



Utah Education Network

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In Partnership with
Utah State Office of Education ■ Utah System of Higher Education

**UTAH EDUCATION NETWORK
STEERING COMMITTEE**

A G E N D A

JUNE 18, 2004

STEERING COMMITTEE – 9:00 AM

9:00 a.m. - **Steering Committee Meeting**
11:00 a.m.

Welcome and Introductions

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FISCAL YEAR 2005 STRATEGIC PLAN - ACTION

Issue

The FY2005 Strategic Plan was presented in draft form during the April Steering Committee meeting.

Background

During the April Steering Committee meeting, a process for development and approval of the FY 2005 Strategic Plan was outlined. Key activities included retreats of the Instructional and Technical Services Subcommittees in April and May.

In addition to the retreats, the plan has also been reviewed by other stakeholders including members of the Public Education and Higher Education advisory committees.

The final version of the FY 2005 Strategic Plan includes the Mission, Vision, and Values statements created with committee input for the FY 2004 plan. The goals remain the same as the previous year, except for revisions to Goal 5 (Professional Development) suggested by members of the Instructional Services Subcommittee during their retreat.

Under each goal, committee members will note objectives and tasks to be completed during the coming year. Of course, the tasks and activities included in the plan do not reflect all functions of the Network, including maintaining technical infrastructure, programming and services. Rather, the plan lists projects and tasks that support the core mission and will be conducted during the coming year. As in previous years, quarterly progress on the strategic plan will be reported during committee meetings.

Members of each Subcommittee reviewed and approved the portions of the plan that apply to their particular committee during Subcommittee meetings June 11, 2004.

Recommendation

It is recommended that Steering Committee members support the Subcommittee recommendations to approve the FY 2005 Strategic Plan.

TAB 18 ATTACHMENT A

FISCAL YEAR 2005 STRATEGIC PLAN

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 UEN educational wide area network to perform their missions. The Network provides the connective links over which mission critical communications and services pass, and it must be reliable, secure, and capable of carrying a growing volume of traffic. The demand for increasing network capacity in public and higher education is proven by the fact that UEN network traffic doubles every 18 months.

The Internet is the data and communications center for literally 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*.

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, there was a 54 percent growth last year in enrollment in online, EDNET, satellite-delivered, and KULC classes. Enrollment in the Utah Electronic High School grew 300% from January 2003 until June 2003. UEN is taking advantage of new, yet proven, technologies such as DTV multi-channel broadcast, datacast, optical networks, digital videoconferencing, video streaming and voice services provided over the UEN backbone and wireless networks to provide greater Network capacity at lower costs.

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, like other state education networks 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 more 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 are tremendous challenges facing us during the coming year, as we respond to growing Network bandwidth demands and meet the need for essential, technology-based educational services. The economy of Utah and the nation is not robust, and state financial resources are not increasing. Simply stated, UEN must do more with

less. We must achieve the greatest value possible from limited state resources, and be more aggressive in seeking 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

Goal 1. Maintain and expand a robust, reliable, and secure high-speed network connecting every public school, college, university, and library in Utah.

- 1.1 Objective 1. Increase network speed, reliability and capacity, especially in rural areas.
 - 1.1.1 Complete CUT Ethernet Project.
 - 1.1.2 Complete South Central Ethernet Project.
 - 1.1.3 Complete Manti Tel Ethernet Project.
 - 1.1.4 Complete UBTA Ethernet Project.
 - 1.1.5 Complete Millard Ethernet Project.
 - 1.1.6 Complete GL3 project bringing GigE service to the backbone.
 - 1.1.7 Complete 11 GeoMax/GL3 DO sites.
 - 1.1.8 Prioritize and install 155 GeoMax sites.
 - 1.1.8.1 Provide list of all sites.
 - 1.1.8.2 As sites are identified and prioritized, communicate with stakeholders.
 - 1.1.8.3 Finalize sites with participation from stakeholders and final approval of Steering Committee.
 - 1.1.9 Participate with Davis District in GeoMax project.
 - 1.1.9.1 Update and communicate details and process so that it can be used as a model for other areas.
 - 1.1.10 Develop All West, Beehive projects and Gunnison telephone.
 - 1.1.11 Develop tools and reports to better manage network assets.
 - 1.1.12 Explore diverse path options and increased bandwidth to Price, Roosevelt, Logan and St. George.
 - 1.1.12.1 Perform cost/benefit analysis to determine if feasible and financially viable before efforts are taken to file and bid/RFP for services.
 - 1.1.12.2 Explore the possibility of using redundant/alternative Internet POPs/Links for partial access redundancy.

- 1.1.12.3 Implement QOS on serial and Ethernet where there are constrained links.
- 1.1.12.4 Provide training and leadership in the area of improving LAN reliability and speed on a local level.
- 1.1.12.5 Develop cost model and plan to finish installation of Ethernet circuits to all schools, including Elementary schools.

1.2 Objective 2. Maintain and update data and microwave networks.

- 1.2.1 Complete San Juan CIB Phase I project.
- 1.2.2 Develop San Juan CIB Phase II plan and implement.
- 1.2.3 Help and assist Escalante Valley and West Desert schools.

1.3 Objective 3. Increase Internet capacity

- 1.3.1 Complete the installation of a Gigabit circuit to American Fiber Services (AFS).
- 1.3.2 Increase Bandwidth with new Internet contract to replace the Sprint Link.
- 1.3.3 Install 10 Gigabit Pipe to NLR in Denver.
- 1.3.4 Increase the usage of Internet 2.
- 1.3.5 Enable Internet 2 multicasting through the UEN backbone.
- 1.3.6 Explore alternate Internet POP sites and possibility of using them for partial redundancy options.
- 1.3.7 Explore, develop and implement ways to keep local traffic local.

1.4 Objective 4. Provide a variety of network access and delivery options to stakeholders.

- 1.4.1 Where appropriate, make effective use of inexpensive wireless solutions for redundant backup.
- 1.4.2 Establish guidelines for UEN participation with community networks.
- 1.4.3 Establish guidelines for UEN participation with alternative access carriers.
- 1.4.4 Explore the use of power line technology.
- 1.4.5 Promote expanded Gigabit Ethernet network project to stakeholders through newsletters, uen.org, special events, and media relations.
- 1.4.6 Develop stakeholder/staff team to coordinate technical/network promotion.
- 1.4.7 Target local media and national trade publications for media relations.

- 1.5 Objective 5. Increase security throughout the network.
 - 1.5.1 Continue to develop and participate in UtahSAINT.
 - 1.5.2 Conduct weekly and ad hoc security calls.
 - 1.5.3 Continue to develop the effectiveness of security monitoring devices.
 - 1.5.4 Evaluate the Arbor Networks product and develop a deployment plan.
 - 1.5.4.1 Cost/benefit analysis, can we do it better for less ourselves?
 - 1.5.5 Work with the Steering Committee to develop Security Leadership on a statewide level.
 - 1.5.6 Develop single-issue forums to address specific needs.
 - 1.5.7 Publish statewide list of higher and public education security contacts
 - 1.5.8 Participate in developing security policies for districts, regions, and higher education institutions.
 - 1.5.9 Provide public relations and graphic support for UEN Security Conferences and other network events as requested.

- 1.6 Objective 6. Support IP Video, other delivery technologies and future technologies.
 - 1.6.1 Communicate IP Video standards.
 - 1.6.2 Facilitate statewide and regional planning
 - 1.6.3 Improve regional and statewide communication with IP Video Migration Committees
 - 1.6.4 Complete installation of 40 new IP video sites
 - 1.6.5 Leverage the IP video budget to maximize the impact throughout the state
 - 1.6.6 Develop network support plan for the Digital Media Services project.
 - 1.6.6.1 Provide a comprehensive plan to meet increasing needs as this project matures.
 - 1.6.7 VoIP – Determine with stakeholders the appropriate role for UEN.
 - 1.6.7.1 Local by-pass with dialing and access plan and policy and network standards to which users must adhere.
 - 1.6.8 Enable multicast as necessary to meet stakeholder needs.
 - 1.6.9 Plan for IPv6.
 - 1.6.10 Promote IP Video and other technologies to stakeholders through print, electronic, special events, newsletters, UEN Web site, and public and media relations.

- 1.7 Objective 7. Provide technical leadership and staff/stakeholder development.
 - 1.7.1 Training.
 - 1.7.2 T-Forums.
 - 1.7.3 Technical Summits.
 - 1.7.4 Security Summits.
 - 1.7.5 Leadership.
 - 1.7.5.1 Example: Bandwidth management best practices and recommended vendors.
 - 1.7.5.2 Ferret out best practices and help choose/direct vendor selection decisions based on UEN's knowledge and experience.

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.

- 2.1 Objective 1. Web design and maintenance.
 - 2.1.1 Deploy and populate Digital Media Service (Learning object repository pilot)
 - 2.1.2 Coordinate the second phase of the WebCT Vista Pilot for USHE and higher education institutions.
 - 2.1.3 Implement tiered access for basic and premium services.
 - 2.1.4 Develop LDAP to support single sign-on for services.
 - 2.1.5 Conduct a needs analysis and then design and implement personalized Web services.
 - 2.1.6 Finalize Create PDF service.
 - 2.1.7 Enhance UEN's K-12 Student Audience Web pages.
 - 2.1.8 Expand and maintain the integration and correlation of online resources to the Utah Core Curriculum.
 - 2.1.9 Support TIPS.
 - 2.1.10 Modify the "What's On" broadcast listing tool to include and display schedule information for digital channels.
 - 2.1.11 Support online Major's Guide enhancement for USHE.
 - 2.1.12 Support the online archive and electronic portfolio service.
 - 2.1.13 Collaborate to develop and host partner content.
 - 2.1.13.1 NewsByte.
 - 2.1.13.2 Electronic Simulations (SLCC and USOE).

- 2.1.13.3 Oral History WWII (USOE).
 - 2.1.13.4 Teaching American History Grants if funded (Jordan, Davis, Logan/Cache).
 - 2.1.13.5 HP Alternative Fuels Grant (Center City).
 - 2.1.14 Coordinate lesson plan development and publishing with USOE.
 - 2.1.15 Conduct site structure and link clean up (uen.org).
 - 2.1.16 Consult on formatting for Service Desk reports.
 - 2.1.17 Complete functionality of Core Interface Tool associations.
 - 2.1.18 Upgrade sites/schools database.
 - 2.1.19 Design and implement automated Web site publishing workflow.
- 2.2. Objective 2. Pioneer Library.
- 2.2.1 Create and deliver resources for effectively utilizing the Pioneer Library databases.
 - 2.2.2 Update and enhance the “Subject Matter” matrix of the Pioneer Library databases.
 - 2.2.3 Launch new products added to the Pioneer Library.
 - 2.2.4 Conduct outreach campaign on Pioneer Library.
 - 2.2.5 Build Pioneer Library utilization and awareness.
 - 2.2.5.1 Influence stake holder’s usage of Pioneer Library through electronic, print, public relations, media relations, and special events.
- 2.3 Objective 3. TECH CORPS and Intel PC Recycling.
- 2.3.1 Continue Intel Recycling program with Utah’s K-14 constituents, increase volunteer base, and expand to non-profit organizations.
 - 2.3.2 Include inventory on Tech Corps Web site.
 - 2.3.3 Continue TECH CORPS basic computer training classes for refugees in Salt Lake City.
 - 2.3.4 Improve outreach/awareness of TECH CORPS resources/services.
 - 2.3.5 Implement new TECH CORPS leadership.
 - 2.3.6 Implement strategic site selection process that meets school needs.
- 2.4 Objective 4. Provide resources aligned to academic disciplines and curricula.
- 2.4.1 Influence stakeholder usage of UEN resources through electronic, print, public relations, media relations, and special events.

- 2.4.2 Provide a suite of electronic, print, and promotion resources for UEN services.
 - 2.4.3 Produce, direct mail and promote the annual Utah Instructional Television and Resource Guide to educators.
 - 2.4.4 Promote use of ITV in the classroom.
 - 2.4.5 Develop targeted public relations campaigns for specific services and audiences.
 - 2.4.6 Inform stakeholders about e-learning resources through electronic, print, public relations, media relations, and special events.
 - 2.4.7 Inform stakeholders about UEN resources through higher education, public education, libraries, broadcast partners, and other stakeholders distribution channels.
 - 2.4.8 Build awareness and goodwill through UEN sponsorships: UCET conference, Utah Multimedia Arts Festival, Golden Apple Awards, and others.
 - 2.4.9 Explore sponsorship of a state spelling bee.
 - 2.4.10 Launch a branding campaign for the Utah Education Network as part of new logo.
- 2.5 Objective 5. Increase opinion leaders' and influence makers' approval of distance education services supported by the Utah Education Network collaboration.
- 2.5.1 Conduct a comprehensive public relations campaign promoting Utah's distance education collaboration.
 - 2.5.2 Identify opinion leaders' and influence makers' who are not necessarily users of distance education services.
 - 2.5.3 Make presentations to key opinion leaders and other influence makers.
 - 2.5.4 Conduct success measurement analysis.
 - 2.5.5 Conduct or participate in special events, workshops, and seminars:
 - UEA (Utah Education Association)
 - UCET (Utah Coalition for Educational Technology)
 - Utah Security Summit
 - UEN Tech Summit
 - UELMA (Utah Educational Library Media Association)
 - Utah Library Association
 - UAACCE
 - PTA
 - Utah Multimedia Arts Festival

Goal 3. Deliver distance learning classes and programs offered by public and higher education that use reliable, real-time, and broadcast quality videoconferencing technologies.

3.1 Objective 1. WebCT Vista.

- 3.1.1 Plan and host WebCT Vista sharing events with institution administrators, OCHE, and participating faculty.
- 3.1.2 Support UEC in establishing Vista user support center.
- 3.1.3 Assist higher education institutions to migrate and host courses and degree programs within the parameters of the Vista pilot project.
- 3.1.4 Implement a scripted user import and enrollment for the WebCT Vista institutions.

3.2 Objective 2. IP Video.

- 3.2.1 Continue to support IP video project and end-site migration plan.
- 3.2.2 Assist higher education institutions to implement IP Video into courses and degree programs.
- 3.2.3 Design strategies and implement tools for the Video Operations Center to better support the transition to IP Video technologies.
- 3.2.4 Promote EDNET and new IP video technologies to stakeholders using the anniversary dates for SETOC/UEN, EDNET, KULC and data networks expansion as a triggering event.
- 3.2.5 Use electronic, print, public and media relations.

3.3 Objective 3. Distance Learning Administration.

- 3.3.1 Automate the course scheduling process with the catalog.
- 3.3.2 With higher education committee members, develop Web site resources highlighting best practices for distance learning.
- 3.3.3 Plan for and design work environment changes and operational practices to support new services.
- 3.3.4 Implement and support a more robust and flexible video management software system.
- 3.3.5 Participate in training and support implementation of media ingestion processes.

3.4 Objective 4. Satellite.

- 3.4.1 Support UENSS plan and associated activities.

Goal 4. Build the vitality and scope of UEN broadcast services.

4.1. Objective 1. Research, Branding, and Outreach.

- 4.1.1 Develop and implement UEN-TV awareness campaign based on research.
- 4.1.2 Host annual distance learning preview event for administrators and faculty.
- 4.1.3 Conduct market research, then target outreach programs for adult learners, seniors, after school providers, and distance learners.
- 4.1.4 Add DTV information section to Web site.

4.2 Objective 2. Programming.

- 4.2.1 With an academic Advisory Panel, develop broadcast programs for academic advising and financial aid information.
- 4.2.2 Consult with USHE to coordinate General Education offerings.
- 4.2.3 Reformat ITV blocks with new programs; eliminate programs older than five years.
- 4.2.4 Coordinate a library approach for college content from PBS ALS.
- 4.2.5 Deliver Annenberg mirror site.

4.3 Objective 3. Build Adult Education services and programming.

- 4.3.1 Determine Adult Learning objectives and priorities with stakeholders; then hire Adult Learning Specialist.
- 4.3.2 Recruit Dept. of Workforce Services representative to serve on Instructional Services Subcommittee.
- 4.3.3 Identify existing organizations that serve Adult Learners; build relationships with key groups.
- 4.3.4 Conduct needs analysis for adult learners in Utah, compare with UEN services, and report on findings.
- 4.3.5 Identify and implement adult learning programs and services to meet needs.
 - 4.3.5.1 Explore digital delivery of Adult Learning programs.

4.4 Objective 4. Administrative.

- 4.4.1 Develop UEN TV / cable TV relations plan.
- 4.4.2 Continue monthly management meetings.

4.5 Objective 5. Technical.

- 4.5.1 Extend full-bandwidth DTV signal to several key translator sites, including Webb Hill in St. George.
- 4.5.2 Design, purchase and install DTV microwave links into St. George.
- 4.5.3 Define Broadcast Operations to ensure a smooth transition from Programming to Automation.
- 4.5.4 Participate in Factory Training for DTV engineers.
- 4.5.5 Investigate and implement, when possible, the PBS plan for Enhanced Interconnection and Optimization Project to streamline traffic and on-air operations and reduce costs.
- 4.5.6 Work with programming to automate the transfer of programming information to our DTV On-Air Program Signal.
- 4.5.7 Continue to participate in the Utah Translator Master Plan revisions.
- 4.5.8 Work with the FCC to preserve bandwidth and improve translator status.
- 4.5.9 Work toward expanding KULC, and related broadcast services, to other distribution providers.
- 4.5.10 Research and coordinate the potential uses of data over all of our DTV channels, while we continue to revise and fund our DTV transition plan.
- 4.5.11 Work with KUED to determine common goals and areas where shared resources may be used, as well as providing engineering support for other EBC departments.

Goal 5. Provide professional development opportunities to improve the quality of K-20 instruction and assure effective implementation of technology in teaching.

5.1 Objective 1. Professional development services linked to best practices.

- 5.1.1 Create professional development learning objects and tutorials.
- 5.1.2 Expand UEN TV as professional development delivery resource.
- 5.1.3 Develop WebQuest workshops.
- 5.1.4 Develop new GIS/GPS workshop in collaboration with UCGISE (Utah Coalition for Geographic Information Systems Education).
- 5.1.5 Revise Pioneer Library workshops to reflect new products.
- 5.1.6 Conduct workshops for USU NSDL partnership/digital video workshop (pending).

