Steering Committee Meeting

Welcome and Introductions

Committee of the Whole

Tab 13
FY 2005 Budget Request - Action ......................... 13-1
Tab 14
TCC Representation on the Subcommittee - Action ....... 14-1

Instructional Services Committee

Tab 15
Video Streaming - Action .................................. 15-1
Tab 16
USHE Technologically Delivered Instruction - .......... 16-1
USHE 2002-2003 Summary - Action
USHE Technologically Delivered Instruction Report ......... 16-3
Tab 17
Higher Education Satellite Workshops - Discussion .... 17-1
Higher Education Satellite Workshops Flyer ................. 17-3
Tab 18
Bridges Grant Project - Discussion ....................... 18-1
Tooele Transcript Newspaper Article ...................... 18-3

Technical Services Committee

Tab 19
KULC DTV Proposed Agreement - Action ................. 19-1
Steering Committee

Tab 23
Steering Committee Meeting Minutes .......................... 23-1
Tab 24
Other ........................................................................... 24-1

Upcoming Meetings

Technical Services Subcommittee Meeting - December 3, 2003 - 1:30 p.m.

Instructional Services Subcommittee Meeting - December 3, 2003 - 9:00 a.m.

UEN Steering Committee - December 10, 2003

Please place these materials in your Steering Committee Binder.
Issue

The FY 2005 Budget Request requires approval by the UEN Steering Committee. Initial ideas have been developed by UEN staff and the request has been presented to the State Board of Regents at its budget hearings on September 11 and discussed extensively by the Technical Services and Instructional Services subcommittees. Because the deadline for submission of preliminary budget requests to the Governor’s Office of Policy and Budget (GOPB) was September 29, the request has been submitted to the Governor’s Office of Planning and Budget.

Background

We recognize that current economic conditions in the state dictate that budget increases next year will be very limited or perhaps non-existent. Because of this, only the most critical requests have been identified by the staff of UEN for recommendation to the Steering Committee and consideration by the Governor and Legislature.

Major FY 2005 Budget Issues

Priority 1: Network Capacity, Reliability & Security

Reliable, robust, and secure access to UEN's Wide Area Network is as essential to educators, students, and staff as buildings and electricity. Teachers and faculty now use the Network to acquire much of the information they teach and share with students, administrators, and peers. Schools, colleges, and universities depend on UEN for more than 200 mission-critical network applications. For example, the USHE Banner project, which upgrades the management information system of 8 of 10 USHE institutions, is one such application running over the UEN Wide Area Network.

For the past several years, Network traffic has doubled every 18 months. To keep up with demand, UEN is currently undertaking the most dramatic Network upgrade in eight years. The Qwest GeoMax project is one part of a multi-year project to increase network capacity. We are still awaiting E-Rate approval to initiate five rural Ethernet projects, which we hope to complete this year.
To continue the second phase of Network upgrades, UEN requests an FY 2005 increase of $400,000 in state funding. That will be partially leveraged by approximately $650,000 in federal E-rate reimbursements. Without the state contribution, E-rate dollars are not available. An increase in state funding of $400,000 leveraged with E-rate reimbursements will be a critical step to increase network capacity, reliability, and security.

Priority 2: EDNET conversion to digital, Internet-based technology

EDNET is an essential videoconferencing system on which nearly 6,200 students rely on to take classes from every USHE institution. Thousands of public education students and teachers also depend on EDNET. The technology of EDNET is now becoming obsolete and unreliable and we must begin to modernize it or risk losing this essential resource. There are two major costs associated with the conversion of EDNET: (1) replacement of the classroom audio and video equipment, and (2) replacement of the EDNET management software (Cme).

The EDNET and UEN Satellite systems have approximately 400 distance learning classrooms. About one fourth are equipped to originate classes and three fourths are designed to receive but not originate classes. The cost to properly upgrade an origination classroom with digital, IP-based video and audio equipment is about $21,000, and upgrading a receive-only classroom will cost about $12,000.

A proprietary software application (Cme) was developed by UEN to manage the EDNET system. That software is not capable of supporting the more complex, decentralized, and diverse videoconferencing network that will replace EDNET. UEN staff are consulting with public education and university technical specialists and with industry experts to evaluate software options. They have not finalized a recommended strategy to upgrade or replace Cme, but a likely alternative would include a combination of purchased commercial software and revision of certain components of CME.

UEN proposes to request $240,000 of ongoing funds to initiate a multi-year conversion of the EDNET system to a digital, IP-based network. UEN will also aggressively pursue grants to cover a portion of the cost.

Priority 3: Enterprise-level Technical Support

UEN provides numerous web-based tools for public and higher education. Examples include Pioneer online library, lesson plans, curriculum search, filtering, and video streaming. Usage of these tools has increased over 100% in the past year due to growing demand for web-based resources by faculty and teachers. For example, Pioneer Online Library was used last year 3.6 million times by public education and higher education students and educators and public library patrons. And there were 2.7 million visits to the UEN Home Page from January through August of 2003. To provide adequate storage space and technical support for UEN Web services, the capacity of servers must be increased, and more staff support must be added.
The Enterprise-level technical support request is for a total of $140,000 in ongoing funds and $120,000 in one-time funds. The ongoing support is for a new staff position and for equipment and software maintenance costs. One-time funds will be used to purchase servers and other equipment to increase storage capacity.

Other Budget Issues
UEN employees have not had salary increases for the past two years. A modest salary increase is a high priority of UEN. However, we recognize that the decision to either fund a salary increase or not will be made at a statewide level by the Governor and Legislature. We are not including a request for salary increases in our budget recommendations, but anticipate that issue will be addressed later.

Budget cuts at UEN in FY2002 and FY 2003 forced elimination of twelve full-time staff positions, which is 12 percent of our total workforce. Before those cuts were made, an independent review by an IT staffing expert determined that our Technical Services area needed 7 additional staff members. Five of the lost staff positions were in technical areas, so our technical services staff shortage is now 12 FTE’s. Of particular urgency are three positions in Engineering, Field Operations, and the Network Operations Center. We understand the difficulty of obtaining funding for new staff. However, it is important that state level decision-makers understand the impact that prior year budget cuts have had on our ability to provide staff support to maintain the Network and its essential services.

