Utah Education Network Steering Committee

October 22, 2010

UTAH EDUCATION NETWORK
WWW.UEN.ORG

Utah Education Network
Steering Committee

AGENDA

October 22, 2010

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

Committee of the Whole / Business Meeting

Welcome and Introductions

Tab 24
Utah Women Tech Awards Honor UEN Content Leader – Action 1

Tab 25
FY 2012 Budget Request – Action 3

Tab 26
UEN Commercial VoIP Task Force – Action 7
Attachment A - Voice over Internet Protocol Policy Discussion 9

Tab 27
Quarter One Progress Report on FY 2011
Strategic Plan – Discussion 15

Tab 28
E-Rate Update – Discussion 19
Attachment A - E-Rate Update Report 23

Tab 29
NTIA BTOP Infrastructure Grant Round 1
Network Project Update – Discussion 29

Tab 30
Utah EPSCoR Proposal – Discussion 31
Attachment A - Utah EPSCoR Track 1 Proposal 33

Tab 31
Network Performance and IVC Services Metrics – Discussion 39

Tab 1
Steering Committee Meeting Minutes. 43

Tab 2
Other 47

11:00 a.m.-
12:00 Noon

Instructional Services Subcommittee Meeting

Tab 3
eMedia Report – Discussion 49

Tab 4
STEM Education Activities Update – Discussion 51

Tab 5
Wimba/Elluminate Update – Discussion. 55

Tab 6
Public Broadcasting Editorial Integrity Policies - Action 57

Tab 7
Public Education Advisory Committee Report – Discussion 61

Upcoming Meetings

Steering Committee Meeting - December 17, 2010, 9:00 a.m.

Instructional Services Subcommittee Meeting - December 17, 2010, 11:00 a.m.

Technical Services Subcommittee Meeting - December 17, 2010, 11:00 a.m.

Please place these materials in your Steering Committee Binder.

TAB 24

UTAH WOMEN TECH AWARDS HONOR UEN
CONTENT LEADER - ACTION

Issue

UEN's Instructional Services Director, Laura Hunter, is one of five Utah executives who were honored at the third Annual Women Tech Awards in September."The Women Tech Council was founded in 2007 as an advocate for women who work for technology companies and/or with technology in their jobs. The five were recognized for 'outstanding contributions in their communities and industries' at an awards luncheon in Salt Lake City. Finalists and winners were chosen by a committee from the technology industry, venture capital firms, and government and professional communities," wrote the *Salt Lake Tribune* on September 16, 2010.

Background

Utah CEO magazine featured the five winners in a cover story in the July 2010 edition. Here are excerpts from that story:

> "The Utah Education Network's Laura Hunter witnesses the ever-changing nature of technology on a daily basis. As the chief content officer for UEN, her team of educational technology providers connects Utah's school districts, colleges and universities to the Internet, giving students and educators a myriad of educational opportunities every day.
>
> As an inner city public school teacher for eight years, Hunter was fascinated by the implementation of technology in the classroom and how it changed her teaching. She studied educational technology further and obtained her Ph.D., which led to a position with the UEN more than 11 years ago. 'I get to see amazing things happen in schools and help teachers get the right resources to students to further their educations,' she says. 'My work is challenging, always changing and very rewarding.'
>
> To Hunter, the Women Tech Council's recognition of accomplished women in technology-related fields is inspiring and increases publicity for organizations such as the UEN which rely on state and federal funding. 'The awards process involves an amazing group of women, and all of us have been really hard at work in our own corners of these tech-related industries; the chance to connect with each other is a wonderful opportunity.'"

The entire text of the article is available at:

http://www.utahceomagazine.com/article.php?id=557 or http://go.uen.org/1g.

Recommendation

Committee members are encouraged share this good news within their respective circles of influence and consider possible nominees from their organizations or communities for next year's Women Tech Awards. No further action is required at this time.

Laura Hunter receives the Education Excellence 2010 Women's Tech Award at the recent awards ceremony.

TAB 25

FY 2012 BUDGET REQUEST - ACTION

Issue

The FY 2012 UEN budget request requires approval by the Steering Committee before submittal to the Governor and the Legislature for their consideration. To cover budgetary needs at UEN, we propose an increase in state funds of $1,636,000. Reflected in this amount is $1,186,000 in ongoing funds for operating expenses in FY 2012 and a one-time supplemental appropriation of $450,000 for capital items in FY 2011.

Background

UEN's first priority: $1,000,000 to Replace One-time Funds with Ongoing Funding

A $1,000,000 one-time appropriation was made to partially defer for one year the loss of ongoing State appropriations. The one-time appropriation was utilized to cover ongoing personnel and operating expenses. UEN requests that the one-time money be replaced with $1,000,000 from ongoing funds.

We also understand that ongoing funds may be at a premium. If an ongoing appropriation is not a possibility, we will ask that consideration be given to appropriating the $1,000,000 using one-time funds in FY 2012.

UEN's second priority: $150,000 to Supplement Existing Funds for a Statewide Filtering Solution

The Children's Internet Protection Act (CIPA) is a federal law enacted by Congress to address concerns about access to offensive content over the Internet on school computers. UEN hosts the filtering applications for all public and charter schools that provide for Internet safety against: (a) access by minors to inappropriate matter on the Internet; (b) the safety and security of minors when using electronic mail, chat rooms, and other forms of direct electronic communications; (c) unauthorized access, including so-called "hacking," and other unlawful activities by minors online; (d) unauthorized disclosure, use, and dissemination of personal information regarding minors; and (e) those measures restricting minors' access to other materials harmful to them.

Because of favorable contract negotiations over the past 5 years, the efficiencies generated by a singly hosted statewide filtering application and from economies of

scale, UEN has spent $100,000 annually to provide filtering services for all public schools statewide. This has proven to be a great cost-saving to the state.

Unfortunately, our software license from our current filtering service provider expires in FY 2012. The new statewide license is projected to cost $250,000, which is $150,000 above the $100,000 we currently have appropriated in our budget for this purpose.

UEN's third priority: $36,000 to Fund New School Monthly Connectivity Charges

The growth of UEN's circuit budget is the result of increases in the number of additional users connecting to the UEN network. Through annual state appropriations from the Legislature, UEN has met the funding requirements to handle growth in network capacity.

However, the circuit demands from adding new schools to the inventory of facilities in public education and the charter school system is an issue that causes us great concern. It is anticipated that 12 to 15 new public education and charter schools will be coming on line statewide annually.

During the summer, UEN officials worked with State Legislators and USOE administrators to come up with a solution to help mitigate this funding need at UEN. Part of the solution came through an administrative policy decision of the USOE Board. By Board policy it was determined that the cost to connect to the UEN network infrastructure will be treated like other utility connections to the new facility and funded through the construction bond or the facility lease for charter schools.

Ongoing monthly circuit charges would be funded annually through an incremental appropriation by the Legislature to UEN.

It is therefore requested that $36,000 be included in the UEN FY 2012 budget request to cover the circuit charges for 12 new public education and charter school facilities coming on line in 2011 - 2012.

FY 2011 Supplemental: Emergency Replacement of Cooling System and UPS Generator

UEN maintains a data center at the Dolores Doré Eccles Broadcast Center (EBC), that contains critical equipment and sensitive public data for Higher Education, Public Education, Health care providers, state agencies, libraries and other entities.

This summer, two of the three Heating, Ventilating, and Air Conditioning (HVAC) units used to cool the data center failed. Room temperatures increased rapidly, and soon exceeded acceptable industry levels. Immediately, millions of dollars' worth of equipment and the data they contained was at risk. Replacement of these undersized and aged Computer Room Air Conditioning (CRAC) units with new large capacity units that could handle the heat load and provide some additional cooling capacity for future growth was immediately required.

It is also imperative that the HVAC units and other support systems remain operational during a power failure. Our existing Uninterruptable Power Supply (UPS) generator capacity is exceeded with addition of the new HVAC units. A new UPS unit

will be installed to provide emergency power to these critical computer and cooling components until utility power is restored.

UEN requests a supplemental FY 2011 appropriation of $450,000 to cover the unexpected emergency expenditure for replacement of HVAC units used to cool the computer room and a new UPS generator to provide emergency power to critical computer and cooling components.

Recommendation

It is recommended that the UEN Steering Committee review and adopt the budget request for UEN as illustrated in the following table.

UEN Budget Request

PRIORITY	DESCRIPTION	ONGOING FUNDS	ONE-TIME FUNDS	TOTAL AMOUNT
	FY 2012 Request			
1	Replace One-time Operating Funds	$1,000,000		$1,000,000
2	Statewide Filter License	$150,000		$150,000
3	Funding New School Connectivity	$36,000		$36,000
	Sub-Total	**$1,186,000**	**$0**	**$1,186,000**
	FY 2011 Supplemental Request			
1	Cooling System and UPS Generator Replacement		$450,000	$450,000

TAB 26

UEN COMMERCIAL VOIP TASK FORCE - ACTION

Issue

UEN Commercial VoIP Task Force.

Background

The Commercial VoIP Policy draft document was presented in the August 2010 Steering Committee Technology Services subcommittee meeting. In early October 2010 the draft policy document was discussed with members of the task force. The following changes were suggested at that meeting:

- In section 3. Policy Issues, clarify that UEN will not bear any expenses incurred by stakeholders associated with new connections required to provide commercial voip services
- In section 3. e. add a statement that UEN will give fair warning to the institution prior to turning down a circuit or blocking any traffic
- In section 6.a.ii Technical Issues, add a statement to prefer 10/100/1000 Ethernet Circuits or a statement that all connections must be approved by UEN Technical Services staff
- regarding section 5, add the title “Regulatory”

Recommendation

The draft policy document is now presented to the Steering Committee for consideration and action with the most recent recommended revisions incorporated into the policy (red text). Please review and recommend any further changes, additions, or deletions. It is recommended that this policy now be approved.

Tab 26 Attachment A
Voice over Internet Protocol Policy Discussion

Policy

The purpose of this Policy is to clarify UEN's position regarding VoIP Services transported over the UEN network. The policy outlines the criteria and standards for implementing a VoIP communication link through UEN. The implementation process will be defined separately by UEN Technical Services and will be modified from time-to-time as needed.

Scope

The Utah Education Network was established to provide Utah students and educators with electronic access to quality educational services that improve the quality of student achievement and communications through high-quality, cost-effective Internet access and Interactive Video Conferencing (IVC) through existing public telecommunication services.

In a continuing effort to support schools, school districts, and the public and higher education systems and deliver cost-effective services through an open and competitive bidding process, UEN makes its network available to VoIP services for public and higher education institutions according to identified UEN standards from licensed VoIP vendors under the following conditions:

a. UEN will not solicit VoIP services on behalf of stakeholders.

b. UEN will assist stakeholders in implementing VoIP services at their request.

c. UEN provides VoIP network services as a "best effort" strategy and does not provide guaranteed quality of service (QoS) or level of performance.

d. UEN will not enter into contracts with vendors to guarantee them service beyond contracts with UEN stakeholders.

e. If a UEN stakeholder wants VoIP services at their institution, then UEN's principle concerns are that:

    1. VoIP services will be offered on the condition that it will not degrade network performance.

    2. VoIP service will not impose additional operating costs on UEN.

    3. UEN will determine the best interface to link with UEN's network; (i.e. location, equipment, protocols, etc.).

    4. Clients/vendors are responsible to implement and operate VoIP services according to established state and federal rules and regulations.

