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Product Brief

BroadView™ Analytics

Application for Advanced Network Telemetry and Analytics
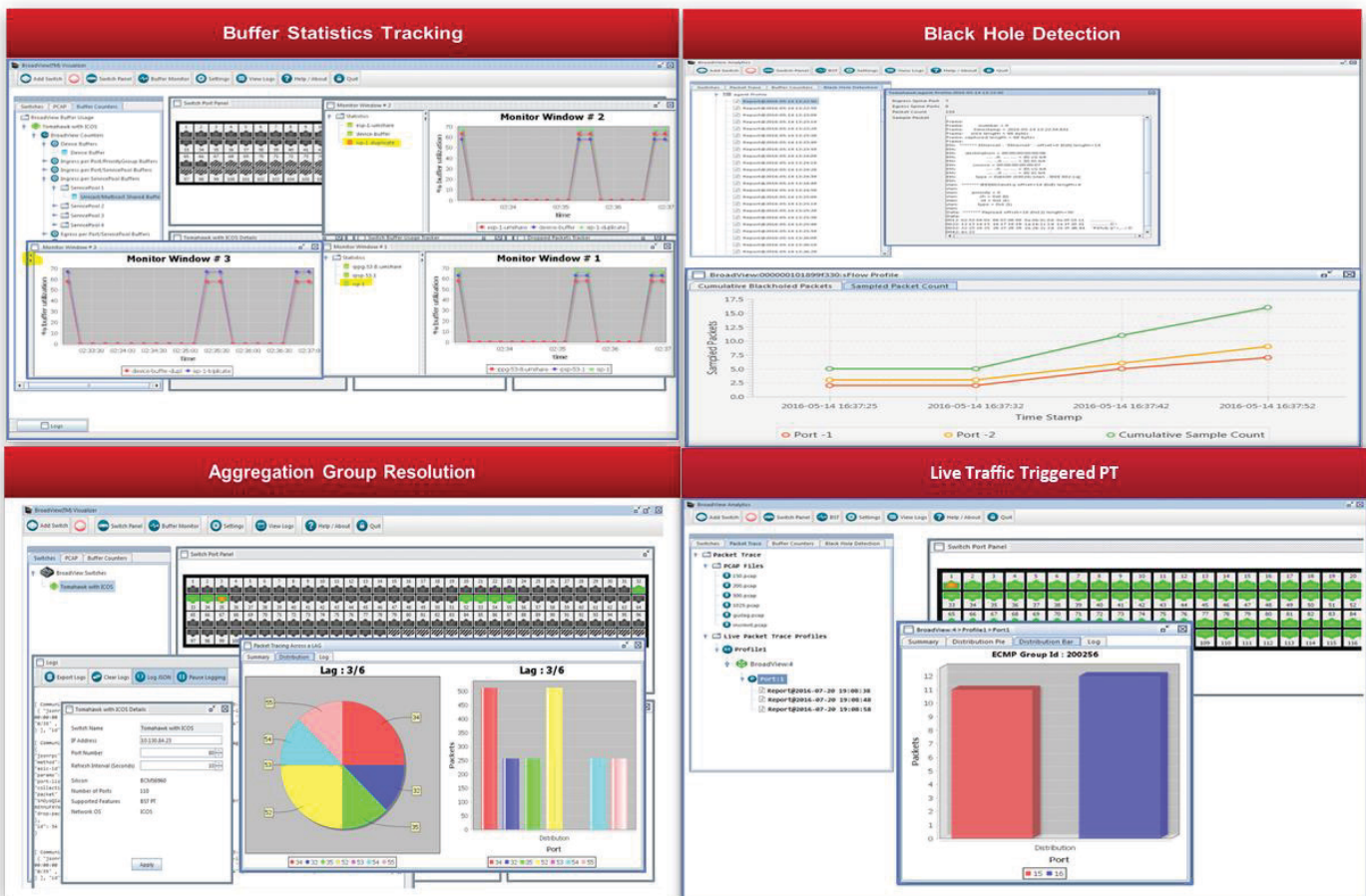
Overview

BroadView Analytics is a network monitoring application that delivers advanced visibility into packet flows at the switch and network level. Broadcom has delivered market-leading platform agnostic telemetry API being used by growing number of open source and OEM applications. For more details about the API, please refer to the BroadView Agent Specification published on Github.

BroadView Analytics is a Java-based application that provides a GUI-based interface to configure the BroadView Agent running on a switch system. The Analytics application typically runs outside the switch system in an x86 server, and uses the BroadView telemetry API exported by the BroadView Agent. The BroadView Analytics application gathers data from the switch to enable several innovative use cases such as microburst detection, aggregation group optimization, and packet-path tracing.

Supported Use Cases

• Congestion Monitoring

• Packet-Path Tracing

• Latency Analysis

• Blackhole Detection

• Packet-Drop Monitoring

• IPFIX-based Flow Monitoring

BroadView Analytics Features Examples

BroadView Analytics

Overview (continued)

Built as a multi-window application, it allows simultaneous monitoring of various data that the user is interested in, while providing visual indication of any critical events occurring at the devices. BroadView Analytics application persistently stores any important switch configuration and restores the previous configuration upon an application restart. It also provides time-stamped logs to facilitate detailed analysis of raw data.

The BroadView Analytics application was published on GitHub and can be found using the link https://github.com/Broadcom-Switch/BroadView-Analytics.

Supported Features

Switch Registration

BroadView Analytics supports automatic registration and manual registration of BroadView-enabled switches. The registered switches can be configured to monitor various supported instrumentation features.

Buffer Statistics Tracking (BST)

Enables pro-active monitoring of buffer occupancies through "pushed" or "pulled" reports. It also supports threshold-based congestion monitoring and microburst detection.

Congestion Drop Counters

Allows monitoring of the top ports suffering congestion, or monitoring the number of packets dropped due to congestion, on a per-port, per-queue-type (broadcast or multicast), or per-port-per-queue.

Packet Tracing & Injection (PTI)

Enables user to inject debug packets and capture trace profiles that provides visibility into how the packet was processed in the switch pipeline. Aggregation group optimization is an example of a use case for this feature.

Live Packet Tracing and Injection (Live-PTI)

Allows the user to configure the switch for obtaining packet distribution across 'LAG' or 'ECMP'. The user interface allows the user to match incoming packets against a user-specified match criterion (5-tuple). Packet path tracing, basic latency analysis, and advanced troubleshooting are examples of use cases of this feature.

Flow Tracker (FT)

Enables Internet Protocol Flow Information Export (IPFIX)-based flow monitoring where packet flow statistics are gathered based on inspecting every packet (not sampled).

Note: This feature requires embedded software on the switch which is licensed separately by Broadcom.

System Requirement	Description
Operating System	Microsoft Windows 10 and above
Memory	4 GB
Free Hard Disk Space	At least 3 GB
Java Virtual Machine (JVM)	Java version 1.8 and above
Switch Platform	BroadView enabled switch using BCM56760, BCM56850, BCM56860, BCM56870, BCM56960 and BCM56965 silicon families
Traffic Generator and Connectors	Traffic Generator to send traffic
BroadView Agent Software Version	3.2.0.2

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