

Utah Education Network Steering Committee

December 17, 2007

**UTAH EDUCATION NETWORK
STEERING COMMITTEE**

A G E N D A

DECEMBER 17, 2007

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

Committee of the Whole / Business Meeting

Welcome and Introductions

Tab 13	CHARTER SCHOOL STEERING COMMITTEE REPRESENTATIVE - ACTION	1
Tab 14	PREPARATIONS FOR THE 2008 LEGISLATIVE SESSION - DISCUSSION	3
Tab 15	VISTA COURSE MANAGEMENT SERVICE OUTAGE - DISCUSSION	5
	CMS GRAPHICS	9
Tab 16	WEB CONFERENCING TOOL RFP CONCLUSION - ACTION	11
Tab 17	MHz WORLDVIEW DIGITAL CHANNEL - ACTION	13
Tab 18	POLICY 2.2: E-RATE COMPLIANCE AND FUNDING POLICY	17
	UTAH EDUCATION NETWORK POLICY	
	2.2: E-RATE COMPLIANCE AND FUNDING POLICY	
	UEN ADMINISTRATION	19
Tab 19	NETWORK PERFORMANCE STATISTICS - DISCUSSION	23
Tab 20	NETWORK IMPROVEMENTS REQUEST FOR PROPOSALS - DISCUSSION	25
Tab 21	HIGH DEFINITION VIDEO CONFERENCING - PLANNING, TESTING AND EVALUATION - DISCUSSION	27
Tab 22	OTHER	29

Tab 23
STEERING COMMITTEE MEETING MINUTES. 31

Tab 24
INFORMATION ITEMS 37
UEN WEATHER MAP 39
UTAHSAINT CONFERENCE UPDATE 41
WATER WISE UTAH REPORT 43
NEW UEN PROFESSIONAL DEVELOPMENT SCHEDULE. 45

U P C O M I N G M E E T I N G S

Steering Committee Meeting - February 15, 2008, 9:00 a.m.

Instructional Services Subcommittee Meeting - February 15, 2008, 11:00 a.m.

Technical Services Subcommittee Meeting - February 15, 2008, 11:00 a.m.

Please place these materials in your Steering Committee Binder.

CHARTER SCHOOL STEERING COMMITTEE REPRESENTATIVE - ACTION

Issue

Debbie Gomberg has resigned from the Steering Committee because of increased responsibilities in her position as principal of North Davis Preparatory Academy. The State Charter School Board recommends that Jason Stanger, Principal of East Hollywood High School be approved to replace her.

Background

Debbie Gomberg was appointed to the Steering Committee as our charter school representative by the State Charter School Board. Because of increasing responsibilities, she concluded that she would need to resign and requested that a new representative of charter schools be nominated by the Board.

Jason Stanger is in his third year as the principal of East Hollywood High School. He taught at secondary schools in the Logan, Cache, and Box Elder districts for three years. Jason is completing his Doctorate in Education in the Utah State University Instructional Leadership program.

East Hollywood High School is a unique charter school with dual missions of providing film production training to students with a passion for film in preparation for a career in film production. The second mission is to offer a solid liberal arts education to students in preparation for college entry.

Recommendation

It is recommended that the Steering Committee approve Jason Stanger to serve the remainder of a 4-year term on the UEN Steering Committee from December, 2007 through July, 2011. The nomination will be subject to final approval by Governor Huntsman.

**PREPARATIONS FOR THE
2008 LEGISLATIVE SESSION - DISCUSSION**

Issue

Preparations for the upcoming legislative session have been underway for several months. A report will be provided at the Steering Committee meeting on major activities that have been completed and the status of our efforts.

Recommendation

This is a discussion item requiring no further Steering Committee action.

VISTA COURSE MANAGEMENT SERVICE OUTAGE - DISCUSSION

Issue

This report provides a detailed summary of the outages of Blackboard Vista that UEN experienced recently. It also describes the actions we are now taking to avoid similar problems in the future.

Background

UEN experienced two unplanned outages with the Blackboard Vista Service (November 16th and 26th) due to an intermittent hardware failure. During the first outage, database corruption occurred and approximately 2½ days of work on the system could not be recovered. A third outage on November 30th was avoided, due to the experiences and knowledge gained during the first two outages. The faulty hardware was replaced on December 1st, and no further issues have occurred since then. Several actions are underway or planned to minimize the likelihood that such problems could occur in the future.

Problem Discovery

UEN performs full database backups every Sunday morning, and incremental backups at 3 a.m. and 6 p.m. daily for the Vista Course Management Service. The first indication that something was wrong was that the incremental database backup failed at 6 p.m. on Tuesday, November 13th. These failures continued on November 14th, and November 15th. Also on November 15th, users at Utah State University reported a problem with file uploads and we discovered data corruption in one of the Oracle data files in the LOB table space. To correct the problem, we scheduled an emergency outage at 2 a.m. on November 16th.

Data Corruption and Data Loss on November 16th

In attempting to repair the bad data file during the outage at 2 a.m. on November 16th, we found that we also had corruption in the archive log files (necessary to repair the bad data file). We had tape backups of these files, but the files on tape were the same corrupted files from the file system. In consultation with Oracle and Blackboard support, we determined that we needed to restore the database to the last point that we had good archive log files (12:30 p.m. on November 13th). The database was restored

to this point, and Blackboard Vista service was restored at approximately 8:45 p.m. on Friday, November 16th. Service was restored, but all activity on the system between 12:30 p.m. on November 13th and 2 a.m. on November 16th was lost.

UEN Engineers continued to work with support vendors to determine the root cause of the data corruption. We knew that we had some kind of input/output problem with our storage area network (SAN) and database server, but could not pinpoint the exact source of the problem.

After the production system was up and running, we were able to connect an instance of Blackboard Vista to a forced-open corrupted version of the database. This instance of Vista was useful in some cases to recover lost data, but was not useful in many cases because of the database corruption.

November 26th Outage

After the outage on November 16th, the Blackboard Vista system did not experience further problems until November 26th, when the 3 a.m. incremental database backup failed again. Rather than risk having further data corruption and data loss, we took the system offline at approximately 8:15 a.m. to investigate. This time we found that we did not have any corrupt data files or archive log files.

In consulting with our hardware and software vendor support, they recommended that we reboot the fiber channel switches for our SAN and apply firmware upgrades. This would normally take place during a scheduled outage because of the risk that other applications hosted by UEN could be impacted, but we decided to go ahead and reboot the switches without scheduling an outage because of the urgency in getting the Blackboard Vista Service up again.

