

Highlights

- Improves productivity and helps reduce operating costs by automating discovery, configuration backups, and upgrades to Extreme Networks Packet Brokers deployed network-wide
- Centralizes management of all Extreme Networks Visibility products
- Simplifies maintenance and provisioning while minimizing opportunities for human error with an intuitive, point-and-click Graphical User Interface (GUI)
- Provides granular configuration control at the device and port levels
- Supports integrations with third-party management applications via RESTful APIs

Support and Services

- Industry-leading customer satisfaction and first call resolution



Extreme Visibility Manager

Simplified Management and Provisioning

Service providers and enterprises deploy Network Packet Brokers (NPBs) to build monitoring networks that feed replicated traffic flows from production networks to monitoring and analytics tools. These monitoring networks often have an expansive, layered footprint of aggregation and core NPBs distributed across the network, creating numerous operational challenges. As the number of management endpoints grows, provisioning, configuring, and upgrading NPBs become more time-consuming and error-prone. In addition, several departments within the organization share the monitoring infrastructure, but each has its own visibility requirements. Providing access only to flows that are relevant to a particular group of users therefore becomes an important undertaking. With the growing adoption of Network Functions Virtualization (NFV), these challenges now also extend into the realm of virtualized networking and monitoring infrastructures.

To effectively manage their NPB infrastructure, service providers and enterprises need a centralized and intuitive management application that can provide a single point of administration for all physical and virtual NPBs deployed in their networks.