Table 1: Summary of FY 2005 Budget Requests

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Reliability, Capacity, and Security (on-going)</td>
<td>$400,000</td>
</tr>
<tr>
<td>EDNET Conversion (on-going)</td>
<td>$240,000</td>
</tr>
<tr>
<td>Enterprise-level Technical Support</td>
<td></td>
</tr>
<tr>
<td>– On-going</td>
<td>$140,000</td>
</tr>
<tr>
<td>– One-time</td>
<td>$120,000</td>
</tr>
<tr>
<td>Total</td>
<td>$900,000</td>
</tr>
</tbody>
</table>

Recommendation

It is recommended that the UEN Steering Committee review and approve the FY 2005 budget request totaling $900,000.
Issue

It is proposed that the membership of the Technical Services and Instructional Services Subcommittees be increased to provide representation of the public education Technology Coordination Council (TCC).

Background

Two CIO’s from Utah System of Higher Education (Barbara White and Steve Hess) are voting members of the Technical Services Subcommittee. To strengthen communication between UEN and the TCC, it is recommended that one seat be added to both the Technical Services and Instructional Services Subcommittees in order to provide voting representation to the TCC.

Recommendation

It is recommended that the membership of the Technical Services and Instructional Services Subcommittee be increased by one seat to provide representation of the public education Technology Coordination Council (TCC). The representative will be designated by the TCC.
### Issue

The video streaming subcommittee has reviewed its goals for statewide delivery of streamed media and recommends development of a media library for higher ed and public ed content that utilizes existing Web sites and catalog tools.

### Background

A subcommittee made up of members from the Utah Instructional Media Consortium, Utah Academic Libraries Consortium, public and higher education advisory committees, and UEN staff has met several times over the last month to develop a statewide strategy for delivery of streamed media. The committee recommends a statewide delivery service incorporating K-12 content licensed by the UIMC consortium, as well as content currently owned by various institutions, libraries, KUED, and faculty members. UEN has been assigned to develop the streamed media library over the next year. Elements of the project include creating an infrastructure and workflow process for encoding, indexing, and hosting video programs and clips. Working with the UIMC and UALC, as well as the Mountain West Digital Library project, UEN will focus on assets currently owned or licensed in Utah, and expand the library as additional content is acquired. Media will be available through numerous interfaces, including the Utah K-12 Curriculum Search [www.uen.org/k12educator], UtahITV.org Web site [www.utahitv.org], local Web sites, and the Mountain West Digital Library [www.lib.utah.edu/digital/mwdl].

### Recommendation

It is recommended that the Steering Committee approve development by UEN of a statewide digital media delivery service.
Members of the Instructional Services subcommittee reviewed the summary report of technology delivered instruction from USHE included under this tab. Technology-delivered courses continue to rise dramatically. Yet, concern was expressed by committee members that the data does not account for a growing number of hybrid courses (i.e., courses that combine delivery systems). The Instructional Services committee recommends a request be made to USHE to gather and report data on courses where at least 50% of the in-person seat time is replaced by technology delivered instruction.

Each year the Utah System of Higher Education releases a summary report of the headcount, FTE, and number of classes of technologically delivered instruction. The End of Year Report provides a summary of each institution’s utilization in the categories of broadcast television, interactive video/audio, computer based – Internet, and other computer delivered instruction. An annualized three-year history is also reported.

The 2002-03 report continues to show significant growth in instruction delivered via technology. Table 3 reports that 9.1% of instruction was technologically delivered. This represents almost a doubling of the amount of technologically delivered instruction reported in 2000-01. Table 1 reports the total fall headcount of 27,528 students who received technologically delivered instruction in 8,354 classes which amounts to 10,478 full time equivalencies.

It is recommended that the Steering Committee request USHE to gather and report data on courses that combine delivery systems, and what those systems are, when at least 50% of the in-person seat time is replaced by technology delivered instruction.
### Table 1

**USHE Technologically Delivered Instruction**  
**2002-03 Summary by Delivery Method**

<table>
<thead>
<tr>
<th>Delivery Method</th>
<th>Fall Headcount</th>
<th>Annualized FTE</th>
<th>Sections/Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadcast Television</td>
<td>1,473</td>
<td>504.24</td>
<td>282</td>
</tr>
<tr>
<td>Interactive Video/Audio</td>
<td>6,155</td>
<td>2,369.19</td>
<td>2,714</td>
</tr>
<tr>
<td>Computer Based -- Internet</td>
<td>18,092</td>
<td>6,937.02</td>
<td>5,032</td>
</tr>
<tr>
<td>Other Computer Delivered</td>
<td>1,808</td>
<td>667.50</td>
<td>326</td>
</tr>
<tr>
<td><strong>Total - Technologically Delivered</strong></td>
<td><strong>27,528</strong></td>
<td><strong>10,477.95</strong></td>
<td><strong>8,354</strong></td>
</tr>
</tbody>
</table>

**Notes:**

(1) Fall headcount numbers are duplicated across delivery methods.

(2) Data on Annualized FTE and Sections/Classes reflect Summer end-of-term and Fall/Spring composite enrollment reports.

(3) Increased utilization of the Internet across all types of instructional delivery methods has created variation among institutions as to what is classified as "Computer-based -- Internet." These variations are reflected in the data reported by institutions for 2001-02 and 2002-03. For 2003-04, definitions have been refined to show distinction between courses which are exclusively offered via the Internet, and courses which have a significant component of traditional classroom instruction as well as Internet-based enhancements.
# Table 2

