



Technology User Guide

LAS Links

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Revision Date: August 1, 2023

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Volume I: Introduction to Online Testing





Introduction

About This Guide

This user guide is part of a multivolume set that describes how to configure, install, manage, and troubleshoot the DRC INSIGHT online testing. This volume, *Volume I: Introduction to Online Testing*, introduces the DRC INSIGHT Secure Application (DRC INSIGHT), a major component of the DRC INSIGHT online testing. The guide also references configuration, installation, network, and system requirement information and provides state-specific testing information and a glossary of common online testing terms.

All the volumes in this guide are designed primarily for Technology Coordinators (TCs) and IT personnel who are responsible for setting up and managing online testing and ensuring their systems work effectively and securely. TCs should be knowledgeable about the technical details of the various operating systems and have the necessary security privileges to perform the tasks discussed in this guide.

! Important: Throughout this user guide, the Information icon (!) indicates important information or crucial tips.

DRC INSIGHT Online Testing

DRC INSIGHT is a secure web-browser testing interface that is installed on each Testing Device to provide a secure testing experience. DRC INSIGHT works with various software and hardware components to provide a secure, online testing system that successfully delivers assessments. 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 tools. It works with the Central Office Services (COS) application to help manage network traffic, maintain connectivity, and handle bandwidth issues.

DRC INSIGHT Secure Application

The main component of DRC INSIGHT is the secure web-browser testing interface installed on each Testing Device.

System Readiness Check

The System Readiness Check runs when the DRC INSIGHT Secure Application is installed or starts. It helps you verify that the Testing Device is configured correctly and ready for testing.

Tutorials

DRC offers online tutorials to help students become familiar with all aspects of online testing. Students can access the tutorials from the DRC INSIGHT Online Assessments Tutorials link from the main DRC INSIGHT testing page.

Online Tools Training (OTT)

DRC INSIGHT's OTT simulates online testing and allows students to practice using the testing interface's online tools.

- The OTT allows students to become familiar with the online test environment and the suite of online testing tools, such as the Line Guide tool and the Highlighting tool.
- The OTT contains sample test questions to help students become familiar with the tools and features available during online testing.

Note: Install DRC INSIGHT on the testing computers as early as possible to give students time to familiarize themselves with the DRC INSIGHT test environment and the testing tools.

Testing Accommodations

DRC INSIGHT also supports many accommodations, including optional testing accommodations, to help students test successfully.

Text-To-Speech

Text-To-Speech (TTS) is an audio accommodation that allows a student to hear the test recorded by a computer-simulated voice.

The DRC INSIGHT Portal

The DRC INSIGHT Portal is a secure gateway to the various testing programs and tools that you have permission to use. The DRC INSIGHT Portal provides distribution and administrative functions for the DRC INSIGHT Online Learning System. Technical users download the COS - SD software, the DRC INSIGHT Secure Application, and other software and links from the DRC INSIGHT Portal to set up their testing environment. Administrative users use the DRC INSIGHT Portal to create student records and test sessions to help manage or monitor their testing environment and report the results.

DRC INSIGHT Landing Page

When a Testing Device is successfully registered with DRC INSIGHT, the landing page displays after the application is launched. This page displays when you start DRC INSIGHT and contains links to online tests, tutorials, and OTT.

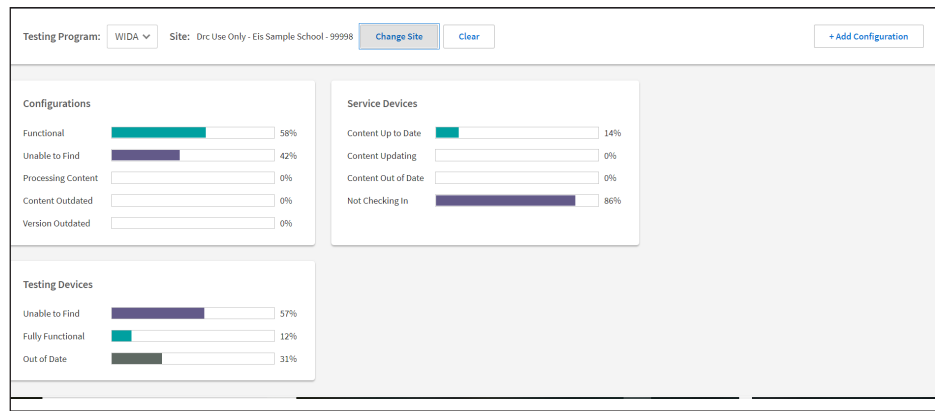


Central Office Services (COS)

COS is an application that allows you to install, configure, and manage your online testing environment from a central location. The complete COS application includes a number of functional components, such as the COS - SD software, which offers local Content Management and Content Hosting.

COS Dashboard

COS allows you to seamlessly configure and organize your devices using the COS Dashboard. The COS Dashboard is a visual dashboard of the various COS Configurations that currently exist. The COS Dashboard displays status information about all the COS Configurations. It also provides links to information about specific COS Configurations and the Testing Devices and COS - SDs associated with each COS Configuration.

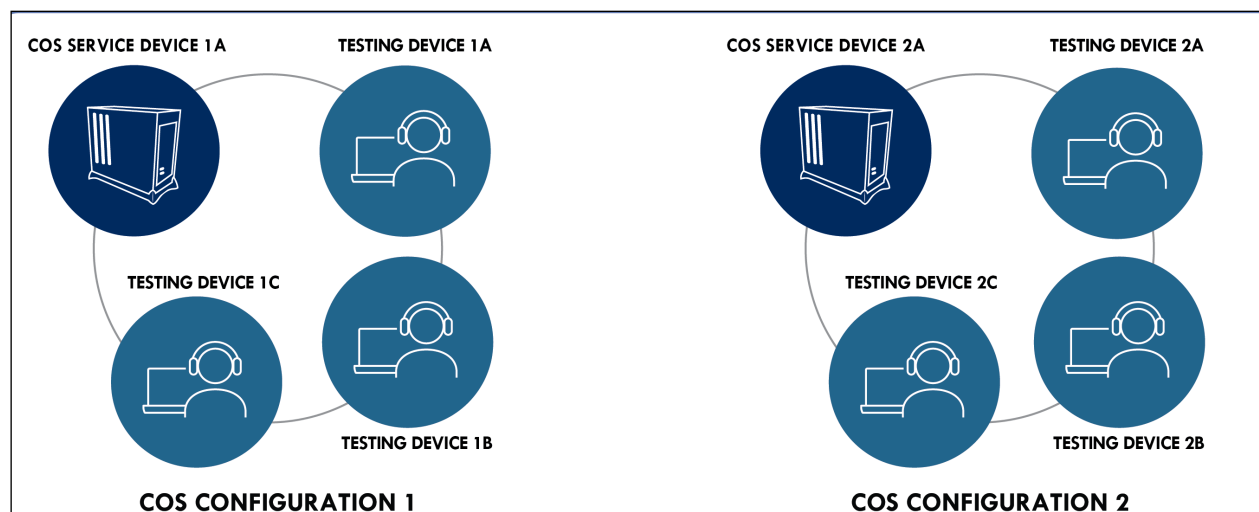


COS Terminology

Refer to the [COS Online Help](#) Glossary for descriptions of various COS terms.

Visual Overview of COS

The COS application consists of COS Configurations, COS - SDs, Testing Devices, and related options. The diagram below provides a visual overview of a sample relationship between these COS components.



COS Configurations

A COS Configuration has two primary functions:

- It allows you to logically group Testing Devices and COS - SDs.
- It allows you to easily specify the settings for all the devices in the COS Configuration.

In the diagram above, when a student logs into DRC INSIGHT on any Testing Device in COS CONFIGURATION 1, the student's test content comes from COS SERVICE DEVICE 1A. When a student logs into DRC INSIGHT on any Testing Device in COS CONFIGURATION 2, the student's test content comes from COS SERVICE DEVICE 2A.

COS Service Devices

The COS - SDs provide the test content and test hosting services for the COS Configuration if those services are enabled by the COS Configuration. Once a COS - SD is registered with a COS Configuration, it cannot be used in another COS Configuration, although you can remove the COS - SD from a COS Configuration and add it to another COS Configuration. If there are multiple COS - SDs in the COS Configuration, the devices become part of the pool of COS - SDs associated with the COS Configuration.

Testing Devices

For a student to test using DRC INSIGHT on a Testing Device, the Testing Device must be registered to a COS Configuration, and it cannot be used in another COS Configuration without moving the device. After a Testing Device is registered with a COS Configuration, the device becomes part of the pool of Testing Devices associated with that COS Configuration. Registering a Testing Device to a COS Configuration defines where the Testing Device's test content will come from during testing.

In the diagram above, moving a Testing Device from COS CONFIGURATION 1 to COS CONFIGURATION 2 causes the device to receive test content from COS SERVICE DEVICE 2A. Moving a Testing Device from COS CONFIGURATION 2 to COS CONFIGURATION 1 causes the device to receive test content from COS SERVICE DEVICE 1A.

COS Configuration Options

Within a COS Configuration, you can manage Testing Devices, determine which DRC test programs will be available to the COS Configuration, add an optional proxy host for testing, and establish other settings.

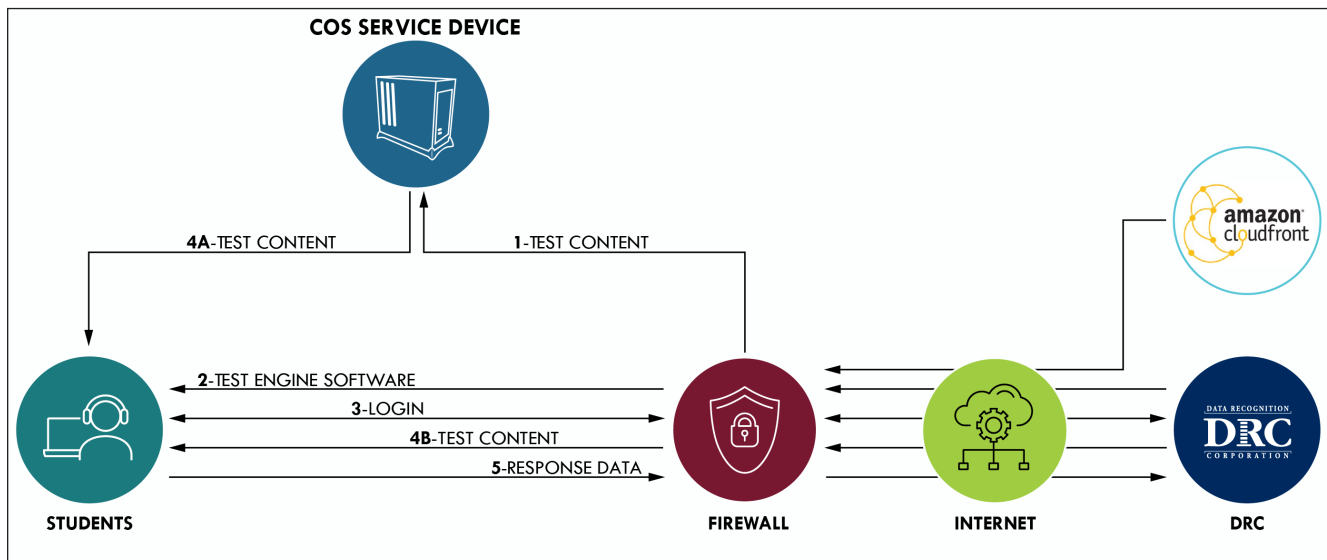
Why Use a COS Service Device?

Using a COS - SD allows for additional **test security** as it requires testing devices and the COS - SD to be on the same network, thus preventing testing from occurring off-network.

Hosting testing content closer to the student also **reduces network bandwidth** and provides a more consistent and equitable testing experience for all students across testing sites. It is especially beneficial for test sessions with audio, images and/or video content.

COS Testing with or without a COS Service Device

The following diagram provides a visual overview of the process of testing with COS, with and without a COS - SD configured for Content Management and Content Hosting.



TEST CONTENT and TEST ENGINE SOFTWARE

- (1) This path represents the initial path for test content with a COS - SD configured to use Content Management and Content Hosting. When the COS - SD is installed, test content stored on the Amazon Web Services (AWS) CloudFront is automatically sent to the COS - SD. The Content Management service automatically checks for new content several times a day and updates the COS - SD.
- (2) When a student starts DRC INSIGHT (i.e., the DRC INSIGHT Secure Application is launched), the test engine software is automatically loaded from the DRC servers to the Testing Device.
- (3) When a student logs in to the test, the student's login is verified by the DRC servers and the student's scheduled test sessions are sent to the Testing Device.
- (4A) When a student selects a test and a COS - SD is configured, the COS - SD delivers the test content to the student's Testing Device, reducing the start-up time for the student. All the test content is encrypted for security.
- (4B) When a student selects a test in situations in which no COS - SD is configured (e.g., for tests with no accommodations), the test content is delivered directly from the DRC servers to the Testing Devices. Again, all the test content is encrypted for security.

COS Testing with or without a COS Service Device (Cont.)

TEST RESPONSES

- (5) The Response Data path represents the path for test response data. During testing, if the Testing Devices can communicate with the DRC server, the test responses go directly to the DRC server. If the Testing Devices cannot communicate with DRC, testing ends.

DRC INSIGHT, COS - SDs, Devices, Testing and Testing Programs

You can install DRC INSIGHT and a COS - SD on a computer and configure DRC INSIGHT to support one or more testing programs.

- You can install a COS - SD on a Windows, macOS, or Linux computer.
 - You can install only one COS - SD per physical, or virtual computer.
 - You can use the same COS - SD for multiple testing programs.
 - You specify different locations for the COS - SD within the COS Configuration.
- You can install DRC INSIGHT on Windows, macOS, Linux, Chrome OS and iPadOS devices.
 - From the testing device, you can use DRC INSIGHT to access multiple testing programs. When you start DRC INSIGHT, a page displays that lists the different testing programs you can select.
 - From the testing device, you can configure DRC INSIGHT to work with a COS - SD that is installed on a different Windows, macOS, or Linux computer.
- You can install a COS - SD and DRC INSIGHT on the same Windows or macOS device.
- For details, refer to the Technical Bulletins, *Configuring a COS Service Device and DRC INSIGHT on a Single Windows PC for Online Testing* and *Configuring a COS Service Device and DRC INSIGHT on a Single macOS Computer for Online Testing* on Portal site by navigating to **MY APPLICATIONS—General Information—Documents**.

Software Installation and Update Rights for DRC INSIGHT Testing Devices and COS Service Devices

Certain software rights are required to install and/or automatically update DRC INSIGHT and the COS - SD software.

- DRC INSIGHT requires Administrator rights to install it and Write access to perform the software Auto Update function.
- The COS - SD software requires Administrator rights to install it.

COS - SDs are automatically updated with new software releases without manual intervention, assuming that the computer is turned on, is active (i.e., not asleep or hibernating), and has Internet access.

Online Testing Setup Options

You can create a variety of online testing setups using COS Service Devices and DRC INSIGHT. Documentation explaining how to install, configure, manage, and troubleshoot COS Service Devices and DRC INSIGHT for these various setup options is available in the following volumes:

Volume I: Introduction to Online Testing

This volume introduces the components that make up DRC INSIGHT and the COS Service Devices; references configuration, installation, network, and system requirement information; and provides testing information and a link to the [COS Online Help](#) for a glossary of common online testing terms.

Volume II: Central Office Services (COS)

This volume describes how to use COS to install and set up COS Service Devices for Content Management and Content Hosting.

COS Online Help

After you have installed COS, use [COS Online Help](#) to understand how to use the COS Dashboard to work with COS - SDs, Testing Devices, and COS Configurations.

Note: Any site that plans to use proxy hosts during testing (i.e., computers that act as an intermediary between a COS - SD and the Internet to prevent direct Internet access) should reference [COS Online Help](#).

Volume III: DRC INSIGHT

This volume describes how to install DRC INSIGHT on Testing Devices, register the devices, and use the System Readiness Check to verify that the devices are ready for online testing.

Volume IV: Troubleshooting

This volume describes how to use various testing resources and tools, contains frequently asked online testing Q&As, and provides a list of common error messages with corrective actions.

Online Testing Setup Options (cont.)

The particular information you need to know varies based on how you plan to perform online testing. The *COS Configuration Online Testing Setup Options and Tasks* table lists the online testing setup options (A and B) that are available, indicates which volumes to reference, and highlights the tasks required for each option.

COS Configuration Online Testing Setup Options and Tasks

Online Testing Setup A	Reference	Tasks
Use the COS interface to manage COS - SDs and Testing Devices.	<i>Volume I: Introduction to Online Testing</i>	Review allowlisting information (previously referred to as whitelisting) and other network considerations.
One or more COS - SDs are configured for Content Management and Content Hosting.	<i>Volume II: Central Office Services (COS) and the COS Online Help</i>	Install COS - SDs and use the COS interface to create, configure, monitor, and manage COS Configurations/ locations containing COS - SDs and Testing Devices.
	<i>Volume III: DRC INSIGHT</i>	Install, configure, and manage DRC INSIGHT, including registering Testing Devices with COS Configurations.
	<i>Volume IV: Troubleshooting</i>	Use testing tools and troubleshoot issues.
Online Testing Setup B	Reference	Tasks
Use the COS interface to manage one or more COS Configurations containing Testing Devices only. Test content is received directly from DRC without hosting of any type. <ul style="list-style-type: none"> No COS - SD software needs to be installed. No COS - SDs are configured for Content Management or Content Hosting. 	<i>Volume I: Introduction to Online Testing</i>	Review allowlisting information and other network considerations.
	<i>Volume II: Central Office Services (COS) and the COS Online Help</i>	Use the COS interface to create, monitor, and manage COS Configurations/ locations containing Testing Devices only—no content hosting is performed.
	<i>Volume III: DRC INSIGHT</i>	Install, configure, and manage DRC INSIGHT, including registering Testing Devices with COS Configurations.
	<i>Volume IV: Troubleshooting</i>	Use testing tools and troubleshoot issues.

Setup Options for a COS Configuration

The following table provides an overview of COS Configuration online testing setup options for online testing setups A and B. These testing setups include COS - SDs with or without Content Management (CM)/Content Hosting (CH) turned on and locations within the COS Configuration.

Setup	COS - SD Installed*	CM/CH**	Setup Description/Notes
A	Yes	Yes or No	COS interface with one or more COS - SDs; CM/CH on or off
B	No	NA	COS interface only—no COS - SDs

Table Notes

* “COS - SD Installed” indicates one or more COS - SDs. COS manages COS - SDs and Testing Devices.

** After the COS - SD software is installed, CM/CH can be turned on (set to Yes) for a COS Configuration. If a COS - SD is installed and you turn CM/CH to No (off) the COS - SD will be bypassed. Bypassing a COS - SD is not recommended.



System Requirements and Testing Information

What's Covered in This Section

This section points to the document describing the specific hardware, software, network, and desktop requirements to configure COS Service Devices, DRC INSIGHT testing devices, and automatic software updates. This section also discusses the tasks necessary to configure the DRC INSIGHT software environment, including the tasks to configure DRC INSIGHT to connect directly to DRC servers and databases through the Internet.

LAS Links Configuration Information

This guide includes information about the operating systems, software, devices, and accommodations that work with DRC INSIGHT testing devices and COS Service Devices. The specific technical information covered in this user guide (and related Technical Bulletins) that pertains to is shown below. Use this information as reference when reading the volumes in this user guide.

Operating Systems

- Windows
- macOS
- Linux
- Apple iPadOS
- Chrome OS

Central Office Services (COS) Hosting and Other Options*

- Content Management
- Content Hosting
- Proxy Host and Restricted Proxy Host

Accommodation(s)

- Text-To-Speech (TTS)

Testing and Capacity Tools

- Testing Site Capacity Estimator
- Load Balancing

*A COS Service Device is required.

System Requirements Information

The DRC system requirements information describes the specific hardware, software, network, and desktop requirements to configure DRC INSIGHT and COS Service Devices to work with various Testing Devices in different testing scenarios. This information is updated regularly based on various factors, including changes in vendor support of various operating systems and hardware devices.

To review current information, refer to *DRC INSIGHT System Requirements*, which is available at Portal site, by navigating to **General Information–Downloads** and clicking **View System Requirements** at the left side of the bottom of the Test Setup General Information page.

Software Updates

For online testing, the COS Service Device and DRC INSIGHT software must be up to date. You can use the System Readiness Check to confirm that you have the latest version of the COS Service Device and DRC INSIGHT software (see *Volume III: DRC INSIGHT*).

Operating System Updates

COS Service Device and DRC INSIGHT software updates are different from operating system updates. On testing days, Testing Devices should not be set to automatically update the operating system. If a Testing Device is set to accept operating system updates automatically, verify that it has the most current supported version of the operating system before the test session starts.

.....
! Important: Operating system vendors such as Google, Microsoft, and Apple are using a model in which operating system updates occur automatically in the background. Update processes running in the background on Testing Devices consume CPU and memory and can affect the testing experience. To avoid this situation, verify that no background processes are running on Testing Devices during testing.
.....

COS - SD Software Updates

The COS - SD software is designed to automatically receive updates. To ensure that software updates are installed automatically, COS - SDs should be kept up and running.

DRC INSIGHT Software Updates

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Important: The Secure Browser now must be updated by a user with Admin rights on Windows and Mac testing devices. This change only affects sites that update the Secure Browser on each device manually after launching the DRC INSIGHT Secure Browser.

If your site uses deployment software to update testing devices, you are not impacted since the deployments are performed by an Admin user.

Sites should update their software before testing begins to avoid delays.

See [“Software Installation and Update Rights” on page 48](#).

Network Requirements for Testing Computers

This section describes various network considerations for online testing.

Network Connectivity

To ensure proper network connectivity for testing, keep the following information in mind.

- All testing computers should have access to the Internet and be able to access the DRC servers using HTTPS protocols on port 443.
- All firewalls at the testing computer and network level should allow connectivity on ports 55222, 55223, 55224, and 55225. Ports need to be listed in order.
- Ensure that the following file types are allowlisted, both internally and externally:
 - **css**
 - **exe** (for updates)
 - **msi** (for updates)
 - **gif**
 - **html**
 - **jpeg**
 - **js**
 - **json**
 - **png**
 - **tff**
 - **woff**
 - **svg**
 - **xml**
 - **zip**
- Prioritize and allowlist DRC INSIGHT traffic on firewalls, Internet packet shapers, routers, switches, proxies, and other network devices that you use.

Network Connectivity (cont.)

Each testing program uses its own URLs to communicate from the DRC INSIGHT software to the DRC servers. Ensure that the URLs shown in the table below are allowlisted on the content filtering systems or other proxy/firewall software that you use locally.

Program	URLs	Ports
LAS Links	https://drc-centraloffice.com https://drc-wbte-prod.s3.amazonaws.com https://eca-test-engine-service-ll.te.drcdirect.com https://eca-test-init-ll.te.drcdirect.com https://eca-test-engine-auth-service-ll.te.drcdirect.com https://insight-services-ll.drcdirect.com https://ll-te.drcdirect.com https://ll-insight-client.drcdirect.com https://ll-insight.drcdirect.com https://ll.drcdirect.com https://www.drcdirect.com https://wbte.drcdirect.com https://dtk.drcdirect.com https://api-gateway-cloud.drcdirect.com https://api-gateway.drcdirect.com https://cdn-content-prod.drcdirect.com https://cdn-download-prod.drcdirect.com https://east-1-drc-wbte-prod-ll.s3.amazonaws.com https://east-2-drc-wbte-prod-ll.s3.amazonaws.com https://us-east-1-content-hosting-form-locker-prod.s3.us-east-1.amazonaws.com https://us-east-2-content-hosting-form-locker-prod.s3.us-east-2.amazonaws.com	80/http 443/https (applies to all the URLs)

Notes:

- Any URLs **bolded** in the table above were recently added. Make sure they are added to your allowlisted URLs.
- You can allowlist *.drcdirect.com if your filter allows wildcard addresses. DRC recommends that you allow *.drcdirect.com if possible. Some locations may have to allowlist both the individual address and the wildcard address.
- If your location uses an Internet connection idle timeout, verify that the timeout limit is set to meet or exceed the DRC INSIGHT testing session timeout limit, which is currently set to 20 minutes for most state clients, to allow students enough time to complete testing.
- If your location uses screensavers, verify that the timeout limit is set to meet or exceed the DRC INSIGHT testing session timeout limit, which is currently set to 20 minutes for most state clients, to allow students enough time to complete testing.
- DRC recommends allowing DRC INSIGHT traffic to bypass your firewalls and proxies if possible.
- Besides allowlisting these sites, you may need to allow them to pass through the proxy server without requiring authentication credentials to be passed by DRC INSIGHT.

