Installing and Configuring DRC INSIGHT on iPads and Chromebooks
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Section One: Introduction
This User Guide describes the information necessary to install, configure, and test using the DRC INSIGHT Online Learning System and iPad or Chromebook devices. It contains configuration and installation information for iOS and Chrome operating system environments, describes how to install DRC INSIGHT and its components, and provides tips, techniques, and frequently asked questions (FAQs). Use this Guide with the DRC INSIGHT Technology User Guide for complete configuration and installation details about online testing with DRC INSIGHT and its components.

DRC INSIGHT delivers assessments and related resources online for all content areas and grade levels by incorporating computerized testing, related resources, dynamic reporting, and a suite of educator tools. It consists of a software interface that is available from a secure web browser and the Testing Site Manager, or TSM, to help manage network traffic, maintain connectivity, and handle bandwidth issues.

The main component of DRC INSIGHT is the secure web browser testing interface installed on each testing device. This software communicates with the DRC INSIGHT server to provide online tools training and test questions to the test taker and to send responses to the DRC INSIGHT server, which stores them securely. Throughout this User Guide, we refer to the secure web browser interface as simply INSIGHT.

The INSIGHT TSM is a powerful, web-based application that provides caching and a software toolbox to help you plan, configure, and manage your online testing environment. The TSM can cache test content (content caching) and student test responses (response caching). At test time, TSM content caching software sends cached test items to the iPad and Chromebook testing devices. This content must be current in order for students to test.

![Figure 1-1: TSM Content and Response Caching](image)
Usually, you install the TSM caching software on one or more strategic computers with sufficient bandwidth to help manage and streamline communication between the iPad and Chromebook devices and the DRC INSIGHT server. When you install INSIGHT on your test devices, you configure those devices to communicate with your TSM computer(s).

During testing, if the test computers cannot communicate with the DRC INSIGHT server, the response caching software buffers and stores their test responses. When the response caching software is communicating with DRC, it sends test responses to the DRC INSIGHT server every fifteen minutes. Even if DRC is not currently communicating with the testing computers, the test responses are still being stored on the TSM for transmission to DRC so no responses are lost.

TSM response caching is used during a test session—students cannot start a test session if there is no communication between the INSIGHT server and the testing device.
Notes:
Section Two: Configuration
What's Covered in This Section

The Configuration section describes the specific hardware, software, network, and desktop requirements to configure INSIGHT and the Testing Site Manager (TSM).

This section discusses tasks NeSA-Technology Assessment Coordinators (N-TACs) perform to configure the INSIGHT software environment. N-TACs can configure INSIGHT to use with TSM systems and to connect directly to the DRC servers and databases through the Internet.

This User Guide includes information about the operating systems, software, devices that work with INSIGHT and the TSM. A testing location may use a subset of this offering depending on the location and type of assessment.

The specific technical information covered in this User Guide that applies to assessments in Nebraska is shown below. Use this information as reference throughout the User Guide.

Operating Systems
- Chrome OS
- Apple iOS

TSM and Other Options
- Response Caching
- Content Caching
- Capacity Estimator
- Load Simulation Testing
- Ping Trends
The following is a checklist of items N-TACs must verify and complete before testing with iPads and Chromebooks.

- Ensure that the device is connected to the correct Wi-Fi network.
- Ensure that the latest version of the DRC INSIGHT App is installed on each iPad device.
- Ensure that all testing devices are fully charged or plugged in.
- Ensure that the device’s soft keyboard is set to English.
- Ensure that Check Spelling (spell checker), Auto-Correction, and Auto-Capitalization are turned off each on iPad device.*
- Enable and activate Guided Access on each iPad device.*

*Many Mobile Device Management (MDM) solutions can perform this task.
Different INSIGHT and TSM installations are available for each operating system. There is no separate installation for accommodations and no accommodation is supported in a Linux environment. The following table lists the file(s) or URL for each type of installation and operating system.

**Note:** These files/URLs are available on eDIRECT under Test Setup–General Information–Downloads.

<table>
<thead>
<tr>
<th>Installation</th>
<th>Operating System</th>
<th>File(s)/URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSIGHT</td>
<td>Chrome OS</td>
<td>The INSIGHT App ID and URL is contained in the following text (.txt) file:</td>
</tr>
<tr>
<td>TSM</td>
<td>Windows</td>
<td>TESTING_SITE_MANAGER_Setup.exe</td>
</tr>
<tr>
<td></td>
<td>Mac (OS X)</td>
<td>TESTING_SITE_MANAGER_Setup.dmg</td>
</tr>
<tr>
<td></td>
<td>Linux</td>
<td>TESTING_SITE_MANAGER_Setup.sh</td>
</tr>
</tbody>
</table>
**INSIGHT System Requirements**

This topic covers the minimum and recommended requirements for INSIGHT on Chromebook and iPad testing devices using the supported operating system platforms. These requirements vary based on the accommodations offered.

**Important:** The minimum level is a low compliance threshold—at this level, the software and/or hardware may not deliver an optimal student testing experience. Devices may struggle with memory and processing power, which can reduce responsiveness and increase response times during testing. DRC advises using the recommended level.

**INSIGHT Requirements for iPad Devices**

The following table describes the minimum and recommended system requirements for the iPad device.

<table>
<thead>
<tr>
<th>iPad Devices</th>
<th>Operating Systems</th>
<th>Minimum</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple iOS</td>
<td>iOS 7.1 or newer* (requires an iPad 2 device or newer—do not use an iPad mini device)</td>
<td>iOS 7.1 or newer* (requires an iPad 2 device or newer—do not use an iPad mini device)</td>
<td></td>
</tr>
</tbody>
</table>

*Important:
- To distribute the INSIGHT App to iPad devices, you must use an MDM solution.
- To mass configure the INSIGHT App for iPad devices, you must use an MDM that supports the Managed App Configuration feature.
- You also can manually configure the INSIGHT App on each iPad.

