

#### Welcome to UETN

# We network for education and health care

UETN connects Utah's K-12 schools, technical colleges, institutions of higher education and public libraries, as well as patients and health care 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 health care.

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 health care 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 heath care 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.

Ray Walker

Chair, UETN Governing Board

Kay Walker

Ray Timothy

CEO and Executive Director, UETN

## Utah Education and Telehealth Network

Strategic Plan 2015-2020





We network for education and healthcare

#### Purpose



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

#### NETWORK

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

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

#### **APPLICATION**

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

#### Initiatives



#### 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
- \$ savings through consortia purchasing
- # 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.

OETN services match the phonties and missions of the institutions we serve.						
UETN SERVES:	IN SUPPORT OF:	AND THEIR MISSION TO PROVIDE:				
Utah Public K-12 Education	652,348 students 35,116 educators 1,113 schools (USBE Fingertip Facts, 2017-2018)	<ul> <li>Educational Equity</li> <li>Quality Learning</li> <li>System Values</li> </ul>				
Utah System of Higher Education	180,034 students 36,990 faculty and staff 8 institutions (USHE Data Book, 2018)	<ul> <li>Affordable Participation</li> <li>Timely Completion</li> <li>Innovative Discovery</li> </ul>				
Utah System of Technical Colleges	12,168 students 8 technical colleges (Annual Report, 2018)	<ul> <li>Technically-skilled workers to Utah employers</li> <li>Promotion of local and statewide economic development</li> <li>Market-driven technical education         (Annual Report, 2018)</li> </ul>				
Utah Public Libraries	135 public libraries and branches Serving 3 million Utahns (Utah State Library Division, 2018)	<ul> <li>Development, leadership and delivery of exceptional services</li> <li>Optimization of Utah's investment         (Utah State Library Division, 2018)     </li> </ul>				
Rural and Urban Health Care	70+ rural and critical access hospitals, community health centers, clinics, dialysis centers and local health departments  (UTN Site List, 2018)	<ul> <li>Access and availability</li> <li>Care, disease prevention and promotion of wellness</li> <li>Efficient use of resources</li> </ul>				

Updated by UETN Governing Board, September 2018

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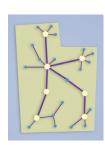
# How do we serve Utah?

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

#### 1. Networking Services

Networking Services extend and maintain UETN's wide area broadband and digital TV networks. Students, parents, educators, patients and health care providers all benefit from these services.

WIDE AREA NETWORK (WAN) – The Network infrastructure carries high speed data and real-time applications including video to communities throughout the state. UETN connects the majority of educational institutions at a minimum of 1Gbps and health care sites at 100MB-1Gbps. Network engineers



and staff research, design, build, monitor and contract with multiple Utah service providers across the state. This public/private 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 science and economic development goals. It also provides the capacity for more than 170 Gbps of Internet traffic from several Internet Service Providers (ISPs) to and from 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** – UEN-TV broadcasts four TV channels statewide: UEN-TV 9.1 provides 24/7 programs to

engage educators and lifelong learners; MHz Worldview 9.2 features global news, mysteries and more; 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-control software on behalf of Utah K-12 public schools, charter 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 health care 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 1200 locations in Utah through more than 350 daily educational events. UETN IVC also incorporates robust desktop video conferencing options, with over 1700 users, allowing students and administrators to collaborate from almost anywhere.

**LEARNING MANAGEMENT SYSTEM (LMS)** – Working with other Utah institutions, UETN licenses and supports a software application that manages 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, UtahFutures college and career planning, Internet Safety and Financial Literacy. UETN's eMedia service includes more than 20,000 digital 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, open educational resources, and links.