- 5.1.7 With USHE, host professional development series for distance educators and administrators.
 - 5.1.8 Gather/synthesize existing Vista training materials; support Vista institutions with core skills training / develop training for WebCT Vista.
 - 5.1.9 Update distance learning training materials to include IP Video.
 - 5.1.10 Deliver and conduct follow-up for 25 3-day ITC workshops.
 - 5.1.11 Develop resource material, provide outreach, and offer training for preservice teachers and teacher education faculty on UEN resources.
- 5.2 Objective 2. Professional development administration and reporting.
- 5.2.1 Design and implement professional development tracking and management software.
 - 5.2.2 Add follow up component to all training (e.g., discussion board, conference call, online resources, additional class session).
 - 5.2.3 Work with stakeholders to identify groups that may benefit from Professional Development, and then promote professional development to these target groups.
 - 5.2.4 Refurbish and upgrade training lab facility.
- 5.3 Objective 3. Deliver professional development grant projects.
- 5.3.1 TeacherLine: Train 300 educators.
 - 5.3.2 Intel Innovations: Train 40 administrators on Leadership Forum, 24 master teachers on Master Teacher Seminar and 480 educators on Intel Teach to the Future and Interactive Thinking Tools Workshops.
 - 5.3.3 Continue Technology Integration Academy (TIA) program.
 - 5.3.3.1 Recruit 15 new TIA participants, 1st cohort completes TIA courses.
- 5.4 Objective 4. UEN Staff professional development.
- 5.4.1 Ensure UEN staff have the necessary training and tools to support IP Video users.
 - 5.4.2 Participate in professional conferences and workshops to build capacity.
 - 5.4.3 Participate in public and higher education public relations conferences, professional development workshops.
 - 5.4.4 Participate in graphic design professional development workshops.
 - 5.4.5 Attend required personnel and management training from University of Utah Human Resources department.

- 5.4.6 Increase knowledge of best practices and current research through memberships in professional organizations and associations.

Goal 6. Strengthen educational technology governance at the state, regional, and local levels through improved coordination and cooperation among UEN's stakeholders.

- 6.1 Objective 1. Improve coordination with UEN Steering Committee, subcommittee, and advisory committee members.
 - 6.1.1 Produce print and electronic UEN Steering Committee and Subcommittee materials.
 - 6.1.2 Increase communication with key stakeholders through targeted electronic, print, direct mail, and new UEN update e-newsletters.

- 6.2 Objective 2. Request new state funding for the highest priority needs of the Network, and maximize the benefit of state tax funds through increased support from external grants and other revenue sources.
 - 6.2.1 Help assure UEN's future by increasing influence maker's positive image of Utah's distance education services through a major public relations campaign.
 - 6.2.2 Provide support for UEN Legislative budget request through printed, online, and other materials as requested.
 - 6.2.3 Provide background, writing, and editing support for Chief Financial Officer special reports, as requested.

- 6.3 Objective 3. Increase revenue from grants and E-Rate reimbursements.
 - 6.3.1 Provide research and writing support for grants and E-Rate requests.
 - 6.3.2 Provide design support for grants and E-Rate applications.
 - 6.3.3 Seek CIB funding to complete upgrade (Stage II) of the microwave network in San Juan County.
 - 6.3.4 Identify grant program(s) and apply for funding to convert the analog EDNET system to an IP-based digital technology and to provide IP video training of faculty and facilitators in using IP Video for distance education.
 - 6.3.5 Apply for funding to convert to digital and expand the KUEN/KUED translator network.
 - 6.3.6 Identify program and apply for funding to expand WebCT Vista institutional user base.
 - 6.3.7 Work with telecommunication providers to identify grant/loan opportunities for strategic network projects.

- 6.3.8 Work with foundations and grant agencies to identify grant opportunities for educational projects and services.
- 6.3.9 Develop partnerships/proposals with research/peer groups that further UEN's mission.

Goal 7 Be accountable to our stakeholders by measuring, tracking, and reporting performance and satisfaction with UEN-provided services.

- 7.1 Objective 1. Report on plan progress with quarterly updates to the UEN Steering Committee.
- 7.2 Objective 2. Report monthly statistical analysis of usage of uen.org, my.uen, Pioneer Library, EDNET, UENSS, and other UEN programs and services.
- 7.3 Objective 3. Report on pilot-tests of new delivery systems, technical experiments, and product trials.
- 7.4 Objective 4. Solicit and report findings from informal and formal feedback on services.
 - 7.4.1 Track stakeholder interest in topics highlighted in electronic newsletters and online articles.
- 7.5 Objective 5. Research and disseminate white papers on timely issues.
- 7.6 Objective 6. Use existing, secondary and primary research to establish baseline for PR audience awareness, usage, and perceptions.
- 7.7 Objective 7. Establish Public Information and communication value through ROI (Return on Investment) and ROG (Return on Goals).

FISCAL YEAR 2005 BUDGET - ACTION

Issue

A preliminary draft of the FY 2005 UEN budget was presented to the Executive Committee in late April and to all members of the Steering Committee during the Instructional Services and Technical Services Subcommittee retreats in late April and early May. Since then, several recommendations have been incorporated into the budget. Based on careful staff and stakeholder review and input, we believe the budget will allow us to make significant progress during the coming year in meeting the goals and objectives that are identified in the FY 2005 UEN Strategic Plan.

Background

The FY 2005 UEN budget reflects a modest growth in state appropriations. We are confident that the financial plan outlined in the budget will allow UEN to maintain the statewide network with increased capacity and improved reliability. We propose to complete several network improvements, and to initiate conversion of the EDNET system to IP-based technology. The expanding role UEN plays in delivering enterprise-level, Web-based applications also receives greater priority in the budget.

Detailed information about the FY 2005 budget is provided in Attachment A following this memorandum. The attachment summarizes revenue sources used to fund the budget, and expenditures by detailed areas.

Policy Considerations

Major FY 2005 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.

1. Income

Total revenues on which the FY 2005 budget will be based are projected to be \$23.57 million, a reduction of \$829,236 below FY 2004 revenues. A detailed listing of all revenue sources in the UEN budget is provided on page 2 of Attachment A.

State appropriations will be \$1.08 million higher than in FY 2004, and total \$15.998 million. Most of the increase is one-time appropriations totaling \$945,300 allocated to provide increased network capacity, convert EDNET to IP-based technology, and

to support new enterprise-level Web applications. The remaining new state funds will pay salary and benefit increases for UEN employees.

In addition to state appropriations, UEN will receive revenues from grants and E-rate reimbursement for telecommunications services, revenues carried forward from this year, and other miscellaneous sources. Grants will continue to be aggressively pursued, although the budget assumes that grant income will be similar to last year's amounts. An important income source in the budget is the Community Service Grant (CSG), which must be used to support KULC and related services and personnel. We are projecting the CSG to be lower than it is during the current year by \$273,530.

E-rate funds reimburse a portion of telecommunications services provided to public schools and paid for by UEN. There are factors associated with this revenue source that make it quite challenging to anticipate in budgetary planning. We have applied for significantly higher E-Rate reimbursements for FY 2005 than in FY 2004 (\$13 million instead of \$9 million). However, we have not yet received approval for the contracts that have been submitted, so it is premature to build assumptions of increased E-rate funding into the FY 2005 budget. E-Rate reimbursements are paid for expenses actually incurred and paid for by UEN. The budget reflects E-Rate reimbursements we have actually collected during the previous year, not anticipated revenues. Prior year E-Rate income is reported as Universal Service Fund Discounts, and amounts to \$2,139,285.

2. Major Expenditure Choices

Specific departmental budget recommendations are summarized on page 1 of Attachment A, and detailed budget proposals are outlined on pages 3-21. Major decisions reflected in departmental budgets are as follows:

- 1 Three new staff positions have been authorized for FY 2005 in the technical services area. The first two will be funded by not rehiring an operations associate director and using those savings to add two new staff members. The first is in the field operations staff to support deployment of the Qwest GeoMax and the IP video projects. A second position is a Network Operations Center staff member needed to support growing network management responsibilities. Finally, a new staff member is being added in the Enterprise Applications Support area.
- 2 UEN staff members will receive a modest 1.0% salary increase this year, and a one-time bonus of approximately \$400 at mid-year. The cost of monthly premiums for health insurance will increase slightly for employees, and the state contribution for health insurance and state retirement premiums will also be increased.
- 3 Nearly all departmental operating budgets will remain flat or be adjusted only slightly next year. Sizeable increases are recommended in the NOC and the Enterprise Applications Support areas.
- 4 The technical service special project account is currently budgeted below its current year level. Our initial estimate is that the project account will be \$600,000, which is about half what the account ultimately contained this year. However, we anticipate that additional funds will be available based on moving carry forward revenues from the FY 2004 budget into the account. The final

extent of the project account will also depend upon the approval of contracts with local telecommunications companies as part of the federal E-rate program approval process. These funds will pay for high priority projects based on recommendations of UEN staff and stakeholders to the Technical Services Subcommittee and Steering Committee.

- 5 A new account has been created to centralize funds for the IP Video conversion project. It will initially be limited to \$420,000 in one-time funds. To augment the account, we are applying for grant funds and E-Rate reimbursements to purchase classroom equipment, MCU's, and videoconferencing management software. As new grant and E-Rate funds are obtained, they will be managed from that account.
- 6 The enterprise application support budget has been allocated \$260,000 in new state appropriations. These funds will be spent for planned enterprise infrastructure upgrades, and equipment, maintenance, and licensing for applications that will be added during the coming year.
- 7 The Pioneer Library budget has been increased to cover anticipated increases in license costs now being negotiated by the RFP committee. Although the "best and final offer" stage has not yet been completed by the committee, we are building the budget based on the best current information now available.
- 8 Budget support to UEN-funded activities and staff positions managed by regional service centers and regional hubs will remain the same as in FY 2004. Regional trainers and regional technical staff will receive the same salary and benefit increases as UEN staff members.

3. Budget Priorities

A helpful way to show funding priorities in the FY 2005 budget is to examine the extent to which programmatic areas have received increased funding or budget reductions, from FY 2004 to FY 2005. Table 1 demonstrates that a sizeable increase in funding is recommended in the technical services and instructional delivery areas. A modest increase in funding is proposed for the instructional services and administration areas. Support to regional hubs and regional service centers will remain essentially the same, while all other programmatic areas are recommended to receive budget cuts. The budget reduction shown for KULC is misleading. One-time funds were spent this year to complete the DTV conversion, and those expenditures will not recur in FY 2005.

A second way to demonstrate the priority of particular programs is by indicating the percentage of available state appropriations that each will receive. Table 2 ranks program areas according to the percentage of total state appropriations they receive. There is limited discretion on usage of most other revenue sources, so grants, E-Rate reimbursements, and other revenue sources are not reflected in the table.

Table 1 Changes in Funding from FY 2004 to FY 2005, by Programmatic Area

Programmatic Area	Increase or Decrease in Funding
Technical Services	\$261,472
Instructional Delivery Services	\$435,843
Pass through to Hubs & Regional Service Centers	\$4,918
Pass through to USOE	\$0
Public Information	(\$6,877)
Instructional Services	\$137,218
Administration	\$47,073
UENSS	(\$122,801)
KULC	(\$160,628)
O & M, Reserves	(\$1,425,454)
Total Funding Change, FY 2003 to FY 2004	(\$829,236)

Table 2 Percentage of State Appropriations Received by Program Areas, FY 2005

Program Area	State Appropriation	Percent of Total
Technical Services	\$10,174,097	63.6%
UENSS	\$1,459,302	9.1%
Instructional Services	\$1,274,711	8.0%
Administration	\$999,787	6.3%
Instructional Delivery	\$806,856	5.0%
Hubs & Regional Service Centers	\$801,781	5.0%
Pass through to USOE	\$194,716	1.2%
O & M, Contingency	\$170,000	1.1%
KULC	\$86,450	0.5%
Public Information	\$30,5300	0.2%
Total State Appropriations	\$15,998,000	

Recommendation

It is recommended that the Steering Committee approve the FY 2005 UEN Budget.

TAB 19 ATTACHMENT A
FISCAL YEAR 2005 BUDGET

**UTAH EDUCATION NETWORK
FY2005 Budget Planning
EXPENDITURES**

DEPARTMENT	BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget
Administration	1,378,976	1,426,049	47,073
Public Information / Communications	374,421	367,544	(6,877)
Technical Services			
Operations	6,163,763	6,542,660	378,897
Network Operations Center	1,047,220	1,268,945	221,725
Field Operations	1,240,451	1,319,273	78,822
UEN Project Account	1,212,182	600,000	(612,182)
Engineering	1,962,235	1,923,925	(38,310)
Security	235,498	237,516	2,018
Enterprise Applications Support	548,911	844,317	295,406
Software Development	706,449	653,526	(52,923)
Instructional Service			
IS Grant	191,925	131,300	(60,625)
KULC - Programming	362,533	327,460	(35,073)
Operations	535,734	571,828	36,094
Web Resources	598,450	726,092	127,642
Professional Development	781,886	855,282	73,396
Instructional Delivery Systems			
EDNET Video Operations	258,627	267,739	9,112
IP VIDEO	-	420,000	420,000
Local Service Representatives	207,694	209,943	2,249
Scheduling	84,692	89,174	4,482
Other			
KULC Broadcast Engineering	586,548	624,835	38,287
KULC DTV Conversion	961,818	762,903	(198,915)
UEN-USU Satellite Project	1,582,103	1,459,302	(122,801)
Operations and Maintenance	3,375,396	1,938,663	(1,436,733)
TOTAL EXPENSES	24,397,512	23,568,276	(829,235)
FY 2005 INCOME	24,397,512	23,568,276	(829,236)
BALANCE (Income less Expenses)	0	0	

**UTAH EDUCATION NETWORK
FY2005 Budget Planning
INCOME**

	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget
STATE APPROPRIATIONS			
UEN Legislative Funding (On-going)	13,464,600	13,598,700	134,100
UEN Legislative Funding (One-time)	0	945,300	945,300
UEN-USU Satellite Project	1,454,000	1,454,000	-
INTEREST INCOME			
KULC/EDNET/UtahLINK	80,000	80,000	-
CARRY FORWARD			
KULC funds allocated for DTV	885,368	676,453	(208,915)
UEN State Contract - One Time	753		(753)
KULC Broadcast		90,000	90,000
UEN Public Information	5,129		(5,129)
KULC Programming	109,144	26,500	(82,644)
Intel TIA (Technology Integration Academy)	76,765		(76,765)
Intel PC	7,753		(7,753)
Intel Classic - UtahLink Gift Acct	11,494		(11,494)
Gates Seminars - UtahLink Gift Acct	23,666		(23,666)
Teacher Training Institute	31,006	69,500	38,494
Firestone	8,000		(8,000)
MarcoPolo Partnership	16,205		(16,205)
Web Carry Forward	37,280		(37,280)
Tech Core	8,438	22,500	14,062
Accounts Payable	97,341		(97,341)
Core Ring project	95,000		(95,000)
UEN Satellite Budget	138,869		(138,869)
CIB Project	570,000		(570,000)
E-rate Funding	169,042		(169,042)
Operating Funds	2,369,157	2,284,184	(84,973)
CORPORATION FOR PUBLIC BROADCASTING			
Community Service Grant	2,098,530	1,825,000	(273,530)
KUED DIRECT SUPPORT			
Training & Content	33,000	33,000	-
Public Information	22,530	22,530	-
GRANT INCOME			
CPB Leadership Grant	5,000		(5,000)
WNET	10,000		(10,000)
Bridges Mini Grant	500		(500)
Teacher Line Grant	35,000	75,000	40,000
USOE and UIMC	22,530	42,530	20,000
Bridgestone/Firestone Trust	8,000	8,000	-
Intel Corporation PC Recycling Program	14,812		(14,812)
Intel Corporation - TIA 1	5,000	71,112	66,112
Intel Corporation - TIA 2	-		-
Distance Service Grant	40,150		(40,150)
Digital Distribution Fund FY03 Grant	-		-
Community Impact Grant	250,000		(250,000)
OTHER INCOME			
Universal Service Fund Discounts	2,072,050	2,139,285	67,235
Dutch John Rental			-
Service Income from EDNET	10,000	10,000	-
ITS Internet Access	-		-
Library Internet Access	21,000	21,000	-
Idaho State University Internet 1	21,500	18,000	(3,500)
Internet II	2,000		(2,000)
Equipment Credits/University Surplus	1,000	1,000	-
Expenditure Recovery	-		-
COMPUTER OPERATIONS			
KUED	33,281	22,431	(10,850)
KUER	6,948	5,923	(1,025)
OIT	2,421	2,323	(98)
Media Solutions	23,250	24,005	755
TOTAL	24,397,512	23,568,276	(829,236)

**UTAH EDUCATION NETWORK
FY2005 Budget Planning
ADMINISTRATION**

Budget Line Item	APPROVED BUDGET FY04	Proposed Budget FY05	Change in Budget	On-Going Expenses			New State Approp
				State Approp.	CSG	Total On-Going	
Personnel	510,446	518,987	8,541	263,725	255,262	518,987	
Consultant	71,000	69,500	(1,500)	69,500		69,500	
Bonuses		45,300	45,300				45,300
Auditor	16,000	20,000	4,000		20,000	20,000	
Supplies	43,000	45,000	2,000		45,000	45,000	
Phones	72,500	72,500	-	-	72,500	72,500	
Professional Development	22,500	22,500	-		22,500	22,500	
Equipment	5,000	5,000	-	5,000		5,000	
Employee Recruitment	1,000	1,000	-		1,000	1,000	
In-state Travel	2,500	2,500	-		2,500	2,500	
Legal Fees	7,500	7,500	-		7,500	7,500	
Tech Administration	180,636	183,719	3,083	183,719	-	183,719	
Tech Admin. Travel & Prof. Devel.	6,000	9,000	3,000	9,000		9,000	
Instructional Support Administration	160,669	163,843	3,174	163,843		163,843	
I.S. Travel & Prof. Devel.	5,700	5,700	-	5,700		5,700	
Instructional Delivery Systems Admin	23,325		(23,325)			-	
Grant Writing	73,200	76,000	2,800	76,000		76,000	
Office of Info. Tech.	178,000	178,000	-	178,000		178,000	
TOTAL	1,378,976	1,426,049	47,073	954,487	426,262	1,380,749	45,300

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 Operations & Maintenance

Budget Line Item	APPROVED BUDGET FY 04	Proposed Budget FY 05	Change in Budget	Ongoing Expenses			Total Ongoing Expenses	One-Time Expenses
				State Approp.	CSG			
Building Maintenance	54,085	60,000	5,915	60,000		60,000		
EBC Computer Support	106,388	110,000	3,612	110,000		110,000		
U Of U Building O & M Expense	100,000	100,000	-		100,000	100,000		
CIB Dagget County Project	820,000		(820,000)			-		
CIB San Juan Project	370,737		(370,737)			-		
UEN Operating Funds	1,193,009	1,209,765	16,756	-		-	1,209,765	
Non-Budgeted	731,177	458,898	(272,279)			-	458,898	
TOTAL	3,375,396	1,938,663	(1,436,733)	170,000	100,000	270,000	1,668,663	

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 PUBLIC INFORMATION/COMMUNICATIONS

