# **Using Reports in Nagios Network Analyzer 2024**

### Considerations

This guide expects that you have a current and running installation of Nagios Network Analyzer, and that you have valid Netflow data with which to base your reports.

#### The Reports Menu

On the navigation menu in Nagios Network Analyzer click Reports.

| Rej  | Reports  |               |  |  |  |  |  |  |  |  |  |
|------|--|---------------|--|--|--|--|--|--|--|--|--|
| Re   | Reports  |               |  |  |  |  |  |  |  |  |  |
| list | list of all saved reports you can run. These reports can be run on any source, sourcegroup, or view. |               |  |  |  |  |  |  |  |  |  |
| ı ش  | Search b   | y report name |  |  |  |  |  |  |  |  |  |
| 0    | Report Name  | Actions       |  |  |  |  |  |  |  |  |  |
|      | (Static) Top 5 Talkers By Source IP (Last 24 Hours)  | Run           |  |  |  |  |  |  |  |  |  |
|      | (Static) Top 5 Talkers By Destination IP (Last 24 Hours)   |               |  |  |  |  |  |  |  |  |  |
|      | (Static) Top 5 Talkers By Source Port (Last 24 Hours)  |               |  |  |  |  |  |  |  |  |  |
|      | (Static) Top 5 Talkers By Destination Port (Last 24 Hours)   | Run           |  |  |  |  |  |  |  |  |  |

You are presented with a list of available reports. The screenshot above shows the four reports that come included in Nagios Network Analyzer. These reports are permanent and cannot be deleted (deleting will be discussed later).

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#### **Running A Report**

| Run a      | a Report                                    |        | ×        |
|------------|---|--------|----------|
| Select the | source or sourcegroup to run the report on. |        |          |
| Run On:    | Source Group     Firewall Public            |        |          |
|            |   | Cancel | Report > |

A report can be run by clicking the Run link under the actions column. You are prompted to select a Source or Source group that you want to execute the report against. Once you click the Run Report button you will be taken to the Source or Source Group page with the results of the report just executed.

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| Dashboard <b>S</b> o   | ources Source Group   | os Views | Reports  | Queries Ale      | rting  |        |         |          |          |        | Help Admini | stration | Log Out     |
|--|---|----------|----------|------------------|--------|--------|---------|----------|----------|--------|-------------|----------|-------------|
| Sources / Source -   | Firewall Public / Report  | S        |          |                  |        |        |         |          |          |        |             |          |             |
| Source - Firewall Public Display View: Default (All Data)  |   |          |          |                  |        |        |         |          |          |        |             |          |             |
| <ul> <li>A Summary</li> <li>■ Reports</li> <li>O Queries</li> <li>II Percentile Calculator</li> <li>Manage Views</li> <li>✓ Edit</li> <li>Termove</li> </ul> |   |          |          |                  |        |        |         |          |          |        |             |          |             |
| Custom Report Saved Report Top 5 Talkers By Destination Port (Last 24 Hours) *   |   |          |          |                  |        |        |         |          |          |        | PDF         |          |             |
| Pie<br>Top 5 Talke   | Image: second |          |          |                  |        |        |         |          |          |        |             |          |             |
| Start Date   | End Date  | Duration | Protocol | Destination Port | Flows  | Flow % | Packets | Packet % | Bytes    | Byte % | Packets/Sec | Bits/Sec | Bits/Packet |
| 2017-06-08 11:02:16  | 2017-06-09 10:53:59   | 85903    | any      | 53               | 136875 | 36.1   | 139138  | 21.1     | 10.25 MB | 15.0   | 1           | 1000     | 77          |
| 2017-06-08 11:02:11  | 2017-06-09 10:53:07   | 85855    | any      | 80               | 10779  | 2.8    | 74633   | 11.3     | 7.46 MB  | 10.9   | 0           | 728      | 104         |
| 2017-06-08 11:02:33  | 2017-06-09 10:52:06   | 85773    | any      | 443              | 5560   | 1.5    | 57377   | 8.7      | 6.40 MB  | 9.3    | 0           | 625      | 116         |
| 2017-06-08 11:02:11  | 2017-06-09 10:53:33   | 85881    | any      | 123              | 27746  | 7.3    | 29556   | 4.5      | 2.25 MB  | 3.3    | 0           | 219      | 79          |
| 2017-06-08 11:02:47  | 2017-06-09 10:34:06   | 84679    | any      | 5900             | 5344   | 1.4    | 33653   | 5.1      | 1.48 MB  | 2.2    | 0           | 146      | 46          |

