increase awareness and use of enterprise services. Provide usage reports.

1. Service: Vista Course Management System
 - a. Build Vista resource and information page on UEN.org.
 - b. Collaborate with participating UCAT Vista institutions to develop and deliver Vista faculty training workshops.

- c. Co-sponsor Teaching with Technology Idea Exchange conference with UVSC.
- d. Develop system usage reports with input from hosted institutions.
- 2. Service: Pioneer Library
 - a. Continue Pioneer Library advocate program.
 - b. Work with Pioneer Library committee and PR team to develop and implement promotion tactics; create collateral material for PR.
 - c. Participate in conferences to promote Pioneer Library (UELMA, UCET, ULA).
 - d. Publish Pioneer Library product usage reports.
- 3. Service: Digital Media Service
 - a. Promote eMedia with K-12 stakeholders through conferences, print collateral, outreach events, and other tactics determined to be effective.
 - b. Create DMS media usage reports.

D. With USHE CIO's and the TCC, investigate other services or IT functions that might be centrally hosted by UEN

- 1. Explore USHE-requested Web-based collaboration and communication tools (e.g., Macromedia Breeze and Horizon Wimba).
- 2. Support the ongoing evaluation of open source alternatives in course management systems.
- 3. Explore single sign-on technologies and standards and what roles UEN could serve in identity management.
- 4. Assist USHE CIO's and TCC to evaluate centrally managed disaster recovery services and the role UEN should perform in providing that service.
- 5. Evaluate with USHE CIO, the feasibility of setting aside server space at UEN for a technology research lab environment.

IV. Distance Education

Deliver Distance Education classes and programs offered by public and higher education that use real time and on demand, reliable, high quality video conferencing technologies.

To achieve this goal, UEN will pursue the following objectives:

A. Continue EDNET IVC migration plan

- 1. Relocate and upgrade TOC to better support IVC.
- 2. Strengthen cross-departmental capabilities of TOC, NOC, Scheduling, and Distance Education Specialists in supporting IVC.

3. Working with USOE, conduct IVC Adult Basic Education needs assessment and recommendations.
4. Coordinate with USHE institutions and appropriate state agencies to conduct needs assessment for state corrections education services.
5. Conduct communication, outreach, promotion of Distance Education.
6. Support development of community access sites beyond high schools which are compatible with UEN connectivity standards.

B. Convert UENSS to IVC technology

1. Partner closely with USU in planning and implementing conversion.
 - a. Provide joint UEN/USU project management via administrative group.
 - b. Staff specialized teams and participate in project work groups.
2. Develop plans to meet funding and staffing needs.
 - a. Prepare preliminary budgets in anticipation of 2007-2008 legislative requests.
 - b. Evaluate current UENSS staffing at USU and UEN in order to more effectively utilize staffing patterns and existing funding resources.

C. Develop operational practices, procedures, and policy to manage and efficiently utilize IVC resources on the network

1. Plan and pilot manual switching capabilities as the iView product and UEN experience matures to enable independent scheduling ability.
2. Revitalize the Instructional and Technical IP Subteams of the UEN Steering Committee.
 - a. Further develop IVC Web site.
 - b. Create other tools and resources to disseminate distance learning info.
3. Create a combined distance learning catalog.
 - a. Combine program proposal process with developments in programming technology to capture needed information.
 - b. Integrate scheduling and billing software with interactive database.
4. Provide outreach to stakeholder forums.
 - a. Identify more stakeholder forums to promote new distance learning technologies.
 - b. Promote awareness, support, and delivery of a consistent message regarding IVC services in both public and higher education through various stakeholder forums.
 - c. Develop information sheets for IVC.
 - d. Include IVC stories in public and higher education eNewsletters.

5. Develop comprehensive training program for IVC, focus on system-wide support for facilitators.
 - a. Provide single point of contact or personal liaison (personal face of UEN) for regional training needs.
 - b. Continue to develop easy access, online communication tools for training materials.
 - c. Create list serve for groups for updated backup training information.
 - d. Provide essential IVC updates for newsletters.
 - e. Conduct regional IVC meetings to address specific site issues.
6. Continue to work with public education and higher education to assure equitable distance learning services including concurrent enrollment for rural students.
7. Begin to research costs of closed captioning services for IVC programming.

V. Broadcast Services

Educate, engage, and enrich the lives of Utah citizens through broadcast programs and services with UEN-TV.

To achieve this goal, UEN will pursue the following objectives:

A. Continue programming and outreach for education stakeholder groups.

1. Program blocks for targeted areas:
 - a. ITV for K-12 with UIMC (also on KUED).
 - b. Post secondary with USHE.
 - c. Adult Basic Education with USOE.
 - d. Teacher professional development with USOE.
 - e. Seniors programming and outreach with Commission on Aging.
 - f. Career and Technical Education with DWS, CTE and UCAT.
 - g. National programming as available with NETA, APT.
2. Program interstitials and PSA's.
3. Complete NCO Adult Basic Education and Library outreach grant requirements.
4. Continue outreach to research community and general viewers for UEN SciFi Friday.
5. Support outreach and communications needs of UEN-TV through print, design, conference materials, and other tactics determined to be effective.

B. Implement new projects to support educational programming and outreach.

1. Internet Safety Program for Parents and Teens.
2. Back to School resources for K-12 Teachers with KUED.
3. Program specific promotion; *Signing Time, Everyday Edisons*.
4. Develop on-air campaign to promote post-secondary education opportunities, programs and USHE institutions.
5. Develop and program on-air education calendar of events.
6. Implement new scheduling software and training.

C. Support broadcast engineering infrastructure.

1. Renew station FCC license.
2. Investigate server archive replacement.
3. Expand digital translator capabilities.
 - a. Conduct RUS Grant activities if funded.
 - b. Acquire companion digital translator licenses.
4. Plan for replacement of UENSS Cable feeds.
5. Implement Next Generation Interconnection System (NGIS).
6. Support satellite link and engineering for 9.2 switched feed.
7. Perform analog maintenance as needed.

D. Manage station administrative projects; document and report on results.

1. Implement Digital Services Fund activities with Youth in Custody.
 - a. Install and support Triveni datacasting hardware/software.
 - b. Expand SAN to support eMedia and UCME content.
 - c. Support engineering and feeds to YIC end sites.
2. Redesign viewer call log.
3. Coordinate with national programming consortia and affinity groups.
 - a. BETA Station Group.
 - b. University Licensee Association.
 - c. Rural Telecommunications Association/APTVS.
4. Support PNL Water Wise grant, if funded.
5. Continue cable relations for carriage of UEN-TV digital channels.
6. Feed monthly Comcast video on demand service and metadata.
7. Produce and disseminate quarterly broadcast station activities report.

8. Continue to research and support convergence models for broadcast, online, and digital service.
9. Revisit TV program schedule with telecourse providers, determine effective ways to promote higher education via broadcast.

VI. Professional Development

Provide professional development opportunities to improve the quality of K-20 instruction and assure effective implementation of technology in education.

To achieve this goal, UEN will pursue the following objectives:

A. Continue development of ongoing courses and training materials.

1. Update Web Academy and WebQuests courses.
2. Continue delivering variety of classes including in-person, broadcast and online opportunities, targeted for K-12 educators.
3. Continue to support a variety of educational organizations and provide information about UEN resources by presenting at conferences throughout the year.
4. Continue delivering ITC workshops.
5. Continue meeting Intel Leadership and Teaching Thinking professional development grant requirements.
6. Continue administering the ETEP (endorsement) project.

B. Complete new class development and delivery projects.

1. Provide Vista training for faculty in UCAT institutions.
2. Coordinate a monthly professional development meeting for Higher Education, delivered via UEN's distance delivery systems which incorporates expert presenters from UEN, Utah colleges and universities and national specialists.
3. Provide training on new UEN Web products and services.
4. Develop curriculum regarding Internet safety.
5. Develop new courses on Apple iLife, digital storytelling, Google tools, and visual learning/technology survey course.
6. Obtain and implement a new "lab" of Apple Mac laptop computers.
7. Conduct video objects training for Youth in Custody teachers.
8. Provide technology staff development for Adult Basic Education and Corrections staff as requested by stakeholders.

C. Provide documentation and outreach for UEN professional development services.

1. Provide online materials for all full-day and longer classes.

2. Support Professional Development conference participation and post conference session handouts as appropriate.
3. Create video tutorials for UEN products and update them as needed.
4. Make video tutorials for UEN products available through eMedia.
5. Continue to highlight teachers, classes and resources on the Web site.
6. Support UEN Professional Development through electronic, special events, and print promotion.
7. Produce and distribute monthly eNewsletter, postcards, flyers, handouts, and home page features that promote Professional Development.
8. Provide promotional items to Professional Development department.

D. Administer the projects and services provided by UEN Professional Development department, and report on accountability measures to appropriate stakeholders.

1. Prepare annual summary report to steering committee including statistics regarding number of sessions, participation, districts served, etc.
2. Report the number of sessions and number of participants per month.
3. Working with USOE and districts, conduct a K-12 teacher technology professional development needs assessment. Share results.
4. Maintain computer classroom.
5. Prepare for and maintain Internet connectivity for new Apple Mac lab.
6. Investigate participant liability issues and recommended policy.

VII. Governance and Accountability

Coordinate educational technology governance across the state, and be accountable to our stakeholders through communication, measurement, and reporting on UEN services.

To achieve this goal, UEN will pursue the following objectives:

A. Coordinate UEN Steering Committee, subcommittee, advisory committee, and constituent meeting groups.

1. Develop meeting structure and schedule that meets needs of Steering Committee and Subcommittee members.
2. Propose to Steering Committee that representative from research community be added.
3. Participate in USHE and USOE focus groups and dialogs.

B. Request new funding for UEN priorities and maximize state funds through external grants, E-Rate, and other revenue sources.

1. Develop briefing papers and documents in support of funding requests.
2. Seek grant and foundation funds; coordinate these projects with stakeholders as appropriate.
3. Coordinate E-Rate process with SLD, K-12 Districts, Libraries, and telecommunications providers.
4. Support 21st Century ETI as determined by the Steering Committee.

C. Track UEN performance, projects, and services and communicate with stakeholders regarding our work.

1. Develop Service Report process, tied to Crystal Reports, and other tools as appropriate.
2. Develop Service Level Agreements with stakeholder groups.
3. Create NetNews for higher education; gather input and story ideas from institutions.
4. Communicate about UEN organizationally; NetNews, legislative publications, Steering Committee reports, etc.
5. Tailor communications to specific user groups.
6. Revisit Annual Strategic plan with Steering Committee and Subcommittees each quarter; provide quarterly updates and opportunity for discussion.
7. Develop UEN Service Catalog, communicate this information through SLA's.
8. Report monthly statistics on use of UEN Web Services, Enterprise Applications, Professional Development and WAN metrics.

D. Increase internal communication, project management and coordination of services.

1. Continue development of Information Technology Infrastructure Library (ITIL) process and training.
2. Hold bi-monthly managers meetings and weekly executive meetings for cross-department communication.
3. Working with Steering Committee and Subcommittees, develop annual strategic plan and budget that crosses all UEN departments.
4. Build skills and knowledge of UEN staff through professional development, industry publications, conferences, workshops and membership in professional organizations.

TAB 13 ATTACHMENT B

HIGHER EDUCATION ADVISORY COMMITTEE PRIORITY LIST FOR UEN FY 2007 STRATEGIC PLAN

Submitted to the UEN Steering Committee June 16, 2006; revised in committee July 12, 2006

Comments	Draft Plan*	Goal Submitted by Advisory Committee
I. Wide Area Network Projects		
NOTE: Although redundancy is eluded to through the first goal, redundancy with specific sites -- Weber, USU, CEU -- were brought up during the spring meetings. Should not these specific sites be references under 1B?	Throughout Goal 1	Improve network capacity with respect to connectivity to rural sites, redundancy in networks, and stability of networks; replace aging hardware as possible.
NOTE: On July 19, UEN and OCHE will host a meeting to demonstrate and discuss Horizon Wimba, Breeze, and perhaps a third product that might serve as a communication environment.	3D1 p. 18	Deploy an end-user-controlled Web-based communication environment (ex. low level Sympa Server or more complex Wimba or Breeze, etc.) to support discussions among USHE campus faculty and staff. Acquire Web conferencing software. Establish IT, Faculty, Research Faculty, Open Source Community, Student Services forums. Work with advisory committee to promote forums to USHE campuses.
	1G5-8 p. 12	Support USHE security audit visits. Work with system CIOs to conduct campus audits.
	7C8 p. 23	Publish network metrics to analyze links. Create a network metrics page; include service thresholds; make available to HE IT folks.
	Missing	Work with USHE IT staff to take advantage of virtual staff or staff leasing. Provide back up equipment and staffing for emergency situations.
	4B1-6 p. 18	Work with USU to develop a plan for satellite services to IVC conversion. Work with other USHE institutions to facilitate EDNET to IVC conversion.

<p>1F1 states, "explore additional alternate Internet PoP sites." To mirror higher education's (HE) goal, this goal needs clarification: "explore additional alternate Internet PoP sites including sites located in libraries and other community centers." The significance of the HE request is to set up alternatives sites to public education schools. Also to be addressed either here or in another bullet, the idea that there be, available to HE customers, a central listing of technology sites across the state including equipment available at each site. Equipment varies greatly across sites as well as across our campuses. Faculty, whose use of peripheral equipment is growing, would appreciate information on available equipment.</p>	<p>1F1 p. 12</p>	<p>Plan for and develop community access sites beyond high schools.</p>
	<p>3A1 p. 15 and 3B1 p. 16</p>	<p>Continue to support WebCT VISTA; migrate USU and UVSC to VISTA. Also, support USHE institutions in investigating alternative solutions, including open source solutions, for learning management systems.</p>
	<p>Missing</p>	<p>Implement manual IVC switching</p>
	<p>Missing</p>	<p>Establish closed captioning services for HE programming (out sourced or in house).</p>
<p>The UEN goal speaks only of participating in national NLR partnerships - vague. The HE goal is to "Connect all institutions." Our request needs clarification. We're not sure if the other USHE institutions are eligible for NLR (the U of U has negotiated NLR for its campus). Perhaps UEN should take this customer request as "share current information on emerging www alternatives. Facilitate USHE institution participation in national partnerships as possible. Support campus use of alternatives such as I2 and NLR." Comments from the committee?</p>	<p>1H1 p. 13</p>	<p>Connect all USHE institutions to National Lambda Rail.</p>
<p>1A. Research/Leadership in Emerging Technologies Projects</p>		
<p>Under the header, "technical leadership" this bullet states "communicate, outreach, promotion of WAN projects" Cool. HE's great interest is being informed in trends and in emerging technologies. Rather than "WAN projects" this bullet might be expanded to state "current WAN projects and in technology trends and emerging technologies that may impact technology delivered instruction and services."</p>	<p>1I1 p. 13</p>	<p>Continue to look ahead for new technologies and maintain current knowledge in existing technologies. Communicate trends to USHE IT and distance learning staff.</p>

NOTE: This process is being tested with the July 19 meeting on conferencing solutions.	1114 p. 13	Develop a process for vendor evaluations for emerging technologies. Develop a list of folks to communicate findings to all USHE institutions. Start with investigations of Web conferencing solutions including the Breeze and Sympa Server, VOIP, and Messaging. Research deploying NetOps product - a network applications response tool - among our institutions.
This item, "Provide leadership in technical product selection" does not seem to cover HE's interest in learning from the network the topics one should consider in deciding whether to build or purchase software. USHE institutions seek network insight into this decision tree. Clarification: "Provide leadership in technical production selection including considerations for building versus buying software products."	1113 p. 13	Develop a formal analyses decision tree for determining when it is appropriate to develop software tools versus purchase them.
	Missing	Set aside server space for a technology research lab environment. [6a] Support the ongoing evaluation of open source alternatives to WebCT.
II. Web Resources/Mediated Services		
NOTE: What is meant by "24/7" needs to be explored. My memory is the request was for Web-centered general support as in end-user technical Services and, perhaps, call center support after hours. Multiple groups - VISTA admin group, DE Directors, DE Service Center Directors, UALC - need to be included in focused discussion. Each group will have a different perspective and expectation. We should be able to synthesize common needs.	3B1.4 p. 16	Research, then establish a 24/7 service desk for HE DE students. Provide trouble ticket software system, 800#, Web site of FAQs, work with UEC for academic issues.
	Missing	Investigate at what other services or IT functions might be centrally hosted.
III. Enterprise Solutions		
IV. Distance Learning		
	1A14 p. 11	Work with Snow College, USU, and other interested USHE institutions to exploring technology delivered instruction solutions for incarcerated populations.
V. Broadcast Services		
A3 p. 19 is the only HE-specific reference under broadcasting services. Scott Herd articulated in detail the need to revisit the late night programming schedule, a new idea of scheduling smaller segments to support F2F or other DE classes, and using programming to advance various higher education initiatives. Who represents higher education interests in KUEN programming? This topic requires focused discussion and its own bullet.	Missing	Establish a committee to revisit KUEN evening programming and USHE telecourses. Reorganize programming as appropriate to promote higher education.

