

UTAH EDUCATION NETWORK
STEERING COMMITTEE

A G E N D A

MARCH 22, 2002 – 10:00AM

Subcommittee Meetings

10:00 am -
12:00 noon

Instructional Services Subcommittee

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TECHNICAL SERVICES
EXECUTIVE COMMITTEE

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Next meeting - May 10, 2002 (Proposed)

Please place these materials in your Steering Committee Binder

STRATEGIC PLANNING DISCUSSIONS

Overview of Strategic Planning Session

The March 22 meeting of the Instructional Services Committee will consist of strategic planning in preparation for development of Instructional Services Department strategic plans for 2002-2003. Please note that the meeting will begin at 9:00 and continue through the morning until 12:00 to provide for extended discussion of strategic planning issues. The appendix contains background information, preliminary ideas regarding future directions, and discussion questions.

The morning schedule is as follows:

- 9:00 - 9:15 • Welcome and Introductions, followed by a brief discussion of planning relationships between Public and Higher Education constituency groups and UEN
- 9:15 - 9:45 • Overview of planning priorities from the Milken planning process and the FY02 strategic plan; brief presentations to provide background on the four topics to be discussed
- 9:45- 11:30 • Breakout discussions – committee members will self-select one of two groups. Each group will select a discussion group leader and Instructional Services staff members will serve as recorders
 - Group 1 will discuss EDNET/UENSS and Professional Development (Harris Room.)
 - Group 2 will discuss UEN web-based services and KULC (Information Technology Room)
- 11:30 - 12:00 • Committee will reconvene and breakout group leaders will present key points of consensus to the full committee

PROFESSIONAL DEVELOPMENT

Background:

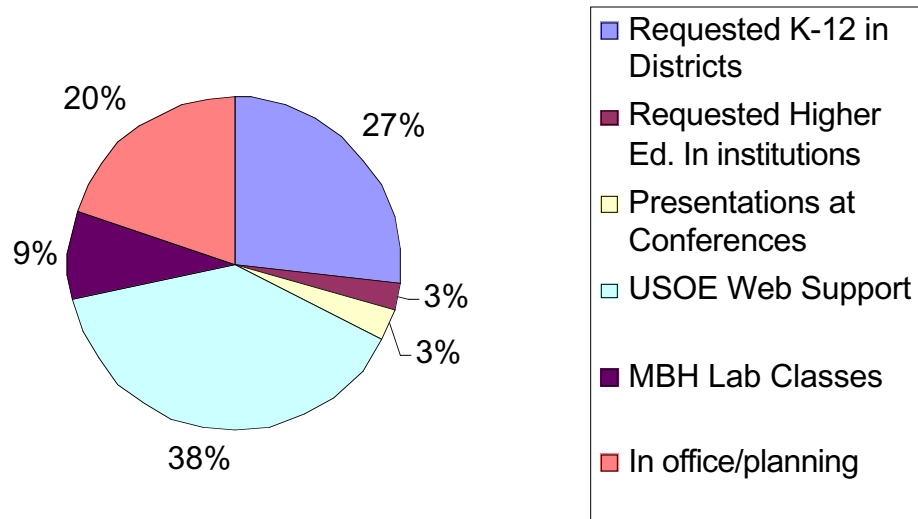
Professional Development is an ongoing need of our constituents. Professional Development by UEN is supported through a department of one manager and four specialists, funds for regional trainers to the four Rural Education Service Centers, television courses from Annenberg/CPB, and two grant programs from Intel and PBS which will be outlined below.

Professional Development Staff Activities

During the first three quarters of the FY02 fiscal year, the professional development staff was involved in evaluating and expanding the classes offered, including week-long summer sessions, more evening and Saturday sessions, and a greater variety of classes. Major initiatives during the last year included revision of the Professional Development website; expanding service to higher education faculty; continuing to focus on educators' needs and responding to requests. The Integrating Technology with Curriculum (ITC) workshop continues to be a flagship offering for Utah school districts. With personnel support from USOE and Surweb, 33 of the 2-day workshops will be held this year.

Of the 687 aggregated workdays by five staff members so far this year, 27% have been with workshops requested and held in K-12 school districts. E-mail announcements to UTED list and printed material have resulted in increased requests for workshops. Finally, the staff licensed Blackboard and is currently developing and pilot testing materials to accompany the KULC Professional Development telecourses and Integrating Technology Workshop.

Professional Development Time Allocation: July 1, 2001 to Feb 28, 2002



Intel Teach to the Future

Intel Teach to the Future, with support from Microsoft, is a professional development program designed to address the challenges teachers face in effectively applying computer technology to enhance student learning. Teachers receive 40 hours of training on technology integration that aligns with national and state standards. Each teacher develops a technology enhanced unit plan portfolio. During FY02, a total of 103 Master Teachers completed the Intel Teach to the Future Training in Utah. These Master Teachers are now training other teachers in their district. To date, a total of 1782 Utah Participant Teachers have received training. Another 40 Master Teachers will be trained during the summer of 2002. These teachers will in turn train 20 teachers. At the end of the program close to 5000 teachers will have participated in this technology integration training

PBS TeacherLine

In partnership with KUED, UEN has been awarded planning funds for an online professional development program with concentrations in the area of mathematics and technology integration. The grant is funded by the U.S. Department of Education with partnerships with the National Council of Mathematics (NCTM) and International Society for Technology in Education (ISTE). In year one of the grant UEN will work closely with districts, to be named, to develop a sustainable professional development plan based on district needs. A total of 4 PBS TeacherLine modules will be offered and facilitated by UEN in year one of the project. The

modules are national developed by NCTM and ISTE, but will be locally facilitated. UEN will report initial project results to C-forum and the USOE Math Specialists, whereby a model will be developed for statewide expansion.

Future Directions:

- Continue our high level of quality and support in workshops. Offer online follow-up materials and support via Blackboard interface.
- Continue field-based training by request.
- Expand workshops to higher education faculty, coordinated through faculty assistance centers, as requested.
- Aggregate evaluation data from workshop participants to make more informed decisions on course content, needs of stakeholders, etc.
- Increase staff (as budget allows) in order to meet increased demand for workshop requests.
- Increase use of lab by University of Utah pre-service teachers and others by request.
- Meet grant requirements for Intel and PBS Teachersource.
- Coordinate planning with federal funding formulas in K-12 districts – a cohesive statewide plan for professional development in technology.

Discussion Questions:

- 1 What's working well with professional development for both K-12 and Higher Education?
- 2 What are the top three (or more) needs for professional development by K-12 teachers? What recommendations do you have for accomplishing these needs?
- 3 What are the top three (or more) needs for professional development by Higher Education faculty? What recommendations do you have for accomplishing these needs?
- 4 How do we continue to offer quality, follow up, personal attention on site, and other factors that are essential for effective professional development, while meeting the expanding needs of our diverse clientele?
- 5 How do we coordinate statewide planning with teacher education programs so educators enter the profession knowing about UEN tools and resources?
- 6 How do we coordinate statewide planning for professional development with the new federal planning and funding requirements for Utah school districts?
- 7 How do television workshops (from Annenberg), EDNET, UENSS, multicasting through DTV, and Internet fit into professional development options for the future?

WEB RESOURCES**Background:**

Since 1994 the Utah Education Network has used its website (www.uen.org) as the number one way to provide resources to its patrons. Over the years, UEN's website has evolved from providing lesson plans, directories, and text resources to providing more options, interactive features, and now video resources. During the last year, UEN's website gained national recognition from a variety of organizations, including USA Today, PBS TeacherSource and Education Week.

Last year we implemented a comprehensive web statistics software program and evaluation protocol, in order to gain an accurate picture of activity on the site and make informed decisions about future developments. Web statistics indicate that the majority of our visitors access the public education resources, such as the Utah Core Curriculum, lesson plans, and the curriculum search tool. Curriculum related web sites, such as the 2002 Olympics Education website, Themepark, and Utah Collections Multimedia Encyclopedia are also popular with our users.

Another new service on the web site was the United Streaming library. This collection of 1200 videos and 10,000 video clips is currently available to all K-12 schools in Utah. Pilot-testing is underway in two regional service centers and two school districts. Response has been phenomenal. In January and February alone, the site statistics indicate 11,239 videos were viewed. Reports from the field are very encouraging and we've had many requests to keep this product.

Other visitors to the UEN website access Pioneer Library resources, professional development, and distance learning opportunities, as well as KULC program information.

Some recent changes to the website include the addition of streamed media via the United Streaming library, a new KULC web site, online tutorials and just-in-time information on education news and events. Also, the Instructional Services department and Technical Service software development group have been working closely to develop a variety of internal tools to make our work more efficient. These tools include:

- Newsletter – allows UEN employees, USOE specialists, and other non-profit organizations to create and publish online Newsletters
- Links Interface Tool – enables designated users to align educational websites to the core curriculum database, as well as higher education content disciplines

- Text Sections – allows UEN employees to publish text on the UEN website and still comply with network security measures
- Core Curriculum Updates – an online interface to allow the USOE Core Curriculum and ATE Curriculum to be easily updated

Directions on the web site are taken from the main stakeholder groups to which that aspect of the website applies. For example, the recent revision of the Pioneer web page was developed in conjunction with the Pioneer committee, and the lesson plan tool is being revised in consultation with USOE curriculum coordinators.

Some of the web resources that are currently being developed include an improved lesson plan tool, a new rubric tool, the alignment of the MarcoPolo lesson plans to the Utah core, and EDNET Administration screen, the updated Applied Technology Education Core, and a new professional development registration system.

Future Directions:

- Continue access to streamed media library resources
- More online resources for Higher Education faculty
- A section of the website designed to support student learning – broken down by grade range and including adult learners (search tools, homework helps, etc.)
- A more visual interface for the curriculum resources to assist teachers in locating material quickly
- My.uen updates that includes additional productivity and sharing features
- A digital student portfolio (requested from USOE science & math)
- Integration of the search engine that the University of Utah uses
- Increased links to student interactives and tools for educators rather than just text-based resources

Discussion Questions:

- 1 What's working with the UEN web site?
- 2 What resources are needed for higher education faculty?
- 3 What resources are needed for students (K-12 and/post-secondary)?
- 4 What resources are needed for teachers?
- 5 What resources are needed for adult learners, parents, or other stakeholder groups?
- 6 What are the most important services that we can provide via the web site?
- 7 How can the website stay fresh to encourage repeat use?
- 8 What's UEN's role in assuring that districts, institutions, schools, etc. help their constituents know about the web resources? (In a recent survey of the 40 districts, only two had a link to Pioneer on their homepage!)
- 9 What is UEN's role in "getting the word out" about the resources?

Background:

EDNET is the original 2-way video conferencing system installed by UEN which connects all higher educational institutions and many of the high schools throughout the state. Currently 193 rooms in 136 sites are equipped for EDNET events. There are basically two different equipment combinations: (1) the basic site (used mainly for receiving classes) and (2) the complex site (used mainly for class origination). The EDNET system has moved from its early “novelty” stage firmly into the mainstream of delivery systems. There were 2,922 public education students enrolled last year.

Public Education Enrollments

96-97	97-98	98-99	99-00	00-01
347	1170	1734	1783	2922

Programming:**7:00 a.m. to 3:00 p.m. (Public Education classes)**

As the system has become fully scheduled, the emphasis is on core classes for the public education users. This better utilizes the system for those students needing these core subjects. Much of the programming consists of concurrent enrollment classes. An interesting wrinkle with concurrent classes is the mixing of adults and high school students in the same classroom. Most public school administrators are fine with this combination but several have not allowed adults in their high school rooms with the younger students.

3:00 p.m. to 5:00 p.m. (Meetings)

This block of time is generally used for education related meetings such as Board of Regents Meetings, USOE meetings and statewide training sessions, and ad hoc meetings as requested.

5:00 p.m. to 10:30 p.m. (Higher Education classes)

Course Scheduling Process:

All classes submitted for delivery on EDNET are reviewed prior to scheduling by the Public Ed Committee for Public Education, the Higher Ed Committee for Higher Education, and the Concurrent Enrollment Committee for the concurrent enrollment classes.

Instructor Training:

As required by the UEN Steering Committee, all public education instructors are trained by USOE and the UEN LSR's personnel prior to their first use of the system. Many of the higher education faculty also receive this pre-service face-to-face training as well as an option which now exists for some on line training developed by the Utah Electronic College.

