

Louisiana Believes: Louisiana's Technology Footprint

Technology Readiness Assessment to Prepare for 2014-15

DISTRICT TECHNOLOGY CHECKLIST

- Determine the current technology readiness baseline status of your schools and district
- Determine what technology and support will be required to meet readiness goals:
 - devices (laptops, etc.)
 - network (LAN & WAN)
 - Internet bandwidth
 - staff resources
 - training resources
- Create and implement a plan to meet technology readiness goals in your schools and district
- Sign the District Technology Readiness Certification which states your LEA will be ready for online assessments in 2014-15 and join the Statewide Technology Consortium which will provide services and support to your district for achieving technology readiness

Introduction

In an effort to proactively assist each Local Education Agencies (LEA) in planning and implementing strategies to ensure their schools are technology ready for supporting Louisiana's students in their journey to obtain the highest level of access to rigorous educational tools, allowing teachers to select and create engaging content, and provide meaningful online assessments while ensuring students are college and career ready; the Louisiana Department of Education has produced the following report and technology guidelines. This document, entitled *Louisiana Believes: Louisiana's Technology Footprint*, provides a picture of the current state of readiness of your district and its school campuses, a set of recommendations for supporting strategic planning, implementing and supporting technology, technology guidelines for new acquisitions, and estimated costs and potential funding sources for achieving full readiness for online assessment.

This document has been designed as a living document that will be updated and enhanced biannually as the State, LEAs and its schools move forward to achieve their educational technology goals.

This first edition of the *Louisiana Believes: Louisiana's Technology Footprint* was created using data collected by the Partnership for Assessment of Readiness for College and Careers (PARCC) Consortium and Smarter Balanced Assessment Consortium (SBAC). This first edition of the Louisiana Technology Footprint offers LEAs and schools:

- an initial baseline guide to begin determining school and/or LEA technology readiness
- guidelines on technology targets to meet readiness goals for devices, network infrastructure, and Internet bandwidth
- recommendations on staffing, training and building infrastructure models
- current funding balances and potential funding sources for supporting technology readiness efforts

Louisiana Believes

State and Lafayette Parish Schools Technology Readiness

The Louisiana Department of Education recognizes that it is essential for all LEAs and schools to have adequate technology resources to support online assessment and 21st century learning environments. Because of this, our State along with other PARCC consortium members have begun to evaluate LEA and school readiness for online testing and Common Core State Standards implementation. Through PARCC and SBAC, the state has utilized the Technology Readiness Tool (TRT) and an online technology survey, to capture self-reported data to create this initial baseline technology readiness assessment. This report will provide your district with a current view of district/school capabilities to compare against technology requirements for creating a program that can fully support online student assessment programs and educational reforms for all students.

DEVICE READINESS

All hardware choices should first consider the instructional needs of schools and students while balancing the need to provide adequate computer resources for online testing.

Some students may need hardware that exceeds these minimum guidelines, and some students may require qualitatively different hardware. However, LEAs and schools should select computer system purchases that meet or exceed the guidelines provided below (*figure 1*). This will ensure any new computer hardware purchases will be compatible with the 2014-15 PARCC assessments and will provide students with meaningful instruction utilizing hardware, software and electronic resources required for college and career opportunities.

Figure 1: Minimum Computer Hardware Specifications

Computer Hardware:

- 1 GHz or faster processor
- 1 GB RAM or greater memory
- 9.5 inch (10 inch class) or larger screen size
- 1024 x 768 or better screen resolution

Operating Systems:

Mac 10.7 or greater, Windows 7 or greater, iOS 5.1

Networking:

Must be able to connect at a minimum of 100 Mbps preferably 1000 Mbps to the LAN, WAN, and Internet via either wired or wireless network connections

Devices:

Desktops, laptops, netbooks (Windows, Mac), thin client, and tablets (iPad, Windows)

In addition to the specifications above, other accessories or input devices may be required for instructional and/or online assessment administration. Statewide minimum specifications for accessories

to assist children with accommodations and/or special needs will be provided in future versions of this document.

Based on these specifications, the need for an adequate inventory of computers and equipment must be addressed statewide to support the instructional needs of teachers and students as well as to provide the computer resources necessary for online testing. Current data and technology specifications indicate school campuses in Louisiana have over 197,000 devices available for testing but only 67,038 devices meet the new device standards. In order to meet 2014-15 testing guidelines, LEAs will need to either procure over 35,000 new devices and/or upgrade some of the 100,000 devices already owned by LEAs which don't currently meet the hardware specifications.