Network Connectivity (cont.)

Wireless Networking

DRC INSIGHT supports wireless networks. However, sites may experience issues if unreliable wireless networks are used or if too many students attempt to connect to a single access point. When you test load capacity in a wireless network, verify that your access points and network can handle the number of simultaneous users that will be testing.

! Important: Some access points interpret COS-SD-to-DRC INSIGHT communication as peer-to-peer networking. If you have Layer 7 or peer-to-peer web filtering rules in your filters and access points, DRC recommends that you disable them. Also, some content filters have advanced settings to allow for additional checks. If your content filter has Reverse Lookup or Evasive Protocols, DRC recommends that those be disabled as part of the filtering process.

Desktop Monitoring

If your testing location uses remote desktop monitoring software to monitor the computers that will be used for testing, that software may interfere with the testing software.

! Important: If possible, disable the monitoring software on testing computers during test times to guarantee adequate security. The particular steps you need to take vary, depending on the monitoring software you are using and the operating system of the testing computer. If it is not feasible to disable your monitoring software, ensure that any staff members who can use the monitoring software refrain from using it during testing periods.

DRC INSIGHT Bandwidth and Connectivity Requirements

To start a test, DRC INSIGHT contacts DRC to download the DRC INSIGHT Test Engine and presents the login page. After a successful login, DRC INSIGHT downloads the test from the DRC server or from a configured COS - SD. DRC INSIGHT sends test responses to the DRC server every 45 seconds, or after a navigational command, such as Next, Back or Pause, is issued.

- DRC INSIGHT must maintain connectivity to the Internet, or to a proxy server that maintains connectivity to the Internet, at all times.
- DRC INSIGHT supports wireless networks. If you test using wireless networks, be careful not to overload the network access points.
- DRC recommends using Ethernet networks where available for online testing.

Bandwidth Calculation Guidelines

Bandwidth requirements and recommendations are based on the *actual amount of bandwidth available*. Even with a high-speed communication line, only part of the connection may be available for online testing due to competing Internet traffic. The greatest amount of bandwidth is required when students download tests.

Calculating Bandwidth

You can estimate bandwidth requirements by dividing the size of the test by your target wait time (i.e., the amount of time it should take the test to load).

Note: Accommodated tests contain audio and/or video files that make the test size larger and the download time longer.

Bandwidth Required with a Content Hosting COS - SD

With a Content Hosting device, more students can load the test at a time. Using a COS - SD with Content Hosting decreases your Internet bandwidth requirements because tests can be loaded from the COS - SD rather than from the DRC server, which greatly increases your capacity.

.....
⚠ Important: Bandwidth calculations are estimates. There are many variables, including network traffic, that can impact actual network performance. For additional information, see the *Testing Site Capacity Estimator* in *Volume IV: Troubleshooting*.
.....

Background Applications and Online Testing

For both test security and device performance, DRC recommends that unnecessary background processes and software be removed, turned off or disabled. DRC also recommends prior to testing sites review which processes and software are running in the background and have a procedure for disabling them before the assessment and enabling them after the assessment. For more information on disabling background processes and software, reference the most recent version of the *DRC INSIGHT System Requirements* from Portal site.

Before testing temporarily disable or remove the following:

- Instructional Software
 - Typing assistant and grammar checking software (e.g., Grammarly, Ginger Software, ProWritingAid)
 - Classroom monitoring software (e.g., Linewize Classwize, Impero Wellbeing, GoGuardian)
 - Remote access/remote control software (e.g., TeamViewer, AnyDesk, Remote PC)
- Automatic Updates
- Intelligent Personal Assistant (IPA) (e.g., Siri, Cortana)
- Collaboration Tools (e.g., Microsoft Teams, Zoom, Google Chat and Meets)
- Microsoft Game Bar and Other Screen Capture Software
- Screen readers when not used for Refreshable Braille online testing (e.g., ChromeVox, NVDA, VoiceOver)

Video Sign Language (VSL) Configuration

If you download the VSL software for your testing, remember that the hardware and software requirements differ for VSL.

- You can download the VSL content on any machine whose hardware meets the minimum VSL system requirements. DRC recommends that sites download VSL content only if they have one or more testers that need to use VSL.
- VSL does not run on remote or virtual configurations/Testing Devices.
- VSL requires more memory for DRC INSIGHT.
- VSL requires more disk space for the COS - SD than a standard configuration.
- A COS – SD provides a more consistent testing experience when testing with VSL.

Changing the Monitor Display for VSL

After you have installed VSL, if the video looks pixelated or there is a semi-transparent grid or halo displaying over the video, you may need to change the testing computer's hardware acceleration setting from **None** to **Full**. Hardware acceleration uses the computer's hardware to perform certain tasks faster than is possible with software. This can cause smoother rendering of graphics and better application performance. The hardware accelerator is often described as either a graphics card or a video card.

Windows 10

1. To reset this setting on a Windows 10 computer, right-click on the Desktop and select **Display settings**.
2. When the Display settings page displays, scroll down and click **Advanced display settings**.
3. From the Advanced display settings, window, click the **Display adapter properties for Display x** link.
4. The Monitor and Graphics Properties window displays. Select the **Troubleshoot** tab and click **Change settings**.

Note: If the Troubleshoot tab does not display or if the Change settings button is grayed out, your current display driver does not allow you to change the settings.

5. When the Display Adapter Troubleshooter window displays, move the pointer to the far left to disable or reduce the hardware acceleration and click **OK**.

Note: These settings can help you troubleshoot display-related problems with your graphics hardware.

Text-To-Speech (TTS) Configuration (Audio)

If your site downloads TTS software for testing, remember that the hardware and software requirements differ for TTS.

- Sites are responsible for supplying the headphones required for TTS.
- TTS software does not run on remote or virtual configurations/Testing Devices.
- A COS – SD provides a more consistent testing experience when testing with TTS.

Human Voice Audio (HVA) Configuration

The hardware and software requirements differ for HVA:

- Schools are responsible for supplying the headphones required for HVA.
- HVA does not run on remote or virtual configurations/testing devices.
- A COS – SD provides a more consistent testing experience, when testing with HVA.

HVA Testing Considerations

Students who test using HVA hear a TTS-synthesized voice for online help. The students hear a human voice for the test directions and items.

To ensure that HVA works correctly, perform the following tasks.

Before Testing

- Complete a System Readiness Check and verify that the testing computer passes the Audio Capability test (see *The System Readiness Check* in *Volume III: DRC INSIGHT*).
- Verify that the correct number of headphones are available and working.
- Adjust the volume on each testing computer to a comfortable level for the students.

During Testing

- Verify that when a student logs on, they see the audio buttons on the Welcome Student screen.
- If a student needs to adjust their computer's volume during testing, they should click the **Options** button on the test and select **Audio Settings**.

DRC INSIGHT and Virtual or Remote Desktops

DRC INSIGHT is a desktop-installed application that runs natively* on specific operating systems. To successfully launch and run DRC INSIGHT, you must meet system requirements, such as operating system level, processor, disk space, memory, Internet connectivity, and screen resolution.

**Running natively refers to running without external support, as opposed to running in an emulation.*

As long as your virtual/remote machines meet these requirements, you can run DRC INSIGHT in a virtual/remote desktop environment. However, if your site uses virtual computing technology and runs DRC INSIGHT on virtual/remote operating systems and/or devices, you must implement appropriate security measures to ensure that these virtual/remote desktops cannot access other applications during the administration of an online assessment.

! Important: Virtual/remote desktop software does not work with audio accommodations such as Text-To-Speech (TTS).

Kiosk Mode and Security

The risk of running DRC INSIGHT on virtual/remote operating systems and devices in a virtual/remote desktop environment is the loss of built-in security. When DRC INSIGHT runs on a supported device and operating system, it uses Kiosk Mode to secure student access and prevent students from performing inappropriate testing activities, such as accessing the Internet.

DRC INSIGHT's Kiosk Mode is not available for unsupported operating systems and devices. Sites using virtual computing technology for unsupported operating systems and devices must implement security measures to ensure that any virtual/remote desktop a student is using cannot access other applications while online assessments are being administered.

Native Operating Systems and Devices

To review the supported operating systems on which DRC INSIGHT runs natively and the devices that can currently run DRC INSIGHT-supported operating systems natively if they meet the minimum system requirements, refer to the latest version of the *DRC INSIGHT Online Learning System Supported System Requirements*.

Virtual Desktop Operating Systems

Besides the physical devices that host operating systems directly, virtual desktops can indirectly host some supported operating systems for DRC INSIGHT. Typically, users access these virtual desktops from another operating system on another device across a network boundary. Below are the supported and unsupported operating systems for virtual or remote desktop sessions.

Supported Operating Systems

- Microsoft Windows
- macOS
- Linux
- nComputing vSpace

Unsupported Operating Systems

- Google Chrome OS
- Apple iOS
- Google Android

Virtual Desktop Devices

The device a student interacts with is actually a gateway to the virtual or remote desktop. However, the device may or may not be capable of supporting DRC INSIGHT natively or be able to run an operating system that DRC INSIGHT supports.

DRC software is supported on any vendor-supported device that meets DRC's operating system specifications and has a DRC-supported operating system.

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! Important: *Virtual/remote desktop software can access supported operating systems. If you test using unsupported devices, ensure that students cannot access the Internet and other resources.
.....

Windows 10 and 11 Desktop Font Size Requirements

The testing devices' font size settings must match the test settings to guarantee that line breaks and other items display correctly during testing. The correct font size for testing in the Windows 10 and 11 operating system is **100% (Custom DPI)**. To verify and/or change this setting, perform the following steps:

1. Right-click the desktop and select **Display settings**.
2. Select **Scale and layout—Change the size of text, apps, and other items** and choose **100%**. The DPI scaling changes are applied instantly.

Windows 10 and 11 Taskbar Security Requirement

During testing, each testing computer is locked down while DRC INSIGHT is active to prevent the student from having access to outside information. For Windows computers, you must be sure the **Auto-hide the taskbar** setting is turned off to secure the testing computer. To turn off the setting on a Windows 10 or 11 computer, perform the following steps:

1. Right-click on the Taskbar and select **Taskbar settings**.
2. Toggle **Automatically hide the taskbar in desktop mode** and **Automatically hide the taskbar in tablet mode** to **Off** (in case the Windows 10 or 11 computer is being used in tablet mode).

Online Testing, Testing Devices, Peripheral Devices, and Software Features

This section describes various configuration details related to Testing Devices, peripheral devices, and software features for online testing.

Peripheral/Feature	Device	Description	Reference
Cortana	Windows 10 and 11	For Windows 10 devices, Cortana must be disabled for testing, either manually or by using group policy.	See on page 37 .
Microphone	iPad	The first time sites launch DRC INSIGHT on an iPad, the microphone must be enabled even if testers are not taking a speaking test.	See “Enabling the Microphone on an iPad” on page 38 .
	macOS	When DRC INSIGHT is launched on a macOS device, testers are prompted to enable the microphone.	See “Enabling the Microphone on a macOS Device” on page 39 .
Keyboard	Chrome (plus a note about iPads)	<p>Before students start taking a writing test using a Chrome OS device, the testing site must verify that the device’s keyboard configurations are correct for online testing. Specifically, sites must verify the keyboard configurations if students might use quotation marks (“ ”) and/or apostrophes (‘ ’) in test responses.</p> <p>Because some users may be prohibited from using these characters, DRC recommends configuring your device to use the US keyboard.</p> <p>Sites must also disable on-screen keyboards so they cannot be accessed in Tablet mode.</p>	<p>See “Keyboard Settings for Chrome OS Devices” on page 40 (for iPads, see the “Keyboard Note Regarding iPad Devices” that follows).</p> <p>See “Disabling On-Screen Keyboards” on page 41.</p>
Trackpad/mousepad and Force Click	macOS	<p>Before testing, sites must manually disable both Force Click (look up) and three finger drag/gestures functionality. Look up allows users to tap a word with three fingers to display a definition of the word. Three finger drag/gestures allows users to access multiple applications by swiping between two full-screen apps.</p> <p>This functionality is activated via the device’s trackpad/mousepad. If it is enabled, students have the potential to access unauthorized information and/or applications during the online assessment.</p>	See “macOS Device Trackpad/Mousepad Settings” on page 42 .
Timeout Settings	macOS	For macOS computers, it is important that various timeout settings are set to work with the DRC INSIGHT timeout value to avoid timing out during testing.	See “Manually Adjusting the Timeout Settings on a macOS Device” on page 43 .

Disabling Cortana in Windows 10 and 11 Devices

For Windows 10 and 11 devices, Cortana must be disabled for testing, either manually or by using group policy. DRC INSIGHT does not check whether Cortana is off before starting a test.

Disabling Cortana Manually

To disable Cortana manually on a Windows 10 device, do the following:

1. Launch **Cortana** from the search bar on the taskbar.
2. From the left pane, click **Settings**.
3. Under Cortana, toggle the switch to **Off**.

Disabling Cortana by Using Group Policy

To disable Cortana using Group Policy on Windows 10 devices, do the following:

1. Type **gpedit.msc** in the search bar on the taskbar and press **Enter** to open the Local Group Policy Editor.
2. Navigate to **Computer Configuration–Administrative Templates–Windows Components–Search**.
3. Double-click on **Allow Cortana** to open the Settings box.

The Allow Cortana Group Policy setting specifies whether Cortana is allowed on the device. If you enable or don't configure this setting, Cortana is allowed on the device. If you disable this setting, Cortana is turned off on the device.

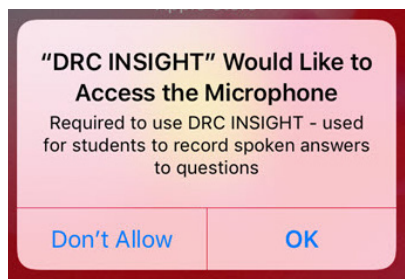
4. Set **Allow Cortana** to **Disabled**, click **OK**, and close the Group Policy Editor.
5. Sign out and sign back in—or restart your PC—to make the change take effect.

Enabling the Microphone on an iPad

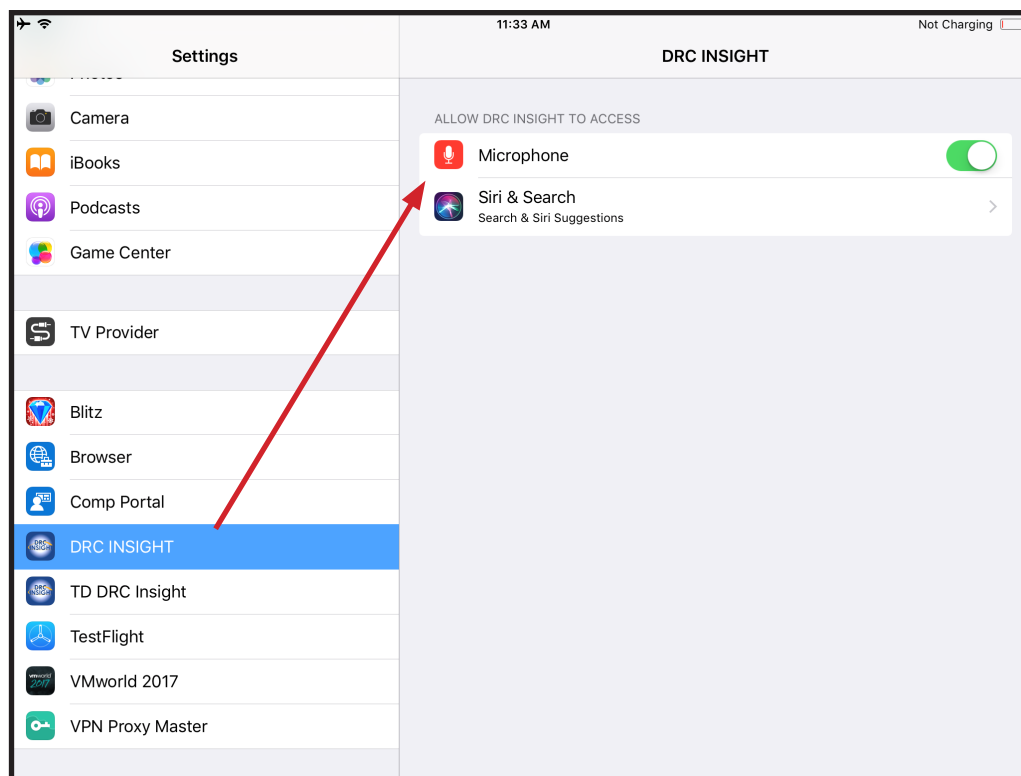
Before DRC INSIGHT is installed on an iPad, there is no microphone access setting under **Settings–Privacy–Microphone** (see below).

1. After DRC INSIGHT is installed, the first time it is launched a message will display asking you to allow microphone access. Tap **OK**.

⚠ **Important:** Even if the testing administration does not use a microphone or include any speaking-response tests, you **MUST** tap **OK** to allow microphone access.

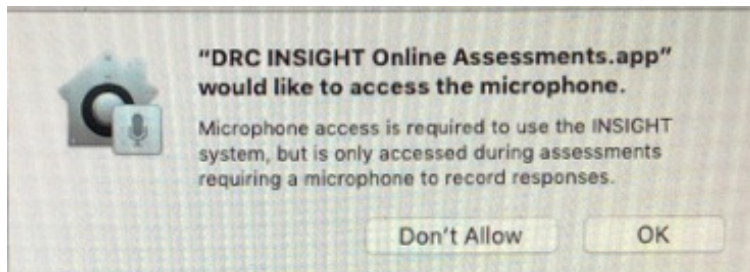


2. If you select **Don't Allow** instead of **OK**, DRC INSIGHT displays the message *Microphone Required - Permission to use the microphone is required* and testing cannot continue.
3. If this happens, you must click **Settings**, manually enable the microphone for DRC INSIGHT using the **DRC INSIGHT** slider (see below), and restart DRC INSIGHT.



Enabling the Microphone on a macOS Device

When DRC INSIGHT is first launched on a macOS device, the following message displays:



- If you select **OK**, which is recommended, the DRC INSIGHT Online Assessments App will be listed as **accepted** in the macOS device settings and you can continue testing, regardless of whether or not the test requires a microphone.
- **Note:** To verify this setting, navigate to **System Preferences–Security & Privacy–Privacy–Microphone settings**.
- If you select **Don't Allow**, the result depends on whether the test requires a microphone.
 - If the test requires a microphone, the macOS device will not pass the internal microphone check and the tester will be unable to continue testing.
 - To change the setting manually, you must navigate to **System Preferences–Security & Privacy–Privacy–Microphone settings**, check the checkbox next to the DRC INSIGHT Online Assessments App, and restart DRC INSIGHT.
 - If the test does not require a microphone, the software check for an internal microphone does not execute and the tester can use the macOS device to test.

Keyboard Settings for Chrome OS Devices

Before students start taking a writing test using a Chrome OS device, the testing site should verify that the device's keyboard configurations are correct for online testing. Specifically, if students might use quotation marks (“ ”) and/or apostrophes (‘ ’) in test responses, sites must verify that the Testing Device is configured correctly (see [“Chrome Keyboard Settings” on page 41](#)).

As background, both quotation marks and apostrophes are commonly used in Passage Based Writing (PBW) responses in which a student's response is based on a passage presented to the student. The student must provide evidence from the passage to support claims, opinions, and ideas. Some Chrome OS configurations may cause these characters to display improperly or cause an error message to display.

.....
! Important: DRC INSIGHT does not adjust operating system settings. However, students can adjust the keyboard settings. Because of this, it is recommended that the keyboard settings should be reviewed before testing begins.
.....

Keyboard Note Regarding iPad Devices

For the DRC INSIGHT Secure App for iPadOS, DRC INSIGHT is automatically placed in Assessment Mode regardless of whether Mobile Device Management (MDM) software is used to deploy the App.

When DRC INSIGHT launches, the software prompts you to lock DRC INSIGHT in Assessment Mode. You should select Yes. When the iPad is locked in Assessment Mode, the Smart Punctuation feature is turned off. Turning this feature off removes the issues discussed above concerning quotation marks and/or apostrophes. For more details, refer to *Preparing the iPad for Testing* in *Volume III: DRC INSIGHT*.

Changing Chrome OS Keyboard Settings

To ensure that quotation marks and apostrophes display properly in DRC INSIGHT on Chrome OS devices, set the keyboard to **US keyboard**.

Changing Chrome OS Keyboard Setting by Using Shortcuts

On the Chrome OS device, press **Ctrl–Shift–Spacebar** to toggle through the keyboard types configured on the device until **US** is displayed in the status area in the bottom-right of the desktop. During a test, ensure the student has clicked outside of their text box.

Changing Chrome OS Keyboard Setting by Using the Google Admin Console

Within the Google Admin Console, navigate to **Device management–Chrome–Device Settings** and select **US keyboard**.

 **Important:** Ensure that the Chrome OS device keyboard is set to US keyboard.

Changing the Chrome OS Keyboard Language Setting

If the language setting on a Chrome OS device keyboard is set to International English (instead of US English), it can cause the quotation marks button to become unavailable. Remove International English and add US English to the available languages.

1. Sign in to the Chromebook and click **Status**.
2. Click **Settings–Show advanced settings**.
3. In the Languages section, click **Language and input settings**.
4. Select **English (United States)**. If it is not available, click **Add**, select **English (United States)**, and click **OK**.
5. In the right column, click **English (United States)**.
6. Click **Done**.

Disabling On-Screen Keyboards

Sites should disable on-screen keyboards so students cannot access speech-to-text or predictive text features. Sites can also disable on-screen keyboards while Installing and Deploying the DRC INSIGHT Secure App (see [“Quick Tour: Installing and Deploying the DRC INSIGHT Secure App to Chrome Devices” on page 104](#)).

To disable the on-screen keyboard on a ChromeOS device, do the following:

1. Sign on to the Chrome OS device and click **Status**.
2. Click **Settings–Show advanced settings**.
3. Select **Accessibility**.
4. Under “Keyboard and text input,” turn off **On-screen keyboard**.

macOS Device Trackpad/Mousepad Settings

On macOS devices, sites must do the following:

- *Manually enable* the Enable dragging with drag lock feature, which prevents users from accessing multiple applications by swiping between two full-screen apps
- *Manually disable* the Look up & data detectors (Force Click) feature, which prevents users from seeing additional information from sources like Dictionary by selecting text

.....
! Important: DRC strongly recommends that sites make these changes *before* online testing. If school technology personnel cannot make these changes without disrupting testing, sites must closely monitor sessions using macOS devices to watch for the use of these features.
.....

Enable Dragging with Lock Feature

To enable the Enable dragging with drag lock feature, do the following:

Note: Settings and directions may vary slightly depending upon your macOS device version.

1. Use the Finder (or click on the Apple icon in the upper-left corner of the screen) and select **System Settings** or **System Preferences**.
2. Navigate to **Accessibility–Pointer Control–Mouse and Trackpad–Trackpad Options**.
3. Depending upon the version of your device, do one of the following:
 - Check **Enable dragging** and select **with drag lock** from the drop-down menu.
 - Select **With Drag Lock** under Trackpad Options.

Disable Look Up & Data Detectors (Force Click)

To disable the Look up & data detectors (Force Click) feature, do the following:

Note: Settings and directions may vary slightly depending upon your macOS device version.