You can see that several charts are generated, you can click the icon on any chart to enlarge it. On some of the charts you can hover the mouse on a port/address and the chart will high-light the relationship with the other objects.

Underneath the charts is the detailed table of the results from the report. Some of the columns provide hyperlinks in the table of data, clicking these will execute a new query. In the screenshot on the previous page this is the Destination Port column.

There are some buttons on the page that provide the following functionality:

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🕒 PDF

Turn the report into a PDF, this will be generated and opened in your web

browser.



This opens the raw report data into a web browser. The URL in the address bar has all the particular details about the report being run.

Use Via HTTP

This opens a modal that provides a URL (what was used by the

External API button) and also an example of running the report using a CURL request.

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#### **Creating A Report**

| Create Custor   | n Report ×                                  |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|
| A custom report can be run on any source and is not linked to sources specifically. Use a<br>limiter query to get data for specific ports or ips. |   |  |  |  |  |  |  |  |  |
| Report Name:  | Bytes - Top 10 - Last Week - Destination IP |  |  |  |  |  |  |  |  |
| Display top #:  | 10  |  |  |  |  |  |  |  |  |
| Time Range:   | Last Week                                   |  |  |  |  |  |  |  |  |
| Group By:   | Destination IP -                            |  |  |  |  |  |  |  |  |
| Order By:   | Bytes -                                     |  |  |  |  |  |  |  |  |
| Limiter (Optional):   | ip 192.168.0.1                              |  |  |  |  |  |  |  |  |
|   |   |  |  |  |  |  |  |  |  |
|   | Cancel Save                                 |  |  |  |  |  |  |  |  |

1. On the Reports page click the Create Report button.

2. A modal will appear providing a selection of options for creating the custom report. The options here are self-explanatory, except for Limiter which will be explained a bit later on.

- 3. Click the Save button to create the new report.
- 4. You will be returned to the reports page and the new report will now appear in the list.

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Bytes - Top 10 - Last Week - Destination IP

Run • Edit • Delete

5. Run the report to see if it generated the information you were after. In this example I have run the report against a Source Group and here is the table of information generated by the report:

