



Workflow Overviews

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Workflow Overview: Configuring Hub Sites

Before You Begin

- Define sites on the **DNA Center > Design > Network Hierarchy** page.
- In the **IWAN app > Configure Hub Site & Settings > Service Providers** tab, configure service providers.

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- Step 1** Open the **IWAN app > Configure Hub Site & Settings > IWAN Aggregation Site** tab.
- Step 2** Use the dropdown menu to select a site defined in DNA Center. Un-provisioned leaf nodes (terminal nodes) in the network hierarchy, of types **building** or **floor**, appear in the list of sites.
- Step 3** If required, add a site-specific IP address pool for the hub site in the **IWAN app > Configure Hub Site & Settings > IP Address Pools** tab.
- Step 4** (Optional) Add a device to a hub site.
- In the **IWAN app > Configure Hub Site & Settings > IWAN Aggregation Site** tab, hover over the add router button () and select a hub site.
 - In the **Configure Hub Border Router** dialog box, enter the management IP and SSH credentials for the device to add.
 - Click **Save**. The device is added to the hub. It appears in the IWAN app and in the DNA Center device inventory.
- Step 5** Click **Save & Continue** to begin the provisioning process.
- Step 6** After you add devices to a hub site using the IWAN app, and complete provisioning of the site, check the **DNA Center > Provision > Devices > Inventory** page.
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Workflow Overview: Adding a Greenfield Device to a Branch Site

The procedure for adding a greenfield device has changed since earlier versions of the IWAN app.

Before You Begin

- In typical scenarios, define the branch site in DNA Center before adding the device.
- Ensure that any necessary Cisco IOS images are available in **DNA Center > Design > Images Repository**. The IOS images are deployed to new greenfield devices during provisioning. The image requirements will depend on the devices used in your network.
- Configure address pools, as needed (**IWAN app**). **Important:** Do not configure an address pool (global or service provider) that overlaps with an address range configured as an IP address pool in DNA Center.

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- Step 1** In the **IWAN app > Manage Branch Sites > Devices** tab, click the **Add Greenfield Device** button. The **DNA Center > Provision > Devices > Inventory** page opens.
- Step 2** Click **Unclaimed Devices**. Discovered devices appear in the unclaimed devices list.
Note Device discovery occurs when a new device identifies itself to DNA Center using Plug and Play “call-home.”
- Step 3** Wait for the **Status** column to show **UNCLAIMED** for the device.
- Step 4** Select the device (using the checkbox at the far left) and click **Claim Device**. A **Claim Devices** page opens for the site.
- Step 5** Use the dropdown menu to assign the device to a site.
- Step 6** Click the **Assign** button.
 The device appears on the **DNA Center > Provision > Devices > Device Inventory > Inventory** list.
 The **Provision Status** column shows that the device has not been provisioned. You can press the Refresh button to see the updated status:
- ```

UNCLAIMED
START_PROVISIONING
PROVISIONING_CONFIG

```
- When provisioning is complete, the device disappears from the **Unclaimed Devices** list and is added to the **Inventory** list.
- Step 7** Open the **IWAN app > Manage Branch Sites > Devices** tab.  
 The device appears in the device list.  
 The **Discovered By** column shows **PNP**, indicating that this is a greenfield device.  
 The **Validation Status** column indicates that the device has not been validated.
- Step 8** In the **Action** column, click **Revalidate**.

If successful, the **Validation Status** changes to **Success**.

**Step 9** Click the **Provision Site** button.

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## Workflow Overview: Adding a Brownfield Device to Branch Site

It is possible to add a brownfield device to the DNA Center device inventory and claim it for the IWAN app using two methods:

- Add the device using the DNA Center Inventory tool, then claim it using the IWAN app.
- Add the device and claim it using the IWAN app directly.

After using one of these methods to add the brownfield device and claim it for the IWAN app, the next steps are to assign the device to a site, and eventually to provision all of the site's devices.

### Adding a brownfield device directly to the DNA Center inventory

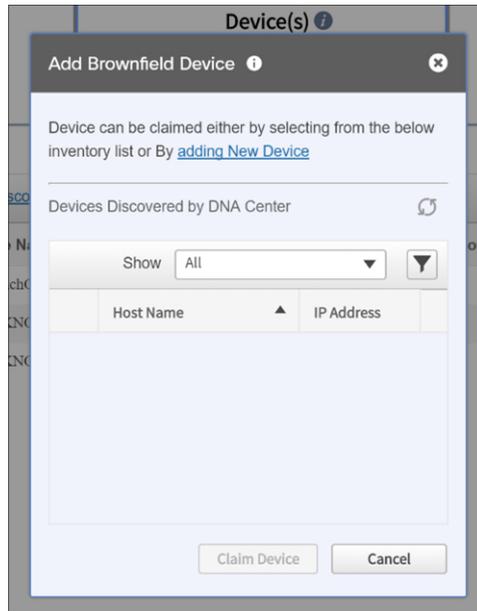
- 1 Open the **DNA Center > Inventory** tool and click the **Add** button.
- 2 In the **Add Device** dialog box, enter the address and credentials for the device and click the **Add** button.  
The device appears in the device list.
- 3 Open the **IWAN app > Manage Branch Sites > Devices** tab.
- 4 Click the **Add Brownfield Device** button.  
The **Add Brownfield Device** dialog box opens. The brownfield device list in the dialog box shows the newly added device.
- 5 Claim the device for the IWAN app.
  - a In the **Add Brownfield Device** dialog box, select the radio button to the left of the device.
  - b Click the **Claim Device** button.

The device is added to the **IWAN app > Manage Branch Sites > Devices** tab list of devices. A device added through the DNA Center Inventory tool is not automatically validated by the IWAN app. The **Validation Status** column shows **WARNING**.

- 6 In the **Action** column, click the refresh button to validate the device.

### Adding a brownfield device using the IWAN app

- 1 Open the **IWAN app > Manage Branch Sites > Devices** tab.
- 2 Click the **Add Brownfield Device** button.  
The **Add Brownfield Device** dialog box opens.
- 3 In the dialog box, click the **Adding new device** link.



A new **Add Brownfield Device** dialog box opens, prompting you for a device address and credentials.

- 4 Enter the address and credentials for the device and click the **Add Device** button.

The device is added to the DNA Center device list, and it is also added to the **IWAN app > Manage Branch Sites > Devices** tab list of devices.

**Note**

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Using the IWAN app to add a brownfield device does three things:

- Adds the device to the DNA Center inventory
- Claims the device for the IWAN app
- Initiates the IWAN validation process

By contrast, when using the DNA Center Inventory tool to add a brownfield device, each of these actions requires a separate step: a step to add the device to the DNA Center inventory, a step to claim it for the IWAN app, and a step to validate the device.

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**5** Click the **Add Brownfield Device** button.

The **Add Brownfield Device** dialog box opens. The brownfield device list in the dialog box shows the newly added device.

**Assigning a brownfield device to a site**

After adding the brownfield device and claiming it for the IWAN app, the procedure for assigning it to a branch site is largely the same as in earlier releases of the IWAN app.

- 1** Open the **IWAN app > Manage Branch Sites > Devices** tab.
- 2** In the list of devices, in the **Site Name** column, use the dropdown menu to select a site. Sites are defined in the DNA Center.
- 3** Continue the process as in earlier releases of the IWAN app.

With the integration of the IWAN app into DNA Center, note the following: After you use the IWAN app to add a brownfield device to a branch site, and then you provision the site, the IWAN app communicates the site assignment and other information for the brownfield device to DNA Center. The device appears, with its site assignment, in the DNA Center device inventory.