For more information, see “Distributing and Configuring INSIGHT to iPad Devices” on page 15.

**Important:** Due to the recent release of iOS 8, INSIGHT has not been fully tested on this version of the operating system. You may use iOS 8, but it is not supported at this time.

<table>
<thead>
<tr>
<th>Screen Size</th>
<th>A standard iPad 9.7” screen.</th>
<th>A standard iPad 9.7” screen.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td>A fully charged battery with a two-hour life.</td>
<td>A device connected to a plugged-in power supply.</td>
</tr>
<tr>
<td>Internet Connectivity</td>
<td>The iPad devices must be able to connect to the Internet via wired or wireless networks.</td>
<td></td>
</tr>
<tr>
<td>Input Device Requirements</td>
<td>Keyboard – Bluetooth</td>
<td></td>
</tr>
<tr>
<td>Other Devices Supported</td>
<td>Earphones, microphone, and stylus</td>
<td></td>
</tr>
</tbody>
</table>

*Note: To meet secure testing requirements, each Bluetooth keyboard must be configured to pair with only a single device during testing.

---

*Table 2-1: System Requirements for iPad Devices*
**INSIGHT Requirements for Chromebook Devices**

The following table describes the minimum and recommended system requirements for Chromebook devices.

<table>
<thead>
<tr>
<th>Chromebook Devices</th>
<th>Operating Systems</th>
<th>Minimum</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chrome OS</strong></td>
<td>Chrome OS 33 with a non-touch Chromebook. To lock down the device for test security, Chromebooks must run on a level of Chrome that supports Single App Kiosk Mode.</td>
<td>Same or newer</td>
<td></td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>512 MB RAM</td>
<td>1 GB RAM or greater</td>
<td></td>
</tr>
<tr>
<td><strong>Processor</strong></td>
<td>500 MHz</td>
<td>1 GHz or faster</td>
<td></td>
</tr>
<tr>
<td><strong>Disk Space</strong></td>
<td>100 MB available</td>
<td>100 MB or more available</td>
<td></td>
</tr>
<tr>
<td><strong>Screen Size</strong></td>
<td>9.5 inches or larger</td>
<td>13 inches or larger</td>
<td></td>
</tr>
<tr>
<td><strong>Battery</strong></td>
<td>A fully charged battery with a two-hour life.</td>
<td>A device connected to a plugged-in power supply.</td>
<td></td>
</tr>
<tr>
<td><strong>Screen Resolution</strong></td>
<td>800 x 600</td>
<td>1024 x 768 or higher</td>
<td></td>
</tr>
<tr>
<td><strong>Internet Connectivity</strong></td>
<td>Devices must be able to connect to the Internet via wired or wireless networks.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Input Device Requirements</strong></td>
<td>Built-in Chromebook keyboard, and mouse (recommended) or touchpad.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The input device must allow students to:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Select/deselect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Drag</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Highlight text, objects, and areas.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Enter letters, numbers, and symbols</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Shift, tab, return, delete, and backspace</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other Devices Supported</strong></td>
<td>Earphones, mouse, microphone, and stylus</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table 2-2: System Requirements for Chromebook Devices*
Distributing and Configuring INSIGHT to iPad Devices

There are two main parts to the process of setting up an iPad device to test with the INSIGHT App—distribution and configuration.

- To *distribute* (deploy) the INSIGHT App (DRC INSIGHT.ipa) you must either use an MDM software tool, or deploy the file using any distribution process that supports .ipa files.

  MDM software can secure, monitor, manage, and support mobile devices deployed across mobile operators, service providers, and enterprises.

- To *configure* the iPad to work with the INSIGHT App, you have two options:
  - *If your MDM supports the Managed App Configuration feature*, you can use the MDM to deploy the INSIGHT configuration file to all of the iPad devices. In other words, you can centrally configure multiple iPad devices using the MDM.

    Using an MDM with the Managed App Configuration feature is the preferred method of distributing the same configuration file to the iPads. It is easier and less error-prone to send the same TSM configuration to multiple iPads versus manually editing the configuration on each device.

    - *If your MDM does not support the Managed App Configuration feature*, you can use the MDM to distribute the INSIGHT App to the iPad devices, but you must manually configure each iPad by using the System Readiness Check.
Web Browser Requirements

DRC INSIGHT runs on a custom Chrome web browser to ensure a fully secure testing environment. In addition, the eDIRECT system you use to download INSIGHT and the TSM supports some versions of the web browsers detailed in the following tables.

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Web Browser(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Windows</td>
<td>Mozilla Firefox, Google Chrome, Microsoft Internet Explorer</td>
</tr>
<tr>
<td>Apple Mac OS X</td>
<td>Mozilla Firefox, Apple Safari, Google Chrome</td>
</tr>
<tr>
<td>Linux</td>
<td>Mozilla Firefox, Google Chrome</td>
</tr>
<tr>
<td>Apple iOS</td>
<td>Safari for iOS</td>
</tr>
<tr>
<td>Chrome OS</td>
<td>Google Chrome</td>
</tr>
</tbody>
</table>

