Michael Petersen

Executive Director, Utah Education Network
Eccles Broadcast Center, University of Utah
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Senior-Level Executive Experience

Executive Director: Utah Education Network, Salt Lake City, Utah (2001-Present)

I am the Chief Executive Officer for UEN, a consortium of public education and higher education districts and institutions. UEN provides statewide Internet and Wide Area Network support to Utah's 40 school districts and 10 public colleges and universities in the Utah System of Higher Education, delivers courses and degrees throughout Utah on fully interactive video conferencing networks to over 400 remote classrooms, and hosts the course management system for most Utah colleges and universities. I oversee the operations of approximately 100 UEN employees and an annual budget of $31,000,000.

Associate Commissioner for Academic Affairs: Utah State Board Of Regents, Salt Lake City, Utah
(1996-2001)

I managed the academic affairs staff and provided support for the Utah State Board of Regents, governing board of the Utah System of Higher Education (USHE), on all academic issues and policies. and provided system-level oversight of numerous major projects, including conversion of Utah's 9 state colleges and universities to the semester calendar, revision of the USHE strategic master plan, mission changes of Utah Valley State College and Dixie State College to baccalaureate-granting institutions, and many other major higher education initiatives. I chaired the Council of Chief Academic Officers, which included the senior academic affairs officers of all institutions in the Utah System of Higher Education, and served on numerous boards, committees, and task forces to represent the colleges and universities of the state.

President: College Of Eastern Utah, Price, Utah (1985-1996)

As the chief executive officer of the college, I provided leadership to a student recruitment effort that increased enrollment by more than 100%, financial resources more than doubled, college endowment funds grew from under $100,000 to over $6,000,000, and federal grants tripled. I led the college's efforts to retain accreditation during two evaluation cycles. Many new instructional programs were initiated and program review and institutional assessment procedures were implemented or improved.

Education

Ph.D, The Ohio State University, Columbus, Ohio
M.A., The Ohio State University, Columbus, Ohio
B.A., University Of California, Berkeley, California
Associate of Science, College Of Eastern Utah Price, Utah

James L. Stewart

Business 801.585.9030 /

<u>**Professional History**</u>

2000 – Current	**Utah Education Network, University of Utah**, Salt Lake City, UT

<u>Director, Technical Services</u>
Responsible for planning, architecture, engineering and operations of statewide Wide Area Network (WAN) and Internet connectivity; Expansion of network from T-1/DS-3 based to Ethernet based with an Ethernet backbone and last mile connectivity to over 600 locations and 1000+ devices; Internet connections moving from one OC-3 with sustained throughput of ~50 Mbps to multiple Gbps Ethernet connections and most recently to three 10 Gbps circuits at diverse locations each capable of multi Gbps throughput; develop and retain highly competent staff to operate/maintain multiple statewide networks, serving a diverse user base, with limited budget and resources; Meet stakeholder needs in a wide variety of education, library and government agency settings and develop these relationships. Developed Regional technical forums, advocate program and regional priorities list, with 90% - 95% annual project completion rate. Responsible to develop relationships with Local Exchange carriers and many other vendors to best utilize scarce resources and enhance network performance and reliability. Responsible to develop relationships with state political leaders and state agencies to leverage resources and maximize network utility. Responsible for development of relationships in the university research community on the local and national level. Responsible for development and connectivity to both the Internet2 and National LambdaRail research networks. Board Member of The Quilt, a consortium of research Universities and networks developing fiber optic and Internet projects.

1998 – 2000 **American Direct Credit, LLC**, Boise, ID
<u>Vice President and Chief Information Officer</u>
Principal involved in technology development for financial organization dependent on technology to underwrite and provide loans for subprime credit industry. Responsible for all phases of Technology including production line environment for submitting loan applications, evaluation credit worthiness and issuing lines of credit. Also responsible for development of underwriting methodologies to minimize loan portfolio losses in $25 Million book of business expanding at ~$1 Million per month. Worked directly with CEO and CFO on regression analysis tools, and evaluating neural network sciences as related to underwriting loans. Business acquired by Capital One, Richmond, VA.

<u>**Courses and Certifications**</u>   Certified 2006, ITIL Foundation in IT Service
Certified 2000, Digital Microwave Radio Engineering

Lisa Kuhn, CPA
Chief Financial Officer
Utah Education Network

101 Wasatch Drive
Salt Lake City, UT 84112

(801) 585-3224
Lkuhn@media.utah.edu

Objective

Provide planning, direction and coordination of the financial and accounting affairs of the Utah Education Network (UEN) in accordance with generally accepted accounting practices and University policies. Meeting UEN's goal of spending funds appropriately, obtaining the most cost effective solution, compliance, transparency and strict accountability of all funds.

Professional Experience

<u>1993 – Present</u>:   <u>Chief Financial Officer for the Utah Education Network (UEN)</u>

- Ensure all financial objectives and funding goals are met, and the department is in compliance with University policies and federal and state regulations.
- Oversee financial and program management, property and procurement standards.
- Prepare annually audited consolidated financial statements.
- Monitor actual departmental operating expenses to assure compliance with budgetary limitations.
- Develop, install and modify accounting systems and procedures.
- Interpret financial accounting policies for staff and other University personnel.
- Handle all relations with state, federal and other external auditors.
- Oversee the Federal Universal Service, Schools and Libraries Program (E-rate) for the Utah Education Network, assuring compliance with the competitive bidding process, asset and property management, and accounting rules and regulations.
- Responsible for internal controls, asset and property management.
- Compliance and oversight of all Grants (State, CPB, NTIA, PTFP, RUS grants)

<u>1989 to 1992</u>:   <u>Accountant for T. Earl Andrews and Company, CPA</u>

- Performed public accounting for small businesses, professional and non-profit organizations with emphasis on financial statements, taxes and audits.

Education

1982   B. S. Degree   University of Utah   Bachelor of Science in Accounting

Licenses and Affiliations

Certified Public Accountant, Utah, # 145930-2601
Member of the Utah Association of Certified Public Accountants

KEVIN B. QUIRE   CCIE(x2) # 22051

PROFESSIONAL EXPERIENCE

Manager, Network Engineering
UNIVERSITY OF UTAH / Utah Education Network, Salt Lake City, Utah   2005 - Present

- Manage five network engineers responsible for the design and implementation of state-wide research and education network interconnecting all Utah school districts, higher-ed institutions, and state government to the global Internet, Internet2, and National Lambda Rail.
- Perform one to three year network planning and set technical direction for UEN network.
- Redesigned MPLS, OSPF, and BGP policy to achieve a level of 99.999% uptime.
- Designed and implemented 10 Gigabit upgrade of IP backbone which was completed on time and under budget.
- Expert level knowledge and experience with the following technologies: IPv4, IPv4 Multicast, IPv6, BGP, OSPF, EIGRP, MPLS (TE & L2/L3VPN), and LAN Switching.

Senior Manager, Data Performance Engineering
QWEST COMMUNICATIONS, Arlington, Virginia   2001 - 2005

- Managed engineering teams responsible for supporting Qwest Internet dial-up network leased by Tier 1 Internet Service Providers such as AOL, MSN, and EarthLink.
- Enhanced performance and provided redundancy to existing network by designing new aggregation architecture.
- Planned and implemented $2-million upgrade of Qwest dial network. Included 350 routers at over 200 hub locations.
- Designed and built $1-million engineering lab.
- Managed design of specialized packet sniffing application that is used to identify quality of service issues with large customer.
- Planned and implemented integration of dial networks for USWEST with Qwest. Included more than 100,000 modems at 24 hub locations.
- Lead quality of service initiative that ranked Qwest the number 1 provider for AOL and MSN.

Manager II, Network Engineering
UUNET TECHNOLOGIES, Ashburn, Virginia   2000 - 2001

- Managed team that designed next-generation leased line aggregation architecture to support dedicated customers from T-1 to OC48c speeds.
- Performed detailed design analysis of all WorldCom dial aggregation networks and recommended upgrades of all networks to support new quality of service commitments.
- Designed new edge aggregation architecture for WorldCom-owned ANS and GridNet networks.
- Redesigned routing architecture for Ameritech.net ISP network to support 24 new hubs.

EDUCATION

Cisco Certified Internetwork Expert, CCIE #22051 *Routing and Switching*
Cisco Certified Internetwork Expert, CCIE #22051 *Service Provider*

BS, Computer Science, *Emphasis in Networking and Systems Integration,* 1996
WEBER STATE UNIVERSITY, Ogden, Utah

ROBERT JEFF EGLY

• E-MAIL JEGLY@UEN.ORG

ROBERT JEFFERY EGLY

PROFESSIONAL EXPERIENCE

Utah Education Network, Salt Lake City, Utah   August 1995 – Present

UEN Technical Services – Associate Director   *June 2006 - Present*

Oversight of UEN's Technical Services Support Center (TSSC), UEN Field Operations, Project Coordination and Application Engineering.

UEN Technical Services – Field Operations Manager   *July 2001 – July 2006*

Manage the Utah Education Network's Field Operations department to include oversight of all field engineering and support statewide for a large wide area network (WAN) serving each of Utah's 40 school districts, public colleges, public universities and city and county libraries. Field Operations WAN support includes the implementation and support of Cisco routers and switches, T1, DS3, OC3, OC48, and Gigabit Ethernet circuits, analog and digital microwave, and related fiber optic and microwave multiplexers.

Managed the field operation portion of a multiphase/multiyear project to transition UEN's legacy analog fiber and analog microwave network to a gigabit Ethernet network built upon a dense-wave-division-multiplexed (DWDM) transport. This project required project coordination with Qwest Communication, many of Utah's rural service providers and UEN stakeholders.

UEN Microwave Team Leader   *April 1999 – July 2001*

Managed UEN's licensed microwave network and engineered multiple large scale licensed microwave projects. Also managed the transport portion of UEN's fiber optic network and video services.

UEN Microwave Group – Field Engineer   *March 1996 – April 99*

Installed and maintained the Utah Education Network's microwave radio and fiber optic services throughout Utah, to include network, video and voice services.

Building Support   *August 1995 – March 1996*

Coordinate and implement building projects and improvements. Work directly with outside contractors and University Services.

The Burton Group, Salt Lake City, Utah   September 1992 – July 1995

Regional Manager - Eastern United States

Supported large corporate and government IT departments requirements for network consulting and technical information via The Burton Group's consulting services and published research on emerging LAN and WAN technologies and trends.

DataSource/Capitol Hill Services, Salt Lake City, Utah   May 1989 – September 1992

Founding partner - Technical & Network Support, Account Sales & Support

EDUCATION

Weber State College, Ogden, Utah – Bachelors of Science – Communications-Major/Political Science Minor, June 1985 University of Utah, Salt Lake City, Utah – Communication and Political Science studies – 1980-1983

TRAINING AND CERTIFICATIONS

Cisco Routing and Switching (US West), Interconnecting Cisco Network Devices (ICND), TTC T1, TTC DS3 Testing, TTC Digital Microwave, Harris Microwave Radio Path Design and Engineering Certification, Harris Constellation Certification, IT Project Mgmt, ITIL Certification, Tower Safety & Rescue Instructor Certification, C-COR DV6000 Fiber Transport Certification.

BARRY H. BRYSON

EDUCATION

Bachelor of Science, Business Administration, University of Utah, May 2004 (GPA 3.9)

PROFESSIONAL EXPERIENCE

Utah Education Network (Since 2000)
Associate Director
Responsible for a variety technical and business strategic development activities and projects. Activities include, but are not limited to, writing and issuing requests for proposals, business and contract negotiations, project development, management and process implementation.

Accomplishments: Have successfully doubled Internet bandwidth available to the education community every year with minimal increase in budget. Formed several technical forums with community of interest customers that meet on a regular basis to plan network projects. Participated in the creation of an Ethernet delivery system for most of Utah. Organized numerous seminars, summits and technical forum meetings. Have deployed many solutions that have increased the reliability, capacity and capability of the Utah Education Network. Served as a member of the telecom executive committee of the Cache Valley Initiative, which was instrumental in providing a diverse fiber path to area.

Phobos Corporation (1999-2000)
Vice President of Support Services (CIO)
Accountable for all aspects of Information Technology, customer service, quality control and support services for a 100+ employee network technology-engineering start-up.

Intermountain Healthcare, Salt Lake City, Utah (1994-1999)
Manager of Emerging Technologies/Manager of Web Technology
Responsible for leadership of research and development activities related to emerging technologies in networking and Information Technology.

Intermountain Healthcare (1990-1994)
Network Systems Manager
Was directly responsible for the management of IHC'S local and wide area networks. Had eight direct reports working as Network Analysts (LAN/WAN). Responsibilities included enterprise wide analysis, design, engineering, management and support of IHC'S enterprise networks.

Intermountain Healthcare (1985-1990)
Network Systems Analyst/Data Comm. Analyst/Computer Operator
Performed various roles including Network Engineer, Planner and Architect. Hired and supervised several individuals who assisted me in design, installation and support of the network.

Sabrina R. Scott
Utah Education Network
Utah State E-rate Coordinator
101 Wasatch Dr. | Salt Lake City, UT 84112 | (801) 581-3019 | srscott@media.utah.edu

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Objective

Serve the public via State or Federal government program participation focusing on telecommunications, broadband deployment, and Universal Broadband Service for Schools, Libraries, and the general public in all locales.

Qualification Highlights

- State E-rate Coordination for Utah – improving statewide participation and program funding since 2001 from $4.6M to $18.1M.
- Proven record of success planning, implementing, and managing complex network projects and statewide government imperatives.
- Skilled at understanding and communicating complex and multifaceted issues to leadership, stakeholders, and auditors.
- Demonstrated leadership and team building skills, apparent in the success of nearly every new directive, often by exposure to, nearly always partially driven by my activities.

Professional Experience

02/2005 – Present: Utah Education Network, Utah State E-rate Coordinator. Returned to UEN to improve E-rate participation and funding. Initiated and completed legal research and process to align E-rate program rules with Utah state law. Long-term membership in State E-rate Coordinator's Alliance (SECA) has provided opportunities to network nationally with most states' technology directors and to provide input to GAO, FCC, USAC, congress, and state legislators when needed.

07/2003 – 02/2005: Paragenesis, Inc. – Own consulting business, primarily serving the University of Utah, providing support and advice in maintaining the organization's FCC regulatory compliance for the statewide educational microwave system and statewide participation in the E-rate program.

09/1991 – 07/2003: UEN, Advanced Technology Planning Officer. My experience during these twelve years ranges from, engineering, installing and configuring microwave, video, data, and broadcast plant infrastructure to researching and indentifying new trends in telecommunications and education and "doing what it takes" to aid agency and state government leadership in resolving new directives in policy and technology.

08/1986 – 09/1991: Laird Telemedia, Inc., Salt Lake City, UT. Service manager, providing engineering & technical support, customer service, marketing, and sales support for large annual trade show where seventy percent of annual business was generated.

11/1984 – 07/1986: Technical Oil Tool Corporation, Norman, OK. Test engineer, performing troubleshooting, maintenance, and repair of microprocessor based drilling instrumentation.

04/1979 – 11/1984: Active Duty – Honorably discharged, United States Air Force, U.S., Greenland, Europe, and Saudi Arabia. Ended this tour of duty as Wideband Maintenance Supervisor performing technical and supervisory duties in support of the tactical microwave radio and radar data transfer mission of the 606 Tactical Control Squadron in Bremerhaven, Germany. Promoted to E-5 is shortest time possible: two years, eleven months.--

BOYD A. GARRIOTT

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Education:	M.B.A., 1968, University of Utah, Salt Lake City, UT MajorCBusiness Administration MinorCFinance B.S., 1967, Brigham Young University, Provo UT MajorCBanking and Finance MinorCAccounting, Statistics, Economics
Professional Experience:	**Utah Education Network,** Special Project Manager, Salt Lake City Utah, 2005 to present. Assist director in fiscal and administrative policy for the UEN Steering Committee. Perform financial analysis for the implementation and awarding of contracts with telecommunication companies. Preparation, review and analysis of network funding proposals and UEN=s annual legislative request in collaboration with network stakeholders and other state agencies. Technical advocate and advisor to over 70 Utah public charter schools. Coordinate the preparation, updating, revising and maintenance of UEN policy and procedures manual. **Office of the Legislative Fiscal Analyst,** Salt Lake City, UT, 1975 to 2005. Assistant Deputy Director C Advise the Utah Legislature and its committees of the financial condition of the Utah System of Higher Education. Prepare budget recommendations for legislative appropriation. Also review the operations of the Utah System of Higher Education and present findings to the Legislature for action. Responsible for the implementation of the office computer and data process system. **The Nestle Company,** White Plains, NY, 1971-1975. SupervisorCCorporate and Departmental Operating Budgets Responsible for preparation of departmental expense budget for company profit plan. Prior position involved projecting corporate cash flows, determining cash requirements, projecting the corporate capital budget, acquisition analysis and special financial studies. **West Con Foods, Inc.**CDanbury, CT, 1969-1971. Stockholder and manager responsible for corporate accounting functions involving the preparation of balance sheet and income statements, employer tax returns, etc. for chain of four restaurants. **McDonnell-Douglas Astronautics, Inc.**CHuntington Beach, CA, 1968-1969. Administrative Assistant to Chief Engineer (Engineering of Manned Orbital Space Lab) Responsible for budgeting, manpower forecasting, overhead cost control, and special studies.

Professional and Personal References upon request.:

DARLA SHIFLETT
Utah Education Network, Senior Accountant
101 Wasatch Dr. Salt Lake City, UT 84112
(801) 581-7999 dshiflett@media.utah.edu

EXPERIENCE:

University of Utah – Utah Education Network - Senior Accountant
March 1998 until Present

E-Rate Team Member.
> Since 2002 I have been responsible for preparation and filing of E-Rate Form 471
> Applications and Item 21's including review of on-going telecommunication
> charges & new contracts to make sure we are filing E-Rate Applications for all
> services that are eligible for E-Rate Funding. I work with team members to
> ensure we are in compliance with FCC guidelines and E-Rate Program Rules.
> I am responsible for review & preparation of documentation for Billed Entity
> Application Reimbursement (BEAR Forms.) I work with team members to
> ensure our Reimbursement Requests are correct and complete.

Audit Liaison for Utah Education Network.
> Assist CFO with Yearly KPMG Audit. Review financial reports and records to
> make sure we are in compliance with University of Utah Policy and Procedures.

Grant Accounting Responsibilities.
> I review UEN grants to ensure compliance with granting agency requirements and
> University of Utah Policies.

The Alta Club - Controller
May 1990 until March 1998

> I was responsible for all accounting controls and financial reports. I worked with
> an outside Auditing Firm and received an Unqualified Audit Report each year.

Zinik Manufacturing Company – Controller
January 1977 to May 1990.

> I was responsible for all accounting controls and financial reports. I worked with
> a CPA to ensure I was in compliance with Generally Accepted Accounting
> Principles.

James A. Brown

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Bus. (801) 581-7816 / ████████████████

Professional History

2000 – Current	**Utah Education Network, University of Utah**, Salt Lake City

Project Coordinator, Applications Engineering (2005 – Current)
Provide leadership and manage assigned projects in support of UEN objectives. Oversee staff assignments and work within budget constraints. Work with telecommunications providers on design, site preparations and installation work. Coordinate implementation and turn up of new services with customers and vendors. Provide strategic and tactical project management for telecommunications and process improvement work.

Network Engineer, Network Operations and Engineering (2002 – 2005)
Support the technical operation, troubleshooting and communications needs for data and video networks. Contribute to network and video design solutions in order to meet the needs of customers and network growth. Work with outside vendors and carriers on implementing changes and resolving problems. Implement and use network management tools to monitor, measure and provide statistical reporting on network performance. Provide project leadership and coordinate activities as required.

Technician, Field Operations (2000 – 2002)
Responsible for the installation, configuration and support of WAN router and switch connectivity for data and video networks. Responsibilities include troubleshooting hardware and software problems with vendors and circuit issues with local carriers. Experience with Cisco routers and switches. Contribute to network design solutions.