Definition of Terms

Voice over Internet Protocol (VoIP) is a general term for a family of transmission technologies for delivery of voice communications over IP networks such as the Internet rather than the public switched telephone network (PSTN).

VoIP Network is a Public Telecommunication Network over which VoIP Services are provided.

VoIP Service(s) – All of the services and technologies that allow the transmitting, receiving, delivering and routing of voice telecommunications by means of Internet Protocol (IP); i.e. commercial VoIP, PBX VoIP, hosted PBX or any like service regardless of branded terminologies.

Public Switched Telephone Network (PSTN) also referred to as the Plain Old Telephone Service (POTS) is the network of the world's public circuit-switched telephone networks.

An **Internet Service Provider (ISP)** is a company that offers its customers access to the Internet. The ISP connects to its customers using a data transmission technology appropriate for delivering Internet Protocol such as dial-up, DSL, cable modem, wireless or dedicated high-speed interconnects.

Firewall – A technological barrier designed to prevent unauthorized or unwanted communications between computer networks or hosts

Enhanced 911, E-911 or **E911** is a North American telecommunications based system that automatically associates a physical address with the calling party's telephone number, and routes the call to the most appropriate Public Safety Answering Point (PSAP) for that address. The caller's address and information is displayed to the call taker immediately upon call arrival. This provides emergency responders with the location of the emergency without the person calling for help having to provide it.

Assisted GPS is a system which can improve the startup performance of a GPS satellite-based positioning system. It is used extensively with GPS-capable cellular phones. making the location of a cell phone available to emergency call dispatchers.

Border Gateway Protocol (BGP) is the protocol backing the core routing decisions on the Internet. It maintains a table of IP networks or 'prefixes' which designate network reachability among autonomous systems (AS). It is described as a path vector protocol. BGP does not use traditional Interior Gateway Protocol (IGP) metrics, but makes routing decisions based on path, network policies and/or rule sets. For this reason, it is more appropriately termed a reachability protocol rather than routing protocol.

Abstract Syntax Notation (ASN) is a standard and flexible notation that describes data structures for representing, encoding, transmitting, and decoding data. It provides a set of formal rules for describing the structure of objects that are independent of machine-specific encoding techniques and is a precise, formal notation that removes ambiguities.

Synchronous Optical Networking (SONET) are standardized multiplexing protocols that transfer multiple digital bit streams over optical fiber using lasers or light-emitting diodes (LEDs).

Time-Division Multiplexing (TDM) is a type of digital or (rarely) analog multiplexing in which two or more signals or bit streams are transferred apparently simultaneously as sub-channels in one communication channel, but are physically taking turns on the channel.

Policy

UEN's policy regarding VoIP Services transported over the UEN network includes but is not limited to:

1. Any licensee offering or marketing VoIP Services shall inform users and potential users of VoIP services of any differences between the VoIP service and traditional telecommunication services.
2. UEN is not responsible for the quality of service (QoS) associated with any particular VoIP vendor. Therefore, the stakeholder exploring VoIP services should consider the issues and potential limitation of VoIP telephone service including but not limited to:
    a. Service Quality;
    b. Latency;
    c. Availability–In situations where telephone services become completely reliant on the Internet infrastructure, a single-point failure can disrupt all communication, including Enhanced 911 and other equivalent services.
    d. Voice Quality;
    e. Nature of Operation;
    f. Ease of Use;
    g. Pricing;
    h. Any other matters that may impact the decision of any user or potential user to access the VoIP service as opposed to alternative voice services; and
    i. Any other matter of which UEN from time to time requires the licensee to inform users or potential users.

3. UEN does not guarantee network security for VoIP services transported over the UEN network infrastructure. UEN will not bear any expenses incurred by stakeholders associated with new connections required to provide commercial VoIP services. Therefore, the stakeholder exploring VoIP services should consider potential network security responsibilities and issues including but not limited to:
    a. Licensees shall implement all appropriate security measures concerning their VoIP networks and protect them from unauthorized or unlawful access.
    b. UEN may either conduct or authorize a third party to conduct, security audits on a licensee's VoIP network and associated facilities, to ensure the security and integrity of that VoIP network.
    c. Licensees shall provide access to UEN or any third party appointed by UEN to conduct these security audits.

d. In respect of any VoIP services and VoIP networks over which those VoIP services are provided, licensees shall comply with all requirements of the state (or agencies of the state) regarding national security requirements.

e. UEN reserves the right to shut off "excessive or bad traffic," and will give fair warning to the institution prior to turning down a circuit or blocking any traffic.

f. Meeting legal requirements of content (CALEA, copyright, etc.) are the responsibility of vendors and all UEN stake holders.

g. Security breaches that affect UEN must be reported to UEN (vendors are responsible for monitoring and reporting all security breaches).

4. Risk issues

a. UEN will not be responsible for the loss of telephone service during a power failure. Therefore, the stakeholder exploring implementation of VoIP services should consider service risk issues including but not limited to:

i. The susceptibility of electrical service to power failures is a common problem.

ii. Since IP phones and VoIP telephones connect to routers which typically depend on the availability of municipal electrical service, phone service would be lost during a power failure.

iii. A temporary solution calls for a locally generated power supply or a battery-backed power supply (UPS) to assure uninterrupted service in case of local power failures.

iv. Telephones for traditional residential analog service are usually connected directly to telephone company phone lines which provide direct current to power most basic telephone handsets independent of locally available electrical power sources. It is recommended that a least one POTS line be available at the institution for emergency use during a power failure.

b. UEN will not provide redundant VoIP circuits over the network infrastructure. Therefore, the stakeholder exploring implementation of VoIP services should consider service redundancy related issues including but not limited to:

i. With the separation of the Internet and the public telephone network, a certain amount of redundancy is provided. An Internet outage does not necessarily mean that a voice communication outage will occur simultaneously, allowing individuals to call for emergency services and many businesses to continue to operate normally.

ii. In situations where telephone services become completely reliant on the Internet infrastructure, a single-point failure can disrupt all communication, including Enhanced 911 and other equivalent services.

c. UEN will not be responsible for maintaining a VoIP E911 emergency calling system. Therefore, the stakeholder exploring implementation of VoIP services should consider VoIP E911 issues including but not limited to:

i. The nature of IP makes it difficult to locate network users geographically. Emergency calls, therefore, cannot easily be routed to a nearby call center. Since IP allows a great deal of mobility, mobile user could be anywhere

that there is network coverage. The VoIP E911 emergency-calling system associates a physical address with the calling party's telephone number. . In the United States, the Wireless Communications and Public Safety Act of 1999 leaves the burden of responsibility upon the subscribers and not the service providers to keep their emergency information up to date.

ii. It will be the responsibility of the VoIP provider to assure that E911 information is up-to-date in conformance with the Wireless Communications and Public Safety Act.

d. UEN will not be responsible for monitoring or enforcing State and Federal telecommunication regulations. Therefore, the stakeholder exploring implementation of VoIP services should consider regulatory issues including but not limited to:

5. Regulatory Issues

a. VoIP providers and clients will comply with all Federal, State and Local Government rules and regulation comparable to those of traditional telecommunication service providers. Examples include:

i. VoIP operators support local number portability;

ii. Make service accessible to people with disabilities;

iii. Pay regulatory fees, universal service contributions, and other mandated payments;

iv. Free-of-charge access to emergency numbers, Caller ID, and Directory services.

v. Enable law enforcement authorities to conduct surveillance pursuant to the Communications Assistance for Law Enforcement Act (CALEA).

6. Technical Issues

a. Any VoIP providers connecting to UEN must physically connect and peer to a UEN backbone hub location.

i. Backbone hub locations are: USU, WSU, DATC, EBC, SLCC, UVU, SNOW - Ephraim, SNOW - Richfield, SUU, DSC, CEU, and UVW.

ii. Connections into these locations must be approved by UEN Technical Services staff. 10/100/1000 Ethernet Circuits will be preferred. No Synchronous Optical Networking (SONET) or Time-division multiplexing (TDM) connections are supported.

b. Routing information between UEN and VOIP providers are exchanged only with Border Gateway Protocol (BGP)

i. VoIP provider should preferably use public Abstract Syntax Notation (ASN) for peering but a private ASN will be supported.

ii. Any UEN routes sent to VoIP provider should be marked with NO_EXPORT BGP community or something similar which disallows UEN routes from being leaked to any other ASN.

iii. Any VoIP provider routes sent to UEN will also be marked with NO_EXPORT BGP community and will not be sent to any neighboring ASN.

iv. Any UEN routes leaked outside of the VoIP providers ASN will be reason for termination of connection and BGP peer.

v. VoIP provider cannot use UEN network for transiting any traffic.

c. UEN does not provide any end-to-end service guarantees.

i. UEN will ensure proper routing only on the UEN network.

ii. UEN cannot provide any Quality of Service (QoS) guarantees on the UEN network.

iii. UEN cannot assist in troubleshooting any layer 4+ issues

TAB 27

QUARTER ONE PROGRESS REPORT ON FY 2011 STRATEGIC PLAN - DISCUSSION

Issue

This is a quarterly progress report for the FY 2011 UEN Strategic Plan. This report includes activities conducted during July, August, and September 2010 for all UEN departments.

Background

A complete copy of the UEN Strategic Plan can be viewed online at *http://www.uen.org/ueninfo/*

Reports follow fiscal year quarters as outlined below:

Quarter 1 – July, August, September

Quarter 2 – October, November, December

Quarter 3 – January, February, March

Quarter 4 – April, May, June

Quarter One FY 2011 Activities and Highlights

Goal 1– Wide Area Network

1. Completed 2nd Draft of the Environmental Assessment for the BTOP network project
2. Formed RFP evaluation committee for content filtering services
3. Managing Dolores Doré Eccles Broadcast Center HVAC data center and emergency power capacity upgrades
4. Provided technical consultation and planning on the LMS RFP
5. Developed specifications for Internet and WAN Circuit Fall RFP
6. Wrote building NIMS and NRF security proposal for Department of Homeland Security Grant for Dolores Doré Eccles Eccles Broadcast Center
7. Continued development of IPv6 in network implementation
8. Planning and coordination of the UtahSaint Conference

9. Work with USOE in Computer Based Testing project and Utah Data Alliance Data Share (UDADS) Statewide Longitudinal Grant Project
10. Expanded network DNS Tools
11. Planning and coordination of Metro Fiber Ring Projects to Salt Lake, Logan, University EPSCoR project with BYU
12. Working with Internet2 & University of Utah on Montana connection
13. Planning and Consultation on the Internet2 US-UCAN project. Additional Wide Area Network projects are listed under Goal 1 of the UEN Strategic Plan.

Goal 2 – Educational Web Resources

1. Entered 20 new Family and Consumer Science Lesson Plans, Updated 25 CTE Courses
2. Modified the my.UEN portlets for messages, documents, and bookmarks so they are now unlimited added the ability to change my.UEN login name
3. Replaced legacy UIMC educator evaluation interface with newer, better version
4. Expanded eMedia to include individual educator access, rating system, saving media searches
5. Created 13 mobile HTML UEN pages
6. Revised UEN.org/development page
7. Developed new UEN-TV online broadcast schedule
8. Eliminated B9 after being told that USOE had this responsibility (view data warehouse)
9. Launched website for BTOP
10. Hosted workshop for Mission U.S.
11. Completed and launched UEN Climate Science website (*uen.org/climate*)
12. Posted monthly web statistics
13. Eliminated old UIMC evaluation interface

Additional Educational Web Services projects are listed under Goal 3 of the UEN Strategic Plan.