**USHE Technologically Delivered Instruction**

**2002-03 Summary by Institution and Delivery Method**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Broadcast Television</th>
<th>Interactive Video/Audio</th>
<th>Computer Based - Internet (1)</th>
<th>Other Computer Delivered</th>
<th>Total - Technologically Delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall Headcount (2)</td>
<td>Annualized FTE (3)</td>
<td>Classes/Sections (3)</td>
<td>Fall Headcount (2)</td>
<td>Annualized FTE (3)</td>
</tr>
<tr>
<td>UoUt</td>
<td>584</td>
<td>192.74</td>
<td>173</td>
<td>1,439</td>
<td>503.17</td>
</tr>
<tr>
<td>USU</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>2,691</td>
<td>1,219.19</td>
</tr>
<tr>
<td>WSU</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>295</td>
<td>105.00</td>
</tr>
<tr>
<td>SUU</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>250</td>
<td>93.50</td>
</tr>
<tr>
<td>Snow</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>53</td>
<td>15.50</td>
</tr>
<tr>
<td>DSC</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>132</td>
<td>33.00</td>
</tr>
<tr>
<td>CEU</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>914</td>
<td>361.00</td>
</tr>
<tr>
<td>UVSC</td>
<td>650</td>
<td>236.50</td>
<td>71</td>
<td>1,624</td>
<td>444.50</td>
</tr>
<tr>
<td>SLCC</td>
<td>239</td>
<td>75.00</td>
<td>38</td>
<td>138</td>
<td>35.00</td>
</tr>
<tr>
<td>Total</td>
<td>1,473</td>
<td>504.24</td>
<td>282</td>
<td>6,155</td>
<td>2,369.19</td>
</tr>
</tbody>
</table>

**Notes:**

(1) Increased utilization of the Internet across all types of instructional delivery methods has created variation among institutions as to what is classified as “Computer-based – Internet.” These variations are reflected in the data reported by institutions for 2001-02 and 2002-03. For 2003-04, definitions have been refined to show distinction between courses which are exclusively offered via the Internet, and courses which have a significant component of traditional classroom instruction as well as Internet-based enhancements.

(2) Fall headcount numbers are duplicated across delivery methods.

(3) Data on Annualized FTE and Sections/Classes reflect Summer end-of-term and Fall/Spring composite enrollment reports.
## Table 3
### USHE Technologically Delivered Instruction
#### Annualized FTE Three-year History by Delivery Method (2000-01 to 2002-03)

<table>
<thead>
<tr>
<th>Institution</th>
<th>Broadcast Television Annualized FTE</th>
<th>Interactive Video/Audio Annualized FTE</th>
<th>Computer Based - Internet Annualized FTE</th>
<th>Other Computer-delivered Annualized FTE</th>
<th>Total Technologically Delivered Annualized FTE</th>
<th>Total 1-year % Change by Institution</th>
<th>% of Total Institution Annualized FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>UofU</td>
<td>177.00 204.27 192.74</td>
<td>59.00 2.50 62.50</td>
<td>272.00 377.57 503.17</td>
<td>0.00 0.00 0.00</td>
<td>508.00 594.34 758.41</td>
<td>15.0% 29.8% 2.1% 2.2% 2.7%</td>
<td></td>
</tr>
<tr>
<td>USU</td>
<td>0.00 0.00 0.00</td>
<td>894.00 975.12 1,219.19</td>
<td>234.00 1,326.25 2,363.85</td>
<td>0.00 0.00 0.00</td>
<td>1,128.00 2,301.37 3,583.04</td>
<td>104.0% 55.7% 6.3% 12.1% 18.4%</td>
<td></td>
</tr>
<tr>
<td>WSU</td>
<td>0.00 0.00 0.00</td>
<td>93.00 91.50 105.00</td>
<td>1,032.00 1,431.65 1,885.50</td>
<td>0.00 0.00 0.00</td>
<td>1,125.00 1,523.15 1,990.50</td>
<td>35.4% 30.7% 8.4% 10.6% 12.7%</td>
<td></td>
</tr>
<tr>
<td>SUU</td>
<td>0.00 4.80 0.00</td>
<td>136.00 100.39 93.50</td>
<td>68.00 59.43 73.50</td>
<td>18.00 97.10 0.00</td>
<td>222.00 261.72 167.00</td>
<td>17.9% -36.2% 3.7% 4.3% 2.8%</td>
<td></td>
</tr>
<tr>
<td>Snow</td>
<td>0.00 0.00 0.00</td>
<td>33.00 20.47 15.50</td>
<td>1.00 0.60 5.50</td>
<td>0.00 0.00 0.00</td>
<td>34.00 21.07 21.00</td>
<td>-38.0% -0.3% 1.1% 0.7% 0.7%</td>
<td></td>
</tr>
<tr>
<td>DSC</td>
<td>0.00 0.00 0.00</td>
<td>0.00 0.00 33.00</td>
<td>14.00 24.60 2.50</td>
<td>1.00 1.16 0.00</td>
<td>15.00 25.76 35.50</td>
<td>71.7% 37.8% 0.4% 0.6% 0.8%</td>
<td></td>
</tr>
<tr>
<td>CEU</td>
<td>0.00 0.00 0.00</td>
<td>253.00 296.23 361.00</td>
<td>0.00 0.00 0.00</td>
<td>0.00 0.00 0.00</td>
<td>253.00 296.23 361.00</td>
<td>17.1% 21.9% 12.1% 13.5% 16.9%</td>
<td></td>
</tr>
<tr>
<td>UVSC</td>
<td>173.00 213.17 236.50</td>
<td>239.00 281.10 444.50</td>
<td>378.00 621.12 1,369.00</td>
<td>0.00 0.00 0.00</td>
<td>790.00 1,115.39 2,050.00</td>
<td>41.2% 83.8% 5.2% 6.5% 11.1%</td>
<td></td>
</tr>
<tr>
<td>SLCC</td>
<td>72.00 83.00 75.00</td>
<td>25.00 41.40 35.00</td>
<td>294.00 486.36 734.00</td>
<td>100.00 211.44 667.50</td>
<td>491.00 822.20 1,511.50</td>
<td>67.5% 83.8% 3.2% 4.9% 8.5%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>422.00 505.24 504.24</td>
<td>1,732.00 1,808.71 2,369.19</td>
<td>2,293.00 4,327.58 6,937.02</td>
<td>119.00 309.70 667.50</td>
<td>4,566.00 6,951.23 10,477.95</td>
<td>52.2% 50.7% 4.5% 6.4% 9.1%</td>
<td></td>
</tr>
</tbody>
</table>

### USHE Percent Change by Method

<table>
<thead>
<tr>
<th>Method</th>
<th>2000-01 to 2001-02</th>
<th>2001-02 to 2002-03</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19.7% 4.4% 88.7%</td>
<td>-0.2% 31.0% 160.3%</td>
</tr>
<tr>
<td></td>
<td>115.5% 52.2% 50.7%</td>
<td></td>
</tr>
</tbody>
</table>

**(1)** Increased utilization of the Internet across all types of instructional delivery methods has created variation among institutions as to what is classified as "Computer-based -- Internet." These variations are reflected in the data reported by institutions for 2001-02 and 2002-03.

