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

Utah Education Network
www.uen.org
9:00 am - 12:00 pm

Steering Committee Meeting

Welcome and Introductions................................. Gary Wixom

Executive Committee

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Steering Committee

Next Steering Committee meetings - April 25, 2003 and June 20, 2003

Next Instructional Services Committee meetings - March 27, 2003 and May 16, 2003

Next Technical Services Committee meetings - April 11, 2003 and June 13, 2003

Please place these materials in your Steering Committee Binder
Issue

The State Legislature will be finalizing its budget decisions in the next two weeks. There continues to be uncertainty about the shape the final appropriations act will take.

Background

The Higher Education Appropriations Subcommittee has received directions from the Executive Appropriations Committee to prepare budget recommendations for FY 2004 that impose the following budget reductions:

1. Base budgets are to be reduced by 2 percent, as decided in the 6th Special Session of the Legislature.
2. An additional 2 percent cut in base budgets, except public education, required to adhere to preliminary budget estimates adopted by the Executive Appropriations Committee.

The subcommittee has made the following preliminary recommendations concerning the UEN budget:

1. UEN should be held harmless from further budget cuts. If that recommendation is followed, our base reduction would be limited to the initial 2% base cut imposed in the Special Session, which totals $283,200 (UEN-- $249,900; UENSS -- $28,200; CEU Distance Learning -- $5,100).
2. Should additional revenues become available, one of the highest priorities would be new funding to UEN to support proposed network upgrades. The most critical item is $400,000 to be combined with Federal E-rate funds to support six network projects with rural telephone companies and the network backbone upgrade proposed with Qwest.
3. The CEU distance learning budget would be transferred from UEN to a new CEU line item. The total amount transferred would be $263,600. This action will not be material for either entity, since UEN has been transferring the funds to CEU since the line item was initially established in 1997.
Recommendation

This is an information item, and no action is required.
Issue

As a function of the appointment of Steve Hess to the Steering Committee, it has been deemed advisable to modify the Utah Education Network’s Internal Operational Policies to again balance the representation of Steering Committee members between Higher Education and Public Education.

Background

As earlier indicated, Steve, by virtue of his assignment as Associate Vice President at the University of Utah, becomes a representative of the Higher Education community. To facilitate this additional representation, the operational policies need to be modified to increase the number of higher education representatives stated in those policies from seven to eight representatives. As noted in the attached draft, the number of those which are to represent “upper levels of management (generally, President, Vice-President or Dean status) with decision-making responsibility from the state’s ten (10) institutions of higher education...” is being increased from five to six.

Additionally, in order to maintain the balance between higher and public education, it is recommended that the number of representatives affiliated with public education be increased to eight. Associated with this recommendation, it is further recommended that the number of superintendents from local school districts be increased from two to three. The rationale includes a level of equivalency within the public education representation of those who have decision making responsibility within public education.

Attached to this tab are pages one and two of the Internal Organizational Policies of the UTAH EDUCATION NETWORK upon which these recommended changes occur. Language that is to be deleted is indicated by the strike-out notation; while language that is being inserted is bolded and underlined.

Recommendation

It is recommended that the Steering Committee adopted the changes as indicated in the attached associated with this tab.
Internal Organizational Policies
of the
UTAH EDUCATION NETWORK
(Adopted August 16, 1996)
(Revised February 21, 2003)

Version 4

ARTICLE I

Name

SECTION 1. Name and Authorization. The name of this Association shall be the Utah Education Network (the “Network”, or UEN). The Network is authorized in Title 53B-17-101,102,103, and 104.

ARTICLE II

Principal Office

SECTION 1. Principal Office. The principal office of the Utah Education Network is located at the Eccles Broadcast Center at the University of Utah, in the City of Salt Lake, County of Salt Lake, State of Utah.

ARTICLE III

UEN Steering Committee

SECTION 1. UEN Steering Committee. The UEN Steering Committee shall consist of members who have responsibility for telecommunications within their institutions or organizations, and/or who are authorized to speak and vote on statewide educational telecommunications issues. The Steering Committee will provide oversight and leadership to UEN, approve policies, plans, budgets, and programs with which the Network is directly involved and will receive recommendations, advice and input from other committees, as described in Article VI. The Steering Committees shall be constituted as follows:

A) Membership

The Governor shall appoint all members of the Steering Committee as specified in Title 53B-17-102 of the Utah Code Annotated 1953.

It is recommended that the membership of the UEN Steering Committee consist of:

a) Eight (8) Seven (7) representatives of higher education as follows: one (1) representative from the staff of the Utah State Board of Regents, selected by the Commissioner of Higher Education; at least six (6) five (5) representatives from the upper levels of management (generally, President, Vice-President or Dean status) with decision-making responsibility from the state’s ten (10) institutions of higher education selected by the Commissioner of Higher Education; and one (1) representative from the University of Utah as appointed by the President of the University.

b) Eight (8) Seven (7) representatives from public education as follows: one (1) representative from the Utah State Office of Education, appointed by the State Superintendent of Public
Instruction; at least five (5) representatives selected by the Utah State Office of Education as follows: three (3) representatives from the Utah School Superintendents Association, one (1) master teacher; one (1) school principal, one (1) representative from public education with a curriculum and technology focus; and one (1) representative selected from the Regional Service Center Directors.

c) at least one (1) representative from private industry, nominated by the Executive Committee;

d) one (1) representative from the Governor’s office;

e) one (1) representative from the Utah Senate;

f) one (1) representative from the Utah House of Representatives;

g) one (1) representative selected by the Utah Partnership for Educational and Economic Development;

h) the Director of the State Library Division;

i) the Executive Director of the Utah Education Network. and

j) ex officio members as recommended by the Executive Committee and appointed by the Governor.

SECTION 2. Responsibilities. As specified in Section 53B-17-101, 102, 103, and 104 Utah Code Annotated 1953, as enacted by Chapter 167, Laws of Utah 1987, the Steering Committee will oversee the Network in its development and operation of a coordinated, statewide, multi-option telecommunications system to assist in the delivery of educational services throughout the State of Utah. Specific responsibilities include the following:

1. Establish the policies and rules that guide the activities of UEN

2. Provide leadership and promote the expansion of the Network and its services.

3. Based on decisions made by appropriate Public Education and Higher Education entities, provide coordination of UEN instructional issues that jointly affect public and higher education and oversee projects and activities being conducted by instructional support staff, including professional development and training issues.

4. Oversee and approve statewide and regional technical plans and policies, and ensure that regional Technical Forums are functioning effectively in all regions of the state.

5. Establish policies, and review and approve budgets for Network operations.

6. Represent public and higher education in statewide educational telecommunication matters with approval from the State Board of Education and State Board of Regents as appropriate.
EXECUTIVE COMMITTEE

TAB 10

NEW STEERING COMMITTEE MEMBER
RECOMMENDATIONS

Issue

As noted in the December 2002 Steering Committee meeting, Ray Timothy has accepted an assignment at the Utah State Office of Education and has replaced Bonnie Morgan as Co-chair of the Steering Committee. Additionally, as a result of an affirmative action by the Steering Committee related to modifying the Internal Organizational Policies of the Network (see tab 9), an additional Steering Committee member representing public education needs to be appointed.

Background

As discussed earlier under tab 9, it has been an imperative of the organizational structure of the Network to maintain an equitable balance of representation between higher and public education. As a result of, and in alignment with, this imperative, the following actions are presented to the Steering Committee for review and approval:

To replace Ray Timothy, the Utah School Superintendents Association have recommended that Ron Barlow, Superintendent of the Tintic School District be appointed to fulfill the unexpired term of Bonnie Morgan. Bonnie's appointed term expires on July 31, 2003.

In anticipation of Steering Committee approval of the Internal Organizational Policies, the Utah School Superintendents Association has recommended that Larry K. Shumway who is the Tooele School District Superintendent be appointed to serve on the Utah Education Network Steering Committee. It will be recommended to the Governor that Superintendent Shumway's term of office expire on July 31, 2005. This would be consistent with the original expiration cycle of the other members of the Steering Committee.

These two recommendations will bring balance and equity to the constituencies of public and higher education.

Recommendation

It is recommended that Ron Barlow, Superintendent of the Tintic School District, be recommended to the Governor to finish the unexpired term of Bonnie Morgan; and
that Larry Shumway, Superintendent of the Tooele School District, be appointed to a new term which would expire on July 31, 2005.
INSTRUCTIONAL SERVICES COMMITTEE

CHAPTER 0

INSTRUCTIONAL SERVICES COMMITTEE MEETING MINUTES

Dolores Doré Eccles Broadcast Center Dumke Conference Room
December 6, 2002

Attendees: Vicky Dahn, Clif Drew, David Eisler, Reed Eborn (via EDNET), Laura Hunter, Amy Owen, Mike Petersen, Kirk Sitterud (via EDNET)

Apologies: Brent Goodfellow, Pat Lambrose, Carlene Walker

Guests: Rick Gaisford, Cyd Grua, Claire Gardner, Thom Gourley, James Hodges, Bill Kucera, George Miller, Cory Stokes, Dennis Sampson, Karen Krier, Randy Scott, Becky Sowards, Mark Varner, David Walton

1. Instructional Services Committee Meeting Minutes from September 27, 2002

Minutes were approved with the correction of the spelling of Amy Owen’s last name.

2. H.323 Video-Conferencing Recommendations – Mike Petersen, Randy Scott

Mike Petersen introduced this item by emphasizing its historical impact on distance learning. The new video-conferencing tool of H.323 will take a rigid, structured resource and allow it to be more flexible. Cost dimensions will allow videoconferencing units to become as ubiquitous as a desktop computer. Currently, it costs $30,000 for the basic set-up of an EDNET site. Basic set-up for H.323 will cost approximately $2500.00 and will ultimately result in lower costs to the end-user. Facilitator costs will exist until transition to H.323 is completed. UEN needs to begin immediately on a path that builds over the next several years in transitioning from EDNET to H.323. Questions were raised by committee members:

Who pays for this and who can use it for free? How is quality control monitored if instruction does not go through UEN? What kind of impact will this have on bandwidth?

Randy Scott stated that policy issues created out of the new system are paramount and apply to every application that is centered on The Network. In the past, UEN has been responsible for all equipment at end-point. Will this be true in the future with H.323? Gatekeepers will become the most essential component. Technical Services
would create a gatekeeper plan with support from Instructional Services, i.e. security, numbering plans, restrictions, aliases. Randy said that control will be decentralized and enforcement through a well-thought-out gatekeeper plan is essential for a successful H.323 migration. Randy asked the IS Subcommittee to submit a statement soon to plan for global access.

Clif Drew stated that in his experience with the University, security and directory service are big issues. Randy responded that once the gatekeeper strategy and dial plan are put into place, students will have another layer of security.

Randy reviewed the Indiana Plan which provides an excellent reference for UEN discussions and planning. Randy brought up the issue of controlled management scheduling. Although other states are doing this already, the key difference in Utah is volume of distance ed traffic. No other state comes close to Utah’s volume.

George Miller asked if any research had been done on teachers using H.323 and that the teaching implications also need to be considered.

Randy explained that EDNET is almost all IP now and very little is actually analog. Quality can be adjusted on the fly, better at motion handling than what we have now. Because of the tremendous flexibility in H.323, creating a 20-site, multi-point conference for example, other technologies like DTV can fit into this model.