Goal 3 – Enterprise Solutions

1. Facilitated discussion and testing of LMS alternatives leading to release of RFP
2. Coordinated LMS with CAO's and each campus partner
3. Began work on Primo federated search solution for Pioneer Library; link resolver next step
4. Completed my.UEN/eMedia integration
5. Added 1,010 eMedia assets for the Climate Science grant

6. Eliminated item 11 due to grant not being funded
7. Held Pioneer Library advocates meeting this quarter via Wimba
8. Obtained consortium pricing for Turnitin license, which was not acceptable to the consortium

Additional Enterprise Solutions projects are listed under Goal 3 of the UEN Strategic Plan.

Goal 4 – Distance Education

1. Continued to support decentralized scheduling and course proposal process
2. Updated UEN Distance Education Catalog
3. Released a new version of MOVI, which may be used with Apple computers.
4. Added and certified new IVC sites, so that the total number of certified classrooms, conference rooms and other locations is now reaching about 700.

Goal 5 – Broadcast Services

1. Continued to support high-need academic programming and outreach (adult basic education, job training, child care, educational technology, teacher licensing, STEM)
2. Submitted join funding proposals with education and community partners to: NASA, NSF, CPB, Department of Education, Utah Dairy Council and Verizon Foundation
3. Developed new partnerships with The University of Utah Brain Institute, Sandy City Recreation and Cheese Science Partners; presented to 965 learners at various screenings and events
4. Expanded preschool STEM outreach and Preschool Pioneer website
5. Added Juab County to digital broadcast area; continue to encourage counties to add UEN to their local translators
6. Ramped up plans to use UEN WAN to connect to rural cable head ends
7. Submitted Mobile DTV proposal; awaiting funding decision

Additional Broadcast Services projects are listed under Goal 5 of the UEN Strategic Plan.

Goal 6 – Professional Development

1. UEN Professional Development staff taught 38 workshop sessions this quarter
2. Four PD staff earned Google educator certifications
3. Produced videos for my.UEN and Dreamweaver 3
4. Continued teacher engagement through Twitter, FB, and text alerts

Additional Professional Development projects are listed under Goal 6 of the UEN Strategic Plan.

Goal 7 – Governance and Accountability

1. Added/Updated Steering Committee membership
2. Coordinated eRate process with SLD, education/library sites and telecom providers
3. Continued coordination with FCC Broadband Plan and rulemaking
4. Held bi-annual UEN All Staff Meeting

Recommendation

This is an information item and requires no further action by the committee.

TAB 28

E-RATE UPDATE - DISCUSSION

Issue

This report summarizes the status of E-Rate funding commitments for the current year and reimbursements from last fiscal year. It also reports on a new order issued by the FCC in September that will add important new features to the E-Rate program in the future. The most important orders are summarized in this memo, and a more extensive description is provided in Attachment A.

Background

E-Rate funding commitments for the current year, July 1, 2010 – June 30, 2011, are now being received. UEN has received funding commitments from USAC for Fiscal Year 2011 totaling $9,951,174 to date, slightly less than 50% of UEN's total FY2011 funding requests. All other Utah E-Rate applicants have received USAC funding commitments for $7,035,955, which represents slightly more than 75% of total non-UEN requests for FY2011.

E-Rate funding reimbursements for July 1, 2009 – June 30, 2010 are being finalized. UEN accounting staff have completed submission of invoices to USAC for all Fiscal Year 2010 reimbursements due to UEN. As of the first of October, known or approved reimbursements from USAC for FY 2010 totaled $10,884,377. Extension requests have been submitted to USAC for all non-recurring construction and installation costs not yet ordered or installed.

Table 1 provides a four year comparison of E-Rate funding requested, committed to UEN, and disbursed by USAC. Information for the current fiscal year is incomplete.

Table 1

UEN E-Rate Funding Fiscal Years 2008–2011*

	REQUESTED	COMMITTED	DISBURSED
Fiscal Year 2008	11,181,832.00	11,153,202.00	8,000,359.00
Fiscal Year 2009	14,725,270.00	14,070,919.00	9,251,180.00
Fiscal Year 2010	17,150,586.00	15,832,800.00	10,884,377.00
Fiscal Year 2011	21,606,669.00	9,951,174*	–

* Review not yet complete

The FCC submitted the National Broadband Plan to Congress on March 16, 2010. During the next several months, several FCC rulemaking proceedings began that had a significant effect on the E-Rate program. UEN has been intimately involved in the process of developing both comments and reply comments to the E-Rate NPRM with State E-Rate Coordinator colleagues from nearly every state. UEN has submitted comments to the FCC regarding both the E-Rate and the High Cost/Connect America Fund (CAF) NPRMs.

After public comments were received and reviewed, the FCC issued the Sixth Report & Order on September 28, 2010. The order will add important new features to the E-Rate program in the future. These include the following:

Dark Fiber – Eligible Service

- Lease of fiber, lit or dark, is E-Rate eligible from any provider (dark fiber must be lit immediately).
- Providers can be telcos; state, regional or local networks; or private networks.

Community Use of Schools' E-Rated Services

- After school hours, schools may open their facilities to the general public to use E-Rate supported services.

Indexing the Funding Cap to Inflation

- E-Rate funding has been capped at $2.25 billion since 1999. For FY 2012 the new cap is $2.27 billion, an increase of $20 million.

Technology Plans

- For FY2012 Technology Plans are no longer required for Priority One (Telecom and Internet Access).
- Technology plans are still required for Priority Two services (Internal Connections and Basic Maintenance of Internal Connections).

Gifts

- Gift prohibitions are always applicable, not just during the competitive bidding process. Gifts (including meals) are described as receiving items that exceed $20 per event per individual or $50 per year.

Disposal of Equipment

- Disposal or resale is permitted no sooner than five years after installation date.

Fiscal Year 2012 471 Filing Window Dates

- Though not yet officially published, the window opening date is slated for December 15, 2010.
- The FY 2012 filing window closing date is slated for roughly the "end of February".

UEN Training

UEN staff attended the USAC E-Rate Applicant training session Washington DC, meeting with the FCC and representatives from the major Local Exchange Carriers. UEN staff are also planning to attend USAC training sessions in various locations around the country this year. Throughout the fall (early November through December) UEN staff will continue our dedicated E-Rate training sessions to ensure that all Utah E-Rate applicants (and service providers if necessary) are fully prepared for the 2011 filing season and that all program changes and new information is thoroughly disseminated.

Recommendation

The Steering Committee is encouraged to consider and discuss the impact of these rule changes for the potential of future actions that may be required to enable more creative means of obtaining or providing broadband to our stakeholders, such as dark or lit fiber.

Tab 28 Attachment A
E-Rate Update Report

Introduction

The FCC submitted the National Broadband Plan to Congress on March 16, 2010. In the ensuing months, several FCC rulemaking proceedings have begun with both direct and indirect effect on the E-Rate program. Most notably, the E-Rate Notice of Proposed Rulemaking (NPRM) was issued, the public comment period closed. The FCC issued the Sixth Report & Order on September 28, 2010, affecting many but not all anticipated changes to E-Rate program rules. Additional proceedings such as the High Cost/Connect America Fund (CAF) NPRM, Rural Health Care NPRM, and the FCC's "Third Way" or Broadband Framework NPRM have also been issued, but no orders have yet been released. All of the Universal Service programs are in the midst of some sort of rulemaking, leading undoubtedly to more rule changes in the near future.

UEN has been intimately involved in the process of developing both comments and reply comments to the E-Rate NPRM with State E-Rate Coordinator colleagues from nearly every state. UEN has submitted comments to the FCC regarding both the E-Rate NPRM and the CAF NPRM. We remain involved with the FCC in regard to the E-Rate Sixth R&O via ex parte presentations, discussions, and comments that will become part of the public record. Though the order has been issued and USAC has begun training for Funding Year 2011, we continue to press for clarification of the rules where ambiguities remain.

With regard to the E-Rate program, several changes to the program have been enacted in the Sixth Report & Order (R&O) and more are expected in subsequent orders that will affect applications for funding year 2012. The changes included in the Sixth R&O are enumerated below with commentary added where useful. We remain hopeful that the FCC order(s) will provide us with sensible changes for each program. Some of the important changes and notifications are:

Dark Fiber

- Lease of fiber, lit or dark, is eligible in Telecom or Internet Access from any provider (dark fiber must be lit immediately).
  Comment: Recurring costs will not be funded/paid until lit.
- Providers can be telcos; state, regional or local networks; or private networks.
  Comment: Providers must obtain a SPIN from USAC.
- Cannot purchase excess capacity for future growth.
- Modulating equipment for leased dark fiber, leased or purchased, is not eligible.
  Comment: "Lit" fiber however presumes modulating equipment is included in the lease costs.
- Maintenance of dark fiber is eligible.
  Comment: Should be included in procurement and evaluations in any case to facilitate "apples-to-apples" comparison.
- Installation costs are eligible.
  Comment: Curb to demarcation on-premise construction costs.

- Up-front construction costs: Construction on school or library property is eligible. Construction beyond the property line is ineligible.
  Comment: Unless provided by an eligible Telecommunications Carrier, then special construction costs are eligible, as they are now.
- Any provider can provide telecommunications over fiber - includes voice phone service, distance learning, etc., and includes providers such as state and regional networks, utility companies, and private companies.
  Comment: Great care must be taken when close relationships exist between the "applicant" arm of an entity and the "service provider" arm of the entity. Conflicts or the appearance of conflict will lead to violation of "fair and open competitive bid requirements".
- Post for dark fiber in both Telecommunications Services and Internet Access categories on the Form 470 to maximize the pool of providers.
  Comment: On the Form 471 application, funding requests must choose the correct type of service. If dark fiber is obtained from a telco, the category should be "Telecommunications Service. If from any other type of provider, the category should be "Internet Access".

Community Use of Schools' E-Rated Services

- Waiver for FY2010 is now permanent.
- After school hours, schools may open their facilities to the general public to use E-Rate supported services.
- Schools decide whether or not to provide such access.
- Service must primarily be for educational purposes.
- Schools cannot purchase additional services to support community use. Use must be incidental and not increase E-Rate costs.
- Community use is limited to non-operating hours and only on campus. School personnel and students must have priority.
- Schools may not charge for use of services or facilities purchased through E-Rate though they may charge a fee to offset ineligible costs (e.g. security, additional electricity, etc.)

Funding for Certain Residential Facilities

- Residential schools that service populations facing unique challenges can receive support for service in residential areas (dormitories) of their schools.
- Populations include: Tribal children, children with physical, cognitive, or behavioral disabilities, schools with 35% or more of their students eligible for NSLP, and juvenile justice schools, where eligible.
- Schools can be public or private.
- All categories of service are eligible.

Indexing the Funding Cap to Inflation

- Funding has been capped at $2.25B since 1999.
- Starting with FY2010, the cap will be increased based on the Dept. of Commerce Gross Domestic Product numbers.
- Cap will not decrease in event of deflation.
- FCC will announce the increase annually.
- For FY2010, inflation is deemed 0.9%. New cap for FY2010: $2,270,250,000.
- This increase is in addition to any rollover funds.

E-Rate Deployed Ubiquitously (EDU) 2011 Pilot Program

- Pilot allows $10M in FY2011 to support innovative and interactive off-premise wireless device connectivity for schools and libraries.
- FCC will use the pilot to gather more information about issues affecting such use which can later be used for permanent rules.
- FCC expects data reporting by those selected.
- Strong preference given to those already implementing such programs.