Budget Line Item	APPROVED BUDGET FY 04	Proposed Budget FY 05	Change in Budget	Ongoing Expenses					Total Ongoing Expenses
				State Approp.	KUED	SOE	CSG		
Personnel	157,671	174,434	16,763				174,434		174,434
ITV Program Guide	48,000	47,500	(500)		22,530	22,530	2,440		47,500
Advertising	35,000	35,000	-				35,000		35,000
Other Print Advertising / Materials	27,000	32,060	5,060				32,060		32,060
Professional Development	9,500	9,500	-	9,500			-		9,500
In-state Travel	2,500	1,000	(1,500)	1,000					1,000
Equipment	4,500	4,500	-	4,500					4,500
Supplies	9,250	15,300	6,050	15,300					15,300
Non - Broadcast Promotions	27,250	27,250	-				27,250		27,250
On Air	37,500	7,000	(30,500)				7,000		7,000
Special Events	8,500	14,000	5,500				14,000		14,000
Research / Evaluations	7,750	-	(7,750)				-		-
TOTAL	374,421	367,544	(6,877)	30,300	22,530	22,530	292,184		367,544

UTAH EDUCATION NETWORK
FY2005 Budget Planning
OPERATIONS

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	On-Going- Expenses			Total On-Going Expenses
				E-rate plus internet reimb.	State Approp.		
Personnel	189,133	197,345	8,212		197,345		197,345
EDNET Site Support							
Southern Utah University	45,000	45,000	-		45,000		45,000
Davis Applied Technology Center	35,000	35,000	-		35,000		35,000
Utah State University	45,000	45,000	-		45,000		45,000
Utah State University - Vernal Basin	30,000	30,000	-		30,000		30,000
College of Eastern Utah - Price	30,000	30,000	-		30,000		30,000
College of Eastern Utah - San Juan	30,000	30,000	-		30,000		30,000
Utah Valley State College	45,000	45,000	-		45,000		45,000
Salt Lake Community College	45,000	45,000	-		45,000		45,000
Regional Help Desk Support							
NUES, CUES, SESC, SEDC	230,275	242,256	11,981		242,256		242,256
Supplies	12,150	12,150	-		12,150		12,150
In-State Travel	4,500	-	(4,500)				-
Professional Development	9,000	-	(9,000)				-
Router Maintenance	326,909	293,909	(33,000)		293,909		293,909
Circuit Charges	5,052,000	5,452,000	400,000	2,139,285	3,312,715		5,452,000
Statewide Dial-in Network Services	12,000	17,000	5,000		17,000		17,000
Remote Access (Pagers/Cell Phones)	22,796	23,000	204		23,000		23,000
TOTAL	6,163,763	6,542,660	378,897	2,139,285	4,403,375		6,542,660

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 NETWORK OPERATIONS CENTER

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	State Approp.	
				State Approp.	One-time
Personnel (1 new fte)	590,770	659,045	68,275	659,045	
Staff Equipment	16,800	24,800	8,000	24,800	
Professional Development	26,700	27,700	1,000	27,700	
Equipment - HUB & Site Maintenance	188,426	350,000	161,574	114,479	235,521
Licensing / Software	35,364	15,000	(20,364)	15,000	
Proxy Filtering & Equipment	100,000	120,000	20,000	120,000	
Supplies	76,660	59,900	(16,760)	59,900	
Travel (in-state)	12,500	12,500	-	12,500	
TOTAL	1,047,220	1,268,945	221,725	1,033,423	235,521

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 FIELD OPERATIONS

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	On-Going-Expenses	
				State Approp.	
Personnel (1 new fte)	558,581	675,673	117,092	675,673	
Equipment--Hub & End Site Development	457,020	375,000	(82,020)	375,000	
Professional Development	20,000	25,000	5,000	25,000	
Software	2,000	2,000	-	2,000	
In-state Travel (Network Maintenance)	30,000	60,000	30,000	60,000	
Leased Vehicles (4)	21,600	21,600	-	21,600	
Contracted Services (Helicopter)	10,000	20,000	10,000	20,000	
Supplies	39,000	48,000	9,000	48,000	
Staff Support Equipment	32,500	38,000	5,500	38,000	
Equipment Room & Shop	10,000	10,000	-	10,000	
State of UT ITS Racks (vs. internet access provided)	27,250	-	(27,250)	-	
New Vehicles	32,500	44,000	11,500	44,000	
TOTAL	1,240,451	1,319,273	78,822	1,319,273	

Technical Services
 UEN SPECIAL PROJECTS
 FY2005 Budget Planning

Budget Line Item	APPROVED BUDGET FY04	Proposed Budget FY 05	Change in Budget	One-Time Expenses			Total One-Time Expenses
				Carryforward	New State Approp.	Other	
SPECIAL PROJECTS 2005	1,212,182	600,000	(612,182)	119,000	400,000	81,000	600,000
TOTAL	1,212,182	600,000	(612,182)	119,000	400,000	81,000	600,000

UTAH EDUCATION NETWORK
FY2005 Budget Planning
ENGINEERING

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	On-Going-Expenses		Total One-Time Expenses
				State Approp.	Other	
Personnel	698,845	713,043	14,198	713,043	-	-
Software & Supplies	3,000	5,000	2,000	5,000	-	-
In-State Travel	5,000	5,000	-	5,000	-	-
Equipment	30,000	30,800	800	30,800	-	-
Supplies (Misc. Staff Equip. Lab Support)	13,000	13,500	500	13,500	-	-
Internet Access	1,040,500	1,040,416	(84)	991,416	49,000	49,000
Hardware Maintenance	99,524	20,000	(79,524)	20,000	-	-
Remote Phone/Pager Access	11,166	11,166	-	11,166	-	-
Maintenance	8,000	-	(8,000)	-	-	-
Staff Equipment	15,000	15,000	-	15,000	-	-
Professional Development	38,200	38,000	(200)	38,000	-	-
Intern Program	-	22,000	22,000	22,000	-	-
Lab Project	-	10,000	10,000	10,000	-	-
TOTAL	1,962,235	1,923,925	(38,310)	1,874,925	49,000	49,000

UTAH EDUCATION NETWORK
FY2005 Budget Planning
SECURITY

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	On-Going- Expenses
				State Approp.
Personnel	170,528	173,046	2,518	173,046
Security Equipment & Software	40,000	41,000	1,000	41,000
Professional Development	8,000	10,570	2,570	10,570
In State Travel	1,200	1,000	(200)	1,000
Software Licensing	8,770	5,900	(2,870)	5,900
Phone / Pager Access	5,000	5,000	-	5,000
Supplies	2,000	1,000	(1,000)	1,000
TOTAL	235,498	237,516	2,018	237,516

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 Enterprise Applications Support

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	One-Time Expenses			
				On-Going-Expenses State Approp.	reimbursements	New State Approp.	Total One-Time Expenses
Personnel 1 FTE (Tyler)	230,041	307,889	77,848	307,889			-
Hardware and Hardware Maintenance	145,528	272,048	126,520	119,048		153,000	153,000
Hardware not in UNIX Budget	62,423	-	(62,423)				-
Software and Software Maintenance (enterprise backup)	72,463	206,420	133,957	44,738	54,682	107,000	161,682
Supplies	9,400	21,900	12,500	21,900			-
Professional Development	12,000	16,000	4,000	16,000			-
Telecomm Costs / Dial-in Equipment	8,736	11,740	3,004	11,740			-
Real Network Maintenance (from Barry's)	8,320	8,320	-	8,320			-
TOTAL	548,911	844,317	295,406	529,635	54,682	260,000	314,682

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 SOFTWARE DEVELOPMENT

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	On-Going-Expenses	
				State Approp.	
Personnel	551,317	549,866	(1,451)	549,866	
Software and Software Maintenance	3,000	5,600	2,600	5,600	
Equipment	13,500	6,000	(7,500)	6,000	
Supplies	2,500	2,700	200	2,700	
WebCT Licensing (Equip prior year)	98,100	20,000	(78,100)	20,000	
Professional Development	36,000	67,000	31,000	67,000	
Phone / Pager Access	2,032	2,360	328	2,360	
TOTAL	706,449	653,526	(52,923)	653,526	

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 KULC PROGRAMMING

Budget Line Item	APPROVED BUDGET FY 04	Proposed Budget FY 05	Change in Budget	State Approp.	Ongoing Expenses			Total Ongoing Expenses	One Time Carryforward
					kued	CSG			
KULC Program Purchases	39,400	69,400	30,000				43,400	26,000	
KULC on Air	10,500	10,500					10,500		
NETA Membership	10,018	10,500	482	10,500			10,500		
Videotape	24,500	24,500	-			24,500	24,500		
KULC Workshops	500	1,000	500			500	500	500	
Interconnect Dues	89,320	90,000	680			90,000	90,000		
APTS Dues/Fees, Wiche, PBMA	29,962	30,000	38	30,000			30,000		
Computer Maintenance (Scout)	2,500	2,500	-			2,500	2,500		
Digital Media Services	155,833	64,085	(91,748)	64,085			64,085		
PBS ALS License	-	20,000	20,000			20,000	20,000		
APTS Dues	-	4,975	4,975	4,975			4,975		
TOTAL	362,533	327,460	(35,073)	109,560	-	191,400	300,960	26,500	

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 IS - OPERATIONS

Budget Line Item	APPROVED BUDGET FY 04	Proposed Budget FY 05	Change in Budget	Ongoing Expenses		
				State Approp.	KUED	Total Ongoing Expenses
Personnel	298,949	300,512	1,563	267,512	33,000	300,512
new FTE	-	32,900	32,900	32,900		32,900
Supplies	8,000	8,000	-	8,000		8,000
In-state Travel	2,600	3,000	400	3,000		3,000
Leased Vehicles	5,400	5,400	-	5,400		5,400
Professional Development	10,850	13,000	2,150	13,000		13,000
USOE Specialist	87,000	87,000	-	87,000		87,000
USOE Training Support	107,716	107,716	-	107,716		107,716
Equipment	8,219	8,300	81	8,300		8,300
Phones/Pagers	2,000	2,000	-	2,000		2,000
Program Evaluations	5,000	4,000	(1,000)	4,000		4,000
TOTAL	535,734	571,828	36,094	538,828	33,000	571,828

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 IS WEB RESOURCES

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	Ongoing Expenses				One-Time				
				State Approp.	CSG	Total Ongoing Expenses	Tech core	Other one-time	Intel Grant	Total One-Time Expenses		
Lesson Plans	15,000	15,000	-	15,000		15,000						
Web Design & Maintenance	61,667	97,500	35,833	97,500		97,500						
Content Forum	3,000	2,000	(1,000)	2,000		2,000						
Multimedia	5,000	2,500	(2,500)	2,500		2,500						
Tech Corp	10,438	22,500	12,062				22,500					22,500
INTEL PC RECYCLING	22,565	14,812	(7,753)							14,812		14,812
Software (Pioneer Committee)	480,780	561,780	81,000	200,461	280,319	480,780		81,000				81,000
WebCT Vista Support	-	10,000	10,000	10,000		10,000						
TOTAL	598,450	726,092	127,642	327,461	280,319	607,780	22,500	81,000	14,812	118,312		

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 I S PROFESSIONAL DEVELOPMENT

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	Ongoing Expenses		One-Time Expenses			Total One-Time Expenses
				State Approp.	Total Ongoing Expenses	Carryforward	usee	Firestone	
Personnel	383,188	396,228	13,040	396,228	396,228				-
Professional Development	10,150	12,000	1,850	12,000	12,000				-
In-state Travel	5,581	7,750	2,169	7,750	7,750				-
Leased Vehicles	11,379	11,500	121	11,500	11,500				-
Phones	3,500	5,000	1,500	5,000	5,000				-
Regional Training Specialists	261,588	265,804	4,216	265,804	265,804				-
Equipment	10,000	36,000	26,000	36,000	36,000				-
Software	2,500	2,500	-	2,500	2,500				-
Workshop Supplies-Duplications/Mailings	12,000	12,000	-	12,000	12,000				-
Teacher Training Instit. & Integrating Tech	82,000	102,500	20,500	5,000	5,000	69,500	20,000	8,000	97,500
Contract Trainers	-	4,000	4,000	4,000	4,000				
TOTAL	781,886	855,282	73,396	757,782	757,782	69,500	20,000	8,000	97,500

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 I S GRANTS

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	One-Time Expenses		Total One-Time Expenses
				Teacher line	INTEL Grants	
Intel Grant - CLASSIC	35,160	8,000	(27,160)		8,000	8,000
Intel - TIA #1	81,765	6,000	(75,765)		6,000	6,000
Intel - TIA #2	40,000	42,300	2,300		42,300	42,300
TeacherLine Grant	35,000	35,000	-	35,000		35,000
PBS Teacher line Regional grant	-	40,000	40,000	40,000		40,000
TOTAL	191,925	131,300	(60,625)	75,000	56,300	131,300

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 EDNET VIDEO OPERATIONS

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	Ongoing Expenses	
				State Approp.	
Personnel	210,277	219,039	8,762	219,039	
Parts & Supplies	1,500	1,500	-	1,500	
Equipment	13,750	15,400	1,650	15,400	
Dues/Subscriptions	100	100	-	100	
In-state Travel	1,000	2,000	1,000	2,000	
Operations Retreat	2,000	3,500	1,500	3,500	
Telephones	4,000	4,200	200	4,200	
ISDN Line Charges & Gateway	18,000	10,000	(8,000)	10,000	
Professional Development	8,000	12,000	4,000	12,000	
TOTAL	258,627	267,739	9,112	267,739	267,739

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 IP VIDEO

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	New State Approp. (one time money)	
				one-time Expenses	
Special Projects		420,000	420,000	420,000	180,000
TOTAL	-	420,000	420,000	420,000	180,000

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
LOCAL SERVICE REPRESENTATIVES
 Instructional Delivery Services

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	Ongoing Expenses	
				State Approp.	
Personnel	177,344	179,093	1,749		179,093
Supplies	1,350	1,350	-		1,350
Equipment	4,000	4,000	-		4,000
Phones	3,000	3,500	500		3,500
Professional Development	8,000	8,000	-		8,000
In-state Travel	14,000	14,000	-		14,000
TOTAL	207,694	209,943	2,249		209,943

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 Instructional Delivery Services
SCHEDULING

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	Ongoing Expenses	
				State Approp.	
Personnel	78,192	81,674	3,482		81,674
Equipment	2,000	3,000	1,000		3,000
Professional Development	4,000	4,000	-		4,000
In-state Travel	500	500	-		500
TOTAL	84,692	89,174	4,482		89,174

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 KULC Broadcast Engineering

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	Ongoing Expenses		One-Time Expenses
				CSG		
Personnel	303,213	306,000	2,787	306,000		
KULC Transmitter	28,645	28,645	-	28,645		
Vehicle Replacement	2,000	4,000	2,000	4,000		
Supplies/Repairs/Maintenance	37,500	26,000	(11,500)	26,000		
Statewide Distribution (KULC Projects)	46,000	46,000	-	46,000		
Statewide Distrib Base Budget (30%)	111,360	111,360	-	111,360		
Professional Development	9,830	9,830	-	9,830		
Equipment	3,000	3,000	-	3,000		
Special projects for KULC	45,000	90,000	45,000			90,000
TOTAL	586,548	624,835	38,287	534,835		90,000

UTAH EDUCATION NETWORK
 FY2005 Budget Planning
 KULC DTV Conversion

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	Ongoing Expenses		Carryforward
				State approp		
DTV Utah Operating Costs	76,450	86,450	10,000	86,450		
DTV Conversion Project	885,368	676,453	(208,915)			676,453
TOTAL	961,818	762,903	(198,915)	86,450		676,453

UTAH EDUCATION NETWORK
FY2005 Budget Planning
Instructional Delivery Services
UEN-USU SATELLITE PROJECT

Budget Line Item	APPROVED BUDGET FY 2004	Proposed BUDGET FY 2005	Change in Budget	One-Time Expenses		
				State Approp.	UEN State approp	Total One-Time Expenses
Annual Cost for Space Segment	746,162	705,000	(41,162)	705,000		705,000
800 Line Charges	50,000	50,000	-	50,000		50,000
Parts & Supplies	50,000	50,000	-	50,000		50,000
Personnel USU/UEN	320,224	325,524	5,300	320,222	5,302	325,524
Vehicle Lease	4,200	4,200	-	4,200		4,200
Administration Cost USU/UEN	113,900	109,050	(4,850)	109,050		109,050
Backhaul Costs	39,800	-	(39,800)	-		-
H.323 Bridge	-	80,000	80,000	80,000		80,000
Equipment & Installation of New End Sites	25,361	20,000	(5,361)	20,000		20,000
IP Telephone Hardware & Maintenance	15,000	31,547	16,547	31,547		31,547
Faculty and Facilitator Training	10,000	10,000	-	10,000		10,000
Lease on Accord Conference Bridge (2/3)	48,000	46,982	(1,018)	46,982		46,982
Service Contract on Magn. Uplink Componentets	31,353	27,000	(4,353)	27,000		27,000
Carry forward	128,103		(128,103)			
	1,582,103	1,459,302	(122,801)	1,454,000	5,302	1,459,302

IP VIDEO PROJECT UPDATE - DISCUSSION

Issue

The IP Video Project Committees continue to review policies and documents. The work plan and budget for the first phase of the EDNET conversion has been reviewed. The UEN Steering Committee ratified the subcommittees' actions at the April 2004 meeting. Documents and policies received Subcommittee review on June 11, 2004.

Background

Several internal working documents are included for review:

IP Video Configuration and Operations Standards – Attachment A

The purpose of this document is to provide guidelines and references for the configuration and operation of IP video devices, network hardware and related equipment that UEN or stakeholders may deploy. This document is currently being revised based on project team and stakeholder feedback and suggestions. This document has been distributed to network administrators and stakeholders looking at IP video implementation. As feedback and issues surface they are evaluated and incorporated into the document as appropriate. This document is neither policy nor requirement but rather provides guiding standards that UEN will follow and encourage others to follow as they implement IP video services.

Draft - IP Site Migration and Installation – Attachment B

This draft tracking and process flow document is provided for your review. The document is still in draft form. UEN project teams and staff are currently proofing this flow with planned summer site migrations. This experience will help us further refine the process allowing for a more efficient method to ensure that site installations are accomplished in a timely, thorough, and cost efficient manner as we migrate hundreds of EDNET sites to the new technology. This document will assist us in monitoring our progress.

IP Video Evaluation Summary Report – Attachment C

This is a summary evaluation report of the IP Video Pilot Projects. This evaluation, conducted in April, 2004, addressed both the technical and instructional

components. The recommendations of the final two pages of the report will be incorporated appropriately into all policies, procedures, and processes of the IP Video Project.

Progress on Migration Installations to Date – Attachment D

This tentative schedule is provided to give the committee an overview of the site visits and planning, purchasing, and coordination which goes into an installation. Informal technical training is accomplished at all stages of an installation. This document is subject to change based on priority projects, facility access, and staff resources.

