Build a Configuration

Build a Configuration Overview

In the build phase, you build the configurations for each node. After selecting the options for the overall topology and each node, you create the configuration files. Alternatively, you can use AutoNetkit to create the configuration files.

You can modify and save configuration files for the topology and for each node in your topology.

Create and Modify a Node Configuration

While AutoNetkit is useful for generating configuration files for all the nodes in the topology, you can bypass AutoNetkit and enter node configuration information directly.

You can enter configuration information in either of the following ways:

- During the design phase, copy and paste configuration commands for each node.

- During the simulation phase, connect to a node console and change its configuration when the topology is running. See the chapter Simulate the Topology for more information on how to modify, extract, and save a running configuration.

> ✎
>
> **Note**   When you create your configuration files:
>
> - Changes that are manually entered are not visible in the topology design. If you create a new interface by entering configuration commands, the interface is not created in OpenStack nor does the interface show up in any of the node views.
>
> - Depending on how the AutoNetkit Auto-generate feature is set, you may overwrite the changes you enter.

While in the **Design** perspective, any changes you manually make to a node configuration are saved in the current *filename*.virl file. Before you launch a simulation from the **Design** perspective, a notification window advises you to save the changes or cancel the simulation launch.

Figure 1: Save Changes Before Launch
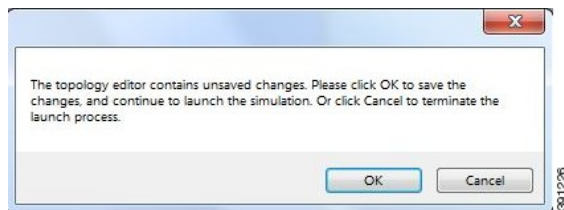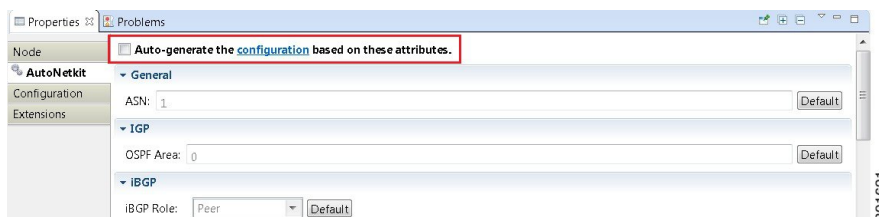

Create a Node Configuration Manually

Before You Begin

The topology design should be complete.

Step 1   In the **Topology Editor**, click a node.

Step 2   In the **Properties** view, click **AutoNetkit** and uncheck the **Auto-generate the configuration based on these attributes** check box.

Figure 2: Uncheck Auto-generate Check Box

Step 3   Click **Configuration**.

Step 4   Enter the configuration commands in the **Configuration** view.

Note   All changes are automatically saved to the *filename*.virl file. However, the changes made do not appear in the topology on the canvas.

What to Do Next

Launch a simulation to observe the changes.

Use an Existing Node Configuration

You can use an existing configuration file to create a node configuration in Cisco Modeling Labs.

Before You Begin

The topology design should be complete.

Step 1   In the **Topology Editor**, click a node.

Step 2   In the **Properties** view, click **AutoNetkit** and uncheck the **Auto-generate the configuration based on these attributes** check box.

Step 3   Click **Configuration**.

    a) Open the configuration file you want to use and copy the configuration commands.

    b) In the **Configuration** view, paste the configuration commands.

        Note   All changes are automatically saved to the *filename*.virl file. However, the changes made do not appear in the topology on the canvas.

What to Do Next

Launch a simulation to observe the changes.

Import the Configuration from a Cariden MATE File

You can import a topology from an existing Cariden MATE file, version 5.2.0 or later. Cisco Modeling Labs client will accept site imports up to two layers deep. Any Cariden MATE file that has a topology with more than two layers of sites will not import correctly.

Before You Begin

A valid Cariden MATE file is available on your file system.

Cisco Modeling Labs client is running.

Your license allows Cariden MATE file import.

Step 1   Choose **File > Import**

A window appears, prompting you to Import topology from the Cariden MATE file.

Step 2   Choose **Import Cariden MATE File** then click **Next**.
The license is checked. When confirmed, click **Next**.

Step 3   Choose the **From data file**Cariden MATE file to import. Use **Browse** to select the directory and file to import.

Step 4   Choose the location **Into target folder** for the Cariden MATE file. Use **Browse** to select the target Project folder.

Step 5   Enter a filename for the imported Cariden MATE file.
Important   The filename you enter must have the extension **.virl**. For example, **Lab_import.virl** is a valid filename.
Otherwise, you cannot open the file in the topology editor.
The Cariden MATE file converts to a Cisco Modeling Labs **.virl** file.

Step 6   In the Projects view, expand the project folder where you saved the imported file.

Step 7   Right click on the imported file, for example **Lab_import.virl** and choose **Open With > Topology Editor**.
A topology canvas opens and displays the topology.

