



Welcome to UETN

We network for education and healthcare

UETN connects Utah's K-12 schools, technical colleges, institutions of higher education and public libraries, as well as patients and healthcare providers throughout the state. Whether you're a teacher in Tooele or a physician in Fillmore; a patient in Parowan or a student in San Juan County, UETN provides robust infrastructure, applications, and support for education and healthcare.

As one of the nation's premiere broadband and educational broadcast networks, UETN's success is based on collaboration with lawmakers, the Governor's office, and education and healthcare leaders. Teaming up with technology and telecom providers, we deliver cost effective services to Utahns in urban, suburban and rural areas.

Because this critical work is funded by the public, we pride ourselves on building collaborative partnerships and creating cost efficiencies and innovations that stretch every dollar to benefit the people we serve.

Quality education and accessible healthcare should be available to everyone, regardless of location or circumstance. Our teamwork and technology serve to meet that vision. UETN empowers educators and learners, providers and patients statewide. We invite you to learn more about us in the following pages.

Robert Wagner
Chair, UETN Governing Board

Ray Timothy
CEO and Executive Director, UETN

Purpose



We connect people and technologies to improve education and healthcare in Utah.

Initiatives



NETWORK

We will administer a secure, advanced, and stable network.

Grow capacity > Anticipate and plan for demand > Manage security risk > Support High Performance Computing for research > Merge UEN and UTN infrastructure > Leverage peering

APPLICATIONS

We will curate and support high quality resources and tools.

Align to core needs and standards > Support certificate and degree programs of our partners > Maximize cost savings through consortia > Improve accessibility > Foster telehealth adoption and deployment

SUSTAINABILITY

We will secure ongoing funding for our work.

Be transparent and efficient > Maximize E-Rate and Healthcare Connect funds > Seek grants and partnerships > Leverage other state and national initiatives

BROADCAST

We will extend programs and projects to benefit our community.

Manage FCC spectrum repack > Leverage the IP network, new technologies and applications > Produce new media > Engage with and amplify the work of community partners

DEVELOPMENT

We will provide excellent professional learning experiences integral to the work of our stakeholders.

Support Canvas training > Develop telemedicine resources > Staff adequately to reduce waitlists > Increase support for school administrators, libraries and healthcare community > Serve as a regional telehealth resource and leader

Values



Service: *open, honest, clear and respectful*

Innovation: *new ideas and creative solutions, a responsible risk-taking culture*

Diversity: *respect for all*

Equity: *fairness, impartiality, balance*

Fiscal Responsibility: *stewardship, public trust*

Empowered Staff: *opportunities for professional growth*

Communication: *seek input, give voice to staff and stakeholders*

Safety: *welfare, security, and well-being of staff and constituents*

Performance Indicators



1. 100% of sites connected at sufficient capacity to meet need
2. Network uptime and availability at 99.9% or greater
3. # of videoconferencing classes
4. Increase in composite # of telehealth enabled activities
5. Website utilization metrics
6. \$ savings through consortia purchasing
7. # of PD courses and credit hours completed
8. Finances stable and sustainable
9. % of return on E-Rate and Rural Healthcare funds

UETN serves customers throughout Utah

UETN services match the priorities and missions of the institutions we serve.

