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UTAH EDUCATION AND
TELEHEALTH NETWORK

Annual Report

KUEN Local Content and Service
Report to the Community

2022



Connecting 1,900+ Locations Throughout Utah

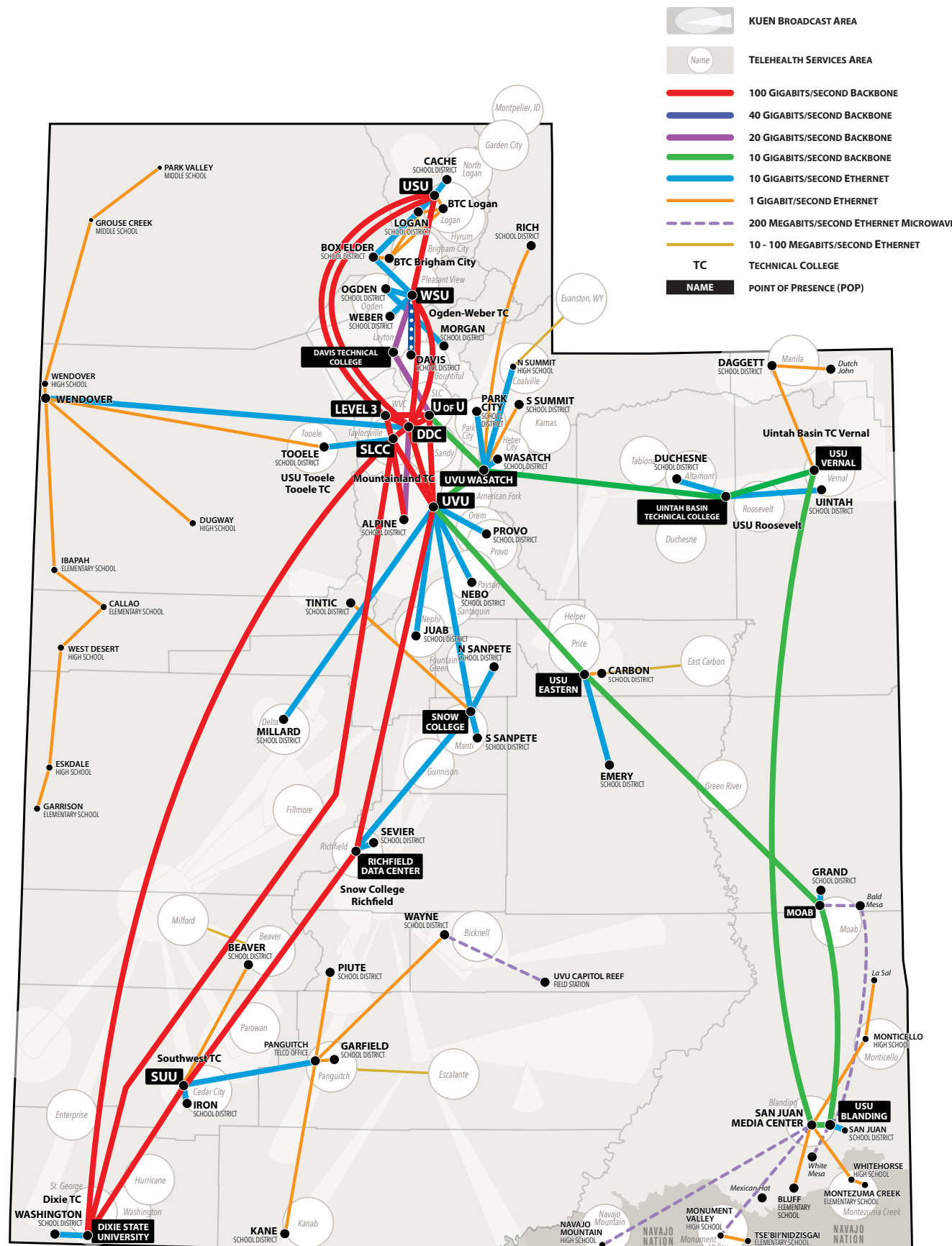


TV for Thinkers: education programs for lifelong learners of all ages | Channel 9.1

Live coverage of launches, spacewalks, mission events, news briefings and more | Channel 9.2

Native American and Indigenous entertainment and news | Channel 9.3

English language news and culture programming from Japan | Channel 9.4



Welcome Friends,

This annual report highlights our work in 2022 and accomplishments aligned to our mission, **“We network for education and healthcare in Utah.”**

Known locally as Utah Education and Telehealth Network (UETN), our station’s 140 employees continue to address community needs, developing new and innovative services while streamlining others. This year, we welcomed a new CEO, Spencer Jenkins, and bid happy retirement to several employees including our long-time Director of Broadcast Engineering, Phil Titus.

