Draft Pending Approval

Public Schools of North Carolina
State Board of Education
Department of Public Instruction

Report to the North Carolina General Assembly

School Connectivity Initiative

SL 2007-323 (HB 1473), SECTION 7.28.(d)

Date Due: January 15, 2019
Report # 67
DPI Chronological Schedule, 2018-2019

Submitted by the State Board of Education.

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SCHOOL CONNECTIVITY INITIATIVE

Legislative Update

Submitted to:

Joint Legislative Oversight Committee on Information Technology
Joint Legislative Education Oversight Committee
Office of State Budget and Management
State Chief Information Officer
Fiscal Research Division

Prepared by

Connectivity and E-rate Services Section
Technology Services Area
North Carolina Department of Public Instruction
Supported by *The Friday Institute at NC State University*

FOREWORD

The School Connectivity Initiative (SCI) was created by *Session Law 2007-323 SECTION 7.28.(d)* as follows:

> *SECTION 7.28.(b) As recommended in the Joint Report on Information Technology, February 2007, the State Board of Education shall contract with an entity that has the capacity of serving as the administrator of the School Connectivity Initiative and has demonstrated success in providing network services to education institutions in the State. The funds appropriated in this act shall be used to implement a plan approved by the State Board of Education to enhance the technology infrastructure for public schools that supports teaching and learning in the classrooms. The plan shall include the following components:*
>
> *(1) A business plan with timelines, clearly defined outcomes and an operational model including a governance structure, personnel, E-rate reimbursement, support services to LEA's and schools and budget;*
> *(2) Assurances for a fair and open bidding and contracting process;*
> *(3) Technology assessment site survey template;*
> *(4) Documentation of how the technology will be used to enhance teaching in learning;*
> *(5) Documentation of how existing State-invested funds for technology are maximized to implement the school connectivity initiative;*
> *(6) The number, location and schedule of sites to be served in 2007-2008 and in 2008-2009; and*
> *(7) Assurances that local school administrative units will upgrade internal networks in schools, provide technology tools, and support for teachers and students to use technology to improve teaching and learning.*

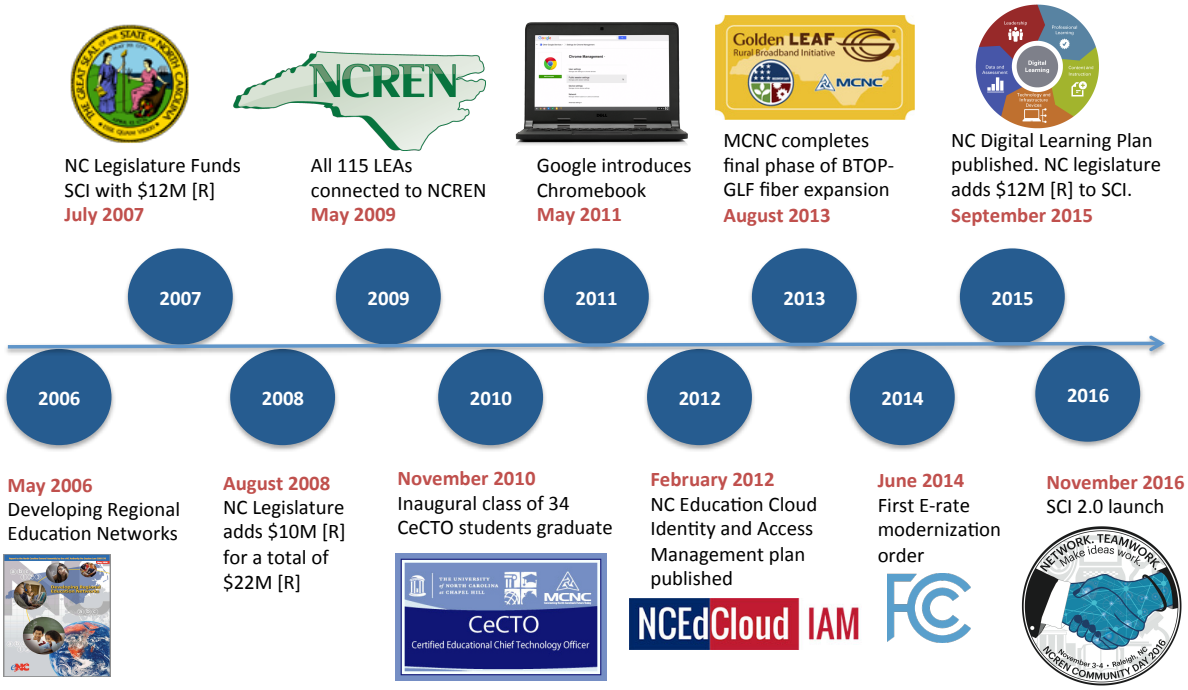
The NC State Board of Education approved the School Connectivity Initiative *Implementation and Operating Plan* on Thursday, August 2, 2007. The SCI program was managed through the NC ITS Enterprise Project Management Office supervising projects that gained initial EPMO approval in September 2007. Within the *Implementation and Operating Plan* were the following deliverables, all of which were completed in 2009:

- All 115 Local Education Agencies (LEAs) connected to MCNC's North Carolina Research and Education Network (NCREN)
- Establishment of Client Network Engineering Services for LEAs
- Establishment of E-rate Filing Assistance Bureau
- Development of a Technology Master Plan
- Development of Governance and Funding Plans

Each year since the inception of the SCI program, the State Board of Education and the Department of Public Instruction produces a School Connectivity Initiative Report that summarizes the fiscal and functional performance of the program and provides insights into the work of the coming year.

BACKGROUND

The School Connectivity Initiative launched in earnest with the publication of the *Developing Regional Education Networks* report in May 2006. In the twelve years since the inception of the SCI program, NC public schools have procured over $1B in network services and infrastructure with State appropriations over $247M leveraged against $773M in federal communications commission (FCC) E-rate discount funding. During the twelve-year stretch, the telecommunications and computing markets have shifted dramatically, the regulatory environment has been in near constant flux, and the NC legislature has called for and invested in a digital transition in public schools. Perhaps most impressively, NC public schools contracted Internet usage has grown from about 1000 Megabits per second (Mbps) in 2009 to over 290,000 Megabits per second at the writing of this report – with a similar growth forecast for the foreseeable future.



As illustrated by the timeline above, the SCI program has exhibited extraordinary productivity and opportunistic adaptability over its twelve-year history. Just a few highlights include: connecting all LEAs to the NC Research and Education Network using an opt-in approach; establishing the Certified Educational Chief Technology Officer (CeCTO) training program; developing, designing and implementing the NCEdCloud identity and access management (IAM) service; partnering with MCNC and the Golden Leaf Foundation to bring competitive fiber connectivity to rural NC schools and libraries; and, adapting to the NC Digital Learning Plan, the FCC E-rate modernization order, and the growth of 1:1 programs fueled by the release of inexpensive computing devices. While the SCI team has accomplished much in its first decade, the team continues to adapt and innovate.

The balance of this report provides a summary of 2018 accomplishments, a financial summary, capacity and usage summary, considerations for 2019, and appendices containing detailed supporting data.

EXECUTIVE SUMMARY

The School Connectivity Initiative (SCI) continues to deliver high quality Internet access, client network engineering, identity and cybersecurity services, E-rate support and funding that benefit all NC public schools. Pursuant to the Appropriations Act of 2015 (S.L. 2015-241), the 2017-18 SCI budget is $31.2M. Major calendar year 2018 SCI accomplishments include:

- Upgraded Internet access to 25 LEAs and 21 charter schools – adding over 46 Gbps of aggregate Internet capacity;
- Connected 12 new charter schools to the NC Research and Education Network (NCREN);
- Provided firewall services to 77 LEAs and 112 charter schools[1];
- Provided web security (Internet filtering) services to 89 LEAs and 118 charter schools[2];
- Supported 54 LEAs and 57 charter schools with client network engineering (CNE) support services, through 165 total CNE engagements (86 LEA and 79 charter school);
- Conducted a CompTIA Security+ certification training course for public K-12 network administrators (24 participants) in 2018 that provided foundational knowledge regarding best practices in IT security and risk management.

