



# Network Interface

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## Motadata

## Table of Contents

Table of Contents .....	2
Copyright Notice.....	3
Notices .....	4
1 Network Interface.....	6
1.1 How to calculate Interface Data?.....	8
1.2 Relevant OID's.....	8

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## 1 Network Interface

1. If we receive sent octet or receive octet as null and unused Monitor port property flag is true then, we will display all interface metric value as zero.

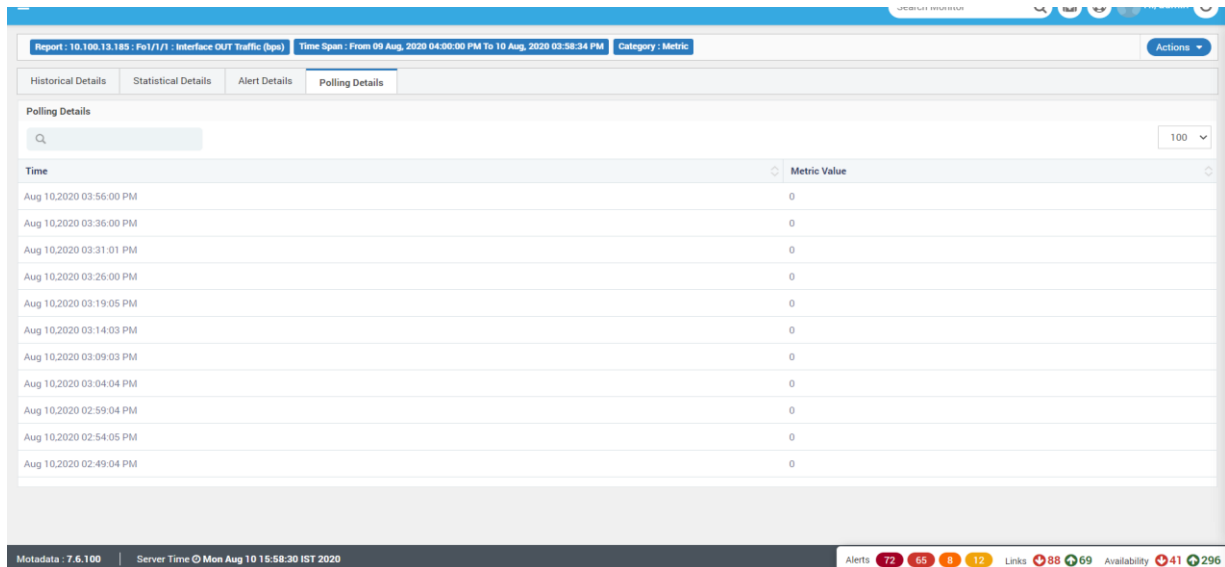
Interface Packet Lost = 0  
 Interface Packets = 0  
 Interface OUT Packets = 0  
 Interface IN Packets = 0  
 Interface Packet Errors = 0  
 Interface Packet Discards = 0  
 Interface Utilization (%) = 0  
 Interface OUT Utilization (%) = 0  
 Interface IN Utilization (%) = 0  
 Interface Traffic (bps) = 0  
 Interface Traffic Volume (Bytes) = 0  
 Interface OUT Traffic Volume (Bytes) = 0  
 Interface OUT Traffic (bps) = 0  
 Interface IN Traffic Volume (Bytes) = 0  
 Interface IN Traffic (bps) = 0  
 Interface IN Traffic (Bytes) = 0  
 Interface OUT Traffic (Bytes) = 0  
 Interface Traffic (Bytes) = 0

2. If we receive sent octet or receive octet as null and unused Monitor port property flag is false then we dont add any interface data.

3. If we receive sent octet as zero (not grater then 0) or receive octet as zero (not greater then 0) and unused Monitor port property flag is true, we display all interface metric value as zero.

Interface Packet Lost (%) = 0  
 Interface Packets = 0  
 Interface OUT Packets = 0  
 Interface IN Packets = 0  
 Interface Packet Errors = 0  
 Interface Packet Discards = 0  
 Interface Utilization (%) = 0  
 Interface OUT Utilization (%) = 0  
 Interface IN Utilization (%) = 0  
 Interface Traffic (bps) = 0  
 Interface Traffic Volume (Bytes) = 0  
 Interface OUT Traffic Volume (Bytes) = 0  
 Interface OUT Traffic (bps) = 0  
 Interface IN Traffic Volume (Bytes) = 0  
 Interface IN Traffic (bps) = 0  
 Interface IN Traffic (Bytes) = 0  
 Interface OUT Traffic (Bytes) = 0  
 Interface Traffic (Bytes) = 0

- If we receive sent octet as zero (not greater than 0) or receive octet as zero (not greater than 0) and unused Monitor port property flag is false then we don't display any interface data.