**(2)** Data on Annualized FTE reflect Summer end-of-term and Fall/Spring composite enrollment reports, consistent with the End-of-year Enrollment Report. The percent of total institution annualized FTE column divides total technologically delivered annualized FTE by total annualized FTEs, as reported in the End-of-year Enrollment Report, Table 5.

### Notes:

- Increased utilization of the Internet across all types of instructional delivery methods has created variation among institutions as to what is classified as "Computer-based -- Internet." These variations are reflected in the data reported by institutions for 2001-02 and 2002-03.
- To show distinction between courses which are exclusively offered via the Internet, and courses which have a significant component of traditional classroom instruction as well as Internet-based enhancements.
- Data on Annualized FTE reflect Summer end-of-term and Fall/Spring composite enrollment reports, consistent with the End-of-year Enrollment Report. The percent of total institution annualized FTE column divides total technologically delivered annualized FTE by total annualized FTEs, as reported in the End-of-year Enrollment Report, Table 5.
Table 4
USHE Technologically Delivered Instruction
Annualized FTE Six-year History by Delivery Method, 1997-98 to 2002-03

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadcast Television</td>
<td>481</td>
<td>439</td>
<td>422</td>
<td>505.24</td>
<td>504.24</td>
<td></td>
</tr>
<tr>
<td>Interactive Video/Audio</td>
<td>1,269</td>
<td>1,381</td>
<td>1,732</td>
<td>1,808.71</td>
<td>2,369.19</td>
<td></td>
</tr>
<tr>
<td>Computer Based -- Internet (2)</td>
<td>686</td>
<td>1,134</td>
<td>2,293</td>
<td>4,327.58</td>
<td>6,937.02</td>
<td></td>
</tr>
<tr>
<td>Other Computer Delivered</td>
<td>98</td>
<td>102</td>
<td>119</td>
<td>309.70</td>
<td>667.50</td>
<td></td>
</tr>
<tr>
<td>Total - Technologically Delivered</td>
<td>2,154</td>
<td>2,534</td>
<td>3,056</td>
<td>4,566</td>
<td>6,951.23</td>
<td>10,477.95</td>
</tr>
</tbody>
</table>

One-year Percent Change
Percent of USHE Total FTE

Notes:
(1) Distribution by delivery method not available for 1997-98.
(2) Increased utilization of the Internet across all types of instructional delivery methods has created variation among institutions as to what is classified as "Computer-based -- Internet." These variations are reflected in the data reported by institutions for 2001-02 and 2002-03. For 2003-04, definitions have been refined to show distinction between courses which are exclusively offered via the Internet, and courses which have a significant component of traditional classroom instruction as well as Internet-based enhancements.
### Issue

UEN and USHE are co-sponsoring a series of three 90 minute live events delivered by EDNET and satellite to every public higher education institution in Utah. These workshops are licensed for statewide use with no additional cost for participants or institutions.

Offered through PBS Adult Learning Services, these live programs give people access to experts they might not otherwise have. The events also encourage focused discussion of timely topics. Question/answer sessions are a standard feature, and most programs include companion print materials.

The workshops are designed for higher education faculty, distance learning coordinators, faculty assistance centers and teacher center personnel, academic department deans and directors, and others involved in distance delivered education. The workshops will also be archived and streamed on the UEN Higher Education Web site.

### Workshop Details

Online registration is available at [www.uen.org/highered](http://www.uen.org/highered)

**Creative Strategies for Tough Financial Times**

(October 30, 2003 from 12:30 to 2:00 p.m.)

Learn how innovative institutions are using new strategies and applying familiar strategies in new ways – to generate much needed income and cope with difficult economic circumstances.

**The REAL Cost of Online Courses**

(February 26, 2004 from 12:30 to 2:00 p.m.)

Discover the hidden costs of creating online courses “on the cheap,” how to calculate the true costs, the resources needed to develop effective online courses and ways to control costs without degrading quality.
Cyberinsecurity? Prevention and Protection Solutions
(April 8, 2004 from 12:30 to 2:00 p.m.)
Find out how to identify external and internal threats to your institution’s
cyberinsecurity, overcome system vulnerabilities, and act aggressively to establish
cyber-defense.

Recommendation

UEN and USHE are co-sponsoring this project to support faculty professional
development needs. Committee members are encouraged to disseminate the
handout under this tab to personnel at their institutions.
Facing the Critical Challenges in Higher Education
Professional development workshops over EDNET and satellite

Learn how to handle these challenges with workshops designed for higher education faculty, distance learning coordinators, faculty assistance centers and teacher center personnel, academic department deans and directors, and others involved in distance delivered education.

Creative Strategies for Tough Financial Times
October 30, 2003 from 12:30 to 2:00 p.m.
Learn how innovative institutions are using new strategies and applying familiar strategies in new ways – to generate much needed income and cope with difficult economic circumstances.

The REAL Cost of Online Courses
February 26, 2004 from 12:30 to 2:00 p.m.
Discover the hidden costs of creating online courses “on the cheap,” how to calculate the true costs, the resources needed to develop effective online courses and ways to control costs without degrading quality.

Cyberinsecurity? Prevention and Protection Solutions
April 8, 2004 from 12:30 to 2:00 p.m.
Find out how to identify external and internal threats to your institution’s cyberinsecurity, overcome system vulnerabilities, and act aggressively to establish cyber-defense.

The Utah System of Higher Education (USHE) and the Utah Education Network (UEN) are co-sponsoring a series of three 90-minute live events to every public higher education institution in Utah. Offered through PBS Adult Learning Services, these live programs give people access to experts they might not otherwise have. The events also encourage focused discussion of timely topics. Question/answer sessions are a standard feature, and most programs include companion print materials. The workshops will be delivered delivered by EDNET, satellite and will also be archived and streamed on the Utah Education Network Higher Education Web site.