<u>FCC Chairman Pai Visits Graham Highschool</u>
In May 2018, the FCC Chairman Ajit Pai visited Graham High School in Alamance to recognize North Carolina's recent technological achievement. Our state was the first to provide broadband access in every single classroom. "As we enter a digital economy we want our students to be able have the tools necessary to compete and, increasingly, that means access to the internet," Pai said. Joining Pai was Lt. Gov. Dan Forest; State Superintendent Mark Johnson; Alamance-Burlington Superintendent William Harrison; Rep. Stephen Ross, R-Alamance; Sen. Rick Gunn, R-Alamance, and Rep. Dennis Riddell, R-Alamance.

<u>Client Network Engineering Team Recognized by NCTIES</u>
The North Carolina Technology in Education Society (NCTIES) recognized Dave Furiness of MCNC and the Client Network Engineering (CNE) team that he leads with a *Making IT Happen* award at that annual NCTIES conference in March 2018 hosted at the Raleigh Convention Center.

[1] Includes education services for the deaf and blind (ESDB) schools in Raleigh, Wilson, and Morganton.
[2] Includes ESDB schools in Raleigh, Wilson, and Morganton.

PERFORMANCE OVERVIEW

Financial Summary

For 2018 the School Connectivity Initiative is a $98M program supported with legislative funding of $31.2M leveraged against FCC E-rate program reimbursements in excess of $63M. The table below summarizes SCI costs and related State funding and expected FCC E-rate reimbursements.

	Total Cost	E-rate Share	State Share
Category 1 School Fiber Connections (WAN)	$34.8M	$26.3M	$8.5M
Category 1 Consortium Internet	$21.1M	$16.4M	$4.8M
Category 2 Classroom Connections (Wi-Fi)	$31.0M	$20.9M	$10.0M
E-rate Eligible Totals	**$86.9M**	**$63.6M**	**$23.3M**
Identity and Access Management	$1.5M	Not eligible	$1.5M
Client Network Engineering	$1.8M	Not eligible	$1.8M
Program Administration – NCDPI, FFL, FI	$0.9M	Not eligible	$0.9M
Firewall Services	$2.0M	Not eligible	$2.0M
Content Filtering Services	$5.2M	Not eligible	$5.2M
Non E-rate Eligible Totals	**$11.4M**	**Not eligible**	**$11.4M**
Grand Totals	**$98.3M**	**$63.6M**	**$34.7M**

Most SCI expenditures are eligible for FCC E-rate discounts. E-rate eligible expenses are grouped into Category 1 and Category 2. Category 1 expenses include high-speed fiber optic[3] connections to schools and districts and Internet bandwidth charges. Category 2 expenses include wireless and wired infrastructure and services deployed inside schools to connect classrooms to the Internet. For 2018, total E-rate eligible expenses are nearly $87M with E-rate discounts of $63.6M, leaving a State share of $23.3M. Total cost is slightly higher than 2017, primarily due to growth in Internet bandwidth. It is also notable that all telephony expenses are no longer E-rate eligible. The $11.4M balance of SCI expenses comprises non-E-rate eligible services including identity and access management, client network engineering support, program administration, firewall services, and content filtering services.

[3] 99.9% of the 2694 schools in North Carolina are connected via fiber optic connection – only 4 schools are connected via a high-speed wireless solution.

Specifically, SCI program expenses include the following:

1. Category 1 School Fiber Connections – Most LEAs contract with private providers to connect their schools into a district wide area network (WAN) via high-speed fiber optic connections[4]. Private providers include Spectrum, AT&T, CenturyLink, Broadplex, Conterra, and others. These school connections are eligible for FCC E-rate discounts of up to 90%. The SCI provides support and training in acquiring school connections and provides funding allotments to cover the non-discount share of costs to all NC LEAs. NCDPI calculates allocations based on actual contracts and invoices and delivers funding via PRC 073. Since the inception of the SCI, funding totals have remained in the $8M to $10M range – even with substantial upgrades to school bandwidth and services each year. In 2018, the State share of school connections costs is $8.5M.

2. Category 1 Consortium School Internet – Core to the SCI is that all NC LEAs and charter schools have access to reliable high-speed Internet access via the NC Research and Education Network (NCREN) managed by MCNC – the same network that provides Internet access to the UNC system universities, NC community colleges, most NC private colleges and universities, and all of State government. Internet connections are monitored and upgraded on demand as usage exceeds 60% of available capacity. Charter schools have the option of either receiving a per ADM allotment via PRC 036[5] or receiving State-funded Internet access. For 2018, the SCI program filed E-rate procurement documents for $21M in aggregate Internet access and connectivity – with 78% discounted through E-rate, leaving a State share of $4.8M.

3. Category 2 Classroom Connections – In Spring of 2018, NC LEAs and charter schools procured $31M in classroom connectivity infrastructure and services; 94% of those procurements used contracts established by NCDPI. The SCI provides support and training in acquiring internal school infrastructure and provides funding allotments to cover the non-discount share of costs to participating LEAs and charter schools. NCDPI calculates allocations based on actual contracts and invoices and delivers funding via PRC 073 to LEAs and PRC 036 to charter schools – for 2018, the total State contribution is calculated to be $10M.

4. Identity and Access Management – The 2015 appropriations act expanded the SCI budget by $12M annually effective FY2016-17. Identity and access management (IAM) services are included in the expansion budget. *NCEdCloud IAM* services provide for a single user ID and password for students, faculty and staff to access network accessible content. IAM services automate the provisioning and management of nearly 2.5 million user accounts and the integration of those accounts with cloud-based applications and services. NCDPI manages the NCEdCloud IAM service, including a $1.5M per year contract with an identity services provider. The NCEdCloud IAM service processes on the order of a million logins per day. The NC Department of IT is in the process of a competitive procurement that will replace the State identity solution (NCID), and that may replace or otherwise expand the NCEdCloud IAM implementation.

5. Client Network Engineering (CNE) – MCNC provides CNE services under contract to NCDPI. LEAs and charter schools engage MCNC for high-level troubleshooting, network design consultation, and related training services. NCDPI also engages MCNC directly through the

[4] A dozen NC LEAs connect schools via fiber that is owned and managed by either the school system or a community collaborative. SCI provides funding allotments to these districts based on actual maintenance costs.

[5] PRC 036 allotments are calculated based on the per ADM sum of CAT1 fiber connections and consortium Internet in the host county/LEA.