Distance Education Training Overview – Attachment E

Training of faculty and site facilitators has always been an important component of a successful course taught at a distance. Unfortunately, faculty and site facilitators do not always become familiar with the teaching station equipment as well as the instructional aspects of teaching at a distance before classes begin. This lack of familiarity generally lowers the quality of a classroom experience for students, faculty, and site facilitators. There have been numerous instances where faculty and/or site facilitators begin a class completely or partially unfamiliar with the equipment and protocol for teaching on the delivery system. If faculty and site facilitators receive the training needed before classes begin, the chances of success increase substantially.

The Instructional and Technical Sub-Teams would determine minimum training standards for faculty and site facilitators of IP Video delivered classes. This subcommittee would gather and review existing training procedures and standards from school districts and USHE institutions, synthesize these standards, identify common elements or trends, and recommend the minimal training requirements that faculty and site facilitators would meet before teaching at a distance. Recommendations then would be presented to the Continuing Education Deans, USOE, and other groups to endorse a recommended minimum training standard for faculty and site facilitators teaching over IP Video.

Recommendation

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

TAB 20 ATTACHMENT A
UEN IP VIDEO CONFIGURATION AND
OPERATIONS STANDARDS

Utah Education Network

UEN IP Video Configuration and Operations Standards

(Recommendations from the IP Video Technical Sub-team)

April 2004

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1. Summary and Introduction

The UEN IP Video Project was initiated in December 2002 with the purpose of designing and implementing IP Video solutions for Distance Learning and Video Conferencing services for UEN and its customers.

This initiative outlined all activities associated with the implementation of the IP Video technology for use by UEN and its customers. This included the design, testing, and evaluation for proof of concept pilots, the drafting and communicating of recommended use and support policies, and the training and education of affected personnel.

This document outlines recommendations for the configuration and operation of IP based video conferencing services within UEN. These recommendations are based on current technology and UEN network capability. As the technology matures and our own knowledge and experience increases continued review and revisions to designs and implementations will be necessary.

Following are recommendations which include standards for the implementation of IP Video services, operating guidelines for customers and users of these services, and support processes for monitoring, measuring and troubleshooting IP Video traffic.

2. Network Configuration Standards

a. IP Addressing

In order to provide consistency and support for a variety of connection types, UEN IP video devices will make use of registered public static IP addresses. End site CODEC's intending to participate in EDNET programming must register with a UEN Gatekeeper and use an assigned E.164 alias for connecting with EDNET events. Refer to section 3.c. on Gatekeepers. Host addresses for UEN IP video devices will be assigned from existing network ranges currently allocated to the state entities supporting these connections. This approach makes use of existing routing configurations already in place throughout the statewide network, supports our Security and QoS strategies and allows our customers to continue to manage their own address space. Connections using private addresses on the UEN network will continue to be supported until the time they can be phased out. Ultimately UEN will discontinue the routing of private networks across the UEN backbone and Core.

For video conferences in other countries or on research and academic networks such as I2, with sites which most likely will not be registered, the IP address will be used for establishing connections. UEN will provide support and coordination for out of state conferences traversing the internet or I2, with advance notification and scheduling through the TOC. Internet or I2 direct calls not scheduled in advance with TOC will be given support on a best effort basis after any issues with EDNET scheduled events have been resolved. EDNET scheduled events will be given troubleshooting priority by the TOC and Technical services staff. UEN is working on developing enhanced procedures for handling all video connections outside the statewide network.

b. NAT (Network Address Translation)

It is our experience and the recommendation of our vendors that video connections avoid using NAT when possible. The introduction of NAT has proven to be unstable and adds another level of complexity to troubleshooting. We recommend a configuration for EDNET traffic that excludes the use of NAT in the configuration. UEN gateways will only accept connections using public addresses.

c. Network Connectivity

IP video traffic can be very sensitive to issues such as latency, jitter, and loss. LAN administrators and network engineers will need to take care that the installation and proliferation of CODEC's remain well within the capacity of upstream links. QoS implementations can provide some benefit. Refer to section 2.e. on QoS. IP video devices should be installed on a dedicated router interface, switch port, or VLAN and under no circumstances should they be part of a shared collision domain.

d. Firewalls and Security

The H.323 protocol suite includes a range of individual protocols. The operation of an H.323 CODEC requires a number of TCP and UDP ports be reachable on that CODEC for the all the protocols to function properly. The port numbers used for some of those protocols, including the RTP audio and video streams, are negotiated at connection time, making it impossible to know in advance which port number an H.323 session will use.

Not every school or district will make use of a firewall although it is good practice to do so. With the increasing deployment and implementation of firewalls, which typically employ security policies that deny incoming traffic, and if UEN video devices are installed behind these firewalls, customers participating in EDNET programming must allow the following traffics types through to ensure consistent and reliable delivery of EDNET video services.

- *Bi-directional TCP/UDP Data Beam 1503, TCP/UDP Call Setup 1719-1720, TCP 3230-3235, UDP 3230-3247, UDP 4444, LDAP/TCP 389, TCP/UDP RTSP 554*

If during troubleshooting procedures it is determined that the end site firewall is blocking the required traffic types, it may be necessary for the customer to initiate the call to establish the video conference.

Software applications used for Management, administration and support functions need to be able to communicate with all H.323 video devices as do the users of these applications need to be able to establish connections with the servers. An example may be the UEN TOC or a district assigned administrator needing to schedule bridge resources for an upcoming EDNET event or an SNMP based query to a device for the collection of information to aid in troubleshooting or in resolving a problem with a video conference. Vendor programs and utilities used for these functions typically make use of protocols commonly used for exploiting hosts on a network. It is also very likely that UEN will acquire a software management solution that runs on the Windows platform which can be especially vulnerable to these exploits.

Although probability may be low, UEN intends to reduce the possibility of an exploit of this nature by establishing the following:

An isolated network or DMZ on the UEN firewall will be established for the server running the IP video software management application used in resource scheduling. A proxy server will be installed on the

UEN NMS network also behind the UEN firewall, for connection requests to end site video devices when performing administration, maintenance and troubleshooting tasks.

These servers will meet all requirements defined by the UEN DSO for hosts residing on these networks. The servers will be vigilantly patched and maintained. The UEN DSO will use intrusion detection software and flow application analysis tools for auditing and tracking traffic and usage. Although it is unlikely, if during active monitoring it is determined that either host is vulnerable to an exploit at any given time, the UEN DSO reserves the right to shut down these servers. Should this occur, video conference calls would need to be performed manually and updates to remote IP video devices would be performed by field engineers until the time that the DSO feels the server(s) can once again be made available on the network.

The UEN software management server and administration proxy will require access through customer firewalls. UEN requests that either complete IP bi-directional access to IP video devices from the UEN DMZ 205.124.xxx.0/24 and NMS network 205.124.252.0/24 be provided, or the following specific traffic types be permitted through:

- *FTP 21, Telnet 23, HTTP 80, HTTPS 443, ICMP Echo, ICMP Echo Reply, SNMP TCP/UDP 161-162, add MS server and application port numbers...*

Because some firewalls may require unique or custom configurations in order to ensure bi-directional communications, the traffic types listed above may not be all inclusive.

e. QoS (Quality of Service)

Our ability to reserve network resources and provide a high level Quality of Service for EDNET video traffic is critical to the program's success. After having successfully tested QoS configurations in the lab and at pilot sites, UEN is recommending the following implementation strategy to ensure delivery of EDNET programming throughout the state;

Routers carrying IP video traffic must support weighted fair queues and Class-based Priority Queues (class maps and policy maps).

UEN will provide configurations that use weighted fair queues for prioritizing all video traffic. An IP Precedence of 5 should be set for all audio/video CODEC's.

UEN EDNET video traffic will be prioritized by dedicated video circuits, or with Class-based Priority Queues for non-dedicated UEN EDNET video paths with circuits of T1 speeds or below. UEN EDNET video traffic should receive priority above all other traffic types to ensure that scheduled events are delivered with high quality and consistent performance.

As Ethernet becomes a more common transport on the UEN backbone and the utilization on these paths increase, it may become necessary to provide a QoS solution for Ethernet. Continued testing and evaluation of QoS solutions will be a priority effort for the UEN Engineering team in 2004.

3. H.323 Components and Operation

a. End Sites and Classrooms

Existing EDNET classrooms and equipment is being migrated to new IP Video devices as funding and adequate network resources become available. Requested new installations for EDNET classrooms will now be accomplished using IP video capable equipment packages based on the sites instructional needs. Refer to “simple” and “complex” classroom configurations. The replacement and installation of this equipment will be accomplished by a UEN engineer in cooperation with the local school or district administration and staff. This equipment install may require a locally assigned public IP address by the school or district network administrator. Refer to section 2.a. on IP Addressing.

Newly requested EDNET sites or locally installed IP Video capable sites will need to use public addressing for their equipment to get optimal service and support for connections. Registration with a UEN Gatekeeper will be required for participation in EDNET events or for connections to UEN managed sites. Refer to section 2.c. on Network Connectivity.

b. CODECs

UEN continues to evaluate various IP capable hardware for the use of UEN IP video services. Currently, UEN is deploying Polycom brand equipment for current projects and site migration. Depending on the level of services needed UEN is deploying 4 different models of Polycom equipment and associated equipment packages. These are the Polycom Viewstation 128, VSX7000, FX and EX models. Refer to attachment 5.a. Classroom Configurations. UEN currently recommends these hardware models for customer purchase and participation and connectivity on the UEN network.

Many customers are purchasing desktop capable units such as the Polycom ViaVideo units. Currently UEN is not in position to support the connection of these and other desktop capable IP Video devices for participation in EDNET events. The use of such devices will not receive the support and management functions of recommended, registered IP video devices. UEN is of the position that there is too much diversity in hardware and software configurations to effectively manage desktop units at this time.

c. Gatekeepers and Dialing Plan

Gatekeepers are used with H.323 devices to provide key features for reliable connectivity. These features include; call admission control, E.164 alias resolution, addressing, authorization, authentication, bandwidth management and call-routing services. These devices can aid in quality of service efforts by limiting or preventing unwanted or rogue calls in favor of a higher priority conference to take place. It is recommended that all endpoints register with a UEN gatekeeper in order to help ensure high quality calls. All incoming calls must be to registered sites. IP to IP calls can be performed if registration is turned off for the end sites involved, however support for rouge calls will be limited. See Support and Troubleshooting 3.h.

We are continuing to explore the needs and potential solutions for establishing a statewide directory, which could provide dialing information for non-registered sites. Issues regarding database and end site compatibility for automated lookups need to be examined or as an alternative, a file that is web accessible and easily used by all state entities. More research needs to be completed before a recommendation can be made for providing this enhancement.

After extensive testing and evaluation of multiple gatekeeper solutions, UEN feels the Cisco MCM product will best meet our needs. Dial plan legend and feature settings attachment needs to be completed. This needs some work...

d. MCUs

Multipoint Conference Units (or MCU) are devices that connect more than two endpoints together into one conference. Because these devices have the potential to generate a high volume of incoming and outgoing traffic, and require careful monitoring and support, they need to be located on the network where these network resources are available. Position on cascading...

UEN is recommending a large MCU such as a Polycom MGC 50/100 be installed at the Eccles Broadcast Center with smaller Tandberg MCUs placed in hubs around the state. Small MCUs that are built into some of the Polycom endpoints, such as the FX models, can be used when the conference consists of no more than 4 endpoints, and if bandwidth is available. These devices may be used in conjunction through a cascading or distributed design. The MCU manages conference resources, negotiates between endpoints for the purpose of determining the audio or video CODEC to use, and may handle the media stream. To be completed when the vendor decision is made...

e. Gateways

Gateway devices will be used to allow for an H.323 device to connect to legacy or non H.323 networks. For example, gateways will allow for Polycom endpoints to be connected to the current EDNET legacy network. Gateway devices will be placed throughout the UEN network in order to support this traffic. A gateway is not required for communication between two H.323 devices.

f. H.323 Proxy's

UEN is requesting that EDNET video sites with firewalls, allow inbound and outbound traffic for a range of ports between video devices. An alternative method for allowing H.323 traffic into a site is to deploy an H.323 proxy server on the border network, which then communicates with the CODEC within the site, minimizing the number of sources to be permitted through the firewall, to one host. Currently, UEN does not feel there is adequate justification for the expense required to provide proxy servers throughout the network for handling H.323 connections. Testing and further evaluation of proxy solutions will continue.

g. Scheduling and Management Software

The legacy EDNET system has traditionally been managed by a UEN in-house developed scheduling and management software program known as the Conference Management Environment (CME). At the time CME was developed, no reasonable commercial offering could adequately manage our unique combination of hardware and processes. UEN has invested a great deal of time and effort over the years to create, develop and maintain CME to effectively manage the current EDNET system.

With the introduction of IP Video devices that utilize H.323 standardized conferencing protocols this do-it-yourself approach is no longer attractive. It would require a huge investment of time and money to retrofit the current CME software program, let alone develop a software package from scratch to address the systems current needs.

For many years now UEN has recognized the desire for users of the system to have more regional and localized control and active feedback in the overall EDNET scheduling processes. Limitations of the current system could not allow for this granular level of local control. With the development of new

conferencing technologies UEN is planning to implement a system that would give more local autonomy over the scheduling and coordination of their sites while allowing for global resource management to help ensure that statewide coordinated EDNET events are not in conflict with local bookings.

As UEN moves closer to a statewide implementation of IP Video for distance learning services more IP Video capable sites are being installed and accommodations will need to be made for blending IP and legacy sites into single “hybrid” events. During this transition UEN plans to further develop CME, continuing to make use of the programs ability to control the legacy video network and components while at the same time utilizing a commercial management package for IP sites allowing UEN to continue EDNET operations during the transitional period. The following is the proposed phase out plan of the CME software to a new IP based management system:

Phase 1:

Further develop CME to implement IP endpoint, gateway and MCU scheduling processes. Bring a new 3rd party management application like TMS online. Continue to use CME for hybrid events. Schedulers should create all events in both systems.

Phase 2:

Implement a synchronization process that runs as part of CME. The database coordination will prevent resources from being overbooked. It will accept the schedule of IP resources from the new manager and put that data into CME; it will also produce a report containing a list of changes that need to be entered into the new scheduler.

CME will ignore imported events for the purposes of accounting. Procedures will be set up in the new manager to perform billing for events created in it. Hybrid events are still facilitated from within CME. Pure IP events do not need to be facilitated from CME.

Customers will be able to use the new manager to book events using devices within their control without conflicting with resources that have been allocated to regular EDNET/classroom events.

CME will be used less and less as the network is converted entirely to H.323 devices.

Phase 3:

CME is retired.

h. Support and Troubleshooting

As more EDNET sites are migrated to IP video capabilities and more Associate sites are connected to the network, the need for more effective network monitoring of end points, MCU’s and network video activity becomes increasingly important. UEN has tools that monitor, measure and troubleshoot network traffic today which will help in this effort, yet to better ensure that IP video is given a priority, new tools and techniques currently under evaluation will be needed to effectively manage the anticipated increase in IP video traffic. UEN will continue to work in cooperation with customers to fully leverage tools, processes and policies in order to address this need.

UEN TOC and NOC support for IP video will be provided only to EDNET and Associate IP video sites. End points registered with the UEN gatekeeper will be monitored and managed by the EDNET TOC. Through the registration process UEN will be able to implement many of the beneficial services of H.323 such as E.164 alias dialing, active end point connection status, remote troubleshooting, etc.

Registration of sites allows for the necessary contact, connection and configuration information to be collected, stored and easily accessed to allow for more efficient troubleshooting activities between local site support staff and UEN support staff.

Registered sites will be proactively monitored and connection status reviewed each morning by the EDNET TOC allowing for necessary troubleshooting to occur in anticipation of any upcoming events that have the potential to be affected. These sites should be configured in a similar if not standardized fashion to help reduce any possible configuration anomalies that may contribute to inconsistent or non-performance.

When problems are identified during ongoing events, sites will either need to call the EDNET TOC to report any issues or if the TOC is able to identify a problem beforehand the site may be contacted for an update on troubleshooting activities. It will be determined by the originating institution if the identified problems are impacted enough that the TOC can do more intrusive testing or if they are acceptable and that a postmortem approach should then be taken. The UEN TOC and NOC will use the tools available to them to determine where the issue may be; equipment, training and operation, network, firewall, etc. Tools to allow for better monitoring and measuring of latency, jitter, loss, rtt, etc. are still being pursued.

Troubleshooting may require the assistance of site facilitators, local network support staff and when necessary, school administration. These individuals will need to be identified and contact information communicated to UEN. It is necessary then to ensure that identified points of contact have a good understanding of the equipment operation and event scheduling processes.

For UEN installed EDNET sites it is required that facilitators, administrators and instructors have received training on all these aspects.

For Associate sites UEN urges that this level of training and understanding also occur either locally or in cooperation with UEN. UEN training staff are available for on-site training in cooperation with local staff.

In the instance that identified issues can not be resolved real time a post mortem approach and process will occur. The necessary information regarding the suspected or confirmed point of failure will be discussed with the appropriate support staff to address. If it is determined that the issue is a result of network issues such as bottlenecks, firewalls, or simply insufficient bandwidth for the level of activity at a school, or network segment UEN and local representatives will meet to discuss options available for resolution. These may include but are not limited to evaluating if an additional circuit or circuits may be needed.

The troubleshooting process will take the 3 tiered approach outlined below:
EDNET TOC – First level troubleshooting, focal point for EDNET video coordination and event management.

NOC/Field Ops. – Second level troubleshooting, network device support, NMS node monitoring, routing and network health, field support.

Engineering – Serves as a resource for troubleshooting and provides in depth knowledge of H.323 protocols, enhancements to services and continued research and testing of monitoring, troubleshooting and analysis tools.

i. Staffing

The support staff of Certified EDNET Sites will be identified during the Site Selection and Certification Process. These sites will have a designated site Administrator, Coordinator and Facilitator with varied and related duties. A school or district network support specialist will also need to be identified, oriented and trained on equipment operation and support if necessary.

Associate sites that are requesting EDNET events and have successfully registered their equipment with UEN will be responsible for the necessary staffing and staff training at the site to support the events requested. The training of site staff on the Administrator, Coordinator and Facilitator duties can be cooperatively provided by UEN and the sites administration if needed.

Identified site support staff that can be contacted during events will be listed in the EDNET Operations directory and will be the first points of contact regarding site use, scheduling and operation

j. Training

Training for EDNET installed and certified sites will occur once the Preliminary Letter of Agreement is signed and the necessary equipment has been installed. UEN will work with the identified site administrators to coordinate training for technical support staff, site facilitators and instructors before the scheduled delivery of events.

Training for Associate Sites will presumably occur at a local level. For Associate Sites to participate in statewide courses over the EDNET system the level of training and orientation to the system will need to be evaluated. This will ensure that support staff, at the site have been identified and the site has registered with the necessary gatekeeper device(s).

Training will be facilitated with the cooperation of UEN Service Representatives, Technical Operations Staff and regional HUB Staff meetings. UEN is currently developing on-line IP Video training resources and materials that users will be able to link to from the UEN web site. Information on training staff and how to request site training can also be found at the UEN web site.