Table 2-3: Supported Web Browsers by Operating System

<table>
<thead>
<tr>
<th>Web Browser</th>
<th>Minimum</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Chrome</td>
<td>27.x</td>
<td>31.x or newer</td>
</tr>
<tr>
<td>Mozilla Firefox</td>
<td>21.x</td>
<td>26.x or newer</td>
</tr>
<tr>
<td>Apple Safari</td>
<td>5.x</td>
<td>7.x or newer</td>
</tr>
<tr>
<td>Microsoft Internet Explorer</td>
<td>8.x</td>
<td>10.x or newer</td>
</tr>
<tr>
<td>Safari for iOS</td>
<td>5.x</td>
<td>6.x or newer</td>
</tr>
</tbody>
</table>

Table 2-4: Minimum and Recommended Web Browser Levels by Browser Type

**Important:** The minimum level is a low compliance threshold—at this level, the software and/or hardware may not deliver an optimal student testing experience. DRC advises using the recommended level.
Section Three: Installing INSIGHT on iPads
This section describes the installation process for iPad devices in an iOS environment. It provides detailed information about installing INSIGHT and configuring it to use the Testing Site Manager (TSM).

To install INSIGHT on one or more iPads you must use Apple Mobile Device Management (MDM) software. The process of installing and configuring INSIGHT on multiple iPads using an MDM is summarized below. This process assumes that you have already installed and set up an MDM solution and have enrolled all the iPads with the MDM.

**Important:** There are many versions of MDM software. To deploy and configure your DRC INSIGHT iPad software, your MDM software must support the Managed App Configuration feature for iOS 7 (this feature is necessary to perform Steps 2 and 3). Otherwise, you must configure your iPads manually.

1. **Configure the iPad Group**

   If your MDM software allows, within the MDM configure the iPad group to turn off Check Spelling (spell check), Auto-Correction, and Auto-Capitalization, and enable/activate the Guided Access feature.

2. **Configure INSIGHT**

   Download the DRC INSIGHT executable (DRC INSIGHT.ipa) and configuration (ManagedAppConfig.plist) files from DRC eDIRECT and edit the configuration file to specify your TSM connection and other configuration information for the iPad group (see “Installing INSIGHT for iOS Using an MDM” on page 21).

3. **Deploy INSIGHT**

   Deploy the DRC INSIGHT executable and edited configuration files to your iPads using your MDM software.

4. **Prepare your iPads for Testing**

   When you are ready to start testing, start the iPad and use **Settings–General–Keyboard** to verify that Check Spelling (spell check), Auto-Correction, and Auto-Capitalization are disabled. If they are not, disable them.

   Verify that the Guided Access feature is on to put the iPad into Kiosk Mode (required for testing). If it is not, specify **Settings–General–Accessibility–Learning–Guided Access** to turn it on and select **Set Passcode** to set the passcode. Launch the DRC INSIGHT App.

   **Note:** To put the iPad device into Kiosk Mode, NeSA-Technology Assessment Coordinators (N-TACs) must provide a passcode (numeric password). This same passcode information is necessary to exit the INSIGHT App during or after testing.
The process of installing INSIGHT using an MDM and configuring it manually is summarized below. This process assumes that you have already installed and set up an MDM solution and have enrolled all the iPads with the MDM.

1. **Configure the iPad Group**

   If your MDM software allows, configure the iPad group to turn off Check Spelling (spell check), Auto-Correction, and Auto-Capitalization, and enable/activate the Guided Access feature.

2. **Download the DRC INSIGHT Executable File**

   Download the DRC INSIGHT executable (DRC INSIGHT.ipa) file from DRC eDIRECT.

3. **Deploy INSIGHT**

   Deploy the DRC INSIGHT executable to your iPads using your MDM software.

4. **Configure INSIGHT Manually**

   Edit the configuration of each iPad device manually by using the System Readiness Check (see “Configuring an iPad Manually” on page 26).

5. **Prepare your iPads for Testing**

   When you are ready to start testing, start the iPad and use **Settings–General–Keyboard** to verify that Check Spelling (spell check), Auto-Correction, and Auto-Capitalization are disabled. If they are not, disable them.

   Verify that Guided Access is on to put the iPad into Kiosk Mode (required for testing). If it is not, specify **Settings–General–Accessibility–Learning–Guided Access** to turn it on and select **Set Passcode** to set the passcode. Launch the DRC INSIGHT App.

   **Note:** To put the iPad device into Kiosk Mode, NeSA-Technology Assessment Coordinators (N-TACs) must provide a passcode (numeric password). This same passcode information is necessary to exit the INSIGHT App during or after testing.
Because of the role that the TSM plays in testing, there are some special considerations regarding TSM software installation.

- The computer on which you install the TSM software should have a static IP address (an address that does not change when the computer is restarted or rebooted) if you are using the machine IP address versus the machine name to connect to the TSM. If the IP address of a TSM machine changes, you must re-configure the testing devices that connect to that TSM.

- You should install the TSM before you install INSIGHT so that you can specify the path to the TSM and the communication port during the INSIGHT installation.

- If you need to change the configuration of a TSM after it is installed, you must uninstall the TSM and install a new version. If you re-install a TSM after you have installed INSIGHT, you may need to re-configure the testing devices that connect to it.

A TSM is used primarily to cache and manage test content and responses. For various reasons, iPads and Chromebooks do not provide a suitable environment for a TSM. As a result, you should install the TSM software on a Windows PC, Mac (OS X) computer, or Linux machine, and connect to the TSM when you install INSIGHT on the tablet device or Chromebook.

For specific TSM installation instructions, refer to the appropriate installation section in the *DRC INSIGHT Technology User Guide.*
**Installing INSIGHT for iOS Using an MDM**

You install INSIGHT on one or more iPads using any Apple Mobile Device Management (MDM) software. To configure INSIGHT from a central location and distribute the configuration to one or more iPads, you must use an MDM that supports the Managed App Configuration feature. If your MDM software does not support this feature, you must configure INSIGHT manually (see “Configuring an iPad Manually” on page 26).