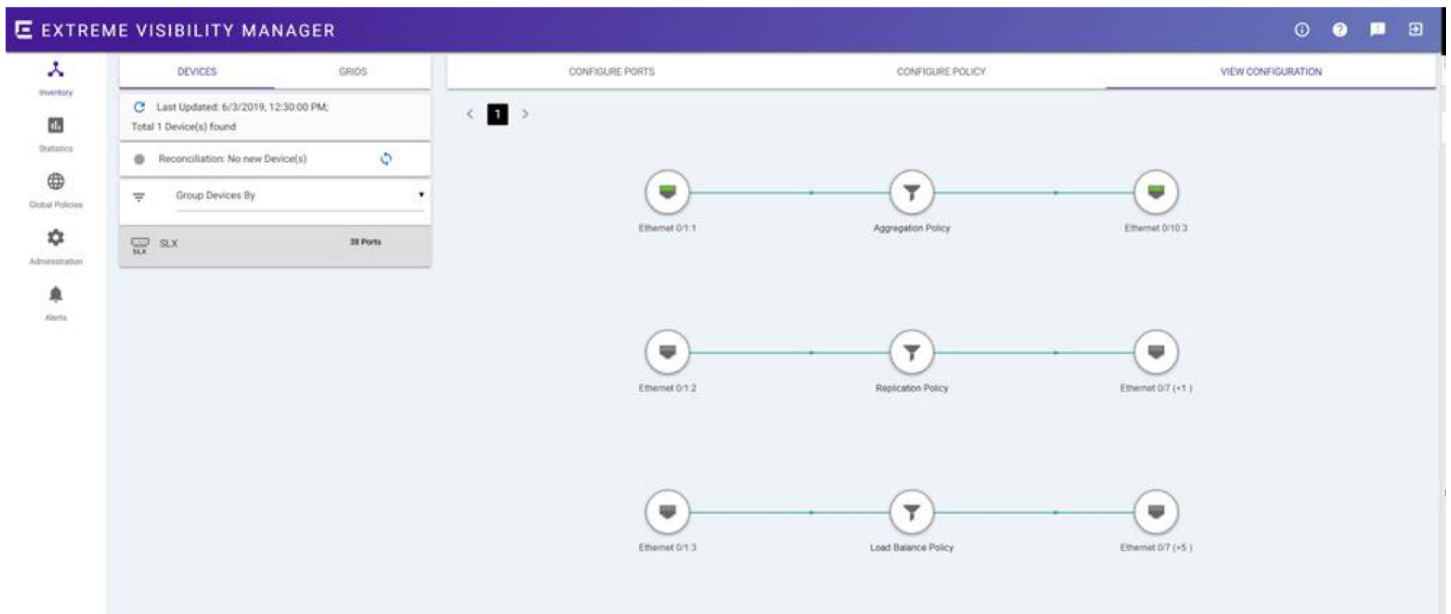


Figure 1: Point and Click configuration

Centralize Management of Network Visibility Infrastructure

Visibility Manager¹ provides a centralized mechanism for managing Visibility products deployed network-wide. This software application features an easy-to-learn yet powerful point-and-click user interface that simplifies provisioning and maintenance, minimizing opportunities for human error (see Figure 1). With a one-time deployment of the Visibility Manager, new network visibility nodes can be brought under management with minimal effort as the visibility infrastructure scales out.

Visibility Manager also enables administrators to easily share rule configurations and transfer configuration ownerships among different groups within an organization. Additionally, operations staff can monitor performance metrics for the visibility infrastructure using the application's real-time reporting capabilities.

¹ With StableNet® from Infosim®. StableNet is a registered trademark of Infosim GmbH & Co. KG.

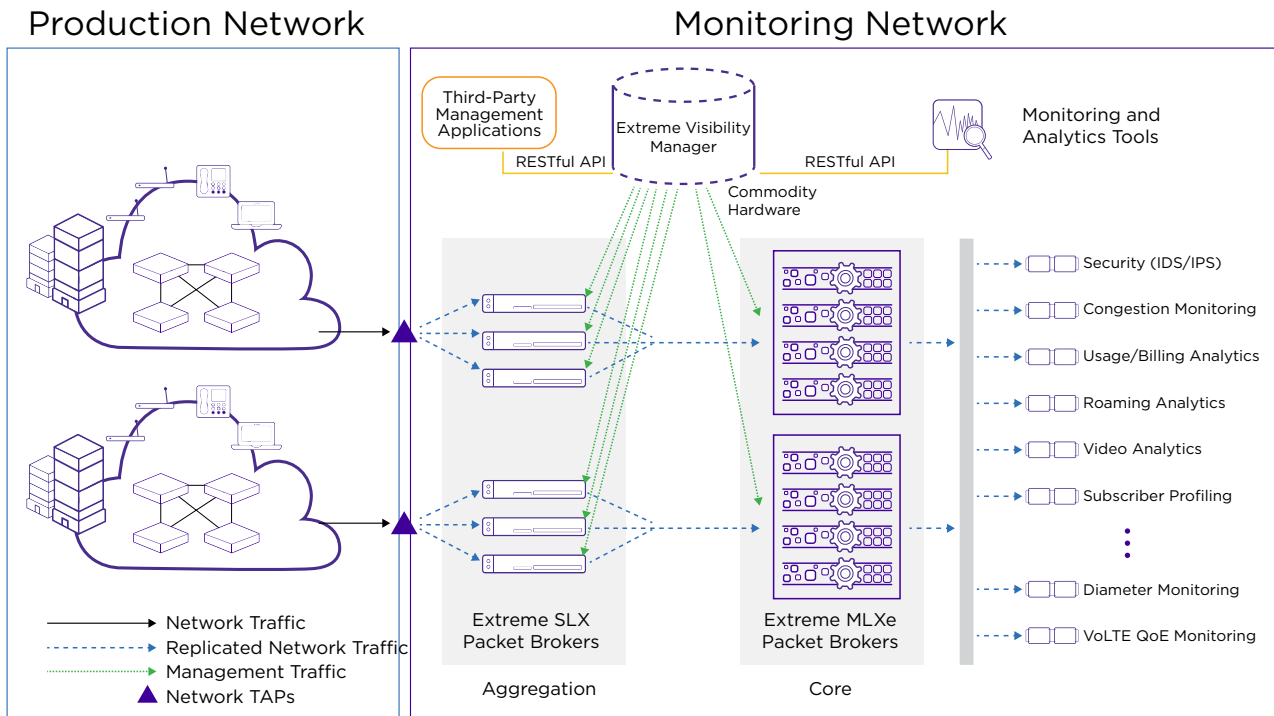


Figure 2: Visibility Manager deployment architecture.

Deploy with Ease and Scale at the Speed of Business

Visibility Manager is deployed on commodity server hardware or virtual machines. Its software-based architecture enables scale, enhanced programmability (via RESTful APIs), and simplified deployment cycles (see Figure 2).