Courses and

Certifications

Project Management (Cadence, BICSI)… Certified 2006, ITIL Foundation in IT Service
Management…Interpersonal Communications…Disaster Recovery Planning…
Building Scalable Cisco Internetworks…Checkpoint Certified Security Administrator

Education

Salt Lake Community College, Salt Lake City, Utah, Computer Science and Information Systems, East High School, Salt Lake City, Utah, Diploma

Utah Education Network NTIA BTOP Build-Out Timeline

Time	Quarter	List Of All Relevant Milestones	Support for Reasonableness/Data Points
Year 0		Update master site list and distribute	
		Notify stakeholders, vendors and internal staff that funding approval was granted for submitted sites	Communicate project kick off
Year 1	Year 1 Q1	Finalize project team members, project plan and establish meeting schedules	Design (4) phases; Design and Specifications, Procurement, Install/Build-out, Implementation
		Design and Specifications Compile service assessment list Finalize network designs w/ UEN engineering teams Finalize network designs w/ vendors	Identify any special handling or extended contracts Verify final designs for all sites and aggregation hubs Final review of network designs and equipment
		Review and finalize designs w/ stakeholders	Final review of network for all sites and aggregation hubs, detail layer 1 thru 3 connectivity
		Review and finalize funding and budget w/ vendors Review and finalize budget w/ stakeholders	Final review of bid details and sign contracts Complete budget/contracts including any agreements
		Prioritize sites and assign phases, years 1 - 3	Year 1=50 sites, Year 2=50 sites, Year 3=30 sites. 63 sites are identified as shovel ready with completed designs. Year 3 phase includes a reserve to complete any site that encountered unexpected delays
		<u>Year 1</u> Site surveys – Start Status report: NTIA, UEN, Stakeholders	Walk for physical layer installation details (LAN connectivity, power, space, cooling)

	Year 1 Q2	**Design and Specifications/Procurement**
		<u>Year 1</u> Site surveys – End
		    Order Network Aggregation equipment
		    Order end site CPE
			Hardware for network aggregation sites
			Hardware for end site connectivity (physical layer)

		Installation and Build Out Vendor job initiation Site upgrades and network build out – Start Provider transport upgrade and deploy-Start Status report: NTIA, UEN, Stakeholders	Contractor jobs are awarded Inside and outside plant deployment Provider transport installation and upgrades for new circuits (DWDM shelves, cards, fiber)
	Year 1 Q3	**Design and Specifications** <u>Year 2</u> Site surveys - Start	Walk thru for physical layer installation details

Year 2		**Installation and Build Out**
		Year 1 Install Network Aggregation equipment
		    Configure end site CPE
		    Configure Network Aggregation equipment
		    Status report: NTIA, UEN, Stakeholders
			Aggregation site hardware installs for new circuits
			Preconfigure devices and prepare for installation
			Routing and switching configuration changes

	Year 1
	Q4
		Design and Specifications/Procurement
		Year 2 Site surveys – End
		    Order Network Aggregation equipment
		    Order end site CPE – inventory
			Hardware for aggregation sites
			Hardware for end site connectivity (physical layer)

		Installation and Build Out Year 1 Site upgrades and network build out – End Provider transport upgrade and deploy- End	
		Year 2 Site upgrades and network build out – Start Provider transport upgrade and deploy-Start	Inside and outside plant deployment Provider transport installation and upgrades for new circuits (DWDM shelves, cards, fiber)
		Implementation, Acceptance and Turnover Year 1 Site installation, test and turn-up – Start Status report: NTIA, UEN, Stakeholders	End site device installation, circuit testing and acceptance, turnover to UEN network operations
	Year 2 Q1	**Design and Specifications** Year 3 Site surveys - Start	Walk thru for physical layer installation details

		Installation and Build Out
		Year 2 Install Network Aggregation equipment
		    Configure end site CPE
		    Configure Network Aggregation equipment
			Aggregation site hardware installs for new circuits
			Preconfigure devices and prepare for installation
			Routing and switching configuration

		Implementation, Acceptance and Turnover Year 1 Site installation, test and turn-up – End Status report: NTIA, UEN, Stakeholders	End site device installation, circuit testing and acceptance, turnover to UEN operations
	Year 2 Q2	**Design and Specifications** Year 3 Site surveys - End	End of Design and Specifications Phase
		Procurement Year3 Order Network Aggregation equipment – Order end site CPE – (End of Procurement)	Hardware to support network aggregation sites Hardware for end site connectivity (physical layer)
		Installation and Build Out Year 2 Site upgrades and network build out – End Provider transport upgrade and deploy - End	

Year 3		Year 3 Site upgrades and network build out – Start Provider transport upgrade and deploy-Start	Inside and outside plant deployment Provider transport installation and upgrades for new circuits (DWDM shelves, cards, fiber)
		Implementation, Acceptance and Turnover Year 2 Site installation, test and turn-up - Start	End site device installation, circuit testing and acceptance, turnover to UEN network operations
		Status report	Recipients - NTIA, UEN, Stakeholders
	Year 2 Q3	**Installation and Build Out** Year 3 Install Network Aggregation equipment Configure end site CPE Configure Network Aggregation equipment	Aggregation site hardware for new circuits Preconfigure devices and prepare for installation Routing and switching changes
		Implementation, Acceptance and Turnover Year 2 Site installation, test and turn-up – End Status report: - NTIA, UEN, Stakeholders	End site device installation, circuit testing and acceptance, turnover to UEN operations
	Year 2 Q4	**Installation and Build Out** Year 3 Site upgrades and network build out – End Provider transport upgrade and deploy- End	Provider transport installation and upgrades. End of Installation and Build Out Phase
		Implementation, Acceptance and Turnover Year 3 Site installation, test and turn-up - Start	End site device installation, circuit testing and acceptance, turnover to UEN network operations,
		Status report	Recipients - NTIA, UEN, Stakeholders
	Year 3 Q1	**Implementation, Acceptance and Turnover** Year 3 Site installation, test and turn-up - Cont. Status report: NTIA, UEN, Stakeholders	End site device installation, circuit testing and acceptance, traffic is cut over to new path, turnover to UEN operations, billing begins
	Year 3 Q2	**Implementation, Acceptance and Turnover** Site installation, test and turn-up – End Status report: NTIA, UEN, Stakeholders	Complete any outstanding sites that have been delayed due to permit issues or construction problems. End of Implementation Phase
	Year 3 Q3	Project Close - post mortem – celebration Final Report: NTIA, UEN, Stakeholders	
	Year 3 Q4		

Project Constraints	Mitigation Plans
Unplanned costs - Expenses associated to any event not projected in the project plan.	UEN has acquired extensive experience with the design, installation and turn up of Ethernet circuits for end sites such as those included in this grant, minimizing the margin of error encountered during implementation of these projects. UEN is also prepared to fund any reasonable unanticipated costs associated to the project.
Site improvement delays- Inside and outside plant improvement delays caused by unknowns. Path issues such as obstructions by irrigation systems or existing utilities, termination problems due to space limitations (wall and rack space), environmental inadequacies (power and cooling).	Project schedules and time estimates include reserve time, a buffer for unexpected delays. Performing site surveys as early in the project as possible will help to expose any issues that need to be addressed.
Network Build-out delays - Right of ways, easements and permit problems. Unforeseen pathway obstructions such as bridge crossings, rail systems, new aerial runs, encountering rock or other obstructions in the sub-surface, heavy equipment failures, and/or sensitive lands and hazardous materials that require special handling or city approval.	Project schedules and time estimates include reserve time, a buffer for unexpected delays. UEN reserves the right to cancel the contracts for any job that fails to meet specifications including completion target dates.
Seasonal moratoriums - City restrictions on street excavation during winter months.	Winter moratoriums will be considered when establishing site prioritization and the network build out.
Equipment delays - Lack of availability, manufacturing issues that postpone shipment, or bad components.	UEN will request that network vendors provde specific delivery dates from manufacturers for parts that are critical in meeting build out deadlines. Back up components will be requested in case of component failure. RMA turnaround times will be specified in SLA agreements.
Staffing and manpower resources	UEN is prepared to re-prioritize concurrent projects to ensure sufficient staff is available to complete this project in time. Careful management of the project timeline will allow UEN to anticipate and adjust manpower resources if any project completion dates are in jeopardy.

ATTACHMENT E (CONTINUED) - BUILD-OUT TIMELINE

Complete the following schedule for each proposed funded service area (or, if a middle mile project, for each last mile service area) to indicate the planned build-out in terms of: 1) the requested infrastructure funds; and 2) the entities passed. Entities passed include households, businesses, and "strategic institutions" comprised of critical community facilities, community anchor institutions, and public safety entities. In addition, please complete a separate schedule that aggregates all projected broadband subscribers within the proposed funded service area (or if a middle mile project, for each last mile service area). For BIP only, please include this information for the non-funded service areas as well.

Note: Due to the size of the project, we did not create this for all 130 sites, but as the project overall. Business location data was obtained from the Utah Govenor's Office of Budget and Planning using the Department of Workforce Quarterly Census (4th Quarter 2008) Wage and Employment Census and census block data provided by NTIA BTOP mapping tool.

Name:	Year 0	Year 1				Year 2				Year 3			
		Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
Infrastructure Funds													
Infrastructure Funds Advanced (estimate)		$1,944,704	$1,944,704	$1,944,704	$1,944,704	$1,944,704	$1,944,704	$1,944,704	$1,944,704	$1,944,704	$1,944,704		
Percentage of Total Funds		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%		
Entities Passed and %													
Households					6,758	6,758	6,758	6,758	2,710	2,710	2,710		
Percentage of Total Households					19.2	19.2	19.2	19.2	7.7	7.7	7.7		
Businesses					59	59	59	59	24	24	24		
Percentage of Total Businesses					19.2	19.2	19.2	19.2	7.7	7.7	7.7		
Strategic Institutions (Commun., Anchor, Public Safety, etc.)					25	25	25	25	10	10	10		
Percentage of Total Institutions					19.2	19.2	19.2	19.2	7.7	7.7	7.7		

Please complete the table below for the different categories of equipment that will be required for completing the project. Each category should be brokendown to the appropriate level for identifying unit cost

SERVICE AREA or COMMON NETWORK FACILITIES:		Eligibility (Yes/No)	Unit Cost	No. of Units	Total Cost	Support of Reasonableness
NETWORK & ACCESS EQUIPMENT						
Switching	This equipment is used at the aggregation site at the district office which connects into UEN established 10 gig backbone.	Yes	$9,175.38	130	$1,192,800	Costs are derived from actual engineering and design estimates of each location.
Routing	Libraries and charter schools use the switches and routers to connect	Yes	$13,763.08	130	$1,789,200	The number of units are based
Transport	into a central office Ethernet shared network.					on an engineering study of underserved and unserved regions of the state.
Access						
Other						
OUTSIDE PLANT						
Cables	The conduit placement and fiber facilities spliced into each anchor site.	Yes	$17,868.46	130	$2,322,900	Costs are derived from actual engineering and design estimates of each location.
Conduits		Yes	$41,693.08	130	$5,420,100	The number of units are based
Ducts						on an engineering study of underserved and unserved regions of the state.
Poles						
Towers						
Repeaters						
Other						
SERVICE AREA or COMMON NETWORK FACILITIES:		Eligibility (Yes/No)	Unit Cost	No. of Units	Total Cost	Support of Reasonableness
BUILDINGS						
New Construction						
Pre-Fab Huts						
Improvements & Renovation						
Other						
CUSTOMER PREMISE EQUIPMENT						
Modems						
Set Top Boxes						
Inside Wiring						
Other (Switches)	The onsite equipment that provide access from the customer premise into the network	Yes	$5,592.31	130	$727,000	Costs are derived from actual engineering and design estimates of each location
BILLING SUPPORT AND OPERATIONS SUPPORT SYSTEMS						
Billing Support Systems						
Customer Care Systems						
Other Support						

SERVICE AREA or COMMON NETWORK FACILITIES:		Eligibility (Yes/No)	Unit Cost	No. of Units	Total Cost	Support of Reasonableness
OPERATING EQUIPMENT						
Vehicles						
Office Equipment/ Furniture						
Other						
PROFESSIONAL SERVICES						
Engineering Design	1 Design Engineer & 35% Benefits	Yes	108,000	1 FTE	324,000	
	1 Field Engineer & 35% Benefits	Yes	101,250	1 FTE	303,750	Costs are based on actual expenses for similar positions
Project Management	1 Project Manager & 35% Benefits	Yes	101,250	1 FTE	303,750	over the 3 years of the project.
Consulting						
Other	1 Compliance Manager & 35% Ben	Yes	108,000	1 FTE	324,000	
TESTING						
Network Elements	The technical onsite test and turn-up of the facility.	Yes	$1,376.92	130	$179,000	Costs are derived from actual engineering and design estimates of each location.
IT System Elements						
User Devices						
Test Generators						
Lab Furnishings						
Servers/ Computers						
OTHER UPFRONT COSTS						
Site Preparation	The placement of conduit from the curb to the building which includes inside wiring.	Yes	$29,992.31	130	$3,899,000	Costs are derived from actual engineering and design estimates of each location.
Other	Project Preparation	Yes	$77,536		$77,536	
	Facilities and Administration (Overhead)	Yes	$464,204		$464,204	

UEN Network Technical Operations Brief

The Utah Education Network (UEN) is a state educational technology consortium of Public and Higher Education, public libraries, and state government. UEN as authorized by the Utah State Legislature (Utah Code 53B-17-102), is governed by the UEN Steering Committee and is under the administrative supervision of the University of Utah to:

- coordinate and support the telecommunications needs and initiatives of public and higher education

- provide high-quality, cost-effective Internet access and appropriate interface equipment for schools and school systems

- procure, install, and maintain telecommunication services and equipment for public and higher education

- develop or implement other programs or services for the delivery of distance learning as directed by law

With administrative offices located on the University of Utah campus, UEN works across the state to connect every Utah public school, college, and university together through the UEN Wide-Area-Network (WAN) leased from Qwest Communications and Utah's independent telephone companies. UEN also supplies Internet connectivity to schools, public libraries, and state government through contracts with commercial ISP providers.

UEN also manages two video conferencing systems used for distance learning and offers instructional programs through its public TV station, KUEN-TV. UEN receives appropriations from the state legislature and various federal sources for its mission. Figure 1 provides a high-level view of the UEN network connectivity.
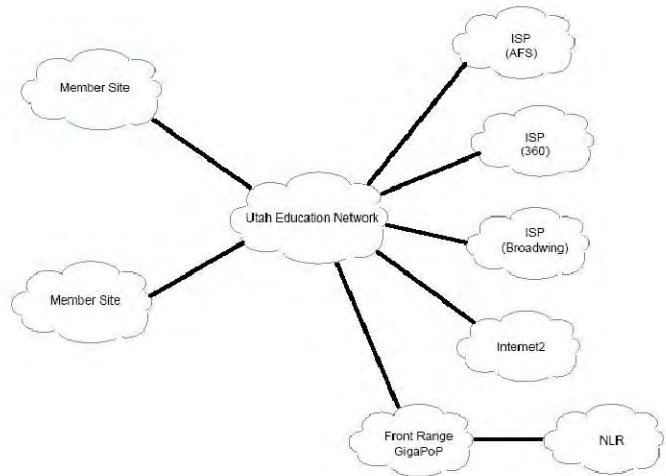
Figure 1: High Level Connectivity of UEN

UEN Customers

UEN customers include public and private K-12 schools, public and private higher education institutions, public libraries, and state and county government facilities. UEN does not charge its customers for services; but rather is appropriated state funding to accomplish its mission. The total number of data networking connections that UEN provides is summarized in the table below:

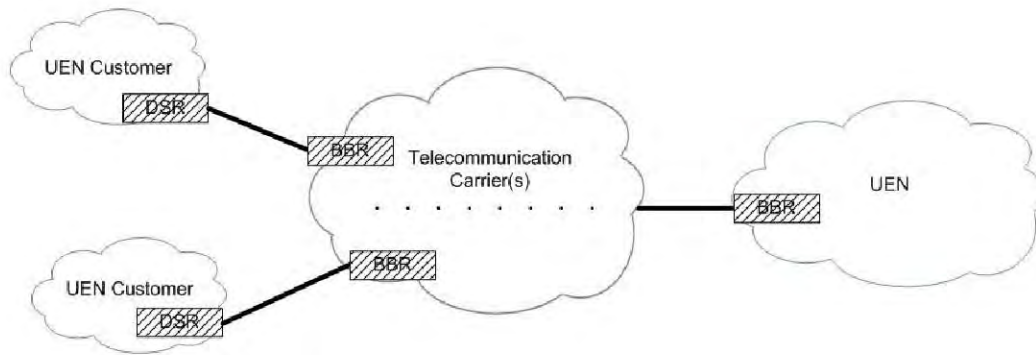| Public Education K-12	Private Education K-12	Higher Education 2-year	Higher Education 4-year
426	3	18	18
Public Libraries	State & County Government	Public Charter Schools	Internet Connections
19	16	37	6

Table 1: UEN Customer Circuits (Jan. 2007)

Figure 2: Data Connections, UEN Customers

UEN Data Circuits

An individual data circuit to a UEN customer site is generally provided by one or more telecommunication carriers, including metro and rural telephone and cable companies and municipal network providers (see Figure 2). Local access, regional, backbone, and Internet circuits are obtained in accordance with the University of Utah's procurement and state purchasing policies (RFB and RFPs) and federal FCC regulations for the E-rate program. UEN customers do not have separate Internet connections through an ISP; rather, they rely on UEN to procure their Internet access through a leased public telecommunication carrier Wide-Area-Network.

UEN Digital Microwave System

Due to Utah's geography and vast terrain, UEN owns and operates its own FCC-licensed digital microwave network to provide services for education where no local telephone or cable infrastructure exists for local schools and libraries. The UEN microwave network is only available to UEN customers and not made available to any other private/commercial entities. UEN works with the State Department of Technology Services, local school districts, the U.S. Forest Service, and counties in maintaining the microwave system and communication sites across the state.

Fiber Lease/Dark Fiber

For a limited number of school connections, UEN has installed fiber from a school facility to the nearest high-capacity network connection in a school district to save on-going costs of circuit expense. UEN also holds an agreement with one major county to lease fiber for services into a number of local schools. UEN and the local school district supply the necessary electronics to light the fiber and provide network services.

Dial-up Access

For a limited number of school district employees, UEN has supported dial-up Internet connections through local telephone companies. Currently, UEN is phasing out these analog connections.

WAN Network Management

Through UEN's contract agreements, UEN pays monthly rates to telecom carriers for the network management and support of all WAN circuit connections. The UEN Network Operations Group also monitors and coordinates security and network operation policy for UEN customers.
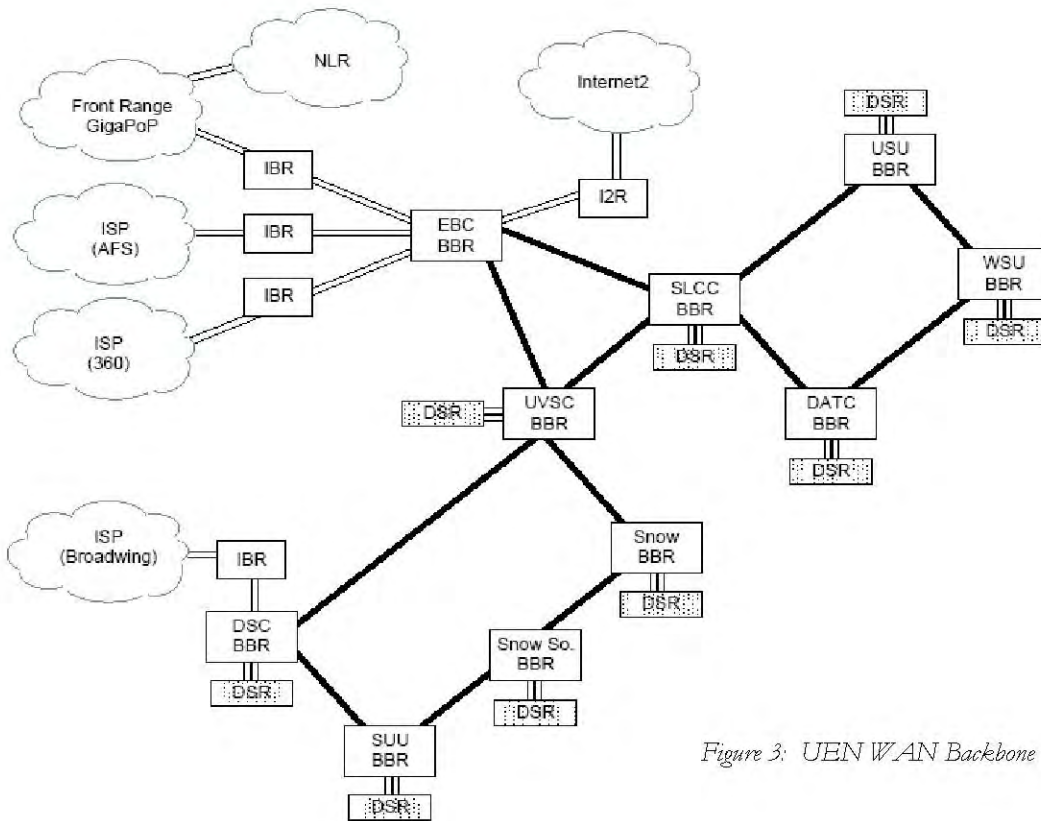
Figure 3: UEN WAN Backbone

UEN Wide Area Network (WAN)

UEN coordinates a statewide network with Point-of-Presence (POP) facilities located at the nine (9) Utah public higher education institutions (see Appendix 1.) Figure 3 shows the core UEN backbone and how UEN customers connect to the leased Qwest backbone WAN and UEN's commercial ISPs; additionally, UEN connects users to Internet2 and NLR, the National Lambda Rail, which are national advanced research and education networks. UEN's core ring WAN topology for the state consists of the following network infrastructure:

BBR: WAN Backbone Router (Core Layer). These core Layer 3 routing devices are located in the Main Distribution Facility (MDF) of each major Point of Presence (POP) of the Qwest WAN. BBRs provide connectivity to the local Distribution Services Routers (DSR), which are used to aggregate UEN connections for school district offices and other area connections. BBRs at the Eccles Broadcast Center (Salt Lake City, UT) and Dixie State College (St. George, UT) interface with Internet Border Routers (IBRs) which are the core gateways to UEN's commercial ISPs. UEN

Network Operations Center staff manage the BBRs, including coordinating network and security policy with UEN customers. BBRs are owned, managed, and monitored and maintained by Qwest as an end-to-end finished service.

DSR: Distribution Services Router (Distribution Layer) These Layer 3 network devices are co-located at the MDFs of UEN POP locations. DSR routers typically provide aggregation for connections to school district offices (District Office Routers), which aggregate "last mile" connections to a group of schools/facilities. UEN NOC staff manages the DSR routers, including coordinating network and security policy with UEN customers. DSRs are owned, managed, and monitored and maintained as an end-to-end finished service from telco carriers.

IBR: Internet Border Router (Core Layer) These core Layer 3 network devices are exchange points for network traffic sent to UEN's commercial ISPs. UEN owns and manages the IBR routers and manages their interfaces with UEN's commercial ISP providers and Qwest Communications. These routers interface with the BBR routers for the leased Qwest WAN.