UETN SERVES:	IN SUPPORT OF:	AND THEIR MISSION TO PROVIDE:
<p><u>Utah Public K-12 Education</u></p>	<p>658,952 students 36,587 educators 1,130 schools</p> <p><i>(USBE Fingertip Facts, 2018-2019)</i></p>	<ul style="list-style-type: none"> • Educational Equity • Quality Learning • System Values <p><i>(USBE Excellence for Each Student, 2019)</i></p>
<p><u>Utah System of Higher Education</u></p>	<p>189,179 students 40,640 faculty and staff 8 institutions</p> <p><i>(USHE Data Book, 2019)</i></p>	<ul style="list-style-type: none"> • Affordable Participation • Timely Completion • Innovative Discovery <p><i>(A State of Opportunity 2025)</i></p>
<p><u>Utah System of Technical Colleges</u></p>	<p>36,713 students 8 technical colleges</p> <p><i>(Annual Report, 2019)</i></p>	<ul style="list-style-type: none"> • Technically-skilled workers to Utah employers • Promotion of local and statewide economic development • Market-driven technical education <p><i>(Annual Report, 2019)</i></p>
<p><u>Utah Public Libraries</u></p>	<p>134 public libraries and branches Serving 3.2 million Utahns</p> <p><i>(Utah State Library Division, 2019)</i></p>	<ul style="list-style-type: none"> • Development, leadership and delivery of exceptional services • Optimization of Utah's investment <p><i>(Utah State Library Division, 2019)</i></p>
<p><u>Rural and Urban Healthcare</u></p>	<p>70+ rural and critical access hospitals, community health centers, clinics, dialysis centers and local health departments</p> <p><i>(UTN Site List, 2019)</i></p>	<ul style="list-style-type: none"> • Access and availability • Care, disease prevention and promotion of wellness • Efficient use of resources <p><i>(UTN member mission statements, 2019)</i></p>

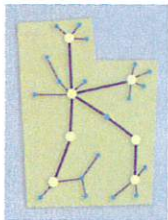
How do we serve Utah?

UETN services are integral to our mission of networking for education and healthcare. They include: Networking, Application, Support, Telehealth and Operational Services.

1. Networking Services

Networking Services extend and maintain UETN's wide area Internet and public TV networks. Students, library patrons, parents, educators, patients and healthcare providers all benefit from these services.

WIDE AREA NETWORK (WAN) – The Network infrastructure carries high speed Internet data and real-time applications including video conferencing to communities throughout the state. UETN connects all public educational institutions at a minimum of 1Gbps and healthcare sites at 100MB-1Gbps. Network engineers and staff research, design, build, monitor



and contract with multiple Utah service providers across the state. This partnership benefits businesses and homeowners who gain increased bandwidth because UETN is the anchor tenant for their local community.

INTERNET ACCESS – UETN manages a large network used by research institutions in Utah to support the state's growth and economic development goals. It also provides the capacity for more than 270 Gbp/s of Internet traffic from several Internet Service Providers (ISPs) to Utah schools, colleges, libraries, clinics and hospitals. The Network saves Utah institutions thousands of dollars per month by purchasing Internet access in bulk from multiple competing ISPs.

NETWORK SUPPORT AND SECURITY MONITORING – Network Support continuously tracks, reports and manages Internet, data, and video traffic on UETN's Wide Area Network (WAN). Security monitoring detects attacks on the Network, identifies miscreant tools and trends, and mitigates infrastructure vulnerabilities. UETN provides in-depth leadership in security training and works in partnership with national and global security organizations to avert large threats and incidents.

BROADCAST – Through a robust network of translators, UEN-TV broadcasts statewide: UEN-TV

9.1 provides a full schedule of programs to engage learners of all ages; First Nations Experience (FNX) 9.3 shows programs by and about American Indian and Indigenous people; and NHK World-Japan 9.4 offers English-language news and lifestyle programming from Japan.

INTERNET FILTERING – UETN licenses content-filtering software on behalf of Utah K-12 public schools, and public libraries to limit child exposure to harmful content such as violence and pornography. In addition to protecting children, this enables Utah schools and libraries to meet requirements of the Children's Internet Protection Act (CIPA) and maintain eligibility to receive E-Rate funding. UETN also provides and coordinates internet filtering with healthcare facilities.

2. Application Services

Working with stakeholders, UETN licenses or develops multiple applications that meet education and telehealth needs. This optimizes cost efficiencies through shared support, infrastructure and procurement.

