



# Mitel Performance Analytics (MPA)

Better network performance  
for business success.

May 2020

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# INTRODUCTION TO MPA



?

# You've Got QUESTIONS

Do I have a voice quality problem?

What's the cause of the problem?

How can I troubleshoot and resolve problems more efficiently?

How can I get more visibility into my network?

# Mitel Performance Analytics

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# Mitel Performance Analytics Overview



## Prevent & Detect Problems

24/7 Performance Monitoring  
(UC, VQ, Network, System)

Alarms & Alerting  
Email, SMS, SNMP

Thresholding

Audit Logs



## Troubleshoot Problems

Secure Remote Access

Testing Tools  
(Ping, Traceroute, MTR)

IPT User Dashboard

UC Network Testing



## Manage For Insight

Scheduled Backups & Maintenance Mode

Reports  
(Performance, Inventory and Queries)

Analytics

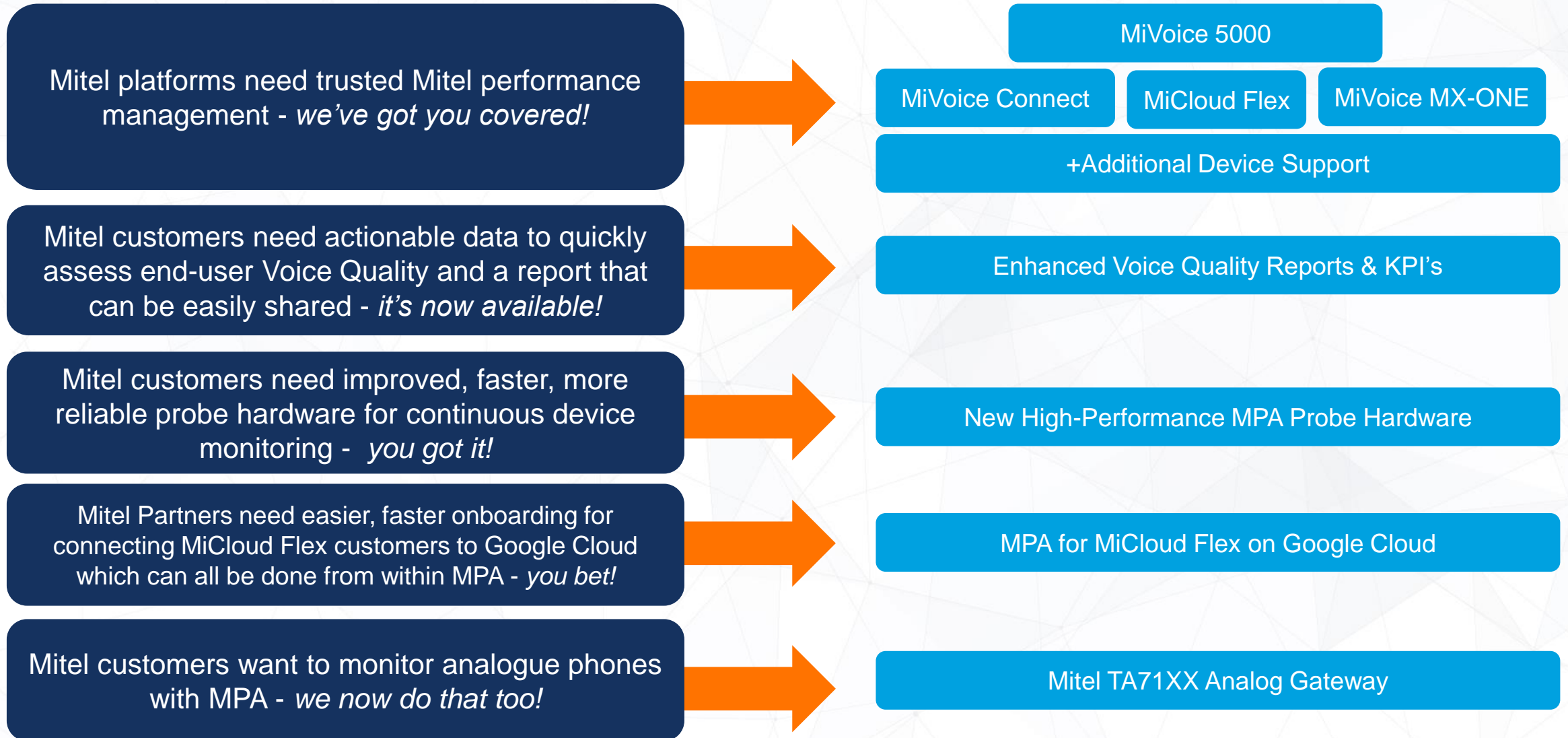
NOC Views





# **WHAT'S NEW IN MPA 3.1**

# How MPA Enhances the Story



# What's New in MPA 3.1?

*FOR MORE DETAIL*

Consult the 'What's New in MPA 3.1' Presentation



## MiVoice 5000 Support

This release includes support for MiVoice 5000 that includes secure remote access, telephony services monitoring, voice quality, CPU, memory, disk, network monitoring & alarm management.

## KPI Based Voice Quality Reports

Highly detailed reporting tool that quickly assess Voice Quality. This actionable report can be shared with IT Directors and CIO's or end customers.

## MPA for MiCloud Flex on Google Cloud

Single pane of glass for provisioning, upgrades and performance monitoring.

## SIP-DECT Device Monitoring

Now supported in MPA. Partners can monitor the performance and availability of the SIP DECT devices.





# What's New in MPA 3.1?



## Mitel TA71XX Analog Gateway

Device Monitoring and Voice Quality reporting.



## Emergency 911 Alerting

Available in Mitel Performance Analytics Plus for MX-ONE.

## Ingate SBC Support

Added Ingate session border controller (SBC) support for basic SNMP monitoring.

## New Probe Hardware

The powerful ESPRESSOBin Board is a high-performance ARM based 64bit single board computer. It utilizes Marvell's newest Armada 3700 chipset which is a dual core SOC running up to 1.2Ghz.

## Upgraded Operating System

Upgraded MPA Operating System for improved performance and a continuously supported platform.

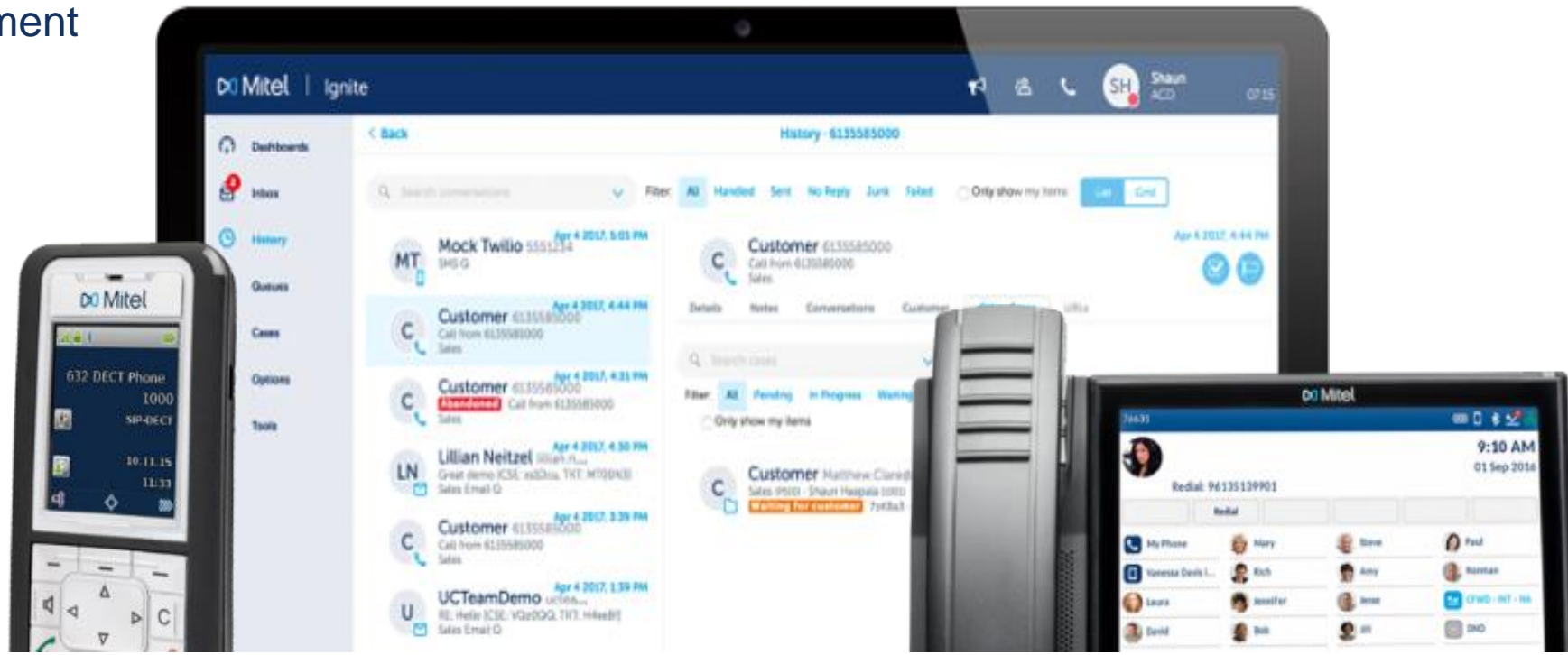


# MPA for MiVoice 5000

*This release includes support for MiVoice 5000.*

Support includes:

