# Flowmon Collector Specification

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MODELS LIST

# Flowmon Collector

Flowmon Collector is a stand-alone appliance for collection, long-term storage and analysis of flow data (NetFlow, IPFIX, sFlow, and other standards compatible with NetFlow) from flow enabled devices (switches, routers), Flowmon Probes or other flow sources. All Flowmon Collector models are equipped with Flowmon Monitoring Center (FMC) – a tool for flow collection, viewing and analyzing, automatic reporting and more. Flowmon Monitoring Center provides complete visibility into network traffic through dashboards, long-term graphs with various perspectives, Top N statistics, user-defined profiles, possibility to drill-down to any communication and more. Flowmon Collector's functionality can be extended with Flowmon modules.

Flowmon Collector is available in the form of a hardware appliance of 1U or 2U rack unit size and as a virtual appliance for deployment into virtual environments in VMware, Hyper-V, KVM, AWS, Azure or Google Cloud.

# Hardware Appliance

Flowmon Collector is equipped with two copper 10/100/1000 Mbps Ethernet management ports which can be used for appliance configuration, management and flow data collection. Management ports can be upgraded to 10 Gbps Ethernet ports by purchasing an upgrade package. The upgrade package can be purchased only for new appliances (at the moment of purchase).

Flowmon Collector is also equipped with a remote control feature for remote monitoring of device conditions. It offers command-line access, a web GUI and a virtual console. All hardware-based models provide a dedicated network interface for remote control. For details, see the Flowmon –

Pre-installation Manual document available at support.flowmon.com.

Flowmon Collector models differ in storage capacity, type of RAID, performance and dimensions of the server (1U/2U).

# Virtual Appliance

Flowmon Collector in the form of a virtual appliance (VA) is designed for deployment into virtual and cloud environments (VMware, Hyper-V, KVM, AWS, Azure, Google Cloud) and provides the same functionality as a hardware-based Flowmon Collector. Flowmon Collector models differ in performance and storage capacity.

Flowmon Collector VA supports up to two management ports which can be used for appliance configuration, management and flow data collection.

In addition, a Flowmon Collector VA supports up to two 1 Gbps Ethernet monitoring ports which provide network traffic monitoring and flow data (NetFlow/IPFIX) production. Flowmon Collector VA enables network traffic monitoring in a virtual environment without the necessity for other appliances for flow data production.

## Distributed Architecture

Distributed architecture (DA) provides high scalability and load balancing for large and demanding environments with high volumes of flow data and a large number of flow sources. Flow data is distributed among multiple units for profiles computation and other flow data processing. More units can be simply added to increase both performance and storage capacity. Distributed Architecture provides a central console for management and configuration of all units in remote geographical locations as well as data aggregation and visualization in one place.

There are 3 types of units in DA: Master, Proxy and Slave units. Master and Proxy units are dedicated hardware-based or virtual appliances. Slave Units are traditional Flowmon Collectors (hardware-based or virtual appliances).

Find out more about Distributed Architecture

# Hardware Appliances

| P/N | Model | Performance (fps)[1] | | | Storage Capacity | RAID | Disk Type | CPU[5] | RAM | Form Factor |
| | | Peak[2] | Moderate user experience[3] | Best user experience[4] | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| IFC-R1-1000 | Flowmon Collector R1-1000 | 75,000 | 40,000 | 20,000 | 1 TB | HW RAID1 | 2 x SATA Hot Swap | 8 | 32 GB | 1U |
| IFC-R1-2000 | Flowmon Collector R1-2000 | 100,000 | 40,000 | 20,000 | 2 TB | HW RAID1 | 2 x SATA Hot Swap | 8 | 32 GB | 1U |
| IFC-R5-3000PRO | Flowmon Collector R5-3000 Pro | 150,000 | 80,000 | 40,000 | 3 TB | HW RAID5 | 4 x SATA Hot Swap | 32 | 64 GB | 1U |
| IFC-R10-4000PRO | Flowmon Collector R10-4000 Pro | 250,000 | 120,000 | 60,000 | 4 TB | HW RAID10 | 4 x SATA Hot Swap | 32 | 64 GB | 1U |
| IFC-R5-6000PRO | Flowmon Collector R5-6000 Pro | 150,000 | 80,000 | 40,000 | 6 TB | HW RAID5 | 4 x SATA Hot Swap | 32 | 64 GB | 1U |
| IFC-R5-12000PRO | Flowmon Collector R5-12000 Pro | 200,000 | 120,000 | 60,000 | 12 TB | HW RAID5 | 4 x SATA Hot Swap | 64 | 128 GB | 1U |
| IFC-R10-16000PRO | Flowmon Collector R10-16000 Pro | 300,000 | 160,000 | 80,000 | 16 TB | HW RAID10 | 4 x SAS Hot Swap | 64 | 128 GB | 1U |
| IFC-R5-24000PRO | Flowmon Collector R5-24000 Pro | 200,000 | 120,000 | 60,000 | 24 TB | HW RAID5 | 4 x SAS Hot Swap | 64 | 128 GB | 1U |
| IFC-R5-48000PRO | Flowmon Collector R5-48000 Pro | 250,000 | 120,000 | 60,000 | 48 TB | HW RAID5 | 4 x SAS Hot Swap | 80 | 128 GB | 1U |
| IFC-R6-96000PRO | Flowmon Collector R6-96000 Pro | 250,000 | 120,000 | 60,000 | 96 TB | HW RAID6 | 8 x SAS Hot Swap | 80 | 128 GB | 2U |
| IFC-R6-192000PRO | Flowmon Collector R6-192000 Pro | 250,000 | 120,000 | 60,000 | 192 TB | HW RAID6 | 12 x SAS Hot Swap | 80 | 128 GB | 2U |
| IFC-R5-2880SSD | Flowmon Collector R5-2880 SSD | 400,000 | 200,000 | 100,000 | 2.88 TB SSD | HW RAID5 | 4 x SATA Hot Swap | 80 | 256 GB | 1U |
| IFC-R5-11400SSD | Flowmon Collector R5-11400 SSD | 400,000 | 200,000 | 100,000 | 11.4 TB SSD | HW RAID5 | 4 x SAS Hot Swap | 80 | 256 GB | 1U |
| IFC-MU | Flowmon Collector – Master Unit | - | - | - | 5.76 TB SSD | HW RAID5 | 4 x SATA Hot Swap | 32 | 64 GB | 1U |
| IFC-PU | Flowmon Collector – Proxy Unit | - | - | - | 6 TB | HW RAID5 | 4 x SATA Hot Swap | 32 | 64 GB | 1U |

