Cisco WAE Coordinated Maintenance 1.1 Release Notes

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Note All links throughout this release note have their corresponding URLs listed in the Related Information section.

Cisco WAE Coordinated Maintenance Application

The Cisco WAE Coordinated Maintenance application simplifies and automates the process of managing controlled network outages by guiding you in determining optimal times for performing maintenance events. The application leverages WAE optimization and prediction capabilities to minimize or eliminate impact of network changes, thus reducing uncertainty about them. Geographically and functionally disparate teams can collaboratively use the tool to communicate effectively about these network changes.

The application operates off two main principles: events and evaluations. An event is the activity of taking down one or more network objects during a given time slot. An evaluation consists of one or more tests used to assess the viability of submitting an event at a given time. That is, the evaluation gives insight into how the network will react should you take down the specified objects. If you do not like the reported results, you can resubmit the event with different objects or with different time slots.

The application is supported on the Cisco WAE 6.2.4 platform.

For detailed information, including prerequisites, configurations, and use, see the *Cisco WAE Coordinated Maintenance 1.1 User and Administration Guide*. This guide is accessed directly from the application, but is not available from the main WAE Help menu.

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Features

Intuitive User Interface

- The simple UI intuitively leads you through all aspects of creating and scheduling events.
- Search features are highly flexible, enabling you to quickly identify necessary objects.

Flexible Data Sources

- The traffic model can be accessed locally or remotely using an archive.
- The topology template can be accessed locally or remotely using an archive or WAE Live network.

Event Scheduling

- You can either schedule an event to reserve the time slot or save drafts of an event for further analysis at a future date.
- Layer 3 objects for inclusion in events are the most commonly taken down for maintenance: nodes (routers), circuits, and LAG members.
- Bulk insertion capabilities enable you to cut and paste lists of circuits and LAG members for inclusion in the event.
- Time slots can be manually entered, or you can ask the application to return up to five of the next-available time slots.
- A single view makes all events available at a glance for all users. This event matrix includes critical, high-level information necessary for knowing if further action is needed: event status, evaluation status, and whether the evaluation passed or failed. You can use the Description field to communicate with other users.

Blackout Windows

- A blackout window signifies users that events should not be scheduled during a specified time slot. This can be useful for protecting the network when traffic is at its highest.
- Blackout windows can be set to recur, making it easier to prevent the scheduling of events during mandated network change moratoriums.

Adaptable Evaluations

- Each evaluation consists of groups of tests, where each group contains one to three tests. These tests are easily configured and the evaluation structure is highly customizable, allowing you to create the softest or most stringent criteria needed.
- For each test, you can identify whether it must pass for the entire evaluation to pass, thus enabling you to prioritize must-have criteria ahead of criteria that is only of interest. You can also configure any given test to stop the remainder of the evaluation, thus saving processing cycles.

- To minimize time spent in configurations, you can create a default evaluation, as well as create a set of tests either to be included with or excluded from the evaluation. When you later create events, you can use the default or optionally modify these configurations and tests using the default as a base.
- In addition to three default tests, you can add custom tests for execution by the application. This capability, coupled with the ability to easily disable and enable tests for an evaluation, enables multiple users to use each other's tests.
- Evaluations can be run in the background, leaving the application free to perform other operations.
- Overlapping events are detected and used in the evaluations. You then have the option to re-run evaluations without using one or more overlapping events. This process assists in determining which event or events should be rescheduled to a different time slot.
- Automatic re-evaluation of events at specified intervals helps ensure the network is in a state that can withstand the maintenance event up until it is imminent.
- Models (plan files) of the network used when evaluating events are downloadable, as well as models that represent the network prior to the event. You can open these plan files in WAE Design for further assessment, which can be particularly useful when analyzing failed evaluations.

Install

Prerequisites

- SDN bundle purchased
- 6.2.4 WAE Automation package downloaded and installed on the Planning server

For a more detailed list of prerequisites, see the *Cisco WAE Coordinated Maintenance 1.1 User and Administration Guide*.

The WAE application is a right-to-use application that does not require a license.

Note The 6.2.4 platform supports the installation of the WAE Coordinated Maintenance application as described here. However, the 6.2 documentation does not include this installation information.

Step 1 Download the WAE Coordinated Maintenance zip file from the WAE Applications page on the Cisco Download Software portal.

Either download the zip file directly to the `$WAE_ROOT/applications` directory on the Planning server or move it to this directory after downloading it.