INTERACTIVE VIDEO CONFERENCING (IVC) – UETN IVC is Utah's high quality, high definition, conferencing system for education, telehealth and government. Thousands of students and educators use it every day for live, instructor led courses, collaborative meetings, training and other special educational events. IVC connects over 1250 Video conferencing units in Utah through up to 400 daily educational events. UETN IVC also incorporates robust desktop video conferencing options, with over 1750 users, allowing students and administrators to collaborate from almost anywhere.

LEARNING MANAGEMENT SYSTEM (LMS) – Working with other Utah institutions, UETN licenses and supports software to manage online components of in-person and online classes; a shared platform for information sharing and collaboration. UETN contracts with Utah-based Instructure for its Canvas LMS. The Network regularly convenes higher and public education partners who work collaboratively to maximize this service.

UTAH'S ONLINE LIBRARY – This statewide service purchases online library resources from national suppliers at consortium discounts. The Library provides Utahns access to research sources such as newspaper articles, magazines, professional journals and eBooks. UETN pays for the K-12 portion of the service, with Public Libraries and Academic/College Libraries benefiting from consortium pricing. Preschool Pioneer is UETN's online library of resources for young children and their parents and caregivers.

WEB CONFERENCING – UETN licenses and supports desktop-based conferencing that creates a live, virtual classroom, office or conference room with two-way audio, video, interactive whiteboard, computer desktop sharing, one-on-one interviews and chat. This tool is available statewide for educational use such as meetings, mentoring, virtual office hours, presentations and tutoring.

TEACHING AND LEARNING TOOLS – UETN provides Utah's K-12 educators, faculty, and pre-service educators with tools they need to teach effectively. UETN also supports various web projects aligned to state education goals, such as STEM (Science, Technology, Engineering and Math) learning resources and Financial Literacy. UETN's eMedia service includes more than 20,000 videos, images and open educational resources. UETN works closely with the Utah State Board of Education (USBE) to develop curriculum applications such as the Utah Core Curriculum Database with curated lesson plans, applications, and links.

3. Support Services

Support Services provide learning assistance to the users of UETN infrastructure and applications.

PROFESSIONAL LEARNING – UETN provides courses, workshops and presentations to help end-users (teachers, faculty, librarians, principals and clinicians) use technology and Network infrastructure services effectively. UETN offers technology integration support in-person and via Canvas LMS, UEN-PDTV videos and the Homeroom podcast. Our professionals work closely with district and school leaders to provide workshops specific to local school needs including license endorsements and technology credentials for teachers.

REGIONAL SUPPORT – The UETN Operation Center and UETN Field Operations provide 24x7 monitoring, management and regional assistance to the data and

IVC network. In addition, UETN helps sustain four Regional Service Centers with technical support, instructional technology support and personnel funding. The centers include NUES, Northeastern Utah Educational Services in Heber City; CUES, Central Utah Educational Services in Richfield; SEDC, the Southwest Educational Development Center in Cedar City; and SESC, the Southeastern Educational Service Center in Price.

E-RATE SUPPORT – UETN assists Utah public school districts, charter schools, private schools, libraries, Head Start programs and healthcare providers to obtain E-Rate and Healthcare Connect Fund reimbursements for broadband circuit costs. The programs are part of the Federal Communication Commission's Universal Service Fund. Consumers, such as cell phone users, pay into this fund as a part of their monthly bills. With UETN's E-Rate and Healthcare Connect Fund support, Utah schools, libraries and healthcare facilities are laying claim to millions of reimbursement dollars set aside for education and healthcare.

4. Telehealth Services

UETN strengthens Utah's healthcare safety net by connecting rural and critical access hospitals, clinics, community health centers, dialysis centers and local health departments in rural and medically underserved communities. High quality broadband and cyber security services allow secure access to mission-critical applications, such as remote-hosted electronic medical records, practice management systems, and lab, pharmacy and radiology information systems. Telehealth services, such as telestroke, tele-oncology, and tele-pharmacy, delivered over the network expand patient care services in rural communities. Care coordination, chronic disease management, behavioral health services and healthcare provider training are widely facilitated via UETN. The network also offers UTN Connect videoconferencing for healthcare providers to connect directly to their patients regardless of location.