We are grateful for the ongoing collaboration with our governing board, constituents, external partners and internal teams. Together, we generate innovative solutions that help overcome diverse challenges.

In this report, we’re proud to tell stories about service to our COMMUNITY, LEARNERS and EDUCATORS. We also highlight our support for TELEHEALTH and advancements in our technical INFRASTRUCTURE.

This year we returned to broadcasting four distinct channels, adding NASA TV. We like to say the new channel is “out of this world,” and audiences have praised how it advances STEM learning and links to the important work of Utah’s research universities and aerospace industry.

As we look back on 2022, we also look forward to a new year with promising partnerships, new content and innovative services that will help Utahns successfully engage with and benefit from our work in 2023.

We invite you to learn more in the following pages and welcome your feedback.

Sincerely,

Laura G Hunter, PhD
 KUEN Station Manager
 UETN Chief Operating Officer

Community



Sharing Native Stories

UETN amplified the work of higher education partners through the [2022 Indigenous Peoples Day College Collaboration](#). Using distance education technology, UETN unified virtual, hybrid and in-person activities hosted by eight colleges into a statewide experience celebrating Native culture and exploring key issues. More than 300 people participated in the day's film screenings, panel discussions, student performances and more.



As a result of the 2022 Indigenous Peoples Day College Collaboration, the University of Utah partnered with UETN to host a special screening of [Roadtrip Nation: Native Way Forward](#).

“UETN made it possible for us to share our panel discussions with a broader audience, increasing awareness of a vital topic that seems to be forgotten by many.”

—Fernando Montaña, Chief Diversity Officer, Snow College

Building a Community of Readers

[UEN LitFlix](#) is a new, multi-platform program that promotes literacy and community in partnership with Utah public libraries. The program combines classic films based on books, broadcast weekly on UEN-TV, with online resources and in-person engagement opportunities. This year, the program included 11 partner organizations to reach more than 160,000 Utah library patrons.

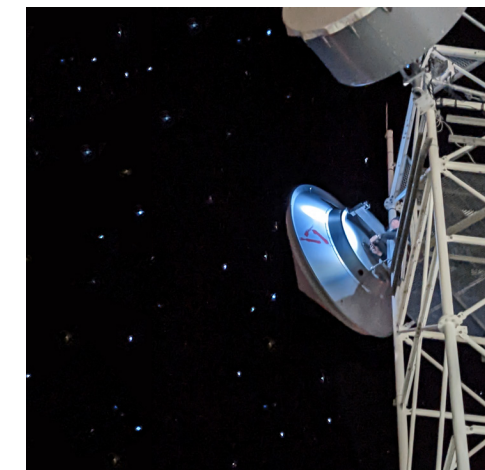


“UEN LitFlix has been very popular at our branch!”

—Sarah Hall, Librarian, Washington County Library System

Presenting NASA TV

On March 1, UEN-TV launched NASA TV on Channel 9.2, making Utah one of the first states to offer NASA's inspiring educational content over the air. The addition brings more high-quality, commercial-free programming to the growing number of television viewers who are seeking quality alternatives to paid services.



◀ Utah has a robust aerospace industry and [the highest concentration of certified International Dark Sky Parks](#) on Earth.

Connecting Libraries Throughout Utah

Utahns depend on 150 public libraries and branches for resources to boost lifelong learning and workplace readiness. This year, UETN services helped library partners fulfill this mission with improved access to our fast, reliable network and content to share with patrons through our Preschool Path and UEN LitFlix programs. Libraries connected to the internet through UETN enjoy an additional benefit: coverage for circuit charges thanks to state funding.

“UETN is a vital partner for Utah public libraries.”

—Chaundra Johnson, Director, Utah State Public Library

Spotlighting Local Art Initiatives

UEN-TV's local productions for the Public Television Major Market Group (MMG) collaborative program called “Art Connection” spotlight the vibrant relationship between art, education and community in Utah. Recent productions featured [Moab's Multicultural Center](#), which had educators develop curriculum aligned to a nine-panel mural, and an inspiring art exhibit by a [University of Utah School of Dentistry student](#).



◀ In “Art Connection: Community Arts and Education,” volunteer artist Serah Mead explains how she created a panel for the Moab Multicultural Center's mural.



Learners

Connecting Students, Instructors and Services

Utah learners benefit from the array of software that UETN licenses on behalf of K-12, higher education and public libraries. UETN uses a rigorous process to evaluate software and provide the best possible value. We also provide training and support so that educators can make the most of the tools and create valuable learning experiences. This year, access to 25 educational technology products enhanced in-person, online and hybrid learning for more than 850,000 students.

Software and Services

 Distance Education 20.5K courses	 1.6M visits	 25.4M activities
 24K resources	 670K learners	 6.8M visits

Amplifying Student Voices

In The Field with UEN-TV helps prepare the next generation of public media professionals. This year, our producers worked with more than 100 youth during media skills workshops and provided individualized mentoring through internships.



