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## Flowmon Probe Models List – page 1/3

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Valid from 1.5.2017

### Flowmon Probe

Flowmon Probes are high performance appliance that monitors network traffic and generates IP flow statistics. The flow statistics are then exported to storage for further analysis by a Flowmon Collector or other NetFlow/IPFIX compatible application. The probe provides the NetFlow/IPFIX data necessary for network monitoring, security, troubleshooting, IP accounting and billing, capacity planning, user and application monitoring or traffic engineering.

### Flowmon Probe Models

Flowmon Probes are available in form of physical (hardware) 1U rack units and as a virtual appliance for deployment into VMware, Hyper-V, KVM with OpenStack virtual environments.



### Hardware Appliances

Flowmon Probes in form of hardware appliances are high performance stand-alone devices for monitoring all types of networks from 10 Mbps to 100 Gbps. Flowmon Probe comes in **standard** or **hardware-accelerated version** (Pro) with different number and types of monitoring ports.

All Flowmon Probe provide **built-in flow collector** and Flowmon Monitoring Center (FMC) – tool for flow collection, viewing and analyzing. Built-in collector is restricted to receive flow data only from the probe itself. It is necessary to use stand-alone Flowmon Collector for collecting data from other/multiple sources.

All Flowmon Probes are equipped with two copper 10/100/1000 Ethernet **management (administration) ports** (except IFP-1000-CU with one management port) which are used for appliance configuration, management and flow data export.

### Virtual Appliances

Flowmon Probe Virtual Appliances (VA) are network monitoring appliances designed for deployment into **virtual environment** (VMware, Hyper-V, KVM with OpenStack). Flowmon Probe Virtual Appliances provide similar functionality as Flowmon Probes in form of physical devices. Flowmon Probe VA models differ in number and speed of monitoring ports. In contrast to Flowmon Probe in form of physical appliances, Flowmon Probe Virtual Appliances don't include built-in collector, so it is necessary to use dedicated collector for NetFlow/IPFIX data storage and analysis.

All Flowmon Probe VA models are equipped with two **management (administration) ports** (except model IFP-1000-VA with one management port) which are used for appliance configuration, management and flow data export.

### Flowmon IPFIX Extensions

Flowmon Probes (hardware and virtual) support **Flowmon IPFIX Extensions** which extend IPFIX information elements with monitoring of network performance statistics (Round-Trip Time, Server Response Time, delays, jitter, etc.) and application protocols like HTTP, DNS, DHCP, SMB, E-mail, MSSQL, VoIP SIP statistics and other. For more information about Flowmon IPFIX Extension see *Flow Standards Specification* document available at <https://support.flowmon.com>.

### Supported L2 protocols

Besides MAC addresses monitoring, Flowmon Probes also support various L2 protocols like VLAN, MPLS, GRE, OVT, Avaya SPB and TRILL protocols.