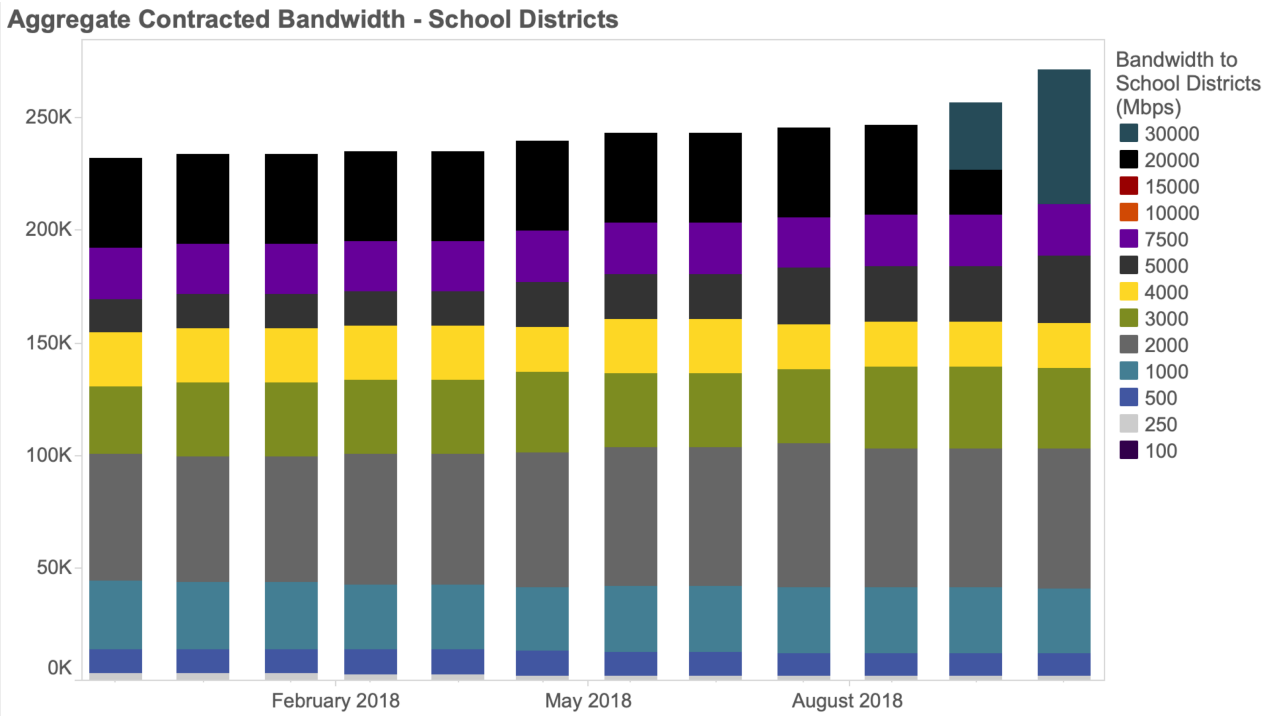
CNE contract to provide specific network and Cloud services management functions for LEAs and charter schools. MCNC bills quarterly for actual hours serving districts and charter schools. The CNE contract allows for up to $1.8M in billings for the 2018 fiscal year. Two hundred thousand dollars per year was included in the CNE contract for 2017 and 2018 supporting the development of a security monitoring service – with the funding provided through the NC Digital Learning Initiative appropriation.

6. Program Administration – SCI program administration includes NCDPI school connectivity staff, Friday institute contract support, E-rate consulting and tools, and related travel supplies and materials costs. Six NCDPI staff members provide technical consulting, E-rate training, and related SCI support at a combined compensation and benefits expense of $574,701[6]. A Friday Institute contract provides for planning, design, forecasting, modeling, and documentation support at an annual cost of $250,000. It is notable that administrative costs associated with managing the SCI account for less than 2.9% of the $31.2M State appropriation and 0.9% of the $98M total annual cost of services.

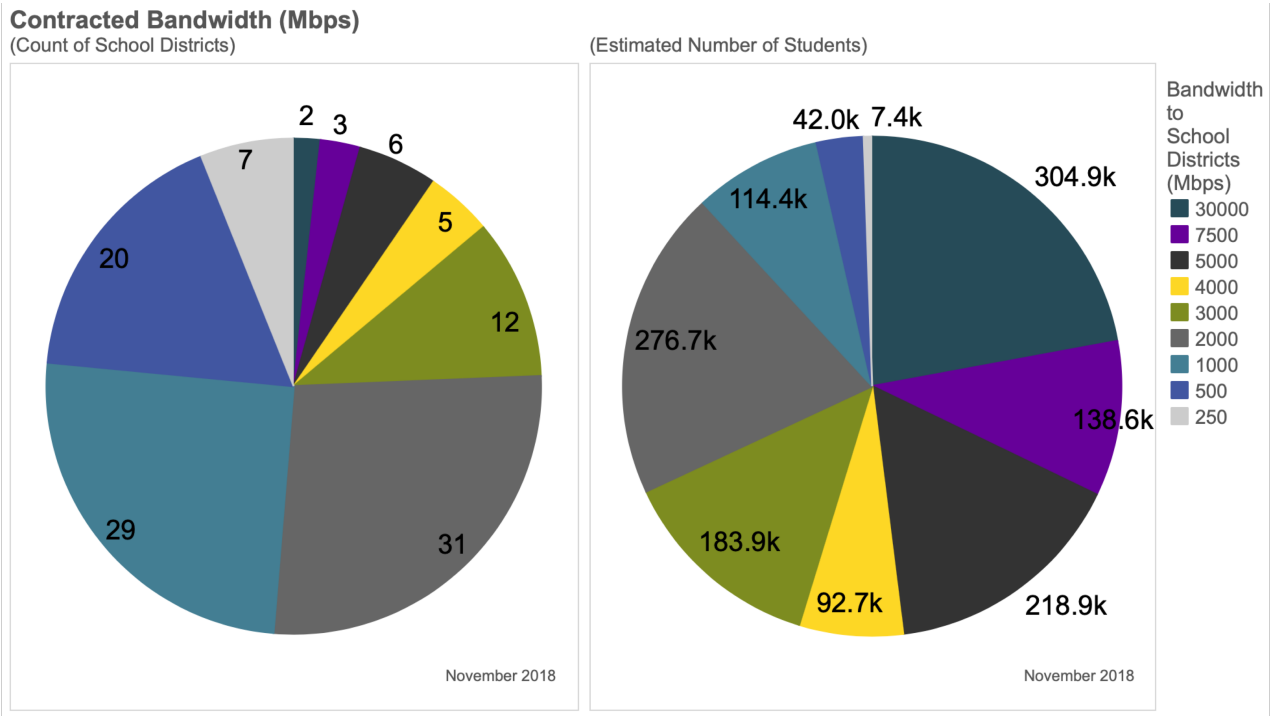
[6] SCI provisional language allows for up to 8 FTE and $1M. See Appendix C – Connectivity Staff Salary Report for details.

Capacity and Usage Summary

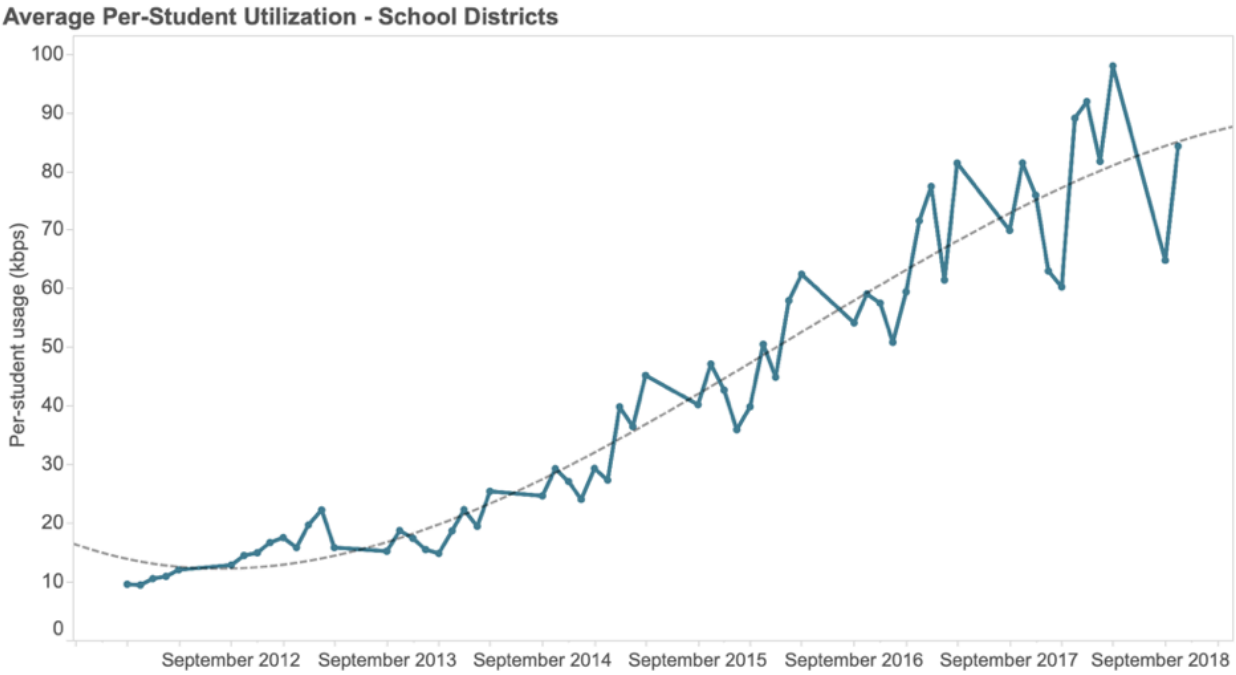
Internet usage continues to grow as districts add more devices, allow students to bring their own devices, and employ more online resources for instruction. MCNC bills the State for Internet Bandwidth each month based on a contracted bandwidth level for each district and charter school. There are currently eleven bandwidth levels in use ranging from 250 Mbps to 30,000 Mbps (i.e., 30 Gbps). As LEAs and charter schools exceed 60% usage measured against the bandwidth service level, the SCI team initiates upgrades to the next highest service level.