Tooele High School was selected as the first full-scale pilot site to begin using H.323, since they built a new building and needed network improvement anyway. UEN will be working to have it installed for Winter-Spring term. Three Regional Service Centers will be using their systems this summer resulting from a grant providing 30 Polycom units. This makes H.323 migration a very rapidly moving target with an immediate need to establish a policy structure within UEN and in conjunction with the Steering Committee.

The IS Subcommittee, based on staff recommendations, should lead the way on policy issues and planning. Vicky Dahn expressed concern that it will be a difficult task to preserve the K-12 environment with large policies while moving on the exciting potential of H.323 expectations. David Eisler also stated that it is important to maintain the quality of service that has come to be expected around the state.

Mike Petersen said that the goal is to have a roll-out plan by next academic year (2003/2004) so that the transition will be well along its way by 2004-2005. Summer of 2006 is considered the “drop dead” deadline with the loss of the video backbone.

**ACTION:** A Video Migration Planning Group should be formed with membership including UEN staff, a teacher representative, full representation of stakeholders and related agencies. Regional Service Centers (specifically Coy Ison at SESC, Cory Stokes at SEDC, and James Christensen at CUES) should be involved immediately.

**ACTION:** A summary of what has been learned so far with the H.323 test sites should be prepared for the Jan. 24th meeting.
ACTION: Key policy issues should be identified by the Video Migration Planning Group and returned to the subcommittee for review at the January 24th meeting.

3. Quarterly Progress Reports
Claire Gardner reported on Quarter One projects for Instructional Delivery Services with efforts focused on the H.323 pilot tests.

Laura Hunter reported on Quarter One projects for Instructional Services, highlighting approval for Internet 2, a new ITV survey, Tech Corps grants, and UEN Web site. The department completed Universal Accessibility Requirements for Top 100 most visited pages.

Bill Kucera reported on Quarter One projects for Public Information, highlighting the new annual ITV guide, Pioneer marketing and direct mail campaigns.

4. Policy Issues – Laura Hunter
Laura presented a list of recommended policies which would be helpful in guiding the work of Network staff. Once in place, these policies would protect UEN from potentially litigious situations resulting from violation of educators’ personal privacy, copyright laws, and security issues. These recommendations will be addressed further at subcommittee meeting.

ACTION: Language of the new UEN policies will be formalized and reviewed by legal counsel and brought to the IS Subcommittee at the January 24th meeting.

5. Subcommittee Reports / Concurrent Enrollment – George Miller
George Miller recapped the existing EDNET course approval process as it has been conducted for many years. He recommended a similar approval process for Internet based coursework developed by high schools, Electronic High School, colleges, universities, and technology colleges currently offered to high school students as part of their high school curriculum. Content should be evaluated as well as structure.

ACTION: David Eisler stated that this issue should also go to the Chief Academic Officer of each higher education institution. Training should take place at each institution.

6. New Staff
Instructional Services announced the addition of one full-time staff member and one outreach subcontractor in November. Lee Baker joined the UEN Professional
Development training team. David Walton is being retained on a contract basis to provide Pioneer Library outreach support.

The next Instructional Services Committee meeting will be held January 24, 2003. Minutes recorded by Becky Sowards.
Issue

At the December 6th meeting of the Instructional Services Committee, a need for additional policies regarding Web site use and administrative practices was expressed by UEN staff. Policies in this section have been reviewed and approved by University Legal Counsel, and subcommittee members.

Recommendation

It is recommended that the Instructional Services subcommittee endorse the new UEN policies for final approval by the UEN Steering Committee next month.
UEN Mission

It is the mission of the Utah Education Network to provide teacher / faculty resources which will assist in achieving improved student learning. Resources hosted on and provided through the UEN Web site are intended for educational use as outlined in the UEN Mission [link to www.uen.org/services/html/mission.html] by teachers, students, faculty, school administrators, and parents to support learning activities in educational facilities, community learning centers, libraries, home, and school.

UEN has developed and licensed high quality educational products and services that can only be accessed with a user log-in name and password. Use of UEN tools and services is intended to follow the Content Guiding Principles established by the UEN Steering Committee in 1999 [link to www.uen.org/proposal/html/principles.html]. All postings must conform to the Acceptable Use Policy [link to www.uen.org/policy/html/aup.html].

Mailing Lists

Among other things, UEN mailing lists cannot be used to:

A Post content that is unlawful, harmful, threatening, abusive, harassing, tortuous, defamatory, vulgar, obscene, libelous, or invasive of another's privacy;

B Post content that infringes any patent, trademark, trade secret, copyright or other proprietary rights of any party;

C Post software viruses or any other computer code, files or programs designed to interrupt, destroy or limit the functionality of any computer software or hardware or telecommunications equipment;

D Engage in commercial activities such as offering for sale any products or services; soliciting for advertisers or sponsors; conducting raffles or contests that require any type of entry fee;

E Post product advertisement or political lobbying

Mailing List Owners

Owners of a mailing list are individuals who manage the e-mail list. Owners can add or remove subscribers, edit welcome message, create or remove list archive, and set automatic maintenance actions. The owner can also determine if the mailing list is moderated or unmoderated.
**UTED Mailing List**

The Utah Educators (UTED) mailing list is the largest mailing list that UEN hosts. When registering with UEN, users are invited to subscribe to this mailing list. The objective of UTED is to share resources, events, and opportunities that support Utah educators. At any point, subscribers can remove themselves from this list.

**E-Mail Addresses**

UEN does not share, sell, or trade e-mail addresses collected through the UEN registration process or through the UEN listserv subscriptions with any third party entity.

**E-Mail Communications and Web Forms**

Electronic mail messages sent to UEN by users with a question or comment that contain personally identifying information and/or forms for feedback purposes which contain personally identifying information may be redirected to a partner agency or third party for resolution.

**Security**

Utah Education Network has safeguards to ensure that any personal information hosted on the UEN site is secure from destruction, corruption, unauthorized access and breach of confidentiality. These safeguards include an ongoing review of security and safety measures and implementation of changes. It is recommended that you keep your password private and change it frequently.

UEN’s web site contains links to other sites. UEN has no control over, and therefore assumes no responsibility for the privacy practices or the content of other Web sites.

**Confidentiality**

The Utah Education Network (UEN) has a genuine interest in the privacy of its registered users. UEN does not disclose or publish proprietary and confidential information to third parties. UEN is a governmental entity and thus subject to certain requirements of the Government Records Access and Management Act of the Utah Code (GRAMA). Pursuant to GRAMA, certain records within the UEN’s possession or control may be subject to public disclosure.

**User Information**

Users who register with UEN via my.uen, are required to provide a log-in name and password. This information is not shared with any third party entity. However, a limited number of administrators and technology trainers around Utah have access to an online tool to look up passwords for educators in their region.
Additional information is voluntarily provided by my.uen registrants: e-mail address, affiliation(s) grade levels and subjects taught. UEN hosted usernames and passwords are protected under GRAMA (Utah Code Ann. 63-2-106; enacted 2002) and cannot be disclosed under this provision.

**Automatic Information Collected by UEN**

UEN uses web tracking software to monitor site performance. The following information is collected and stored automatically from all users accessing the UEN Web site.

- The Internet domain and Internet Protocol address from which the user accesses our site
- The type of browser used to access our site
- Links a visitor follows on our site
- Amount of time spent on the site

This data is reported in summary form and does not reveal personally identifiable information.

**Registration Agreement**

*(Note: this agreement will be in a pop-up window. Users must click “agree” in order to proceed with registration. Users with existing accounts will see the window once, be required to click “agree,” then proceed to their account.)*

**Terms and Conditions for UEN Registrants**

Before registering with the Utah Education Network (UEN), you must review and accept the following Terms and Conditions. If you have read the Terms and Conditions and agree to be bound by them, click the “I Accept” button.

**Description of Services**

It is the mission of the Utah Education Network to provide teacher / faculty resources which will assist in achieving improved student learning. In order to accomplish this, UEN has developed and licensed high quality products and services that can only be accessed with a user log-in name and password.

Below are some of the services that are available to UEN registered educators:

- Home access to Pioneer, Utah’s Online Library
- Free educator tools, such as the Lesson Plan Tool, Rubric Tool, web page creation tool (Activities and Tours) and Interactive Projects (Weather Report, ExplorA-Pond, Shadow a Swan, and Utah’s Stream Connections.)
- Private access to CACTUS to check your Utah teaching credentials
What information does UEN gather?
When registering with UEN, users are required to provide a log-in name and password. This information is not shared with any third party entity, however, a limited number of administrators and technology trainers around the Utah have access to an online tool to look up passwords for educators in their region.
Additional information is voluntarily provided by my.uen registrants: e-mail address, affiliation(s) grade levels and subjects taught.

Registration Obligations
In using services available via UEN, you agree to: (a) Provide true, accurate, current and complete information about yourself as prompted by the registration form and (b) Maintain and promptly update the Registration Data to keep it true, accurate, current and complete.

Terms and Conditions
All use of the UEN services must be consistent with the educational mission of UEN. Any pages found to contain, promote, or link to content as outlined below are subject to immediate removal without prior notification.
You must agree to not use the UEN services to:

A Upload, post or otherwise transmit any Content that is unlawful, harmful, threatening, abusive, harassing, tortuous, defamatory, vulgar, obscene, libelous, or invasive of another's privacy;
B Upload, post or otherwise transmit any Content that infringes any patent, trademark, trade secret, copyright or other proprietary rights of any party;
C Upload, post or otherwise transmit any material that contains software viruses or any other computer code, files or programs designed to interrupt, destroy or limit the functionality of any computer software or hardware or telecommunications equipment;
D Engage in commercial activities such as offering for sale any products or services; soliciting for advertisers or sponsors; conducting raffles or contests that require any type of entry fee;
E Post product advertisement or political lobbying information

Termination
The Utah Education Network may terminate user accounts at any time, without notice.
UEN Confidentiality Policy

The Utah Education Network (UEN) has a genuine interest in the privacy of its registered users. UEN does not disclose or publish proprietary and confidential information to third parties. UEN is a governmental entity and thus subject to certain requirements of the Government Records Access and Management Act of the Utah Code (GRAMA). Pursuant to GRAMA, certain records within the UEN’s possession or control may be subject to public disclosure.

For more information, please see our full privacy policy at www.uen.org/policy/html/privacy.html
Issue

Items to be funded from the Instructional Services project account require further consideration and approval.

Background

Committee members may recall that monies had been set aside from the FY2003 budget for various projects in the Instructional Services area. Projects to be funded from this account were to be prioritized by members of the Instructional Services subcommittee, with input from the public education and higher education subcommittees. Expenditures from this account have already occurred as summarized in the table below.

<table>
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<th>Balance</th>
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<td>Digital Curriculum</td>
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<td>$120,000</td>
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<td><strong>$17,000 (og)</strong></td>
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<td></td>
<td></td>
<td><strong>$103,000 (ot)</strong></td>
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</tbody>
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Policy Considerations

In consultation with subcommittee members, criteria for utilization of these funds and a list of projects has been circulating among subcommittee members. Due to the
timing of subcommittee meetings, recommendations for part of the funding have been suggested, and others remain at the subcommittee level for discussion.

Criteria for utilization of these funds include:

1. One-time expenditure, not ongoing contract or commitment
2. Balance of public ed and higher ed services
3. Broadcast or digital broadcast services since funding source is from KULC
4. Leverage existing projects and investments
5. Other potential funding sources

**Recommendations**

It is recommended that the Instructional Subcommittee approve allocation of funds from the Instructional Services project account for two pending projects as outlined below.