Register online at www.uen.org/highered
On October 8, 2003, UEN and KUED hosted a Family Literacy Night at Willow Elementary in Grantsville, Utah. A similar workshop will be held November 18, 2003 at Jeremy Ranch Elementary. A newspaper article from the Tooele Transcript-Bulletin regarding the event is included under this tab as an information item for the Steering Committee.

The Bridges program was a reward to Willow students, teachers, and parents for their participation in the KUED Reading Rainbow Young Writers and Illustrators contest. Willow tied with Jeremy Ranch Elementary in Park City for the program. About 700 parents, grandparents, and students participated in the event. Students were entertained by a reading magician and guest readers (including Superintendent and UEN Steering Committee member Larry Shumway). Parents participated in a one-hour PBS Ready to Learn workshop on literacy strategies, media literacy, and web site resources conducted by UEN and KUED staff. Each child who attended received a new book.

As part of the Bridges Grant, UEN also presented 36 Reading Rainbow backpacks to each school. The packs contain a Reading Rainbow video tape, book, laminated activity card, and CD Rom Activities. Students will take the packs home throughout the year to Bridge the school’s reading program with homes.

Parent evaluations of the program were very positive, with 100% saying they learned a new literacy strategy or resource to try with their youngsters at home. This program is part of the Bridges School-to-Home Technology Initiative and PBS Ready to Learn. PBS Ready to Learn is supported by a cooperative agreement from the U.S. Department of Education, and is administered by the Office of Educational Research and Improvement, U.S. Department of Education. Local funding is made possible in part by the Cleone Eccles Peterson Endowment Fund and U.S. Bank. Meadow Gold Dairy provided ice cream for all attendees.

This is an information item. No further action is required of the subcommittee at this time.
Literacy night scores with kids, parents

by Michael Rigert

For those uninitiated, when Grantsville throws a shindig, residents throw their full support behind the endeavor and show up en masse. And so it was Wednesday evening when nearly 700 parents and their children attended a special Family Literacy Night at Willow Elementary School.

Sponsored by the Utah Education Network (UEN) and Salt Lake PBS affiliate KUED, the event was a reward to Willow students, teachers and parents for tying as one of the top two schools in Utah in the television station’s annual Young Writers and Illustrators Contest.

“We’re happy to recognize Willow Elementary for their excellent work in promoting reading, writing and illustration with their students,” said Laura Hunter, instructional services director for UEN.

While Willow’s kindergarten through second-grade students assisted Paul the Magician in his wacky, reading oriented entertainment, parents met in small groups with Utah Educational Network instructors to learn tips they can use to supplement their children’s reading activities through PBS’ Ready to Learn program.

With a new method called the Learning Triangle, parents discovered how they can incorporate what kids see on educational TV shows into reading and direct learning opportunities. Using the three points of the Learning Triangle (view, read, do) adults can discuss what children have seen on TV, have them do some reading on the same topic and then do an activity that’s also related.

Those connections really help with memory and helping kids to learn how to think through and solve problems,” said one of the presenters.

They informed parents about the numerous educational Internet resources that support and supplement reading such as the PBS and KUED web sites with everything from interactive games that test kids memory after reading a passage to fun learning activities.

“It all comes down to the parents,” the UEN educator said. “When I balance teaching with the effort of parents it’s so much more effective.”

Parents received a free illustrated book about apples and information packets on resources and ways to help their children to read while kids enjoyed free ice cream and an apple dessert following the theme for the night, “Reading is Apple-icious.”

Principal Cleo Riggs and UEN staff were blown away by the participation at Wednesday’s event.

“This community has been really supportive of us,” Riggs said. “It’s been really fun.”

Hunter said Willow Elementary tied Jeremy Ranch Elementary for the most submissions for the writing and drawing contest and by the reception Wednesday, she understands why the school is so successful with literacy efforts.

“The school has been great to work with,” she said. “I hope this has a big impact on the school and the community.”

The inspiration for the Ready to Learn program for kids and parents was actually inspired by the late Fred Rogers of Mister Roger’s Neighborhood fame.

“It’s like he’s everyone’s grandfather,” Hunter said.

She said the Family Literacy Night’s theme was well chosen.

“It’s morn and apple pie — literally,” Hunter said, “and dads too.”

e-mail: mrigert@tooeletranscript.com

Transcript of the Tooele Transcript-Bulletin newspaper article is on the following pages.
Literacy night scores with kids, parents
by Michael Rigert - Staff Writer

For those uninitiated, when Grantsville throws a shindig, residents throw their full support behind the endeavor and show up en masse. And so it was Wednesday evening when nearly 700 parents and their children attended a special Family Literacy Night at Willow Elementary School.

Sponsored by the Utah Education Network (UEN) and the Salt Lake PBS affiliate KUED, the event was a reward to Willow students, teachers and parents for tying as one of the top two schools in Utah in the television station’s annual Young Writers and Illustrators Contest.

“We’re happy to recognize Willow Elementary for their excellent work in promoting reading, writing and illustration with their students,” said Laura Hunter, instructional services director for UEN.

While Willow’s kindergarten through second-grade students assisted Paul the Magician in his wacky, reading oriented entertainment, parents met in small groups with Utah Education Network instructors to learn tips they can use to supplement their children’s reading activities through PBS’ Ready to Learn program.

With a new method called the Learning Triangle, parents discovered how they can incorporate what kids see on educational TV shows into reading and direct learning opportunities. Using the three points of the Learning Triangle (view, read, do) adults can discuss what children have seen on TV, have them do some reading on the same topic and then do an activity that’s also related.

“Those connections really help with memory and helping kids to learn how to think through and solve problems,” said one of the presenters.

They informed parents about the numerous education Internet resources that support and supplement reading such as the PBS and KUED web sites with everything from interactive games that test kids memory after reading a passage to fun learning activities.

“It all comes down to the parents,” the UEN educator said. “When I balance teaching with the effort of parents it’s so much more effective.”

Parents received a free illustrated book about apples and information packets on resources and ways to help their children to read while kids enjoyed free ice cream and an apple dessert following the theme for the night, “Reading is Apple-icious.”

Principal Cleo Riggs and UEN staff were blown away by the participation at Wednesday’s event.

“This community has been really supportive of us,” Riggs said. “It’s been really fun.”

