Cisco WAE 6.2 System Administration Guide

July 2015

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CONTENTS

Overview

This guide describes both the System UI and the Statistics UI, as well as other system-related tasks.

- Statistics UI—Enables you to monitor processes (services), logged events, and diagnostics **for either a single-system deployment or for a distributed (high-availability) one using multiple servers.** For information, see the chapter.

  - Services—Describes the services, as well as how to start and stop them.

  - WAE Statistics—Describes the Process Status, Event Logs, and Platform Diagnostics UIs and how to use them.

- System UI—Enables you to manage configurations that apply to accessing and using the web UI. **These configurations (and thus, the corresponding documentation) are only for the local server.**

  - Licenses—Describes how to install local licenses, and view relevant information, such as their licensed features and expiration dates.

  - User Management—Describes how to add, edit, activate/de-activate, and delete users and their roles from the local user database.

  - LDAP Server—Describes how to configure access to the LDAP server for user authentication, and configure mappings between LDAP groups and local system roles.

  - SMTP Server—Describes how to configure access to the local SMTP server used for emailing WAE Live reports.

  - Local Server Status—Describes the status information about the local device: system load, memory, and disk space.

- Troubleshooting—Offers a few tips on troubleshooting WAE products.

Bookmarks

Add Bookmarks

You can set bookmarks for any page in the UI.

Step 1   Go to the page you want to bookmark.

Step 2   Click the bookmark icon.

Step 3   Click "Bookmark This Page."

Manage Bookmarks

Step 1   Click the bookmark icon.

Step 2   Click "Bookmark Manager."

- To edit a bookmark, hover over the bookmark name and click it, or click the Edit (pencil) icon. Change the Caption or URL as needed, and click Update.

- To delete a bookmark, click the associated Delete icon and then click OK to confirm.

Step 3   Click Save.

Add System-Wide Bookmarks

If you have an admin role, you can set bookmarks for all users of the local server.

Step 1   Go to the page you want to bookmark.

Step 2   Click the bookmark icon.

Step 3   Click "Bookmark This Page."

Step 4   Select "System bookmark" and click Save.

Related Topics

- *WAE Server Installation Guide*
- *WAE Platform Configuration Guide*
- *WAE Live Configuration Guide*
- *WAE Design Archive User and Administration Guide*
- *WAE Network Visualization Guide*

Licenses

Access: System->Licenses

All web-based products use a dedicated license, and each license grants specific usage rights for software features.

This page gives immediate information on which licenses are installed, including the expiration date and the number of nodes for which it is valid. This page also lists the Cisco license version number, which is not the same as the product's release number.

- To view a list of the details about a license, click the Features button.
- To install a new license, click the Upload License button.

The lower left identifies on which host the license is installed, and where the license is located.

This chapter is specific to the web UI Licenses page. For more comprehensive information on license installation, see the *WAE Server Installation Guide.*

Note The license installation and information accessed from this UI apply only to the local server.

Upload Licenses

Step 1 Select System->Licenses.

Step 2 Click Upload Licenses.

Step 3 Click Select Licenses.

    a. Browse to the location or enter the name of the license file (.lic extension), and click Open.

    b. If there is already a license installed, the default is to replace the existing license. To merge the two licenses instead, select the merge option. If you are uncertain whether you have a complete set of desired features in the new license, we recommend that you merge the licenses.

    c. Click Upload License.

Step 4 Verify the license installed correctly by locating it on the System->Licenses page.

Related Topics

- User Management

- LDAP Server

User Management

Access: System->Users

This page enables you to manage users in a local database. You can add, edit, delete users and their passwords, as well as activate and de-activate them. Users are assigned roles, which sets their permissions for using the web applications, WAE Collector UI, System UI, and Statistics UI. These roles cannot be set on a per product basis.

When the system verifies a user, it first checks this local database. If it cannot find the user, it checks the LDAP Server database.

Note These configurations apply only to the local server.

User and Admin Roles

Each user can be assigned one or more roles: administrator or user.

