Introduction

NetFlow is a method for flow monitoring invented by Cisco. It's the industry standard for network traffic monitoring and the most widely used measurement solution today. Statistics on IP traffic flows provide information about who communicates with whom, when, how long, how often, using what protocol and service and also how much data was transfered.

The FlowMon probe delivers the flow-based monitoring for all networks from 10 Mbps to 10 Gbps. The probe provides the NetFlow data necessary for network monitoring, security, troubleshooting, IP accounting and billing, capacity planning, user and application monitoring or traffic engineering.

FlowMon Probe

The FlowMon probe is a non-invasive appliance that monitors the network IP traffic and transforms it into standard Cisco NetFlow v5/v9 data. This data are exported to a FlowMon Monitoring Center or any third party collector for further analysis, viewing and reporting.

Although most high-end network routers support NetFlow, they often use input packet sampling and the number of supported packets/sec or flows/sec is limited unless additional specialized and costly network boards are used. Furthermore, the router-based probes have fixed placement, layer 3 visibility makes them target of attacks, and the provided statistics are not reliable enough for billing or security applications. Moreover, enabling the NetFlow monitoring slows down performance of the routers.

The FlowMon probe overcomes the limitations of router-based probes and offers standalone, L2 and L3 invisible, scalable and high-performance solution for network monitoring. It allows to generate flows statistics in environments where NetFlow exports are not available or not feasible. Typical examples are networks without NetFlow support, busy routers, L2 switches or VPNs.

The FlowMon probe is the complete off-the-shelf appliance with easy configuration and installation. It integrates basic NetFlow data collecting, viewing and analyzing which enables quick evaluation and usage of the NetFlow technology for all – network and security operators, administrators and managers.

Features

- High-performance standalone NetFlow v5/v9 probe
- Best price/performance ratio in the industry
- Standard and hardware accelerated models
- Wire speed processing with no packet loss
- 10/100/1000 and 10 gigabit Ethernet support
- 1x 10Gbps or up to 4x 10/100/1000 monitoring interfaces
- Compact (1U) and maintenance-free network appliance
- Non-invasive, simply plug into mirroring port or TAP
- L2/L3 invisible device with IPv4, IPv6, VLAN and MPLS support
- Simple configuration via intuitive web interface
- Built-in collector for quick technology evaluation
- Fully compatible with all major NetFlow collectors
- Capture up to 3 million packets/sec with maximum of 512 000 simultaneous flows

FlowMon Benefits

The NetFlow monitoring provides great benefits and financial savings for service providers, enterprises, government and academical organizations and small-to-medium businesses. The flow monitoring system enables the customers to:

- Know the network at any time and any point
- Monitor network traffic in real-time
- Secure the network against internal and external threats
- Track the historical data and drill-down to any host, application or conversation
- Analyze the network flows for an efficient capacity planning and traffic engineering
- Fulfill the data retention law (lawful intercept)
- Troubleshoot the network failures fast and precisely
- Recognize anomalies like worms or DDOS attacks
- Introduce intelligent traffic and financial reporting
- Plan and monitor QoS policy in detail
- Check the peering and service level agreements (SLA)
- Introduce IP based billing and accounting
- Find out who are the top users and get their statistics

Complete NetFlow Solution

The FlowMon probe integrates a standard or a hardware-accelerated FlowMon Exporter, a FlowMon Configuration Center and a built-in FlowMon Monitoring Center.

The FlowMon Exporter captures the network traffic, computes the flow statistics and exports the NetFlow data. The FlowMon Configuration Center enables easy remote configuration of the probe and the FlowMon Monitoring Center enables the NetFlow data collecting, viewing and analyzing.
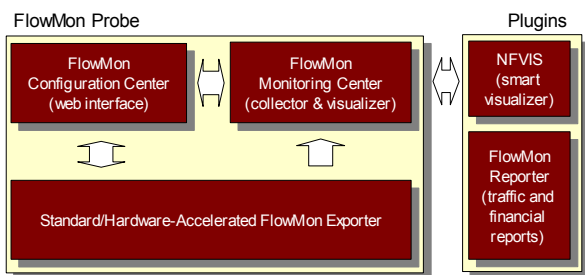

FlowMon Monitoring Center

The NetFlow data exported by the FlowMon Exporter can be collected by the FlowMon Monitoring Center or by any other NetFlow collector. The FlowMon Monitoring Center comes in two versions. A built-in version is integrated into the FlowMon probe and enables the customer to quickly evaluate the NetFlow technology. A standalone version is implemented on the dedicated server and offers the professional solution for high-throughput networks.