The chart above illustrates the CY2018 month-over-month growth in contracted Internet bandwidth for LEAs. The monitoring and upgrade process ensures that schools have access to enough Internet capacity to support growth in devices and applications while at the same time protecting against expending funds for over-provisioning. LEA Aggregate contracted bandwidth grew from 227 Gbps in November of 2017 to over 273 Gbps in November of 2018 – charter school aggregate contracted bandwidth stood at 18 Gbps in November 2018. Each bar shows the bandwidth contribution in each of the ten service tiers. The SCI team regularly works with the service provider community to add new service tier options to accommodate growth as efficiently as possible. Note that during calendar year 2018, the SCI team added the 30 Gbps tier. The SCI team manages the scheduling of upgrades to avoid adding new services and expense during the summer months. As illustrated in the chart below, only eight LEAs remain at the lowest 250 Mbps service tier, while 87 LEAs enjoy at least 1000 Mbps (1 Gbps) of Internet capacity.



Aggregate bandwidth usage continued the trend of phenomenal year-over-year growth in calendar year 2018. All told, K12 is the largest single user of MCNC's NCREN backbone by a wide margin. MCNC's network continues to perform exceedingly well – maintaining high availability and low delay. Furthermore, MCNC peering, commodity offload, and caching solutions keep content close to the users and keep costs in check.



The graph above plots average per-student utilization since 2012. In May 2012, the average per student utilization was 12 kilobits per second/student. In May 2018, the average per

student utilization was 98 kilobits per second/student. The aggregate usage in May 2018 translates to 138 Gigabits per second. Another measure of usage is peak daily utilization which represents the aggregate peak day for each month – Again looking at May 2018 the aggregate peak day utilization was 175 Gbps – over 31 Gbps higher than a year earlier. Tracking both peak and average informs decisions related to defining *enough* bandwidth and *enough* headroom.

Internal Connections Summary

Session Law 2015-241 expanded SCI funding to support the sustainability of internal school connections – adding $2M in 2015-16 and $12M recurring in 2016-17. During 2015, the SCI team established a dozen contracts for wireless and wired network equipment and related services. In 2018 LEAs wrote purchase orders against these SCI contracts totaling over $29M of the nearly $31M in total cost. The table below summarizes 2018 E-rate category 2 internal connections procurements by discount percentage for both charter schools and for LEAs. For charter schools over 70% of category 2 E-rate applications are from schools that receive discounts in the 20-60% range, accounting for $3.4M of the $4M in total cost for charter school internal connections. For LEAs 78% of category 2 E-rate applications are from LEAs that receive discounts in the 80-85% range, accounting for $15M of the $27M in total cost for LEA internal connections.

	CAT2 Discount Rate	Pre-Discount	Requested	Committed	Number of Applicants	% of All CAT2 E-Rate Committed	% of Charters
Charters	85%	$510,543	$433,962	$404,252	19	1.9%	23%
	80%	$82,526	$52,229	$52,229	3	0.2%	4%
	70%	$114,345	$80,042	$80,042	3	0.4%	4%
	60%	$406,719	$232,957	$179,999	10	0.9%	12%
	50%	$1,456,630	$710,037	$671,822	19	3.2%	23%
	40%	$1,000,341	$408,512	$408,512	20	2.0%	24%
	20%	$487,716	$102,603	$102,603	10	0.5%	12%
Charter Total		$4,058,821	$2,020,342	$1,899,458	84	9.1%	% of LEAs
LEAs	85%	$5,394,011	$4,583,053	$4,376,717	23	20.9%	34%
	80%	$9,108,398	$7,286,719	$7,233,188	30	34.6%	44%
	70%	$1,514,199	$1,059,939	$1,052,274	7	5.0%	10%
	60%	$9,799,199	$5,879,519	$5,816,286	7	27.8%	10%
	50%	$1,081,199	$540,599	$540,599	1	2.6%	1%
LEA Total		$26,897,006	$19,349,830	$19,019,065	68	90.9%	
Grand Total		**$30,955,827**	**$21,370,172**	**$20,918,523**	**152**	**100.00%**	

With an investment of over $150M since 2015, the SCI program has made substantial progress in the provision of digital-ready classrooms in NC public schools. According to 2018 Digital Learning and Media Inventory (DLMI) data, there are 125,000 wireless access points in NC public schools – equating to 1.2 access points per classroom or 12 students per access point. It is notable that due to variations in charter school facilities and class size, as compared to traditional public school counterparts, access point counts are a less reliable indicator of digital learning readiness. Moreover, tracking investments in infrastructure and services provides a limited view of readiness related to classroom access. There are many

operational elements of internal school level infrastructure and services that are not easily measured in a comprehensive manner. It will be important to understand these operational considerations in order to have a more accurate picture of actual digital readiness.

CONSIDERATIONS FOR 2019

Network Operations Internship Program

Establish a program which builds upon technical resources, classes, and students across the community college system, to cultivate talent for use in K-12 school. By developing an intern or co-op program for computer/networking students at community colleges across the state, K-12 schools could greatly benefit, while providing "starter" jobs for college students in NC. This could reduce the state's dependence on recruiting talent from outside the state.

Proactive Network Health and Security Monitoring

Establish an oversight function that measures school connectivity performance and by physically visiting each school in the state and executing application and network performance tests at least once every three years.

Initiate a program to deploy network health and security monitoring technology to every school. The program would take 5 years to fully deploy but would provide valuable data to ensure technology funds are being utilized correctly, as well as to determine security vulnerabilities which may potentially lead to information loss or prevent on-line learning and test taking.

Education Service Agency

Position NC DPI as an *Education Service Agency* (ESA) as defined and recognized by the FCC. Specifically, giving statutory authority to NCDPI to file for E-rate eligible services on behalf of North Carolina public schools and libraries. This would allow DPI to, for example, file an FCC Form 470, without collecting signatures from every school district or library on a letter of agency. FCC rules allow state agencies with statutory authority to procure for schools and libraries to skip the difficult and time-consuming task of obtaining LOAs. Additionally, libraries under the control of Department of Cultural Resources should be permitted and encouraged to use DPI contracts for E-rate eligible products, reducing the administrative burden for libraries.

Education Broadband Spectrum Pilot

Initiate a pilot program in one or more rural counties to deploy broadband using spectrum that has been reserved by the FCC for educational use, or newly licensed spectrum and associated technology.

SUPPORTING DOCUMENTATION

FCC Chairman Ajit Pai visited North Carolina in May 2018 to celebrate our school connectivity achievements.
https://www.carolinajournal.com/news-article/fcc-chairman-visits-north-carolina-high-school-to-celebrate-school-connectivity/

An interactive map that illustrates LEA and charter school aggregate and per student network utilization statistics can be found at the link below.
https://www.mcnc.org/ncren/portal/reporting/ncren_utilization_map

A data dashboard presenting school connectivity usage data and related statistics can be found at the link below.
http://go.ncsu.edu/scireport

The balance of this report includes supporting data as follows.