Success:

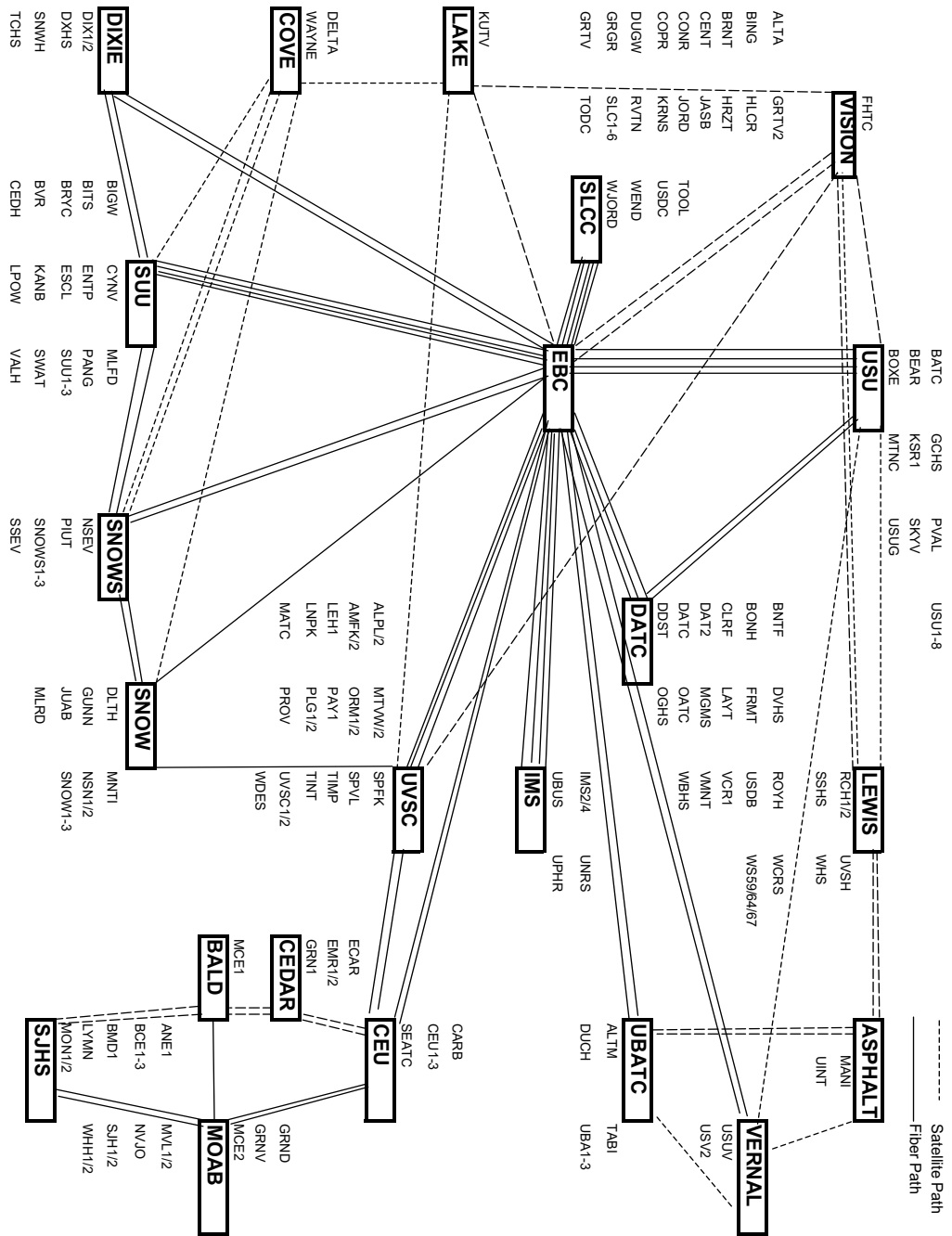
Much hard evidence now exists as well as a wealth of anecdotal evidence confirms the efficacy of distance delivered classes. In short, they work!

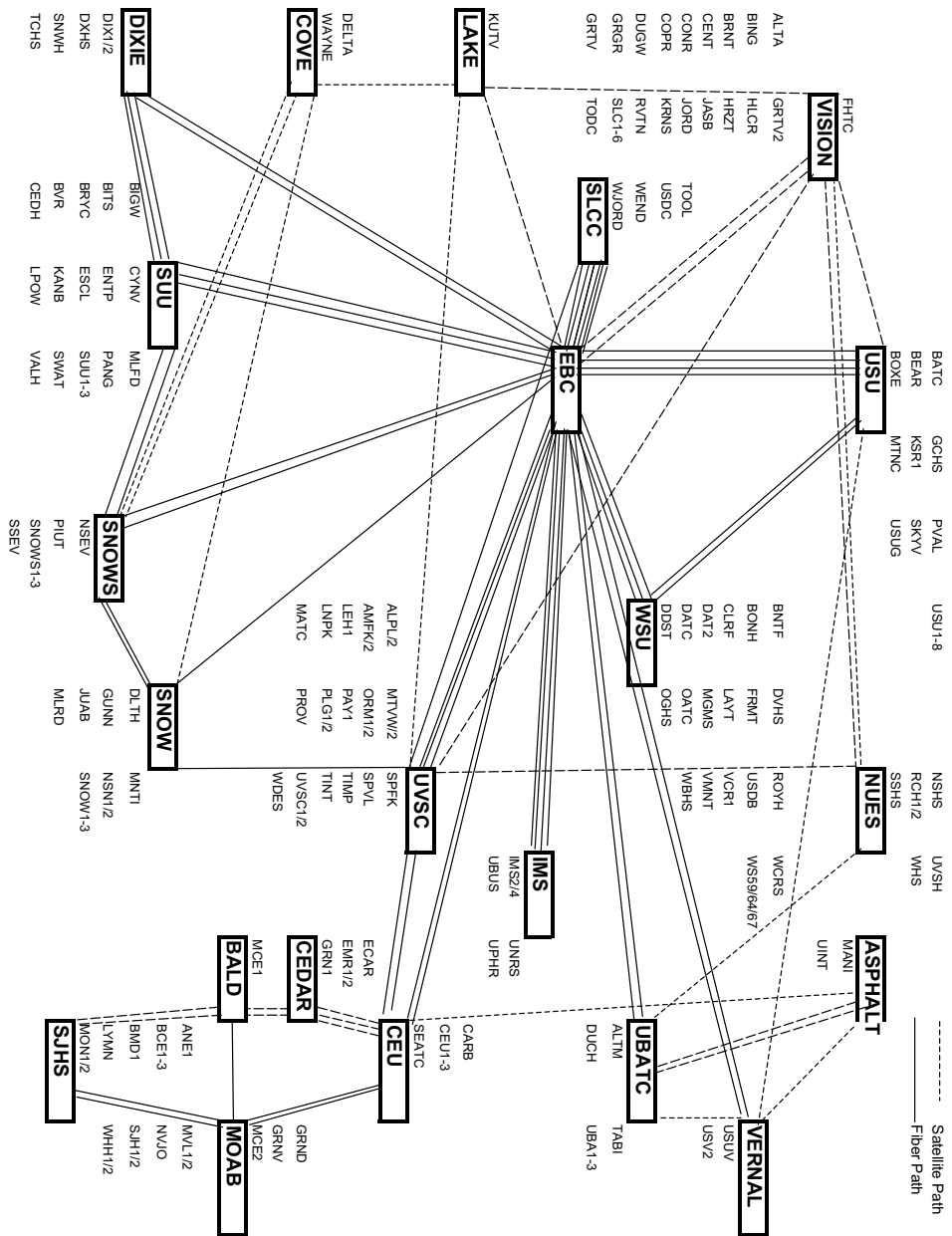
Future Directions:

- Evolution of delivery method from exclusively 2-way interactive to hybrid classes
- Migration of technologies from analog microwave to digital delivery
- Combination of 2-way with on-line and streaming technologies for individual classes
- More extensive use of video streaming and other asynchronous delivery practices
- Equipment configurations which are more user friendly/intuitive for the users
- Complete articulation agreements among all higher education institutions

Discussion Questions:

- 1 What is a good way to involve instructors in planning the technology migration process? How can we effectively present the several possibilities to representative system users while soliciting their feedback on the available options? How should we identify good representative teachers for the early planning processes?
- 2 How can we determine if the idea of hybrid classes (one class using multiple delivery options each week) is academically viable?
- 3 If the hybrid idea looks viable, what is a good approach for training potential users?
- 4 Many present EDNET users feel passionately about the current real time two-way interaction. What is a good way to objectively evaluate the academic requirements for this method?





UTAH EDUCATION NETWORK SATELLITE SYSTEM (UENSS)

Background:

Utah State University formerly used COMNET to carry its distance learning classes to its statewide group of extension and county agent facilities. This was a system utilizing the vertical blanking interval on a broadcast television signal to transmit still frame images about every 30 seconds and a telephone connection for the audio. Several years ago the Utah State Legislature provided funding for a satellite delivery system to replace the aging COMNET system and assigned the operational responsibility and funding to the Utah Education Network.

Working in close collaboration with Utah State University, agreements were signed for transponder time, an uplink facility was established at Utah State University and scheduling of classes for satellite delivery ensued. Utah State is by far the largest user of the UENSS as they have many degree programs, graduate programs, certificate, and ad hoc courses on the system. The number of channels has grown through some technical wizardry, from the original four to seven. Six of these are full and the 7th is becoming heavily utilized

Recent Enrollment numbers

	Fall 2000	Spring 2001	Summer 2001
Headcount	3214	3767	3214
FTE	681	735	681
Number of Classes	80	80	80
Average Class Size	34	42	34

FYI: Preliminary unofficial counts for the current semester, Spring 2002 indicate 920 FTE!

This system covers the western half of North America. In practical terms we are serving 181 satellite rooms in 89 discrete locations in Utah and several surrounding states.

Programming

Again, the majority of programming delivered via satellite consists of USU classes.

A novel use of the UENSS is to augment EDNET events in two circumstances:

- 1 When a particular receive site's EDNET connection is over booked and it has a UENSS receive room, an additional public ed class can be delivered via satellite.
- 2 In some instances where we are unable to get a reliable EDNET connection (West Desert School), we have used UENSS as the only way to deliver EDNET

We have attached some additional background material relating to the UENSS following these pages.

Future Directions

- Migration to terrestrial delivery via web based technology
- Use additional compression technology to get more channels on existing uplink and transponder
- Successfully encourage other program providers to use UENSS

Discussion Questions

- 1 What is best way to determine if satellite delivery of classes will work for those not presently using it?
- 2 What would be a good method of making potential users aware of this delivery system?
- 3 How can we determine if the idea of hybrid classes (one class using multiple delivery options each week) is academically viable for the satellite users?
- 4 If the hybrid idea looks viable, what is a good approach for training potential users
- 5 Is on-line delivery a viable option for specific classes as the UENSS system becomes over booked?

Utah State UNIVERSITY EXTENSION

UTAH STATE UNIVERSITY CONTINUING EDUCATION DEGREES

Available in the Southwest Region

Ephraim, Nephi, Delta, Wayne, Richfield, Milford, Beaver, Escalante,
Cedar City, Kanab and St. George

revised 10/2001

Bachelor Degrees:

- Accounting
- Agribusiness
- Business Administration
- Business Information System & Education
- Computer Science
- Elementary Education (Ephraim only)
- Psychology
- Business (Minor)
- FHD (Minor)
- Sociology (Minor)

Master Degrees:

NEW-Agricultural Science & Technology Education

- Business Information System
- Computer Science
- Elementary/Secondary Education
- English in Technical Writing
- Instructional Technology (Educ)
- Human Resource Management
- Human Environment (Home Economics)

NEW-Public Administration

- Rehabilitation Counselor
- Psychology: School Counseling

NEW Projected for Fall 2002

- Family and Human Dev. MS
- Doctorate in Education

Certification/Endorsement Programs:

- Administrative/Supervisory Endorsement
- Library School/Media
- Reading Endorsement
- Special Education – Early Childhood Education
- Software-NEW
 - Microsoft/Windows 2000
 - A+, I-Net +, Network +
 - Windows 2000
 - Mous Core
- GRE/LSAT Preparation

Special Course Offerings:

- Teacher Recertification Classes
- Elementary Education
- Family & Human Development
- Gifted and Talented
- Humanities, Arts & Social Sciences in English, History or Sociology
- Health, Physical Education & Recreation

* Special course offerings may not be available at each site. Some Programs require sufficient enrollment. For more information Contact Dan Adams @ 283-7590 or Toll Free 1-888-547-4994.

Ephraim- Dan Adams 283-7590 Delta- Krista Hansen 864-5708 Wayne- Carol Williams 836-2662
Richfield- Dick Warner 896-9777 St. George- Shirl Cowley 652-7892 Beaver- Penny Yardley 438-6456
Nephi-Bonnie Kennedy 623-0328 Milford-Lauri Beebe 387-2751

ALL OTHER LOCATIONS CALL TOLL FREE 1-888-547-4994

Background:

KULC is licensed by the Utah Board of Regents as an educational, non-commercial broadcasting station. FY02 marked the first full fiscal year that KULC broadcast a complete 24-hour schedule. KULC is staffed by the General Manager (Steve Hess), Station Manager (Laura Hunter) and Program Manager (Kyle Anderson). In addition, air and traffic operators, engineering staff, field engineers, accounting staff, and other services are shared with KUED for both cost-efficiency and shared talent base.

Programming

In academic year 2000-2001, KULC telecourse enrollments totaled 4,299 students, up 783 from the previous academic year.

KULC broadcasts higher education telecourses. Courses are generally scheduled in the evenings and weekends when college students would be likely to watch or record the programs. Participating institutions are University of Utah, Salt Lake Community College, Utah Valley State College, and Utah State University (only one Music class during summer). The new GED, Workplace Essential Skills, and three new parenting programs were also added to the KULC schedule this year.

Weekday programs from 9:00 to 3:00 on KULC are determined by the Utah Instructional Media Consortium (UIMC). This group, made up of public educators, selects programs for broadcast as well as library purchases in their districts. The UIMC recently formed a separate subcommittee dealing specifically with broadcast issues, and first meetings have been very promising. As an additional service to Utah educators and students, KUED allocates its daytime hours (9:00 to 2:00) for Instructional TV broadcast programs as well. Both KUED and KULC's ITV block are programmed by the UIMC and UEN. Many of the ITV programs are also available via a service tested throughout the state this year, United Streaming. Using this interface, educators can access video clips from educational programs over the Internet. They can preview the programs, and then download them for later use. One possibility for the future would be to deliver the video library via broadcast signal, thereby reducing the effect on the Internet network.

One promising application of KULC digital bandwidth is the ability to multicast programs.

One of our challenges is helping Utah learning institutions know and take advantage of the capabilities of digital broadcast – it's more than just a pretty picture. One possibility is to offer distance learning courses in a mixed environment where students interact via EDNET or Internet, but lectures may be broadcast. Using the digital signal, lecture notes and other course materials can be delivered to the home via the broadcast signal at the same time as the program. National sources for course material (such as PBS Adult Learning Service or Annenberg) can be broadcast, with

local faculty creating datacast material to be simultaneously fed with the broadcast. These can also involve an Internet or EDNET based component. This is an area for further exploration with Utah course providers.

KUED and UEN need a better understanding of the digital assets we hold.