Report: 10.100.13.185 - Fo1/1/1 - Interface O/U Traffic (bps) | Time Span: From 09 Aug, 2020 04:00:00 PM To 10 Aug, 2020 03:58:34 PM | Category: Metric

Historical Details | Statistical Details | Alert Details | **Polling Details**

Search: [ ] | 100

Time	Metric Value
Aug 10, 2020 03:56:00 PM	0
Aug 10, 2020 03:36:00 PM	0
Aug 10, 2020 03:31:01 PM	0
Aug 10, 2020 03:26:00 PM	0
Aug 10, 2020 03:19:05 PM	0
Aug 10, 2020 03:14:03 PM	0
Aug 10, 2020 03:09:03 PM	0
Aug 10, 2020 03:04:04 PM	0
Aug 10, 2020 02:59:04 PM	0
Aug 10, 2020 02:54:05 PM	0
Aug 10, 2020 02:49:04 PM	0

Motadata - 7.6.100 | Server Time: Mon Aug 10 15:58:30 IST 2020 | Alerts: 72 65 8 12 | Links: 98 69 | Availability: 41 296

- If interface admin status is not up and unused Monitor port property flag is true, then we display all interface metric value as zero.

Interface Packet Lost (%) = 0  
 Interface Packets = 0  
 Interface OUT Packets = 0  
 Interface IN Packets = 0  
 Interface Packet Errors = 0  
 Interface Packet Discards = 0  
 Interface Utilization (%) = 0  
 Interface OUT Utilization (%) = 0  
 Interface IN Utilization (%) = 0  
 Interface Traffic (bps) = 0  
 Interface Traffic Volume (Bytes) = 0  
 Interface OUT Traffic Volume (Bytes) = 0  
 Interface OUT Traffic (bps) = 0  
 Interface IN Traffic Volume (Bytes) = 0  
 Interface IN Traffic (bps) = 0  
 Interface IN Traffic (Bytes) = 0  
 Interface OUT Traffic (Bytes) = 0  
 Interface Traffic (Bytes) = 0

- If interface admin status is not up and unused Monitor port property flag is false then, we don't display any interface data.

When current up time is less than previous poll up then below details should not get dumped (in case of rollover time output should be as mention below). If difference is equal to zero also then also this is applicable.

Interface IN Traffic (bps)  
 Interface IN Traffic Volume  
 Interface IN Utilization (%)  
 Interface OUT Traffic (bps)  
 Interface OUT Traffic Volume (Bytes)  
 Interface Traffic Volume (Bytes)  
 Interface Traffic (bps)  
 Interface OUT Utilization (%)  
 Interface Utilization (%)

7. If at monitor interface level, Show Over-Utilization is set to yes and utilization > 100 % then, all the values along with the calculated utilization % > 100 also has to be dumped in data base.
8. If at monitor interface level, Show Over-Utilization set to No and utilization > 100 % then, all the values other than the utilization (upload/Download/Total %) has be dumped as it is whereas the utilization values should be dumped as 100%.

## 1.1 [How to calculate Interface Data?](#)

We do SNMP walks (here we consider two consecutive polls) from the target device and know the time interval between them as well.

So, our pre-requisite for interface utilization calculation would be in/out bytes difference and time difference.

Polltime	IN/OUT Traffic	Current Time
Poll 1 - 10:00	bytes 1	millis 1
Poll 2 - 10:05	bytes 2	millis 2

IN/OUT Traffic (bits per second) = (bytes2 - bytes1)\*8/Total Seconds

Here, Total Seconds = millis2-millis1/1000

Total Traffic = IN Traffic + OUT Traffic

Interface Utilization = ((delta between In/out traffic) \* 8 \* 100)/ (delta of seconds \* configured interface speed

## 1.2 [Relevant OID's](#)

- .1.3.6.1.2.1.2.2.1.1"interface-index"
- .1.3.6.1.2.1.31.1.1.1"interface"
- .1.3.6.1.2.1.2.2.1.10"received-octets"
- .1.3.6.1.2.1.2.2.1.16"sent-octets"



## Keep in touch

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