UEN-TV youth mentee Gabe L. and Producer Fernando Lara film an episode of "UEN Professional Development TV (PDTV)" on site at the Jean Massieu School of the Deaf in Salt Lake City.

Captioning for Accessibility

Utah higher education partners depend on UETN for cost-effective services that make instructional content more accessible for all students. This year, UETN connected fourteen colleges and universities with partners to caption lectures, labs and instructional videos. We also participated in collaboration meetings and provided vendor communication to save the consortium 29% on their required closed captioning services.

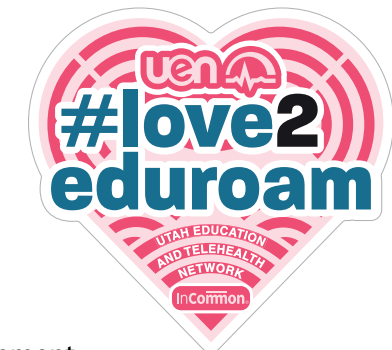
4,758
hours of closed captioning services for accessible content

UETN Supports Professional Learning

12 new courses added to Public Media Learns at NETA and 2,472 total enrollments	13,910 enrollments in courses for healthcare providers	Materials for 300+ state leaders supported by the One Utah Leadership Council
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Leading Innovation with eduroam2go

UETN is advancing an initiative that may give Utah students, faculty and staff even more places they can work while still being able to securely access their school network. Through the Internet2 program eduroam, members of participating organizations can use their school credentials from any eduroam hotspot in the world. UETN is testing eduroam2go, a concept that transforms retired equipment into devices that make it easier for host sites like schools, libraries, athletic fields and museums to activate eduroam at their locations. The pilot project has garnered interest from eduroam service organizations across the nation.

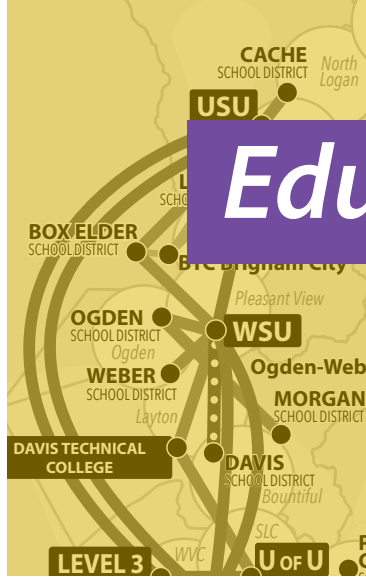


Thanks to UETN's leadership in bringing eduroam to our state, I can just show up at any of our 42 school districts, open my computer, and get to work confident I'll have connectivity."

—Brandon Harrison, Ed Tech Specialist, Central Utah Educational Services

37K
 views of preschool.uen.org

35K+
Concurrent Enrollment credit hours delivered



Educators

Saving Teachers Time with Content Hubs

To help K-12 teachers easily find digital resources aligned to Utah standards, UETN partnered with staff at Utah State Board of Education (USBE) to create six eMedia Hubs. The project engaged Utah educators to curate thousands of videos, lesson plans, web links and more into searchable collections on Mathematics, Health Education, the U.S. Constitution and other topics. The launch of the new Hubs correlates to a 48% jump in unique visits to eMedia, and additional collections are in development.



“Planning lessons with rigorous tasks has never been easier because of the new UEN eMedia Mathematics hub!”

—Lindsey Henderson, Secondary Mathematics Specialist, Utah State Board of Education

Leading Schools Summit

UETN hosted [Leading Schools](#), a multi-day summit for principals, focused on design thinking, innovative practices, problem-solving, improved communication and student-centered personalized competency-based learning (PCBL). Fifty-one school principals participated, gaining insight into cutting edge practices, building their own professional learning networks and exploring how they might lead PCBL initiatives at K-12 schools.

