








Witbe Telephony Quality Manager

Control Performance & Quality of Critical Voice Infrastructures



Key Benefits

-  Control calls always reach destination whatever the technology used
-  Gain visibility on the quality really delivered to customers
-  Monitor ASR and audio quality of long distance routes
-  Identify network bottlenecks and gateway oversubscription issues
-  Control audio quality with standards-compliant analysis
-  Reports available in easy-to-read Web dashboards, Smartphone apps, PC widgets, RSS and e-mail
-  Alerts on custom criteria sent via e-mail, SNMP trap, SMS, pager



Telephony infrastructures are increasingly complex and heterogeneous: Legacy POTS, VoIP, IMS, mobile. How do you control calls are properly routed across these networks?

Operators have a wide choice of long distance routes. Not all provide equal quality. You must monitor Average Success Ratio (ASR) and audio quality (PESQ).

Witbe's Telephony Quality Manager is a non-intrusive solution designed for enterprises looking at controlling their operator's service level agreement (SLA) as well as for service providers monitoring their telephony infrastructures to deliver the best services.

Leveraging Witbe Robots' unique ability to place and receive calls on any analog, VoIP and 2G/3G phone lines, **Witbe's Telephony Quality Manager** gives you factual

information on the actual user experience of your fixed and mobile voice services.

It can be configured to place calls all day long, ensuring all cases are monitored: From PSTN to VoIP, from VoIP to Mobile, from Mobile to long distance VoIP, etc. Routing performance and audio quality are measured 24/7 for real-time alerting enabling you to act promptly and solve issues that really affect customers.

Measurements are reported in easy-to-read dashboards designed to give you analytic views of your infrastructure. With **Witbe's Telephony Quality Manager** you can build KPIs to better drive operations, and control your peering partners' SLAs to increase customer satisfaction and profits.

Technical Specifications

QoE Metrics & KPIs

- Incident analysis: No dial tone, busy tone, unreachable destination
- Communication issues: Poor listening quality, quality instability, sound loss, DTMF transmission issue, dropped call
- Network connection availability
- Post dialing delay
- Voice delay
- Audio recording of call set up phase

Optional IVR Monitoring

- DTMF (Dual-Tone Multi-Frequency)
- Speech synthesis (voice orders via text-to-speech)
- Speech recognition
- Supported languages: Dutch, French, German, Polish, Spanish, US English, UK English. Other languages on request.

Detailed Signal Analysis

- Signal level
- Noise gain, inserted gain
- Echo measurement
- Linear spectra

Audio Quality Measurement (PESQ)

- Two ways PESQ analysis (Perceptual Evaluation of Speech Quality)
- MOS-LQON (ITU-T P.862.1, P.862.2): Average & per frame
- Voice artifacts: Clipping, end-to-end delay and variation, speech level, noise level, signal degradation, etc.
- Listening speech quality stability: ST-MOS (ETSI EG 202 765-2)
- Audio recording of entire communication



Alarming System

- Custom parameters for thresholds and criteria
- Management of escalation procedures and scheduled maintenance
- Alerts by e-mail, SNMP trap, SMS, pager

Central Management Platform

- Available as a SaaS platform hosted on Witbe Internet POPs, or in-premises on High Availability hardware.
- Manages local and remote Witbe Telephony Robots: Software upgrades, script upload, test scheduling, etc.
- Centralized storage, history and management of all test results across all Witbe robots
- Pre-build graphical dashboards. Can be customized or developed for specific needs.

Witbe Telephony Robot Range

	S1700	S3200
		
Form factor	Table Top	1 Rack Unit
LAN	<ul style="list-style-type: none"> • 1 GigEN for administration • 1 GigEN for data 	
Voice ports	<ul style="list-style-type: none"> • 4 analog FXO ports, or • 4 simultaneous SIP sessions, or • 4 or 8 simultaneous 2G/3G mobile interfaces 	
Available options	IVR Monitoring Capabilities	
Management	<ul style="list-style-type: none"> • IPMI v2.0 • Dedicated 10/100 Ethernet for IPMI 	
Power	External 80W 100V-240VAC	Built-in 260W 110V-240VAC
Temperature (on run)	10 to 35°C / 50 to 95°F	
Humidity (on run)	5 to 90% (non-condensing)	
Dimensions	W: 32.3cm/12.7" x D: 26.6cm/10.5" x H: 7.3cm/2.9"	W: 43.7cm/17.2" x D: 35.6cm/14" x H: 4.3cm/1.7"
Weight	2kg/4.4lbs	9.4kg/20.7lbs
2G/3G Mobile appliance	Rackable 1U - W32cm/12.6" x D21cm/8.3" x H4.3cm/1.7" Weight: 1.975kg / 4.3lbs External 100-220VAC 80W power supply	



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