Technology Plans

- New requirements apply for FY2011 and beyond.
- No longer required for Priority One (Telecom and Internet Access).
- Still required for Priority Two services (Internal Connections and Basic Maintenance of Internal Connections).
- Beware of potential bucket switches – P1 on-premise equipment moved to Internal Connections.
- Applicants citing their own Form 470: If P2 services are all included in the current technology plan, and the plan covers at least part of the upcoming funding year, then a new technology plan is not needed prior to posting. If new P2 services requested are not in the technology plan, then the applicant must have a written plan prior to posting.
- Applicants citing a state-filed Form 470: Not needed prior to posting of state-filed Form 470.
- Technology Plan Approval – no change. All applicants requesting Priority 2 services must have an approved plan that covers at least part of the upcoming funding year prior to the start of service or the filing of the Form 486, whichever comes first.
- Four required elements: Applicants no longer have to include a section on budget.

Competitive Bidding Process

- Order codifies that the competitive bidding process must be fair and open.
- All potential bidders must have access to the same information and must be treated in the same manner throughout the procurement process.
- Additions or modifications to the Form 470/RFP must be made available at the same time and in a uniform manner to all potential bidders.

Competitive Bidding Process Rule Violations Include (But are not limited to):

- Applicant has a relationship with the service provider that unfairly influences the outcome of the competition or provides the service provider with "inside" information.
- Someone other than the applicant (or its representative) prepares, signs and submits the Form 470.
- Service provider is listed as the contact on the Form 470 and the provider is allowed to bid.
- Service provider prepares applicant's Form 470 or participates in the bid evaluation or vendor selection process in any way.
- Applicant turns over the competitive bidding process to a service provider.
- Applicant employee with a role in the selection process has an ownership interest in a vendor seeking to provide the services.
- Applicant does not describe the desired products and services with sufficient specificity to enable interested parties to bid.
- This list is not exhaustive – these entries are meant as examples.

Gifts

- Receipt of gifts by applicants from service providers and potential service providers is a competitive bidding violation.
- Must follow the stricter of state/local or FCC rules.
- Exceptions mirror Federal Government regulations. Items worth $20 or less (meals, pencils, pens, hats, t-shirts, etc.) as long as those items do not exceed $50 per year per employee from any one source (service provider) are OK. This means all gifts from all employees, officers, representatives, agents, independent contractors, or directors of the service provider.
- Gift prohibitions are always applicable, not just during the competitive bidding process.
- Prohibition includes soliciting and receiving any gift or other thing of value from a service provider participating in or seeking to participate in the E-Rate program.
- Service providers may not offer or provide any gifts to applicant personnel involved in E-Rate.

SPIN Changes

- Pre-commitment SPIN changes: Corrective SPIN changes only (i.e., data entry errors).
- Post-commitment SPIN changes: Operational SPIN changes must have legitimate reason to change, such as breach of contract or provider unable to perform, and must select provider with the next highest point value in evaluation.
  Comment: Any services from providers that offer services to you after the window closing whom did not provide a bid/quote prior to the certification date of the Form 471 are not eligible, even if the costs are lower. *Providers must participate in the fair and open competitive bidding process.*

Eligible Services

- Priority 1: Dark Fiber is eligible as described above.
- Telecommunications is now two categories on the ESL. "Telecommunications Services" can only be provided by an eligible telecommunications carrier, and "Telecommunications" can be provided by a non-telecommunications carrier via fiber in whole or in part.
- Web hosting remains eligible: Allows additional functionality of discussion boards, instant messaging and chat. Content remains ineligible, including searching of databases such as gradebooks, encyclopedias, etc.
- Wireless Internet Access Applications remain ineligible. Wireless Internet Access service and data charges for a service that is solely dedicated to access an ineligible functionality are also ineligible.
  Comment: This is a little confusing but the important thing to note here is that the "applications" are ineligible. This includes things like GPS bus tracking, broadcast messaging services, or any *application* that makes use of wireless Internet. Wireless Internet access for basic conduit access to the Internet remains eligible when all other eligibility requirements are met.
- Enhanced Firewalls, Intrusion Detection and Prevention Devices and Anti-Virus and Anti-Spam software: All fully ineligible. Basic firewalls that are bundled with Internet access remain eligible.
- Unbundled Warranties: Applicants that can estimate number of maintenance hours per year for their equipment, based on current life of equipment and history of needed repairs, can seek funding for upfront costs on service contract designed to cover this estimate and upkeep. Reimbursement will be paid on actual worked performed and hours used only.
  Comment: This is one of the most distressing parts of the program changes enacted in this order. To describe in terms understandable to most, this means that Cisco Smartnet is no longer eligible for E-Rate as it is currently packaged and sold by Cisco and their resellers. The routine or preventative maintenance components of Smartnet will remain eligible, i.e., IOS updates and licensing. The "insurance policy" components of Smartnet are no longer eligible however. This

applies to any maintenance contract. An estimate of costs must be documented to substantiate applicant funding requests and USAC will issue funding commitments based upon documented estimates. Reimbursements will only be paid as work is actually done and billed by the service provider. We caution applicants to be careful when submitting Forms 486 for these types of Funding Requests. Unless you trust your maintenance service provider completely, you should wait until the first maintenance incident to submit a Form 486. This will prevent unauthorized invoicing of USAC for services that have not actually been provided to your school or library.

Disposal of Equipment

- Disposal or resale is permitted no sooner than five years after installation date.
- Applicants may receive payment or other consideration in return for disposal.
- Applicants are not required to use equipment for five years, nor are they required to dispose of equipment after five years.
  Comment: Equipment must be used for at least three years and at the location for which it was originally funded.
- No notification to USAC is needed, but update your asset registers.
- This does not change the requirement to report transfers of equipment made less than three years after purchase.

Form 470 & 471

- The FCC Form 470 will be greatly simplified and is expected to be released by OMB in the next few weeks.
- If procurement is to commence before the new form is released, applicants may still submit the existing form. It is highly recommended that when submitting a 470 prior to release of the new form, that applicants certify the form online immediately upon submission. Paper certifications that have not been data entered at the time of the new form's release will require a new form 470.
- A revised FCC form 471 is expected but likely not before the 2011 filing window.

Funding Year 2011 471 Filing Window Dates

- Though not yet officially published, the window opening date is slated for December 15, 2010.
- The 2011 filing window closing date is slated for roughly the "end of February". Opening and closing dates have been pushed back, which should be a relief for most applicants.

TAB 29

NTIA BTOP INFRASTRUCTURE GRANT ROUND 1 NETWORK PROJECT UPDATE - DISCUSSION

Issue

This report provides the status of the UEN has made with the National Telecommunications Information Administration (NTIA) Broadband Technology Opportunity Program (BTOP) infrastructure award made to UEN in February 2010. This award involves extending broadband services to 130 community anchor locations (elementary schools, charter schools, libraries, and head start locations).

Background

The NEPA Environmental Assessment is required for any federally funded project that has the potential of environmental impact including ground disturbance, air and noise pollution, critical habitat, historic sites or structures, wetlands and waterways. During the due diligence process for the BTOP grant, UEN was required to complete a detailed environmental questionnaire. UEN retained Ludlow Engineering, local engineering firm specializing in civil engineering for telcom projects, to complete the questionnaire. NTIA determined after reviewing the questionnaire that a post-award environmental assessment was necessary for UEN's project.

A Special Award Condition (SAC) was placed on the BTOP grant by NTIA, so all grant funding is on hold until NTIA issues a finding of no significant impact (FONSI) on the complete environmental assessment report submitted by UEN. Within six months of the SAC, UEN had to establish with NTIA that the BTOP project is compliant with the National Environmental Policy Act (NEPA) and National Historic Preservation Act (NHPA). A draft Environmental Assessment (EA) was submitted at the end of July for comment, and a revised second draft was submitted on September 24th. This was followed by a conference call with NTIA staff to review the EA report.

NTIA has also "started the clock" on UEN's project plan and implementation schedule. The challenge for UEN is the Environmental Assessment must be completed before project funds are released, however UEN must stay on track with the project timeline regardless of the impact of the environmental assessment to comply with BTOP requirements.

At the end of September, NTIA submitted an updated comment matrix for the second draft of the Environmental Assessment. UEN is working with SWCA Environmental Consultants to complete an assessment of buildings and structures on whether any of the project locations qualify to be placed on the National Historic Registry. Once

this work is complete, UEN will consult with the State Historic Preservation Officer (SHPO) to determine any required mitigation or alteration to the project. We hope to begin construction on projects in 1st Quarter 2011.

UEN completed and submitted the following reports:

- Revised Baseline Report
- ARRA report for the 3rd quarter

The reports have been approved by NTIA. UEN continues to have weekly conference calls with our Federal Program Officer which have proven to be very effective in managing the project and working on outstanding issues.

Recommendation

This is an information item and requires no further action by the committee.

Tab 30
Utah EPSCoR Proposal - Discussion

Issue

UEN was approached by VP's of research from The University of Utah, Utah State University, and Brigham Young University to partner on their federal National Science Foundation EPSCoR Proposal for Research Infrastructure Improvement Program: Track 1. The proposal was jointly written and submitted on October 4, 2010. Laura Hunter, one of four Co-PI's for the proposal, and Steve Corbató, leading the Cyber infrastructure portion, will provide an update for the Committee.

Background

The Experimental Program to Stimulate Competitive Research (EPSCoR) is a program designed to fulfill the National Science Foundation's (NSF) mandate to promote scientific progress nationwide. The EPSCoR program is directed at those jurisdictions that have historically received lesser amounts of NSF Research and Development (R&D) funding. Twenty-seven states, the Commonwealth of Puerto Rico and the U. S. Virgin Islands are currently eligible to participate. Through this program, NSF establishes partnerships with government, higher education and industry that are designed to effect lasting improvements in a state's or region's research infrastructure, R&D capacity and hence, its national R&D competitiveness.

Research Infrastructure Improvement Program: Track-1 (RII Track-1) awards provide up to $4 million per year for up to 5 years to support physical, human, and cyber infrastructure improvements in research areas selected by the jurisdiction's EPSCoR governing committee as having the best potential to improve future R&D competitiveness of the jurisdiction. A diagram illustrating the proposal appears on the next page.