Note `$WAE_ROOT` is the installation directory, which is `/opt/cariden` by default.

Step 2 If the web server is not running, start it. If it is running, re-start it.

Start: `service wae-web-server start`

Restart: `service wae-web-server restart`

Step 3 In the web UI, click the Applications link in the Applications section.

Step 4 Click the gear (settings) icon.

Step 5 To make the application immediately available, click Enable next to the Coordinated Maintenance item.

Step 6 If you enabled it, verify that there is a Coordinated Maintenance link in the Applications section. If there is no link, refresh the browser.

Access

The web server must be running, WAE Design Archive must be running, and the WAE Coordinated Maintenance application must be installed and enabled.

To access the application, click the Coordinated Maintenance link or icon in the Applications section of the web UI.

Enable, Disable, Un-Install

Step 1 From the web UI, click the Applications link in the Applications section.

Step 2 Click the gear icon and locate the Coordinated Maintenance item.

Step 3 Choose an option.

- **Enable the application**—Click the Enable button. This activates a newly installed application or re-actives one that was disabled.
- **Disable the application**—Click the Disable button. This deactivates the application and removes it from the Applications page, but keeps the application installed. This can be useful, for example, if performing an application upgrade and you do not want users accessing it.
- **Un-install the application**—Click the Delete button. This removes the .zip file from `$WAE_ROOT/applications`.

Known Limitations

This section describes the limitations and restrictions for the Cisco WAE Coordinated Maintenance application. Note that platform-related issues could also impact the application. For information on open bugs and limitations on the WAE platform and other WAE applications, see the related WAE Release Notes on cisco.com.

- All users have equal privileges. Therefore, it is important to be considerate and cautious when making changes to any Settings page.
- The only type of event represented is the planned outage event. For example, representations of permanent moves, additions, and deletions of network objects are not yet supported.
- Internally time is stored in UTC, and users can set the standard local time zone. However, the application does not support automatic Daylight Saving Time adjustments.
- Events and blackout windows are limited to 24 hours. The workaround is to create multiple sequential events and blackout windows.

- If you set the test operator to a value that does not support the test objective, the results will be misleading. The workaround is to understand the test objective and to set the operator accordingly.
- You cannot stop custom tests that are running. If you click Stop on an evaluation that contains custom tests, those tests continue to run in the background.

Bug Search Tool

Note If you do not have a Cisco.com user name and password, you can register go to the Register page on cisco.com.

Step 1 Go to Cisco Bug Search page on cisco.com.

Step 2 Enter your registered cisco.com username and password, and then click Log In. The Bug Search page appears.

Step 3 Search for bugs using any of these options, and then press Enter (Return) to initiate the search.

- To search for a specific bug, enter the bug ID in the Search For field.
- To search for bugs based on specific criteria, enter search criteria in the Search For field, such as a problem description, a feature, or a product name.
- To search for bugs based on products, enter or select the product from the Product list. For instance, if you enter “WAE,” you would have several WAE options from which to choose.
- To search for bugs based on releases, in the Releases list select whether to search for bugs affecting a specific release, bugs that were fixed in a specific release, or both. Then enter one or more release numbers.

Step 4 When the search results are displayed, you can further narrow the returned list using the filter tools, such as searching for status or severity. You can also use the Sort by list to prioritize the returned results, or click the Export Results to Excel button to export the results to a spreadsheet.

Related Information

Topic	Resource	URL
Cisco bug search tool	Cisco Bug Search page	http://tools.cisco.com/bugsearch
Cisco registration	Register page	http://tools.cisco.com/RPF/register/register.do
Cisco download portal	Download Software portal	https://software.cisco.com/download/navigator.html?mdfid=284852545
Accessibility	Contact accessibility@cisco.com	
Open source software used in WAE	Licensing Information page	http://www.cisco.com/c/en/us/support/routers/quantum-wan-automation-visibility-engine/products-licensing-information-listing.html
WAE documentation for all products	WAE Documentation page	http://www.cisco.com/c/en/us/support/routers/quantum-wan-automation-visibility-engine/tsd-products-support-series-home.html
WAE release notes for all products	Cisco WAE Release Notes page	http://www.cisco.com/c/en/us/support/routers/quantum-wan-automation-visibility-engine/products-release-notes-list.html
WAE product information	Cisco WAN Automation Engine page	http://www.cisco.com/go/wae