What to Do Next

Visualize the configuration.

Run the simulation.

Create Node and Interface Configurations Using AutoNetkit

Before You Begin

The topology design should be complete.

Step 1   Verify the configuration for each node in the topology.
   a) In the **Topology Editor**, click a node.
   b) In the **Properties** view, click **AutoNetkit**. Verify **Auto-Generate** is checked or unchecked, depending on whether AutoNetkit will generate a configuration for that node.
      Note   Any pre-existing configuration for this node is overwritten when you choose **Update Router Configurations** from the toolbar. Uncheck the **Auto-generate** check box if you do not want the router configuration for this node updated by AutoNetkit.

Step 2   Generate a configuration for the topology. Click **Update Router Configurations** from the toolbar. Alternatively, from the menu bar, choose **Run > Update Router Configurations**. You are prompted to save any changes made since the previous configuration update.
If the **Auto-generate** check box is checked for a node, the configuration updates are generated by AutoNetkit.

Step 3   AutoNetkit displays a notification after it generates the configuration. Click **No** to skip a comparison of configuration changes. Click **Yes** to open a comparison view of the configuration changes.

Figure 3: View Configuration Changes? Notification
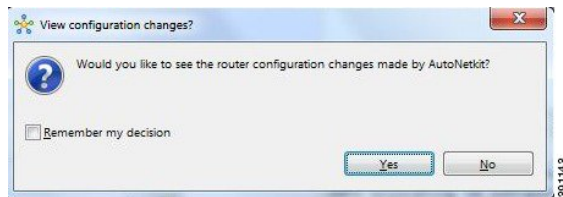
Note   Selecting the **Remember my decision** check box will always display configuration changes for subsequent invocations. You can later change this behavior by choosing **File** > **Preferences** > **Web Services** > **AutoNetkit**.

The .virl file opens and displays previous and current configurations side-by-side, with the changes highlighted. You can scroll through the contents and see the differences. However, you cannot edit the configurations.

*Figure 4: Show Configuration Comparison Side-by-Side*
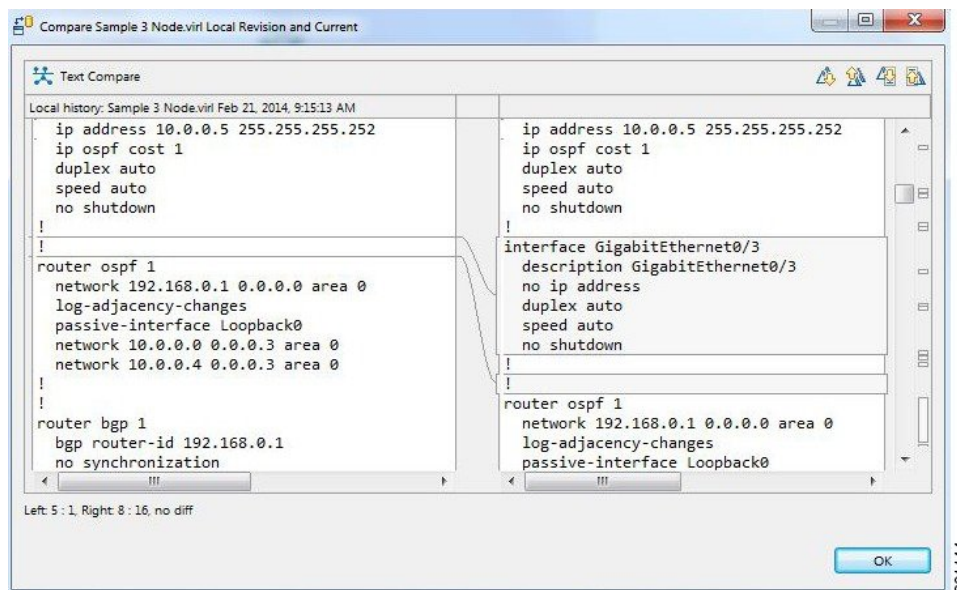
Click **OK** to close the comparison view.

Step 4   When you close the comparison view, a notification is displayed, and you can choose whether or not to open AutoNetkit visualization.

- Click **No** to skip the visualization. You return to the **Design** perspective.

- Click **Yes** to display the visualization. The AutoNetkit visualization opens in a browser window. For more information about this feature, see Visualization Overview.

Figure 5: Open AutoNetkit Visualization? Notification
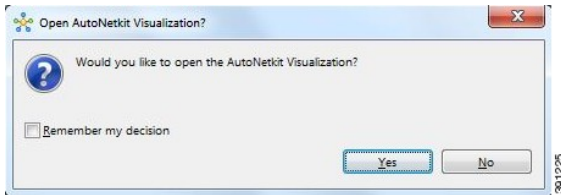
Note Selecting the **Remember my decision** check box will always open AutoNetkit visualization for subsequent invocations. You can later change this behavior by choosing **File** > **Preferences** > **Web Services** > **AutoNetkit**.