KULC airs other programs which support our education mission, such as early childhood, after school, educator professional development, lifelong learning, and university-produced student news programs. In addition, KULC and KUED have been involved in the development of a national public broadcasting educational consortium called OnCourse (formerly Online Education Service). In order to take advantage of shared resources with this national group, KUED and UEN need a better understanding of the digital assets we hold. Conducting a digital inventory, encoding assets, and making them available to educators will be a significant step forward in this project.

Based on a usability test, the KULC website was revised to include an easier user interface. Additional changes in the online program guide are slated for the coming months.

Engineering

In compliance with the FCC mandate to broadcast in digital, KULC will begin digital transmission in September, 2002. During FY02 KULC staff applied for several grants to fund expansion of KULC service, including:

- Corporation for Public Broadcasting Future Fund
- Public Telecommunications Facilities Program, Department of Commerce
- Corporation for Public Broadcasting Digital Distribution Fund (pending)

Future Directions

- Broadcast KULC in digital during fall 2002.
- Complete web site revisions – online program guide.
- Explore school and/or telecourse student use of digital receive boxes.
- Expand digital service beyond Wasatch front to include Uintah basin, southeast, and southwest Utah (PTFP Grant).
- Work with Utah course providers to explore uses for multicasting and digital broadcast that meet the needs of Utah course providers, expand service to more students, and take advantage of the technology available.
- Implement programming changes recommended by the UIMC/ITV subcommittee, including a K-12 teacher ITV assessment.
- Develop a pilot-test with KUED's digital signal to deliver streamed media to a content distribution system throughout the state.
- Continue to build our relationship with OnCourse, digitize and inventory KUED assets that have been categorized by Utah K-12 teachers
- Keep abreast of opportunities to share and obtain content resources nationally

Discussion Questions

- 1 The UIMC has requested that UEN conduct an assessment of how K-12 teachers are using ITV (survey and focus groups). What do you think are some salient points to focus on for the assessment?
- 2 How can course providers from Higher Education institutions take advantage of multicasting and other opportunities with digital?
- 3 What are the barriers to greater use of KULC telecourses? How can they be overcome?
- 4 What are the barriers to greater use of KULC and KUED daytime ITV? How can they be overcome?
- 5 Some future options for KULC digital bandwidth are separating the ITV and Higher Education into two channels, a complete Annenberg/CPB channel, multicasting additional data to accompany courses, broadcasting a video library to computers on the Internet, and other uses. How can the additional KULC digital bandwidth (essentially four channels instead of one) be used to meet our mission and serve Utah learners?

March 7, 2002

MEMORANDUM

Re: *EchoStar to seek Supreme Court review of SHVIA must carry decision*

We wanted to let you know that according to press reports, EchoStar is planning to ask the Supreme Court to review the SHVIA must carry requirement, which obligates a satellite carrier offering one local station in a market pursuant to a compulsory copyright license to carry all local stations in that market requesting carriage. The U.S. Court of Appeals for the Fourth Circuit rejected the satellite carriers' challenge to the must carry statute last December, agreeing with the FCC, NAB, Public Television, and others that the carriage requirement was constitutional. The Supreme Court should decide by this summer whether to take up the case next fall. If it does not take the case, then the Fourth Circuit's decision upholding SHVIA must carry would stand.

EchoStar's challenge is particularly puzzling in light of EchoStar's and DirecTV's announcement last week of the "Local Channels, All Americans" plan, whereby the companies claim that they would provide local service in all 210 local markets within the next two years if the FCC approves their proposed merger. According to a DirecTV press release, EchoStar and DirecTV would jointly launch a spot-beam satellite that, when combined with the capacity the companies already have, would allow them to offer local service in all markets, "including full compliance with federal must carry requirements." This suggests that the carriers' pursuit of a favorable judgment may be on principle or so that they can preserve capacity to offer more national programming or other services.

Links to: (1) an article providing more information about EchoStar's upcoming appeal; and (2) DirecTV's press release regarding the "Local Channels, All Americans" plan are attached below.

1.

http://www.tvinsite.com/multichannelnews/index.asp?layout=story&doc_id=72656&display=breakingNews

2.

http://www.directv.com/DTVAPP/aboutus/headline.jsp?id=02_26_2002A

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THE OLYMPIC EDUCATION WEB SITE

Background:

In 1998 the Utah Education Network (UEN) partnered with the Education Department of the Salt Lake Organizing Committee (SLOC) to support and promote Olympic and Paralympic related educational programs. As the Internet Service Provider for all Utah public and higher education institutions, UEN was in the ideal position to bring a web presence to the 2002 Winter Games educational programs and activities.

Over a 3 1/2 year period UEN provided personnel for web page design, content development and maintenance, software development, database support, web server services, network infrastructure, web statistic analysis and general project management. In addition, UEN personnel served on the SLOC Education Advisory Board and attended planning and implementation meetings.

SLOC provided funding for a web server, memory / storage upgrades, and associated licensing costs. In addition, SLOC allowed the use of trademark logos and images on the website and print materials.

Development of the Olympic Winter Games and Paralympic Winter Games of 2002 website (www.uen.org/2002) began in September of 1999 and continued through March of 2002. New features and resources were added to the website over the 3 1/2 year period as curriculum materials were developed and needs and interest evolved. UEN was in a unique position to leverage existing programming and curricular resources, including lesson plans, student activities and curriculum materials.

The website contains the following main categories:

- Country Resources
- Continent Information
- Curriculum
- Educational Program
- Sports & Venues
- 2002 Paralympic Winter Games
- Olympic Torch Relay Map
- News Section



Figure 1. The 2002 Olympic Education Website

Promotion

The Utah Education Network promoted the Olympic Winter Games and Paralympic Winter Games of 2002 website and educational programs in a variety of ways. The UEN Professional Development team held a number of workshops for Utah educators. The classes were free and educators could receive state licensing credit.

UEN also presented and promoted the website at several statewide conferences, such as:

- Utah Education Association
- Utah Coalition of Education Technology
- Utah Gifted and Talented
- Utah Rural Schools

UEN's Public Information department promoted the website and educational programs through electronic news articles, announcements and print material.

UEN also produced:

- Several promotional television spots that were aired on KULC, Utah's Learning Channel
- Bookmarks that were distributed to all Utah educators
- A quarterly Instructional Program Guide that highlighted the various curriculum resources available on the web site. Several copies of this guide is distributed to every public school in Utah.

Web Statistics

During the month of February the www.uen.org/2002 received an average of 10,000 visitors a day – with a peak of 22,000 visitors on February 7, 2002. The total number of visitors for the month of February was 277,000.

The most requested pages were:

- REACH: The Educator's Guide
- Sports section
- Curriculum section

Future Plans

The Education Web Site for the Olympic Winter Games and Paralympic Winter Games of 2002 will be dismantled as the official education website, however some of the resources that were developed will migrate to the Utah Education Network (www.uen.org) website.

All of the resources that were created to support the One School, One Country program will be maintained. Many educators have let us know that they have found the information on these pages to be valuable.

In addition, the continent resources, Olympic Winter Sports Lessons, Tree-cology web page, and classroom lessons will be integrated in the existing UEN website.

UEN.ORG WEBSITE REPORT

Information

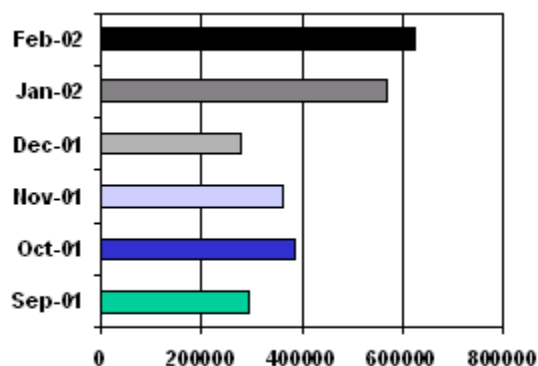


Figure 1. Visitor sessions from September 2001 – February 2002

- In the time period September 2001 to February 2002, UEN.org had over 2.5 million visitors (1.2 million so far in 2002 alone)
- During Feb. 2002 the UEN.org site averaged 22,245 visitors each day (for comparison, Oct. and Nov. 2001 saw averages around 12,000 visitors per day).
- Site traffic is heaviest during school hours Mondays through Fridays.
- The educator pages at my.uen.org receive an average of 20,000 visitors each month.
- The Curriculum resources and interactive activities receive the most traffic. The following are some of the most visited sections of the site from Oct. 2001-Feb. 2002:

The Olympics Education section had over 600,000 visitors.

The Themepark section had 93,500 visitors.

The Curriculum section had over 80,000 visitors.

The Anne Frank Lesson Plan had 28,492 visitors.

MEMORANDUM OF UNDERSTANDING WITH URTA

Issue:

The Executive Board of the Utah Rural Telecommunications Association (URTA) and executives of UEN (Stephen Hess, Michael Petersen, George Brown, and Kevin Taylor) met on January 29, 2002 to discuss the attached Memorandum of Understanding (MOU). After careful discussion of related issues, the URTA Board agreed to the provisions of the MOU. That afternoon, members of the UEN Executive Committee were individually polled and also approved the MOU. Actions of the Executive Committee must be approved by the Steering Committee at the next regular meeting of the Committee.

Background:

URTA members have been concerned that UEN would expand its reliance on UEN-owned network connections, instead of leasing our lines and circuits from local telephone companies. They sought to prevent that from occurring by recommending legislation (HB 272) which Representative Tom Hatch (Republican, Panguitch) agreed to sponsor. From UEN's perspective, there were several problematic aspects of the legislation. We were provided an opportunity to discuss these issues with Rep. Hatch, and subsequently with the URTA Board. The outcome of these discussions was agreement on a series of key points that are contained in the attached Memorandum of Understanding. The MOU outlines several commitments by UEN which are intended to enhance its working relationship with local telecommunications companies.

- 1 UEN commits to lease its lines and circuits from local telephone companies, except in quite limited circumstances, such as when it is physically or economically unfeasible for the local provider to offer the services, or there have been unresolved service problems.
- 2 UEN will proactively involve URTA representatives in its planning activities by sharing its network plans as far in advance as possible.
- 3 Two representatives of URTA will serve as full voting members of the Technical Services Subcommittee.
- 4 Although UEN can continue to provide services to public libraries, it will not compete with URTA members to provide expanded telecommunications services to state and local government entities, unless the service addresses specific educational purposes.
- 5 Service problems or other issues that occur between UEN and an URTA member company will be resolved to the greatest extent possible by cooperative efforts

between executive of the two organizations. Only as a last resort will government policy or regulatory entities be contacted regarding these issues.

- 6 The MOU clarifies that UEN does not control the expenditure of non-UEN funds by local school districts for telecommunications services. Instead, whether districts purchase the services from URТА member companies or not will, to a significant degree, depend on relationships between local school districts and the local telco.

Policy Issues

The proposed MOU should lead to improved relations between UEN and URТА member companies. It formalizes the commitment of UEN to rely as extensively as possible on leased circuits, and it provides mechanisms to assure greater involvement by URТА representatives in planning.

Recommendation

It is recommended that the Steering Committee ratify the approval by the Executive Committee of the attached Memorandum of Understanding between UEN and the Utah Rural Telecommunications Association.

UEN AND INDEPENDENT RURAL TELEPHONE COMPANIES

Proposed Policy and Operating Principles (Jan. 29,2002):

UEN's intent is to extend services to its client organizations by using competitively priced, high quality services provided by private telecommunications services companies. One of the operating principles outlined in the law as it was originally enacted is to "utilize statewide economic development criteria in the design and implementation of the educational telecommunications infrastructure." We propose adopting a resolution or setting a written policy within UEN that clearly states:

- 1 UEN networks will be constructed in partnership with URТА service providers.
- 2 Construction of UEN owned facilities will take place only in situations where it is either physically or economically unfeasible for the local provider to offer services, or as a remedy to unresolved service problems to our clients, and only after consultation with the URТА member company at the executive management level of both UEN and the URТА member, and every reasonable effort has been made to resolve such issues directly with the URТА member.
- 3 UEN Technical Service Plans will be fully disclosed to the public, and specifically to URТА members, so that providers may include UEN plans in their company's network planning efforts. Plans will be proactively delivered to URТА members to provide as much notice as possible prior to actual network enhancements or extensions. UEN will involve URТА in the network planning process. (see d.)
- 4 UEN will organize its Technical Services Subcommittee to include at least 2 appointed representatives of URТА member companies as members.
- 5 UEN's charter is to "coordinate and support the telecommunications needs of public and higher education" and to "coordinate the various telecommunications technology initiatives of public and higher education." If requested to provide new services to state and local government entities, UEN will not compete with URТА members to provide services to these government entities except to serve specific educational purposes.
- 6 If a local or state government entity approaches UEN to provide expanded telecommunications services, UEN will refer the government entity to the URТА member.
- 7 UEN will disclose all locations where UEN currently provides services, and will review with URТА members the circumstances under which services are provided. UEN will review and consider removal of facilities where such or similar facilities or services become economically available from URТА members.
- 8 UEN will not approach governmental policy or regulating organizations regarding issues that impact the URТА members without first expending all reasonable

efforts to resolve issues directly with the URTA company at the executive management level.

- 9 UEN is not able to prevent the expenditure of non-UEN funds by local school districts for non-URTA provided services. It is the URTA member's responsibility to manage its relationship with local school districts or educational entities within their operating territories.

H.323 VIDEO CONFERENCING

Issue:

- Deployment of 323 endpoints and peaceful coexistence with existing apps
- MCU Acquisition
- Local Coordination
- IP QOS Support
- IP Video Task Force

Background:

- A total of 12 H.323 Endpoints have been acquired and tested in the lab. Two are en route to SESC Office for in-house lab tests. These are Polycom Viewstations. Four out of 10 proposed SESC locations have been named so far to participate in a pilot to use this technology for In-service training. Monument Valley, Montezuma Creek, Monticello HS, and Navajo Mtn.