I2R: Internet 2 Border Router (Core Layer)
This core Layer 3 network device provides connectivity to Internet2, a consortium of over 200 U.S. universities developing and deploying advanced network applications and technologies for research and higher education, accelerating the creation of tomorrow's Internet
www.internet2.edu

National Lambda Rail (NLR) and Front Range GigaPOP

UEN's connectivity to the National Lambda Rail (NLR), a consortium of major U.S. research university and private technology companies is in partnership with the Front Range GigaPOP (FRGP). NLR is a national 10 Gbps IP research network to support internetworking and end-to-end transport protocol experiments. Front Range (FRGP) is a consortium of Universities, non-profit corporations, and government agencies that cooperate in an aggregation point called the FRGP in order to share Wide Area Networking (WAN) services, access to the commodity Internet, access to the Abilene (Internet 2) research network, and access to NLR. Front Range members include members from Utah, Wyoming, and Colorado.
www.nlr.net   www.frgp.net

Federal E-Rate Program

UEN as a state educational technology consortium, qualifies for significant funding for eligible service discounts through the federal E-rate program administered by the Schools and Library Division of the Universal Service Administrative Company. UEN applies for and receives discounts for telecommunication, Internet services, and Internal connections. Currently, UEN applies and qualifies for discounts exceeding 13 million annually for eligible services on behalf of K-12 schools and public libraries.

Definitions

Telecommunication Carrier - Entities that provide interstate telecommunications services to the public, or to such classes of users as to be effectively available to the public, for a fee. Interstate telecommunications services include, but are not limited to: (1) cellular telephone and paging services, (2) mobile radio services, (3) operator services, (4) personal communications services (PCS), (5) access inter exchange services, (6) special access service, (7) wide area telecommunications service (WATS), (8) toll-free service, (9) 900 service, (10) message telephone service (MTS), (11) private line service, (12) telex, (13) telegraph, (14) video services, (15) satellite service, (16) resale of interstate services to end-users, (17) payphone services, (18) frame relay service, and (19) ATM service.   [47 U.S.C. §§ 153(44), (46)]

Contacts

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UEN Network Operations Center
1-800-836-4396
801-585-7440

UEN Security Office
801-585-9888

Appendix 1:

Utah Education Network Backbone
Points-of-Presence (POPs)

Utah State University
1400 Old Main Hill
Logan, Utah 84322-1400
NPA-NXX: 435-797Å

uen
UTAH EDUCATION NETWORK
WWW.UEN.ORG

Utah Education Network
Locations Serving Public Education
and Higher Education

Weber State University
1001 University Circle
Ogden, Utah 84408-1001
NPA-NXX: 801-626

Eccles Broadcast Center
101 Wasatch Drive
Salt Lake City, Utah 84112
NPA-NXX: 801-585

Salt Lake Community College
4600 South Redwood Road
Salt Lake City, Utah 84123
NPA-NXX: 801-957

Utah Valley State College
Computer Science and
Engineering Building
800 W. University Pkwy
Orem, Utah 84058-5999
NPA-NXX: 801-222

College of Eastern Utah
451 East 400 North
Price, Utah 84501
NPA-NXX: 435-637

Snow College Ephraim
150 East College Avenue
Ephraim, Utah 84627
NPA-NXX: 435-283

Snow College Richfield
800 West 200 South
Richfield, Utah 84701
NPA-NXX: 435-896

Southern Utah University
351 West Center Street
Cedar City, Utah 84720-2479
NPA-NXX: 435-586

Dixie State College
225 South 700 East
St. George, Utah 84770-3876
NPA-NXX: 435-652

Utah Public Safety Agencies—UEN NTIA BTOP Application

Box Elder County

11 – Elementary Schools: Brigham City, Corrine, Perry, Snowville, Willard

1 – Public Library: Brigham

Public Safety entities operating in proximity to proposed UEN projects:

- Utah Highway Patrol
- Utah Department of Corrections
- Utah Department of Health
- Utah Department of Transportation
- Utah Division of Homeland Security
- Utah Division of Wildlife Resources
- Utah Division of Parks and Recreation (Willard State Park)

- Box Elder County Sheriff's Department
- Box Elder County Fire Department
- Brigham City Police Department
- Brigham City Fire and EMS
- Perry Police Department
- Perry Fire Department
- Willard Police Department
- Willard Fire Department
- Snowville Fire and Rescue

Emergency Medical Facilities:

- Brigham City Community Hospital

Utah Public Safety Agencies—UEN NTIA BTOP Application

Cache County

2 – Elementary Schools: Nibley, Smithfield

1 – Charter School: Logan

2 – Public Library: Hyrum, Logan

Public Safety entities operating in proximity to proposed UEN projects:

- Utah Highway Patrol
- Utah Department of Corrections
- Utah Department of Health
- Utah Department of Transportation
- Utah Division of Homeland Security
- Utah Division of Wildlife Resources
- Utah Division of Parks and Recreation (Hyrum State Park)

- Cache County Sheriff's Department
- Cache County Fire and EMS
- Logan Police Department
- Logan Fire and Rescue
- North Logan Police Department
- North Logan Fire Department
- Hyrum Police Department
- Hyrum Fire Department
- Smithfield Police Department
- Smithfield Fire Department

Emergency Medical Facilities:

- Logan Regional Hospital

Utah Public Safety Agencies—UEN NTIA BTOP Application

Davis County

5 – Charter School: Kaysville, Layton, North Salt Lake, Syracuse

7 – Public Library: Bountiful, Centerville, Clearfield, Kaysville, Layton, Syracuse

<u>Public Safety entities operating in proximity to proposed UEN projects:</u>

- Utah Highway Patrol
- Utah Department of Corrections
- Utah Department of Health
- Utah Department of Transportation
- Utah Division of Homeland Security
- Utah Division of Wildlife Resources
- Utah Division of Parks and Recreation (Antelope Island State Park, GSL)

- Davis County Sheriff's Department
- Weber/Davis Drug Task Force
- South Davis Fire and Rescue
- Bountiful Police Department
- Bountiful Fire and Rescue
- Centerville Police Department
- Centerville Fire Department
- Farmington Police Department
- Farmington Fire and Rescue
- Kaysville Police Department
- Kaysville Fire and Rescue
- Layton Police Department
- Layton Fire and Rescue
- Clearfield Police Department
- Clearfield Fire and Rescue
- West Point Fire Department
- Syracuse Police Department
- Syracuse Fire and Rescue
- Clinton Police Department
- Clinton Fire and Rescue
- South Weber Fire and Rescue

<u>Emergency Medical Facilities:</u>

- North Davis Regional Hospital
- Lakeview Hospital

Utah Public Safety Agencies—UEN NTIA BTOP Application

Iron County

3 – Public Library: Enoch, Cedar City, Parowan

Public Safety entities operating in proximity to proposed UEN projects:

- Utah Highway Patrol
- Utah Department of Corrections
- Utah Department of Health
- Utah Department of Transportation
- Utah Division of Homeland Security
- Utah Division of Wildlife Resources
- Utah Division of Parks and Recreation (Iron Mission State Park)

- Iron County Sheriff's Department
- Iron County Emergency Medical Services
- Cedar City Police Department
- Cedar City Fire Department
- Parowan Police Department
- Parowan Fire Department
- Brian Head Emergency Services

Emergency Medical Facilities:

- Valley View Regional Hospital

Morgan County

1 – Elementary: Mt. Green

1 – Public Library: Morgan

Public Safety entities operating in proximity to proposed UEN projects:

- Utah Highway Patrol
- Utah Department of Corrections
- Utah Department of Health
- Utah Department of Transportation
- Utah Division of Homeland Security
- Utah Division of Wildlife Resources
- Utah Division of Parks and Recreation (Lost Creek Reservoir)

- Morgan County Sheriff's Department
- Morgan Fire Department
- Morgan County Emergency Medical Services
- Mountain Green Fire and Rescue

Emergency Medical Facilities:

- None

Utah Public Safety Agencies—UEN NTIA BTOP Application

<u>Salt Lake County</u>

19 – Elementary Schools: Bluffdale, Herriman, Midvale, Riverton, South Jordan, West Jordan, Salt Lake City

14 – Charter School: Draper, Kearns, Riverton, Salt Lake City, South Jordan, West Jordan, West Valley

1 – Public Library: Murray

<u>Public Safety entities operating in proximity to proposed UEN projects:</u>

- Utah Highway Patrol
- Utah Department of Corrections
- Utah Department of Health
- Utah Department of Transportation
- Utah Division of Homeland Security
- Utah Division of Wildlife Resources
- Utah Division of Parks and Recreation (GSL Marina)

- Multiple county and city level public safety entities represented in the designated Salt Lake Urban Area Security Initiative (UASI)

<u>Emergency Medical Facilities:</u>

- Multiple

<u>Sevier County</u>

2 – Public Library: Richfield, Sevier

<u>Public Safety entities operating in proximity to proposed UEN projects:</u>

- Utah Highway Patrol
- Utah Department of Corrections
- Utah Department of Health
- Utah Department of Transportation
- Utah Division of Homeland Security
- Utah Division of Wildlife Resources
- Utah Division of Parks and Recreation (Piute State Park)

- Sevier County Sheriff's Department
- Salina Police Department
- Salina Fire and Rescue
- Monroe Fire Department
- Sevier Police Department
- Sevier Fire Department

- Piute Indian Tribal Police

<u>Emergency Medical Facilities:</u>

- Sevier Valley Medical Center

Utah Public Safety Agencies—UEN NTIA BTOP Application

Summit County

1 – Public Library: Park City

Public Safety entities operating in proximity to proposed UEN projects:

- Utah Highway Patrol
- Utah Department of Corrections
- Utah Department of Health
- Utah Department of Transportation
- Utah Division of Homeland Security
- Utah Division of Wildlife Resources
- Utah Division of Parks and Recreation (East Canyon State Park, Rockport State Park)

- Summit County Sheriff's Department
- Park City Police Department
- Park City Fire and Rescue

Emergency Medical Facilities:

- None

Utah Public Safety Agencies—UEN NTIA BTOP Application

Tooele County

7 – Elementary Schools: Grantsville, Stansbury Park, Tooele

1 – Charter School: Erda

2 – Public Library: Grantsville, Tooele

Public Safety entities operating in proximity to proposed UEN projects:

- Utah Highway Patrol
- Utah Department of Corrections
- Utah Department of Health
- Utah Department of Transportation
- Utah Division of Homeland Security
- Utah Division of Wildlife Resources
- Utah Division of Parks and Recreation (GSL Marina)

- Tooele County Sheriff's Department
- Tooele Regional Ambulance Service
- Tooele Police Department
- Tooele Fire Department
- Grantsville Police Department
- Grantsville Fire Department

Emergency Medical Facilities:

- Mountain West Medical Center

Utah Public Safety Agencies—UEN NTIA BTOP Application

Utah County

12 – Charter School: American Fork, Lindon, Orem, Provo, Pleasant Grove, Salem, Saratoga Springs, Spanish Fork

5 – Public Library: Highland, Lehi, Orem, Payson, Pleasant Grove

Public Safety entities operating in proximity to proposed UEN projects:

- Utah Highway Patrol
- Utah Department of Corrections
- Utah Department of Health
- Utah Department of Transportation
- Utah Division of Homeland Security
- Utah Division of Wildlife Resources
- Utah Division of Parks and Recreation (Utah Lake State Park)

- Utah County Sheriff's Department
- Utah County Fire and Rescue
- Provo Police Department
- Provo Fire and Rescue
- American Fork Police Department
- American Fork Fire and Rescue
- Lindon Police Department
- Lindon Fire Department
- Orem Police Department
- Orem Fire and Rescue
- Pleasant Grove Police Department
- Pleasant Grove Fire and Rescue
- Salem Police Department
- Salem Fire and Rescue
- Saratoga Police Department
- Saratoga Springs Fire and Rescue
- Springville Police Department
- Springville Fire and Rescue
- Spanish Fork Police Department
- Spanish Fork Fire and Rescue

Emergency Medical Facilities:

- Utah Valley Regional Medical Center

Utah Public Safety Agencies—UEN NTIA BTOP Application

Wasatch County

1 – Charter School: Midway

2 – Public Library: Heber

Public Safety entities operating in proximity to proposed UEN projects:

- Utah Highway Patrol
- Utah Department of Corrections
- Utah Department of Health
- Utah Department of Transportation
- Utah Division of Homeland Security
- Utah Division of Wildlife Resources
- Utah Division of Parks and Recreation (Jordanelle State Park, Deer Creek State Park, Wasatch Mountain State Park)

- Wasatch County Sheriff's Department
- Heber City Police Department
- Heber City Fire and Rescue

Emergency Medical Facilities:

- Heber Valley Medical Center

Utah Public Safety Agencies—UEN NTIA BTOP Application

Washington County

15 – Elementary Schools: Ivins, Laverkin, Santa Clara, St. George, Washington

1 – Charter School: St. George

5 – Public Library: Enterprise, Hurricane, New Harmony, Springdale, Washington

Public Safety entities operating in proximity to proposed UEN projects:

- Utah Highway Patrol
- Utah Department of Corrections
- Utah Department of Health
- Utah Department of Transportation
- Utah Division of Homeland Security
- Utah Division of Wildlife Resources
- Utah Division of Parks and Recreation (Gunlock State Park, Quail Creek State Park, Snow Canyon State Park, Sand Hollow State Park, Coral Pink Sand Dunes State Park)

- Washington County Sheriff's Department
- Dixie Ambulance Service
- St. George Police Department
- St. George Fire and Rescue
- Hurricane Police Department
- Hurricane Fire and Rescue
- Washington Police Department
- Washington Fire Department
- Enterprise Fire and Rescue
- New Harmony Fire and Rescue
- Santa Clara Fire Department
- Springdale Police Department
- Springdale Fire Department

Emergency Medical Facilities:

- Dixie Regional Medical Center

Utah Public Safety Agencies—UEN NTIA BTOP Application

Weber County

9 – Elementary Schools: Ogden

3 – Charter School: Huntsville, Ogden, West Haven

Public Safety entities operating in proximity to proposed UEN projects:

- Utah Highway Patrol
- Utah Department of Corrections
- Utah Department of Health
- Utah Department of Transportation
- Utah Division of Homeland Security
- Utah Division of Wildlife Resources
- Utah Division of Parks and Recreation (Pine View Reservoir)

- Weber County Sheriff's Department
- Weber County Fire and Rescue
- Ogden Police Department
- Ogden Fire and Rescue
- West Haven Police Department
- Roy Police Department
- Riverdale Police Department
- Riverdale Fire and Rescue
- South Ogden Police Department
- South Ogden Fire and Rescue
- Huntsville Police Department

Emergency Medical Facilities:

- Ogden Regional Medical Center
- McKay Dee Regional Hospital

The UEN Network Operations Center (NOC)

The UEN NOC is staffed Mountain Time from 7am to 6pm Monday through Friday. The NOC provides network technical support on a 24x7x365 basis with senior engineering staff on-call for incident monitoring and troubleshooting for network outages and problems reported after hours. UEN works collaboratively with its telecommunication providers statewide in responding to and resolving critical operations problems. UEN's NOC expertise includes Tier 1 to Tier 3 level escalation procedures and senior level network engineers to fix detected problems. The UEN NOC uses the following suite of tools for operations:

Fault Management System (FMS)

UEN's NOC uses a Fault Management System to maintain integrity of the networks operations. This includes automatic notification of device-reported problems as well as calls from customers that come into the UEN NOC help line.
UEN NOC staff perform incident tracking, escalation and resolution procedures, and to ensure problem resolution. System reporting and analysis helps the NOC to understand measures that can also prevent future outages and performance problems.

Network Health and Metrics Reporting System

UEN has developed and deployed a powerful in-house network monitoring tool called the Network Health Reporting System. This tool allows UEN to monitor the operations and proficiency of the distribution layer of the core UEN backbone network statewide as well as detect possible performance problems. As a real-time reporting tool, the NOC can monitor the following performance metrics:

- Network Latency
- Packet Loss
- Jitter
- Availability
- Utilization

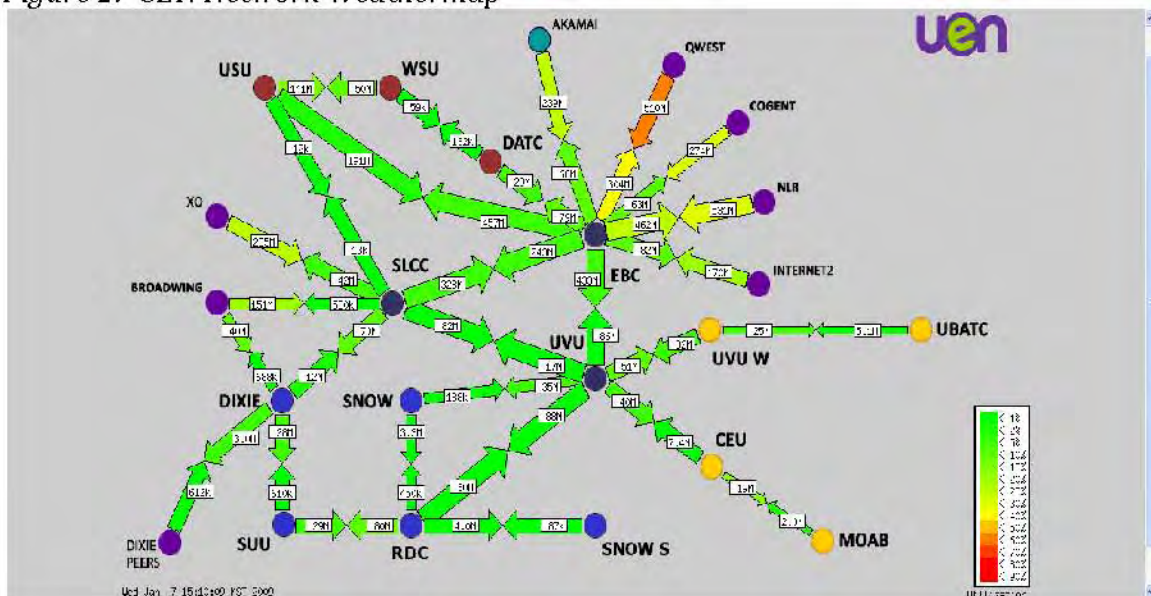Figure 1: The UEN Network Health and Metrics System Report:
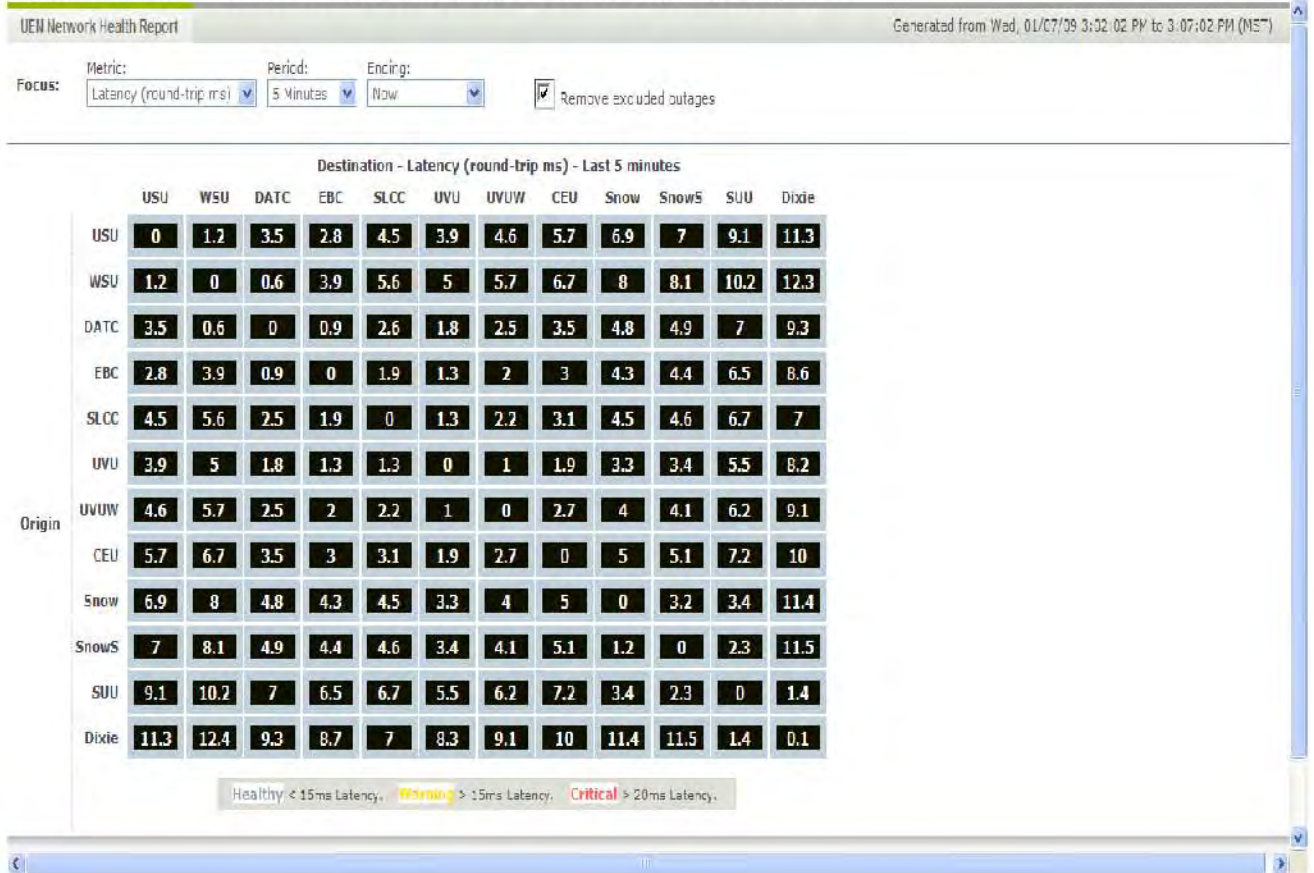
Figure 2: UEN Network Weathermap

Network Security Management

Through security management tools deployed on the UEN network, the NOC provides high-level security management, intrusion detection and monitoring, and incident resolution assistance to UEN customers. In working with Security Points of Contact (SPOC) throughout the state, the UEN NOC is able to communicate potential and real network threats and assist customers to fix and prevent future network disruptions and threats or compromises to data/system integrity. Through the UtahSAINT forum, which is a collaborative effort of security networking professionals from government, education, and private industry, the UEN NOC is able to share proven security practices and utilize preventative management.