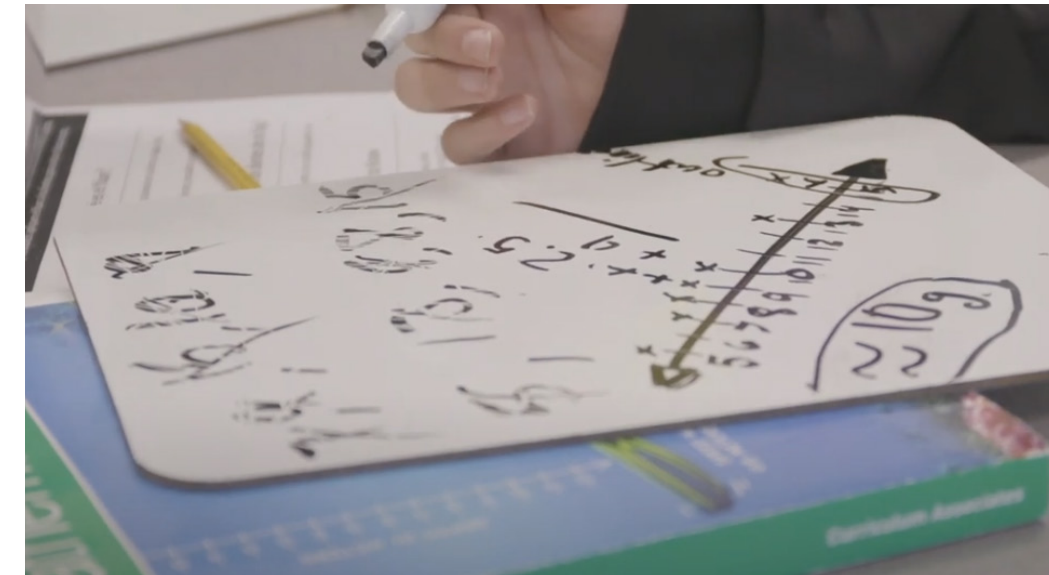


“One of the BEST experiences I’ve ever had as an educator or administrator.”

—Participant in the 2022 Leading Schools Summit

Spotlighting Teaching Practices

To help more Utah learners succeed in math, UETN created a [set of five videos](#) spotlighting effective practices for K-12 math instruction. Produced in partnership with the Utah Leading Through Effective, Actionable and Dynamic Education (ULEAD) initiative, the content provides a guiding vision and research-based practices for Utah educators.



◀ To help Utah students achieve at higher levels, ULEAD for Education provides a research clearinghouse and resources for teachers.

“Seeing real Utah educators and students persevere and solve problems in their authentic contexts is refreshing and meaningful!”

—Dr. Janice Bradley, Utah Education Policy Center at the University of Utah

347

UEN PD courses for Utah K-12 educators, administrators and pre-service teachers

10,204

educators participated in UEN Professional Development courses

62

educators completed the Ed Tech endorsement

Expanding Capacity for Open Education Resources

Faculty and staff are diving into the world of open education resources (OER) with the industry-leading software PressbooksEDU, licensed by UETN on behalf of our higher education partners. In its first year, the program resulted in 117 Pressbooks projects, including open education textbooks, which have been shown to improve student engagement and retention.



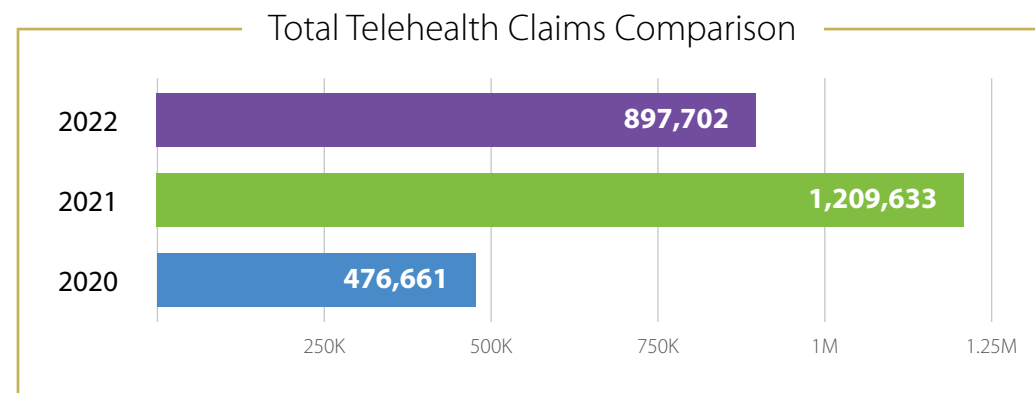
DIGITAL PRESS
with PRESSBOOKS



Telehealth

Gaining Insights into Telehealth

To provide valuable insights to healthcare professionals, researchers and policymakers, UETN launched the **Utah Telehealth Claims Dashboard**. Developed in partnership with the Utah Department of Health and Human Services with raw data from their All Payer Claims Database, the dashboard shows Utah's demand for telehealth remains higher than pre-pandemic levels. Other trends include greater demand for behavioral services and significant participation in telehealth by patients from urban, rural and frontier areas.



Driving Better Healthcare

UETN helps healthcare sites in rural communities enhance their services through telehealth. For example, Gunnison Valley Hospital implemented a virtual triage service provided by UETN to help process minor Workers' Compensation claims from the local company, Barney Trucking. The program guides workers through a diagnostic assessment via mobile device and creates an appointment with a designated provider, reducing unnecessary emergency room visits.

“UETN’s virtual triage service has already helped dozens of truckers get right-fit care for workplace injuries while saving our partners quite a bit in claims.”