VI. Professional Development		
NOTE: The committee might help get this project started by sharing what modules their institution has developed or is developing. Wayne reminded us the top topics were student survival skills or an introduction to distance learning.	Missing	Working with USHE staff identified by the advisory group, develop a series of Web-based tutorials. Topics: optimizing browsers for LMSs, student orientation to LMSs (being built by Dixie State), orientation to online classes (UEC's DEAR survey), to library electronic resources.
This bullet references an "information page" to be connected to the promotion and registration for monthly professional development events. Higher education customers specifically asked for a resource page to include pod casts, calendared events on appropriate topics, useful links, etc. Also both UEN and USHE folks may contribute to this page. Either the referenced bullet could be expanded to state a "distance learning resource page" instead of "information page" or the resource page could be listed under its own bullet.	2B1 p. 14	Establish a DE resources page. USHE folks may contribute resources (title, link, brief description).
Revise "Regional Training" to indicate "provide training opportunities across the state, both F2F and using UEN delivery systems to deliver instruction."	6B2 p. 21, 115-8 p. 13	Leverage USHE campus resources to offer more IT Training. [] Establish a workshop series with topics of interest to higher education. Topics: intellectual property and ownership, accessibility, information navigation (see WSU and Dixie), best practices in distance learning instruction.
VII. Governance and Accountability		
USHE institutions need to know enough about the ITIL protocols and jargon to be able to engage in meaningful discussion on network issues. Simple example, USHE institutions want to adopt ITIL jargon. Confusion over jargon was cited several times as having created past problems between UEN and a USHE institution. Eric Hawley articulated this item best. USU folks have had some ITIL training. Per Eric, sharing ITIL theory AND practice is in itself a system-network IT community building activity. Beyond networking and common jargon, inviting institutions to adopt the same monitoring tools such as help desk and trouble ticket software ensures stronger, more effective relations between UEN and USHE institutions. Eric Hawley will send a more detailed explanation of this item for Jim Stewart to respond to.	Missing	Involve USHE institutions in ITIL training and planning. Work with USHE IT staff to extend the ITIL principles to USHE institutions - HE and network will be on same page.
	Missing	Research and develop a disaster recovery plan for network and provide guidance or input for USHE institutions as appropriate.

<p>This bullet references resurrecting a committee that was working on IVC acceptable use policies as well as facilitator issues. The bullet only says revitalize the committee. Clarification: "Revitalize the [committee] which will revise IVC acceptable use policies and publish facilitator best practices guidelines, among its responsibilities."</p>	<p>4C1 p. 18</p>	<p>Develop a new IVC use policy for entities outside public and higher education. Reconvene the IVC group. Review UEN policies; publish IVC recommendations on uen.org including best practices in IVC use (strengths and weaknesses of this delivery method).</p>
<p>4C6 p. 19 references integrating scheduling and billing software into an interactive database. Our Spring Dialogues included the suggestion we conduct foundational discussions involving UEN and USHE staff on developing a user-centered scheduling db to be implemented once IVC conversion is complete (users schedule multi-site events; network monitors metrics; online event schedule is searchable by institution or hub versus the 75-page spreadsheet currently on place). Although the user-centered db may be a future goal, the foundational discussions should/could take place in the next year.</p>	<p>Missing</p>	<p>Convene a focus group to explore the scheduling software and the mechanics of the scheduling process with the goal of creating an open system with better user "look up" features.</p>
<p>VIIA. Stakeholder Relations/Communication</p>		
<p>Draft plan addresses adding a research representative. Should also address selecting a member from the southern part of state</p>	<p>7A2 p. 22</p>	<p>Add USHE research faculty and southern representative to UEN Steering Committee.</p>
<p>NOTE: Executive committee is meeting July 2006 to discuss meeting reorganization ideas.</p>	<p>7A1 p. 22</p>	<p>Reorganize Steering Committee meetings to promote holistic discussion of projects and policies.</p>
	<p>2C1 p. 15</p>	<p>Publish electronic newsletter to promote USHE and UEN technology activities.</p>
<p>Same comment as line 38.</p>	<p>4C1 p. 18</p>	<p>Communicate trends in facilitator needs and services to advisory committee.</p>
<p>UEN Vision</p>		
<p>The HE Advisory Committee requests UEN consider incorporating the following four global practices into its strategic vision statements. These four "aspirations" were strongly and consistently articulated by USHE representatives as critical to a positive and productive working relationship between higher education and its network.</p>		<p>Two-way Communication - Improve and increase TS-IS and network-stakeholder communication; promote UEN services broadly; include stakeholders in strategic planning, project identification, and implementation; promote communication among USHE institutions.</p>
		<p>Joint Strategic Planning -- Actively involve higher education in the process of identifying new projects for both Instructional Services and Technical Services. Revisit this collaborative process of evaluation, assessment, and planning periodically throughout the year.</p>

		Common Network Operations - - Demonstrate best practices in Information Technology Services Management (ITSM), broadly share insight into ITSM, and assist campuses in adopting similar practices appropriate for a single institution.
		Information Sharing/Leadership in Emerging Technologies -- Be THE source for technology and technology related issues. Encourage information sharing among USHE institutions by distributing information on IT topics and by encouraging campus stakeholders to contribute their expertise to network facilitated discussion.

**Location goal is found in UEN draft Strategic Plan.*

TAB 13 ATTACHMENT C

UEN FY 2007 PLANNING CORRELATION DOCUMENT

The Higher Education Advisory Group and the Public Education Advisory Group spent a significant amount of time reviewing the draft FY 2007 Strategic plan and correlating it to their initial list of recommendations. Both groups identified items that they felt were missing from the plan. The following addresses each of those items.

Higher Education

Recommendations	Plan Objectives or Explanation
Work with USHE IT staff to take advantage of virtual staff or staff leasing.	<u>New Wide Area Network task:</u> Support USHE IT staff in efforts to increase operational expertise across all institutions and explore possibility of taking advantage of virtual staff or staff leasing.
Provide back up equipment and staffing for emergency situations.	<u>New Wide Area Network task:</u> Support the CIO's and TCC to research and develop a disaster recovery plan for network and planning to provide back up equipment and staffing for emergency situations.
Implement manual IVC switching.	<u>New Distance Education task:</u> Plan and pilot manual switching capabilities as the iView product and UEN experience matures to enable independent scheduling ability experience matures in order to promote independent scheduling ability.
Establish closed captioning services for HE programming (out sourced or in house).	<u>New Distance Education task:</u> Begin to research costs of closed captioning services for IVC programming.
Set aside server space for a technology research lab environment.	Evaluate with USHE CIO, the feasibility of setting aside server space for a technology research lab environment.
Support the ongoing evaluation of open source alternatives to WebCT.	<u>New Enterprise Solutions task:</u> Support the ongoing evaluation of open source alternatives in course management systems.
Investigate other services or IT functions might be centrally hosted.	<u>New Enterprise Solutions task:</u> With USHE CIO's and the TCC, investigate other services or IT functions that might be centrally hosted by UEN.
Establish a committee to revisit KUEN evening programming and USHE telecourses. Reorganize programming as appropriate to promote higher education.	<u>New Broadcast Services task:</u> Revisit TV program schedule with telecourse providers, determine effective ways to promote higher education via broadcast.
Working with USHE staff identified by the advisory group, develop a series of Web-based tutorials. Topics: optimizing browsers for LMSs, student orientation to LMSs (being built by Dixie State), orientation to online classes (UEC's DEAR survey), to library electronic resources.	<u>Task in Enterprise Solutions goal:</u> Coordinate shared faculty and student training materials development. Develop a central 24/7 WebCT helpdesk/ searchable knowledge base capability for USHE students and faculty.

Involve USHE institutions in ITIL training and planning. Work with USHE IT staff to extend the ITIL principles to USHE institutions so HE and network will be on same page.	<u>New Wide Area Network task:</u> Plan with USHE institutions a coordinated effort to provide ITIL training and planning for appropriate staff, and to extend the ITIL principles to USHE institutions.
Research and develop a disaster recovery plan for network and provide guidance or input for USHE institutions as appropriate.	<u>New Wide Area Network task:</u> Assist USHE CIO's and TCC to evaluate centrally managed disaster recovery services and the role UEN should perform in providing that service.
Convene a focus group to explore the scheduling software and the mechanics of the scheduling process with the goal of creating an open system with better user "look up" features.	<u>New Distance Education task:</u> Plan and pilot manual switching capabilities as the iView product and UEN experience matures to enable independent scheduling ability experience matures in order to promote independent scheduling ability.
The HE Advisory Committee requests UEN consider incorporating four global practices into its strategic vision statements.	These suggestions are outlined in the Steering Committee cover memo, and a decision by the Steering Committee is requested.

Public Education

Recommendations	Plan Objectives or Explanation
Set aside server space for a technology research lab environment.	<u>New Enterprise Solutions task:</u> Evaluate with USHE CIO and TCC, the feasibility of setting aside server space at UEN for a technology research lab environment.
Continue to work with public education and higher education to assure equitable distance learning services including concurrent enrollment for rural students.	<u>New Distance Education task:</u> Continue to work with public education and higher education to assure equitable distance learning services including concurrent enrollment for rural students.
Support the ongoing evaluation of open source alternatives to WebCT.	<u>New Enterprise Solutions task:</u> Support the ongoing evaluation of open source alternatives in course management systems.
Research and develop a disaster recovery plan for network and provide guidance or input for Public Education institutions as appropriate.	<u>New Wide Area Network task:</u> Assist USHE CIO's and TCC to evaluate centrally managed disaster recovery services and the role UEN should perform in providing that service.

POLICY 2.1: NETWORK CONNECTIVITY CHARGES - ACTION

Issue

This policy proposes to formalize UEN policies related to assessing charges for network connectivity and services provided by UEN technical staff. It was presented to the Steering Committee in its June meeting. The changes recommended by the Committee at that time have been incorporated. In addition, the policy proposal has received further review and modification by UEN staff and is now presented for approval by the Steering Committee.

Background

The Legislature provides an annual appropriation to operate UEN. These funds are used to coordinate and support the telecommunications needs of public and higher education through the procurement, installation, and maintenance of telecommunication services and equipment. This results in both cost savings and efficiency. UEN is also responsible for the implementation of high-quality, cost-effective Internet access for public schools and public higher education institutions.

Considering the projected growth in student enrollment and limited state resources, UEN's greatest challenge is to ensure that it has sufficient financial resources to provide technical support and sufficient bandwidth to accommodate the demand for essential services to students in Utah's public education systems.

Policy Issues

Strategic recommendations are suggested regarding the assessment of fees for connection to the UEN network and for other technical services. The following policy issues are submitted to the Steering Committee for consideration:

Elementary Schools

School districts pay for connectivity and all circuit charges for elementary schools to a connecting point designated by UEN. UEN pays for all traffic charges for elementary schools on the UEN network backbone. Elementary charter schools also pay for connectivity and all circuit charges for connecting to the UEN network backbone.

Charter Secondary Schools

UEN provides secondary charter schools with the same level of service and support it provides to public education district offices and secondary schools. This means that UEN pays for circuit charges, connectivity and equipment costs used for the delivery of distance education courses to secondary school sites and for internet access.

The public school districts pay the cost of providing administrative support and technical assistance after the initial hookup to the UEN backbone is completed. In some instances, charter schools lack the technical support staff to handle this level of service for their institution once UEN has completed network connectivity.

For UEN to continue to provide administrative or technical service at no cost to charter schools creates a serious drain on resources. Therefore, it is proposed that UEN charge secondary charter schools for administrative and technical support which public education school districts provide internally.

It is recommended that charter schools be required to pay for administrative services and technical support (IP Addressing, Domain Name Service (DNS), or filtering appliance) once the initial hookup to the backbone by UEN is completed.

It is also recommended that charter schools begin with one T1 for Internet connectivity. And those schools with UEN video services receive a second T1 for dedicated video bandwidth connections. Expanded network capacity beyond this for charter schools would depend on future allocations from the Legislature for that purpose.

Continuing Education Centers and County Extension Facilities

UEN pays for IP Video connectivity and all circuit charges for continuing education centers and county extension facilities. However, for data transmission from these centers, it is recommended that UEN charge institutions for connectivity and all circuit charges for data traffic to a hub connecting point designated by UEN. UEN would then pay the cost of data transmission over the network backbone.

University Research

When a research facility or a university researcher is connected to the UEN network through the wide area network of an educational institution, UEN pays the cost of data transmission over the network backbone.

It is noted that the USHE institutions of higher education receive a partial reimbursement for overhead costs incurred on research contracts funded from federal sources. It is suggested that UEN is entitled to a portion of the flow through federal money, because UEN has actually spent appropriated funds supporting the network infrastructure and for Internet 2 connections that qualify for federal reimbursement.

It is recommended that UEN staff be directed to pursue negotiations with the research universities for reimbursement of network costs incurred for Internet 2 and other network cost that are known to support federal research projects.