Hunter said Willow Elementary tied Jeremy Ranch Elementary for the most submissions for the writing and drawing contest and by the reception Wednesday, she understands why the school is so successful with literacy efforts.
“The school has been great to work with,” she said. “I hope this has a big impact on the school and the community.”

The inspiration for the Ready to Learn program for kids and parents was actually inspired by the late Fred Rogers of Mister Roger's Neighborhood fame.

“It’s like he’s everyone’s grandfather,” Hunter said.

She said the Family Literacy Night’s theme was well chosen.

“It’s mom and apple pie—literally,” Hunter said, “and dads too.”
Issue

KULC has received an offer to lease excessive digital bandwidth to a third party. It is believed that the arrangement will benefit viewers by bringing additional revenue for station operations and accelerate consumer shift toward digital broadcasting.

Background

KULC has converted to digital signal. In assessing the bandwidth requirements for parallel of the analog channel, multicasting Annenberg/CPB channel, and datacasting educational content, KULC management has determined that programming needs can be met with some bandwidth still remaining. A third party has proposed a lease agreement with KULC to lease the excessive bandwidth for digital broadcast to homes. The third party will offer low cost digital receivers to home consumers as part of a subscription digital television service. Many broadcasters in the intermountain area have pooled their excess bandwidth for lease to this party.

KULC management has researched the business model and proposed agreement, and believes this provides benefit in two ways. First, the lease agreement would provide an additional income stream to offset station and programming costs. Second, by supporting the distribution of these low-cost digital receivers, we believe the shift to full digital service will be accelerated; thereby shortening the time KULC is required to maintain parallel and analog systems. KULC programming would be distributed via the third party service.

Policy Issues

University legal counsel and purchasing departments are in the process of reviewing the proposal. Approval would need to be granted from these entities and the UEN Executive Committee prior to any action on KULC’s part.

Recommendation

It is recommended that the Steering Committee authorize the UEN Executive Committee and KULC General Manager to move forward with a lease agreement for excessive bandwidth as outlined above.
Issue

The purpose of this report is to inform the Subcommittee on the current status of the Geomax project.

Background

The GeoMax project, providing the layer one medium for the Gigabit backbone is on budget and on schedule. The Nortel Optera 5200 hardware provided by Qwest has been successfully installed in all Qwest Central Offices and UEN hub sites. Two of the 7 hubs, EBC and DATC are actually communicating with one another. We will use these two sites to conduct several tests over the next month. The proposed schedule for GeoMax acceptance and cutover is December of 2003 when network traffic is reduced.

On Friday, September 19, 2003 UEN received notice from the SLD that the GeoMax project was approved and funded as requested.

Recommendation

This is an information item. No further action is required of the Steering Committee at this time.
The Technical Services subcommittee has recommended a Utah Security Summit to be held in early January. Steering Committee members are asked to support this event.

Barbara White continues to lead the UEN Security working group. This group met with representatives from Higher and Public Education on Friday, September 26, 2003 to discuss and plan a Security Summit. This group set a tentative date for the Security Summit of December 3 – 4, 2003.

The focus of this summit will be to educate top decision makers at Colleges, Universities and Districts. The objective to this education is to gain support by assigning Security Officers and Points of Contact, supporting these individuals through training, development of effective security practices, etc.

Assignments for this meeting were made. These included securing a location for the conference, identifying and getting commitments for a Keynote speaker and Security Panel participants and coordinating the invitation of conference participants.

Conference dates are subject to fulfilling these assignments. The committee felt that the conference dates should be moved to late January or early February if the December time frame proves unsatisfactory.

The Commander’s Club and Officers’ Club at Fort Douglas are available for the December dates.

It is recommended that the Steering Committee endorse and participate in the Utah Security Summit.
Issue

Network Operating Agreements are being negotiated between UEN and USHE institutions. Included as an attachment to this document is an example Network Operating Agreement. Members of the Technical Services subcommittee have reviewed the Network Operating Agreement.

Background

UEN is in process of establishing network operating agreements with all of the USHE colleges and universities. The initial agreement was developed between SLCC and UEN. All other agreements are based on that document.

During the month of September UEN Technical Services staff met with IT staff members at SLCC, CEU, Snow College & Snow Richfield, Dixie College, SUU, the University of Utah and Utah State University. WSU and UCAT visits are pending. Draft agreements have been sent to each entity where meetings have occurred.

The agreement is formatted with an overview and multiple sections. The overview states that the NOA is limited to wide area network and Internet connectivity. Each section sets out responsibilities for both the Institution and UEN. A list of projects requiring collaboration is also incorporated into the agreement.

All locations have been asked to develop a demarcation description and contact list. Follow-up meetings will be scheduled over the next few weeks to include this information, review any additional changes and finalize these agreements.

Developing a Security Point of Contact and establishing expectations are significant to the NOA agreement. Another important part of the agreement is a commitment to hold quarterly reviews.

Recommendation

It is recommended that the Steering Committee become familiar with the Network Operating Agreement. An update on the agreements will be presented to the Steering Committee.
TAB 22 ATTACHMENT A

UTAH VALLEY STATE COLLEGE (UVSC) AND UTAH EDUCATION NETWORK (UEN) OPERATING AGREEMENT
Utah Valley State College (UVSC) and Utah Education Network (UEN) Operating Agreement

UVSC AND UTAH EDUCATION NETWORK OPERATING AGREEMENT

Overview

Access to Equipment
  UVSC Access to UEN Equipment
  UEN Access to UVSC Resources

Change Control
  UVSC Responsibilities
  UEN Responsibilities

Trouble Reporting
  UVSC Responsibilities
  UEN Responsibilities

Open Projects

Additional Services

UVSC Contact Information:

UEN Contact Information:
Overview

This Network Operating Agreement is entered into between Utah Valley State College (UVSC) and the Utah Education Network (UEN) for the purpose of outlining the individual responsibilities of each party to provide the greatest reliability and performance of the Wide Area Network and Internet access.

UEN and UVSC will establish a demarcation point. (Based on equipment, services and responsibility.) UVSC will provide power and HVAC adequate to maintain UEN equipment to industry standards.

The EdNet operating agreement is covered in a separate document.

UEN and UVSC will meet quarterly to review this NOA, Performance statistics and status of open Projects.