1. Adding test item data pool questions to the TIPS database for K-12 ($3,000)
2. Creating a searchable online database for the Majors guide developed by USHE ($8,000)

Additional projects will be prioritized and forwarded to the Instructional Services committee as they become available.
At the request of the public education Utah Instructional Media Consortium (UIMC), UEN has completed an extensive survey of Utah K-12 teachers in regard to their knowledge, opinion, and utilization of Instructional Television. Survey data has been shared and discussed with members of the UIMC. A copy of the slide show for this presentation is included in this section.

Background

UEN delivers 11 hours of Instructional Television on KUED and KULC each school day. Many Instructional Television programs are block fed on KULC. Additionally, programs that appeal to secondary level educators, such as NOVA and Scientific American Frontiers, are also aired on KUED during non-school hours. The Utah Instructional Media Consortium is a group representing all K-12 Utah districts who review and select programs for broadcast during the school day. In an effort to better understand how Utah educators use these programming resources, UEN and UIMC developed and administered a survey of Utah teachers which concluded in December 2002.

Policy Issues

Salient issues which arose in this study include:

- Scheduling – teachers preferred block feeds over the current schedule
- Awareness – not many teachers were aware of ITV services
- Guide – teachers who were aware, liked and used the ITV print guide
- Training – teachers have an interest in additional training at their local sites
- PBS Programming – though teachers viewed KUED prime-time programming favorably, not many used it
- Duplication – teachers depended on schools and districts for copies of programs more than regional and state resources
- Time – teachers cited time as the number one reason for their reluctance to use ITV
There is an interest in conducting focus groups to gain a better understanding of some of the issues which arose in the survey. For example, KUED is interested in knowing more about how teachers learn about and utilize their prime-time educational programming. UEN is interested in learning more about the awareness issues which became apparent through survey data. The survey data shows that teachers have a greater interest in block feed schedules than was previously thought, so additional information about this would be useful in scheduling to meet their needs. Districts are interesting in learning how their local data compared to the statewide results. In coordination with UIMC, more investigation and recommendations based on this survey will be developed over the next several months. All participants agreed the process was a valuable one.

**Recommendations**

It is recommended that the Instructional Services Committee discuss the following questions and provide further guidance to UEN staff:

- What are the issues the data suggests?
- What is the process for addressing these issues?
- Would focus groups provide a better understanding of teacher utilization?
- What actions should be taken as a result of these issues?
Contents

- Purpose
- Process
- Survey Instrument
- Definition of ITV
- Survey Population: Overall
- Survey Population: District
- Survey Population: Position
- Survey Population: Subject
- Survey Population: Grade Level
- Questions
- Executive Summary
- Acknowledgements

Purpose

Identify the in-class utilization of instructional television resources by teachers.

Process

At the request of the Utah Instructional Media Consortium, the Utah Education Network developed a preliminary draft of an ITV 2002 survey instrument.

The survey instrument was subsequently reviewed and approved by the UIMC board.
The survey instrument was revised and printed by UEN and eventually distributed to members of the UIMC who, in turn, passed it out to schools with a deadline of returning the surveys to UEN by November 15, 2002.

UEN developed the ITV 2002 survey database and input the data as it was received from the schools, districts and regional service centers. A total of 260 paid hours and 310 staff hours went into the inputting of data by UEN staff and contract employees.

Data input was completed by December 15, 2002.

A preliminary report was shared with various members of the UIMC on January 8, 2003 in the Salt Lake City School District offices.

A final report was made to the UIMC on January 15, 2003 at the Utah State Office of Education.

The ITV survey instrument includes survey population information; i.e. name, school, district, position, grade level, and subject.
Survey Instrument

The survey instrument includes 20 questions ranging from ITV utilization in the classroom to needs for additional training.

Survey Instrument

22,000 copies of the survey instrument were distributed to UIMC members and districts. The intention was that every classroom teacher would have an opportunity to respond to the survey.

Definition of ITV

*Definition of Instructional Television (ITV):* Video programs such as TEAMS, Reading Rainbow, Eureka, and Art History that are used in the classroom to enhance the teaching of the core curriculum and other related subjects. Many of these programs are available through broadcast television (KUED and KULC) and/or videotape copies of these broadcasts from school library/media centers, districts, regional service centers and the Utah State Office of Education.

Survey Population: Overall

There are 22,211 certified classroom teachers in the State of Utah. Of that number, 5,275 or 24% responded to the ITV 2002 survey.

Survey Population: District Participation

37 of 40 school districts participated in the ITV 2002 survey. Daggett, Provo, and Rich school districts did not participate. Jordan School District’s participation was limited to a few selected schools per a decision by the Jordan school board.

Survey Population: Position

Teachers: 5,275
Administrators: 71
Library Media: 113
Other: 25
Survey Population: Subject

- Most elementary teachers didn’t identify themselves as teaching a particular subject; i.e. English.
- Of those who indicated a subject, most taught English, math, science, special education, or history.

Survey Population: Grade Level

For the purpose of this survey, teachers identified the grade they teach. In some cases, teachers teach more than one grade.

General Responses: Question #1

When you create a unit, lesson or activity for the classroom—do you consider including ITV programs as part of your instruction?

- Yes, occasionally: 43%
- No, never: 53%
- Yes, every time: 4%

General Responses: Question #2

If you never consider including ITV programs as part of your instruction, why not?

- “Doesn’t apply…”
- “I didn’t know…”

General Responses: Question #3

What are the greatest barriers that you face when using ITV programs?

- Awareness: 23%
- Time: 35%
- Access to programming: 32%
- Access to equipment: 10%

General Responses: Question #4

How frequently do you use ITV programs during the school year?

- Once every few months: 26%
- Monthly: 26%
- Yearly: 20%
- Weekly: 17%
- No response: 6%

“Doesn’t apply…”
“Don’t know…”
General Responses: Question #5

Do you use ITV programs as they are being broadcast on either KUED or KULC from 9am-3pm Monday through Friday?

- No: 21%
- Yes: 66%
- No response: 11%

General Responses: Question #6

If you don’t use ITV programs as they are being broadcast on either KUED or KULC from 9am-3pm Monday through Friday, why not?

- Not when I need: 37%
- Access: 41%
- Poor quality: 5%
- No programs: 8%
- No response: 6%

General Responses: Question #7

If you watch ITV programs as they’re being broadcast, which do you use most often?

- Reading Rainbow
- Magic School Bus
- Bill Nye
- Mathvantage
- Reading Between the Lions
- Teams

General Responses: Question #8

Do you or someone else copy the ITV programs while they are being broadcast for use at a later date?

- No: 61%
- Yes: 28%
- No response: 6%

General Responses: Question #9

If no one copies the ITV programs while they are being broadcast for use at a later date, why not?

- No time: 61%
- No videotape: 28%
- No access: 6%
- No response: 5%

General Responses: Question #10

If you or someone else copies the ITV programs while they are being broadcast, do you prefer to have them broadcast as a block of programs or individual programs on separate days?

- Block: 49%
- Individual: 30%
- No response: 21%
General Responses: Question #11

If you or someone else makes videotape copies of ITV programs as they are broadcast on either KUED-TV or KULC-TV, when would you like to see them broadcast?

- Morning: 20%
- Afternoon: 24%
- Evening: 16%
- Early morning: 14%
- Sunday: 15%
- Saturday: 15%
- No response: 5%

General Responses: Question #12

If you don’t make videotape copies of ITV programs as they are being broadcast, do you get ITV programs in other ways?

- No: 37%
- Yes: 28%
- No response: 35%

General Responses: Question #13

If you don’t get videotape copies of ITV programs as they are being broadcast, how do you get copies?

- No response: 29%
- School: 22%
- District: 13%
- School or district: 13%
- Personal purchase: 5%
- Make copies: 5%
- Video: 5%
- Catalog: 7%
- Public library: 10%
- Service center: 4%

General Responses: Question #14

How do you find out about ITV programs?

- Guide-print: 35%
- School or district: 24%
- TV commercial: 20%
- Suggestions: 18%
- Conferences: 13%
- Video catalogs: 12%
- USOE Guide: 11%
- Internet: 10%

General Responses: Question #15

Would you like training on ITV programs, utilization, and access?

- Yes: 40%
- No: 60%

General Responses: Question #16

If you don’t want additional training on ITV programs, utilization, and access, why not?

“Time…”
General Responses: Question #17

If want training, would you like it... on the Internet, as a workshop in your school or district, or as a workshop at a central location such as the Utah Education Network or Utah State Office of Education?

- School or district: 26%
- Internet: 47%
- Central location: 23%
- No response: 4%

General Responses: Question #18

If you want training, what would you like included in the training?

- Current programs: 56%
- New programs: 52%
- Utilization: 42%
- Copyright: 34%

General Responses: Question #19

Have you ever used a PBS program such as Nova or Scientific American Frontiers in your classroom?

- Yes: 60%
- No: 38%
- No response: 2%

General Responses: Question #20

Which of the following do you have in your classroom—VCR, DVD, Laserdisc, computer with cdrom, Internet connection, Channel One?

- VCR: 76%
- Internet connection: 73%
- Computer with cdrom: 60%
- Laserdisc: 10%
- DVD: 6%

Executive Summary

57% of the survey population said that they consider using instructional television when they plan their teaching.

The majority of teachers who "don't consider using instructional television in their teaching" said it was because they didn't know anything about ITV or felt that the ITV programs didn't apply to what they were teaching.
Executive Summary

Awareness and time are the greatest barriers to using instructional television in the classroom.

22% of those surveyed never use instructional television in the classroom. 26% use ITV at least once every few months. 17% of the surveyed teachers use ITV monthly.

Executive Summary

Only one out of ten surveyed teachers use instructional television as it is being broadcast live via KUED-TV or KULC-TV.

The majority of survey respondents don’t watch instructional television as it is being broadcast live because the programs are not “aired” at convenient times.

Executive Summary

Lower grade, elementary teachers are typically the ones who utilize instructional television programs as they are being broadcast—primarily for Reading Rainbow.

From the survey, the majority of teachers who make copies of ITV programs for use at a later time prefer blockfeeds in the evenings.
Executive Summary

The majority of teachers surveyed get instructional television programs through their school and district.

Executive Summary

Most of the teachers who responded to the survey get ITV information from the print version of the *Utah Instructional Television and Resource Guide*.

Executive Summary

Six out of 10 teachers who participated in the survey would like additional training about instructional television. They would prefer the training at a local school or district or on The Internet. The training should focus on current programs, new or upcoming programs, utilization strategies, and copyright information.

Executive Summary

Those who did not want additional training indicated that they didn’t have any time or were already familiar with the resources.

Executive Summary

Six out of ten teachers who responded to the survey have never used a PBS program in their classroom. For those who have—mostly secondary teachers—Nova is mentioned most frequently.

Executive Summary

Of those who participated in the survey, 76% have a VCR in the classroom. 73% have an internet connection in the classroom.
## Acknowledgements

A special thanks to the following people and group who helped in the development and presentation of this report—

*Members of the UIMC*

- Vickie Arnold
- Anne Harvey
- Colleen Nordberg
- Sara Sandburg
- Becky Sowards
Issue

During the November Instructional Services meeting, committee members recommended two immediate actions regarding the IP Video Migration Project. First, UEN should create a more representative committee by adding members of the higher education and public education distance learning and technology communities. Second, a list of policy issues should be developed for both technical and instructional issues which will arise during this project. The following summary and subsequent pages address these requests. Additional updates will be given to Instructional Services subcommittee members throughout this project.

During the January Instructional Services meeting, committee members requested that additional members be added to the Project Steering Team and the Project Instructional Sub-Team. The number of UEN Staff has been reduced.