Non-state funded non-profit educational institutions

It is recommended that the UEN Steering Committee consider adopting the following principles regarding the assessment of fees for non-state funded educational institutions:

Non-state funded, non-profit educational institutions that attach to the UEN backbone are required to pay circuit charges to connect to the nearest UEN hub. These institutions are limited to 3 Mbps circuits. UEN will not charge private non-profit schools, with a maximum of 3 Mbps, for network backbone costs.

On a case by case basis, increased bandwidth may be approved by the UEN Executive Director, however additional circuit , connectivity charges and the proportionate cost of the use of the network backbone will be charged back to the school.

All non-state funded, non-profit educational entities must pay for requested technical support or other appropriate services provided by UEN support staff.

Libraries

The Schools and Libraries Program of the Universal Service Fund makes discounts available to eligible libraries for telecommunication services, Internet access, and internal connections. The program is intended to ensure that libraries have access to affordable telecommunications and information services. State and local libraries must provide additional resources including end-user equipment (e.g., computers, telephones, etc.), software, professional development, and the other elements that are necessary to utilize the connectivity funded by the Schools and Libraries Program.

It is recommended that UEN charge libraries for connectivity and all circuit charges to a connecting hub point designated by UEN. UEN would then pay the cost of transmission over the network backbone.

State and local government agencies

UEN provides Internet connectivity for state government, and is reimbursed for the proportionate share of Internet costs used by state agencies and the Legislature. In addition, the Utah Technology Commission in early December 2005 reported that they would like more people to participate in government activities without having to travel to Salt Lake City. The Commission discussed the prospect of using the UEN distance learning network to allow legislators to participate in committee meetings or to observe the proceedings of a Legislative Task Force without having to leave their local community. They would also encourage government agencies to take advantage of UEN's IP Videoconferencing network to hold interagency conferences because remote participation in these meetings provides cost efficiencies from reduced per diem and travel costs.

It is recommended that UEN charge government agencies for connectivity to the network backbone, all circuit charges, a proportionate share of the cost of the UEN network infrastructure and for requested technical support or other services provided by UEN support staff.

Commercial Use of the Network

It is recommended that the Steering Committee adopt the following policy regarding commercial entities:

Any intent to use the network for commercial purposes or for financial gain is prohibited. Therefore, proprietary for profit educational institutions and commercial entities may not be connected to the network.

Recommendation

It is recommended that the Steering Committee review and adopt Policy 2.1 Network Connectivity Charges, which formalizes the assessment of network connectivity charges, fees for hookup services and technical support fees and authorize UEN staff to initiate the procedures reflected in the proposed policy.

If this policy is adopted by the Steering Committee, it is also recommended that entities currently attached to the UEN backbone that would be subject to new charges or other limitations addressed in the policy will be notified and assessed appropriate charges beginning July 1, 2007.

TAB 14 ATTACHMENT A

UTAH EDUCATION NETWORK 2.1 NETWORK CONNECTIVITY CHARGES

Utah Education Network

2.1 Network Connectivity Charges

2.1.1 Purpose

The purpose of Utah Education Network (UEN) is to promote higher and public education through the exchange of education programs, courses and information via networking facilities at minimal or no additional cost to these entities. UEN also supports the state and local library systems.

To successfully operate the network, funding for connectivity, circuit charges, network upgrades or expansion are financed from state and federal appropriations, e-rate reimbursements and federal grants.

The intent of this policy statement is to provide guidance in determining when fees should be assessed to those accessing the UEN network infrastructure, installing equipment, connecting to the network backbone, facilitating distance learning instruction or for using technical support services.

2.1.2. References

Utah Code 53B-17-102 & 104
UEN Steering Committee Bylaws, Article III, Section 2

2.1.3. Definitions

Connectivity – This means the connection between the UEN Network Backbone and the point of demarcation on the customer’s premises. This includes the circuit charges, equipment, software and labor cost to create and maintain the connection between the UEN network backbone and an established point of demarcation.

DS3 Connection - A network connection supporting data rates of up to 45 Mbits of bandwidth.

Ethernet Connection - A dedicated network connection supporting data rates of 10 Mbps to 10 Gbps.

Gigabit - In data communications, a gigabit is one billion bits, or 1,000,000,000 bits. It's commonly used for measuring the amount of data that is transferred in a second between two or more network points.

Meet Point - Meet Point is the location where co-connections are required to complete the data communications circuitry.

Megabit - In data communications, a megabit is a million binary pulses, or 1,000,000 pulses or "bits". It's commonly used for measuring the amount of data that is transferred in a second between two telecommunication points.

Network Backbone – The infrastructure where UEN provides all services, including, but not limited to: video, data, filtering, IP Addressing, Domain Name Service (DNS).

OS3 Connection - A dedicated network connection supporting data rates of 155 Mbits of bandwidth.

Point of Demarcation – A point on the network where UEN’s responsibility ends and a client’s responsibility begins.

Secondary School - Those institutions with 7th grade students and above.

T1 Connection - A dedicated network connection supporting data rates of 1.544 Mbits per second.

2.1.4. The Utah Education Network Infrastructure

The Legislature provides an annual appropriation to operate the Utah Education Network. These funds are used to coordinate and support the telecommunications needs of public and higher education through the procurement, installation, and maintenance of telecommunication services and equipment. This results in both cost savings and efficiency.

UEN is also responsible for the implementation of high-quality, cost-effective Internet access for both school systems.

2.1.5. UEN Policy on Assessing Payment for Network Usage

2.1.5.1 The Utah System of Higher Education

2.1.5.1.1. UEN pays for network connectivity in the following instance when:

2.1.5.1.2. Service is to the main campus or to the regional branch campuses of the institution.

2.1.5.1.3. A hospital, a medical clinic or a medical telehealth network is connected to the wide-area-network of an educational institution.

2.1.5.1.4. The institution pays for connectivity to a “meet point” designated by UEN when:

- a. The connection is to an extension office.

- b. The connection is to a continuing education center that is connected to the primary educational institution's wide-area-network.
- c. A research facility or research project is connected to the wide-area-network of an educational institution, is for education and is "not for profit."

2.1.5.1.5 Institutions are responsible for connectivity for continuing education centers and county extension facilities for data traffic to a connecting point designated by UEN. UEN would then pay the cost of data transmission over the network backbone.

2.1.5.2. Public Education

2.1.5.2.1. UEN pays for network connectivity for Utah State Office of Education (USOE) district offices, public secondary schools and charter secondary schools.

2.1.5.2.1.1. Charter schools are responsible to pay all ongoing costs related to administrative and technical support (IP Addressing, Domain Name Service (DNS), or filtering appliance) once the initial hookup to the backbone by UEN is completed.

2.1.5.2.1.2. Charter schools begin with one T1 for Internet connectivity. And those schools with UEN video services receive a second T1 for dedicated video bandwidth connections. Expanded network capacity for charter schools would depend on future allocations from the Legislature for that purpose.

2.1.5.2.2. The district office pays for connectivity for elementary schools to a designated network aggregation point. UEN pays for network backbone costs and commodity Internet.

2.1.5.3. Private Educational Institutions

2.1.5.3.1. Non-state funded non-profit educational institutions that attach to the UEN backbone are required to pay circuit charges to connect to the nearest UEN hub and will be limited to 3 Mbps.

2.1.5.3.2. On a case by case basis, increased connectivity beyond 3 Mbps may be approved by the UEN Executive Director, but in addition to circuit and connectivity charges, will require reimbursement by the school for proportionate use of the network backbone and commodity Internet.

2.1.5.3.2.1. UEN will not charge private non-profit schools, with a maximum of 3 Mbps, for network backbone costs.

2.1.5.3.3. All non-state funded educational entities pay for requested technical support or other appropriate services provided by UEN support staff.

2.1.5.4. Libraries

2.1.5.4.1. UEN will charge libraries for the circuit charges to a connecting hub point designated by UEN. UEN would then pay the cost of transmission over the network backbone and for commodity Internet.

2.1.5.5. State and Local Government Agencies

2.1.5.5.1. UEN will charge government agencies for connectivity to the network backbone, a proportionate share of the usage of the UEN network infrastructure, Internet bandwidth and for requested technical support or other services provided by UEN support staff.

2.1.5.6. Commercial Use of the Network

2.1.5.6.1. Any commercial use of the network is prohibited.

2.1.5.6.2. Proprietary for profit educational institutions and commercial entities may not be connected to the network.

2.1.6. Procedure/Implementation

2.1.6.1. The primary purpose of the UEN network is for the use of State funded higher education and public school faculty, staff and students. The use of the network by private non-profit educational institutions is considered to be a privilege and is permitted to the extent that available resources allow.

2.1.6.2. Non-state funded, non-profit educational institutions that attached to the UEN backbone, will be required to pay those costs needed to connect their institution to the UEN network infrastructure and for network usage. The assessment of charges when appropriate will be based on actual costs incurred for connectivity, their usage of the network backbone and overhead expenses as determined by the network operating center with UEN finance, Technical Service Management and UEN administrative approval.

STEERING COMMITTEE MEETING FORMAT - ACTION

Issue

The Executive Committee has concluded that the current format of holding Steering Committee and subcommittee meetings on the same day every other month is preferred by most committee members. It proposes that we keep that format for our committee and subcommittee meetings.

Background

At the last business meeting of the Steering Committee, it was agreed that the Executive Committee would review alternative meeting formats, obtain feedback from Steering Committee members about their preferences, and recommend a format for final approval by the Steering Committee.

The Executive Committee identified 3 options which were then summarized in a survey which 19 Steering Committee members completed. The results are available for you to review at www.surveymonkey.com/Report.asp?U=237876728461. A copy of the results is also provided in Attachment A.

A total of 19 of the 23 members completed the survey. A majority of committee members wish to have the Steering Committee and Subcommittee meetings every other month on the same day (13 of 19). Nine of the 13 prefer to keep the current format (A. Status Quo), while 4 of the 13 prefer choice C. A minority (6) prefer to hold subcommittee meetings monthly at different times so that a member could attend both subcommittee meetings, and the business meeting of the Steering Committee every other month.

A strong majority (15 of 19) prefer to continue the current practice of receiving committee materials electronically, and 14 of 19 prefer to receive them a full week before the committee meetings.

Recommendation

The Executive Committee recommends that the Steering Committee meet every other month from 9:00 – 11:00 AM, to address all action items and other major issues that have committee-wide significance. Subcommittee meetings are to follow immediately thereafter addressing non-action and discussion items of a more technical and narrow nature from 11:00 until Noon. It is also recommended that meeting materials be sent to members electronically, a full week before the meeting is scheduled.

TAB 15 ATTACHMENT A

STEERING COMMITTEE MEETING FORMAT SURVEY RESULTS

	Response Percent	Response Total
The UEN Executive Committee offers the following possibilities for UEN Steering Committee and Subcommittee meetings. Please select the one you prefer:		
A. Status quo: Steering Committee meets every other month from 9:00 - 11:00 AM, and acts on all action items. Subcommittee meetings follow addressing non-action and discussion items of a more technical and narrow nature from 11:00 until Noon.	47.4%	9
B. Subcommittees meet monthly and the Steering Committee meets every other month. Use of videoconferencing technology is maximized to reduce travel requirements. <u>Odd-numbered months:</u> <ul style="list-style-type: none"> • 9:00 - 10:30 AM: Instructional Services Subcommittee meets • 10:30 AM - Noon: Technical Services Subcommittee meets <u>Even-numbered months:</u> <ul style="list-style-type: none"> • 9:00 - 10:00 AM: Two subcommittees meet • 10:00 AM - Noon: UEN Steering Committee meets 	31.6%	6
C. Steering Committee and Subcommittees meet on the same day every other month, but subcommittee meetings are scheduled at different times. <u>Every other month:</u> <ul style="list-style-type: none"> • 9:00 - 10:30 AM: Committee A • 10:30 AM - Noon: Steering Committee • Noon - 1:30 PM: Committee B (Committee A and B represent TSS and ISS and could flip-flop) 	21.1%	4
Total Respondents		19
(Skipped this question)		0
2. How do you want the agenda distributed?		
A. Electronically (current situation)	78.9%	15
B. Hard copy mailed to Steering Committee members	15.8%	3
C. Both		
Total Respondents		19
(Skipped this question)		0
3. When do you need to receive the agenda materials?		
A. No later than one week before the meeting.	73.7%	14
B. Monday of the week of the meeting (assuming the meeting is on Friday).	26.3%	5
Total Respondents		19
(Skipped this question)		0

UENSS UPDATE - DISCUSSION

Issue

This report summarizes activities currently underway involving UEN and USU staff to plan for the conversion of the UEN satellite system to IP-based videoconferencing technology.

Background

The following steps have now been completed.

Preparation and planning for legislative budget request

A budget request has been prepared. It is based upon estimations of necessary network improvements, equipment needs for several site packages for 186 sites, and staffing needed to complete the project. A briefing manual has been created to document the request and to provide accountability for the funds to the legislature. We are providing information about the satellite uplink costs and how those funds can be redirected to help fund the IP delivery system. We will also consider requesting 2006 supplemental funds in order to receive some funding beginning April 1, 2007. If a supplemental allocation is provided for this project, it would provide UEN/USU five months to complete the conversion process. We already have some committee dates on the legislative calendars. Meetings with Higher Education administrators are occurring to strengthen our partnerships to ensure the success of the project.

Staffing plans

Conversion to IP videoconferencing will require that both the Logan and Salt Lake Technical Operations Centers be reorganized to provide technical support for over 200 additional receive sites. Tier 2 staff with higher level technical skills will be necessary at both locations. The TOC at Dolores Doré Eccles Broadcast Center will be relocated to another part of the building close to Field Engineering. This should increase efficiency and add opportunities for more cross training and communication.

UENSS site surveys

The USU Regional Directors have pared down their requests for site conversions from 239 to 186. The conversions are based upon actual utilization, scheduling efficiencies,

and some sacrifices. Two thirds of the satellite site visits are complete. The remaining site visits are on hold until after the beginning of the Fall semester.

Scheduling plans

Preparation of the satellite sites for changes in scheduling processes have begun. Sites have been introduced to new methods during the summer session. Compensation and planning is occurring right now because of approaching staffing changes in Logan and Vernal.

Recommendation

This is an information item. No further action is required of the Steering Committee at this time.

CORRECTIONS COMMITTEE UPDATE - DISCUSSION

Issue

UEN hosted and facilitated several meetings in June and July with public and higher education entities who are offering classes in correctional facilities in Utah to discuss how to continue offering courses as UENSS is phased out and additional distance learning delivery methods are explored. Below is a summary of the meetings' outcomes.

Background

A group consisting of representatives from the Utah Department of Corrections (UDC); Utah State University Continuing Education in Logan, Tooele, the Uintah Basin, and Blanding; Snow College; College of Eastern Utah, San Juan Campus; the Utah College of Applied Technology, the Utah State Office of Education's Adult Education department; Jordan School District's South Park Academy; and UEN Instructional and Technical Services met on June 1, 2006 to discuss delivery of educational programs in the state's correctional facilities. The group determined that courses are currently being conducted in the jails and prisons either by live instructors or through the UEN Satellite System (UENSS). In light of the impending retirement of UENSS, it is critical to design a replacement for the current distance delivery system. Furthermore, the group determined that additional delivery systems, including a computer-based course management system, a limited number of online resources, closed-circuit television, and computer-based instructional and testing systems such as A+ Learning Systems are important to ensure that inmates have as close to a full instructional experience as possible.