APPENDIX	DATA
A	2018 LEA PRC 073 allotments and shared services distributions
B	2018 PRC 036 charter school allotments and shared services distributions
C	The NCDPI connectivity staff salary report
D	North Carolina E-rate funding history report

APPENDIX A - 2017 LEA PRC 073 ALLOTMENTS AND SHARED SERVICES DISTRIBUTIONS

The table below illustrates funding received by each LEA via PRC 073 allotment and funding applied to each LEA centrally for shared services – specifically, for Internet, content filtering, and firewall services. LEAs requested E-rate funds during spring of 2017 with service funding year between July 1, 2017 and June 30, 2018. PRC 073 allotments distributed during calendar year 2018 to cover non-E-rate costs for eligible school connections.

		PRC 073 Allotments		Shared Services Paid by DPI			
LEA ID	Name	WAN	WIFI	Content Filter	Firewall	Internet	Total
	Grand Total	**$8,273,750**	**$9,052,678**	**$4,291,323**	**$1,330,020**	**$11,210,042**	**$34,157,813**
010	Alamance-Burlington Schools	$58,824	$42,516	$114,548	$31,109	$194,941	$441,938
020	Alexander County Schools	$26,931	$45,457	$34,812		$54,896	$162,096
030	Alleghany County Schools	$17,280	$7,023	-$626		$31,339	$55,016
040	Anson County Schools	$19,890		-$1,588		$50,755	$69,057
050	Ashe County Schools	$22,080		-$947	$13,516	$51,560	$86,209
060	Avery County Schools	$15,024		-$1,588	$4,162	$50,755	$68,353
070	Beaufort County Schools	$19,971		$34,812		$50,755	$105,538
080	Bertie County Schools	$22,289		$34,812	$11,327	$50,755	$119,183
090	Bladen County Schools	$50,667	$23,325	$63,430	$14,753	$116,264	$268,439
100	Brunswick County Schools	$78,977		$78,712		$165,389	$323,078
110	Buncombe County Schools	$106,920		$77,430		$137,959	$322,309
111	Asheville City Schools	$65,063	$60,804	$34,403		$56,322	$216,592
120	Burke County Schools	$73,416	$26,822	$85,430	$34,421	$152,827	$372,916
130	Cabarrus County Schools	$210,614	$911,635	$136,283	$31,109	$202,575	$1,492,216
132	Kannapolis City Schools	$11,354		$48,612	$17,872	$69,434	$147,272
140	Caldwell County Schools	$81,512	$103,255	-$2,870	$14,753	$84,224	$280,874
150	Camden County Schools	$17,017	$42,330	$21,803	$11,327	$34,340	$126,817
160	Carteret County Public Schools	$121,344		$53,212	$18,444	$76,412	$269,412
170	Caswell County Schools	$100,277	$40,291	-$947	$11,327	$34,340	$185,288
180	Catawba County Schools	$96,048		-$2,870		$134,242	$227,420
181	Hickory City Schools	$49,236		-$947		$38,235	$86,524
182	Newton Conover City Schools	$7,312		$9,553	$13,599	$39,390	$69,854
190	Chatham County Schools	$26,402		$63,430	$14,753	$116,264	$220,849
200	Cherokee County Schools	$26,827		$34,403	$13,516	$118,620	$193,366
210	Edenton-Chowan Schools	$53,128	$52,614	$21,803	$11,327	$34,340	$173,212
220	Clay County Schools	$10,800	$7,846	-$626		$22,137	$40,157
230	Cleveland County Schools	$50,220		$63,430	$14,753	$92,106	$220,509
240	Columbus County Schools	$33,457		$34,812	$11,327	$50,755	$130,351
241	Whiteville City Schools			-$947		$34,340	$33,393
250	Craven County Schools	$87,182	$104,262	$63,430	$14,753	$92,106	$361,733
260	Cumberland County Schools	$256,019		$191,578	$48,163	$275,014	$770,774
270	Currituck County Schools	$49,460		$22,571	$11,327	$37,776	$121,134
280	Dare County Schools	$48,994		$34,812	$11,327	$50,755	$145,888
290	Davidson County Schools	$230,040	$168,927	$63,430	$14,753	$87,295	$564,445

291	Lexington City Schools	$9,211	$1,469	$21,803	$11,327	$35,800	$79,610
292	Thomasville City Schools	$12,449	$4,245	$7,803	$14,557	$35,800	$74,854
300	Davie County Schools	$12,400	$49,437	$33,530	$11,327	$38,178	$144,872
310	Duplin County Schools	$24,653		$63,430	$14,753	$116,264	$219,100
320	Durham Public Schools	$130,272		$67,430	$29,878	$93,693	$321,273
330	Edgecombe County Public Schools	$18,618	$6,553	$64,712	$14,753	$105,248	$209,884
340	Winston Salem/Forsyth County Schools	$344,652		-$6,717		$270,359	$608,294
350	Franklin County Schools	$54,699		$34,812	$11,327	$48,500	$149,338
360	Gaston County Schools	$153,036	$149,862	-$5,435		$200,730	$498,193
370	Gates County Schools	$16,141		$13,999	$6,311	$23,491	$59,942
380	Graham County Schools	$3,000		$8,124	$6,203	$28,396	$45,723
390	Granville County Schools	$51,392		$63,430	$14,753	$92,106	$221,681
400	Greene County Schools	$12,810	$32,426	-$1,588	$11,327	$58,537	$113,512
410	Guilford County Schools	$164,629	$397,702	$136,283		$232,144	$930,758
420	Halifax County Schools	$12,180	$45,133	$34,403		$59,562	$151,278
421	Roanoke Rapids City Schools	$12,480	$8,108	$21,803	$11,327	$34,340	$88,058
422	Weldon City Schools	$6,292		$13,999	$6,311	$23,491	$50,093
430	Harnett County Schools	$97,391	$97,931	-$4,152		$176,109	$367,279
440	Haywood County Schools	$41,794		-$1,588		$50,755	$90,961
450	Henderson County Schools	$61,375	$25,560	$63,430		$92,106	$242,471
460	Hertford County Schools	$5,457	$39,345	-$947	$11,327	$34,340	$89,522
470	Hoke County Schools	$46,116	$37,924	$63,430	$14,753	$116,264	$278,487
480	Hyde County Schools	$3,094		$13,999	$6,311	$23,491	$46,895
490	Iredell-Statesville Schools	$438,933	$312,823	$135,865	$38,628	$233,540	$1,159,789
491	Mooresville Graded School District	$10,445		$63,430	$14,713	$92,106	$180,694
500	Jackson County Public Schools	$17,700		-$1,588		$50,755	$66,867
510	Johnston County Schools	$238,680	$307,976	-$9,922	$47,525	$408,949	$993,208
520	Jones County Schools	$11,921		-$626	$6,311	$24,332	$41,938
530	Lee County Schools	$60,312	$75,974	$63,430	$14,753	$92,106	$306,575
540	Lenoir County Public Schools	$44,618		-$4,152		$185,399	$225,865
550	Lincoln County Schools	$82,725		-$2,870	$13,466	$92,106	$185,427
560	Macon County Schools	$64,500		-$1,588		$42,944	$105,856
570	Madison County Schools	$8,160	$6,031	$32,303	$11,327	$49,297	$107,118
580	Martin County Schools	$14,830		$15,249	$10,152	$25,453	$65,684
590	McDowell County Schools	$42,828	$91,794	-$1,588	$14,753	$73,964	$221,751
600	Charlotte-Mecklenburg Schools	$341,988	$1,002,693	$474,550		$750,035	$2,569,266
610	Mitchell County Schools	$17,949	$102,415	$21,803	$11,327	$39,390	$192,884
620	Montgomery County Schools	$18,228		-$1,588	$11,327	$58,537	$86,504
630	Moore County Schools	$89,712		$63,430		$87,295	$240,437
640	Nash-Rocky Mount Schools	$117,700		-$4,152	$31,109	$176,109	$320,766
650	New Hanover County Schools	$200,350	$200,116	-$2,870		$137,959	$535,555
660	Northampton County Schools	$10,914		$21,499	$11,327	$35,263	$79,003
670	Onslow County Schools	$204,984	$236,945	$83,430	$34,421	$129,046	$688,826