The following describes the process of installing and configuring DRC INSIGHT using an MDM with the Managed App Configuration feature.

1. Install an MDM.
2. Enroll the iPads with the MDM.
3. If your MDM allows you to configure the iPad group, make the following system settings:
   - Turn Check Spelling (spell check) off
   - Turn Auto-Correction off
   - Turn Auto-Capitalization off
   - Enable and activate Guided Access
5. In the MDM, edit the DRC INSIGHT configuration file to supply the values for your TSM configuration. You must use the values from the DRCCConfiguration.json file. This file is created whenever you install DRC INSIGHT and contains the parameters you specified when you used the System Readiness Check to configure INSIGHT and the TSM.

   If DRC INSIGHT is already installed on a Windows, Mac (OS X), or Linux machine, you can locate the file in the following directories and skip to Step 9. Otherwise, go to Step 6.

   **Windows:** C:\Program Files\ NE Online Assessments\DRCCConfiguration.json

   **Mac (OS X):** Applications\ NE Online Assessment System\DRCCConfiguration.json

   **Linux**
   - Terminal location: /opt/NE Online Assessment System/DRCCConfiguration.json
   - Path Location: home/opt/ NE Online Assessment System/DRCCConfiguration.json

6. At this point, you have two options. You can install DRC INSIGHT on a Windows, Mac, or Linux-based desktop computer (not on a Chromebook or iPad) and perform Steps 7–11. Or, refer to “INSIGHT Installation Program Options” on page 24 for a description of the parameters that are in the .json file and use this information to edit the ManagedAppConfig.plist file (Step 9).
7. Start the System Readiness Check by selecting All-Programs–NE Online Assessment System–NE Online Assessments–Readiness (Windows) or /Applications/NE Online Assessment System/Readiness (Mac) and click DRC INSIGHT Properties in the System information page.

8. Configure access to the TSM using the drop-down menus and fields from the DRC INSIGHT Client Configuration Properties dialog box and click Save to save your changes.

The values from this page are used to create the DRCConfiguration.json file (see “Configuring an iPad Manually” on page 26).

9. Open the DRCConfiguration.json file and the ManagedAppConfig.plist file in a text editor and copy the values from the DRCConfiguration.json file into the ManagedAppConfig.plist file.

10. Using the MDM’s deployment feature, distribute the executable and the edited configuration files—DRC INSIGHT.ipa and ManagedAppConfig.plist—to the iPad devices in the group.

11. After you have finished deploying INSIGHT, turn on the Guided Access feature to put the iPad into Kiosk Mode (required for testing) by specifying Settings–General–Accessibility–Learning–Guided Access. Turn it on and select Set Passcode to set the passcode*. Verify that check Spelling (spell check), Auto-Correction, and Auto-Capitalization are disabled, and launch the DRC INSIGHT App.

*Note: To put the iPad device into Kiosk Mode, NeSA-Technology Assessment Coordinators (N-TACs) must provide a passcode (numeric password). This same passcode information is necessary to exit the INSIGHT App during or after testing (see “Working with Guided Access” on page 23).
Working with Guided Access

This topic describes some helpful hints for working with the Apple Guided Access feature. Refer to Guided Access documentation for additional information.

To configure the Guided Access feature, do the following:

1. Select Settings–General–Accessibility (Learning)–Guided Access.
2. Turn Guided Access on and click Set Passcode.
3. Enter and re-enter a four-digit passcode. This is the passcode you will need to enter to exit an INSIGHT session on an iPad while testing.
4. Click the Home button to exit Settings.

To start the Guided Access feature, do the following:

1. Open the INSIGHT App.
2. Triple-click the Home button quickly. The message Guided Access Enabled displays and the user cannot leave the App.
3. To exit the INSIGHT App, triple-click the Home button quickly and enter the four-digit passcode you used to configure Guided Access.
4. The screen display changes and allows you to End (end the App) and Resume (resume the App with Guided Access activated). Press End to end the App and Exit to exit INSIGHT.

To troubleshoot touchscreen issues, do the following:

1. Triple-Click the Home button.
2. Enter the four-digit Guided Access passcode.
3. Verify that Ignore All Screen Touches is disabled.
4. Check for gray circles on the screen. If any exist, delete them.
5. Press Resume.

To enable the volume rocker, do the following:

1. Triple-click the Home button.
2. Enter the four-digit Guided Access password
3. Select Options.
4. Turn on the Volume.
5. Press Resume.

Configuring Guided Access

Starting Guided Access

Parts of Touchscreen Disabled

Enable Volume Rocker
INSIGHT Installation Program Options

The following table shows the custom properties that are available for the installation program.

