Patch Files

A patch file is a compact way to represent differences between plan files. These differences or *patches* can be applied to other plan files or deployed to the network.

You can create, apply, view, and send patches by choosing **Tools > Patches**.

A common WAE Design use case is to create a plan file for deployment. One potential workflow for doing this is the following:

1. Open a plan file from a WAE Automation server. (**File > Open from > WAE Automation Server**.)

2. Duplicate the plan file by saving it as a different name.

3. Make LSP modifications as needed in the duplicated plan file.

4. Open both plan files, and create a patch file. (**Tools > Patches > Create**.)

5. Perform a dry run to test the patch before deploying it. (**Tools > Patches > Send**, **Dry Run** option.)

6. Deploy the patch file to the network. (**Tools > Patches > Send**.)

Opening a Remote Plan File

From the WAE Design GUI, you can open plan files residing on a remote WAE Automation server to make modifications before deploying LSPs.

Prerequisites:

- You must know the username and password of the WAE Automation server, or its authentication must be disabled.

- The WAE Automation server must be configured for the type of deployment you are using.

Step 1   Choose **File > Open from > WAE Automation Server**.

Step 2   Identify the remote server:

    a.   Enter or choose the hostname or IP address of the server.

    b.   Specify how to connect to the server by entering or choosing the port number and network.

       To automatically populate the Network field with the list of available networks, click **Refresh List of Networks**.

    c.   If authentication is enabled, enter the same username and password. If authentication is disabled, the username and password fields must be empty.

Step 3   Click **OK**.

Creating Patch Files

The patch created identifies how to get from the plan file identified in the From Plan field to the plan file identified in the To Plan field. These patch files only include differences in new, modified, and deleted objects that are supported by the WAE YANG model.

Examples:

- If From Plan Edge-AK contains 33 LSPs and To Plan Edge-EP contains 23 LSPs, the patch file identifies which 10 LSPs to delete from plan Edge-AK to create plan Edge-EP.

- If From Plan Edge-AK contains 10 LSPs and To Plan Edge-EP contains 15 LSPs, the patch file identifies which 5 LSPs to add to plan Edge-AK to create plan Edge-EP.

- If both plan files contain the same LSP, but in From Plan Edge-AK the LSP has a SetupBW property equal to 100, whereas in the To Plan Edge-EP it does not, the patch file identifies the need to modify the SetupBW property of this LSP in plan Edge-AK so that it matches plan Edge-EP.

Step 1   Open the two plan files that you are using for the patch file creation.

Step 2   From the plan file used as the To Plan, which is the plan file you want to achieve using the patch file, choose **Tools > Patches > Create**.

Step 3   In the From Plan field, choose one of the following options:

- Plan File—Choose the plan file from which you are determining required changes to achieve the plan file identified in the To Plan field.

- Get Plan from WAE—Obtain the plan file from WAE with a specified location.

Step 4   The default patch filename combines the From and To plan filenames. If needed, change the filename. It must have a .plp extension. Unless you want the patch file to be overwritten, the patch filename must be unique to its location.

Step 5   Enter or browse to the location where you want the resulting patch file to reside.

Step 6   Click **OK**.

Applying Patch Files

You can apply patch files to plan files.

Step 1 Open the plan file to which you want to apply the patch.

Step 2 Choose **Tools > Patches > Apply**.

Step 3 Enter or browse to the location where the patch file resides.

Step 4 Enter a unique name for the plan file you want to create as a result of this applied patch.

Step 5 Specify whether you want to stop or continue in case of error.

Step 6 To verify the patch file's contents before applying it, click **View Patch**. (After viewing the patch, click **Close**.)

Step 7 Click **OK**.

Viewing Patch Files

Viewing patch files lets you ensure they meet your needs before applying or deploying them.

Step 1 Choose **Tools > Patches > View**.

Step 2 Browse to and choose the patch file, and then click **Open**.

Step 3 View the patch and then click one of the following:

- **Send Patch**—To deploy the patch as is.
- **Edit Patch**—To edit the patch before sending it. A dialog box opens, displaying the contents of the patch as XML text. You can save or discard the patch text edits. The tool warns you if you try to save invalid XML syntax. You can right-click in the patch text dialog and choose **Undo** to undo changes. Other standard text editing (cut, copy, paste, and so on) is also supported.
- **Close**—To close the dialog box without deploying the patch.

Sending Patch Files

When sending a patch file, it is applied to the specified network, and related deployment actions are triggered.

Step 1 Choose **Tools > Patches > Send**.

Step 2 Browse to or enter the full path to the patch file.

Step 3 Identify the remote server:

    a. Enter or choose the hostname or IP address of the server.

    b. Specify how to connect to the server by entering or choosing the port number and network.

        To automatically populate the Network field with the list of available networks, click **Refresh List of Networks**.

    c. If authentication is enabled, enter the same username and password. If authentication is disabled, the username and password fields must be empty.

Step 4   (Optional) Check **Dry Run**.

Best practice is to perform a dry run to verify the patch file can be successfully applied. If you choose this option, a status popup shows whether the deployment of this patch would be successful, unsuccessful, or only partially successful. To save the status of the dry run, click **Save Status**.

Tip   If you check **Dry Run** or set the Test Option to **Test Only**, and the patch dry run succeeds, you can deploy the patch easily. Click **Send Patch** in the status popup; you then return to the Send Patch dialog box with the patch preselected.

Dry run successful

[Show Details]

[Save Status]   [Send Patch]   [Close]
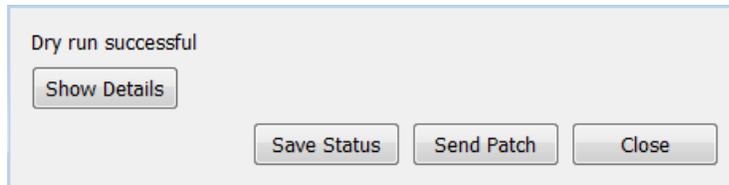
Step 5   Specify what to do in case of an error: roll back, stop, or continue.

Step 6   Click **View Patch** to ensure the patch meet your needs before deploying it. (After viewing the patch, click **Close**.)

Step 7   Click **OK**.

Saving and Clearing Settings

Step 1   To save all settings for use the next time you open the Send Patch dialog box, check **Save Settings**. This saves all settings whether the fields are empty or not.

Step 2   To save the authentication password, check **Save Password**.

Step 3   To clear all current user-specified settings from the fields, click **Clear Settings**. Note that this does not clear the default port value, although any manual entries are cleared.

Step 4   To delete all user-specific settings so the next time you open the Send Patch dialog box all fields are empty (except for the default port value), follow these steps:

    a. Click **Clear Settings**.

    b. Ensure that **Save Settings** is checked.

    c. Click **OK** to exit.

    d. At the prompt to continue, click **Yes**.

Sending Patch Files