



Install Cisco WAE

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Install Cisco WAE

Before you begin

- Confirm that you have met all requirements described in [Cisco WAE Server Requirements](#).
- If one does not yet exist, create a UNIX user (assigned to a group). You must be this UNIX user to run installation.

Step 1 Navigate to and download the Cisco WAE package from the [Cisco Download Software](#) site.

Step 2 Log in to the server, copy the Cisco WAE package (`<wae_linux-xxxx_bin>` or `<wae-darwin-xxx.bin>`) to a local directory, and start a bash shell.

Step 3 Install the Cisco WAE package.

```
# chmod 755 <wae_linux-xxxxx_bin> ; ./<wae_linux-xxxxx_bin>  
<wae_installation_directory>
```

The installation program creates a bash script file named `waerc` that sets the environment variables.

Step 4 Source this file to get the settings.

```
# source <wae_installation_directory>/waerc
```

Note If, later, you get a "wae: command not found" error, reenter the command to source the settings.

Step 5 Create a run-time directory.

```
# wae-setup <wae_run_time_directory>
```

Step 6 (Optional) Edit the `~/.bash_profile` to source waerc settings automatically at login.

```
# echo "source ~/<wae_installation_directory>/waerc" >> ~/.bash_profile
```

Step 7 Run WAE.

```
# cd <wae_run_time_directory>
# wae
```

Example

For example:

```
# bash wae-linux-v7.0a3-2153-ga539952.bin wae_install
# source wae_install/waerc
# wae-setup wae_run
# echo "source ~/wae_install/waerc" >> ~/.bash_profile
# cd wae_run
# wae
```

What to do next

Start and log in to Cisco WAE. For more information, see [Next Steps](#).

Install WAE License

A license determines which WAE features are available for use. To obtain a license, contact your Cisco account representative.

Advanced OPM simulation, optimization, and predictive analysis functionality require a license. To install the license, complete the following steps:

Step 1 Run the `license_install` tool, passing it the name of the license file (`.lic` extension). By default, the tool merges the features that are granted by the new license with those features in an existing license.

```
license_install -file <path>/<license_name>.lic
```

Step 2 When prompted, enter the number that is associated with the directory in which you want to install the license.

Start and Stop Cisco WAE

From the WAE run-time directory, enter the relevant WAE CLI command to start or stop Cisco WAE services:

- `wae --start`—Starts or restarts WAE services.
- `wae --stop`—Stops WAE services.

Update Packages or Templates

If any packages or templates are updated or added in the `<wae_run_time_directory>/packages` directory, you must do one of the following:

- Restart Cisco WAE by running a package reload command.

```
# wae --with-package-reload
```

- Request a package reload using the WAE CLI.

```
# request packages reload
```

For example, you must perform a package reload when configuring an LSP collection using device models (when network element drivers [NEDs] are added) or configuring multilayer collection (when optical plug-in templates are renamed). For information about these collections, see the "Advanced Network Collection" and "Multilayer Collection" chapters in the *Cisco WAE User Guide*.

Troubleshoot a Cisco WAE Installation

To check the status of Cisco WAE, enter `wae --status`.

Cisco WAE comes with standard logging features in the YANG run time. Cisco WAE logs to multiple log files in the `<wae-run-time>/logs` directory.

The most useful log is `<wae-run-time>/logs/ncs-java-vm.log`. Most Cisco WAE packages log to this file. Some Cisco WAE packages also log to `<wae-run-time>/logs/ncs-python-vm-<package-name>.log`. The following example shows Python-VM based logs:

```
[wae@wae logs]$ pwd
/home/wae/wae-run/logs
[wae@host logs]$ ls -ltr ncs-python-vm*
-rw-rw-r-- 1 wae wae    0 Feb 26 07:50 ncs-python-vm-cisco-wae-opm-tte.log
-rw-rw-r-- 1 wae wae    0 Feb 26 07:50 ncs-python-vm-cisco-wae-get-plan.log
-rw-rw-r-- 1 wae wae    0 Feb 26 07:50 ncs-python-vm-cisco-wae-dmdmesh-creator-nimo.log
-rw-rw-r-- 1 wae wae    0 Feb 26 07:50 ncs-python-vm-cisco-wae-layout-nimo.log
-rw-rw-r-- 1 wae wae    0 Feb 26 07:50 ncs-python-vm-cisco-wae-opm-load-plan.log
-rw-rw-r-- 1 wae wae    0 Feb 26 07:50 ncs-python-vm-cisco-wae-dmddeduct-nimo.log
-rw-rw-r-- 1 wae wae    0 Feb 26 07:50 ncs-python-vm-cisco-wae-archive.log
-rw-rw-r-- 1 wae wae 2238 Feb 26 07:50 ncs-python-vm.log
-rw-rw-r-- 1 wae wae  270 Feb 26 08:20 ncs-python-vm-nso_wae_nodes_insert.log
```

By default, the log level is set to INFO. You can configure logging in the following ways:

- Define the log level of various logs in the run-time directory `wae.conf` file. For information about the `wae.conf` file, see the *Cisco WAE User Guide*.
- Use the WAE Expert Mode to set logging capabilities for some network interface modules (NIMOs). For example, you can set logging capabilities such as topology NIMOs and the `lsp-snmp-nimo` module. For information about the Expert Mode, see the *Cisco WAE User Guide*.

- Use the WAE CLI to define the log level for various NIMO components. To define the log level, enter the following command at the command line:

```
admin@wae% set java-vm java-logging logger <nimo-component> level <level-x>
```

Level types are `level-info`, `level-debug`, and `level-all`. The logs are saved to `ncs-java-vm.log` and can be used for troubleshooting.

The following table lists basic NIMO components.

NIMO Component	Description
com.cisco.wae	General debugging
com.cisco.wae.nimo.topo	Topology-based NIMO debugging
com.cisco.wae.nimo.lspconfig	LSP configuration through NED debugging
com.cisco.wae.nimo.lsp	LSP debugging
com.cisco.wae.nimo.snmptrafficpoller	SNMP traffic poller debugging
com.cisco.wae.deployer	Deployment debugging
com.cisco.wae.aggr	Aggregation debugging
com.cisco.wae.nimo.optical	Optical NIMO debugging