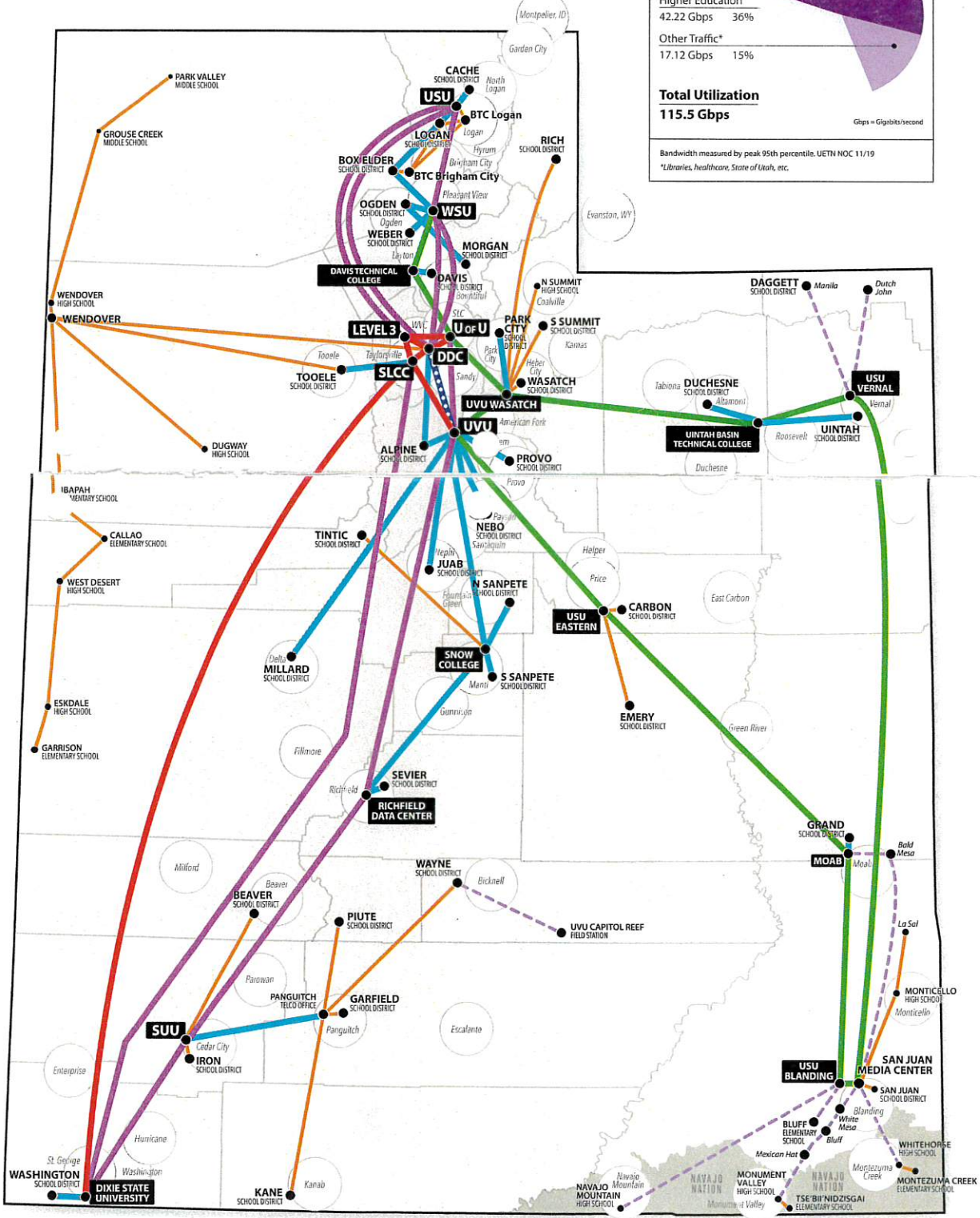
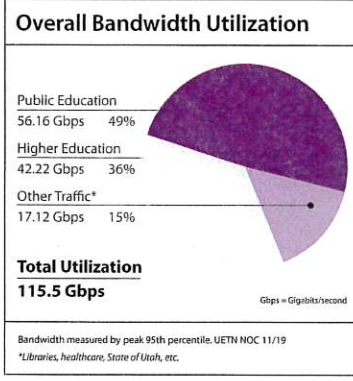
5. Operational Services