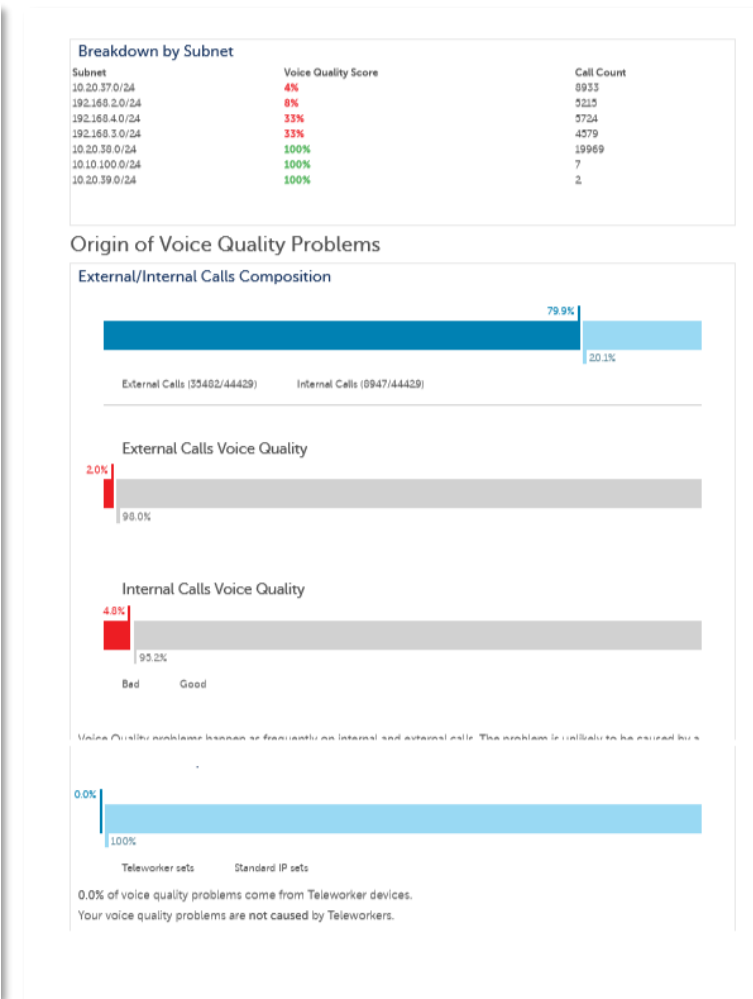
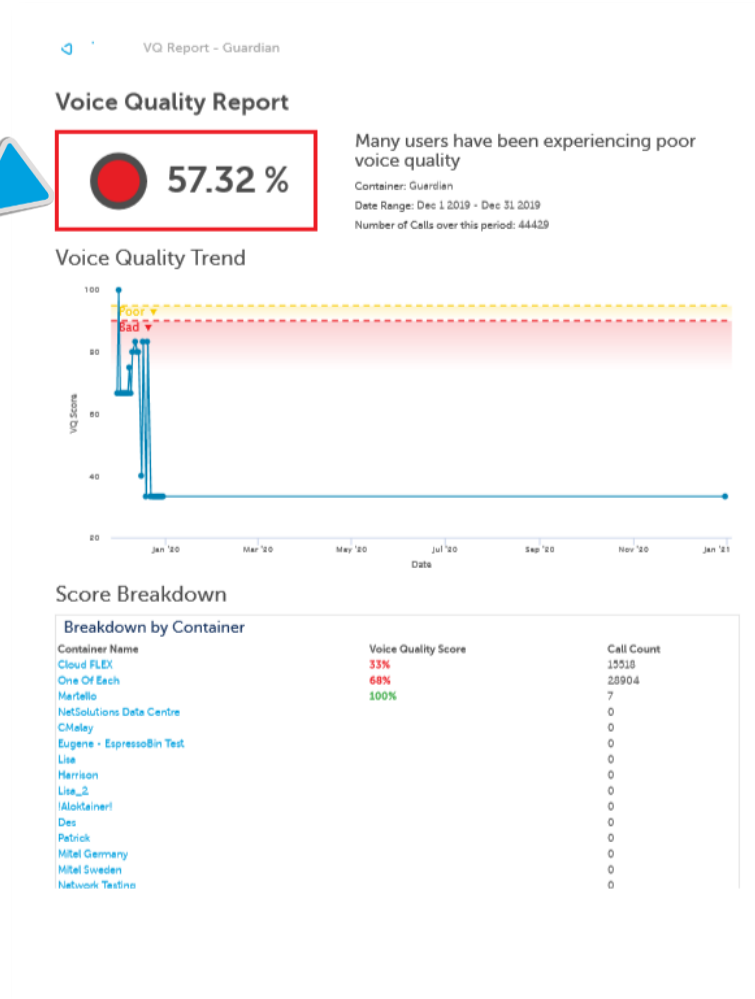
- ✓ Secure remote access
- ✓ Telephony services monitoring
- ✓ CPU memory monitoring
- ✓ Disk monitoring
- ✓ Network monitoring
- ✓ Alarm management



# Improved VQ Reports – KPI Based

## Mitel Performance Analytics R3.1 adds more VQ specific reports.

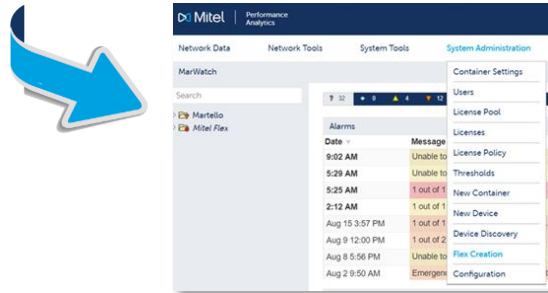
- ✓ Quickly assess customer's VQ status
- ✓ VQ trended over time
- ✓ Origin of VQ problems
- ✓ Internal & external call quality
- ✓ Quickly view general VQ Score
- ✓ Subnet VQ
- ✓ Teleworker vs On-premise handset



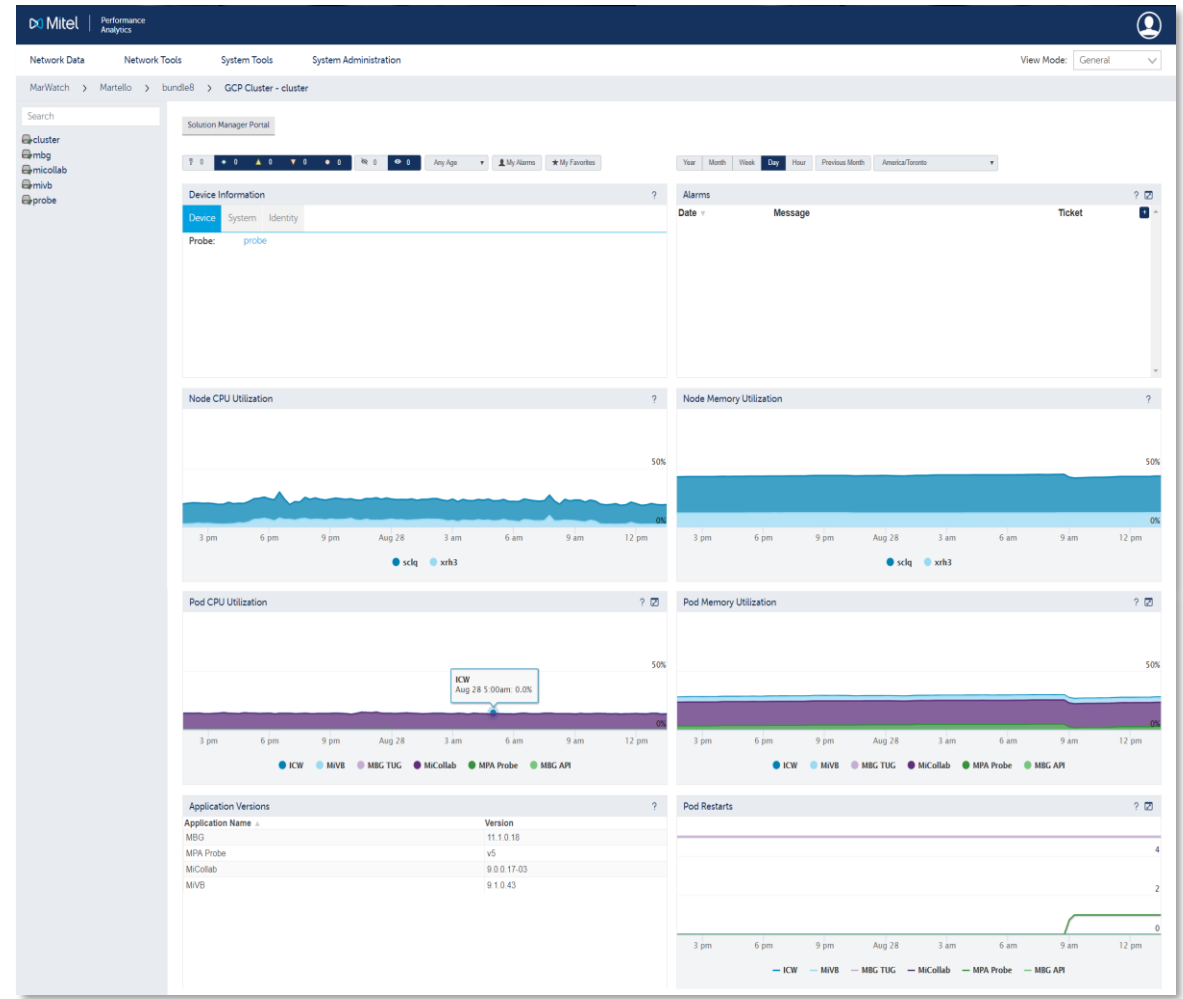
# The Google Cloud Connection

## Reduce deployment costs for MiCloud Flex

- Administrators can now select “Flex Creation” when they want to add a new customer in Google Cloud



- A new wizard makes the process quick & easy
- Status is shown for:
  - Node CPU Util
  - Node Memory Util
  - Pod CPU Util
  - Pod Memory Util
- MPA will create alarms and notify technicians when CPU or Memory thresholds are reached



# **MPA FEATURES**

## **PERFORMANCE MONITORING**

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# Performance Monitoring

End-to-end network performance management of Mitel and the surrounding network.

## Performance

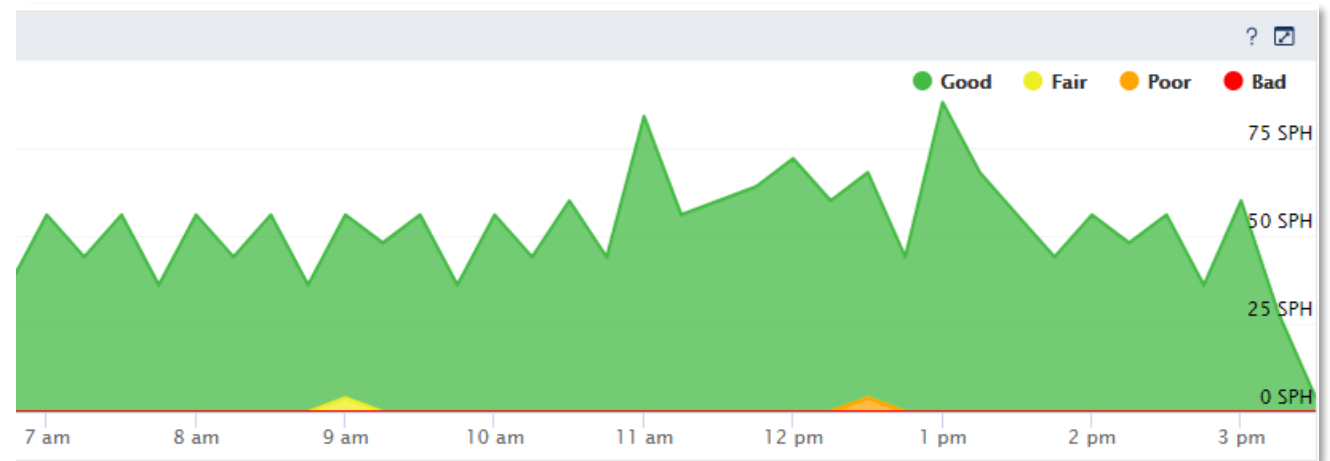
- Voice Quality
- System Performance
- Application Performance
- Network Performance

## Voice Quality

- Mitel Minet IP phones (MiVoice Business)
- Mitel SIP devices (MiVoice MX-ONE)
- MBG – Teleworker and SIP trunking

## UC Performance

- Digital / SIP Trunks (MiVoice Business/MBG)
- SIP Trunks (MiVoice Business/MBG)
- SIP and Legacy gateway utilization (MiVoice MX-ONE)
- Digital and SIP Routes (MiVoice MX-ONE)
- Extensions / IP Sets (MiVoice Business/MX-ONE)



# Comprehensive Dashboards

STANDARD WEB BROWSERS  
Internet Explorer, Chrome and Firefox.

SECURE  
HTTPS/SSL

MOBILE  
OPTIMIZED  
iOS, Android, Tablets,  
Smartphones

BRANDABLE  
Logos, URL's, colours,  
fonts etc...