[1] Performance is measured in our test environment using average customer data. There are several factors that may affect your specific performance, such as enabled extensions and modules or the number of concurrently executed queries in FMC. While we do our best to represent the data as fairly and accurately as possible, your environment may experience different limits.

[2] The maximum number of flows per second (fps) that a Flowmon Collector optimized for flow collection can process. In this setup, no optional features are enabled and no other modules are in use.

[3] This setup represents a good balance between performance and user experience while using optional features or Flowmon modules.

[4] This setup ensures the best user-experience in complex network environments while using all features, or running multiple Flowmon modules.

[5] Number of CPU cores, with Hyper Threading enabled.

# Hardware Appliances – Operating conditions

| P/N | Model | Dimensions (H x W x D) cm | Weight (kg) | PSU | | Power Consumption | | Heat Dissipation (max.) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | | | Power | Hot Swap | CPU Idle | CPU max | |
| IFC-R1-1000 | Flowmon Collector R1-1000 | 4.3 x 43.4 x 56.3 | 13.1 | 600 W | no | 77 W | 144 W | 2250 BTU/h |
| IFC-R1-2000 | Flowmon Collector R1-2000 | 4.3 x 43.4 x 56.3 | 13.1 | 600 W | no | 77 W | 144 W | 2250 BTU/h |
| IFC-R5-3000PRO | Flowmon Collector R5-3000 Pro | 4.3 x 43.4 x 71.2 | 18.6 | 2 x 800 W | yes | 158 W | 358 W | 3000 BTU/h |
| IFC-R10-4000PRO | Flowmon Collector R10-4000 Pro | 4.3 x 43.4 x 71.2 | 18.6 | 2 x 800 W | yes | 158 W | 358 W | 3000 BTU/h |
| IFC-R5-6000PRO | Flowmon Collector R5-6000 Pro | 4.3 x 43.4 x 71.2 | 18.6 | 2 x 800 W | yes | 158 W | 358 W | 3000 BTU/h |
| IFC-R5-12000PRO | Flowmon Collector R5-12000 Pro | 4.3 x 43.4 x 71.2 | 18.6 | 2 x 800 W | yes | 158 W | 415 W | 3000 BTU/h |
| IFC-R10-16000PRO | Flowmon Collector R10-16000 Pro | 4.3 x 43.4 x 71.2 | 18.6 | 2 x 800 W | yes | 158 W | 415 W | 3000 BTU/h |
| IFC-R5-24000PRO | Flowmon Collector R5-24000 Pro | 4.3 x 43.4 x 71.2 | 18.6 | 2 x 800 W | yes | 158 W | 415 W | 3000 BTU/h |
| IFC-R5-48000PRO | Flowmon Collector R5-48000 Pro | 4.3 x 43.4 x 71.2 | 18.6 | 2 x 800 W | yes | 165 W | 452 W | 3000 BTU/h |
| IFC-R6-96000PRO | Flowmon Collector R6-96000 Pro | 8.7 x 43.4 x 68.6 | 24.8 | 2 x 800 W | yes | 212 W | 514 W | 3000 BTU/h |
| IFC-R6-192000PRO | Flowmon Collector R6-192000 Pro | 8.7 x 43.4 x 73.6 | 36.1 | 2 x 1400 W | yes | 262 W | 611 W | 5250 BTU/h |
| IFC-R5-2880SSD | Flowmon Collector R5-2880 SSD | 4.3 x 43.4 x 71.2 | 18.6 | 2 x 800 W | yes | 144 W | 452 W | 3000 BTU/h |
| IFC-R5-11400SSD | Flowmon Collector R5-11400 SSD | 4.3 x 43.4 x 71.2 | 18.6 | 2 x 800 W | yes | 166 W | 454 W | 3000 BTU/h |
| IFC-MU | Flowmon Collector – Master Unit | 4.3 x 43.4 x 71.2 | 18.6 | 2 x 800 W | yes | 158 W | 358 W | 3000 BTU/h |
| IFC-PU | Flowmon Collector – Proxy Unit | 4.3 x 43.4 x 71.2 | 18.6 | 2 x 800 W | yes | 158 W | 358 W | 3000 BTU/h |

