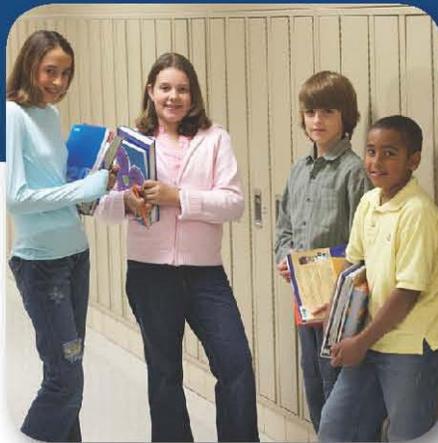
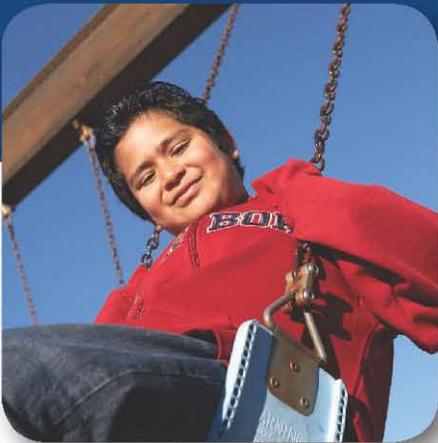


● ● ● Online Testing Network Evaluation



Version 1.0  
January 2017

## Online Testing Network Evaluation

TECHNOLOGY – NETWORK CONFIGURATION	
<input type="checkbox"/>	<p>Complete a wireless site survey to assess sufficient wireless coverage in testing areas. Areas to review include:</p> <p><b>Device Density:</b> Review the number of devices connecting to a single access point. Keep in mind that devices connecting to the access point might not be in the same room where the testing will take place. If the site has an open network or available guest network, account for devices that students, proctors, and teachers have connected (e.g. smartphones, laptops, and tablets).</p> <p><b>Radio Frequency Interference:</b> Review whether there may be other devices that could cause interference. Wireless networks share the same frequency used by many technologies and any of these devices operating at the same frequency as an access point can cause interference. In addition, wireless access points sharing the same channel might interfere with each other.</p> <p><b>Connection consistency:</b> Consider things that may interrupt the connection between the testing device and the access point. Review if there are objects obstructing the line of sight between testing devices and access points that could interrupt the connection. Also consider if there are multiple access points that can lead to momentary interruptions as a testing device moves from one to another.</p> <p><b>2.4GHz vs. 5GHz Bands:</b> Assess whether the site’s wireless network is using either the 2.4GHz or 5GHz bands appropriately. Wireless networks operate in either 2.4GHz or 5GHz band. The 5GHz connection can transmit higher amounts of data with better speeds, however, the 2.4GHz connection is better suited for transmitting data over longer ranges and through walls and other solid objects.</p>
<input type="checkbox"/>	<p>Review entire district and school network (LAN, WAN) capacity to administer online testing. Verify there is available capacity for the number of students taking the test at the same time. Take into account competing network bandwidth and other traffic in the building at the time of testing.</p> <p>Estimated available bandwidth needed from Testing Client to Testing Site Manager:</p> <ul style="list-style-type: none"> <li>❖ Up to 25 Concurrent Testers: 50 Mb</li> <li>❖ 26–150 Concurrent Testers: 100 Mb</li> <li>❖ 151–275 Concurrent Testers: 200 Mb</li> </ul> <p>(On the iPad, use free apps available in the Apple App Store, like <i>Speedtest</i> and <i>Wi-Fi Sweetspots</i>, to measure the network performance from the testing device.)</p>
<input type="checkbox"/>	<p>After the test has started the Internet requirements are significantly reduced because of the use of the Testing Site Manager (TSM), however, the requirements for the local network from the device to the TSM remain high. The average ACCESS for ELLs 2.0 and Screener item size is 1.5 MB. This requires a reliable connection throughout the test. Review the connection from the device to the TSM, verifying it is strong and consistent.</p>
<input type="checkbox"/>	<p>Ensure that all firewall and filters on the computer network are configured with the necessary URLs whitelisted.</p>
<input type="checkbox"/>	<p>Leverage traffic shaping to give DRC INSIGHT testing traffic priority over other network traffic.</p>
<input type="checkbox"/>	<p>Limit other use of the network during testing, like the amount of high-bandwidth activities such as downloading and watching videos.</p>
<input type="checkbox"/>	<p>Verify that the wireless access point is fully operational.</p>
<input type="checkbox"/>	<p>Require anyone in the testing rooms or sharing the testing room's wireless access point to turn off any wireless devices not used for testing.</p>