READ ONLY  
WIDESCREEN  
OPTION

SEE CRITICAL DATA  
Alarms filtered & matched  
with a map view

DASHBOARD VIEWS  
For the Reseller or End User

Mitel | Performance Analytics

Network Data | Network Tools | System Tools | System Administration

Mitel Performance Analytics Release 3.1 > USA > Demo > Martello Network

View Mode: ---

10 0 5 3 3 0 21 Any Age

Year Month Week Day Hour Previous Month America/Toronto

Alarms

Date	Message	Device	Child	Grandchild	Status	Owner	Ticket
Dec 23 20...	Probe has not checked in.	Martello HQ Pr...	HQ / Data Ce...		Cleared		
Dec 23 20...	Probe has not checked in.	Martello HQ Pr...	HQ / Data Ce...				
Dec 18 20...	Probe has not checked in.	Martello HQ Pr...	HQ / Data Ce...				
Dec 18 20...	Probe has not checked in.	Martello HQ Pr...	HQ / Data Ce...				
Dec 13 20...	[MTR Test] result has at least one failure	Elfiq Remote S...	Client site 1				
Dec 2 201...	Probe has not checked in.	Martello HQ Pr...	HQ / Data Ce...		Cleared		
Dec 2 201...	Probe has not checked in.	Martello HQ Pr...	HQ / Data Ce...		Cleared		
Nov 12 20...	Probe not reporting	HQ SD WAN	HQ / Data Ce...		Cleared		

Network Diagram

VLAN 1013

Remote Site  
10.10.40.0/24

Elfiq 700

MARTELL  
Test Agent  
VLAN 1012

Datacenter (Martello Labs)  
HQ / Data Center 10.20.30.0/24

# Container and Device Dashboards

## Container & device dashboards including:

- Alarms
- Voice Quality
- UC Performance Metrics
- Geographic map

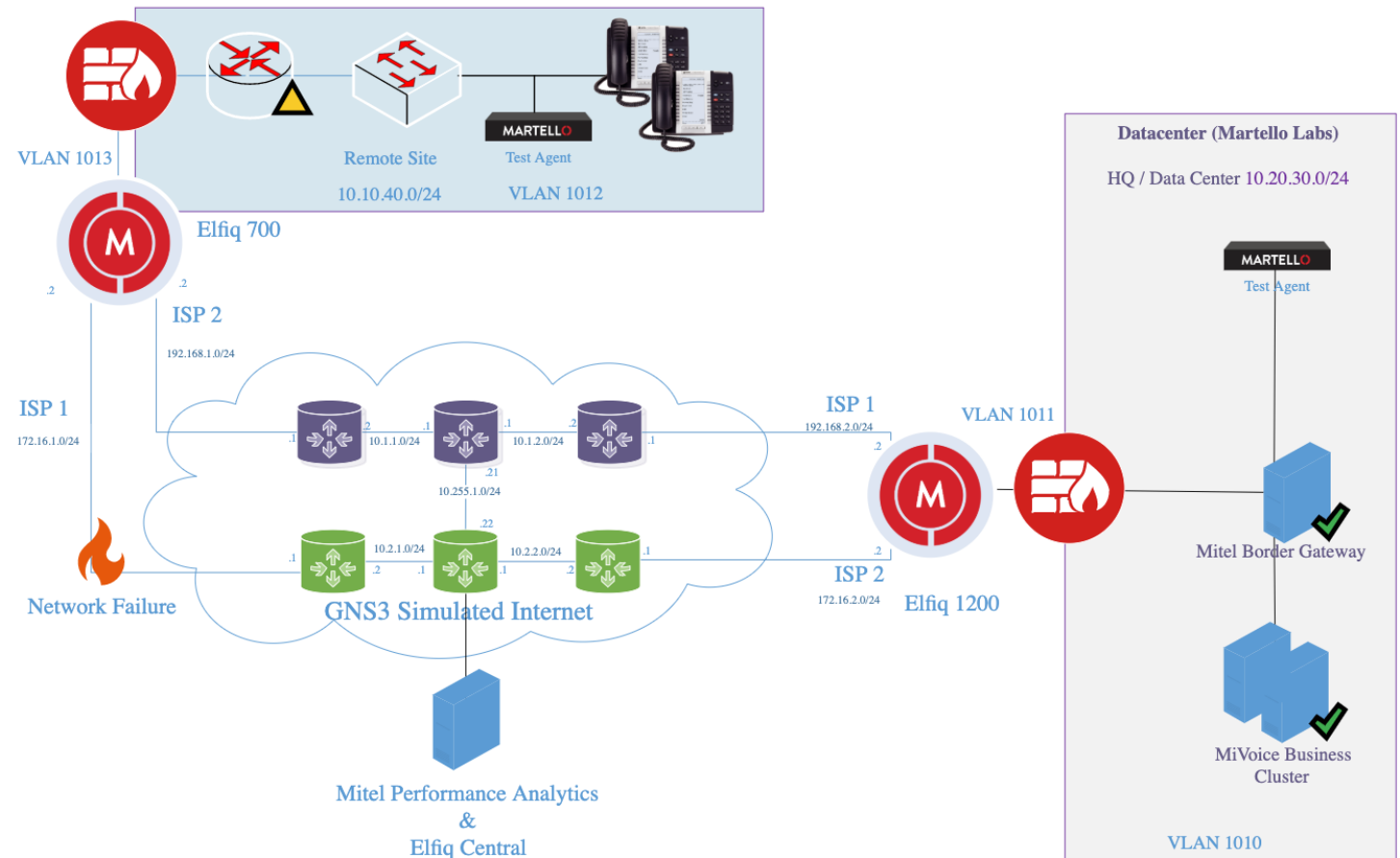


# Network Diagrams

Visualize the source of a voice quality problem on a Visio network diagram uploaded by the MPA user.

Insight into:

- ✓ **Which device** is experiencing a problem.
- ✓ **What's causing** the problem:
  - Capacity
  - Misconfiguration
  - Network faults



# IPT User Dashboard – MiVoice Business, MX-ONE & MiVoice Connect and MiVoice 500

Advanced  
Management  
Feature

View data for each user, including voice quality for each call.

User Information

Services

Groups

Refresh

First Name:John

Department:Sales

Email:JSmith@Cyberdyne.com

Last Name: Smith

Location:Palo Alto

User Comment: VIP

Extension ▲	Device Type	Service Type	Home Element	Secondary Element
1*262	Hot Desk	Multi-device	MIVB1	MIVB2
12*62	UC Endpoint	Multi-device	MIVB1	MIVB2
1262	Hot Desk	Multi-device	MIVB1	MIVB2

Voice Quality

Directory	Start Time	Call Length	Source IP	Destination IP	Codec	Average R
1262	Mon 3:16 PM	2m 18s	10.10.100.114	10.10.100.136	G.711 (mu-Law)	92
1262	Mon 8:38 AM	43s	10.10.100.114	10.10.100.130	G.711 (mu-Law)	92
1262	Wed 12:28 PM	1s	10.10.100.114	10.10.100.124	G.711 (mu-Law)	92
1262	Jan 9 8:45 AM	19s	10.10.100.114	10.10.100.131	G.711 (mu-Law)	92
1262	Jan 6 11:30 AM	53s	10.10.100.114	204.153.97.179	G.711 (mu-Law)	92
1262	Dec 19 2019 1:06 PM	25s	10.10.100.114	204.153.97.179	G.711 (mu-Law)	92
1262	Dec 17 2019 4:30 PM	20s	10.10.100.114	10.10.100.111	G.711 (mu-Law)	92





# SIP-DECT (OMM & RFP) Support

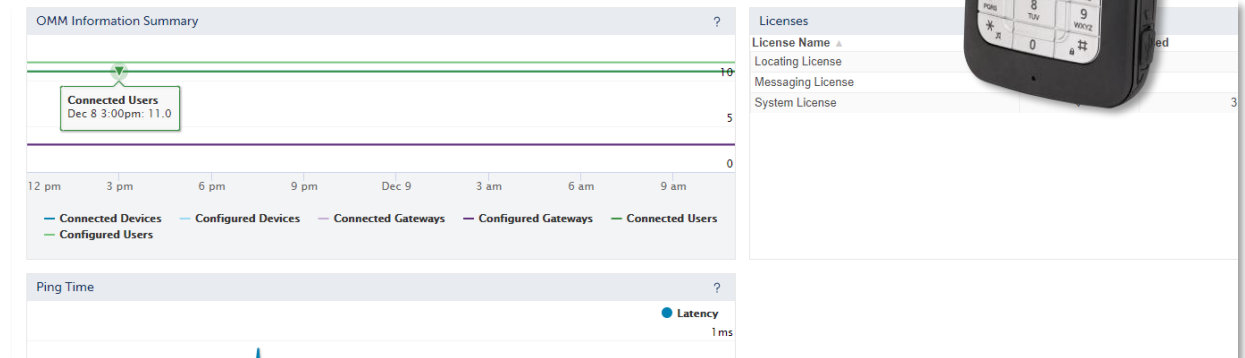
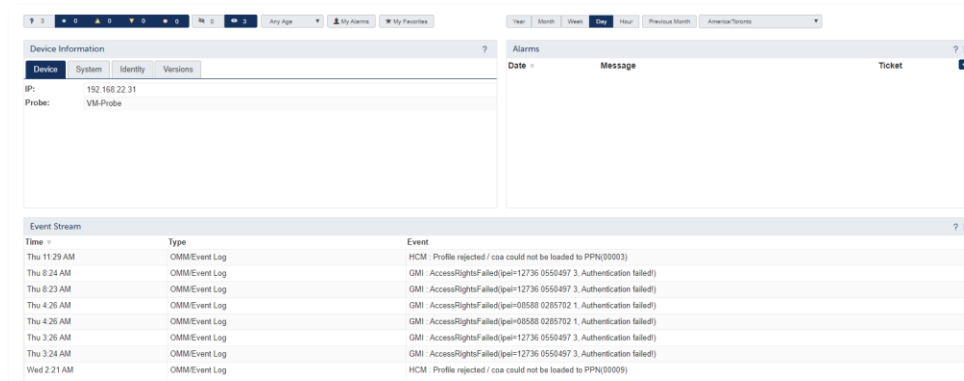
Supported in MPA. Partners can monitor the performance and availability of the SIP DECT devices

## SIP-DECT OMM:

- Base monitoring (CPU, ping, memory)
- Event stream (SNMP traps)
- Licenses usage report
- Alarms
- Device information: SW version, device ID, ...
- SIP-DECT multi-OMM (interconnection of several DECT networks) is supported like any OMM, but without any specific information about OMM networks.
- Hardware, software and virtualized OMM's are supported

## SIP-DECT RFP base stations:

- Base monitoring (CPU, ping, memory)
- Event stream (SNMP traps)
- Only basic device information



\*The minimum supported SIP-DECT version is 7.1 SP1.