The full committee referred these issues to a smaller group of technical personnel for discussion and recommendations. After meeting twice with technical support personnel from UEN, the Utah Department of Corrections, and the Department of Technology Services, the following recommendations were developed:

1. The UEN Satellite System (UENSS) will be replaced by IP Video equipment at the prisons and jails as UEN's funding allows. Site surveys of all UENSS sites are currently being conducted by Dave Devey of UEN to determine the cost of converting each site and to establish a prioritized list of sites to convert, including the prison sites. IP Video equipment will be installed in locked rooms adjoining classrooms in the prisons and jails with microphones and video devices wired through the walls to ensure security of the equipment. Because of the need to limit IVC events including inmates to one-way video and two-way audio, any event including inmates will not be automatically switched. UEN is currently working on a way to switch these events to allow for maximum interaction between students and their instructors.

2. Because the central WebCT (now known as Blackboard Learning Systems) Vista server is tied into student databases and other critical information, allowing inmates – many of whom have advanced technical skills – on the Vista server constitutes a substantial security risk. Installing local instances of a course management system at each of the correctional facilities does not seem at this time to be a reasonable solution, since a) Vista does not license Campus Edition for fewer than 5000 seats at a given site, b) the cost of installing a local instance, including the supporting Oracle database, is prohibitive, and c) instructors would have to manage their courses on the local instances separately from the Vista server. In summary, implementing a course management system in the correctional facilities does not appear to be feasible at this point.
3. A collection of materials normally hosted on the Web, including UEN's Web site and media content, can be cached on a local server within the Corrections WAN to allow instructors to access these materials in the classroom without a live internet connection. This local cache can be updated remotely in a variety of ways. UEN is currently piloting the use of datacasting (using UEN-TV's digital television signal to transmit data files) to update caching servers in 13 Youth In Custody facilities, and results from this pilot will serve as a model for implementing a similar solution in the prisons and jails.

Further discussions will take place as the site surveys are completed, and the provision of additional supplemental resources such as computerized testing, computer-based tutorial programs, and provision of courses over closed-circuit television will be explored in the near future.

Recommendation

This is an information item. No further action is required of the Steering Committee at this time.

Issue

This report provides a status report on progress being made to obtain approval of UEN E-Rate applications by the School and Library Division. This is of great importance, since E-Rate reimbursements represent \$8 million in our FY 2007 budget.

Background

Approval for the Year 2006 (July 1, 2006 – June 30, 2007) E-Rate applications is currently underway. To date, UEN has been funded approximately \$2.1 million, with more than half of our applications still under review. Ongoing Ethernet projects continue to be funded. Several new Ethernet projects have also been funded. Those new projects are:

1. Garfield, Kane and Wayne School Districts (South Central Utah Telephone)
2. Tooele to Wendover Backbone (CentraCom Interactive)
3. Green River HS (Emery Telephone)

UEN's existing network circuits and Internet service applications are still under review, as well as our large Qwest Geomax and multi-service requests.

The school districts have been funded approximately \$3 million thus far.

Recommendation

This is an informational item with no committee action required.

SECURITY OPERATIONS UPDATE - DISCUSSION

Issue

This report provides a status report on the efforts UEN has made to enhance the security of the network.

Background

Over the past 30 months UEN has invested major resources into security initiatives. We have conducted a weekly security coordination call, operated the UtahSAINT Web site, conducted several training summits, assisted as consultants to many stakeholders and implemented several new tools.

This emphasis has yielded positive, tangible results. Network outages resulting from security breaches have been non-existent on the UEN backbone. Reported incidents from stakeholders have decreased while awareness continues to increase.

The UEN investment in security has paid off with positive results to date. We plan on continuing this emphasis and implementing better processes and tools to assist us in the struggle against miscreants who lurk on the Internet.

The UEN Security Operations Center is pleased to report that there are very few incidents which have occurred over the summer. We acknowledge that as school starts up again we will likely begin to see an increase in these “traditional” security incidents. However, to date there have been no major outbreaks of worms or viruses on the UEN network backbone for at least 18 months.

UEN Security Operations will continue to work within the UtahSAINT forum. We are planning to hold another UtahSAINT security conference before the end of the year. These security conferences provide a great opportunity for UEN stakeholders to receive security awareness training and updates on security trends and tools available to them.

Recommendation

This is an information item. No further action is required of the Steering Committee at this time.

FILTERING REPORT - DISCUSSION

Issue

UEN has been using N2H2 as our Web Filtering solution for the past five years. This product has been very good and served UEN and our stakeholders well. Changes in application capabilities and greater threats on the Web have motivated UEN to make a change in this area. Great thought has been expended in making this decision. UEN has engaged technical experts from our staff and throughout the education community in Utah. We have also worked with many different vendors to understand the breadth of need and solutions to meet these needs. The decision was made to use the *8e6* Technologies product. This was reported in the April 2006 Steering Committee meeting.

Background

We are pleased to announce that the new content filtering system is installed throughout the state and is working extremely well. Our new content filtering system running on the *8e6* platform is providing school districts with the ability to filter content at a level never before achieved on the UEN Network. This filtering solution provides many benefits, including native traffic filtering, increased content filtering options, reports, and local control options. We encourage people who wish to learn more about how this filtering system works to visit www.uen.org/technical/filtering.shtml

We also extend our thanks and appreciation to all of those people involved in this project throughout the state, and especially to Wes Furgason, and Dave Maw at UEN for coordinating and implementing what has become an incredibly complex project.

Recommendation

This is an informational item only and does not require action from the Steering Committee.

STEERING COMMITTEE MEETING MINUTES

UTAH EDUCATION NETWORK STEERING COMMITTEE

June 16, 2006 – 9:00 a.m.

Members Present: Ron Barlow, Kory Holdaway, M. K. Jeppesen, Christine Kearnl, Pat Lambrose, Wayne Peay, Mike Petersen, Kim Roper, Dick Siddoway, Ray Timothy, Linda Fife and Gary Wixom via call in.

Others Present: Charice Black, Preston Checketts, Jeff Egly, Rich Finlinson, Rick Gaisford, Claire Gardner, Boyd Garriott, Thom Gourley, Cyd Grua, James Hodges, Randy Hughes for Stephen Fletcher, Sheryl Hulmston, Laura Hunter, Karen Krier, Bill Kucera, Lisa Kuhn, Jim Langston, Eric Mantz for Ryan Thomas, Erik Merkley,, Craig Neilson for Donna Morris Jones, Bryan Peterson, Kevin Quire, Larry Smith, Cory Stokes, Cory Stokes (south) and Louise Tonin.

Welcome and Introductions

Ray welcomed everyone to the June meeting. Ray introduced the representatives for the Steering Committee members. Ray turned the first part of the meeting over to Laura Hunter who had a presentation to make. Laura shared with the committee that UEN received a recognition plaque from the Utah Council of Science Providers for UEN's Web site and the 2nd recognition came from HomeSchool.com for UEN being one of the top 100 educational Web sites.

Committee of the Whole

Tab 31 – Fiscal Year 2007 Budget

The FY 2007 UEN budget reflects significant growth in state appropriations and federal E-Rate reimbursements. There was an executive meeting held in May regarding this budget that was discussed in detail. There were also two retreats that were held within the last 6 weeks and this budget was also presented at both retreats. Major FY 2007 policy considerations focus on (1) revenues that are available and restrictions that limit the uses of particular revenue sources, (2) major expenditure choices, and (3) priorities shown by the recommended budget choices.

Mike opened up the floor for discussion concerning budget items. For a complete detailed draft on the FY 2007 Budget please refer to Tab 31, Attachment A.

A motion was made and seconded to approve the budget as presented. THIS MOTION PASSED WITH ALL VOTING IN FAVOR.

Tab 1 – Utah Education Network FY 2007 Strategic Plan

A draft of the FY 2007 Strategic Plan was presented at the June meeting. The attached plan represents the work of the Technical Services and Instructional Services retreats. UEN appreciates the support of Steering Committee and Subcommittee members who participated in this important planning processes.

Strategic goals have been developed for seven core functions of UEN:

1. Wide Area Network
2. Educational Web Resources
3. Enterprise Applications
4. Distance Learning
5. Broadcasting
6. Professional Development
7. Governance and Accountability

Reports to the Steering Committee on progress for accomplishing these activities will be presented quarterly during the coming fiscal year. For a look at the UEN FY 2007 plan draft please refer to Tab 1, Attachment A. Mike also shared with the committee that the plan for the subcommittees is to also look at Tab 11, Attachment A & B and work on merging these three drafts. This will be an action item for the August meeting. A suggestion was made to have the staff identify within the UEN plan those elements they feel are responsive to the issues raised in the needs assessment. What recommendations came from each advisory committee so people can see what has been incorporated in the plan and what has not been incorporated.

Tab 2 – Steering Committee Structure, Meeting Format and Proposed Meeting Dates

An important theme this year has been the structure and format of the Steering Committee meetings. It was proposed that the Executive Committee evaluate this issue and bring a proposal to the June meeting. Steering Committee co-chairs Ray Timothy and Gary Wixom concluded that:

1. The Executive Committee should undertake a thorough review of the issues related to steering Committee structure and meeting format.
2. All members of the Steering Committee should be polled on their meeting format and structure preferences to determine if there is a consensus within the Committee.
3. There are other related issues that should be considered within the context of these discussions, including frequency of the meetings, the role that video-conferencing should play, improvement of attendance at Committee meetings, distribution of agenda materials, etc.

4. Recommended solutions should be presented at the August Steering Committee meeting.

The co-chairs proposed that the meeting dates for Steering Committee meetings be set through the end of calendar year 2006. These dates may be modified after the Executive Committee investigates the issues outlined above. The following dates were proposed:

- Friday, August 18
- Friday, October 20
- Friday, December 15

A motion was made and seconded to tentatively schedule meetings once a month until the end of the year starting with August. THIS MOTION FAILED.

A motion was made and seconded to turn this over to the Executive Committee to come up with a recommendation regarding the meetings. THIS MOTION PASSED.

Tab 3 – Policy 2.1: Network Connectivity Charges

Mike made preliminary comments noting that there is a policy number and that there is a format and process of developing UEN policies. This policy represents an effort to overcome our weakness in this area. The purpose of this policy is to formalize how UEN charges non-state funded educational institutions, libraries, charter schools, elementary schools and state and local governmental agencies for the use of the network and for other services available through UEN. This policy will be discussed in more detail at the August meeting so this gives committee members plenty of time to look this over and come back with any concerns or comments. Boyd Garriott is the keeper and author of these policies going forward.

A suggestion was made to the Elementary School section regarding the last sentence that says “UEN does not recommend changing this policy.” It was agreed to remove this sentence.

To see the complete detailed policy please refer to Tab 3, Attachment A. The fee structure is outlined in Tab 3, Attachment B. The Network Connectivity Charges Decision Tree can be found in Tab 3, Attachment C.

Tab 4 – National LambdaRail (NLR) Media Release

Mike was happy to report that on May 31st a media release was issued by the University of Utah Public Relations office stating that the network is now passing traffic across the NLR backbone. This backbone is a new ultra-high-speed optical research network. Because of the size of the UEN network, it is one of the highest users of bandwidth on the NLR backbone. UEN is now a significant user of the FRGP and has doubled their total IP traffic load. For further information please refer to Tab 4, Attachment A. The media release can also be found behind this attachment.

Tab 12 – State of Utah Registry for Internet Numbers (SURIN)

If you recall at the request of the Steering Committee, the Technology Coordinator Council (TCC) and UEN have been working together to create a process for managing IP addresses. This process was reviewed during the April Technical Services Subcommittee and minor changes were recommended. The TCC and UEN have made the recommended changes to the SURIN document and we are now requesting permission to move forward with the organization of SURIN. Attachment A provides detailed information about the structure and responsibilities proposed for SURIN.

In addition to the board of trustees, SURIN will be directed through an advisory process. Members from Higher Education, Public education, State Government and Utah Libraries will form advisory committees to provide a forum to discuss needs specific to their institutions. The advisory committees would propose policies that will be sent to the board of trustees for review and final approval. Mike suggested that on the selection process the higher education choices be made by the CIO council.

A motion was made and seconded to approve the proposal to designate SURIN as a policy making body with the authority to perform the 3 objectives identified. The board also proposes that its decisions be binding, subject to being overturned by a simple majority vote by the UEN Steering Committee. THIS MOTION PASSED.

Tab 5 – 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 August 18, 2006, at the Dolores Doré Eccles Broadcast Center.

The meeting then adjourned for subcommittee meetings. The minutes from for the Instructional Services Subcommittee appear below.

Utah Education Network Instructional Services Subcommittee Meeting Minutes

Attendees: Charice Black, Jeff Egly, Rich Finlinson, Rick Gaisford, Cyd Grua, Cory Holdaway, Sheryl Hulmston, Laura Hunter, Karen Krier, Bill Kucera, Jeffrey Livingston, Wayne Peay, Bryan Petersen, Kim Roper, Dick Siddoway and Cory Stokes

Tab 7 – End-Of-Life Policy for Web Services – Action

The policy outlined in Steering materials for June 2006 establishes a process for reviewing and terminating online projects and tools. Although this process has been followed since its development in 2002 for the education site for the Olympic and Paralympic Games, it was never formally approved by UEN's Steering Committee.

Action – Motion to recommend the policy as outlined is adopted.

Action – Twice yearly, UEN will give the Instructional Services Subcommittee an update on Web stats policy.

Tab 8 – Internet Safety Project - Discussion

In April and May, UEN convened several partners to begin planning a statewide Internet Safety effort targeted to parents and teens age 11-17, since the Utah Attorney General's office reports this group is the most vulnerable. The intent of this project is to build awareness of critical Internet safety issues and guide parents to resources and strategies they can implement to keep their children safe.

Project details, including partners and strategies are available in June 2006 Steering Committee materials.

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

Tab 9 – Higher Education Learning Objects Meeting Report – Discussion

UEN hosted a meeting of public television education representatives and content providers June 5-7th 2006. The meeting looked at best practices among public TV stations in Massachusetts, Maryland, and other locations. National representatives from CPB, PBS, NETA, and Open Media Network also participated.

A white paper addressing digital learning assets for higher education will be published as a follow-up to this meeting. Also, an inventory of paid multimedia assets, public television and rights cleared objects will be developed to facilitate sharing among providers.

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

Tab 10 – TeleScope Users Group Meeting – Discussion

The eMedia service from UEN runs on a third-party media management software called TeleScope from North Plains Systems.

On June 8th and 9th, UEN hosted its first meeting of the Education TeleScope Users Group with media management representatives from various educational institutions to discuss how each institution is using TeleScope to support their media management needs and how to solve technical issues common to all users.

This meeting is part of UEN's continuing involvement in investigating and influencing best practices in video learning object management. By participating with other education users, UEN builds a consortium of education customers which help us collectively influence the vendor.