Local concerns of high bit rate video competing for bandwidth, echoed by UEN NOC.

Engineering concern of insufficient throughput/QOS for video to function well and reliably.

- MCU (Accord MGC-50) delivery expected within the next 3 weeks. Planned install at EBC for pilot multipoint conference support and TOC/Scheduling training.

Possible upgrade in 6 months for integration of audio bridging replacement.
- Local information gathering is on-going and installation coordination has yet to be scheduled (locations may change as local issues may override pilot objectives).
- Establishing IP Precedence and QOS for all forms of packetized video network wide is essential. Not yet a clearly established standard configuration where video traverses the shared network, even for today's video services. Coordinated operational network configuration changes may have to be implemented "on-the-fly".
- UIPVTF – Utah IP Video Task Force. This group is looking at IP Video from several perspectives, mainly for education. Involved members include, ITS, U of U HPC, U Telehealth, Eccles Library, SL District, and others. Reports from this group may be available in April.

Information

- Pilot testing a fairly mature technology with only the strongest still around. Adoption by some is eminent. Support necessity for the app. seems to be a forgone conclusion. Other protocols/technology (SIP for instance) will likely make their way into the space. Planning for future support of both must be considered. Education funding will make high rate of adoption/deployment and perhaps even testing difficult.

Need for comprehensive addressing/numbering plan for video has been highlighted.

Unknown capacities for future planning. How much fully interactive video will be needed? How often will multicasting high quality video largely take the place of fully interactive video?

- Economy of scale may be achieved with the upgrade of the MGC-50 to MGC-100 and the addition of audio bridging capabilities. Added value for Management and Instructional add-ins. Current config. \$44,900. Audio Bridging, Mgmt., and Add-ins config. \$218,137.
- IP QOS- Testing to-date with existing video codecs and network architecture highlights the need for additional QOS support on the network. Not all QOS features have been fully explored and tested.

Recommendations:

It is recommended that the Technical Services Committee support the acquisition of hardware and software to further the testing and understanding of IP video as it relates to network impact study and implementation planning.

Consider the upgrade of the MGC-50 now to provide the necessary future audio conferencing functionality, which will be lost as the Voyant Bridge fades away.

NETWORK RELIABILITY AND DISASTER RECOVERY

Background:

Several major outages in the Commercial Video and Data Service (CVDS) circuits provided by Qwest has over the past 18 months have given the UEN Technical Services cause to seek alternate services to ensure network availability to our stakeholders throughout the state.

UEN has acknowledged this need in planning efforts over the past year, however, a greater frequency of outages has made the need more pressing and has also caused UEN staff to seek creative ways to infuse backup circuits into the network.

Planning Objectives:

- Explore the possibility of using spare ITS bandwidth as a hot standby in case of CVDS failure. The main sites for this service are USU, Snow South, SUU and/or Dixie.
- Explore the possibility of expanding ITS services to provide backup DS-3 circuits to Dixie and USU. This would give us the ability to carry all current Data traffic during a CVDS failure.
- Make inquiries with Questar to see if this company could provide suitable alternate services.
- Explore fiber options at SUU and USU with Touch America
- Explore the Qwest Ethernet options and determine if this actually constitutes an alternate path from CVDS.

Recommendations:

It is recommended that the Technical Services Committee support the efforts of the UEN technical staff and authorize expenditures that fit into the current budget and that are reasonable in providing these services.

INTERNET OC-3 RECOMMENDATIONS

Background:

This document will outline UEN's ongoing strategy dealing with ever increasing Internet bandwidth usage and needs. Internet usage continues to expand despite no additional funding being given for FY 2003.

Current UEN Internet bandwidth utilization is >250Mbps of 300Mbps available. It is projected that UEN will be out of bandwidth at the beginning of school next fall. Also if a link fails we no longer have enough capacity on the other link to keep up with demand. At times during the day there is not adequate headroom available to provide quick response time for UEN internet customers.

Recently UEN has determined that a peering rather than a transit internet approach would best suit UEN needs and would provide a 50% reduction in cost in the near term and possibly more in the long term. Recently a RFP was issued to explore current internet bandwidth costs and it was decided to award ongoing peering business to Touch America. TA provided an overall all-inclusive solution to UEN that covers all costs and was the least expensive overall of the proposals submitted.

Also recently UEN reissued the bid for internet access sent out in 2000 and awarded in 2001. As many are aware UEN has not been satisfied with the performance of the Qwest internet link since the buyout of US West by Qwest and the subsequent changes to the Qwest 14 state region network. Because of E-rate rules this was a closed bid only to those who responded initially. Based on the current funding outlook we have awarded the replacement of the Qwest link to Touch America who was the lowest bidder and also the provider of the Qwest in region network. Moving this link to TA will allow UEN access to the entire TA Tier-1 backbone, not just the small in region network that is in place for Qwest. TA has provided special pricing based on the award of the peering business that will save the taxpayers of Utah \$16,000/Month and allow UEN enough funds to install and run at least one of the proposed OC-3 peering links with TA.

Planning Objectives:

- Contract with Touch America to provide peering and transit access to UEN.
- Install at least one OC-3 peering link preferably to PAIX in California (\$18K/mo.)
- Replace the Qwest OC-3 with transit bandwidth from TA (\$19,394/month)
- Relocate one transit OC-3 to UVSC as funds allow
- Add additional OC-3 peering lines as need and budget allow

Recommendations:

It is recommended that the Technical Services Committee approve the recommendations and actions outlined in this planning document.

PEERING PLANS AT UVSC

Issue:

UEN has participated with local organizations to exchange Internet traffic directly, resulting in significantly lower costs to UEN and improved performance for Utahns who access UEN from the Internet. We plan to extend these direct interconnect relationships to a national basis to reduce general Internet costs and improve service quality.

Background:

Since the demise of the NSFnet and WestNet in the early 90's, UEN has relied almost exclusively on "transit" Internet bandwidth purchased from national ISP backbones such as Sprint and Qwest. These ISPs provide interconnection with other Internet networks through public and private peer traffic exchanges (see diagram).

UEN's network has reached the size and sophistication to justify developing direct peering relationships. Many networks of similar or smaller size have achieved significant cost savings (~ 30%) and improved performance by building their own connectivity to exchange points and negotiating directly with other participants on those exchanges for free exchange of network traffic. About 20-30% or more of our traffic can be immediately off-loaded to these less-expensive direct exchanges, reducing our Internet costs by 15% or more while improving performance and reliability our most-accessed destinations.

The Additional Internet Bandwidth RFP which we issued in late CY2001 included a provision for peering in addition to transit bandwidth. We plan to build our first peering connection in FY2003 and have already begun negotiating peering relationships with companies such as Microsoft (MSN properties), Yahoo and EarthLink.

UEN has also participated in local network exchanges since 1997. We sponsor and operate the Utah Community Internet Exchange (CommIX), where a dozen Utah ISPs and businesses interconnect. The CommIX allows us to provide better connectivity to UEN network services from other Utah Internet networks. Rather than taking a path to a national exchange point on the east or west coast, traffic is exchanged locally, improving performance for sensitive applications such as video conferencing and streaming media. CommIX is offered as a community service which benefits all who participate, and reduces/eliminates UEN's costs to access participating networks.

In CY2001 we began working closely with over a dozen cities throughout Utah that are building municipal networks. A number of those cities are in Utah County, and have been focused on UVSC since the late '80's when UVSC began working with them. We presented the CommIX idea in December to a group of Utah County cities, and had overwhelming support for a CommIX site at UVSC. Alcatel has agreed to donate equipment, and several cities are planning their network builds to connect later this summer. The exchange will allow cities to exchange traffic with each other and with UEN at gigabit speeds. There is strong interest to extend the exchange in the future to create a competitive market for Internet bandwidth and other network services.

Planning Objectives:

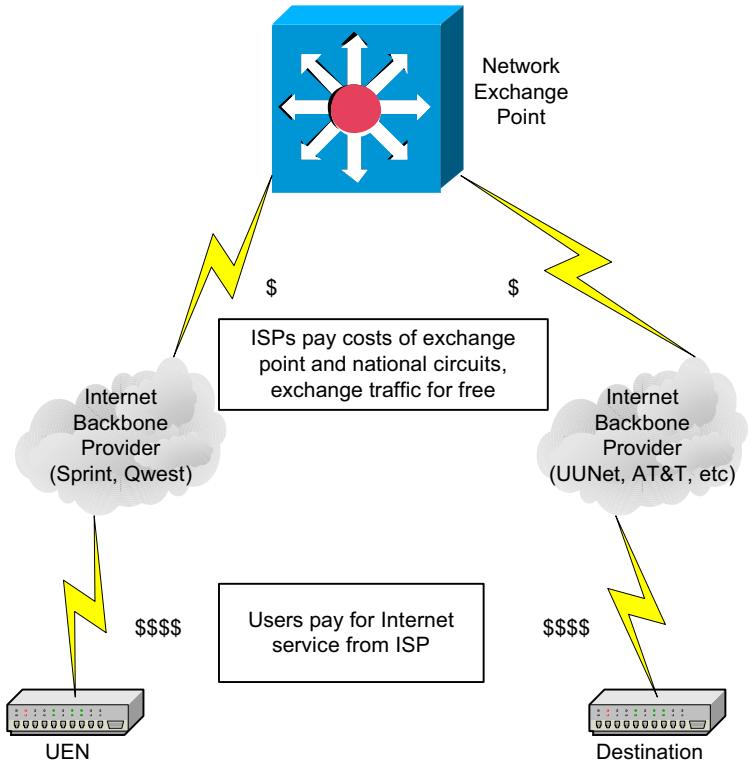
- Implement peering as a lower-cost complement to UEN's transit Internet bandwidth
- Develop a Community Internet Exchange with UVSC and Utah County networks at UVSC, and with other communities throughout Utah as appropriate
- Support initiatives which encourage public/private cooperation (such as network exchanges) to improve Utah network infrastructure, improve network services, and encourage competition

Recommendations:

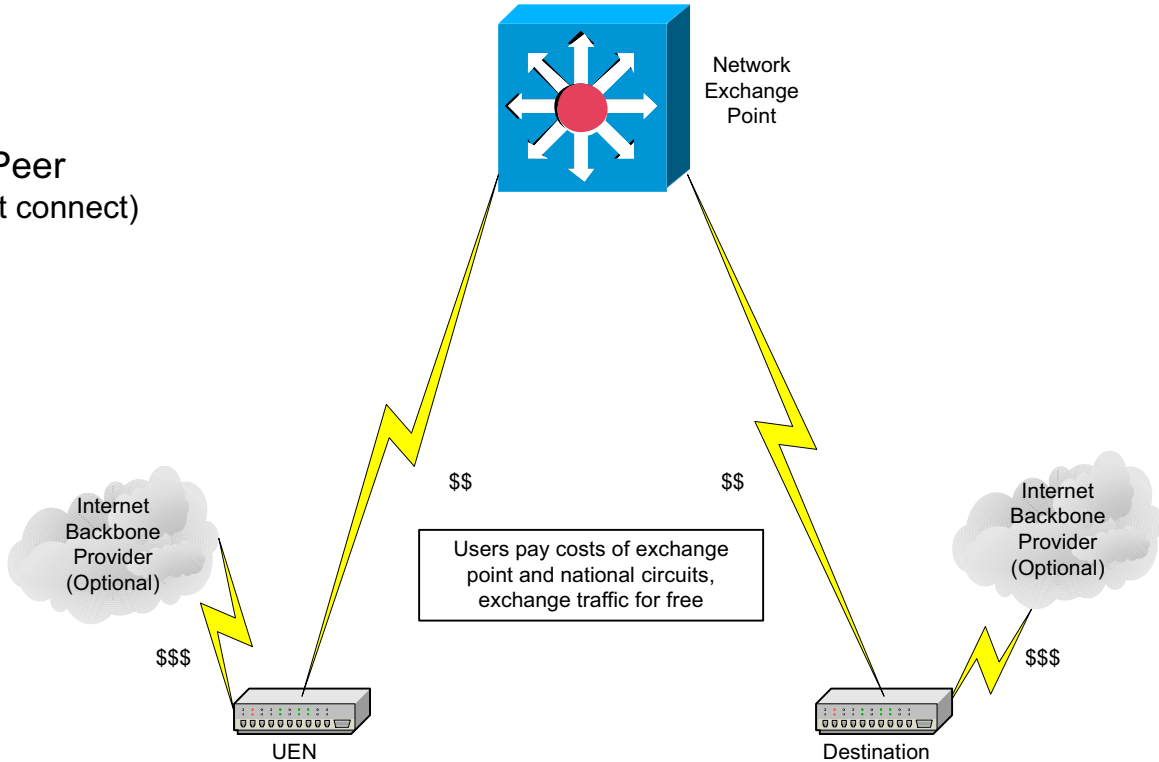
It is recommended that the Technical Services Committee accept and approve the Planning Objectives.

Internet Bandwidth: Transit vs. Peering

Transit
(Purchase from ISP)



Peer
(Direct connect)



ITEM **15**
MGX OUT STATUS

Background:

Project involved the replacement of all Cisco MGX routers with channelized T3 cards. This project will eliminate ATM from the hub to the edge, thus improving reliability and increasing bandwidth.

Report Objectives:

- Mike Downie has been assigned as the technical lead for the project. Mike will coordinate with Jeff Short and other Regional and District technical personnel.
- Hardware has been received and is being inventoried prior to deployment to the field.
- Schedules are being coordinated with District personnel to avoid any surprises.

CORE RING STATUS REPORT

Background:

UEN is installing a redundant, diverse network ring between EBC, SLCC and UVSC to increase reliability of Internet and other network services to the entire UEN network. Projected operational date is June 1, 2002.