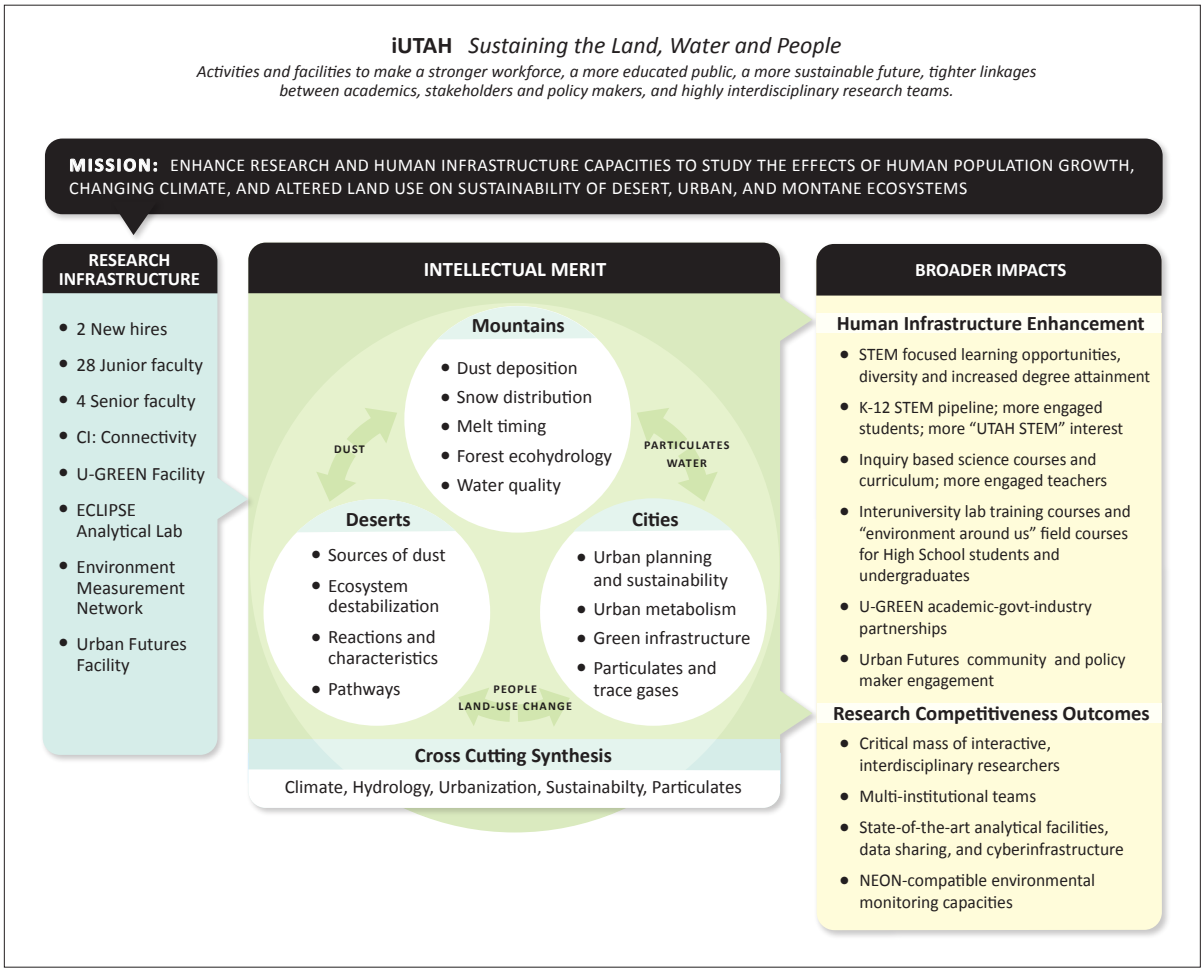
Additionally, Utah was awarded an NSF under the EPSCoR Research Infrastructure Improvement program in August, with Steve Corbató as PI for that complementary effort. This RII Inter-Campus and Intra-Campus Cyber Connectivity (RII C2) award will leverage the facilities and statewide reach of the UEN to expand the capabilities of the of the research and education communities to more effectively engage faculty and students across Utah in science, technology, engineering and mathematics (STEM) fields. It will extend network capabilities (initially provisioned at an aggregate bandwidth of 30 Gbps) of the Research@UEN optical network to BYU to complement capabilities under development for Utah State University (USU) and UU. Research@UEN's Phase-1 development includes the Salt Lake City metropolitan optical network and a fiber-based spur to Logan in support of UU and USU, respectively. The RII C2 project proposes southward extension to Provo for BYU that can enhance the level of

collaboration and computational engagement among the three institutions, and greatly expand their capabilities to collaborate with researchers nationally and internationally through high-speed access to the national R&E networks, Internet2, and National LambdaRail (NLR).

Recommendation

Steering Committee members are requested to keep their fingers crossed that this essential funding request is approved. No further action is required of the UEN Steering Committee at this time.

Utah EPSCoR Track 1 Proposal Diagram



Tab 30 Attachment A
Utah EPSCoR Track 1 Proposal

Project Summary - iUTAH Urban Transitions and Arid region Hydro-sustainability

Vision and Description of the Project. The Urban Transitions and Arid region Hydro-sustainability **(iUTAH)** EPSCoR project seeks to elevate the state's research and human infrastructure capacities to address the pressing scientific and societal challenge **of how human population pressure coupled with a changing climate and altered land use are affecting the sustainability of desert, urban, and montane ecosystems. iUTAH** will use the Wasatch Range Metropolitan Area corridor and adjacent desert and montane ecosystems as a "laboratory" to understand interdependencies among water dynamics, population, urban development, and arid-montane ecology. A new paradigm of interdisciplinary studies, capacity building, and data/model integration will be initiated to understand the complex and coupled human and natural systems that will influence Utah's future. Water is critical to sustainable economic development in Utah as well as to urban and natural ecosystems. Our premise is that research on particulate (dust) generation, water resources and urban planning provides a nucleus for interdisciplinary research and educational capacity building. Our project involves development of innovative activities and facilities that will greatly boost research and human infrastructure capacities, including:

1. integrated research to understand relationships between stressors and adaptive solutions; humans are both drivers of change and essential for sustainability. Stressors include growth, climate change, and particulates from arid land destabilization; these feed back to impact water resources (Activities 1-4);
2. increased diversity and workforce training through pre-college summer camps, undergraduate research experiences, and K-12 pipeline and curriculum related to research foci (Activities 5-6);
3. increased external engagements through public television, traveling displays, science fairs, and web-available curricula; targeted at rural schools and underrepresented individuals (Activity 7); 4) increased faculty training, mentoring, targeted hiring, and collaboration development (Activity 7);
4. field courses in urban, desert, and montane ecology for undergraduates and HS students (Activity 8);
5. an urban future scenarios effort bridging science themes, urban planning needs, and stakeholders guided by planning, political, and scientific experts from the community (Activity 9);
6. a new cyberinfrastructure (CI) facility (Facility 1) in support of data-intensive discovery, simulation, and modeling and the adoption of standards and best practices for data curation and interoperability;
7. enhancements to and installation of environmental particulate, trace gas and climate monitoring networks to quantify environmental changes and processes more comprehensively (Facility 2);

8. a new state-of-the-art analytical facility for chemical identification and quantification of liquid and solid samples, and for tracing particle origins and distribution processes (Facility 3);
9. a new green infrastructure experimental station to integrate ecological and sustainability concepts into urban design of buildings and waterways (Facility 4);
10. an urban future scenarios interactive lab facility where stakeholders, students, and faculty can simulate alternative urban forms and socioeconomic and environment consequences (Facility 5).

Intellectual Merit. We propose interdisciplinary research activities addressing the question of how human population pressure coupled with a changing climate and altered land use are affecting the sustainability of desert, urban, and montane ecosystems. We address the following questions:

- What are the sources and rates of particulate (dust) generation? What are the causes of changes in particulate generation? (Activity 1)
- How do increased urbanization, changes in dust production from urban and arid ecosystems, and climate change impact montane ecology, hydrology, and water resources availability? (Activity 2)
- How does urban form influence urban metabolism? Given changes to particulate concentrations, climate, and water availability, what are the impacts on stream and ecological processes in cities? What are the potential benefits of alternative city planning and infrastructure design strategies in response to population growth, climate change, and particulate impacts? (Activity 3)
- Activity 4 is a crosscutting synthesis and modeling effort to integrate knowledge emerging from results of Activities 1-3 in a way that informs policy and management stakeholders so that Utah remains economically and ecologically sustainable.

Broader Impacts

iUTAH balances enhancements in research infrastructure with human infrastructure and outreach. The research activities and infrastructure are investments in junior faculty, who receive essentially all of the research and graduate student support; senior faculty serve as mentors in the research enterprise, as initial bridges to developing partnerships, and in developing leadership capacity. Participation of student and faculty from metro/regional universities and community colleges will broaden STEM. Expanding research-training opportunities in these institutions where student growth (especially underrepresented) is high will increase the recruiting of STEM researchers to sustain broader impacts. **iUTAH** is transformational for both research infrastructure and human infrastructure. New bridges will form among social sciences, planners, civil engineers, natural sciences, and the public, and public education. These advances, STEM training, and the creation of long-lasting facilities will position Utah to capitalize on emerging interdisciplinary opportunities and foster links among academics, industry, and government agencies. **iUTAH** will advance K-12 and undergraduate STEM so students see science, engineering, and socioeconomic couplings as part of everyday life, and a possible career path. **iUTAH** is well suited

for increasing scientific curiosity and environmental literacy of all Utah learners and engaging them in STEM training and learning opportunities. The human dimensions of water shortages and their economic and environmental importance are pervasive and provide a fertile subject matter for outreach.

Cyberinfrastructure. A distributed, yet tightly coordinated cyberinfrastructure supports all research activities. It provides computing, storing, collaborating and publishing services for research and human infrastructure activities. Our CI increases collaboration through shared computing infrastructure and common, integrated data management systems. We will: 1) create a data management facility supporting the full data life cycle; 2) adopt standards for data sharing and storage that promote interoperability, open access, and long-term retention; 3) develop partnerships with agencies with existing data assets and other CI programs; 4) enhance high performance computing (HPC) resources for simulation and modeling; and 5) deploy technologies that promote connectivity and collaboration.

Diversity (Activity 5). **iUTAH** will boost participation of students with disabilities, women, and underrepresented minorities in STEM learning. A STEM Pipeline will increase statewide participation in STEM. Planned components of these initiatives include (a) summer inquiry-based workshops at a charter school with a predominant underrepresented student composition; (b) summer inquiry-based workshops at Utah Schools for the Deaf and Blind targeting a audio-described, closed-captioned, and differentiated curriculum; (c) increased understanding of field-base science by establishing urban field sites at schools with large underrepresented student populations; (d) adapting Climate Science in a Nutshell videos to Utah's ten most predominant languages; distribution statewide and via the national PBS Digital Learning Library; (e) engaging Utah's 5 American Indian tribes to develop culturally appropriate experiences for environmental education; (g) identify and promote STEM learners by providing early field experiences and follow-up through email mentoring and engaging their counselors and parents in mapping a clear route to college in partnership with Upward Bound, MESA, McNair, FIRST Lego League; (h) support disabled students, women, Hispanic, and American Indian graduate students through partnerships with working scientists, industry leaders, internship and research opportunities leading to STEM careers coordinating with Diversity and Disability Services.

Workforce development (Activity 6). We will foster experiences that promote STEM degree attainment and increase faculty success through the following: (a) enhancing the visibility of community college, undergraduate, and graduate degree STEM programs at all Utah institutions; (b) developing targeted undergraduate research opportunities for students at community colleges and colleges; (c) building upon shared CI and databases to facilitate collaborative work; (d) provide webinars for common professional development needs (e.g., grant writing, online instruction strategies, publishing research.); (e) establish mentorships for junior faculty; and (f) conduct symposia meetings among these research partners.

Activity 8 will provide field-based opportunities for high school and undergraduates from across the state through week-long field immersion courses focused on (a) ecology, hydrology, dust, and climate in desert and montane ecosystems; (b) green infrastructure, building design, and urban ecology. These programs will leverage existing field facilities and will target underrepresented students in Utah (e.g., American Indian, Latino, first generation, women). Activity 9 will be an urban futures scenario lab to explore Utah's future scenarios incorporating urban design, urban metabolism, and ecological and climate change.