1. Use the Finder (or click on the Apple icon in the upper-left corner of the screen) and select **System Settings** or **System Preferences**.
2. Navigate to **Trackpad–Point & Click**.
3. Uncheck **Look up & data detectors**.

Manually Adjusting the Timeout Settings on a macOS Device

Online testers that are using macOS devices for testing must verify that the various computer timeout settings are set to a value that works with the DRC INSIGHT timeout value. DRC recommends that the combination of screen saver and energy-saving timeout settings on macOS Testing Devices should be greater than the DRC INSIGHT timeout value.

.....
ⓘ Important: For most DRC clients, DRC INSIGHT is set to time out after twenty minutes of inactivity during a test session (a sixty-second countdown/warning displays before the timeout begins). Some clients have requested different timeout values for DRC INSIGHT. Please verify with your site administrator if you are unsure which timeout value you are testing with. These instructions assume the standard value of twenty minutes.
.....

On a macOS device, the macOS administrator must verify that the three timeout settings for Security Privacy, Energy Saver, and Desktop & Screen Saver are set correctly. These timeout settings are adjusted from the System Preferences page. To display the System Preferences or System Settings page, use the Finder (or click on the Apple icon in the upper-left corner of the screen) and select **System Preferences** or **System Settings**.

Note: Settings and directions may vary slightly depending upon your macOS device version.

Manually Adjusting the Timeout Settings on a macOS Device (cont.)

On a macOS device, the best way to prevent screen display timeout issues is to disable the Security Privacy setting **Require Password after sleep or screen saver begins** during testing. If this setting is disabled, the computer will not require a screen password during testing.

1. To disable the setting, select **Security & Privacy** from the System Preferences page.
2. Uncheck **Require Password after sleep or screen saver begins**.
3. Click **Turn Off Screen Lock**.

If the **Require password after sleep or screen saver begins** setting is not disabled during testing, the combined time for various timeout settings on the System Preferences page—Require Password X Minutes after sleep or screen saver begins, the Energy Saver settings for Computer sleep and Display sleep, and the Screen Saver start time—must total twenty minutes or more (based on the DRC INSIGHT timeout setting).

Example of Combining Timeout Settings

The example below shows how to combine timeout settings for testing with DRC INSIGHT. With these settings, the testing computer will wait more than twenty minutes before requiring a password, fifteen minutes before sleeping, twenty minutes before starting the screen saver, and five minutes after going to sleep or starting the screen saver. Note that this is one example and other combinations of timeout settings also work well.

1. Set the **Security & Privacy** password to **Require Password 5 minutes after sleep or screen saver begins**.
2. Set the **Energy Saver** screen slider settings for **Computer sleep** and **Display sleep** to a value of 15 minutes or greater.
3. Set the **Desktop & Screen Saver** setting to start the screen saver to **Start after 20 minutes**.



Volume II: Central Office Services (COS)





Introduction

About This Guide

This volume, *Volume II: Central Office Services (COS)*, is part of a multivolume set of user guides that describe how to configure, install, manage, and troubleshoot the DRC INSIGHT Online Learning System. This volume describes how to install and configure Central Office Services (COS), a software application that allows you to manage your online testing environment from a central location. After you have installed and configured COS, the accompanying [COS Online Help](#) provides information about how to manage your COS environment.

This guide is designed primarily for the Technology Coordinators who are responsible for setting up and managing online testing and ensuring that their systems work effectively and securely. The audience should be knowledgeable about the technical details of the appropriate operating systems and have the necessary security privileges to perform the tasks discussed in this guide.

! Important: Throughout this user guide, the Information icon (!) indicates important information or crucial tips.

Central Office Services (COS)

The complete COS application consists of a number of functional components, including the COS Service Device (COS - SD) that can provide Content Management and Content Hosting (see *Volume I: Introduction to Online Testing*). The COS - SD has the following characteristics:

- The COS - SD supports Content Hosting and Content Management. Within a COS Configuration, sites can use COS - SDs for Content Management and Content Hosting. See *Volume I: Introduction to Online Testing* for details about the online testing setups that are available with COS.
- The COS - SD is designed to automatically receive software updates. After you install the software, the COS - SD automatically retrieves and installs COS updates as they become available.
- The COS - SD software can be installed on Windows, Linux, and macOS Service Devices.
- The COS - SD software supports Windows, Linux, macOS, iPadOS, and Chrome OS Testing Devices.

COS - SDs and the Number of Students Testing

As a general guideline, the COS - SD software can support a large number of testers who are testing at the same time (concurrently). This guideline is based on the following assumptions:

- The COS - SD is configured for Content Management and Content Hosting.
- The COS - SD software is installed on a dedicated device.
- The COS - SD and network meet the necessary system requirements.

The number of COS - SDs required may differ based on the actual hardware and software specifications of the COS - SD, the network speed, and the COS - SD options selected.

COS - SD System Requirements

For details regarding COS - SD system requirements and the number of concurrent testers, refer to the latest version of *DRC INSIGHT System Requirements* available at Portal site by navigating to **General Information–Downloads** and clicking **View System Requirements** at the left side of the bottom of the Test Setup General Information page.

Tablet Devices and COS - SDs

A COS - SD is used primarily to host test content. iPadOS, Chrome OS, and other tablet devices cannot be used as host machines for a COS - SD. As a result, you should install the COS - SD software on a Windows, macOS or Linux device, and connect to the COS - SD when you install DRC INSIGHT on the tablet device.

Software Installation and Update Rights

Certain software rights are required to install and update DRC INSIGHT and the COS - SD software. DRC INSIGHT requires Administrator rights to install it and Write access to perform the software updates. The COS - SD software requires Administrator rights to install it.

❗ **Important:** DRC INSIGHT now must be updated by a user with Admin rights on Windows and Mac testing devices. This change only affects sites that update each device manually after launching the DRC INSIGHT.

If your site uses deployment software to update testing devices, you are not impacted since the deployments are performed by an Admin user.

A new error message without the Upgrade button will display when a testing device requires a DRC INSIGHT update. (**Note:** Only Linux users will still receive an error message with the Upgrade button). The new message will instruct users to contact their onsite or local IT staff (Admin users) to update the DRC INSIGHT application. In addition, the *Enable Auto Updates to testing devices* field, which enables manual updates, is being removed from the COS Configuration user interface.

Are My Testing Devices Impacted by this Change?

YES

- If you use **Windows** (with DRC INSIGHT version 13 or 13.0.1) or **Mac** (with DRC INSIGHT version 13) testing devices and typically have a non-Admin user update each testing device manually after launching the DRC INSIGHT application.
- For more information, refer to the Technical Bulletin *DRC INSIGHT Updates now Require Admin Rights on Windows and Mac Testing Devices* on the WIDA Assessment Management System (WIDA AMS) Portal by navigating to **MY APPLICATIONS–General Information–Documents**.

NO

- If you use ChromeOS, iPadOS or Linux
- If you update multiple Windows or Mac testing devices using deployment software
- If you manually run the DRC INSIGHT application installer on a single workstation at a time

Overview of Working with COS

The tasks involved in the process of installing, configuring, and using the COS application are summarized below. For details, see the reference information, which will direct or link you to other volumes, sections, or topics within this guide.

Note: The first five tasks are numbered in the order in which you would perform them during initial installation and setup. The unnumbered tasks are optional.

Task 1: Install the COS Service Device application and create a COS - SD.

Reference: The various installation sections within this volume

Task 2: Create a COS Configuration.

Reference: [“Quick Tour: Creating a Central Office Services Configuration” on page 64.](#)

Task 3: Install (or uninstall and reinstall) DRC INSIGHT and associate it with the COS Configuration that you created.

Reference: *Volume III: DRC INSIGHT*

Task 4: Use the COS Dashboard to monitor your COS Configurations, COS - SDs, and Testing Devices.

Reference: [COS Online Help](#)

Task 5: Use the Configurations tab options to manage your COS Configurations, services, and devices.

Reference: [COS Online Help](#)

Task: Create a Pool of COS - SDs.

Reference: [COS Online Help](#)

Task: Configure DRC INSIGHT to allow testers to test without using a COS - SD (for an extremely small number of testers).

Reference: [COS Online Help](#)




COS - SD Windows Installation

Quick Tour: Installing COS - SD Software on Windows Devices

This Quick Tour describes how to install the COS Service Device (COS - SD) software on a Windows device. DRC provides an easy-to-use wizard to install the COS - SD software.

! Important: To access COS, you must have the Test Setup – Central Office Services permission.

1. To launch the wizard and start the installation on a Windows device that meets the COS - SD system requirements, sign in to Portal site, select **MY APPLICATIONS–General Information–Downloads**, and click the **Central Office Services (COS) Installer** icon () to download the COS - SD installer (coinstaller.exe).
2. After the file is downloaded, double-click on the **coinstaller.exe** file to start the installation wizard. When the Setup - Central Office window displays, click **Next** to continue.
3. The Installation Folder window displays. You must indicate where to install the COS - SD software and where to store downloaded content.
 - The default location for the COS - SD software is **C:\Program Files\CentralOffice** and the default location for the COS - SD software to store downloaded test content is **C:\Program Files\CentralOffice\content_fs**.
 - Click **Next** to select the default locations or **Browse...** to select different locations. DRC recommends using the default locations.
4. The Proxy Host window displays. This window allows you to specify a separate proxy server for the COS - SD. This step is optional.
 - If you are not planning to use a proxy server, leave the field blank and click **Next**.
 - If you are planning to use a proxy server, enter the URL of the server in the Proxy Host field and click **Next**. If your COS - SDs and Testing Devices are already using a proxy server, you do not need to use the COS - SD to restrict traffic to or from the Internet and you do not need to set up another proxy server for the COS - SD.
5. The Ready to Install window displays. The window indicates the amount of disk space the installation will require. Ensure there is a sufficient amount of disk space to continue with the installation. Click **Install** to continue or **Cancel** to exit the installation.
6. The Installing Central Office window displays, indicating the progress of the installation.
Note: The installation process can take 5–10 minutes.
7. The Configure Service Ports window displays. On this window you specify the port to use for Content Hosting (labeled as the Base port). The COS application uses the base port to determine which ports to use for the Content Downloading, Relay, and Restricted Proxy services (labeled the Additional ports).

The ports are four consecutive numbers, but you need to enter only the base port number in the Base port field. After you specify the base port, COS automatically selects the next three consecutively numbered ports. COS requires four port numbers even if the device being configured will not use all of them.

The default port values are 55222, 55223, 55224, and 55225. You may select alternate ports, but DRC recommends using the default ports. Make sure the ports you select are properly allowlisted (for more allowlisting information, see Network Requirements for Testing Computers in Volume I: Introduction to Online Testing).

Quick Tour: Installing COS - SD Software on Windows Devices (cont.)

8. After you select your base ports, click **Test** to verify that the ports selected are available on the device.
 - If the Installer dialog box indicates that the ports are available, click **OK** and **Next** (or click **Cancel** to exit the installation).
 - If the Installer dialog box indicates that the ports are not available, select a different base port and repeat this step until you have ports that are available.

.....

❗ **Important:** The ports you select may be blocked at the time of testing despite being available during installation. At testing time, verify that these ports are available and allowlisted on your COS - SD's firewall. If the ports are blocked and/or not allowlisted, the Testing Device will encounter a Connection Error that will prevent it from being used for testing.

To avoid conflicts and to verify that no other device is using these ports, you can enter the command **netstat -a** from a command prompt to display a list of the ports currently being used.

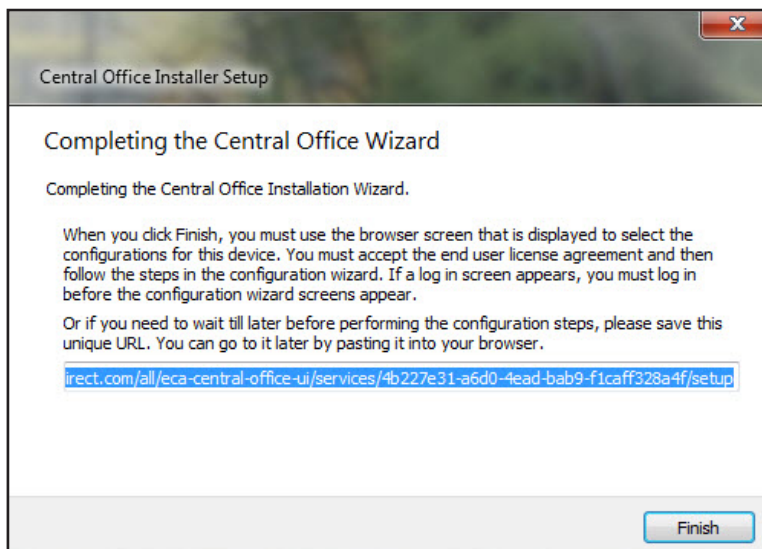
.....

9. The Completing the Central Office Wizard window displays.

.....

❗ **Important:** From the Completing the Central Office Wizard window highlight, copy, and save the URL that displays—you can use it to resume the process at this point (if necessary) without reinstalling the COS - SD software.

.....



Click **Finish** in the Completing the Central Office Wizard window. To complete the process of configuring your COS - SD, see [“Quick Tour: Creating a Central Office Services Configuration” on page 64](#).

Manually Updating COS - SD Software on Windows Devices

DRC sends COS - SD software updates automatically at regular intervals. If a COS - SD is turned off when DRC releases an update, the COS - SD will not receive the update until the next time it is turned on at night.

Perform the following steps if you need to manually update the COS - SD software on a Windows machine.

1. From the Program Files folder of the COS - SD, double-click the **Central Office** folder.
2. Double-click the **maintenancetool.exe** file.
3. On the Setup - Central Office screen, check **Update components** and click **Next**.
4. A message displays indicating the results of the update. Click **Quit** to finish.

Uninstalling the COS - SD Software on Windows Devices

To uninstall the COS - SD software from a Windows machine, perform the following steps.

1. From Program Files folder of the COS - SD, double-click the **Central Office** folder.
2. Double-click the **maintenancetool.exe** file.
3. When the Setup - Central Office screen displays, verify that **Remove all components** is selected and click **Next**.
4. On the Ready to Uninstall screen, click **Uninstall**. The process takes a few minutes.

Removing Outdated Test Administration Content from the COS - SD

You can remove out-of-date content from past test administrations within the COS - SD.

Test administration content can be added and removed by checking and unchecking desired administration checkboxes and accommodations.

To manually remove or verify removal of outdated content, navigate to the C:\Program Files\CentralOffice\content_fs location in the COS - SD and remove the folders that reference test administrations that are out of date.



COS - SD macOS Installation

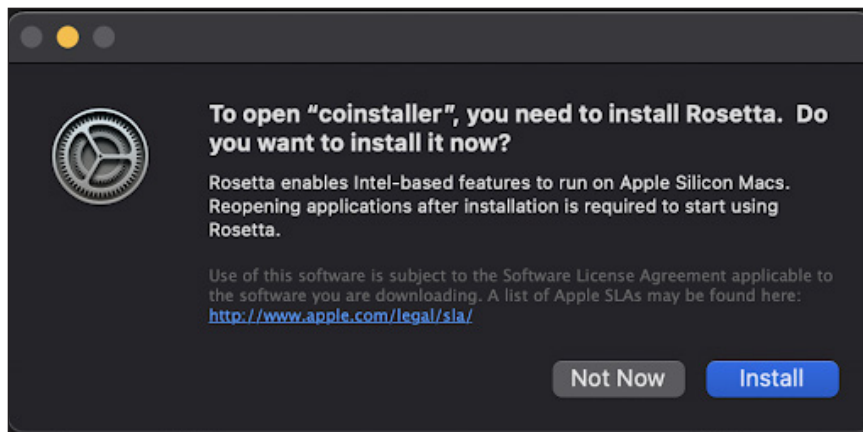
Quick Tour: Installing COS - SD Software on macOS Devices

This Quick Tour describes how to install the COS - SD software on a macOS device. DRC provides an easy-to-use wizard to install the COS - SD software.

! Important: To access COS, you must have the Test Setup – Central Office Services permission.

Rosetta Software and COS - SD Software for macOS Devices


If you are testing using a macOS device that has an M1 chip, the Rosetta software must be installed on the device before you install the COS - SD software. If the Rosetta software is not installed, during the installation process you will be prompted to install it (see the image below).



Keep the following items in mind if you need to install the Rosetta software on your Mac device.

- Application (Intel) means that the app supports only Intel processors and needs Rosetta to work on any Mac device with Apple Silicon processors.
- Application (Universal) means that the app supports both Apple Silicon processors and Intel processors and uses Apple Silicon processors by default.

Quick Tour: Installing COS - SD Software on macOS Devices (cont.)

1. To launch the wizard and start the installation on a Mac (macOS) device that meets the COS - SD system requirements, sign in to Portal site, select **MY APPLICATIONS–General Information–Downloads**, and click the **Central Office Services (COS) Installer** download icon () for macOS to download the COS installer for Mac.
2. After you have downloaded the file, double-click on the file to open it, and double-click the **coinstaller** application file to launch the wizard.
Note: You must be a Mac System Administrator to install the COS - SD software from this file.
3. The Setup - Central Office window displays for the Central Office Installation Wizard.

Note: On most installation windows, you can click Go Back to return to the previous window, Continue to proceed to the next window, and Cancel to cancel the installation.

Click **Continue**.

4. The Installation Folder window displays. You must indicate where to install the COS - SD software and where to store downloaded content.

The default location for the COS - SD software is **/Applications/CentralOffice** and the default location for the COS - SD software to store downloaded content is **/Applications/CentralOffice/content_fs**.

You can use the Browse button to select different locations. DRC recommends that you use the default location.

When you are ready, click **Continue**.

5. The Proxy Host window displays. This window allows you to specify a separate proxy server for the COS - SD. This step is optional.
 - If you are not planning to use a proxy server, leave the field blank and click **Continue**.
 - If you are planning to use a proxy server, enter the URL of the server in the Proxy Host field and click **Continue**.
6. The Ready to Install window displays. The window indicates the amount of disk space the installation will require and the components that will be installed as part of the COS - SD software.

Click **Install** to continue (or click **Go Back** or the red circle to exit the installation).

7. After you enter your name and password and click **Install Software**, the installation begins.
8. The Installing Central Office window displays, indicating the progress of the installation. Click **Hide Details** to hide the details of the installation process or **Show Details** to reveal them.

Note: The installation process can take 5–10 minutes.

Quick Tour: Installing COS - SD Software on macOS Devices (cont.)

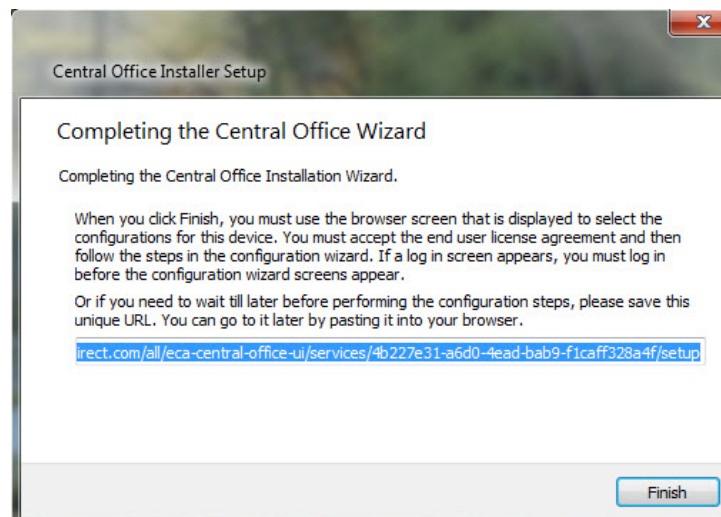
9. The Configure Service Ports window displays. From this window you can specify the port to use for Content Hosting (labeled as the Base port). The COS application uses the base port to determine which ports to use for the Content Downloading, Relay, and Restricted Proxy services (labeled the Additional ports).

The ports are four consecutive numbers, but you need to enter only the base port number in the Base port field. After you specify the base port, COS automatically selects the next three consecutively numbered ports. COS requires four port numbers even if the device being configured will not use all of them. The default port values are 55222, 55223, 55224, and 55225. You may select alternative port numbers as long as four consecutive numbers are available. Make sure the ports you select are properly allowlisted (for more allowlisting information, see Network Requirements for Testing Computers in Volume I: Introduction to Online Testing). DRC recommends using the default ports.

10. After you select your ports, click **Test** to verify that the ports selected are available on the device.
 - If the Installer dialog box indicates that the ports are available, click **OK** and then click **Continue**.
 - If the Installer dialog box indicates that the ports are not available, select a different base port and repeat this step until you have ports that are available.

! Important: The ports you select may be blocked at the time of testing despite being available during installation. At testing time, verify that these ports are available and are open on your COS - SD's firewall. If the ports are blocked the Testing Device will encounter a Connection Error that will prevent it from being used for testing.

11. The Completing the Central Office Wizard window displays.



! Important: From the Completing the Central Office Wizard window, highlight, copy, and save the URL that is displayed. You can use it to resume the process at this point (if necessary) without reinstalling the COS - SD software.

Click **Finish** in the Completing the Central Office Wizard window. To complete the process of configuring your COS - SD, see [“Quick Tour: Creating a Central Office Services Configuration” on page 64](#).

Manually Updating COS - SD Software on macOS Devices

DRC COS - SD software updates automatically at regular intervals. If a COS - SD is turned off when DRC releases an update, the COS - SD will not receive the update until the next time it is turned on at night.

Perform the following steps if you need to manually update the COS - SD software on a macOS device.

1. From the COS - SD, select **Applications–Central Office–maintenancetool**.
2. Enter your Mac Administrator login information.
3. On the Setup - Central Office screen, select **Update components** and click **Continue**.
4. When the update process is complete, a message displays indicating the results of the update. Click **Done**.

Uninstalling the COS - SD Software for macOS Devices

To uninstall the COS - SD software from a macOS device, perform the following steps.

1. From the COS - SD, select **Applications–Central Office–maintenancetool**.
2. Enter your Mac Administrator login information.
3. On the Setup - Central Office screen, select **Remove all components** and click **Continue**.
4. On the Ready to Uninstall screen, click **Uninstall**.
5. If necessary, reenter your macOS Administrator login information. The process takes a few minutes.
6. When the process is complete, click **Done**.




COS - SD Linux Installation

Quick Tour: Installing COS - SD Software on Linux Devices

This Quick Tour describes how to install the COS - SD software on a Linux device. DRC provides an easy-to-use wizard to install the COS - SD software.

.....
⚠ Important: To access COS, you must have the Test Setup – Central Office Services permission.
.....

1. To launch the wizard and start the installation, on a Linux device that meets the COS - SD system requirements sign in to Portal site, select **MY APPLICATIONS–General Information–Downloads**, and click the **Central Office Services (COS) Installer** icon () to download the COS installer.
2. After the file is downloaded, start a terminal session and navigate to your Downloads directory by using the `cd` command. Verify that the coininstaller file is in the Downloads directory by using the `ls` command.
3. After you have downloaded the installation file, you must make the downloaded file executable. Enter the following command (all Linux commands are case-sensitive), and press **Enter** to convert the coininstaller file to an executable file:

chmod a+x coininstaller

4. If the conversion was successful, enter the following command to run the file and start the installation:

sudo ./coininstaller

The `sudo` command gives you temporary administrator privileges.

5. If prompted, enter your administrator password. Linux will launch the wizard to start the installation.
6. When the Setup - Central Office window displays, click **Next** to continue or **Quit** to exit the installation.
7. The Installation Folder window displays. Indicate where to install COS and where to store downloaded content.

Click **Next** to select the default locations or **Browse...** to select different locations. DRC recommends using the default locations.

8. The Proxy Host window displays. You can use this window to specify a separate proxy server for the COS - SDs.
 - If you plan to use a proxy server, enter the URL of the proxy server in the Proxy Host field.
 - If you do not plan to use a proxy server, leave the field blank.

Click **Next**.

