

the MediaPro

Online, Session-oriented IP Multi-media Analyzer

The MediaPro™, a cutting-edge, high-performance, session-oriented IPMM (IP Multi-media) analyzer, provides accurate problem detection, fast troubleshooting and IP network performance analysis.

Intended for the QA Engineer testing high volume next generation architectures and solutions, or for the engineering team in charge of deployment and maintenance of the increasingly loaded IPMM live network, the MediaPro provides complete signaling and media analysis, including QoS, video and voice quality. It detects problems such as inefficient bandwidth utilization, inefficient packet loss recovery mechanisms, poor compression mechanisms, non-optimal jitter buffer length, quality degradation under stress, inadequate VAD (Voice Activity Detection) mechanisms and long signaling setup durations. In addition, full drill-down capabilities enable isolating every level of the signaling and media planes.

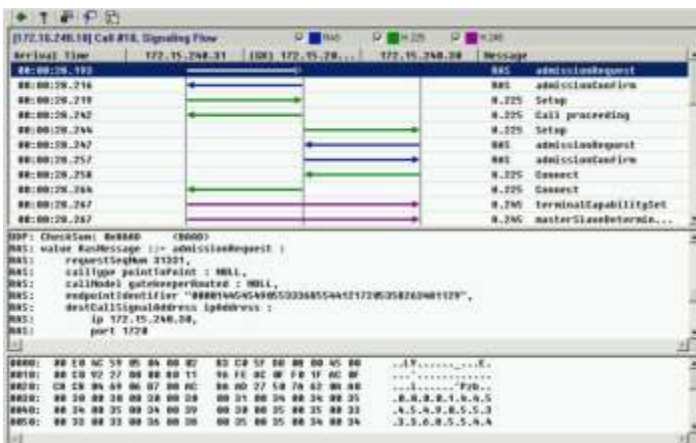
The MediaPro associates signaling and media per call-base, and provides a full view of the calls executed by VoIP/PSTN devices in the VoIP network. It is the ultimate solution for IPMM troubleshooting, debugging and regression tests.

The MediaPro provides high performance session analysis using dedicated hardware, based on the GEAR (GEneric Analyzer), RADCOM's processor chip.



Highlights

- ▶ Allows real-time IPMM network analysis.
- ▶ Provides high performance capture capability.
- ▶ Uses dedicated hardware, based on RADCOM's GEAR chip.
- ▶ Connects to 10/100/1000 Mbps Ethernet and other networks.
- ▶ Associates signaling, voice and video streams per call base.
- ▶ Provides an embedded jitter buffer consultant.
- ▶ Evaluates non-intrusive voice quality monitoring based on the industry standard ITU-T G.107 E Model (MOS and R-Factor evaluation).
- ▶ Evaluates objective voice quality using PESQ (ITU-T P.862) and PAMS.
- ▶ Supports multi-IPMM signaling, including SIP, H.323, MGCP, Megaco, SCCP, NCS, TGCP, SIPT, C-SIP and more.
- ▶ Calculates enhanced jitter and inter-packet delay variation using an automatic expected packet length mechanism.
- ▶ Allows audio transparent playback taking into account jitter, packet loss, silence suppression and packet order.
- ▶ Allows video transparent playback taking into account jitter and packet loss.
- ▶ Provides statistic reports and graphs.
- ▶ Provides enhanced hardware filtering capability including:
 - Protocol filtering.
 - Source and destination IP addresses.
 - Calling party number, called party number.
 - Closed call filter of signaling failed calls.
- ▶ Provides automatic test capabilities through the MasterScript, a powerful scripting tool.
- ▶ Provides analysis of cRTP traffic.



