

WAN Utilisation Distribution Report

WAN Utilisation Distribution Report

New in version 3.4.1 for NMIS8 and version 4.2.1 for NMIS9

Fixes **95th Percentile** calculation in **WAN Utilisation Distribution Report** and **WAN Utilisation Distribution Summary Report**:
Prior to version 3.4.1 the reflected value for **95th Percentile** should be multiplied by 8 to get the correct value for **95th Percentile** in the above-mentioned reports.

Introduction

The **WAN Utilisation Distribution Report** displays the **combined, input and output utilisation frequency distributions** for configured distribution groups.
The **WAN Utilisation Distribution Summary Report** displays only the **combined utilisation frequency distribution** for configured distribution groups.

Setup:

Choose the **relevant WAN Utilisation Distribution Report option** under **Create New Report >> General >> Type**:

Create New Report

General

Time

Schedule Name

Active

Description

Type

Keep Report For

CPU Report

Configuration Summary Report

Free Memory Report

Grouped Availability Report

Grouped Interface Capacity Report

Interface Capacity Report

Interface Unicast Packets Report

Interface Utilisation Report

Juniper CoS Report

Memory Buffer Report

Memory Pool Report

Node Availability Report

Node Health Report

Node Report

QoS Report

Response Time Report

Traffic Snapshot Report

Traffic Summary Report

Traffic Usage Report

Uptime Report

WAN Report

☒ WAN Utilisation Distribution Report

WAN Utilisation Distribution Summary Report

?

?

?

?

365

?

Cancel

Save Report

Choose whether to **Show 95th Percentile** and choose the desired **WAN Utilisation Distribution Levels** under **Create New Report >> Layout**:

Create New Report

×

General

Time

Sources

Outputs

Layout

Advanced

Custom Report Title

Enter the optional Report Title

?

Node Name Display

Plain Node Name

↕

?

Interface Display

Interface Description

↕

?

Show 95th Percentile

true

false

?

WAN Utilisation Distribution Levels

✓ Default WAN Distribution Levels Descending

Default WAN Distribution Levels Ascending

↕

?

Cancel

Save Report

Exception Reporting

From opReports 4.5.1, a Show Exceptions Only option is available on the Layout tab of the report. In Show Exceptions Only mode, only the records where the **% Util Max of In/Out Max** exceeds the `wanutil_exception_threshold` are displayed.

Customized WAN Utilisation Distribution Levels:

Two **default configured distribution groups** are provided: **Default WAN Distribution Levels Descending** and **Default WAN Distribution Levels Ascending**.

The default groupings for both of these default options are:

- <=30%
- >30% and <=70%
- >70% and <=90%
- >90%.

Customised groupings can be added to the opReports **WAN Utilisation Distribution Levels** displayed under **Create New Report >> Layout** described under **Setup** above, by **adding distribution grouping in the correct format** (as provided for either of the aforementioned default options) under the *report_wan_distributions* setting in */path/to/omk/config/opCommon.nmis*.

Column order can be customised by setting appropriate group names: **group names are sorted ascending**: *group1* will display before *group2*, *group2* before *group3*, etc.

Here are the **default configuration options as provided in opCommon.nmis**:



The 'first' of the 2 options listed is the default option:

- The **opCommon.nmis** code block below has **Default WAN Distribution Levels Descending** listed first, so in the OMK installation for this opCommon.nmis **Default WAN Distribution Levels Descending** will be the default.
- In this example installation, to change the default to **Default WAN Distribution Levels Ascending** place the **Default WAN Distribution Levels Ascending** entry first.

```
'report_wan_distributions' => {  
  'Default WAN Distribution Levels Descending' => {  
    "group4" => {  
      "description" => "<=30%",  
      "min" => 0,  
      "max" => 30,  
    },  
    "group3" => {  
      "description" => ">30% <=70%",  
      "min" => 30,  
      "max" => 70,  
    },  
    "group2" => {  
      "description" => ">70% <=90%",  
      "min" => 70,  
      "max" => 90,  
    },  
    "group1" => {  
      "description" => ">90%",  
      "min" => 90,  
      "max" => 1000000,  
    },  
  },  
  'Default WAN Distribution Levels Ascending' => {  
    "group1" => {  
      "description" => "<=30%",  
      "min" => 0,  
      "max" => 30,  
    },  
    "group2" => {  
      "description" => ">30% <=70%",  
      "min" => 30,  
      "max" => 70,  
    },  
    "group3" => {  
      "description" => ">70% <=90%",  
      "min" => 70,  
      "max" => 90,  
    },  
    "group4" => {  
      "description" => ">90%",  
      "min" => 90,  
      "max" => 1000000,  
    },  
  },  
}
```

Generating WAN Utilisation Distribution Report from the Command Line and controlling Column order

Example:

- Set the order using the **default configuration options as provided in opCommon.nmis**:

Add this command (as given in English to match the entry in English in opCommon.nmis):

- **options.report_wan_distribution='Default WAN Distribution Levels Descending'**
or
- **options.report_wan_distribution='Default WAN Distribution Levels Ascending'**

Technical Notes:

% Util Max of In/Out Max column is calculated from the **maximum**, not the average, of **combined 'in and out' MAXIMUM** utilisation.

95th Percentile Max % column is calculated from the **maximum**, not the average, of **combined 'in and out' 95th percentile** utilisation.

Example:

Here is an example screenshot of a WAN Utilisation Distribution Summary Report with **Show 95th Percentile** selected and using the **Default WAN Distribution Levels Descending** default configured distribution group:

WAN Utilisation Distribution Summary Report

Coverage: 7 day(s), from 2019-04-16T02:28:40 to 2019-04-23T02:28:40 AEST

Stats Mode: MAX

Generated: 2019-04-23T02:28:41 AEST

Node	Group	Interface	Speed	% Util Max of In/Out Max	95th Percentile Max %	% Samples (Period: 7 day(s), Poll: 5m).			
						>90%	>70% <=90%	>30% <=70%	<=30%
midgard	HeadOffice	GigabitEthernet1/0/1	1 Gbps	11.54%	0.00%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/11	10 Mbps	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/12	10 Mbps	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/14	10 Mbps	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/16	10 Mbps	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/18	10 Mbps	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/19	10 Mbps	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/2	100 Mbps	0.01%	0.00%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/20	10 Mbps	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/21	10 Mbps	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/22	10 Mbps	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/23	100 Mbps	28.99%	1.07%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/24	1 Gbps	3.74%	0.01%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/3	10 Mbps	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/4	1 Gbps	10.22%	0.11%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/5	1 Gbps	0.05%	0.00%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/6	1 Gbps	11.43%	0.00%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/7	1 Gbps	6.14%	0.01%	0.00%	0.00%	0.00%	100.00%
midgard	HeadOffice	GigabitEthernet1/0/8	1 Gbps	0.27%	0.00%	0.00%	0.00%	0.00%	100.00%

Related Topics

- [Checking Accuracy of the WAN Utilisation Distribution Report](#)
- [WAN Utilisation Distribution Report: 95th Percentile Calculation](#)