



Technology for Digital Learning & Online Assessments



Goals and Expected Outcomes

- **Goals:**
 - Discuss online readiness for digital learning and assessments
 - Discuss PARCC Technology Guidelines
 - Describe PARCC Technology Readiness Tools (TRTs)
- **Expected Outcomes:**
 - Know what is meant by online readiness
 - Be able to access the PARCC Technology website
 - Understand efforts and resources underway and available intended to ensure PARCC Technology Readiness for all school districts in the Arkansas




Additional guidance is available at www.parcconline.org/field-test

Arkansas and Online Readiness

- *State Educational Technology Directors Association (SETDA) recommendations*

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



Full recommendation by SETDA:
http://www.setda.org/c/document_library/get_file?folderid=353&name=0LFE-1517.pdf

SETDA on Bandwidth

- Additional bandwidth will be required for most K-12 districts in the country in order to provide enhanced K-12 teaching and learning and
 - Online content
 - Applications
 - Functionality



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SETDA Recommendations

1. Address Broadband Infrastructure
 - Minimum target by 2017-18 of 1 Gbps per 1000/ students
2. Ensure Universal Broadband Access
3. Build State Leadership
4. Advocate for Federal Funding
 - The U.S. ranks 15th among industrialized countries in access to high-speed internet



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Digital Readiness

Includes assessments but is much more:

- It is a multi-year transition process.
- Involves an in-depth needs analysis, planning, communication, involvement of stakeholders, as well as,
- training and hands-on experiences for students and staff.



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Student Readiness

- = technological proficiency
- **Students have necessary skills and experience to learn and be assessed online.**
 - To accomplish this, students use educational technology to actively learn the content and to demonstrate understanding of the content.
 - It involves using educational technology to not only gather, remember and understand information but to also analyze, evaluate and create information incorporating what was learned.



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Student Readiness

- Student are technological proficient.
- Students have access to educational technology and the Internet.
- Students need experience with online assessments.



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Teacher Readiness

- Teachers have necessary skills and experience.**
 - Use educational technology so students can actively learn the content and demonstrate understanding of the content.
 - Use educational technology to assess student learning and to inform instruction.
 - Be comfortable with a classroom of students using devices...includes ability to assist with troubleshooting
 - Have technological proficiency
 - Have access to technology and the Internet
 - Have experience with online assessments




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Administrator Readiness

Administrators facilitate online readiness.

- Facilitate conversations with stakeholders (community, Board, families)
- Actively participate in the development of an overarching implementation plan that is aligned to curricular and infrastructure needs
- Ensure that students and staff have the necessary resources for digital learning and online assessments
- Provide a unified vision and implementation for all schools within the district – everyone has a role
- Ensure that the logistics, environments and technical support services are components of the implementation plan




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Site Readiness

What locations would be used for online assessments?

- How many students would these locations accommodate at one time?
- Are there locations that can be temporarily set up for administering online assessments?
- Who would do it and how would it be done?
- What devices would be used for the online assessments?
- How much would it cost to set up and break down the location and devices?
- How much time is needed for set up and break down?
- What could be done ahead of time to prepare the location and devices?




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Device Readiness

What devices will be used for online assessments?

- How many students will these devices serve at one time?
- Where are these devices located?
- Do any of them need to be gathered and set up in a temporary location for online assessments? If so:
 - Who would do it?
 - How would it be done?
 - What is the amount of time needed to gather, prepare and deploy?
 - What are the costs involved?



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Bandwidth Readiness

- What is the current bandwidth for each student/user on the network/Internet when the network/Internet services are at full capacity?
 - How many students can be on the network/Internet at the same time when it is at full capacity?
 - What would the upload and download speeds be for each student?



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Bandwidth Readiness

Does this amount of bandwidth and speed support teaching, learning and online assessments?

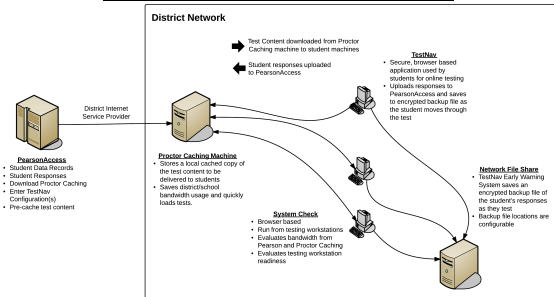
If not:

- Upgrade services?
- Limit the number of students on network?
- What would that number be?
- Do both?



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PARCC Testing Overview




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Resources for PARCC Field Test Technology Readiness


Most schools should be able to meet the requirements, since relatively few students need to be tested at one time and there is a long testing window. Even schools with a relatively few computers and limited access to the internet should be able to participate.

