



Configuring Reports

Access: WAE Live > Analytics, click New Report

Access: WAE Live > Explore, select objects, and click Run Report

Use Cases

The Analytics pages enable you to generate traffic, health, ad hoc, and deviation reports. These report tools give you a series of options, such as the following, that enable you to customize the reports.

- On which objects are you creating the report?
- What are the properties on which you are reporting?
- What is the time frame for the report? Do you need to project a trend out farther than that time?
- Are you reporting on individual or grouped objects?
- Are you applying time aggregation operations, and if so, what are they (for example, P95 or average)?

Configuring Reports

To configure reports for a specific network, select it from the Network list (top left). If there is only one network configured, the word “default” appears.

Required Report Tabs

- Report Type—The type of report to be run.
- Object—The object type on which the report is generated.
- Filter—The subset of objects on which you are reporting. For instance, if the object is an LSP, you can filter to report on all LSP destinations, or you can further refine the report to one or more specific destinations.

You can specify filters from the drop-down lists, or you can base them on selections in the Explore tables, as follows.

- Select the property from the Latest Value list, and then refine it using the second list. This enables you to run the report on all objects based on the selected property or on all objects matching the refined property value.

The screenshot shows a filter configuration box. At the top, two arrows point down to the filter options. The first arrow is labeled "Select Property From List" and points to the "Latest value of" radio button and the "Remote AS" dropdown menu. The second arrow is labeled "Refine to Specific Value" and points to the "64512" dropdown menu. The text "is" is positioned between the two dropdown menus. The number "381634" is visible on the right side of the box.

- Select the properties of only those objects that are currently selected in the associated Explore page. For instance, if you have three LSPs selected in an Explore page, the filter defaults to those three selected LSPs.

Optionally, you can click the Edit link to change these selections, which takes you to the Explore page. For more information, see [Explore](#).

The screenshot shows the same filter configuration box as above, but with the "Selected in Explore (23 Objects) Edit..." radio button selected. Two arrows point up to this option: one from the left labeled "Use Current Explore Selections" and one from the right labeled "Edit Explore Selections". The number "381643" is visible on the right side of the box.

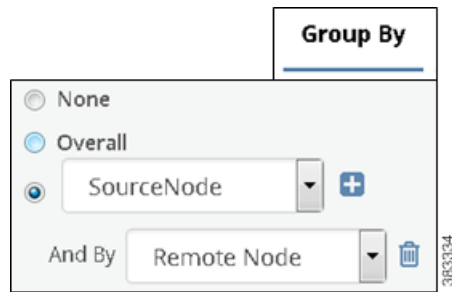
**Note**

If you select specific interface types from the Explore Interfaces page for use in a report, then the report is only on those interfaces of those selected types. If you select Interfaces as the Object from a Configure Report page, then the report is run on all interfaces regardless of their type.

- Report Time Range—The time frame for which the report is generated. Select the time range using one of these methods.
 - Select the range from hours to years and enter a value, for example, 1 month. This option captures a range from the current time backwards.
 - Select a custom date range. You can enter the range in yyyy-mm-dd hh:mm:ss format, or you can select dates from both calendars.

Grouping Objects

The traffic and ad hoc reports support the ability to group (or aggregate) a set of objects and sum their property values. In the resulting report table, each row represents a group of objects. The columns represent the aggregated values for each group.



- Overall—Groups all objects in the report into one row of data. For instance, you can group all interfaces to determine their overall traffic. The data in that row is the sum of all interfaces combined.
- Group by one property—Group all objects that have the same value for the selected property together. The resulting report shows one row for each grouped property and the data in that row is the aggregate for that property. For example, if you select LSPs as the object and then group them by Source Node, the resulting report includes one row for each source node. The data in that row is for all LSPs that are sourced from that node.
- Group by multiple properties—Further segment a group of objects based on another property selected after clicking the Plus icon. The resulting report shows one row for each set of grouped properties within its parent group. For example, if you group LSPs by their source node and secondly by their remote (destination) node, the report aggregates data for all remote nodes that have the same source node. In effect, this example grouping would create a traffic matrix.

Example: Figure 7-1 shows a report generated three times: one without grouping objects, one with objects grouped by nodes, and one grouping first by nodes and then by metric. Notice that both the Capacity and the Latest Traffic Out (P95) columns adjust according to whether and how the objects are grouped.