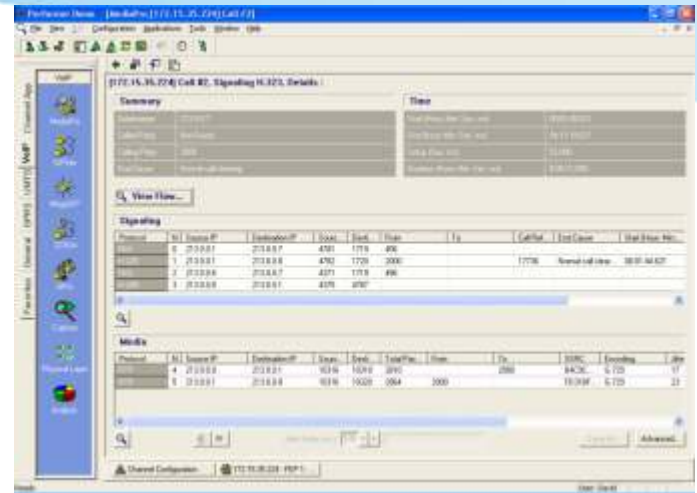
Call signaling flow

RADCOM

TEST-OF-THE-ART

Signaling Analysis

The MediaPro supports IPMM signaling, including SIP, H.323, MGCP, Megaco, SCCP, NCS, TGCP, SIPT, C-SIP and more. The MediaPro associates all the signaling streams, RTP and RTCP streams per call-base, providing a clear flow of the signaling call messages, including all the signaling endpoints that participate in the call. The MediaPro provides an accurate timestamp of each perceived signaling and media packet in the network, enabling accurate measurement of call setup durations. In addition, a CDR (Call Detail Record) is provided for each call in the network.

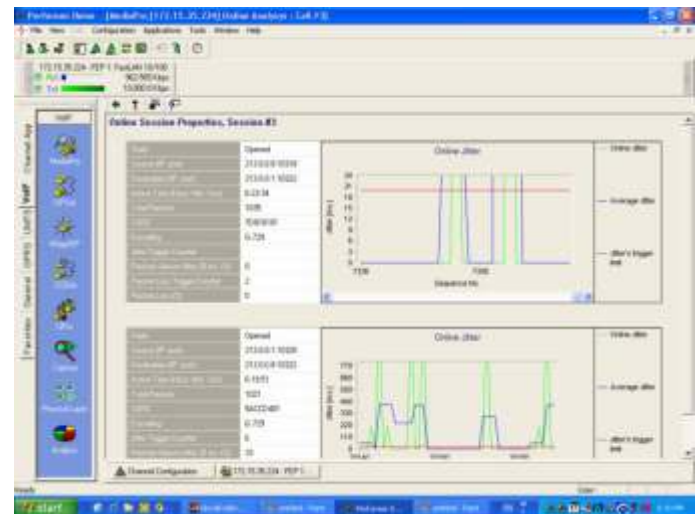


Media Analysis

The MediaPro provides expert diagnosis and analysis of the voice and video streams.

RTP Packet Analysis

The MediaPro provides detailed packet analysis of RTP streams by evaluating packet delay variation, packet loss, jitter and other parameters that help benchmark the performance of the DUT (Device Under Stress), including the jitter buffer. Furthermore, the MediaPro identifies the "problematic packets" (such as duplicated packets, out of sequence, etc). The MediaPro supports audio playback of G.711, G.723, G.729, G.726, GSM-AMR and GSM-FR RTP streams and video playback of H.263 and MPEG4 RTP streams.



Non-intrusive Objective Voice Quality Monitoring

The MediaPro objectively evaluates the media quality of any live traffic-based calls according to the MOS scale (ITU-T P.800), based on the network succession industry standard ITU-T G.107 E model (which provides R-Factor evaluation) and voice quality evaluation.

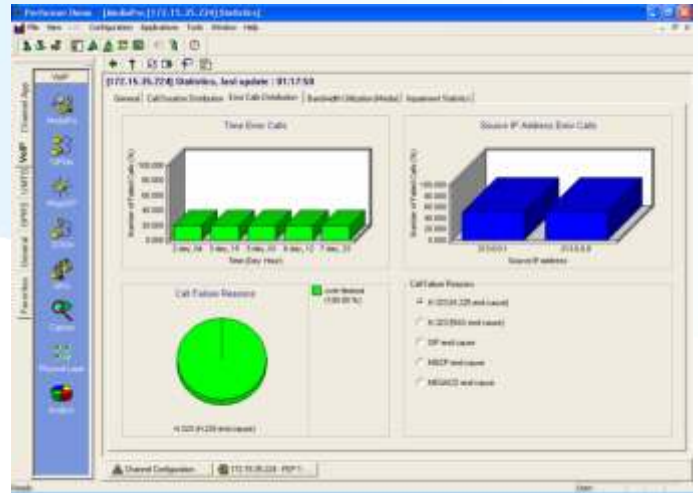
Objective Voice Quality Evaluation

The MediaPro provides objective intrusive voice quality testing based on PESQ (Perceptual Evaluation of Speech Quality) ITU-T P.862s, and PAMS (Perceptual Analysis Measurement System) for calls of complementary system components that activate calls and simulate the network environment.