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## Hardware Appliances

P/N <sup>1</sup>	Model	Performance per port	Monitoring Port	Flow Cache <sup>2</sup>	RAID	Disk Type	CPU <sup>3</sup>	RAM	Remote Control	Form Factor, Dimensions (H x W x D) cm	Weight (kg)
IFP-1000-CU	Flowmon Probe 1000	1,48 Mpps	1 x 10/100/1000 MbE	0,5 M	-	1 x SATA	8	16 GB	Express	1U, 4,3 x 43,4 x 49,7	8,78
IFP-2000-CU	Flowmon Probe 2000	1,48 Mpps	2 x 10/100/1000 MbE	0,5 M	-	1 x SATA	8	16 GB	Express	1U, 4,3 x 43,4 x 49,7	8,78
IFP-4000-CU	Flowmon Probe 4000	1,48 Mpps	4 x 10/100/1000 MbE	0,5 M	-	1 x SATA	8	16 GB	Express	1U, 4,3 x 43,4 x 49,7	8,78
IFP-4000-SFP	Flowmon Probe 4000 SFP	0,9 Mpps	4 x 1Gb Ethernet	0,5 M	-	1 x SATA	8	16 GB	Express	1U, 4,3 x 43,4 x 49,7	8,78
IFP-10000-SFP+	Flowmon Probe 10000 SFP+	1,5 Mpps	1 x 10Gb Ethernet	4 M	-	1 x SATA	8	32 GB	Express	1U, 4,3 x 43,4 x 49,7	8,78
IFP-20000-SFP+	Flowmon Probe 20000 SFP+	1,5 Mpps	2 x 10Gb Ethernet	4 M	-	1 x SATA	8	32 GB	Express	1U, 4,3 x 43,4 x 49,7	8,78
IFP-40000-SFP+	Flowmon Probe 40000 SFP+	5 Mpps	4 x 10Gb Ethernet	4 M	RAID1	2 x SATA	32	32 GB	Enterprise	1U, 4,3 x 43,4 x 64,2	19,9
IFP-10000PRO-SFP+	Flowmon Probe 10000 Pro SFP+	14,8 Mpps	1 x 10Gb Ethernet	4 M	RAID1	2 x SATA	32	64 GB	Enterprise	1U, 4,3 x 43,4 x 64,2	19,9
IFP-20000PRO-SFP+	Flowmon Probe 20000 Pro SFP+	14,8 Mpps	2 x 10Gb Ethernet	4 M	RAID1	2 x SATA	32	64 GB	Enterprise	1U, 4,3 x 43,4 x 64,2	19,9
IFP-40000PRO-SFP+	Flowmon Probe 40000 Pro SFP+	14,8 Mpps	4 x 10Gb Ethernet	4 M	RAID1	2 x SATA	32	64 GB	Enterprise	1U, 4,3 x 43,4 x 64,2	19,9
IFP-100000PRO-QSFP28	Flowmon Probe 100000 Pro QSFP28	148,8 Mpps	1 x 100Gb Ethernet	4 M	RAID1	2 x SATA	40	64 GB	Enterprise	1U, 4,3 x 43,4 x 73,2	24,4
IFP-200000PRO-CFP4	Flowmon Probe 200000 Pro CFP4	148,8 Mpps per appliance <sup>4</sup>	2 x 100Gb Ethernet	4 M	RAID1	2 x SATA	40	64 GB	Enterprise	1U, 4,3 x 43,4 x 73,2	24,4

<sup>1</sup> CU indicates copper monitoring interface. Other interfaces are designed for use of transceiver according to monitored network.

<sup>2</sup> Number of flow entries in flow cache for each monitoring port.

<sup>3</sup> Number of cores with Hyper Threading.

<sup>4</sup> Probe can operate in 1x 100G or 2x 100G modes while maximal performance in both modes is 148,8Mpps per appliance.

**Express** version of **remote control** includes command-line access and web GUI for remote surveillance of device condition. **Enterprise** version of remote control in addition includes dedicated network interface and virtual console.

Flowmon Probe **IFP-200000PRO-CFP4** supports monitoring of application (L7) protocols in **1x 100G** mode only. In **2x 100G** mode application protocols monitoring is not supported. Probe supports monitoring of network performance statistics in both 1x 100G and 2x 100G modes.

Flowmon Probe **IFP-100000PRO-QSFP28** and **IFP-200000PRO-CFP4** support LR4 transceivers. For SR4 transceivers support ask for more details.

Flowmon Probe **IFP-100000PRO-QSFP28** can operate in **1x 100G**, **2x 40G** or **8x 10G** modes. We recommend to use transceivers from Flowmon Accessories Price List (available on request): 1x 100G mode with 100G-QSFP28-LR4 transceiver, 2x 40G mode with two 40G-QSFP-SR4 or 40G-QSFP-LR4 transceivers, 8x 10G mode with two 40G-QSFP-SR4-BC or 40-QSFP-LR4-PSM-BC transceivers (include break-out cables).

All models of hardware Flowmon Probes are equipped with built-in collector capable of processing **50 000 fps** (flows per second) and come with **500 GB storage capacity**.