Security

UVSC Responsibilities

UVSC will provide a point of contact (Security POC) for security activities. This individual will participate in the UEN sponsored security group and distribution lists. Responsibilities include, but are not limited to:

- Subscribing to the UEN Security distribution lists
- Reading and understanding distribution list notifications
- Working within UVSC to be the “security conscience”.
- Participating in weekly Security calls and monthly security briefings.
- Establishing and administrating an Institutional AUP addressing Security.
- Establishing an OS Patching Plan and following through to see that all Operating Systems are patched to current level.

UEN Responsibilities

UEN will provide and operate a security monitor at UVSC. UVSC staff will have access to the information collected by this server.

Provide notification of CERT advisories and potential security problems.

Hold weekly security calls and monthly security training.

Notification of outages due to security issues.
**IPITEK & Fiber**

**UVSC Responsibilities**

**UEN Responsibilities**

**Technical Forum**

**UVSC Responsibilities**

UVSC will provide a leadership role in the UVSC technical forum.

Technical Forum meetings will be held at least twice each year. Additional meetings may be held at the discretion of the Technical Forum Leaders.

**UEN Responsibilities**

UEN will provide a contact (UEN Technical Advocate) who will regularly participate in the technical forum.

UEN will contribute to the development of Technical Forum agendas.

UEN will provide additional support to the T Forums as requested.

**Access to Equipment**

**UVSC Access to UEN Equipment**

UVSC will receive read-only access to UEN equipment housed at UVSC through the Looking Glass utility.

**UEN Access to UVSC Resources**

Basic, non-service level affecting maintenance will be done during normal working hours. All other maintenance will be performed after hours and will be scheduled at least 48 hours in advance through the UVSC CIO (Alternate: LeRoy Brown).

The UVSC CIO or designee will take responsibility to notify any other UVSC staff members that are affected by UEN actions.

In the event of an emergency outage every effort will be made to contact UVSC staff. It is the responsibility of the UVSC CIO to provide UEN with after hours and emergency contact information. UEN will use this information as outlined. POC information can be
**Change Control**

No changes will be made to hardware and circuits servicing UVSC without prior written notification of both parties.

**UVSC Responsibilities**
Change requests by UVSC will be forwarded to the UEN NOC and will be responded to within 24 hours. Requests can be made through phone contact, e-mail or other.

**UEN Responsibilities**
Change requests will be forwarded to the UVSC CIO and will be responded to within 24 hours. Requests can be made through phone contact, e-mail or other.

**Trouble Reporting**

**UVSC Responsibilities**
UVSC will document network failures and forward reports on instances that affect UEN equipment and services, and send them to the UEN Operations Director (preferably on a weekly basis).

UVSC staff can open trouble tickets for any problems by contacting the UEN NOC.

**UEN Responsibilities**
UEN will monitor performance of all network circuits entering UVSC. For any problems affecting UVSC service, UEN will open trouble tickets, and notify UVSC staff immediately. Regular reports regarding service activity will be forwarded by UEN to the UVSC CIO (preferably on a weekly basis).

**Open Projects**

UVSC
- Security Summit
- UVCN
- GeoMax
- Core Ring
- Wasatch Campus

**Additional Services**
- Each staff will lend support as requested and as expertise and time allows.
• UEN will provide consulting services as requested from UVSC and as time permits.
• UEN has contracted with N2H2 for filtering at colleges. This capability is available to UVSC if needed.
• UEN will provide technical training conferences in the spring and fall. Course development is done by UEN with input from stakeholders around the state. UVSC is invited to participate in the development of these conferences. Charges for these conferences are held to a minimal cost to cover expenses.
• Other training can be customized for UVSC upon request as time and resources permit.

UVSC Contact Information:
Help Desk:

CIO: Ray Walker; walkerra@uvsc.edu; 801.863.8200
Operations: Tom Nielson; nielsoto@uvsc.edu; 801.376.2415
After Hours Contact; Eddie Sorensen; sorensed@uvsc.edu; cell – 801.376.0238
Security POC: LeRoy Brown; brownle@uvsc.edu; 801.376.1877

UEN Contact Information:
UEN Network Operations Center: 801.585.7440; noc@uen.org
UEN Operations after hours Tier 2: 801.248.5555
Security: Troy Jessup; 801.585.9888; security@uen.org
Field Operations Manager: Jeff Egly; 801.585.5669; jegly@uen.org
NOC Manager: Tony Bueno; 801.585.7406; Tony@uen.org
Operations Director: Dan Patterson; 801.581.3246; dpatterson@media.utah.edu
Senior Engineer: Pete Kruckenberg; 801.585.9034; pete@uen.org
Engineering Director: Barry Bryson; 801.585.9000; bbryon@uen.org
Technical Services Director: Jim Stewart; 801.585.9030; jim@uen.org
UEN Executive Director: Mike Petersen; 801.581.6991; mpetersen@media.utah.edu
STEERING COMMITTEE

UTAH EDUCATION NETWORK STEERING COMMITTEE

August 22, 2003 - 9:00 am

Business Steering Committee Meeting


Others Present: Laura Hunter, Jim Stewart, Larry Smith, Cindy Nagasawa-Cruz, Rick Cline, Dennis Sampson, Bill Kucera, Renee Willemsen, Coy Ison, Karen Krier, Louise Tonin, Craig Neilson, and Jeff Grandia.

I. Welcome and Introductions - Ray Timothy
Ray welcomed everyone to the meeting including those participating via EDNET. Kim Roper and Ann Millner were welcomed and introduced as the newest members of the Steering Committee.

II. Instructional Services Subcommittee Co-Chair - Ray Timothy
During the June Steering Committee meeting, action was taken to recognize the resignation of David Eisler. Linda Fife was approved for nomination to fill this vacant position. Also, a recommendation was made to appoint Linda Fife as the Higher Education Co-Chair of the Instructional Services Subcommittee.

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve the nomination of Linda Fife as Co-Chair of the Instructional Services Subcommittee. THE MOTION PASSED WITH ALL VOTING IN FAVOR.
**I. Fiscal Year 2004 Strategic Plan** - Ray Timothy

During the June Steering Committee meeting, the 2004 Strategic Plan was presented for review and approval. Mike Petersen reported that all of the committee’s suggestions were captured in the edited version of the plan. Ray also pointed out that the plan does address security issues and activities.