In summer CY2001, UEN Technical Services began investigating ways to reduce reliance on Eccles Broadcast Center as the sole Internet access point and the primary hub for the entire UEN network. UVSC was selected as an alternate location for Internet services because it is accessible through multiple diverse paths and telco carriers. Internet services can be delivered to UVSC using circuit routes and carriers completely independent of those that provide UEN connectivity to UVSC. This will allow network services to continue uninterrupted even in the event that EBC (or UVSC) were to be disconnected. In late CY2001, UEN issued an RFP to create a redundant, diverse network ring between EBC, SLCC and UVSC. The contract was awarded to AT&T Broadband Network Services (BNS) and XO Communications in January 2002.

This new core ring is the base for UEN's multi-year plan to build a redundant high-speed network. Four additional rings will be built on the core ring to extend redundancy to every part of the state (see preliminary UEN CY2005 map). While these network rings will increase the network's reliability, the primary motivation is the replacement of the CVDS fiber backbone which carries EDNET video services throughout the state. The CVDS service was installed by Qwest about eight years ago to UEN hub locations and 50 EDNET sites, and is now being phased out. Our contract (which has been extended multiple times) with Qwest ends at the end of CY2005.

The long-term replacement project will utilize the CVDS infrastructure to create a new network to replace CVDS services, and expand the network capacity as much as 20 times using newer network technologies. This network will expand the video network capacity and provide additional capacity for Internet services and other educational uses. UEN is working with phone companies and municipalities throughout the state to develop and deploy fiber-based broadband networks for the backbone as well as to individual schools and institutions.

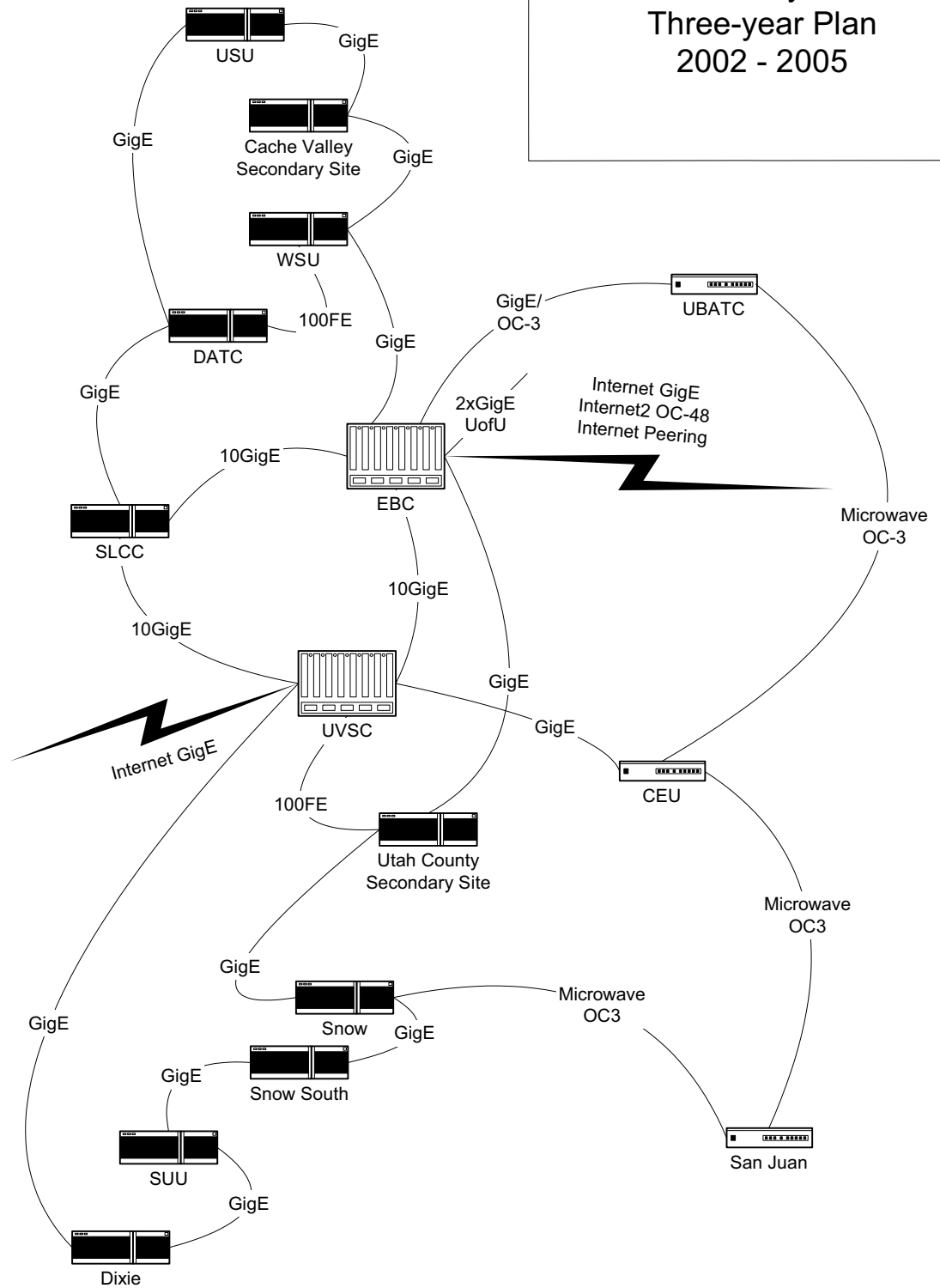
We have also researched various network vendors for this project. There are a number of vendors who have been successful in this application and offer a range of features and pricing. A joint Engineering/Operations group from UEN has

conducted vendor research, evaluation and product testing for this application over a three-month period. Three candidate vendors have been selected, and we plan to select a vendor before April.

Information:

- Planning has been completed with AT&T BNS, EBC-SLCC and EBC-UVSC to be completed Mar 31
- EBC-SLCC planning to be completed by March 15 with XO Communications
- Network equipment vendor to be selected before April
- Circuits to be completed by April 30, core ring planned to be operational June 1
- Existing backbone links will be redirected to benefit from the new core ring after June 1
- One Internet OC-3 link will be moved from EBC to UVSC after June 1 assuming available funding

Utah Education Network Preliminary Draft Three-year Plan 2002 - 2005



TECHNICAL SERVICES COMMITTEE

ITEM 17

REGIONAL TECHNICAL FORUM

**Regional T Forum Status
March 1, 2002**

Region	Co-Chairs	Advocate	Last meeting Held	Next Scheduled Meeting	Comments
USU	Preston Checketts Kim Marshall	Barry Bryson	March 7, 2002	April 4, 2002	USU T Forum has been working on Regional Priorities, Network Operating Agreements and securing a second fiber route into the Cache valley.
UVSC	Ron Andrews Leroy Brown	Pete Kruckenberg	February 1, 2002	May 1, 2002	UVSC Forum has been working with several Utah County cities to provide broadband Ethernet service to schools in the region. The Core Ring project will improve UVSC region reliability significantly in June. Provo district is a piloting a system for better router security and diagnostic access to UEN's routers in April.
SEDC	Cory Stokes Glen Pryor	Dan Patterson	January 9, 2002	March 31, 2002	Dan and Cory have been actively working together to define Region priorities.
DATC/WSU	Bill Clark Dave Brooks	Barry Bryson	January 17, 2002	March 12, 2002	This Region is focusing on priorities. Important projects for the region are upgrading WSU redundancy and concentrating on Network Operating Agreements.
Univeristy of Utah	Dave Huth Jon Peters	Dan Patterson	N/A	N/A	Dan has recently met with the new NetCOM director, Bill Jahzman.
CUES	James Christensen Craig Curtis	Dan Patterson Jeff Egly	January 17, 2002	?	At the request of this Region, Dan Patterson has been assigned as the Advocate. Jeff Egly has also been assigned to assist Dan.
NUES	Vern Wilson	Tony Bueno	January 24, 2002	?	?
SLCC	Dale Roberts Larry Maughan	Jim Stewart	January 15, 2002	Not Scheduled	Nothing new to Report. Jim will be coordinating with Larry and Dale to schedule the next meeting.
CEU	Coy Ison	Jim Stewart		March 10, 2002	Ryan, Jim, Mike and Coy will be working together to get this Region organized. Coy has been concentrating on the Public Ed regional priorities.

PEER-TO-PEER POLICY DEVELOPMENT

Issue:

Peer to peer management has become necessary due to the huge impact it has on networking resources throughout the state and here at the core. Peer to peer applications not only pose a problem with bandwidth, but with copyright infringement and content filtering evasion for schools which require content filtering.

Background:

UEN has been working with our partners to develop effective methods to manage peer-to-peer traffic, as well as generally ensure that the network is available for its designated purposes while not necessarily impacting or prohibiting other acceptable and incidental uses.

We have identified several ways to immediately limit or completely stop the use of many of the peer-to-peer applications being used to illegally exchange copyrighted material. This information was distributed to UEN partners in January to educate them on how to implement their own peer-to-peer management, and many of them have those limits or blocks in place now.

Many of the peer-to-peer applications can easily circumvent these simple mechanisms, so we have been developing other methods to manage more general “fair use” of the network. Features such as Quality of Service classification and rate-limiting that are available in many network products allow institutions to manage traffic in more generic ways. For example, an individual computer could be allowed a certain amount of “guaranteed” bandwidth, and anything more than that would only be allowed if it didn’t impact other user’s traffic. Or, anything above a certain amount of bandwidth could be completely blocked.

These methods will provide UEN partners with a variety of ways to enforce their individual policies and ensure that the network resources are available for educational purposes without resorting to burdensome and onerous methods of handling other network uses.

UEN will take the leadership in peer-to-peer management, working with stakeholders and reporting to the steering committee. UEN will develop a minimal policy that will be provide the results for peer to peer management. This policy will define a minimum requirement for management of traffic to be upheld, with separate institutions developing their own policy. The minimum policy will by

default include the block of UEN Networks being used as servers for peer to peer applications.

Information:

- Upon reaching consensus with UEN partners, we will implement a block at the network core that stops UEN from being a peer-to-peer source (server site) and reduces our copyright liabilities
- If a consensus cannot be reached, we will ask the Technical Services Committee to intervene
- We are educating UEN partners on the liabilities of peer-to-peer file-sharing networks, and encouraging them to develop and implement policies to manage its use
- We are developing more comprehensive methods with our partners to manage bandwidth usage more effectively and comprehensively, to ensure the network is available for legitimate uses.

UTAH EDUCATION NETWORK SECURITY INFORMATION

Issue:

Working to enhance the overall security on the network, UEN has recently completed a Network Security Summit which involved nearly 100 of the technical administrators from around the state. This Security Summit is the first of a Quarterly conference that will enhance the security education which our stakeholders can gain through UEN

Information:

UEN has been working with our partners to begin to implement standard security practices throughout the network. Most recently we have completed the UEN Network Security Summit. This Summit is designed to provide basic education of security best practices, and implementation.

Also recently, UEN completed its standard Firewall Recommendation. This recommendation contains basic information needed to purchase and implement an effective firewall. Many of the entities on the network have begun the process for implementation of firewalls.

UEN has also developed an array of tools that are usable by our partners to begin the process of better securing their networks. In addition, the UEN Departmental Security Office has many tools which can help in diagnosing potential security problems on the network.

Overall, network security incidents are on the raise. The Utah Education Network has been seeing hundreds of scans, and exploit attempts on a daily basis for months. UEN is committed to provide the best core level security possible. UEN will continue to work with its partners to provide these valuable services to make the network more secure.

TECHNICAL SERVICES RETREAT

Background:

The Subcommittee agreed to have a retreat to explore the roles of the subcommittee members and the Technical Services staff. Also, the technical services tactical plan needs definition and priorities for the regions and the network core must be defined and agreed upon.

Information

- Any follow-up items agreed upon at the retreat will be brought to the Subcommittee on March 22, 2002.
- Ryan and Ray will have the opportunity to discuss the retreat at the general steering committee meeting on March 22, 2002.

NETWORK OPERATING AGREEMENT STATUS

Background:

The Technical Subcommittee approved the basic outline of the Network Operating Agreement along with agreements for Salt Lake City School District and Granite School Districts.

Information:

- Since that date a first draft for Box Elder School District has been completed. Also, first drafts for USU, Cache School District and Logan School District are in process.
- Copies of completed agreements have been forwarded to Jordan and Murray School Districts.
- Within the next few days meetings will be set with Granite and Salt Lake City representatives to formalize the completed Network Operating Agreements.

NETWORK MANAGEMENT TOOLS

Demonstration

Demonstration of the various network tools developed by the UEN NOC for managing and reporting on the UEN Backbone.

- 1 Brief overview of the Tools Project (Daniel Patterson)
- 2 Demonstration of various tools (Tony Bueno)

EXECUTIVE MEETING MINUTES

THE UTAH EDUCATION NETWORK

Executive Steering Committee

Friday, January 25, 2002

THE MINUTES

Present: George Brown, Vicky Dahn, Stephen Hess, Laura Hunter, Bill Kucera, Lisa Kuhn, Mike Petersen, Jim Stewart, Ryan Thomas, Ray Timothy, Louise Tonin, and Gary Wixom.

I Welcome: Gary Wixom welcomed everyone to the meeting and commented his approval of the new Steering Committee meeting format.

II Quarterly Budget Review (Tab 27, Information/Action) - Steve Hess presented.

The Steering Committee has requested that the UEN budget be review at least two times a year. Lisa Kuhn, with the help of Mike Petersen and George Brown, have created a summary of the FY 2002 & FY 2001 budgets. Steve noted that the \$388,000 2.5% budget cut is reflected in this document. Also, because not all of the funding from the state was received up front, as in the past, a deduction for funding of interest equal to \$465,000 has been given. Steve reviewed the budget with the committee. For more information, please refer to the budget within tab 27.

*Mike Petersen - The intent of the format was to have a summary of the budget without extensive detail that would still be useful in answering questions and identifying expenses for overall categories as well as some of the major projects in each of the areas. He asked the committee for feedback regarding the usefulness of the budget summary format.