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

Tab 11 – Public Education and Higher Education Advisory Committee Reports – Discussion

The Public and Higher Education Advisory Committees met together during planning retreats in May and again on June 2, 2006.

Based on surveys, focus groups and information gathered through participating in UEN Instructional Services and Technical Services retreats, both committees provided

input for the FY07 UEN Strategic Plan.

Two reports with recommendations by Public Education and Higher Education are included in the June Steering materials. Cyd Grua, representing the Higher Education Advisory Committee, offered to provide contact information for other advisory sources from higher education.

Action – The Advisory Committees will provide additional feedback on the plan prior to the August 2006 Steering Committee meeting.

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.

STEERING COMMITTEE BUSINESS MEETING

TAB 22

OTHER

WEB COLLABORATION TOOL MEETING - DISCUSSION

Issue

USHE and UEN recently hosted a gathering of higher education media people interested in online collaboration tools supporting instruction, research and meetings. The purpose was to see demonstrations of a couple of tools and decide how to move forward in securing a system for use across the state.

Background

At the recent Instructional Services retreat meetings the topic of Web-based collaboration environments such as Macromedia Breeze came up as an important initiative for the coming year. Several higher education institutions are either already using a tool or are looking to implement one soon. Many participants expressed interest in having UEN pursue consortium licensing for a tool similar to the course management system licensing.

Tim Stack and Jared Covili from UEN demonstrated Macromedia Breeze and how they use it to support the workshops UEN delivers. Representatives from Horizon Wimba joined the meeting remotely via the Horizon Wimba Live Classroom product and showed how the tool seamlessly integrated with the Vista (Content Management System) system. Both tools had similar voice-over-IP, file sharing, slide show, application and remote computer control features.

Discussion among participants centered on licensing costs and how UEN/USHE should proceed with this initiative. The group decided that a working group should be assembled to create a list of needs and desired features for a Web collaboration tool. This list would likely become the backbone of a RFP to secure a system for use by all the higher education institutions. Cyd Grua from USHE is providing a list of working group candidates and Cory Stokes from UEN is taking the lead in coordinating the group's efforts. Additional reports will be provided as this working group moves forward.

Recommendation

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

INTERNET SAFETY PROPOSAL - DISCUSSION

Issue

UEN has applied for a grant from the Commission on Criminal and Juvenile Justice to develop a year-long educational program targeting parents of Utah teens, teachers, and community members. The project is called, *Empowering Parents: Town Hall Meeting on Internet Safety* and also includes the Utah State Office of Education, Internet Crimes Against Children Task Force, NetSmartz, KUED, and the University of Utah Center for Advancement of Technology in Education (CATE) and Outreach Coordination Office.

Background

Utah is one of the top states for households with computers and leads the nation in population of children. Utah's Internet Crimes Against Children Task Force has also broken national records for arresting criminals who use the Internet to prey on children (Shurtleff, 2005). The *Empowering Parents* project will increase public knowledge about Internet vulnerabilities and provide ways to safeguard Utah's youth. By combining the strengths and expertise of Public Broadcasting (KUED), our statewide educational technology network (UEN), the Utah State Office of Education, the Utah Attorney General's Office Internet Crimes Against Children Task Force, and the University of Utah College of Education, the *Empowering Parents* project builds a solid network of community relationships to help unify, promote and bring the issue of *Internet Safety for Utah Parents and Teens* to the forefront of public attention. This project is statewide, addressing all citizens through broadcast, Web and print media. Local communities will be engaged through screening events, presentations, a toll free support number for parents, extensive Web resources, and parent workshops.

By combining strengths of the individual partners, the *Empowering Parents* team will provide a comprehensive, statewide strategy to address this critical issue. After converging partner resources, the project will kickoff with a statewide one-hour town hall meeting program designed to educate parents and teens about issues of Internet Safety. Local follow up to the broadcast program with school districts, parent groups, and community leaders will help build sustained interest and action among target parent groups. Additionally, the project will personally reach parents through follow-up presentations, classes and packets requested via a toll-free number or the project Web site. The project design includes four goals and supporting activities. An outcomes-based evaluation plan will be used to monitor and report on the project.

If funded, the project will begin on September 1 and conclude on June 30, 2007.

Recommendation

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

NCO CONNECTOR GRANT UPDATE - DISCUSSION

Issue

In September 2005, UEN was awarded a \$12,000 Connector grant from the National Center for Outreach, a CPB-funded organization, to conduct outreach activities centered around UEN-TV's adult education programs. Below is a summary of activities conducted under this grant, which will come to an end on August 31, 2006.

Background

The NCO Connector grants enable public broadcasting stations to extend their services into the community. UEN has used these grant funds to build partnerships among community agencies under the title of "Utah Partnership for Adult Literacy (UPAL)." Activities conducted over the past year include the following:

1. DVD masters of UEN's three adult education series – *GED Connection* (39 ½-hour episodes), *TV411* (30 ½-hour episodes), and *Workplace Essential Skills* (25 ½-hour episodes) – were prepared for duplication by Media Services using grant funding. 50 sets of the *GED Connection* and *TV411* DVDs were then produced with grant funds and distributed to 45 public libraries and four correctional institutions throughout the state. Ten sets of *Workplace Essential Skills* were also produced and given to the Department of Workforce Services. 20 additional sets of *GED Connection* and *TV411* and 15 additional sets of *Workplace Essential Skills* have since been produced and are being distributed to public libraries, adult education programs, and Department of Workforce Services Employment Centers in response to ongoing requests.
2. Additional promotional materials, including 1,000 24" x 36" full-color posters, have been produced with grant funds and are being distributed to increase public awareness of UEN-TV's adult education programs.
3. In cooperation with USOE's Adult Education Department, UEN has used grant funding to leverage additional district funding and produce three public service announcements for television and radio highlighting statewide adult education programs and activities. These PSAs will be aired on public and commercial broadcasting stations throughout Utah during the upcoming year.
4. UEN has convened 14 meetings of adult education providers at local DWSEmployment Centers across the state. These meetings have included nearly 70 Employment Center personnel, public library staff, representatives of community-based adult literacy organizations, and adult education instructors and coordinators and have been a valuable forum for discussing local collaboration efforts and for encouraging

cooperation among state and local agencies. During each meeting, UEN's online and television resources have been highlighted and discussed. An additional ten meetings will be held over the next three weeks with others anticipated in the near future.

A final report of grant-funded activities, together with a summary of results from the 24 local screenings/discussions, will be available after August 31st.

Recommendation

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

DIGITAL ASSETS MEETING REPORT - DISCUSSION

Issue

In June, UEN hosted a meeting of public television education representatives and content providers. This report summarizes the White Paper generated from the meeting. An Executive Summary appears in Attachment A, and the entire White Paper is online at www.uen.org/highered/learning_objects.shtml.

Background

After PBS' Adult Learning Services was dissolved in September 2005, the National Educational Telecommunications Association (NETA) convened a meeting in January 2006 to discuss service for higher education. Meeting participants consisted of Public Television education representatives and Content Providers. There was full agreement that there are new opportunities to collectively provide video and other multimedia assets for higher education faculty and students.

During a follow-up meeting in June 2006, 35 participant representatives from public television stations along with content providers and national leaders had a very substantive conversation regarding how public television can best serve higher education in a changing digital world. Public television has strong community connections, public trust and partnerships. It also has a viable digital infrastructure to deliver high quality content.

Participants conducted a SWOT analysis and discussed metadata, content and licensing issues. All participants recognized a changing role for PTV stations and service to higher education constituents. The SWOT analysis revealed eight weaknesses and threats, with recommendations for action items. The recommendations build on PTV's strengths and are outlined below:

- Incent sharing of best practices and develop frameworks for interoperability across the system, e.g. PBCore Metadata Project.
- Develop a clearinghouse of content that can be shared among PTV stations.
- Encourage NETA to set up a group buy process for higher education content based on successful K-12 models & tie in with other national conferences.
- Conduct a needs assessment with higher education faculty, students, academic librarians, etc. to ensure perspective models match their priorities and needs.
- PTV should work on delivering both digital assets (raw content) & framing those assets in a learning object context. One opportunity is to create learning object templates around common higher education pedagogical models, such as the case

study method. *Frontline* is an example of content well suited to case study method and highly in demand by faculty.

- Delivery over multiple platforms will be critical for higher education.
- PTV needs to use its storytelling skills to better market its digital assets. It also needs to establish joint marketing and co-branding efforts among stations and partners.
- Encourage Association of Public Television Stations (APTS) and Corporation of Public Broadcasting (CPB) to identify and communicate pressing educational needs that PTV stations are uniquely poised to address. By convening our efforts around common, targeted issues, our impact will be demonstrated more effectively.

NETA will lead a planning team that will work with various constituent groups, including CPB, PBS, the University Licensee Association, the National Media Market, The National Association of Media & Technology Centers, and the Consortium of College and University Media Centers to implement the recommendations. Initial key steps include:

1. Generate a list of sharable PTV content.
2. Generate a list of available vendor content.
3. Conduct a needs assessment and assess the gaps or opportunities in the marketplace.

UEN welcomes the opportunity to use its eMedia framework to allow stations to upload their content metadata and match providers with acquirers in a Web-based “clearinghouse marketplace.” eMedia’s alignment with the PBCore will enable standardization as well as facilitate shared resources and search capabilities. The partnerships will afford UEN stakeholders greater access to mirrored or federated rights-cleared assets.

Recommendation

Members of the Subcommittee are invited to discuss the Executive Summary and/or White Paper. Additional feedback can also be shared via an online questionnaire at www.uen.org/highered/learning_objects.shtml.

TAB 26 ATTACHMENT A

HIGHER EDUCATION AND DIGITAL LEARNING ASSETS

Summary of June 2006 Meeting in Salt Lake City

Issue

This paper summarizes creative dialog regarding public television's role in meeting the digital needs of higher education and adult education services. Higher education's inquiry-based nature relies on academic discourse supported by a variety of content sources. Public television stands uniquely poised to provide content to higher education through a convergence of resources, delivery systems, and people creating valuable learning experiences. Partnering with content professionals and related national organizations, public television recognizes a window of opportunity and recommends increased focus and momentum to this important work.

Background

In January 2006, The National Educational Telecommunications Association (NETA) convened a meeting of Public Television and Content Providers to discuss service for higher education. PBS' Adult Learning Services was dissolved in September 2005, leaving questions about the role of PTV and higher education. Higher education has shifted away from semester-long video courses delivered over television. Meeting participants agreed there are new opportunities to collectively create a forward-thinking vision to make video and other multimedia assets available for faculty and students

Representatives from public television stations with learning objects services or strong higher education ties met in Salt Lake City in June 2006, along with content providers and national leaders. The 35 participants had a very substantive conversation regarding how public television can best serve higher education in a changing digital world. Public television has strong community connections, public trust and partnerships. It also has a viable digital infrastructure to deliver high quality content.

At the meeting, Teachers Domain, Thinkport, eMedia, and Open Media Network developers demonstrated their projects as successful digital asset services. Participants conducted a SWOT analysis and discussed metadata, content and licensing issues. All participants recognized a changing role for PTV stations and service to higher education constituents. The SWOT analysis revealed eight weaknesses and threats, with recommendations for action items. The recommendations build on PTV's strengths and are outlined below:

Weaknesses & Threats	Opportunities for Action
<p><u>Lack of Interoperability among Digital Asset Services</u></p> <p>Good digital asset models exist, but they aren't readily shared, since many projects are very focused on meeting the needs of funders and local constituents.</p>	<p>Incent sharing of best practices - The Digital Services Fund grant with Teachers' Domain, KQED and WPSU from CPB is a good example.</p> <p>Develop frameworks for interoperability and encourage their use across the system, e.g. PBCore Metadata Project.</p>
<p><u>Lack of Rights-Available Content</u></p> <p>A lack of rights-available content provides a barrier to meeting faculty needs.</p>	<p>Develop a clearinghouse of content that can be shared among PTV stations.</p> <p>Set up UEN's eMedia framework to allow stations to upload their content metadata and match providers with acquirers in a Web-based "marketplace." The database would include bartered and fee-based content. Contract negotiations would be between the two parties (i.e. a system-wide "Craig's List" for educational content).</p>
<p><u>Unclear Marketplace to Identify or Acquire Content</u></p> <p>Unlike K-12, there is no existing marketplace for reviewing and acquiring higher education content.</p>	<p>Encourage NETA to set up a group buy process for higher education content, based on successful K-12 models. Tie in with other national buying conferences where feasible.</p>
<p><u>Varying Digital Asset Needs</u></p> <p>Higher education is rapidly changing to more asynchronous digital instruction. With Blackboard's acquisition of WebCT, and the increased prevalence of Web-based conferencing for courses, knowing our constituents and their digital needs is increasingly critical. Faculty and students vary greatly in their knowledge and use of digital assets.</p>	<p>Conduct a needs assessment with higher education faculty, students, academic librarians, etc. to make sure our new models match their priorities and needs. What is the urgent need? Who is the audience and what does PTV bring to the market?</p> <p>Working with CPB, build on national higher education relationships and needs so our efforts work in tandem.</p>
<p><u>Unclear Terminology for Content</u></p> <p>Understanding the difference between digital learning objects that include the full educational context and raw digital assets has resulted in confusion over licensing, rights, and stakeholder use of content.</p>	<p>PTV should work on delivering both digital assets (raw content) and framing those assets in a learning object context. One opportunity is to create learning object templates around common higher education pedagogical models, such as the case study method. As rights become available, digital assets could be "plugged in" to these templates by faculty. Frontline is an example of content well suited to case study method and highly in demand by faculty.</p>
<p><u>Higher Education Does Not Realize Public Television's Digital Asset Role</u></p> <p>There is a rapidly closing window. Many constituents don't realize that PTV could play an important content role for digital assets and are looking to textbook or commercial providers.</p>	<p>Maintaining momentum for this effort will require leadership at the national level and coordination between CPB, PBS, and NETA. University Licensees are particularly poised to continue this effort. Regular conference calls, listserv, meeting times, and leadership are key for forward momentum.</p> <p>PTV needs to use its storytelling skills to better market its digital assets. It also needs to establish joint marketing and co-branding efforts among stations and partners.</p>

<p><u>Ongoing Rights Issues</u></p> <p>Rights issues continue to present barriers. The digital rights working group, convened by CPB, is developing a tiered approach for rights. Willingness to allow experimentation with delivery models and licensing options in the future will be increasingly important. Focus on digital rights at the outset, rather than repurposing older content will be important for growth.</p>	<p>Participants at the Salt Lake City meeting were encouraged by the preliminary work done by the digital rights working group. In particular, recognizing the need for delivery over multiple platforms will be critical for higher education.</p>
<p><u>Unclear Articulation of Educational Need</u></p> <p>Lack of focus has caused confusion across the PTV system and our national organizations. Now, more than ever, we need to know the demonstrate the unique role that PTV plays in addressing that need.</p>	<p>Encourage APTS and CPB to identify and communicate pressing educational needs that PTV stations are uniquely poised to address. By convening our efforts around common, targeted issues, our impact will be demonstrated more effectively.</p>

Recommendations and Next Steps

NETA will lead a planning team that will work with various constituent groups, including CPB, PBS, the University Licensee Association, the National Media Market, The National Association of Media & Technology Centers, and the Consortium of College and University Media Centers to implement the recommendations.

