

EdgeView VoIP Support System

Introduction

The award-winning EdgeView VoIP Support System is a critical solution for service providers and enterprises looking for faster installation times and to better monitor/manage VoIP call quality. The VoIP Support System offers proven operational savings and allows service providers and enterprise customers to easily scale their VoIP service through the central management of Edgewater Networks' EdgeMarc, EdgeConnect, EdgeProtect Series products, and 3rd Party administration.

Feature Rich, Simple to Use

Typically installed in the operations center, access to the EdgeView GUI console is authenticated to ensure that only authorized personnel access individual nodes. EdgeView also provides a scripting interface and SNMP trap support for maximum flexibility that can be used to integrate with other NMS systems or automate repetitive tasks. Designed to support various sized VoIP service environments EdgeView is available in a range of form factors and is simple to setup and configure.

GUI Snapshot identifying MOS issue with Knowledgebase solution

File to analyze: EdgewaterMain-11-03-2004-11-23-24.csv

Date/Time	Call ID	SBC	SDD	DST	DDD	MOS	BTC	NI	FJ	PPL	LP	RR	SBE	QOP	PD	MPJ	MNJ	CLP	PLB	WBD	JPD	PLG	PRC	PAC	PDB	PUL
Nov 3 19:09:36	38	10.10.10.15	00036b54c444	66.150.113.232	unk	2.81	4	2.39	1.00	0.00	0	3786	3786	0	3.94	152.3	-162.84	0	0.00	0.81	7.74	1.00	0.00	0.00	0.00	0.00
Nov 3 18:04:48	25	10.10.10.5	003094c408e5	209.247.23.73	unk	2.91	2	0.00	0.00	0.00	0	3607	3607	0	1.70	152.1	-161.65	0	0.00	0.56	4.21	0.00	0.00	0.00	0.00	0.00
Nov 3 19:09:36	38	66.150.113.232	unk	10.10.10.15	00036b54c444	2.84	1	1.61	0.98	0.02	18	3666	3662	0	10.50	-21.13	-235.94	1	1.00	21.56	7.56	0.29	0.11	0.59	0.00	0.01
Nov 3 19:07:26	36	209.247.23.74	unk	10.10.10.150	0007eb20b5af	3.42	9	0.82	0.81	0.19	217	33645	33591	0	10.50	60.75	-326.09	8	1.28	27.88	9.11	0.32	0.24	0.42	0.00	0.00
Nov 3 19:00:08	37	66.52.82.3	unk	10.10.10.215	00078546a962	3.51	3	0.08	0.00	0.00	78															
Nov 3 19:12:26	31	209.247.23.89	unk	10.10.10.205	0003e3630027	3.83	15	0.80	0.95	0.05	471															
Nov 3 17:58:40	23	209.247.23.89	unk	10.10.10.5	003094c408e5	4.12	0	0.23	0.00	0.00	15															
Nov 3 18:54:47	33	66.52.82.2	unk	10.10.10.215	00078546a962	4.21	0	0.08	0.00	0.00	9															
Nov 3 18:45:41	32	209.247.5.148	unk	10.10.10.5	003094c408e5	4.22	0	0.08	0.00	0.00	77															
Nov 3 17:51:33	16	66.52.82.2	unk	10.10.10.5	003094c408e5	4.30	0	0.00	0.00	0.00	142															

Product Benefits

OPEX savings – faster installs, and fewer truck rolls

Simplified troubleshooting – MOS statistics, LAN/WAN problem isolation signaling capture, Active Line VoIP Testing, VoIP knowledgebase

VoIP Quality Alerts

Notification of below threshold call quality for proactive support

Improved customer satisfaction – faster trouble resolution

Scalability – one to many with multi-node support and remote upgrades

Carrier Class – high availability for carrier-grade installations

Easy to use – GUI-based tools for technicians of all levels to utilize immediately

Data rich – knowledgebase management systems provides a vast library for troubleshooting and problem source identification

Seamless integration – works in conjunction with existing OSS or NMS systems

KnowledgeBase Solution

Goal

MOS Analysis indicates significant jitter. What are corrective steps?

Solution

This call shows significant packet jitter, occurring at least once during the call. Packets should arrive every 20msec (with G.711), for this call at least one packet was significantly delayed (more than 100msec).