External engagement (Activity 7). **iUTAH** will engage in 3 broad areas: website and online experiences, distance learning, and UEN-TV. Specific component activities include: (a) increase participation in the Utah STEM Learning Opportunities Database at *http://stem.uen.org;* (b) produce short video programs highlighting Utah STEM individuals; (c) support a public-facing **iUTAH** website for learners of all ages; (d) develop summer institutes to bring together Utah secondary teachers, project scientists, and staff to create online learning experiences; (e) community partnerships with environment education associations; (f) expand distance education into four rural service areas; (g) virtual Science Fair Fairs; (h) record Scientist in the Spotlight presentations; (i) **iUTAH** programming on UEN-TV 3 hrs/wk; (j) connect with local TV Azteca affiliate and goals to Hispanic audiences; (k) develop/travel statewide exhibits/lectures.

Evaluation and Sustainability. The project's evaluation plan includes formative evaluation processes to improve the project's effectiveness, and summative evaluation to assess its impact in relation to its goals. Data collection and analysis methods include qualitative and quantitative approaches including external evaluation, AAAS Assessment, the project's Scientific Advisory Board, NSF EPSCoR Reverse Site Visit, and Internal Project Evaluation. These evaluations enhance efficacy, identify obstacles, develop corrective action plans as needed, and plan improvements. The project's sustainability plan will maximize benefits to the state through seed funding in emerging areas aligned with Utah's Science & Technology Plan, infrastructure investment, education and workforce development, and focused efforts to attract a wide range of extramural funding. By increasing the impacts of STEM research and training and fostering partnerships among institutions of higher education, the private sector, and other stakeholders, the research will act as a powerful catalyst for sustained investment and R&D.

Sustainability. The UU and USU commitments to **iUTAH** include sustaining faculty development by providing two new tenure-track assistant professor lines beginning in 2012, including set up costs. This cost share is above the required 20% costsharing and over 5 yrs amounts to approximately $1,250,000. Additionally, the UU will provide an additional $400,000 to purchase an electron microprobe analyzer. Furthermore, the UU and USU commit to sustain Facilities after **iUTAH** is completed, providing the technical assistance to sustain these statewide facilities. This will amount to approximately $250,000. We will work to sustain pre-college camps and undergraduate experiences, via site-REUs and other funding. We envision that

iUTAH UEN-TV broadcasts, video modules, and STEM website will be sustained through state funding or grants developed during the **iUTAH** project. The teams formed during **iUTAH** and links across universities will be sustained through on-campus interdisciplinary centers. **iUTAH** will generate knowledge and tools useful to Utah's sustainability decision makers.

Management. Our gender-balanced team has senior leadership and provides opportunities for junior faculty to be mentored as leaders. The Co-PIs have multidisciplinary experience, working on ecological (Ehleringer), engineering (Baxter), and hydrological (Tarboton) projects, in workforce development and STEM activities (Hunter, Baxter and Ehleringer), and open-access facilities (Ehleringer, Tarboton, and Baxter). Jim Ehleringer (PD, UU) will commit halftime to lead **iUTAH.** Co-PI Laura Hunter (UEN) will lead K-12 diversity, workforce development, and external engagement; Ehleringer will lead equivalent college-level activities. Co-PI David Tarboton (USU) will oversee cyberinfrastructure. Co-PI Larry Baxter (BYU) and Tarboton will lead research infrastructure activities. Co-PI Michelle Baker will oversee facilities infrastructure. Two staff members will help coordinate **iUTAH** activities, including, diversity, workforce development, and external engagement, assessment, travel, and annual meeting activities.

TAB 31
NETWORK PERFORMANCE AND IVC SERVICES METRICS - DISCUSSION

Issue

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

Background

Network Performance Metrics for August 1, 2010 through October 1, 2010

Network Backbone Availability

Month of August.....99.984%

Month of September 99.975%

Month to date October 99.876%

Year to date.....99.790%

Network Backbone Utilization

North Ring.....60%

Central Ring 22%

South Ring.....38%

Network Backbone Latency

North Ring Latency.....4.7ms

Central Ring Latency.....3.3ms

South Ring Latency 5.6ms

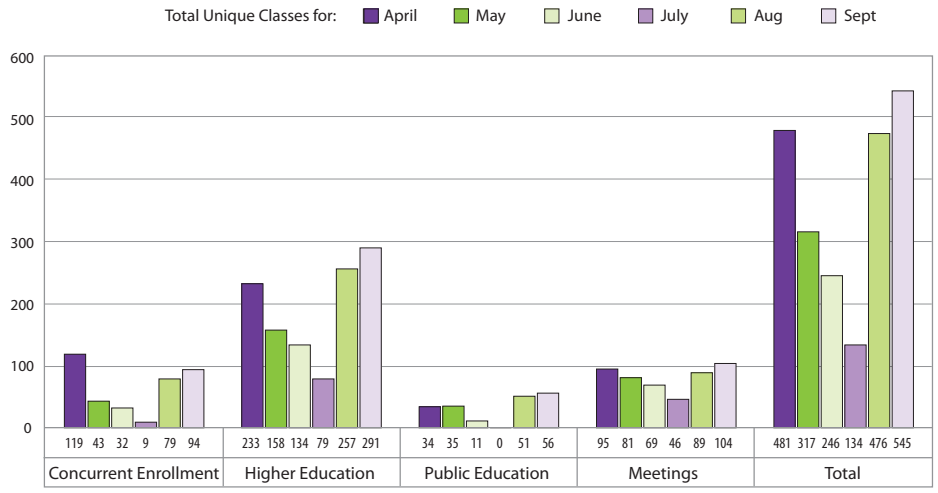
Internet Utilization Statistics

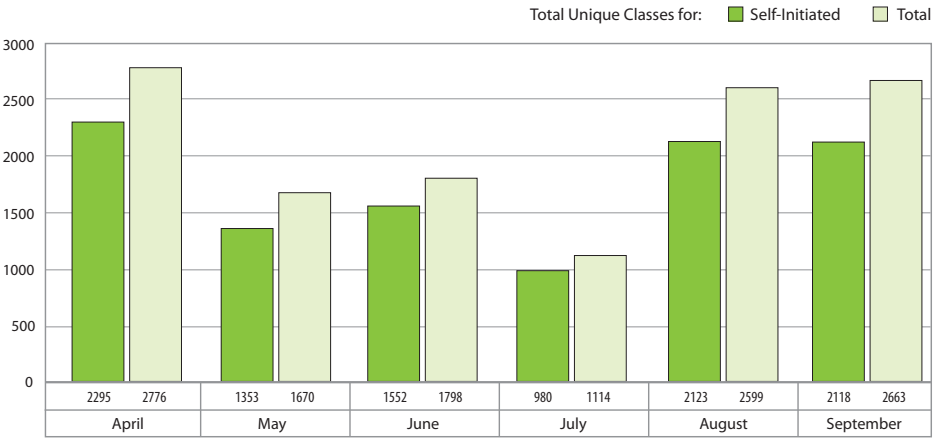
Available Bandwidth 12Gbps

Peak Utilization 6.4Gbps

IVC Metrics Summary

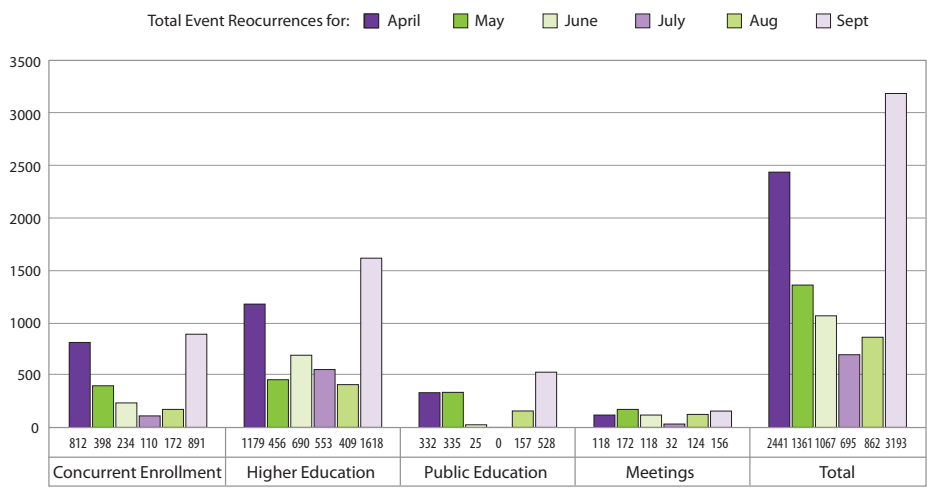
Total Unique Classes

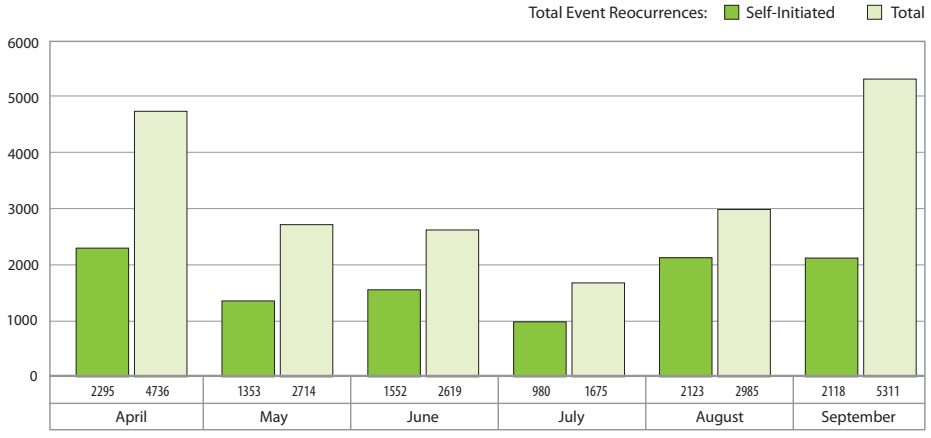




Source: Utah Education Network, October 2010

Total Event Reocurrences





Source: Utah Education Network, October 2010

Recommendation

This is an information item and requires no further action by the committee.

TAB 1

STEERING COMMITTEE MEETING MINUTES

UTAH EDUCATION NETWORK STEERING COMMITTEE

August 20, 2010 – 9:00 a.m.

Members Present: Kenning Arlitsch, Steve Corbató, Steve Fletcher, Rick Gaisford, Brenda Hales, M. K. Jeppesen, Pat Lambrose, Eric Mantz, Donna Jones Morris, Gail Niklason, Mike Petersen, Glen Taylor, Robert Wagner for Ronda Menlove, Barry Walker, Ray Walker, Gary Wixom.

Others Present: Scott Allen, Charice Black, Barry Bryson, Becky Davis, Dave Devey, Jeff Egly, Virgil Ellis, Rich Finlinson, Boyd Garriott, Eric Hawley, Laura Hunter, Troy Jessup, Karen Krier, Lisa Kuhn, Don Mahaffey, Steve Mecham, Dan Patterson, Bryan Peterson, Kevin Quire, Joni Robertson, Dennis Sampson, Jim Stewart, Cory Stokes, Lee Tansock.

Welcome and Introductions

Gary Wixom welcomed everyone to the August Steering Committee meeting.

Committee of the Whole

Tab 9 – New Steering Committee Member

Ron Barlow has resigned as the Superintendent of Tintic School District and the UEN Steering Committee. At the suggestion of the Utah School Superintendents Association, Co-Chair Brenda Hales recommends that Doug Wright, Superintendent of San Juan School District, be nominated to the Steering Committee. Because of the importance of the San Juan School District to UEN, and because of the important role that UEN plays to meet educational goals in the Four Corners area, it is very appropriate that Superintendent Wright has been nominated and agreed to serve on the Steering Committee. Superintendent Wright has agreed to serve on the Steering Committee.