| Start Date          | End Date            | Duration | Protocol | Destination IP                        | Flows                 | Flow % | Packets | Packet % | Bytes     | Byte % | Packets/Sec | Bits/Sec | Bits/Packet |
|---------------------|---------------------|----------|----------|---------------------------------------|-----------------------|--------|---------|----------|-----------|--------|-------------|----------|-------------|
| 2017-06-06 07:10:32 | 2017-06-06 16:34:38 | 33845    | any      | 2001:44b8:3132:25:10:25:14:91         | 178                   | 0.0    | 589486  | 2.7      | 707.92 MB | 7.8    | 17          | 175458   | 1259        |
| 2017-06-02 22:43:28 | 2017-06-09 09:45:28 | 558120   | any      | 2001:44b8:3132:25:10:25:14:51         | 149                   | 0.0    | 467395  | 2.1      | 582.20 MB | 6.4    | 0           | 8750     | 1306        |
| 2017-06-02 11:44:22 | 2017-06-09 11:33:34 | 604152   | any      | 2001:44b8:3132:25:10:25:254:50        | 22462                 | 8.0    | 813696  | 3.7      | 580.25 MB | 6.4    | 1           | 8056     | 747         |
| 2017-06-08 07:13:31 | 2017-06-08 09:08:11 | 6880     | any      | 2001:44b8:3132:25:7c83:ebf6:4d33:e6ed | 653                   | 0.0    | 375537  | 1.7      | 482.59 MB | 5.3    | 54          | 588392   | 1347        |
| 2017-06-02 14:12:16 | 2017-06-08 17:34:13 | 530516   | any      | 2001:44b8:3132:25:10:25:14:52         | 251                   | 0.0    | 314027  | 1.4      | 419.48 MB | 4.6    | 0           | 6632     | 1400        |
| 2017-06-02 11:46:57 | 2017-06-09 11:30:48 | 603831   | any      | 2001:44b8:3132:25:10:25:5:70          | 8290                  | 0.3    | 726896  | 3.3      | 388.08 MB | 4.3    | 1           | 5391     | 559         |
| 2017-06-02 11:44:17 | 2017-06-09 11:31:11 | 604013   | any      | 239.255.255.250                       | 25460                 | 0.9    | 947178  | 4.3      | 385.28 MB | 4.2    | 1           | 5350     | 426         |
| 2017-06-02 17:16:45 | 2017-06-02 19:10:48 | 6843     | any      | 2001:44b8:3132:25:250:56ff:feab:4bd9  | 108                   | 0.0    | 256316  | 1.2      | 363.12 MB | 4.0    | 37          | 445122   | 1485        |
| 2017-06-02 17:21:23 | 2017-06-02 18:57:00 | 5737     | any      | 2001:44b8:3132:25:10:25:254:ab3a      | 117                   | 0.0    | 248683  | 1.1      | 352.45 MB | 3.9    | 43          | 515307   | 1486        |
| 2017-06-02 11:43:59 | 2017-06-09 11:33:59 | 604200   | any      | 2001:44b8:3132:25:10:25:2:1           | . <mark>190568</mark> | 6.7    | 392408  | 1.8      | 328.41 MB | 3.6    | 0           | 4559     | 877         |

It's interesting to see that in a network of IPv4 and IPv6 addresses that IPv6 is the top of the list. With that in mind the next step shows you how to edit a report and will discuss using a Limiter.

### **Editing A Report**

- 1. On the Reports page click the Edit link in the Actions column for the report you want to edit.
- 2. A modal will appear providing the same selection of options when you created the report.
- 3. The Limiter option allows you to use raw query syntax to make the report more granular. The raw query syntax is explained in the

<u>Understanding And Using Custom Queries In Network Analyzer</u> documentation and hence will not be explained in detail here.

In this example the following limiter is going to be added:

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#### net 10.25.0.0/16 OR net 2001:44b8:3132:25::/64

4. Click the Save button to update the new report. Now when the report is run the information returned is specific to the subnets that was defined by the limiter.