Background

The goal of the IP Video Migration Project is to design, communicate, and coordinate the migration from the existing video system (EDNET and UENSS) through the implementation of an IP Video Distance Learning and Conferencing solution (H.323) for the UEN network.

Membership

Project Steering Team - The Project Steering Team is responsible for managing the overall direction of the work, prioritization and to ensure business needs are being met. This team provides feedback to the sub-teams on their work plans, status and issues. Resource allocation and policy issues will be addressed by this team.*

Members:

James Brown, UEN Engineering
Barry Bryson, UEN Associate Director
James Christensen, Central Utah Educational Services
Claire Gardner, UEN Instructional Services
James Hodges, UEN Instructional Delivery
Jim Huffaker, CEU Distance and Continuing Education Director
Laura Hunter, UEN Associate Director
Randy Johnson, SEDC Region Director
Cindy Nagasawa Cruz, Jordan District Administrator
Dan Patterson, UEN Associate Director
Mike Petersen, UEN Executive Director
Russell Petersen, Uintah Basin Applied Technology Center
Dick Siddoway, USOE Utah Electronic High School Director
Jim Stewart, UEN Technical Services Director

* Tentative final acceptance by individuals.

**Project Technical Sub-Team** - The Project Technical Sub-Team takes ownership of completing the work needed to design, test and implement the approved solutions. Sub-teams will report to the Project Steering Team on a regular basis in order to receive feedback and direction.

Members:
- James Brown, UEN Engineering
- Tony Bueno, UEN Engineering
- Dave Devey, UEN Engineering
- Jeff Egly, UEN Field Operations
- James Hodges, UEN Instructional Delivery
- Pete Kruckenberg, UEN Engineering
- Dave Maw, UEN Engineering
- Randy Scott, UEN Advanced Technologies

**Project Instructional Sub-Team** - The Project Instructional Sub-Team takes ownership of completing the work to identify and address the instructional issues related to the successful implementation of IP video migration and services for a site.

Members:
- Rick Cline, UEN
- John Cameron, UVSC
- Richard Croff, Tooele SD
Policy Issues

Technical

The Technical Sub-Team divided video traffic over the network and into 2 general categories: UEN Video Network Services and Non-UEN Video Network Services.

UEN video network services include EDNET and UENSS delivery systems. They have coordinated, pre-scheduled educational courses, events or meetings. The bandwidth priority and network resources given to these services on the network is determined and reserved in advance.

Non-UEN Video Network Services include ad hoc connections, unknown connections, and use by non-UEN IP video devices. The bandwidth priority and resources given to this traffic on the network cannot be determined or reserved in advance.

Currently, EDNET and UENSS are centrally and cooperatively coordinated and scheduled by UEN to try to ensure adequate availability and performance. Due to ease of use, the potential for issues with use of network resources is a greater possibility in an IP video conferencing environment than the current video conferencing environment.

It is essential that UEN coordinate with users of these systems to address these issues. Our goal is to ensure the same level of video conferencing services currently provided by UEN. A balance between local autonomy and statewide coordination is essential. These technical issues are highlighted in the next section.
UEN Video Network Services

Issues  Considerations/Conclusions

1  EDNET video sites
   • In the IP video environment what defines an EDNET site?
   • What should UEN’s approach be in migrating existing EDNET sites to IP video services?
   • The definition of an EDNET site and the associated operating and service level agreements need to be determined and set forth in policy by UEN.

2  EDNET pre-scheduled educational programs (current)
   • How does UEN ensure that pre-scheduled educational (A non EDNET@ type) programs that currently get priority on the network continue to receive the same level of importance in a converged network environment?
   • Should the current state mandated EDNET block scheduling approach still apply in an IP video environment? Does it still apply? Can it still apply?

3  Broadcast considerations (in state)
   • What is the need of high quality broadcast-type video and events in a converged network environment and should they be accommodated by UEN?
   • How does UEN treat broadcast type traffic as a priority in an IP environment and what are the bandwidth requirements?
     ◊ Legacy analog maintained? (likely not)
     ◊ MPEG-2 codecs? (High quality IP video devices)
     ◊ Other?

4  Registered IP devices/appliances (secure)
   • How does UEN ensure that UEN owned and maintained equipment remain secure and accessible?
   • Should UEN require administrative passwords be used for device level security and maintenance?
   • Should all IP video devices using the network be registered with UEN?

5  Gatekeeper registration (temporary and permanent connections)
   • How does UEN treat gatekeeper registration for IP video devices on a temporary and permanent basis when needed?
   • Would a dial plan policy and conformance adequately address this issue?
   • What should the dial plan policy be and how is it enforced?
   • Should all events needing MCU bridging be required to pre-register with the gatekeeper based on a dial plan policy?
6 Use of firewalls where applicable
   • Where a firewall is in place how can UEN ensure that adequate access for maintenance level functions are maintained?
   • What is the correct positioning of IP video devices in relation to local firewalls?
   • Would a standard point of installation need to be determined or would placement be on a case by case basis depending on network design, security and access considerations?

7 End site equipment purchasing, maintenance and operation
   • What should UEN’s service role and funding commitments be in regards to end site equipment purchase, maintenance and operation in an IP video environment?
   • What should UEN’s role be in regards to non EDNET (not owned by UEN) IP video devices?

8 Video as priority
   • What is UEN’s overall vision for IP video services?
   • Where, when and how do we prioritize the different types of IP video traffic?
     ◊ Scheduling priorities?
     ◊ QOS based on priority?
     ◊ Bit rate/codec needs and network resources?
     ◊ Busy signal for connections that can’t be accommodated?
     ◊ Autonomous activity?

Non-UEN Video Network Services

1 Off-net sites(in state Anon EDNET@ sites)
   • What kind of priority and resources should be given to non-EDNET IP video devices and traffic?

2 Ad hoc administrative
   • How does UEN treat ad hoc, non-educational IP video traffic?
   • Should pre-scheduled educational events receive priority on the network over other types of traffic, such as video connections by off-net sites

3 Outside Utah/I2
   • How does UEN treat across border connections and traffic for IP video?
   • What use of Internet 2 should be considered for this kind of traffic?

4 Non registered IP devices/appliances (non secure, firewalls)
   • How should UEN treat un-registered IP video devices, and associated security and access issues with such devices?
5 Gatekeeper registration (temporary/permanent)
- How should UEN treat temporary and permanent gatekeeper registration for IP video devices and traffic?
- Should UEN require gatekeeper registration for all connections requiring MCU resources?

6 Video as priority
- What priority should UEN give to non-UEN network video traffic and services?
  ◊ Non-scheduled
  ◊ Off-net (QoS)
  ◊ Unknown activity

**Instructional**

The first meeting of the Instructional sub-team is scheduled for January 23rd, and therefore was not included in materials for the Instructional Services committee at this time. A preliminary draft of issues this committee will address include:

- Scheduling
- Instructional match between course purpose, content, pedagogy, and delivery options
- Effect of this delivery on the course proposal process
- Effect on the course catalog
- Training requirements for facilitators
- Training requirements for faculty
- Prioritization at a regional or state level – cross district courses, etc.
- Prioritization of courses, administrative meetings, student services such as speech pathology and counseling, and other new uses for the system

**Recommendation**

This is an information item. No further action is required of the Instructional Services subcommittee at this time.
Background

The “What’s On” section of the KULC website needed better daily schedule display and future programming schedule display. In addition, the “What’s On” needed functionality to support using it as the heart of an online Instructional Television schedule. The design envisioned a single “What’s On” database that would meet needs of KULC, Utahitv.org, and KUED.

Report

The Main “What’s On” interface allows viewers to see what programs are scheduled in various time blocks: All day, ITV, evening, and late night. Viewers can also select different days and weeks to see future or past schedules. The schedule shows the program time, series title (linked to a detailed series description) and the episode title.

A search field allows viewers to enter a keyword to search the series and episode titles. An advanced search link allows searches by keyword, category (such as telecourses or GED programs), Utah core area and grade level.

The series details page provides a description of the series as well as descriptions and schedule information for all scheduled episodes of that series. Additionally, UEN Instructional Services staff has added links to additional resources such as teachers guides and program copyright information. Series that are ITV programs show the core area and grade levels assigned to the series.

This project has been a year in the making and has involved KULC and KUED program managers as well as Webmaster’s from both stations. Steve Milam from the UEN Technical Services software group provided programming and database support. The Public Information group provided design input and testing. The collaboration of many departments has resulted in an exceptional resource for educators and the viewing public.

Future Plans

In the coming weeks interfaces similar to the KULC What’s On will go up on KUED’s web site and utahitv.org. This will allow teachers to search for ITV programs on both
stations and they will receive accurate schedule information as well as links to additional resources. The database will also get linked to the UEN curriculum search tool so that ITV programs will appear along with lesson plans and other resources when educators search the UEN databases.
SECOND QUARTER STRATEGIC PLAN UPDATES

Instructional Delivery – Claire Gardner
Public Information – Bill Kucera
Instructional Services – Laura Hunter

Issue

The second quarter of Utah Education Network’s planning year is complete, and reports on major activities are provided for review.

Background

Documents in the following section outline second quarter progress on planning goals for the Instructional Delivery, Instructional Services, and Public Information departments. Network planning quarters are:

Q1 – July, August, September
Q2 – October, November, December
Q3 – January, February, March
Q4 – April, May, June

A report on the quarter 2 progress of other UEN departments will be provided in the February meeting of the UEN Steering Committee.

Recommendation

It is recommended that the Instructional Services committee members review the strategic plans and quarter 2 reports of the Instructional Services, Instructional Delivery, and Public Information departments. Questions may be directed to department managers. A full copy of the UEN Strategic Plan is available online at www.uen.org/administration/html

This item is for information/discussion. No further action is required of the committee at this time.
IDS Goals, Projects, and Activities Highlights

Three major overarching activities dominated all UEN during the 2nd quarter and helped us to proceed toward achieving all our goals.

1 UEN’s E-rate Program. Coordinated efforts from staff to increase UEN and all 40 school districts’ filings for E-rate funding have been extremely successful. Intense cooperative efforts between UEN and telecommunications providers have resulted in numerous contracts and modifications which will increase potential E-rate funding to leverage against our state dollars in order to provide and maintain all instructional and technical services UEN delivers.

2 Implementation of the IP Video Migration Project. This statewide advanced technology planning and implementation group will have a major role in the future direction of UEN video (and data) delivery. The impacts of this project will resonate through distance education throughout this decade.

3 Preparation for the 2003 Legislative Session. Informational and educational materials including a Legislative Briefing Paper, were developed for new and continuing legislators. Numerous meetings and discussions with individuals and committee members occurred to assist them in understanding the critical instructional and technical services delivered by UEN and the importance of continued funding for all of education in Utah.

Goal I. Sustain and improve the effectiveness and usefulness of EDNET as a UEN service.