A motion was made and seconded to approve the nomination of Superintendent Doug Wright to serve a four year term beginning August 2010 and ending August 2014 on the UEN Steering Committee. THE MOTION CARRIED.

Tab 10 – Recognition of Service to David Devey for Contributions to The University of Utah, KUED and the Utah Education Network

Gary Wixom and Mike Petersen presented a framed certificate of appreciation to David Devey for his 36 years of service to KUED and the Utah Education Network. Devey will retire on August 31st. UEN recognizes the numerous contributions he has made to the success of UEN's video network, data network and broadcast services. "Thank You" David for your many contributions and decades of service.

Gary Wixom and Mike Petersen present a framed certificate of appreciation to David Devey.

Tab 11 – FY 2011 UEN Strategic Plan

Mike Petersen reported to the Committee that the suggestions and corrections from the June Steering Committee Meeting have been incorporated into the FY 2011 Strategic Plan. This plan once again, was developed with input from the Steering Committee members during the June UEN Steering Committee meeting, the May Strategic Planning Retreat, several subcommittee meetings and internal UEN staff meetings. A full copy of the UEN Strategic Plan can be found in Tab 11 Attachment A.

A motion was made and seconded to approve the FY 2011 UEN Strategic Plan. THE MOTION CARRIED.

Tab 12 – NTIA BTOP Infrastructure Grant Round 1 Project and Round 2 Application Update

Dennis Sampson presented a progress report on UEN's grant from the National Telecommunications Information Administration (NTIA) Broadband Technology Opportunity Program (BTOP) made in February. This award will extend broadband services to 130 community anchor locations. Due to a Special Award Condition placed on the UEN BTOP grant by NTIA, all grant funding is on hold until NTIA issues a finding of no significant impact on the complete environmental assessment report submitted by UEN. UEN has until the end of July to submit a final environmental assessment with a conclusion of the engineering analysis.

On August 6th, UEN's baseline report was approved by NTIA. Dennis shared that on August 9th, UEN received comments from both the National Oceanic and Atmospheric Administration (NOAA) and the federal environmental Assessment (EA). UEN is working to incorporate requested changes and information to receive preliminary

approval of the EA from the NTIA assessment team. We anticipate it will be a few weeks before we are able to submit the revised draft EA for additional review.

Dennis reported that on March 26th UEN submitted a Round 2 BTOP Comprehensive Community Infrastructure application to provide broadband Ethernet services to an additional 140 community anchor locations. On June 7th UEN was notified that our application was selected for due diligence review. UEN has responded to all financial, technical, environmental, and letters of support questions from project partners. We are hopeful that a funding announcement will be made to us by the end of August.

To see the complete detailed Round 2 project, please refer to Tab 12 Attachment A.

Tab 13 – Course Management Service Timeline Update

Gary Wixom asked Scott Allen to report on the status of this project. Scott reported to the Steering Committee that UEN holds and has negotiated the software subscription contract for the Blackboard Vista (formerly WebCT Vista) online course management suite for the last six years. The current contract with Blackboard expires on June 30, 2012 and all institutions relying on this product must shift to another CMS/LMS platform before June 30, 2012.

Scott shared that they are in the process of putting together an RFP for Blackboard Vista replacement or negotiate with Blackboard for a pre-RFP contract extension (with approval from the consortium). The RFP would be issued at the beginning of Fall Semester 2010. With this said, they would be hoping for a decision on the RFP by end of December 2010. UEN is actively collaborating with institutions and vendors to evaluate alternate CMS/LMS platforms to replace Blackboard Vista within the next two years. The timeline that was outlined in the April 2010 UEN Steering Committee is still being followed. To see a complete plan for Fall and Spring Semesters going forward, please refer to Tab 13.

Tab 14 – Network Performance and IVC Services Metrics

Troy Jessup reported to the Steering Committee that although our metrics numbers are still good, they are not the five 9's they strive to achieve. To see the detailed percentages please refer to Tab 14, page 27.

Louie Valles reported on the IVC Metrics Summary. The detailed summary in on Tab 14, pages 28 to 30.

Tab 15 – Steering Committee Meeting Minutes

A motion was made and seconded to approve the minutes as written. THE MOTION CARRIED.

Tab 16 – Other

The next Steering Committee meeting will be held on October 22, 2010 at 9:00 a.m. at the Dolores Doré Eccles Broadcast Center.

In attendance: Scott Allen, Kenning Arlitsch, Becky Davis, Rich Finlinson, Rick Gaisford, Laura Hunter, Doug Jones, Karen Krier, Pat Lambrose, Donna Morris, Gail Niklason, Lee Tansock, Kathy Webb, Gary Wixom, Jo-Ann Wong.

Tab 17 – Perspectives K-12 Meeting Report – Discussion

Doug Jones reviewed Thursday's "Perspectives" meeting where K-12 information technologists, education leaders, curriculum and assessment specialists met and heard Christopher Lohse, Director of Data Policy and Research for the Council of Chief State School Officers.

Several committee members who attended the Perspectives meeting expressed their thanks to UEN for holding the meeting and recommended another meeting perhaps when the legislative session ends.

Tab 18 – Updated UEN Service Catalog - Discussion

Laura Hunter explained that the service catalog is a "UEN 101" that defines UEN services and acronyms. She welcomes any feedback. To view the catalog, go to: *http://www.uen.org/ueninfo/service_catalog*

Tab 19 – Mobile DTV – Discussion

Laura Hunter said UEN has applied for a CPB grant requesting support to build new Mobile DTV capabilities. If funded, the grant would include installation of approved ATSC equipment and mobile broadcast of MHz Worldview statewide.

Tab 20 – How to Follow UEN News - Discussion

Rich Finlinson described the multiple platforms UEN uses to distribute information to stakeholders.

Members are encouraged to follow UEN's newsletters, Twitter, or homepage news to be current on activities.

Other

Committee member, Kenning Arlitsch reported that he will be taking a year-long sabbatical and said his substitute on the Steering Committee is Debbie Rakhsha, head of Application Development, Marriott Library. Subcommittee members thanked Kenning for his time and wished him well with his research during the coming year.

TAB 2
OTHER

TAB 3

eMEDIA REPORT - DISCUSSION

Issue

Adriane Andersen will provide an update on the eMedia service.

Background

eMedia is UEN's media on demand service for education available through Pioneer Online Library and directly at *http://www.uen.org/dms*. UEN's Digital Media Service is a digital media repository filled with video and other educational media free for Utah's educators, students and citizen learners. The Digital Media Service allows you to search for content, preview it and then download the media for on demand use. The digital repository includes: videos licensed by the Utah Instructional Media Consortium, local programs from KUED-7, National PBS programs, as well as media from other trusted education partners.

AVERAGE NUMBER OF VISITS TO EMEDIA

July	97 per day
August	264 per day
September	927 per day

VISIT ZENITHS*

July 14	156
August 31	604
September 22	1,311

* Day each month with the highest # of visits

TOTAL VISITS **29,786**

TOP TEN CITIES FOR USAGE*

1. Salt Lake City
2. West Jordan
3. Magna
4. St. George
5. Midvale
6. Layton
7. Ogden
8. Sandy
9. Logan
10. American Fork

* In order of usage

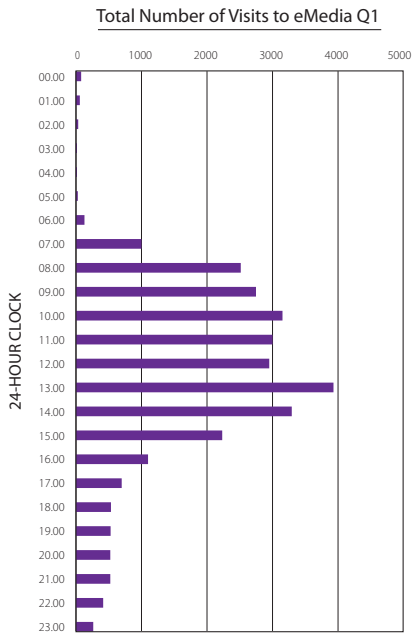
ITEM COUNT*

K-12 Content	12,910
Higher Ed Content	4,876

* As of Oct. 1, 2010. A few items are both K-12 and Higher Ed, so there is some data overlap.

Adriane Andersen will provide a report that includes updates on the core service of eMedia, content sharing and system integrations, use statistics, and future plans for the service.

HOURLY USAGE



Recommendation

This is an information item and requires no further action by the committee.

TAB 4

STEM EDUCATION ACTIVITIES UPDATE - DISCUSSION

Issue

In response to national and local calls to better prepare students for careers in science, technology, engineering and math (STEM), UEN Instructional Services is helping improve STEM awareness and literacy with several projects.

Background

A competitive 21st Century workforce is one strong in STEM fields, yet according to the STEM Education Caucus, "fewer American students than ever are graduating from college with math and science degrees." To address this need, UEN has been actively participating in efforts to raise awareness of the importance of STEM education and to make high quality, STEM-focused instructional resources accessible to educators, learners, and the general public.

Preschool Pioneer

http://preschool.uen.org/

To support STEM education for young children, UEN has added more than 40 STEM-focused resources to the Preschool Pioneer website along with a prominent STEM tab on its main page, such as How The Body Works, I Spy Shapes, and Pattern Matcher.

Climate Science

http://www.uen.org/climate/

UEN is in the process of completing the Climate Science project, which includes 11 short, purpose-built videos that explain key climate science concepts, the addition of more than 1,000 digital assets into eMedia, and the development of lesson plans and a website to help teachers incorporate climate science concepts into their curriculum while continuing to address core standards. Project partners include EarthSky Communications, the J. Willard Marriott Library at The University of Utah, Planet Nutshell, the Salt Lake Center for Science Education, Utah Climate Center, the Utah Museum of Natural History, the Utah State Office of Education, West High School Students, and scientists Holly Godsey and Dr. David Chapman of The University of Utah.

Cheese Science

http://www.uen.org/tv/cheese/

Launched one year ago, Cheese Science is a multi-platform project that expands the educational impact of a licensed television program (*Cheese Slices*) with a local production (*CHEESE3*), online resources, and community outreach to raise awareness about Utah's growing demand for food scientists and workers for related industries. In the year since its inception, Cheese Science has brought together research scientists, local businesses, community members, and K-12 educators and students. UEN is currently seeking underwriters for a 30-minute production tentatively titled *Utah's Cheese Story*. Similar in format to a *Cheese Slices* episode, the documentary will explore our state's cheese industry while highlighting local food science careers and educational opportunities.

UEN SciFi Friday

http://www.uen.org/tv/scifi/

Now in its fifth year, UEN SciFi Friday continues to connect viewers with STEM experts through its "science to go with the show." More than 85 experts, mainly with Utah institutions of higher education, have been interviewed for podcasts available via iTunes U and online. As part of an ongoing effort to inspire and gauge audience engagement, the project website was upgraded earlier this year, making it easier for visitors to find articles and podcasts by science topic, expert name, or film title. To continue to build the broadcast-website connect, this quarter saw the program's first two themed promotions: "Pirate Month" and the "UEN SciFi Friday Halloween Smackdown: Ghosts v. Zombies." Scheduled to coincide with International Talk Like a Pirate Day, "Pirate Month" included the airing of pirate films and production of podcasts on Internet piracy (featuring Steve Hess and Troy Jessup). Launched the last week of September, the "Smackdown" invites viewers to vote online for the ghost or zombie film they'd most like to see that week, allowing UEN to gather data on viewer response as well as provide fans an opportunity to participate in programming decisions.