These business functions provide the operational foundation for UETN's networking, application, support and telehealth services. They include basic operations and maintenance, administration, accounting, internal telecommunications, utilities, database backups and internal security tools.

UETN Infrastructure Map

Connecting 1600+ locations throughout Utah

<p>Name</p> <p>100 GIGABITS/SECOND BACKBONE</p> <p>40 GIGABITS/SECOND BACKBONE</p> <p>20 GIGABITS/SECOND BACKBONE</p>	<p>COMMUNITIES SERVED BY UTAH TELEHEALTH NETWORK (UTN)</p>	<p>10 GIGABITS/SECOND BACKBONE</p> <p>10 GIGABITS/SECOND ETHERNET</p> <p>1 GIGABIT/SECOND ETHERNET</p> <p>200 MEGABITS/SECOND ETHERNET MICROWAVE</p>	<p>NAME</p> <p>POINT OF PRESENCE (POP)</p>
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What are the main sources of UETN funding and how is it allocated?

As of June 30, 2019

UETN SERVICES	TOTAL	STATE APPROP	KUEN GRANT	FEDERAL E-RATE	OTHER FUNDING*
NETWORKING SERVICES	\$32,610,564	\$18,499,128	\$23,376	\$13,264,416	\$823,644
External Network Support	887,012	488,893	-	-	398,119
Internal Network Support	2,923,399	2,923,399	-	-	-
Wide Area Network	28,800,153	15,086,836	23,376	13,264,416	425,525
APPLICATION SERVICES	\$9,545,112	\$9,027,020	\$254,626	-	\$263,466
Interactive Video Conferencing (IVC)	3,190,924	3,190,924	-	-	-
Learning Management System (LMS)	3,006,406	2,967,508	38,898	-	-
Teaching and Learning Tools	2,741,985	2,325,225	201,013	-	215,747
Utah's Online Library	605,797	543,363	14,715	-	47,719
SUPPORT SERVICES	\$2,129,334	\$1,864,153	\$246,760	-	\$18,421
Training	1,138,564	1,089,373	30,770	-	18,421
Regional Support	487,662	487,662	-	-	-
E-Rate Support	503,108	287,118	215,990	-	-
BROADCAST SERVICES	\$2,227,625	\$170,484	\$2,022,671	-	\$34,470
Broadcast Services	2,227,625	170,484	2,022,671	-	34,470
OPERATIONAL SERVICES	\$3,781,033	\$2,454,396	\$1,280,391	-	\$46,246
Operational Services	3,781,033	2,454,396	1,280,391	-	46,246
TELEHEALTH SERVICES	\$2,573,491	\$707,633	\$219,512	-	\$1,646,346
Interactive Video Conferencing (IVC)	2,573,491	707,633	219,512	-	1,646,346
TOTAL	\$52,867,159	\$32,722,814	\$4,047,336	\$13,264,416	\$2,832,593
PERCENTAGE OF TOTAL REVENUE	100.00%	61.90%	7.70%	25.10%	5.30%

*Note: "Other Funding" is comprised of miscellaneous grants and reimbursements from Public Ed, Higher Ed and Dept. of Technology Services.