4. Glossary

Alias

An alternative identification for an IP Address.

Associate Site

Customer IP video sites that participate in EDNET programming events.

Network Backbone

The central communication path shared by other nodes or access networks connected to it.

CODEC

Coder/Decoder is a device that changes audio and video from analog to digital and compresses the information for transmission, and then decompresses and decodes the signal into analog for viewing and listening on a monitor.

Constrained Paths

A circuit is considered to be constrained and therefore eligible for Class-based Priority Queuing when the 95TH percentile of peak traffic exceeds 60% of circuit bandwidth.

CME

An in-house developed scheduling and management software program known as Conference Management Environment used for controlling the legacy EDNET analog video resources.

E.164

An ITU (International Technology Union) recommendation for telephone numbering or numbering scheme allowing up to 15 digits.

EDNET

Distance learning programs and services provided by the Utah Education Network that make use of technology providing two way fully interactive video connecting schools throughout Utah so that student and community members can take classes and attend special events that might not be available to them locally.

Gatekeeper

A device that provides address resolution, access control and other services to endpoints on an H.323 network.

Gateway

An H.323 endpoint that serves to connect analog sites to the H.323 network.

MCU (Multipoint Conference Unit)

An H.323 device that provides the capability for three or more endpoints to participate in a multipoint conference.

NAT (Network Address Translation)

A method of converting private internal IP addresses to registered public IP addresses (and optionally their associated ports) and visa versa.

NOC

The location within the UEN organization where network activities are supervised, monitored and maintained. The NOC serves as the central point of coordination and communication for network support.

Non-Constrained Paths

A circuit whose 95th percentile of peak traffic is less than 60% of its available bandwidth.

Proxy (H.323)

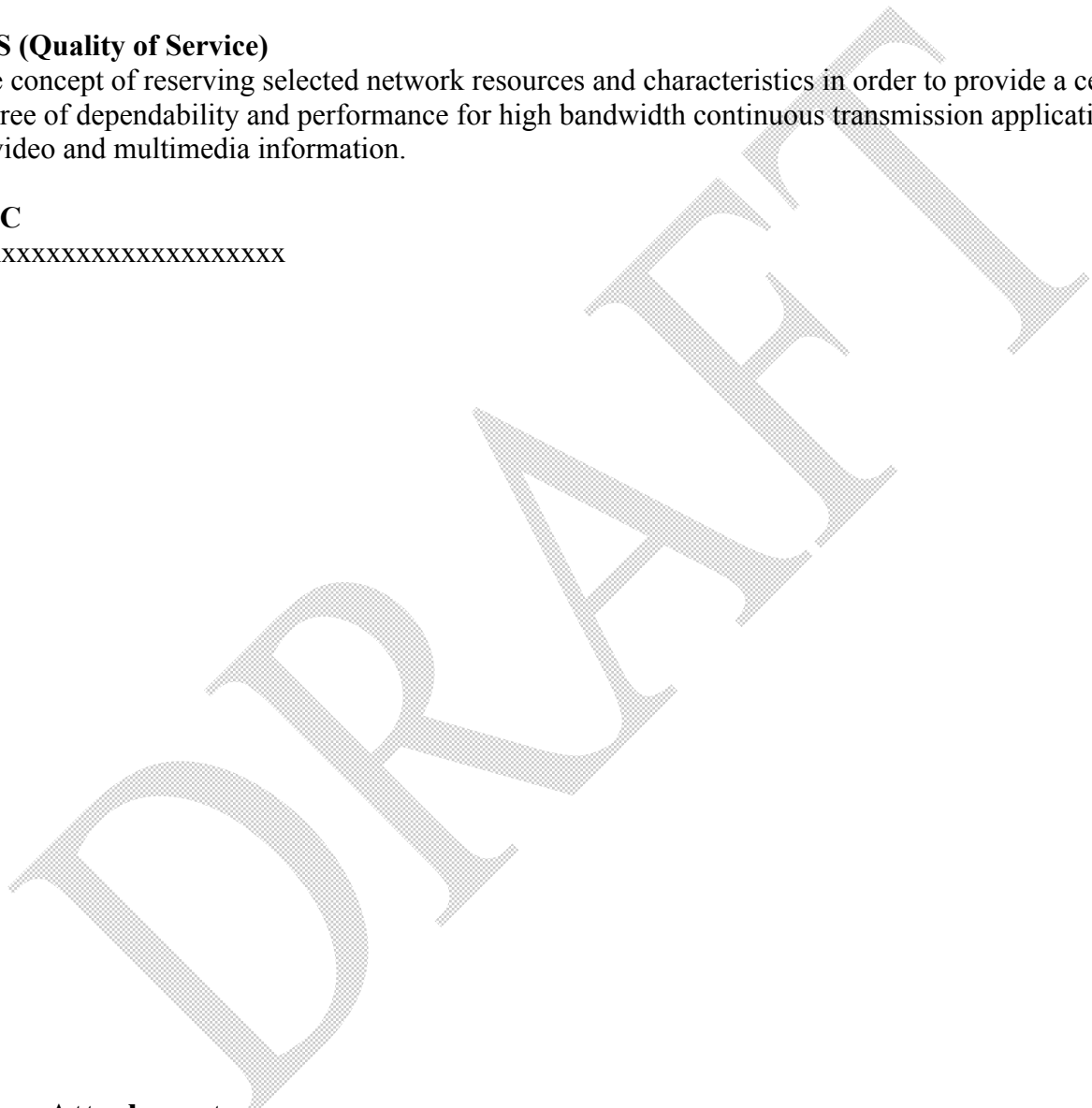
Computer servers that provide a connection intermediary between H.323 endpoints. A proxy can provide a single point for connection requests for a multitude of services and offer an additional layer of security by masking source addresses to external networks.

QoS (Quality of Service)

The concept of reserving selected network resources and characteristics in order to provide a certain degree of dependability and performance for high bandwidth continuous transmission applications such as video and multimedia information.

TOC

XXXXXXXXXXXXXXXXXXXXXXXXXXXX



5. Attachments

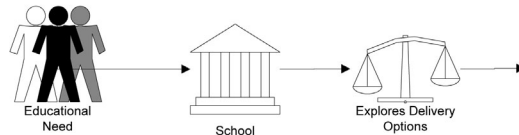
- a. Gatekeeper features and E.164 dialing convention

TAB 20 ATTACHMENT B

IP VIDEO SITE AND INSTALLATION PROCESS

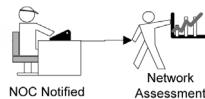
Tracking and Process Flow DRAFT

Steps Documented So Far:



1 Site is identified:

- A IDS: new requests, traffic patterns, etc.
 - B Tsh Svcs: interdependent projects and “just makes sense” to do at the time
 - C TOC: based on equipment performance, maintenance, etc.
 - D Administration: requests, priorities, politics and other routes
-



2 Identified sites are compiled and TOC is notified to initiate the process:

- A TOC opens and owns master Change Request, in turn
 - B Work Order for engineering is submitted to conduct the network assessment including a deadline as to when it must be completed.
 - C TOC staff tracks progress and ensures Change/Work Order deadline is adhered to, w/ TOC help. While gathering other IDS relative cost information.
-

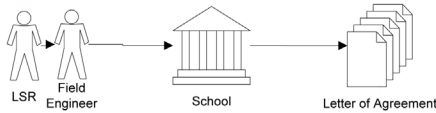


3 Network Assessment and Cost Analysis is completed:

- A Network Assessment is complete and Work Order closed, in turn updating the change request that this piece has been accomplished.

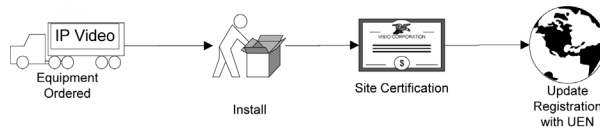
- B** Tech Svcs. and IDS cost analysis pieces are completed.
 - All information gathered and updated on a form (to be created) that will be given to UEN admin. for Committee review and approval.

Assuming committee approval



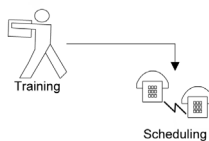
4 Site Survey:

- A** Work Order opened and assigned to Field Operations and/or IDS LSR group to conduct the site survey for the approved sites and set in motion the installation process.
- B** LSR/ Field Engineer schedule a concurrent site visit to perform the site survey and meet w/ school administration and staff.
- C** Work Order Closed. (Site Certification Checklist and any other documentation will be attached to the Work Order).



5 Site Installation:

- A** Work Order opened and assigned to Field Operations group w/ deadline to accomplish installation (Installation and Certification Checklists are attached to Work Order).
- B** Equipment is ordered, configured and installed.
- C** Site is tested and registered with Gatekeeper, added to directory and certified for operation.
- D** Work Order is closed.



6 Training/Scheduling:

- A** Work Order opened for IDS group w/ deadline to accomplish training
- B** Training is completed, Work Order Closed.
- C** Work Order opened for IDS group to coordinate scheduling for site.
- D** Work Order closed. Site is ready for production events.

7 Production Event:

- A** Work Order opened for TOC to monitor and follow up w/ site during/after first production event.
- B** If all goes well Work Order and Master Change Request is closed.
- C** If any technical, operational, or training issues that need to be followed up on, TOC opens appropriately assigned Trouble Ticket. Adds information to Work Order.

TAB 20 ATTACHMENT C

IP VIDEO EVALUATION SUMMARY REPORT

May 6, 2004

This is a summary evaluation report of the IP Video Pilot Project. This project consisted of a collaborative effort of UEN, Tooele School District, and Utah State University to implement a technical solution in Tooele's and USU's geographical region with the goal to deliver courses via IP Video. During Fall term of 2003 and Spring term of 2004 high school courses (i.e., Math, American Sign Language, and Spanish) were offered by Tooele School District and college courses (Special Education Dept.) were offered by Utah State University using IP Video technology. This evaluation, conducted April 2nd to April 9th, 2004, addressed the following components of this pilot project:

Technical

- Network engineering, design, and upgrade
- Installation
- Technical Support, trouble-shooting, and maintenance
- Technical orientation and training

Instructional

- Administrators
- Faculty
- Facilitator and technical coordinators

Technical

Network engineering, design, and upgrade (7 respondents)

- The increased network capacity that the network re-design addressed was adequate.
- The replacement equipment for the network upgrade improved performance.
- Overall, the planning process and staff allocated for the network re-design was adequate; however, a suggestion was made regarding the need for "more advanced planning and design opposed to on the fly engineering."
- The anticipated and resultant costs planned for the network upgrade were adequate.

Installation (9 respondents)

- The increased network capacity that this installation addressed was adequate. However, a comment was made that while Tooele High School's connectivity greatly improved, the remaining high school's connectivity only slightly improved.
- Overall, the staff time and resources allocated for the installation of upgrade equipment was adequate; however, a suggestion for "better planning, coordination, notification, and scheduling of the installation and training of sites need to occur."
- Additional resources needed to be reallocated for the installation.
- Problems were encountered during the installation process; however, firewall issues were the main network related issues encountered; equipment from GC was not what we had requested.
- The engineer's familiarity with installing the equipment and configuration was adequate (note: this is relevant for Tooele SD only, no engineering took place at USU).
- The general feeling was that more training was needed,

Technical Support, trouble-shooting, and maintenance (11 respondents)

- The number of support calls increased for some and decreased for others.
- The type of support calls received were "mainly due to unfamiliarity with the new equipment and lack of general process training."
- The support staff time and resources to effectively support this technology was adequate.
- The additional support required for this IP Video Pilot included the need for having "training and roles defined more accurately," and "origination site training."
- Overall, the tools available to the support staff for duties performed were adequate; however, there was concern that "tools in use during the pilot changed," and that the "tools were clunky."
- Additional tools required for this pilot included a request for "better network management tools" and "IP clearinghouse to register Ips for devices."
- Better origination site facilitator training was suggested.

Technical orientation and training (7 respondents)

- The Field Operation staff's familiarity with the technology and its operation was adequate.

- Additional training not as necessary as hands on usage and getting accustomed to the equipment.
- Overall, the TOC staff's familiarity with the technology and its operation was adequate; however, "more coordination with engineers and more specific H.323 and IP Video training is needed." "Only a few of us had the opportunity to see and use the equipment upon installation. We were flying blind for a while."
- "Vendor provided or UEN provided training on the network architecture and trouble-shooting would be nice. Hands-on training and testing at EBC prior to installation would have been helpful."
- "...better end-site training would be helpful."

Instructional

Administrators (5 respondents)

- Administrators indicated that the instructional need IP Video fulfills includes providing courses to students who otherwise would not get them, reducing travel time and costs, and providing an alternative to the currently crowded EDNET and Satellite systems.
- Overall, the orientation received on the IP Video equipment was adequate; however, one person disagreed while another commented that engineering support and training was well done and timely.
- Overall, the level of support for IP Video as a method for delivering courses at their institution was high; however, one person indicated that it was "Low."
- Overall, the technical component (i.e., network re-design, installation, facilitator trained to use equipment, technical support) was considered successful; however, one person indicated that it was "Very Unsuccessful." A comment was made about "a delay in getting problems solved."
- "We received help and support from UEN on a constant basis for technical questions." "It does not stay on during entire class but TOC quickly responds and fixes the problem." "There was not a systematic procedure at all. It was random."
- The instructional component (i.e. faculty trained to use computer, microphones, and other equipment in the classroom, instructional support) was considered successful.
- "Sheryl Hulmston provided solid support for the instructional component." Faculty liked the ability to view students and the audio was very good. Sometimes the scheduling was complicated."
- Institutions provided the following type of support to faculty: 1) remuneration, 2) reduction in work load, 3) flexible scheduling, 4) teaching assistant. There is

a need to inform faculty of exactly what is expected and what they will receive if they are involved in distance education.

- IP Video is proving that it can be an effective videoconferencing device for schools and administrators. The demand for this technology will only increase.

Faculty (3 respondents)

- Faculty indicated that the instructional need IP Video fulfills includes delivering classes in a more interactive format simultaneously to multiple locations. This capacity improves access for students and the quality of instruction and interaction within the courses.
- The level of support for IP Video as a method for delivering courses at their institution ranged from Very High to Medium. One faculty commented “the issue is not so much the level of support but who is responsible. If I had problems, I was never sure who to contact.”
- Institutions provided the following type of support to faculty: 1) remuneration, 2) flexible scheduling, 3) teaching assistant.
- The technical support (i.e., training on use of a computer, microphones, overhead camera) faculty felt they received ranged from extensive to some.
- The level of instructional support (i.e., strategies for teaching at a distance) faculty felt they received ranged from some to none.
- The faculty felt that the teaching station in the classroom (i.e., spacious, accessible) ranged from very acceptable to somewhat unacceptable.
- The faculty felt that the classrooms of the other sites were very to somewhat acceptable.
- The faculty felt that the facilitator in the classroom was professional and helpful.
- The faculty used the following methods for providing course materials to students – Web site, e-mail, postal mail, and fax. Faculty felt that these methods were very to somewhat effective.
- The faculty employed the following methods for students to submit assignments – Web site, postal mail, fax, and courier. Faculty felt that these methods were very to somewhat effective.
- The faculty employed the following methods for providing students feedback – Web site, course mgt system, e-mail, postal mail, and fax. Faculty felt that all of these methods were very effective.
- The faculty employed the following methods to communicate with them outside of the classroom – email, postal mail, fax, and phone. Faculty felt that all of these methods were very to somewhat effective.
- The faculty used the following types of technology in the classroom – computer, overhead document camera, vcr, and net support software. One faculty

indicated that the technology was very acceptable while another faculty indicated somewhat acceptable while another indicated somewhat unacceptable. A comment was made about a “poor graphing calculator interface.”

- The faculty indicated that the technology used in teaching students was very effective and somewhat ineffective.
- The faculty agreed that teaching at a distance using IP Video improved their skills as a faculty member.
- The faculty indicated that they would teach again if they had the choice to teach via IP Video again.
- One faculty commented “the people involved in the pilot were very helpful. However, as far as the pilot goes, I was not satisfied. I felt like there should have been more testing prior to the course. Also, I felt as if there needed to be better coordination of who was responsible for technical problems when they occurred.

Facilitator and technical coordinators (3 respondents)

- They indicated that the instructional need IP Video fulfills includes providing classes to students not otherwise offered. Expands the curriculum.
- The level of support at their institution ranged from high to medium.
- Overall, the orientation received on the IP Video equipment was adequate; however, one person disagreed. A comment was made that they needed more
- The technical component (i.e., network re-design, installation, facilitator trained to use the equipment, technical support) was somewhat successful to unsuccessful. The comment was made that “it has been great once we go the kinks out. Once the facilitators of the gateways learned the system we were fine.”
- “There were unforeseen problems that the technicians were not expecting.” “We would miss almost half the class while waiting for the problem to be resolved.”
- The instructional component (i.e., faculty trained to use computer, microphones, and other equipment in the classroom, instructional support) was unanimously considered somewhat successful. The comment was made “Once everyone got the mic levels adjusted things were fine. Our current problem is that we are cut off the last three minutes of each of our classes.”
- “Once we got rid of the problems the component worked very well.” “I wish that we could have had the instruction a couple of days before classes started....”
- They indicated that they received some to little technical support (i.e., training on use of the IP Video equipment).

- They indicated that course materials were very accessible and somewhat inaccessible. The comment was made “when working with colleges especially night classes at times the mailing of papers would get lost.”
- “This system is great. The picture is much clearer and the audio is so easy to control. It is a very easy system to handle. We are so lucky to have this available to us.” I think a little more training would be helpful.”
- “Instructors who are familiar with EDNET at this point goes really well. New instructors sometimes become frustrated.”

Recommendations

Technical

- Network engineering, design, and upgrade
 - ◊ Need for more advanced planning and design opposed to on-the-fly engineering.
- Installation
 - ◊ Need for better planning, coordination, notification, and scheduling of the installation and training of sites.
 - ◊ Need for additional resources to be reallocated for the installation.
 - ◊ Address firewall issues regarding the main network.
 - ◊ Need more training.
- Technical support, trouble-shooting, and maintenance
 - ◊ Need for roles to be defined more accurately.
 - ◊ Need for origination site training.
 - ◊ Need for better network management tools.
 - ◊ Need for IP clearinghouse to register IPs for devices.
 - ◊ Need for a consistent, structured, and logical trouble-shooting process.
 - ◊ Need for giving more control and responsibility to originating institution (UEN provides support as needed).
- Technical orientation and training
 - ◊ Need for more hands-on use of equipment.
 - ◊ Need for more coordination with engineers.
 - ◊ Need for more network architecture and IP Video training.

Instructional

- Administrators
 - ◇ Educate administrators on IP Video issues related technical and instructional support needs.
 - ◇ Keep administrators informed of what is happening, especially of problems that occur and how they are being resolved.
 - ◇ Need for administrators to make expectations clear to faculty including 1) remuneration, work load, and other related issues.
 - ◇ Maintain the UEN technical and instructional support.