680	Orange County Schools	$34,238	$230,299	$34,812	$16,728	$48,500	$364,577
681	Chapel Hill-Carrboro City Schools	$59,502	$541,048	$79,430	$32,849	$121,658	$834,487
690	Pamlico County Schools	$10,000		-$626		$24,332	$33,706
700	Elizabeth City-Pasquotank Public Schools	$62,952		$34,812	$11,327	$50,755	$159,846
710	Pender County Schools	$51,856		$64,712		$119,129	$235,697
720	Perquimans County Schools	$12,554		$21,803	$11,327	$34,340	$80,024
730	Person County Schools	$30,180	$8,628	$39,412	$16,728	$58,029	$152,977
740	Pitt County Schools	$172,440		$115,465	$31,109	$174,711	$493,725
750	Polk County Schools	$10,706	$35,780	-$947	$11,327	$34,340	$91,206
760	Randolph County School System	$105,982		$63,430	$14,753	$79,134	$263,299
761	Asheboro City Schools	$22,243	$56,866	$32,303	$13,599	$47,560	$172,571
770	Richmond County Schools	$30,366		$63,430	$14,753	$92,106	$200,655
780	Public Schools of Robeson County	$53,358		$105,030	$35,352	$181,888	$375,628
790	Rockingham County Schools	$40,982		$85,430	$31,109	$132,740	$290,261
800	Rowan-Salisbury Schools	$83,520		-$5,435		$194,168	$272,253
810	Rutherford County Schools	$15,177		$63,430	$14,753	$92,106	$185,466
820	Sampson County Schools	$31,458	$20,726	$32,812	$17,300	$78,373	$180,669
821	Clinton City Schools	$25,440		-$947	$13,600	$49,992	$88,085
830	Scotland County Schools	$38,288		-$1,588	$18,444	$83,488	$138,632
840	Stanly County Schools	$85,656	$3,170	-$1,588	$11,327	$48,500	$147,065
850	Stokes County Schools	$47,440	$64,665	$34,812	$12,614	$50,755	$210,286
860	Surry County Schools	$53,841	$55,553	$63,430	$14,753	$92,106	$279,683
861	Elkin City Schools	$7,000	$6,977	-$626	$7,364	$25,935	$46,650
862	Mount Airy City Schools	$18,611		$21,803	$11,327	$34,340	$86,081
870	Swain County Schools	$15,000	$661	-$1,588		$50,755	$64,828
880	Transylvania County Schools	$20,052		$23,903	$13,599	$37,210	$94,764
890	Tyrrell County Schools	$3,000		-$626	$6,311	$23,491	$32,176
900	Union County Public Schools	$544,254		$14,448		$175,970	$734,672
910	Vance County Schools	$28,152	$5,181	$39,412	$16,728	$58,029	$147,502
920	Wake County Schools	$803,650	$2,757,264	-$25,950		$750,035	$4,284,999
930	Warren County Schools	$29,187	$4,724	$21,803	$11,327	$34,340	$101,381
940	Washington County Schools	$15,160	$29,299	$21,803		$34,340	$100,602
950	Watauga County Schools	$29,430	$68,240	$21,803	$11,327	$34,340	$165,140
960	Wayne County Public Schools	$79,200	$265,163	-$2,870	$14,483	$111,940	$467,916
970	Wilkes County Schools	$22,380		$64,712		$123,004	$210,096
980	Wilson County Schools	$38,640		$63,430	$14,753	$92,106	$208,929
990	Yadkin County Schools	$50,470	$28,865	$34,812	$11,327	$48,500	$173,974
995	Yancey County Schools	$15,192		$13,999	$6,311	$23,491	$58,993

APPENDIX B – 2017 CHARTER PRC 036 ALLOTMENTS AND SHARED SERVICES DISTRIBUTIONS

Charter schools may choose to receive a centrally funded Internet connection or a PRC 036 allotment that is calculated based on the SCI per ADM benefit to their home LEA. Charters are also eligible for Wifi, Firewall and content filter services. These are the 2018 PRC 036 allotments for participating charter schools.

		PRC 036 Allotments		Shared Services Paid by DPI			
LEA ID	Name	WAN	WIFI	Content Filter	Firewall	Internet	Total
	Grand Total	**$290,155**	**$996,890**	**$900,817**	**$745,399**	**$2,123,585**	**$5,056,846**
01B	River Mill Academy			$10,546	$6,203	$19,559	$36,308
01C	Clover Garden		$26,514	-$434		$14,783	$40,863
01D	The Hawbridge School			$9,966	$6,203	$14,783	$30,952
06A	Grandfather Academy	$5,000					$5,000
06B	Marjorie Williams Academy	$5,000		$5,996	$6,203	$12,322	$29,521
07A	Washington Montessori Public Charter School			-$179		$13,084	$12,905
08A	Three Rivers Academy	$1,260		$5,996	$6,203	$13,084	$26,543
09A	Paul R Brown Leadership Academy	$5,000					$5,000
09B	Emereau: Bladen		$2,300			$12,628	$14,928
10A	Charter Day School			$9,966	$6,203	$14,783	$30,952
10B	South Brunswick Charter School	$5,274		$4,737	$6,203	$19,736	$35,950
11A	Evergreen Community Charter		$69,474	-$179		$12,322	$81,617
11B	ArtSpace Charter School			$5,996	$6,203	$12,322	$24,521
11C	IC Imagine					$12,154	$12,154
11D	The Franklin School of Innovation			$9,966	$10,680	$6,661	$27,307
11K	Francine Delany New School for Children			$3,612	$6,845	$10,948	$21,405
12A	The New Dimensions School			$4,571	$6,203	$12,322	$23,096
13A	Carolina International School		$31,870	-$434		$14,519	$45,955
13B	Cabarrus Charter Academy	$5,000					$5,000
13C	A.C.E. Academy			$5,996	$6,203	$12,293	$24,492
13D	Kannapolis Charter Academy	$5,000					$5,000
16B	Tiller School	$5,000					$5,000
19A	Chatham Charter		$24,468	$9,966	$6,203	$15,317	$55,954
19B	Woods Charter			$9,966	$7,339	$14,783	$32,088
19C	Willow Oak Montessori			$5,301	$6,203	$10,941	$22,445
20A	The Learning Center	$3,840					$3,840
23A	Pinnacle Classical Academy			$4,875		$13,051	$17,926
24B	Thomas Academy	$5,000					$5,000
24N	Columbus Charter School	$9,746		$5,996	$3,831	$13,084	$32,657
26B	Alpha Academy						$0
26C	The Capitol Encore Academy			-$179		$13,084	$12,905
27A	Water's Edge Village School			$4,101	$3,831	$11,274	$19,206
29A	Davidson Charter Academy						$0
32A	Maureen Joy Charter School	$2,160					$2,160
32B	Healthy Start Academy			$9,966	$7,339	$14,519	$31,824