9. The Ready to Install window displays. Click **Install**.
10. During the installation, a window displays indicating the progress of the installation. If necessary, click **Cancel** to end the installation process.
11. When the installation is completed, the Creating Maintenance Tool window displays. This window indicates the status of the Maintenance Tool installation. When it is installed, click **Next**.

Quick Tour: Installing COS - SD Software on Linux Devices (cont.)

12. The Configure Service Ports window displays. On this window you can specify the port to use for Content Hosting (labeled the Base port). COS uses the base port to determine which ports to use for the Content Management, Relay, and Restricted Proxy services (labeled as Additional ports). Although there are four consecutive numbers, you need to enter only the base port number in the Base port field.

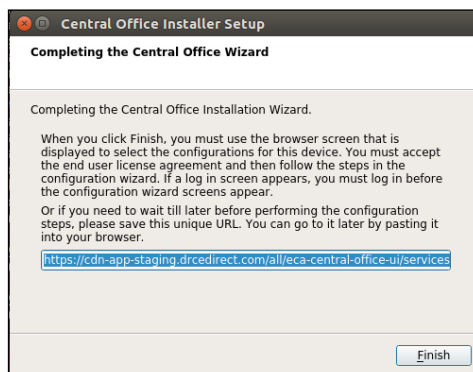
After you specify the base port, COS automatically selects the next three consecutively numbered ports. For example, if you specify 11223 for the base port, COS attempts to use ports 11224, 11225, and 11226.

Note: COS requires four port numbers even if the device being configured will not use all of them. DRC recommends using the default values: 55222, 55223, 55224, and 55225.

13. After you select your ports, but before you click **Next**, click **Test** to verify that the ports selected are available on the device.
- If the Installer dialog box indicates that the ports are not available, select a different base port and repeat this step until you find ports.
 - If the Installer dialog box indicates that the ports are available, click **OK** and **Next** or click **Cancel** to exit the installation.

❗ **Important:** The ports you select may be blocked at the time of testing despite being available during installation. At testing time, verify that these ports are available and allowlisted on your COS - SD's firewall. If the ports are blocked and/or not allowlisted, the Testing Device will encounter a Connection Error that will prevent it from being used for testing.

14. The Completing the Central Office Wizard window displays.



❗ **Important:** From the Completing the Central Office Wizard window, **highlight, copy, and save the URL that is displayed**. (If necessary, you can use it to resume the process at this point without reinstalling COS.) Paste the URL into a Chrome browser and use it to sign on to Portal site. See ["Quick Tour: Creating a Central Office Services Configuration" on page 64](#) to complete the process.

After you paste the URL and sign on, you can click **Finish**.

Manually Updating COS - SD Software on Linux Devices

DRC COS - SD software updates automatically at regular intervals. If a COS - SD is turned off when DRC releases an update, the COS - SD will not receive the update until the next time it is turned on at night. If necessary, you can manually update the COS - SD software on a Linux machine by performing the following steps.

1. Start terminal mode from the COS - SD.
2. Navigate to the COS - SD directory **/opt/CentralOffice**.
3. Enter the command **sudo ./maintenancetool**.
4. On the Setup - Central Office screen, click **Update Components** and then click **Next**. When the update process is complete, a message displays indicating the results of the update.

Uninstalling Central Office Services for Linux

To uninstall COS from a Linux machine, perform the following steps.

1. Start terminal mode from the COS - SD.
2. Navigate to the COS - SD directory **/opt/CentralOffice**.
3. Enter the command **sudo ./maintenancetool**.
4. On the Setup - Central Office screen, verify that **Remove all components** is selected and then click **Next**.
5. On the Ready to Uninstall screen, click **Uninstall**. The process takes a few minutes.

Note: The process may leave log or configuration files in the installation directory or the user home folder. You can ignore these files or delete them using the **rm** command.



Creating a COS Configuration

Quick Tour: Creating a Central Office Services Configuration

After you have installed COS software on a COS - SD, you must create an initial COS Configuration to use COS with your Testing Devices. This Quick Tour describes how to create the initial COS Configuration. DRC provides the Configure Central Office Services page to help you with this process.

To access the Configure Central Office Services page, you must log in to [page](#). When you finish installing the COS - SD software, the Central Office Setup Sign In window displays. Sign in to the DRC INSIGHT Portal by entering your username and password and clicking **Log In**.

Note: If this is the first time you've logged in to the Portal, the End User License Agreement for DRC - SD Software window displays. Read the agreement, check the **I Agree** checkbox, and click **Accept** to continue.

When the Configure Central Office Services page displays, you are ready to create the COS Configuration. If the Configure Central Office Services page does not display, enter or paste the URL that you saved or copied when you installed the COS - SD software.

1. On the Configure Central Office Service page, enter the name for the COS - SD into the Service Device Name field to help you identify it in the COS Dashboard. The name displays anytime you view the device in COS. If you do not name the COS - SD, only the Device ID generated by DRC displays.

! Important: For COS - SDs that are part of a pool of devices (including load-balanced pools), if you have already configured a COS - SD and want to use the same COS Configuration for this COS - SD, you can reply **Yes** to Use an existing COS Configuration? For more information, refer to *Creating COS Service Device Pools* in the [COS Online Help](#).

2. Enter the name of the COS Configuration you are creating in the Configuration Name field.
 - To use a proxy host server, check the **Use Proxy Host** checkbox and enter the server name (or IP address) and port number, separated by a colon, followed by a forward slash (/), in the Proxy Path field. To use a *restricted proxy host*, after you complete the COS Configuration, you must update it and activate the restricted proxy host (for more information on using a proxy host or restricted proxy host, refer to the [COS Online Help](#)).
3. Select a testing program from the Testing Program filter. Then click **Select a Site** and start typing a district name, school name, or site code in the Site Search filter. Click **Select** when you locate the district or school name to which you want to register the COS Configuration and its associated COS - SDs and Testing Devices.

! Important: You can select a site for which you have access as defined by the Central Office Services permission. If you add the wrong location, you can click **Remove** (to the right of the location) to remove it.

Click **Add Site** to add your testing program location.

Quick Tour: Creating a Central Office Services Configuration (cont.)

4. To enable Content Management, check the **Enable Content Management** checkbox, the **Admin** checkbox (if unchecked), and the checkbox for the correct testing administration(s). Indicate whether you need TTS/HVA (audio) and/or VSL (video) test content by checking the appropriate checkboxes based on your state's requirements for the test administration. The test content for the selected administrations and accommodations will be downloaded automatically to your COS - SD. To save space on the COS - SD, do not select unneeded administrations or accommodations.
5. If you enabled Content Management, check the **Enable Content Hosting** checkbox to activate Content Hosting.

! Important: Content Management must be enabled to activate Content Hosting.

6. Click **Complete**. When the Confirm Configuration dialog box displays, review your COS Configuration. If it is correct, click **Save**. If you need to make changes, click **Edit Configuration**.
7. The COS Configuration that you just created is displayed in the COS Dashboard. **Copy and save the Org Unit ID**. You use this ID to register your devices for testing in Step 10.
8. Chose what to do depending on whether DRC INSIGHT is already installed on the Testing Device.
 - If DRC INSIGHT is not installed, install it on the Testing Device (see *Volume III: DRC INSIGHT*).
 - If DRC INSIGHT is installed, you can use the version of DRC INSIGHT that is installed.
9. Start DRC INSIGHT on the Testing Device. Because the Testing Device is not registered with COS, the Configuration Not Found screen is displayed when you start DRC INSIGHT. Click **Assign Device to Org Unit**.



Quick Tour: Creating a Central Office Services Configuration (cont.)

10. When the Device Registration page displays, enter or paste the device's Org Unit ID that you saved in Step 7 and click **Add**. After you have added the Org Unit ID, click **Register**. After the Testing Device is successfully registered, it will be displayed on the COS Testing Devices page.

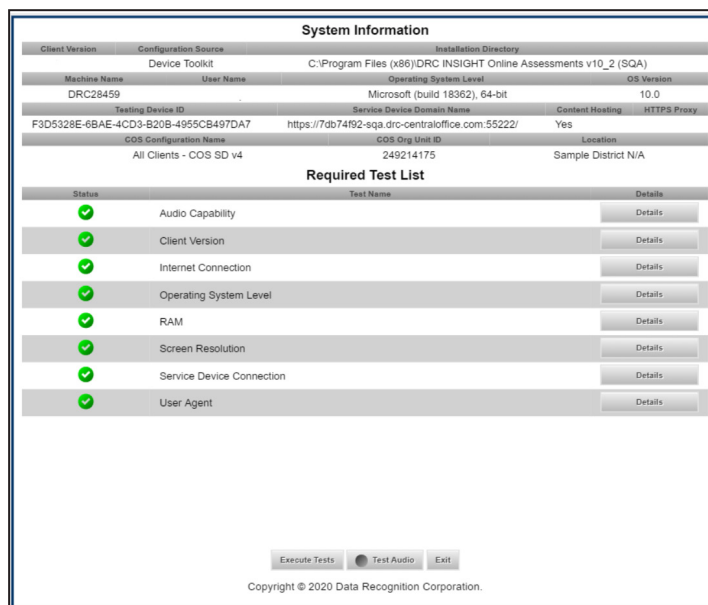


The Device Registration dialog box contains the following instructions and controls:

- 1. To add the device to a Device Toolkit ORG Unit, enter the ORG Unit ID (or copy and paste it) and click **Add**.
Note: You can repeat this step if you want to access more than one testing program from this device.
- 2. When you are ready, click **Register** to register the device or **Cancel** to cancel the process.

The input field contains the text "123456789". Below the input field are two buttons: "Add" and "Register". At the bottom of the dialog are two buttons: "Register" and "Cancel".

11. Depending on what you specified when you installed DRC INSIGHT, either the System Information Page of the System Readiness Check or the main DRC INSIGHT landing page displays. If you need to start the System Readiness Check, click the check mark in the lower-left corner of the main DRC INSIGHT screen. When prompted, enter **7745** for the access code and click **Submit**.
12. When the System Readiness Check displays, verify that the icons in the Required Test List section are green, which indicates whether everything is set up correctly (for more information, refer to the various System Readiness Check topics in *Volume III: DRC INSIGHT*).



The System Information and Required Test List screen displays the following information:

System Information			
Client Version	Configuration Source	Installation Directory	
	Device Toolkit	C:\Program Files (x86)\DRC INSIGHT Online Assessments v10_2 (SQA)	
Machine Name	User Name	Operating System Level	OS Version
DRC28459		Microsoft (build 18362), 64-bit	10.0
Testing Device ID	Service Device Domain Name	Content Hosting	HTTPS Proxy
F3D5328E-6BAE-4CD3-B20B-4955CB497DA7	https://7db74f92-sqa.drc-centraloffice.com:55222/	Yes	
COS Configuration Name	COS Org Unit ID	Location	
All Clients - COS SD v4	249214175	Sample District N/A	

Required Test List		
Status	Test Name	Details
✓	Audio Capability	Details
✓	Client Version	Details
✓	Internet Connection	Details
✓	Operating System Level	Details
✓	RAM	Details
✓	Screen Resolution	Details
✓	Service Device Connection	Details
✓	User Agent	Details

At the bottom of the screen are three buttons: "Execute Tests", "Test Audio", and "Exit". Below the buttons is the copyright notice: "Copyright © 2020 Data Recognition Corporation."

13. Click **Exit** to exit the System Readiness Check and display the main DRC INSIGHT landing page.



Volume III: DRC INSIGHT





Introduction

About This Guide

This user guide is part of a multivolume set that describes how to configure, install, manage, and troubleshoot DRC INSIGHT online testing. This volume, *Volume III: DRC INSIGHT*, describes how to configure, install, manage, and troubleshoot the DRC INSIGHT software. It contains installation information for the various environments that support DRC INSIGHT and describes how to use the System Readiness Check to verify that your Testing Devices are ready for testing.

 **Important:** Throughout this user guide, the Information icon () indicates important information or crucial tips.

DRC INSIGHT

The main component of DRC INSIGHT, the DRC INSIGHT Secure Application, is the secure web-browser testing interface installed on each Testing Device.



DRC INSIGHT Windows Installation

What's Covered in This Section

This section describes the DRC INSIGHT installation process in a Windows environment. The various DRC INSIGHT installation options, as well as the processes of starting, stopping, and uninstalling DRC INSIGHT, are covered in this section and described in the topics listed below.

Quick Tour: Installing the DRC INSIGHT Online Assessments App for Windows

Describes how to download and install the DRC INSIGHT Online Assessments App directly to the Windows Testing Device that you are using to access the App store. You must perform this installation interactively; you cannot install the App silently (non-interactively).

Quick Tour: Installing DRC INSIGHT for Windows OS Interactively

Describes how to download the DRC INSIGHT installation file and install DRC INSIGHT on one or more Testing Devices interactively by using the DRC INSIGHT installation wizard.

Installing DRC INSIGHT From a Command Line or Silently

Describes how to download the DRC INSIGHT installation file and install DRC INSIGHT on one or more Testing Devices silently (non-interactively).

Starting, Stopping, and Uninstalling DRC INSIGHT

Describes various ways to start, stop, and uninstall DRC INSIGHT.

❗ Important:

- To make the DRC INSIGHT installation process easier, DRC recommends that you install the Central Office Services (COS) Service Device (COS - SD) before you use the COS interface to create COS Configurations and before you install DRC INSIGHT.
- You must have administrator privileges to install and update DRC INSIGHT in a Windows Server environment.

Multiple Testing Programs

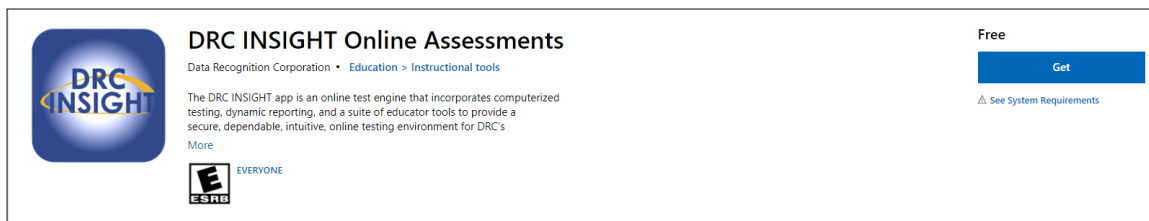
If you plan to test across multiple testing programs, you can use a COS - SD and the same set of DRC INSIGHT Testing Devices to access these programs. COS makes it easy to combine multiple testing programs into a single COS Configuration by using COS - SDs with Content Management.

- You can install a COS - SD and DRC INSIGHT on the same Windows, macOS, or Linux computer.
- For details, refer to the Technical Bulletins, *Configuring a COS Service Device and DRC INSIGHT on a Single Windows PC for Online Testing* and *Configuring a COS Service Device and DRC INSIGHT on a Single macOS Computer for Online Testing* on Portal site by navigating to **MY APPLICATIONS—General Information—Documents**.
- You can have content for multiple testing programs on the same COS - SD.
- You can use DRC INSIGHT to access multiple testing programs from the same Testing Device.
- You can access the different testing programs using the DRC INSIGHT desktop shortcut. When you start DRC INSIGHT, a page displays that lists the testing programs from which you can select.

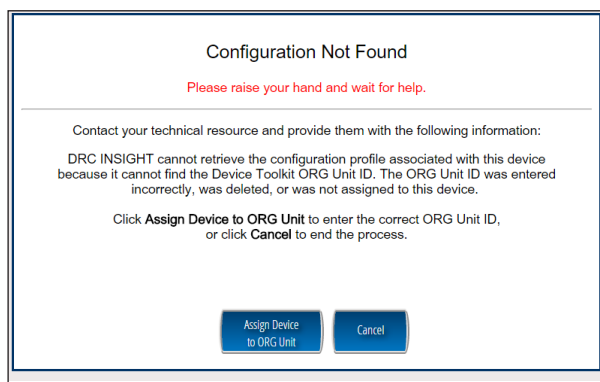
Quick Tour: Installing the DRC INSIGHT Online Assessments App for Windows

This Quick Tour describes how to download and install the DRC INSIGHT Online Assessments App and register the Windows computer as a Testing Device.

1. Navigate to the Microsoft App store using a supported browser.
2. Search for DRC INSIGHT Online Assessments and click **Get** when the DRC INSIGHT Online Assessments App download window displays.



3. After the download is complete, click **Launch** to start the DRC INSIGHT Online Assessments App.
4. The Configuration Not Found page displays. To successfully register the Windows computer as a Testing Device with DRC INSIGHT, locate the Testing Device's Org Unit ID from the COS Configuration. When you have the Org Unit ID (you can copy and paste it), click **Assign Device to Org Unit**.



Quick Tour: Installing the DRC INSIGHT Online Assessments App for Windows (cont.)

5. When the Device Registration page displays, enter or paste the Testing Device's Org Unit ID and click **Add**. When the Register button is enabled, click **Register**.

Device Registration

1. To add the device to a Device Toolkit ORG Unit, enter the ORG Unit ID (or copy and paste it) and click **Add**.
Note: You can repeat this step if you want to access more than one testing program from this device.

2. When you are ready, click **Register** to register the device or **Cancel** to cancel the process.

123456789 **Add**

Register **Cancel**

6. When the Testing Device is successfully registered with DRC INSIGHT, if a single testing program is associated with the COS Configuration, its landing page displays. If multiple testing programs are associated with the COS Configuration, a page displays that you can use to select the testing program. After you make your selection, the landing page for the testing program displays.

From the landing page in the DRC INSIGHT Online Assessments App, you can try the Test Practice or Test Demo, or sign in to take a test using your DRC INSIGHT log-in information.

7. To start the System Readiness Check, click the check mark (✓) in the lower-left side, enter **7745** (the System Readiness Check access code), and click **Submit**. The System Information screen displays for the System Readiness Check and indicates whether the Testing Device has sufficient screen resolution, Internet connectivity, memory (RAM), and other technical specifications needed to perform online testing for the testing program (see [“What the System Readiness Check Displays” on page 109](#)).
8. Click **Execute Tests** to verify that the Testing Device and any COS - SDs are configured correctly and click **Details** next to any test for which you need more information (see [“Resolving System Readiness Check Required Tests” on page 113](#)).
9. When you are ready, click **Exit**.

Quick Tour: Installing DRC INSIGHT for Windows OS Interactively

This Quick Tour describes how to install DRC INSIGHT for Windows. DRC provides an easy-to-use wizard to install the software.

1. To launch the wizard and start the installation, navigate to Portal site, sign in, and download the DRC INSIGHT installer.
2. After you have downloaded the installer, click the **DRC_INSIGHT_Setup.msi** icon to start an installation. When the Welcome to the DRC INSIGHT Online Learning System Setup Wizard window displays, click **Next** to continue.

Note: On most installation windows, you can click **Back** to return to the previous window or **Next** to proceed to the next window. Some windows display other options.

3. The License Agreement window displays. To continue the installation, read the agreement and select the option **I accept the terms in the License Agreement**. (If you do not accept the agreement, the installation ends.) Click **Next** to continue when the Next button is active.
4. The Configure Shortcuts window displays. Use this window to indicate which shortcuts the installation process should create. DRC recommends that you select both shortcuts.

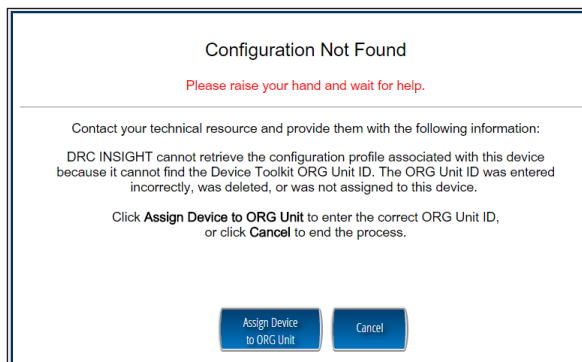
After you have made your selections, click Next to continue.

5. The Ready to Install window displays. Click **Back** to review or change your settings, **Install** to start the installation, or **Cancel** to cancel the process.
6. While DRC INSIGHT is being installed, a progress window indicates the status of the installation. If necessary, you can click **Cancel** to end the installation process.
7. When the installation nears completion, the Completing the DRC INSIGHT Online Learning System Setup Wizard window displays, indicating that DRC INSIGHT is almost installed.

Specify whether to launch the System Readiness Check (the default value). The System Readiness Check verifies that the testing computer has sufficient screen resolution, Internet connectivity, memory (RAM), and other technical specifications needed to perform online testing (see [“What the System Readiness Check Displays” on page 109](#)).

Make your selections and click **Finish** to register the device with DRC INSIGHT.

8. The Configuration Not Found page displays. To successfully register the Testing Device with DRC INSIGHT, locate the Testing Device’s Org Unit ID from the COS Configuration. When you have the Org Unit ID (you can copy and paste it), click **Assign Device to Org Unit**.



Quick Tour: Installing DRC INSIGHT for Windows OS Interactively (cont.)

9. When the Device Registration page displays, enter or paste the Testing Device's Org Unit ID and click **Add**. When the Register button is enabled, click **Register**.

When the Testing Device is registered, the System Readiness Check displays for the COS Configuration's testing program. If the COS Configuration is associated with more than one testing program, a page displays that you can use to select your testing program. The System Readiness Check displays for the testing program you selected.

10. When the System Readiness Check launches, the System Information screen displays. You can see details about each System Readiness Check test, execute the tests, and view the results.

Click **Execute Tests** to verify that the Testing Device and any COS - SDs are configured correctly. Click **Details** next to any test you need more information about (see [“Resolving System Readiness Check Required Tests” on page 113](#)). When you are ready, click **Exit**.

11. When the Testing Device is successfully registered with DRC INSIGHT, if a single testing program is associated with the COS Configuration, its landing page displays. If multiple testing programs are associated with the COS Configuration, a page displays that you can use to select the testing program. After you make your selection, the landing page displays.

Within the DRC INSIGHT App, you can try the Test Practice or Test Demo, or sign in to take a test. In addition, you can sign in to the System Readiness Check by clicking the check mark (✓) in the lower-left side and entering **7745**, the System Readiness Check access code. The System Readiness Check verifies that the Testing Device has sufficient screen resolution, Internet connectivity, memory (RAM), and other technical specifications needed to perform online testing (see [“What the System Readiness Check Displays” on page 109](#)).

12. The installation adds a single shortcut to your desktop. Use the shortcut to sign in to the Test Practice, try the Test Demo, view sample test items, or sign in to the Online Tools Training (OTT), or test using your DRC INSIGHT log-in information.

Installing DRC INSIGHT from a Command Line or Silently

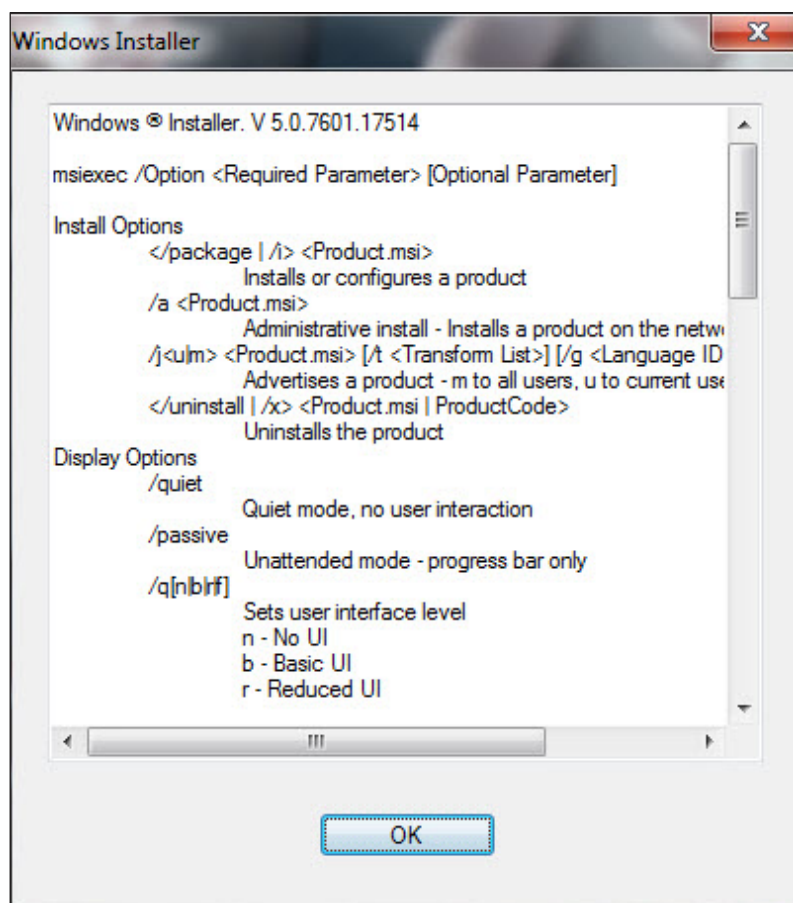
This section describes how to install DRC INSIGHT from a command line and how to install DRC INSIGHT silently (non-interactively). After installing DRC INSIGHT, start DRC INSIGHT to register the Testing Device with its COS Configuration. (You can do this manually, or automatically using a script or device management software.)