The reboot of the switches was completed without interrupting other UEN services and Vista service was restored at approximately 4:20 p.m.. After rebooting the switches, one of them immediately started reporting thousands of errors, which helped us isolate the problem to that switch. When the Vista database connection was physically moved to another port on the switch, the errors stopped. At this time, we believed the source of the problem was a bad port on the switch. We later found out that it was not just a bad port on the switch, but a bigger problem with the switch itself.

File Upload Problems on November 30th

We received calls from users in the morning of November 30th, informing us that file uploads were failing again. Database server error logs correlated with these reports, and Oracle utilities indicated that we had another corrupt data file. This time, however, our archive log files were not corrupted.

We immediately suspected the switch as the source of this problem and re-routed all database traffic to the secondary (failover) switch. After rerouting the database traffic to the secondary SAN switch, the errors stopped. We also were able to recover the corrupt data file without an outage, and the file upload problems ceased.

The faulty fiber channel SAN switch was removed and replaced during a scheduled maintenance window (without interruption to the Vista service) in the early morning of December 1st. No further errors have occurred since the switch was replaced.

Problem Discussion and Preventative Measures

This was an extremely difficult problem to diagnose, primarily because the data errors were intermittent and the faulty hardware switch did not report any unusual errors until it was reset. Until the switch was reset, we could not correlate errors on the database server with errors on other components of the system.

This problem was not related in any way to defects in the Blackboard Vista software or system architecture. This was a hardware problem that affected Blackboard Vista software.

In addition to replacing the faulty fiber channel switch with new hardware, UEN is doing the following to prevent problems such as this from happening again.

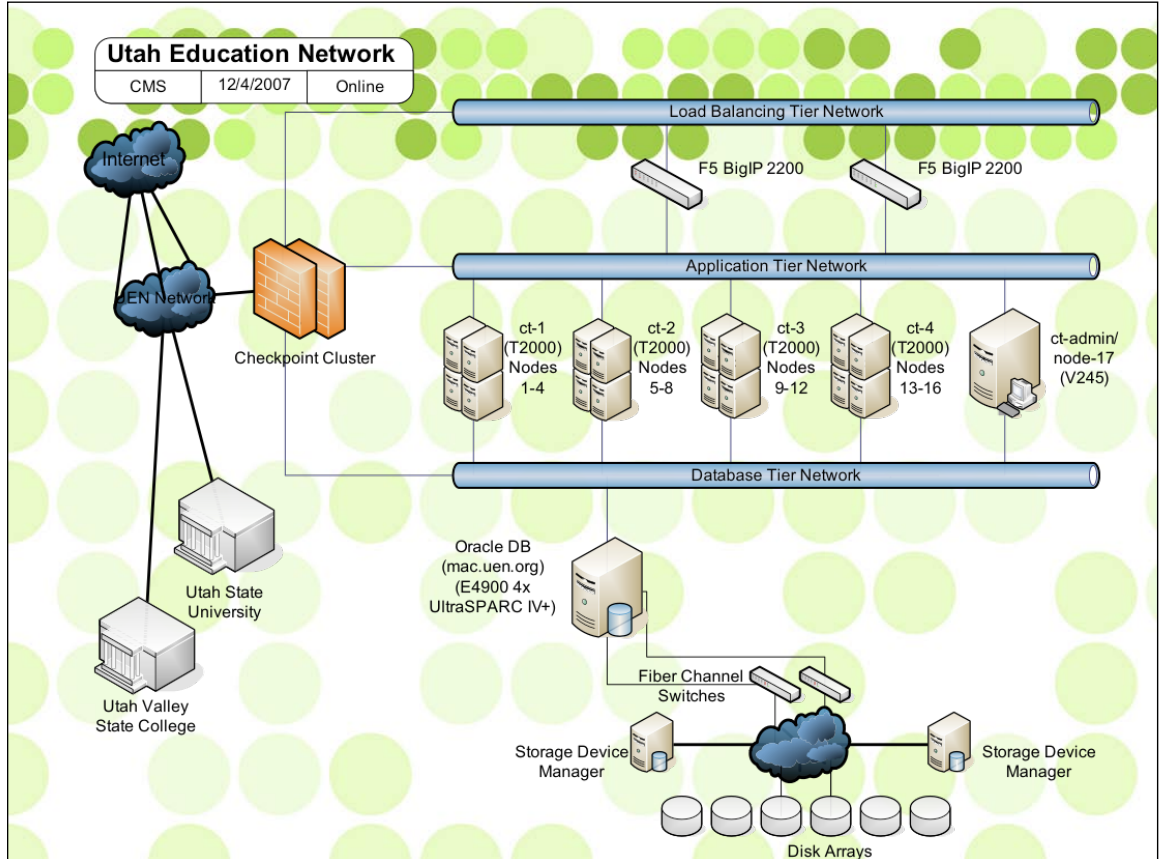
1. Working with support vendors to find out why the database server didn't automatically fail over to the secondary switch when the primary switch had problems.
2. Creating a secondary (mirrored) environment for the database server and storage. If a problem were to occur with the production environment, the application servers could be re-pointed at the secondary environment to continue service until the problem could be fixed on the production hardware. The secondary database and storage hardware will be in place early in Spring Term, 2008.
3. Re-evaluating our monitoring of system components to be notified sooner of a problem with the system and avoid data corruption or data loss.
4. Re-evaluating all Vista service communication outlets (service outage page, service status web page, e-mail lists, etc.) to make access to basic information easier for students and faculty during outages such as we have experienced.