**Important:** Ignore the adminId, adminName, and requireLatestVersion properties in the DRC Configuration.json file.

<table>
<thead>
<tr>
<th>Property/Switch</th>
<th>Description</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>autoUpdateFlag</td>
<td>Enables and disables the automatic update feature.</td>
<td>true</td>
</tr>
<tr>
<td>contentCache</td>
<td>The URL and secure port of the TSM server that caches test content and performs load simulation tests. Replace localhost with the name or IP address of the TSM server.</td>
<td><a href="https://localhost:8443/">https://localhost:8443/</a></td>
</tr>
<tr>
<td>contentCacheEnable</td>
<td>Enables and disables a TSM for content caching. If true, include the contentCache property to specify the TSM that will perform content caching.</td>
<td>false</td>
</tr>
<tr>
<td>districtId*</td>
<td>The district ID for load simulation testing.</td>
<td>none</td>
</tr>
<tr>
<td>districtName*</td>
<td>The district name for load simulation testing.</td>
<td>none</td>
</tr>
<tr>
<td>httpsProxy</td>
<td>The URL and port of the proxy host server. Depending on your configuration, this URL can start with either http:// or https://</td>
<td>blank</td>
</tr>
<tr>
<td>lcsURL</td>
<td>The URL and secure port of the TSM server that caches test responses. Replace localhost with the name or IP address of the TSM server.</td>
<td><a href="https://localhost:8443/">https://localhost:8443/</a></td>
</tr>
<tr>
<td>loadSimulationEnable</td>
<td>Specifies that load simulation testing is enabled for the testing computer. If true, include the contentCacheEnable property set to true and the contentCache property to specify the TSM that will perform load simulation tests. You also must specify districtName, districtId, schoolName, and schoolId.</td>
<td>true</td>
</tr>
<tr>
<td>schoolId*</td>
<td>The school ID for load simulation testing.</td>
<td>none</td>
</tr>
<tr>
<td>schoolName*</td>
<td>The school name for load simulation testing.</td>
<td>none</td>
</tr>
</tbody>
</table>

*To determine the ID or name, use the name and/or numeric code from the locations file located at [https://ne-insight.drcedirect.com/InsightClientRESTServices/ClientRESTService.svc/locations](https://ne-insight.drcedirect.com/InsightClientRESTServices/ClientRESTService.svc/locations) (see Using the Locations File on the following page.).
**INSIGHT Installation Program Options (cont.)**

**Using the Locations File**

To locate district and school names and IDs, do the following:

1. Paste the locations file link into a browser and open it (download the file into a text editor if necessary).
2. Search for the string `district_name` to locate the district name and ID (to the left).
3. Search for the string `school_name` to locate the school name and ID (see below).

```json
{"districtid":"88888","district_name":"Sample District","schools":{"schoolid":"8888","school_name":"Sample School"}}
```

**Example Configuration (.plist) File**

The following is an example of the configuration (.plist) file for Nebraska.

⚠️ **Important**: Do not cut and paste this information—it is meant as an example only.

```xml
<?xml version="1.0" encoding="UTF-8"?> <!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
  <dict>
    <key>adminName</key><string></string>
    <key>autoUpdateFlag</key><string>true</string>
    <key>contentCache</key><string>https://10.3.97.11:8443/</string>
    <key>contentCacheEnable</key><string>true</string>
    <key>districtId</key><string>88888</string>
    <key>districtName</key><string>Sample District</string>
    <key>httpsProxy</key><string>http://10.3.98.61:8081/</string>
    <key>icsURL</key><string>https://10.3.97.11:8443/</string>
    <key>loadSimulationEnable</key><string>true</string>
    <key>schoolId</key><string>8888</string>
    <key>schoolName</key><string>Sample School</string>
  </dict>
</plist>
```
If your MDM software does not support the Managed App Configuration feature, you can use it to deploy INSIGHT, but you must configure INSIGHT manually. You configure an iPad manually by using the DRC INSIGHT properties to specify certain DRC INSIGHT properties for your iPad device. You can do the following:

- Enable automatic software updates.
- Specify settings for both your unsecured (http) and secured (https) host servers.
- Specify which server is the content caching and/or load simulation TSM server, and the port it uses for communication.
- Specify which server is the response caching TSM server and the port it uses for communication.
- Select the district and school name associated with the testing device (required).

You specify these properties by selecting DRC INSIGHT Properties (see “Setting DRC INSIGHT Properties on an iPad” on page 27). After you have finished, disable Check Spelling (spell check), Auto-Correction, and Auto-capitalization, and enable/activate the Guided Access feature to put the iPad into Kiosk Mode (required for testing).

To turn on the Guided Access feature, specify Settings—General—Accessibility—Learning—Guided Access. Turn it on and select Set Passcode to set the passcode.

**Note:** To put the iPad device into Kiosk Mode, NeSA-Technology Assessment Coordinators (N-TACs) must provide a passcode (numeric password). This same passcode information is necessary to exit the INSIGHT App during and after testing. This passcode must be secure—do not allow students to have the passcode (see “Working with Guided Access” on page 23).
Setting DRC INSIGHT Properties on an iPad

When you start the System Readiness Check on an iPad, you can select INSIGHT Properties from the System Information page. A dialog box displays that you can use to configure the iPad to work with DRC INSIGHT and a TSM.

1. Click DRC INSIGHT to start INSIGHT.

2. In an empty part of the screen, press with two fingers and hold to display the System Readiness Check.
3. Click **DRC INSIGHT Properties** to display the DRC INSIGHT Configuration Properties dialog box. From this dialog box you can review your INSIGHT configuration and make changes to it.
Setting DRC INSIGHT Properties on an iPad (cont.)

To specify a server to use for test content caching, check **Enable Content Caching** and enter the server name (or IP address*) and port number in the TSM Content Caching and Simulation Server Name field.

To specify a server to use for load simulations, check **Enable Load Simulation** and enter the server name (or IP address*) and port number (separated by a colon) and followed by a forward slash (/) in the TSM Content Caching and Simulation Server Name field.

To specify a server to use for test response caching, check **Enable Response Caching TSM** and enter the server name (or IP address*) and port number (separated by a colon) and followed by a forward slash (/) in the TSM Response Caching Server Name field that displays.

To specify a proxy HTTPS (secured) Host to use for the TSM, enter the server name (or IP address*) and port number (separated by a colon) in the HTTPS Proxy Host Name field. You may need to restart the DRC INSIGHT App to see this change.