- Administrator—Can see and use all of the products and applications. With this role, you have these permissions.

    – Add and delete other users, edit their information (including password), temporarily enable or disable them, and assign them roles.

    – Upload templates to remote servers through the WAE Design GUI.

    – Configure the WAE Collector UI and augmented snapshots.

    – Configure application settings.

    – Configure licenses from the web UI.

    – Configure the SMTP and LDAP servers.

    – Enable/disable monitoring of services, as well as to start and stop services from the Statistics UI.

- User—Can use all of the application tasks that are available outside of the above scope.

Default Roles and Passwords

There are two default login and password combinations, one for each role.

Note   To increase security, we recommend that you immediately change both of these default passwords. See the User Fields section.

Default Username	Default Password	Default Role
admin	cariden	Administrator
user	cariden	User

User Fields

Required Fields

- Add User—Add new users and passwords, assign roles, activate and de-activate user access, and edit any of this information. Users cannot access the UI unless they are administratively added. The exception is they can use the default user login and password if those are available.

- Username—Login name for all the web UIs. Once the username is saved, neither the administrator, nor the user can change it.

- Password—When adding users, you must enter a password for them. Note that users can change their passwords once they log into the UI. Once a password is added, it remains in effect until changed even though it is not visible on the page.

- Roles—This option determines whether users can perform administrative functions. For more information, see the User and Admin Roles section.

- Active—Turn UI access on and off for existing users. This is a convenient way to temporarily disable users, for example, if they have to be away for an extended period.

Optional Fields

- Edit (pencil icon)—Edit all user information, and activate or de-activate user access.

- Delete (trash can icon)—Permanently delete users from accessing the UI. The exception is they can use the default user login and password if those are available. There is no undo.

- Description—Summary explanation to give more information about this user.

- First Name—First name of the user.

- Last Name—Last name of the user.

- Advanced Config—This is for advanced configuration editing only. Consult your support representative for assistance.

Related Topics

- LDAP Server
- Licenses

LDAP Server

Access: System->LDAP Server

This page enables you to configure access to an LDAP server. Additionally, use this page to configure mappings between LDAP groups and system roles that are defined in the User Management page. The benefit to using the LDAP server for authentication is that you can centrally assign roles to large groups, rather than having to set them individually for users.

When the system attempts to verify a user, it first checks the local database that is configured through the User Management page. If it cannot find the user, it checks the LDAP server database to find any groups containing that user.

For the LDAP server to be used, the following prerequisites must be met.

- The LDAP server must be configured to work with this system, including having groups and specified users within them, lookup keys, and the client (this system) credentials (username and password).
- The LDAP server must be configured from this page. It must also be enabled, and there must be at least one group in the Groups to Roles Mapping table that matches a group in the LDAP server database.

Note These configurations apply only to the local server.

Note Contact your LDAP administrator for the information required to complete this page.

LDAP Server Fields

Using the LDAP server is not mandatory. The following sections identify required and optional fields based on the assumption are you are configuring the LDP server to use it.

Required Fields

- Server—LDAP server IP address or FQDN, which is the server's hostname with the DNS domain name appended to the end.

  FQDN format: <LDAP_hostname>.<domain>.com
- Protocol—Protocol used to reach the LDAP server.

- LDAP—Transmits communication in clear text.

- LDAPS—Transmits communication that is encrypted and secure.

- Port—Port used to reach the LDAP server.

- LDAP Client Username—Client username for logging into the LDAP server. This system is the client.

- Password—Client password for the LDAP client username.

- Search Base—Comma-separated list of lookup keys that the LDAP server uses to locate and validate users in the LDAP database.

- Groups to Roles Mapping—Add, edit, and delete groups, and map roles to those groups. These groups must exist on the LDAP server.

Optional Fields

- Enabled—Select or deselect to enable or disable use of the LDAP server for user authentication. This must be selected to use the LDAP server for authentication.

- Accept Any SSL Certificates—Applicable only if LDAPS is selected as the protocol. Use this option if you do not expect the LDAP server to have a valid SSL certificate for establishing encrypted communication with this system. If this option is not selected, the communication cannot be established unless the certificate used by the LDAP server to establish communication is valid.

- Edit (pencil icon)—Edit group information or roles.

- Delete (trash can icon)—Permanently delete groups from accessing the UI. There is no undo.

- Advanced Config—This is for advanced configuration editing only. Consult your support representative for assistance.

Related Topics

- User Management

- Licenses

Services

Service Types

	Service	Description
Automation Services		
	`wae-appenginecore`	Service API that manages and routes requests to load the network model to the appropriate `wae-designapiserver`.
	`wae-core`	Service that enables the WAE Core server to use WAE Core REST and Thrift APIs.
	`wae-db`	Service for the WAE Core database server.
	`wae-designapiserver`	Service that enables `wae-appenginecore` to use the Design APIs. This wraps the Design APIs and controls Design API instances.
	`wae-messaging`	WAE messaging service that uses JMS (Java Message Service).
	`wae-osc`	Service that enables the OSC (Open SDN Controller) server.
WAE Services		
	All of the above Automation services, plus the following.	
	`wae-mld`	Service that enables the WAE Live datastore server.
	`wae-ni`	Service that enables the northbound WAE Network Interface (NI) APIs. WAE NI is used for continuous polling and for continuous PCEP LSP collection.
	`wae-web-server`	Service that enables the web server used by the Collector server, all web applications, web System UI, and web Statistics UI.

	Service	Description
System Services		
	`wae-svcs-dashui`	Service that controls the UI dashboard used for displaying logs and diagnostics in the Statistics UI.
	`wae-svcs-db`	Service that enables the datastore that stores statistic information.
	`wae-svcs-logagent`	Service that forwards log entries from client applications to `wae-svcs-db`.
	`wae-svcs-metricsbkr`	Service that receives the collected diagnostic entries from client applications to `wae-svcs-db`.
	`wae-svcs-metricsd`	Service that collects diagnostic entries from client applications.
	`wae-svcs-mon`	Service that monitors all services and automatically restarts them in the event of ungraceful terminations (such as with a `kill` command).
	`wae-svcs-ui`	Service used to enable the Statistics UI.

Start and Stop Services

To determine which services are running, enter the following.

```
service --status-all | grep -i wae
```

The installation process automatically starts the `wae-web-server`, `wae-ni`, and all System services (`wae-svcs-*`).

Note   To change the behavior of the `wae-web-server` service upon it restarting it, you can edit the `/opt/cariden/etc/sysconfig/wae-web-server.cfg` file. For information, see the *WAE Server Installation Guide*.

You can start, restart, and obtain the status of all Automation and WAE services using the following formats, respectively.

```
service <service_name> start
```

```
service <service_name> restart
```

```
service <service_name> status
```

You can start, stop, and restart Automation and WAE services from the Statistics->Processes page, as well as enable or disable the monitoring of them. The one exception is `wae-web-server`, which can only be stopped or restarted from the CLI. For information, see the WAE Statistics chapter.

You cannot shut down a System service since these are required for the Statistics UI to properly function.

Note   The WAE Live datastore should not be installed, upgraded, or started while other services are running, including the `wae-web-server` service. You must restart the wae-web-server service after installing or upgrading mld.

Monitor Services

The `wae-svcs-mon` service automatically monitors all `wae-svcs*`, `wae-ni`, and `wae-web-server` upon installation completing. It also monitors the Automation services once they are started. If the system is rebooted or if you "ungracefully" stop a process, such as with a `kill` command, `wae-svcs-mon` automatically restarts the service. Therefore, the only way to shut down a service is as follows.

```
service <service_name> stop
```

Note   The `wae-mld` service is not monitored.

Service Location

The scripts for starting and stopping Automation and WAE services are located in `/etc/init.d` and `/usr/local/bin`. Whether these scripts are executed on startup is handled by symbolic links created in `/etc/rc#.d` directories, where # is a number 0 through 6.

You can use `chkconfig` to disable, enable, and view startup settings. Note that you must have root permission to execute `chkconfig` commands.

For more information on `service` and `chkconfig` utilities, use their `man` pages.

```
man service
```

```
man chkconfig
```

The System services are located in `/etc/init.d`.

Ports

The ports that servers are listening to are listed in the *System Requirements* document posted on cisco.com. Following is an example of how to verify that the WAE Core service started and is listening to the correct port, which by default is 7777.

```
netstat -anp | grep 7777
```

Related Topics

- WAE Statistics

WAE Statistics

Access: Web home page, click WAE Statistics

The Statistics pages enable you to monitor and troubleshoot all services and servers used **in either a single-system or distributed (high-availability) deployment**.

The following terms are used on these UI pages and in this documentation.

- Service—An instance of a program that is being executed. Depending on the process, it may have multiple threads of concurrent execution.

  Note that the terms *service*, *process*, and *function* are used interchangeably. For example, the Processes page lists services. The Platform Diagnostics page, Functions tab shows services per component.

- Component—A server or host that is running services. It can be either a device or a virtual machine. A component can reside as a stand-alone system or it can be one of the servers in a distributed (high-availability) environment.

  Note that the terms *component*, *server*, and *host* are used interchangeably.

Note If you do not see the Statistics UI, make sure the System services are running. If they are not, turn on the System services through the CLI. For information, see the Services chapter.

This chapter covers the following topics.

- Process Status
- Event Logs
- Platform Diagnostics
- Using the Events and Diagnostic UIs

Process Status

Access: WAE Statistics->Processes

The Process Status page shows the status of all processes (services) except `wae-mld`. The column headings list components (hosts). The rows are the services. For each service that is running on a component, an icon appears on that row under its host's column. The icon color indicates the status of the service on the host.

- Green—The service is operational and running.

- Red—The service is not reachable.

- Gray—Service is either initializing or is not being monitored.

If a service is not available for a host, a dash appears in the cell for that host.

Click on the circular icon for more information, such as the uptime, the memory the service is using, and the percentage of memory and CPUs the service is consuming on that host.

There are two types of processes monitored: WAE services and System services.

- WAE services—These services operate WAE. Monitoring these services enables you to determine if the products are properly communicating. For instance, if `wae-ni` displays red, then you know the WAE Network Interface (NI) server might have stopped running. You could also determine network issues, such as if a port were blocked by a firewall or if a WAE server could not communicate with the network.

- System services—These services enable you to gather and view the statistics. Checking these services is a good way to stay informed of whether you are properly gathering the data needed to monitor and troubleshoot WAE.

The status is updated every 15 seconds, but if needed, you can refresh status using the top, right Refresh icon.

Manage the Service

If you have an admin role, you can start, stop, and restart the WAE services. You can also enable and disable the monitoring of WAE services. To perform one of these actions, click the circular icon within a cell, and then make your selection.

The exception to the above is the `wae-web-server`. If it were not running, no WAE web UI would be available, which is why you cannot change its running or monitoring state from this page. You can, however, start, stop, and restart it through the CLI. Note that in this one instance, the `wae-web-server` is listed in the System Services for this reason.

Since the System services must be running to use the Statistics pages, you cannot stop or disable them.

For information, see the Services chapter.

Event Logs

Access: WAE Statistics->Events

Log Events Detail

The Log Events Detail section shows detailed log information for each service except `wae-mld` and thus, can be used for troubleshooting the system or simply better understanding it. You could use this information for investigating a wide range of issues. For example, you could find logs that identify why a collection failed or find warnings applicable to PCEP LSP deployments.

The most recent 100 logs appear, and log data is kept up to 30 days.

All columns are sortable.

- Time—Time the message was logged.

- ServiceType—Service on which the message is logged. For information on services, see the Services chapter.

- ClientId—IP address of the host (component) running the service.

- LogLevel—Type of Log4j log message from Failure to Trace. Each row is color-coded to show its log level. For example, Debug is light green and Info is light blue.

- Logger—Method within the service that generated the message.

- Thread—Process thread that generated the message.

- Bundle—Karaf software component (not the same as a WAE component).

- Message—Log message.

You can search for any word in the Log Events Detail section. This search feature uses the query string syntax produced by Elasticsearch. For information on these capabilities, see the Query String Syntax information in the Elasticsearch documentation.

https://www.elastic.co/guide/en/elasticsearch/reference/current/query-dsl-query-string-query.html#query-string-syntax

Event Log Graphs

Graph	Description
Log Events Source	Shows the percentage of total logs by service. Each color represents a different service. This enables you to see which of the services is returning the most log messages.
Log Level Counts	Shows the number (count) of messages for the most frequently appearing message type. This enables you to compare the number of log levels that are appearing most frequently.
Log Events Timeline	Shows how events are coming in over time in a stacked graph manner. Each color represents a different log level. A sudden spike in the more serious logs, such as errors, would be indicative of problems that need attention.

Platform Diagnostics

Access: WAE Statistics->Diagnostics

The Platform Diagnostics page is particularly useful for analyzing trends over time and for being alerted to sudden changes in those trends, which could indicate either problems with one of the servers or a problem in the network. Diagnostics data is kept up to 7 days.

The default view is Summary of Components in distributed deployments or Components in single-system deployments.

- Summary of Components and Components—Summary of Components shows trends of diagnostics for all components. The Components tab show trends for the component in a single-system deployment, or for a selected component in a distributed deployment.

These trends enable you to clearly see changes and potentially correlate these changes with events. If a component is sluggish or not performing as expected based on the past, you would see this as a trend change. For example, if a CPU is running generally at 25% usage and suddenly jumps to 90%, that spike would appear in the graph, and you could then check the Event Logs for errors or warnings that indicate why the CPU percentage drastically increased. If the memory usage trend changed from 5 GB to 25 GB, this change would appear in the graph, and you could check the network to see if a problem had occurred to cause such an increase.

Component diagnostics include CPU percentage usage, memory usage, network usage, and free disk space. For distributed deployments, this is also selectable as "Summary of all Components" from the top, right selection menu. The following options are also available in the top left (Figure 6-1).

- Functions—Shows diagnostics per service running on the selected component. Diagnostics include heap size, thread count, and CPU percentage used. This option is useful when you need more information than available in the Components view.

- Automation—Shows diagnostics per Automation service running on the selected component. This option appears only if the host is running all Automation services.

Note that whether the page displays services and whether the page displays information for a distributed deployment differs depending on the option selected.

Option	Shows Single-System Deployment?	Shows Distributed Deployment?
Summary of Components	NA (does not appear as an option)	Yes, all components
Component	Yes	Yes, selected component
Functions	Yes, `wae-ni` and `wae-web-server`	Yes, `wae-ni`, `wae-web-server` and Automation services
Automation	Yes, only Automation services	No

Note   The `wae-mld` service is not available from the Platform Diagnostics page.

Figure 6-1   Platform Diagnostics Selections
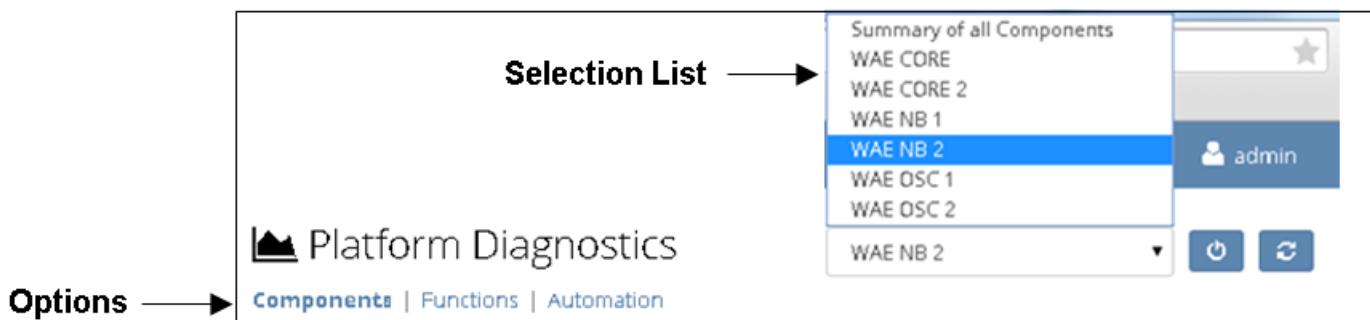
Using the Events and Diagnostic UIs

Time Filters and Refresh Intervals

The time filter and refresh interval in the top right are toggles for showing and hiding the selections to change them (Figure 6-2). The two act in conjunction with each other. The time filter is the amount of time for which the events or diagnostics are displayed. The refresh interval is how often the data is refreshed. For example, on the Platform Diagnostics page, if the time filter is the last 30 minutes and the refresh interval is 5 minutes, this means that every 5 minutes the diagnostics are updated to show the last 30 minutes from that point in time.

The default time filter is 60 minutes, and by default, the information on the pages is not automatically refreshed.

Figure 6-2   Event and Diagnostic Time Features
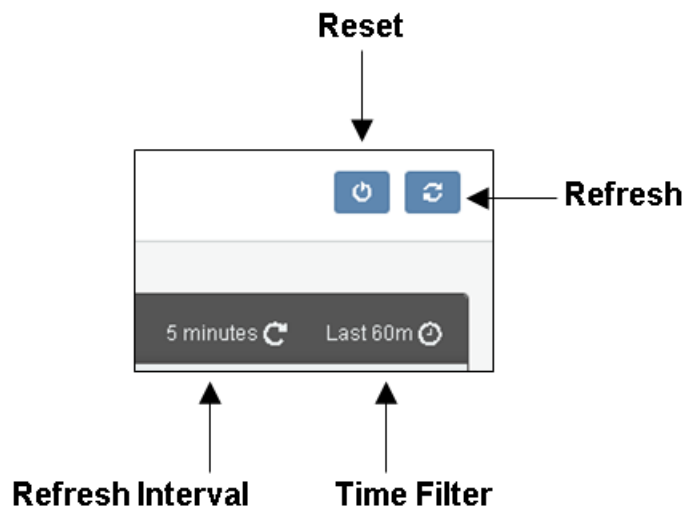
Change Time Filter

To change the time filter, click it. A set of choices appear. Once you set the time filter, click Go.

- Quick—Enables you to select from a set of preset time filters, ranging from the last 15 minutes up to the last 5 years.

- Relative—Enables you to specify a time that is relative to the current time. For instance, you could set it to show the data for 2 hours ago. The time extends down to the milliseconds. To round this number, select "round to the <increment>" button, where increment changes, depending on your selection.

- Absolute—Enables you to a specific date range. Selecting a future time is not applicable.

Change Refresh Interval

To change the time interval, click the time filter or the refresh interval, select Refresh Interval, and then make your selection. You can also turn off the viewing of this interval.

✎
Note If you leave the page, the refresh setting reverts to the default of not refreshing (off).

UI Tips

- Click the arrow to expand or close the legend that defines what each color represents.
- To highlight information represented by any color, move the cursor over it in the legend or in the graph.
- To reset the time filter, refresh interval, and graph positions to their defaults, click the Reset button.
- To move a graph, drag it to the desired location.
- To get more detail about a datapoint in the graph, hover over it.
- To expand or shrink a graph, click and drag the bottom, right corner.

Figure 6-3 shows an example of the CPU% Usage for the WAE Core 2 component. The expanded legend defines the trend lines for CPU cores 0 (blue) and 1 (green). Hovering over the lowest CPU utilization shows more details for it. Notice the icon in the bottom right for expanding and contracting the graph.

Figure 6-3   Example Expanded View with Legend and Tooltip
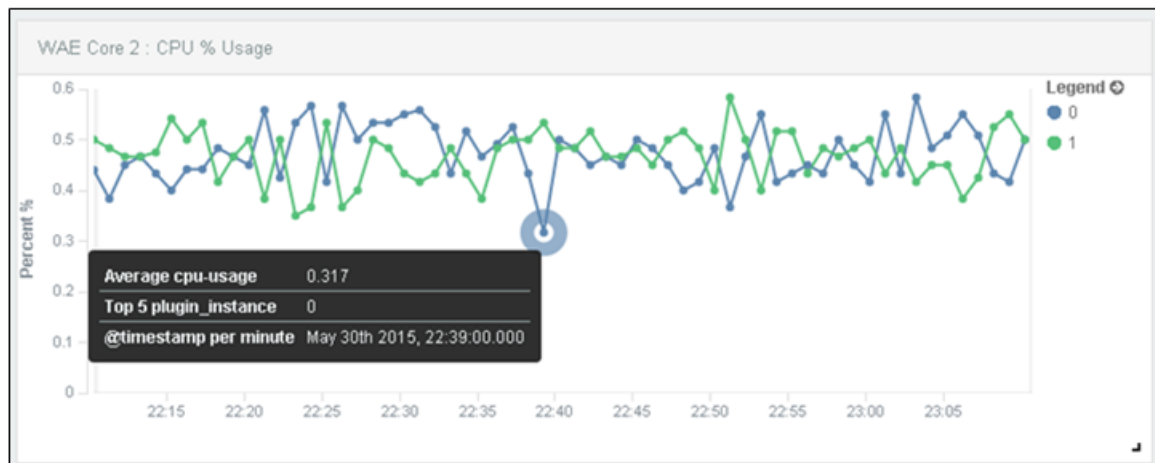
Local Server Status

Access: Web home page

Access: System->Local Server Status

The Local Server Status page shows the status of the system load, free memory, and free disk space for the local device.

Each section is a "parent" section that reflects the status of its worst-performing unit being measured.

- System status shows the worst system load average for 1-, 5-, and 15-minute intervals.
- Memory status shows the amount of memory that is available on the device.
- Disk status shows the lowest available disk space for any of its partition types.

If you are on the Local Server Status page or if you are on the home page, then this information is updated every two minutes. To refresh the status sooner, click the Refresh icon in the top right of the page.

Click anywhere in the parent section to see more details.

Note These configurations apply only to the local server. For information on monitoring services in a distributed environment, see the WAE Statistics chapter.

System

The System section shows the status of the average system load on the local device for three intervals: 1 minute, 5 minutes, and 15 minutes. If the system status of any one of these intervals is worse than the other, that is the status that shows in the parent system section.

Clicking on the parent section shows the individual status of each of these intervals, as well as their load, and the top five processes contributing to the system load.

Load

The Load column identifies the system load (for the given time interval) on the local device. The load is relative to the number of processor cores available. On a device with only one core, 1.0 means it is exactly at capacity (100% utilization), and any number over 1 means there are backup of processes waiting to run. This full-capacity number doubles to 2 on a dual-core system, to 4 on a quad-core, and this trend continues as the number of cores increases.

The number that is most likely indicative of your average load is the 5- or 15-minute interval, depending on how you are using the device. The closer the number moves to its full-capacity mark, the more likely it is you need to find a way to handle more processes.

Status

The load average is based on the load divided by the number of cores on the local device. For example, if the load is 1 and there are 4 cores, the system load average is 25%. Following are the percentages that affect the status.

Interval	Green	Yellow	Red
	x = Load Average		
1 minute	x < 250%	250% <=x< 300%	x >= 300%
5 minutes	x < 200%	200% <=x< 250%	x >= 250%
15 minutes	x < 100%	100% <=x< 200%	x >= 200%

Memory

The Memory section shows the status on total memory that is available for the local device.

Clicking on the Memory section provides total memory, free memory, and the status of the system-wide available memory. It also lists the amount of buffer and swap memory that is available.

Buffer memory is the portion of the hard drive's memory that is set aside as a temporary holding place for data that is to be sent to or received from an external device. Swap memory is the reserved amount of memory on the hard drive.

Following are the percentages that affect the status.

Green	Yellow	Red
x = Total Amount of Available Memory		
x > 25%	25% <=x< 10%	x <= 10%

Disk

The Disk section shows the status of disk space that is available for the local device. Each partition type is measured, and if any one of these partition types is worse than the other, that is the status that shows in the parent Disk section. For instance, if disk partition type ext4 in /net/akd1 is red (low disk space available) and the rest of the types are green (sufficient disk space available), the color showing in the parent Disk section is red.

Clicking on the parent section shows the individual status of each of these partition types, as well as their paths. For each type-path combination, the amount free space and total space are also listed.

Following are the percentages that affect the status.

Green	Yellow	Red
x = Total Amount of Available Disk Space		
x > 15%	15% <=x< 5%	x <= 5%

Related Topics

- WAE Statistics
- Troubleshooting

SMTP Server

Access: System->SMTP Server

This page enables you to configure the SMTP server used for emailing WAE Live reports. If the SMTP server is not configured, the email feature for scheduled WAE Live reports will not work.

Note These configurations apply only to the local server.

SMTP Fields

Using the SMTP server is not mandatory. If you do not wish to use it, set the Encryption field to None, and then no other fields are required. The following sections identify required and optional fields based on the assumption are you are configuring the SMTP server to use it.

Required Fields

- Server—SMTP server IP address or FQDN, which is the server's hostname with the DNS domain name appended to the end.

  FQDN format: <SMTP_hostname>.<domain>.com

- Username—Username of the SMTP server.

- Password—Authentication password for the SMTP server.

- From Address—The address from which the emailed report is sent. For example, this could be a support address so that recipients could respond for assistance.

- Encryption—The type of encryption to use when mailing WAE Live reports.

  - SSL—Encrypt the communication between the SMTP server and the device to which the emailed report is going.

  - STARTTLS—Convert an insecure connection to use either TLS or SSL.

  - None—Do not use encryption. This is not recommended since the SMTP server is emailing reports containing your network data.

- Port—Port that the SMTP server uses when sending emails.

Optional Fields

- Advanced Config—This is for advanced configuration editing only. Consult your support representative for assistance.

Related Topics

- *WAE Live Configuration Guide*
- *WAE Live User Guide*

CHAPTER **9**

Troubleshooting

To ease troubleshooting of the WAE Live application, Collector server, WAE Network Interface (NI) server, and WAE Core server, use the `mate_tech_support` CLI tool. This tool creates a tar file of support information and puts it into the `/tmp/MATE_TS` directory by default. If needed, you can then send this .tgz file to your support representative. To change the directory in which the results are stored, use the `-tar-path` option.

Example: This creates a tar file of support information and puts the output into the `/troubleshooting` directory.

```
mate_tech_support -tar-path /troubleshooting
```

Following are a few more areas to look for available troubleshooting information.

- To monitor diagnostics, view logs, and monitor processes for either a single-system deployment or a distributed deployment, use the WAE Statistics UI.
- To monitor only the local server, use the Local Server Status tool on the home page and available through the System UI.
- From the WAE Collector UI, there are numerous tools available for troubleshooting the collection process, including a Node List table that identifies the status of every node in the collection, Status and Log pages for viewing errors and warnings for the local Collector server, and a Download Diagnostics tool for creating a file containing the state of the local Collector server during the last collection.
- From the WAE Live UI, Settings->General Settings page, you can view the status of the most recently collected data that WAE Live received.

Related Topics

- WAE Statistics
- Local Server Status
- *WAE Platform Configuration Guide*
- *WAE Live Configuration Guide*