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### Operating Conditions

P/N	Model	PSU		Continuous Operation		Expanded Operation		Power Consumption		Heat Dissipation
		Power	Hot Swap	Temperature	Relative Humidity <sup>1</sup>	Temperature	Relative Humidity <sup>1</sup>	CPU Idle	CPU Max	
IFP-1000-CU	Flowmon Probe 1000	250 W	No	10°C+35°C	10%+80% at 29°C	5°C+40°C	5%+85% at 29°C	30 W	95 W	1039 BTU/h
IFP-2000-CU	Flowmon Probe 2000	250 W	No	10°C+35°C	10%+80% at 29°C	5°C+40°C	5%+85% at 29°C	30 W	95 W	1039 BTU/h
IFP-4000-CU	Flowmon Probe 4000	250 W	No	10°C+35°C	10%+80% at 29°C	5°C+40°C	5%+85% at 29°C	30 W	95 W	1039 BTU/h
IFP-4000-SFP	Flowmon Probe 4000 SFP	250 W	No	10°C+35°C	10%+80% at 29°C	5°C+40°C	5%+85% at 29°C	30 W	95 W	1039 BTU/h
IFP-10000-SFP+	Flowmon Probe 10000 SFP+	250 W	No	10°C+35°C	10%+80% at 29°C	5°C+40°C	5%+85% at 29°C	30 W	95 W	1039 BTU/h
IFP-20000-SFP+	Flowmon Probe 20000 SFP+	250 W	No	10°C+35°C	10%+80% at 29°C	5°C+40°C	5%+85% at 29°C	30 W	95 W	1039 BTU/h
IFP-40000-SFP+	Flowmon Probe 40000 SFP+	2x 550 W	Yes	10°C+35°C	10%+80% at 29°C	5°C+40°C	5%+85% at 26°C	145 W	338 W	2107 BTU/h
IFP-10000PRO-SFP+	Flowmon Probe 10000 Pro SFP+	2x 550 W	Yes	10°C+35°C	10%+80% at 29°C	5°C+40°C	5%+85% at 26°C	145 W	338 W	2107 BTU/h
IFP-20000PRO-SFP+	Flowmon Probe 20000 Pro SFP+	2x 550 W	Yes	10°C+35°C	10%+80% at 29°C	5°C+40°C	5%+85% at 26°C	145 W	338 W	2107 BTU/h
IFP-40000PRO-SFP+	Flowmon Probe 40000 Pro SFP+	2x 550 W	Yes	10°C+35°C	10%+80% at 29°C	5°C+40°C	5%+85% at 26°C	145 W	338 W	2107 BTU/h
IFP-100000PRO-QSFP28	Flowmon Probe 100000 Pro QSFP28	2x 750 W	Yes	10°C+35°C	10%+80% at 29°C	-5°C+40°C	5%+90% at 26°C	TBA	TBA	2891 BTU/h
IFP-200000PRO-CFP4	Flowmon Probe 200000 Pro CFP4	2x 750 W	Yes	10°C+35°C	10%+80% at 29°C	-5°C+40°C	5%+90% at 26°C	TBA	TBA	2891 BTU/h

<sup>1</sup> Specified temperature is max dew point temperature.

### Virtual Appliances

P/N	Model	Performance per port	Monitoring Interfaces	Flow Cache <sup>1</sup>	VMware ESXi	Microsoft Hyper-V	KVM	Recommended Configuration
IFP-1000-VA	Flowmon Probe 1000 VA	up to 0,3 Mpps	1 x 1Gb Ethernet	0,5 M	4.1 and higher	2012	OpenStack Nova	2 CPU cores, 4 GB RAM, min. 11 GB HDD
IFP-2000-VA	Flowmon Probe 2000 VA	up to 0,3 Mpps	2 x 1Gb Ethernet	0,5 M	4.1 and higher	2012	OpenStack Nova	2 CPU cores, 4 GB RAM, min. 11 GB HDD
IFP-4000-VA	Flowmon Probe 4000 VA	up to 0,3 Mpps	4 x 1Gb Ethernet	0,5 M	4.1 and higher	2012	OpenStack Nova	2 CPU cores, 4 GB RAM, min. 11 GB HDD
IFP-6000-VA	Flowmon Probe 6000 VA	up to 0,3 Mpps	6 x 1Gb Ethernet	0,5 M	4.1 and higher	2012	OpenStack Nova	2 CPU cores, 4 GB RAM, min. 11 GB HDD
IFP-10000-VA	Flowmon Probe 10000 VA	up to 0,7 Mpps	1 x 10Gb Ethernet	4 M	4.1 and higher	2012	OpenStack Nova	4 CPU cores, 8 GB RAM, min. 11 GB HDD
IFP-20000-VA	Flowmon Probe 20000 VA	up to 0,7 Mpps	2 x 10Gb Ethernet	4 M	4.1 and higher	2012	OpenStack Nova	4 CPU cores, 8 GB RAM, min. 11 GB HDD

Performance of virtual Flowmon Probes depends on allocated resources, overall system load and environment of deployment.

<sup>1</sup> Number of flow entries in flow cache for each monitoring port.