Although the above device statistics provide adequate devices required for online testing; these numbers do not address technology needs for new instructional models and pedagogy. To assist school systems in determining the computers needed to support these models, LDOE has created the following student-to-computer ratios for learning and testing environments (*figure 2*).

Figure 2: Student to Computer Ratios by Environment

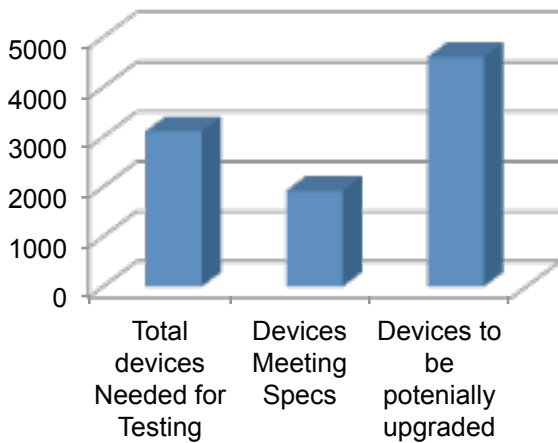
Instructional/Testing Environments	Student to Computer Ratio
Minimum 2014-15 online testing environment	7:1
Minimum classroom learning environment	5:1
Optimal classroom learning environment	1:1

Device Readiness of Lafayette Parish Schools

In Lafayette Parish, currently 11 out of 45 campuses have an adequate number of computers that meet current minimum computer hardware specifications for online testing in 2014-15. Appendix 1 Chart 1 provides a detailed breakdown of current devices owned by the LEA, devices needed for testing, and a breakdown of how district-owned devices compare to the new device specifications.

In order to bring all schools in Lafayette Parish up to the minimum testing readiness level of a 7:1 student to computer ratio, the LEA will need to either purchase an additional 1512 devices and/or upgrade some of the 4605 computers that potentially could meet the new minimum computer hardware specifications (*figure 3*). This is not to say that older model computers which are deemed "non-test worthy" are to be discarded. These computer devices may still meet daily instructional needs within the classroom or school setting. Schools are encouraged to reexamine their computer inventory to determine where best to allocate computer resources based on instructional and testing needs. Appendix 1 Chart 1 provides additional details and breakdowns of computer needs by school.

Figure 3: New/Upgraded Computer Needs of District



NETWORK READINESS

Both the TRT and the statewide survey strongly suggest that adequate Internet access to all school sites will be an obstacle to a successful implementation of online testing. Obstacles include lack of Internet bandwidth, insufficient LAN and or WAN backbone network infrastructure, and lack of or insufficient wireless access in testing areas.

The state is working with its PARCC partners to limit the impact of Internet and network resources but school systems are encouraged to assess their current infrastructures to meet the following network guidance (*figure 4*).

Figure 4: Internet Bandwidth and Network Resources*

Broadband Access for Teaching, Learning, and School Operations	2014-15 School Year Target	2017-18 School Year Target*
An external Internet connection to the Internet service provider (ISP)	At least 100 Mbps per 1,000 students/ staff	At least 1 Gbps per 1,000 students/staff
Internal wide area network (WAN) connections from the district to each school and among schools within the district	At least 1 Gbps per 1,000 students/staff	At least 10 Gbps per 1,000 students/staff

Network Readiness of Lafayette Parish School System

Lafayette Parish is currently operating a stable network environment which met previous standards, however based on the new higher targets set forth under testing, all of the schools will need some level of upgrades to meet readiness guidelines for WAN, LAN and Internet bandwidth. It is recommended that the district assess

the specific needs of each campus and plan for expansion of bandwidth capacity. (See Appendix 1, Chart 2 for more details).

FACILITY READINESS

LEAs statewide consistently indicated that finding enough physical space for secure online testing would be a problem for many campuses. Online testing requires desks that accommodate computers, peripherals (such as headphones), electrical wiring sufficient to power each computer, enough space or a physical barrier between computers to avoid displaying test answers to nearby students, and network cabling for each computer except where wireless networking is deployed.