*Ryan Thomas - Commended the format commenting that it is very clear and helpful.

*Lisa Kuhn - In this format, UEN is now more in line with the state as it is similar to legislative formats.

*Vicky Dahn - Inquired about projects, such as Marco Polo and Intel, and whether there was money generated through grants put into the \$262 million.

*Laura Hunter - Responded that the money was all received from the agencies and that it does not come from the legislature

*Vicky Dahn - Inquired, then, where the \$262,919 was within the Revenues report.

*Lisa Kuhn - It is within Carry Forward under Grants.

*Ray Timothy - Inquired where the budget reductions from the 2.5% budget cut is shown.

*Lisa Kuhn - This information is not presented in this document.

*George Brown - If wanted, the specific budget reductions can be provided.

*Ray Timothy - Inquired how the budget reductions were identified.

*Mike Petersen - The UEN managers worked together with Lisa and Steve to identify the areas that could manage the cuts the best. For example, in regard to technical services, it was decided to make personnel adjustments by initiating a hiring freeze and to also cut some funding for router replacements.

*Ryan Thomas - Congratulated all involved with this effort, and noted that UEN has been able to still make funding and budget allocation work despite the numerous amounts of fixed costs associated with the budget.

*Laura Hunter - **Clarified that this report consists of the first two quarters and should therefore not be identified as a quarterly report.**

Motion: It was moved and seconded that the members of the Utah Education Network Executive Committee receive and approve the budget report. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

This motion will be presented in the Business portion of the Steering Committee.

IIIFY 2002 Governor's and Legislative Analyst's Offices ~ Budget Reduction Recommendations (Tab 28, Information) – Steve Hess presented.

The FY 2002 budget reductions are very similar to those that were previously presented and consist of a 2.5% reduction equaling \$388,000. For detailed information please refer to the materials within Tab 28.

*Gary Wixom - Inquired if there would be an additional cut for FY 2003.

*Steve Hess - The recommendation from the analysts is that the budget UEN has this year will be similar to what it will be in FY 2003. The revenue investments will be looked at February 15th and if there is some extra money, there may be some one-time small allocations; however, if there is a further shortfall, there may not be any at all.

*George Brown - Included within the tab is the Governor's recommendations. The Governor did require that UEN take some additional cuts in 2003 equaling \$466,000 which would make the total cut amount for FY 2003 \$855,000; however, this is not likely to pass in the legislature.

IVE-Rate Report ~ Funding Status (Tab 29, Information) – Louise Tonin and Lisa Kuhn presented.

- Year 4 funding and Year 5 requests were distributed to the committee.
- On the orange sheet within Tab 29, the total on Item (2) Total Year 3 Funding Commitments should be changed to \$1,612,182 from \$2,085,852.89.
- Regarding Year 4 funding, UEN is still waiting for its big funding request of about 1.8 million and are hopeful they will receive it within the next couple of months. This request has taken much longer to process as it is large and being entered into the system by hand; however, an acknowledgment letter from Universal Service has been received and so it hopefully will be finished soon.
- ATCs have moved from being considered public ed to higher ed and so they are no longer eligible for e-rate funding.
- About 2 million dollars will be budgeted for Year 5 and it is expected that the recurrent services will remain the same from Year 4 to Year 5.
- The Year 4 - State of Utah E-Rate Funding identifies what has been funded so far.

*Vicky Dahn - Inquired about how much has been funded from what has been submitted throughout the state.

*Lisa Kuhn - Responded that the information listed on this form is a good representative of Utah as a whole and so it would be about the same.

*Louise Tonin - Noted that UEN will have the largest funding amount equaling about 1.9 billion from the overall 2.25 billion for Year 4.

- The AE-Rate Funding Requests - Year 5" shows what UEN has applied for. The 1.9 million in total recurring services is approximately the same requested for Year 4. Regarding Newly Procured Services, Louise noted that a contract has recently been signed for the GigE and that the Uintah Basin OC3 is currently moving forward. Randy reviewed the information under the Services Under Review/ Evaluation section, noting that an RFP has been submitted to reserve money for the Bundled Ethernet WAN project.

*Mike Petersen - Cory Stokes of SCDC and Dick Lemon of Davis District have been active participants in the RFP evaluation procedure and have been very helpful with this process.

*Vicky Dahn - Asked if this RFP was an attempt to make some of the ongoing expenses e-rate eligible.

*Randy Scott - Answered in the affirmative.

*Mike Petersen - Added that by purchasing additional circuits throughout the state, UEN would attempt to lease not just the circuits, but the routers and the switches as well, making them e-rate eligible. This would also work by reconfiguring contracts in instances where equipment needs to be replaced in circuits.

*Randy Scott - Louise Tonin will be discussing this issue next month with the CCSSO and will also be encouraging the FCC to change some of their rules in an effort to make the e-rate program a little more user friendly.

*Gary Wixom - Inquired if the materials presented to the Executive Committee would be distributed to the Steering Committee.

*Louise Tonin - Responded that they were not planning on distributing them, but they could be provided if people were interested.

*Steve Hess - Asked how much e-rate funding is lost as a consequence of the ATCs not being included as part of e-rate.

*Louise Tonin - Responded that she is unsure but could try to locate that information.

*Mike Petersen - Commented that although the ATC affiliation is being changed, the competition of the students and location of the classes will not.

V ETI Issues (Tab 30, Information) – Vicky Dahn presented.

Vicky distributed the Educational Technology Programs ~ Utah Code 53A Part 7" document and noted that with the exception of sections on Purchases of educational technology and Pilot program for acquisition of computers, the rest of the code has been stricken. In essence, there therefore is no longer an Educational Technology Initiative and the bill removes oversight from UEN to have anything to do with public or higher education technical initiatives.

Vicky noted that it is still required that public education have a state wide long term technology plan in order to access any federal funds and that the districts have district long range plans in order to access e-rate or the new technology funds that will come from the Re-authorization of Elementary/Secondary Act. Both of these plans are required to be approved by a state entity

*Mike Petersen - Inquired if the Bill has already been passed.

*Vicky Dahn - It is on its third reading and so it is most likely that it will go through.

*Mike Petersen - A presuming issue with this change is the likelihood that rural school districts will be receiving substantially

less funding than they have previously.

*Vicky Dahn - It is highly likely that they will receive less funding, as noted. However, she commented that although it is no longer in code that districts use the 75/25 formula, most of them will continue to use this as a way of budgeting their funds and it is her belief that this will somewhat help the districts and continue to encourage funding for technology in the schools.

*Mike Petersen - Inquired what kind of reduction rural districts would be getting as a result of the block grant change.

*Vicky Dahn - There is documentation on this, but she responded that she does not have that information with her. However, she noted that many districts received serious hits as a result.

*Mike Petersen - Inquired why legislatures from rural areas don't oppose this legislation.

*Vicky Dahn - It is her belief that many of them do not understand the implications involved, especially for rural schools.

*Ray Timothy - USAB, the business administrators for all of the school districts, is working on the overall funding formulas of the block grant in an effort to adjust the formulas so that they are not coming strictly from per capita amounts as this negatively affects the smaller districts.

*Vicky Dahn - ***Recommended that UEN continue to facilitate coordination with the school and district plans, as it is required that a state entity approve these plans in order for the districts to receive e-rate funding. It is also recommended that UEN continue to be involved in promoting the adjustment of the block grant formulas.***

VI Associate Director Title Change

Steve Hess acts as the Executive Director of the Utah Education Network and he noted that Mike Petersen was hired on as the operations officer of UEN; however, because of the numerous responsibilities Mike has acquired since his arrival, it is proposed that his title be changed, from an Associate Director to the Director of UEN, to allow him the stature he needs to fulfill his duties. Therefore, Steve, as the Executive Director, would take care of external issues with the legislature and state IT committees and Mike, as the Director, would overlook the internal operations of UEN and also continue to work out in the field with the superintendents.

Motion: It was moved and seconded that the members of the Utah Education Network Executive Committee approve the appointment of Mike Petersen as the Director of the Utah Education Network, with Steve Hess continuing his role as the Executive Director. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

VIIOther

- Gary Wixom noted that the Executive Committee would summarize the areas discussed and take the motions presented in this meeting to the business Steering Committee meeting without seconds.
- *Steve Hess asked that the Technical Services Subcommittee Co-chairs discuss House Bill 272 within their report to the Committee.*

The meeting adjourned at 1:00 p.m. with a duration of 1 hour.

The next meeting is scheduled for March 22, 2002 prior to the Business meeting ~ 12:00 p.m.

at the Eccles Broadcast Center.

FY 2002 BUDGET REDUCTIONS

Issue:

As has been reported almost continuously in the media, the revenue projections for FY 2002 were substantial overstated. Fortunately, the first and most significant of the shortfall projections (\$200+ million) was defined fairly early in the budget year and the necessary budget reductions were mandated when there was about ten months of the year left. Although these reductions were difficult, they have been implemented within the Network's budget according to the specifications which were approved and adopted by the Steering Committee in the August 24, 2002, meeting.

The total for the first of the reduction amounts was \$388,900. This was allocated by the Legislature (H.B. 1) across three programs as follows:

- UEN - \$343,300
- UENSS - \$38,600
- CEU - Star Schools - \$7,000.

As the budget year wore on, and the updated revenue figures were released while the Legislature was on their Olympics Recess, it became obvious that, rather than a more positive revenue projection for FY 2002, another \$53 million would have to be cut from the present budgets. UEN's share of that reduction (\$150,000) was allocated by the Legislature (H.B. 3) as follows:

- UEN - \$132,000
- UENSS - \$14,800
- CEU Star Schools - \$2,700

As is documented in the next section of this tab, the original amount of \$388,900 has become a permanent reduction in the Networks base budget and will therefore be reflected in the base from which the FY 2003 Appropriations will be computed. Fortunately, the additional \$150,000 was a >one-time= reduction and has not been reflected in the base budget for FY 2003. The total impact for FY 2002 is as follows:

- UEN - \$475,000
- UENSS - \$53,400
- CEU Star Schools - \$9,700.

Included under this tab is a description of the detail of the budget categories where the original \$388,900 has been reflected. Also included is the detail of where it is recommended that the additional \$150,000 in budget reductions be applied.

Recommendation:

It is recommended that the Steering Committee approve the recommended categories and amounts for the additional \$150,000 in budget reductions for FY 2002.

UEN HOLDBACKS - BUDGET REDUCTION SUMMARY

UEN Holdbacks - Budget Reduction Summary FY 2002

	First Reduction	Second Reduction	Total Reduction
Total Governor's Holdback:	\$ 388,900	\$ 150,000	\$ 538,900
- CEU Distance Education	\$ (7,000)	\$ (2,700)	\$ (9,700)
- USU Satellite Telecommunications	\$ (38,600)	\$ (14,800)	\$ (53,400)
- UEN Contingency fund		\$ (132,500)	\$ (132,500)
- UEN Public Info/Communications	\$ (6,964)		\$ (6,964)
- UEN KULC Broadcast Engineering	\$ (11,467)		\$ (11,467)
Administration:			
Cut Professional Development & Travel by 5%	\$ (1,450)		\$ (1,450)
Reduce Contribution to EBC Computer Support due to open positions in that department	\$ (13,000)		\$ (13,000)
Customer Service:			
Will not fill Louise Tonin's position this year	\$ (20,092)		\$ (20,092)
Content:			
Delay in filling open positions	\$ (62,125)		\$ (62,125)
Technical:			
Delay in filling open positions	\$ (5,075)		\$ (5,075)
Cut Professional Development by 5%	\$ (8,083)		\$ (8,083)
Cut Supplies by 10%	\$ (15,044)		\$ (15,044)
Reduce Circuit Charges budget	\$ (50,000)		\$ (50,000)
Equipment	\$ (150,000)	\$ -	\$ (150,000)
TOTAL REDUCTION	\$ (388,900)	\$ (150,000)	\$ (538,900)

FY 2003 APPROPRIATIONS**Issue:**

This year's Legislative session was the most difficult in recent memory. As revenue projections at the beginning of the fiscal year were very bleak and resulted in substantial budget reductions across all agencies and entities of state government, the Legislature was forced to consider where budget reductions would have to occur.

To add to the problems, the early budget projections for FY 2003 did not appear any brighter. This led to the hope that the revenue numbers, which traditionally have become available in February of each year, would reflect a brightening economy that was truly rebounding from the recession into which the nation and state had tumbled during the past 12 to 18 months. Unfortunately, this was not the case, and the Legislature was faced with: 1) an additional \$50 million+ that had to be cut from the already stressed budgets for FY 2002; and 2) a revenue projection for FY 2003 which indicated that all budgets for FY 2003 would be held at the FY 2002 post reduction levels with an additional reduction of approximately 2%.

The result on the appropriations for the Utah Education Network is two fold: First, the base budget for FY 2003 has been reduced by an additional \$260,600; and Second, no additional funding of any kind was appropriated to the UEN for any of the items included in the Network's Appropriations Request for FY 2003 which was submitted to the Legislature at the beginning of the session.

When aggregated with the base budget reductions for FY 2002, the total base budget reductions for FY 2003 equal \$649,500. This represents an approximate 4.5% overall reduction in appropriated funds. Obviously, this level of cuts will pose very serious challenges as the Network staff and subcommittees become immersed in the planning process for FY 2003. Many of the planning implications are documented within the information found in the next item. The most difficult of the challenges will be where these additional reductions can be applied.

It is anticipated that recommended budget reductions will be presented to the Steering Committee during the business portion of the meeting after having been reviewed by the Executive Committee.

Recommendation:

It is recommended that the Steering Committee approve (at least in concept) the recommended budget reduction categories and amounts as presented in the meeting. Final approval of the FY 2003 Budget will be requested in the May meeting.