#### 3. Support Services

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

PROFESSIONAL DEVELOPMENT – UETN provides courses, workshops and presentations to help end-users (teachers, faculty, librarians, principals and clinicians) use Network infrastructure services effectively. We coordinate with K-12 and higher education specialists, then provide courses, workshops, and teaching materials to support their educational technology work. UETN offers technology integration support in-person and via Canvas LMS, online streaming and podcasts. 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 – UETN's regionally located field support centers provide 24/7 assistance to the data and IVC network. UETN helps sustain these four Regional Service Centers with technical support, grant 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 health care providers in obtaining 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 health care facilities are laying claim to millions of reimbursement dollars set aside for education and health care.

#### 4. Telehealth Services

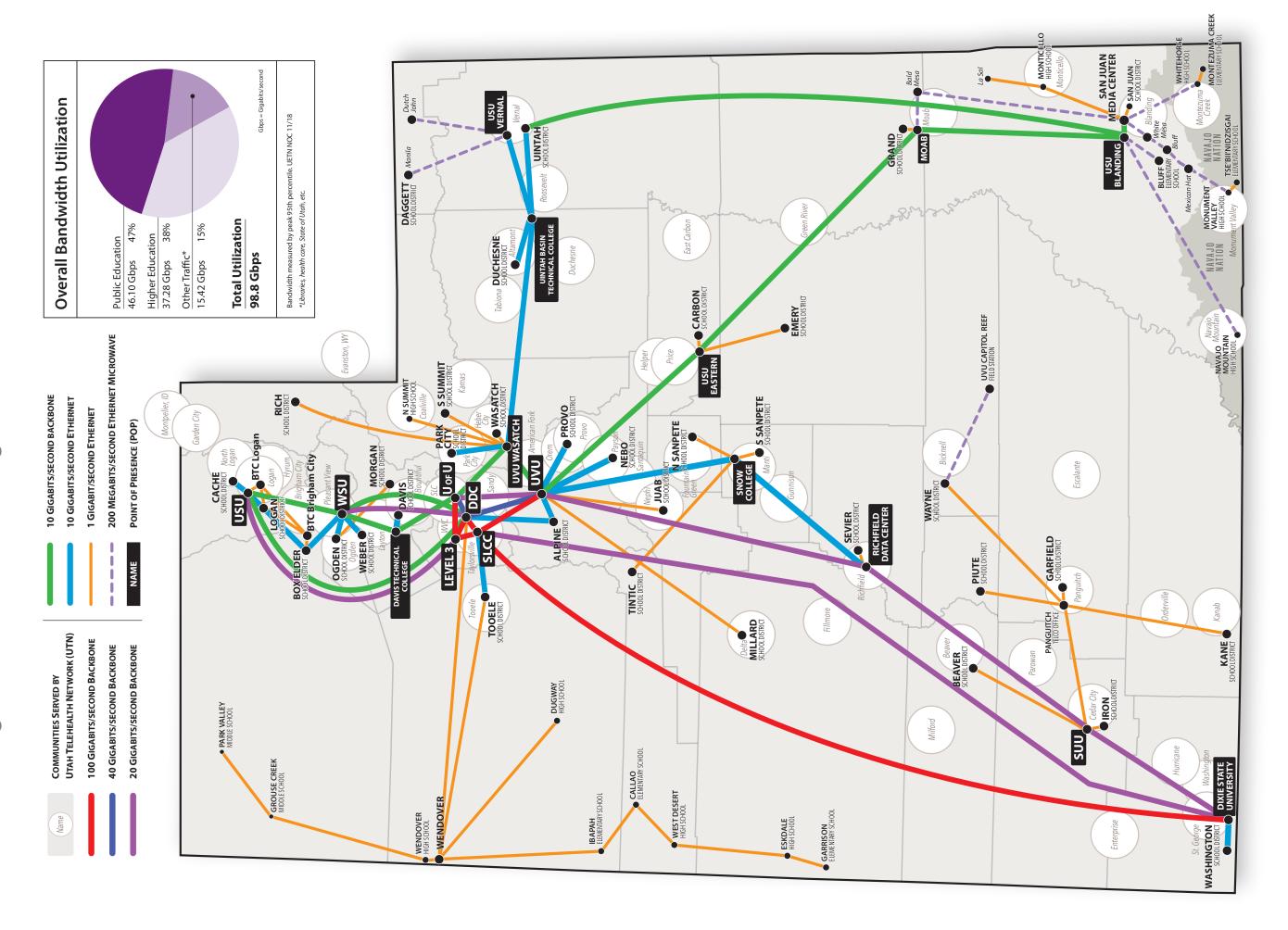
UETN links rural health care providers and their patients with services generally available only in more populated urban areas. Whether live-streaming surgery grand rounds, transmitting radiology images, or linking behavioral health providers to patients in their homes, the telehealth network helps deliver health care to rural and underserved populations throughout the state. UETN provides high quality broadband to rural health care providers and collaborates with their IT staff on cyber security initiatives to maintain patient confidentiality and privacy. UETN supports patient care, provides continuing education to health professionals, and facilitates administrative meetings. The network also offers telehealth applications for primary care providers to their patients providing greater access in homes, nursing homes and other locations.