It was suggested to change the wording on page 11, Objective #4A, activity #1 to read: Support USOE on-line testing. Page 17, Objective 2, #A1 be changed to include three additional stakeholders: Higher Ed. Subcommittee, PECC and Content Forum.

Mike Petersen commented that the suggested changes / additions will strengthen and improve the document and thanked everyone for their input.

**Motion:** It was moved and seconded that the members of the Utah Education Network Steering Committee approve the Fiscal Year 2004 Strategic Plan. **THE MOTION PASSED WITH ALL VOTING IN FAVOR.**

**II. IP Video Policies** - Dick Siddoway

The most recent EDNET Policy was drafted and approved in 1999. This policy dealt primarily with the installation of new EDNET sites and with policies for the underutilization of sites. After analysis of these documents, it appears that many of the issues faced by UEN and constituents four years ago no longer apply. The addition of an IP Video delivery system necessitates policy revision. For an illustration of the existing process, refer to Attachment A and for a visual of the recommended process refer to Attachment B.

It is recommended that the Steering Committee approve the adoption of the IP Video Policies as outlined by the IP Video Steering Team.

**Motion:** It was moved and seconded that the members of the Utah Education Network Steering Committee approve the IP Video Policy. **THE MOTION PASSED WITH ALL VOTING IN FAVOR.**

**III. Professional Development Grants Update** - Dick Siddoway

To date 4,638 Master Teachers and Participant Teachers have received training in Utah. Approximately 20% of Utah Teachers participated in Intel Teach to the Future, spanning 22 of the 28 counties in the state. The numbers in Jordan and Granite Districts were the highest with 1,110 Participant Teachers. Rich, Wayne and Wasatch Academy trained every teacher. Please refer to Tab 8, Attachment A for specifics.

**IV. Utah Instructional Television and Resource Guide and KULC Fall Schedule** - Dick Siddoway
The 2003-2004 Utah Instructional Television and Resource Guide is in the final stages of preparation and will soon be ready for delivery. The printed guide is in its second year as an annual. There are several new features this year, including a tear-out section that graphically shows program information, block feeds, core curriculum by program, and other content. The guide and daily program schedule is found online at www.utahitv.org.

V. EDNET Satellite Course Evaluation - George Miller (Absent)
For a full report of the EDNET Satellite Course Evaluation, please refer to Tab 10 on page 10-1.

VIII. Special Project Budget and Recommended Project Priorities - Jim Stewart
Regional technology forums developed technical project priorities that were proposed during the May technical services retreat, and UEN staff have identified other statewide and regional projects. Attachment A lists all projects, the funding and priority status of the projects, estimated ongoing and one-time costs, and goals and priorities addressed by each project. Projects were categorized according to priorities established last year by the Technical Services Subcommittee and the new priorities identified in the 2004 plan. Secondly, tasks were sorted by funding and categorization was done according to FY 2004 strategic goals that they address. For more detailed information regarding project priorities, please refer to Tab 3.

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve the Special Project Budget and Priorities. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

VI. UENSS Satellite contract Extension - Mike Petersen
The UEN Satellite contract is with SES Americom and expires at the end of the 2003-2004 academic year. UEN has one year left on the contract. UEN believes it is wise to re-negotiate the contract prior to the expiration July 2004 in order to save funds. Jonathon Kadis, Rick Hughes and Mike Petersen worked very hard to renegotiate the contract. Two other proposals, with Loral Skynet and PanAmSat, were evaluated and compared with SES Americom. Considering all of the ramifications, the recommendation was to remain with SES Americom.

Motion: It was moved and seconded that the members of the Utah Education Network Steering Committee approve an additional five year contract for satellite space segment with SES Americom at a cost of
$720,000 annually. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

I. GeoMax Project Update - Dan Patterson
UEN has plans to replace the analog video backbone (CVDS) as the primary layer one transport for video and data traffic this coming September. It will be replaced by the new GeoMax service, based on the Nortel Optera 5200 platform which will provide as much as eight times the available bandwidth as the former technology with virtually unlimited expandability. CVDS will continue to provide all of UEN’s analog video. This project is possible through the generosity of Qwest, who donated over $2,000,000 in CVDS equipment. As of the time this report was written, the GeoMax project has not received E-rate funding. Bill Kucera is working on a letter of recognition to Qwest for their wonderful gift.

II. E-Rate Update - Louise Tonin
As of August 8, UEN has been funded approximately $1.5 million for Funding Year 2003; $500,000 of which is for Internet. This funding is for ongoing, recurring services, with the exception of a new DS3 for Millard School District, and two new high capacity circuits for Tooele School District. The remainder of UEN’s applications are under review by the SLD. There has been no funding as of yet for any of UEN’s end-to-end services applications. Ray Timothy thanked Louise for her hard work in helping the school districts with their funding requests.

III. Steering Committee Meeting Minutes - Ray Timothy
It was moved and seconded that the members of the Utah Education Network Steering Committee approve the Steering Committee meeting minutes of June 27, 2003. THE MOTION PASSED WITH ALL VOTING IN FAVOR.

IV. Other - Jim Stewart
Jim Stewart presented a security update regarding network viruses. UEN’s security staff is reacting quickly to block the invasions. The problem is with Microsoft Windows and patches are being made available to help with the issues. UEN has been collaborating closely with the school districts and institutions of higher education. With a couple of exceptions, UEN has been able to get the traffic off of the backbone. Over 50% of UEN’s capacity has been tied up working with the worms. The frustration level is high with the staff and a lot of people around the state. Hundreds of machines are having to be patched. This problem could have been prevented if Microsoft had made the patches available five weeks ago when the problems were first identified. Steve Hess suggested UEN contact Microsoft regarding the many holes in their software and their slow response with patch availability. Ray complimented Jim and his staff for their quick response to the problem.
The meeting adjourned at 10:30 pm. The next meeting is scheduled for October 24, 2003, 9:00 a.m.-11:00 a.m. at the Dolores Doré Eccles Broadcast Center

*Please note: detailed information and discussion of the issues are included in the materials prepared for the meeting. Please refer to them for additional reference.*