Select the district and school for the testing device from the **District Name** and **School Name** drop-down menus. These names are used for the reports generated from the load simulations tests.

4. Press **Save** to save your changes or **Cancel** to cancel them.

**Important:** *A TSM server should have a static IP address (an IP address that does not change when the computer is restarted or rebooted) if you are using the machine IP address versus the machine name to connect to the TSM. If the IP address of a TSM machine changes, you must re-configure the testing devices that connect to that TSM. Remember to include the forward slash (/) at the end of the path to the TSM server—without it your TSM may not be configured correctly.
5. If you made any configuration changes, the System Information window displays the results of the System Readiness Check tests for those changes. Click **Execute Tests** to verify that the iPad is ready for testing. If there are errors, you must resolve them and repeat Steps 4 and 5.

6. Click **Exit**. Disable Check Spelling (spell check), Auto-Correction, and Auto-Capitalization, and turn on the Guided Access feature to put the iPad into Kiosk Mode (required for testing).

**Note**: Apple requires a Passcode (numeric password) to activate Guided Access. This passcode must be secure—do not allow students to have the passcode.
Section Four: Installing INSIGHT on Chromebooks
This section describes the installation process for Chromebook devices. It provides detailed information about installing INSIGHT and configuring it using the Device Toolkit.

DRC provides software called the Device Toolkit that you can use to configure and install the TSM with the Chromebooks in your environment. You use this software after you have installed, configured, and registered your Chromebooks. You must register your Chromebooks in your Google domain account to create a device ID for each Chromebook.

To test using INSIGHT, you can connect to a TSM for content caching, response caching, load simulation testing, and other functions. The following is a brief overview of the process of installing INSIGHT and configuring a Chromebook.

1. To use a TSM, install one or more TSMs on desktop or laptop computers that have static IP addresses (if you are using the machine IP address versus the machine name to connect to the TSM) and will be available around the clock.

2. Use the URL DRC provides to install the DRC INSIGHT App on your Chromebook devices from the Google administration website. Launch INSIGHT on the Chromebook and record the Chromebook’s Device ID.

3. Sign on to DRC eDIRECT and use the Device Toolkit link to start the DRC INSIGHT Device Toolkit software.

   **Important**: You must whitelist the following URL in order for the Chromebook to communicate with the Device Toolkit.

   dtk.drcedirect.com 50.58.190.22

4. Use the DRC INSIGHT Device Toolkit to organize and configure your Chromebook devices to perform the following tasks:
   
   • Create ORG Units based on your testing setup and needs.
   
   • Group the Chromebook devices into ORG Units.
   
   • Configure each ORG Unit, specifying the connection to a TSM for all of the devices in the ORG Unit.
   
   • Check the contents of the log files during testing to monitor testing and Chromebook activity.
   
   • Make any necessary configuration changes.

5. Run the System Readiness Check on each Chromebook device to verify that it can connect to the TSM and is ready for testing. If necessary, use the Device Toolkit to reset the parameters for the ORG Unit and re-deploy the updated DRC INSIGHT software.

6. Test the configurations and monitor the log files for issues.
Installing a TSM

Because of the role that the TSM plays in testing, there are some special considerations regarding TSM software installation.

- The computer on which you install the TSM software should have a static IP address (an address that does not change when the computer is restarted or rebooted) if you are using the machine IP address versus the machine name to connect to the TSM. If the IP address of a TSM machine changes, you must re-configure the testing devices that connect to that TSM.

- You should install the TSM before you install INSIGHT so that you can specify the path to the TSM and the communication port during the INSIGHT installation.

- If you need to change the configuration of a TSM after it is installed, you must uninstall the TSM and install a new version. If you re-install a TSM after you have installed INSIGHT, you may need to re-configure the testing computers that connect to it.

A TSM is used primarily to cache and manage test content and responses. For various reasons, tablet devices (such as iPads) and Chromebooks do not provide a suitable environment for a TSM. As a result, you should install the TSM software on a Windows PC, Mac (OS X) computer, or Linux machine, and connect to the TSM when you install INSIGHT on the tablet device or Chromebook.

For specific TSM installation instructions, refer to the appropriate installation section in the *DRC INSIGHT Technology User Guide*. 

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Tablet Devices, Chromebooks, and the TSM
Quick Tour: Installing INSIGHT for Chrome

This Quick Tour describes how to install the DRC INSIGHT App on one or more Chromebooks using the Google administration site.

**Note:** You must have a Google Chrome Administrator profile to install the DRC INSIGHT App.

1. Using a web browser, go to the Google administration site at [http://admin.google.com](http://admin.google.com), log in with an administrator profile, and select **Device Management**.

2. Select **Chrome**.

3. Select **Device Settings**.
Quick Tour: Installing INSIGHT for Chrome (cont.)

4. The Device Settings page displays.
   For Steps 4 and 5, refer to the circled numbers in the diagrams.
   
   1. Select the proper organization level to be able to deploy the DRC INSIGHT App to everyone that will use it for testing.
      
      Note: Where the example shows datarecognitioncorp.com, your domain will be listed.
   
   2. For Single App Kiosk, change the drop list box setting to **Allow Single App Kiosk**.
   
   3. For Auto-Launch Kiosk App, leave the value as **None** so the user can use the Chromebook for non-DRC INSIGHT testing.
   
   4. Scroll up the page to User Data and select **Do not erase all local user data**.
   
   5. Scroll down the page and click **Manage Kiosk Applications**.

5. The Kiosk Apps page displays.
   
   1. Enter the ID and URL for the DRC INSIGHT App (required).
   
      Note: For the ID and URL, see “Installation Files” on page 12.
   