- Concurrent Enrollment - Continuing work with USOE/USHE Committee to increase cooperation between higher ed and public ed to improve and sustain effectiveness of the program. Mike Petersen, Claire Gardner, Rick Cline

- Teacher Training, UCAT, New PE Courses, New HE courses - Continuing activity towards progress on these goals achieved through meetings and discussions and additional sites added to system to accommodate large numbers of students in large school districts. Mike Petersen, Claire Gardner, Rick Cline

- State and non-profit educational programming - Banner Management Information Systems Training occurring almost daily at all HE sites. Federal funding awarded to 3 Regional Service Centers to provide Special Ed programming via EDNET and H.323 Video Conferencing to the state. Mike Petersen, Claire Gardner, James Hodges, Randy Scott, Dave Devey

- Improving tools and resources - Web pages and links continually improved. Research and discussion of effectiveness of Remedy System. Installation of new Conference Bridge. James Hodges, Randy Scott, Dave Devey
Goal II. Evaluate and pilot-test new instructional delivery technologies through collaborative efforts with Technical Services and Instructional Support staff

- Lab and beta testing of new technologies - Major H.323 Migration Planning Document introduced, discussed and embraced by UEN and stakeholders. Deployment of H.323 Video Conferencing equipment to accomplish next objective. Mike Petersen, James Hodges, Randy Scott, Dave Devey, Claire Gardner, Rick Cline

- Initial piloting of instruction delivered with new technologies - IP Video Migration Project established, managers and committees created and work beginning on major UEN endeavour. Pilot testing and evaluation beginning or continuing at 12 sites in SESC, BATC, Tooele SD, Manila HS/Uintah HS, USU Special Ed Degree Program, and 3 Regional Service Centers. Mike Petersen, Claire Gardner, James Hodges, Dave Devey, Randy Scott, Rick Cline

Goal III. Continue and enhance the value and importance of UENSS as an instructional delivery system.

- Cost effectiveness - Investigation into sources of revenue for off hours data transmission via UENSS continues. Investigation into cost of satellite contract options and renewals. Claire Gardner, Dave Devey, Mike Petersen


- Ease of access - Continuing identification and evaluation of UENSS web pages. Revisions made to provide easier access links between USU and UEN. Claire Gardner, Cory Stokes

Goal IV: Thoroughly assess the future of UENSS.

- What should the system look like in 3-5 years? - Planning document, created with input from legislators, UENSS, USHE, fiscal analyst, and UEN, has been disseminated and is currently being used for presentations and funding discussions. Mike Petersen, UENSS Futures Committee

- Evaluation of alternatives to augment or replace satellite delivered instruction - IP Video Migration Project – one pilot focus upon USU Special Ed degree program delivery via H.323. Mike Petersen, James Hodges, Dave Devey, Randy Scott, and USU’s Vince Lafferty

- The compelling advantages of satellite delivery systems - Continuing to create clear and concise documents which portray UENSS strengths and weaknesses. Mike Petersen, Bill Kucera, Rick Cline, Claire Gardner. Assist with assessment of economic development impacts in local communities in order to “tell the story”. Mike Petersen, Bill Kucera
Promote Utah Education Network Services

Critical Issues

• UEN Legislative Briefing Paper

Instructional Services

• Proposed Pioneer marketing & promotion ideas for consideration by Pioneer Committee
• Produced Annual ITV Guide (print and online)
• Smart Tools Brochure Reprint
• KULC Web upkeep
• Wrote / produced Spring semester on-air promos for college telecourses (for Jan. 2003)
• Wrote / produced updated translator ID as required by law (Nov. 02)
• Wrote / produced other on-air promotion (5-Sites for Kids (Part 1), Struggle for Statehood, MarcoPolo updated, Digital Divide)
• Preliminary discussion for new online/onair graphics per expiration of current graphics rights June 30, 2003
• Research / write / update daily “News” and “Events” sections of uen.org
• Research / compile / update daily “Education Quote of the Day” section of uen.org
• Research / write / update “Awards” section of uen.org
• Added Success Stories section to UEN News Tool
• UTED Newsletter (monthly statewide teacher e-mail)
• Designed & produced Professional Development Winter Post Card (New Year’s Resolutions) Mailed to 24,000 educators
• Updated my.uen handout
• Utah Tech Corps/Intel statewide media campaign (Generated one inquiry for assistance from Roy Jr. High School as of Jan. 13)
• Vote Utah – online and postcard mailing
• Utah Student Parent Mock Election -- online promotion at uen.org
• Large Foam Core School District Maps (3ft X 4ft)
Special Events

• UEA (Oct. 13-15) - Design, setup, produce collateral materials
• UAACCE (Oct. 21-22) - Setup, staff, poster design
• Smart Utah (Dec. 5 Brigham City)
• UEN Tech Summit (signs, posters, binder, planning coordination team)

General UEN Promotion & Administrative Support

• Steering Committee materials October (hard copy & online)
• Dec. 02 Steering Committee Materials
• Dec. 02 Instructional Services Sub-Committee Materials
• Dec. 02 Technical Services Sub-Committee Materials
• One year underwriting rotation with KUER-FM for general UEN message on Morning Edition, All Things Considered, Talk of the Nation
• Write and distribute UEN Employee E-newsletter
• Institutional Security Office business cards order #2
• Coordinate monthly production of online transcripts of the Governor's News Conference
• UEN business cards
• Certificate of Appreciation - Ed Ridges
• Certificate of Appreciation - Bonnie Morgan
In addition to ongoing activity in support of the UEN website and content resources, Professional Development, workforce and career development programs, KULC programming, research, outreach, statewide planning and coordination, the Instructional Services Department has accomplished the second quarter goals and projects highlighted below.

**Goal 1. Provide web-based resources and services that support UEN stakeholder needs.**

**Pioneer**
- Conducted trials with bigchalk and Facts on File News Service.
- Contracted with consultant to conduct outreach specifically for Pioneer.
- Developed outreach project plan.
- Initiated planning for new teacher resources directed toward use of the products rather than product features.
- Completed Pioneer toolkit outreach to 210 K-12 schools.
- Created new marketing plan in conjunction with Pioneer Committee and Public Information department.

**Curriculum Resources**
- Developed requirements document and use case scenarios for USOE Core Interface tool.
- Created prototype design for student, teacher, and higher education pages.
- Reviewed and updated project plans for WWW.Activities, Tours, and UTAP.
- Supported new electronic portfolio discussions and research, attended multiple product orientations.
- Provided support to UEN Professional Development department on TIPS product
- Involved Professional Development Department in myedesk planning meetings.
- Provided ongoing support for resources@uen.org and askkulc@media.utah.edu.
Internet 2
• Conducted initial pilot testing with Vbrick systems over Internet 2 with Idaho Public TV and KNPB-TV Reno to send MPEG-2 program files through the Abilene core for digital distribution fund grant project. Results to be presented to CPB.

Goal 2. Increase the vitality and scope of KULC.
Digital Media
• Finalized contract with Digital Curriculum streamed media video library service.
• Conducted three days of teacher training throughout state on Digital Curriculum.
• Ongoing effort to make this service functional for all districts.
• COMPLETED PBS Digital Classroom Grant project. Successfully datacast PBS and local content to school in Granite District. Conducted extensive tech support, curriculum support, and data collection (final report from PBS pending).
• Hosted day-long informational meeting for 20 broadcast center staff members and 25 outside stakeholders on DTV, datacasting, digital asset management and onCourse. 100% of participant responses said we were “on the right track” and gave suggestions for next steps.
• Hosted visit of onCourse staff to UEN. Meetings with staff members and constituent groups.
• Re-elected to onCourse Board, ongoing planning and development of a workflow model for indexing video and digital rights management.

KULC Collaborations
• Ongoing DTV planning with KUED. Utilized KUED DTV signal for PBS Digital Classroom Grant project.
• KUED General Manager and Program Director added to UIMC.
• Added searchable “What’s On” for KULC and KUED Web sites; combined search tool for utahtv.org Web site.

Goal 3. Support workforce and career development programs.
Partnerships
• Supported UAACCE conference through board position. 220 participants reporting very positive evaluations of UEN-led sessions. COMPLETED
• Held successful Utah Multimedia Educator Retreat with 40 participants
• Continued monthly participation and planning and input for the Employers Education Coalition Committee findings and recommendations to the state
legislature. Final report of EEC submitted to the Governor and legislature in mid-December.

- Continued participation in APAC meetings. UACTION grant summary, findings, and evaluation presented to APAC committee in December. Grant COMPLETED.

**TECH CORPS**

- Received Intel donation of wireless networking equipment ($10,000) and 70 digital movie creators ($7000).
- Computer distributions made to two schools in Alpine and Ogden districts, as well as to SEDC in Cedar City.
- Volunteers donated 76 hours of time to PC Recycling Program. High school students will volunteer through agreement made with Jordan District Applied Technology Center.
- Recruited new VISTA intern.
- PC-to-TV Converter project preliminary research conducted for Q3 launch.
- Distributed QX3 Intel microscopes and training to 220 sixth grade science teachers across the state, including EDNET training for rural school districts.

**Goal 4. Provide high quality, sustainable professional development programs.**

**National Technology Integration Goals**

- Adapted or withdrew courses not meeting new USOE credit criteria.
- Hired new instructor who is updating and revising course documentation.

**Webmaster Academy Program**

- Created advisory group and scheduled first meeting; completed online documentation and tutorials; collected e-mail addresses for promotion; added webmaster’s forum.

**Technology Integration Academy**

- Implemented first module and ongoing endorsement discussions.
- Received $84,355 Intel Innovations in Education grant to fund academy.

**Expanded Delivery Systems**

- Implemented online, video, and face-to-face components for Annenberg/CPB program. Changed requirements to meet the new USOE credit criteria.
- Prepared online component as hybrid course for Webmaster’s Academy.
Field-Based Workshops

- Provided total of 75 workshops ranging from 1 hour to 2 days each.
- Provided 9 workshops for pre-service teachers and 42 workshops at school sites.
- Participants totaled 2144 with 9346 participant hours.

Workshops

- Edesk and TIPS training offered and included in seven ITC workshops.
- 37 workshops offered on UEN resources and tools.

Higher Ed Workshops

- Total of 9 workshops provided at U of U, BYU and Westminster.

Conferences

- Total of 9 presentations held at five conferences: UEA, UAACCE, UELMA, UASCD, BYU Ed. Orientation.

Intel Teach to the Future / Teacherline

- Total of 4125 participant teachers have been trained through Intel Teach to the Future project.
- Completed first three modules for Teacherline and trained 27 teachers.
- Conducted workshop with 69 Davis district math chairs and elementary implementers on PBS Teacherline Math Academy.
WWW.UEN.ORG

- Total Visitors - 1,046,103
- Average visitors per day 11,370
- Oct. & Nov. 2002 visitor numbers are up from Oct. & Nov. 2001 numbers (279,476)
- Top requested pages (excluding nationally linked Anne Frank, Clouds, Nutrition and 5 Senses Lesson Plans)
  - Lesson Plan Display 213,273 visitors (10% of total)
  - UEN Homepage 152,765 visitors (7% of total)
  - UEN News 148,484 visitors
  - Activities 135,001 visitors
  - K-12 Core Lesson Plans by Grade Level 80,713 visitors
  - Virtual Tours 17,149 visitors
Pioneer Library


• Total K-12 visitors - 102,864
• K-12 Service Access
  ◊ Worldbook - 13,833
  ◊ EBSCO - 12,183
  ◊ SIRS KS - 8,668
  ◊ SIRS DD - 8,054
  ◊ Wilson - 4,626
  ◊ Digital Curriculum - 1,285

Monthly Visits to Services from K-12 Library


Total Visitor Sessions

- Oct-02: K-12 Library - 12,689, Main Portal - 11,932
- Nov-02: K-12 Library - 11,932, Main Portal - 10,679
- Dec-02: K-12 Library - 11,679, Main Portal - 10,381

Legend:
- K-12 Library
- Main Portal
- EBSCO
- SIRS KS
- SIRS DD
- Wilson
- World Book
- Digital Curriculum
MY.UEN.ORG

- Total Visitors - 41,140
- Average visitors per day 447
- Visitor numbers are down an average of 6,000 visits per month from last quarter's numbers
I N S T R U C T I O N A L  S E R V I C E S  C O M M I T T E E

T A B 18

S U B C O M M I T T E E  R E P O R T S

Higher Education – Cyd Grua
Concurrent Enrollment
Public Education – Rick Gaisford
Issue

Replacement of Ray Timothy as Co-Chair of the Technical Services Subcommittee

Background

A vacancy now exists in the position of Technical Services Subcommittee Co-Chair since Ray Timothy is now the Steering Committee Co-Chair. The Internal Procedures of the Steering Committee provide that one Co-Chair should come from the higher education members (Ryan Thomas), and the other should be a public education member.