#### 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.

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# ETN Infrastructure Map Connecting 1600+ locations throughout Utah



# What are the main sources of UETN funding and how is it allocated?

As of June 30, 2018

UETN SERVICES	TOTAL	STATE APPROP	KUEN GRANT	FEDERAL E-RATE	OTHER FUNDING*
NETWORKING SERVICES	\$28,839,942	\$10,379,034	\$2,368,374	\$15,597,959	\$494,575
Wide Area Network (WAN)	23,551,520	7,283,275	505,142	15,363,577	399,527
Internet Access	587,114	352,732	303,142	234,382	399,327
Network Support and	367,114	332,732	_	234,302	_
Security Monitoring	2,376,520	2,376,520	_	_	_
Broadcast	2,035,890	77,609	1,863,232	_	95,049
Internet Filtering	288,898	288,898	_	_	-
APPLICATION SERVICES	\$9,167,850	\$8,979,140	\$34,967	_	\$153,742
Interactive Video Conferencing (IVC)	2,282,301	2,282,301	_	_	_
Learning Management Systems (LMS)	811,468	811,468	_	_	_
Teaching and Learning Tools	5,423,012	5,245,238	24,522	-	153,252
Utah's Online Library	644,963	634,028	10,445	_	490
Web Conferencing	6,106	6,106	-	-	-
SUPPORT SERVICES	\$2,192,125	\$2,058,358	\$100,152	-	\$33,615
Professional Development	1,263,712	1,143,158	86,939	_	33,615
Regional Support	829,907	829,907	-	-	-
E-Rate Support	98,506	85,293	13,213	-	-
OPERATIONAL SERVICES	\$3,701,688	\$2,515,287	\$1,159,403	_	\$26,998
Operational Services	3,701,688	2,515,287	1,159,403	-	26,998
TELEHEALTH SERVICES	\$2,067,254	\$880,461	\$215,388	-	\$971,405
Telehealth Services	2,067,254	880,461	215,388	_	971,405
TOTAL	\$45,968,859	\$24,812,279	\$3,878,286	\$15,597,959	\$1,680,336
PERCENTAGE OF TOTAL REVENUE	100%	53.98%	8.44%	33.93%	3.65%

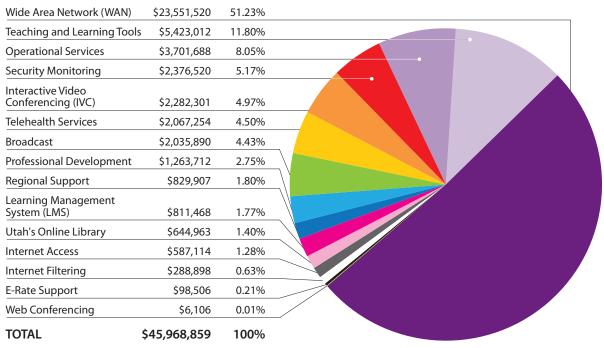
<sup>\*</sup>Note: "Other Funding" is comprised of miscellaneous grants and reimbursements from Public Ed, Higher Ed, and Department of Technology Services.