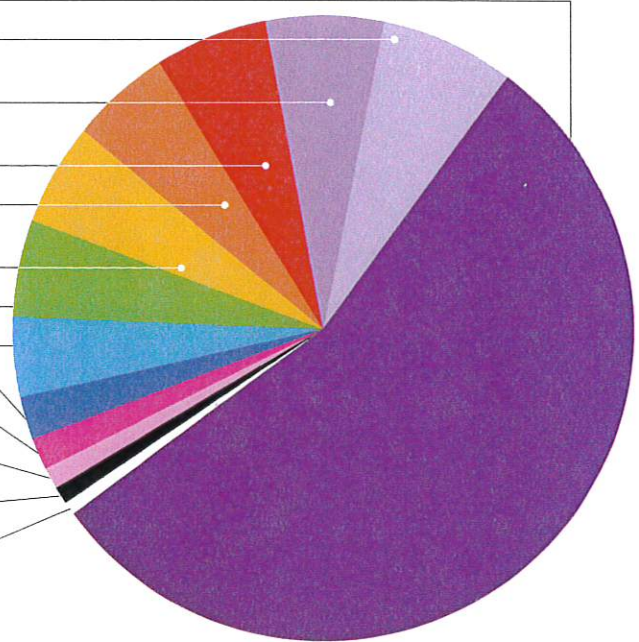
UETN services by customer

As of June 30, 2019

UETN SERVICES	TOTAL	PUBLIC EDUCATION	HIGHER EDUCATION	OTHER CUSTOMERS
NETWORKING SERVICES	\$32,610,564	\$22,096,587	\$6,990,042	\$3,523,935
External Network Support	887,012	584,872	152,244	149,896
Internal Network Support	2,923,399	1,927,611	501,764	494,024
Wide Area Network	28,800,153	19,584,104	6,336,034	2,880,015
APPLICATION SERVICES	\$9,545,112	\$4,030,676	\$5,216,776	\$297,660
Interactive Video Conferencing (IVC)	3,190,924	670,094	2,425,102	95,728
Learning Management System (LMS)	3,006,406	992,114	2,014,292	-
Teaching and Learning Tools	2,741,985	2,166,536	575,449	-
Utah's Online Library	605,797	201,932	201,933	201,932
SUPPORT SERVICES	\$2,129,334	\$1,626,771	\$273,255	\$229,308
Training	1,138,564	796,995	273,255	68,314
Regional Support	487,662	487,662	-	-
E-Rate Support	503,108	342,114	-	160,994
BROADCAST SERVICES	\$2,227,625	\$623,735	\$311,868	\$1,292,022
Broadcast Services	2,227,625	623,735	311,868	1,292,022
OPERATIONAL SERVICES	\$3,781,033	\$2,344,241	\$1,058,689	\$378,103
Operational Services	3,781,033	2,344,241	1,058,689	378,103
TELEHEALTH SERVICES	\$2,573,491	-	-	\$2,573,491
Interactive Video Conferencing (IVC)	2,573,491	-	-	2,573,491
TOTAL	\$52,867,159	\$30,722,010	\$13,850,630	\$8,294,519
PERCENTAGE OF TOTAL EXPENSES	100.00%	58.10%	26.20%	15.70%