   2. Click **Add**.
   
   3. The screen refreshes and the DRC INSIGHT App icon displays in the **Total to install** list.
   
   4. Click **Save**.
6. The Device Settings page redisplay. Click **Save Change**. The INSIGHT App will be installed as a Kiosk application the next time the policy is downloaded, which may take as long as 24 hours.

   To install the update (the INSIGHT App) immediately, enter `chrome://policy` in the address bar of the Chromebook and click **Reload policies**.

7. To register the Chromebook device ID, you must deploy the DRC INSIGHT configurations to each enrolled Chromebook using the DRC INSIGHT Device Toolkit.

   To start the Device Toolkit software and register the Chromebook, sign in to eDIRECT at https://NE.drcedirect.com using a Chrome browser and select **Test Setup–Device Toolkit**.

8. The Device Toolkit software displays in your Chrome browser. You use this software to create organizational units (ORG Units) that you use to group, organize, and categorize your Chromebooks for testing.

   For each ORG Unit, you identify its DRC INSIGHT configuration. When you launch the Chromebook, it uses the configuration settings identified for the ORG Unit(s) to which the device is assigned (see “DRC INSIGHT Device Toolkit” on page 37).

9. Select a district from the District drop-down menu and a school from the School drop-down menu.

10. Click **Add a new ORG Unit** to get started (see “DRC INSIGHT Device Toolkit” on page 37).

11. After you have configured your Chromebooks using the DRC INSIGHT Device Toolkit, you are ready to start testing. To start INSIGHT, start the Chromebook and do not log in to any of the Google accounts. Click **App** from the Chromebook sign-in screen, and click **DRC INSIGHT** to display the main page.
This topic describes how to use the DRC INSIGHT Device Toolkit (referred to as the Device Toolkit) to organize and manage your Chromebook devices for testing.

You also use the Device Toolkit to create and delete organization units, add devices to units, move devices between units, and remove devices from a unit (the device’s configuration remains in the database, but the device is no longer visible in the Device Toolkit).

To help organize and manage Chromebook devices, the Device Toolkit uses the concept of organizational units (referred to as ORG Units in the Device Toolkit) to group these devices. An ORG Unit is basically a logical method of grouping your Chromebook devices that makes sense for your environment.

For example, if you use more than one TSM, you might want to base your ORG Units on your TSMs. If have two TSMs, you could create two ORG Units—one for TSM A and one for TSM B. Or, you might structure your ORG Units based on the location of a set Chromebook devices, or the students that use the Chromebook devices.

**Note:** Each Chromebook can belong to only one ORG Unit at a time (based on the device ID of the Chromebook). You can use the Device Toolkit to move a Chromebook device from one ORG Unit to another.

You create each ORG Unit and decide which Chromebooks make up that unit. At the time you configure the TSM, you specify the configuration once for an entire ORG Unit and every device associated with that unit is configured to the same TSM. You can:

- Specify proxy settings for both your unsecured (http) and secured (https) host servers.
- Specify which server is the content caching and/or load simulation TSM server, and the port used for communication.
- Specify which server is the response caching TSM server and the port used for communication.
- Select the district and school name associated with the testing computer (required).
Creating and Deleting ORG Units

You can use the Device Toolkit to create or delete organization units (called ORG Units) to organize your Chromebooks for testing.

1. From the Device Toolkit, click **Add a New ORG Unit** to create a new unit.

2. When the **Add New ORG Unit** dialog box displays, enter a meaningful name for the ORG Unit that will help you categorize and organize your Chromebooks for testing, and click **Save Changes**.

3. The configuration page for the ORG Unit you opened or created displays. To delete an ORG Unit, click **Delete ORG Unit**. A dialog box displays to confirm the deletion.
**Configuring the TSM**

This topic describes how to use the Device Toolkit to configure your Chromebooks to work with the TSM and to organize them for testing.

1. From the Device Toolkit, select an ORG Unit. The configuration page for the ORG Unit you opened or created displays with a unique ORG Unit ID number.

2. To specify a server to use for test content caching and/or load simulation testing, check **Enable Content Caching** and/or **Enable Load Simulation**, and enter the server name (or IP address*) and port number (separated by a colon) and followed by a forward slash (/) in the TSM Content Caching and Simulation Server Name field.

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**Important:** A TSM server should have a static IP address (an IP address that does not change when the computer is restarted or rebooted). If the IP address of a TSM machine changes, you must re-configure the testing computers that connect to that TSM. Remember to include the forward slash (/) at the end of the path to the TSM server—without it your TSM may not be configured correctly.
Configuring the TSM (cont.)

3. To specify a server to use for test content caching, check **Enable Response Caching TSM** and enter the server name (or IP address) and port number (separated by a colon) and followed by a forward slash (/) in the TSM Response Caching Server Name field.

4. Click **Update Configuration** to save your changes or **Cancel** to cancel them. A message displays indicating whether the configuration was updated successfully.
Adding Devices

You can use the Device Toolkit to add Chromebook devices to an organization unit to organize your Chromebooks for testing. To add the device, you must know the Chromebook Device ID.

1. After you have selected an organization unit from the Device Toolkit, select the Devices tab and click Add Device by ID to add a device to the unit.

2. When the Add New Device dialog box displays, enter the ID of the device in the Device ID field and click Save Changes. Click OK to add the device to the organization unit. The Devices tab re-displays with the device added.
Registering Devices

If a Chromebook device has not been registered, when a student attempts to test with the device a message displays indicating that the device must be registered.

**Note:** The Chromebook Device ID is generated by DRC. If you uninstall and reinstall DRC INSIGHT, a new Device ID is created.