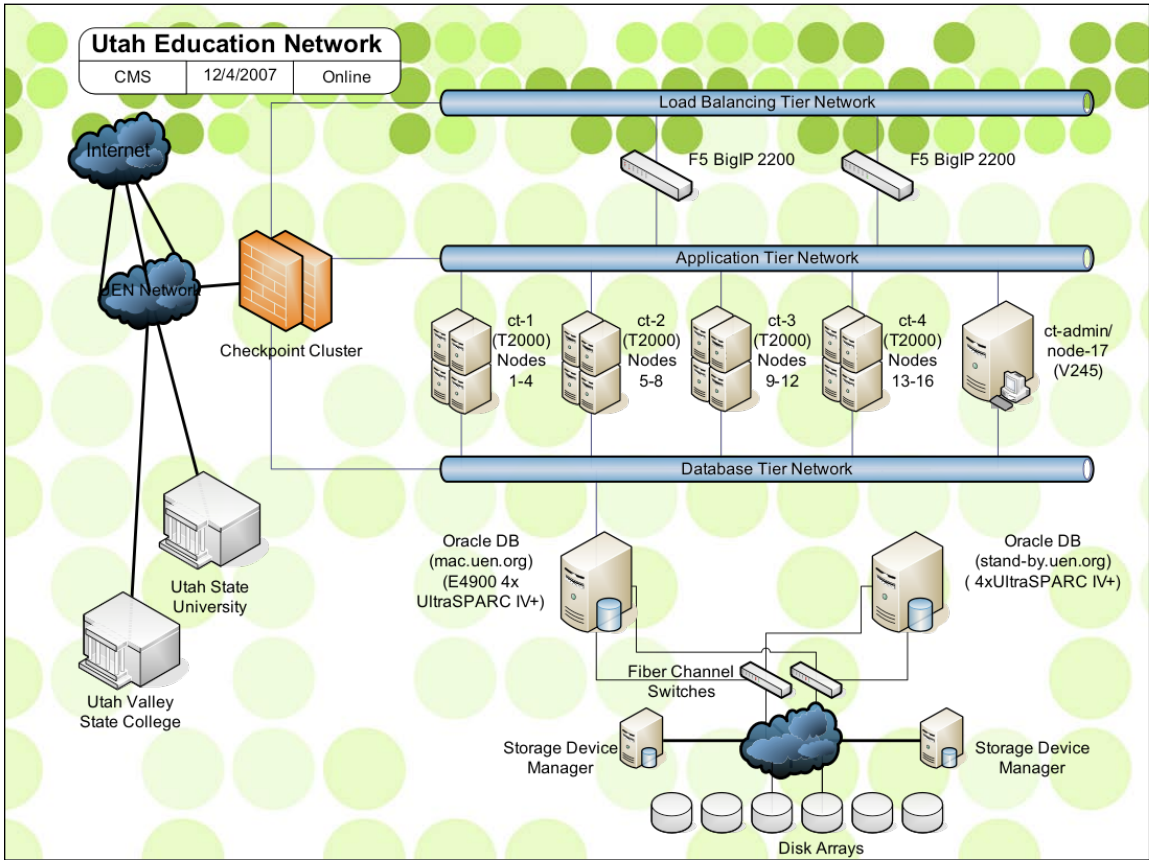
Recommendation

This is an informational item. No Steering Committee action is required.

TAB 15 ATTACHMENT A

CMS GRAPHICS





WEB CONFERENCING TOOL RFP CONCLUSION - ACTION

Issue

UEN issued an RFP to select and license a hosted web conferencing tool. The tool would be licensed for the use of higher education and public education institutions using ongoing funds granted by the legislature as part of the funding for the Blackboard Vista course management system (CMS).

Background

Web conferencing software allows faculty to hold web-based synchronous events with students. The tool allows presentation of slideshows (such as PowerPoint) and/or virtual whiteboard sessions with two-way IP audio and/or video and text chat. These types of tools also allow application sharing where presenters can share a view of their computer screen and in some cases they can also see a participant's screen (with permission).

A working group with volunteer representatives from higher education institutions around the state collected and prioritized requirements for a tool that would support web presentations, virtual whiteboard sessions, application sharing and live audio and video interaction. The solution should support courses being taught on the Vista course management system as well as ad-hoc meetings. University of Utah purchasing released the RFP June 8, 2007. Six respondents sent proposals.

The first scoring of responses covered foundation requirements. Vendors who proposed solutions that met the foundation requirements were invited to provide in-person demonstrations. Throughout November Wimba, Elluminate and Intrafinity demonstrated their products to the evaluation group and had in-depth discussions with technical staff at UEN.

The evaluation group and UEN technical staff recommends Wimba as the solution that best fit the requirements and technical specifications. Wimba's proposal includes an 8-month pilot project covering all higher education institutions as well as K-12 with the Wimba Live Classroom, Voice Tools, Course Genie and Pronto services. UEN is examining budgets and E-Rate eligibility to determine how services will extend post-pilot.

UEN will provide information regarding implementation timelines, processes and training via established communication channels with the Vista CMS administrators at the USHE institutions and C-Forum for K-12 users.

Recommendation

It is recommended that the UEN Steering Committee approve the selection of Wimba as the course management system vendor as described above.

MHz WORLDVIEW DIGITAL CHANNEL - ACTION

Issue

The Worldview Digital Channel was introduced in the October Instructional Services Committee meeting. Over the past several months, community groups from throughout Utah have reviewed the channel and provided feedback. UEN has also conducted a licensing review with legal counsel and a technical review with the KUEN broadcast engineering staff. Feedback on this service has been very positive. UEN is recommending adoption of the MHz Worldview Digital Channel as a multi-cast feed on digital 27 (9.2).

Background

Digital Television

As all broadcast television stations move toward the digital transition on February 17, 2009, UEN-TV has a unique opportunity to deliver additional quality educational content to residents of Utah through its secondary digital television station. This tab describes a non-commercial broadcast stream originating with MHz Networks in northern Virginia that features international news, current events, cultural, and arts content that can be offered to UEN-TV free of charge.

In addition to allowing television broadcasters to transmit high-definition television programs, digital TV allows them to transmit multiple channels of standard-definition programming (a practice called “multicasting”). UEN-TV currently broadcasts the following content on its digital signal along the Wasatch Front:

- UEN-TV 9.1 – Parallel of UEN-TV analog
- UEN-TV 9.2 – Annenberg Media programming
- UEN-TV 9.9 – Audio feed for KUER-FM translators

Annenberg Media, a provider of telecourses and teacher professional development programs, recently announced that they will no longer broadcast their satellite feed as of October 2008 (although UEN will continue to broadcast archived shows on its main channel, and is a mirror host for their Web site, *learner.org*).

MHz Worldview

MHz Networks, a long-standing non-commercial television network in the Washington, D.C. area, assembled the MHz Worldview station in an effort to serve foreign-born residents of the U.S. and native-born residents seeking to increase their global awareness. MHz Worldview features English-accessible programming originating from the following areas:

- Nigeria
- Taiwan
- Beijing
- Japan
- India
- France
- Russia
- Germany
- Australia
- South/Central America
- Others

Programming includes international news, current events, entertainment, sports, mysteries, world music, fashion, world politics, health, and other content. MHz Worldview receives funding from a number of public and private sources, including the U.S. Department of Education and the Woodrow Wilson International Center for Scholars, and offers this 24-hour programming stream for free to public television stations throughout the nation.

Another consideration in selecting MHz Worldview is the ability to have a greater presence on cable television. International news programming allows cable companies a competitive advantage with satellite providers. UEN would be the exclusive provider of mainstream news from countries that are not currently on cable—providing additional service and awareness of UEN for a broader audience.

In light of Utah's increasingly diverse demographics and Governor Huntsman's focus on preparing residents for participation in the global economy, UEN believes that this content is valuable for Utah students and educators and for other residents of Utah. To test this belief, UEN conducted several community screenings of the MHz Worldview content and gathered feedback from participants.