The final appointment of Subcommittee Co-Chairs is made by the Steering Committee Co-Chairs. However, it is certainly appropriate for a recommendation to be made by the subcommittee and referred to the Steering Committee.

Recommendation

It is recommended that the Subcommittee recommend a new Co-Chair for consideration and approval by the Steering Committee Co-Chairs.
Issue

H.323 Presentation and Discussion

Background

Some months ago several of the rural regional technical directors had the opportunity to tour some California school districts to learn about their experiences with H.323 Video Conferencing. Shortly after the trip Cory Stokes wrote an excellent summary of this experience.

These technical directors have gained some good insights and have been asked to take a few minutes to share these with the Subcommittee. This will be an opportunity for all of us to learn and for a discussion to take place regarding this information.

Supporting Documentation

Additional documentation may be provided at the time of the presentation.

Recommendations

This presentation is meant for informational purposes, and no action is required.
Issue

E-rate Progress Report

Background

To help augment a shrinking UEN budget and enable UEN to address increasing demands for bandwidth and other services, our staff has been working with school district, regional service center and telephone company staff to increase telecom services in the most cost-effective manner. We have also sought grants, used UEN budget as matching funds for region-obtained grants, re-prioritized UEN revenues to complete high priority projects, and reduce staff.

While E-rate already is a large part of UEN’s existing circuit budget, opportunities now exist to include the cost of hardware, maintenance and management services as well, if this proves to be the most cost-effective solution. UEN Staff has worked with rural telecommunication providers (South Central Telephone, Frontier Telephone, Central Utah Telephone, Manti Telephone, Uintah Basin Telephone and Emery Telephone) to develop next generation technologies for bandwidth to rural areas.

UEN has also worked with Qwest to identify qualified solutions for the Core Ring project, saving thousands of dollars on the Cisco 6509 acquisition and associated ongoing expenses. UEN is also working with Qwest on a solution that will replace the existing OC48 CVDS backbone with a Gigabit Ethernet solution.

As a by-product of these initiatives, UEN has had the opportunity to assist in the strengthening of relationships with the districts, the rural providers and other vendors.

Report Objectives

- Report on Technology Objectives
- Report on cooperative efforts between UEN, districts, rural and urban telco providers
- Report to the committee the increase in funding requests to the SLD.
Recommendations

This is an information report and should generate some interesting discussion.
No action is required.
Issue

UEN Compromised Machine Report

Background

The Utah Education Network Departmental Security Office (DSO) has been tracking and documenting all detected hacked computers throughout the network. Since the 1st of July, 2002 the DSO has recorded 347 hacked machines on the network. This count does not include virus or worm infections.

The hacked machines that we track in the daily count are machines that have been compromised. Software has been loaded in order to use the machine for malicious purposes. In the majority of cases, the machines are compromised and used as FTP storage of files to then re-distribute on the IRC. These FTP servers have been documented to contain anything from Music, Movies and Games, to Pornography and Child Pornography.

The main cause of these types of compromises is the lack of appropriate patches to systems. System administrators are responsible for proper maintenance of these machines. Lack of patching is considered to be the most serious security concern we have in the network.

It is also important to note that the average time it takes for an un-patched machine on the UEN Network to be compromised is less than 24 Hours. In some cases we have seen machines hacked in less than 15 minutes.

Report Objectives

- Demonstrate that the vast majority of compromises happen because of un-patched computers.
- We find one or more hacked machines every day.

Recommendations

No recommendations at this time.
Issue

Recent attack of the Slammer Internet Worm

Background

On the night of Friday Jan 24, at about 10:30pm the UEN Network was attacked as part of the world-wide Internet Worm called “Slammer”. Detection of the incident happened quickly, and a response was employed quickly to stop incoming attacks from the Internet. At the height of the attack, the core was blocking over 4 million attack packets per minute from the Internet.

This was smaller in the number of infected machines on our network than the “CodeRed” outbreak of 2001, but has a much more significant effect on network resources than any attack we have seen so far.

Based on the speed in which the worm was spread, the 112 total machines on the UEN Network were infected within the first 10-15 minutes of the worms launch.

Characteristics of the worm include using all available bandwidth to further spread the worm to other machines. This caused the most problems when entities on the network with large connections started filling their pipes to the core. At one point, the University of Utah was sending over 340MB/s to the core. Other entities with similar bandwidth capability were also sending large amounts of bandwidth. Through the course of the worm, the high bandwidth utilization started having effects on our routing infrastructure, with many of the routers affected running at 99% utilization.

Because of the effects on the backbone and edge routers, the decision was made to completely shut down infected segments of the network. This action was selected instead of applying access-lists to block internally infected hosts. The routers running at high utilization would not have been able to keep up with the blocks, in addition to the high bandwidth utilization.

Nearly 25% of the entire UEN network was shut down to resolve this worm’s effects on the network.

One other note: this worm infected only one entity with a firewall. All other entities with firewalls were not affected directly. Most of the network was indirectly affected through slowness caused by the infected sites.

Information

- Over 112 unpatched machines on the UEN network were infected
- Bandwidth to the core spiked and nearly brought the core down
- The Security Office had to shut down portions of the network to maintain network integrity
Recommendations

This is an information item only.
Issue

At the last meeting of the Technical Services Subcommittee, it was agreed that a committee would be established to review IP addressing allocation. This report provides additional information on the issue.

Background

The assignment of IP addresses to public education districts takes the form of Classless Interdomain Routing (CIDR) Block class C addresses. UEN staff have concluded that the address assignment procedures should be reviewed, documented, and revised. More information about CIDR Blocks can be found at http://www.wimvincken.com/training_TCPIP/interdomain.htm.

Five (5) CIDR Blocks have been allocated and managed by the four rural service center regions. These blocks support 26 schools districts. These blocks are as follows:

- SESC Block 205.119.(0-127)
- CUES Block 205.120.(0-127)
- NUES Block 205.123.(0-127)
- SEDC Blocks 205.125.(0-127)

Assignment of CIDR Blocks in Wasatch Front school districts has been managed by UEN. A few Wasatch Front school districts have their own class B address blocks. These address blocks would not be affected by the review or plan.

Next steps would include:

1. Identify full committee members
2. Outline focus of plan
3. Develop technical recommendations
4. Develop IP addressing plan
5. Implement plan
Recommendations

This is an information item only.
Issue

UEN Technical Services Fall Retreats, Mission Statement and Core Vision

Background

The Technical Services Management staff has been working with the book “The Fifth Discipline” for the past year. One of the disciplines is Shared Vision. We decided to work together to have an experience in this area. Over a 4-week period seven retreats were held.

Management staff took turns facilitating these retreats. Six UEN staff members participated in each retreat. The deliverables were a shared vision statement and a list of actions that could address any problems keeping us from reaching that vision. The last retreat was held the day before Thanksgiving.

From the first Monday in December to January 7th the management team worked many hours to evaluate this input. From those discussions several documents were generated. These can be found at:


The documents are:

1. A Technical Services Mission Statement
2. A set of Shared Core Values
3. A Roles and Responsibilities Document
4. A list of department changes

The Mission Statement and the Core Values document are provided as an attachment. The other two documents can be read online at your convenience.

One additional note should be mentioned. The management team categorized actions into 12 areas and nine were examined in detail. From those nine areas, an action list was developed containing 46 items. It was determined that this would be far too many to address all at once. Six actions were chosen as a starting point. These have been shared in the Department Action List that is posted on the web site.

We are anxious to develop similar retreats to hold with cross-sections of our stakeholders. It is our belief that this will further help to refine our mission and
values. Also, we hope to foster a better working relationship with our stakeholders as a result.

Information

Included are attachments to this document:

1 UEN Technical Services Mission Statement
2 UEN Technical Services Shared Values Document

Recommendations

This is an information item. The committee may wish to discuss similar retreats to engage UEN Stakeholders.
January 7, 2003

We run quality networks in support of the educational mission of UEN by:

• Focusing on services to Students & Teachers
• Evolving to meet their changing needs
• Innovating to make these networks better
• Leading in technology

Our success will be accomplished with individuals committed to teamwork &
customer service.
January 7, 2003

1. We work together to get things done.
2. Our networks, services, and tools are reliable.
3. We communicate.
4. We value trust and work to develop trust with everyone who deals with us.
5. We are leaders.
6. We work well with our stakeholders, and they are proud to work with us.
7. We emphasize value added services, and leverage our resources.
8. We value excellence in management.
9. We support and value Education through distance learning.
10. We can’t do everything, but what we do is excellent.
11. Our vision is shared and we all articulate a consistent message.
12. We invest time and money in developing and training staff.
13. We mentor.
14. Everyone at UEN is important and every role is respected.
Issue

Wasatch Front Technical Forum

Background

A Wasatch Front Technical Forum was held at the Dolores Doré Eccles Broadcast Center on January 23, 2003. Representatives from Davis, Salt Lake City, Alpine, Murray, Jordan, Granite, Provo, Nebo and Ogden were in attendance.

Cindy Nagasawa-Cruz, Technical Director for Jordan School District, conducted the meeting. There was an extensive agenda but due to excellent discussion only the first item was addressed. That was: Student and Business/Financial Information Systems. Each district representative took time to address their views on industry status, district plans, new/upcoming implementations, summarize current activities, based on the agenda, and give a quick overview.

The next Wasatch Front Technical Forum will be scheduled in coordination with the districts.

Information

Included are attachments to this document:

1 Wasatch Front Technical Forum Agenda
2 Wasatch Front Technical Forum Notes

Recommendations

This report is prepared for informational purposes. Although the subcommittee may desire to further discuss the outcome of the meeting and any next steps that should be taken by the UEN staff.
January 23, 2003 – 9:00 a.m. – 12:00 Noon
Dumke Board Room, Dolores Doré Eccles Broadcast Center

1 Student and Business/Financial Information Systems
   • Industry status, District plans, New/Upcoming implementations

2 Firewall Implementations/Security
   • What type of solutions are districts implementing
   • What are the “hot” security issues facing us today

3 Filtering
   • Management of access logs
   • Reporting – Proactive or Reactive

4 Online Testing
   • District plans/Implementation update
   • Critical issues/Alternative solutions

5 H.323
   • Successful implementations
   • District plans/Timing

6 Video Streaming
   • Valuable applications
   • Who’s doing what

7 Portfolio Development
   • Pre-service programs, Teachers, Students

8 Utah Education Network Technical Services Update
   • Vision/Mission

9 Other
   • What’s missing
   • Other topics of interest
January 23, 2003

1 Student and Business/Financial Information Systems

- Davis District (59,000 Students)
  - Windows NT Platform
  - Oracle forms and reports
  - About to report new student system (Oracle)
  - Pilot tests with Linux to test clusters
  - Dell/EMC SAN recently installed
  - Oracle Financial software for sale.
  - About 5 Software Developers
  - Centralized Systems
  - Still quite a bit of client/server applications.
  - Everything can be accessed through the web.
  - Transportation? Bus Routing.
  - Davis has developed nutrition system internally.
  - Accountability systems for parents are the most difficult. Upgrading grade book and homework on web is hard to do.
  - Hour has increased to a 7X24 model.
  - Using VPN for remote access.
  - Access provided by District only with Superintendent approval.
  - Cognos, NCLB, dragging their feet on these.