\*Does not include Voice Quality

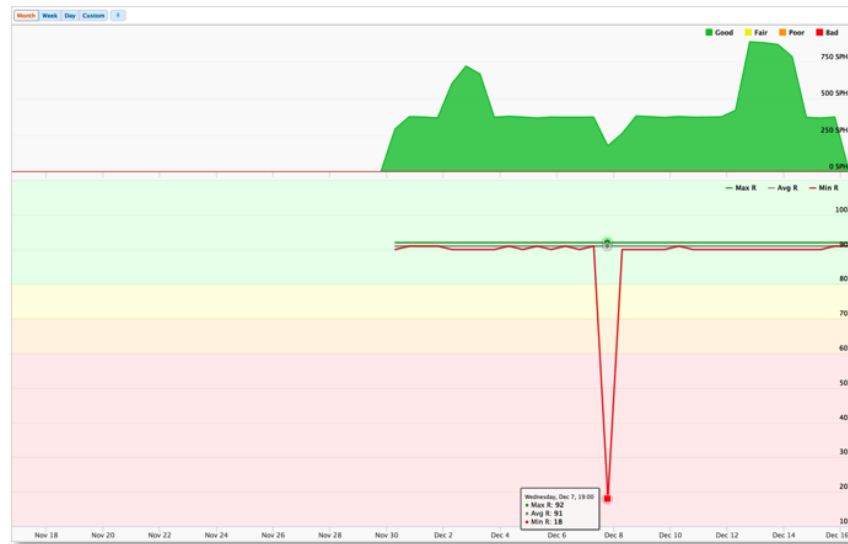
# MPA FEATURES

## VOICE QUALITY

# Voice Quality Monitoring & Troubleshooting

Know immediately when a voice quality problem is occurring, resolve problems quickly before they affect end user

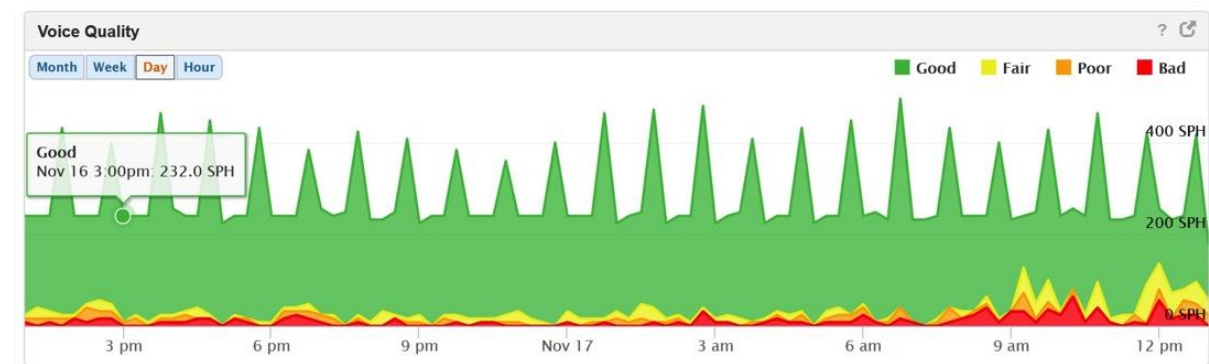
## Detailed Voice Quality



## Call Records

Directory #	Start Time	Call Length	Min R	Avg R	Max R	IP Source	IP Dest	Codec	Delay (ms)	Avg Jitter (ms)	Max Jitter (ms)	Packets/sec	Test
310946	Jan 10 1:01:34 AM	5s	96	96	96	10.6.1.113	10.6.1.113	G.722.1	<1ms	<1ms	<1ms	0.0%	pass
3307	Jan 10 1:04:14 AM	33s	92	92	92	10.11.20.64	10.11.20.51	G.711 (mu-Law)	2ms	<1ms	8ms	0.0%	pass
3310	Jan 10 1:04:14 AM	33s	92	92	92	10.11.20.64	10.11.20.51	G.711 (mu-Law)	<1ms	<1ms	5ms	0.0%	pass
1742	Jan 10 1:01:41 AM	40s	92	92	92	73.130.41.100	66.165.162.166	G.711 (mu-Law)	<1ms	<1ms	5ms	0.0%	pass
1742	Jan 10 1:03:36 AM	10s	92	92	92	73.130.41.100	66.165.162.166	G.711 (mu-Law)	<1ms	<1ms	<1ms	0.0%	pass
3907	Jan 10 1:03:22 AM	14s	92	92	92	172.16.1.103	172.16.1.58	G.711 (mu-Law)	<1ms	<1ms	10ms	0.0%	pass
279223	Jan 10 1:13:09 AM	10s	92	92	92	10.22.100.214	10.22.100.10	G.711 (mu-Law)	<1ms	<1ms	5ms	0.0%	pass
4021	Jan 10 1:00:27 AM	13s	92	92	92	172.16.100.35	172.16.100.4	G.711 (mu-Law)	<1ms	<1ms	<1ms	0.0%	pass
40117	Jan 10 1:07:25 AM	20s	92	92	92	10.4.3.93	10.4.3.8	G.711 (mu-Law)	<1ms	<1ms	5ms	0.0%	pass
30500	Jan 10 1:05:17 AM	22s	92	92	92	172.0.0.0	10.100.42.6	G.711 (mu-Law)	<1ms	1ms	10ms	0.0%	pass
4021	Jan 10 1:05:48 AM	31s	92	92	92	10.10.234.62	10.10.234.50	G.711 (mu-Law)	<1ms	<1ms	<1ms	0.0%	pass
4021	Jan 10 1:07:16 AM	23s	92	92	92	10.10.234.62	10.10.234.50	G.711 (mu-Law)	<1ms	<1ms	<1ms	0.0%	pass
7744	Jan 10 1:07:12 AM	4s	92	92	92	10.84.16.1	10.200.5.6	G.711 (mu-Law)	10ms	<1ms	10ms	0.0%	pass
8953	Jan 10 1:07:25 AM	1m 5s	48	48	48	10.84.16.118	10.84.16.1	G.711 (mu-Law)	10ms	5ms	71ms	3.0%	pass
7744	Jan 10 1:07:25 AM	1m 5s	92	92	92	10.84.16.1	10.4.16.118	G.711 (mu-Law)	7ms	<1ms	19ms	0.0%	pass
32901	Jan 10 1:05:03 AM	5s	96	96	96	10.6.5.54	10.6.1.105	G.722.1	<1ms	<1ms	5ms	0.0%	pass
38116	Jan 10 1:01:20 AM	6s	92	92	92	172.26.16.124	172.26.16.121	G.711 (mu-Law)	<1ms	<1ms	<1ms	0.0%	pass
38190	Jan 10 1:01:20 AM	6s	92	92	92	172.26.16.121	172.26.16.124	G.711 (mu-Law)	<1ms	<1ms	5ms	0.0%	pass
3053	Jan 10 1:02:34 AM	10s	92	92	92	172.16.100.107	172.16.100.4	G.711 (mu-Law)	<1ms	<1ms	5ms	0.0%	pass
47913	Jan 10 1:01:29 AM	30s	96	96	96	10.4.3.31	10.4.3.145	G.722.1	<1ms	<1ms	<1ms	0.0%	pass
44208	Jan 10 1:01:29 AM	30s	96	96	96	10.4.3.31	10.4.3.145	G.722.1	<1ms	<1ms	5ms	0.0%	pass
44017	Jan 10 1:02:23 AM	10s	96	96	96	10.4.3.93	10.4.3.8	G.722.1	<1ms	<1ms	<1ms	0.0%	pass
40521	Jan 10 1:02:24 AM	10s	96	96	96	10.4.3.93	10.4.3.8	G.722.1	<1ms	<1ms	<1ms	0.0%	pass
40526	Jan 10 1:03:54 AM	7s	96	96	96	10.4.3.171	10.4.3.89	G.722.1	<1ms	<1ms	40ms	0.0%	pass
40521	Jan 10 1:03:54 AM	7s	96	96	96	10.4.3.89	10.4.3.171	G.722.1	<1ms	<1ms	<1ms	0.0%	pass
47913	Jan 10 1:03:10 AM	6s	92	92	92	10.4.3.31	10.4.3.145	G.711 (mu-Law)	10ms	<1ms	5ms	0.0%	pass

## Voice Quality Panel



# MPA FEATURES

## ANALYTICS

# Alarms and Notifications

## Alarm Management

- Alarms colour coded by location and severity
- Displayed on geographic map
- Reduce alarm clutter: hide, silence same type or filter alarms by severity
- Assign alarms and create/edit tickets

## Alerts by email, SMS

- Alert profiles for different users, days/times of the week
- Alarms can be sent as digest, for reduced alert fatigue
- In-browser alarm notification

## Alarm Types

**Device Alarms** – generated by monitored devices

**Threshold Alarms** – generated by MPA when configured threshold are exceeded (ie: voice quality)

**System Alarms** – generated by MPA to indicate service problem for a monitored device (ie: “iSNMP unreachable”)



Alarms								UNIVERSAL TIME SCALE	
Date	Message	Device	Child	Grandchild	Status	Owner	Ticket		
11:24:13	'vApp license' event(s) detected	vMBG-9-14-0	VoIP Service Prov...	Adbaston	New			★	⚙️
11:23:54	SNMP unreachable	MCD Dot	One Of Each		New			★	⚙️
11:23:44	'vApp license' event(s) detected	vMBG-9.1.1.41	Emmanuelle Tests		Assigned	Emmanuelle ...	102	★	⚙️
11:23:30	'vApp license' event(s) detected	MAS_10.0.7.72	Agatha		New			★	⚙️
11:23:14	Memory Usage threshold exceeded.	MCD - Dot	Cowan	Reports	New			★	⚙️
11:23:06	'vApp license' event(s) detected	MiCollab 7.2	One Of Each		New			★	⚙️
11:23:02	'vApp license' event(s) detected	MASv7	Cowan	Testrail	New			★	⚙️
11:22:39	Memory Usage threshold exceeded.	MCD Dot	Policy Testing	MPA-Full	New			★	⚙️

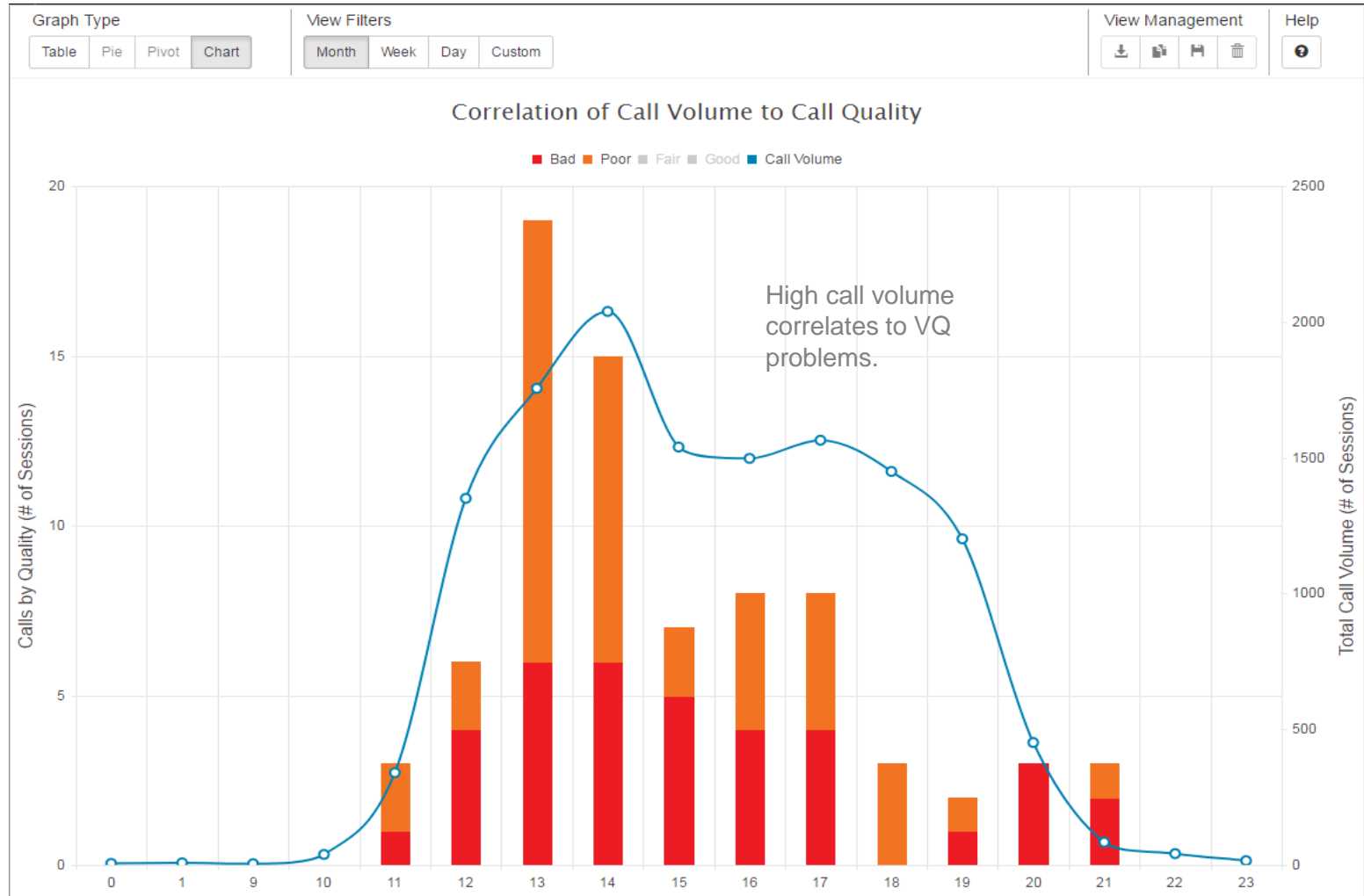


# Voice Quality Cause Visualization

Spot trends and identify root cause.