UEN NOC Lab Environment

UEN has developed an in-house beta test environment to simulate network production conditions. UEN regularly conducts regression and IOS code testing to make sure of versioning control and burn-in of releases before code is sent into operations. This lab environment also allows for a complete mock-up of proposed network designs for testing prior to being deployed into production.

Change Management System (CMS) and Inventory Control

UEN has tools to manage change controls in the network as well as tracking of inventory and deployed devices in the field. This CMS System also helps the management of network and devices configurations to ensure efficient operations.

Redundant DNS Functions and Reporting

UEN provides Domain Name Service (DNS) for UEN customers, including redundant DNS operations in the event of local system failures where possible. UEN has deployed a DNS-Anycast project to provide uninterrupted DNS service at nearly any point in the network at all times.

IP Address Management

UEN has deployed a NOC tool to manage IP addresses and track associated change management in managing UEN registered IP address space. UEN uses this tool for centralized, full lifecycle management of mission-critical IP management (IPAM) functions, including IPv4 and IPv6 address space assignment, allocation/ reallocation, and creation and deployment of DNS and DHCP configurations

Video Operations Center and Logistic Services for Interactive Video Conference (IVC)

The UEN Video Operations Center (VOC) provides central IVC and communications support for trouble calls related to UEN telecommunications services (voice, data, or video). The center also continually monitors and maintains the video to ensure that

problems are identified and resolved quickly. The VOC staff works Monday through Friday, 5:00am to 11:00pm and Saturday as needed to support:

- All Utah Higher education institutions and Secondary education
- Public and private entities
- Stakeholders from various levels including:
  - students (secondary, higher education, professional development)
  - administration, management and staff
  - government members (limited, but will expand)

The following mission-critical IVC support is provided by the VOC:

- Tier 1 response for all IVC system problems ,diagnosis ,troubleshooting , immediate resolution, escalation of end point devices/equipment and network equipment
- End site equipment testing, certification, and registration
- Real time monitoring and auditing of all events
- Public and private entity support
- IVC event streaming services for live and archived web streaming
- Tier 2 engineer support
  - End to End IVC infrastructure support and maintenance
  - Tier 1 escalation and resolution support
  - Advanced problem resolution
  - New product development
  - Engineering support to all stakeholders

UEN Logistics and Scheduling
UEN Logistics accommodates pre-planned one-time and recurring audio, video and hybrid events for the following types of events and services:

- Educational classes
- Workshops
- Retreats
- Meetings
  - private
  - educational
  - government (will expand)
- National and International connection events (will expand)
- Ad hoc, on-demand meeting coordination
- Active, involved event support:
 - schedule resolution per site, per institution

- o building event in software
- o reserving space on hardware
- o providing connection information
- o recording event
- o providing playback information and support
- o first level troubleshooting/call taking and direction (assisting VOC)
- o physical room/building location
- o driving directions
- o access information and permission
- o billing services (waiving fees, invoicing, site payments, acting as liaison)

To accomplish the above services, the UEN VOC utilizes a broad spectrum of tools:

- Tandberg Management Suite (TMS) software
- In-house developed QuickTicket system
- Whatsup network monitoring application
- In-person and broadcast meetings both internal and with stakeholders to gather and disperse information, to train, and to monitor quality of events and services
- Excellent customer service and cooperation with Video Operations Center, Distance Education Specialists, and Instructional Support groups
- Broad database network of contacts at various institutions, government agencies, and businesses
- IP VCR management software
- Administrative forms and letters (i.e. site fee waiver, collection request)
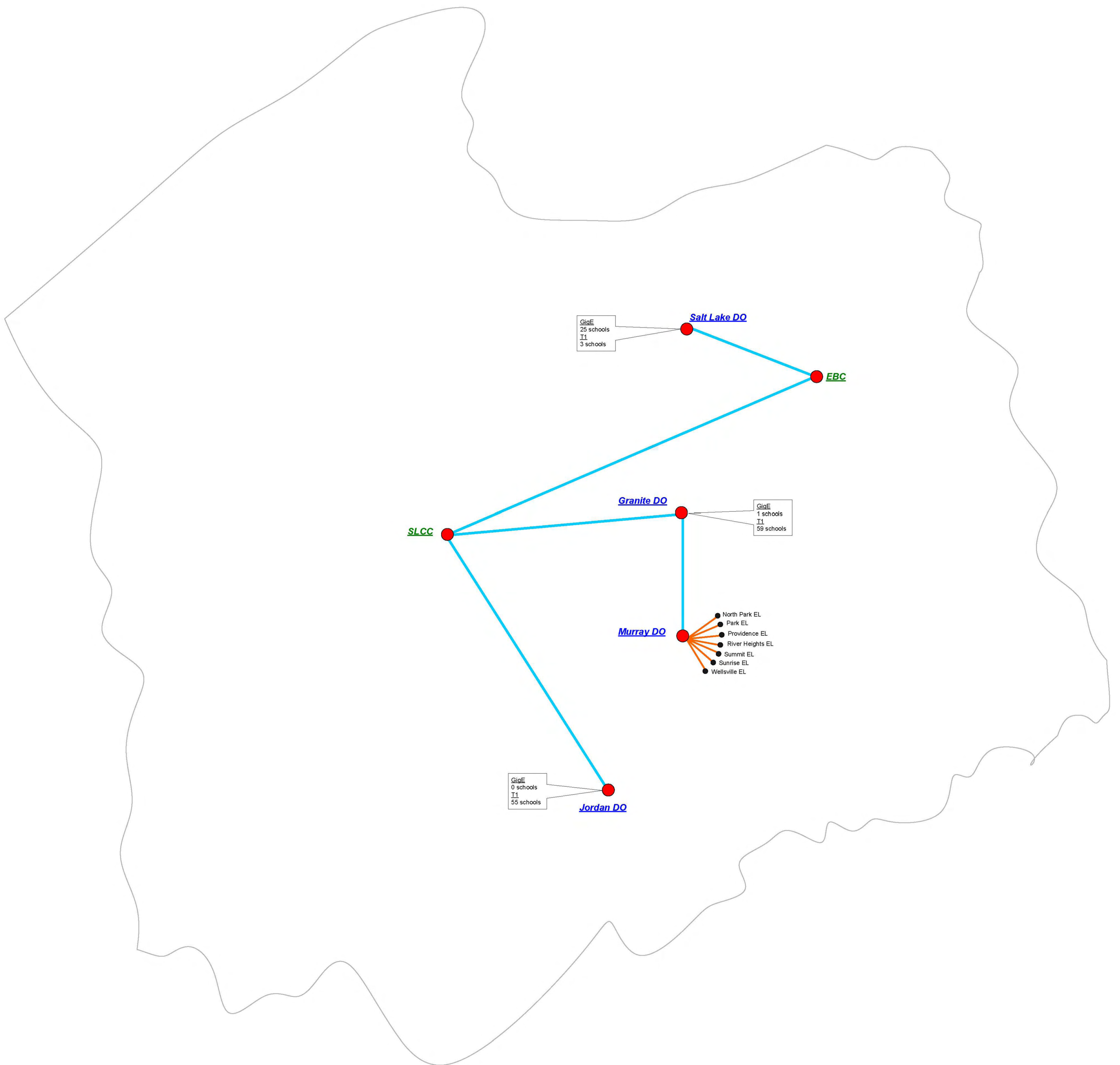
Utah Education Network
Wide Area Network

Legend:
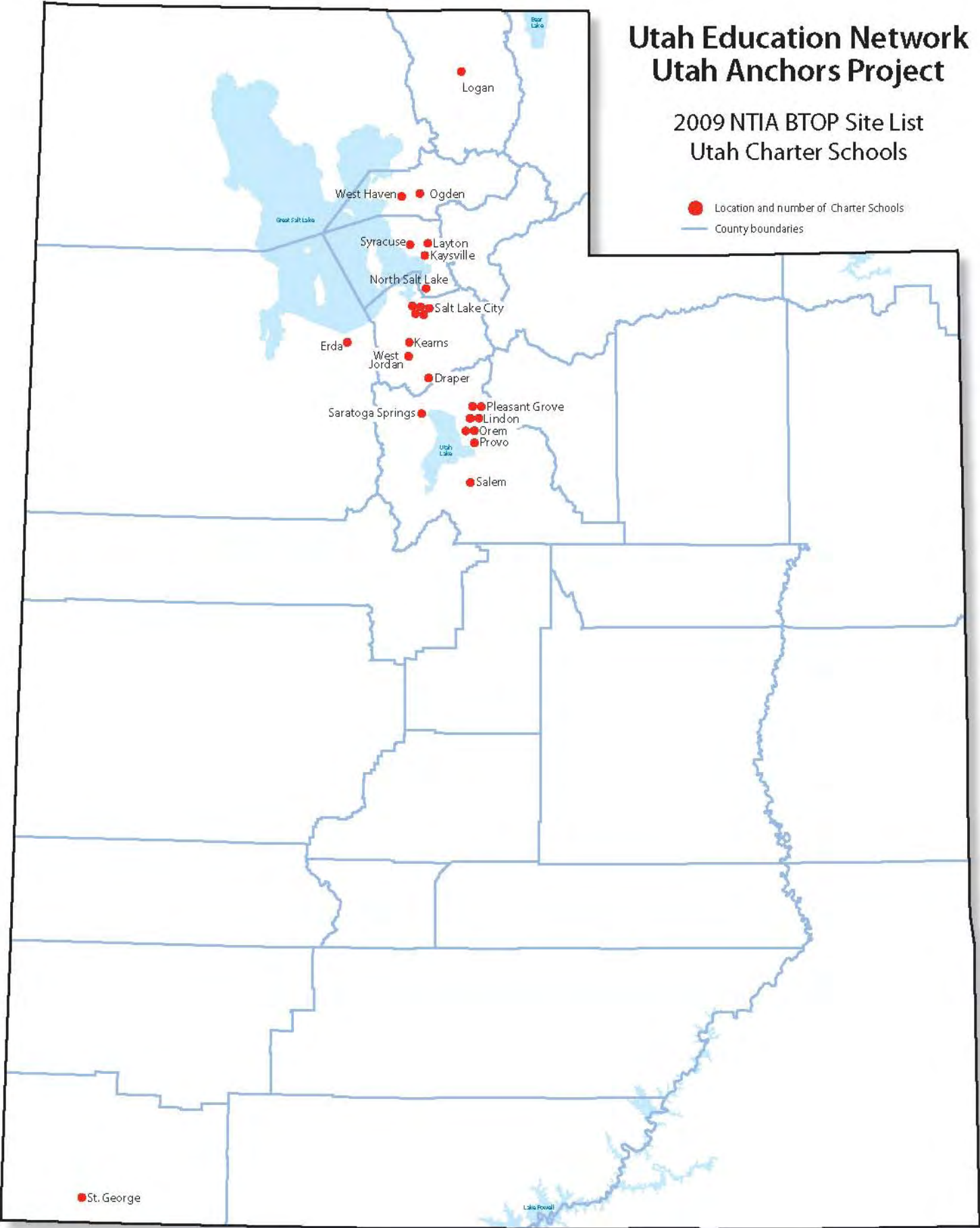- 1.5 Mbs T1
- 45 Mbs - 100 Mbs Ethernet
- 45 Mbs DS3
- 155 Mbs OC3
- Gigabit Ethernet 1000 Mbs
- Geomax 1000 Mbs
- Geomax 1000 Mbs Backbone
- 10 Gbs Backbone
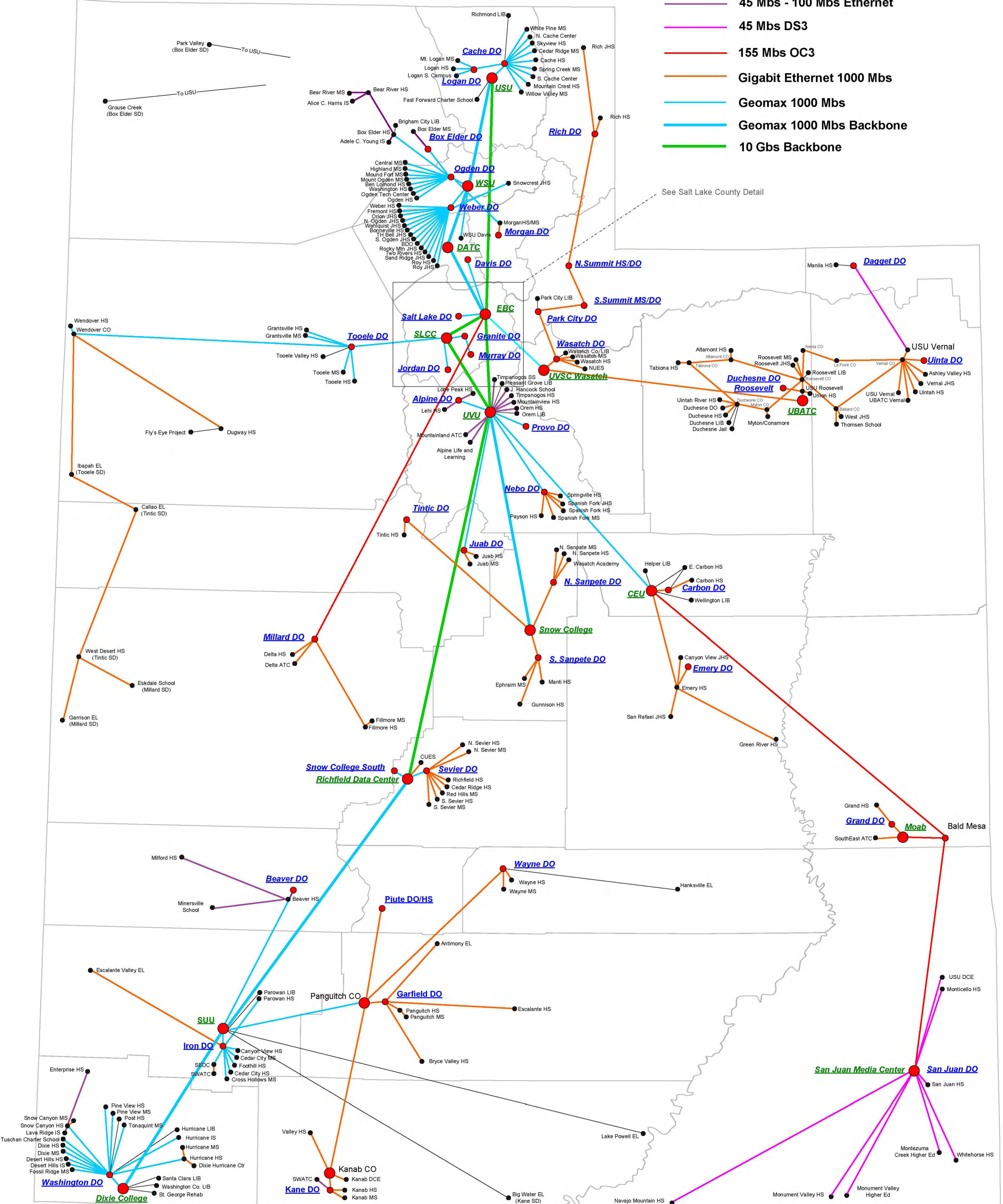
Utah Education Network
Wide Area Network

Elementary School Connections
Salt Lake Metro Area

1.5 Mbs T1
45 Mbs - 100 Mbs Ethernet
45 Mbs DS3
155 Mbs OC3
Gigabit Ethernet 1000 Mbs
Geomax 1000 Mbs
Geomax 1000 Mbs Backbone

Salt Lake DO
GigE
25 schools
T1
3 schools

EBC

Granite DO
GigE
1 schools
T1
59 schools

SLCC

Murray DO

North Park EL
Park EL
Providence EL
River Heights EL
Summit EL
Sunrise EL
Wellsville EL

Jordan DO
GigE
0 schools
T1
55 schools

Utah Education Network
Utah Anchors Project

2009 NTIA BTOP Site List
Utah Charter Schools

● Location and number of Charter Schools
── County boundaries

Logan

Bear Lake

West Haven ● ● Ogden

Great Salt Lake

Syracuse ● ● Layton
● Kaysville

North Salt Lake

● Salt Lake City

Erda ● ● Kearns

West Jordan ●

● Draper

Saratoga Springs ● ● ● Pleasant Grove
● ● Lindon
● ● Orem
● Provo

Utah Lake

● Salem

Lake Powell

● St. George

Utah Education Network
Utah Anchors Project

2009 NTIA BTOP Site List
Utah Public Libraries

● Location and number of Public Libraries
— County boundaries

Bear Lake

● Logan

● Hyrum

● Brigham City

Great Salt Lake

● Morgan

Clearfield ●
● Layton
Kaysville ● ● Farmington
Syracuse ● ● Centerville
Bountiful ●

● Park City

● Murray

● Heber

Tooele ●●

Highland
● ●
Lehi ● ● Pleasant Grove
● Orem

Utah Lake

● Payson

● Delta

● Fillmore   ● Salina

● Richfield

Beaver ●

Parowan ●   Monticello ●

●● Cedar City   Blanding ●

New Harmony ●

● Springdale

Hurricane ●

● St. George

Lake Powell
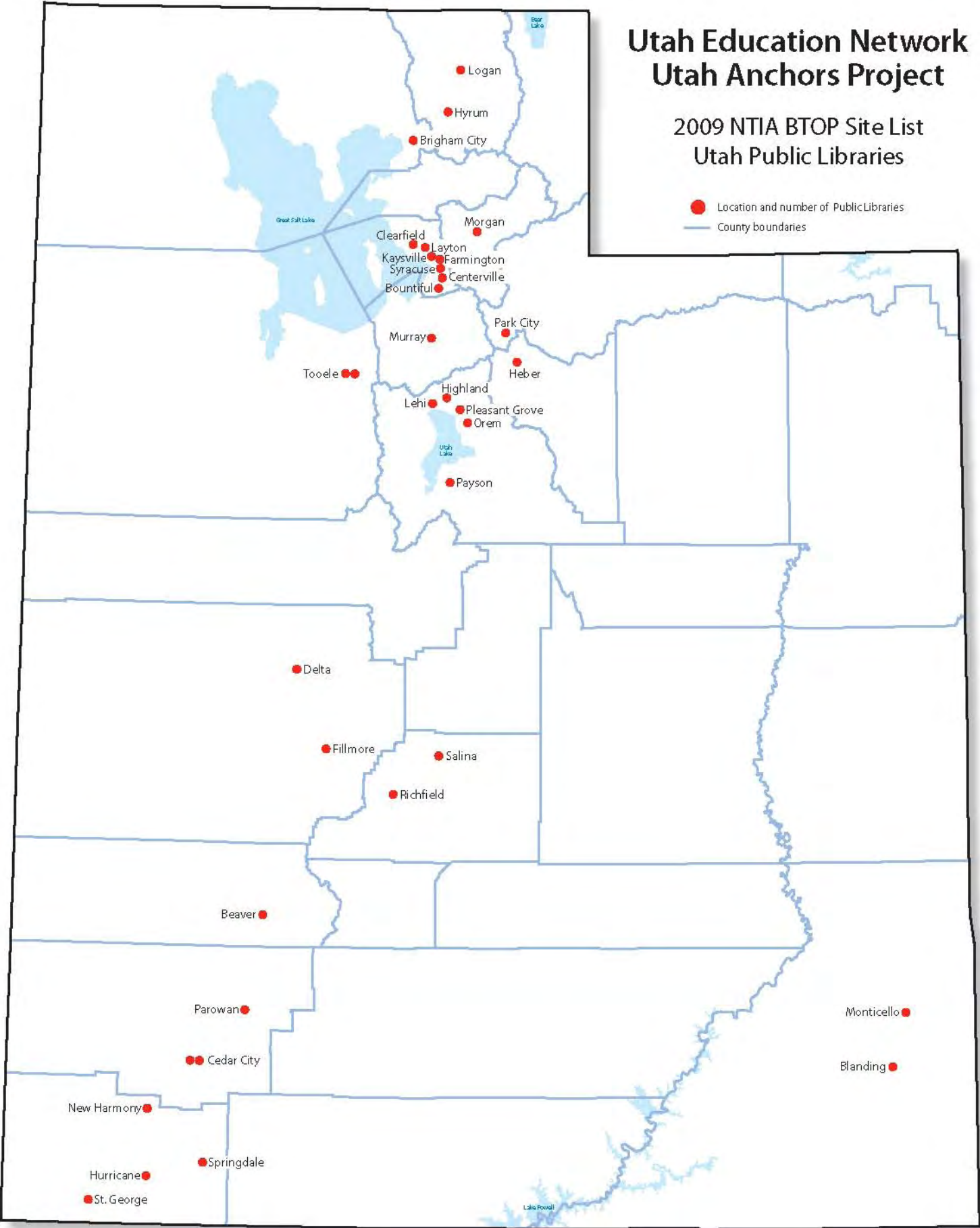
Utah Education Network
Utah Anchors Project