Community Response

Public screenings were conducted at the Salt Lake City Library and at the Weber State University alumni center. Screenings were also conducted at the November C-Forum meeting, November board meeting for the Utah Association for Adult, Community, and Continuing Education, and the Public Education Advisory Committee meeting on December 6. Respondents to the UEN request for participation and feedback included individuals from eight counties and consisted of representatives from public school districts, adult English as a Second Language programs, community education programs, the Utah Refugee Resettlement Program of the Department of Workforce Services, the Salt Lake City Mayor's Office of Diversity, the Asian Association of Utah, Centro de la Familia de Utah, the International Rescue Committee, the Department of Child and Family Services, Salt Lake Community College, Weber State University, Utah Valley State College, and Gold Bell Productions (a local producer of Spanish-language documentaries).

Participants completed a survey response soliciting their opinion on the service. Participants responded enthusiastically to the MHz Worldview programming, with 98% recommending that UEN carry the Worldview programming in Utah and the remaining 2% indicating “uncertain.” The following comments are representative of those received:

“I think it looks like it has some great content. Too often students in the U.S. have no idea about anything going on in the world around them. This is a great way to expose them to the world. I could see many educational applications for schools.”

“Education is the key to understanding ... this is a great way to educate about the diversity of the world.”

“This is wonderful. As a parent and educator, I guarantee this type of programming would be regularly viewed in my home.”

“It looks like a great station that provides a perspective on many issues that is not available in Utah. The variety of programming and news events from around the globe is interesting. I would like to see UEN adopt this as a station to be broadcast statewide.”

“I think the concept is sound and offers diversity to viewers. UEN should vigorously work towards bringing this type of programming to Utah viewers.”

Recommendation

It is recommended that the Steering Committee approve carriage of the MHz Worldview program stream on UEN-TV digital channel 9.2.

POLICY 2.2: E-RATE COMPLIANCE AND FUNDING POLICY - ACTION

Issue

UEN is not able to apply for all the federal E-Rate money that it is eligible for because some schools connected to the UEN network are not collecting or providing appropriate income and Free Reduced Lunch Program (FRLP) eligibility documentation that is required for federal reimbursement. Policy 2.2 will provide UEN with authority to effectively deal with this situation.

Background

The federal E-Rate program is important to UEN because State funds appropriated for telecommunications services can be leveraged with federal dollars at a 2:1 ratio. Roughly two thirds of the cost of network connectivity UEN provides for public schools, private schools, and public libraries in Utah is derived from this federal program.

The level of discount is based on the percentage of students eligible for participation in the National School Lunch Program (NSLP). This data is collected by schools participating in the Free or Reduced Lunch program (FRL). Each year, however, some schools do not submit this data to the State Office of Education nor to UEN, often because the schools do not participate in the FRL program.

Incomplete FRL reporting reduces the E-Rate discount for Utah, and therefore reduces the level of reimbursement that UEN will receive for network connectivity for schools and libraries. Policy 2.2, E-Rate Compliance and Funding Policy, provides that if a school district or charter school fails to provide USOE and UEN with the required household income or FRLP documentation or if it chooses not to participate in the E-Rate program, that UEN is authorized to:

1. Remove non-compliant districts, schools, or libraries and the associated costs for services from UEN E-Rate applications for the relevant funding year, and
2. “Pass-through” the undiscounted costs for network connectivity to the non-compliant entity.

Recommendation

It is recommended that the Steering Committee review, discuss, and approve Policy 2.2, E-Rate Compliance and Funding Policy. The policy authorizes UEN to remove non-compliant schools, districts or libraries and the associated costs for services from UEN E-Rate applications for the relevant funding year, and to charge the entity the undiscounted cost of network connectivity.

TAB 18 ATTACHMENT A

UTAH EDUCATION NETWORK

POLICY 2.2: E-RATE COMPLIANCE AND FUNDING POLICY

UEN ADMINISTRATION

2.2.1 Purpose

This policy identifies and addresses data and document requirements leading to the acquisition of all E-Rate funding available to Utah schools and libraries.

2.2.2 Scope

Roughly two thirds of network funding for Utah Education Network, public schools, private schools, and public libraries in Utah is derived from E-Rate funds allocated through the federal Schools and Libraries Universal Service Support Program. Eligibility for this funding is dependent upon student household income. This data is collected by schools participating in the Free or Reduced Lunch program (FRL). Incomplete FRL reporting reduces the E-Rate discount for Utah. This policy requires schools with no FRL program which do not report household income data, to pay full circuit charges and other fees that are subject to the E-Rate discount.

2.2.3 References

Utah State Code

Title 53A-1-903. Federal programs – School official duties.

(2) School officials shall:

(a) prioritize resources, especially to resolve conflicts between federal provisions or between federal and state programs, including:

(i) providing first priority to meeting state goals, objectives, program needs, and accountability systems as they relate to federal programs ...

Title 63-56-103. Exemptions from chapter – Compliance with federal law.

(4) When a procurement involves the expenditure of federal assistance or contract funds, the chief procurement officer or head of a purchasing agency shall comply with mandatory applicable federal law and regulations not reflected in this chapter.

Code of Federal Regulations

Title 47, Chapter I, Part 54 – Subpart F, Universal Service Support for Schools and Libraries.

2.2.4 Definitions

E-Rate – The Schools and Libraries Universal Service Support Mechanism.

LOA – Letter of Agency – A document required from every district, charter school, private school, and library included on UEN’s E-Rate applications. These must be maintained in files for a minimum of five years.

Technology Plan – UEN is required to obtain both a written copy and a certification of technology plan approval from the USAC. Plans must contain these five elements:

- Goals and realistic strategy for using telecommunications and information technology
- A professional development strategy
- An assessment of telecommunications services, hardware, software, and other services needed
- Budget resources
- Ongoing evaluation process

USAC – Universal Service Administrative Company, Administrator of all Universal Service programs under authority of the FCC.

2.2.5 Policy

In order for UEN to provide the highest level of service to all stakeholders while simultaneously maximizing federal E-Rate funding, the following UEN administrative policy shall be enforced:

1. Schools designated by the Utah legislature as being within UEN’s service mandate must provide the following documentation to UEN for each E-Rate funding year:
 - a. E-Rate Letter of Agency – showing “knowingness” that an entity is part of the UEN E-Rate consortium for each E-Rate funding year.
 - b. Technology Plan – showing appropriate dates and the five required elements of the plan.
 - c. Annual student enrollment and Free or Reduced Lunch Program eligibility. Participation is measured by Child Nutrition Program applications. In lieu of FRLP data, school district administrators and charter school administrators must collect and report enrollment and income data for their students’ households.

2.2.6 Enforcement

In the absence of the required documentation described in #1, UEN administration may take the following actions:

- a. Remove non-compliant members and the associated costs for services from UEN E-Rate applications for the relevant funding year, and
- b. “Pass through” the undiscounted costs to the non-compliant entity.