Phone codecs use a "reassembly buffer" to queue a few RTP packets before decoding them. Slight variations in packet arrival from the expected 20msec are hidden by this buffer. Significant jitter, however, can cause a packet to arrive too late to be used. 100msec is used as a rule of thumb for excessive jitter.

Because the Advanced MOS measurement only shows the worst-case jitter, it does not highlight whether this event occurred just once or many times during the call. If many calls in the MOS table show poor MOS scores and significant jitter (>100msec) then it can be assumed that jitter is impacting overall call quality.



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EdgeView Software Features

Troubleshooting

MOS (mean opinion score) statistics capture - continuous and historical
Proactive notification of poor call quality using SNMP traps or email
Call signaling capture and analysis for advanced troubleshooting (call-ladder)
Active Line VoIP Testing- capture MOS, jitter, and packet loss with out remote assistance

Remote Configuration

IP configuration and setup management for Edgewater Networks' devices and IP phones
Secure transfer of User Agent authentication credentials
Local EdgeMarc storage of configuration files

Adminstration

SNMP integration with existing NMS
Image management and group upgrades for multiple nodes
High availability with optional dual redundant, hot swappable AC or DC power supplies
GUI-based interface

EdgeView Hardware Highlights

EdgeView 6400LF2

2 RU rack mountable
2x10/100 Ethernet interfaces
Dual redundant, hot swappable AC or DC power supplies
Supports up to 2500 nodes



EdgeView 6400LF2 High Availability (HA)

2 x EdgeView 6400LF2 systems deployed in a high availability configuration
Supports up to 2500 nodes

EdgeView 5300

1 RU rack mountable
2 x 10/100 Ethernet interfaces
1 x 10/100 Ethernet out of band management interface
Supports up to 500 nodes



EdgeView VoIP Support System

Specifications

EdgeView 5300LF



Interfaces

Ethernet WAN	1 X 10/100/1000 Mbps
Ethernet LAN	1 X 10/100/1000 Mbps
Aux Ports	1 X 10/100 Mbps
Serial	1 X RS 232

Power, Dimensions, Safety

Size (2RU rack mountable)	Height 1.7", Width 16.9", Depth 14"
Weight	WEEE weight: 13 lbs. Shipping weight: 18 lbs.
Power	100/240v VAC, auto-selecting, 50 to 60 Hz
Power Consumption (Maximum)	200W
Safety	cUL, UL
Emissions	FCC Part 15 Class A, ICES-003, VCCI Class A, MIC, C-tick
Immunity	CE
Environmental	WEEE, RoHS compliant

EdgeView 6400LF2



Interfaces

Ethernet WAN	1 X 10/100/1000 Mbps
Ethernet LAN	1 X 10/100/1000 Mbps
Aux Ports	1 X 10/100 Mbps
Serial	1 X RS 232

Power, Dimensions, Safety

Size (2RU rack mountable)	Height 3.45", Width 17.14", Depth 20"
Weight	WEEE weight: 45 lbs. Shipping weight: 55.2 lbs.
Power	2 x 600W DC power supplies or 2 x 600W AC power supplies
Power Consumption (Maximum)	400W
Safety	ROHS compliant, IEC 950, TUV/GS EN60950, CSA 60950(USA / Canada) EN60950 (Europe), IEC60950 (International), CB Certificate & Report, IEC60950 (report to include all country national deviations), GS License (Germany), Belarus License (Belarus), CE - Low Voltage Directive 73/23/EEE (Europe), IRAM Certification (Argentina), GB4943- CNCA Certification (China) FCC (Class A Verification) - Radiated & Conducted Emissions (USA)
Emissions	CISPR 22 - Emissions (International) EN55022 - Emissions (Europe) EN55024 - Immunity (Europe) EN61000-3-2 - Harmonics (Europe) EN61000-3-3 - Voltage Flicker (Europe) CE - EMC Directive 89/336/EEC (Europe) VCCI Emissions (Japan), AS/NZS 3548 Emissions (Australia / New Zealand) BSMI CNS13438 Emissions (Taiwan) Belarus License (Belarus), RRL MIC Notice No. 1997-41 (EMC) & 1997-42 (EMI) (Korea), GB 9254 - CNCA Certification (China), GB 17625 - (Harmonics) CNCA Certification (China)