June 2006 Salt Lake City Attendees

First Name	Last Name	Organization
Kyle	Anderson	Utah Education Network
Michael	Aubin	Maryland Public Television
Frank	Batavick	Films Media Group
Marta	Bechtol	Wisconsin Educational Communications Board
Paul	Burrows	Media Solutions/University of Utah (KUED, Utah Education Network)
Mark	Caldwell	LearnKey
John	Chambers	NETA
Lynn	Dahnke	Coast Learning Systems/Coastline College
Andrea	Downing	PBS
Richard	Goodrow	Gallaudet University
Nancy	Hill	Alabama Public Television
Ryan	Hines	KUED
Rachelle	Howell	Dallas TeleLearning
Laura	Hunter	Utah Education Network
Gens	Johnson	Open Media Network
Dan	Jones	Coastline Community College
Susan	Knoble	WHYY
Michele	Korf	WGBH Educational Foundation
Gail	Long	Maryland Public Television
Kathy	Manwaring	LearnKey, Inc.
Laura	Orsetti	KET

Mike	Petersen	Utah Education Network
Allan	Pizzato	Alabama Public Television
Ronald	Plummer	Univ. of NC-Television UNC-TV
Terry	Rinehart	Iowa Public Television
Chris	Seifert	MontanaPBS
Amy	Shaw	KETC
Larry	Smith	KUED
Nate	Southerland	Utah Education Network
Cory	Stokes	Utah Education Network
Carolyn	Wapnick	CPB
Bill	Weber	WHYY
Detmer (DJ)	Wells	Governors State University
Alison	White	Corporation for Public Broadcasting
Renee	Willemsen	Utah Education Network

BACK TO SCHOOL TEACHER'S PREVIEW NIGHT - DISCUSSION

Issue

UEN and KUED will co-host an event for teachers on Wednesday, September 27th at the Salt Lake City Library.

Background

The event is entitled "Teacher's Preview Night" and will serve as a back-to-school night for teachers. The purpose of the event is to give teachers a sneak preview into next year's educational programs. UEN and KUED will also provide teachers with valuable teaching ideas and multimedia resources that can be utilized in the classroom.

KUED and UEN expect 300 teachers to participate in the event, and pre-registration is required. In addition to offering a valuable service for teachers, this event will provide contact information of teachers in specific content areas in order to facilitate communication throughout the year. Teacher participants will receive gift bags with promotional program items and resources. A prize drawing for DVD programs and other teacher resources will also be held at the conclusion of the event, and participants will be required to submit an evaluation survey.

We will evaluate this event to see whether annual preview nights are beneficial, and assess options for taking the show on the road to other Utah locales.

This event is open to K-12 teachers from Utah public, charter, and independent schools. Registration and the project Web site are online at www.uen.org/teacherpreview/

Recommendation

Members of the Instructional Services Subcommittee are encouraged to communicate this information to their institutions, and are welcome to register and attend the event. This is an discussion item requiring no further Instructional Services Subcommittee action.

QUARTER FOUR PROGRESS REPORT ON FY 2006 STRATEGIC PLAN - DISCUSSION

Issue

This is a quarterly progress report for the FY 2006 Strategic Plan conducted during April, May, and June 2006, including goals assigned to Instructional Services, Instructional Delivery and Public Information departments.

Background

The UEN FY 2006 Strategic Plan is organized into seven goals:

- Goal 1. Operate, maintain, and expand a reliable and secure high speed network, connecting every public school, college, university and public library in Utah.
- Goal 2. Aggregate and deliver a suite of high quality educational resources for students, educators, staff, and administrators that are determined by our stakeholders to be best provided at a statewide level.
- Goal 3. Deliver Distance Learning classes and programs offered by public and higher education that use reliable, real time and broadcast quality video conferencing technologies.
- Goal 4. Build the vitality and scope of UEN broadcast services.
- Goal 5. Provide professional development opportunities to improve the quality of K-20 instruction and assure effective implementation of technology in education.
- Goal 6. Strengthen educational technology governance at the state, regional and local levels through improved coordination and cooperation among UEN's stakeholders.
- Goal 7. Be accountable to our stakeholders by measuring, tracking, and reporting performance and satisfaction with UEN-provided services.

Quarter Four FY 2006 Strategic Plan Highlights

Goal 2

- 1. Added and updated links in the core curriculum resource database.
- 2. Created Web site for Utah League of Cities and Towns and added lesson plans to the database.

3. Supported USOE Web pages in coordination with Specialists-- 1 site uploaded, 2 sites in design phase, 14 sites updated and maintained.
4. eMedia ad placed in Summer 2006 Davis Education Association magazine.
5. Created RSS Feed for UEN's NetNews.
6. Revised Pioneer Library Advocate Network Web site and developed a plan for communicating with the Pioneer Library Advocates for the 2006-07 school year.
7. The Utah TECH CORPS Program was closed. The SL Recreation YouthCity Program and SL County Sorenson Center became sustainable, and a successful Electronic Recycling Event was held.

Goal 3

1. UEN staff continued to wrap up the 2nd Phase of EDNET site conversions to IP Video technology. Approximately 64 sites were converted in this last phase. All the EDNET sites throughout the state – except those in Utah, Salt Lake, Davis, and Weber Counties have been converted to IP delivery. Planning for the next phase of conversions is underway.
2. The Delores Doré Eccles Broadcast Center Harris Conference room has now been converted to IP Video. The Dumke Conference Room, being a larger and more planning and design intensive project, is being planned. The UEN Milton Bennion Hall Training Lab IP Video device was installed this summer, with training scheduled for the fall.
3. Utah State University and UEN have made a joint decision to seek funding for the conversion of the entire satellite system to IP video technology. If funded, this conversion will be complete by September, 2007. Planning and preparation for the upcoming legislative session has begun in earnest.

Goal 4

1. Conducted targeted outreach to stakeholder groups through participation in various conferences, screenings, presentations and outreach events.
2. Designed and produced Adult Education poster and ad.
3. Production of Technical Training segments from UEN Professional Development was dropped due to lack of resources.

Goal 5

1. Intel Master Teacher Workshops and Leadership Forums for PBS Teacherline were conducted to promote online professional development opportunities for teachers.
2. Promoted UEN Professional Development to teachers through Summer courses promotional postcards; eNewsletters to Utah K-12 educators.

Goal 7

1. Participated in a variety of meetings, planning retreats and discussions to develop the FY 2007 plans.

Recommendation

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

PUBLIC EDUCATION AND HIGHER EDUCATION ADVISORY COMMITTEE REPORTS - DISCUSSION

Issue

The Higher Education Advisory Committee met on July 12, 2006 via conference call and the Public Education Advisory Committee met on August 4, 2006. Discussion items and reports will be presented by the committee chairs: Cyd Grua and Rick Gaisford.

Background

One agenda item was covered by the Higher Education Advisory Committee, response to the UEN FY 2007 Plan. The Public Education Advisory Committee discussed the following topics at their meeting:

- UEN Updates
- eMedia
- WebCT Vista
- Internet Safety Town Hall Meeting
- Literacy Features from Read Write Think
- UEN Strategic Plan
- Future Meetings

A summary report from each of the committees is included under this tab.

Recommendation

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

TAB 29 ATTACHMENT A

PUBLIC EDUCATION ADVISORY COMMITTEE REPORT

August 4, 2006

The PEAC Committee met August 4, 2006 and reviewed the FY07 “draft” UEN Strategic Plan, and Public Education’s June recommendations to be included in this plan.

The chart included with this report. Details Public Education’s recommendations and their location in the UEN Strategic Plan. Most of the recommendations have been addressed in the draft plan. Several are still missing. It is our recommendation that the plan be approved with additional responses to the missing items as well as measurable outcomes as part of the goal. The matrix/measurements could exist such as in the operational plan, but for the benefit of the steering committee, the measurability of success of the goals should be presented in a more coordinated/visible way associated with the strategic plan.

The overriding consensus from our group is that UEN needs to include stakeholder communication between the network and the system, and to have the network facilitate communication among stakeholders. Facilitating dialogs among the network stakeholders, both intra and inter-institutions, is key to maintaining a strong network partnership.

Projects above a certain threshold of factors (such as dollar and staff cost, impact, etc.) should be communicated through the steering committee and other advisory groups before the project begins even before detailed investigation is done. Once passed through the Steering Committee, projects should then be communicated to the constituent groups (Higher Education, Public Education, libraries, etc) for their input on issues such as:

1. How should the project be funded (by UEN, by Higher Ed/Public Ed, etc. by individual entities, by legislature)?
2. Is UEN the appropriate place for the project/service to be housed and/or executed? Or should it be executed by/at some other entity?
3. What is the relative priority of this project with other UEN and group priorities for that constituent group(s)?

When the feedback from these groups suggests it makes the most sense that the project to be a UEN priority, then UEN should begin work in earnest on the project or obtaining funding for the project.

Public education desires to increase communication between the network and the system and have the network facilitate communication among stakeholders. Facilitating dialogs among the network stakeholders, both intra and inter-institutions, is key to maintaining a strong network partnership.

Public Education Priority List for UEN FY 2007 Strategic Plan

Correlation of Public Education Priorities with Draft UEN Plan from June 2006 Steering Committee Meeting

Draft Plan Reference	PE Priority Ranking	
I. Wide Area Network Projects		
Section I - Wide Area Network 1a, 1b, 1c, 1f, 1g	1	Improve network capacity with respect to connectivity to rural sites, redundancy/robustness in networks, and stability of networks; replace aging hardware as possible.
Section I - Wide Area Network 1a		Publish service thresholds and make network metrics analysis tools available for TCC.
Section I - Wide Area Network 1e		Research deploying the NetOps product - a network applications response tool - among our districts.
IA. Research/Leadership in Emerging Technologies		
Section I - Wide Area Network 1h		Continue to look ahead for new technologies and maintain current knowledge in existing technologies. Communicate with TCC and USOE about emerging trends.
Section III - Enterprise Solutions 3d Note: this addresses only 2 projects currently underway and doesn't address the overall partnership goal of more give and take during project start-up and implementation.	5.1	Develop a process for product evaluations of emerging technologies that includes a significant role (not token updates) for TCC and other public ed constituents.
Section III - Enterprise Solutions 3d		Investigate Web conferencing solutions including the Breeze and Sympa Server, VOIP and Messaging.
Missing		Set aside server space for a technology research lab environment. Support the ongoing evaluation of open source alternatives to WebCT.
II. Web Resources//Mediated Services		
Section III - Enterprise Solutions 3b (idea of eventual broadening of search not included)	1	Work closely with public education and higher education including library media specialists to find or develop a federated search for Pioneer Online Library databases with an eye to eventually deploy the capability across other Utah developed education resources.
Section II Educational Web Resources 2a	2	Work with USOE policy makers to bridge the One-Stop-Shop policy gap to provide a seamless experience for end users.
Section III - Enterprise Solutions 3a, 3b, 3c	4.1	Continue development of eMedia including a process for adding artifacts from local entities.
III. Enterprise Solutions		
Section IV Distance Learning 4c		Begin the exploration process for scheduling software and the mechanics of the scheduling process with the goal of creating an open system with effective user "look up" and scheduling features.
IV. Distance Learning		
Missing		Continue to work with public education and higher education to assure equitable distance learning services including concurrent enrollment for rural students.

V. Broadcast Services		
Section V - Broadcast Services 5a	4.2	Continue to work closely with UIMC to continue acquisition and promotion of broadcast-related services.
VI. Professional Development		
Section VI - Professional Development 6c		Continue to provide equitable access to high quality professional development.
Section I - Wide Area Network 1i		Continue to help develop the technical capacity of district staff.
VII. Governance and Accountability		
Section VII - Governance and Accountability 7d mentions staff capacity, but not district outreach		Work with TCC to extend the benefit of understanding of ITIL principles to district technology staffs.
Missing		Research and develop a disaster recovery plan for the network and for districts.
Section IV - Distance Learning 4c		Reconvene the IPV group to review UEN policies; publish IPV recommendations on uen.org including best practices in IPV use (strengths and weaknesses of this delivery method).
Section I - Wide Area Network 1c addresses analysis but not stakeholder involvement in decision making for when to build and when to purchase	5.2	Develop a formal analysis decision process that includes a significant and ongoing role for public ed for determining when it is appropriate to “develop” software tools versus “purchase/acquisition and integration” into Utah’s suite of services.
VIIA. Stakeholder Relations/Communication		
Section VII Governance and Accountability 7a	3	Reorganize Steering Committee meetings to promote holistic discussion of projects and policies.
Section VII Governance and Accountability 7a		Establish improved communication/collaboration within UEN and with stakeholders, including the continuation of this strategic planning process.
Section VII Governance and Accountability 7b	6	Support 21st Century Teaching and Learning (ETI) Initiative.

TAB 29 ATTACHMENT B

HIGHER EDUCATION ADVISORY COMMITTEE REPORT

Higher Education Advisory Committee Priority List for UEN FY 2007 Strategic Plan

Submitted to the UEN Steering Committee June 16, 2006; revised in committee July 12, 2006

Comments	Draft Plan*	Goal Submitted by Advisory Committee
I. Wide Area Network Projects		
NOTE: Although redundancy is eluded to through the first goal, redundancy with specific sites -- Weber, USU, CEU -- were brought up during the spring meetings. Should not these specific sites be references under 1B?	Throughout Goal 1	Improve network capacity with respect to connectivity to rural sites, redundancy in networks, and stability of networks; replace aging hardware as possible.
NOTE: On July 19, UEN and OCHE will host a meeting to demonstrate and discuss Horizon Wimba, Breeze, and perhaps a third product that might serve as a communication environment.	3D1 p. 18	Deploy an end-user-controlled Web-based communication environment (ex. low level Sympa Server or more complex Wimba or Breeze, etc.) to support discussions among USHE campus faculty and staff. Acquire Web conferencing software. Establish IT, Faculty, Research Faculty, Open Source Community, Student Services forums. Work with advisory committee to promote forums to USHE campuses.
	1G5-8 p. 12	Support USHE security audit visits. Work with system CIOs to conduct campus audits.
	7C8 p. 23	Publish network metrics to analyze links. Create a network metrics page; include service thresholds; make available to HE IT folks.
	Missing	Work with USHE IT staff to take advantage of virtual staff or staff leasing. Provide back up equipment and staffing for emergency situations.
	4B1-6 p. 18	Work with USU to develop a plan for satellite services to IVC conversion. Work with other USHE institutions to facilitate EDNET to IVC conversion.