32C	Carter Community Charter School, Inc.		$6,036	$9,966		$14,519	$30,521
32D	Kestrel Heights School	$16,850		$13,999	$3,716	$23,707	$58,272
32H	Research Triangle Charter Academy	$5,000					$5,000
32K	Central Park School for Children	$7,200	$4,768	$5,996	$6,203	$12,293	$36,460
32L	Voyager Academy			$21,803	$11,327	$35,800	$68,930
32M	Global Scholars Academy			$9,966	$6,892	$14,519	$31,377
32N	Research Triangle High School			$21,803	$11,327	$35,800	$68,930
32P	The Institute for the Development of Young Leaders		$6,009	$4,737	$3,831	$10,937	$25,514
32Q	Reaching All Minds Academy			$4,737	$6,203	$10,937	$21,877
32R	Excelsior Classical Academy CFA			$5,537	$6,203	$11,977	$23,717
32S	KIPP Durham College Preparatory			$5,046	$493	$12,322	$17,861
33A	North East Carolina Preparatory		$16,720	-$434		$15,317	$31,603
34B	Quality Education Academy			$9,966	$6,203	$14,783	$30,952
34D	Carter G Woodson School			$5,996	$6,203	$12,322	$24,521
34F	Forsyth Academy	$5,000					$5,000
34G	The Arts Based School	$5,000					$5,000
34H	NC Leadership Charter Academy			$9,966	$6,203	$14,783	$30,952
35A	Crosscreek Charter School	$5,000					$5,000
35B	Youngsville Academy	$5,000					$5,000
36B	Piedmont Community Charter School	$5,216		$13,999	$6,311	$23,707	$49,233
36C	Mountain Island Charter School Inc			$13,999	$6,311	$25,812	$46,122
39A	Falls Lake Academy	$1,525	$42,121	-$626		$23,707	$66,727
39B	Oxford Preparatory School		$13,124	-$124	$3,637	$11,274	$27,911
41B	Greensboro Academy	$5,000					$5,000
41C	Guilford Preparatory Academy	$4,032	$5,217	$4,737	$6,203	$10,948	$31,137
41D	Phoenix Academy Inc	$5,000					$5,000
41F	Triad Math and Science Academy	$2,700		$13,866	$6,311	$26,387	$49,264
41G	Cornerstone Charter Academy			$9,966	$6,203	$14,783	$30,952
41H	College Preparatory & Leadership Academy of High Point			$5,996	$6,203	$10,227	$22,426
41J	Summerfield Charter Academy	$5,000					$5,000
41K	Piedmont Classical High School		$13,962	$4,737	$7,339	$10,937	$36,975
41L	Gate City Charter Academy	$5,000					$5,000
41M	Next Generation Academy						$0
41N	The Experiential School of Greensboro						$0
42A	KIPP Halifax College Preparatory			$9,412	$6,203	$21,972	$37,587
43C	Anderson Creek Academy			-$138		$12,727	$12,589
44A	Shining Rock Classical Academy			$5,996	$6,203	$12,322	$24,521
45A	The Mountain Community Sch			$3,571	$6,203	$12,322	$22,096
45B	FernLeaf Community Charter School		$4,110	$4,737	$6,203	$10,948	$25,998
49B	American Renaissance School	$6,071		$13,999	$6,203	$23,707	$49,980
49D	Success Charter School			$4,101	$3,637	$10,505	$18,243
49E	Pine Lake Preparatory, Inc.			$22,124	$11,327	$41,581	$75,032
49F	Langtree Charter Academy	$5,000					$5,000
49G	Iredell Charter Academy	$5,000					$5,000
50A	Summit Charter School	$8,296					$8,296

51A	Neuse Charter School			$13,999	$6,311	$24,332	$44,642
51B	Johnston Charter Academy						$0
53B	Ascend Leadership Academy: Lee County						$0
54A	The Children's Village Academy			$6,124		$9,315	$15,439
55A	Lincoln Charter School	$6,163	$44,241	$13,999	$9,435	$25,812	$99,650
58B	Bear Grass Charter School		$19,299	$13,999	$6,311	$24,332	$63,941
60B	Sugar Creek Charter	$3,348		$13,999	-$605	$25,812	$42,554
60D	Lake Norman Charter		$146,154	$21,803		$39,390	$207,347
60F	Metrolina Regional Scholars Academy			$5,996	$6,203	$12,322	$24,521
60G	Queen's Grant Community School		$39,051	$11,916	$6,203	$20,585	$77,755
60I	Community School of Davidson			$12,241	$7,339	$21,552	$41,132
60J	Socrates Academy			$5,996	$6,203	$12,293	$24,492
60K	Charlotte Secondary School			$9,966	$6,203	$14,783	$30,952
60L	KIPP Charlotte	$708					$708
60M	Corvian Community School	$6,336	$46,560	$5,996	$6,009	$12,322	$77,223
60N	Aristotle Preparatory Academy			$4,737	$6,203	$10,937	$21,877
60P	Charlotte Choice Charter			$5,996	$6,203	$12,322	$24,521
60Q	Invest Collegiate Transform		$39,440	-$179		$12,322	$51,583
60S	Bradford Preparatory School			$7,116		$19,445	$26,561
60U	Commonwealth High School			-$179		$12,322	$12,143
60V	Charlotte Learning Academy			-$179	$6,203	$12,322	$18,346
60Y	Pioneer Springs Community School	$7,725	$4,385	$4,737	$11,980	$10,948	$39,775
61J	Lakeside Charter Academy			$5,996	$6,203	$12,322	$24,521
61K	United Community School			$4,737	$6,203	$10,948	$21,888
61L	Stewart Creek High School			-$138		$10,948	$10,810
61M	Charlotte Lab School		$32,346	$5,996	$7,339	$12,322	$58,003
61N	Queen City STEM School			$9,246	$6,203	$14,612	$30,061
61P	VERITAS Community School			$4,737	$11,980	$10,948	$27,665
61Q	Mallard Creek STEM Academy			$5,996	$6,203	$12,322	$24,521
61R	Matthews Charter Academy	$5,000					$5,000
61S	Unity Classical Charter School	$5,000					$5,000
61T	Movement Charter School				$7,364	$12,154	$19,518
61U	UpROAR Leadership Academy			$4,750	$7,883	$12,154	$24,787
61W	East Voyager Academy of Charlotte						$0
61X	Mountain Island Day School						$0
63A	The Academy of Moore County			-$138	$11,642	$11,977	$23,481
63B	Sandhills Theatre Arts Renaissance School	$5,000					$5,000
63C	Moore Montessori Community School						$0
64A	Rocky Mount Preparatory School, Inc.		$14,445	$13,999	$6,311	$24,332	$59,087
64B	Global Achievers School						$0
65A	Cape Fear Center for Inquiry		$17,321	$4,571	$6,203	$12,322	$40,417
65B	Wilmington Preparatory Academy	$5,000					$5,000
65C	Douglass Academy			$4,101	$3,637	$10,505	$18,243
65D	Island Montessori Charter School			-$138	$6,203	$12,338	$18,403
65F	Coastal Preparatory Academy			$4,925	$6,845	$10,979	$22,749