⚠ Important: Register the Testing Device *before* applying any desktop protection software, such as Deep Freeze, to avoid having the device re-register with the COS Configuration every time DRC INSIGHT is launched.

Installing DRC INSIGHT from a Command Line

1. To install DRC INSIGHT from a command line, navigate to Portal site, sign in, and download the Windows DRC INSIGHT installation file, `DRC_INSIGHT_Setup.msi`, to the C: drive.
2. Execute the DRC INSIGHT setup command—**`DRC_INSIGHT_Setup.msi`**—using the specific options (see below) you want to use. To display a list of the command line options, use the `/h` (help) parameter with the setup command by selecting **Run...** and specifying **`DRC_INSIGHT_Setup.msi -h`**.

The following figure shows a list of the standard options. Refer to the *Windows Installer Software Development Kit* for detailed information about the command line syntax.



Installation Command Syntax and Example

The following is the syntax for the install program command:

DRC_INSIGHT_Setup.msi <properties> <MSI switches>

Note: All properties are passed in a *key=value* format (see below).

Examples

The following are examples of commands used to install DRC INSIGHT, with and without a proxy host, using an Org Unit ID of 123456789.

.....
! Important: Do not copy and paste this information—it is meant for example only.
.....

```
msiexec.exe /i DRC_INSIGHT_Setup.msi /qn https_proxy="https://10.1.1.1:55222" ou_
ids="123456789"
```

```
msiexec.exe /i DRC_INSIGHT_Setup.msi /qn ou_ids="123456789"
```

https_proxy is the path to the proxy host (if specified).

ou_ids is the Org Unit ID number to which the device is assigned. This parameter points to the specific COS Configuration information for COS - SD content, district and school ID, proxy server information, and automatic update information. It is used to register the device with DRC INSIGHT.

Note: For more information about the MSIEXEC properties and switches that you can use with the installation application, refer to the Microsoft Command-Line Options page.

Installing DRC INSIGHT Silently Using Orca

To install DRC INSIGHT silently using Orca, perform the following steps:

1. Navigate to Portal site, sign in, and download the Windows DRC INSIGHT installer, DRC_INSIGHT_Setup.msi, to the C: drive.
2. Download a copy of ORCA to your Program Files folder.
3. Right-click **Orca.exe** and select **Open**.
4. Browse to the DRC_INSIGHT_Setup.msi file and open it.
5. Select **Property**
6. Use the **Property** column to sort the display.

Property	Value
...	...

7. Locate the **OU_IDS** field and enter the Org Unit ID with no quotation marks or spaces (see the example below).

OU_IDS 123456789

8. If you are using a proxy host, locate the **HTTPS PROXY** field and enter the full proxy address with no spaces (see the example below).

HTTPS PROXY https://10.1.1.1.:55

9. Save the file and exit Orca.

.....
! Important: Save the file using Save, not Save As.
.....

10. Use the following command to run the updated installer:

msiexec.exe /i DRC_INSIGHT_Setup.msi /qn

Starting, Stopping, and Uninstalling DRC INSIGHT

This section describes various ways to start, stop, and uninstall DRC INSIGHT.

Starting DRC INSIGHT

You can start DRC INSIGHT from a Windows computer using the desktop shortcut, the Windows Start menu, or Windows Explorer. For 64-bit Windows, start Windows Explorer and select the installation drive–**Program Files–DRC INSIGHT Online Assessments–DRCInsight.exe** for DRC INSIGHT.

Stopping DRC INSIGHT

If DRC INSIGHT becomes unresponsive on a Windows computer, can stop it by using the Windows Task Manager.

1. Start the Task Manager, by pressing **Ctrl–Alt–Delete** and selecting **Task Manager**.
2. When the Task Manager window displays, select **DRCInsight.exe** in the Processes tab and click **End Task**.

If DRC INSIGHT becomes unresponsive on a Windows 10 computer, can stop it by pressing **ALT–F4**.

Uninstalling DRC INSIGHT

You can uninstall DRC INSIGHT from a Windows machine by using the Control Panel, the Start menu, or silently using a command.**Note:** If you cannot remove DRC INSIGHT, please contact DRC Customer Service.

Control Panel

To uninstall DRC INSIGHT using the Control Panel, select **Uninstall a Program**, select **DRC INSIGHT Online Learning System–DRC Online Assessments**, right-click, and select **Uninstall**.

Start Menu

To uninstall DRC INSIGHT using the Start menu, select **All Programs–DRC INSIGHT Online Assessments–DRC INSIGHT Uninstaller** and click **Yes** when the Windows Installer dialog box displays.

Command

To uninstall DRC INSIGHT silently, use the following command:

msiexec.exe /x DRC_INSIGHT_Setup.msi /qn



DRC INSIGHT macOS Installation

What's Covered in This Section

This section describes the DRC INSIGHT installation process in a macOS environment. The first part of this section provides basic information about installing DRC INSIGHT interactively using the installation wizard. Then, the section provides information about installing DRC INSIGHT using a software deployment tool and uninstalling DRC INSIGHT.

⚠ Important: To make the DRC INSIGHT installation process easier, DRC recommends that you install the COS - SD before you use the COS interface to create COS Configurations and before you install DRC INSIGHT.

Multiple Testing Programs

If you plan to test across multiple testing programs, you can use a COS - SD and the same set of DRC INSIGHT Testing Devices to access these programs. COS makes it easy to combine multiple testing programs into a single COS Configuration by using COS - SDs with Content Management.

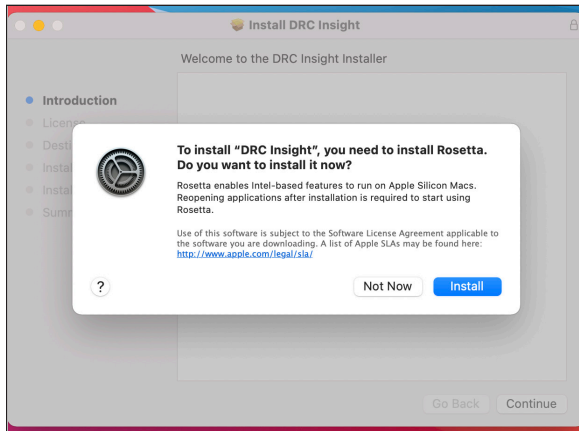
- You can install a COS - SD and DRC INSIGHT on the same computer.

For details, refer to the Technical Bulletins, *Configuring a COS Service Device and DRC INSIGHT on a Single Windows PC for Online Testing* and *Configuring a COS Service Device and DRC INSIGHT on a Single macOS Computer for Online Testing* on Portal site by navigating to **MY APPLICATIONS—General Information—Documents**.

- You can have content for multiple testing programs on the same COS - SD.
- You can use DRC INSIGHT to access multiple testing programs from the same Testing Device.
- When you start DRC INSIGHT, a page displays that lists the testing programs from which you can select.

Rosetta Software and DRC INSIGHT Software for macOS Devices

If you are testing using a macOS device that has an M1 chip, the Rosetta software must be installed on the device before you install DRC INSIGHT. If the Rosetta software is not installed, during the installation process you will be prompted to install it (see the image below).



Keep the following items in mind if you need to install the Rosetta software on your macOS device.

- Application (Intel) means that the app supports only Intel processors and needs Rosetta to work on any macOS device with Apple Silicon processors.
- Application (Universal) means that the app supports both Apple Silicon processors and Intel processors and uses Apple Silicon processors by default.

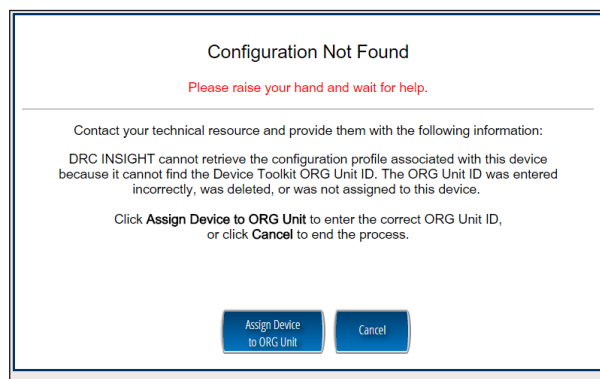
Quick Tour: Installing DRC INSIGHT for macOS

This Quick Tour describes how to install DRC INSIGHT on a macOS device. DRC provides an easy-to-use wizard to install the software.

1. Sign in to Portal site, select **MY APPLICATIONS—General Information—Downloads**, and click the DRC INSIGHT macOS Installer (macOS) Download icon (📄).
2. After you have downloaded the installer, click on the **drc_insight_setup_xx.x.x.pkg** icon to start an installation.

Note:

- You must be a macOS System Administrator to install DRC INSIGHT.
 - The actual .pkg file will include a version number. Use the version number from the .pkg file name as the current version.
3. The Welcome screen displays for the DRC INSIGHT Online Learning System Setup Wizard. Click **Next** to continue.
 4. The License Agreement window displays. To continue the installation, read the agreement and select the option **I accept the terms in the License Agreement**. (If you do not accept the agreement, the installation ends.)
 5. The Standard Install window displays, indicating the amount of disk space the installation will require. Click **Install**.
 6. The Standard Install on “Mac version” window displays. You can change the installation location or use the default location. To use the default location, click **Install**.
 7. After you enter your name and password and click **Install Software**, the installation begins.
 8. During the installation, a window indicates the progress of the installation.
 9. After the installation, a window indicates the status of the installation. If the installation is successful, click **Close**. Otherwise, if necessary, click **Go Back** to change your installation options.
 10. The Configuration Not Found page displays. To successfully register the Testing Device with DRC INSIGHT, locate the Org Unit ID from the COS Configuration. When you have the Org Unit ID (you can copy and paste it), click **Assign Device to Org Unit**.



Quick Tour: Installing DRC INSIGHT for macOS (cont.)

11. When the Device Registration page displays, enter or paste the Org Unit ID and click **Add**.



When the Register button is enabled, click **Register**. When the Testing Device is registered, the System Readiness Check displays for the COS Configuration's testing program. If the COS Configuration is associated with more than one testing program, a page displays that you can use to select your testing program. The System Readiness check displays for the testing program you selected.

12. When the System Readiness Check launches, the System Information screen displays. You can see details about each System Readiness Check test, execute the tests, and view the results.

Click **Execute Tests** to verify that the Testing Device and any COS - SDs are configured correctly. Click **Details** next to any System Readiness Test to see more information about the status of the test (see [“Resolving System Readiness Check Required Tests” on page 113](#)). When you are ready, click **Exit**.

13. When the Testing Device is successfully registered with DRC INSIGHT, if a single testing program is associated with the COS Configuration, its landing page displays. If multiple testing programs are associated with the COS Configuration, a page displays that you can use to select the testing program. After you make your selection, the landing page displays.

Within the DRC INSIGHT App, you can sign in to the System Readiness Check by clicking the check mark (✓) in the lower-left side and entering **7745**, the System Readiness Check Access Code. The System Readiness Check verifies that the testing computer has sufficient screen resolution, Internet connectivity, memory (RAM), and other technical specifications needed to perform online testing (see [“What the System Readiness Check Displays” on page 109](#)).

14. After installation, launch the application from the Launchpad, via Spotlight, or from the Applications folder, and sign in to the Test Practice, try the Test Demo, view sample test items, sign in to the Online Tools Training (OTT), or test using your DRC INSIGHT log-in information

Managing DRC INSIGHT

This section describes how to install DRC INSIGHT using a software deployment tool, how to start and stop DRC INSIGHT, and how to uninstall DRC INSIGHT.

After installing DRC INSIGHT, start DRC INSIGHT to register the Testing Device with its COS Configuration. (You can do this automatically using a script or device management software, or you can do this manually.)

.....
❗ Important: Register the device *before* applying any desktop protection software, such as Deep Freeze, to avoid having the device re-register with the COS Configuration every time DRC INSIGHT is launched.
.....

Installing DRC INSIGHT Using a Software Deployment Tool

The following example shows how to install DRC INSIGHT on a macOS device using the Apple Remote Desktop software.

Note: The Apple Remote Desktop software is used for this example, but the process is similar with other software deployment tools.

1. If there is an old version of DRC INSIGHT, remove the old version and install and configure the DRC INSIGHT Secure Application on the computer from which you will be distributing the software (see [“Quick Tour: Installing DRC INSIGHT for macOS” on page 83](#)).

.....
❗ Important: To ensure that testers can access the correct file folders on the testing computers, you may need to adjust the permissions on the file folders you will be copying before you distribute them to the testing computers.
.....

2. Start the Apple Remote Desktop software and select the following directory in a Copy Items window from the Apple Remote Desktop administrator’s computer.

/Applications/DRC INSIGHT Online Assessments

Note: You may need to adjust the destination locations and permissions depending on testers’ permissions.

3. Copy the file folders to your list of destination computers.
4. Verify the installation by running the System Readiness Check on the computers on which you installed the software.

Starting DRC INSIGHT

You can start DRC INSIGHT on a testing computer by using the Launchpad, via Spotlight, or from the Applications folder by double-clicking **Applications–DRC INSIGHT Online Assessments–DRCInsight Online Assessments.app**.

Stopping DRC INSIGHT

If DRC INSIGHT becomes unresponsive, you can stop it using the key combination, **Command–Q**.

Uninstalling DRC INSIGHT

You can uninstall DRC INSIGHT using the Applications folder by double-clicking **Applications–DRC INSIGHT Online Assessments–DRC Uninstaller.app**. Click **Yes** when the Warning dialog box displays, enter your Mac Administrator login information, and click **OK**. The process automatically uninstalls the program.

Note: You can also run the uninstall process silently.



DRC INSIGHT Linux Installation

What's Covered in This Section

This section describes the DRC INSIGHT installation process in a Linux environment. The first part of this section provides basic information about installing DRC INSIGHT interactively using the installation wizard. Then, the section provides information about installing DRC INSIGHT from a terminal or a command line, and information about uninstalling DRC INSIGHT with the Synaptic Package Manager or by command.

Note: You should be familiar with Linux concepts such as terminal mode/session/window, the Synaptic Package Manager software, and the Ubuntu Software Center. For any commands entered from a Linux terminal session, the combination of backslash space (\) indicates a space.

❗ Important: To make the DRC INSIGHT installation process easier, DRC recommends that you install the COS - SD before you use the COS interface to create COS Configurations and before you install DRC INSIGHT.

Installation Prerequisite

The Gnome desktop environment is required to install DRC INSIGHT on a Linux computer (see [“Installing the GNOME Desktop Environment” on page 90](#)).

Multiple Testing Programs

If you plan to test across multiple testing programs, you can use a COS - SD and the same set of DRC INSIGHT Testing Devices to access these programs. COS makes it easy to combine multiple testing programs into a single COS Configuration by using COS - SDs with Content Management.

- You can install a COS - SD and DRC INSIGHT on the same computer.
- You can have content for multiple testing programs on the same COS - SD.
- You can use DRC INSIGHT to access multiple testing programs from the same Testing Device.
- You can access the different testing programs using the same DRC INSIGHT desktop shortcut. When you start DRC INSIGHT, a page displays that lists the testing programs from which you can select.

Installing 32-bit Java Libraries

! Important: On some 64-bit Linux systems, you must install the 32-bit Java libraries for the DRC INSIGHT installation program to run. To install these libraries, enter the following commands from a terminal session.

```
sudo -i
```

```
cd /etc/apt/sources.list.d
```

```
echo "deb http://old-releases.ubuntu.com/ubuntu/ raring main restricted universe multiverse"  
>ia32-libs-raring.list
```

```
apt-get update
```

```
apt-get install ia32-libs
```

If the apt-get install ia32-libs command fails, enter the following commands.

```
sudo dpkg --add-architecture i386
```

```
sudo apt-get update
```

```
sudo apt-get install ia32-libs
```

Installing the GNOME Desktop Environment

The GNOME desktop environment is required before you can install DRC INSIGHT on a Linux computer. Follow these steps to install the GNOME desktop environment.

1. Press **Ctrl+Alt+T** to open a terminal window.
2. Type the following commands at the prompt and press **Enter**. The first command (before the semicolon) updates Ubuntu. The second command installs the GNOME desktop environment.

sudo apt-get update; sudo apt-get install gnome-session-fallback

3. Type your password and press **Enter**.
4. The installation progress displays, including a message that indicates how much disk space is used for GNOME. When asked if you want to continue, type **y** and press **Enter**.
5. When the installation is complete, at the prompt type **exit** and press **Enter** to close the terminal window.
6. Click the upper-right corner of the screen to display the System menu. Select **Log Out** to end the session.
7. On the Login screen, click the Ubuntu icon.
8. A list of available desktop environments displays. Select the GNOME Flashback option for Metacity.
9. The Login screen displays. Enter your password and press **Enter** to log in. After successfully logging in to GNOME, you can begin installing DRC INSIGHT on the computer.

Quick Tour: Installing DRC INSIGHT for Linux

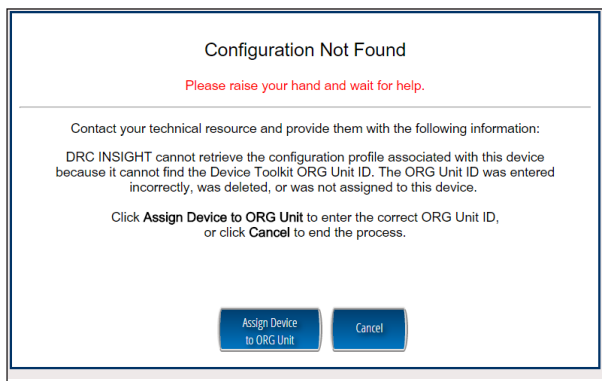
This Quick Tour describes how to install DRC INSIGHT for Linux. DRC provides an easy-to-use wizard to install the software. In a Linux environment, you use the Ubuntu Software Center to run the wizard.

1. To launch the wizard and start the installation, sign in to Portal site, select **MY APPLICATIONS—General Information—Downloads**, and click the DRC INSIGHT Linux Installer icon (📄) to download the DRC INSIGHT setup file, **DRC_INSIGHT_Setup_amd64.deb** (for 64-bit versions of Linux), to the Downloads directory on your testing computer.
2. The Opening DRC_INSIGHT_Setup_amd64.deb dialog box displays.

Select **Open with Ubuntu Software Center (default)** if it is not selected and click **OK**.

Note: Some browsers do not display a dialog box and download the installation file directly.

3. When the Ubuntu Software Center window displays, click **Install**.
4. The Authenticate dialog box displays. Select your username from the drop-down menu, enter your password, and click **Authenticate**.
5. The DRC License Agreement window displays. Check the **I accept the license agreement** checkbox and click **Forward**. The DRC INSIGHT installation starts.
6. While DRC INSIGHT is installing, a window indicates the status of the installation.
7. After DRC INSIGHT is installed, navigate to the directory where you installed it and double-click the DRC INSIGHT Online Assessments icon to start DRC INSIGHT and register the Testing Device.
8. The Configuration Not Found page displays. To successfully register the Testing Device, locate the Org Unit ID from the COS interface. When you have the Org Unit ID (you can copy and paste it from the COS interface), click **Assign Device to Org Unit**.



Quick Tour: Installing DRC INSIGHT for Linux (cont.)

9. When the Device Registration page displays, enter the Org Unit ID (or copy and paste it) and click **Add**.

Device Registration

1. To add the device to a Device Toolkit ORG Unit, enter the ORG Unit ID (or copy and paste it) and click **Add**.
Note: You can repeat this step if you want to access more than one testing program from this device.

2. When you are ready, click **Register** to register the device or **Cancel** to cancel the process.

123456789 **Add**

Register **Cancel**

When the Register button is enabled, click **Register**. When the Testing Device is registered, the System Readiness Check for the COS Configuration's testing program displays.

Note: If the COS Configuration points to more than one testing program, a page displays that you can use to select your testing program. The System Readiness Check displays for the testing program you selected.

10. When the System Readiness Check launches, the System Information screen displays. You can see details about each System Readiness Check test, execute the tests, and view the results.

Click **Execute Tests** to verify that the Testing Device and any COS - SDs are configured correctly. Click **Details** next to any test to see more information about the test (see [“The System Readiness Check Required Tests” on page 112](#)). When you are ready, click **Exit**.

11. Confirm that the Testing Device is successfully registered with DRC INSIGHT. When the Testing Device is registered, one of two pages displays:

If you configured a single testing program, the landing page displays. If you configured more than one testing program, a page displays that you can use to select the testing program. After you make your selection, the landing page displays.

Within the DRC INSIGHT App,

In addition, you can sign in to the System Readiness Check by clicking the check mark (☑) in the lower left side and entering **7745**, the System Readiness Check Access Code. The System Readiness Check verifies that the testing computer has sufficient screen resolution, Internet connectivity, memory (RAM), and other technical specifications needed to perform online testing (see [“What the System Readiness Check Displays” on page 109](#)).

Managing DRC INSIGHT

This section describes how to install DRC INSIGHT using terminal mode or a command line, and how to uninstall DRC INSIGHT with the Synaptic Package Manager or by command.

After installing DRC INSIGHT, start DRC INSIGHT to register the device with its COS Configuration. (You can do this automatically by using a script or device management software, or manually.)

! Important: Register the device *before* applying any desktop protection software, such as Deep Freeze, to avoid having the device re-register with the COS Configuration every time DRC INSIGHT is launched.

Installing DRC INSIGHT Using Terminal Mode

To install DRC INSIGHT in terminal mode, do the following:

1. Sign in to Portal site, select **MY APPLICATIONS—General Information—Downloads**. When the Test Setup General Information page displays, click on the Linux Installer icon to download the DRC INSIGHT setup file, `DRC_INSIGHT_Setup_amd64.deb` (for 64-bit machines), to your testing computer.

Note: Depending on the web browser you are using, a pop-up window may display. If it does, click **Save File**. Other browsers automatically download the installation file to your Downloads directory.

2. Open a terminal session and navigate to your Downloads directory.
3. Enter the command `sudo dpkg -i DRC_INSIGHT_Setup_amd64.deb` and press **Enter**.
4. Tab to the **Yes** field under *I accept the license agreement* and press **Enter**.

Installing DRC INSIGHT from a Command Line

The DRC INSIGHT installation places a silent install shell script (`silent_installer.sh`) in the Install directory. You can use the `silent_installer.sh` file to silently install DRC INSIGHT in a Linux environment. Move the `silent_installer.sh` file to the directory where the DRC INSIGHT installation file is located.

Installation Command Syntax and Example

The following is the syntax for the install program command:

`silent_installer.sh <properties>`

The following is an example of the command you would run using the terminal from the folder in which both the installation file and the `silent_installer.sh` file are located. In this example, we install the software in silent mode, pointing to Org Unit 123456789.

`sudo ./silent_installer.sh -o 123456789`

Uninstalling DRC INSIGHT Using the Synaptic Package Manager

The Synaptic Package Manager is a graphic Linux tool to help you uninstall and remove software packages. You can install the Synaptic Package Manager by using the Ubuntu Software Center. Follow these steps to uninstall DRC INSIGHT.

