# DRC INSIGHT™
## ONLINE LEARNING SYSTEM

# Technology User Guide
## Volume II: Central Office Services (COS)

# NEBRASKA

## *Introduction*

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# 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 and macOS Service Devices.

• The COS - SD software supports Windows, 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 your state's 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 PC or macOS computer, 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, has been removed from the COS Configuration user interface.

### *Are My Testing Devices Impacted by this Change?*

<u>YES</u>

- 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* located in your state's Portal by navigating to **MY APPLICATIONS–General Information–Documents**.

<u>NO</u>

- 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 18.

**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.

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(!) **Important:** To access COS, you must have the Test Setup – Central Office Services permission.
To launch the wizard and start the installation on a Windows device that meets the COS - SD system requirements, sign in to your state's 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).

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1.  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.

2.  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.

3.  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.

4.  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.

5.  The Installing Central Office window displays, indicating the progress of the installation.
    **Note:** The installation process can take 5–10 minutes.

6.  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.)*

7.  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.
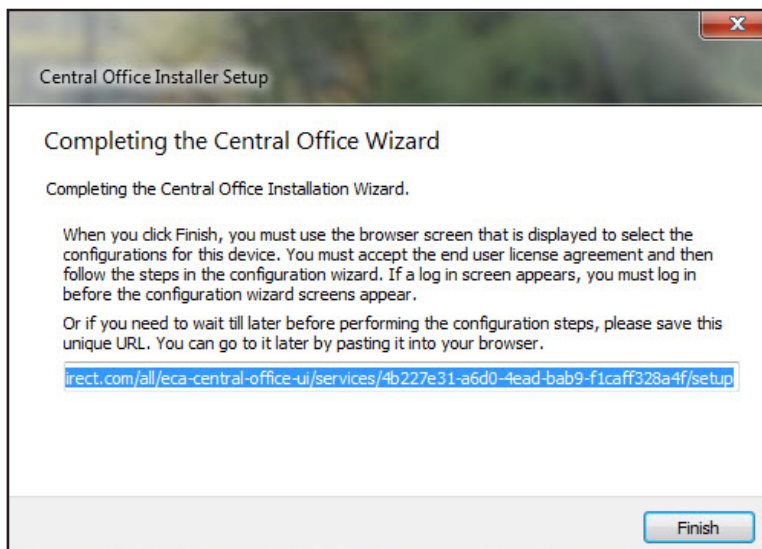
To avoid conflicts and to verify that no other device is using these ports, you can enter the command **netstat -a** from a command prompt to display a list of the ports currently being used.

8.  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.

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Central Office Installer Setup

**Completing the Central Office Wizard**

Completing the Central Office Installation Wizard.

When you click Finish, you must use the browser screen that is displayed to select the configurations for this device. You must accept the end user license agreement and then follow the steps in the configuration wizard. If a log in screen appears, you must log in before the configuration wizard screens appear.

Or if you need to wait till later before performing the configuration steps, please save this unique URL. You can go to it later by pasting it into your browser.

irect.com/all/eca-central-office-ui/services/4b227e31-a6d0-4ead-bab9-f1caff328a4f/setup

Finish

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Click **Finish** in the Completing the Central Office Wizard window. To complete the process of configuring your COS - SD, see .

## *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 on the COS - SD.

Test administration content can be added or removed by using the Manage Content feature within the COS dashboard on your state's Portal site. For more information, see *Working with Content Management* in the *COS Online Help.*

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).
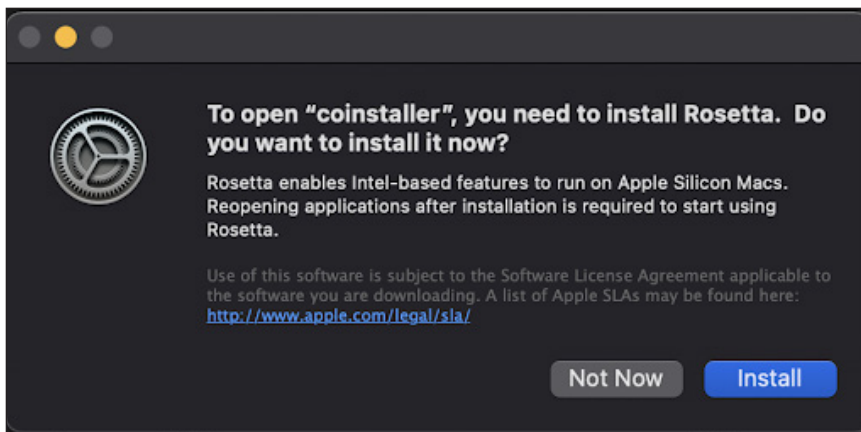


Keep the following items in mind if you need to install the Rosetta software on your Mac device.

- 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 your state's 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.
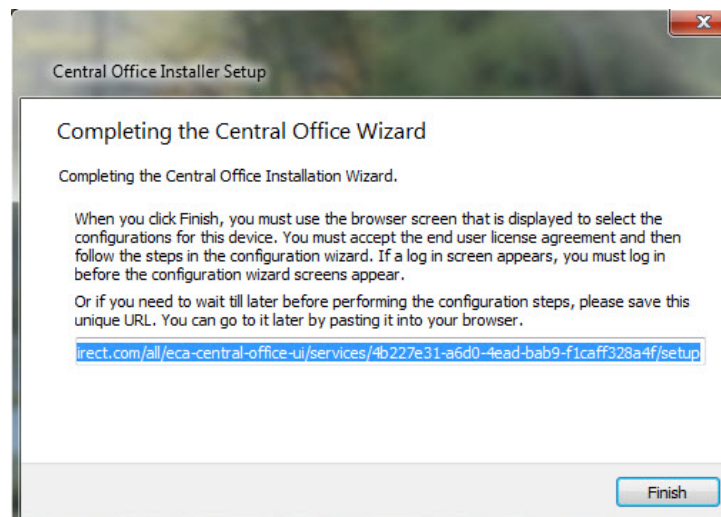


 ⓘ **Important:** From the Completing the Central Office Wizard window, highlight, copy, and save the URL that is displayed. You can use it to resume the process at this point (if necessary) without reinstalling the COS - SD software.