- Salt Lake City District (25,000 Students)
  - Moving ahead with Power School
    - Points to a Sun Box running Oracle.
    - SLCD will move to another product. Enterprise version only supports up to 10,000 students centrally.
    - Running on a separate SIS
  - Purchased Sungard Bytek
  - Cognos is not being used.
  - State talking about handling Cognos, so this is confusing.
  - What keeps them up at night – Concerns about network reliability
• Alpine School District (49,000 Students)
  ◦ Based on AS400
  ◦ Home-grown
  ◦ Looking at a proposal to build a new system.
  ◦ Power School for student information
  ◦ A server in each school (60).
  ◦ Back-up at each site stored on CD.
  ◦ Power School for Elementary Schools? Challenges. Different grade scales.
      Different schedules.
  ◦ What keeps them up at night? Data integration.
  ◦ New. Hosting course requests over Power School. Input on PS and dump to AS
      400 for scheduling.
  ◦ Foods – Horizon out of Atlanta.
  ◦ Data warehouse mostly on the AS400
  ◦ Technology inventory – fair to partly cloudy.
  ◦ NCLB – systems are in place to send information. Worry about whether they
      are giving information that they should be.
  ◦ Growing by 4 schools next year.
  ◦ How do you manage and support 60 Power School servers?
  ◦ One day over the holidays 20 servers were down.
  ◦ Technicians are on-site.
  ◦ Power School specialist on the help desk.

• Murray School District (7,000 Students)
  ◦ Using the state student (SIS) and financial (FIS) systems
  ◦ FIS runs on a Novell server.
  ◦ SIS runs on MS SQL server.
  ◦ It works well.
  ◦ It’s paperless.
  ◦ State is combining both under John Brant.
  ◦ SIS deals with: grades 1-12; attendance k-12; registration 9-12; lunch k-12; free
      and reduced lunch applications;
  ◦ Online grades, online attendance, online registration
  ◦ Elementary changed to Follett.
  ◦ First year using online registration. (How do you prioritize?)
  ◦ 3 years to get secondary teachers to agree on the same mark set.
  ◦ Does the state give you the software and then leave you on your own? No cost.
    USOE provides a support staff.
• What keeps you up at night? Nasty people hacking into Murray systems.
  Murray City electricians.

• Jordan School District (75,000 Students)
  ◦ 3Com VoIP

• Granite School District (70,000 Students)
  ◦ Ending a three-year quest to change the student systems.
  ◦ Selecting Education Solutions Development and entered into a letter of intent.
  ◦ Working with Sun to do some stress testing.
  ◦ Prefer to run in a Linux environment.
  ◦ Secondary schools scheduling with this product this year. (4 last year.)
  ◦ Not looking for a speedy implementation.
  ◦ Emphasis is to purchase as is and grow it to meet their needs, not relying on a software vendor.
  ◦ Best move, hired a programmer with a teaching certificate.
  ◦ Hardware requirements: with data integration tools there is not requirement to integrate systems.
  ◦ First choice: One vendor for all solutions.
  ◦ Follett for a library system.
  ◦ Data warehouse? No issues.
  ◦ NCLB – committee looking into determining if they are capturing all info.
  ◦ Awake at night? Too many to count.
  ◦ E-mail stand alone for students. Internal relay only. Exchange. Netscape for administration.
  ◦ Why student e-mail accounts? Competency. Teacher assignments.

• Weber School District (Students)

• Provo School District (13,000 Students)
  ◦ Using Power School for the past 5 years.
  ◦ Implemented Follett this past year.
  ◦ Using HP 3000 for central storage of student information.
  ◦ How old is the HP? 6 or 7 years.
  ◦ Data warehouse fed from the HP.
  ◦ If the firewall is hated it means it’s working.
• Nebo School Districts (23,000 Students)
  ◦ 15 months ago made a move to leave the state systems.
  ◦ Quickly moved from a 1 programmer project to a 3 programmer program.
  ◦ Student software. 10 years ago they left the state SIS. 4 years ago they moved back.
  ◦ Biggest district on the state SIS.
  ◦ Hired a SIS specialist.
  ◦ Burden to state because of the size.
  ◦ MS SQL, difficulty with performance.
  ◦ USOE really cares about what Nebo thinks about the system.
  ◦ Transportation system purchased years ago but the department is still using a home-grown software.
  ◦ Food services is moving.
  ◦ No standardization for libraries.
  ◦ SIS fed with T-1 circuits. Point-to-point.
  ◦ Concerted effort to move everything to Linux. Systems are running well. (Red Hat)
  ◦ Awake? Budget. People. (2 programmers on Informix and queries.)

• Ogden School District (13,000 Students)
  ◦ PCS lunch program
  ◦ Spectrum for media centers
  ◦ State SIS and FIS.
  ◦ Buses don’t apply.
  ◦ Cognos used extensively. (100 users)
  ◦ Waiting on UEN and Qwest for T-1 repoints.
  ◦ Install firewall once that is done.
  ◦ Implementing VoIP.
  ◦ No IPX anywhere on the WAN.
  ◦ Mainly for SIS performance. Also in anticipation of VoIP.
  ◦ Student records, system for FIS, telephones, networks, routers, servers. 2 Engineers and 3 computer techs. E-rate (one person filing, committee of 5).

2 Firewall Implementations/Security

There was an extensive agenda but due to excellent discussion only the first item was addressed.
Issue

Review of the Rural Technology Planning Retreat Jan 29th and 30th

Background

Twenty-one out of 26 rural school districts were represented with almost 60 people attending this event. USOE, UEN, CUES, NUES, SESC, WestED and SEDC sponsored the planning retreat and were involved in all aspects.

The focus of the retreat was to bring the rural districts together to discuss and plan for the future of educational technology, to collaborate and share ideas to help overcome technology issues for rural schools, and to develop a rural voice for technology in education.

Each participating district completed a needs assessment before attending the retreat. From the needs assessment, the group was able to develop a list of eight main issues in rural Utah. Vicky Dahn from the State Office of Education facilitated the discussion.

Eight groups were created and each assigned one of the issues to discuss and develop recommendations on how the districts, regions and state organizations could help resolve the issue.

Here are the issues that we addressed along with the leader of each group:

- On-Line Testing-Kevin Chapman
- Security-Ken Munford
- Funding-DeLoss Christensen
- Bandwidth-Jon Nielson
- Implementing State and Federal Programs-Kathy Webb
- Communication/Collaboration/Evangelization-Karl Buchanan
- Technical Support-Mike Jensen
- Needs of Teachers (meaningful and substantial training that will make an impact)-Lawrence Esplin
Recommendations

It is recommended that the Technical Sub Committee take a few minutes and review the retreat on the Web at http://www.sedm.k12.ut.us/retreat03/retreat03.html and support the recommendations that have been developed.
Issue

Router Replacement

Background

At its January meeting, the UEN Steering Committee approved the recommendations of the Technical Services subcommittee to use a significant portion of the technical services project account to replace obsolete routers throughout the state.

Since then, 53 Cisco 2651 routers have been ordered and received at UEN. This project will focus on replacing older Cisco 2500 series routers. Field Operations staff members and the Network Operations Center began the implementation of this ten-week project on January 27th and we are currently on schedule.

Attachment A contains details of the Router Replacement Project ten-week schedule.

Recommendations

This is an information item, and no action is required.
Internet Peering Initiative

Issue

UEN has used peering connections to reduce Internet costs and improve Internet performance and reliability on a regional basis since 1997. In December we successfully expanded our peering initiative to a national scope. We have joined an Internet2-affiliated consortium that, among other things, will enhance our peering opportunities through collaboration with other education/research institutions. We have extended the Community Internet Exchange to peer with Utah County community broad-band networks in Provo, Spanish Fork and American Fork.

Background

Peering with other networks allows UEN to reduce Internet costs while improving network performance and reliability. Typically, a customer buying Internet bandwidth pays an ISP (who pays their ISP) to operate a backbone connecting to Internet exchange points (this is referred to as “transit bandwidth”). At these exchange points, Internet backbones pass traffic to other backbones, usually on a no-charge basis (“peering”). By connecting directly to these same exchanges, UEN can also exchange traffic for free, provided we cover the costs to reach and use an exchange. (See attached diagram “Internet bandwidth: Transit vs. Peering”)

UEN has sponsored the Utah Community Internet Exchange (CommIX) since 1997, where we interconnect with local and regional Internet providers, including TouchAmerica, XMission, InfoWest and others. This offloads 3-5% of our Internet traffic, but more importantly improves connectivity for students and teachers who access UEN network resources from home or work throughout Utah. It benefits other participants, through improved connectivity between all CommIX-connected networks. We continue to promote CommIX to local and regional networks, adding several each year. TouchAmerica and ViaWest joined in January. We are also collaborating with UVSC and the Utah Valley Community Network to establish a Community Internet Exchange in Utah County, which will allow us to peer with the broadband home and business users served by those cities and enable high-speed, high-quality connectivity to UEN, UVSC and K-12 network resources.

In March 2002 we proposed to the Technical Sub-committee and Steering Committee that we expand our peering initiative beyond the regional level to further increase cost savings and improve Internet quality. We connected to the PAIX Palo Alto exchange over Christmas vacation, and have since offloaded 20% (about 50Mbps) of our Internet bandwidth. We will also be connecting to the Equinix...
exchange in Chicago in March, where we will be able to peer with more networks. We expect to offload a total of 30% of our Internet traffic to these peering connections. Each peering connection stretches our Internet budget; prior to national peering, our Internet bandwidth cost $250 per Mb/sec; with both PAIX and Equinix active, our costs are $149 per Mb/s. As we increase the bandwidth to our peer networks, the per-megabit costs continue to decrease.

We recently joined The Quilt, an Internet2 consortium of other networks like UEN. We are actively participating in the Quilt Peering Initiative, which coordinates peering initiatives between Quilt members to maximize negotiating abilities and share peering experience. The Quilt Peering Initiative will enable us to increase peering at both regional and national levels, and our peering experience is a valuable contribution to the consortium.

Information

- UEN and the community continue to benefit from regional peering at Community Internet Exchanges, and we continue to promote and expand CommIX throughout the region.

- We began peering at a national level Dec 31, 2002 at PAIX Palo Alto. We will connect to Equinix in Chicago in March. We have offloaded 20% of Internet traffic, and expect to offload 30%.

- UEN peering has decreased our Internet bandwidth costs from $250/Mbps to $149/Mbps, and will continue to decrease costs as bandwidth to peers increases.
Internet Bandwidth: Transit vs. Peering

Transit (Purchase from ISP)

- ISPs pay costs of exchange point and national circuits, exchange traffic for free
- Users pay for Internet service from ISP

Peer (Direct connect)

- Users pay costs of exchange point and national circuits, exchange traffic for free
- ISPs pay costs of exchange point and national circuits, exchange traffic for free
STEWING COMMITTEE

STEERING COMMITTEE MEETING MINUTES

UTHAH EDUCATION NETWORK STEERING COMMITTEE

December 13, 2002 - 9:00 am

Business Steering Committee Meeting

Members Present: Bonnie Morgan, Gary Wixom Vicky Dahn, Reed Eborn (via EDNET), David Eisler, Stephen Hess, Pat Lambrose, Amy Owen, Wayne Peay, Mike Petersen, Kirk Sitterud (via EDNET), Glen Taylor (via EDNET), Carlene Walker, Ray Walker, and Jeannie Watanabe (for Phil Windley).