1. Start the Synaptic Package Manager by clicking the **Synaptic Package Manager** icon in Applications.
2. From the Synaptic Package Manager, search for the string **drc** in the Quick Filter window.
3. Select **drc-insight** and right-click. In the drop-down menu, select **Mark for Complete Removal**.
4. A red icon with a white x inside it displays next to drc-insight. On the Synaptic Package Manager toolbar, click **Apply**.
5. The **Apply the following changes?** dialog box displays. Select **To be completely removed (including configuration files)** and click **Apply**.
6. The Synaptic Package Manager uninstalls DRC INSIGHT.

Uninstalling DRC INSIGHT Manually

In a Linux environment, the command line tool for adding, removing, and updating software packages is apt-get. To remove DRC INSIGHT, you can use the following command in terminal mode:

```
sudo apt-get remove drc-insight
```

Note: After you have uninstalled DRC INSIGHT, you can remove any remaining files or folders by using the **rm** command (see below). If you have any questions, please contact DRC Customer Service.

Cleanup

The Linux apt-get uninstall command may leave files behind, such as the drconfiguration.json file. If this file still exists when you attempt a new installation, the settings for the new installation will not take effect. Use the following command from a Linux terminal session to fully uninstall DRC INSIGHT and remove its files.

```
sudo rm -rf /opt / DRC\ Online\ Assessments/
```

Note: For commands entered from a Linux terminal session, the combination of backslash space (\) indicates a space.



Installing DRC INSIGHT on iPad Devices

What's Covered in This Section

This section describes the process of installing DRC INSIGHT for iPad devices in an iOS or iPadOS environment. It provides detailed information about installing DRC INSIGHT and registering it to work with COS.

DRC INSIGHT and the Apple App Store

! Important: The DRC INSIGHT App (the INSIGHT App) for iPads is available from the [Apple App Store](#).

Distributing and Registering DRC INSIGHT

There are two main parts to the process of installing DRC INSIGHT on an iPad device to test with the DRC INSIGHT App: distribution and registration.

- To *distribute* (deploy) the DRC INSIGHT App, you have two options:
 - You can assign the DRC INSIGHT App using Managed distribution, Mobile Device Management (MDM) software and the [Apple Volume Purchase Program](#).
 - You can download the DRC INSIGHT App from the Apple App Store directly from an iPad.
- MDM software can secure, monitor, manage, and support mobile devices deployed across mobile operators, service providers, and enterprises.
- To *register* the iPad to work with DRC INSIGHT and COS - SDs, you have two options:
 - *If your MDM software supports the Managed App Configuration feature*, you can use the MDM software to deploy the DRC INSIGHT configuration to register your iPad automatically. You can centrally configure multiple iPad devices using the MDM software. This is the preferred method of distributing the same configuration file to multiple iPads. It is easier and introduces fewer errors to register multiple iPads automatically than to manually register each iPad device.
 - *If your MDM software does not support the Managed App Configuration feature (or you did not use MDM software to download the INSIGHT App)*, you can use the MDM software to distribute the DRC INSIGHT App to multiple iPad devices, but you must manually register each iPad to the COS Configuration.

Cross-Website Tracking

❗ **Important:** For all iPad devices, the Cross-Website Tracking settings must be enabled on the device after DRC INSIGHT is installed.

To manually enable Cross-Website Tracking, perform the following steps on each iPad

To enable Cross-Website Tracking, perform the following steps on each iPad:

1. Navigate to **Settings**.
2. Tap **DRC INSIGHT**.
3. Toggle **Allow Cross-Website Tracking** to on.

Preparing iPads for Testing

The following is a summary of the process of installing and registering DRC INSIGHT on multiple iPads using MDM software. This summary assumes that you have already installed and set up the MDM software and have registered all the iPads using MDM software.

Note: Some sub-steps are included in the event that you are not using MDM software.

❗ **Important:** There are many versions of MDM software. To *deploy and register* your DRC INSIGHT iPad software automatically, your MDM software must support the Managed App Configuration feature. This feature is necessary to perform step 1a. Otherwise, after you deploy DRC INSIGHT, you must register each iPad manually.

The process of manually installing and registering the DRC INSIGHT App is not recommended. Because it is both time-consuming and labor-intensive, this approach is only practical for testing with a small number of iPads. For more information, see the [Assessment with iPad](#) document.

1. Deploy DRC INSIGHT

A. With a Configuration File

In your application deployment, choose the DRC INSIGHT App in the Apple App Store and locate the configuration file (ios.plist) you created using the COS interface (see Volume II: Central Office Services [COS]).

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

B. Without a Configuration File

In your application deployment, choose the DRC INSIGHT App in the Apple App Store and deploy it to your iPads using your MDM software.

Preparing iPads for Testing (cont.)

Preparing the iPad for Testing without MDM Software

To install and register the DRC INSIGHT App manually on a single iPad without MDM software, as part of step 1b, manually download the DRC INSIGHT App from the Apple App Store by performing the following steps:

- C. On the iPad, launch the Apple App Store.
- D. Search for DRC INSIGHT.
- E. When you locate the DRC INSIGHT App, select Get to download it.

2. Pair an External Keyboard

To use an external keyboard, manually pair each iPad with an external keyboard.

Note: Both wired and wireless keyboards are supported for testing.

3. Launch the DRC INSIGHT App

DRC INSIGHT is automatically placed in Assessment Mode regardless of whether you use MDM software to deploy it. When DRC INSIGHT launches, you are prompted to lock DRC INSIGHT in Assessment Mode. Select **Yes** for Assessment Mode. If you select **No**, DRC INSIGHT closes.

A. With a Configuration File

When you launch DRC INSIGHT, the iPad is automatically registered with a COS Configuration. If a single testing program is configured, the DRC INSIGHT landing page displays. If multiple testing programs are configured, you can select one from the list.

B. Without a Configuration File

When you launch DRC INSIGHT, the iPad is not automatically registered with a COS Configuration. A field displays that requests the Org Unit ID for the device. Enter the Org Unit ID in the field and click **Save** to register the iPad. If a single testing program is configured, the DRC INSIGHT landing page for that assessment displays. If multiple testing programs are configured, you can select one from a list.

Viewing the DRC INSIGHT Configuration on an iPad

Perform the following steps on an iPad to start the System Readiness Check and view the iPad's DRC INSIGHT configuration.

1. Press **DRC INSIGHT** to start DRC INSIGHT.
2. When DRC INSIGHT displays, press the System Readiness Check check mark link ☒ in the lower left corner and enter **7745**, the four-digit System Readiness Check access code, to display the System Information page. You can view your DRC INSIGHT configuration information (read-only) from this page.

Note: Within the DRC INSIGHT App, you can try the Online Tools Training (OTT) and sign in to take a test.

3. Click **Execute Tests** to verify that the iPad is ready for testing. If there are errors, you must resolve them and repeat steps 2 and 3. To make configuration changes, you must use the COS interface.
4. If your iPad is ready for testing, click **Exit**. To use an external Bluetooth keyboard, pair the iPad with a keyboard and relaunch the DRC INSIGHT App.

iPad Timeout Issue Due to Content & Privacy Restrictions

⚠ Important: Some iPad testers have experienced a timeout that can occur when an iPad is configured with **Content & Privacy Restrictions** enabled. In this situation, specific settings on the iPad may be blocking test content from DRC. Note that this iPad filtering is different from any network filtering that may be in place.

To correct this problem, perform the following tasks on the iPad.

1. Navigate to **Settings**.
2. Tap **Screen Time**.
3. Tap **Content & Privacy Restrictions**.
4. Tap **Content Restrictions**.
5. Tap **Web Content**.
6. If Limit Adult Websites or Allowed Websites Only is checked, under ALWAYS ALLOW, tap **Add Website** and add each of the following websites to the list:
 - wbte.drcdirect.com
 - drc-centraloffice.com
 - drcdirect.com
7. Tap **Save** and restart the iPad.

Note: If multiple iPads are configured with Content & Privacy Restrictions enabled, this updated configuration can be “pushed” to multiple iPads at once by using MDM software. For detailed information, refer to your MDM software documentation.



Installing DRC INSIGHT on Chrome OS Devices

What's Covered in This Section

This section describes the DRC INSIGHT installation and configuration process for Chrome OS devices. It provides detailed information about installing DRC INSIGHT and configuring it using the COS interface.

DRC provides the COS interface software that you can use to configure and install COS - SDs with the Chrome OS devices in your environment. You use this software after you have registered your Chrome OS with your Google domain account (for more information about registering Chrome OS devices, see <https://support.google.com/a/answer/182433>).

Setting Up DRC INSIGHT on Chrome OS Devices

The following is an overview of the process of installing, configuring, deploying, and registering DRC INSIGHT on your Chrome OS devices. You set up COS Configurations using the COS interface, generate a chromeos.json file, and install and deploy DRC INSIGHT. When you start DRC INSIGHT, the Chrome OS device is registered with DRC INSIGHT through the COS Configuration.

DRC INSIGHT Installation Overview

To test using DRC INSIGHT, you can connect to a COS - SD for hosting and other functions. The following is a brief overview of the process of installing DRC INSIGHT and configuring a Chrome OS device.

1. To use a COS - SD, install one or more COS - SDs on desktop or laptop computers that have static IP addresses (if you use the machine's IP address to connect to the COS - SDs) and will be available around the clock.
2. Sign in to Portal site using a supported browser (see *Volume II: Central Office Services [COS]*) and use the Central Office Services link to start COS.
3. Use the URL DRC provides to install the DRC INSIGHT App on your Chrome OS devices from the Google administration website.
4. Using Chrome management, upload the chromeos.json file that you generated from the COS interface.
5. Launch INSIGHT on the Chrome OS device. Run the System Readiness Check to verify that the Chrome OS device can connect to the COS - SD and is ready for testing. If necessary, use the COS interface to reconfigure the COS Configuration, and restart the DRC INSIGHT software to update the Chrome OS device's COS Configuration.
6. Test the configurations and monitor the log files for issues.

Chrome OS Devices and COS - SD Software

A COS - SD is used primarily to host and manage test content. For various reasons, Chrome OS devices do not provide a suitable environment for a COS - SD. As a result, you should install the COS - SD software on a Windows PC, Mac (macOS) computer, or Linux machine (see *Volume II: Central Office Services [COS]*) and connect to the COS - SD when you install DRC INSIGHT on the Chrome OS device.

! Important: Verify that the maximum number of Chrome OS devices in any Chrome management subgroup does not exceed the COS - SD maximum for your COS Configuration. If you attempt to test with more than the maximum number of devices, the results will be unpredictable.

For more information, see the latest version of the *DRC INSIGHT System Requirements* at Portal site by navigating to **MY APPLICATIONS–General Information–Documents** and clicking **View System Requirements**.

Multiple Testing Programs

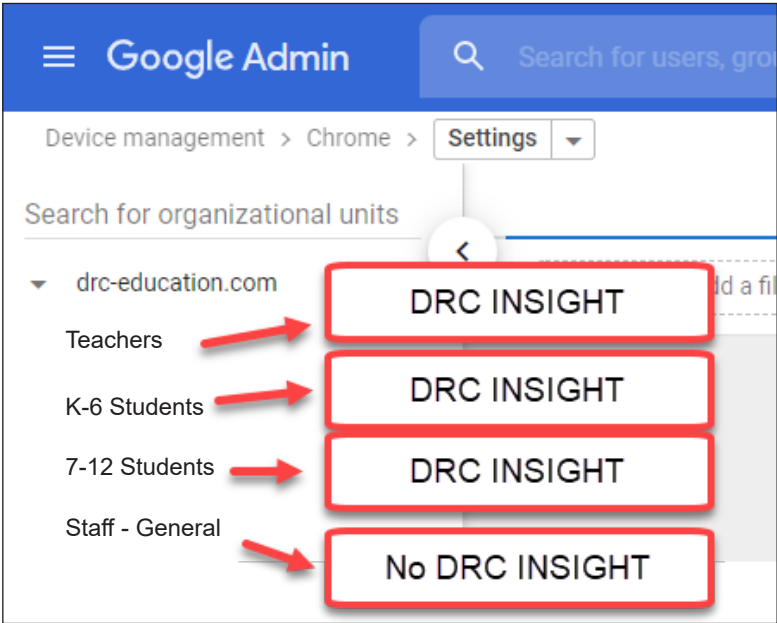
You can use DRC INSIGHT to access multiple testing programs from the same device. You can access these testing programs using the same DRC INSIGHT desktop shortcut. When you start DRC INSIGHT, a page displays that lists the different testing programs from which you can select.

Example of Chrome OS Device Setup and Configuration for DRC INSIGHT

The following is a high-level example of how to set up a Chrome OS device environment in Google to complement DRC INSIGHT and Single App Kiosk Mode. DRC assumes that users have registered their Chrome OS devices within the Google Admin Console as part of their initial implementation. For secure testing, Google specifies that users must get Chrome device management software for each Chrome device and enroll each Chrome device in the school’s domain.

! Important: The instructions in this section assume that you have already set up your Chrome environment using the Chrome device management software. The details of this process are outside the scope of this guide. For more information, see <https://support.google.com/chrome/a> and *Chrome OS Device Questions in Volume IV: Troubleshooting*.

- 1. Log in to your Google Admin account at <http://admin.google.com>.
- 2. Identify which organizations or sub-organizations should have DRC INSIGHT (see below).



- 3. Enroll Chrome OS devices and identify each device by the device’s serial number. You can add notes to help identify each device (see the example with notes below).

Device Serial Number YH4B922AB01005R
Notes: Chrome OS device assigned to Sample School, Grade 4, Asset number 12345

- 4. Move the Chrome OS devices to the appropriate sub-organizations.

Note: Remember, the Google device administration organizations (i.e., organization units) are not the same as the COS interface Org Units, and a Chrome OS device’s serial number is not the same as the Chrome OS Device ID that COS creates for the Chrome OS device (see [COS Online Help](#)).

Quick Tour: Installing and Deploying the DRC INSIGHT Secure App to Chrome Devices

This Quick Tour describes how to install the DRC INSIGHT App on one or more Chrome devices using COS and the updated Chrome management in the Google Admin Console.

! Important:

- You must have set up and configured your Chrome environment in the Google Admin Console to complement DRC INSIGHT Secure App and Single App Kiosk Mode.
- If you plan to use Chrome devices that were previously registered with a COS Configuration and the COS Configuration and Device ID are still applicable, you do not need to follow this process and re-register your Chrome OS devices with COS. When DRC INSIGHT is launched, it will locate the Device ID from the COS Configuration and use the associated COS Configuration.
- If you want the Chrome testing devices to automatically connect to a COS Configuration, download the chromeos.json file information from the appropriate COS Configuration's Deployment tab (for more details, refer to the [COS Online Help](#).) You will need this information for Step 22.

1. Deploy the DRC INSIGHT COS Configurations to each Chrome device being used for testing using COS. To start the COS application and register the Chrome device, sign in to Portal site and select **MY APPLICATIONS—Central Office Services**.

The COS application displays in your browser. Use this application to create COS Configurations to group, organize, and categorize your Chrome devices for testing. For each device, identify its COS Configuration. When you launch the device, it uses the settings identified for the COS Configuration to which the device is assigned (see [COS Online Help](#)).

2. Select a Testing Program from the drop-down menu and a site (district or school) using the field. The COS Dashboard displays (see [COS Online Help](#)).
3. In a new window, or new tab, log in to **https://admin.google.com** with an administrator profile.
4. Select **Devices**.
5. Select **Chrome**.
6. Select **Settings**.
7. Select **Device**.
8. Under Device settings, the Google Parent and Child organizational units are displayed on the left side of the page. Select the proper organization level from the ORGANIZATIONS list to be able to deploy the DRC INSIGHT App to everyone who will use it for testing.
 - Option A - DRC INSIGHT Secure App can be added to the parent organization resulting in it being added to all Chrome testing devices in each of the child organizations. Use this approach if all testing devices are in the same COS configuration with the same COS Org Unit ID.
 - Option B - DRC INSIGHT Secure App can be added to a specific child organization. Use this approach if the Chrome testing devices in each of the child organizations use a different COS Configuration with different COS Org Unit ID.

Quick Tour: Installing and Deploying the DRC INSIGHT Secure App to Chrome Devices (cont.)

9. Verify that the following settings are selected within Device Settings:

- Under Sign-In settings, verify that User data is set to **Do not erase local user data**.
- Under Device update settings, verify that Release channel is set to **Stable channel**.
- Under Keyboard Language verify that **US keyboard** is selected.

! Important: This setting prevents development or beta versions of software from being distributed to your Chrome devices during a Google Chrome update process.

- Under Kiosk settings, verify that Managed guest session is set to **Do not allow managed guest sessions**.

10. Under Kiosk settings, click the **apps & extensions page** link.

11. Scroll to the bottom of the page and hover over the yellow, circle “+” button.

12. Hover over and click the top icon—**Add Chrome app or extension by ID**.

13. Click the drop-down menu and select **From a custom URL**.

14. Enter DRC’s Universal Extension ID: **nickmpjdfecopckkfjmfblnmijbiom**

Note: The DRC Universal Extension ID is replacing client-specific IDs and must be used for all testing starting in the 2020–21 school year. For more information, see the Technical Bulletin *Adding the INSIGHT Universal Chrome OS Device App ID* on Portal site by navigating to **MY APPLICATIONS—General Information—Documents**.

15. Enter the following URL: **https://clients2.google.com/service/update2/crx**

16. Click **Save**.

17. Search for the newly installed DRC INSIGHT Secure App using DRC’s Universal Extension ID.

18. Verify that **Auto-launch app** is set to None.

19. Click the installed App to open the Kiosk Settings window.

20. Verify that **Allow App to Manage Power** is turned off.

21. Verify that **Allow Virtual Keyboard** is turned off.

22. Chose what to do now based on whether you want the Chrome testing devices to automatically connect to a COS Configuration.

- If you do not want the device to automatically connect to a COS Configuration, leave the Policy for extensions field blank (the default value).
- If you want the devices to automatically connect to a COS Configuration, copy and paste the chromeos.json file information that you downloaded from the appropriate COS Configuration’s Deployment tab into the **Policy for extensions** field.

23. Click **Save**. The DRC INSIGHT Secure App for ChromeOS will be installed as a Kiosk application the next time the policy is reloaded, based on your site’s settings.

Using the System Readiness Check on a Chrome OS Device

When you start the System Readiness Check on a Chrome OS device, the Device ID and Org Unit ID display in the header fields on the System Information page.

- The Chrome OS device's Device ID displays in the Testing Device ID field.
- The district and school in which the Chrome OS device is registered display in the Location field.
- The Chrome OS device's COS Org Unit ID displays in the COS Org Unit ID field.



The System Readiness Check

What's Covered in This Section

This section discusses how to use the System Readiness Check to help you troubleshoot issues that might occur when DRC INSIGHT is being installed or when DRC INSIGHT is running.

The System Readiness Check is installed when you install DRC INSIGHT, and it performs a series of tests you can use to easily diagnose and prevent or correct most errors. It verifies that a Testing Device meets all the necessary hardware and software requirements for testing, indicates any checks that the Testing Device failed, and provides suggestions for success.

Starting the System Readiness Check

To start the System Readiness Check from a device, do the following:

1. Start DRC INSIGHT on the device.
2. When the main DRC INSIGHT testing page displays, click the check mark (✓) in the lower-left corner of the page.
3. When you are prompted, enter **7745**, the four-digit System Readiness Check access code.

What the System Readiness Check Displays

After installing DRC INSIGHT, use the System Readiness Check (shown below) to determine whether your Testing Device meets system requirements and to troubleshoot issues. When you start the System Readiness Check from a device, it displays information about the device's software and configuration, including the results of the tests it ran to determine whether the device is ready for online testing.

The fields, buttons, icons, and tests you can access from the System Readiness Check and some troubleshooting information are described in this section.

System Information

Client Version	Configuration Source	Installation Directory
	Device Toolkit	C:\Program Files (x86)\DRC INSIGHT Online Assessments v10_2 (SQA)
Machine Name	User Name	Operating System Level
DRC28459		Microsoft (build 18362), 64-bit
Testing Device ID	Service Device Domain Name	Content Hosting
F3D5328E-6BAE-4CD3-B20B-4955CB497DA7	https://7db74f92-sqa.drc-centraloffice.com:55222/	Yes
COS Configuration Name	COS Org Unit ID	Location
All Clients - COS SD v4	249214175	Sample District N/A

Required Test List

Status	Test Name	Details
✓	Audio Capability	Details
✓	Client Version	Details
✓	Internet Connection	Details
✓	Operating System Level	Details
✓	RAM	Details
✓	Screen Resolution	Details
✓	Service Device Connection	Details
✓	User Agent	Details

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The System Readiness Check Fields

The following table describes the information contained in the various fields that display in the System Readiness Check.

Field	Description
Client Version	The version of DRC INSIGHT software
Configuration Source	The source of the device's COS Configuration information
Installation Directory	The directory where DRC INSIGHT is installed
Machine Name	The name of the Testing Device
User Name	The name of the user logged in to the Testing Device
Operating System Level	The operating system level installed on the Testing Device
OS Version	The operating system version installed on the Testing Device
Testing Device ID	The Testing Device's ID (assigned by DRC)
Service Device Domain Name	The COS - SD's domain name (assigned by DRC)
Content Hosting	The field that indicates whether Content Hosting is configured
HTTPS Proxy	The URL of the secure proxy server (if one is configured)
COS Configuration Name	The user-created name of the COS Configuration to which the Testing Device is assigned
COS Org Unit ID	The unique ID generated by COS that COS uses to register the device with DRC INSIGHT
Location	The testing location within the COS Configuration associated with the Testing Device

The System Readiness Check Buttons and Icons

Use the buttons on the System Readiness Check to display details about tests, execute tests, test audio functionality, or exit the System Readiness Check. The icons that display indicate the status of the tests. The following table describes these buttons and icons.

Button or Icon	Description
Details	<p>You can display details about the System Readiness Check before and after a test.</p> <ul style="list-style-type: none"> If you click Details before you execute the test, a window displays a description of the test. If you click Details after you execute a test, a window displays the results of the test. <p>For a description of these tests, see “The System Readiness Check Required Tests” on page 112.</p>
Execute Tests	When you click Execute Tests, the System Readiness Check runs all of the tests from the required test list and displays the results.
Test Audio	When you click Test Audio, the system verifies whether the audio portion of the Testing Device is working. You must have a microphone configured and attached to the computer to run this test.
Exit	When you click Exit, the System Readiness Check closes.
System Readiness Test Status Icons	<p>The following icons indicate the status of a system readiness test.</p> <ul style="list-style-type: none"> A green check mark icon () indicates that the Testing Device passed the test. A red exclamation point icon () indicates that the Testing Device failed the test. A yellow check mark icon () indicates that the status of the item requires further review. A grey icon () indicates that the test is not applicable to the COS Configuration.

The System Readiness Check Required Tests

The System Readiness Check performs a series of required tests to determine whether a Testing Device is ready for online testing. The following table describes each test and the minimum requirements to pass.

Test	Description	Required to Pass
Audio Capability	Verifies that the Testing Device has the audio capability needed for online testing and/or tutorials	The device must have one or more audio channels and be able to play audio files.
Client Version	Verifies that the version of the DRC INSIGHT software will work with the secure browser	The base level of the DRC INSIGHT software must be up to date.
Internet Connection	Verifies that the Testing Device is connected to the Internet and that the connection speed is fast enough for testing	The device and the DRC INSIGHT Secure Application must have a ping (connection) time of no more than 2.5 seconds.
Operating System Level	Verifies that the operating system is supported and at a level required for online testing	See the latest version of the <i>DRC INSIGHT System Requirements</i> for the supported operating systems.
RAM	Verifies that the Testing Device has enough memory for online testing	See the latest version of the <i>DRC INSIGHT System Requirements</i> for the supported Testing Devices.
Screen Resolution	Verifies that the screen width and height are sufficient to display the online tests	A minimum screen size of 1024 x 768 pixels is required.
Service Device Connection	Verifies that the DRC INSIGHT test engine software on the Testing Device can connect to the COS Service Device (COS - SD)	The connection to the COS - SD must be working.
User Agent	Verifies that the web browser will work for the unsecured tests	An up-to-date Chrome browser is required.