LDOE and PARCC are working to provide campuses with detailed guidance on testing room layout and design to ensure online testing integrity. Currently most testing is done in a lab-style environment which necessitates one or more classrooms being designated as a testing lab during the testing windows.

Facility Readiness of Lafayette Parish School System

In Lafayette Parish School System, survey respondents noted there are concerns relative to facility readiness and the need for additional space planning, furniture, wiring or power to accommodate testing and or increased technology use in the classroom. It is recommended, the district reassess their current facilities to ensure any necessary upgrades be included in the district's technology plan.

STAFF READINESS

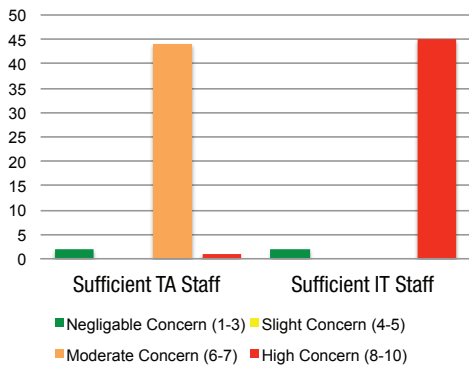
Most LEAs operate with far fewer information technology and technical support staff than the national 65:1 user to technical staff norm; however even with limited staffing, district and school IT staff manage to provide adequate support for current technology levels. As student to computer ratios come closer to 7:1, 5:1 and 1:1, LEAs will need to either expand their internal IT staff resources or seek outside contracted services to ensure all of their users are adequately trained and supported. It is highly recommended that each campus have a minimum of one dedicated technology technician/trainer to support educational technology goals and online assessments.

Lafayette Parish Schools Staff Readiness

In Lafayette Parish School System, all schools have indicated various levels of concern about staff readiness to accommodate testing and or increased technology use in the classroom (*figure 5*).

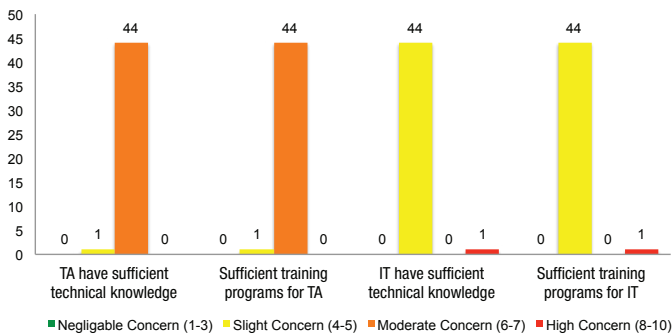
*These recommendations are drawn from the SETDA report: *The Broadband Imperative: Recommendations to address K-12 Education Infrastructure Needs*

Figure 5: Staffing Concern Levels of School Sites



In addition to staffing levels, district schools have indicated that they need additional training and support to fully integrate and utilize technology for testing (figure 6). The new PARCC tests will utilize not only the current assessment types but also technology-rich classroom-based tasks. For students to be adequately prepared for their assessments, teachers will need to create and provide students with similar rich testing questions and activities as part of their daily learning. Teachers will need both support and training on technology and software as well as access to online resources to accomplish these goals.

Figure 6: Training and Support Concerns of School Sites



It is recommended that the district begin planning for staffing and training to support both its staff and new educational goals and directions.

DISTRICT BUDGETING FOR TECHNOLOGY

The Louisiana Department of Education is aware of the various concerns districts have relative to funding technology initiatives, enhancements, training and support. In an effort to assist districts in looking across their current budgets DOE has identified various funding streams and investment accounts which are available to support technology readiness efforts. After the release of this report, DOE will begin scheduling meetings with each of the districts to discuss these findings and to provide additional guidance relative to potential funding sources as well as potential costs for technological enhancements to meet the statewide technology goals. DOE will provide further budget guidance and a summary sheet of these findings at <http://www.louisianaschools.net/footprint/>.

STATE SUPPORT FOR DISTRICT TECHNOLOGY READINESS

In addition to local, state and federal funding streams, DOE is in the process of planning various initiatives to support and fund technology readiness efforts. These efforts include but are not limited to leveraging economies of scale through consortium and consolidated purchasing and contracts, creation of public-private partnerships, the development of a statewide task force/support group of district and state technology staff, and providing higher state level support of technology initiatives, E-Rate filing and support, online platforms, training, and planning.