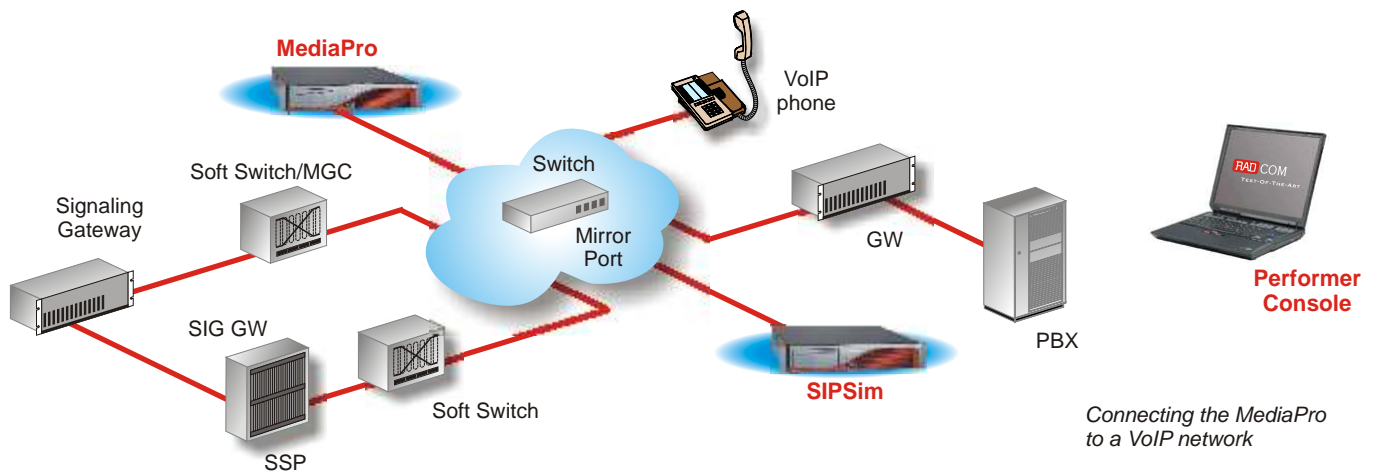
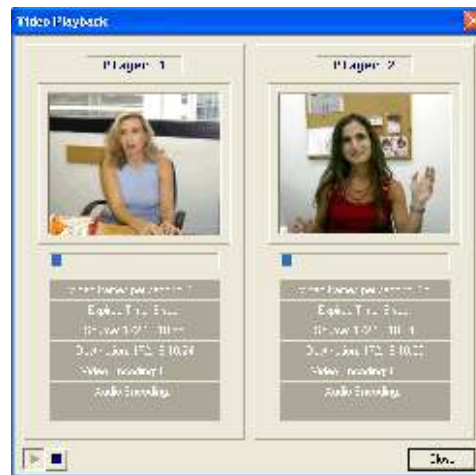
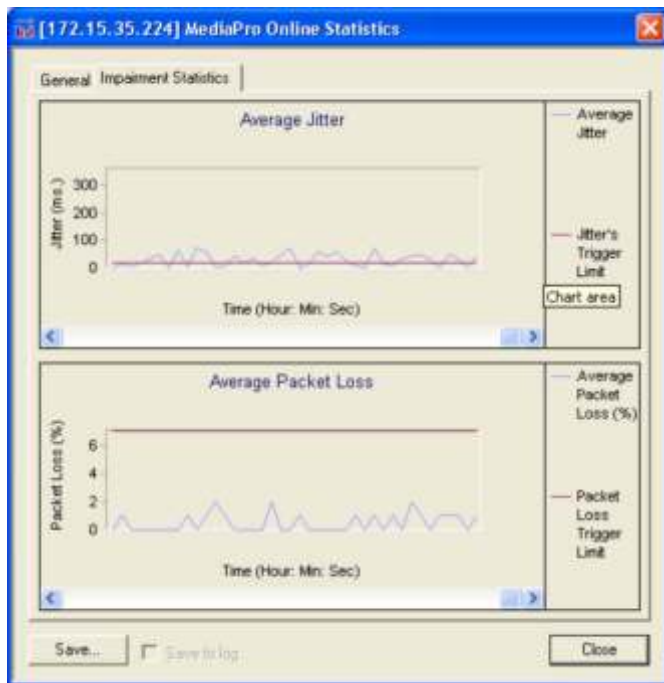
Reports and Statistics

Presenting a complete picture of the network status, the MediaPro displays signaling statistics of open duration, signaling type distribution, GoS, signaling errors distribution and more. Additionally, the MediaPro provides media statistics of the network for jitter and packet loss bandwidth and media packet analysis. The MediaPro also enables you to subjectively evaluate voice quality using its playback mechanism.



Video Quality Analysis

The MediaPro identifies video calls, enables video playback and displays a list of QoS metrics related to the video streams. It also provides non-intrusive objective video quality of live calls.



Connecting the MediaPro to a VoIP network