1F1 states, "explore additional alternate Internet PoP sites." To mirror higher education's (HE) goal, this goal needs clarification: "explore additional alternate Internet PoP sites including sites located in libraries and other community centers." The significance of the HE request is to set up alternatives sites to public ed schools. Also to be addressed either here or in another bullet, the idea that there be, available to HE customers, a central listing of technology sites across the state including equipment available at each site. Equipment varies greatly across sites as well as across our campuses. Faculty, whose use of peripheral equipment is growing, would appreciate information on available equipment.	1F1 p. 12	Plan for and develop community access sites beyond high schools.
	3A1 p. 15 and 3B1 p. 16	Continue to support WebCT VISTA; migrate USU and UVSC to VISTA. Also, support USHE institutions in investigating alternative solutions, including open source solutions, for learning management systems.
	Missing	Implement manual IVC switching
	Missing	Establish closed captioning services for HE programming (out sourced or in house).
The UEN goal speaks only of participating in national NLR partnerships - vague. The HE goal is to "Connect all institutions." Our request needs clarification. We're not sure if the other USHE institutions are eligible for NLR (the UofU has negotiated NLR for its campus). Perhaps UEN should take this customer request as "share current information on emerging www alternatives. Facilitate USHE institution participation in national partnerships as possible. Support campus use of alternatives such as I2 and NLR." Comments from the committee?	1H1 p. 13	Connect all USHE institutions to National Lambda Rail.
1A. Research/Leadership in Emerging Technologies Projects		
Under the header, "technical leadership" this bullet states "communicate, outreach, promotion of WAN projects" Cool. HE's great interest is being informed in trends and in emerging technologies. Rather than "WAN projects" this bullet might be expanded to state "current WAN projects and in technology trends and emerging technologies that may impact technology delivered instruction and services."	1I1 p. 13	Continue to look ahead for new technologies and maintain current knowledge in existing technologies. Communicate trends to USHE IT and distance learning staff.

NOTE: This process is being tested with the July 19 meeting on conferencing solutions.	1114 p. 13	Develop a process for vendor evaluations for emerging technologies. Develop a list of folks to communicate findings to all USHE institutions. Start with investigations of Web conferencing solutions including the Breeze and Sympa Server, VOIP, and Messaging. Research deploying NetOps product - a network applications response tool - among our institutions.
This item, "Provide leadership in technical product selection" does not seem to cover HE's interest in learning from the network the topics one should consider in deciding whether to build or purchase software. USHE institutions seek network insight into this decision tree. Clarification: "Provide leadership in technical production selection including considerations for building versus buying software products."	1113 p. 13	Develop a formal analyses decision tree for determining when it is appropriate to develop software tools versus purchase them.
	Missing	Set aside server space for a technology research lab environment. [6a] Support the ongoing evaluation of open source alternatives to WebCT.
II. Web Resources/Mediated Services		
NOTE: What is meant by "24/7" needs to be explored. My memory is the request was for Web-centered general support as in end-user technical Services and, perhaps, call center support after hours. Multiple groups - VISTA admin group, DE Directors, DE Service Center Directors, UALC - need to be included in focused discussion. Each group will have a different perspective and expectation. We should be able to synthesize common needs.	3B1.4 p. 16	Research, then establish a 24/7 service desk for HE DE students. Provide trouble ticket software system, 800#, Web site of FAQs, work with UEC for academic issues.
	Missing	Investigate at what other services or IT functions might be centrally hosted.
III. Enterprise Solutions		
IV. Distance Learning		
	1A14 p. 11	Work with Snow College, USU, and other interested USHE institutions to exploring technology delivered instruction solutions for incarcerated populations.
V. Broadcast Services		
A3 p. 19 is the only HE-specific reference under broadcasting services. Scott Herd articulated in detail the need to revisit the late night programming schedule, a new idea of scheduling smaller segments to support F2F or other DE classes, and using programming to advance various higher education initiatives. Who represents higher education interests in KUEN programming? This topic requires focused discussion and its own bullet.	Missing	Establish a committee to revisit KUEN evening programming and USHE telecourses. Reorganize programming as appropriate to promote higher education.

VI. Professional Development		
NOTE: The committee might help get this project started by sharing what modules their institution has developed or is developing. Wayne reminded us the top topics were student survival skills or an introduction to distance learning.	Missing	Working with USHE staff identified by the advisory group, develop a series of Web-based tutorials. Topics: optimizing browsers for LMSs, student orientation to LMSs (being built by Dixie State), orientation to online classes (UEC's DEAR survey), to library electronic resources.
This bullet references an "information page" to be connected to the promotion and registration for monthly professional development events. Higher education customers specifically asked for a resource page to include pod casts, calendared events on appropriate topics, useful links, etc. Also both UEN and USHE folks may contribute to this page. Either the referenced bullet could be expanded to state a "distance learning resource page" instead of "information page" or the resource page could be listed under its own bullet.	2B1 p. 14	Establish a DE resources page. USHE folks may contribute resources (title, link, brief description).
Revise "Regional Training" to indicate "provide training opportunities across the state, both F2F and using UEN delivery systems to deliver instruction."	6B2 p. 21, 115-8 p. 13	Leverage USHE campus resources to offer more IT Training. Establish a workshop series with topics of interest to higher education. Topics: intellectual property and ownership, accessibility, information navigation (see WSU and Dixie), best practices in distance learning instruction.
VII. Governance and Accountability		
USHE institutions need to know enough about the ITIL protocols and jargon to be able to engage in meaningful discussion on network issues. Simple example, USHE institutions want to adopt ITIL jargon. Confusion over jargon was cited several times as having created past problems between UEN and a USHE institution. Eric Hawley articulated this item best. USU folks have had some ITIL training. Per Eric, sharing ITIL theory AND practice is in itself a system-network IT community building activity. Beyond networking and common jargon, inviting institutions to adopt the same monitoring tools such as help desk and trouble ticket software ensures stronger, more effective relations between UEN and USHE institutions. Eric Hawley will send a more detailed explanation of this item for Jim Stewart to respond to.	Missing	Involve USHE institutions in ITIL training and planning. Work with USHE IT staff to extend the ITIL principles to USHE institutions - HE and network will be on same page.
	Missing	Research and develop a disaster recovery plan for network and provide guidance or input for USHE institutions as appropriate.

<p>This bullet references resurrecting a committee that was working on IVC acceptable use policies as well as facilitator issues. The bullet only says revitalize the committee. Clarification: "Revitalize the [committee] which will revise IVC acceptable use policies and publish facilitator best practices guidelines, among its responsibilities."</p>	<p>4C1 p. 18</p>	<p>Develop a new IVC use policy for entities outside public and higher education. Reconvene the IVC group. Review UEN policies; publish IVC recommendations on uen.org including best practices in IVC use (strengths and weaknesses of this delivery method).</p>
<p>4C6 p. 19 references integrating scheduling and billing software into an interactive database. Our Spring Dialogues included the suggestion we conduct foundational discussions involving UEN and USHE staff on developing a user-centered scheduling db to be implemented once IVC conversion is complete (users schedule multi-site events; network monitors metrics; online event schedule is searchable by institution or hub versus the 75-page spreadsheet currently on place). Although the user-centered db may be a future goal, the foundational discussions should/could take place in the next year.</p>	<p>Missing</p>	<p>Convene a focus group to explore the scheduling software and the mechanics of the scheduling process with the goal of creating an open system with better user "look up" features.</p>
<p>VIIA. Stakeholder Relations/Communication</p>		
<p>Draft plan addresses adding a research representative. Should also address selecting a member from the southern part of state</p>	<p>7A2 p. 22</p>	<p>Add USHE research faculty and southern representative to UEN Steering Committee.</p>
<p>NOTE: Executive committee is meeting July 2006 to discuss meeting reorganization ideas.</p>	<p>7A1 p. 22</p>	<p>Reorganize Steering Committee meetings to promote holistic discussion of projects and policies.</p>
	<p>2C1 p. 15</p>	<p>Publish electronic newsletter to promote USHE and UEN technology activities.</p>
<p>Same comment as line 38.</p>	<p>4C1 p. 18</p>	<p>Communicate trends in facilitator needs and services to advisory committee.</p>
<p>UEN Vision</p>		
<p>The HE Advisory Committee requests UEN consider incorporating the following four global practices into its strategic vision statements. These four "aspirations" were strongly and consistently articulated by USHE representatives as critical to a positive and productive working relationship between higher education and its network.</p>		<p>Two-way Communication - Improve and increase TS-IS and network-stakeholder communication; promote UEN services broadly; include stakeholders in strategic planning, project identification, and implementation; promote communication among USHE institutions.</p>
		<p>Joint Strategic Planning -- Actively involve higher education in the process of identifying new projects for both Instructional Services and Technical Services. Revisit this collaborative process of evaluation, assessment, and planning periodically throughout the year.</p>

		Common Network Operations - - Demonstrate best practices in Information Technology Services Management (ITSM), broadly share insight into ITSM, and assist campuses in adopting similar practices appropriate for a single institution.
		Information Sharing/Leadership in Emerging Technologies -- Be THE source for technology and technology related issues. Encourage information sharing among USHE institutions by distributing information on IT topics and by encouraging campus stakeholders to contribute their expertise to network facilitated discussion.

**Location goal is found in UEN draft Strategic Plan.*

PHASE 2 IP VIDEO UPDATE - DISCUSSION

Issue

This report provides an update on progress to date in our conversion of the EDNET system to IP-based videoconferencing technology.

Background

UEN has completed approximately two-thirds of a multi-phase upgrade to our distance education system. This has entailed installation of IP Video bridges at various locations throughout the state, implementing a scheduling application, replacing classroom video equipment and conducting training and coordination meetings.

IP Video classrooms

UEN had an aggressive implementation schedule to meet with UEN field staff installing approximately 54 IP Video classrooms primarily in the southwest, southeast, and Cache Valley. The final phase, which will be dependent on allocation by the legislature of funding in our FY 2008 budget, will focus on the Wasatch Front including Salt Lake County and Utah County.

Technical Operations Center relocation and rebuild

Technical Services is in the planning phase for the relocation and rebuild of the Utah Education Network Technical Operations Center for the support of IP Video (IVC). The new location will enable UEN to build the new TOC while the existing TOC continues to function. The new TOC will be located in the west side of the Dolores Doré Eccles Broadcast Center in closer proximity to the UEN Network Operations Center and Field Operations, which will help improve the day-to-day cross departmental support of UEN's services.

UEN Scheduling and Application Engineering implements IView improvements

UEN has been working with RADVision to address database performance issues related to IView, the suite of applications for the management and scheduling of IVC events. IView 5.0 was released as beta and then a full release in July and implemented by UEN. UEN Scheduling and Application Engineering has reported that this upgrade has resolved many of the issues experienced over the past year, most of which were

related to the scale of events scheduled in advance by UEN on a semester and annual basis.

Distance Education Specialists

UEN's Distance Education Specialist have been following closely behind UEN Field Operations providing training on the new IVC classrooms installed this summer. The Distance Education Specialist have also completed new IVC training materials which will soon be available online and provided in hardcopy to facilitators and instructors as the Distance Education Specialists visit each school.

Funding

Progress described above has been funded with \$1 million one-time allocation in our FY2007 budget. The final phase to complete classrooms in Utah and Salt Lake County district high schools will require a final appropriation of \$800,000 of one-time and \$200,000 ongoing in the FY 2008 budget.

Recommendation

This is an informational item only and does not require action from the Technical Services Subcommittee.

PHASE 2/3 ETHERNET UPDATE - DISCUSSION

Issue

This report details the latest efforts and accomplishments in our multi-phase implementation of Ethernet services to schools, districts, colleges and universities throughout the state.

Background

UEN has almost completed Phase II of our Ethernet network upgrade. A few sites have not been installed. These delays have resulted from Qwest's deployment capabilities. We are confident that forward momentum is being made and we will work closely with Qwest to complete installation of these sites.

For the past few months, UEN Technical Services have been working on Phase III of the Ethernet upgrade project. The majority of planning and engineering has been completed and we have now begun the implementation portion of Phase III. Many sites will be installed and operational before the end of August. Some Phase III is on hand and we are preparing this equipment for rapid deployment. This activity will enable us to turn up service within a few days after each Qwest fiber build is complete.

Recommendation

This is an informational item only and does not require action from the Technical Services Subcommittee.

QUARTER FOUR PROGRESS REPORT ON FY 2006 STRATEGIC PLAN - DISCUSSION

Issue

UEN has concentrated on the objectives as outlined in the Strategic plan over the past fiscal year. This report outlines accomplishments in support of the plan in support of our stakeholders. Specific activities related to each objective are detailed in Attachment A.

Background

Following are highlights of accomplishments for fiscal year 2006:

- Connection of the 10 Gbps National LambdaRail (NLR) circuit.
- Participation in TransitRail, using the NLR link to offload 150 – 200 Mbps of commodity Internet traffic.
- Redesign of the UEN Network Operations Center at Dolores Doré Eccles Broadcast Center.
- Plans completed for moving the Technical Operations Center at Dolores Doré Eccles Broadcast Center.
- Integration of the Instructional Delivery Services (IDS) department into Technical Services with greater resource coordination and planning.
- CCNA training at Carbon District involving 20+ individuals.
- Implementation of a new filtering solution with greater capabilities.
- Continued refinements and support to the WebCT project.
- Upgrade of the UEN Storage Area Network and improvements in the UEN machine room.
- Installation of the UEN UTIPS server.

We are pleased at the immediate success moving Internet traffic across the NLR link. This shows the importance of developing relationships with other state networks, in this case CENIC (California) and FRGP (Colorado.) We will work with these partners to increase our traffic across the NLR link and explore other opportunities on national, regional, state and local levels.

UEN continues to make steady progress in the Ethernet projects, completing phase 2 and moving into the implementation part of phase 3.

Progress has been made toward all objectives and we will continue to use the strategic plan to guide our resource allocation and work.

Recommendation

This is an informational item only and does not require action from the Technical Services Subcommittee.

TAB 1 ATTACHMENT A

UEN TECHNICAL SERVICES PROGRESS REPORT

Goal 1 Objective 1. Operate and maintain the UEN network based on best practices.

Quarter 4

- Purchased, installed, configured SAGE asset/inventory control System for UEN Accounting.
- Began planning meetings for aligning Service Desk forms to processes currently in development.
- Extended Server monitoring with NMIS and HP Openview NNM.
- Installed Service Desk 5.0 server soon to go production in place of the old 4.5 service desk server.
- Development Sybase/MySQL Server Upgrade to new hardware and server software.
- Install new WebCT Vista Development System.
- Test upgrade WebCT Vista from Version 3 to 4.
- Provide WebCT Vista 4.x Development Environment to USHE Institutions.
- Kick off for the CMS expansion project. (i.e. USU and UVSC move to our hosted WebCT Vista.)
- We have recently completed a re-design of the UEN Network Operations Center which has allowed us to better incorporate the requirements of managing our expanding network, and provide great customer service at a local level. Our network operations center is a little bigger, and a lot darker, but it provides us the ability to monitor and manage a growingly complex network.
- Because of the growth of the network in size and complexity, we have deployed a new management network which provides a much broader tool-set for managing operational and security related issues.
- UEN Technical services has been working very quickly to catalog all IP Address space allocated throughout the UEN Network. We have purchased a piece of software which provides the ability to catalog complex IP address schemas and will provide us the information and ability to work closely with the SURIN group for future IP Allocation projects.
- Working with Cisco resolved chronic MPLS/Multicast problem effecting the northern ring.
- Improvements in the UEN machine room at EBC.