These services will be created and refined throughout the technology readiness process. See the State Consortium of Services and Support page of this document for more information on new services and support options being created and planned for LEAs.

LDOE is also requesting that each district sign the Technology Readiness Certification which can be download at http://www.louisianaschools.net/footprint/Tech_Ready.pdf. This certification states that your district will begin planning and implementing efforts to achieve Technology Readiness by 2014-15. This certification will give your district a voice within the Technology Assistance Team, who will direct and guide technology efforts within the state. Team members will lend their expertise and knowledge to assist other LEAs and to ensure that your district's needs are addressed and supported.

Appendix I Chart I

DEVICE NEEDS BY SCHOOL

SiteCode	School Name	Total Device Count	Total devices Needed for Testing	Devices Meeting Specs	Devices to be potentially upgraded	Devices that may not be up-gradable	Additional devices needed for testing (7:1)	Additional devices needed for 1:1
28001	Acadian Middle School	180	76	26	119	35	50	515
28002	Acadiana High School	326	244	108	187	30	136	1633
28004	Alice N. Boucher Elementary School	333	41	57	238	38	0	729
28006	Broadmoor Elementary School	208	39	10	115	83	29	675
28007	Broussard Middle School	155	78	25	103	27	53	533
28009	Carencro Heights Elementary School	75	32	10	41	24	22	436
28010	Carencro High School	412	172	235	152	25	0	997
28008	Carencro Middle School	279	92	140	100	39	0	517
28047	Charles M. Burke Elementary School	117	44	28	58	31	16	591
28054	David Thibodaux Career and Technical High School	303	63	154	124	7	0	293
28013	Duson Elementary School	98	17	11	65	22	6	210
28022	Edgar Martin Middle School	204	104	35	140	29	69	705
28048	Ernest Gallet Elementary School	243	70	27	152	64	43	1016
28040	Evangeline Elementary School	215	37	30	128	57	7	617
28021	Green T. Lindon Elementary School	145	38	31	76	38	7	732
28051	J. Wallace James Elementary School	283	61	14	153	116	47	884
28014	J.W. Faulk Elementary School	213	38	61	115	37	0	591
28016	Judice Middle School	208	83	18	156	34	65	572
28012	Katharine Drexel Elementary School	174	34	27	97	50	7	587
28017	L. Leo Judice Elementary School	162	26	33	114	15	0	338
28003	L.J. Alleman Middle School	174	143	20	105	49	123	998
28019	Lafayette High School	560	334	136	314	110	198	2247
28018	Lafayette Middle School	143	75	12	103	28	63	524
28049	Live Oak Elementary School	243	47	43	147	53	4	661
28023	Milton Elementary School	131	80	14	70	47	66	855
28026	Myrtle Place Elementary School	138	21	27	50	61	0	286
28027	Northside High School	281	119	75	138	52	44	777
28011	O. Comeaux High School	321	266	47	209	41	219	1853
28028	Ossun Elementary School	239	63	54	100	85	9	818
28005	Paul Breaux Middle School	287	109	144	105	38	0	636
28029	Plantation Elementary School	189	40	49	94	46	0	492
28030	Prairie Elementary School	212	60	21	122	69	39	829
28039	Ridge Elementary School	178	46	52	73	53	0	637

28024	S.J. Montgomery Elementary School	193	40	54	97	42	0	516
28032	Scott Middle School	244	105	31	122	91	74	719
28033	Truman Elementary School	74		5	58	11		422
28036	Westside Elementary School	159	24	19	98	42	5	396
28037	Woodvale Elementary School	131	36	11	87	33	25	592
28038	Youngsville Middle School	148	116	30	80	38	86	797

Totals		8378	3113	1924	4605	1790	1512	28226
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Appendix 1 Chart 2