NETWORK PERFORMANCE STATISTICS - DISCUSSION**Issue**

The UEN Network Operations Center continues to monitor the health and utilization of the network. This report provides these latest statistics.

Background

Performance Metrics for the UEN Backbone**Network Backbone Availability**

Month to date:	100%
Quarter to date:	99.998%
Year to date:	99.996%

Average PoP Site Latency

USU	4.7 ms
WSU	3.7 ms
DATC	3.4 ms
EBC	3.1 ms
SLCC	3.0 ms
UVU	2.7 ms
UVUW	3.3 ms
CEU	4.1 ms
Snow	3.6 ms
SnowS	4.0 ms
SUU	6.1 ms
Dixie	6.5 ms

Network Backbone Utilization by Ring

North Ring:	72%
Central Ring:	100%
South Ring:	37%

Internet Bandwidth Summary

Available Bandwidth:	3.9Gbps
Average Peak Utilization:	2.2Gbps

Note: All peak statistics are calculated using the peak 95th percentile industry standard formula.

Recommendation

This is a discussion item requiring no further action from the committee.

NETWORK IMPROVEMENTS REQUEST FOR PROPOSALS - DISCUSSION

Issue

UEN issued two Request for Proposals in the fall to contract for projects to upgrade core segments of the UEN backbone to 10GB Ethernet and improve backbone segments in rural areas of the state where required. UEN also requested additional Internet Access capacity to address expiring contracts and strategic planning, and obtained proposals to upgrade Wide Area Network capacity to elementary and charter schools and Salt Lake County branch library locations. The new proposed Utah System of Higher Education Data Center was also included to obtain proposals for fiber communications into the proposed building at 875 S. West Temple.

Background

Proposals were sought for the installation of 10GB segments of the core backbone because of increased traffic on the backbone, the installation of Gigabit Ethernet to school district offices and secondary schools, additional IVC classroom installations, and the need for additional bandwidth to the Richfield DTS Data Center for disaster recovery and data/application hosting for higher and public education. Proposals for the 10GB and Internet Access RFP were received on November 1, 2007. UEN received 9 proposals from telecom/ISP Providers. After reviewing proposals and conducting oral interviews with the providers, UEN staff determined it would be necessary to issue a Best and Final Offer (BAFO) for the 10 GB RFP. The Best and Final Offers will be due after December 17, and UEN will evaluate the BAFO offers and issue awards shortly after final submissions. Based on initial evaluations, UEN will be able to obtain an additional 2MB of total Internet capacity with the existing Internet budget, and meet the critical deadlines to upgrade the core network to 10GB capacity before the beginning of next school year in August with the requested legislative appropriation.

Vendor responses for the elementary school, charter school and Salt Lake County libraries Request For Proposal (RFP) were received on December 6th. UEN staff are working closely with regional and school district staff, and staff from the Salt Lake County library system in the evaluations of these proposals. The elementary school RFP covers 22 school districts and over 250 elementary schools as well as 57 charter schools and 18 Salt Lake County library branch locations.

Funding for the 10GB and elementary and charter school projects is contingent upon UEN's FY 2009 legislative budget request and successful E-Rate filings of the new contracts with the Schools and Library Division of USAC.

Recommendation

This item is informational only. A final detailed report will be given to the Technical Services Subcommittee in February when the final results from the RFPs are known.

HIGH DEFINITION VIDEO CONFERENCING - PLANNING, TESTING AND EVALUATION - DISCUSSION

Issue

High definition video conferencing technology is becoming more and more prevalent as video conferencing manufacturers push their technologies in this direction. Interest in this technology is also increasing in the distance education community.

Background

Video technology for end-sites and conferencing equipment, as with all technology, continues to evolve. Advancements in high definition (HD) video in the broadcast world, home theater, and video conferencing are gaining momentum. UEN is interested in this important technology and will be carefully exploring HD options.

UEN is assessing high definition from two directions. First, an end-point evaluation is underway. We are evaluating end-point units manufactured by Tandberg, Polycom and LifeSize. This will be followed by a structured pilot project that enables UEN to test end points in common scenarios which would include high definition, standard definition and mixed events (connecting standard and high definition sites in a single event). High definition only events at this point are limited to three to four sites bridged by an end-point with bridging capability.

As part of UEN's end point testing and assessment it will be important to evaluate how HD end-points perform in a standard definition environment as well as with other high definition components. Vendor compatibility will also be an important part of the testing conducted by UEN. Vendor ability to meet and deal with open standards is another key consideration. Often new technologies such as these take time to mature before they perform at an acceptable level in a mixed environment.

The second area of focus is on the multipoint control unit (MCU). This equipment is essential for bridging any large scale distance education events and is the real work horse for bridging all UEN scheduled events. Any high definition video conferencing will occur on a limited basis until an HD capable MCU is in place.

Network resources is another important factor that will require a great deal of attention when planning for a bandwidth intensive application such as HD video conferencing. Improvements to the UEN infrastructure over the past few years will support the increased bandwidth needs. HD video sessions can vary between as little as 1 MB per site up to 6 MB, with quality increasing with bandwidth consumption. It is important to note that the bandwidth required to accommodate high definition video conferencing

is much lower than what was required in earlier UEN implementations of MPEG 2 and the CVDS video backbone.

Beginning in 2008 we expect to begin limited installations and testing of some HD components in selected classrooms. Initially high definition video conferencing will be used on a limited basis between locations that have the hardware and infrastructure to support it.

Over time the UEN infrastructure may move to this HD environment as conferencing end points and the core infrastructure required to support HD become more prevalent and costs are lowered. In a few years, HD will likely become the standard in much of the hardware provided by manufacturers. Cost reductions are already being realized and overall pricing is coming in line with standard definition equipment.

User demand to improve the distance education experience with HD video will likely drive UEN's planning and timeline for providing HD-ready solutions in the classroom and as part of its core infrastructure. The challenge for UEN will be primarily in its ability to bridge large high definition events. The current platform will not support high definition. New HD platforms will be evaluated that will have the ability to bridge the new technology, but adopting this technology will likely be costly. HD capable multipoint control units (MCU) require significantly more processing power and the current price per port can be nearly three times the cost for current standard definition MCUs.

In addition to understanding HD technology, it will be necessary to understand support requirements. Increased complexities arise when adding new technologies to the network that are difficult to anticipate in advance. It is for this reason that adequate planning, testing and coordination with UEN Application Engineering, the Video Operation Center, Distance Education Specialist, Scheduling and UEN stakeholders is essential.

Recommendation

This is a discussion item no Steering Committee action is required.

STEERING COMMITTEE BUSINESS MEETING

T A B 22
OTHER

STEERING COMMITTEE MEETING MINUTES

UTAH EDUCATION NETWORK STEERING COMMITTEE

October 19, 2007 – 9:00 a.m.