2009 NTIA BTOP Site List
Utah Head Starts

● Location and number of Head Starts
── County boundaries

Bear Lake

Great Salt Lake

Ogden ●

●● Salt Lake City

Utah Lake

● Provo

● Duchesne

● Wellington

●● Cedar City

Lake Powell
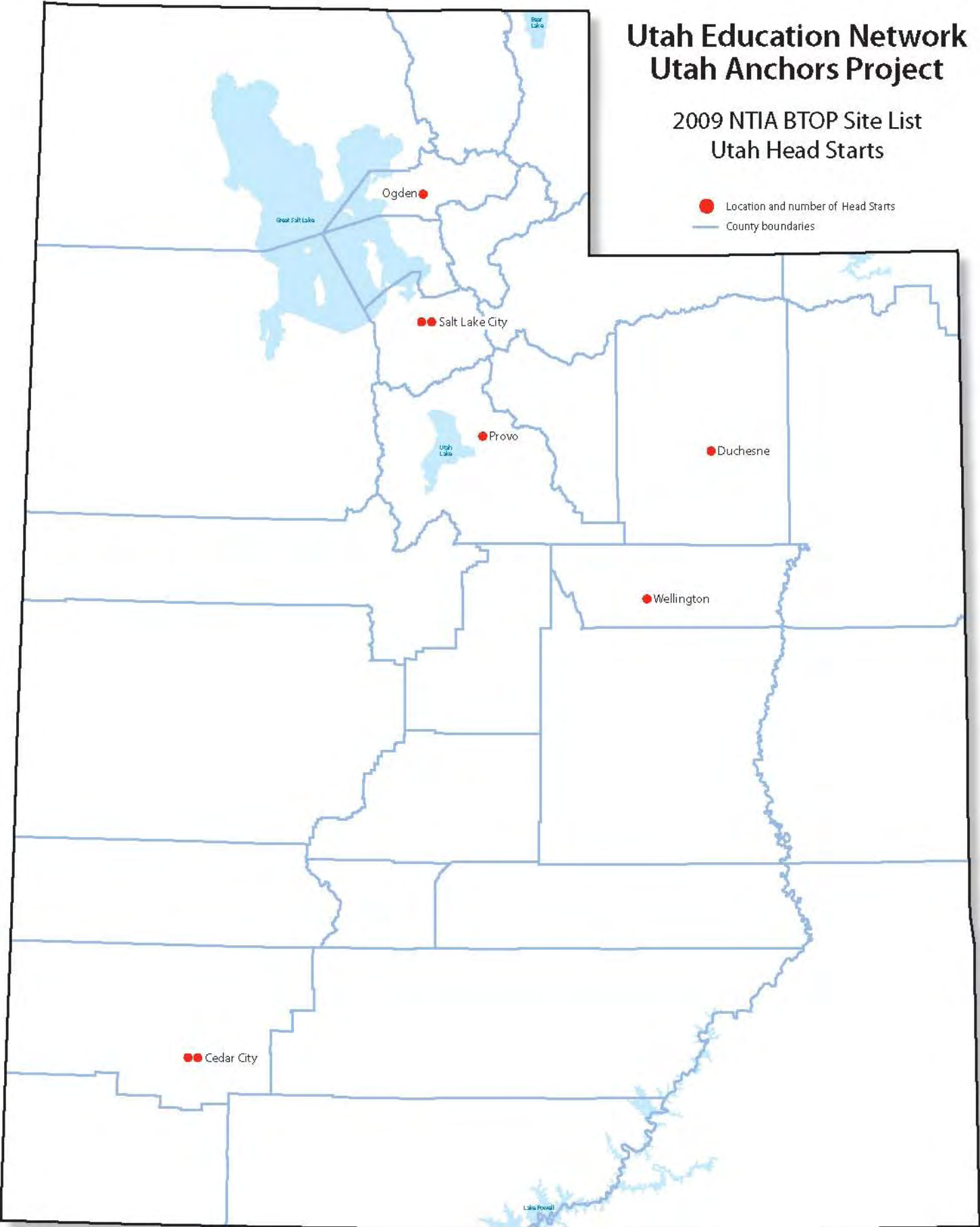
Utah Education Network
Utah Anchors Project

2009 NTIA BTOP Site List
Utah Elementary Schools

● Location and number of Elementary Schools
— County boundaries
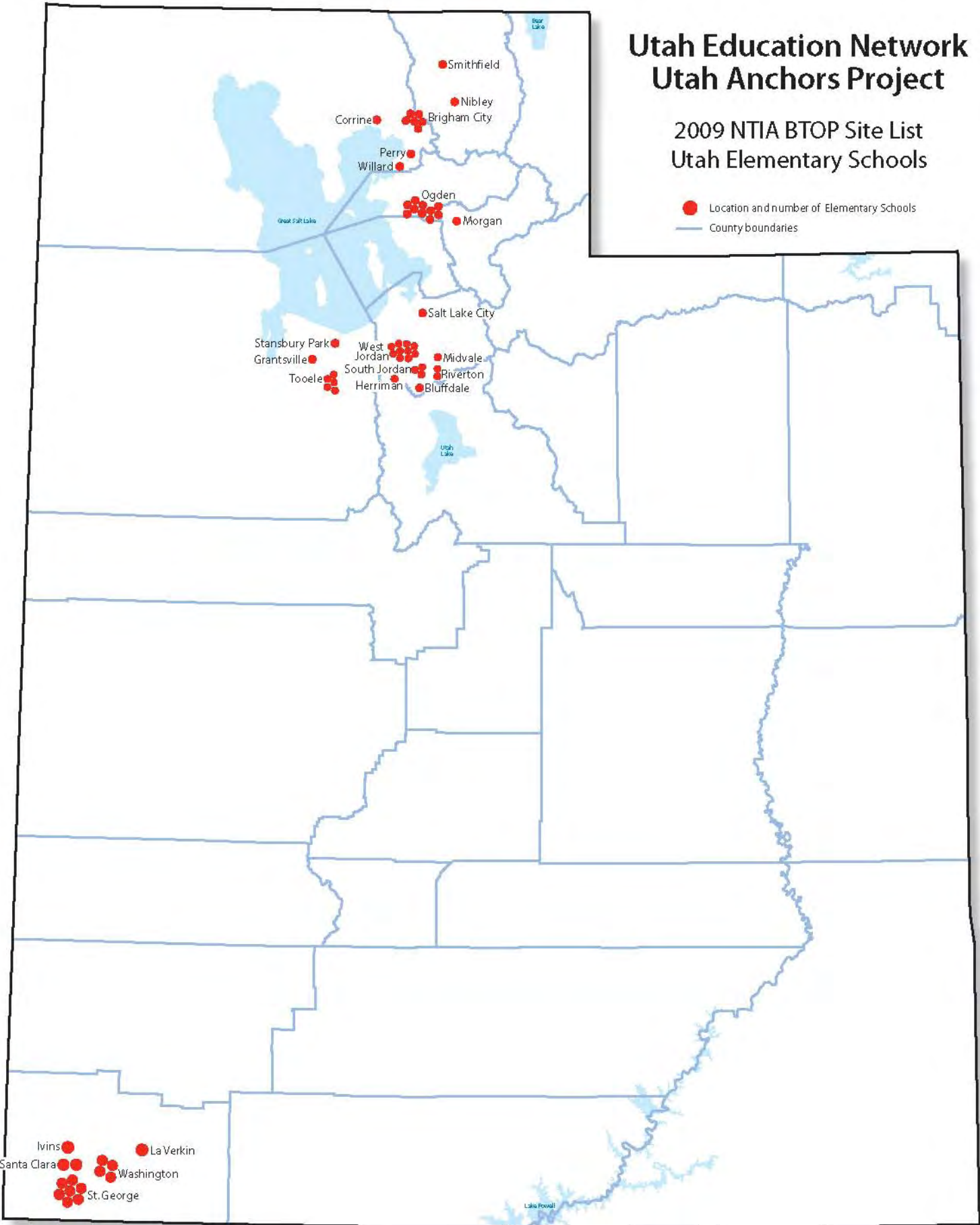
Smithfield

Nibley
Corrine ●
Brigham City

Perry ●
Willard ●

Ogden
Morgan

Salt Lake City

Stansbury Park
West Jordan
Midvale
Grantsville
South Jordan
Riverton
Tooele
Herriman
Bluffdale

Bear Lake

Great Salt Lake

Utah Lake

Lake Powell

Ivins
La Verkin
Santa Clara
Washington
St. George

STATE OF UTAH

JON M. HUNTSMAN, Jr.
Governor

GARY R. HERBERT
Lieutenant Governor

DEPARTMENT OF COMMUNITY AND CULTURE
Palmer DePaulis
Executive Director

STATE LIBRARY DIVISION
Donna Jones Morris
Division Director/State Librarian

August 5, 20009

Dear Applications Committee,

As Chair of the Utah State Library Board, I am deeply aware of the importance internet access plays in public libraries today. It provides a profound resource for education, information, and entertainment for those without such access at home. Utah Education Network (UEN) plays a vital role in partnering with public libraries to bring this access to patrons across the state.

The Utah State Library Board supports the application of the Utah Education Network in seeking funding for the Utah Anchors: A Community Broadband Project.

Public libraries are a key "anchor institution" in the mosaic of community centers which includes schools, colleges, public safety organizations, and health care providers. This grant will enable UEN and its partners to extend the state's high speed fiber optic network to more than 140 of these institutions. Your approval of this grant request will benefit students and educators, business and government, and citizens of all ages throughout the state of Utah.

The Utah State Library and UEN have been working together for over a decade providing internet access and Pioneer, Utah's Online Library to Utah's students and library patrons. We are confident in them as a trustworthy, efficient, and expert collaborator in providing the technology and organizational expertise required for a project of this size. We want to see the benefits of broadband brought to a wide spectrum of Utahns in unserved and underserved communities.

I strongly urge you to favorably consider this critically important proposal.

Sincerely,

Terry Ann Harward, Chair
Utah State Library Board

DONNA JONES MORRIS
Director

BOARD MEMBERS

Terry Ann Harward
Chair

Jessica Van Buren
Vice-Chair

Kevin Ash

Carolyn Bessey

Shelley Day

Michael Freeman

Brenda Hales

Samuel Passey

Lee Robinson

STATE OF UTAH

JON M. HUNTSMAN, Jr.
Governor

GARY R. HERBERT
Lieutenant Governor

DEPARTMENT OF COMMUNITY AND CULTURE
Palmer DePaulis
Executive Director

STATE LIBRARY DIVISION
Donna Jones Morris
Division Director/State Librarian

August 4, 2009

Dear Application Committee,

The Utah State Library fully supports the application of the Utah Education Network in seeking funding for the Utah Anchors: A Community Broadband Project.

Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network to more than 140 community anchor institutions including schools, colleges, libraries, public safety organizations, and health care providers. Your approval of this grant request will benefit students and educators, business and government, and citizens of all ages throughout the state of Utah.

UEN and the State Library were early collaborators in bringing internet access to all of Utah's public libraries and in bringing quality online resources to their patrons. Now the time is ripe and the need is urgent to increase the bandwidth at these institutions to meet the increasing demand in both quantity of users and the complexity of resources available via the internet. This project will mark another milestone in our collaboration to help public libraries to provide Utah's residents with invaluable educational and informational opportunities.

We have enjoyed a productive relationship with UEN for many years and are confident in the Network's technical and organizational expertise to complete this project on time and within budget. I strongly urge that you favorably consider this critically important proposal.

Sincerely,

Donna Jones Morris, State Librarian
Utah State Library 250 N 1950 W, Suite A
Salt Lake City, UT 84116

August 5, 2009

Dear Applications Committee,

The *Pioneer, Utah's Online Library* Committee strongly supports the application of the Utah Education Network in seeking funds for *Utah Anchors: A Community Broadband Project.*

Our Committee, which provides online resources to Utah's K-12 and Higher Education students and teachers and public library patrons, has worked closely with the Utah Education Network for the past 15 years to accomplish its goals. UEN is the key Utah player providing the internet backbone for educational and community centers in the state and providing instructional content to K-12 schools.

This project, to bring broadband access to community anchor institutions across the state, is the most exciting technology event in Utah since the original establishment of our statewide internet network in the 1990s. Public libraries are are filled with folks using the internet for a variety of educational and recreational purposes, and current bandwidth restrictions hinder their ability to offer more diverse services and more robust internet access.
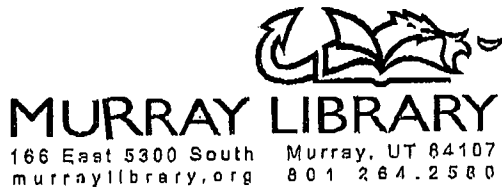
Public libraries are a key "anchor institution" in the mosaic of community centers that includes schools, colleges, public safety organizations, and health care providers. Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network to more than 140 of these institutions. Your approval of this grant request will benefit students and educators, business and government, and citizens of all ages throughout the state of Utah.

Our committee lends our voices to those who strongly urge that you favorably consider this critically important proposal.

Sincerely,

Craig Neilson
Chair
Pioneer, Utah's Online Library Committee
Utah State Library
250 N 1950 W
Salt Lake City Ut 84115

MURRAY LIBRARY

166 East 5300 South   Murray, UT 84107
murraylibrary.org   801 264.2580

August 5, 2009

Dear Applications Committee,

The Murray Library fully supports the application of the Utah Education Network in seeking funding for the Utah Anchors: A Community Broadband Project.

Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network to more than 140 community anchor institutions including schools, colleges, libraries, public safety organizations, and health care providers. Your approval of this grant request will benefit students and educators, business and government, and citizens of all ages throughout the state of Utah.

Our library has witnessed significant increase use of our public access to the Internet. I am convinced this is the result of the down turn in the economy. Our patrons are using the Internet to contact work force services, search for employment, and submit job applications online. The addition of broadband capability will be an immediate and long term improvement in our service to the community.

We have enjoyed a productive relationship with UEN for many years and are confident in the Network's technical and organizational expertise to complete this project on time and within budget. I strongly urge that you favorably consider this critically important proposal.

Sincerely,

Daniel Barr,
Library Director

Dear Applicants Committee,

President Millard Fillmore Library fully supports the application of the Utah Education Network in seeking funding for the Utah Anchors: A Community Broadband Project.

Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network to more than 140 community anchor institutions including schools, colleges, libraries, public safety organizations, and health care providers. The approval of this grant request will benefit students and educators, business and government, and citizens of all ages throughout the state of Utah.

In my experience as director of President Millard Fillmore Library, access to broadband internet is important because it allows faster download time for both staff and patrons, which in turn saves money. It also allows patrons the ability to research and correspond in a timely manner.

We have enjoyed a productive relationship with UEN for many years and are confident in the network's technical and organizational expertise to complete this project on time and within budget. I strongly urge that you favorably consider this critically important proposal.

Sincerely,

Stephanie Aleman
Library Director

MURRAY LIBRARY

166 East 5300 South   Murray, UT 84107
murraylibrary.org   801 264.2580

August 5, 2009

Dear Applications Committee,

The Murray Library fully supports the application of the Utah Education Network in seeking funding for the Utah Anchors: A Community Broadband Project.
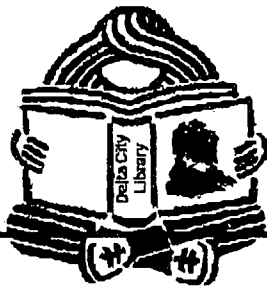
Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network to more than 140 community anchor institutions including schools, colleges, libraries, public safety organizations, and health care providers. Your approval of this grant request will benefit students and educators, business and government, and citizens of all ages throughout the state of Utah.

Our library has witnessed significant increase use of our public access to the Internet. I am convinced this is the result of the down turn in the economy. Our patrons are using the Internet to contact work force services, search for employment, and submit job applications online. The addition of broadband capability will be an immediate and long term improvement in our service to the community.

We have enjoyed a productive relationship with UEN for many years and are confident in the Network's technical and organizational expertise to complete this project on time and within budget. I strongly urge that you favorably consider this critically important proposal.

Sincerely,

Daniel Barr,
Library Director

DELTA CITY LIBRARY

76 North 200 West * Delta, Utah 84624

August 6, 2009

Dear Applications Committee,

Delta City Library fully supports the application of the Utah Education Network in seeking funding for the Utah Anchors: A Community Broadband Project.
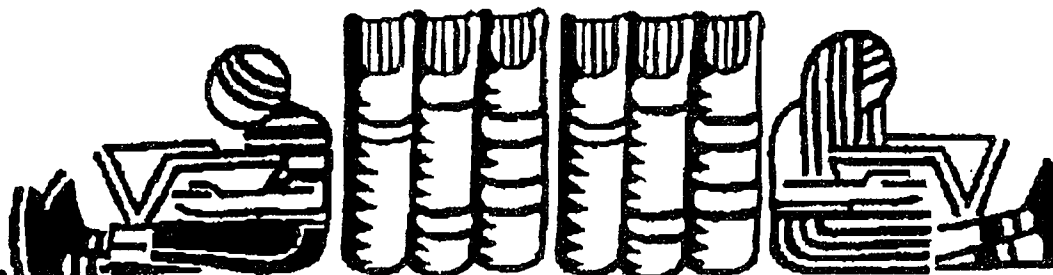
Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network to more than 140 community anchor institutions including school, colleges, libraries, public safety organizations, and health care providers. Your approval of this grant request will benefit students and educators, business and government, and citizens of all ages throughout the state of Utah.

As the director of Delta City Library, a small rural library, it is doubly important to have access to broadband internet. Our community doesn't have the resources available to those in larger metropolitan areas. Therefore, we depend on the internet to connect us to educational resources, employment opportunities, health issues, genealogical research, online college courses, and a myriad of other uses. It is important that our internet connection be fast, reliable and up-to-date.

We have enjoyed a productive relationship with UEN for many years and are confident in the Network's technical and organizational expertise to complete this project on time and within budget. I strongly urge that you favorably consider this critically important proposal.

Sincerely,

Deb Greathouse
Delta City Library
76 N 200 W
Delta, Utah   84624
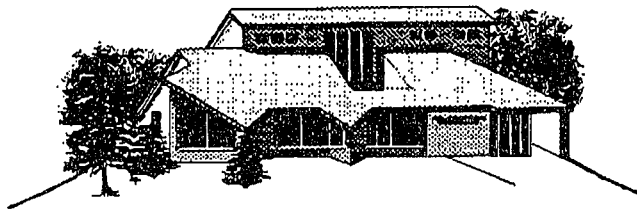
Pleasant Grove City Library
30 East Center
Pleasant Grove, UT 84062
(801) 785-3950 • Fax (801) 785-9734

August 6, 2007

Dear Applications Committee,

The intent of this communication is to acknowledge the Pleasant Grove City Library's enthusiastic support of the application of the Utah Education Network in seeking funding for the Utah Anchors: A Community Broadband Project.

Citizens of all ages throughout Utah will benefit from your approval of this grant request. The grant itself, which will enable UEN and its partners to extend the state's high speed fiber optic network to more that 140 community anchor institutions, will improve internet access for schools, colleges, libraries, public safety organizations and health care providers.

In my experience as director of the Pleasant Grove City Library for the past twenty years, I have witnessed a tremendous increase for the need for public internet access and obviously that need has also expanded to the need for greater speed of this access. A broadband internet connection offers great tools and accessibility options that this library would not be able to provide otherwise. As the face of libraries change, the need to able to offer something that is not only fast and with plenty of bandwidth in order to meet the growing demand, but it also needs to be reliable. PGCL is very dependent on the internet for almost all its services. When the internet service has issues, so does PGCL and the library's services and productivity is greatly affected in a negative way. This library cannot afford to be left behind in the technological advances and being able to offer all the integrated services the internet offers is based largely in part on an adequate and reliable connection.

Our relationship with UEN in the past years makes us confident in the Network's ability to complete this project in a timely and economical manner. I offer my full support and strongly urge that you favorably consider this crucial proposal.

Sincerely,

April Harrison
Pleasant Grove City Library Director

Salina Public Library
90 W. Main
Salina, UT 84654
(435) 529-7753

Dear Applications Committee,

Salina Public Library fully supports the application of the Utah Education Network in seeking funding for the Utah Anchors: A Community Broadband Project.

Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network to more than 140 Community anchor institutions including schools, colleges, libraries, public safety organizations, and health care providers. Your approval of this grant request will benefit students and educators, business and government, and citizens of all ages throughout the state of Utah.

As director of Salina Public Library, access to broadband internet is important because our small community would benefit from this program. We have the internet; But, If we could offer our patrons an extended high speed internet with this grant. It would be a better system for the students, patrons and the employees of our library. We would be able to help everyone that comes into the library with whatever their internet needs might be.

We have enjoyed a productive relationship with UEN for many years and are confident in the Network's technical and organizational expertise to complete this project on time and within budget. I strongly urge that you favorably consider this critically important proposal.

Sincerely,

Ronda Huntsman

7 August 2009

Dear Applications Committee,

The Logan Public Library fully supports the application of the Utah Education Network in seeking funding for the Utah Anchors: A Community Broadband Project.

Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network to more than 140 community anchor institutions including schools, colleges, libraries, public safety organizations, and health care providers. Your approval of this grant request will benefit students and educators, business and government, and citizens of all ages throughout the state of Utah.

The Logan Library currently receives its Internet services through UEN. Without their services our ability to provide effective Internet services to the public would be nearly impossible for us. We currently provided 13 public Internet computers which are all in constant use 92% of the time the library is open. We are scheduled to add 10 more public computers during this year. The expanded broadband will greatly enhance our current and planned future services and will better meet the increasing demand from the public.