65G	Girls Leadership Academy of Wilmington		$5,979	$5,537	$6,203	$12,060	$29,779
66A	KIPP Gaston College Preparatory	$5,000		$3,750		$10,593	$19,343
67B	Z.E.C.A. School of Arts and Technology	$487		$5,996	$6,203	$13,084	$25,770
68A	Eno River Academy	$10,470	$27,294	$9,246	$8,896	$15,304	$71,210
68C	The Expedition School	$1,800	$15,178	-$179		$11,638	$28,437
69A	Arapahoe Charter School			-$179		$15,304	$15,125
70A	Northeast Academy for Aerospace & Advanced Technologies			$5,996	$6,203	$12,720	$24,919
73A	Bethel Hill Charter		$4,654	$5,737	$6,203	$12,995	$29,589
73B	Roxboro Community School, Inc.		$36,528	$13,999	$6,311	$24,332	$81,170
74B	Ignite Innovation Academy - Pitt			$4,750	$5,726	$12,896	$23,372
74C	Winterville Charter Academy	$5,000					$5,000
76A	Uwharrie Charter Academy		$66,822	-$179	$6,203	$13,084	$85,930
78A	CIS Academy			$2,112	$6,203	$10,948	$19,263
78B	Southeastern Academy			$5,996	$6,203	$12,322	$24,521
79A	Bethany Community School		$11,288		$8,103	$10,764	$30,155
80B	Essie Mae Kiser Foxx Charter School						$0
81A	Thomas Jefferson Classical Academy			$13,216	$7,339	$24,453	$45,008
81B	Lake Lure Classical Academy			$5,996	$6,203	$12,322	$24,521
84B	Gray Stone Day School		$27,130	$13,999	$6,311	$23,707	$71,147
86T	Millennium Charter Academy	$5,000					$5,000
87A	Mountain Discovery Charter School			$4,101	$6,493	$10,920	$21,514
88A	Brevard Academy			$5,996	$6,203	$4,427	$16,626
90A	Union Academy Charter School		$83,055	$13,866	$7,830	$24,371	$129,122
90B	Union Day School	$5,000					$5,000
90C	Union Preparatory Academy at Indian Trail	$5,000					$5,000
91A	Vance Charter School			-$179		$17,529	$17,350
91B	Henderson Collegiate	$2,028	$10,478	$4,696	$6,203	$13,084	$36,489
92B	The Exploris School			$5,996	$6,203	$12,322	$24,521
92D	The Magellan Charter School			$5,996	$6,203	$12,322	$24,521
92E	Sterling Montessori Academy		$22,861	$5,996	$6,203	$12,322	$47,382
92F	Franklin Academy	$5,000					$5,000
92G	East Wake Academy			$19,624	$12,843	$36,729	$69,196
92K	Raleigh Charter High School			$5,996	$6,203	$12,322	$24,521
92L	Torchlight Academy	$1,290		-$179	$6,203	$12,322	$19,636
92M	PreEminent Charter School	$5,000					$5,000
92N	Quest Academy	$5,000					$5,000
92P	Southern Wake Academy			$12,566	$7,339	$21,805	$41,710
92Q	Hope Charter Leadership Academy			$4,875	$6,203	$11,661	$22,739
92R	Casa Esperanza Montessori Charter School			$5,996	$6,203	$12,322	$24,521
92S	Endeavor Charter		$9,047	$5,996	$6,203	$13,115	$34,361
92T	Triangle Math and Science Academy			$14,191	$6,311	$27,354	$47,856
92U	Longleaf School of the Arts		$6,641	-$138	$6,326	$28,303	$41,132
92V	Wake Forest Charter Academy	$5,000					$5,000
92W	Cardinal Charter Academy	$5,000					$5,000

92Y	Envision Science Academy	$3,222		$9,966	$6,203	$14,783	$34,174
93A	Haliwa-Saponi Tribal School			$5,996	$6,203	$13,084	$25,283
93J	PAVE Southeast Raleigh Charter School			$4,737	$6,203	$10,948	$21,888
93L	Central Wake High School			-$138		$10,948	$10,810
93M	Peak Charter Academy	$5,000					$5,000
93N	Pine Springs Preparatory Academy			$4,550	$7,364	$10,082	$21,996
93P	Rolesville Charter Academy						$0
93R	Raleigh Oak Charter School						$0
95A	Two Rivers Community School			$5,996	$6,203	$12,322	$24,521
96C	Dillard Academy Charter School	$5,000		$3,000	$6,326	$8,073	$22,399
96F	Wayne Preparatory Academy			$5,996	$6,203	$12,322	$24,521
97D	Bridges Academy			$4,737	$6,203	$11,655	$22,595
98A	Sallie B Howard School for the Arts and Education	$2,408					$2,408
98B	Wilson Preparatory Academy			$11,916		$20,183	$32,099
94Z	Northeast Regional School for Biotech & Agriculture			$5,996	$6,203	$13,084	$25,283
298A	North Carolina School for Deaf			$4,366	$6,203	$14,783	$25,352
298B	Eastern NC School for the Deaf			$4,366	$8,103	$13,846	$26,315
298C	Gov. Morehead School for the Blind			$5,996	$6,203	$12,322	$24,521
closed1	Charlotte Community Charter			-$124	-$493	$10,505	$9,888
closed2	SEGS Academy				-$1,021		-$1,021

APPENDIX C - CONNECTIVITY STAFF SALARY REPORT

The following table summarizes NCDPI positions paid from School Connectivity Initiative funding and their respective compensation and benefits.

Title of Position and Description of Duties	Compensation & Benefits
Lead Connectivity and E-Rate Analyst: provides LEA/Charter School Technical Consulting, Strategic Planning, Project Management	$122,880
Lead E-Rate Analyst: provides LEA/Charter School Technical Consulting, Strategic Planning	$105,627
E-Rate Program Administrator: provides E-rate Education and Consultation Services	$89,910
E-Rate Program Administrator: provides E-rate Education and Consultation Services	$105,032
Education Consultant II: Assists with Digital Teaching and Learning Integration	$91,648
Technology Support Center Analyst: Provides help desk support for SCI related calls	$59,604
Total	$574,701

APPENDIX D – NORTH CAROLINA E-RATE FUNDING HISTORY REPORT

The following report run in December 2018 shows North Carolina public school E-rate funding requests, the total pre-discount amount for all requested services, the amount of E-rate funding being requested, the amount of funding ultimately committed by the FCC, the amount of funding disbursed, and the utilization of funds (disbursed/committed). Note that there are still disbursements outstanding for 2017. For the 2018 E-rate funding year only 20% of the nearly $64M in committed funding has been disbursed – this is typical as the funding year begins July 1. It is notable that in 2018, North Carolina reached a billion dollars in disbursed funds over the life of the E-rate program.

Year	Pre-Discount	Requested	Committed	Disbursed	Requests	Utilization %
1998	$44,388,023	$28,969,621	$21,511,196	$17,384,524	3,041	81%
1999	$48,447,701	$33,670,538	$28,605,610	$24,649,511	1,845	86%
2000	$60,099,851	$41,708,939	$20,915,884	$17,740,889	2,217	85%
2001	$61,576,928	$44,222,112	$20,166,017	$16,038,416	2,223	80%
2002	$79,865,118	$62,473,202	$48,117,223	$39,646,446	1,952	82%
2003	$97,322,227	$75,814,000	$45,339,691	$37,042,927	2,076	82%
2004	$78,681,640	$57,991,959	$37,480,433	$30,336,639	2,294	81%
2005	$96,225,151	$72,072,864	$51,030,249	$43,984,441	2,359	86%
2006	$110,422,492	$85,459,610	$47,416,846	$40,370,952	1,411	85%
2007	$100,873,061	$77,535,432	$57,375,873	$49,861,383	1,733	87%
2008	$91,853,896	$70,357,708	$55,825,752	$50,540,986	1,269	91%
2009	$98,564,976	$75,486,810	$60,550,806	$52,875,403	1,180	87%
2010	$109,844,062	$86,202,227	$77,860,744	$66,523,395	1,272	85%
2011	$129,276,499	$103,538,353	$71,542,675	$63,982,881	1,297	89%
2012	$141,222,995	$112,992,758	$80,285,729	$71,645,193	1,153	89%
2013	$128,365,669	$103,194,369	$67,470,997	$60,547,108	1,108	90%
2014	$130,569,310	$103,776,157	$68,598,967	$60,510,973	1,170	88%
2015	$148,116,937	$112,217,368	$107,496,924	$103,002,672	1,828	96%
2016	$143,117,525	$101,666,036	$96,997,482	$88,793,741	1,411	92%
2017	$94,265,531	$62,956,696	$60,149,898	$51,895,454	1,051	86%
2018	$90,646,128	$65,488,115	$63,986,122	$12,633,438	1,160	20%
	$2,083,745,722	**$1,577,794,871**	**$1,188,725,120**	**$1,000,007,373**	**35,050**	