Resolving System Readiness Check Required Tests

This section describes various issues you may experience when you run the System Readiness Check tests. It also describes the steps to take to resolve these issues.

Issue 1. Audio Capability Error

This test verifies that the Testing Device has the audio capability needed for online testing. If this test fails, verify that the device's sound card is working and that the Testing Device has a valid playback device.

Issue 2. Client Version Error

The DRC INSIGHT software is not the latest version. You must download the latest version. If you are prompted to update your software, please reach out to your local technology coordinator or IT.

Issue 3. Internet Connection Error

The Testing Device cannot reach the DRC servers through the Internet. This issue is usually a firewall or proxy issue. Make sure that everything is allowlisted correctly (see *Network Requirements for Testing Computers* in *Volume I: Introduction to Online Testing*).

Starting or Running the System Readiness Check

If the error occurs when you are starting or running the System Readiness Check, do the following:

1. Verify that you have no bandwidth issues and that you can reach the DRC servers. The Windows environment does not always capture proxy settings correctly. Usually, Windows uses the Internet Explorer Internet settings.
2. Contact your Internet Service Provider (ISP) and verify that it is not filtering or throttling your connection with DRC.
3. Verify that you have allowlisted all the DRC addresses.

Issue 4. Operating System Level Error

This test verifies that DRC INSIGHT is running on a supported operating system. If the device is running a supported operating system, the test verifies that your setup meets the minimum system requirements. In addition to supported versus unsupported operating systems warnings, there is also a warning if the device is using an operating system version that is currently in Best Effort Support.

If this test fails, you must upgrade to a supported operating system level (see the latest version of *the DRC INSIGHT System Requirements*).

Resolving System Readiness Required Tests (cont.)

Issue 5. RAM Error

This test verifies that the device's memory meets the minimum system requirements. If this test fails, you must upgrade the amount of memory in the device to meet the minimum system requirements (see the latest version of the *DRC INSIGHT System Requirements*).

Issue 6. Screen Resolution Error

This test verifies that the screen width and height settings meet the minimum system requirements.

If it fails, the device's resolution is not high enough to meet the minimum system requirements. You must change the screen resolution (see the latest version of the *DRC INSIGHT System Requirements*).

Issue 7. COS Service Device Connection Error

The Testing Device cannot connect to the COS - SD. Review the Service Devices tab for the COS Configuration to which the COS - SD is assigned to determine why the COS - SD is not available (see [COS Online Help](#)).

Issue 8. User Agent Error

This test verifies that the web browser is correct for online testing. If necessary, update your browser to a level that is supported for online testing.



Volume IV: Troubleshooting





Introduction

About This Guide

This user guide is part of a multivolume set that describes how to configure, install, manage, and troubleshoot DRC INSIGHT online testing. This volume, *Volume IV: Troubleshooting* describes tools and testing information to help you troubleshoot your testing environment and verify that it is ready for testing.

This guide discusses how to use some of the testing tools, including Online Tools Training (OTT). This guide also contains Frequently Asked Questions (FAQs), Hints, and Tips for online testing. In addition, the guide explains the various error messages that you may encounter while working with Central Office Services (COS) and DRC INSIGHT and provides information to help resolve them.

.....
! Important: Throughout this user guide, the Information icon (!) indicates important information or crucial tips.
.....



Working with DRC INSIGHT

What's Covered in This Section

This section describes tools that you can use to help prepare for and become familiar with the online testing environment.

Online Tools Training (OTT)

This topic describes the OTT, a series of sample test questions to help introduce students to the testing tools available in the online environment.

The Monitor Setting Verification Test

This topic describes the Monitor Setting Verification Test, which is available in Portal site and helps you determine whether the monitor settings for a Testing Device are configured for optimal testing.

The Testing Site Capacity Estimator

This topic describes the Testing Site Capacity Estimator, a tool that you can download to estimate test loading times as well as the time required for a testing computer to save a test response and retrieve the next question.

Online Tools Training (OTT)

OTT is a set of sample test questions to introduce testers to the tools available during testing and prepare the testers for online assessments. This training allows testers to try the features of the testing software before the actual test.

OTT is not designed to cover test content—the goal is to instruct testers about using the testing application, not to assess skills. The sample OTT questions demonstrate the features of the testing environment, and the OTT tests are not scored.

The appropriate site personnel should review the OTT tests before the testers begin the test administration. All testers who will be testing online should have at least one opportunity to review OTT tests for their subjects and/or grades.

To try OTT, do the following:

1. Follow one of these steps depending on the type of Testing Device being used.
 - From a Windows computer, select **All Programs–DRC INSIGHT Online Assessments–DRC INSIGHT Online Assessments** (or click the **DRC INSIGHT Online Assessments** desktop shortcut).
 - From a macOS device, select **Applications–DRC INSIGHT Online Assessments–DRC INSIGHT Online Assessments.app** (or click the **DRC INSIGHT Online Assessments** desktop shortcut).
 - From a Linux machine, select **opt/DRC INSIGHT Online Assessments/DRC INSIGHT Online Assessments**.
 - From an iPad device, press **DRC INSIGHT** to start the DRC INSIGHT App.
 - From a Chrome OS device, click on the **DRC INSIGHT App**.
2. When DRC INSIGHT launches, if you configured a single testing program, the main page for that testing program displays. If you configured more than one testing program, a page displays that you can use to select the testing program. After you make your selection, the main page displays. From that page, click or select **Online Tools Training**.
3. Select a subject by clicking on it.
4. Enter the username and password provided on the screen and click **Sign In**.
5. Follow the instructions on the screen to take the practice tests and use the test tools.

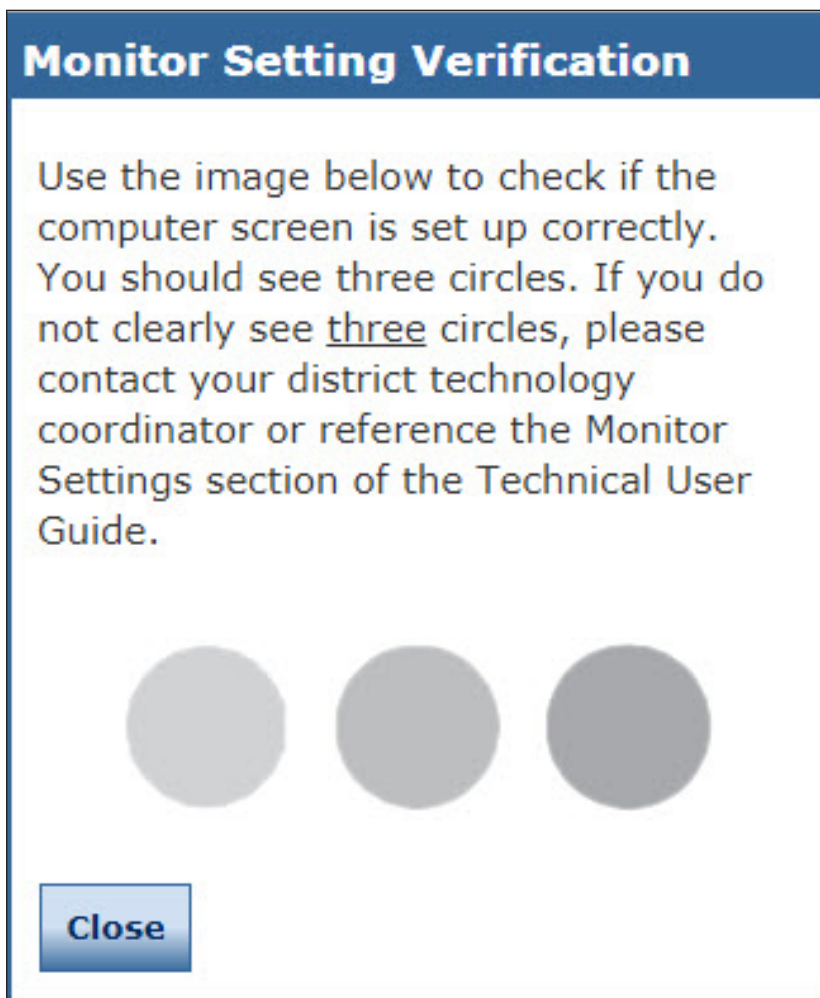
Note: There are no restrictions for accessing OTT; students are allowed to access it as often as necessary.

The Monitor Setting Verification Test

After you sign in to start a test, a screen similar to the following is displayed to help determine whether your monitor is set up correctly to display the online tests.

If you do not see three shaded circles on the monitor, a student will have difficulty answering some of the online questions. To resolve the problem, you must modify the brightness and/or contrast settings for the testing computer's monitor until three circles are displayed clearly.

You can run the Monitor Setting Verification test by signing in to Portal site, selecting **MY APPLICATIONS–General Information–Downloads**, and clicking the **Monitor Setting Verification** button.



Changing the Monitor's Contrast or Brightness

There are many ways to change the contrast or brightness of your monitor depending on the operating system, the computer, the graphics card, and the type of monitor you are using. The following are some ideas to try to change the contrast or brightness. For a specific hardware configuration, you also can try searching the Internet using a search phrase such as *changing the contrast for operating system x or monitor y*.

Windows Operating System

- On a laptop computer, look for a black-and-white circle on the keyboard. This function key changes the contrast.
- On a desktop computer, look for an option on the monitor, or monitor menu, to change the contrast and brightness.
- Identify the type of graphics card—NVIDIA, Intel, or ATI—and locate options for your graphics card from the Control Panel: **Control Panel–System Properties–graphic cards** tab.
- Locate a menu called Monitor Settings, Color, or Graphic Settings and change the contrast (be sure to check Advanced Settings). If you can't find a Contrast option, look for Gamma, Saturation, or Hue.
- Right-click on the desktop to bring up menu options for Intel and ATI cards.

Note: ATI's menu option is called Catalyst Control Center; Intel's option is called Intel Graphics Media Accelerator Driver.

- Select the folder **c:\Program Files\graphics card**, where *graphics card* is Intel, NVIDIA, or ATI.

❗ Important: If the Windows High contrast system setting is set to On, during testing the online keypad will display blank keys (because the keys are white numbers on a white background). To resolve this issue, search for High contrast under Settings and toggle the High contrast setting to Off. You also can use the key combination **Alt–left Shift–Print Screen** to turn this setting off.

macOS

- To change the brightness, use the keyboard buttons or select Apple button–**System Preferences–Accessibility–Monitor** and use the Change the Brightness slider.
- To increase the contrast, use the following key combination:

Command key + Option key + Ctrl key + . (period)

- To decrease the contrast, use the following key combination:

Command key + Option key + Ctrl key + , (comma)

Changing the Monitor's Contrast or Brightness (cont.)

Linux

For Linux desktop monitors, check the settings in the Monitor menu options.

iPad Devices

For iPad devices, refer to your iPad documentation.

Chrome OS Devices

For Chrome OS devices, refer to the Google Chrome Help or documentation.

The Testing Site Capacity Estimator

The Testing Site Capacity Estimator is an Excel spreadsheet file that you can download to estimate the following times:

- The time it will take to initially download the test engine software, the software that helps manage the delivery of the test, based on the number of students who test at the same time.
- The times a student will wait for both a fixed-form test and a Computer Adaptive Test (CAT) to load, with and without Content Hosting configured.
- The time required for a student to receive the next fixed-form or CAT test question when the student is finished with a question (the time required for the testing computer to save the test response and retrieve the next question).

The following is a high-level summary of the process of downloading and using the Testing Site Capacity Estimator to estimate testing speeds:

1. Download the Testing Site Capacity Estimator (Capacity Estimator) from Portal site at **MY APPLICATIONS—General Information—Downloads**. When the download is complete, open the Testing Site Capacity Estimator.
2. Fill out the various input fields, including estimates for the number of students testing and responding at the same time, the average connection speed for testing devices, and the amount of bandwidth that is available for testing. Use the Testing Site Capacity Estimator's online help options for more information regarding these fields.

Note: You may need to verify with your Internet Service provider (ISP), or other technical source, the various ISP connection speeds at your site.

3. Press **Enter** to update the fields and review the results.
4. Repeat steps 2 and 3 by re-entering various input values to estimate different testing scenarios.

For more detailed information, refer to the Testing Site Capacity Estimator's online help.



FAQs, Hints, and Tips

What's Covered in This Section

This section contains a list of FAQs and helpful hints and tips regarding configuring, installing, and using DRC INSIGHT and the COS - SD software. The questions and answers are technical in nature and cover information about the following environments:

- Windows
- macOS
- Linux
- iPadOS devices
- Chrome OS devices

The FAQs, Hints, and Tips are divided into various categories. In addition, the *Common Technical Questions and Answers* section covers the common technical support issues you may encounter and provides tips, techniques, and workarounds to resolve them.

General Questions

Q1. If a COS - SD fails during the testing window, is there a way to provide an alternate COS - SD or to redirect?

A: Because a COS - SD is configured using COS Configurations, it is possible to quickly switch COS - SDs if necessary. Use COS to select the COS Configuration in which the device is configured, add the new COS - SD to the COS Configuration, and then restart DRC INSIGHT on the Testing Device. When DRC INSIGHT restarts, it automatically uses the new COS - SD. You may want to remove the old COS - SD.

Important: Moving or changing a COS - SD while actively testing can negatively impact the student testing experience.

Q2. Do we use a .msi file for installation?

A: The DRC INSIGHT and COS - SD installation file types vary by operating system:

- The Windows version uses a .exe file for the COS - SD and a .msi file for DRC INSIGHT.
- The macOS version uses a .dmg file for the COS - SD and a .pkg file for DRC INSIGHT.
- The Linux version uses a .sh file for the COS - SD and a .deb file for DRC INSIGHT.

The iPad version uses an App Store app and a .plist file for DRC INSIGHT.

- The Chrome version uses a .txt file to hold the DRC INSIGHT App ID and URL.

Q3. Do we have to have a COS - SD in each school, or can it be on a shared district server? Which approach do you recommend?

A: It depends on your network's capacity and reliability. With a dedicated COS - SD, you can offload about 50% of the traffic from the Internet to your COS - SD.

Because Testing Devices need uninterrupted connectivity to the COS - SD, we recommend one COS - SD per school. You may be able to share a COS - SD if you have enough network capacity.

Q4. Do we need to go to each tester's computer to update the Secure Browser?

A:

- **YES**
 - If you use **Windows** (with DRC INSIGHT version 13 or 13.0.1) or **Mac** (with DRC INSIGHT version 13) testing devices and typically have a non-Admin user update each testing device manually after launching DRC INSIGHT Secure Browser.
- **NO**
 - If you use ChromeOS, iPadOS or Linux
 - If you update multiple Windows or Mac testing devices using deployment software
 - If you manually run the DRC INSIGHT application installer on a single workstation at a time

General Questions (cont.)**Q5. How are test responses received?**

A: The tester logs in to DRC INSIGHT and connects to the DRC Servers. Tests are sent directly from DRC and responses are sent directly to DRC (see *Volume I: Introduction to Online Testing*).

Q6. How do I test that a COS - SD is working?

A: You can verify the status of a COS - SD from the COS Dashboard (see [COS Online Help](#)).

Q7. Can we install DRC INSIGHT on one central server/computer and use shortcuts, or other links, to share it for testing across different machines?

A: No. DRC assumes that DRC INSIGHT is installed on each computer that will be used for testing. Any other configuration is unsupported and may produce unexpected results.

Q8. The sound for Text-To-Speech (audio) does not work. What should I do?

A: Verify that the **TTS/HVA** check box is checked for the testing program in the Content Management tab of your COS Configuration, that you enabled Content Management, and that you enabled Content Hosting in the Content Hosting tab. Before you begin testing, confirm that audio is working and that the volume is turned up on the Testing Device (see *Volume III: DRC INSIGHT*).

Q9. Is there a way to confirm that testing devices are setup correctly and properly connecting to the COS - SD?

A: When using DRC INSIGHT for training with the “Online Tools Training” link, the test engine bypasses the COS - SD and gets content from DRC Servers. To verify that the testing devices are properly configured with the COS - SD, select “Test Sign In” rather than “Online Tools Training” and then use the same generic Username and Password information provided on the sign-in page of the “Online Tools Training” to login to the training. Using this method, the training will use the COS - SD in the COS Configuration to present the test content.

Common Technical Questions and Answers

This section describes tips, techniques, workarounds, and detailed resolutions to common technical support issues you may encounter.

Question: How do I update test forms on a COS - SD?

To check and/or update your test forms, do the following:

1. From Portal site, navigate to your testing program and select **Central Office Services**.
2. Select a testing program and site.
3. From the Configurations page, select the Org Unit in which the COS - SD is configured.
4. Select the **Content Management** tab to open the Content Management page. The various test administrations are listed in the Admin column.
 - If the test administration has a check mark next to it, you do not need to do anything. COS checks in with the DRC servers several times every hour and automatically uploads content to the COS - SD.
 - If the test administration does not have a check mark next to it, place a check mark next to it and click **Update Configuration**.

Note: Depending on your network, the update can take a while. You can select the **Service Devices** tab to view the update progress of the COS - SD in the Status column.

- If a new administration is discovered during the check-in process, it will be listed. If you want to update the new administration with TTS/HVA or VSL files, place a check mark next to the appropriate accommodation and click **Update Configuration**.

Note: When you check an accommodation checkbox, a large amount of audio and/or video files will be downloaded. If no tester requires the accommodation, do not check the checkbox.

5. Click **Update Configuration**. For details about this process, see *Working with Content Management* in [COS Online Help](#).

Common Technical Questions and Answers (cont.)

Question: Can I mass deploy test software to all student computers?

Yes, but the details vary depending on which technology you use for deployment and the operating system to which you deploy. Basically, you can configure the installation software using arguments (i.e., parameters or special variables you supply as input) when you deploy the software in silent (non-interactive) mode. For technical details, see the [Modifying the Setup File](#) topic below.

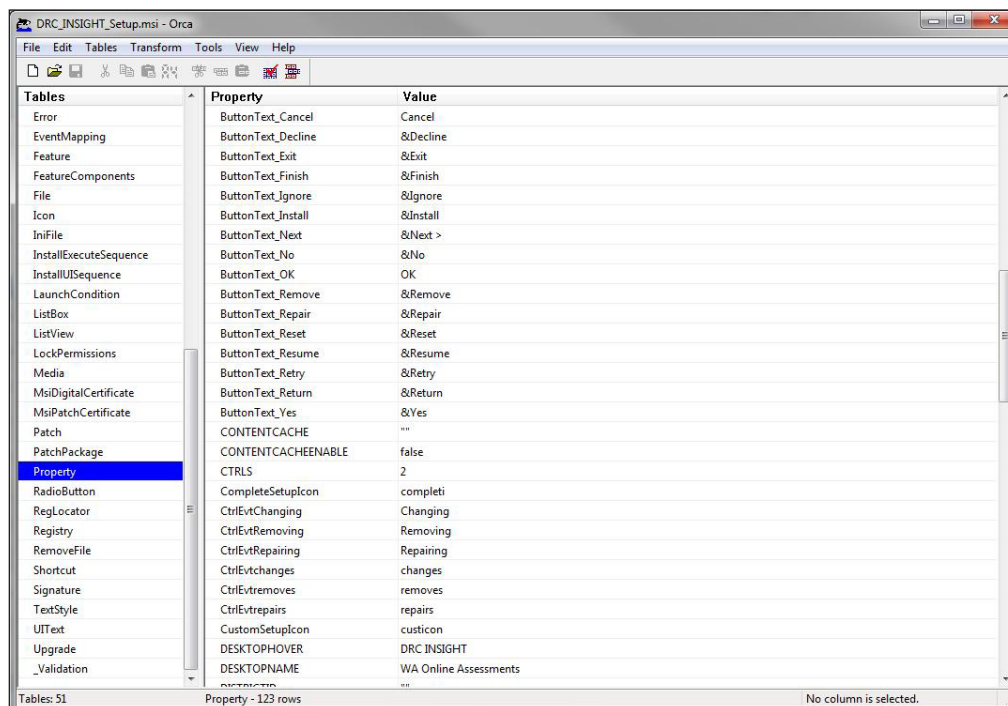
Modifying the Setup File

You can modify the DRC_INSIGHT_Setup.msi installation file to install your software on many machines using different installation settings. To modify the file, you need the Orca installer package from the [Windows SDK for Windows Installer Developers](#).

Download the .ISO file, extract the files, and double-click on **Orca.msi** to install the Orca.exe file.

To modify the setup file, do the following:

1. Start ORCA.
2. Select **File–Open** and open the MSI installer.
3. Select **Property–Table** to open the Property table (see the figure below). Make all your changes in this table.



Common Technical Questions and Answers (cont.)

4. Change the necessary properties. The following are the different properties you can change. To make a change, double-click on the value of the property, enter your value, and click **Enter**.

.....
! Important: Make sure there are no spaces before your input—do not put spaces in front of any attribute that you modify.

oids

The numeric Org Unit ID generated by COS.

httpsproxy

The URL and secure port of the proxy host server. Depending on your configuration, this URL can start with either http:// or https://.

5. After you make your changes, save the file and overwrite the original DRC_INSIGHT_Setup.msi file.

Note: The actual .msi file will include a version number (in the examples below, the version number is 12.0.0-190). Use the number from the .msi file name as the current version number in the command lines below.

Silent Install Example

The following example shows the syntax you would use to install DRC INSIGHT silently on a Windows 10 machine. Run this command as an Administrator.

```
drc_insight_setup_ 12.0.0-190.msi /qn
```

Silent Uninstall Example

The following example shows the syntax you would use to uninstall DRC INSIGHT silently on a Windows 10 machine. Run this command as an Administrator.

```
msiexec /x drc_insight_setup_ 12.0.0-190.msi /qn
```

The Testing Site Capacity Estimator

Q1. Q: What is the Testing Site Capacity Estimator?

A: The Testing Site Capacity Estimator is an Excel spreadsheet file that is available in the INSIGHT Portal under **General Information-Downloads**. It is designed to help districts and schools estimate the time it will take students to download the tests and move to the next question after they send a response. These time estimates are based on the following factors:

- Whether COS - SDs with Content Hosting and Content Management turned on are being used on the network or at the site.
- The site's knowledge of the bandwidth provided by their Internet Service Provider (ISP), and the bandwidth provided by the Local Area Network (LAN) and Wide Area Network (WAN).
- The estimated average connection speed that Testing Devices have to the network.
- The estimated percentage of total bandwidth that is available for testing.

This tool helps sites plan their testing more effectively based on factors such as their network traffic, the number of students testing at the same time, and the type of test: a fixed-form test, with or without accommodations, or a Computer-Adaptive Test (CAT).

! Important: The exams are fixed-form only—CAT forms are not used.

iPad Questions

Q1. Can I install a COS - SD on an iPad or Chrome OS device?

A: No. A COS - SD is used primarily to host and manage test content. For various reasons, tablet devices (such as iPads) and Chrome OS devices, do not provide a suitable environment for a COS - SD. As a result, you must install the COS - SD software on a Windows, Mac (macOS), or Linux computer and connect to the COS - SD when you install DRC INSIGHT on the tablet device.

Q2. Can the DRC INSIGHT iPad App be distributed without Mobile Device Management (MDM) software using iTunes or other software/methods?

A: Currently, the DRC INSIGHT App for iPads is available in the Apple App Store.

Q3. Does DRC recommend any particular version of MDM software?

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

Q4. Is an external keyboard required for testing with iPads?

A: No.

Q5. Is custom installation of the Apple virtual (internal) keyboard supported for testing?

A: Yes—the virtual keyboard is not displayed automatically during testing but can be toggled on using an iPad function key. Be sure that testers are using only an English keyboard.

Chrome OS Device Questions

Chrome OS devices can be a secure platform for administering assessments. When set up properly, these devices meet K–12 education testing standards. If configured according to Google specifications, Chrome OS devices can be set to disable testers' ability to browse the web during an exam and to disable external storage, screenshots, and the ability to print. Google details scenarios for setting up Chrome OS devices for secure assessment within the [Chrome Enterprise and Education Help](#).