—Kayla Olson, Gunnison Valley Wellness and Pain Management

712
hours of health and wellness
programming on UEN-TV

UETN's dashboard breaks down ▶ telehealth data from various angles to help policymakers consider how best to prepare for future events.

Providing Opportunities To Grow

More than 200 healthcare professionals gathered in Salt Lake City for the 11th Annual Northwest Regional Telehealth Resource Center (NRTRC) Conference. Through more than 30 sessions, the event provided valuable education, training and resources on telehealth and rural healthcare to participants from 25 states, including Utah.



◀ NRTRC Program Director Nicki Perisho welcomes attendees to the conference. UETN is home to the NRTRC, which is funded by a grant from the U.S. Health Resources and Services Administration (HRSA).

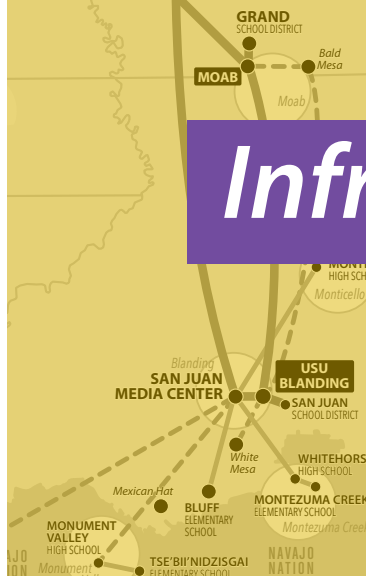
“This conference... was perfect for my needs.”
—Participant in the NRTRC conference

Exploring Possibilities

Many of Utah's critical healthcare facilities are located where backup fiberoptic routes to the network are not yet available. In the event of a line break, these sites would have to pause clinical services and possibly even divert patients to facilities hundreds of miles away. UETN is currently testing the Starlink satellite system as a backup should a primary connection be interrupted. If successful, the option may be made available to healthcare and education partner sites in 2023.

Supporting Timely Care

Recent upgrades to UETN internet circuits are providing vital speed and reliability to sites like the Fourth Street Clinic in downtown Salt Lake City. The urban site provides integrated healthcare to thousands of people experiencing housing insecurity and depends on its ability to access the University of Utah's electronic medical record system to deliver timely care.



Infrastructure

Connecting for Civic Engagement

Audiences throughout the state watched candidates in the 2022 elections discuss key issues thanks to UETN's collaboration with the non-partisan Utah Debate Commission and partners. Our infrastructure and support carried the high-definition video of five debates from the college campuses hosting the events to the Eccles Broadcast Center for distribution to broadcast partners. UETN saved the publicly funded commission the expense of leasing a satellite truck while delivering more than 130 megabytes per second of uncompressed content.



“UETN was instrumental in the distribution of all of our 2022 general election debates.”
—Erik Nielsen, Executive Director, Utah Debate Commission

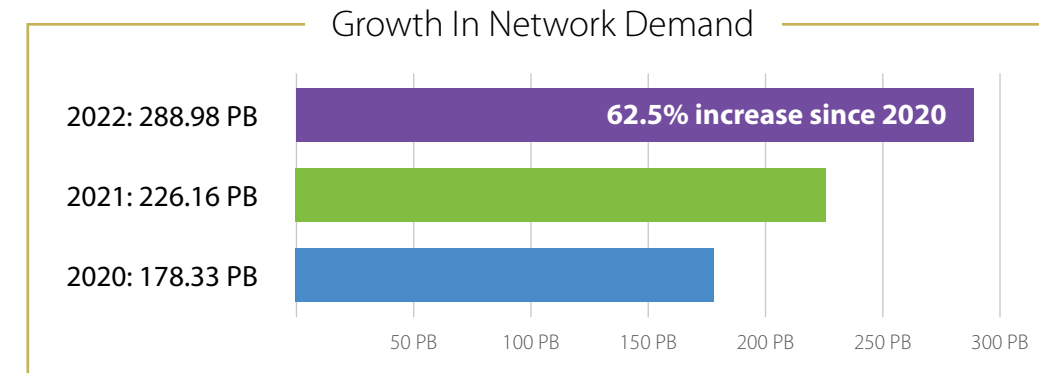
Achieving 46 Miles of Fiber

Learners and patients in San Juan County—part of the remote Four-Corners Area—are now connected to the world via 46 miles of fiberoptic cable. The milestone was reached through collaboration with Tribal Government officials, the Utah Department of Transportation, Emery Telcom and area stakeholders. Connecting rural area schools and healthcare clinics to our network fulfills a key objective of UETN's mission and empowers local telecommunication providers to develop capacity that will benefit small businesses and homes in the area.

UETN's infrastructure and support carried high-definition video of Utah's 2022 Election Debates to production control at Eccles Broadcast Center.