Others Present: George Brown, Lisa Kuhn, Larry Smith, Laura Hunter, Jim Stewart, David Devey, Randy Scott, John Aland, Bruce Todd, Charice Black, Cory Stokes (UEN), Claire Gardner, Karen Krier, Rick Gaisford, George Miller, David Walton, Rick Cline, James Christensen (via EDNET), Dick Siddoway, Jonathan Ball, Jon Crawford (via EDNET), Cindy Nagasawa-Cruz, Rick Mandahl, and Camie Janovak.

I. Welcome and Introductions - Bonnie Morgan / Mike Petersen
Bonnie welcomed everyone to the meeting. Mike introduced his Administrative Assistant, Camie Janovak. She will be a Steering Committee contact and in charge of recording and transcribing minutes for the meetings.

II. Recognition of Bonnie Morgan - Mike Petersen
Mike recognized and honored Bonnie Morgan for her many years of service and dedication to education. Bonnie will be retiring from the Utah State Office of Education, as Associate Superintendent, the first week of January 2003. This will be Bonnie’s last meeting as Co-Chair of the Steering Committee. For many years Bonnie has been the instructional leader for public education. The impact she has made on teachers and students cannot be overstated. UEN would like to express their gratitude to her vision and dedication to public education and Utah Education Network. She was presented with a certificate of appreciation for outstanding leadership in providing instructional technology services to students and educators throughout the state of Utah.
Bonnie thanked the members of the Steering Committee for their commitment to both public and higher education. She thanked Stephen Hess for his leadership, vision and accomplishments with Utah Education Network. She also thanked him for being a great friend and colleague.

**Motion:** It was moved and seconded that the members of the Utah Education Network Steering Committee adopt a resolution in honor of Bonnie Morgan’s contribution to the Utah Education Network. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

**III. Steering Committee Leadership Change** - Mike Petersen

Because of Bonnie’s retirement, there will be a change in the responsibility of Steering Committee Co-chair. Beginning January 2003, Ray Timothy will be replacing Gary Carlston as Associate Superintendent, and he as been assigned by Superintendent Steve Laing to co-chair the Steering Committee with Gary Wixom. Utah Education Network welcomes Ray’s experience, his knowledge of UEN and his commitment to rural issues. With the changes in Ray’s role, there will be a vacancy in a superintendent position with the Steering Committee. UEN will be working with various groups in making a new selection. The recommendation will then be passed on to the governor for ratification.

**Motion:** It was moved and seconded that the members of the Utah Education Network Steering Committee approve Ray Timothy as Co-Chair of the UEN Steering Committee. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

**VI. Potential Budget Reductions For FY 2003 and FY 2004** - Mike Petersen

On December 18th, the State Legislature is meeting in a special session to discuss budget cuts. An estimated $120,000,000 deficit must be addressed. The governor is pushing that education ought to be held harmless and is proposing other sources of revenue be considered. The impact on UEN is uncertain at this time. In conversations Mike has had with the governor’s budget office and the legislative fiscal analysis’s office, UEN has indicated that given the impact of the cuts we have already experienced over the past year and half, it would be virtually impossible to not do anything that would not have an impact on our network capacity projects. UEN has pulled funding from many different places in order to create both a current year project account and a reserve account for next year. Assuming we receive minimal or no funding, cuts will have to occur in this reserve area. We have lost ten employees and reduced our supplies, equipment and professional development to the point that any additional cuts in those areas would be irresponsible.
V. Strategic Plan Update - George Brown

Every year the Utah Education Network updates its strategic plan in order to show what projects need to be done and a time line for completing them. Each quarter there is an extensive review with the staff, to look at the plan and determine if we are on target and what still needs to be accomplished. UEN is committed to this plan and wants the Steering Committee to be more familiar with their project, accomplishments and goals.

Pat Lambrose inquired about the establishment and status of the network monitoring system. Rick Cline is the project leader and the monitoring system is an accountability report and a work in progress. Laura directed everyone to page 8, appendix C for more detailed information.

Pat Lambrose also emphasized the importance of moving the on-line testing project (pg. 19) up the chart of importance because of the “No Child Left Behind” mandate. Mike reassured her that UEN is providing technical support for the on-line testing and will be closely following the project. USOE is locating the server in the Eccles Broadcast Center and will be doing the actual work. UEN will be providing technical support.

Pat asked the status of the Digital Media Strategic Planning Committee (pg. 24). Mike deferred the question to Glen Taylor and stated that Public and Higher Education will select their members and this will not be a UEN committee. Glen agreed and stated the UIMC group will be meeting in January. Notices will be sent out to those wishing to be involved.

VI. Regional Priorities Review and Budget Discussion - Ray Walker

The Technical Services Sub-Committee reviewed the regional priorities and budget (see Tab 23). Ray asked the Steering Committee to note that the Tooele High School and Weber State University Davis Campus projects have been added to the list. Please refer to the priority list.

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve the recommendation of the Technical Services Subcommittee and approve the Regional Priorities. MOTION PASSED WITH ALL VOTING IN FAVOR.

VII. Router Replacement Schedule (Information) - Ray Walker

A plan for the replacement of 53 routers is scheduled for this year. $300,000 has been budgeted for the replacements. This plan is to replace the old 500 series routers that represent approximately 34% of the total on the network. Other routers will also be replaced through E-Rate funding. There will be a fair distribution throughout the state. (Tab 24)
Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve the recommendation of the Technical Services Subcommittee and approve the replacement of routers as proposed. MOTION PASSED WITH ALL VOTING IN FAVOR.

VIII. E-Rate Update (Information) - Ray Walker
UEN has been working very hard with the E-Rate process. Mike reported that the next critical time will be completion of “Contract For Services” forms, in mid-January to the first week of February. UEN’s main challenge is the unpredictable financial environment we are facing. The risk is that we will negotiate contracts with telecommunications providers and end up not being able to finalize the contracts because of funding. The Fiscal Analyst understands the challenge and is trying to provide support. Claire Gardner reported that every district in the state has filed for anticipated services. This activity reflects great cooperation between UEN and the school districts. (Tab 25)

IX. Community Impact Board Grant Discussion - Ray Walker
UEN has applied for two CIB grants. One is for new digital microwave radio equipment to replace obsolete equipment in Daggett County. The second grant is for the San Juan School District. The first proposal will be presented to the CIB Board at its next meeting on 1/9/03. (Tab 26)

X. Public Education Planning Summit Report - Ray Walker
The Public Education Planning Summit was held on 10/3/02. Attached is a summary of the session including major concerns. There has been a suggestion to meet again after the upcoming legislative session. (Tab 27)

I. Notification and Planning of Rural Public Education Retreat - Ray Walker
A two day retreat for Rural Public Education is scheduled for January 28th and 29th. The retreat is being organized by the regional service centers. UEN will submit some agenda items considered important. According to Glen, if the agenda is too full, it may be necessary to have a second retreat.

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve the recommendation of the Technical Services Subcommittee to support UEN’s participation in this retreat. MOTION PASSED WITH ALL VOTING IN FAVOR.

II. T-Forum Update - Ray Walker
For a list of T-Forum updates, please refer to Tab 29, Attachment A.
III. Current Security Issues and UEN Technical Services Policies - Ray Walker

It was recommend by the Technical Services Sub-Committee that a new sub-committee be established to work with network security and policy issues. Barbara White has been recommended by the committee to serve as chair. It has been recognized that if local security issues are not addressed and resolved, other network entities will be negatively effected. Barbara White will present a draft of issues at the next Technical Services Sub-Committee. (Tab 30)

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve the recommendation of the Technical Services Sub-Committee to support a new Security Sub-Committee chaired by Barbara White. MOTION PASSED WITH ALL VOTING IN FAVOR.

VI. IP Addressing Issues - Ray Walker

The Technical Services Sub-Committee has suggested the formation of a sub-committee to address IP issues, chaired by Coy Ison. This committee will be looking mainly at the public education sector and the most effective way to address their IP issues. Because libraries are connected to the internet through school sites, Amy Owens urged UEN to consider the needs of public libraries and the databases they use. Jim Stewart reassured committee the that UEN will be taking a statewide approach. This issue will be updated on the next Technical Services Sub-Committee agenda. (Tab 31) Ray also noted that IP 6 should be handled as a separate issue and discussed in more detail in the Technical Services Sub-Committee meeting.

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve the recommendation of the Technical Services Sub-Committee to support formation of a subcommittee to address IP issues, chaired by Coy Ison. MOTION PASSED WITH ALL VOTING IN FAVOR.

V. Planning for Higher Education / UEN Technical Services Summit - Ray Walker

The CIOs for Higher Education have recommended there be a Technical Services Higher Education Summit. It is tentatively scheduled for February 6. (Tab 1)

VI. H.323 Video-Conferencing Recommendations - David Eisler

H.323 video conferencing is an evolving project, and a number of pilot tests are now underway. By 2006 it will be necessary to revamp the entire EDNET backbone and equipment using the H.323 IP-based video standards appears to be the most
promising solution to the problem. The Instructional Services Sub-Committee's main concern and efforts are with policy issues, bandwidth, quality of service and the gatekeeper approach. Mike believes H.323 will have a revolutionary impact on UEN services and appreciated the in-depth report and discussion of the Instructional Services Sub-Committee.

Vicky reported three of the four regional service centers have received grants for H.323 technology. She encourages UEN to involve the service centers in all H.322 discussions. Jonathan Ball suggested that UEN look not only at EDNET policies regarding this technology but UENSS as well. Glen Taylor reiterated the need for UEN to look at bandwidth issues throughout the state. Wayne Peay stated this initiative needs to be broadly coordinated because there will be hidden problems with bandwidth and security. (Tab 2)

VII. Quarterly Progress Reports - David Eisler
On behalf of the Instructional Services Sub-Committee, David would like to thank the staff for all of their wonderful work and accomplishments.

- For Instructional Delivery Systems Report see Tab 3 - Attachment A.
- For Instructional Services Report see Tab 3 - Attachment B.
- For Public Information and Communications Report see Tab 3 - Attachment C.

I. Policy Issues - David Eisler
Please refer to Tab 4 for policy issues.

II. New Staff - Laura Hunter
Lee Baker (not present) is the newest member of the Professional Development team. He comes from UCLA. A new contract employee, David Walton, a retired technology specialist with the Alpine School District, will be working with Pioneer Outreach.

III. Review and Approval of Minutes from October 18, 2002

Motion: It was moved and approved that the members of the Utah Education Network Steering Committee approve the Steering Committee meeting minutes of October 18, 2002. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

The meeting adjourned at 10:45 a.m.

The next meeting is scheduled for February 21, 2003, 9:00a.m.at the Dolores Doré Eccles Broadcast Center
Please note: detailed information and discussion of the issues are included in the materials prepared for the meeting. Please refer to them for additional reference.
TABLE 29 ATTACHMENT A
STEERING COMMITTEE ROSTER WITH MEMBERS TERMS
UEN STEERING COMMITTEE ROSTER
2-14-03

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Executive Committee
to the UEN Steering Committee

Ray Timothy, Gary Wixom
Mike Petersen and the Co-chairs
Technical Services and Instructional Services Subcommittees