Members Present: Kenning Arlitsch, Clark Baron, David Fletcher for Stephen Fletcher, Rick Gaisford, Brenda Hales, Stephen Hess, Eric Hawley for M. K. Jeppesen, Pat Lambrose, Ronda Menlove, Glen Taylor, Eric Mantz for Ryan Thomas, Mike Petersen, Ray Walker, Gary Wixom.

Others Present: Dale Bills, Barry Bryson, Rick Cline, Jeff Egly, Rich Finlinson, Claire Gardner, Boyd Garriott, Thom Gourley, James Hodges, Sheryl Hulmston, Troy Jessup, Karen Krier, Bill Kucera, Lisa Kuhn, Patrick Lee, Don Mahaffey, Kevin Quire, Victoria Rasmussen, Joni Robertson, Dennis Sampson, Larry Smith, Jim Stewart, Cory Stokes, Louie Valles.

Welcome and Introductions

Brenda Hales opened the meeting and welcomed everyone and thanked them for coming.

Committee of the Whole

Tab 27 - New Steering Committee Member

Brenda reported that Jeff Livingston had retired from Weber State University and from the UEN Steering Committee and Gail Niklason has been recommended to replace Jeff. Gail is currently Director of Online Education and eLearning at Weber State University and she previously served as Manager of Technology Services. She has a bachelor's degree from the U of U and a master's degree from San Francisco State University.

A motion was made and seconded to recommend Gail Niklason for a 4- year position on the Steering Committee. THIS MOTION CARRIED.

Tab 28 - Fiscal Year 2009 Budget

Brenda Hales recapped the FY 2009 Budget Request. As this request was due September 24, 2007, UEN has already submitted a preliminary request to the Governor's Office. The Legislative Fiscal Analyst is projecting revenue collections for FY 2008 will come in higher than previously expected. This is favorable for UEN because during the 2006 Interim, UEN evaluated its levels of effort and found that about 80% of its spending serves Public Education which comes from this revenue. For a complete detailed list of the FY 2009 Budget Request please see Tab 28.

A motion was made and seconded to approve the FY 2009 budget request totaling 2.2 million in on-going funds and 3.8 million in one-time funds. THIS MOTION CARRIED.

Tab 30 - Upgrading Core Segments of Network Backbone to 10 GB Ethernet

UEN's Kevin Quire gave a presentation on the upgrading of the core segments of the network backbone. Kevin reported that UEN is now at a critical point of needing to support the increased load. There is an RFP that has been issued for six new 10 Gb Ethernet circuits to support this design. For a complete detailed list regarding the upgrades please see Tab 30 and Tab 30 Attachment A.

A motion was made and seconded to recommend the plans to increase capacity of 6 core segments of backbone to the 10Gb Ethernet. THIS MOTION CARRIED.

Tab 29 - UEN Steering Committee Schedule for 2008

Brenda Hales went through the recommended dates for Steering Committee meetings for 2008.

A motion was made and seconded to change December 21, 2007 meeting to December 17, 2007. Change June 20, 2008 meeting to June 13, 2008. Change October 15, 2008 meeting to October 10, 2008. THIS MOTION CARRIED.

Tab 4 - Steering Committee Meeting Minutes

Brenda Hales asked if there was any discussion regarding the minutes.

A motion was made and seconded to approve the Steering Committee minutes as submitted. THIS MOTION CARRIED.

Tab 31 - UEN Network Performance Metrics

Troy Jessup reported on the Network Performance Metrics. Troy did share that there was an outage in the College of Eastern Utah area and the system was down longer than expected, which dropped UEN's average down this month. For a complete breakdown please see Tab 31.

Tab 1 - UENSS to IVC Project Final Report

Jim Stewart reported on this project which was completed August 30, 2007. The UENSS satellite uplink is now dismantled. The analog routing components required to route UENSS and EDNET video are gone. The new infrastructure carries voice and video via IP.

Tab 2 - Quarter One Progress Report on FY 2008 Strategic Plan

Brenda Hales shared that a detailed progress report could be found on Tab 2. This is broken down into 7 goals.

Tab 3 - SUEN Summer Goals and Progress

Short Status Reports were made by the following people:

Karen Krier – my.uen

Victoria Rasmussen – Training of 3,000 teachers

Troy Jessup – Completion of Nemo 3 standards and documentation project

Cory Stokes – Incorporation of stable course management system

Jeff Egly – Completion of UENSS to IVC conversion

Each manager reported on the success of their project.

The next Steering Committee meeting will be held on December 17, 2007, at 9:00 a.m. at the Dolores Doré Eccles Broadcast Center.

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

Utah Education Network Technical Services Subcommittee Meeting Minutes

Attendees: Barry Bryson, David Fletcher, Eric Hawley, Troy Jessup, Don Mahaffey, Eric Mantz, Joni Robertson, Dennis Sampson, James Stewart, and Ray Walker.

Tab 11 - Network Improvement Request for Proposals – Discussion

UEN issued a Request for Proposal (RFP) to upgrade core segments of the UEN backbone to 10GB and obtain additional Internet access bandwidth. A pre-bidders conference in October had 16 telecommunication and ISPs attending. Our overall concept is to expand the level 3 facilities. We have combined the two RFPs – the internet and the backbone – into one proposal. Our goal is to double our Internet bandwidth.

UEN is ready to release another RFP next week which includes the remaining elementary schools, charter schools and library locations that currently do not have broadband Ethernet network connections to their buildings. Over 300 sites have been

identified. A pre-bidders conference will be held Tuesday, November 6, 2007.

There are a number of contracts and open bids that we have out to meet our E-Rate filing deadline. The SLD has cut off about four weeks of the back end of our filing year. We have less time to do our contracts. We expect to have the contracts done by the middle of January, 2008.

The elementary school/charter school proposal is contingent on Legislative funding in the upcoming session. There are a number of districts that want to move forward on their own without UEN if we are not funded. UEN will need to be creative both in our contracts and budgeting process. This will be a three phase project. Some districts do not want to be part of a phase even though all the elementary/charter school sites were included in the proposal to get a total cost of the project. When we go to the legislature we need to identify what is needed in this phase and what is needed for the next phase. Some districts will want to be in the first phase and some will want to wait and be a part of the second phase to get all their schools completed in one phase. This will be a multiple year project.

Tab 12 - FY 2008 Quarter 1 Accomplishments by Goal and Department – Discussion

Many of these accomplishments are included in Tab 2 in the Progress Report. The list reflects not all, but much of what was done in the 1st quarter. It gives a little bit more detail and what each group was working on.