Click **Finish** in the Completing the Central Office Wizard window. To complete the process of configuring your COS - SD, see .

## *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**.

# 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 your state's Portal 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.
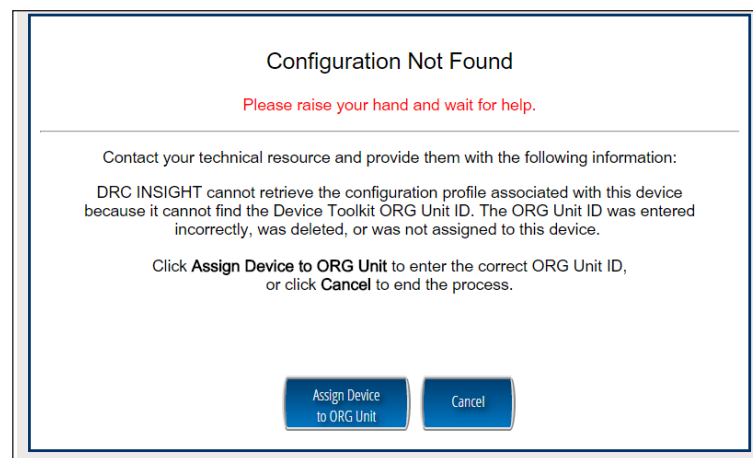
   Click **Add Site** to add your testing program location.

## *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.
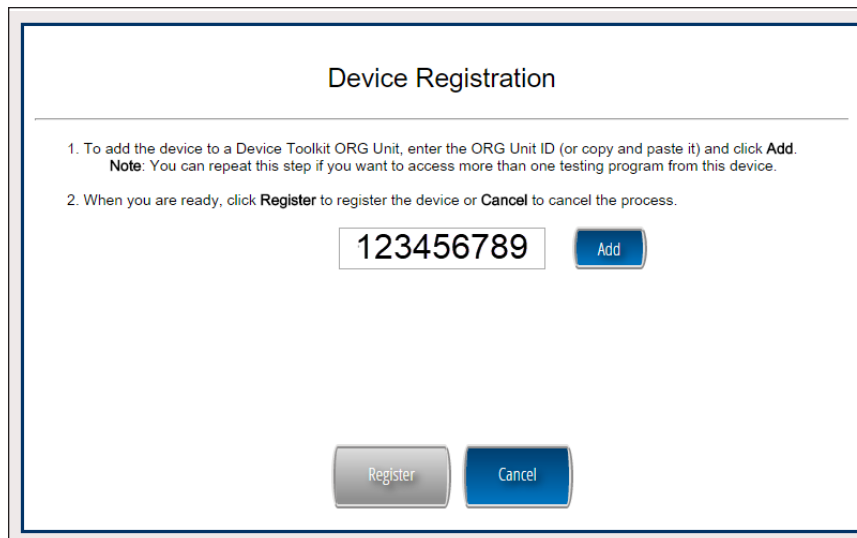
(!) **Important:** Content Management must be enabled to activate Content Hosting. Your state may have a requirement to use Content Management for your testing program.

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**.



Configuration Not Found

Please raise your hand and wait for help.

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 Device Toolkit ORG Unit ID. The ORG Unit ID was entered incorrectly, was deleted, or was not assigned to this device.

Click **Assign Device to ORG Unit** to enter the correct ORG Unit ID, or click **Cancel** to end the process.

Assign Device to ORG Unit          Cancel

## *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.
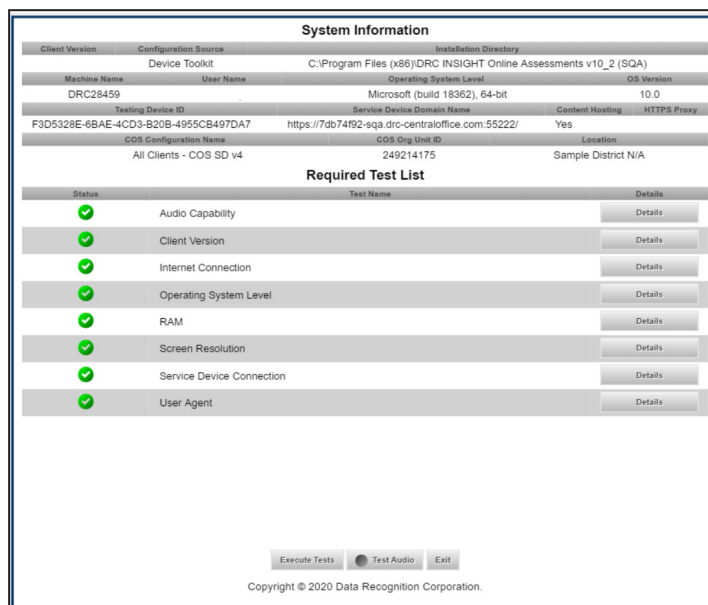


11. Depending on what you specified when you installed DRC INSIGHT, either the System Information Page of the System Readiness Check or the main DRC INSIGHT landing page displays. If you need to start the System Readiness Check, click the check mark in the lower-left corner of the main DRC INSIGHT screen. 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*).



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

# Notes