The FlowMon Monitoring Center displays the stored NetFlow data via web interface which enables remote flows viewing and analyzing. The user can easily navigate through the NetFlow data, drill down to any host, application or conversation or take advantage of alerts and profiles.

The FlowMon Monitoring Center supports external plugins and applications (advanced viewers, analyzers, reporting tools, etc). The demo of NFVis – smart NetFlow data visualizer is included in the FlowMon probe appliance. See www.invea-tech.com for more details about our complete FlowMon solution.
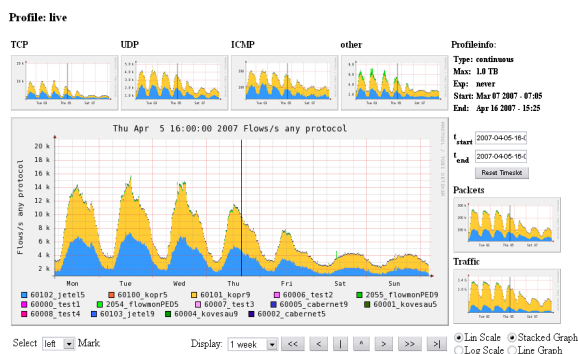
FlowMon Probe Installation and Configuration

The FlowMon probe is typically deployed on a LAN side of a WAN router, at an edge router, at a firewall, peering point or L2 switch. The probe can be connected to the user network in three ways: via mirrored port (SPAN) of router or switch; via Ethernet splitter (TAP) directly into a monitored link or via built-in splitter directly into a monitoring link (accelerated models only).

The FlowMon probe configuration is accomplished via intuitive secure web interface of the FlowMon Configuration Center. The FlowMon probe configuration takes less then 5 minutes which enables the user to have complete solution up and running in 10 minutes. Once the probe is installed and configured the system works completely autonomously.

Standard and Hardware-Accelerated Models

The FlowMon probe comes in standard or hardware-accelerated version. The standard model offers solid performance for low price. The accelerated model offload NetFlow processing to the hardware and offers the best performance in the industry for wire speed packet processing on high-load networks. Both models offers the best price/performance ratio in the market.

The standard model can capture up to 600 000 packets/sec, which is adequate for most of the networks. The accelerated model can capture 3 million packets/s providing full 2 x 1 Gbps throughput under all conditions. The accelerated model further offers built-in splitter which enable easy in-line usage of the probe and 2 additional mirror ports. Both models support advanced features like multiple destination exports, encryption, anonymization, per collector filtering or packet/flow filtering.

Comprehensive Product Range

INVEA-TECH offers a variety of FlowMon probes for different requirements. Each model has one 10/100/1000 management port and different number and type of monitoring ports. Each monitoring port can be either copper (metallic) or fiber (optic).

FlowMon Probe Models	
FlowMon Probe 1000	1 x 10/100/1000 monitoring port
FlowMon Probe 2000	2 x 10/100/1000 monitoring port
FlowMon Probe 4000	4 x 10/100/1000 monitoring port
FlowMon Probe 10000	1 x 10 GE monitoring port
FlowMon Probe 2000 Pro	2 x 10/100/1000 monitoring port, hardware accelerated model
FlowMon Probe 10000 Pro *	1 x 10 GE monitoring port, hardware accelerated model

* will be available in Q1/2008

How to get FlowMon

The FlowMon probe can be purchased as an appliance or rented as a managed service. Please contact INVEA-TECH for pricing and additional information about this product.