Leading in Capacity

UETN is in the vanguard of state and regional broadband networks, with two fiberoptic backbone circuits now upgraded to 400 gigabits per second. The increased capacity helps us continue to fulfill our state role providing education and telehealth infrastructure as demand rises.



◀ 288.98 PB = 577,960 years of MP3 songs.

Boosting Telehealth Speeds

More than 80% of UETN's community-based telehealth sites now run on circuits of one gigabyte per second or greater with updates for security and efficiency. This means that large data applications such as radiology images can transfer for off-site evaluation up to 10 times faster.



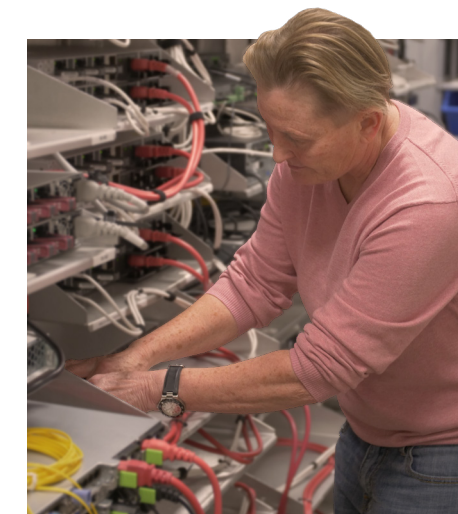
◀ UETN field technicians travel throughout the state to keep education and healthcare communities connected.

Networking for Science

This year, upgrades to UETN's microwave path serving southwest Utah increased capacity and reliability for transmissions from the [University of Utah's Willard L. Eccles Observatory on Frisco Peak](#) to researchers in Salt Lake City, who also use the connection to control the telescope remotely.

Introducing UETN's Network Lab

To ensure our field operations staff can respond quickly to maintenance needs, UETN launched an updated approach to managing the network equipment that over 1,900 sites rely on for critical services. The improved processes increase transparency and efficiency, saving time and money.



◀ UETN Data Transport Engineer Lynnae Sinks stages a device for remote configuration in the new Network Lab.

2022 Productions

Adobe Spotlight

- Intro to Adobe Creative Cloud Express
- Introducing the Adobe eMedia Hub
- Level Up with Character Animator

Art Connection

- Air
- Art and Dentistry
- Community Arts and Education
- Creativity and Passion

The Canvas Report/Canvas Corner

- Building Your Course with Templates
- Checking Your Canvas Course for Mobile Compatibility
- Embedding a Google Doc in Canvas
- Tech Tools in Canvas
- Using Utah's Online Library Tools with Canvas

Deborah LaMarche Telehealth Excellence Award 2022

Eduroam Service Provider Promo

eMedia

- Accessibility in eMedia
- Adding eMedia Content in Canvas
- Collaborating Through Open Educational Practice
- Collaborating With eMedia Evaluation Tools
- Collaborating With eMedia Groups

- Exploring the Math Hub
- Intro to preMedia
- USBE Parent Guides on eMedia
- U.S. Constitution Hub

GEGUtah & UEN Open Applied Digital Skills Training

- Create a Comic Strip
- Creating an Area Guide Using App Script
- Explore Your Digital Footprint
- Introduction to Machine Learning

Get Googley

- Applying Forms for Your Classroom
- Calendar Hacks for the New Year
- Shortcuts to Success
- Sometimes Students Finish Early

UEN Homeroom

- Bright Spots in Math Education With McKell Withers and Greenwood Elementary Teachers
- Building a Community of Readers With Dan Compton and Kirsten Nilsson
- Building Positive School Culture With Cyprus High School
- Burnout With Ogden and Piute School District Teachers
- Community Involvement With Kamaal Ahmad
- Creativity in Education With Adobe
- Ed Tech Panel With Britney Davis and Victor Karkar

- Freadom Fighters Carolyn Foote and Becky Calzada
- Future Forecasts in Education With Knowledgeworks
- Google for Education With Jess Cola
- How History Is Made With Cassie Clark
- How to Watch Classic Films With Julie Gale
- Oleander Initiative With Ray Matsumiya and Iman Al-omari
- Ready, Set... Fail With Carl Hooker
- Show Up Utah Team Update With Sarah Allred and First Lady Abby Cox
- STEM in the Classroom and Beyond With Shannon Rupert and Jen Carver Hunter
- Teacher Retention With Kami Dupree and Heidi Matthews
- The Music of Words With Heidi Czerwiec
- The Power of Place With Nicole Walker
- The Science of Reading With Claire Son
- UCET 2022 Keynotes With Mike Roberts and Cory Henwood
- Utah Education Writers With Steve Capone
- Writing for Students With Erin Dowd

Humans of UETN

- Amanda Molinari
- Charice Carroll
- Christopher Ellett
- Fernando Lara
- Matt Winters
- Ray Timothy

Nearpod News

- How To Convert a Quiz Into a Time To Climb
- How To Add Canva Presentations
- How To Differentiate Your Lessons
- Navigating the New Teacher Dashboard
- Using Google Slides Add-on To Create a Lesson

Nearpod Summer Series

- Differentiation in Nearpod
- Google Add-On in Slides
- Nearpod in Your Specialty Classroom
- Nearpodizing PD

UEN PDTV

- Computational Thinking



◀ On location in Dugway, Utah, UETN Associate Producer Cassandra Empey lines up her next shot for "SciTech Now: Wild Horse Citizen Science."