Continuous Operation:

- Temperature: 10°C to 35°C
- Relative Humidity[1]: 10% to 80% at 29°C

Expanded Operation[2]:

- Temperature: 5°C to 40°C
- Relative Humidity[1]: 5% to 85% at 29°C

[1] The specified temperature is the maximum dew point temperature.

[2] When operating in the expanded temperature range, system performance may be impacted. Device can work in this condition for up to 1% of annual operating hour

# Virtual Appliances

| P/N | Model | Performance (fps)[1,2] | Storage Capacity[3] | VMware ESXi | Windows Hyper-V | KVM | Minimum Configuration[3] |
|---|---|---|---|---|---|---|---|
| IFC-500-VA | Flowmon Collector 500 VA | up to 75,000 | 0.5 TB | 5.5 and higher | 2012 R2 and higher | KVM 3.10.0 and higher QEMU 1.5.3 and higher libvirt 4.5.0 and higher | 4 CPU cores, 8 GB RAM, 500 IOPS |
| IFC-1000-VA | Flowmon Collector 1000 VA | up to 75,000 | 1 TB | | | | 4 CPU cores, 8 GB RAM, 500 IOPS |
| IFC-2000-VA | Flowmon Collector 2000 VA | up to 75,000 | 2 TB | | | | 4 CPU cores, 8 GB RAM, 500 IOPS |
| IFC-3000-VA | Flowmon Collector 3000 VA | up to 150,000 | 3 TB | | | | 4 CPU cores, 8 GB RAM, 1000 IOPS |
| IFC-6000-VA | Flowmon Collector 6000 VA | up to 150,000 | 6 TB | | | | 4 CPU cores, 8 GB RAM, 1000 IOPS |
| IFC-12000-VA | Flowmon Collector 12000 VA | up to 200,000 | 12 TB | | | | 8 CPU cores, 16 GB RAM, 2000 IOPS |
| IFC-24000-VA | Flowmon Collector 24000 VA | up to 200,000 | 24 TB | | | | 8 CPU cores, 16 GB RAM, 2000 IOPS |
| IFC-48000-VA | Flowmon Collector 48000 VA | up to 200,000 | 48 TB | | | | 8 CPU cores, 16 GB RAM, 2000 IOPS |
| IFC-64000-VA | Flowmon Collector 64000 VA | up to 200,000 | 64 TB | | | | 8 CPU cores, 16 GB RAM, 2000 IOPS |
| IFC-VA-MU | Flowmon Collector VA – Master Unit | – | 6 TB | | | | 4 CPU cores, 8 GB RAM, 1000 IOPS |
| IFC-VA-PU | Flowmon Collector VA – Proxy Unit | – | 6 TB | | | | 4 CPU cores, 8 GB RAM, 1000 IOPS |

[1] The maximal measured performance in flows per second (fps).

[2] Performance is measured in our test environment using average customer data. In virtual environments, the performance depends on allocated resources, overall system load, and environment of deployment. There are several other factors that may affect your specific performance, such as enabled extensions and modules or the number of concurrently executed queries in FMC. While we do our best to represent the data as fairly and accurately as possible, your environment may experience different limits. Maximal performance can be achieved by allocating a sufficient amount of dedicated hardware resources, see Hardware Appliances for reference.

[3] Some configuration options, such as supported disk size, may be limited by the customer's virtual environment regardless of which Flowmon Collector model has been selected. Any such limitations should be consulted with the vendor/distributor of the virtual environment.

[4] The Flowmon Collector VA must be running on a host system that supports the following instruction sets: MMX, SSE, SSE2, SSE3, SSSE3, CX16, SAHF and FXSR. For Intel CPUs, it corresponds to Intel Core 2 family and newer.

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