PLANNING ISSUES AND PROCESS

Issue:

Now that the Legislative session has ended and the appropriations for FY 2003 have been determined, the Network's planning efforts for next year can aggressively move forward. Much has already been done in anticipation of the reductions which had been projected and which now have been enacted into law. It is obvious that because of the budget reductions, planning for FY 2003 is more critical than ever. The facts are that:

- The increase in the volume of telecommunications traffic traversing the UEN network continues to grow at an exponential rate;
- The proportional amount of mission-critical traffic also continues to grow at even a greater rate;
- The "mean-time-to-failure" for many of the network's routers is reaching the point where, if something is not done, network failures are inevitable;
- Many districts and institutions have reached the point where network reliability and security are crucial and network outages are intolerable;
- The EDNET system's microwave equipment is aging and maintenance costs will continue to accelerate;
- Because all institutions, libraries and school districts are directly impacted by budget reductions for FY 2002 and FY 2003, they are all seeking ways to provide their services in the "doing more with less" model. Many are seeking technological solutions to reduce cost and increase their levels of efficiency and effectiveness;
- The information resources available via the Network have become invaluable in the teaching and learning environment of the public schools and institutions of higher education in the state; and their use is growing at a continually increasing rate.

These issues, along with innumerable others, make planning for the future while facing a significantly reduced appropriation level, a formidable (at the very best) task. As in the past, the planning process will include the acquisition of as much input from Network stakeholders and constituents as is possible. All the information which was gathered from last year's very exhaustive process will be reviewed and recommended priorities defined. The various task forces will be included in the definition of those priorities and tasks upon which the efforts and resources of the Network must be focused.

Additionally, there will be some changes in the format of the document to assure that it is succinct and inclusive of project details to allow for quick reference and review.

In anticipation and as a result of the events of the last Legislative session, a number of potential planning initiatives have been defined. The list is included under this tab for the review and comment of the Steering Committee. It should be noted that this list is preliminary and that the various subcommittees are in the process of their planning reviews. The list is presented here in an attempt to facilitate the planning process inasmuch as the Steering Committee is not scheduled to meet again until May.

Since each of the subcommittees will have conducted planning sessions during the interim, there will potentially be a good definition of priorities and directions as discussed and defined by the subcommittees that will be available in the meeting. Staff will then take that information and will begin the task of preparing the Network's Strategic Plan for FY 2003.

Recommendation:

It is recommended that the Steering Committee approve the planning reports from the each of the Subcommittees.

FY 2003 PLANNING - PRELIMINARY GOALS

FY 2003 Planning (02/27/02)

The following are some preliminary items of information regarding the planning process for FY 2003. Realizing that the Legislative process is far from over and that it will definitely have a significant impact on our planning process, it is important to share with you some of the preliminary thoughts associated with the planning for FY 2003:

- First, there will be some changes in the format of the plan; these shouldn't impact the planning process per se;
- A planning meeting will be scheduled within the next few weeks;
- Each staff member should take the opportunity to review this year's plan for items that need to be continued into next year;
- In the same light, this is an opportunity to review the information which came from the extensive involvement of stakeholders and interested parties during the planning for this year and to determine if there are any items that were not addressed in this year's plan - but which should be considered for FY 2003;
- Listed below is a preliminary set of items that possibly need consideration in each of the organizations listed. Remember that this is simply a beginning point and if there are items which need to be added, please do so.
- The list is not in priority sequence.

Executive Director:

- Strategic Vision, Leadership, and Budget
- Strategic Relationships: State IT, Legislature, Regents, State Board, etc.
- Setting overall strategic direction.

Director:

- Customer Relationships
- Internal Operations and Accountability
- Steering Committee Subcommittees (Instructional and Technical Services)
- Cross-departmental Project Coordination

Policy and Planning

- Proactive Policy Development (Issues identification, laws, security, disaster recovery, peer-to-peer, filtering, etc.)
- Legislative Liaison
- Copyright
- ITS Relationship
- Planning Process Management
- Steering Committee (Executive Committee; final materials preparation, distribution, and web posting)

Technical Services

- H.323
- Video Streaming (technical)
- Voice over IP (VoIP)
- Reliability/Back up/Disaster Recovery (fault tolerant, self healing ring)
- Capacity and Speed
- Access
- Security
- Equipment Replacement (Mean-time-to-failure and obsolescence)
- Wireless

Instructional Services

- Training (Network Instructional Services Resources)
- Business Partnerships
- Instructional Television Programming
- DTV Instructional Capabilities
- Library Materials (Pioneer OnLine Library)
- Web Instructional Support
- Course Identification and Selection Facilitation
- Evaluation

Instructional Delivery Support

- Satellite (Capacity, Access, Reliability)
- Local Service Representatives
- Strategic Partnerships (Mountain Top Agreements)

- EDNET Scheduling
- H.323. Distribution Scheduling (See Websites: IHETS.org, Wisconsin, Oklahoma)

Public Information and Communication

- Public Information
- Marketing of Services
- Internal Communications

KUED Technical Services (Phil Titus)

- Video Multi casting (Technical)
- DTV Translators
- Replacing Translators (Old, Obsolete, Frequencies no longer available)

PEER-TO-PEER POLICY CONSIDERATIONS

Background

As the utilization of networks and network technologies continues to increase exponentially, many creative individuals have discovered ways to use the tremendous tool that networks have become to accomplish a very wide variety of extremely interesting tasks. It is clear that the uses of network facilities and resources seem bounded only by the very enterprising imaginations of a growing population of very skilled and very knowledgeable groups or individuals, some of whom are driven simply by the need to discover new, innovative, and ingenious ways to take advantage of information resources and facilities.

Network evolution has, over a very few decades, moved from military and research networks servicing very specific needs associated with the those entities to private commercial networks providing a means for commercial organizations to improve the methods by which they conducted their very private businesses. The next level of this evolution involved the beginnings of shared networks where several organizations with shared interests or needs joined together and aggregated separate network resources into a single logical, virtual, if not in fact, physical network infrastructure.

As the need for shared resources continued to rise in importance, coupled with the need to develop a network infrastructure that would be very difficult to disrupt in the case of any national emergency, the design for the Internet was developed. This design permits a very robust infrastructure which has virtually no controlling entity and which facilitates the sharing of information/data by virtually anyone who has access. It is a completely open architecture without controls, limits, or ethics. It has been characterized by some as the epitome of anarchy.

The tremendous advantage of the Internet is that it has provided a means by which information can be shared world-wide. This aspect continues to change the very nature of much of society and has positively impacted the educational process. There are, however, some very difficult challenges associated with such an ubiquitous, robust, and powerful resource. Abuses are common and can run the gamut from innocuous nuisances to the very dangerous.

One notable example of network usage that has now reached a point of significant concern is what is classified as recreational use. Because virtually any information or data that can be digitized is available via the Internet, enterprising individuals have found ways to access the data and download it to their computers. Most of them use software that is grouped together in the category of file sharing. Among the file sharing software options is a set known as peer-to-peer (p2p) software. This software allows an individual to download information from any other computer any where in the world which is also running p2p software and

permits anyone else any where in the world to download any information from that individual's computer as well.

The network of computers running p2p software is expanding at a rate not unlike the growth of the Internet itself. Although there are very legitimate reasons to share data and information using a p2p environment, most of the information that is being shared using p2p facilities is recreational. The problem is that as this network of users grows and the amount of bandwidth which is being used grows, it begins to clog network facilities that are intended for other more important and legitimate uses.

Obviously, this has become a problem with the network facilities provided by the Utah Education Network. The use of the network is monitored every day and there are a growing number of occasions where recreational use is encumbering substantial amounts of bandwidth.

As we met with and made presentations to the Legislature this year, as has been the case in past years, one of the Network's priorities is the need to expand bandwidth in order to meet the growing demand. However, it was made clear to the Legislature that there was a growing need for the Network to better manage this problem of network utilization associated with the recreational sharing of data.

Issues and Considerations:

There are several considerations which must be addressed in examining this problem and potential solutions:

- The Network's resources are funded by the Legislature for the purpose of providing support to the educational process.
- The Legislature was unable to provide the funds required to continue to meet the anticipated need to add an additional OC3 circuit during the early part of FY 2003.
- Much of the recreational use of the network is related to, or may involve copyright violations.
- Traffic volumes associated with recreational use of the network have reached the level where it is necessary to address reasonable, equitable, responsible, and acceptable solutions.
- Acceptable Use Policies must be the foundation for any long-term solution to be viable.
- Public and higher education have somewhat different issues related to network use and standards.
- There are at least three different network traffic types: Mission Critical, Educational/Informational, and Recreational. It may become necessary to prioritize network traffic according to these categories.
- A survey of all academic and administrative leadership on the University of Utah campus failed to identify a single valid or legitimate use of peer-to-peer file sharing software.

- The implication is that peer-to-peer file sharing facilities service only recreational uses.

During the past several months, the technical staff and Technical Services Subcommittee have been reviewing technical solutions and/or strategies to address this issue. However, it is very important that the Steering Committee address this issue at the policy level.

Additionally, it is important to note that the Network has an Acceptable Use Policy (AUP) related to public education, and that each of the school districts also have adopted an AUP which governs the use of the network by their students, teachers, administrators, and staff.. Even so, this issue will be discussed again with the Superintendents at their April meeting.

However, this is not the case with higher education. Because institutions of higher education value a significant level of academic freedom, there is a substantial level of reticence for those institutions to adopt stringent policies restricting the access to or use of information. However, most of the institutions do have policies related to the violation of copyright provisions in the law; and the excessive use of facilities for activities not associated with the mission of the institution and/or the relatively direct pursuit of an education.

Solution Strategies

As noted, technical solutions can be implemented to restrict traffic via specific channels or ports which are most commonly used by present p2p software. This is a very temporary solution at best because the channel/port designation can be easily modified as a >work-around=. There are other technical options which permit the “rationing” or limiting” of bandwidth to particular entities or locales (e.g., dorms, etc.).

However it is far more reasonable to adopt a policy encouraging and supporting the principles of >acceptable use= as well as identifying potential traffic priorities which might result in certain types of traffic receiving priority over other types. Additionally, the policy probably needs to address what might be done in the event that, in spite of all of our best efforts, the problem continues to persist. This might well involve the disabling of the port or channel presently serving the most common or prevalent p2p software. Finally, a goal of this process should be a statement of cooperation, and that, only in the most egregious circumstances would the UEN ever act unilaterally to resolve this problem.

Recommendations

The purpose of this agenda item is to solicit discussion and input into a policy recommendation that would be drafted and presented to the Steering Committee in a subsequent meeting (May 2002). It is recommended that the Steering Committee approve the direction and approach as presented above and/or provide additional potential policy options or considerations.

BUSINESS MEETING MINUTES

THE UTAH EDUCATION NETWORK

Steering Committee Business Meeting

Dolores Dore Broadcast Center and the University of Utah

Friday, January 25, 2002

THE MINUTES

Present: Co-Chair Gary Wixom, and Executive Director Stephen Hess, Members: Vicky Dahn, Reed Eborn, David Eisler (via audio), Pat Lambrose, Jeff Livingston, Amy Owen, Wayne Peay, Kirk Sitterud, Mark Spencer, Glen Taylor, Ryan Thomas, and Ray Timothy, Excused: Bonnie Morgan, Bruce Christensen, Clif Drew, Val Finlayson, Brent Goodfellow, David Steele, Barbara White, and Phil Windley, Interested Persons: Jeff Grandia, Coy Ison, Rick Mandahl, Cindy Nagasawa-Cruz, George Miller, Vern Wilson, Kim Marshal, James Christensen, and UEN Staff.

The minutes summarize the proceedings of the Steering Committee meeting. For additional information please refer to the cover sheet and detailed information following each tab and at uen.org.

I Welcome - Gary Wixom welcomed those in attendance at the Eccles Broadcast Center and welcomed David Eisler who was attending via audio from Weber State. He noted his approval of the new combined meeting format and gave his apology for not being able to use the EDNET system due to existing conflicts in the Dumke Conference Room. This should not be a problem in the future.

II Review of Agenda and Minutes ~ December 7, 2001 (Tab 31, Information/Action)

Within Ray Timothy's comment on the bottom of page 4, the Society of Superintendents has been changed to the Utah School Superintendent Association.

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve the minutes as amended. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

III Report of Subcommittees

A INSTRUCTIONAL SERVICES (Tabs 22 & 23) ~ Vicki Dahn presented.

1 ~ Subcommittee Membership (Tab 22, Information/Action)

- Subcommittee membership for the Public Education Instructional Content, Higher Education Instructional Content, and the Joint Concurrent Enrollment Subcommittees have been proposed and their roles and responsibilities have been discussed. For detailed information, please refer to the information within Tab 22.
- ***It is recommended by the Instructional Services Subcommittee that the Steering Committee accept the membership as recommended so that the new subcommittees can be formulated and move forward with their body of work.***

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve the proposed Subcommittee memberships as noted. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

2 ~ UTAP Discussion (Tab 22, Information/Action)

- UTAP is an online technology self assessment tool for educators that has been used. However, in light of the “Child Left Behind” act and the increased technology education funding that goes with it, it was decided that UEN look to see if there will be enough federal dollars to either upgrade UTAP or replace it with a tool that would better fulfill this purpose. For detailed information, please refer to the information within Tab 22.
- ***It is recommended by the Instructional Services Subcommittee that UEN continue to host UTAP, provide training when requested, disable the catalog tool, research alternative national assessment tools and software programs, and monitor UTAP usage until further clarification on the amount of federal funding is available.***

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve the UTAP recommendations as noted. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

3 ~ NTIA Grant (Tab 22, Information/Action)

- UEN is asking for funding from NTIA to assist KULC and KUED with spreading digital broadcast to rural areas who have no KULC signal, no digital signal, need distance learning courses, and need course materials delivered to local cache for streaming. For further information, please refer to the materials within Tab 22.
- Unfortunately, if granted, these funds will only account for 25% of the project costs. There is some DTV funding that has been previously allocated by the Utah legislature that will be available as a project match but additional funding sources will likely be needed. However, if this project moves forward, it will allow several areas to receive access to these systems who have not had access before.
- ***It is recommended by the Instructional Services Subcommittee that the Steering Committee endorse the NTIA Grant Proposal.***

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee endorse the NTIA Grant Proposal as outlined and recommended. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

4 ~ (Tab 23, Information)

Vicky Dahn encouraged the members of the Utah Education Network Steering Committee to read through the Informational Items within Tab 23. There was no further discussion on this material.