- Essential Technology Skills
- Information Fluency
- Instructional Design With Nearpod
- Reflective Practice and Data Analysis
- Sharing Positively Creative Stories
- Spaceward Bound
- Supporting and Developing 21st Century Learners
- The 4 C's
- UCET Recap

SciTechNow

- Madres en STEM
- Science in the Parks
- Student Success Through Competitive First Robotics
- Wild Horse Citizen Science

ULEAD

- Community Partners Role in the Guiding Vision for K-12 Mathematics Education in Utah
- Curriculum, Instruction and Assessment in the Guiding Vision for K-12 Mathematics Education
- Guiding Vision for K-12 Mathematics Education in Utah
- Support Systems for Guiding Vision for K-12 Mathematics Education in Utah
- Teachers Use Evidence-based Practice in the Guiding Vision for K-12 Mathematics Education in Utah

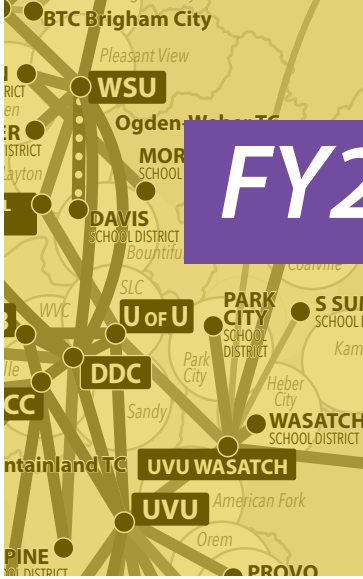
Utah's Eight Tribal Nations

Utah's Online School Library Updates

- A Closer Look at the Gale Reference Collection
- Utah's Online Library for Virtual Days

▶ Fernando Lara captures insights from outgoing UETN Executive Director Ray Timothy for an episode of "Humans of UETN."





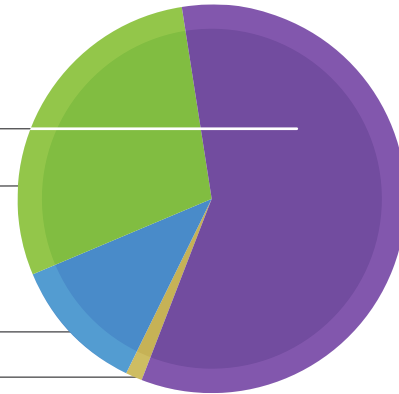
FY22 UETN Financials

Summary

UETN practices sound fiscal management, exceeding industry standards.

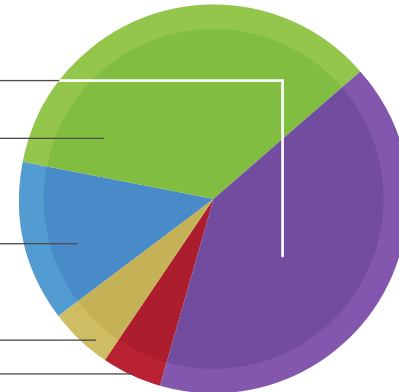
Funding

State Appropriation	27,780,800	58.5 %
Federal E-Rate	13,657,400	28.8 %
KUEN Grants	5,411,400	11.4 %
Other	605,400	1.3 %
Total	\$ 47,455,000	



Expenses

Circuits	19,466,200	41.0 %
Personnel	16,862,700	35.5 %
Software	6,331,700	13.3 %
Equipment	2,491,900	5.3 %
Other	2,302,500	4.9 %
Total	\$ 47,455,000	



Featured Links and Resources

Community

- 2022 Indigenous Peoples Day College Collaboration <https://www.uen.org/indigenous22>
- UEN LitFlix <https://www.uen.org/litflix/>
- Roadtrip Nation: Native Way Forward <https://roadtripnation.com/roadtrip/native-american-documentary>
- Art Connection: Community Arts and Education <https://www.youtube.com/watch?v=tDbtBxNLhoY>
- Art Connection: Art and Dentistry <https://www.youtube.com/watch?v=EHT-sHif8jg>
- Dark Sky Parks <https://www.visitutah.com/places-to-go/dark-sky-parks>