Detailed graphs demonstrate

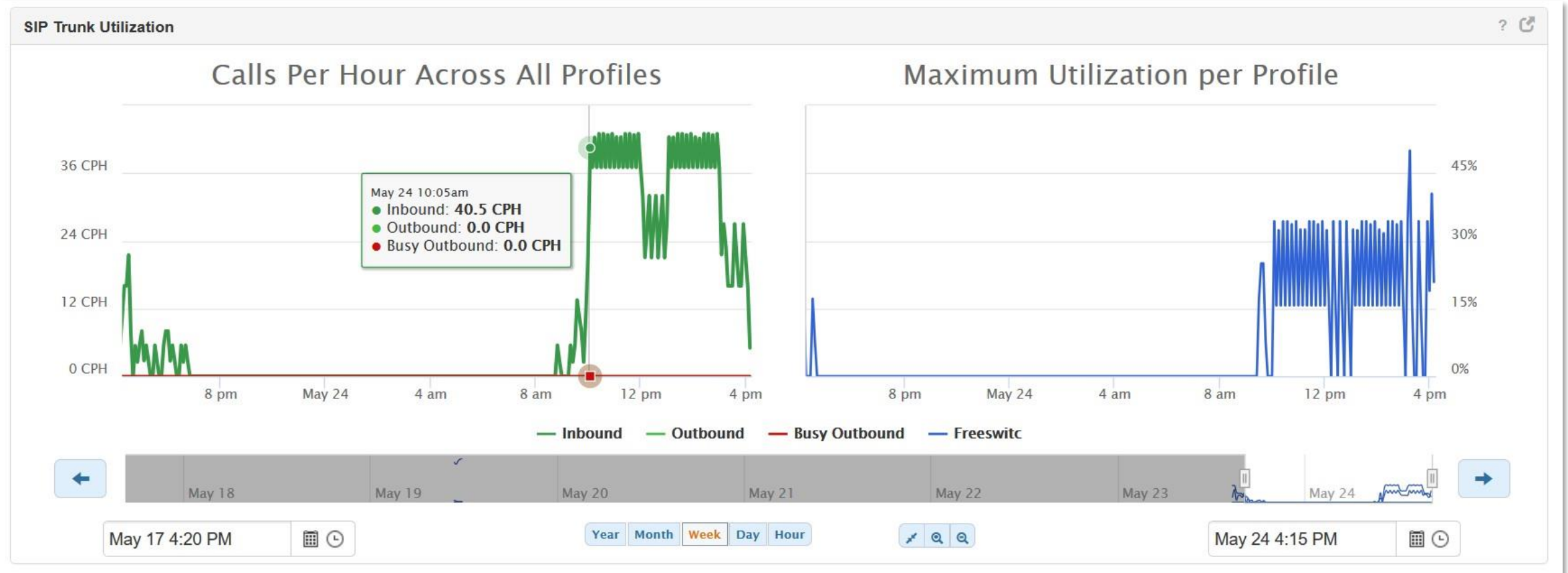
- ✓ Call Volume correlation to Call Quality
- ✓ Worst Performing Directory Numbers
- ✓ Worst Voice Quality by Device/Directory Number



# SIP Trunk Utilization

**Monitor** traffic on SIP trunks

**Know** when it's time to scale or add licenses



Know when more capacity is needed for better performance and identify cost saving opportunities.

- PDF reports can be downloaded, emailed, printed or the HTML links shared.
- See underutilized and overutilized trunks on MiVoice Business
- Shows key metrics including Grade of Service (GoS)
- Offers recommendations to meet GoS targets.

Mitel | MiVoice Business - vMCD

Trunk Capacity Report

Device Name: vMCD

Date Range: Mar 2 2019 - Mar 9 2019 America/New\_York

Terminology

Busy Hour

The 60 minute window when the highest call rate occurred.

The busiest hour is when the trunk groups have the most activity, and thus the highest volume of calls is likely to be dropped. Being equipped to handle the busy hour means that the rate of dropped calls can be lowered to an acceptable level at any time. This also applies in the reverse to inform you if you are overcapacity.

Grade of Service (GoS)

The percentage of outbound dropped calls over outbound attempted calls.

Knowing your present GoS is a good way to show how effective your trunk groups are configured for the load on your system. Also, given the traffic metrics reported by your device, a recommended amount of capacity can be recommended for a desired GoS. The industry standard for acceptable call loss is 1-2%.

Recommended Actions

SIP Trunks

Trunk Name	2% GoS	1% GoS
Voice4Net	Remove 18 channels	Remove 17 channels
WindOB	Remove 81 channels	Remove 80 channels
Windstrea	Remove 69 channels	Remove 68 channels
Total	Remove 90 channels	Remove 88 channels

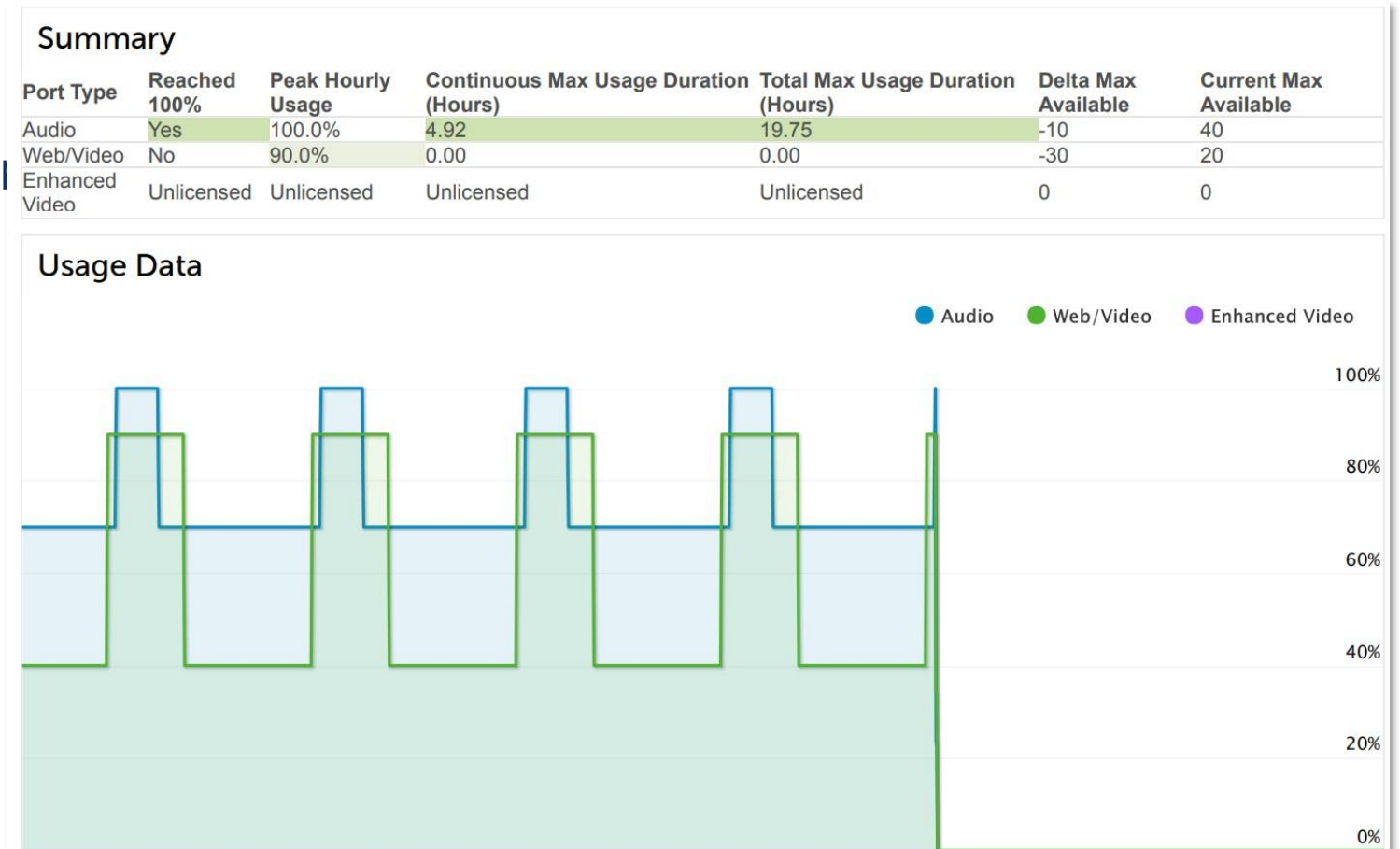


Prevent capacity problems and know when upgrades are required for audio, web and video performance.

- PDF reports can be downloaded, emailed, or

Metrics Can Include:

- Peak hourly usage
- Continuous maximum usage duration



# MPA FEATURES

## USABILITY



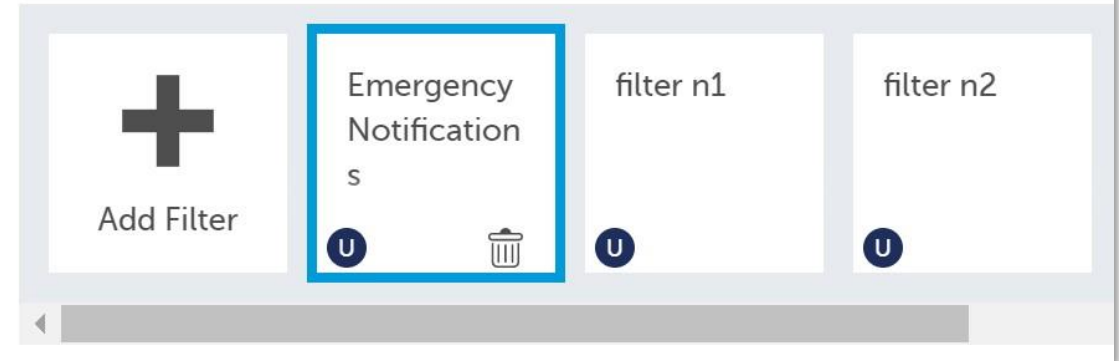
# Custom Alarm Filters

Manage the alerts you receive more effectively with custom filters for severity, content or device type.

## Alarm Filter Criteria

- Alarm text contains/doesn't contain specified keyword.
- Alarm has specified severity
- Alarm has specified label
- Alarm was raised about one or more selected device types.