#### UETN services by customer

As of June 30, 2018

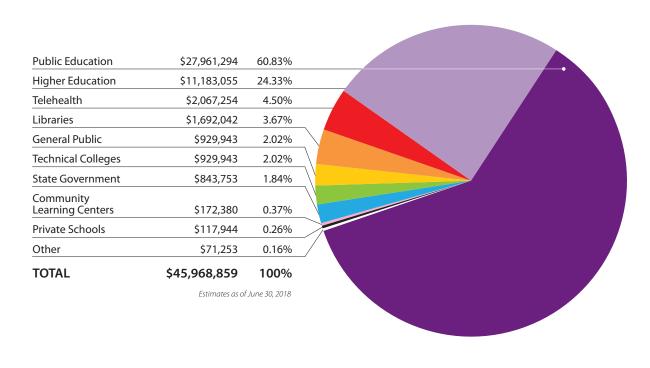
A3 01 Julie 30, 2016				
UETN SERVICES	TOTAL	PUBLIC EDUCATION	HIGHER EDUCATION	OTHER CUSTOMERS
NETWORKING SERVICES	\$28,839,942	\$18,634,742	\$6,208,913	\$3,996,287
Wide Area Network (WAN)	23,551,520	16,015,034	5,181,334	2,355,152
Internet Access	587,114	193,748	334,655	58,711
Network Support and Security Monitoring	2,376,520	1,567,014	407,899	401,607
Broadcast	2,035,890	570,049	285,025	1,180,816
Internet Filtering	288,898	288,898		-
APPLICATION SERVICES	\$9,167,850	\$5,250,016	\$3,634,378	\$283,457
Interactive Video Conferencing (IVC)	2,282,301	479,283	1,734,549	68,469
Learning Management Systems (LMS)	811,468	267,784	543,683	-
Teaching and Learning Tools	5,423,012	4,284,907	1,138,105	-
Utah's Online Library	644,963	214,988	214,988	214,988
Web Conferencing	6,106	3,053	3,053	-
SUPPORT SERVICES	\$2,192,125	\$1,781,489	\$303,291	\$107,345
Professional Development	1,263,712	884,598	303,291	75,823
Regional Support	829,907	829,907	_	_
E-Rate Support	98,506	66,984	-	31,522
OPERATIONAL SERVICES	\$3,701,688	\$2,295,047	\$1,036,473	\$370,169
Operational Services	3,701,688	2,295,047	1,036,473	370,169
TELEHEALTH SERVICES	\$2,067,254	-	-	\$2,067,254
Telehealth Services	2,067,254	-	_	2,067,254
TOTAL	\$45,968,859	\$27,961,294	\$11,183,055	\$6,824,511
PERCENTAGE OF TOTAL EXPENSES	100%	60.83%	24.33%	14.84%

## UETN Budget by service



Estimates as of June 30, 2018

## UETN Budget by customer



Totals in these tables may not reflect precise summaries of the data since amounts less than one dollar are rounded.

## Advisory Councils



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

Anthony Booyse
Department of Technology
Services
State Information Technology

Tyler Brinkerhoff, MBA

Utah System of Technical Colleges Utah System of Technical Colleges – Office

David Brotherson, MEd Duchesne School District Public Education

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

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The University of Utah
Research Network

Dan Compton, MLS Summit County Library Public Libraries

Kevin Cummings, MA Davis Technical College Utah System of Technical Colleges – Campus