Figure 7-1 Example Effects of Grouping Objects

No Grouping

Node	Name	Capacity	Latest Traffic Out (P95) Trend Value
filter text	filter text	filter text	filter text
EU_AMS_AMSIX	TenGigE0/1/0	10000	700.24
EU_AMS_AMSIX	TenGigE0/0/3	10000	698.84
EU_AMS_AMSIX	TenGigE0/0/2	10000	698.26
EU_AMS_AMSIX	TenGigE0/0/1	10000	792.38
EU_AMS_AMSIX	TenGigE0/0/0	10000	699.00
EU_AMS_AMSIX	TenGigE0/0/4	10000	791.23

Group Objects by One Property

Node	Count	Total Capacity	Latest Traffic Out (P95) Trend Value
filter text	filter te	filter text	filter text
EU_AMS_AMSIX	6	60000	4385.46
EU_AMS_AMSIX_2	15	150000	22349.19
EU_AMS_BB1	12	120000	28000.93

Group Objects by Two Properties

Node	Metric	Count	Total Capacity	Latest Traffic Out (P95) Trend Value
filter text	filter te	filter te	filter text	filter text
EU_AMS_AMSIX	123	4	40000	2797.81
EU_AMS_AMSIX	10	2	20000	1583.38

381640

Time Aggregation

The traffic and ad hoc reports support time aggregation features that aggregate multiple property values into a single value for a given time range. For instance, you can aggregate maximum raw data values for traffic on a weekly basis.

Time aggregation options vary depending on the report and property type. They include average, maximum, minimum, last, count, and P# values. P# values include P99, P98, P95, P90, and P85. These P# values represent a percent of time. For example P95 is the value 95% of the time.

Time aggregation operations are applied to raw data. For a description of raw data, see [Objects, Properties, and Data](#). For more information and examples of aggregating data in the reports, see [Traffic Reports](#) and [Ad Hoc Reports](#).

Running Reports

You can run a report from any of the following locations.

- Run new reports.
 - From either the Analytics > Reports page or Analytics > Report Logs page, click the New Report button.
 - From the Explore page, select objects and click the Run Report button.
- Rerun existing reports (with existing or changed parameters).

- From the Analytics > Reports page, click View > Run, which runs immediately with the same parameters. To keep or change the parameters, click View > Run or click the name in the Report Name cell.
- From the Analytics > Report Log page, to keep or change the parameters, click View > Edit or click the name in the Report Name cell.

**Note**

If you need to email the report, you must give the report a unique name when you run it (see [Naming Reports](#)).

Naming Reports

To run the report with a saved name, click the Save & Run button after configuring the report. By giving the report a name, you automatically add it to the Analytics Reports page where you can easily identify and schedule it for future use.

To run the report without giving it a name, click the Run button after configuring the report. If you do not save the report with a name, it is given a default name with the format Report Type-Object Type-Definition ID. Reports that use a default name appear only on the Analytics Report Log page.

To change the name of an existing report, there are two options.

- From the report output page, select Save As from the menu available through the gear icon.
- Run and save the report again with a new name. This overwrites the existing report name.

Applying Filters and Sorting Named Reports

You can apply filters and sorting to a named report so that it displays according to these filters and sorting each time you open or run the report. Thereafter, you can schedule email alerts to be sent when these conditions are met using the [Reports](#) page.

These saved report parameters do not affect the generation of the report. Rather they affect what is displayed in the output (based on the filters that were applied), how the information is displayed (based on how the columns were sorted), and if scheduled appropriately, whether the report is sent via email.

Step 1 Run and name the report. See [Naming Reports](#).

Step 2 On the report output page, apply filters and/or sorting.

- Enter a value in one or more “Filter Text” cells at the top of a table column, and press Enter (Return). See [Tables and Filters](#).
- To sort the results of a property in a specific order, click its column heading one or two times.

Step 3 Save the filters and sorting by clicking the Save icon.

**Save**

Report Output

The output of all reports is in a table format that can be exported, and most reports enable you to graph the resulting data. For information on how to use tables and graphs, see [Tables and Filters](#) and [Graphs](#).

You can view reports from two primary locations, both accessed from Analytics.

- [Report Log](#)—List of previous reports that you can view or rerun.
- [Reports](#)—List of uniquely named reports that can be scheduled and emailed.

Gear Tool Options

From a report's output page, to select any of the following options, click the gear tool.



- **Edit**—Open the Configure Report page to rerun or reconfigure the report to run again.
- **Save As**—Name or change the name of the report.
- **Columns**—Click to select which report columns show in the output. If a column check box is gray, then you cannot turn it off. These non-optional properties always appear in the left-most columns of the output.
- **Download CSV**—Export the table in a tab-delimited format.
- **Permalink**—Save the report's URL.
- **Rows per page**—Select the number of objects per page to show in the table.