NETWORK AND INTERNET READINESS OF SCHOOL SITES

Organization	Est Current Internet Bandwidth	Recommended Internet Bandwidth for 2014-15	Recommended Internet Bandwidth for 2017-18	Est Max Network Speed
Acadian Middle School (028001)	100 Mbps - Fast Ethernet	54.1	541	100 Mbps - Fast Ethernet
Acadiana High School (028002)	100 Mbps - Fast Ethernet	174.1	1741	100 Mbps - Fast Ethernet
Alice N. Boucher Elementary School (028004)	100 Mbps - Fast Ethernet	78.6	786	100 Mbps - Fast Ethernet
Alternative Instructional Model Academy (AIM) (028045)	100 Mbps - Fast Ethernet			100 Mbps - Fast Ethernet
Broadmoor Elementary School (028006)	100 Mbps - Fast Ethernet	68.5	685	100 Mbps - Fast Ethernet
Broussard Middle School (028007)	100 Mbps - Fast Ethernet	55.8	558	100 Mbps - Fast Ethernet
Carencro Heights Elementary School (028009)	100 Mbps - Fast Ethernet	44.6	446	100 Mbps - Fast Ethernet
Carencro High School (028010)	100 Mbps - Fast Ethernet	123.2	1232	100 Mbps - Fast Ethernet
Carencro Middle School (028008)	100 Mbps - Fast Ethernet	65.7	657	100 Mbps - Fast Ethernet
Charles M. Burke Elementary School (028047)	100 Mbps - Fast Ethernet	61.9	619	100 Mbps - Fast Ethernet
David Thibodaux Career and Technical High School (028054)	100 Mbps - Fast Ethernet	44.7	447	100 Mbps - Fast Ethernet
Duson Elementary School (028013)	100 Mbps - Fast Ethernet	22.1	221	100 Mbps - Fast Ethernet
Early College Academy (028053)	100 Mbps - Fast Ethernet	20.3	203	100 Mbps - Fast Ethernet
Edgar Martin Middle School (028022)	100 Mbps - Fast Ethernet	74	740	100 Mbps - Fast Ethernet
Ernest Gallet Elementary School (028048)	100 Mbps - Fast Ethernet	104.3	1043	100 Mbps - Fast Ethernet
Evangeline Elementary School (028040)	100 Mbps - Fast Ethernet	64.7	647	100 Mbps - Fast Ethernet
Green T. Lindon Elementary School (028021)	100 Mbps - Fast Ethernet	76.3	763	100 Mbps - Fast Ethernet
J. Wallace James Elementary School (028051)	100 Mbps - Fast Ethernet	89.8	898	100 Mbps - Fast Ethernet
J.W. Faulk Elementary School (028014)	100 Mbps - Fast Ethernet	65.2	652	100 Mbps - Fast Ethernet
Judice Middle School (028016)	100 Mbps - Fast Ethernet	59	590	100 Mbps - Fast Ethernet
Katharine Drexel Elementary School (028012)	100 Mbps - Fast Ethernet	61.4	614	100 Mbps - Fast Ethernet
L. Leo Judice Elementary School (028017)	100 Mbps - Fast Ethernet	37.1	371	100 Mbps - Fast Ethernet
L.J. Alleman Middle School (028003)	100 Mbps - Fast Ethernet	101.8	1018	100 Mbps - Fast Ethernet
Lafayette Charter High School (028046)	100 Mbps - Fast Ethernet	9.8	98	100 Mbps - Fast Ethernet
Lafayette High School (028019)	100 Mbps - Fast Ethernet	238.3	2383	100 Mbps - Fast Ethernet
Lafayette Middle School (028018)	100 Mbps - Fast Ethernet	53.6	536	100 Mbps - Fast Ethernet
Live Oak Elementary School (028049)	100 Mbps - Fast Ethernet	70.4	704	100 Mbps - Fast Ethernet
Milton Elementary School (028023)	100 Mbps - Fast Ethernet	86.9	869	100 Mbps - Fast Ethernet
Moss Preparatory School (028050)	100 Mbps - Fast Ethernet			100 Mbps - Fast Ethernet

