Update Configuration from One File to Another

Cisco Crosswork Planning lets you model the topology, routings, and utilizations of a currently operational network. It also allows exploration of modifications to that network. For example, interface metrics can be modified or explicit LSP routings changed to obtain a new routing configuration.

The **Changeover** tool provides a step-by-step sequence of routing configuration changes to move a network safely from an initial configuration to a prespecified final configuration. Cisco Crosswork Planning selects the order of these changes so that there is as little congestion as possible in the network during intermediate configurations, and so that this congestion lasts for as few intermediate steps as possible.

Only certain configuration changes are allowed between the initial and final plan:

- Changes to interface metrics
- Changes to LSP configurations
- Changes of circuits and node from the active to the inactive state, and vice versa

An individual step in the changeover sequence consists of one of the following:

- A single metric change on a specific interface
- LSP configuration changes on all LSPs sourced from a specific node
- The activation or inactivation of a specific circuit or node

This section contains the following topics:

- Run the Changeover tool, on page 1
- Analyze reports, on page 3

Run the Changeover tool

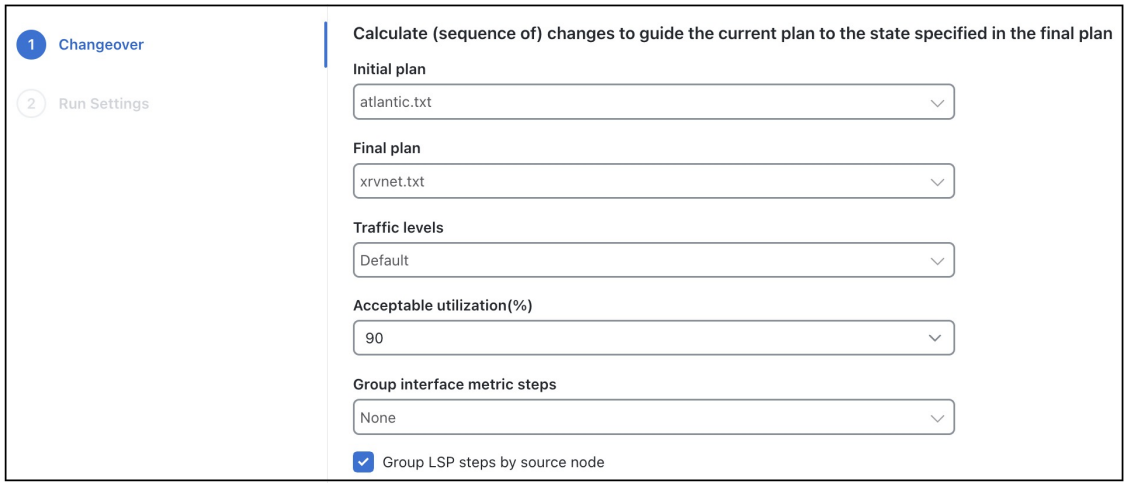
Follow these steps to run the changeover tool.

Procedure

Step 1 Open both the initial and final plan files (see Open plan files), and choose the desired plan to view.

Step 2 From the toolbar, choose **Actions** > **Tools** > **Changeover**.

Figure 1: Changeover options



Step 3 Decide on the changeover options to use. For field descriptions, see Table 1: Changeover options , on page 2.

Step 4 Click **Next**.

Step 5 On the Run Settings page, under **Execute**, choose either of the following options:

- **Now**—Choose this option to run the tool immediately. Upon completion, a report of the results opens automatically.
- **As a scheduled job**—Choose this option to run the tool at a scheduled time. Set these options:
  - **Priority**—Select the priority of the task.
  - **Engine profiles**—Select the engine profile as per your requirement. This section lists all the available asynchronous engine profiles.
  - **Schedule**—Set the time at which you want to run the tool. This option is available only for scheduled jobs.

The job runs at the scheduled time and using the selected engine profile. You can track the status of the job from the **Job Manager** page (from the main menu, choose **Job Manager**).

Note
Ensure that you save the plan file before you schedule the job. Any unsaved changes in the plan file are not considered when you run the tool as a scheduled job.

Table 1: Changeover options

Field	Description
Initial plan	Name of the initial plan, selected from opened plan files.
Final plan	Name of the final plan, selected from opened plan files.
Traffic levels	Changeover monitors maximum interface utilization levels for all steps in the sequence. The utilizations are calculated using this traffic level.

Field	Description
Acceptable utilization (%)	The percentage of maximum acceptable utilization of any interface at any step during the changeover sequence. Changeover tries to keep utilizations below this level, although it is not always possible. Often the utilization spikes upward during the last few steps of the sequence, if, for example, new ECMP paths must be put in place. Cisco Crosswork Planning tries to keep the number of high-utilization steps to a minimum.
Group interface metric steps	The Changeover tool allows you to group Interface Metric changes together into steps. You can choose from the following options: • None—Each Interface Metric change is treated as a single step. • Parallel—Parallel Interfaces are grouped into a single step. • Source Node—Interfaces sourced from the same node are grouped into a single step if there is no impact on maximum utilization.
Group LSP steps by source node	Specify whether to group the LSP steps by source node.

Analyze reports

To access the report created by Changeover, choose **Actions > Reports > Generated reports** and then click the **Changeover** link from the right panel.

Changeover creates a report that contains the following sections:

- **Summary**: This tab contains a list of the options used to run the changeover. It also contains a summary of the differences between the initial and final plans, the number of steps taken, and the number of steps resulting in intermediate configurations with utilizations in excess of the acceptable utilization.
- **Steps**: This tab contains details of the actions taken at each step while running the Changeover tool.
- **Utilizations**: This tab contains all utilizations for all interfaces in the network, for each step in the changeover sequence.