B TECHNICAL SERVICES (Tabs 24 - 26) ~ Ray Timothy presented.

1 ~ Peer-to-peer Management (Tab 24, Information/Action)

The growth of peer-to-peer traffic has become an increasing problem on the network as it not only takes up a considerable amount of UEN's bandwidth, but a large majority of the traffic is copyrighted material. For detailed information, please refer to the materials within Tab 24.

*Pat Lambrose - Inquired if or how districts have been informed that peer-to-peer traffic is a problem.

*Jim Stewart - There have been discussions with the T-Forum regarding this and they will continually work to make districts aware.

It is recommended by the Technical Services Subcommittee that the Steering Committee: 1) endorse the need to manage bandwidth, especially across the Internet, to minimize or completely eliminate peer-to-peer traffic; 2) authorize UEN staff to develop along with UEN stakeholders methods to manage peer-to-peer use of the UEN network; and 3) authorize UEN staff to provide alternatives for entities to manage legitimate peer-to-peer traffic.

*Gary Wixom - Inquired about the time frame the elements in this recommendation would take place.

*Ryan Thomas - Hope to have a time frame set soon, but will report back to the Committee when one is developed.

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee endorse the Peer-to-peer management recommendations as noted. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

2 ~ Responsibilities of the Regional Advocates (Tab 24, Information/Action)

- In an effort to enhance the communication of the regions throughout the state, UEN Technical Services is working to better recognize and prioritize the needs of the different regions and eventually to put together local regional and statewide plans.
- The roles and responsibilities of the regional advocates for these local areas, as listed on the back of this document, were discussed in the Technical Services Subcommittee meeting. For detailed information, please refer to the materials located within Tab 24. The 7th bullet under the duties section was changed to state: ~~Bring~~ Ensure regional issues are brought to the Technical Services subcommittee and that responses be provided to the regional T-Forums.

*Jim Stewart - Noted that there is a spreadsheet within the Regional Technical Forum Status Report (Tab 25) listing the co-chairs for the Technical Forums along with their UEN advocate.

*Pat Lambrose - Inquired how to become a part of the T-Forum mailing list.

*Jim Stewart - Referred her to contact the regional co-chairs or advocates.

*Vicky Dahn - An advocate should be a strong supporter of a certain region and inquired whether or not it is a good idea to have the same advocate for multiple regions.

*Jim Stewart - UEN would like to get it down to where there is just one advocate per region, but will have to wait until they have enough manpower.

*Steve Hess - Until then, the representative will have to advocate for both regions as fairly as they can and any conflicts that occur will need to then be worked out by the Technical Services Subcommittee.

*Vicky Dahn - Emphasized the importance of the advocate to not only inform the regions of the areas UEN is working on, but to also listen to their needs and concerns.

It is recommended by the Technical Services Subcommittee that the Steering Committee adopt the Regional Advocate Responsibilities as amended.

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee adopt the Regional Advocate Responsibilities as noted. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

3 ~ Network Operating Agreement (Tab 24, Information)

As an informational item, UEN Technical Services is in the process of creating Network Operating Agreements with each school district. For detailed information, please refer to the cover sheet and example agreements within Tab 24.

4 ~ Network Connection Policy (Tab 24, Information)

It was decided in the Technical Services Subcommittee meeting that there are still areas within this policy that need to be clarified and/or rewritten. No action or input is required from the Steering Committee at this time. The Policy will be brought back for review and approval at a later date.

5 ~ Video Redesign Project/MGX (Tab 25, Information/Action)

- The current MGX's at USU, SLCC, DATC, UVSC, Dixie, and SUU need to be replaced as they are old, expensive to maintain, and are the cause of several outages. A new technology exists involving T3 cards that would solve these problems and would be beneficial to the network. The savings of this transition would amount to at least \$211,000. For detailed information, please refer to the document within Tab 25.
- ***It is recommended by the Technical Services Subcommittee that the Steering Committee approve the migration from the CMGX to the channelized T3 cards subject to available budgets.***

*Ray Timothy - Inquired if the budget for this is currently in place.

*Mike Petersen - It is believed that there is adequate budget to complete the first phase. ***Therefore, it is recommended that the Steering Committee approve the concept, but not authorize the expenditure until the final budget is presented and approved.***

*Vicky Dahn - Inquired about the cost of this project.

*Mike Petersen - The total project costs are \$294,000. However, there will be immediate direct savings equal to \$80,000, projected annual savings of \$211,000, and he is confident that this transition will improve the quality of video in these areas.

*Vicky Dahn - Inquired where the extra initial money to fund this project would come from.

*Mike Petersen - The advantage of this project is that it can be phased. It is believed that with the existing budget, about one third of the project can be completed in the initial phase.

*Vicky Dahn - Asked where the immediate \$80,000 savings would come from.

*Mike Petersen - The maintenance agreement will be discontinued and so these costs will be eliminated.

*Gary Wixom - Asked that a budget proposal along with a process for phasing this project come back to the Steering Committee for review and approval if necessary.

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve the plans for the MGX migration as noted. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

6 ~ T Forum Review (Tab 25, Information)

This is an informational item only. There was no discussion at this meeting regarding this topic.

7 ~ Core Expenditure Justification (Tab 25, Information/Action)

- The UEN Planned Core Investments for the Fiscal Year 2002 was presented to the Committee. For detailed information, please refer to the document within Tab 25. There was no further discussion on this subject.
- ***It is recommended by the Technical Services Subcommittee that the Steering Committee approve the purchase of the equipment and services outlined in the Planning Document.***

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve the Planned Core Redundancy Investments as noted. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

8 ~ House Bill 272 (Information/Action)

The House Bill 272 legislation and the Utah Education Network Amendments were distributed to the committee. The information provided discusses the implications this bill has with UEN as well as UEN's concerns and assessments. Mike Petersen reviewed these documents with the committee. *For further information, please refer to the distributed documents.*

*Jeff Livingston - Inquired if the sponsor of the bill knows about UEN's contribution to outside entities, as is noted in the 2nd bullet under the UEN assessments.

*Mike Petersen - The biggest concern to UEN at this time is that in the entire process of the bill being developed and drafted by an attorney for the Utah Rural Telecommunications Association (URTA), UEN was never informed of their activity of doing this and only learned about it yesterday when it was released publicly. UEN representatives therefore have not as of yet been able to meet with individuals to discuss this issue and know little about the legislation. Steve Hess will be meeting with Nancy Gibbs, the director of URTA, and representatives of the Telecommunication industry to discuss the details.

*Laura Hunter - Inquired how this would affect KULC, KUED and KUER.

*Mike Petersen - It is his assumption that because these entities are identified in the legislation as within UEN that any of UEN's distribution systems for them would be impacted.

*Jeff Livingston - Inquired if any of the state agencies that utilize UEN's system have been notified of this.

*Mike Petersen - Noted that the proposed legislation explicitly prohibits UEN to support anyone outside of public and higher education; however, the same statute requires UEN to work with public entities, including libraries, state and local governments, and the legislature. He also noted that the feasibility study process being proposed is unnecessary and duplicative of the competitive bidding and purchasing requirements that UEN already follows. It also reduces UEN's flexibility to work local telephone companies in situations where their service would be more expensive than a service UEN can provide. Being forced to go with an entity that charges a higher rate would impact the amount of UEN's cash flow, a quarter of which currently goes towards telecommunication charges and would hence reduce the amount of business UEN would be able to do with local telephone companies.

*Ray Timothy - Commented that another significant issue is the change of representation on the Steering Committee. He noted that according to the legislation, it is required that three members of the Steering Committee be

representatives of the private telecommunication industry. This could mean that the diversity of representation of businesses that is currently on the board would be weakened and that the number of educational representatives in the Committee would have to be reduced in order to accommodate. It is his opinion that this would not be advantageous to the Steering Committee.

*Gary Wixom - Inquired if it was being suggested that the Steering Committee take official action against this legislation.

*Ray Timothy - Commented that ***it is recommended of the Technical Services Subcommittee that the Steering Committee take a position of opposition to this legislation as it is unnecessary and there are too many flaws within the bill.***

*Amy Owen - Suggested that UEN representatives make early contacts with those in the Senate Leadership and on the Senate Rules Committee and try to stop the legislation there.

*Reed Eborn - Emphasized the importance of contacting those in legislation quickly so that the right information can be conveyed to them before they read into the legislation wrong.

*Jeff Livingston - Inquired who would be taking the lead of this issue.

*Steve Hess - Responded that Mike Petersen, George Brown and himself would all need to work on this in order to cover all of the bases.

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee take a position of opposition to H.B. 272. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

9 ~ (Tab 26, Information)

It was encouraged the members of the Utah Education Network Steering Committee read through the Informational Items within Tab 26. There was no further discussion on this material.

C EXECUTIVE COMMITTEE (Tabs 27 - 29) ~ Gary Wixom presented.

1 ~ Budget Review (Tab 27, Information/Action)

- Included within Tab 27 is a summary of the Utah Education Network budget for FY 2002. This document contains no new information from the previous reports reviewed by the committee but is only a summarization of the approved budget. It was noted that the second column titled Budget FY 2002 reflects the 2.5% funding cut.
- It is recommended by the Executive Committee that Steering Committee accept the Budget Review.

*Pat Lambrose - Inquired where ITC Workshops were indicated on the budget.

*Mike Petersen - These workshops are indicated in the Teacher Training Institute section within item III.B.

*Gary Wixom - Commented that the Steering Committee will continue to see budget information as necessary.

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee accept the FY 2002 Budget Review as noted. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

2 ~ FY 2002 Governor's and Legislative Analyst's Offices ~ Budget Reduction Recommendations (Tab 28, Information)

As is noted on the Tab 28 cover sheet, the 2.5% hold-back has now been officially declared a cut in funding from the government. For details on implications of this, please refer to discussions in the June and August Steering Committee meetings as well as to the Tab 28 materials.

*Kirk Sitterud - Inquired about the budget revisions included within the tab for FY 2003.

*George Brown - The Governor's office required UEN to provide additional budget request proposals for FY 2003 in addition to the required cuts for FY 2002.

*Kirk Sitterud - Expressed his concern that a considerable amount of the cuts are directed towards rural schools who already have limited resources and are in great need for the resources UEN provides.

*George Brown - Acknowledged this concern. Part of the problem with the budget is that there are a number of fixed costs that are difficult to change. The Governor's office was very persistent that UEN come up with some additional budget cut recommendations and so the potential cuts made were made unwillingly done under duress.

*Kirk Sitterud - If there are any cuts, asked that they come back to the committee for review.

*Steve Hess - The budget recommendation for next year have been received and right now it looks as if UEN will have a flat budget, minus \$388,000, which means that these proposed cuts will most likely not have to go into place. However, if they for some reason are needed, the budget revisions will be brought back to the committee for review and approval.

3 ~ E-Rate Report ~ Funding Status (Tab 29, Information)

This is an informational item and was not discussed at this time. It was encouraged that the members of the Steering Committee read through the materials within this tab for their information. For additional information, please refer to the materials within Tab 29.

4 ~ ETI Issues (Tab 30, Information)

This is an informational item and was not discussed at this time. It was encouraged that the members of the Steering Committee read through the materials within this tab for their information. For additional information, please refer to the materials within Tab 30 as well as to previous discussion in Steering Committee meetings.

5 ~ UEN Organizational Change (Information/Action)

UEN has undergone some organizational changes and restructuring over the past 6 months that have been very beneficial to the UEN structure and it is proposed that one more item of reorganization be approved. Steve Hess is the Executive Director of the Utah Education Network as well as the Chief Information Officer of the University of Utah. Mike Petersen was hired by UEN with an Associate Director title. However, it is motioned by the Executive Committee that Mike Petersen's title be changed to the Director of the Utah Education Network and that Steve Hess continue to serve as the Executive Director of the Utah Education Network. This change in title will not specifically change the duties of either individuals, but will make things easier internally and externally.

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve the appointment of Mike Peterson as the Director of UEN as noted. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

IV Executive Director's Report ~ Steve Hess presented.

- The Olympic Homepage, developed by the Utah Education Network which involves a broad based support from public and higher education, has been recognized for its wonderful work. Laura Hunter presented two articles from PBSTeacherSource and Education Week to the committee and she commented that these are just a couple of places where UEN has received attention for this project. For detailed information, please refer to the articles at the end of your packet materials. Steve complimented Laura and her staff for their efforts.

- Steve distributed a draft document regarding the fiscal analysts= considerations as far as the FY 2003 budget year and he commented that these figures correspond with UEN's expectations. Essentially, the 2.5% cut that took place this year of \$388,000 will extend onto next year and with that cut, the budget will remain close to where it is currently. Therefore, there is no anticipated increase in salaries this year and may only be some additional money for benefits. After the February 15th projections on revenue collections comes out, there may be a little bit of additional money left over. However, any request made beyond this flat budget will probably be in one-time small amounts.

V Other

Vicky Dahn noted that the several districts have completed the requirements for receiving their funds and she asked that they be approved by the Steering Committee.

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve the districts as noted. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

Gary Wixom expressed his appreciation to all who have helped make these meetings possible and noted that the Steering Committee will continue to take the same format as was done today.

The meeting adjourned at 2:00 p.m. with a duration of 1 hour.

**The next meeting is schedule for March 22, 2002 10:00 a.m. - 2:00 p.m.
at the Eccles Broadcast Center**