Quarter 3

- WebCT Patch before Spring Semester 3.0.4 to 3.0.6.
- UEN Mail server upgrade to new hardware and server OS and Mail Services Software.
- EBC Bulding Groupwise to UMail Conversion.
- Server Maintenance and patching.
- Install and start converting www.uen.org to new hardware and software (still in progress).
- Development Sybase Server Upgrade to new hardware and server software (still in progress).
- Production Sybase Server Upgrade to new hardware and server software.
- Data Center rack upgrade (first 4 racks done, 13 to go!).
- Evaluation and purchase Data Center Power Management Units (now installing).
- Evaluation and purchase Data Center Server Console Servers (now installing).
- Backbone Optimization and Tweaking (Phase I).
 - ◊ To accommodate some of the new technologies and get ready for NLR etc, we have upgraded code and implemented new standards for Backbone equipment as a continuation of Phase I.
 - ◊ Multicast deployment and monitoring.
 - ◊ Ipv6 Addressing Plan and backbone support.
 - ◊ Capacity upgrades for major pops (Some planned for FYQ4 as well).
- Considerable Cost savings in overall Circuits and consolidation of resources.
 - ◊ Partially due to GL3 implementations, but also dealing with re-structuring DS3 resources.
 - ◊ Initial review of SmartNet and other Maintenance indicating savings possibilities.
 - Removing legacy equipment from support.
 - 2924's, 1750's, 2500's, 1900's.
 - New Ideas including changing many devices which we have spares for to non-supported and we use spares to back our own network up.
- Documentation, and Process for Operations.
 - ◊ The Operations Department has re-designed their process of handling tasks to better accommodate the vast number of projects and changes continually occurring on the network.
 - ◊ This is the Red, Yellow, Green, Pink, etc.-Sheet processes.
 - ◊ Production Wiki for Advanced Documentation.
- Service Level Agreements (SLA).
 - ◊ Charter School Definition for Support.

- We have worked through Claire and City Academy to provide LAN and end-site support.
 - ◊ Process for Turning up new Charter Schools and requirements is nearly finished.
- Improvement of Customer Service by restructuring process and personnel in the NOC.
 - ◊ Through restructuring network operations, we have made the process of handling customer service in the NOC much more streamlined to provide quicker and more effective resolution of customer issues.
 - ◊ This was accomplished without adding new positions into the NOC .
- Re-designed and Implemented CEU/Blanding/Moab/UVSC/UVSC Heber Links.
 - ◊ Routing policies now match backbone standards.
- Development of next generation Service Level Agreements (SLA) with San Juan, Wasatch and Jordan Districts.

Quarter 1 and 2

- WebCT Patch before Fall Semester 3.0.3 to 3.0.4.
- ITIL training and process assessments.

Goal 1 Objective 2. Increase reliability of the network to 99.99%.

Quarter4

- Established diverse path from USU to SLCC redirecting the existing Comcast GigE circuit.
- Converted SAN (Storage Area Network) Configuration from dual ported to fully mirrored for better redundancy.
- Added four more servers to SAN.
- Addition of Snow PoP to the GL3 Backbone.

Quarter3

- Arranged with Comcast to provide a diverse Ethernet path to Logan.
- Network Monitoring.
 - ◊ We have completed Phase I of a three phase project to monitor and change the way we administrate the new GL3 based UEN Network. Phase I concluded the design and evaluation stage of future needs. Tools and resources were picked which will facilitate future monitoring needs.
 - New Fault Management System.
 - Arbor CP Upgrade.

- ◇ Phase II includes the purchasing and installation of monitoring tools beyond our current set of useful tools. This process is expected to complete early in FYQ4.
- ◇ Phase III will be the relocation of the UEN Network Operations center to better accommodate the needs of our new monitoring requirements. This process is expected to complete mid FYQ4.

Quarter 1 and 2

- Completed Internet Point of Presence (PoP) in St. George.
- Point-to-Point Ethernet from Dixie State College to Salt Lake Community College.
- Point-to-Point Ethernet from Utah State University to Salt Lake Community College (using GeoMax).

Goal 1 Objective 3. Increase network capacity by upgrading remaining higher education campuses and secondary schools to high-speed broadband connectivity.

Quarter 4

- GL3: In wrapping up Phase II UEN completed the turn up of approximately 25 sites during this last quarter. For Phase III UEN has completed the site surveys, engineering design and network hardware has been ordered and received. In preparation for the implementation of Phase III UEN has begun planning meetings with each of the participating school districts.
- San Juan CIB: Improvements to Monticello have been met with some challenges this year as UEN continued to push for approval with the US Forest Services to implement improvements to the Cold Springs Communication Site that would enable UEN to relocate microwave from Abajo Peak (serving LaSal) to Cold Springs which has better year-round access. In an effort to insure network improvements were completed to Monticello High School and the Higher Education Center before the start of school these site improvements for the time being have been put on hold. UEN has turned up new microwave service using the existing Cold Spring Site with new DS-3 (45 MB) service to Monticello High School.
- Completion of the South Central Gigabit Ethernet Backbone.

Quarter 3

- GL3 Phase 2 nearing completion. As of April 12th 110 of 145 sites have been completed, 14 sites currently pending and 21 on temporary hold due to Qwest or district improvements.
- RFP for phases 4 and 4.5 completed, contracts signed, e-rate filing submitted.

- Conterra 100 MB Ethernet to Lava Ridge Intermediate School completed.
- Payson Junior High School to Payson High School fiber improvements completed.

Quarter 1 and 2

- Gigabit Ethernet upgrade between CEU/San Juan Campus and San Juan Media Center/UEN POP completed.
- Conterra 100 MB circuit to Lehi High School completed.
- 45 MB/DS-3 connectivity Montezuma Creek Higher Ed, White Horse High School, Mexican Hat Elementary, and Bluff Elementary completed.
- GL3 Phase 2 District office upgrade to include upgrade to Cisco 6500 switches completed.
- As of December 2005, 46 of 145 GL3 Phase 2 end sites had been completed.
- Eastern backbone upgrade from a 45 MB/DS-3 to 155 Ethernet between Heber and Roosevelt completed.

Goal 1 Objective 4. Work collaboratively with those districts desiring to increase network capacity of elementary schools and develop a cost model and plan to finish installation of Ethernet circuits to all elementary schools.

Quarter 4

- Site surveys complete for elementary school projects in Weber District. Plans moving forward for implementation.

Quarter 3

- RFP process for phase 4 and 4.5 was changed to involve districts that intended to move elementary school connections to high-speed circuits.
- Participated in T-forum and directly with districts to formulate plans.

Quarter 1 and 2

- 45 MB/DS-3 improvements to Bluff and Mexican Hat Elementary.

Goal 1 Objective 5. Provide support to district and higher education technology staff to ensure that the enhanced capacity and reliability of the Network is fully utilized.

Quarter 4

- Development of database to aid in tracking circuits/contracts and yearly RFP/E-rate process.
- Establishment of Process checklists in the NOC.
- Organized SIS/WebCT integration focus group for projected Fall 2007 delivery with USU and UVSC.
- Participated in Educause CAMP Shibboleth SSO Conference in June to begin assessing technologies for Single Sign On.
- Kick off of EHS Blackboard Server upgrade and SIS integration planning (to conclude first or second Quarter of FY07).
- UTIPS Servers installed and mostly configured.

Quarter 3

- New Asterisk Server for UEN Satellite.
- Participation in T-forums and planning directly with districts and higher education technology.
- WSU Network redesign.
 - ◊ Turned up GL3.
 - ◊ BGP and routing Policy standardization.
- ITS Redundancy Design is complete (Richfield Link).

Quarter 1 and 2

- Increased capacity from 1.2Gig to 2.2 Gig, with small decrease in cost. (Since June 2005).

Goal 1 Objective 6. Expand Internet capacity to meet growth in network traffic.

Quarter 4

- NLR TransitRail/Quilt peering project - offload of 150 – 200 Mbps of Internet traffic with potential for greater peering capacity.

Quarter 3

- Expanded rate limit on the 360Networks link to the full Gbps speed, increasing the overall Internet capacity to 2.2 Gbps.

Quarter 1 and 2

- Broadwing connection (Aug. 2005).

Looking Ahead

- Late summer/early fall RFP process to renew all Internet contracts.

Goal 1 Objective 7. Plan and implement funding strategies that are adequate to support Network growth plans.

Quarter 4

- Planning and preparation for FY08 budget request.

Quarter 3

- UEN secured new funding to support ongoing costs of phases two and three and one-time costs for phases 4 and 4.5.

Quarter 1 and 2

- Participation in legislative planning process.

Goal 1 Objective 8. Protect the Network through improved security and security practices.

Quarter 4

- UEN customers have come to rely greatly on a program developed in-house at UEN called the FlowTools project. It is a program which UEN provides free of charge to allow security administrators to identify and manage security incidents on their network. The latest version of FlowTools which we are now calling SecFlow is in development and should be available for general deployment in late 2006.
- The network and security operations has worked on upgrading one of our most powerful tools. In an effort to leverage that tool more in the network operations environment we have upgraded Arbor from the DoS version to Peakflow SP. This upgrade allows us to go far beyond just security analysis, and allows us to do detailed trending and analysis for network traffic.

- With the Security Department - Completion of a Dynamic Blackhole with realtime monitoring of Bogon, DDoS, and Selective traffic.
- Summer implementation of the 8e6 filtering servers.

Quarter 3

- New filtering solution determined through committee and evaluation process (March 2006). Provides much more flexibility, capacity, capabilities than the current N2H2/SC proxy HTTP filtering solution.
- Engineering and Implementation support of the Network Filtering solution.
 - ◊ UEN Operations is on track for FY06-07 deployment of the new Filtering system.
 - ◊ This is currently in the final Bid Process and should be complete FYQ4.
- Major decline in Network Security Incidents through customer awareness and training programs. UtahSAINT, UEN Technical Summit.
 - ◊ 94% of connected entities have Firewalls in place for protection.
 - ◊ No significant outbreak of virus or worms in nearly 12 Months.
 - ◊ No security related outages logged for FYQ3.
- Hardened the User Authentication System.

Goal 1 Objective 9. Support the high capacity/high speed network needs of university researchers.

Quarter 4

- National LambdaRail (NLR) connectivity completed.
- Diverse path established to the USU Innovation campus (Comcast circuit).
- Attended Internet2 Workshop with USHE CIO.
- Visited CENIC to develop NLR and other Research opportunities.

Quarter 3

- NLR Metro fiber in place and tested clean (Feb. 2006).
- Participation in Quilt, FRGP, Internet2 and various NLR meetings.

Quarter 1 and 2

- UEN staff members attended the Super Computing conference in November.

Goal 1 Objective 10. Support the installation and other technical requirements of the IP Video Distance Education System.

Quarter 4

- IP Video: UEN had an aggressive implementation schedule to meet with UEN field staff installing approximately 54 IP Video classrooms primarily in the southwest, southeast, and Cache Valley. The final phase of IP Video will focus on the Wasatch Front including Salt Lake County and Utah County.
- ICM Servers purchased, installed and configured (IP-video scheduling system).
- Engineering and Beginning of Video conversion to GL3, including video bypass.
- UEN's Distance Education Specialist have been following closely behind UEN Field Operations providing training on the new IVC classrooms installed this summer. The Distance Education Specialist have also completed new IVC training materials which will soon be available online and provided in hardcopy to facilitators and instructors as the Distance Education Specialists visit each school.
- Technical Services is in the planning phase for the relocation and rebuild of the UEN Technical Operations Center for the support of IP Video (IVC). The new location will enable UEN to build the new TOC while the existing TOC continues to function. The new TOC will be located in the west side of the Eccles Broadcast Center in closer proximity to the UEN Network Operations Center and Field Operations, which will help improve the day-to-day cross departmental support of UEN's services.
- UEN has been working with RADVision to address database performance issues related to IView, the suite of applications for the management and scheduling of IVC events. IView 5.0 was released as beta and then a full release in July and implemented by UEN. UEN Scheduling and Application Engineering has reported that this upgrade has resolved many of the issues experienced over the past year, most of which were related to the scale of events scheduled in advance by UEN on a semester and annual basis.
- Dixie State Video Report rough draft completed.

Quarter 3

- Planning and kick-off of the Dixie Video plan.
- IP Video Phase 3 is underway.
- Begin design improvements to IP Video classrooms.
- Performance improvements to IVIEW.
- Major RFPs awarded and purchases nearly complete for IP Video Phase 3.
- Video QOS Design for future deployments as needed.

Quarter 1 and 2

- Completion of IP Video Phase 2 – Installation of 55 IP Video classrooms which includes the complete conversion of southeastern and eastern Utah to IP Video.
- Installation of four additional RADVision Conference Bridges Statewide.
 - ◊ Davis Applied Technology Center.
 - ◊ Salt Lake Community College.
 - ◊ Uinta Basin Applied Technology Center.
 - ◊ San Juan Media Center – San Juan School District.
- Implemented IVIEW, RADVision's IP Video scheduling and management system.
- Implemented new gatekeeper.
- SIP /Sepura project begins – VOIP replacement to UENSS classrooms.
- Begin Codian IPVCR pilot project.
- Engineering/Planning for UENSS to MPEG 4.
- Engineering and design for CPB Datacasting project in process.
- Datacasting site surveys completed.

Goal 1 Objective 11. Provide technical leadership and staff/stakeholder development.

Quarter 4

- CCNA Training at Carbon District in June.
- Completion of State DTS redundancy in Richfield, including consulting DTS on inside network changes.

Quarter 4

- Spring Technical Summit in partnership with SUU and SEDC.

Quarter 1 and 2

- Summer Security Summit in partnership with Wasatch District.
- RADVision Configuration and Management Training – UEN/USU/San Juan School District.

Goal 2 Objective 2.3

- Software development enhanced eMedia functionality through programming new functional rules.

REGIONAL PRIORITIES ANALYSIS - ACTION

Issue

For the past 5 years UEN has taken requests from regional Technical Forums and incorporating these requests into our plans. On average, 90% of all annual requests are addressed and completed. UEN takes pride in being able to respond to needs on a regional and local level to meet stakeholder needs.

Background

Regional priorities were reported in the May retreat held at UVSC. These requests are being assembled into one list. This list will be analyzed based on priorities, as outlined by the Steering Committee, cost, UEN responsibility, and regional need. This spreadsheet is being finalized now and will be provided for committee members in the Technical Services subcommittee meeting.

For the last five years the steering committee has defined the priorities as:

1. Initial connectivity
2. Equipment reliability
3. Path reliability
4. Capacity
5. Security

Conversation at the May retreat suggested that other factors may need to be considered. One option for Steering Committee consideration is restructuring of these priorities. That may take a considerable amount of our meeting time in August and even require additional work in anticipation of the October 2006 Steering Committee meeting.

Recommendation

It is recommended that the Technical Services Subcommittee begin the process of evaluating the Regional Priorities list. It is anticipated that this will also require follow-up work in October. In addition, the prioritization structure should be considered, discussed and possibly changed.