Myrtle Place Elementary School (028026)	100 Mbps - Fast Ethernet	31.3	313	100 Mbps - Fast Ethernet
N. P. Moss Middle School (028025)	100 Mbps - Fast Ethernet			100 Mbps - Fast Ethernet
Northside High School (028027)	100 Mbps - Fast Ethernet	85.2	852	100 Mbps - Fast Ethernet
O. Comeaux High School (028011)	100 Mbps - Fast Ethernet	190	1900	100 Mbps - Fast Ethernet
Ossun Elementary School (028028)	100 Mbps - Fast Ethernet	87.2	872	100 Mbps - Fast Ethernet
Paul Breaux Middle School (028005)	100 Mbps - Fast Ethernet	78	780	100 Mbps - Fast Ethernet
Plantation Elementary School (028029)	100 Mbps - Fast Ethernet	54.1	541	100 Mbps - Fast Ethernet
Prairie Elementary School (028030)	100 Mbps - Fast Ethernet	85	850	100 Mbps - Fast Ethernet
Ridge Elementary School (028039)	100 Mbps - Fast Ethernet	68.9	689	100 Mbps - Fast Ethernet
S.J. Montgomery Elementary School (028024)	100 Mbps - Fast Ethernet	57	570	100 Mbps - Fast Ethernet
Scott Middle School (028032)	100 Mbps - Fast Ethernet	75	750	100 Mbps - Fast Ethernet
Truman Elementary School (028033)	100 Mbps - Fast Ethernet	42.7	427	100 Mbps - Fast Ethernet
W. D. Smith Career Center (028035)	100 Mbps - Fast Ethernet			100 Mbps - Fast Ethernet
Westside Elementary School (028036)	100 Mbps - Fast Ethernet	41.5	415	100 Mbps - Fast Ethernet
Woodvale Elementary School (028037)	100 Mbps - Fast Ethernet	60.3	603	100 Mbps - Fast Ethernet
Youngsville Middle School (028038)	100 Mbps - Fast Ethernet	82.7	827	100 Mbps - Fast Ethernet



Statewide Consortium of Services and Support

The Louisiana Department of Education (LDOE) recognizes to achieve all of the technology readiness goals in all schools across the state, LDOE will need to provide new and expanded technology support and services to LEAs through the creation of an Educational Service Agency within DOE and a Technology Assistance Team.

These two groups will provide LEAs who wish to join in a consortium with other LEAs and the state both technical and advisory support for all of the technology-based initiatives required to meet readiness goals for supporting online assessments and 21st century learning environments. In joining this consortium, LEAs will certify that they are committed to meeting the technology readiness goals and are willing to commit their resources (staff, experience or funding) to ensure both their LEA and the other consortium members are successful in these endeavors. Additionally, the State will commit to provide additional staffing and support for the consortium members to achieve their goals.

Below is a list of the initial services and support that the State would like to implement for Consortium LEA members.

EDUCATION SERVICE AGENCY (ESA)

LDOE is working to create an internal unit whose mission will be to provide support, guidance and solutions for implementing technology readiness goals throughout the State. This team will work with LEAs and the Technology Assistance Team to provide guidance and innovative solutions which focus on implementing and supporting technology requirements to raise student achievement and expand student learning opportunities across the State.

TECHNOLOGY ASSISTANCE TEAM (TAT)

The Technology Assistance Team will be made up of 1 or more designated LEA staff members appointed by their LEA Superintendent who will serve in both an advisory and implementation capacity for developing and implementing technology policies and plans in both their district and across the state. This team will meet on a regular interval to assist the State in determining the needs, direction and solutions for meeting technology procurement, training, planning and funding requirements in the classroom.

TECHNOLOGY PLANNING

LDOE will be working with LEAs to develop technology plans for meeting both the technology readiness goals and their district's educational goals. Through this process, LEAs will be able to properly budget and plan for new acquisitions, training, support, infrastructure, educational resources and platforms, distance learning networks, and other technology initiatives. In addition, to local LEA planning, the state will be working with LEAs to create, design and fund statewide technology initiatives in support of educational goals.

CONSORTIUM PROCUREMENT & CONTRACTS

Through LDOE's newly created ESA and TAT, the State will focus effort to create statewide technology contracts and private partnerships which provide significant discounts and expanded services for consortium LEA members. Initial services/products to be included are computer software; computer peripherals, devices and support; network hardware and support; technology services; and telecommunication products and services.

INFRASTRUCTURE DESIGN & GUIDANCE

Through LDOE's newly created ESA and TAT, the State will provide consortium members with additional resources for designing and implementing new or upgraded infrastructure designs to support technology goals. This will include but is not limited to bringing in private partners and other agencies to work collaboratively on creating the best design to meet the specific needs of a school and or district based on its particular educational direction and services. This team will also provide training and support options that are tailored to the consortium members needs.

E-RATE SUPPORT & FILING

To ensure LEAs and the State best utilize support and funding programs to meet technology goals, the State will begin to expand its role in supporting TAT consortium members with filing and processing their E-Rate documentation. Consortium members will have the option to either continue to file their own applications or utilize the State staff to complete individual district applications or file as part of a consortium in order to garner higher overall discounts and pricing.