- Faculty
 - ◇ Have a person that faculty can go to for help when problems arise.
 - ◇ Need for technical (how to use technology) and instructional training on (when to use the technology).
 - ◇ Need for helping faculty feel comfortable with teaching station, that is, addressing faculty technical and instructional needs (e.g., use of a graphing calculator).
 - ◇ Need to test more before going live.
 - ◇ Need to consider other technologies used with IP Video (e.g., Sorenson, EDNET, Satellite, etc.)
 - ◇ Need to consider other needs of faculty use of IP Video (e.g., Office hours after class time).
 - ◇ Consider faculty experience and use of IP Video.

- Facilitator and technical coordinators
 - ◇ Need for more training with all conditions similar to a live classroom.
 - ◇ Need to work out the kinks before class time.
 - ◇ Need to train faculty on how to use equipment.
 - ◇ Need for continual follow-up on how things are going (e.g., Camera occasionally shakes in classroom at Tooele HS).
 - ◇ Need for identifying successful methods of what works and what doesn't work at a distance.
 - ◇ Need for administrators to know what's involved with IP Video.

TAB 20 ATTACHMENT D

IP VIDEO SITE MIGRATION AND INSTALLATIONS

Visit Done	Site	Engineer	LSR	Site Type	Required Gateway	Install Date - Tentative	TOC Person for Install	Install Done
	FY 2004 Codec Upgrades							
✓	West Desert	Joel Young	Charice Black	VSX	Dedicated GW - UVSC	18-May	Mark Varner	✓
✓	Grouse Creek	Bob Slater	Sheryl Hulmston	EX	Dedicated GW - USU	12-Mar		✓
✓	Park Valley	Bob Slater	Sheryl Hulmston	FX	Dedicated GW - USU	12-Mar		✓
✓	Milford HS	Jeff Short	Charice Black	VSX	Dedicated GW - SUU	June	Mark Varner	
✓	Millard HS	Jeff Short	Charice Black	VSX	Dedicated GW - SNOW	August	Mark Varner	
✓	Delta HS	Jeff Short	Charice Black	VSX	Dedicated GW - SUU	August		
✓	Juab HS	Joel Young	Charice Black	VSX	Dedicated GW - SNOW	17-Jun	David Litster	✓
✓	Tintic HS	Joel Young	Charice Black	VSX	Dedicated GW - SNOW	16-Jun	David Litster	✓
✓	Springville HS	Joel Young	Charice Black	VSX	Dedicated GW - UVSC	18-Jun	David Litster	✓
✓	Granger HS	Slater/Devey	Sheryl Hulmston	FX	Dedicated GW - SP/SLCC	19-Jun	Justin Macis	✓
✓	Hillcrest HS	Slater/Devey	Sheryl Hulmston	FX	Dedicated GW - SP/SLCC	15-Jun	Justin Macis	✓
✓	Lone Peak HS (#2)	Joel Young	Charice Black	EX	Dedicated GW - UVSC	4-Jun	David Litster	✓
✓	Carbon HS	Bob Slater/ Gaylen Williams	Claire Gardner/ Colleen Nordberg	EX	GWC	1-Jul	Justin Macis	
✓	Dixie HS	Jeff Short	Charice Black	EX?	Dedicated GW - SUU		Mark Varner	
	USU Pilot Project							
✓	Roosevelt DCE	Don Mahaffey/ Dave Devey	Claire Gardner/ Elise Liddell	Rm. 132 FX	None	18-Jun	TBD	
				Rm. 11C VSX	None	18-Jun		

✓	Vernal DCE	Don Mahaffey/ Dave Devey	Claire Gardner/ Elise Liddell	VSX	None	18-Jun	David Litster	✓
	USU Classroom	Dave Devey/Don Mahaffey		FX	None	25-Jun		
✓	Tooele DCE	Joel Young	Sheryl Hulmston	FX	None	30-Jun	David Litster	
	UVSC	Joel Young	Claire Gardner	VSX	None	25-Jun	David Litster	
✓	Brigham DCE	Don Mahaffey/ Dave Devey		VSX	None	25-Jun		
✓	Murray DCE-EDNET Room	Bob Slater/Dave Devey	Sheryl Hulmston	VSX	None	24-Jun	David Litster	
✓	Murray DCE-Pilot Site	Bob Slater/Dave Devey	Sheryl Hulmston	EX	None	25-Jun	David Litster	
	CIB Grants							
	Manilla HS	Young/Slater	Claire Gardner		SP/UBATC		David or Justin	
	Monument Valley #1	Young/Slater	Claire Gardner	FX	Dedicated GWA/SJ		David or Justin	
	Monument Valley #2	Young/Slater	Claire Gardner	VSX	Shared		David or Justin	
	Navajo Mt. School #1	Young/Slater	Claire Gardner	FX	GWB/SJ		David or Justin	
	Navajo Mt. School #2	Young/Slater	Claire Gardner	FX	Shared		David or Justin	
	Lake Powell	Young/Slater	Charice Black	VSX	GWC/SJ	Fall 2004	David or Justin	
	FY 2004 Upgrades Round Two							
✓	Bear River HS	Joel Young	Sheryl Hulmston	FX	Shared	29-Jun	David Litster	
✓	Box Elder HS	Joel Young	Sheryl Hulmston	FX	Shared	30-Jun	David Litster	
	Weber State Univ.	Devey/Bob King/ Bob Slater		FX	3 GWs			
✓	Altamont HS #1*	Don Mahaffey/ Dave Devey	Claire Gardner	VSX	EX/UBATC	Fall 2004		
✓	Altamont HS #2 *		Claire Gardner	VSX	Shared	Fall 2004		
✓	Duchesne #1	Don Mahaffey/ Dale Willis	Claire Gardner	VSX	EX/UBATC	18-Jun		✓
✓	Duchesne #2	Don Mahaffey/ Dale Willis	Claire Gardner	VSX	Shared	18-Jun		✓
✓	Tabiona #1	Don Mahaffey/ Dale Willis	Claire Gardner	VSX	128/UBATC	18-Jun		✓
✓	Tabiona #2	Don Mahaffey/ Dale Willis	Claire Gardner	VSX	Shared	18-Jun		✓
✓	East Carbon	Bob Slater/ Gaylen Williams	Claire Gardner/ Colleen Norberg	VSX	Shared	29-Jun	Justin Macis	
	*Hold until grant notification							

	USU Upgrades							
✓	Moab DCE #1	Joel Young/Dave Devey	Charice Black	FX	None	5-Mar		✓
✓	Moab DCE #2	Joel Young/Dave Devey	Charice Black	VSX	None	5-Mar		✓
	Pending							
	Bonneville HS (Ogden School District)							
	Cyprus HS (Granite School District)							
	Olympus HS (Granite School District)							
	Center City School (Charter School)							
	Uintah River HS (Charter School)							
	West Middle School (Uintah School District)							
Total of 46 sites								

TAB 20 ATTACHMENT E

INITIAL DRAFT PERSPECTIVE ON MINIMUM TRAINING REQUIREMENTS

Higher Education

Faculty Training should be addressed in two broad areas, (1) classroom delivery systems, and (2) general administrative issues.

Classroom delivery technologies should address operational and pedagogical considerations relating to the following areas, as a minimum:

- Polycom™ or similar IP Video system
- Instructor camera
- Document camera
- Video playback (VHS, CD-ROM, or DVD)
- PC (PowerPoint, electronic whiteboard, etc.)
- Student discussions
- Student presentations, both from origination and remote sites

Administrative training should address, as a minimum, the following:

- Facilitator duties
- Testing Considerations
- FERPA (Family Educational Rights and Privacy Act)
- Wardrobe
- Class Materials Distribution
- Extended Syllabus (Course Reader) Preparation
- Copyright (For Video and Print)
- Faxing
- Video Taping of Class Sessions
- Distance Education Library Services, where offered
- Merrill Library Electronic Course Reserves, where offered
- Special Considerations for Student Inmates at Prison Sites

- Faculty Support for Course Materials Production
- Integrating Web Course Management Tools into an IP Video Distance Education Course

Public Education

Minimal Faculty Training Requirements:

- Training is required of all distance-learning teachers involved with secondary school students.
- Training (2.5 days or 20 hours) is provided at the school's distance learning facility by the USOE Distance Learning Training Specialist and UEN Distance Learning Technical Trainer.
 - ◊ Local and state support is provided for training on Utah's Distance Learning Networks (EDNET, IP Video, UENSS, Virtual or online Instruction)
 - ◊ Participants are provided hands-on practice and training for teachers, facilitators and other staff with distance learning technology.
 - ◊ Participants learn how to maximize the capabilities of the delivery system
 - ◊ Teachers and other distance learning professionals register at MyUEN (See: <http://my.uen.org/myuen/MyUen>)
 - ◊ Participants receive the Distance Learning Training Certificate.
- It is recommended that the UEN Steering committee reaffirm its position that ALL individuals involved in direct teaching in a distance learning environment receive proper hands-on certificated training.
- Training should be provided by the Utah Electronic Community College Distance Education Specialist, and/or the USOE Distance Learning Specialist
- 45-minute training segment on Concurrent Enrollment provided by the training specialists.
- Faculty training activities should also include the origination facilitator

Minimal Site Facilitator Training Requirements:

- Tier 1 training consists of initial onsite technical training—minimum of 2 hours; Tier 2 training consists of follow-up training conducted via the distance education system with facilitator on site and trainer at remote site—minimum of 1 hour; and Tier 3 training consists of follow-up of higher level concepts for origination site function.
- Facilitator(s) and/or Coordinators at sites must complete tier 1 technical training provided by a UEN Local Service Representative or other trained UEN support staff.

- Tier 1 technical training session (minimum of 2 hours) for the facilitator should be provided prior to the teacher trainer session or integrated into 2.5-day teacher-training block.
- A pre-course meeting with the instructor and all site facilitators is fundamental to facilitator understanding teacher requirements
- Facilitator should be able to provide an effective orientation for students on best practices for utilization of distance education classroom technology.
- Facilitator(s) will be required to participate in Tier 2 and/or Tier 3 follow-up training session(s) provided as an ongoing service by UEN Trainers. Such sessions will be routine but can also be requested by individual facilitators or school administrators as many times as needed.

KULC TO KUEN RECOMMENDED CALL SIGN CHANGE - ACTION

Issue

Approval to change call sign from KULC to KUEN is recommended by the Instructional Services Subcommittee.

Background

During April and June Subcommittee meetings, a proposal to change KULC's call sign to KUEN was discussed. Reasons given for making this change included:

- Ability to co-brand the station with UEN's other services and take advantage of cross-promotion (e.g., TV to Web, Web to TV, etc.).
- Viewer confusion over cable TV "The Learning Channel"
- CPB confusion over organizational relationship of UEN and KULC
- Desire to bring more attention to broadcast resources

Positive support was expressed by committee members, along with the need for additional research. A summary of the research conducted over the last 6 months is included in Appendix A. In addition, telecourse providers from Salt Lake Community College, University of Utah, and Utah Valley State College convened on a conference call to discuss the issue. A summary of this call, prepared by Cyd Grua appears in Appendix B.

Members of the Instructional Services Subcommittee reviewed data included under this tab and recommend a call sign change to occur in September 2004.

Recommendation

It is recommended that the Steering Committee members approve a call sign change from KULC to KUEN.

TAB 21 ATTACHMENT A

KULC TO KUEN RESEARCH AND RESULTS

KULC to KUEN

Research and Results
June 2004

Background

- UEN and KULC recommend a branding and call sign change from KULC to KUEN. Reasons for this include:
 - Greater opportunity to co-brand and cross-promote all services (broadcast, web, classrooms, etc.)
 - Reduce viewer confusion re: cable “Learning Channel”
 - Reduce CPB confusion re: UEN and KULC organizational structure
 - Be in alignment with broadcast industry move toward services offered rather than station location
 - Bring more attention to broadcast as an educational delivery service
- In April, Instructional Services sub-committee members expressed support but recommended further research. This report summarizes research.

Four types of research:

1. Industry analysis, particularly public stations with strong education service mission
2. Case studies from two stations
 - MHz Networks in Virginia
 - ETV in South Carolina
3. Viewer Survey
 - 125 participants May 1-27, 2004
4. Key Stakeholders
 - CE Deans and Directors March 10, 2004
 - Rethinking E-Learning Participants March 9, 2004
 - Utah Instructional Media Consortium March 10, 2004
 - Telecourse Providers Conference Call June 1, 2004

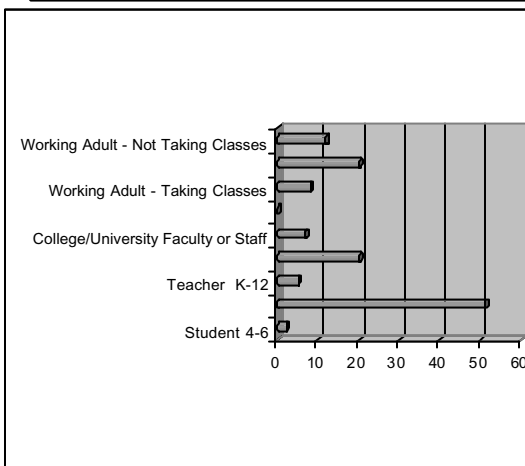
Industry Research

- With change to digital service, many stations are identifying themselves by services offered rather than call sign location, for example:
 - ThinkTV Network
 - Greater Dayton Public Television, WPTD
 - ThinkBright
 - WNED, Buffalo New York
 - PeachStar Education Services
 - Georgia Public Broadcasting, 24 call signs

Case Studies

- UEN visited and studied two stations that had undergone recent call sign changes
 - MHz Networks in Virginia
 - Branding change from call sign
 - Increased viewership, pledge support, better identification with Fairfax Co. Schools (licensee)
 - SCETV changed to ETV – across radio, two TV stations, digital services
 - large media push resulted in greater brand recognition and pledges

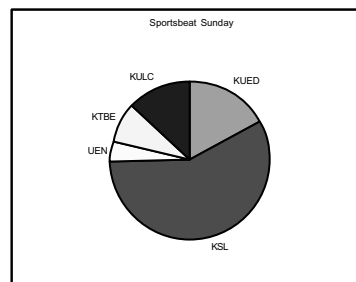
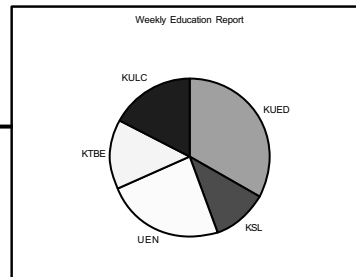
Media Services Survey



- 125 survey respondents
- 40.8% were students Grades 7-12
- College/University Students 16%
- Retired/Non-working adult 16%
- Surveys administered May 1 to May 27 all Wasatch Front locations

Program ID

- Respondents asked to identify programs with stations that provide them:
 - KUED
 - KSL
 - UEN
 - KTBE
 - KULC
- KSL most accurate



Programming

Programs attributed to which station?	KUED	KSL	UEN	KTBE	KULC	Correct ?	Attributed To
Eyewitness News	27% (32)	64% (76)	2% (2)	3% (4)	3% (4)	Yes	
Civic Dialogue	37% (38)	20% (20)	18% (18)	12% (12)	14% (14)	Yes	
Weekly Education Report	33% (33)	11% (11)	18% (18)	14% (14)	17% (17)	No	KUED
Themepark	19% (18)	14% (13)	27% (26)	25% (24)	16% (15)	Yes	
TV411	14% (14)	14% (14)	24% (24)	23% (23)	23% (23)	No	UEN
Sportsbeat Sunday	17% (18)	58% (62)	4% (4)	8% (9)	13% (14)	Yes	
Focus Hour	32% (31)	16% (15)	19% (18)	21% (20)	12% (12)	No	KUED
Colonial House	46% (48)	13% (14)	16% (17)	13% (14)	11% (11)	Yes	
Intro. To Communications	29% (28)	15% (15)	20% (19)	20% (19)	28% (27)	No	KUED
Lesson Plans	29% (28)	14% (13)	15% (14)	15% (14)	28% (27)	No	KUED

Descriptors

- KULC
 - Educational
 - Classes
- KUED
 - Educational Programming
 - PBS
 - Children's Television
- UEN
 - Education
 - EDNET Classes
 - Lesson Plans
- Respondents were asked to write three words describing each station
- Respondents recognized educational mission of public stations and UEN
- Majority of respondents listed "not sure" for descriptors

Key Stakeholder Groups

- Discussions were held with the following groups, all indicating agreement with call sign change:
 - Utah Instructional Media Consortium
 - March 10, 2004
 - Public Education Advisory Committee
 - March 17, 2004
 - Continuing Education Deans and Directors
 - March 10, 2004
 - Telecourse Providers
 - June 1, 2004
 - E-Learning Providers
 - March 9, 2004
 - Instructional Services Sub-Committee
 - April 16, 2004

Recommendations

- Call sign change to KUEN, bring broadcast into overall branding efforts
- UEN work with telecourse providers to promote distance learning via broadcast
- Update programming and conduct outreach to key groups
- Develop academic advising programs in conjunction with higher ed and high school counselors
- Hold annual course preview meeting for higher education distance learning course providers
- Conduct market analysis again to determine whether shift in baseline data

TAB 21 ATTACHMENT B

PROPOSED CHANGE OF KULC CALL LETTERS

CONFERENCE CALL SUMMARY

Report to UEN Instructional Services Subcommittee

Submitted by Cynthia Grua, Director, Distance Education, OCHE

June 3, 2004

Laura Hunter spoke via conference call with distance education administrators from the UU, UVSC, and SLCC, the three USHE institutions that program credit courses on Channel 9. None of these institutions object to UEN's desire to change Channel 9's call letters from KULC to KUEN. The group discussed the timing for this change and marketing of Channel 9.

Timing

Campus catalogs and course syllabi which reference KULC Channel 9 have already been printed for Fall 2004. For this reason, it is recommended that the change in call letters take place the third week of Fall Semester 2004, or mid-September. Mid-September minimizes any confusion that might occur if call letters were changed before school starts. At that time, the great majority of USHE students will be enrolled in classes and will have tuned in to their first classes on KULC. UEN can run trailers for the call letter change. NOTE: UU, UVSC, and SLCC are currently finalizing Spring 2005 catalogs. It will be important to notify these schools if the UEN Steering Committee approves this change so that they can attempt to make changes to these printed materials.

Marketing

All three administrators expressed strong interest in any support UEN can provide to market broadcast television as a means to pursue higher education. Laura shared ideas she has picked up from other PBS affiliates including broadcast trailers as well as posters and other printed marketing pieces that might be distributed through libraries and businesses. USHE stakeholders will work with Laura and the UEN marketing staff to explore marketing options.