STEM Online Learning Database

http://stem.uen.org/

At the request of the Utah Math and Science Education Consortium, UEN developed a website for the promotion of STEM-related learning opportunities for students throughout Utah. The online, searchable database enables students, educators and parents learn about summer camps, field trips, scholarships, internships and more. The site was launched in January 2010 and in the last quarter received 2,104 visits.

Additional STEM-Related Broadcasts

http://www.uen.org/tv/

This quarter, UEN-TV aired numerous STEM-related programs to engage viewers of all ages, including a STEM programming block each Monday evening:

- *Peep and the Big Wide World* is an animated, Emmy-winning science and math series for young children. It continues to air Sundays at 8:30 a.m. and Wednesdays at 12:30 p.m.
- *Enviropals!* is a science-themed, 30-minute show for children aged 4-8 years. It continues to air Fridays at 3:30 p.m.
- *Jonathan Bird's Blue World* is a family-oriented television series hosted by dynamic marine naturalist and underwater photographer Jonathan Bird. It continues to air Saturdays at 3:00 p.m.
- *Great Museums – The Smithsonian National Zoo: Wild Thing!* offers a window into the animal kingdom, showcasing the global leadership role of our nation's zoo in preserving endangered species on the edge of extinction.
- *Gearing Up* documents students participating in the national robotics competition For Inspiration and Recognition of Science and Technology (FIRST).
- *Solar Car: The Secrets of RA7* follows teams of students competing in the 2009 World Solar Challenge as they build solar-powered vehicles and race them across the Australian Outback.
- *Hard Problems: The Road to the World's Toughest Math Contest* follows the six exceptional high school students who represented the United States in 2006 at the International Mathematical Olympiad (IMO).
- *In Search of Memory* recounts the life of one of the most important neuroscientists of the 20th century and illuminates scientific developments in our understanding of the brain's role in recording and preserving memory.
- *A Science of Miracles: 50 Years of Organ* documents the history of human organ transplantation.
- *Riverwebs* shows us a very human side of science, while demonstrating how the process of discovery works through the story of an international group of river ecologists.
- *Living with Chernobyl: The Future of Nuclear Power* features interviews with residents of the Chernobyl Contamination Zone and explores the environmental and social issues related to nuclear power.
- *Jewels of the Jungle* follows a microbiologist as he scours the world's forests for new natural medicines that may prove critical in the war on diseases like cancer and malaria.
- *Fortunate Wilderness: The Wolf and Moose Study of Isle Royale* reveals one of America's last remaining wild places, located off the Michigan mainland.
- *Lords of Nature: Life in a Land of Great Predators* goes behind the scenes with leading scientists to explore the role top predators play in restoring and maintaining ecosystems and biodiversity.

- *Renegade Genius* introduces the world to Thomas Gold, a little-known scientist whose theories transformed how we understand the origin of life, space, and more.

Recommendation

This is an information item and requires no further action by the committee.

TAB 5

WIMBA/ELLUMINATE UPDATE - DISCUSSION

Issue

Blackboard announced their roadmap for Wimba/Elluminate on October 12, 2010. Scott Allen will provide an update.

Background

UEN is in year two of a three year licensing agreement with Wimba for web conferencing services. Committee members may recall that Blackboard acquired both Wimba and Elluminate in July. Staff from the newly formed Blackboard Collaborate service that combines the three organizations have been developing their product strategy. This information was shared with UEN and during the Educause Conference.

The new service from Blackboard is called an "open-platform collaboration solution." Blackboard has provided UEN a roadmap explaining their product release schedule and migration plan called Project Gemini. No immediate action is required on our part, and the current contract we have through 2012 is still fully in effect.

Support, maintenance, and hosting of the current Wimba service are guaranteed through 2014 if we elect to continue the existing product and license, with hosted archives through August 2015. After the LMS RFP is finalized, UEN will work with public and higher education constituents and Blackboard Collaborate staff to map our own strategy for maintaining or migrating the service.

Recommendation

Committee members are reminded that during the time UEN has an open RFP, communication with providers is prohibited. Once the RFP closes, UEN will engage the LMS consortium and Public Education Advisory Committee in planning based on this new information. No further action is required of the Subcommittee at this time

TAB 6

PUBLIC BROADCASTING EDITORIAL INTEGRITY POLICIES - ACTION

Issue

Nationally and locally, public broadcasters have crafted enduring principles, policies and practices to protect and advance our trust and integrity. These policies have provided legal protections for some stations. Lacking clearly defined policy, UEN proposes adoption of the industry standard: **Wingspread Conference Statement of Editorial Principles for Public Broadcasting** from 1984. A working group of public media professionals is also updating these policies based on new digital media and results will be presented for Committee consideration when they become available.

Background

The Wingspread Conference on Editorial Integrity in Public Broadcasting held in 1984 was convened in an attempt to clarify the First Amendment rights and editorial independence of government funded public broadcasting. Strong protections are in place through the U.S. Constitution, Public Broadcasting Act of 1967, and FCC Licensing, but public broadcasters also have a diversity of licensee types, governing structures, and diversity of funding sources including the government that makes them particularly vulnerable to external pressures and intrusions into their independent exercise of editorial discretion. Adoption of these Principles by licensees has been important in court cases in which the programming or production decisions have been challenged.

Participants in the 1984 conference include broadcasters from 18 licensees, attorneys, journalists, board members, and communications authorities. No Utah broadcasters were at the conference. Dallin H. Oaks participated as chairman of the PBS Board of Directors. Since KUEN was licensed in 1986, these policies were never adopted formally, although they have become the industry standard during the ensuing years and have since been adopted by PBS, the National Association of Public Television Stations, and many station licensees.

The results of the Conference state these five Principles of Editorial Integrity which are essential to the policies of public broadcasting organizations:

- We are Trustees of a Public Service
- Our Service is Programming
- Credibility is the Currency of our Programming
- Many of our Responsibilities Are Grounded in Constitutional or Statutory Law
- We have a Fiduciary Responsibility for Public Funds

A new project called **Editorial Integrity for Public Broadcasters in the 21st Century** envisions expanding this dialog to inform and shape a new foundation of principles, policies, and practices that adhere to the best traditions and core values of public broadcasting, and help realize the potential of emerging digital public media. Findings from this group will be presented to the UEN Steering Committee when they become available.

Policy Considerations

I. Purpose

   a. The mission of public broadcasting is to bring to Americans the highest accomplishments of our society and civilization in all of its rich diversity, to permit American talent to fulfill the potential of the electronic media to educate and inform, and to provide opportunities for the diverse groupings of the American people to benefit from a pattern of programming unavailable from other sources.

   b. No one is more important to the fulfillment of public broadcasting's mission than the men and women of the boards of trustees of the licensee stations. They are custodians of their institutions' fiscal reputation, a currency necessary to acquire support from those whose taxes and donations make public broadcasting possible. They are also the final guardians of public broadcasting's editorial integrity and its reputation in the marketplace of ideas, where reputation is legal tender.

II. Policy

   a. Editorial integrity in public broadcasting programming means the responsible application by professional practitioners of a free and independent decision-making process which is ultimately accountable to the needs and interests of all citizens.

   b. In order to assure that programs meet the standards of editorial integrity the public has a right to expect, the following five principles and guidelines establish a foundation for trustee action. The principles and guidelines also form a basic standard by which the services of a public broadcasting licensee can be judged. At the same time, they form a basis for evaluating all aspects of a public broadcasting station's governance, from enabling legislation to the policy positions of the licensee board. The ultimate goal of the principles and guidelines is to assist public broadcasting trustees in fulfilling their vital role in this important public service.

III. Standards

   a. **We Are Trustees of a Public Service**

      1. Public broadcasting was created to provide a wide range of programming services of the highest professionalism and quality which can educate, enlighten and entertain the American public, its audience and source of support. It is a noncommercial enterprise, reflecting the worthy purpose of the federal and state governments to provide education and cultural enrichment to their citizens.

2. As trustees of this public service, part of our job is to educate all citizens and public policymakers to our function, and to assure that we can certify to all citizens that station management responsibly exercises the editorial freedom necessary to achieve public broadcasting's mission effectively.

b. **Our Service is Programming**

1. The purpose of public broadcasting is to offer its audience public and educational programming which provides alternatives in quality, type and scheduling. All activities of a public broadcasting licensee exist solely to enhance and support excellent programs. No matter how well other activities are performed, public broadcasting will be judged by its programming service and the value of that service to its audiences.

2. As trustees, we must create the climate, the policies and the sense of direction which assures that the mission of providing high quality programming remains paramount.

c. **Credibility Is the Currency of our Programming**

1. As surely as programming is our purpose, and the product by which our audiences judge our value, that judgment will depend upon their confidence that our programming is free from undue or improper influence. Our role as trustees includes educating both citizens and public policymakers to the importance of this fact and to assuring that our stations meet this challenge in a responsible and efficient way.

2. As trustees, we must adopt policies and procedures which enable professional management to operate in a way which will give the public full confidence in the editorial integrity of our programming.

d. **Many of our Responsibilities Are Grounded in Constitutional or Statutory Law**

1. Public broadcasting stations are subject to a variety of statutory and regulatory requirements and restrictions. These include the federal statute under which licensees must operate, as well as other applicable federal and state laws. Public broadcasting is also cloaked with the mantle of First Amendment protection of a free press and freedom of speech.

2. As trustees we must be sure that these responsibilities are met. To do so requires us to understand the legal and constitutional framework within which our stations operate, and to inform and educate those whose position or influence may affect the operation of our licensee.

e. **We Have a Fiduciary Responsibility for Public Funds**

1. Public broadcasting depends upon funds provided by individual and corporate contributions; and by local, state and federal taxes. Trustees must therefore develop and implement policies which can assure the public and their chosen public officials alike that this money is well spent.

2. As trustees, we must assure conformance to sound fiscal and management practices. We must also assure that the legal requirements placed on us by funding sources are met. At the same time, we must resist the inappropriate use of otherwise legitimate oversight procedures to distort the programming process which such funding supports.

Recommendation

Members of the Instructional Services Subcommittee are requested to discuss the **Editorial Integrity in Public Broadcasting Policies** and recommend they be presented for adoption by the UEN Steering Committee during the December 2010 meeting.

TAB 7

PUBLIC EDUCATION ADVISORY COMMITTEE REPORT - DISCUSSION

Issue

The PEAC met on September 21, 2010. Rick Gaisford chaired the meeting and will provide a report.

Background

Members of the Public Education Advisory Committee met on September 21, 2010 at the Utah State Office of Education. In attendance were: Rick Gaisford, USOE (Chair); Sandy Waters, UVU; Kathy Webb, USOE; Kelly Dumont, Canyons District; Laura Hunter, UEN; and Pat Lambrose.

Committee members discussed the following:

- Committee membership/participation
- UEN STEM Learning Resources
- Climate Science
- Cheese Science
- Utah Museum of Natural History Partnership Event for Science Teachers – Nov 5
- New Websites and Resources
- eMedia and my.UEN integration
- eMedia new content
- Constitution Day Resources
- Social Studies Online Core Resources
- Colonial Williamsburg
- CTE Family and Consumer Science
- UIMC Evaluation Tool
- Mission U.S. teaching American Colonial History and Civics
- UEN Instructional Services strategic plan update
- ESRI GIS license and Professional Development
- OnTrack PD portal
- Google Sketch Up

The next meeting of the PEAC is scheduled December 3 after C Forum in Granite School District.

Recommendation

This is an information item and requires no further action by the committee.