| Start Date          | End Date            | Duration | Protocol | Destination IP                        | Flows  | Flow % | Packets | Packet % | Bytes     | Byte % | Packets/Sec | Bits/Sec | Bits/Packet |
|---------------------|---------------------|----------|----------|---------------------------------------|--------|--------|---------|----------|-----------|--------|-------------|----------|-------------|
| 2017-06-06 07:10:32 | 2017-06-06 16:34:38 | 33845    | any      | 2001:44b8:3132:25:10:25:14:91         | 178    | 0.0    | 589486  | 4.1      | 707.92 MB | 9.2    | 17          | 175458   | 1259        |
| 2017-06-02 22:43:28 | 2017-06-09 09:45:28 | 558120   | any      | 2001:44b8:3132:25:10:25:14:51         | 149    | 0.0    | 467395  | 3.3      | 582.20 MB | 7.6    | 0           | 8750     | 1306        |
| 2017-06-02 12:01:27 | 2017-06-09 11:46:02 | 603874   | any      | 2001:44b8:3132:25:10:25:254:50        | 22468  | 1.3    | 813625  | 5.7      | 580.19 MB | 7.5    | 1           | 8059     | 747         |
| 2017-06-08 07:13:31 | 2017-06-08 09:08:11 | 6880     | any      | 2001:44b8:3132:25:7c83:ebf6:4d33:e6ed | 653    | 0.0    | 375537  | 2.6      | 482.59 MB | 6.3    | 54          | 588392   | 1347        |
| 2017-06-02 14:12:16 | 2017-06-08 17:34:13 | 530516   | any      | 2001:44b8:3132:25:10:25:14:52         | 251    | 0.0    | 314027  | 2.2      | 419.48 MB | 5.4    | 0           | 6632     | 1400        |
| 2017-06-02 11:59:51 | 2017-06-09 11:43:52 | 603841   | any      | 2001:44b8:3132:25:10:25:5:70          | 8295   | 0.5    | 727869  | 5.1      | 388.52 MB | 5.0    | 1           | 5397     | 559         |
| 2017-06-02 17:16:45 | 2017-06-02 19:10:48 | 6843     | any      | 2001:44b8:3132:25:250:56ff:feab:4bd9  | 108    | 0.0    | 256316  | 1.8      | 363.12 MB | 4.7    | 37          | 445122   | 1485        |
| 2017-06-02 17:21:23 | 2017-06-02 18:57:00 | 5737     | any      | 2001:44b8:3132:25:10:25:254:ab3a      | 117    | 0.0    | 248683  | 1.7      | 352.45 MB | 4.6    | 43          | 515307   | 1486        |
| 2017-06-02 11:59:32 | 2017-06-09 11:48:59 | 604167   | any      | 2001:44b8:3132:25:10:25:2:1           | 190156 | 11.3   | 392019  | 2.7      | 328.34 MB | 4.3    | 0           | 4558     | 878         |
| 2017-06-06 20:55:19 | 2017-06-08 21:06:48 | 173488   | any      | 2001:44b8:3132:25:10:25:10:1          | 9760   | 0.6    | 287679  | 2.0      | 219.80 MB | 2.9    | 1           | 10627    | 801         |

As you can imagine, the Limiter expands the capabilities of the reports you can generate. Keep in mind that the more complex a limiter you have, the longer it can take to run a report.

| Run               |
|-------------------|
| Run • Edit Delete |
| Run • Edit Delete |

### **Deleting Reports**

On the Reports page you can delete reports individually by clicking the Delete link in the Actions column.

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| ✓ | Ву |
|---|----|
| ✓ | Ву |

You can also delete multiple reports by checking the boxes in the left column and then clicking the Delete button above.

### **Running Reports via Source or Source Group**

Reports can also be run directly from a Source or Source Group.

Click the reports tab and select a report from the drop down list.



### **Resolving Addresses To Hostnames**

If you would like your reports to resolve the network addresses to hostnames you will neeed to enable this functionality. Navigate to Administration > General > Global Settings.

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| Dashboard So   |              | Source Groups | Views       | Reports                      | Queries  | Alerting  | Help                                    | Administration            | Log Out        |
|--|--------------|---------------|-------------|------------------------------|--|---|---|---------------------------|----------------|
| Administration / Glob                                | bal Settings | 5             |             |                              |  |   |   |                           |                |
| DASHBOARDS   | d            | Global        | Set         | tings<br>for your Nagic      | os Network A                                       | nalyzer install.  |   |                           |                |
| GENERAL<br>Global Settings<br>Check for Updates      | 5            | Def           | ault Langua | ige: Engl<br>The de          | ish<br>fault languag                               | e all users will see until they set their own.  |   |                           |                |
| AUTHENTICATION  User Management  LDAP/AD Integration | ion          | Resolve       | Hostnames   | in: Re<br>This wi<br>everyth | ports and Qu<br>III automatical<br>ning or just re | ueries Graphs<br>Ily try to resolve the Hostname based on IP addresses (via DNS<br>ports/queries or graphs. | S) throughout Network Analyzer using PH | P's internal functions. ( | Can be done on |

Here you can enable Reports and Queries and/or Graphs. Please ensure that your Nagios Network Analyzer server is correctly configured to DNS server(s) that can correctly resolve internal and external network addresses.

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