We have enjoyed a very productive relationship with UEN for many years and are confident in the Network's technical and organizational expertise to complete this project on time and within budget. I strongly urge that you favorably consider this critically important proposal.

Sincerely,

Ronald K. Jenkins
Director

THE HYRUM LIBRARY AND
MUSEUM FOUNDATION

Building a Legacy of Learning

August 6, 2009

Dear Applications Committee,

Hyrum Library, 50 West Main, Hyrum, Utah fully supports the application of the Utah Education Network in seeking funding for the Utah Anchors: A Community Broadband Project.

Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network to more than 140 community anchor institutions including schools, colleges, libraries, public safety organizations, and health care providers. Your approval of this grant request will benefit students and educators, business and government, and citizens of all ages throughout the state of Utah.

Having recently completed a new library, that is currently serving not only our community, but many others, we have seen such an increase in the number of patrons needing the use of our Internet services, that we have been overwhelmed. Most certainly the slow economy has forced many citizens to rely on these services at their public libraries. We would hope to be able to offer them the best and the most for their tax dollars. Broadband Internet service insures that we could do just that.

We have enjoyed a productive relationship with UEN for many years and are confident in the Network's technical and organizational expertise to complete this project on time and within budget. I strongly urge that you favorable consider this critically important proposal.

Sincerely,

Ginny Tremayne
Hyrum Library Director

Hyrum Library & Museum Foundation   P.O. Box B – Hyrum, Utah 84319   (435) 245-6411

STATE OF UTAH
Department of
Technology Services

J. STEPHEN
FLETCHER
CIO
Executive Director

JON M.
HUNTSMAN, JR.
Governor

GARY R.
HERBERT
Lieutenant Governor

August 10, 2009

Dear Applications Committee,

The Department of Technology Services of the State of Utah strongly supports the application of the Utah Education Network (UEN) in seeking NTIA funding for the Utah Anchors Project.
For the past four years, DTS has embarked on an unprecedented transition to consolidate all IT resources and services for the State of Utah into one department to improve accountability, reduce costs, increase services to taxpayers, and more closely align IT with the business needs of the State of Utah. To accomplish its strategic goals, DTS works closely with the Utah Education Network, which provides Internet connectivity for state agencies and the state legislature. UEN also provides critical network backbone segments for state agencies.

The Department of Technology Service has a multi-year strategic plan. Two of its major goals are closely aligned to services and tasks of UEN. DTS know that as technology provides exponentially broadening opportunities and capabilities for interfacing with and serving our citizens, it also demands ever-increasing consumption of network bandwidth. State facilities are finding it difficult to run computer applications across shared connections even with increased capacity in recent years.

DTS is in the process of consolidating the current 27 data centers and a majority of the state's 1700 servers into the DTS Salt Lake City and Richfield data centers. Utah will save $4 million annually in server, support, and energy costs through effective implementation of the Data Center Consolidation. The consolidation will allow resources to be broken into smaller, more flexibly used components and pooled for more effective utilization.

DTS goals to expand network capacity and consolidate data centers are closely linked to the success of UEN in increasing the network's capacity and reliability and adding critical middle mile segments. These middle mile segments will connect schools, libraries, health care facilities, and public safety locations to the network.

We have enjoyed a productive relationship with UEN for many years and are confident in the Network's technical and organizational expertise to complete this project on time and within budget. I strongly urge that you favorably consider this critically important proposal.

Sincerely,

J. Stephen Fletcher
CIO and Executive Director

Governor's Office of Planning and Budget

MICHAEL MOWER
State Planning Coordinator

JOHN BENNETT
Project Manager

State of Utah

GARY R. HERBERT
Governor

GREGORY S. BELL

EVAN CURTIS
State and Local Planning Analyst

KAREN PAGLIO
Administrative Assistant

August 11, 2009

Dear Applications Committee,

The Governor's Office of Planning and Budget of the State of Utah strongly supports the application of the Utah Education Network (UEN) in seeking NTIA funding for the Utah Anchors Project. Utah Anchors extends the state's high capacity fiber optic education network to 138 Community Anchor Institutions including elementary and charter schools, libraries, public safety organizations and health care providers. Building on the existing Utah Education Network and by partnering with Utah telecommunications providers, Utah Anchors will also extend digital resources to businesses and residents statewide.

The State of Utah depends on the Utah Education Network, which provides Internet connectivity for the Governor's office, state agencies and the state legislature. UEN also provides critical network backbone segments for state agencies. The state's IT goals to expand network capacity and consolidate data centers are closely linked to the success of UEN in increasing the network's capacity and reliability and adding critical middle mile segments.

The educational needs of Utah citizens also rely heavily on UEN. The U.S. Census Bureau recently reported Utah is the fastest-growing state in America. This growth also brings great challenges and opportunities to Utah's 40 school districts. They currently serve more than 537,000 public schools students in urban and rural areas throughout the state. Greater than 20 percent of those students are economically disadvantaged. Many live in communities that lack high speed fiber infrastructure. This isolates them from some of the robust media and educational resources that will make a significant difference as they seek to acquire 21st century skills. In a fast-changing world, these skills are essential to the future of our state and nation.

UEN's proposed Community Anchor Project comprehensively addresses this need by extending Utah's fiber optic infrastructure to community anchor institutions throughout the state. The project does more than address the unmet needs of urban, suburban, and rural districts, schools and students. It also strengthens their communities by providing greater bandwidth to libraries, health care providers and public safety organizations.

The Governor's Office of Planning and Budget is confident in the technical and organizational expertise of UEN. I know UEN will complete this project on time and within budget and I strongly urge that you favorably consider this critically important proposal.

Sincerely,

Michael Mower
State Planning Coordinator

UTAH STATE OFFICE OF EDUCATION

Leadership...Service...Accountability   Larry K. Shumway, Ed.D., State Superintendent of Public Instruction
Voice: (801) 538-7500   Fax: (801) 538-7521   TDD: (801) 538-7876
250 East Cesar E. Chavez Blvd. (500 South) P.O. Box 144200 Salt Lake City, UT 84114-4200

August 6, 2009

Dear Grant Review Committee:

The Utah State Office of Education strongly supports the Utah Education Network (UEN) in its application for funding through the NTIA Broadband Technology and Information Adminstration's Broadband Infrastructure (Track 1) and Sustainable Broadband Adoption (Track 3) programs.
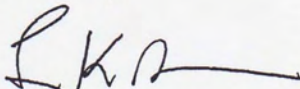
The U.S. Census Bureau recently reported that Utah is the fastest-growing state in the nation. This welcome growth brings challenges as well as opportunities to Utah's 40 independent school districts that currently serve more than 550,000 public school students throughout the state. Greater than 20 percent of these students are economically disadvantaged, and many of these students live in communities that lack high-speed fiber infrastructure and access to the online educational media that can help them acquire the skills needed for a competitive 21st century workforce.

With standardized test scores showing a significant and persistent performance gap between economically disadvantaged students and their non-economically disadvantaged peers, we find UEN's proposed project compelling. By extending Utah's fiber optic infrastructure to more than 200 community anchor sites through Utah Anchor Project and achieving the goals of the Content Outreach Support and Training (COST) program described in its Track 3 application, UEN will be providing more equitable access to Utah's education resources to the communities that need it most.

A high priority of the of the Utah Anchors Project is to upgrade slow circuits in 95 elementary and public charter schools in the Jordan, Ogden, Tooele and Washington school districts. Their current T1 connections have a narrow bandwidth of 1.544 Mbit/s. If approved, the Anchor Project would increase that more than 64 times with 100 Mbit/s fiber optic technology. Students and teachers would no longer be limited to text and still images but could access the wide variety of video and multimedia content available via broadband.

USOE enjoys a long-standing and highly collaborative relationship with UEN. I am confident of UEN's organizational and technical expertise to complete both projects on time and within budget. Funding from NTIA will enable innovative new activities that would not otherwise be possible. I urge you to approve the Utah Anchors Project and the COST Project to help our state meet the challenges of growth and change.

Sincerely,

Larry Shumway, Ed.D.
State Superintendent of Public Instruction

Governor's Office *of* Economic Development

State of Utah

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

JASON P. PERRY
Executive Director

August 10, 2009

Dear Grant Review Committee:

The Utah Governor's Office of Economic Development strongly supports Utah Education Network (UEN) in its application for funding for the Utah Anchors Project and the Content Outreach Support and Training (COST) Project through the NTIA Broadband Technology and Information Administration's Broadband Infrastructure (Track 1) and Sustainable Broadband Adoption (Track 3) programs, respectively.

The U.S. Census Bureau recently reported that Utah is among the fastest-growing states in the nation. This welcome growth brings challenges as well as opportunities to Utah's 41 independent school districts and 70 charter schools. Greater than 20 percent of these public education students are economically disadvantaged, and many of these students live in communities that lack high-speed fiber infrastructure and access to the online educational media that can help them acquire the skills needed for a competitive 21st century workforce.

A high priority of the Utah Anchors Project is to upgrade slow circuits in 95 elementary and public charter schools throughout the state. Their current T1 connections have a narrow bandwidth of 1.544 Mbit/s. If approved, the Anchor Project would increase that more than 64 times with 100 Mbit/s fiber optic technology. Student and teachers would no longer be limited to text and still images but could access the wide variety of video and multimedia content available via broadband.
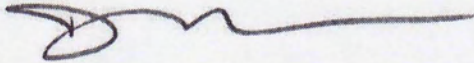
Furthermore, funding this project will be a great economic benefit to the State's economy. UEN utilizes leased public telecommunication services to provide this connection. Rural telecoms serve approximately 80% of the geographical area of the state. UEN budget funds are paid directly to the private providers which supports local telephone service to business and residential customers. Therefore, UEN supports economic development by improving network infrastructure as well as funneling money directly into local economies for the purchase of goods and services.

UTAH
LIFE ELEVATED

Funding from NTIA will enable innovative new activities that would not otherwise be possible. Without hesitation I urge you to approve the Utah Anchors Project and the COST Project to help our state meet the challenges of growth and change.

Sincerely,

Derek B. Miller
Acting Executive Director

UAPCS

UTAH
ASSOCIATION

of PUBLIC
CHARTER
SCHOOLS

Utah Association of Public Charter Schools
P.O. Box 58201 * Salt Lake City, Utah 84158 * 801-953-2748
www.utahcharters.org   info@utahcharters.org

August 5, 2009

Dear Applications Committee,

As Executive Director of the Utah Association of Public Charter Schools, I fully support the application of the Utah Education Network in seeking funding for the Utah Anchors: A Community Broadband Project.

'Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network to about 50 of the 70 state charter schools. Your approval of this grant request will benefit students attending these charter schools because it enables compliance with the Utah Legislature's mandate to provide online testing of all students; facilitate the use any technologically-rich instructional materials in the classroom and provide access to administrative tools that are now standard at schools with high speed bandwidth.

We need high speed bandwidth in a rural state like Utah because video can take students to places in the world that they could not otherwise experience and allow demonstrations not generally possible or too dangerous to perform within a classroom. High speed network connections can enhance the learning of foreign languages because of its portrayal of "dramatized cultural context."

Furthermore, broader bandwidth enhances instructional support for teaching complex concepts in science, technology, and math education. Educational science clips provide reinforcement and support for teachers, particularly at the elementary level and specifically in rural communities, who may be uncomfortable teaching scientific topics.

UEN provides invaluable services to Utah's public education system. We have enjoyed a productive relationship with UEN for many years and are confident in the Network's technical and organizational expertise to complete this project on time and within budget. I strongly urge that you favorably consider this critically important proposal.

Sincerely,

Steven Winitzky
Executive Director

UtahTelehealth Network

August 10, 2009

Anthony Wilhelm, Deputy Associate
Administrator, Infrastructure Division, Office of Telecommunications and Information Applications,
National Telecommunications and Information Administration,
U.S. Department of Commerce (DOC)
Washington, D.C. 20230

Dear Applications Committee,

The Utah Telehealth Network strongly supports the application of the Utah Education Network (UEN) in seeking NTIA funding for the Utah Anchors Project. Utah Anchors extends the state's high capacity fiber optic education network to 130 Community Anchor Institutions including elementary and charter schools, libraries, public safety organizations and health care providers. Building on the existing Utah Education Network and by partnering with Utah telecommunications providers, Utah Anchors will also extend digital resources to businesses and residents statewide.

The Utah Telehealth Network depends on the Utah Education Network, which provides network and Internet connectivity for the University of Utah, and therefore to UTN. The goal of UTN to expand network capacity for health care facilities throughout Utah is closely linked to the success of UEN in increasing the network's capacity and reliability and adding critical middle mile segments.

UEN's proposed Community Anchor Project comprehensively addresses this need by extending Utah's fiber optic infrastructure to community anchor institutions throughout the state. The project does more than address the unmet needs of urban, suburban, and rural districts, schools and students. It also strengthens their communities by providing greater bandwidth to libraries, health care providers and public safety organizations.

The Utah Telehealth Network is confident in the technical and organizational expertise of UEN. I know UEN will complete this project on time and within budget and I strongly urge that you favorably consider this critically important proposal.

Sincerely,

Deb LaMarche
Program Manager
Utah Telehealth Network

Dear Applications Committee,
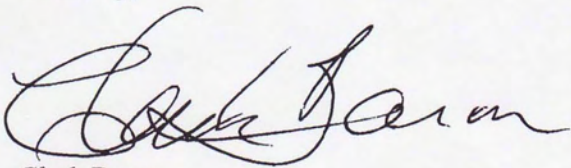
As Principal of the Utah County Academy of Science (UCAS), an early college public charter school that has an emphasis in mathematics, engineering, and both physical and life sciences, I fully support the application of the Utah Education Network (UEN) in seeking funding for the "Utah Anchors: A Community Broadband Project."

Having worked with technology in education for many years I can attest that current T-1 capacity network connectivity is totally inadequate for 21st Century schools. Schools today must have network connections of 100 megabits per second or greater. Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network to about 50 of the 70 state charter schools. Your approval of this grant request will benefit students attending these charter schools because it enables compliance with the Utah Legislature's mandate to provide online testing of all students; facilitates the use of technologically-rich instructional materials in the classroom, and provides access to administrative tools that are now standard at schools with high speed bandwidth.

We need high speed bandwidth in a rural state like Utah because video can take students to places in the world that they could not otherwise experience and allow demonstrations not generally possible or too dangerous to perform within a classroom. Having a broad bandwidth also enhances instructional support for teaching complex concepts in science, technology, and math education. Educational science clips can and do provide reinforcement and support in our concurrent enrollment college level classes.

We have enjoyed a productive relationship with UEN for many years and are very confident in the Network's technical and organizational expertise to complete this project on time and within budget. I strongly urge that you favorably consider this critically important proposal.

Sincerely,

Clark Baron
UCAS Principal

RURAL UTAH CHILD DEVELOPMENT

Dear Grant Review Committee,

The Rural Utah Child Development (RUCD) Head Start fully supports the application of the Utah Education Network (UEN) in seeking funding from the NTIA Broadband Technology Opportunity Program through the Utah Anchors: A Community Broadband Project and Content, Outreach, Support and Training (COST) Project Applications.

The Rural Utah Child Development Head Start program is a community-based organization that promotes early childhood education by delivering a comprehensive, high quality school readiness curriculum to support educational, nutritional, health, social and emotional needs of low-income children, age's birth to five and their families.

Rural Utah Child Development Head Start is a rural program serving 434 Head Start children and 60 Early Head Start children in an eight county area. The program covers about 27,000 square miles in Southeastern and Central Utah. This area covers the Utah part of the Navajo reservation and the White Mesa Ute reservation in San Juan County.

Technology has been slow to come to some of the areas and dependable services have at times been a challenge. Services are often lacking or difficult to find in the most remote areas that RUCD Head Start serves.

UEN has provided the Rural Utah Child Development Head Start with technical expertise for broadband and networking issues that the Rural Utah Child Development Head Start and our very rural 17 facilities need. UEN is committed to upgrading our administrative site with increased bandwidth and providing content and outreach in order for us to better accomplish our core mission, to nurture and educate the 434 young children, empower their families, and partner with our local communities with trained, professional and highly valued staff.

Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network and deliver high-quality educational content to more than 200

LYNNETTE MITCHELL
Executive Director

OFFICE LOCATION
150 A. West Main
Wellington, Utah 84542-0508
(435) 637-4960
Fax (435) 637-4962
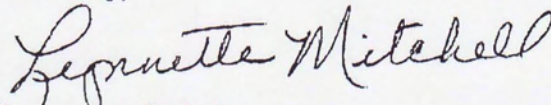
MAILING ADDRESS
P.O. Box 508
Wellington, Utah
84542-0508

community anchor institutions which includes: Head Start facilities, schools, colleges, libraries, public safety organizations and health care providers. Your approval of this grant request will benefit students, families, educators, businesses, government and citizens of all ages throughout the state of Utah.

We have enjoyed a productive relationship with UEN and are confident in the Network's technical and organizational expertise to complete this project on time and within budget. We strongly urge you to favorably consider this comprehensive and eagerly awaited proposal.

Sincerely,

Lynnette Mitchell
Director
Rural Utah Child Development Head Start
150 Main St.
P.O. Box 508
Wellington, Utah 84542

Ute Indian Tribe
Head Start
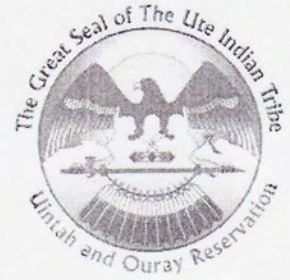
Dear Grant Review Committee,

The Ute Indian Tribe Head Start program fully supports the application of the Utah Education Network (UEN) in seeking funding from through the NTIA Broadband Technology Opportunity Program through the Utah Anchors: A Community Broadband Project and Content, Outreach, Support and Training (COST) Project applications.

The Ute Indian Tribe Head Start program is a rural community-based organization with five education centers that promotes early childhood education. Our organization delivers a comprehensive, high quality school readiness curriculum to support educational, nutritional, health, social and emotional needs of approximately 215 low-income children, aged three to five, and their families.

UEN has provided the Ute Indian Tribe Head Start with technical expertise for broadband and networking issues that the Ute Indian Tribe Head Start and our rural families are in need of. UEN is committed to upgrading their administrative site with increased bandwidth and providing the content and outreach for us to better accomplish their core mission: to nurture and educate our children, empower families, and increase partnerships between our communities and our professional and valued staff.

Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network and deliver high-quality educational content to more than 200 community anchor institutions including Head Start facilities, schools, colleges, libraries, public safety organizations, and health care providers. It is evident to us that this grant request will benefit students and families, educators, business and government, and citizens of all ages throughout the state of Utah.

We have enjoyed a productive relationship with UEN and are confident in the Network's technical and organizational expertise to complete this project on time and within budget. We anticipate and hope you'll agree to grant this proposal.

Sincerely,

Tom Morgan,
Director
Ute Indian Tribe Head Start
938 South 500 East
Fort Duchesne, Utah 84026

Centro de la Familia de Utah

Dear Applications Committee,

Centro de la Familia de Utah Head Start fully supports the application of the Utah Education Network, UEN, in seeking funding from the NTIA Broadband Technology Opportunity Program through the Utah Anchors: A Community Broadband Project and Content, Outreach, Support and Training (COST) Project applications.

UEN has provided Centro de la Familia de Utah with technical expertise for broadband and networking issues that our administration office and our outlying Head Start classrooms are in need of. UEN is committed to upgrade our administrative site with increased bandwidth in order for us to better accomplish our core mission.

Since 1975, our varied services in education have created measurable, positive impact on the lives of Utah's Spanish-speaking families. We are the state's largest Latino-oriented nonprofit agency, with over 180 employees in six counties, serving both urban and rural Spanish-speaking families with Children.

Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network and deliver high-quality educational content to more than 200 community anchor institutions includes Head Start facilities, schools, colleges, libraries, public safety organizations, and health care providers. Your approval of this grant request will benefit students and families, educators, business and government, and citizens of all ages throughout the state of Utah.

We have enjoyed a productive relationship with UEN and are confident in the Network's technical and organizational expertise to complete this project on time and within budget. We strongly urge that you favorably consider this well-thought through proposal.

Sincerely,

Greg Cantrell,
Transportation, Facilities and IT Director
3780 South West Temple
Salt Lake City, UT 84115
(801) 521-4473 ex 121
g.cantrell@cdlfu.org

Developing educational opportunities that empower Latinos.

August 10, 2009

**Ogden-Weber
Community Action
Partnership, Inc.**

3159 Grant Avenue
Ogden, UT 84401
(801) 399-9281
Fax: (801) 399-9887
E-mail: Info@owcap.org

Mayor George Garwood, Jr.
Board of Trustees
Chairperson

Dr. Donald R. Carpenter
Agency Administrator/
Head Start Director

Mission Statement:
*OWCAP inspires those in
poverty to become self-sufficient
through innovative services and
collaborative efforts.*

CSBG

Adult Education

Asset Management

Employment Assistance

Information & Referral

Low-Income Housing

Food Pantry

HEAD START

Education & Early
Childhood Development

Health, Mental Health,
Disability, & Transportation
Services

Program Management &
Design

United Way

Dear Applications Committee,

The Ogden-Weber Community Action Partnership, Inc. Head Start fully supports the
application of the Utah Education Network, UEN in seeking funding from the NTIA
Broadband Technology Opportunity Program through the Utah Anchors: A Community
Broadband Project and Content, Outreach, Support and Training (COST) Project
applications.