If you need help setting up your Google Administrator account or enrolling Chrome OS devices, please contact Google directly.

Q1. Of the secure testing scenarios provided by Google, which one did DRC select and why?

A: DRC developed the Chrome OS DRC INSIGHT application to meet the specifications of Google's Scenario 1 for delivery of secure assessments. Although each scenario prepares a Chrome OS device for secure testing, DRC selected Scenario 1, in which the tester takes an exam on the Chrome OS device using the DRC INSIGHT App in Single App Kiosk mode. While the tester tests, the DRC INSIGHT App runs in a secure full-screen mode. After the tester exits the test, the Chrome OS device can be used for any purpose, secure or otherwise—the Chrome OS device is only secured during testing with the DRC INSIGHT App.

Scenario 1

DRC specifically selected Scenario 1 because of the following reasons:

- It is the only scenario that allows for fully secure assessment delivery via Single App Kiosk mode.
- It allows the DRC INSIGHT App to communicate securely with a COS - SD.
- It does not require locking down the device and dedicating it for assessment purposes. Students can use the Chrome OS device for other purposes when the DRC INSIGHT App is not being used for testing.
- It is the only scenario that provides testers a full-screen environment.

Scenario 2

In contrast, Google's Scenario 2 includes a restricted sign-in feature for secure assessment delivery, which assumes that the Chrome OS device will be used solely for testing purposes. When this feature is enabled, non-assessment sign on is not allowed. When this feature is disabled, test administrators must maintain separate student profiles—assessment and non-assessment—to allow for additional restrictions needed during assessment sessions.

Scenario 2 requires a higher level of administration oversight (e.g., creating accounts twice). It also requires manual management of security permissions, making it prone to user error that is difficult to detect. Additionally, it requires taking the test in the Chrome browser or manually launching a non-kiosk application (placing the user into a desktop session in which they have access to one URL). Finally, the Chrome OS device must be cleared of data (wiped) upon exiting the test.

Chrome OS Device Questions (cont.)

Q2. Does DRC require users to log in to each Chrome OS device and write down the Device ID?

A: No. For unregistered Chrome OS devices, use COS to create DRC Org Units, download the configuration file (.zip) using Chrome device management, and copy and paste the chromeos.json file information that you downloaded from the appropriate COS Configuration's Deployment tab in the **Policy for extensions** field. When the user starts the DRC INSIGHT App on the Chrome OS device, the Chrome OS device will be registered. The deployment file (zip), which holds the chromeos.json file, is generated using the Deployment tab within the COS Configuration.

On a Chrome OS device that is already registered with COS and has an applicable COS Configuration and Device ID, when DRC INSIGHT is launched, it locates the Device ID from COS and uses the associated COS Configuration.

Note: The System Readiness Check (available through a link on the DRC INSIGHT App main testing page) displays the Device ID on the System Information page.

Q3. Why does DRC require Google Apps for Education and Google Administrator accounts?

A: The DRC INSIGHT Chrome OS App requires Single App Kiosk mode to launch and ensure a secure testing environment on Chrome devices. Google Apps for Education and Chrome device management allow Chrome administrators to manage kiosk apps for multiple Chrome devices from a central console. This is the best approach to managing these devices in terms of efficiency and security.

DRC assumes that users have registered their Chrome OS devices as part of the initial implementation. Google specifies two additional requirements for secure testing using either of the scenarios described in Q1:

- Google administrators must use Chrome device management to manage their Chrome devices from a single location.
- Google administrators must enroll each device in the school's domain.

Q4. How is installing DRC INSIGHT different from installing other testing applications that districts may be using?

A: The DRC INSIGHT Chrome OS App is configured to be secure and deployed using Chrome device management. It is also configured to work with the COS - SD using the COS Configuration. For a different application, the process would not necessarily use a secure app or a COS - SD. These processes rely on a Chrome OS device user account or other settings to restrict access. Since there is no secure testing app for the Chrome OS device, these processes require a workaround to secure the testing sessions.

Q5. Does the deployment or installation of DRC INSIGHT require the Chrome OS devices to be dedicated to testing for the duration of the assessment window?

A: No, Chrome OS devices are not dedicated to testing, but the secure DRC INSIGHT Chrome OS App is. The DRC INSIGHT Chrome OS App is the secure testing environment that the tester accesses using a unique test ticket. After a tester has finished a test and exits the DRC INSIGHT Chrome OS App, the tester can execute other applications and use the Chrome OS device for other purposes. Test Administrators are responsible for monitoring testing and ensuring the testers are properly ending and submitting their tests.

Chrome OS Device Questions (cont.)

Q6. Does Google provide a method to deploy secure testing configurations to Chrome OS devices?

A: Yes, Google has a feature that allows users to “push” a secure testing configuration using Chrome device management.

Q7. How do I configure Chrome OS devices to work with DRC INSIGHT?

A: DRC provides COS to configure and manage your Chrome OS devices after you have registered them in your Chrome domain.

Q8. Can I use DRC INSIGHT on a touch-enabled Chrome OS device?

A: Yes, DRC supports certain touch-enabled devices (for details, see the latest version of the *DRC INSIGHT System Requirements*).

General Hints and Tips

The following are general hints and tips for testing with iPad and Chrome OS devices.

- Be sure to have a strong network connection through either Wi-Fi or direct Internet connectivity.
- Make sure each device's keyboard is set to US English.
- Make sure all devices are either fully charged or plugged in.
- Note that an optical drive is not required.
- Note that while you are running the DRC INSIGHT application, the system operates in Single App Kiosk mode.
- Remember that DRC INSIGHT is displayed in landscape mode only.

iPad Hints and Tips

The following are hints and tips for testing with iPad devices.

- Use two fingers plus three taps to navigate DRC INSIGHT–**Show Version**.
- iPad devices have a Sleep mode setting. In Sleep mode, the screen goes black. Users can touch any key to re-activate the screen or press their home key and type in the device passcode (if applicable). The DRC INSIGHT timeout warning is not visible when an iPad is in Sleep mode. To disable Sleep mode, select **Settings–General–Auto–Lock** and then select **Never**.

Note: School iPad profiles may not permit you to select **Never**.

- Some smaller graphing and dragging elements may be difficult to track because the user's finger covers the item.
- The pinch-to-zoom in/out iOS gesture is supported; the swipe iOS gesture is not supported.
- The internal keyboard is not displayed during testing. You can toggle it on using the appropriate iPad function key.
- The Audio starting point does not turn red when your finger gets close to touching it.

Chrome OS Device Hints and Tips

The following are hints and tips for testing with Chrome OS devices.

- Verify that the Chrome OS device is connecting to the testing site's (school's) Wi-Fi network. If a Chrome OS device is connecting to a guest Wi-Fi network, it may be "seen" as a guest computer and could cause/receive content connection errors during testing.
- You must enroll a Chrome OS device in your Google domain account before using it with DRC INSIGHT. As part of the enrollment process, Google uses the concept of Org Units. These are not the same Org Units that DRC uses in COS.

To prepare for the Chrome OS device administration, please ensure that you have enrolled all your Chrome OS devices in the Google Device Manager software. This software helps you manage your device configurations.

For more information about managing Chrome OS devices and setting up your basic Chrome OS environment, see [About ChromeOS device management](#).

If you need help setting up your Google Administrator account or enrolling Chrome OS devices, please contact Google directly.

- COS manages the DRC INSIGHT portion of the Chrome OS device configuration process.
- When you use COS to create DRC Org Units and group Chrome OS devices, DRC assigns each Chrome OS device a Device ID. This Device ID is different from the serial number of the Chrome OS device.
 - Google uses the Chrome OS device's serial number to enroll the Chrome OS device in the Google domain.
 - DRC uses the Chrome OS device's Device ID to register the Chrome OS device in a DRC Org Unit.

To help manage and organize your Chrome OS devices, keep track of the current Device ID.

- On a Chrome OS device, do not log in to your Google account if you want to access DRC INSIGHT. Because DRC INSIGHT runs in Single App Kiosk mode, you cannot access it after you have logged in to a Google account. If you attempt to start the DRC INSIGHT App, an error message is displayed indicating that you are not in Single App Kiosk mode. To access DRC INSIGHT, log out of your Google account and start the DRC INSIGHT App.

Google/Chrome OS Device Plug-In Error

When testers test using Chrome OS devices, the process generates communications to both Google Chrome and to DRC. When a tester launches the DRC INSIGHT app on the day of testing, DRC INSIGHT attempts to reach Google Chrome to generate a new instance of DRC INSIGHT on the Chrome OS device. If the communication to Google times out before this happens, a plug-in error occurs.

Districts with complex content filters, peer-to-peer networking, or deep packet inspection of Internet traffic in their network may have extra filtering, which can delay the communication to Google on the initial launch of DRC INSIGHT and cause a plug-in error.

If your site experiences a Google plug-in error while testing with Chrome OS devices, you can use the following information to troubleshoot the process.

Note: Verify that the Chrome OS device is connecting to the testing site's (school's) Wi-Fi network. If a Chrome OS device is connecting to a guest Wi-Fi network, it may be "seen" as a guest computer and could cause/receive errors during testing.

Basic Steps

1. Reboot the device.
2. Wait for/confirm that you have a solid Internet connection.
3. Wait 30 seconds and reopen DRC INSIGHT.

Intermediate Steps

1. Perform a speed test at speedtest.net.
2. Check your allowlisting.
3. Check your access point-to-tester ratio.
4. Verify how the school's Wi-Fi policy handles "guest" (i.e., kiosk mode) Chrome OS device traffic.
5. Check the connection type in Google Admin for "Direct Connection."

Advanced Steps

1. Check the content filter settings:
 - SonicWall and Smoothwall: Disable **Deep Packet Inspection through SSL**.
 - LiteSpeed: Disable **Decrypt SSL**.
 - iboss: Add Chrome OS device kiosk user exceptions. Can iboss be used to allowlist URLs? If not, can iboss be disabled?
2. Check the access point brand. If it is Cisco Meraki, disable **layer 7 s filtering**.



Error Messages

What's Covered in This Section

This section describes the common error messages you may encounter while installing, configuring, or using DRC INSIGHT, Central Office Services (COS), and COS Service Devices (COS - SDs). It also provides recommendations to resolve them.

For many of the error messages, there are references to more detailed descriptions of how to resolve the errors.

Error Messages

Message: Chromium OS version xxxx.xx.x is not supported by DRC INSIGHT

The version of the operating system on this Testing Device is not supported by the DRC INSIGHT team.

Description: DRC INSIGHT cannot use the version of Chrome OS.

What Should I Do? Update the Chrome OS browser to version 90 or higher, or to the most recent stable channel.

Message: Configuration Error

Contact your technical resource and provide them with the following information: DRC INSIGHT cannot retrieve the configuration profile associated with this device because a device can only be actively assigned to one Central Office Services Org Unit for a testing program.

Description: COS is unable to uniquely identify the device because more than one Org Unit ID exists for the device within the same testing program.

What Should I Do? Verify that the device has been assigned to only one Org Unit per testing program on the device (see [COS Online Help](#)).

Message: Configuration Not Found

Contact your technical resource and provide them with the following information: DRC INSIGHT cannot retrieve the configuration profile associated with this device because it cannot find the Central Office Services Org Unit ID which was entered incorrectly, was deleted, or was not assigned to the device.

Description: One of the following situations has occurred:

- The COS Org Unit ID was deleted after the device was assigned to it.
- The COS Org Unit ID was not uploaded.
- The COS Org Unit ID was entered incorrectly.
- The COS Org Unit ID was not set up in Chrome Management (or in a Mobile Device Management [MDM] solution).

What Should I Do? Verify that the device has been assigned to a COS Configuration in COS and that the Org Unit ID has been uploaded to this device. After you have the correct Org Unit information, click **Assign Device to Org Unit** and enter the correct Org Unit ID (see [COS Online Help](#)).

Message: Connection Error

There has been an interruption with this testing device's connection. The Student may be moved to another testing device to continue testing.

If this error persists, contact your local technology support staff to verify connections are working. They can contact DRC Customer Support if they need additional help to address this situation.

Description: A system communication error occurred while a student was testing in DRC INSIGHT.

What Should I Do? The student may be moved to another testing device to continue testing. If the error persists, contact your local technology support staff to verify connections are working. They can contact DRC Customer Support if they need additional assistance.

Message: Connection Error

This computer cannot connect to the local Content Management and/or content Hosting server(s). The connection or the content must be restored before the user can continue testing. If this is the first time you are seeing this message, please try connecting again. Please contact your local IT staff to verify network and local Content Management and/or content Hosting server(s) are working. They can contact DRC Customer Support if they need additional help to resolve the matter.

Description: The testing client is not able to connect to the COS - SD. This connection error occurred while trying to log in.

What Should I Do? Verify that you can reach the COS - SD. If the issue persists, check your COS - SD's firewall and the allowlisting settings on your firewall, content filter, proxies, and other network devices.

Message: Connection Error Retrieving Content

This computer cannot connect to the server to retrieve content. The connection or the content must be restored before the student can continue testing. Please contact your local IT staff to verify that the network connection is working. They can contact DRC Customer Support if they need additional help to resolve the matter.

Description: The testing client is not able to connect and download the test form from the COS - SD. This connection error occurred while trying to download the form.

What Should I Do? Verify that all the test forms are up-to-date and that the testing client can reach the COS - SD.

Message: Connection Error Retrieving Content

Please contact your local IT staff to verify network connection is working. They can contact DRC Customer Support if they need additional help to resolve the matter.

Description: The testing client is not able to connect and download the test form from DRC. This connection error occurred while the client was trying to download the form.

What Should I Do? If the issue persists, check the allowlisting settings on your network devices and prioritize testing traffic. If possible, allow testing traffic to bypass as many network devices as possible. Ensure that bandwidth is not being completely consumed. If you are using a COS - SD, verify the allowlisting settings and firewalls to and on the COS - SD (see *Volume I: Introduction to Online Testing*).

Message: Connection Retry is in Progress

You are experiencing a temporary network connectivity issue. The system is attempting to reconnect.

If the system reconnects, this message closes and you can continue testing. If the system cannot reconnect, the message closes, an Internet Connection Error message displays, and you have to exit DRC INSIGHT.

If you want to exit the test now, select the Exit the Test button.

Description: The connection necessary to transmit the test response has been lost during testing. For the next five minutes, while this message is displayed, DRC INSIGHT will attempt to restore contact with the DRC servers and send the test response. During this time, if a connection is re-established, the message will close and the tester can continue testing. If a connection is not re-established during this time, the message will close and the Internet Connection Error message will be displayed. At any time during the five-minute interval, the test proctor can click **Exit the Test** to temporarily end testing for the tester.

What Should I Do?

- If the message disappears and no Internet Connection Error message is displayed, you do not need to do anything—the tester can resume testing.
- If the message disappears and the Internet Connection Error message is displayed, the tester must discontinue testing, exit DRC INSIGHT, and resume testing on a different Testing Device (see the “Internet Connection Error” message).
- If you click **Exit the Test** while the Network Connectivity Issue message is displayed, the test ends and the tester must re-enter the test. All testing information will be saved and the tester can resume testing using the same Testing Device (or a different Testing Device) at the point in the test where they left off.

Message: Could Not Retrieve Testing Information

Possible connection error while attempting to retrieve device configuration.

Description: DRC INSIGHT is unable to determine the identity of the device.

What Should I Do? Check your network connection and retry. Verify that the device is registered in COS (see [COS Online Help](#)).

Message: Device Registration

A device cannot be actively registered to more than one Central Office Services Org Unit for the same testing program.

Description: COS is unable to uniquely identify the device because more than one Org Unit ID exists for the device within the same testing program.

What Should I Do? Verify that the device has been assigned to only one Org Unit per testing program in the COS Configuration and that one or more Org Unit IDs have been uploaded to this device. After you have the correct Org Unit information, click **Assign Device to Org Unit** and enter the correct Org Unit ID (see [COS Online Help](#)).

Message: Download Of Upgrade Failed

Your upgrade failed because the download was unsuccessful.

Description: The testing client tried to update but was unable to download the update.

What Should I Do? Try one or more of the following actions:

- Retry the update.
- Verify your allowlisting settings.
- Manually update the testing client.

! Important: Only Linux users will see this message and the Upgrade button.

Message: Error Retrieving Content

DRC has detected an error retrieving content. Initial IT Troubleshooting - review the testing device's Central Office Services Configuration.

Description: If you are testing on an iPad device at iPadOS level 14 or higher with a COS Configuration that can access multiple testing programs, you must manually enable Cross-Website Tracking on each iPad Testing Device. You cannot enable Cross-Website Tracking with MDM software.

What Should I Do? Enable Cross-Website Tracking by performing the following steps on each iPad:

1. Navigate to **Settings**.
2. Tap **DRC INSIGHT**.
3. Toggle **Allow Cross-Website Tracking** to on.

Message: Failed to Load Device Information

A communication error occurred. Click Reload to try again or Cancel to cancel the process.

Description: Because of a network communication error, the device information was not loaded from COS.

What Should I Do? Wait a few seconds before clicking **Reload** to retry the process. If the network problems persist, click **Cancel** and contact your network administrator (or try again later).

Message: Guided Access Is Not Enabled

Please raise your hand and wait for help.

Description: Guided Access is either not set up or not working on the iPad device.

What Should I Do? Try starting Guided Access on the iPad device (see *Volume III: DRC INSIGHT*).

Message: Internet Connection Error

There has been an interruption in Internet connection. The student may be moved to another computer to continue testing. If this error persists, contact your local IT staff to verify network and Internet connections are working. They can contact DRC Customer Support if they need additional help to resolve the matter.

Description: There was an interruption in the Internet connection and the testing client was unable to reach DRC.

What Should I Do? Click **OK** to close DRC INSIGHT. Move the student to a different Testing Device to continue testing. If the issue persists, check the allowlisting on your network devices and prioritize testing traffic. Allow testing traffic to bypass as many network devices as possible. Ensure that the bandwidth is not being completely consumed.

Message: *Operating System version is not supported by DRC INSIGHT*

Please raise your hand and wait for help.

**This version of the operating system on this Testing Device is not supported by the DRC INSIGHT team. Please contact DRC Customer Support if you have questions.
Select Exit to return to the Test Sign In page.**

Description: DRC INSIGHT will not work with the version of the operating system that is currently installed on the Testing Device.

What Should I Do? Install a supported version of the operating system or select a different Testing Device on which to test.

Message: Registration Failed

The registration was unsuccessful

The registration failed because the Central Office Services Org Unit ID does not exist. Click Back to re-enter the Org Unit ID.

Description: DRC INSIGHT was unable to register the device because it could not find the device's COS Org Unit ID.

What Should I Do? Verify that you have the correct Org Unit ID for the device, click **Back**, and re-enter the Org Unit ID.

Error Messages

Message: Session Ended

Another session has been activated with this student's login. Please confirm the student is using their assigned login. If the student is actively testing on another computer, click OK. Please contact DRC Customer Support if you need additional help to resolve this matter.

Description: Someone else has logged in with the same credentials on another device.

What Should I Do? Verify that the student is using the correct testing credentials and that another student is not using them and have the student log in again.

Message: Session Inactive. Please raise your hand and wait for help.

Your session has been ended due to inactivity. Any test responses you submitted will be stored. Click OK to return to the log-in page.

Description: The student's test session ended due to inactivity.

What Should I Do? If the student needs to continue testing, have them click OK to return to the log-in page and log in again using his or her log-in credentials.

Message: Session Status Outside Window

Testing is currently unavailable. Please contact an administrator.

Description: The test ticket that is being used to log in to the test is in a test session for which the window is not active.

What Should I Do? Move the student to a test session in an appropriate testing window.

Message: The device's operating system has been updated and is in the process of being certified by DRC.

The DRC INSIGHT application should perform as intended, but if you have questions, please contact your Technology Coordinator.

This device is using OS version XXXXX

Description: The operating system on the Testing Device is valid, but the version or level of the operating system has not been fully tested by DRC.

What Should I Do? You are allowed to test with this version, but DRC recommends that you use a fully tested and supported level of the operating system.

Message: Your Client Attempted To Access An Invalid URL

Your session has been ended because your client tried to access an unsupported address. Please click the OK button to proceed.

Description: The client is pointed to the wrong URL.

What Should I Do? The issue is often caused by incorrect forwarding by either the router DNS or the ISP. For the correct URLs, refer to *Volume I: Introduction to Online Testing*.

Message: Your Client Failed The Readiness Check

This Testing Device did not pass a Readiness Check test. Please review the Readiness Check to see which test failed and to fix the issue.

Description: The Testing Device failed a System Readiness Check test.


What Should I Do? Use the System Readiness Check to see which test failed and fix the issue. This error can be caused by issues such as an invalid operating system or incorrect screen resolution.

Message: Your Client Is Out Of Date

Your session has been ended because your client is out of date. We will now attempt an upgrade.

Description: The testing client is out of date.

What Should I Do? Click Upgrade to initiate the update of the Secure Browser.

 **Important:** Only Linux users will see this message and the Upgrade button.

Message: Your Client Is Out Of Date

Please contact your local IT staff to update the DRC INSIGHT application.

Description: The testing client is out of date.

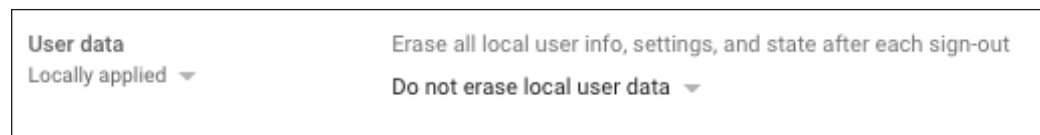
What Should I Do? Contact your local IT staff to update the DRC INSIGHT application.

Message: Your Device Has Not Been Registered

The Chromebook device was already registered in Central Office Services.

Description: Because the Google Admin Console setting for **Erase all local user info, settings, and state after sign-out** was accidentally set to **Erase all local user data after each sign-out**, the Chromebook was registered successfully but the registration was lost/deleted when the Chromebook was restarted.

What Should I Do? Verify that the setting for Erase all local user info, settings, and state after sign-out in the Google Admin Console is set to **Do not erase all local user data** (see below).



Message: Your Testing Session Has Been Stopped

The testing session has been terminated due to inactivity. Please close all other applications or browser sessions that may be open and re-log in to the test.

Description: The DRC INSIGHT Test Engine monitors whether a tester leaves the DRC INSIGHT Secure Application without exiting the test normally. If a tester leaves the test environment outside of the normal and allowed methods, this error message is displayed and the tester's test session is closed. For example, if a tester attempts to open a virtual desktop or toggle to one during a test, the DRC INSIGHT Secure Application will detect this activity and end the tester's test session. At the same time, the DRC INSIGHT Test Engine logs events to record this situation. Antivirus software, remote control/support software, firewall software, active scanning and filter software can take system resources away from DRC INSIGHT and possibly cause a timeout message. Ensure that these processes are scheduled outside of testing.

What Should I Do? Determine what caused this message to display and shut down or remove access to any applications or browser sessions that the tester may have been able to access during the test session. In addition, perform one or more of the following steps.

- Verify that no virtual desktop Apps are open before DRC INSIGHT is started.
- Verify that the student is not using the following key combinations: **Control-Shift-Esc**, **Control-Alt-Delete**, or **Windows-L**. Using these key combinations will cause this error message to display.
- Ensure that tester is not using specific hotkeys or key combinations that would prompt the student to leave DRC INSIGHT. Some examples include quickly pressing the Shift key five times to activate sticky keys, holding the Shift key for eight seconds, pressing Control-Tab, or swiping to another screen on a touch-enabled device.
- Restart the testing device.
- Use Online Tools Training (OTT) to determine whether the problem happens within OTT.
- If necessary, move the tester to a different Testing Device, preferably a testing device that has been used successfully for testing. The tester must log in again to continue testing.

Notes



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Revision Date: August 1, 2023