

BroadCloud PacketSmart for Monitoring

Superior Customer Service

VoIP service providers understand the high cost of customer churn. With more and more applications delivered over converged networks, customer loss impacts even greater revenue potential. Recently, Gartner Group estimated that the cost of acquiring new customers is 10 to 12 times higher than retaining existing customers. For VoIP service providers, scaling operations while managing support costs is more important than ever.

BroadSoft® offers service providers the solutions to reduce churn across their entire VoIP customer base. One of these solutions is BroadCloud™ PacketSmart™ Monitoring, which provides visibility across a customer's wide area network (WAN) and local area network (LAN), and helps service providers identify the sources of issues that degrade VoIP quality.

BroadCloud PacketSmart helps VoIP providers resolve customer issues faster and fix problems the first time. By reducing the length of troubleshooting calls and truck rolls, service providers can improve their customer satisfaction and benefit from meaningful operational savings.

BroadCloud PacketSmart Care Series Overview

BroadCloud PacketSmart Monitoring provides a comprehensive set of tools that helps VoIP service providers improve customer care. The solution does this through the combination of site-based probes with network-based analytics. Customer care representatives use BroadCloud PacketSmart to generate reports and analytics that pinpoint the source of VoIP problems and quickly identify fixes.

BroadCloud PacketSmart also offers email alerts that are sent when VoIP quality thresholds are exceeded. Service providers can use these alerts to proactively contact their customers and perform repairs before VoIP quality impacts their business.

BroadCloud PacketSmart Monitoring Functional Overview

BroadCloud PacketSmart Monitoring uses a site-based probe to inspect transmission control protocol and user datagram protocol traffic to generate test calls. Performance data and test results are sent to the BroadCloud PacketSmart analytics engine hosted within BroadCloud's network operations center.

Teams from customer care and network operations can use the BroadCloud PacketSmart Web graphical user interface to access tools and reports available in the VoIPCare and VoIPCare+ subscription packages.

Key Reports & Capabilities

VoIPCare:

- VoIP Monitoring
- VoIP Call Generation
- VoIP SLA Report
- Domain SLA Report
- Proactive Alerting (email)
- Network Quality Report

VoIPCare+ Adds:

- Top N Flows Analysis
- Verification Report
- Network Behavior Analysis Report

BroadCloud PacketSmart Care Series packages

Key Features

- 24 x 7 monitoring of all VoIP calls
- Proactive VoIP quality issues alerts
- Single test call generation for debugging
- Advanced reporting for diagnosing issues with QoS-enabled customer networks
- Data stored for 30 days to enable monthly SLA and trending reports
- Complete signaling data for troubleshooting transient call setup issues such as call drops, one-way audio, protocol issues, etc.
- Detailed route analysis for every call to detect route flaps and poorly performing WAN routers
- Traffic flow analysis to detect LAN congestion
- Daily domain-wide VoIP SLA reports for a unified view across all customers

Analytics and reporting are provided through a BroadCloud-hosted subscription. This approach limits the initial outlay to get started and speeds the time to initiate coverage.

Using BroadCloud-based analytics, BroadCloud PacketSmart helps reduce the cost to deploy and operate the solution. Equipping your installers with BroadCloud PacketSmart brings immediate operational savings by reducing the time to deploy services and the amount of non-chargeable rework or truck rolls.

Troubleshooting with BroadCloud PacketSmart

BroadCloud PacketSmart analytics store a full 30 days of historical call data to assist troubleshooting. BroadCloud PacketSmart uses an intelligent correlation-based reporting engine that can pinpoint trends and problem sources by analyzing per-second data from tens of thousands of calls.

Historical reports are combined with real-time reports and probe-generate test calls. With this complete toolkit, customer care representatives can effectively troubleshoot quality concerns across a variety of scenarios, including cases when a customer knows the exact time of the quality problem or when the concerns are more general in nature. Plus, BroadCloud PacketSmart reports include capabilities to troubleshoot more complicated Quality of Service (QoS)-enabled customer networks.