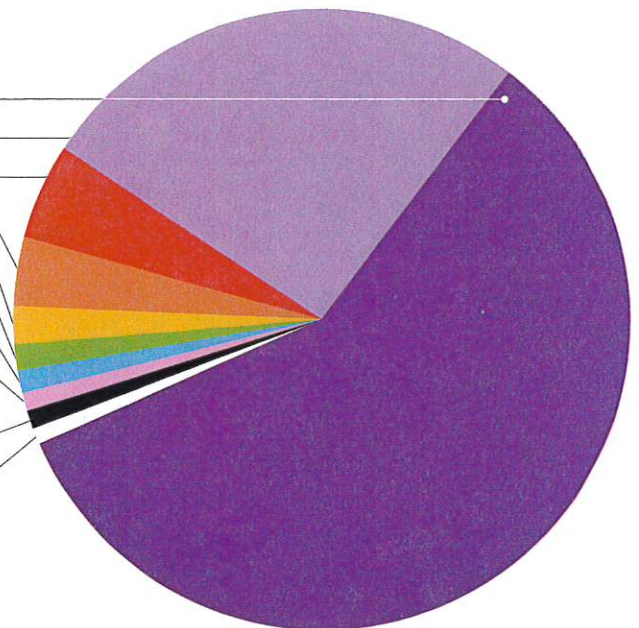
UETN Budget by service

Wide Area Network	\$28,800,153	54.50%
Operational Services	\$3,781,033	7.20%
Interactive Video Conferencing (IVC)	\$3,190,924	6.00%
Learning Management System (LMS)	\$3,006,406	5.70%
Internal Network Support	\$2,923,399	5.50%
Teaching and Learning Tools	\$2,741,985	5.20%
Telehealth Services	\$2,573,491	4.90%
Broadcast Services	\$2,227,625	4.20%
Training	\$1,138,564	2.10%
External Network Support	\$887,012	1.70%
Utah's Online Library	\$605,797	1.10%
E-Rate Support	\$503,108	1.00%
Regional Support	\$487,662	0.90%
TOTAL	\$52,867,159	100%



UETN Budget by customer

Public Education	\$30,722,010	58.10%
Higher Education	\$13,850,630	26.20%
Telehealth	\$2,573,491	4.90%
Libraries	\$1,907,009	3.60%
Other	\$1,072,693	2.00%
Technical Colleges	\$786,641	1.50%
State Government	\$595,941	1.10%
General Public	\$476,752	0.90%
Community Learning Centers	\$476,752	0.90%
Private Schools	\$405,240	0.80%
TOTAL	\$52,867,159	100%



Estimates as of June 30, 2019

Advisory Councils



UEN.ORG



UTN.ORG

Rick Gaisford, BA
Chair
Utah State Board of Education
USBE and TCC

Shelly L. Belflower, MBA
Vice-Chair
Weber State University
Utah Teaching Technologies Council

Lesli Baker, MEd, MLIS
Utah Valley University
Academic Libraries

Laura Banda, MS, MEd
Center for Creativity, Innovation and Discovery
Charter School Administrators

Kimberley Bartel, MPA
Utah Department of Workforce Services
UtahFutures

Tim Benson
Iron School District
High School CTE Teachers or Specialists

Katie Blunt, MEd
Canyons School District
Public Educators

RC Callahan, MEd
Weber State University
Distance Ed. / Canvas Admins

Tom Cheatham, PhD
The University of Utah
Research Network

Marie Erickson
Utah State Libraries
Public Libraries

Jeremy Ferkin
CenturyLink Interactive
Urban Telecommunications

Richard Gonzalez
Utah System of Higher Education
Utah System of Higher Education- Diversity Officers

Tiffany Hall, EdD
Salt Lake School District
K-12 Professional Development

Brad Last, MBA
Representative Utah State Legislature
Utah Legislature (House)

Scot McCombs, BS
Canyons School District
District IT Directors

Madonne Miner, PhD
Weber State University
Chief Academic Officers

Tony Pellegrini, EdD
Southern Utah University
Teacher Education Faculty

Hal Raymond, MS
Weber School District
Online Schools

Greg Scherer, MS
Davis Technical College
Utah System of Technical Colleges - Campus

Diena Simmons, MA
KBYU
Utah Public Media

Clint Stephens, MSSE
Southwest Educational Development Center
Tech Trainers and C-Forum

Jason Strate, MS
Central Utah Educational Services
Public Education

Todd Weiler, JD
Utah State Senate
Utah Legislature (Senate)

Brad Welch
CentraCom Interactive
Rural Telecommunications

Kim Ziebarth, MEd
Utah System of Technical Colleges
Utah System of Technical Colleges - Office

Open Position
Public Libraries

Sarah Woolsey, MD, FAAFP
Chair
Medical Director, Comagine
Other Organizations

Preston Marx, CPHIMS
Vice-Chair
VP, Information Systems and Support Services
Uintah Basin Medical Center
Member Hospital, Clinic, Health Department