Learners

- Preschool Path <https://preschool.uen.org/>

Educators

- Leading Schools <https://www.uen.org/leadingschools/>
- ULEAD Mathematics Guiding Vision <https://www.youtube.com/playlist?list=PLwAO9f41OadCoo4i2aDwYEWivZjM9bjWm>

Telehealth

- Utah Telehealth Claims Dashboard <https://utn.org/about/dashboards/claims.shtml>

Infrastructure

- Q&A with Jim Stewart: UETN Among the 'First to 400G' on Internet2's Network <https://internet2.edu/jim-stewart-uetn-among-the-first-to-400g-on-internet2s-network/>
- University of Utah's Williard L. Eccles Observation on Frisco Peak https://archive.uenews.utah.edu/news_releases/u-celebrates-telescope039s-039first-light039/

2022 Productions

- Art Connection <https://www.uen.org/artconnection/>
- Adobe Spotlight <https://www.uen.org/adobe/spotlight.shtml>
- eMedia <https://www.uen.org/emedial/>
- Humans of UETN <https://uetn.org/about/humans-uetn/index.php>
- GEGUtah & UEN Open Applied Digital Skills Training https://www.youtube.com/playlist?list=PLwAO9f41OadAfgieDYr9aveCWWMir_AhF
- UEN Homeroom <https://www.uen.org/development/homeroom.shtml>
- UEN PDTV <https://www.uen.org/pdtv/>
- Get Googley <https://www.uen.org/google/>
- Utah's Online School Library Updates <https://onlinelibrary.uen.org/>
- The Canvas Report/Canvas Corner <https://www.uen.org/canvas/>
- UEN Nearpod News <https://www.uen.org/nearpod/>
- SciTechNow <https://www.uen.org/scitechnow/>
- Deborah LaMarche Telehealth Excellence Award <https://utn.org/award/index.shtml>
- Eduroam Service Provider Promo <https://www.youtube.com/watch?v=IWAOPljig>
- Utah's Eight Tribal Nations <https://www.youtube.com/watch?v=Jrtzydn4PE>
- ULEAD Mathematics Guiding Vision <https://www.youtube.com/playlist?list=PLwAO9f41OadCoo4i2aDwYEWivZjM9bjWm>
- Nearpod Summer Series <https://www.uen.org/nearpod/playlist-summer.shtml>

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 and other exigencies > 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 and collaborations through consortia > Improve accessibility

SUSTAINABILITY

We will secure ongoing funding for our work.

Be transparent and efficient > Maximize E-Rate and HealthCare Connect > Seek grants and partnerships > Leverage state and national initiatives > Liaise with appropriators and partners

BROADCAST

We will deliver programs and projects to benefit our community.

Program content to educate and inspire > Produce new media > Engage with and amplify the work of community partners > Build capacity with emerging media platforms: cross reality media, live linear streaming, NextGen TV and others > Collaborate with peer stations

TELEHEALTH

We will assist health care organizations to achieve the triple aim of reduced costs, higher quality, and increased patient satisfaction.

Foster telehealth adoption and deployment > Serve as a regional Telehealth Resource Center > Develop valuable and timely telemedicine resources > Serve as a neutral convener for telehealth initiatives > Maintain HIPAA compliant systems and environment > Advance access to telehealth services

PROFESSIONAL LEARNING

We will provide excellent professional learning experiences to support our stakeholders.

Coordinate and provide training for state-licensed software > Increase support for school administrators, libraries and higher education > Provide opportunities to earn Ed Tech endorsement and related credentials > Produce quality multimedia professional learning content > Continue to understand and promote progressive practices that enhance education through technology

OPERATIONS

We will make decisions and take actions that match our values.

Support Board governance and Advisory Councils > Update policies and service catalog > Improve diversity, equity and inclusion > Communicate our work through publications and media

PERFORMANCE INDICATORS

We will track and report our performance, learn from and make decisions using data.

1. 100% of sites are connected at sufficient capacity to meet need 2. Network uptime and availability are 99.9% or greater 3. Number of videoconferencing classes for education and telehealth increase 4. Amount of telehealth technical assistance provided 5. Website, social media and app utilization metrics show increased engagement 6. Data show cost savings through consortia purchasing 7. Increase in PD courses, credit hours and endorsements completed 8. Finances are stable and sustainable 9. The percentage of return on E-Rate and Rural Healthcare funds increases 10. Measures of staff and constituent satisfaction remain positive

VALUES

Service: open, honest, clear and respectful interactions, documented policies and actions

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

Diversity: inclusion and respect for all, staff and governance representative of all we serve

Integrity: fairness, impartiality, balance and equity

Fiscal Responsibility: good stewardship and public trust

Empowered Staff: opportunities for professional growth, market-aligned compensation

Communication: seek input; give voice to staff and stakeholders, support engagement across platforms

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