Action

It is recommended that the IS Subcommittee endorse the change in call letters for Channel 9 from KULC to KUEN, that this change take place mid-September 2004,

and the UEN staff work with USHE broadcast stakeholders to promote broadcast television as an option for pursuing higher education.

cc. Roberta Lopez/UU
Cameron John/UVSC
Ryan Hobbs/SLCC

PIONEER LIBRARY RFP AND PROMOTION PLAN PROPOSAL - ACTION

Issue

The Pioneer Library committee has recently completed an RFP process. With public education, higher education, and the public libraries spending close to one million dollars licensing electronic library resources, the Pioneer Library Subcommittee would like to increase promotion of Pioneer, Utah's Online Library. Attachment A is a proposal for FY05. An estimate of cost for developing and implementing such a plan has not yet been completed; however, a Subcommittee has been assembled representing the Pioneer partners to further investigate this initiative.

Background

Pioneer Library provides electronic information resources to the students, teachers and citizens of Utah. Created in 1996 through the combined efforts of Utah's public libraries, higher and public education, state government and the Utah Education Network, Pioneer Library provides access to resources that would otherwise be too expensive for each partner to offer. In the past, all of the partners of the Pioneer Library consortium have leveraged their funding to license the best "core" general reference databases (e.g., EBSCO, SIRS, World Book).

The Pioneer Library Request for Proposal was released January 15, 2004. Eleven companies responded to this RFP by submitting a proposal by the deadline date of March 16, 2004. During the Month of April a trial of all of the products was conducted. The products were reviewed by each of the Pioneer Library partner constituents with the opportunity to submit an online evaluation for each. The Pioneer Library committee has since met twice to review the evaluation results from the online survey and to discuss the proposals in detail. A Request for a Best and Final Offer was sent to the companies on June 7, 2004 with a deadline of June 15, 2004. The Pioneer Library committee will meet after June 15th to review the Best and Final Offers with the intention of making a final decision on which products to license for the next four years. An announcement of the selected products will be made once a decision has been made and procedures have been properly followed according to the RFP. Implementation of the products awarded will be July 1, 2004.

Recommendation

The Instructional Services Subcommittee indicated support for the Pioneer Library promotion plan as outlined in Attachment A.

It is recommended that the Steering Committee approve the product recommendation of the Pioneer Library committee.

TAB 22 ATTACHMENT A

PIONEER LIBRARY PROMOTION PLAN PROPOSAL

27 May 2004

Description of Project:

The purpose of this project is to increase usage of the Pioneer Library products.

Project Scope:

The scope of this project includes the following: 1) Collaboration with USOE, UEN, Independent Schools, UALC, and Public Libraries, 2) A long term endeavor; however, we will focus on what we can do initially for FY 2004-05 3) Use of existing resources.
--

Project Objectives:

1.	Work with Pioneer partners to develop a statewide Pioneer Library Promotion Plan.
2.	Pioneer partners to identify <i>Pioneer Library Advocates*</i> (PLA) within their organizational infrastructure by Fall, 2004.
3.	Work together as Pioneer partners to determine the kinds of duties that the PLAs may perform. Each partner would determine the specific duties that the PLA may perform within their organizational infrastructure.
4.	Work together as Pioneer partners to determine the support functions that need to be in place for their organization and/or all of the organizations involved for the PLA to be successful.

* Possible Pioneer Library Advocate Duties:	Support Functions provided by Pioneer partners:
Be an advocate for Pioneer Library	Orient the PLAs in how they can be an advocate. (e.g., _ day workshop). Provide incentives (e.g., Bag with supplies)
Train or facilitate training for your audience (i.e., teachers, librarians, aides...).	Provide trainers they can call on (e.g., Faculty assistant centers, regional centers...)
Be a liaison to administration.	Develop a Pioneer Listserv.
Work with the organization's local newsletter to submit articles Pioneer topics.	Write monthly articles that are relevant for our respective audience.
Maintain Pioneer Library materials at organization that support your audience (i.e., teachers, librarians, aides...).	Provide online documents for download and make available to other materials such as bookmarks and brochures upon request.
Be sure Pioneer logo on organization's web site.	Provide download and instructions.
Make sure Pioneer products are accessible.	Provide process for getting technical help.
Help audience to be aware of other support options.	Resources link at Pioneer web site – threaded chat, link to best practices, news bulletin.

UEN'S DIGITAL MEDIA SERVICES UPDATE - DISCUSSION

Issue

This is a status report on UEN's Digital Media Service project.

Background

The Digital Media Service project (also sometimes referred to as the digital asset management (DAM) system) impetus came from a request from the Utah Instructional Media Consortium for UEN to digitize, store, index and deliver videos from their collection to educators around the state. At this time the UIMC has licensed 200 titles with plans to add 200 titles each year. In October of 2003 the UEN Steering Committee approved development, by the Utah Education Network, of a statewide digital media delivery service with a timeframe of approximately one year. As UEN looked at what was needed to deliver such a service, they realized that a carefully selected back-end system could support not only the UIMC collection, but other learning media (i.e. video, graphics, audio, animation) collections as well. UEN assigned a core team to implement the solution. Team members experienced in video, metadata, digital asset management, interactive design, Web delivery systems and UEN services integration all participated in solution reviews and selection.

Since the UIMC collection was determined to be the initial project to be served by the system, UEN conducted user profile analysis with K-12 educators who previously used video download services available through UEN. In addition, UEN joined with higher education systems from Georgia and Virginia in a research project through WCET to examine learning object repositories. The preliminary results of the research project comparing various systems were provided to UEN in late April (the final report will be made public in Fall 2004). Based on information gathered in the analysis phase, UEN selected the system that offered the best combination of power, scalability, and flexibility – keeping in mind that the initial collection must be ready by September 2004.

Report

The status of UEN's Digital Media Service project is as follows:

North Plains TeleScope Enterprise has been selected as the repository and distribution system. The purchase order is completed and licensing review and the

statement of work will be signed shortly. UEN applied for and received a grant from Sun that will pay 50% of the hardware costs. We will be able to leverage existing UEN hardware as well as the hardware that has been ordered to build out the system. Installation and initial configuration is planned for late June into early July.

Virage Video logger will serve as our video ingest and encoding solution as well as the system that feeds objective metadata for the UIMC video collection directly to the North Plains TeleScope system. The Virage system has automatic audio to text, closed-captioning capture and on-screen text capture capabilities. This data can be sent directly to TeleScope as metadata that accompanies the encoded video files. We plan to have Virage on-site to install in mid-July.

Paul Burrows from University of Utah Media Solutions is working on a fast-start metadata schema for use with the initial UIMC video files (with plans continue working on the full schema definition configuration throughout the Fall - he will be calling together a collaborative group to help him develop the schema). North Plains TeleScope can accommodate multiple metadata structures, so as we get requests to house additional collections, we will constantly refine, adapt and accommodate the necessary schemas.

Next Steps

Acquire video masters from UIMC.

Complete software and hardware installation in June and July.

Conduct staff training, metadata schema, and begin Ingest in July.

It should also be noted that UEN staff will take a more active role in soliciting input and participation from higher education stake holders with this project. Based on the Instructional Services Subcommittee, UEN is in contact with the planners of the UALC Conference in July to plan a discussion opportunity. Members are also encouraged to invite UEN staff to meetings and check the project Web site at www.uen.org/utahdms.

Recommendation

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

UEN PROFESSIONAL DEVELOPMENT SUMMER REPORT - DISCUSSION

Issue

There are many professional development workshops being held this summer. Workshops organized through UEN, Annenberg/CPB, Intel Teach to the Future and PBS TeacherLine are in much demand. This report summarizes activity throughout the summer. For more information about specific workshops, visit www.uen.org/development.

Background

June, July and August are always among our busiest months, and typically we travel more, too. We currently have nearly 150 sessions scheduled during the summer months. These include requested sessions in the field, and planned sessions in our lab.

- June: 68 sessions
- July: 47 sessions
- August: 32 sessions

48 days of training are scheduled in our lab between June 1 and August 24. We have already received over 400 registrations for classes in the lab. (We do not take registrations for requested classes in the field.) Many administrators request August training during their “back to school” contract time, so we anticipate adding as many as 20 more requested sessions in August.

We will support several conferences in June, and the Utah Rural Schools Association conference in July. June conferences include:

- Business
- Family and Consumer Science
- Guidance
- Health Sciences
- Technology Education
- Literacy

- Work-based Learning

Where?

We will serve the state in such diverse locations as American Fork, Cedar City, Logan, Price, Provo, Riverton, Salt Lake City and Sandy. Individual regions and districts requesting training include SESC, SEDC, Morgan, Alpine, Nebo, Jordan, Box Elder, Granite, Davis and Uintah.

What Classes?

Our class listing includes the three Web Academy classes which we will teach five times each (30 days, total), Digital Camera for the Classroom, Digital Video Projects, Electronic Portfolios, Flash Web Animation, MS Office for the Classroom, PowerPoint for Teachers, Technology Tools for Back to School and Use Technology to Teach. Several of the Web Academy classes are already full.

In addition, we offer nine subject-specific courses produced by Annenberg/CPB and broadcast on TV. Participants complete online work in addition to viewing the programs to earn credit. We have one locally developed online course this summer (Smart Tools at UEN), and several subject-specific online courses available through PBS Teacherline.

The 2004-2005 schedule of Integrating Technology and Curriculum workshops includes eight workshops during the summer months, and each workshop now has a third follow up day one month after the initial two days.

Grant program activities from PBS TeacherLine and Intel Teach to the Future are summarized in Attachment A.

Recommendation

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

TAB 24 ATTACHMENT A

GRANT PROGRAM SUMMER ACTIVITIES

June Grant Courses

Course Name	Course Date(s)
Intel® Teach to the Future Workshop on Seeing Reason for the Technology Integration Academy	June 14
PBS TeacherLine, Patterns & Relations, Grades 1-5*	Online June 16 - July 28
PBS TeacherLine, Concept of Function, Grades 9-12*	Online June 16 - July 28
PBS TeacherLine, Western Consortium, Scientific Inquiry & Field Work, Grades 6-8*	Online June 16 - July 14
PBS TeacherLine, Western Consortium, Children's Authors on the Web, Grades K-6*	Online June 16 - July 14
PBS TeacherLine, Western Consortium, Real Time Data, Grades K-12*	Online June 16 - July 14
PBS TeacherLine, Western Consortium, Curriculum Mapping, Grades K-12*	Online June 16 - July 14
PBS TeacherLine, Western Consortium, Teaching for Multiple Intelligences, Grades K-12*	Online June 16 - July 14
Intel Leadership Forum	June 29

July Grant Courses

Course Name	Course Date(s)
PBS TeacherLine, Count on It! Number Sense for Grades K-5*	Online July 7 - Aug. 25, week of July 20th off
PBS TeacherLine, Utilizing Technology in Creating Problem-Based Curriculum*	Online July 7 - Aug. 18
Intel® Teach to the Future Workshop on Seeing Reason and Visual Ranking for Master Teachers	July 8 & 9
Information Literacy for Technology Integration Academy	July 19 & 20

*\$150 course fee

INSTRUCTIONAL SERVICES SUBCOMMITTEE

T A B **25**

HIGHER EDUCATION ADVISORY COMMITTEE - DISCUSSION

Issue

The Higher Education Advisory Committee is in the process of being reviewed. Many members have moved on to other positions and the committee is no longer active. Gary Wixom has been talking to potential new members and will report to the Steering Committee.

Recommendation

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

TECHNICAL SERVICES SPRING RETREAT REPORT - DISCUSSION

Issue

UEN Technical Services Spring Retreat

Background

The UEN Technical Services Subcommittee held its annual spring retreat on May 5, 2004. We appreciate the participation of Steering Committee members and representatives from Districts, Colleges, Universities and Regions. UEN staff also took part in the discussions. The following topics were covered.

1. Preliminary UEN FY 2005 Budget

Mike Petersen presented a draft copy of the proposed FY 2005 budget and answered questions. This information was presented in advance of the June Steering Committee so that stakeholders will have an opportunity to review the budget, ask questions, and provide feedback to UEN staff.

2. Tech Corps

Rick Cline has accepted the responsibility of directing the Tech Corps program in Utah. Dennis Sampson has held this position since the inception of Tech Corps at UEN. Rick took a few minutes to explain the program, answer questions and encourage participation.

3. Strategic Planning Discussion

Participants were divided into three groups and asked to consider a draft copy of the Technical Services FY 2005 strategic plan. These groups considered revisions to the six objectives assigned to the Technical Services Department and also to consider additional objectives. Tony Bueno, Barry Bryson and Jeff Egly led these discussion groups.

Input from these groups has been included in the draft strategic plan that is presented for this meeting. All input derived from these discussions has been considered and is incorporated into the planning document for review by the committee.

4. Regional Priorities

UEN has collected input from all Technical Forums to produce a FY 2005 Regional Priority list. Representatives from each forum were given the opportunity to present and discuss their priorities. UEN is seeking ongoing input from each region to ensure that this list is as comprehensive as possible. Over the next two months the list will be refined and the priority methodology approved by this committee will be applied. The list will be presented in this refined form at the August Steering Committee meeting for further review.

Mike Petersen pointed out that at the time of the meeting the special projects budget, set up to financially support the regional requests, is budgeted at \$600,000. This figure is reduced from the FY 2003 and FY 2004 budgets. UEN anticipates a significant increase in this area as carry over funds are identified and moved forward into the next budget year.

5. Security

Barb White led a discussion to address items raised by this committee at the April meeting. Two new assignments developed. Barb White is considering options to get greater input and support from decision makers throughout the state. One option being considered is to form a security group with broader participation. Barb will report back on this in the near future.

Jim Stewart was asked to establish and present ideas for single issues forums. These forums would be used to tackle and resolve big problems that have eluded resolution thus far. A report will be presented at the August Steering Committee meeting.

Additional discussion of established assignments also took place and the responsible individuals took time to outline any activity in these areas. We were encouraged by Barb to continue working in these areas and to continue to increase the effectiveness and attendance of the weekly security call and UtahSAINT Web site.

Recommendation

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

TAB 26 ATTACHMENT A

FISCAL YEAR 2005 REGIONAL PRIORITIES

Project	Region
Arbor Networks	UEN
Machine Room fire suppression	UEN
Internet Router	UEN
GSR Spare	UEN
Extend GeoMax to Price and Tooele	UEN
NLR 10 Gig connection to Denver	UEN
Evaluate MyEDesk and implement as this meets stakeholder needs	UEN
<hr/>	
GeoMax at Sevier District Office and CUES	CUES
Repoint all Sevier District Circuits to the new DO	CUES
E-Rate Project: Gunnison High School	CUES
E-Rate Project: Gunnison Middle School	CUES
E-Rate Project: Wayne High School	CUES
E-Rate Project: Wayne Middle School	CUES
E-Rate Project: Juab High School	CUES
E-Rate Project: Juab School District Office	CUES
Turn-up GigE/GeoMax service to existing FN schools	CUES
CUES Region spares (outlined in regional list)	CUES
LSS service North Sevier Middle School	CUES
LSS service South Sevier Middle School	CUES
LSS service Red Hills Middle School	CUES
Improve communication between UEN TS and region	CUES
Upgrade memory in CUES ICS box	CUES
Implement QOS on circuits supporting H.323	CUES
<hr/>	
Complete Millard GigE project	SEDC
Bandwidth - Milford	SEDC
1 Bandwidth - Minersville	SEDC
1 Bandwidth - Escalante	SEDC
1 Bandwidth - Bryce Valley	SEDC
1 Bandwidth - Valley High	SEDC

1	Bandwidth - Enterprise High	SEDC
1	Bandwidth - Ethernet Services to FN Fiber Sites	SEDC
1	Bandwidth - Ethernet Services to Qwest Middle Schools	SEDC
1	Bandwidth - High speed services for Lake Powell School	SEDC
1	Bandwidth - Radio path for E-Valley	SEDC
1	Bandwidth - Reliable high speed connection to Antimony	SEDC
1	Bandwidth - Ethernet services to Eskdale	SEDC
2	Security Training and tools for the districts	SEDC
3	Backbone redundancy (SUU & Dixie to EBC)	SEDC
4	DNS and IP renumbering	SEDC
5	Elementary School connectivity	SEDC
6	Alternate PoP to the Internet	SEDC
	Ethernet everywhere ASAP	USU
	Increase bandwidth before the start of school	USU
	Regional NMIS/statistics/monitoring pilot project	USU
	Get rid of all 2500 routers	USU
	Box Elder 2500 router replacement	USU
	Box Elder - GigE to Box Elder HS	USU
	Box Elder - GeoMax/GigE to all possible schools	USU
	Cache - GeoMax to all possible schools	USU
	Logan - GeoMax to Logan HS and DO	USU
	Logan - Router Upgrades	USU
	Logan - South Campus (alternate HS)	USU
	Bridgerland ATC - Ethernet to Logan Campus	USU
	Bridgerland ATC - Ethernet to Brigham City Campus	USU
	USU - Increased bandwidth to allow removal of packeteer	USU
	USU - Diverse/protected route/bandwidth	USU
	Increased use of Internet2	USU
	Ethernet everywhere ASAP	WSU
	DATC - Internal wiring/network GigE	WSU
	Davis - GeoMax/Ethernet to all schools (July)	WSU
	Davis - VoIP to all schools by end of summer	WSU
	Davis - Deploying content engines for streaming media	WSU
	Davis - Looking to deploy IDS and firewall to remote locations	WSU

	Davis - Managing Ethernet bandwidth at 22 sites	WSU
	Ogden - GeoMax to both DO locations	WSU
	Ogden - Ethernet to as many schools as possible	WSU
	Ogden - New router to replace current 72xx	WSU
	Weber - Move all services to new DO	WSU
	Weber - Establish link between two DO sites	WSU
	WSU - EDNET video move to new Lamprose Hall	WSU
	WSU - Availability/Reliability to support 24/7 nature	WSU
1	Increased bandwidth between CEU and Salt Lake	SESC
2	Redundant data path for the SE region	SESC
3	Upgrade of the D.O. connections at Emery and Grand districts	SESC
4	Phase II of the San Juan microwave project	SESC
5	Continue funding for regional UEN supported positions	SESC
6	Continue support of the UEN Technical Summits	SESC
7	Timely rollout of new digital media system	SESC
8	IP video upgrade of EDNET sites	SESC
9	Hardening of the power at SESC	SESC
	Districts - GeoMax deployment ASAP	SLCC
	SLCC - Assist in GeoMax deployment	SLCC
	SLCC - Harden site with cooperation on installation of generator	SLCC
	Incidental construction costs of GeoMax installation	SLCC
	SLCC - leverage resources through joint strategic planning	SLCC
	Jordan - New High School at the Jordan ATC	SLCC
	Provo - Fiber and Ethernet Services to all Schools	UVSC
	Alpine - Connectivity to new Middle School	UVSC
	Alpine - Fiber Connectivity for all Secondary Schools	UVSC
	Alpine - Router replacement for all 41 Elementary Schools	UVSC
	Alpine - Install DMZ and honey pot machine	UVSC
	Alpine - Layer 4 swithes to replace in secondary schools	UVSC
	Connection of districts through UVCN at UVSC	UVSC
	Nebo - Ethernet connectivity from DO to Spanish Fork Schools	UVSC
	Nebo - Ethernet connectivity to schools in Springville and Payson	UVSC
	Duchesne - UBTA construction and fiber to new DO	NUES
	All West Gigabit connectivity	NUES

	Re-engineering basin circuit at UVSC Heber for better routing	NUES
	Improved connectivity to Park City	NUES
	Remove remaining 2500 routers	NUES

TECHNICAL SERVICES SUMMER PROJECTS REPORT - DISCUSSION

Issue

Summer Projects

Background

This summer is shaping up to be the busiest ever for UEN. An incomplete list includes the following projects:

- Rural Ethernet Installations
 - ◊ Frontier (Millard District)
 - ◊ South Central (Sites in Piute, Garfield, and Kane Districts)
 - ◊ Manti Telephone
 - ◊ Central Utah Telephone
 - ◊ UBTA
- GeoMax Layer 3 (known to UEN staff as GL3. This is the effort to turn up a second channel with Gigabit Ethernet speed from Logan to St. George)
 - ◊ 11 District offices and all PoPs (PoPs are our hub sites along the existing CVDS/GeoMax path)
- San Juan Microwave installation
- Circuit upgrades
 - ◊ UVSC to CEU
 - ◊ SUU to EBC
 - ◊ USU to EBC
 - ◊ Emery District to CEU
 - ◊ Ogden DO
 - ◊ Others
- IP Video Site Installation (40 sites)
- GeoMax Phase II planning
 - ◊ Qwest served Districts

- District Office Moves
 - ◊ Tooele, Sevier, Duchesne, and Weber
- Cisco 2500 replacements

We also anticipate further security threats against the network. If we see activity that is even a fraction of what happened last summer (Cisco exploit requiring an emergency IOS upgrade, SoBigF, Blaster, Naachi) then the fallout could cost large amounts of our time.