1. You can register the device by writing down the Device ID that displays and use it with the Device Toolkit **Add By Device ID** function (see “Adding Devices” on page 41). Click OK to close the message display.

2. You also can register the Chromebook device by selecting its district, school, and organizational unit from the drop-down menu and clicking **Save** to save your changes. Click **Clear** to clear any entries in the District, School, or Organizational Unit fields.
Moving Devices

You can use the Device Toolkit to move one or more devices between organization units to organize your Chromebooks for testing.

1. Select an organization unit you want to move devices from (the source unit), select the **Devices** tab, check each device you want to move from the source organization unit, and click **Move Devices**.

2. When the Change ORG Unit dialog box displays, select the name of the target organizational unit from the drop-down list in the ORG Unit Name field and click **Save Changes**. Each device you selected is moved to the target organization unit.
Removing Devices

You can use the Device Toolkit to remove one or more devices from an organization unit.

**Note:** When you remove a device, its configuration settings are saved in the database, but the device no longer appears in the Device Toolkit.

1. Select an organization unit and select the **Devices** tab. Check each device you want to remove from the organization unit.

2. Click **Remove Selected Devices**. A dialog box displays to confirm the process. Click **Yes** to continue or **No** to cancel the process.

If you click **Yes**, each device you selected is removed from the organizational unit and no longer displays in the Device Toolkit.
Using Log Files

You can use the Device Toolkit log files to review system information about the Chromebook devices assigned to an organization unit.

1. Select an organization unit and select the **Logs** tab. System information about Chromebook devices assigned to that organization unit displays.

2. You can view the time the incident was logged, the device ID, and the message.
Section 5: FAQs and Helpful Hints
This section contains a list of testing hints and frequently asked questions and answers about configuring, installing, and using DRC INSIGHT and the Testing Site Manager (TSM) software with iPad and Chromebook devices. The section is divided into three topic categories: General Questions, iPad Questions, and Chromebook Questions.
FAQs

General Questions

Q1: Do I install a TSM on an iPad or Chromebook?

A: A TSM is used primarily to cache and manage test content and responses. For various reasons, tablet devices (such as iPads) and Chromebooks do not provide a suitable environment for a TSM. As a result, you must install the TSM software on a Windows PC, Mac (OS X) computer, or Linux machine, and connect to the TSM when you install INSIGHT on the tablet device or Chromebook.

iPad Questions

Q1: Can the DRC INSIGHT iPad App be distributed without an MDM as an .ipa file using iTunes or other software/methods?

A: No.

Q2: Does DRC recommend any particular version of Apple Mobile Device Management (MDM) software?

A: No, there are many versions of MDM software, any of which will distribute INSIGHT. To configure INSIGHT using the MDM software, you must use a version that supports the Managed App Configuration feature for iOS 7.

Q3: Will iOS 8 be supported when it’s released in September?

A: Due to the recent release of iOS 8, INSIGHT has not been fully tested on this version of the operating system. You may use iOS 8, but it is not supported at this time. DRC Customer Support will do everything possible to support users testing on any version greater than 7.1. If an issue is found that appears to be unique to iOS 8, it will be noted and addressed in the next testing cycle.

Q4: Is custom installation of the Apple virtual (internal) keyboard supported for testing?

A: Yes—the internal keyboard does not display automatically during testing, but can be toggled on using an iPad function key.

Q5: What features need to be on or off to securely test with an iPad?

A: Ensure that Check Spelling (spell checker), Auto-Correction, and Auto-Capitalization are turned off on each iPad device, and enable/activate the Guided Access feature.

Note: Apple requires a Passcode (numeric password) to activate Guided Access. This passcode must be secure—do not allow students to have the passcode.
Q1: How do I configure Chromebooks to work with DRC INSIGHT?
A: DRC provides the DRC INSIGHT Device Toolkit that you can use to configure and manage your Chromebooks after you have registered them in your Chrome domain.

Q2: Can I use DRC INSIGHT on a touch-enabled Chromebook?
A: At this time, DRC INSIGHT is not supported on touch-enabled Chromebooks. If your Chrome devices allow you to disable the touch function and use a mouse, it may be possible to run DRC INSIGHT.
### General

- Be sure to have a strong network connection, either Wi-Fi or direct Internet connectivity.
- Make sure the device’s keyboard is set to English.
- Make sure the devices are either fully charged or plugged in.
- An optical drive is not required.
- While you are running the DRC INSIGHT application, the system operates in Single Kiosk Mode.
- DRC INSIGHT displays in landscape mode only
- Smaller graphing and dragging elements may be difficult to track because the user’s finger covers the item.
- On an iPad device, the pinch-to-zoom in/out iOS gesture is supported.
- On an iPad device, the swipe iOS gesture is not supported.
- The internal keyboard will not display during test execution. You can toggle it on using the appropriate iPad function key.
  
  **Note:** Administrators must ensure that this passcode is set before testing begins.

### iPad Devices

- Navigating DRC INSIGHT:
  
  - **Show System Readiness Check** = two-finger press (hold)
  
  - **Show Version** = two fingers plus three taps

- iPad devices have a Sleep Mode setting. In Sleep Mode the screen goes black and users can touch any key to re-activate it, or press their home key and type in the device password (if applicable).

  The DRC INSIGHT timeout warning is not visible when the device is in Sleep Mode.
- The DRC INSIGHT Device Toolkit manages the Chromebook device configuration process.

- The Device Toolkit must be accessed using another type of computer—you cannot access the Device Toolkit using a Chromebook device.

- You must register a Chromebook in your Google domain account before using it with INSIGHT. Be sure to keep track of its Device ID.
Notes: