



## **Cisco WAE Live 7.1.2 Administration Guide**

**First Published:** 2016-07-08

**Last Modified:** 2018-10-30

### **Americas Headquarters**

Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
<http://www.cisco.com>  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 527-0883

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

All printed copies and duplicate soft copies of this document are considered uncontrolled. See the current online version for the latest version.

Cisco has more than 200 offices worldwide. Addresses and phone numbers are listed on the Cisco website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).

The documentation set for this product strives to use bias-free language. For purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. Exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on standards documentation, or language that is used by a referenced third-party product.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: <https://www.cisco.com/c/en/us/about/legal/trademarks.html>. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1721R)

© 2016–2018 Cisco Systems, Inc. All rights reserved.



# CHAPTER 1

## Overview

---

This guide is for administrators who configure and manage the WAE Live application. WAE Live is a web-based application that provides visibility into the network infrastructure, state, and traffic utilization captured by WAE Server. It includes the following components:

- Explore—Lets you view interfaces, interface queues, nodes, LSPs, demands, and reports.
- Inventory—Displays your current network hardware in various formats.
- Analytics—Lets you run reports and analyze data.
- Map—Displays your network weathermap.

WAE Live depends on data collected by the WAE server and other collection mechanisms to store network data in data stores for processing and displaying in the web UI.

To configure WAE Live, it is assumed that you already have:

- An admin role—You know that you have admin privileges when you see the admin icon in the upper-right corner of the WAE platform Home page after logging in.
- Installed the Cisco WAE Live server, including the mld data store. For more information on installing the WAE Live mld data store, see the Cisco WAE Installation Guide.
- Collected WAE Live data from plan files, SNMP, or other collection methods, such as a snapshot.
- The appropriate license.

This guide assumes that you are familiar with the CLI commands to configure the WAE Live server and to troubleshoot operations on your WAE server installation.



---

**Note** \$CARIDEN\_ROOT is the directory in which the software is installed. On Linux, the default \$CARIDEN\_ROOT is /opt/cariden. \$CARIDEN\_HOME is the directory in which the WAE Live executables and binaries are installed. On Linux, the default is /opt/cariden/software/live/current.

---

This section contains the following topics:

- [About Network Data, on page 2](#)
- [About Advanced Configuration Settings, on page 2](#)
- [Troubleshooting, on page 2](#)

- [Next Steps, on page 2](#)

## About Network Data

WAE Live collects data from a specific network on WAE Server, which can include the creation and addition of a simulated demand traffic matrix. The data is stored in *plan files*. WAE Live uses two internal mechanisms, a time-series optimized data store and an internal Map archive, to store this data and make it available for use in the application. The Map component accesses the Map archive and shows the visualization of these plan files in a weathermap layout. The Explore and Analytics components access the data store.

If a newly discovered node cannot be assigned to an existing site, WAE Live creates an ExtraNodes site and places the unassigned node there.

## About Advanced Configuration Settings

Access: WAE Live > Settings > General tab

The General tab includes an advanced configuration (Advanced Config) link. Clicking this link displays data configuration details (config.xml) for your WAE Live Server. While you can edit this file, be advised that any changes you make could adversely impact your WAE Live setup. We recommend that you consult with your support representative for assistance before changing any properties or parameters in this file.

## Troubleshooting

Relevant log files are located in \$SCARIDEN\_ROOT/logs/wae-live and \$SCARIDEN\_ROOT/logs/wae-web-server.

- Data collection is the process of getting the plan files from WAE Server. WAE Live then inserts this data to internal locations for use in the WAE Live application. If the data insertion process is halted, a message appears at the top of each page alerting you to this issue. To verify the issue, click the **Check Status** button on this page. To troubleshoot the source of the issue, use the `ml_insert_ctl` tool. For information, see `ml_insert_ctl -help`. If this does not reveal the issue, troubleshoot the actual collection process of WAE Server.
- If you need to contact a support representative, use the `mate_tech_support` tool to create a tar file of support information. The output is stored in the `/tmp/MATE_TS` directory by default. 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 stores the output in the `/troubleshooting` directory.

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

## Next Steps

The next sections describe how to use the web UI to set up and configure WAE Live:

- [Multi-Network Management, on page 5](#)—Describes how to add, edit, and delete networks, as well as how to set their status to active or offline.

- Settings pages
  - [Data Source Settings, on page 9](#)—Describes how to configure WAE Live to get plan files from 7.1 Remote Archive.
  - [Explore and Analytics Settings, on page 13](#)—Describes how to specify default interface types and how to create user-defined properties for use on Explore and Analytics pages.
  - [Map Settings, on page 19](#)—Describes how to configure the Map page, including its panels.





## CHAPTER 2

# Multi-Network Management

---

Access: WAE Live > Network icon (default) > Network Manager

WAE Live supports multiple networks. If only one network exists, the Network menu shows “default” as the name of the default network. If there are multiple networks, the name of the network that is in use shows.

To configure collections for a specific network, you must first create the network. After creating the network, WAE Live automatically creates a map archive. These map archives are stored in `$CARIDEN_ROOT/data/mldata/archives` as `<network_name> -archive`.

After you create a network, all users have access to its data through the Explore, Analytics, and Map components.

You must have an admin role to create and manage networks.

This section contains the following topics:

- [Adding a Local Network, on page 5](#)
- [Adding a Remote Network Link, on page 6](#)
- [Setting Networks to Active/Offline, on page 6](#)
- [Viewing/Editing Networks, on page 7](#)
- [Deleting Networks, on page 7](#)

## Adding a Local Network

If you have not already run collections for a network, any newly added networks have no data to display. For information on running collections, see the Cisco WAE User Guide.

When you add a network, it is assumed that you want to add local network, which is your current WAE server.

### Procedure

---

**Step 1** Click the default Network icon at the top of the WAE Live Settings page. Initially, this says “default”; choose the Network Manager.

On a fresh installation with no networks added, there are empty sections for Active Networks, Inactive Networks, and Remote Network Links. If you already added networks, this page displays all active, inactive, and network links.

**Step 2** In the upper-right corner of the Network Manager page, click **Add**.

By default, the Add Network dialog box automatically selects the Local Network option.

- Step 3** Enter a unique network name to identify the network from which you are collecting, such as testnetwork1.
- Step 4** (Optional) Enter a description of the network or other useful notes about the network.
- Step 5** Set the status, and then click **Save**.

After successfully creating a network, the network name becomes available from the default network drop-down list and appears on the Network Manager page.

---

## Adding a Remote Network Link

The network can reside on a separate WAE Live server. A remote network link lets you access another WAE Live server without having to remember its name.

### Procedure

---

- Step 1** Click the default Network icon at the top of the WAE Live Settings page. Initially, this says “default”; choose the Network Manager.
- Step 2** Click **Add**.
- Step 3** Click the **Remote Network Link** radio button.
- Step 4** Enter a hostname.
- Step 5** Enter a network name.

After adding the remote network link, it appears under the Remote Network Links section on the Network Manager page.

---

## Setting Networks to Active/Offline

For local networks only, you can set their state to either Active or Offline.

- **Active**—Data can be collected for this network, and the network is visible to all users.
- **Offline**—Data cannot be collected for this network, and the network is not visible to users.

If you configure collection for an active network, set it to offline, and then later change it back to active, the collection restarts automatically.

## Viewing/Editing Networks

### Procedure

---

- Step 1** From the upper-left network link, choose **Network Manager** from the list of available networks. A list of active and non-active networks appears.
  - Step 2** Click the network name that you want to edit.
  - Step 3** Enter your changes, and click **Update**.
- 

## Deleting Networks

If you delete a network and then add it back at a later time, you must reconfigure its collection.

### Procedure

---

- Step 1** From the upper-left network link, choose **Network Manager** from the list of available networks. A list of active and non-active networks appears.
  - Step 2** Click the network name that you want to delete.
  - Step 3** Click **Delete**, and then click **OK** to confirm the deletion.
-





## CHAPTER 3

# Data Source Settings

---

Access: WAE Live > Settings > Data Source tab

The Data Source tab enables you to configure how often to collect network data, to specify the network source for the data, and to check the status of the latest data collected.

This section contains the following topics:

- [Multi-Network Collection, on page 9](#)
- [About Data Collection, on page 9](#)
- [Data Collection Sources, on page 10](#)

## Multi-Network Collection

All WAE Live settings and application data, including the Data Source tab, apply on a per-network basis. Before configuring or making changes to any of these pages, choose the appropriate network from the Network list (top left toolbar).

Multi-network collection is only supported in the following cases:

- The Collection Source is the external archive wherein a snapshot was configured to use `archive_insert` to insert data into that external archive.
- The Collection Source is None wherein a snapshot was configured to use `ml_insert_plan` to insert data into the data store and to use `archive_insert` to insert plan files into the Map archive. For information on configuring multiple networks, see [Multi-Network Management, on page 5](#).

## About Data Collection

Data collection is the process of getting plan files; WAE Live then inserts this data to internal locations for use in the WAE Live application.

The WAE Live > Settings > Data Source tab identifies the source and status of data collection.

By default, WAE Live checks for a plan file every 30 seconds. The `Insertplan.Source.Pollfrequency` property in the Advanced Config feature sets this default. If none is defined, the default applies.

# Data Collection Sources

Data is collected from WAE 7.1 Remote Archive and the plan is used in WAE Live.

## Collecting Data

### Procedure

---

- Step 1** At the top of the WAE Live Settings page, click the default Network icon. Initially, this says “default”; choose the Network Manager.
  - Step 2** Navigate to **WAE Live > Settings > Data Source**.
  - Step 3** For the collection source, click the **7.1 Remote Archive** radio button.
  - Step 4** In the **Remote WAE Network**, enter the name of the network on WAE Server.
  - Step 5** Enter the hostname.
  - Step 6** Enter the port details.
  - Step 7** Enter a username. This is the administrative username for the server.
  - Step 8** Enter a password. This is the password for the administrative user.
  - Step 9** Click **Save**.
- 

## Checking the Data Collection Status

### Procedure

---

- Step 1** Navigate to **WAE Live > Settings > Data Source**.
  - Step 2** At the top of the Data Source tab, click **Check Status**.  
The Data Collection Status dialog box shows the last collected filename, the time the plan file was collected, and any source archives for the plan files.
- 

## Disabling Data Collection

### Procedure

---

- Step 1** Navigate to **WAE Live > Settings > Data Source**.
- Step 2** At the bottom of the Data Source tab, click **None** and then **Save**.

This disables data collection and stops the scheduler for the current WAE Live network.

---

## Related Configurations

### Inventory

This page must be configured to collect the plan files containing topology and statistics for the same network used in the inventory collection process. Inventory collection for use in WAE Live must be configured in WAE Server.

Data is visible on WAE Live when 7.1 Remote Archive which is the remote WAE network specified in the [Collecting Data, on page 10](#) section has the inventory data collected.

### Map Archive and Templates

A unique map archive name is automatically created and configured for a network when it is added. These map archives are stored in \$CARIDEN\_ROOT/data/mldata/archives as <network\_name>-archive. For more information, see [Map Settings, on page 19](#).





## CHAPTER 4

# Explore and Analytics Settings

Access: WAE Live > Settings > Explore and Analytics tab

WAE Live supports multiple interface types that you can view on the Explore page and are used when creating reports from the Analytics pages. The Settings > Explore and Analytics tab lets you specify the default interface type used. You can override the default for the Explore pages, but not for the Analytics pages.

WAE Live acts on objects (network elements) that are discovered or created prior to WAE Live accessing the plan file. For example, interfaces might be discovered by WAE while demands thereafter can be added to the plan file. Each object has a set of default properties (attributes) that are tracked in and retrieved from the data store. For example, an LSP's Shortest TE Path, a node's CPU, or an interface's Traffic In are all properties that are collected and stored by default. In addition to these default objects, from the Settings > Explore and Analytics tab you can create user-defined properties to fit your specific needs.



**Note** These settings are configured for all networks; that is, they are not configurable on a per-network basis.

This section contains the following topics:

- [Default Interface Types Displayed, on page 13](#)
- [User-Defined Properties, on page 14](#)

## Default Interface Types Displayed

You can specify the default interface types to show in Explore and use in Analytics (reporting):

- Individual logical interface—An interface with an IP address that is not in a LAG. These names might have a decimal.  
Example: et-0/1/2.0, g2/0/0
- Individual physical interface—An interface that is not in a LAG and does not have an IP address. These interface names do not have a decimal.  
Example: so-0/2/2, g2/0/0
- LAG logical interface—An interface with an IP address that contains member interfaces.  
Examples: ae0.0, Bundle-Ether1, Port-Channel7

- LAG physical interface—The physical representation of an aggregated interface to which a LAG logical interface (such as ae0.0) is assigned.

Example: ae0 for Juniper interfaces

- LAG member interface—An interface that is in a LAG.

Example: g2/0/0

- Unknown—None of the preceding interface types.

## User-Defined Properties

You can define your own properties to use when creating reports. User-defined properties derive their values from other properties. For example, rather than tracking incoming traffic (Traffic In) and outgoing traffic (Traffic Out), you might need to track the ratio of incoming to outgoing traffic (Figure 1: Example of a User-Defined Property Definition Using Simple Arithmetic Expression, on page 14).



**Note** For two-word properties, use one word in the definition. For example, for the Remote Node property, use “remotenode.” For Traffic In and Traffic Out properties, use “traffin” and “traffout” in the definition.

Figure 1: Example of a User-Defined Property Definition Using Simple Arithmetic Expression

Node ▲	Name ▲	TraffOut ▼	TraffIn ▼	Traff Ratio ▼
<Filter>	<Filter>	<Filter>	<Filter>	<Filter>
MIL-BB1	ae2.0	1387.89	12817.79	9.24
BCN-BB1	ae0.0	1735.95	13477.29	7.76

As with default properties, these user-defined properties are available in the Explore and Analytics pages. Each user-defined property consists of an object, a user-specified name, and a user-created definition.

## Adding a User-Defined Property

### Procedure

- 
- |               |  |
|---------------|--|
| <b>Step 1</b> | Navigate to <b>WAE Live &gt; Settings &gt; Explore and Analytics</b> .   |
| <b>Step 2</b> | Click <b>Add Property</b> .  |
| <b>Step 3</b> | From the Add New Property dialog box, choose the object type to which the newly created property applies (interfaces, interface queues, nodes, and so on). |
| <b>Step 4</b> | Enter a property name. Once the property is saved, this name appears as a selectable property for the given object in Explore and Analytics pages.         |
| <b>Step 5</b> | Enter a definition value.  |
| <b>Step 6</b> | Click <b>Preview</b> to view the results that the object and definition return.  |
| <b>Step 7</b> | Click <b>Save</b> .  |
- 

## Acceptable Definition Field Values

The definition field accepts alphanumeric characters and regular expressions. Each definition is an expression using one or more default properties. The following rules apply:

- Properties used in the definition must be default properties; that is, you cannot use user-defined properties in defining other user-defined properties.
- Property names in the Definition field are not case-sensitive.
- A user-defined property can be an integer, a double (floating point number), string, or boolean.
- You can use any combination of the following in the definition. You can group any of these with parenthesis, which are executed in the order in which they appear.
  - Arithmetic expressions: +, -, \*, /, and % ([Figure 1: Example of a User-Defined Property Definition Using Simple Arithmetic Expression, on page 14](#))
  - Relational operators: >, <, =, <=, and >=
  - Logical operators: AND, OR, and NOT
  - [Regular Expression Functions, on page 15](#)
  - [CASE Statements, on page 16](#)
  - Edit (pencil icon)—Edit the user-defined property.
  - Delete (trash can icon)—Delete a user-defined property. There is no undo.

## Regular Expression Functions

In the Definition field for your user-defined property, you can use regular expressions to filter results using `regexp_extract` and `regexp` functions.

**regexp\_extract****regexp\_extract Syntax**

```
regexp_extract(formatted_result, identifier1, pattern1, identifier2, pattern2, ...)
```

This searches a string with a list of regular expressions to produce a formatted string result compiled from back references. Back references are the results of capturing groups from the regular expressions and referencing them in order by \$N, where N is a number that is greater than or equal to 1. This N identifies the captured string returned by a back reference in the order it appears in the matching pattern. At a minimum, only three arguments are needed for `regexp_extract`. You can use any number of pairs of attributes and expressions.

Example: In this example, both captured groups (\$1 and \$2) come from the regular expression for Description. The expression for Node does not have any capturing groups. It is used only as an additional filter. If any of the regular expressions fail to match, the overall `regexp_extract` fails to match.

```
"regexp_extract("$1 ($2)", Description, ";interconnect to ([^()]* \([^\)]*\))", Name, "^(?!.*lo)")"
```

**regexp\_extract****regexp\_extract Syntax**

```
regexp_extract(formatted_result, identifier1, pattern1, identifier2, pattern2, ...)
```

This searches a string with a list of regular expressions to produce a formatted string result compiled from back references. Back references are the results of capturing groups from the regular expressions and referencing them in order by \$N, where N is a number that is greater than or equal to 1. This N identifies the captured string returned by a back reference in the order it appears in the matching pattern. At a minimum, only three arguments are needed for `regexp_extract`. You can use any number of pairs of attributes and expressions.

Example: In this example, both captured groups (\$1 and \$2) come from the regular expression for Description. The expression for Node does not have any capturing groups. It is used only as an additional filter. If any of the regular expressions fail to match, the overall `regexp_extract` fails to match.

```
"regexp_extract("$1 ($2)", Description, ";interconnect to ([^()]* \([^\)]*\))", Name, "^(?!.*lo)")"
```

**CASE Statements**

The CASE statement allows conditional values based on a set of expressions. All result-expressions must be of the same type. That is, they can all be numeric or all be string, but they cannot be a mixture of both string and numeric.

**CASE Statement Syntax**

```
CASE WHEN <boolean-expression> THEN <result-expression>
```

```
[WHEN ...]
```

```
[ELSE <result-expression>]
```

```
END
```

Example: This example creates a user-defined property if a node name matches a remote node and if neither name is null.

```
case
```

```

when regexp_extract('$1', node, '(...).*\.(..)\..*') isnull then null
when regexp_extract('$1', remotenode, '(...).*\.(..)\..*') isnull then null
when regexp_extract('$1', node, '(...).*\.(..)\..*') = regexp_extract('$1', remotenode, '(...).*\.(..)\..*') then true
else false end

```

## Expression Syntax

Two syntaxes are used for the supported expressions: EBNF (Extended Backus–Naur Form) and a simpler query. You can use one or multiple words for isNull and isNotNull.

- “isNull” can be represented by “is null”
- “isNotNull” can be represented by “is not null”

## Simple Query

A simple query has the following syntax:

Simple Syntax
expression := value { +, -, *, /, %, IN, is [not] null, case } [ expression ]
when-expression := expression [ {AND, OR, NOT } when-expression ]
case := CASE WHEN when-expression THEN expression [ ELSE expression ] END
value := { object-attribute, number, string, regexp(), regexp_extract() }

## EBNF

[Table 1: SELECT Syntax in EBNF Format](#), on page 17 lists the grammar in EBNF format.

**Table 1: SELECT Syntax in EBNF Format**

SELECT Rule	Syntax
expression	case   logical
logical :=	relational {( OR, AND, SEMICOLON, COMMA ) relational }
relational :=	additive {( <, <=, >, >=, =, ==, != ) additive }
additive :=	multiplicative {( +, -,    ) multiplicative }
multiplicative :=	unary {( *, /, % ) unary }
unary :=	( !, not, ~, +, - ) factor   factor isnull   factor

<b>SELECT Rule</b>	<b>Syntax</b>
factor :=	NUMERIC   STRING   NULL   TRUE   FALSE   ID   regexp   regexp_extract   in_expr   '(' expression ')'
regexp :=	REGEXP '(' literal COMMA STRING ')'
regexp_extract :=	REGEXP_EXTRACT '(' STRING COMMA reg_arg_list ')' opt-as
reg_arg_list :=	literal COMMA STRING
in_expr :=	IN '(' string_list ')'
string_list :=	STRING COMMA string_list STRING
case :=	CASE when when_list opt_else END
when_list :=	when when_list
when :=	WHEN expression THEN expression empty
opt_else :=	ELSE expression   empty
opt_as :=	AS ID
literal :=	ID   STRING



## CHAPTER 5

# Map Settings

---

Access: WAE Live > Settings > Map tab

The Settings > Map tab lets you configure the WAE Live Map panels and set a default layout for the weathermap. These configurations apply to all networks and are not configurable for a specific network.

This section contains the following topics:

- [Map Archives and Templates, on page 19](#)
- [About Advanced Configuration Settings, on page 19](#)
- [Configuring the Traffic Panel, on page 20](#)
- [Configuring the Events Panel, on page 21](#)

## Map Archives and Templates

WAE Live automatically creates the template (template.pln) file from the most recently collected plan file if no template exists. These templates and plan files are stored in map archives for use in the Map component.

A unique map archive name and path are automatically created and configured for a network when the network is added. These map archives are stored in \$CARIDEN\_ROOT/data/mldata/archives as `<network_name>-archive`.

## About Advanced Configuration Settings

Access: WAE Live > Settings > Map tab > Advanced Config (in lower-left corner)

As is the case with the WAE server, the Map tab includes an advanced configuration (Advanced Config) link. Clicking this link displays configuration details for the Map component. While you can edit this file, be advised that any changes you make could adversely impact your Map setup. We recommend that you consult with your support representative for **assistance before changing any parameters**.

## Default Map Archive Setting

Assuming that you are using the default map archive path setting and the default installation directory `/opt/cariden`, the property that defines the path to the map file is:

```
"Map.ArchivePath": "/opt/cariden/data/mldata/archives/default-archive"
```

## Overriding the Default Map Archive Setting

You can override the default map archive setting. The `Map.ArchivePath` property controls the location and map archive name. It uses the following format:

```
"Map.ArchivePath": "  
<map_archive_path>  
<network_name>  
-archive"
```

For example, if you want to change the name of the default archive to reflect the “Acme” network’s weathermap, change this property to:

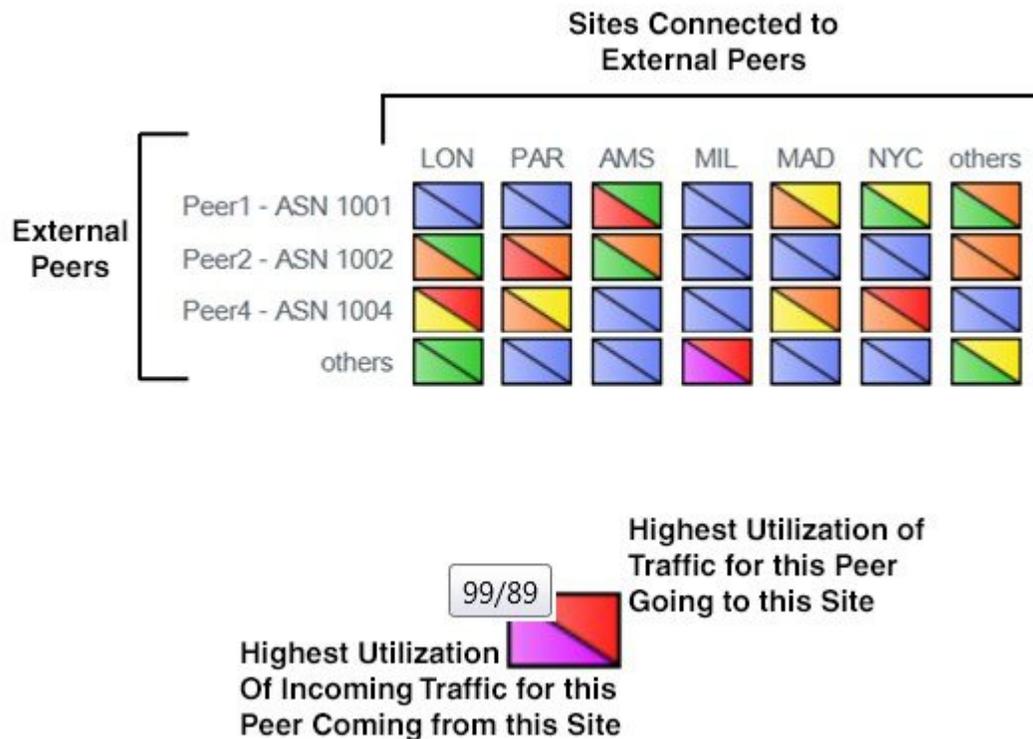
```
"Map.ArchivePath": "/opt/cariden/data/mldata/archives/acme-archive"
```

Map archives are automatically created when you change the `Map.ArchivePath` property.

## Configuring the Traffic Panel

The Traffic Widget section lets you configure the Peering panel on the Map page. This panel shows the highest traffic utilization per peer and per site. The far left column lists the peers, while each top column lists the associated sites. The icons in the panel represent the traffic flowing between the two.

For this panel to have data, you must configure the collection of BGP.



## Traffic Widget Fields

- Enabled—If checked, the panel shows in the Map page.
- Title—The name of the panel to appear on the Map page.
- Rows—Configure the ASNs (external peers) used in the panel. Their names appear on the left side of the panel. Each ASN represents a row in the panel.
  - Top \_\_\_ ASNs by Traffic Utilization—The ASNs with the highest traffic utilization. Enter a whole number from 1 to 20.
  - Except—To exclude specific ASNs that would be captured by the highest utilization, enter one or more ASNs separated by commas.
  - Only These—To use only a specific set of ASNs, regardless of their traffic utilization, enter one or more ASNs separated by commas.
- Columns—Configure the sites used in the panel. Their names appear across the top of the panel. Each site represents a column in the panel.
  - Top \_\_\_ Sites by Traffic Utilization—The sites with the highest traffic utilization. Enter a whole number from 1 to 20.
  - Only These—To use only a specific set of sites, regardless of their traffic utilization, enter one or more site names separated by commas.

## Configuring the Events Panel

The Events Widget lets you configure which events appear on the Map page. This panel tracks a set of current events and the number of changes since the last plan file was received.

Events	Count	Last Δ
Circuits down	600	+0 -0
Nodes down	11	+4/-3

Configuration of this panel is a combination of this UI and the `default_timeplot_summary_format.txt` file located in the `$CARIDEN_HOME/etc/matelive` directory.

For an event to appear, it must be configured in both locations. Combining the examples in this section would result in two events in the panel: Circuits down and Nodes down.

- `default_timeplot_summary_format.txt` file—Defines the metrics used for the events. Each metric is listed in the “Queries” section. For information on how to configure this file, see the comments at the end of the file.

Example: This is an excerpt from the default file.

```
-----Queries-----
# Circuit Down
```

```

CircuitsDown SELECT Old_Name AS Details
CircuitsDown FROM Joined_Circuits
CircuitsDown WHERE ((Old_Name IS NOT NULL) AND (Name IS NULL)) OR ((Old_Active = 'T')
AND (Active = 'F'));
#Node Down
NodesDown SELECT Old_Name AS Details
NodesDown FROM Joined_Nodes
NodesDown WHERE ((Old_Name IS NOT NULL) AND (Name IS NULL)) OR ((Old_Active = 'T') AND
(Active = 'F'));

```

- Events Widget UI—This section lists the metrics and their display names. Each metric must match an event metric (query) that appears in the default\_timeplot\_summary\_format.txt file.

Example:

Metric	Display Name
CircuitsDown	Circuits down
NodesDown	Nodes down

381952

## Events Widget Fields

- Enabled—If checked, the panel shows in the Map page.
- Title—The name of the panel to appear on the Map page.
- Add Metric—Click to add a new event for display on the Map page.
  - Metric—The name of the event metric that appears in the default\_timeplot\_summary\_format.txt file.
  - Display Name—The event name that appears in the panel on the Map page.
- Edit (pencil icon)—Edit the event metric name or the display name.
- Delete (trash can icon)—Delete a metric from the UI so that it no longer appears in the Events panel. There is no undo.