Jeremy Ferkin CenturyLink Interactive Urban Telecommunications

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

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

Ryan Hobbs, MS Dixie State University Utah Teaching Technologies Council

Through November 2018

Roderic Land, PhD Salt Lake Community College USHE Chief Diversity Officers

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

Madonne Miner, PhD Weber State University Chief Academic Officers

Scot McCombs, BS Canyons School District District IT Directors

Jon Ostler, MLIS Snow College Academic Libraries

Tony Pellegrini, EdD Southern Utah University Teacher Education Faculty

Hal Raymond, MS Weber School District Online Schools

Diena Simmons, MA KBYU Utah Public Media

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

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

Brad Welch CentraCom Interactive Rural Telecommunications

Open Position Charter School Administrator



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

John Bramble, MLIS Associate Director, National Network of Libraries of Medicine, MidContinental Region and

Spencer S. Eccles Health Sciences Library The University of Utah Health Sciences Center

Evan Christensen, MBA Executive Director, Wayne Community Health Centers, Inc. Rural Representative

Libbey Chuy, MPH
Telehealth Program
Coordinator, Association for
Utah Community Health
Partner Organizations

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

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

Robert Jex, RN, MHA, FACHE
Former chair,
UTN Advisory Council
At-Large

Preston Marx, MMIS Vice-Chair

VP, Information Systems and Support Services Uintah Basin Medical Center Member Hospital, Clinic, Health Department

Michelle McOmber, MBA, CAE

**CEO, Utah Medical Association** *Partner Organizations* 

Rita Osborn, MBA
Director, Utah Center for Rural
Health, Southern Utah University
Rural Representative

Eric Packer, MBA Administrator, Cedar City Hospital Rural Representative

Marta Petersen, MD
Dermatologist and founder, UTN
The University of Utah Health
Sciences Center and VA Medical Center
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

Sarah Woolsey, MD, FAAFP

Medical Director, HealthInsight Partner Organizations

Open Position At-Large

# UETN Governing Board 2018-2019



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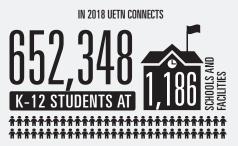
Staff: Ray Timothy UETN Executive Director (801) 581-6991 rtimothy@uen.org



Open Position Telehealth

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## UETN by the numbers



MORE THAN

230,000

70+

HOSPITALS, COMMUNITY HEALTH CENTERS, CLINICS, LOCAL HEALTH DEPARTMENTS, AND DIALYSIS CENTERS 59% II
GROWTH IN USE OF UTAH'S
ONLINE LIBRARY

**A** MILLION POTENTIAL

PATRONS

At 135

PUBLIC LIBRARIES

AND BRANCHES

73,542

EDUCATORS AND STAFF FROM PRE-K THROUGH COLLEGE 6.3 million+

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

45,049 visits

TO PRESCHOOL PIONEER AND ESCUELA PREESCOLAR, UTAH'S LIBRARY FOR YOUNG LEARNERS

 $\sim$  20,000 students

STUDENTS AND TRAINEES

POSTSECONDARY -

USED UETN'S INTERACTIVE VIDEO CONFERENCING SYSTEM TO EARN HIGHER EDUCATION CREDITS 1,600+

EDUCATION AND COMMUNITY SITES ARE CONNECTED VIA UETN'S WIDE AREA NETWORK

275,962 K-12 STUDENTS

K-12 9 I UNEW I

193,296 HIGHER ED STUDENTS

ENROLLED IN COURSES DELIVERED THROUGH CANVAS LMS

24/7

EDUCATIONAL PROGRAMMING ON KUEN'S FOUR BROADCAST CHANNELS:
UEN-TV 9.1 | MHZ 9.2 | FNX 9.3 | NHK WORLD-JAPAN 9.4



IN TELECOMMUNICATION FUNDS RECOVERED FOR UTAH SCHOOLS THROUGH THE E-RATE PROGRAM

Fund Year 2017

MORE THAN

1.4 WILLION

UNIQUE PAGEVIEWS OF

Utan's Library

214,305 VISITS TO EMEDIA

179,403 © VIEWS OF VIDEOS ON UETN WEB PAGES

→ 14,185

UTAH EDUCATORS PARTICIPATED IN

2,805 HOURS
UETN PROFESSIONAL
DEVELOPMENT

As of November 2018