Key benefits of Visibility Manager include:

- Improved Operational Efficiency:** The disaggregation of management and data plane functions ensures enhanced productivity, reduced operational costs, and improved operational efficiency.
- Simplified Management:** The centralized and intuitive approach to managing network visibility infrastructure reduces the learning curve as well as the time and effort required to provision, configure, and maintain the visibility infrastructure.
- Reduced Opportunity for Human Error:** The consistent and repeatable management approach abstracts the complexity and diversity of varied underlying Command Line Interfaces (CLI). This minimizes disruption from human error.
- Scale at the Speed of Business:** With reduced time and resource requirements for the deployment, provisioning, and maintenance of the visibility infrastructure, service providers and enterprises can scale their monitoring infrastructure as rapidly as the business demands.

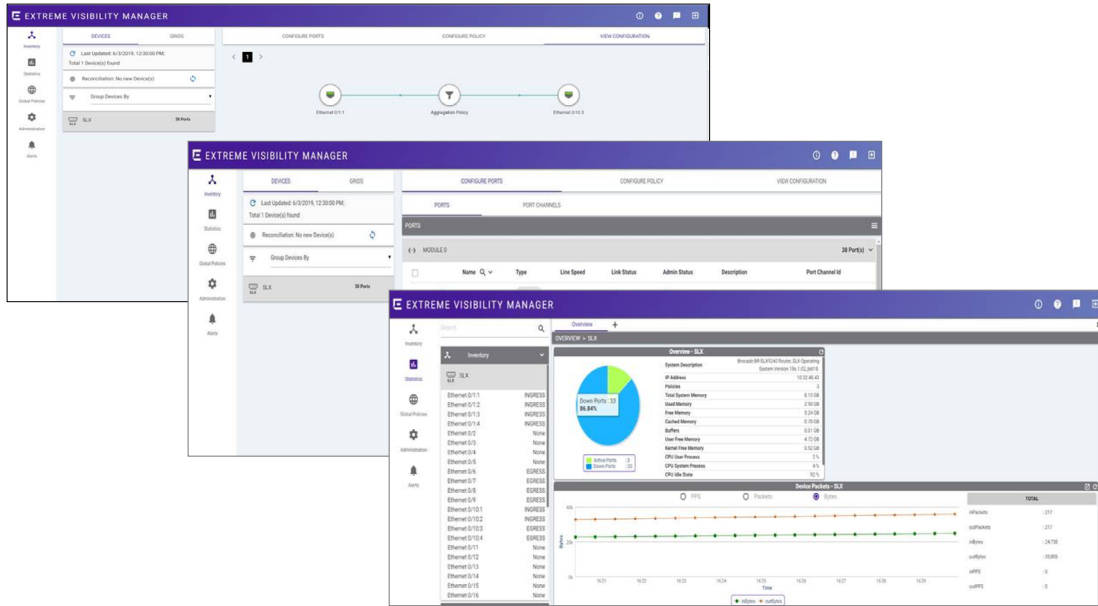


Figure 3: Single pane of glass for centralized management.

Manage Visibility Across the Network

Key features of Visibility Manager include:

- **Single Point of Management:** Provision, configure, and maintain all Visibility products in the network with an intuitive, point-and-click graphical user interface (see Figure 3).
- **Hierarchical Management Framework for Granular Control:** Configure Extreme Networks Packet Brokers at the device, line-card, and port levels.
- **Visibility Infrastructure Monitoring and Reporting:** Monitor numerous metrics and Key Performance Indicators (KPIs) for inbound and outbound flows at each port. View aggregated metrics and KPIs by line card and device. Define alarms and notifications in order to be alerted when critical monitoring thresholds are exceeded (see Figure 4).
- **Network Packet Broker (NPB) Grid:** Allows a user to provision Tap Ports to Tool Ports, while hiding intermediate hops in the distributed visibility infrastructure with these key benefits:
 - Auto-identification of physically interconnected Network Packet Brokers (NPB)
 - Intuitive UI for drag-and-drop grid creation
 - Grids treated as a single logical device to apply policies
 - Auto-path switchover without user intervention
 - Interactive grid topology

- **Statistics for SLX Devices:** Provides near real-time statistics on ports, policies, and devices with an easy to use a drag-and-drop interface to create and view statistics dashboards.
- **RESTful APIs for Programmatic Management:** Control and monitor Visibility products with any homegrown or third-party management application using RESTful management APIs exposed by Visibility Manager.