Brenda Bartholomew, RN
Chief Nursing Officer, Gunnison Valley Hospital
Rural Representative

David Blodgett, MD
Health Officer, Southwest Utah Public Health Department
Member Hospital, Clinic, Health Department

Jayden Brian, BS
Telehealth Manager, Wayne Community Health Center
Rural Representative

Nate Creer, MBA
Product Manager, Telehealth University of Utah Health
The University of Utah Health Sciences Center

Locke Ettinger, PhD, PT
Executive Director, Rural Health Association of Utah
Rural Representative

Peter Hannon, MD
The University of Utah Stroke Center
Education and Research

Jenifer Lloyd, JD, MSPH
Deputy Director, Association for Utah Community Health
Other Organizations

Brittany Ly, MPH
Diabetes Health Program Specialist, Utah Department of Health
At-Large

Michelle McOmber, MBA, CAE
CEO, Utah Medical Association
Other Organizations

Eric Packer, MBA
Administrator, Cedar City Hospital
Rural Representative

Marta Petersen, MD
Professor of Dermatology, The University of Utah School of Medicine; Section Chief, VA; founder and former director, Utah Telehealth Network
Ex-officio

Donna Singer, MS
Consultant
At-Large

Anthony Torres
IT, Utah Navajo Health System and Blue Mountain Hospital
Member Hospital, Clinic, Health Department

Brian Wayling, MBA
Assistant VP Telehealth, Intermountain Healthcare
Member Hospital, Clinic, Health Department

Open Position
At-Large



Open Position
The University of Utah Health Sciences Center

UETN by the numbers

UETN CONNECTS


658,952
K-12 STUDENTS AT

1,130
SCHOOLS AND FACILITIES





70+
HOSPITALS, COMMUNITY HEALTH CENTERS, CLINICS, LOCAL HEALTH DEPARTMENTS, AND DIALYSIS CENTERS


MORE THAN **1.7 MILLION** PAGEVIEWS OF Utah's Online Library



211,233
POSTSECONDARY STUDENTS AND TRAINEES




3.2 MILLION POTENTIAL PATRONS AT **134** PUBLIC LIBRARIES & BRANCHES



77,227
EDUCATORS AND STAFF FROM PRE-K THROUGH COLLEGE


6.1 million+ unique visits to uen.org, UTAH'S PUBLIC MEDIA WEBSITE FOR EDUCATION



60,029 page views OF PRESCHOOL PIONEER AND ESCUELA PREESCOLAR, UTAH'S LIBRARY FOR YOUNG LEARNERS

~20,000 STUDENTS USED UETN'S INTERACTIVE VIDEO CONFERENCING SYSTEM TO EARN HIGHER EDUCATION CREDITS


1,600+ EDUCATION AND COMMUNITY-SITES AND HEALTHCARE FACILITIES CONNECTED VIA UETN'S WIDE AREA NETWORK



336,585 K-12 STUDENTS —AND— **225,957** HIGHER ED STUDENTS ENROLLED IN COURSES DELIVERED THROUGH CANVAS LMS


916,960 HOUSEHOLDS PUBLIC SERVICE PROGRAMMING ON KUEN'S BROADCAST CHANNELS: UEN-TV 9.1 | FOX 9.3 | NHK WORLD-JAPAN 9.4

\$19.3 MILLION IN TELECOMMUNICATION FUNDS RECOVERED FOR UTAH SCHOOLS THROUGH THE E-RATE PROGRAM
Fund Year 2018




EMEDIA GROWTH:
3,848 Open Educational Resources (OER)
97 Resource Collaboration Groups
20,000+ Digital Instructional Resources

252,972 VISITS TO EMEDIA



155,825 VIEWS OF VIDEOS ON UETN WEB PAGES



9,953 PARTICIPATED IN **3,820** HOURS OF UETN PROFESSIONAL LEARNING FOR EDUCATORS

As of December 2019