Since 1965, the Ogden-Weber Community Action Partnership, Inc. (OWCAP) has provided
social service programs to individuals and families in poverty, in an effort to alleviate barriers
to self-sufficiency. OWCAP strives to assist their clients in reaching their full potential
towards financial and societal success. OWCAP programs offer wrap-around services for
the whole family unit and include Head Start, health, nutrition, technology, education,
employment, asset management, healthy relationships and referrals.

UEN has provided the OWCAP Head Start with technical expertise for broadband and
networking issues that OWCAP and our outlying 12 sites need. UEN is committed to
upgrading our administrative site with increased bandwidth and providing content and
outreach in order for us to better accomplish our core mission, to nurture and educate the
703 young children and their families.

Awarding this grant will enable UEN and its partners to extend the state's high speed fiber
optic network and deliver high-quality educational content to more than 200 community
anchor institutions includes Head Start facilities, schools, colleges, libraries, public safety
organizations, and health care providers. Your approval of this grant request will benefit
students and families, educators, business and government, and citizens of all ages
throughout the state of Utah.

We have enjoyed a productive relationship with UEN and are confident in the Network's
technical and organizational expertise to complete this project on time and within budget.
We strongly urge that you favorably consider this well-thought through proposal.

Sincerely,

Donald Carpenter, Ph.D, CCAP
Agency Administrator / Head Start Director

Davis School District

Dr. W. Bryan Bowles, Superintendent

— Fostering Educational Excellence

Dear Applications Committee,

The Davis School District Head Start fully supports the application of the Utah Education Network, UEN, in seeking funding from the NTIA Broadband Technology Opportunity Program through the Utah Anchors: A Community Broadband Project and Content, Outreach, Support and Training (COST) Project applications.
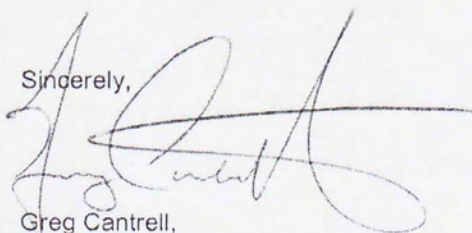
The Davis School District Head Start has 27 facilities where we provide comprehensive child development services to over 400 economically disadvantaged children and their families.

Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network and deliver high-quality educational content to more than 200 community anchor institutions including Head Start facilities, schools, colleges, libraries, public safety organizations, and health care providers. Your approval of this grant request will benefit students and families, educators, business and government, and citizens of all ages throughout the state of Utah.

We have enjoyed a productive relationship with UEN and are confident in the Network's technical and organizational expertise to complete this project on time and within budget. We strongly urge you to favorably consider this proposal. It can help provide much needed access to resources to those with the greatest need.

Sincerely,

Judy Jackson
Director
Davis School District Head Start
320 South 500 East
Kaysville, UT 84037

Salt Lake CAP Head Start

1307 South 900 West · Salt Lake City,.Utah 84104 · 801-977-1122 · Fax 801-977-3929 · www.headstart-slcap.org

Erin Trenbeath - Murray
Director
Salt Lake CAP Head Start

Cathy Hoskins
Executive Director
Salt Lake CAP

Dear Applications Committee,

The Salt Lake Community Action Program (CAP) Head Start fully supports the application of the Utah Education Network, UEN, in seeking funding from the NTIA Broadband Technology Opportunity Program through the Utah Anchors: A Community Broadband Project and Content, Outreach, Support and Training (COST) Project applications.

UEN has provided the Salt Lake CAP Head Start with technical expertise for broadband and networking issues that the Salt Lake CAP and our outlying 70 classrooms are in need of. UEN is committed to upgrading our administrative site with increased bandwidth and providing the content and outreach for us to better accomplish our core mission, to nurture and educate the 1,923 young children, empower 2,000 families, and partner with communities through professional and valued staff. Our vision is that we will carry out our mission so successfully that we will impact and/or eliminate the cycle of poverty for our families.

Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network and deliver high-quality educational content to more than 200 community·anchor institutions including Head Start facilities, schools, colleges, libraries, public safety organizations, and health care providers. We strongly believe this grant request will benefit students and families, educators, business and government, and citizens of all ages throughout the state of Utah.

We have enjoyed a productive relationship with UEN and are confident in the Network's technical and organizational expertise to complete this project on time and within budget. We hope and ask that funding is provided for this exciting proposal.

Sincerely,

Erin Trenbeath-Murray,
Director
SLCAP Head Start Director
1307 South 900 West
Salt Lake City, Utah 84104

Dear Grant Review Committee,

The Southern Utah University (SUU) Head Start fully supports the application of the Utah Education
Network (UEN) in seeking funding from through the NTIA Broadband Technology Opportunity Program
through the Utah Anchors: A Community Broadband Project and Content, Outreach, Support and
Training (COST) Project applications.
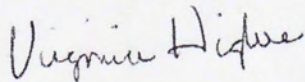
SUU Head Start is a comprehensive child development program for needy children, aged three to five
and their families. In 2008, SUU Head Start served approximately 420 Head Start children in14 centers.
The program covers about 25,000 square miles and six counties in rural Southeastern and Central Utah.

UEN has provided the SUU Head Start with technical expertise for broadband and networking issues that
the SUU Head Start and UEN will hope to implement through this grant opportunity. UEN is committed
to upgrading our administrative site with increased bandwidth and providing the content and outreach in
order for us to better accomplish our core mission, to nurture and educate our children, empower their
families, and partner with communities through professional and valued staff.

Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network
and deliver high-quality educational content to more than 200 community anchor institutions includes
Head Start facilities, schools, colleges, libraries, public safety organizations, and health care providers.
Your approval of this grant request will benefit students and families, educators, business and
government, and citizens of all ages throughout the state of Utah.

We have enjoyed a productive relationship with UEN and our experience has shown that the Network has
the technical and organizational expertise to complete this project on time and within budget. We strongly
believe that funding this proposal would provide great benefit to the citizens of Utah.

Sincerely,

Virginia Higbee

Virginia Higbee
Director
Southern Utah University
2390 West Highway 56, Suite 1
Cedar City, Utah 84720

Mountainland Head Start, Inc.
264 West 300 North * Provo, UT 84601
(801) 375-7981 * fax (801) 375-8036

August 10, 2009

Dear Applications Committee,

Mountainland Head Start fully supports the application of the Utah Education Network, UEN, in seeking funds from the NTIA Broadband Technology Opportunity Program.

UEN has provided Mountainland Head Start including our thirteen outlying class sites with technical expertise for broadband and networking issues that our agency needs. UEN is committed to upgrading our administrative site with increased bandwidth and providing the content and outreach in order for us to better serve and educate the 817 young children and their families within our program. Mountainland Head Start's mission is to provide each child and family with opportunities to identify their strengths, experience success, recognize their potential, become self-sufficient and achieve their goals. UEN's excellent service has assisted us in carrying out this mission.

Awarding this grant will enable UEN and its partners to extend the state's high speed fiber optic network and deliver high-quality educational content to more than 200 community anchor institutions including Head Start facilities, schools, colleges, libraries, public safety organizations, and health care providers. Your approval of this grant request will benefit students and families, educators, business and government, and citizens of all ages throughout the state of Utah.

We have enjoyed a productive relationship with UEN and the Network's technical and organizational experts in completing this project on time and within budget. We urge you to favorably consider this proposal.

Sincerely,

Linda Lee,
Executive Director

Tooele County School District

92 S. Lodestone Way, Tooele, UT 84074 ❖ 435-833-1900 ❖ FAX 435-833-1912

August 7, 2009

Dear Grant Review Committee:

The Tooele County School District strongly endorses the Utah Education Network's application for funding through the NTIA Broadband Technology opportunity program. UEN's proposed Utah Anchors Project would upgrade Internet circuits in several elementary schools here in the Tooele County School District.

Currently 8 of our 16 elementary schools have slow T1 connections with bandwidth of 1. 5 Mbit/s. This proposal would increase that bandwidth more than 60 times with 100 Mbit per second fiber optic connections. In our district alone, more than 6,000 students and educators would benefit from the upgrade.

UEN's proposal would also connect underserved elementary and public charter schools in Utah's Ogden, Jordan and Washington school districts. If approved this grant means that students and teachers will no longer be limited to text and still images. Instead they will have access a wide variety of video and multimedia content and interaction available via broadband connectivity.

The Tooele County School District enjoys a productive and collaborative relationship with the Utah Education Network. I am confident of UEN's organizational and technical expertise to complete this much-needed project on time and within budget. I actively urge you to approve the Utah Anchors Project. It will greatly benefit Utah students and teachers.

Sincerely,

Terry L. Linares

Terry Linares
Superintendent of Schools
Tooele County School District

121 WEST TABERNACLE
ST. GEORGE, UTAH 84770
TELEPHONE: (435) 673-3553
FAX: (435) 673-3216

SUPERINTENDENT MAX H. ROSE, PH.D.

August 7, 2009

Dear Grant Review Committee:

The Washington County School District fully supports the Utah Education Network's application for funding through the NTIA Broadband Technology opportunity program. UEN's proposed Utah Anchors Project would upgrade Internet circuits in several elementary schools here in the Washington County School District.

All but one of our 22 elementary schools have slow T1 connections with bandwidth of 1. 5 Mbit/s. This proposal would increase that bandwidth more than 60 times with 100 Mbit per second fiber optic connections. In our District alone, more than 14,000 students and educators would benefit from the upgrade.

UEN's proposal would also connect underserved elementary and public charter schools in Utah's Ogden, Jordan and Tooele school districts. If approved this grant means that students and teachers will no longer be limited to text and still images. Instead they will have access a wide variety of video and multimedia content and interaction available via broadband connectivity.

The Washington County School District enjoys a productive and collaborative relationship with the Utah Education Network. I am confident of UEN's organizational and technical expertise to complete this much-needed project on time and within budget. I strongly urge you to approve the Utah Anchors Project. It will make a difference for thousands of Utah students in our district and elsewhere.

Sincerely

Max Rose
Superintendent

Marshall Topham, M.S.
Assist. Supt. Secondary Ed.

Rex Wilkey, M.Ed.
Assist. Supt. Elementary Ed.

Brent Bills, M.B.A.
Business Administrator

Lyle Cox, M.B.A.
Dir. Human Resources

Jim McKim, M.Ed.
Dir. Special Ed.

Larry Stephenson, M.Ed.
Dir. Career & Tech. Ed./Foundation

Brad Ferguson, Ph.D.
Dir. Assessment

N. Craig Hammer, M.Ed.
Dir. Physical Facilities

Richard Holmes, M.Ed.
Dir. Professional Development

LuAnne Forrest, Ed.D.
Dir. Student Services

JORDAN Ⓤ
SCHOOL DISTRICT

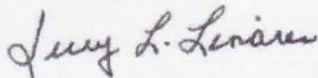| 7387 S. Campus View Drive | **Superintendent of Schools** |
West Jordan, Utah 84084	Barry L. Newbold, Ed.D.
www.jordandistrict.org	801-567-8323 Office
	801-567-8064 Fax
	barry.newbold@jordan.k12.ut.us

August 10, 2009

Dear Grant Review Committee:

The Jordan School District fully endorses the Utah Education Network's application for funding through the NTIA Broadband Technology opportunity program.

UEN's proposed Utah Anchors Project would upgrade Internet circuits in elementary and public charter schools here in the Jordan District where 17 of our 32 elementary schools now have slow T1 connections with bandwidth of just 1. 5 Mbit/s. Many T1's are saturated in that we depend on our network to deliver data, voice, video and other rich multimedia resources to our students and staff. The T1's have also limited our ability to fully adopt into a statewide computer based testing initiative which will support our continuing efforts to use meaningful data to better inform instruction in a timely manner. This project would increase their bandwidth more than 60 fold with 100 Mbit per second fiber optic connections. In our district alone, more than 14,000 students and educators would benefit from such upgrades.

UEN's proposal would also connect underserved elementary and public charter schools in the Ogden, Tooele and Washington school districts. If approved this grant means that students and teachers will no longer be limited to text and still images. Instead they will have access a wide variety of video and multimedia content and interaction available via broadband connectivity. This is crucial to the development of the skills and competencies required for a competitive 21st workforce.

The Jordan School District has long enjoyed a highly collaborative relationship with the Utah Education Network. I am confident of UEN's organizational and technical expertise to complete this much-needed project on time and within budget. Without hesitation I urge you to approve the Utah Anchors Project and bring the advantage of high speed broadband connections to the Utah students who need it most.

Sincerely,

Barry L. Newbold, Ed.D.
Superintendent

LEAD • EDUCATE • INSPIRE

OGDEN CITY SCHOOLS

1950 Monroe Boulevard
Ogden, UT 84401-0619
801.737.7300
www.ogdensd.org

August 12, 2009

Dear Grant Review Committee:

BOARD OF EDUCATION

- Don E. Belnap
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- Joyce Wilson
  VICE PRESIDENT

- Jeff L. Harris

- Rick Noorda

- Brad Smith

- Shane B. Story

- Jennifer Zundel

The Ogden City School District enthusiastically endorses the Utah Education Network's application for funding through the NTIA Broadband Technology opportunity program. UEN's proposed Utah Anchors Project would upgrade Internet circuits in elementary schools here in the Ogden City School District. Currently 13 of our 16 elementary school buildings have slow T1 connections with bandwidth of 1.5 Mbit/s.

This proposal would increase that bandwidth more than 60 times with 100 Mbit per second fiber optic connections. In our district alone, more than 7,500 students and educators would benefit from such upgrades.

UEN's proposal would also connect underserved elementary and public charter schools in Utah's Jordan, Tooele and Washington school districts. If approved this grant means that students and teachers will no longer be limited to text and still images. Instead they will have access a wide variety of video and multimedia content and interaction available via broadband connectivity.

The Ogden City School District enjoys a productive and collaborative relationship with the Utah Education Network. I am confident of UEN's organizational and technical expertise to complete this much-needed project on time and within budget. I strongly urge you to approve the Utah Anchors Project. It will bring the advantage of high speed broadband to our students and educators.

Sincerely,

Noel R. Zabriskie
Superintendent

Noel R. Zabriskie
SUPERINTENDENT

Eugene N. Hart
BUSINESS ADMINISTRATOR

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ADA Employer

LEARNINGDIVERSITYABILITYRESPONSIBILITY

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BOX ELDER SCHOOL DISTRICT

Dr. Steven O. Laing, Superintendent

August 12th, 2009

Dear Grant Review Committee:

The Box Elder County School District fully supports the Utah Education Network's application for funding through the NTIA Broadband Technology opportunity infrastructure program. UEN's proposed Utah Anchors Project would upgrade Internet circuits in several elementary schools, our district transportation center, and an early learning school in our District.

We have a mandate to administer online testing and currently do not have network capacity to accomplish this task. Likewise, to conserve funds, we are attempting to increase our connectivity so we can house our main servers at two locations for support and backup processing. This will reduce the need for individual servers in every school.

UEN's proposal would also connect underserved elementary and public charter schools in Utah's Cache, Ogden, Jordan and Tooele school districts. It will also help public libraries and head start centers which lack access to the Internet. If approved this grant means that students and teachers will no longer be limited to text and still images. Instead they will have access to a wide variety of video and multimedia content and interaction available via broadband connectivity.

The Box Elder School District enjoys a productive and collaborative relationship with the Utah Education Network. Because of our restricted options for communication providers, we would not be able to accomplish these improvements without UEN support.

I am confident of UEN's organizational and technical expertise to complete this much-needed project on time and within budget. I strongly urge you to approve the Utah Anchors Project. It will make a difference for thousands of Utah students in our district and elsewhere.

Sincerely,

Steven O. Laing
Superintendent

NORTHEASTERN UTAH EDUCATIONAL SERVICES (NUES)

All Students Achieving their Potential

EXECUTIVE DIRECTOR
PARKER K. MOSSMAN

BUSINESS MANAGER
DIXIE PARKS

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SOUTH SUMMIT

CHARLES NELSON
UINTAH

TERRY E. SHOEMAKER
WASATCH

August 10, 2009

Dear Grant Review Committee:

Northeastern Utah Educational Services (NUES) is one of Utah's four Regional Service Centers established to assist school districts in providing equitable and cost-effective services and programs for students in rural Utah to match those offered to students on Utah's urban Wasatch-front.

The Northeastern Utah Educational Services strongly supports Utah Education Network (UEN) in its application for funding for the Utah Anchors Project and the Content Outreach Support and Training (COST) Project through the NTIA Broadband Technology and Information Administration's Broadband Infrastructure (Track 1) and Sustainable Broadband Adoption (Track 3) programs, respectively.

A high priority of the Utah Anchors Project is to upgrade slow circuits in 95 elementary and public charter schools throughout the state. Their current T1 connections have a narrow bandwidth of 1.544 Mbit/s. If approved, the Anchor Project would increase their access by more than 64 times with 100 Mbit/s fiber optic technology in several elementary schools, 6 city libraries, and the Ute Indian Tribe Head Start program at Fort Duchesne in our service region. Student and teachers would no longer be limited to text and still images but could access the wide variety of video and multimedia content available via broadband.

The school districts in Northeastern Utah have long enjoyed a highly collaborative relationship with the Utah Education Network. I am confident of UEN's organizational and technical expertise to complete this much-needed project on time and within budget. Without hesitation I urge you to approve their grant request.

Funding from NTIA will enable innovative new activities that would not otherwise be possible. Without hesitation I urge you to approve the Utah Anchors Project and the COST Project to help our state meet the challenges of growth and change.

Sincerely,

Parker K. (Duke) Mossman
Executive Director

CACHE
County School District
Constructing Great Minds!

August 12, 2009

Dear Grant Review Committee:

The Cache County School District fully supports the Utah Education Network's application for funding through the NTIA Broadband Technology opportunity infrastructure program. UEN's proposed Utah Anchors Project would install Internet circuits to two (2) elementary schools in our district.

UEN's proposal would also connect underserved elementary and public charter schools in Utah's Cache, Ogden, Jordan and Tooele school districts. It will also help public libraries and head start centers which lack access to the Internet. If approved this grant means that students and teachers will no longer be limited to text and still images. Instead they will have access a wide variety of video and multimedia content and interaction available via broadband connectivity.

The Cache County School District enjoys a productive and collaborative relationship with the Utah Education Network. I am confident of UEN's organizational and technical expertise to complete this much-needed project on time and within budget. I strongly urge you to approve the Utah Anchors Project. It will make a difference for thousands of Utah students in our district and elsewhere.

Sincerely,

Steven C. Norton,
Superintendent of Schools

SCN:cw

Governor's Office of Planning and Budget

JOHN E. NIXON, C.P.A.
Executive Director

PHILLIP JEFFERY
Deputy Director

State of Utah

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

August 5, 2009

Boyd Garriott
Utah Education Network

Boyd,

Due to the economic downturn that we have experienced in Utah, the funding for the internet upgrades at elementary and charter schools has been cut. Until a time that the economy recovers, it is unlikely that funding will be restored in the foreseeable future.

Sincerely,

Carson Howell

Carson Howell
Budget and Policy Analyst
Governor's Office of Planning and Budget

Question 50.
Financial Assumptions

Please provide a table(s) that lists all assumptions used to produce the financials and a brief explanation of why each assumption is reasonable for your business case.

Historical Information FY 08 (July 1 2007 - June 30 2008) : based on audited financial statements

Historical Information FY 09 (July 1 2008 - June 30 2009) : based on unaudited financial statements: accruals.
UEN operates on the cash basis and manually adjust for accruals. Some accruals were estimated.

Revenues

Revenues	2008	2009	2010	2011	2012	2013	2014
	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14
Universal Service Fund	$ 8,506,180	$ 8,569,620	$ 10,817,475	$ 10,817,475	$ 10,817,475	$ 9,877,952	$ 9,877,952
Other Operating Revenues	$ 64,180	$ 56,326	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000
Other Revenues	$ 35,557,376	$ 35,690,061	$ 39,627,800	$ 37,694,400	$ 35,209,600	$ 34,390,000	$ 34,390,000
Total Revenues	$ 44,127,736	$ 44,316,007	$ 50,495,275	$ 48,561,875	$ 46,077,075	$ 44,317,952	$ 44,317,952

Universal Service fund was based on Utah's State wide average discount of 68%

			2010	2011	2012	2013	2014
			FY 10	FY 11	FY 12	FY 13	FY 14
On-going Universal service funds			8,500,000	8,500,000	8,500,000	8,500,000	8,500,000
MRC annual charge	2,026,400	0.68	1,377,952	1,377,952	1,377,952	1,377,952	1,377,952
One time infrastructure ($4,144,957) amortized over 3 years	1,381,652	0.68	939,524	939,524	939,524		
Universal Service Fund			10,817,475	10,817,475	10,817,475	9,877,952	9,877,952

	2008	2009	2010	2011	2012	2013	2014
-	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14
Other Revenues	$ 35,557,376	$ 35,690,061	$ 35,690,000	$ 35,690,000	$ 35,690,000	$ 35,690,000	$ 35,690,000
State appropriation cut			(1,800,000)	(3,300,000)	(3,300,000)	(1,300,000)	(1,300,000)
BTOP support $13,861,800							
Infrastructure completion			4,969,638	4,969,600	2,484,800	-	-
Personnel support for project			334,800	334,800	334,800		
Grant preparation expenses			61,998				
Facilities and Admin (overhead)			371,364				
Other Revenues			39,627,800	37,694,400	35,209,600	34,390,000	34,390,000

13,861,800

In FY 2010 UEN experienced an $3.3 million cut in on-going state appropriations. The cut was backfilled with $1.5 million
in backfill. In FY 2011 UEN will be assessed an additional $1.5 million. UEN assumed some of the cut being restored in FY 2013 and FY 2014.
Total BTOP support is $13,861,800, will be received over a 3 year period. Approx 85% of the funds would be received in the first 2 years of the project.