## Filter Profiles



### Content Filter

☒ Text contains ☐ Text does not contain  +



### Filter

Emergency Filter  [Edit/Create Filters](#)


**Default Filters**

Info or Higher

Warning or Higher


Minor or Higher  & 24:00 

Major or Higher

Critical or Higher 

**Emergency Filter**

**User Filters**

NO SMDR Download Alarms  [Preview and Manage Templates](#)



# Schedulable Maintenance Mode

Greater flexibility in scheduling maintenance mode eliminates headaches associated with starting and stopping maintenance mode for devices in service.

- Put groups of devices in maintenance mode when they are taken out of service for a period.
- Schedule maintenance mode period start and end.
- Flexibility to end maintenance mode before its configured or scheduled end time.
- Availability reports show maintenance windows during the period.

## 🕒 Device Maintenance Schedules

▼ Maintenance Schedules

Test Maintenance

Schedule details - Test Maintenance

Activation date	15-February-2018
Expiry date	15-February-2028
Frequency	Weekly on Sunday
Time zone	America/Toronto
Execution starts at	14:35
Duration	1 Hours 0 Minutes
Execution retry attempts	0
Attached devices	0

## 🕒 Edit Operation Schedule

Name	<input type="text" value="Test Maintenance"/>
Frequency	<input type="text" value="Weekly on Sunday"/>
Schedule time zone	<input type="text" value="America/Toronto"/>
Execution starts at	<div><div>↑</div><div>14</div><div>:</div><div>35</div><div>↓</div></div>
Schedule activation date	<input type="text" value="15-February-2018"/> 📅
Schedule expiry date	<input type="text" value="15-February-2028"/> 📅



# 2 Factor Authentication

## Add an extra level of security to your MPA system.

- A **user** can choose to use and can set up 2FA on his/her account
- An **admin** can enforce 2FA on all users in a container

### System Users

Show me users who have access to:

Found 208 out of 208 users.

Create New User

Email	First Name	Last Name	2FA	Actions
Guardian			<input type="checkbox"/> NOT ENFORCED	
a.roux@martellotech.com	Antoine	Roux		<a href="#">Edit</a> <a href="#">Delete</a>
ar.oux@martellotech.com	Antoine	Roux		<a href="#">Edit</a> <a href="#">Delete</a>
aroux@martellotech.com	Antoine	Roux		<a href="#">Edit</a> <a href="#">Delete</a>
asaini@martellotech.com	Ankita	Saini		<a href="#">Edit</a> <a href="#">Delete</a>
aswamy@martellotech.com	Alok	Swamy		<a href="#">Edit</a> <a href="#">Delete</a>

# Flexible Alerting

## Customize the content in your alert emails using templates.

Customize email alerts:

- Remove unneeded content from an alert
- Choose text or HTML format
- Create customized HTML templates and apply variables Subject and Body

Template


☐ System Default


☒ Custom Template


HPE Service Center


Preview and Manage Templates


### Manage Email Templates

  
ADD NEW



Alok Testing  
XSS  
Vulnerability  


Emmanuel  
e's new  
template  


Eugene's  
4.14.1.9  
TestCase  


**HPE Service Center**  


Preview

Major Alarm  

**Mitel Performance Analytics Alert**

SC\_type: MPA\_notification  
SC\_title: This is an Info level alert.  
SC\_assignment: AMS ServiceCenter Advanced Support Volkswagen Group  
SC\_category: Service Request  
SC\_subcategory:  
SC\_producttype:  
SC\_module:  
SC\_system\_impact: 4  
SC\_affected\_user: VWMPA1  
SC\_operator: VWMPA1



# Emergency Response - MiVoice Business & MX-ONE

MPA listens for incoming Emergency Response SNMP traps from MiVoice Business and MX-ONE devices.

When a trap is received, MPA **acknowledges** the trap with the source MiVoice Business and MX-ONE **generates** a Major Emergency alarm.

The Emergency alarm includes:

- ✓ Details about the emergency call
- ✓ Extension that made the call
- ✓ Time of the call

Emergency call from 4110 to 5551213 with CESID 654321 on Thu May 04 09:36:06 EDT 2017 (A Major Alarm) on MiVoice Business GW-001

Thu, 4 May 2017 9:36:06 EDT

[MarWatch](#) > [MiVoice Business GW-001](#)

Alarm:

Time	Alarm
9:36:06 AM	Major Alarm: Emergency call from 4110 to 5551213 with CESID 654321 on Thu May 04 09:36:06 EDT 2017

Device Details:

Type: MiVoice Business  
Name: GW-001  
Description:

Email ER Alarm  
Notification

The ER Alarm ***never expires*** and must be ***acknowledged*** by a MPA user.



# Device Discovery

MPA *scans* the network and *discovers devices* speeding up the set-up process.

Ideal for large,  
multi-node Mitel  
networks.

## Discover Devices

[Discovery Results](#)[New Discovery](#)

Discovery completed on "ovh\_probe" for the network 192.168.16.0/255.255.255.0.

### Scan Results

Add multiple devices ▾

Name	IP Address	Type Discovered	Probe	
mcd209	192.168.16.209	Mitel MCD ▾ ⓘ	ovh_probe	<a href="#">Configure and Add</a>
mcd213	192.168.16.213	Mitel MCD ▾ ⓘ	ovh_probe	<a href="#">Configure and Add</a>

#### Devices already in the database

Name	IP Address	Type Saved	Probe	
mcd1	ⓘ 192.168.16.139	Mitel MAS ▾ ⓘ	ovh_probe	<a href="#">Configure and Add again</a>
mcd173	ⓘ 192.168.16.173	Mitel MCD ▾ ⓘ	ovh_probe	<a href="#">Configure and Add again</a>
mcd177	ⓘ 192.168.16.177	Mitel MCD ▾ ⓘ	ovh_probe	<a href="#">Configure and Add again</a>
mcd181	ⓘ 192.168.16.181	Mitel MCD ▾ ⓘ	ovh_probe	<a href="#">Configure and Add again</a>

## Create custom inventory reporting template for:

- ✓ Users
- ✓ Services
- ✓ IP Sets
- ✓ Licenses
- ✓ Active Probes
- ✓ Device Inventory
- ✓ MiVoice Licenses
- ✓ MiVoice Versions
- ✓ MiVoice & Ext. Probe Details

Device Count	Data Type Users	Graph Type Table Pie Pivot Chart	View Filters Columns	View Management Download Save Delete Help
Device Inventory			<input checked="" type="checkbox"/> Cluster	
IPT Users Inventory			<input checked="" type="checkbox"/> Department	
Inventory of Customer Devices	IPBX	Cluster	<input checked="" type="checkbox"/> First Name	Name Login Department Location
MarWatch Device Report		Default Cluster	<input checked="" type="checkbox"/> IPBX	
MiVoice Business Licenses		Default Cluster	<input checked="" type="checkbox"/> Last Name	anteEIP /root/site1
MiVoice Business Users, Services & Sets		Default Cluster	<input checked="" type="checkbox"/> Location	
Provide details for every user, service, or IP set hosted on MiVoice Business.	Mitel MCD	Martello	<input checked="" type="checkbox"/> Login	
	Mitel MCD	Martello	<input checked="" type="checkbox"/> User Comment	
MiVoice Business Versions	Courage	Triforce		
MiVoice MX-ONE Extensions	Courage	Triforce		
Probe Details		Default Cluster		leavet leavet

✓ All views can be ***saved & reports downloaded*** as a .csv



# **MPA FEATURES** **TROUBLESHOOTING** **& TESTING TOOLS**

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# Troubleshooting Tools

## Test from IP Set Inventory Monitoring – find source of issue to speed resolution.

Context-aware network tools available from device dashboard:

- Ping / Traceroute / MTR / Iftop
- DNS / Reverse DNS
- SNMP MIB browser

Remote IP set network test tools

- Media path from set

MPA Connectivity Test provides quick confirmation of device from MPA system

IP SLA – allows you to test against your trunk provider

The screenshot displays a network troubleshooting interface. At the top, there are tabs for 'Ping', 'ToS', 'Trace Route', 'MTR', 'Iftop', 'DNS Lookup', 'Stop', and 'Clear'. Below these, a terminal window shows the output of a 'ping' command to 10.20.30.20, displaying 10 successful pings with varying response times. Below the terminal, there are three tabs: 'Maintenance Commands', 'Maintenance Logs', and 'Software Logs'. The 'Maintenance Logs' tab is active, showing a table of logs. Below this, the 'Software Logs' tab is active, showing a table of logs.

Date	Time	Module	Source	Description
2020/Jan/21	14:41:19	Main	EntryBlock	EntryBlock - Disable Block State Backup in progress with Mask 0x8
2020/Jan/21	14:41:19	Main	BRManager	createBackupTask - Clearing backup alarms.
2020/Jan/21	14:41:19	Main	BRManager	BR_Manager - DB Backup - completed successfully. Client will initiate HTTP transfer by saving file on Local Machine.
2020/Jan/21	14:40:01	Main	MLDatabase	checkIntegrity() - Database integrity check passed with success
2020/Jan/21	14:40:01	Main	MLDatabase	checkIntegrity() - Performing database integrity check
2020/Jan/21	14:40:01	Main	EntryBlock	EntryBlock - Enable Block State Backup in progress with Mask 0x8
2020/Jan/20	14:53:21	Main	EntryBlock	EntryBlock - Disable Block State Backup in progress with Mask 0x8
2020/Jan/20	14:53:21	Main	BRManager	createBackupTask - Clearing backup alarms.
2020/Jan/20	14:53:21	Main	BRManager	BR_Manager - DB Backup - completed successfully. Client will initiate HTTP transfer by saving file on Local Machine.
2020/Jan/20	14:52:03	Main	MLDatabase	checkIntegrity() - Database integrity check passed with success

Date	Time	Module	Source	File Name and Line Number	Description
2019/Dec/24	15:42:01	Main	MIMC_ICP	MIMC_ICP.cpp:1239	FetchResults->Invalid commandExecutionId 0 , aborting. It's probably from a previous ManagementLayer task.
2019/Dec/24	15:42:01	Main	MIXML MC	MIMCSOAP.cpp:622	ValidateMIMCPermissions()->Permission denied for operation <MC_> by session <1383293>
2019/Dec/24	15:30:01	CC	CC-Soft	traform.cc:82	TRAFORM: Traffic report for period 62 of session 6 completed.
2020/Jan/21	15:30:01	CC	CC-Soft	traform.cc:79	TRAFORM: Traffic report for period 62 of session 6 begins.
2020/Jan/21	15:15:00	CC	CC-Soft	traform.cc:82	TRAFORM: Traffic report for period 61 of session 6 completed.
2020/Jan/21	15:15:00	CC	CC-Soft	traform.cc:79	TRAFORM: Traffic report for period 61 of session 6 begins.
2020/Jan/21	15:00:01	CC	CC-Soft	traform.cc:82	TRAFORM: Traffic report for period 60 of session 6 completed.
2020/Jan/21	15:00:01	CC	CC-Soft	traform.cc:79	TRAFORM: Traffic report for period 60 of session 6 begins.
2020/Jan/21	14:45:00	CC	CC-Soft	traform.cc:82	TRAFORM: Traffic report for period 59 of session 6 completed.
2020/Jan/21	14:45:00	CC	CC-Soft	traform.cc:79	TRAFORM: Traffic report for period 59 of session 6 begins.
2020/Jan/21	14:30:01	CC	CC-Soft	traform.cc:82	TRAFORM: Traffic report for period 58 of session 6 completed.
2020/Jan/21	14:30:01	CC	CC-Soft	traform.cc:79	TRAFORM: Traffic report for period 58 of session 6 begins.
2020/Jan/21	14:15:00	CC	CC-Soft	traform.cc:82	TRAFORM: Traffic report for period 57 of session 6 completed.
2020/Jan/21	14:15:00	CC	CC-Soft	traform.cc:79	TRAFORM: Traffic report for period 57 of session 6 begins.
2020/Jan/21	14:00:01	CC	CC-Soft	traform.cc:82	TRAFORM: Traffic report for period 56 of session 6 completed.
2020/Jan/21	14:00:01	CC	CC-Soft	traform.cc:79	TRAFORM: Traffic report for period 56 of session 6 begins.
2020/Jan/21	13:45:00	CC	CC-Soft	traform.cc:82	TRAFORM: Traffic report for period 55 of session 6 completed.
2020/Jan/21	13:45:00	CC	CC-Soft	traform.cc:79	TRAFORM: Traffic report for period 55 of session 6 begins.