Miscellaneous Items

UEN will be staying with Geomax on the current fiber and with the current boxes. Geomax has the ability to go up to the 10GB waves. All that needs to be done is to change out the interfaces. The major cost is in the CPE to go to 10GB. One of the problems we are facing is that we are going to 10GB two years before we planned. The industry has adopted 10gig more slowly and the per point cost has come down as rapidly as expected.

Utah Education Network Instructional Services Subcommittee Meeting Minutes

Attendees: Kenning Arlitsch, Clark Baron, Dale Bills, Rick Cline, Rich Finlinson, Rick Gaisford, Claire Gardner, Boyd Garriott, Cyd Grua, Brenda Hales, Steven Hess, Sheryl Hulmston, Laura Hunter, Karen Krier, Bill Kucera, Pat Lambrose, Patrick Lee, Gail Niklason, Mike Petersen, Cory Stokes, Louie Valles and Jo-Ann Wong.

Tab 6 - Courseware Showcase Report and Demonstration – Discussion

Laura Hunter summarized a day long higher education courseware showcase meeting held on September 13, 2007. Response was positive with 35 attendees. The showcase vendors will be invited to participate in the TTX conference at UVSC this summer.

Cory Stokes demonstrated how course content that is licensed statewide and hosted in CollegeMedia or Blackboard Vista can be downloaded in a few clicks to be added to an online course.

Tab 7 - Worldview Digital Channel – Discussion

Laura Hunter reminded the committee that the FCC mandate to cease analog broadcasting is February 17, 2009. UEN-TV has been multicasting since 2002. She presented a chart showing the current bandwidth allocation and a proposed bandwidth allocation of UEN-TV that includes adding the Worldview Digital Channel from MHz Networks. A summary of the report is included under this tab.

Tab 8 - K-12 Pioneer Online Library Enhancements – Discussion

Rick Cline showed the revised Pioneer Library Web site and demonstrated the new federated search engine. He said he has been meeting with K-12 district librarians and that the improvements have been well received. Based in a suggestion from Kenning Arlitsch, Mountain West Digital Library will also be added to the K-12 Pioneer Page.

Rick Gaisford applauded the Pioneer Library enhancements and noted the reputable sources available.

Tab 9 - Multimedia Guide – Discussion

Bill Kucera distributed and explained the Multimedia Guide. Thousands of programs are available for educators and the guide gives information about other UEN resources. The guide is also available online. Rick Gaisford suggested that the guide be a topic for “Faculty Lounge.” Laura Hunter noted that pages 92 and 93 show how to use technology in the classroom.

Tab 10 - Public Education and Higher Education Advisory Committee Reports – Discussion

Cyd Grua announced June 9-11, 2008 NUTN conference at The Canyons. She said it is a national caliber event and that a speaker is addressing “2020” students who are just starting school now and will graduate in 2020.

Rick Gaisford said the Public Education Advisory Committee heard about my.uen and reviewed UEN’s summer goals.

Laura Hunter spoke about KUED multicasting the Spanish channel. She also spoke about the progress of NetSafe Utah and about the status of the application for year two of this grant. A re-broadcast of the NetSafe Utah program will be Oct. 29, 2007 on UEN-TV.

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

T A B **24**
INFORMATION ITEMS

Issue

In order to update Steering Committee members, several informational reports are included under this tab. Committee members are encouraged to review the reports and distribute the information to the appropriate party at your organization or institution.

Background

Informational reports for the following topics are available for committee review:

- New Weathermap Tool Used by Network Operations Center
- Report on UtahSAINT Conference for Security Professional Development
- Water Wise Utah Grant Activities in St. George January and February
- New UEN Professional Development Schedule for December through May

Recommendation

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

TAB 24 ATTACHMENT A

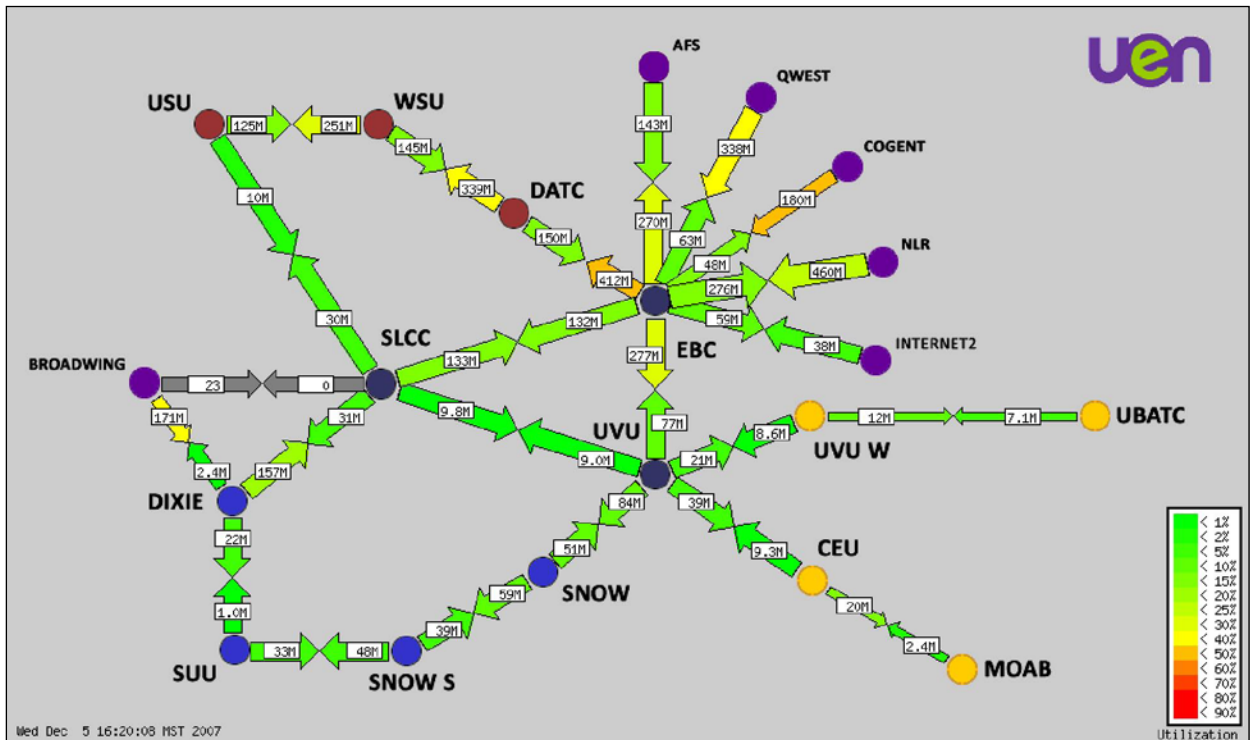
UEN WEATHER MAP

The UEN Network Operations Center continues to develop tools that provide better monitoring and management capability for the network. We have recently completed initial development of the Network WeatherMap tool.