BTOP : revenue and expenses are calculated in the same FY .

Expenses

Expenses	2008	2009	2010	2011	2012	2013	2014	BTOP PROJECT
	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	
Network Maintenance/Monitoring	9,594,021	9,522,995	9,918,500	9,918,500	9,918,500	9,500,000	9,500,000	
Leasing	11,785,755	13,078,126	21,238,400	21,238,400	18,132,400	15,026,400	15,026,400	
Corporate G&A	1,652,821	1,694,142	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	
Other Operating Expense	17,044,330	16,903,939	17,541,702	17,000,000	17,000,000	17,000,000	17,000,000	
Depreciation	1,578,249	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	
Total	41,655,176	42,699,202	51,898,602	51,356,900	48,250,900	44,726,400	44,726,400	
Network Maintenance/Monitoring			9,500,000	9,500,000	9,500,000	9,500,000	9,500,000	
BTOP - Personnel cost for project			418,500	418,500	418,500			1,255,500
Network Maintenance/Monitoring			9,918,500	9,918,500	9,918,500	9,500,000	9,500,000	
Leasing			13,000,000	13,000,000	13,000,000	13,000,000	13,000,000	
MRC for leased circuit			2,026,400	2,026,400	2,026,400	2,026,400	2,026,400	
BTOP Capital Lease infrastructure			6,212,000	6,212,000	3,106,000			15,530,000
Leasing			21,238,400	21,238,400	18,132,400	15,026,400	15,026,400	
Other Operating Expense			17,000,000	17,000,000	17,000,000	17,000,000	17,000,000	
BTOP - Grant preparation			77,497					77,497
BTOP - Facilities & Administration			464,205					464,205
Other Operating Expense			17,541,702	17,000,000	17,000,000	17,000,000	17,000,000	17,327,202

Summary of BTOP expenses			CASH MATCH	NTIA	TOTAL PROJECT
BTOP - Personnel cost for project			251,100	1,004,400	1,255,500
BTOP Capital Lease infrastructure			3,106,000	12,424,000	15,530,000
BTOP - Grant preparation			15,499	62,000	77,499
BTOP - Facilities & Administration			92,841	371,400	464,241
TOTAL			3,465,440	13,861,800	17,327,240

Instructions: Using the table below, please estimate the number of subscribers for each distinct type of service offering on a quarterly basis over the five year forecast period. Combine all service pricing tiers of broadband data services into a single service offering. The subscriber projections must be described separately by the type of services offered, and by type of entity (households, businesses, "strategic institutions" i.e., critical community facilities, community anchor institutions, and public safety entities) to which services are offered. For last mile subscribers, please also provide, on a separate sheet, your estimated take rate (the percentage of total customers passed who will subscribe to your service), along with a brief description of the methodology used to forecast these subscribers/take rates. Middle mile applicants should indicate their subscriber forecasts in terms of the entities served via the last mile service providers, community anchor institutions, or public safety entities that are connected to their middle mile network. Middle mile applicants should also provide a reasoned basis for these subscriber forecasts (e.g., agreements in principle with existing or planned last mile service providers, market studies, etc).

Strategic Institution	YEAR 0	YEAR 1				YEAR 2				YEAR 3				YEAR 4					
Service Type #1		Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Q
Net add-ons					25	25	25	25	10	10	10								
Cumulative subscribers					185,400	370,800	556,200	741,600	815,700	889,800	963,900								
Service Type #2																			
Net add-ons																			
Cumulative subscribers																			
Service Type #3																			
Net add-ons																			
Cumulative subscribers																			

UEN has made these user projections in accordance to the project plan submitted with this NTIA BTOP grant.
The number of institutions served and subscribers is based on actual student and teacher/faculty enrollment and number of eligible public library patrons.   This information was provided to us by the Utah State Office of Education and the Utah State Libraries Division. UEN has existing contracts with our service providers and E-rate approvals for the first 63 projects. Given our experience in implementing broadband Ethernet, we formed the estimates above.

Item 20: UEN NTIA BTOP Middle Mile Project

Service Offering	Distance Band or Point to Point	Minimum Peak Load Network Bandwidth Capacity (Mbps)	Monthly/Yearly Pricing ($)	Use Restrictions
Qwest Geomax Optical Gigabit Ethernet	Elementary schools for Box Elder, Cache, Jordan, Morgan, Ogden, Tooele, and Washington School Districts from Qwest Central Office location to the school	1000MB	$1,250 per month	Leased Circuit from common carrier. Can be used at the elementary schools.
Qwest Metro over Ethernet (MOE) 100MB	Charter Schools, Public Libraries Salt Lake CAP Head Start	100MB	$1,075 per month*	Leased Circuit from common carrier. Can be used at the charter school, public library and head start center.
Qwest Metro over Ethernet (MOE) 10 MB	Centro De Familia Head Start Ogden Weber Community Partnership Head Start	10MB	$550 per month*	Leased Circuit from common carrier. Can be used at the head start center.
Frontier Communications	Public Libraries in Delta, Filmore, Blanding, Monticello	100MB	$1,250 per month	Leased Circuit from common carrier. Can be used the public library.
Emery Telcom	Rural Utah Child Development Head Start Program (Wellington)	2MB DSL	$250 per month*	Leased Circuit from common carrier. Will be available for use at the head start center.
Strata Networks (UBTA-UBET)	UTE Indian Tribe Head Start Fort Duchesne, Utah	2MB DSL	$428.78*	Leased Circuit from common carrier. Will be available for use at the head start center.
South Central Communications Gigabit Ethernet (1000MB)	SUU Head Start	1000MB	$1,200*	Leased Circuit from common carrier.
Broadweave Networks Gigabit Ethernet (1000MB)	Mountainland Head Start	100MB	$500*	Leased Circuit from common carrier.

*Note: Head Start Programs qualify for 90% E-rate discount for service

Utah Education Network

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SCOTT LARSEN

DANIEL MILLS

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ALLEN FOX

PETER HOOGENBOOM

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TSSC LOGISTICS

DAVE MAW

BRAD MILLER

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BERTRAM KUNDERT

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ANN HOWDEN
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MITCHELL JORGENSEN
COMPUTER PROFESSIONAL

TIM STACK
COMPUTER PROFESSIONAL

August 12, 2009

Assistant Secretary
National Telecommunications &
      Information Administration
      U.S. Department of Commerce
Washington, D.C. 20230

    Re: Application by the Utah Education Network

Dear Sir or Madame:

This office serves as general counsel for the University of Utah, a body politic and
corporate of the State of Utah. The University of Utah is administrator of the Utah
Education Network, an operating unit of the University of Utah ("Applicant"). In such
capacity, we have acted as counsel to the Applicant in connection with its ability to apply
to the Broadband Technology Opportunities Program and in the review of the grant
agreement, as referenced in the Notice of Funds Availability.

We are of the opinion that:

    (a)   the Applicant is a duly organized and existing legal entity under the laws
of the State of Utah.

    (b)   the Applicant has corporate power: (1) to execute and deliver the grant
agreement; and (2) to perform all acts required to be done by it under said
agreement.

    (c)   no legal proceedings have been instituted or are pending against the
Applicant, the outcome of which would adversely affect the Applicant's ability to
perform the duties under the grant agreement, and there are no judgments against
the Applicant which would adversely affect the Applicant's ability to perform the
duties under the grant agreement.

                                          Very truly yours,

                                          Phyllis J. Vetter
                                          Associate General Counsel

U.S. DEPARTMENT OF COMMERCE

CERTIFICATION REGARDING LOBBYING

Applicants should also review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 15 CFR Part 28, "New Restrictions on Lobbying." The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Commerce determines to award the covered transaction, grant, or cooperative agreement.

LOBBYING

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 15 CFR Part 28, for persons entering into a grant, cooperative agreement or contract over $100,000 or a loan or loan guarantee over $150,000 as defined at 15 CFR Part 28, Sections 28.105 and 28.110, the applicant certifies that to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in conncection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying." in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into.

Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure occurring on or before October 23, 1996, and of not less than $11,000 and not more than $110,000 for each such failure occurring after October 23, 1996.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure occurring on or before October 23, 1996, and of not less than $11,000 and not more than $110,000 for each such failure occurring after October 23, 1996.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above applicable certification.

NAME OF APPLICANT	AWARD NUMBER AND/OR PROJECT NAME
UNIVERSITY of UTAH	NTIA BTOP INFRASTRUCTURE

PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE
BRENT K. BROWN, ESQ.
DIRECTOR
OFFICE OF SPONSORED PROJECTS

SIGNATURE	DATE
	AUG 1 2 2009

2009 UEN NTIA BTOP Site List   User Counts

Count	District	School	City	Vendor	Student Enrollment	Faculty and Staff
1	Box Elder	Bunderson Elementary	Brigham City	Qwest	387	26
1	Box Elder	Discovery Elementary	Brigham City	Qwest	513	41
1	Box Elder	Foothill Elementary	Brigham City	Qwest	362	44
1	Box Elder	Lake View Elementary	Brigham City	Qwest	373	31
1	Box Elder	Mountain View Elementary	Brigham City	Qwest	268	23
1	Box Elder	District Tranportation Building	Brigham City	Qwest	N/A	108
				Totals	1,903	273
1	Box Elder	Corrine Early Learning Center	Corrine	Qwest	175	26
1	Box Elder	Three Mile Creek Elementary	Perry	Qwest	584	43
1	Box Elder	Willard Elementary	Willard	Qwest	301	22
			District Total		2,963	364
1	Cache	Nibley Elementary School	Nibley	Qwest	577	45
1	Cache	Smithfield Elementary School	Smithfield	Qwest	621	40
			District Total		1,198	85
1	Jordan	Bluffdale Elementary	Bluffdale	Qwest	883	50
1	Jordan	Herriman Elementary	Herriman	Qwest	1,035	60
1	Jordan	Jordan Valley School	Midvale	Qwest	261	54
1	Jordan	Midas Creek	Riverton	Qwest	937	50
1	Jordan	Rose Creek Elementary	Riverton	Qwest	953	50
				Totals	1,890	100
1	Jordan	Elk Meadows Elementary	South Jordan	Qwest	983	65
1	Jordan	Monte Vista Elementary	South Jordan	Qwest	1,071	57
1	Jordan	Welby Elementary	South Jordan	Qwest	1,131	58
				Totals	3,185	180
1	Jordan	Columbia Elementary	West Jordan	Qwest	814	60
1	Jordan	Hayden Peak Elementary	West Jordan	Qwest	1,247	70
1	Jordan	Jordan Hills Elementary	West Jordan	Qwest	1,065	63
1	Jordan	Mountain Shadows Elem	West Jordan	Qwest	966	55
1	Jordan	Oquirrh Elementary	West Jordan	Qwest	816	46
1	Jordan	Riverside Elementary	West Jordan	Qwest	763	40
1	Jordan	Terra Linda Elementary	West Jordan	Qwest	655	36
1	Jordan	West Jordan Elementary	West Jordan	Qwest	598	35
1	Jordan	Westland Elementary	West Jordan	Qwest	644	35
1	Jordan	Westvale Elementary	West Jordan	Qwest	806	46
				Totals	8,374	486
			District Total		15,628	930
1	Morgan	Mt. Green Elementary School	Morgan	Qwest	352	33
			District Total		352	33
1	Ogden	Bonneville Elementary	Ogden	Qwest	471	30
1	Ogden	Dee Elementary	Ogden	Qwest	432	30
1	Ogden	Gramercy Elementary	Ogden	Qwest	524	32
1	Ogden	Hillcrest Elementary	Ogden	Qwest	661	33
1	Ogden	Horace Mann Elementary	Ogden	Qwest	433	29
1	Ogden	James Madison	Ogden	Qwest	619	38
1	Ogden	Lincoln Elementary	Ogden	Qwest	604	34
1	Ogden	Polk Elementary	Ogden	Qwest	509	32
1	Ogden	Thomas O. Smith Elementary	Ogden	Qwest	508	29
1	Ogden	Wasatch Elementary	Ogden	Qwest	351	22
			District Total		5,112	309
1	Tooele	Willow Elementary	Grantsville	Qwest	571	35
1	Tooele	Rose Springs Elementary	Stansbury Park	Qwest	784	45
1	Tooele	Adult Education Center	Tooele	Qwest	509	10
1	Tooele	District Early Learning Center	Tooele	Qwest	50	4
1	Tooele	East Elementary	Tooele	Qwest	681	40
1	Tooele	Northlake Elementary	Tooele	Qwest	649	48
1	Tooele	West Elementary	Tooele	Qwest	737	44
				Totals	2,626	146
			District Total		3,981	226

1	Washington	Red Mountain Elementary	Ivins	Qwest	592	40
1	Washington	LaVerkin Elementary	LaVerkin	Qwest	640	40
1	Washington	Arrowhead Elementary	Santa Clara	Qwest	625	38
1	Washington	Santa Clara Elementary	Santa Clara	Qwest	544	38
				Totals	1,169	76
1	Washington	Coral Cliffs Elementary	St George	Qwest	607	44
1	Washington	Diamond Valley Elementary	St George	Qwest	355	27
1	Washington	Dixie Downs Elementary	St George	Qwest	560	39
1	Washington	Sandstone Elementary	St George	Qwest	593	41
1	Washington	Sunset Elementary	St George	Qwest	628	45
1	Washington	East Elementary	St. George	Qwest	658	45
1	Washington	Heritage Elementary	St. George	Qwest	446	35
				Totals	3,847	276
1	Washington	Coral Canyon Elementary	Washington	Qwest	633	39
1	Washington	Horizon Elementary	Washington	Qwest	546	35
1	Washington	Riverside Elementary	Washington	Qwest	655	44
1	Washington	Washington Elementary	Washington	Qwest	457	39
62				Totals	2,291	157

District Total		8,539	589

Elementary Totals		37,773	2,536

2009 UEN NTIA BTOP Site List

Count	School	Address	City	Vendor	Student Enrollment	Faculty and Staff
1	Amer. Prep Academy	12892 South Pony Express Road	Draper	Qwest	538	35
1	Excelsior Academy	124 E Erda Way Rd.	Erda	Qwest	459	34
1	Oquirrh Mountain Charter School	1425 S. Angel St.	Kaysville	Qwest	459	34
1	Utah Virtual Academy K-12	4956 West 6200 South	Kearns	Qwest	459	34
1	North Davis Preparatory Academy K-9	1765 W Hill Field Road,	Layton	Qwest	511	40
1	Karl Maeser Preparatory Academy 9-12	532 North State Street	Lindon	Qwest	161	15
1	Timpanogos Academy K-8	55 S Titan Trail (100 East)	Lindon	Qwest	477	35
			Totals	Qwest	638	50
1	Bear River Charter School	1243 Sumac Drive	Logan	Qwest	459	34
1	Wasatch Peak Academy K-6	414 N Cutler Drive,	No Salt Lake	Qwest	347	25
1	Ogden Preparatory Academy K-4	2221 Grant Avenue,	Ogden	Qwest	283	35
1	Utah County Academy of Sciences 10-12	940 West 800 South	Orem	Qwest	332	18
1	Noah Webster Academy K-6	205 East 400 South,	Orem	Qwest	500	33
			Totals	Qwest	832	51
1	John Hancock School K-8	125 North 100 East	Pleasant Grove	Qwest	180	20
1	Lincoln Academy K-9	1582 West 3300 North	Pleasant Grove	Qwest	542	35
			Totals	Qwest	722	55
1	Freedom Academy K-7	1958 South 950 East,	Provo	Qwest	648	45
1	Liberty Academy K-12	1195 S. Elk Ridge Road	Salem	Qwest	292	25
1	Canyon Rim Academy K-6	3005 South 2900 East	Salt Lake City	Qwest	451	28
1	Dual Immersion Academy K-6	1155 South Glendale Dr.	Salt Lake City	Qwest	346	25
1	Guadalupe Schools K-3	340 S. Goshen Street	Salt Lake City	Qwest	93	8
1	Open Classsroom K-8	134 D Street,	Salt Lake City	Qwest	309	25
1	Salt Lake Ctr for Science Education 6-9	1440 West Goodwin Ave (1145N),	Salt Lake City	Qwest	220	20
			Totals	Qwest	1419	106
1	Lakeview Academy K-9	527 West 400 North	Saratoga Springs	Qwest	709	50
1	George Washington Academy	2277 South 3000 East	St. George	Qwest	464	33
1	Syracuse Arts Academy K-6	2893 W 1700 S (Antelope Drive),	Syracuse	Qwest	529	35
1	Quest Academy K-9	4812 W 4000 S,	West Haven	Qwest	459	34
1	Hawthorn Academy	9062 South 2200 West	West Jordan	Qwest	459	34
26	Total					

	Charter School Totals			Student Enrollment	Faculty and Staff
				10,686	789

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2009 UEN NTIA BTOP Site List

Count	Public Library	Address	City	Vendor	Population (2008)
1	Beaver City Library	55 W Center Street	Beaver	Qwest	2,597
1	Bountiful Library	725 S Main	Bountiful	Qwest	42,190
1	Brigham City Carnegie Library	26 E Forest	Brigham City	Qwest	18,709
1	Cedar City Public Lib. in the Park	303 N 100 E	Cedar City	Qwest	28,667
1	Centerville Library	45 S 400 W	Centerville	Qwest	42,190
1	Clearfield Library	562 S 1000 E	Clearfield	Qwest	42,190
1	Davis County Library - Farmington	38 S 100 E	Farmington	Qwest	42,190
1	Delta City Library	76 N. 200 W.	Delta	Frontier	5,266
1	Highland City Library	5400 W Civic Center Dr, Suite 2	Highland	Qwest	16,189
1	Hurricane Library	36 S 300 W	Hurricane	Qwest	27,517
1	Hyrum Library	50 W. Main	Hyrum	Qwest	17,130
1	Iron County Bookmobile Repository Library	4763 N Santa Fe Trail	Cedar City	Qwest	28,667
1	Kaysville Library	44 N Main	Kaysville	Qwest	42,190
1	Layton Library	155 N Wasatch	Layton	Qwest	42,190
1	Lehi City Public Library	120 N Center St	Lehi	Qwest	46,802
1	Logan Library	255 N Main	Logan	Qwest	48,657
1	Monticello Library	80 N Main	Monticello	Frontier	2,018
1	Morgan County Library	PO Box 600	Morgan	Qwest	8,669
1	Murray Public Library	166 E 5300 S	Murray	Qwest	46,201
1	New Harmony Library	34 S 2900 E	New Harmony	Qwest	27,517
1	Orem Public Library	58 N State	Orem	Qwest	93,250
1	Park City Library	1255 Park Ave	Park City	Qwest	7,980
1	Parowan Public Library	16 S Main	Parowan	Qwest	2,624
1	Payson City Library	66 S Main St	Payson	Qwest	17,429
1	Pleasant Grove Library	30 E Center	Pleasant Grove	Qwest	33,798
1	President Millard Fillmore Library	25 S 100 W	Filmore	Frontier	2,136
1	Richfield Public Library	83 E Center	Richfield	Qwest	7,217
1	Salina Public Library	90 W Main St	Salina	Qwest	4,179
1	Blanding (San Juan County Bookmobile Repository Library)	25 W 300 S	Blanding	Frontier	3,290
1	Springdale Library	126 Lion Blvd	Springdale	Qwest	27,517
1	Syracuse Library	1875 S 2000 W	Syracuse	Qwest	42,190
1	Tooele City Public Library	128 W Vine St	Tooele City	Qwest	9,049
1	Tooele County Bookmobile Repository Library	429 E Main	Tooele City	Qwest	30,120
1	Wasatch County Library	465 E 1200 S	Heber	Qwest	21,066
1	Washington Library	220 N 300 E	Washington	Qwest	27,517
		Source: State of Utah Library Division	Library Populations	Totals	907,108

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Name	Entity Number	Location	City	Zip	Urban/Rural	Total Students(8)	Vendor	Stand Alone or Shared Facility?
CENTRO DE LA FAMILIA DE UTAH MIGRANT HEAD START GRANTEE SCHOOL DISTRICT OFFICE (BEN)	16049485	3780 South West Temple	Salt Lake City	84115	Urban	526	Qwest	Stand Alone
MOUNTAINLAND HEAD START GRANTEE SCHOOL DISTRICT OFFICE (BEN)	16049644	264 West 300 North	Provo	84601	Urban	817	Broadweave	Free standing
OGDEN-WEBER COMMUNITY ACTION PARTNERSHIP HEAD START GRANTEE SCHOOL DISTRICT OFFICE (BEN)	16049500	3159 Grant Avenue	Ogden	84401	Urban	703	Qwest	component
RURAL UTAH CHILD DEVELOPMENT HEAD START GRANTEE SCHOOL DISTRICT OFFICE (BEN)	16049525	150 A West Main Street	Wellington	84542	Rural	434	Emery Telecom	stand alone
SALT LAKE COMMUNITY ACTION PARTNERSHIP HEAD START GRANTEE SCHOOL DISTRICT OFFICE (BEN)	16049286	764 South 200 West	Salt Lake City	84101	Urban	1,923	Qwest	head start admin, shared
SUU HEAD START GRANTEE SCHOOL DISTRICT OFFICE (BEN)	16049558	2390 West Hwy. 56, Suite 1	Cedar City	84720	Rural	408	South Central	Stand Alone
UTE INDIAN TRIBE HEAD START GRANTEE SCHOOL DISTRICT OFFICE (BEN)	16049431	938 South 500 East	Fort Duchesne	84026	Rural	193	Strata Networks	Stand Alone

Total	5,004