# Advanced UC Network Testing

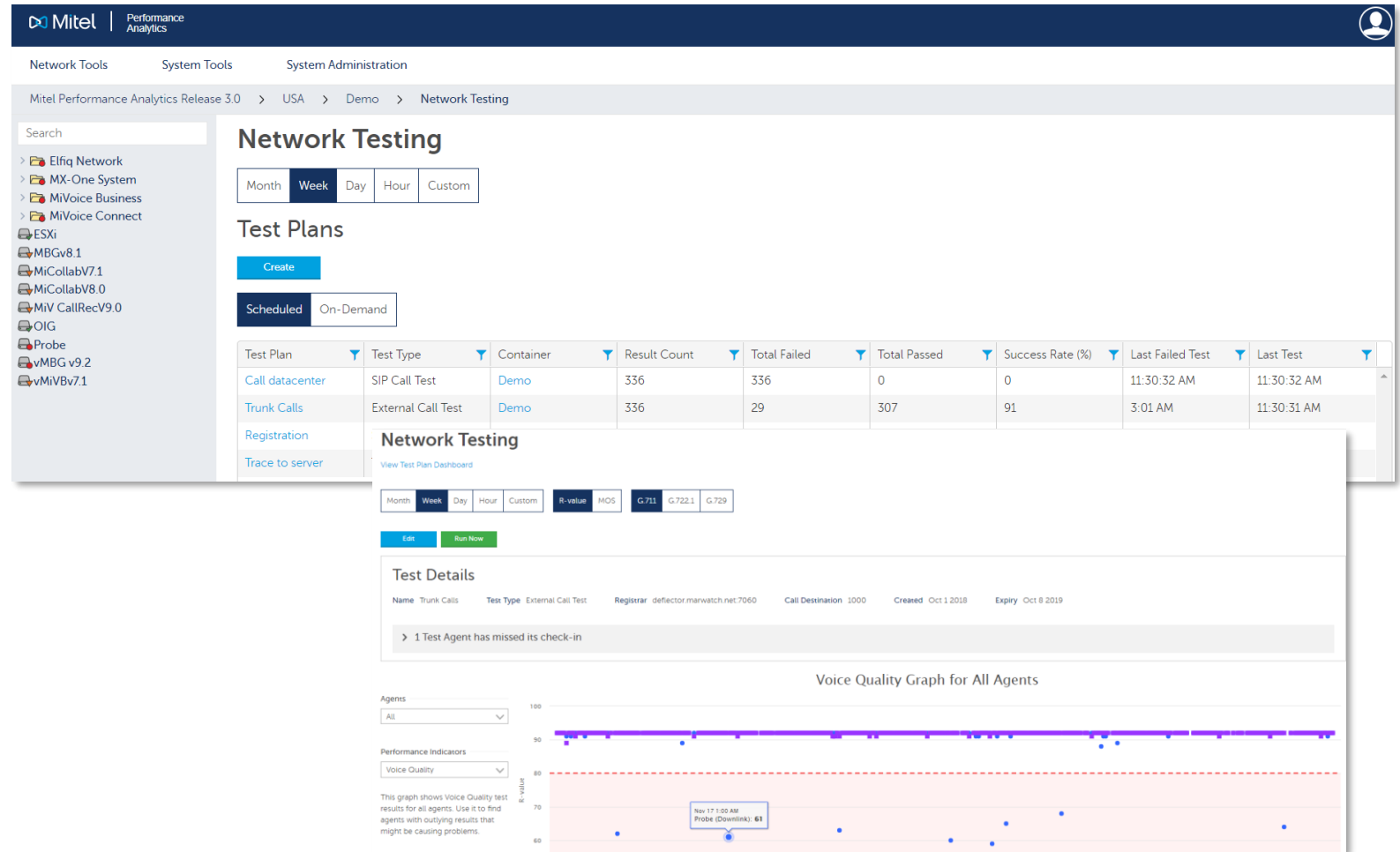
Run scheduled and on-demand synthetic call tests to quickly pinpoint performance problems with diagnostic tools customized to voice and video.

## Supported Tests:

- **SIP call** test between 2 agents.
- **SIP registration** test from an agent to a SIP Registrar.
- **MTR** test from an agent to a host
- **External Call Test** from an agent to an outside source

## Supported agents:

- ✓Vmware probe
- ✓SheevaPlug
- ✓ESPRESSObin



# Remote Access

Access remote devices from anywhere for more efficient troubleshooting.

- No VPN required
- Connect to multiple customer network devices at once
- Single click access to monitored devices
- Integrated web-proxy server for efficient remote access to MiVoice Business ESM interface

## Secure

- Authenticated & encrypted with SSL, SSH & HTTPS
- Remote access sessions are tracked in the Audit Logs
- Single sign-on (SSO) to MiVoice Business via ESM and shared SSO without credentials.



Port Forwards						
Local_81_VQ		HTTPS		Create		
Created	Application	Server Port	Remote Host	Remote Port	Link	Close
3:39:36 PM	SSH Secure Shell	50034	OIG	22		Close
3:39:43 PM	HTTPS	50035	MiCollabV7.1	443	Open	Close
3:39:52 PM	RDP	50036	ESXi	3389		Close
3:40:02 PM	HTTPS	50037	MIVC HQ	443	Open	Close
3:40:12 PM	HTTPS	50038	Lim 1 (Master)	443	Open	Close
3:40:27 PM	HTTPS	50039	Local_81_VQ	443	Open	Close

# Reports and Quick Queries

Reports demonstrate network performance & improve planning.

## Reports

- Performance & availability of devices over reporting period
- Customizable message and logo space

## Reports by container or by device

- PDF format, via email
- Monthly, weekly or on-demand

## Quick Queries

- Retrieve key data, delivered in .csv format
- Optional pie chart and pivot table display

### Reports & Quick Queries can be:

- ✓ Scheduled
- ✓ Previewed
- ✓ Retained
- ✓ Sent via email

The screenshot displays a web-based interface for network management. On the left is a sidebar menu with options like 'Device Count', 'Device Inventory', 'IPT Users Inventory', 'Inventory of Customer Devices' (selected), 'My Views', 'MarWatch Device Report', 'MiVoice Business Licenses', 'MiVoice Business Users, Services & Sets', 'MiVoice Business Versions', 'MiVoice MX-ONE Extensions', and 'Probe Details'. The main area shows a pivot table report for 'Inventory of Customer Devices'. At the top, there are filters for 'Device Count', 'Device Type', and 'Customer Container'. The 'Graph Type' is set to 'Table'. The pivot table has 'Device Type' as the row label and 'Customer Container' as the column labels. The data is as follows:

Device Type	Agatha	Antoine licensing	Customer Container
Probe	4		4
MiContact Center Business	6		6
MiCollab	1		1
ESXi Server	1		1
MiVoice Border Gateway	1		1
MiVoice Business	22	4	26
MiVoice MX-ONE	3		3
Server	3		3
Switch	3		3
SIP DECT OMM	1		1
SIP DECT RFP	1		1
<b>Device Type</b>	<b>46</b>	<b>4</b>	<b>50</b>

# Quick Queries

## Inventory

Container Device Inventory

Summary of all devices and licenses in a container.

Device Count

Device Inventory

IPT Users Inventory

Inventory of Customer Devices

MiContact Center Licenses

MiVoice 5000 Extensions

MiVoice 5000 Licenses

MiVoice Business Licenses

MiVoice Business Users, Services & Sets

MiVoice Business Versions

MiVoice Connect HQ Server Extensions

MiVoice MX-ONE Extensions

Probe Details

## Alarm

Alarm Export

Returns all alarms inside this container for the selected time period.

My Views

☆ AS view

☆ Creating a View/ Trai...

All Device Availability

Child Device Availability

Container Alert Profiles

Critical Alarms by Day

Critical Alarms by Device Type

Top 10 Critical Customers

Top 10 Critical Devices

## License

Device & Container License Expiry

List of devices and containers whose licenses have expired or will expire within 90 days.

Device & Container License Status

Device & Container License Violations

Device & Container License Violations By Customer

Installed Licenses

License Expiry

## Audit Log

Active and Inactive Users

Active users have logged in within 30 days.

Audit Log

## Threshold

Container Thresholds

Thresholds applied to devices in this container

## Voice Quality

Voice Quality by Hour of Day

Voice Quality metrics for hours of the day

Shared Views

☆ Call Chart

Worst Performing DNs (#)

Worst Performing DNs (%)

Worst Performing Devices (%)