For the past year, we have been re-assessing our monitoring and management needs for the network, and developing tools and systems which provide us better visibility into the network and how it is running. WeatherMap is a tool which provides detailed visibility to the state of the network backbone traffic and allows us to monitor this traffic in near real-time.

This tool is available to all UEN customers and is found using the following URL: <http://weathermap.uen.net>

Below is an example of the state of the network recently.



A short demonstration of this tool will be provided during the meeting.

TAB 24 ATTACHMENT B

UTAHSAINT CONFERENCE UPDATE

The UEN Security Operations department successfully held the Utah Security Advisory and Incident Network Team (UtahSAINT) conference in Richfield on November 12-14, 2007.

The UtahSAINT group consists of all of the security points of contact throughout the State of Utah. We hold a bi-annual conference to communicate current network security trends and tactics, and provide training for members to provide better network security resources for their respective institutions.

The UtahSAINT Conference was a great success, and by all attendee accounts the best security conference we have ever held. It was attended by over 120 individuals from throughout the state. Many of the topics covered were timely and related to current issues facing the network. For a complete list of presentations and topics covered, you can visit <http://conference.utahsaint.org/>

The UtahSAINT group continues to grow and become more effective at providing mitigation for network security related issues on the UEN network.

TAB 24 ATTACHMENT C

WATER WISE UTAH REPORT

The Water Wise Utah project is designed to encourage Utah citizens to conserve water. The project has been fully engaged since mid September. In January the project extends to Washington County with the following activities planned:

January 3 – 4, 2008	Washington County 4th Grade Water Fair
January 8, 2008	St. George Green Conference
January 11, 2008	Private Exhibit Opening at St. George Art Museum
January 25 – 27, 2008	St. George Bird Festival
February 13, 2008	Red Rock Rotary Presentation/Discussion
February 13, 2008	St. George Audubon Society Film Screening
February 26 – 28	Rural Water Association of Utah Conference
February 27, 2008	St. George Chamber of Commerce Luncheon
February 28, 2008	(tentative) Film Screening at St. George Opera House

Planning for the St. George venue has been in coordination with local water boards, museums, libraries, and educators.

Water Wise Utah was recently reviewed as a model for best practices to guide the Corporation for Public Broadcasting and The Institute for Museum and Library Services Partnership for a Nation of Learners. Water Wise Utah was one of 26 projects selected for a case study on best practices for our partnership with Utah Education Network, The Utah Museum of Natural History, KUED, KUER, and the J. Willard Marriott Library.

TAB 24 ATTACHMENT D

NEW UEN PROFESSIONAL DEVELOPMENT SCHEDULE

UEN offers 80 different courses for teachers, administrators, faculty and staff. A new schedule of the courses held in the UEN training lab at the University of Utah, online courses, and television-based courses was posted on December 1. Workshops are also available by request since UEN instructors travel to other sites about 70% of the time. A copy of the UEN Professional Development Course List is available at uen.org/development and with this report.

UTAH EDUCATION NETWORK						
		SEARCH UEN		UEN Homepage		
Professional Development Course Catalog						
<div style="display: flex; justify-content: space-between;"> VIEW BY MONTH SEARCH COURSES VIEW ALL COURSES MY REGISTRATION </div>						
GIS/GPS Multimedia Productivity Strategies and Resources Web Publishing Mac Classes Online Classes						
Computer Experience Required: ■ Novice ■ Intermediate ■ Advanced						
	Dec	Jan	Feb	Mar	Apr	May
GIS/GPS						
The GPS Classroom ■				27 & 28	17 & 18 25 & May 3	
GIS in the Classroom ■				25 & 26		
GIS/GPS Projects ■						8 & 9
Multimedia						
PowerPoint 2007 for Teachers ■		7 & 8 11 & 10	13 & 14		12 & 19	
Digital Camera with iPhoto ■					4 & 11	
Digital Camera in the Classroom ■	3 & 10		2 & 9	17 & 24	30 & May 7	
Digital Video with iMovie HD ■				17 & 24		9 & 15
Digital Video Projects ■			30 & Feb 6		4 & 11	
Digital Camera II: Advanced Photo Editing ■			19 & 20		9 & 10	14 & 15
Advanced PowerPoint (2007) ■			21 & 22			1 & 2
Create Educational Games ■			18 & 25	5 & 12		
Google SketchUp ■		31	23			
Productivity						
Make the Most of Mac ■		29	21		2	
Windows Classroom 2.0 ■		28 & 29		13 & 14		
Google Tools ■	17 & 18	10 & 17		3 & 4	22 & 23	
Google Tools Online ■			18			
PowerPoint 2007 for Teachers ■		7 & 9	13 & 14		12 & 19	
Advanced PowerPoint (2007) ■			21 & 22			1 & 2
Excel 2007 for Teachers ■	13 & 14 17 & 18	23 & 24		29 & Apr 5		12 & 13
LearnKey: MS Office Programs ■				3		
Strategies and Resources						
Integrating Technology and Curriculum (ITC) ■	Various		4 & 5		24 & 25	
Use Technology to Teach ■			26			16
Electronic Portfolios for Students ■	11 & 12	11 & 12		18 & 19	28 & 29	
Effective Teaching with Visual Media ■			28			
Internet Safety for Educators ■		7		17		
UEN-TV Workshops ■				17		
Smart Tools at www.uen.org ■			4		7	
Pioneer, Utah's Online Library ■				31		
WebQuests ■						
Web Publishing						
Web Publishing for Everyone ■	8 & 15	9 & 10	27 & 28		15 & 16	
iLife Projects ■	10 & 17		4 & 5		22 & 29	
Podcasting ■			8 & 15		14 & 21	
Dreamweaver Part 1 (formerly level 1) ■		14 & 15	11 & 12	8 & 15		
Dreamweaver Review and Practice ■			1	7	2	
Dreamweaver Part 2 (formerly level 1 reworks) ■			25 & 26	10 & 11		10 & 17
Dreamweaver Part 3 (formerly level 2) ■	4 & 5			23 & 21	7 & 8	5 & 6
Flash: Web Animation ■				31 & Apr 1		
Mac Classes						
Make the Most of Mac ■		29	21		2	
Digital Camera with iPhoto ■		11 & 18			4 & 11	
Digital Video with iMovie HD ■				17 & 24		9 & 15
iLife Projects ■	10 & 17		4 & 5		22 & 29	
Online Classes						
UEN-TV Workshops ■		7		17		
Google Tools Online ■			18			
Internet Safety for Educators ■			28			
Pioneer, Utah's Online Library ■			4		7	
WebQuests ■				31		
LearnKey: MS Office Programs ■				3		

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