End-User Benefits

- Less phone time with customer care to resolve QoS related problems
- Fewer repeat calls over quality issues
- Greater business uptime

Service Provider Benefits

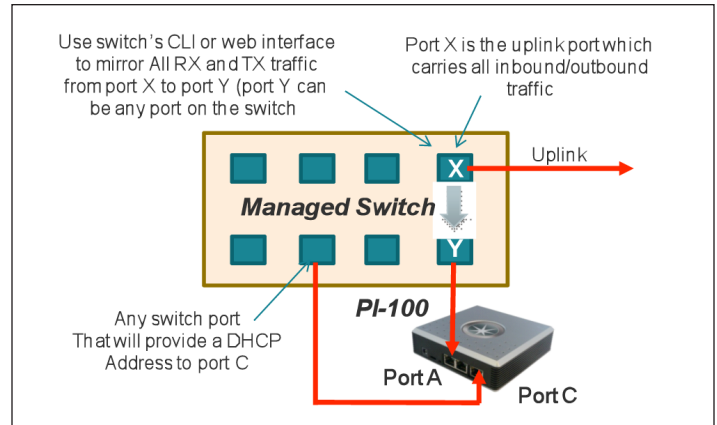
- Provides them greater ability to scale while managing support costs
- Enables them to reduce customer care staffing costs and the number of Tier 2 and Tier 3 escalations
- Reduces Returned Merchandise Authorization from misdiagnoses
- Provides them with the opportunity to sell performance sustainable, high end service offerings

Probe Deployment and Functionality

BroadCloud PacketSmart monitoring requires the deployment of an onsite probe. Probe functionality begins with the PI-100, a non-intrusive, failsafe 4" x 5" micro-appliance.

The PI-100 uses Ethernet connectivity and is typically connected onto the customer's LAN switch on the span or mirror port. This design enables the probe to analyze all voice and data traffic on the network without introducing an additional point of failure or source of variability.

Positioning the PI-100 is simple. The device will function with any vendor's LAN switch or access device and there is no integration or interop required. Higher capacity models, starting with the PI-500, are available and are capable of supporting campus or enterprise trunk connectivity. The BroadCloud PacketSmart probe will also be available as an agent embedded on select access device vendors. This is helpful for service providers that prefer a single device for access functionality and BroadCloud PacketSmart probe capabilities.



Typical monitoring deployment configuration for PI-100

Summary

Service providers and end-users both lose when a quality problem persists. These problems can lead to repeated calls into customer care, long troubleshooting sessions, and even truck rolls.

BroadCloud PacketSmart Monitoring is designed to improve customer satisfaction, minimize cost of customer care operations, and reduce churn. What's more, it comes at a low upfront cost, which allows service providers to quickly determine the impact of BroadCloud PacketSmart, starting with their most complex and valuable customers.

Key Specifications PI-100 Probe in Monitoring Configuration

Power Supply	100 to 240V AC with output to MA 5Volts
Display	LCD and LED
Interface Type (A,B, & C)	Fast Ethernet
Interface Speed (A,B, & C)	10/100 base T
Ethernet Cable Type	Straight-through or cross-over cables (CAT 5, 5e and 6)
VoIP Protocols Monitored	SIP, TCP, SCCP and MGCP
VoIP Call Generation Protocols	SIP, RTP
Data Upload Protocol	HTTP
SIP Ports Monitored	All UDP ports
SIP Ports Used For VoIP Call Generation	UDP ports 5060 & 5061
RTP Ports Used For VoIP Call Generation	UDP ports 15000 thru 16000
VoIP Concurrent Call Generation	Synthetic call generation up to 1 concurrent call
VoIP Monitoring Speeds	100 base T
Data Pass-Through Performance On Ports A & B	100 base T switching speeds
NAT Support	Yes
Fail-Safe	Yes
CE Marked	Yes
ROHS Marked	Yes