Technical Services is coordinating these projects, adding to the list, monitoring deadlines and progress in a weekly meeting. This meeting is held each Monday morning at 8:00 AM and will continue throughout the summer. Anyone interested in following our progress, adding to the list or working with us to get things done can participate. We are using the UEN audio bridge to provide remote access to this meeting. The bridge information is:

- Bridge telephone number – 801-583-4439
- Passcode – 7777#

Recommendation

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

GEOMAX PHASE II PLANNING - ACTION

Issue

GeoMax Phase II Planning

Background

UEN has been working to increase the number of Ethernet served sites throughout the Qwest served network. A contract was signed to install these high speed circuits in 155 sites in FY 2005 using the Qwest GeoMax service.

In the past we have contracted with telecommunications providers for services on a per circuit basis. That changes with GeoMax. The GeoMax service combines nodes and interfaces. A node costs as much as \$4500 per month. Interfaces, for Gigabit service, cost \$800 per month per site. There is no per circuit per site charge for this service.

The pricing of GeoMax presents both problems and opportunities for UEN. The problem is that without proper planning a single site could cost as much as \$5300 per month (the cost of a node plus a Gig interface.)

The opportunity is to populate each node as densely as possible. It would be theoretically possible to equip one node (\$4500 per month) with 32 Gig interfaces (32 X \$800 = \$25,600 per month) for a total of \$30,100 and a per site average of about \$941. Of course, this is not feasible because of the realities of school locations, numbers, etc.

This example points out the need to carefully plan GeoMax installation sites. It also points out a greater need for all of us to communicate with each other as this process unfolds. Decisions regarding GeoMax determine the cost per site. As the above examples show, the per site cost can range anywhere from less than \$1000 per month all the way up to \$5300 per site. Careful planning is needed to ensure that a maximum number of sites be served within the existing budget.

A list of the proposed GeoMax sites for Phase II is included as Attachment A. It must also be noted that UEN is dependent on E-Rate funding to proceed with this project.

Recommendation

It is recommended that the Steering Committee discuss this issue thoroughly to better understand the engineering and planning requirements of the GeoMax project.

TAB 28 ATTACHMENT A

LOCATIONS CONSIDERED GEOMAX, PHASE II SITES - DRAFT

Northern Area

Target Location
Utah State University

Logan District Office

Logan High School

Cache District Office

Edith Bowen School -
Greenville School
Lewiston School
Lincoln School
Millville School
Nibley School
North Park School
Park School
Providence School
River Heights School
Summit School
Sunrise School
Wellsville School
Cedar Ridge Middle
North Cache Center
South Cache Center
Spring Creek Middle
White Pine Middle
Willow Valley Middle
Mountain Crest High
Sky View High School

Weber State University

Box Elder District Office

Box Elder High School

Ogden District Office

Ogden High School
Ben Lomond High
Ogden School District
Washington High

Weber District Office

Weber Administration
North Ogden Jr. High
Rocky Mountain Jr.
Roy Jr. High School
Sand Ridge Jr. High
Orion Jr. High School
South Ogden Jr. High
T H Bell Jr. High
Wahlquist Jr. High
Bonneville High School
Fremont High School
Roy High School
Weber High School
BDO

Metro Area

Target Location
Salt Lake Community

Salt Lake City District

Backman School
Beacon Heights School
Bonneville School
Dilworth School
Edison School
Emerson School
Ensign School
Franklin School
Hawthorne School
Highland Park School
Indian Hills School
Jackson School
Lincoln School
M. Lynn Bennion
Meadowlark School
Mountain View School
Newman School
Nibley Park School
North Star School
Parkview School
Riley School
Rose Park School
Uintah School
Wasatch School
Washington School
Whittier School
Bryant Middle School
Clayton Middle School
Glendale Middle
Hillside Middle School
Northwest Middle
Carden Memorial
Our Lady of Lourdes
East High School
Highland School
West High School

Granite District Office

Central High School
Cottonwood High
Cyprus High School
Granger High School
Granite High School
Hunter High School
Kearns High School
Olympus High School
Skyline High School
Taylorsville High
Eisenhower Jr. High
Evergreen Jr. High
Hunter Jr. High School
John F. Kennedy
Jr. High School

Jordan District Office

Alta High School
Bingham High School
Brighton High School
Copper Hills High
Hillcrest High School
Jordan High School
Jordan Tech Center
Jordan Valley School
Riverton High School
SouthPoint High
Valley High School
West Jordan High
Indian Hills Middle
South Jordan Middle
Oquirrh Hills Middle
West Jordan Middle

Murray District Office

University of Utah

**Utah State Capitol
Board of Regents**

Salt Lake Community

Tooele District Office

Tooele High School
Grantsville High

Utah County Area

Target Location
Utah Valley State

Alpine District Office

American Fork High
Lehi High School
Lone Peak High School
Mountain View High

Provo District Office

Independence High
Provo High School
Timpview High School

Southern Area

Target Location
Dixie College

Iron District Office

Adult High School
Canyon View High
Cedar City High School
Foothill High School
Parowan High School

Washington District

Dixie High School
Hurricane High School
Millcreek High School
Pine View High School
Snow Canyon High

Sevier District Office

North Sevier High
South Sevier High

E-RATE STATUS - DISCUSSION

Issue

E-Rate Status

Background

UEN has finally received SLD approval for all Rural Ethernet projects that were applied for in February 2003. This has been a long wait and we are anxious to move forward and complete these installations.

The projects specific to Central Utah Telephone and South Central were approved last December. Project meetings occurred at that time and have been ongoing. Billing for one-time costs have been received for both projects and circuits should be up and working later this month.

The Uintah Basin circuits were approved last month and a project kick-off meeting took place on May 28th. The project has been divided into two separate phases. In phase I equipment will be upgraded for 7 existing Gigabit Ethernet circuits. The new District Office will also be connected. The District Office installation is dependent on construction deadlines. The equipment upgrade will take place late in July.

The Manti Telephone project was also approved last month. A project kick-off meeting is scheduled for later this month.

UEN received notification of approval for the Millard District project on May 28, 2004. This was the final approval and was particularly difficult because the District had received Elementary school approval several months ago. Frontier Telephone has gone to its management for funding of the project and has given UEN a September 24, 2004 project completion date.

Managers have been assigned for each project. Tony Bueno has the assignment to coordinate all managers and projects. Questions about these projects should be referred to the project managers.

Recommendation

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

CUSTOMER SERVICES SURVEY - ACTION

Issue

Customer Service Survey

Background

This year, the Technical Services Department of UEN has started an initiative to improve customer service. In particular, we are seeking to better understand and improve our interactions when technical support is required.

Technical Services has enlisted the staff of the University of Utah Organizational Development Services (ODS) to help facilitate this effort. Their work is provided at a minimal cost (materials) to UEN. ODS has helped to develop a comprehensive plan and provided training and support. The elements of the plan are:

- 1 Customer CARE training (all staff)
- 2 Team Building Workshop (Managers)
- 3 Customer CARE workshop (Managers)
- 4 Individual department CARE workshops (all staff)
- 5 Giving and receiving difficult feedback workshop (Managers)
- 6 Customer Survey (20 telephone interviews)

The Customer CARE training has been conducted and all but a few of the Technical Services staff have participated. This is a 3-4 hour workshop that develops customer services ideas and techniques. A key component of this class is a film showing Pike's Market in Seattle and outlining what it has taken to set them apart as a world-class customer service organization.

The Team Building Workshop was conducted last month with all Technical Service managers present. This was a two-hour workshop that effectively demonstrated the better decision-making capabilities of a team over individuals.

ODS helped us develop customer service questions. After development of the survey questions was complete, we randomly picked 20 customers to survey. ODS is in process of making these contacts and assembling the responses. Once completed, these survey results will be given to UEN staff and managers for further actions.

In early June, a preliminary report was provided by ODS. At that time 16 customers had been contacted. These early responses helped UEN management formulate categories to effectively address customer input. These categories have been forwarded to all Technical Services staff and further workshops are being conducted by ODS to formulate action plans.

Later this fall the managers will participate in the Giving and Receiving Difficult Feedback training. Ongoing discussions will continue with ODS as we formulate goals and follow-up with ODS to track results. Further information will be presented at the August Steering Committee meeting.

Recommendation

It is recommended that this issue be thoroughly discussed and that Steering Committee members have an opportunity to provided input into this process.

STEERING COMMITTEE YEARLY SCHEDULE FOR 2004-2005 - ACTION

Issue

Proposed dates are recommended for Steering Committee meetings through June, 2005. In addition, it is proposed that Subcommittee meetings be held on the same day, and prior to, the full committee meeting.

Background

During the recent subcommittee retreats, several Steering Committee members emphasized the need to provide a yearly schedule of Steering Committee and Subcommittee meetings. Also, we have noted that attendance at Subcommittee has been low, either because of a change in the date or conflicts with other meetings.

After consultation with many Steering Committee members, it is recommended that we follow a yearly schedule that is based on the following considerations:

- 1 Instructional Services and Technical Services Subcommittee meetings would be held on the same day, and prior to, Steering Committee meetings. It is proposed that Subcommittee meetings would begin at 9 a.m. Subcommittee meetings would require approximately two hours to complete their agendas, so the Steering Committee meeting would begin at 11 a.m. and be finished at noon. We believe that this schedule will lead to greater predictability of meeting dates, reduce the time commitment required to participate, and result in better attendance at Steering Committee meetings.
- 2 To reduce the need to change the schedule, meeting dates are coordinated with the meetings of the State Board of Regents, the State Board of Education, and the Utah School Superintendents Association. The Regents and Board of Education schedules are not planned beyond December, 2004 at the current time. However, based on the patterns that are followed by these boards, we do not anticipate that the dates we have selected will conflict with the dates that are chosen by these boards in 2005.

Proposed times and meeting dates for 2004-2005

Times of Meetings

Instructional Services and Technical Services Subcommittees: 9:00 A.M.

Steering Committee: 11:00 A.M.

Dates

August 20, 2004

October 15, 2004

December 17, 2004

February 18, 2005

April 15, 2005

June 24, 2005

Recommendation

It is recommended that the Steering Committee discuss and approve the proposed 2004-2005 schedule of Instructional Services and Technical Services Subcommittee and Steering Committee meetings.

STEERING COMMITTEE MEETING MINUTES

UTAH EDUCATION NETWORK STEERING COMMITTEE

April 16, 2004 - 11:00 am

Business Steering Committee Meeting

Members Present: Mike Petersen, Glen Taylor, Ron Barlow, Val Oveson, Richard Siddoway, Ray Walker, Larry Shumway, Ryan Thomas, Wayne Peay, Kirk Sitterud, Jon Crawford, Barbara White, Ray Walker, Sen. Carlene Walker, Kim Roper, and Donna Morris.

Others Present: Bruce Todd, Laura Hunter, Jim Stewart, Larry Smith, Claire Gardner, Cyd Grua, Louise Tonin, Bill Kucera, George Miller, Rick Gaisford and Lisa Kuhn.

Welcome and Introductions

Mike Petersen welcomed everyone to the meeting. He reported that Gary Wixom and Ray Timothy were out of state with prior commitments. Mike therefore chaired the meeting based on previous consent of the co-chairs.

Tab 1. New Members of the Committee

Jon Crawford and Weldon Sleight were welcomed to the Committee. Jon was designated by the Technology Coordinators Council (TCC) to represent that organization on the Steering Committee. Weldon was selected by the USHE Commissioner to represent the continuing education deans. The names of Jon and Weldon will be submitted to Governor Walker for her final approval.

Motion: It was moved and seconded to approve Jon Crawford and Weldon Sleight to serve on the Steering Committee for four year terms. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

Tab 2. FY 2005 Budget – Mike Petersen

The FY 2005 budget has been developed in a draft format, and was presented to the Steering Committee Executive Committee for discussion and input at a meeting on April 16. The budget will be presented to the Steering Committee members at the Instructional Services and Technical Services retreats in late April and early May. These presentations will provide time for extended discussion and review by all Steering Committee members and interested UEN stakeholders. The strategic plan and budget are scheduled to be reviewed and approved as action items at the Steering Committee meeting on June 18th.

Motion: It was moved and seconded to approve the FY 2005 Budget review and approval process as outlined above. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

Tab 3. 3rd Quarter Progress Report

Mike introduced the strategic plan 3rd quarter progress report by noting that it is a more thorough and informative report than has been presented in previous quarters. It has a consistent format, addresses all goals and objectives for which activities occurred during the quarter, and incorporates the work of all departments into a single report. Laura and Jim then summarized highlights from the report for their departments. More detailed information can be found in tab 3.

GeoMax Update

Jim Stewart reported that CVDS is running stably on the GeoMax backbone. Planning is now underway with Qwest to begin the next phase of the GeoMax upgrade. During the summer, all data traffic will be moved from the CVDS channel to a separate GeoMax channel. As a result, data will have a full gigabit of capacity instead of 45 Mbs as is now the case.

Instructional Services Subcommittee Reports

Tab 5. IP Video Project

Dick Siddoway summarized recent actions of the IP Video Project Steering Team. A recommended equipment list for complex and simple IP sites was approved. Laura Hunter reviewed workflow documents that had previously been approved by the Instructional Services Subcommittee.

Motion: It was moved and seconded to approve the IP Video equipment packages for simple and complex videoconferencing sites. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

Tab 6. E-Learning Workshop

A UEN-sponsored workshop was held on March 9. There were 44 attendees from higher education institutions throughout the state. Laura Hunter reported on the major topics covered in the workshop. More detailed information on issues covered and participant feedback can be found in Tab 6, Attachment A.

Tab 7. UIMC Group Buy Report

Dick reported that members of the Utah Instructional Media Consortium (UIMC) met on March 10th to identify programs and series that will be purchased during the coming academic year. From UEN's perspective, a significant feature of this year's purchases is that digital rights will be negotiated for all purchased programs so that they can be offered as part of the Digital Media Services project that is under development by UEN.

Tab 8. New Core Curriculum Web Site

UEN has redesigned the database that houses the Utah Core Curriculum. Dick recognized the hard work of Karen Krier, Michelle Dumas, and other UEN staff in completing this important task.

Tab 9. Planning Process

Strategic planning is a critical activity for UEN. An overview of the process that is followed to develop the annual strategic plan is provided in the flowchart that is Attachment A of Tab 9.

Tab 10. Public Education and Higher Education Advisory Committee Reports

Cyd Grua reported that planning is underway to convene the annual meeting of the Higher Education Advisory Committee.

Rick Gaisford reported that the passage of SB 51 during the recently completed legislative session provide \$5 million for equipment and software that is to be used to implement an on-line testing system. A new RFP will be developed to select a vendor to develop a uniform system for testing as required in SB 51. Senator Carlene Walker emphasized that a long term plan is critical to ensure the success of the UPASS program, to compile information, and to provide the data in a meaningful way for teachers, administrators, and parents to use.

Rick also reported that an audit of Educational Technology is now being undertaken by staff of the Legislative Auditor's office.

Technical Services Subcommittee Reports

Tab 11. IP Video Project Report

Glen Taylor explained that the Technical Services Subcommittee reviewed a list of 39 EDNET sites that will be converted to IP videoconferencing technology. The subcommittee also reviewed a new IP Video Project Budget for \$320,000. The budget is comprised primarily from funds from the Technical Services Special Project budget and the UENSS budget.

Motion: It was moved and seconded to approve the 39 EDNET sites that will be converted to IP Video technology during summer, 2004. THE MOTION WAS PASSED WITH ALL VOTING IN FAVOR.

Tab 12. Utah Security Advisory and Incident Team

Glen Taylor reviewed a status report on the recently formed security advisory team (UtahSAINT), which consists of the security points of contact from all school districts and university and college in the state. UtahSAINT is intended to improve security communication and coordination. The main vehicles for doing so are a weekly conference call and the UtahSAINT Web site. Quarterly training and discussion forums are also being planned.

An excellent discussion was held in the subcommittee on next steps that must be taken to improve security on the network. Barbara White will convene the Security Subcommittee prior to the Technical Services retreat to start planning the steps that should be taken during the coming year.

Tab 13. Special Projects Report

Jim Stewart reported that approximately 80 percent of the projects have been completed, are underway, or are ongoing. A full list and the current status of the projects is provided in Attachment A of Tab 13.

Tab 14. San Juan CIB Grant

This important project is well underway and generally on schedule. The goal is to have all work finished before school starts in the fall.

Tab 15. Technical Services Spring Retreat

Glen reported that the spring retreat was scheduled for May 5th at UVSC. They will be discussing budget, strategic planning, security and priorities for FY 2005.

Tab 16. Minutes

No corrections or additions were made.

Motion: It was moved and seconded to approve minutes. THIS MOTION WAS PASSED WITH ALL VOTING IN FAVOR.

The meeting adjourned at 12:15 p.m. The next meeting is scheduled for Friday, June 18, 2004 at 9:00 a.m. – 11:00 a.m. at the Dolores Doré Eccles Broadcast Center.

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

T A B 2

OTHER