Additional guidance is available at www.parcconline.org/field-test



Technology Readiness for Field Test: Quick Start Checklist

1.	NUMBER OF TEST TAKERS: <i>Estimate the maximum number of students that will be testing at one time.</i> Consider how the school might schedule classes of students for field testing. This may be multiple classrooms at a time over a shorter period, or only one class at a time – or even half a class at a time—over the course of the full testing window. Districts/schools will have flexibility to match their schedule to their computer capacity as long as they can complete the field tests within the testing window.	<input checked="" type="checkbox"/>
2.	AVAILABLE DEVICES: <i>Identify the school computers that will be available for testing.</i> Review the PARCC Technology Guidelines and verify that there will be an adequate number of school computers that meet PARCC minimum specifications to cover the largest number of students that will be testing at one time. If there seems to be a gap, schools can consider dividing classes into smaller groups to test at different times using the available computers throughout the testing window.	<input checked="" type="checkbox"/>
3.	BANDWIDTH: Plan to use Proctor Caching and have <i>at least 5 kbps of bandwidth</i> for each student testing at the same time. OR Plan for <i>at least 50 kbps of bandwidth</i> for each student connecting to the Internet for testing at the same time.	<input checked="" type="checkbox"/>




General Requirements for Desktop, Laptop, Netbook, and Thin Client/VDI Computers

Operating System	Supported for Spring 2014 Field Test	Supported for 2014-2015 Operational Assessment	Minimum Specifications	Recommended Specifications
Windows	Yes	Yes	Windows XP – Service Pack 3	Windows 7 or newer
Mac OS	Yes	Yes	Mac OS 10.5	Mac OS 10.7 or newer
Linux	No	Yes	Ubuntu 9-10, Fedora 6	Linux: Ubuntu 11.10, Fedora 16 or newer
Chrome OS	Yes ¹	Yes ¹	Chrome OS 19	Chrome OS 19 or newer

For all details about device specifications, please see the [Full Technology Specifications for PARCC Spring 2014 Field Test](http://www.parcconline.org/field-test-technology) available on www.parcconline.org/field-test-technology


¹ For the Field Test, not all accessibility features for students with disabilities will be supported for Chrome OS. All features will be supported for the 2014-2015 Operational Year.



General Requirements for Tablets

Operating System	Supported for Spring 2014 Field Test	Supported for 2014-2015 Operational Assessment	Minimum Specifications	Recommended Specifications
Android	No	Yes	Android 4.0	Android 4.0 or newer
Apple iOS	Yes	Yes	iPad 2 running iOS 6	iPad 2 or newer running iOS6 or newer
Windows Tablets	Yes ¹	Yes ¹	Windows 8	Windows 8 or newer


Tablet screen size must be 9.5 inches (10 inch class) or larger. In addition, external keyboards (wired or bluetooth) are required for tablets. For all details about device specifications, please see the *Full Technology Specifications for PARCC Spring 2014 Field Test* available on www.parcconline.org/field-test-technology.



¹ Windows RT will not be supported for Field Test. It is unknown if Windows RT will be supported for the 2014-2015 Operational Assessment.

School Bandwidth for Testing

Simultaneous Test-Takers/Devices	Minimum Connection Speed (External Connection to the Internet)	
	With Caching (5 kbps/student)	Without Caching (50 kbps/student)
15 students/devices	75 kbps	750 kbps
20 students/devices	100 kbps	1000 kbps (1 mbps)
30 students/devices	150 kbps	1500 kbps (1.5 mbps)
60 students/devices	300 kbps	3000 kbps (3 mbps)
90 students/devices	450 kbps	4500 kbps (4.5 mbps)



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PARCC Tech Resources

- www.techreadiness.net
 - Technology Readiness Tool (TRT) Site
- <http://www.parcconline.org/technology>
 - PARCC Capacity Planning Tool
- <http://practice.parcctestnav.com>
 - System Check Tool
 - Proctor Caching Software
 - PARCC Training Modules
 - Technology
 - Test Administration
 - Sample Items




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ADE Tech Resources

<http://ideas.aetn.org/commoncore/assessment>

- PARCC Field Test Overview
- PARCC Technology Requirements
- PARCC Assessment Resources
- Technology Set Up
- Administrator Training
- Accessibility Features and Accommodations with Computer-Based Testing
- PARCC Accessibility Features and Accommodations Manual
- Student Data Upload Training utilizing COGNOS




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Combined State Effort

K-12 Tech Readiness Team

- Division of Information Systems (DIS)
- APSCN LAN / Remote Field Support
- Educational Service COOP Tech Coordinators



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Q&A



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