# Mitel Performance Analytics



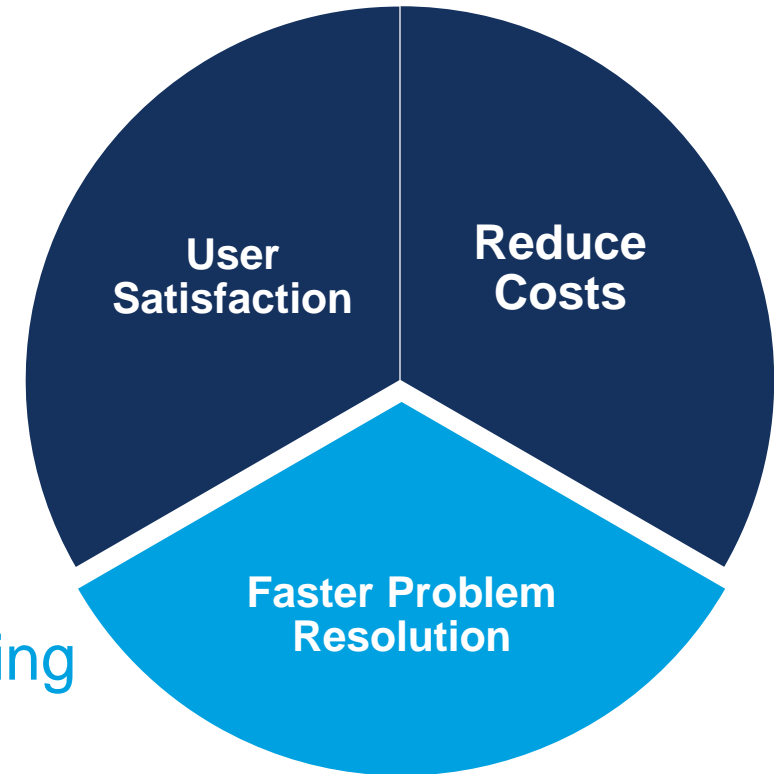
## KEY BENEFITS FOR ENTERPRISE



# Faster Problem Detection & Resolution

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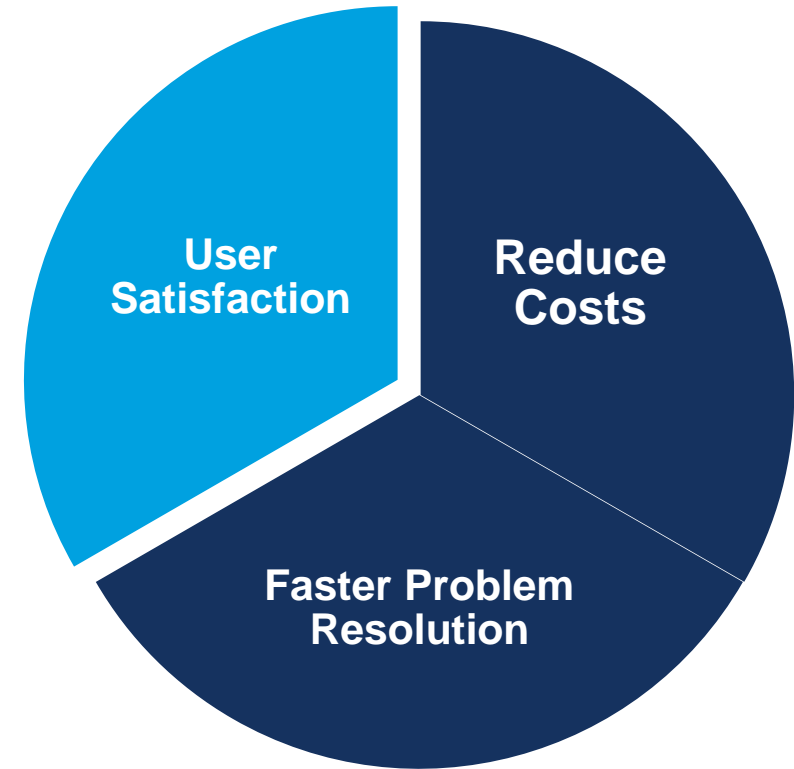
- ✓ Around the clock monitoring of voice quality and other performance metrics
- ✓ Monitoring of both Mitel and multi-vendor systems gives full visibility
- ✓ Alerts ensure the right person receives actionable data at the right time
- ✓ Prevent problems with insight from agent-based synthetic call testing and site qualification
- ✓ Secure remote access to devices and active testing tools simplify troubleshooting



# User Satisfaction

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- ✓ Consistently high service quality and less downtime results in satisfied users and higher adoption rates
- ✓ Resolution of problem by 1<sup>st</sup> level support increases user satisfaction
- ✓ Early detection means problems can be resolved before the user is impacted
- ✓ Reports demonstrate network performance and help with forecasting, planning & load balancing



# Reduce Costs

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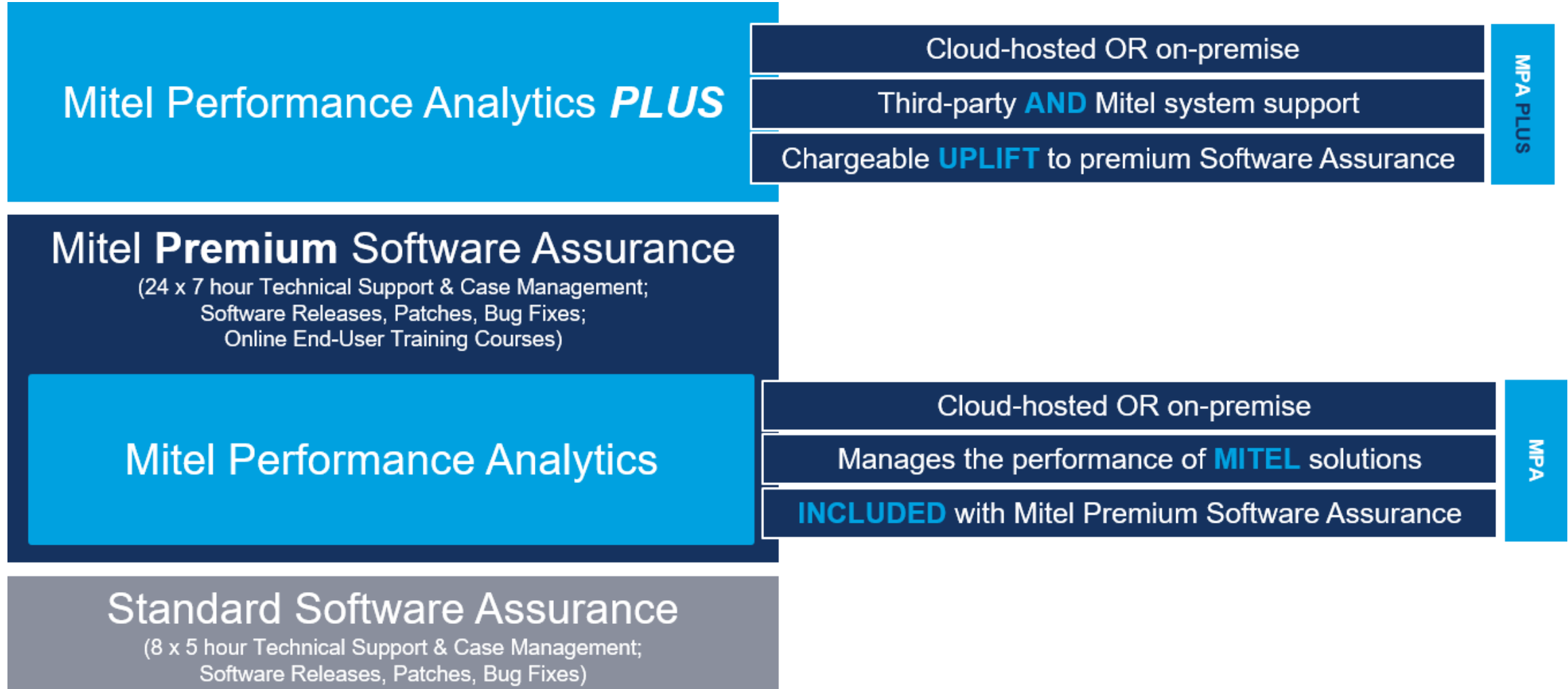
- ✓ Access devices in any location for troubleshooting or maintenance – avoiding the cost of onsite support visits
- ✓ Avoid losses associated with downtime
- ✓ Consolidate UC and network performance management tools in one comprehensive offering
- ✓ Improve capacity planning with trunk and MiCollab AWW port utilization data
- ✓ Easy to deploy, cloud or on-premise options



# **SOFTWARE ASSURANCE & SUPPORTED DEVICES AND APPLICATION**

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# Mitel Premium Software Assurance and MPA Service Tiers



# Features by MPA Tier

Capability	MPA	MPA Plus
Deployment Options	Cloud or Premise	Cloud or Premise
Device Support	Mitel	Mitel + Third-Party
Trunk/Route/Gateway Utilization	✓	✓
Remote Access/Single Sign-On	✓	✓
Basic Test Tools	✓	✓
Advanced UC Network Testing	✗	✓
Alarms & Alerts	✓	✓
Reporting & Analytics	✓	✓
Backups	✗	✓
Group Operations Scheduler	✗	✓
IPT User Dashboard	✗	✓
Inventory Reports (users, sets, services)	✗	✓
Analytics - Capacity and Utilization Reports	✗	✓
Advanced User Operations (moves, deletes)	✗	✓
Set Inventory and Extension/Terminal Registration	✗	✓



# Supported Mitel Devices & Applications

	Supported	How to Buy
MiVoice Business (+ MiVoice Business Multi Instance)	✓	Premium Software Assurance & MPA PLUS
MiVoice 5000	✓	Premium Software Assurance & MPA PLUS
MiVoice MX-ONE	✓	Premium Software Assurance & MPA PLUS
MiCollab	✓	Premium Software Assurance & MPA PLUS
MiVoice Border Gateway	✓	Premium Software Assurance & MPA PLUS
MX-ONE Application Servers (MiCollab Advanced Messaging, CMG, InAttend, ACS Media Server)	✓	Premium Software Assurance & MPA PLUS
MiVoice Office 250	✓	Premium Software Assurance
MiContact Center (Business & Enterprise)	✓	Premium Software Assurance
MiContact Center (Office)	✓	Premium Software Assurance
MiVoice Call Recording	✓	Part Number Required
SIP DECT (OMM and RFP)	✓	Premium Software Assurance
MiVoice Connect	✓	MPA PLUS





# Third-Party Device Support

Third-party device support is **ONLY** available with the MPA Plus Service Tier.



## **SERVERS**

Windows, Linux



## **ROUTERS**

Cisco, Adtran, InGate  
SBC



## **SWITCHES**

Managed ethernet  
switches

Configurable support  
for ANY SNMP  
device.



- Uninterruptible Power Supplies (UPS)
- Red Box Call Recorder
- Innovation InnLine
- PathSolutions

## CASE STUDY

# Carleton University

“A failure of the MiContact Center server, particularly during the critical registration period, can mean losses for the university – so the Mitel Performance Analytics monitoring gives us confidence that we can avoid downtime.”

## Problem

Needed a solution to manage and monitor communication systems during busy times.

## Solution

MPA delivers 24/7 performance and availability monitoring, real-time alerts via email or SMS and secure remote access to a host of devices.



## CASE STUDY

# Firmdale Hotels

“Hospitality is a 24/7 business, and Martello’s software-as-a-service has been keeping Firmdale ahead of UC network performance problems for more than four years, improving our guest experience. Mitel is always improving and augmenting its offering, solving more of our network performance challenges from a single pane of glass.”

## Problem

With a complex network of devices & applications, Firmdale wanted greater control over their network.

## Solution

With Mitel Performance Analytics Firmdale can manage devices in all of its locations from a single pane of glass.





## CASE STUDY

# Pomperaug District School Board

“Within a week of deployment, Mitel Performance Analytics solved a voice quality problem we had struggled with for 6 months. The detailed voice quality data in Mitel’s solution differentiates it from other management systems and ensures voice quality problems don’t persist.”

## Problem

Persistent voice quality problem (echo, choppy audio) impacting calls at Pomperaug High School. Test calls to emulate the problem failed to find its cause over a 6 month period.

## Solution

With Mitel Performance Analytic, voice quality problems are detected quickly and can be resolved before the user experience is impacted. • Troubleshooting is simplified with detailed voice quality data and secure remote access by Total Communications.



# **ADDITIONAL RESOURCES**





## InfoChannel

- Decks
- Brochures
- Demo videos
- Customer Success Stories

InfoChannel Worldwide >  
Services & Support > Support  
Services > Mitel Performance  
Analytics (MPA)

## Mitel.com

- Brochures
- Demo videos
- Customer Success Stories
- Blogs

<http://www.mitel.com/service-and-support/support-services/software-assurance>

## Training & Documentation

[edocs.mitel.com](http://edocs.mitel.com)

- Engineering Guidelines
- System Guide
- Quick Start Guide
- Install/Upgrade Guides

[mitel.absorbtraining.com](http://mitel.absorbtraining.com)

### Mitel University

- Installation & Maintenance (self study)
- Sys Admin (self study)
- Sales Training

# MPA Sales and Technical Training

## **Mitel University**

**Sales Training (Self Study)**

Course # 222905

**Technical Training (Self Study)**

Installation & Maintenance (Course # T-MPA 2.0-  
IM-SS)

System Administrator

**Leader-Led Training**

Contact [sales@martellotech.com](mailto:sales@martellotech.com)

Onsite or web-based

<http://mitel.absorbtraining.com>





Powering connections