Figure 4: Monitoring and reporting.

Device Automation Theme
Manage periodic jobs to discover, backup, and modify devices.

Device Backups
Configuration backup archive.

Configuration Viewer
Show archived configuration.
Select multiple to view changes.

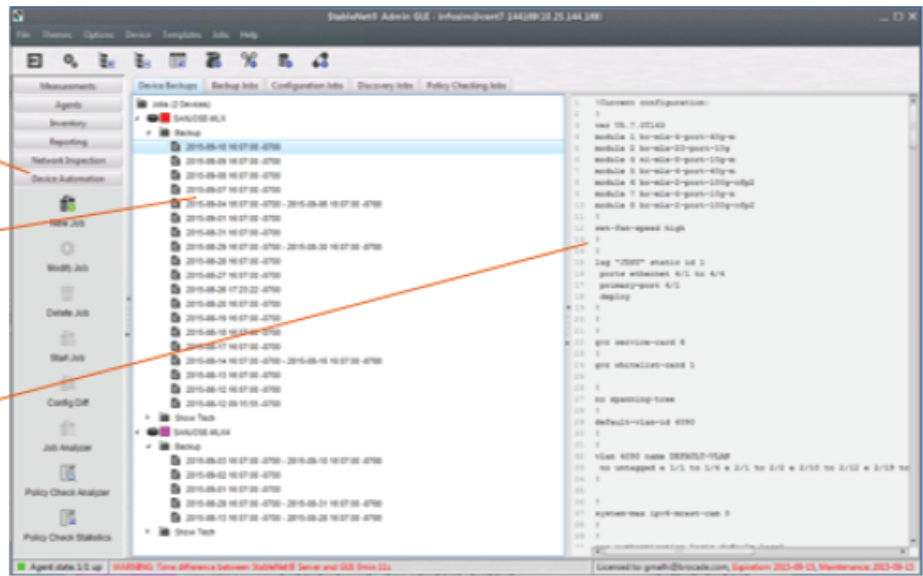


Figure 5: Automated discovery, backups, and upgrades.

- **Role-Based Access Control:** Manage access to devices, functions, and reports by defining user profiles and profile groups. Assign access to resources by profile to ensure that access is clearly delineated and restricted only to authorized users.
- **Packet Capture:** Enable troubleshooting options for users by capturing packets from switch ports in providing L2/L3 filters and TX/RX directions. Plus, option to transfer the downloaded file to the desired machine and provide for further analysis.
- **External Authentication:** Authenticate users by integrating Visibility Manager with external authentication systems. External authentication can be configured on a per-user basis.
- **Automated Discovery, Backups, and Upgrades:** Create automated jobs to discover new devices, back up configurations, and upgrade the Visibility infrastructure. View any archived configuration in a configuration viewer tool (see Figure 5).

Visibility Manager Server Requirements

Component	Minimum Specification	Recommended Specification
CPU	8-core 2 GHz processor	16-core 2 GHz processor
RAM	16 GB	32 GB
HDD	128 GB	128 GB
OS	RHEL or CentOS	

Extreme Visibility Solutions

Extreme Visibility solutions help mobile operators monitor, secure, analyze, and monetize their physical and virtual networks at scale, as they begin their journey to 5G. With programmable hardware packet brokers and the industry's first full-featured software packet broker, Extreme Networks delivers a best-in-class network visibility solution built for the most demanding networks.

Maximizing Investments

To help optimize technology investments, Extreme Networks and its partners offer complete solutions that include professional services, technical support, and education. For more information, contact a Extreme Networks sales partner or visit www.extremenetworks.com.

Extreme Visibility Manager Ordering Information

Part Number	Description
BR-NVA-BVM-1	Visibility Manager license for one device
BR-NVA-INFOSIM-1	Infosim StableNet license for one device



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