

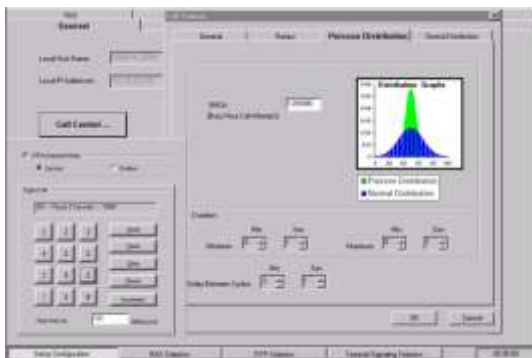
# 323Sim

## H.323 Services Simulator

The 323Sim, a high performance H.323-based VoIP services simulator, enables developers and service providers to benchmark, load test and verify proper protocol implementation in H.323-compliant, Voice and Video over IP equipment. Working in conjunction with other Performer components, the 323Sim offers users add-on measurements such as QoS, GoS and voice quality evaluation. The 323Sim can test gateways, gatekeepers and other VoIP products prior to release or deployment, providing users with ultimate and comprehensive performance assurance.

A complete H.323 implementation, the 323Sim is capable of both initiating and responding to calls. It simulates an H.323 terminal generating thousands of calls with or without a gatekeeper, opens logical channels and transmits RTP voice and video packets. Comprehensive protocol parameter control allows the simulation of a wide variety of terminals, and online and history statistics provide instant test results both during and after simulation sessions.

The 323Sim includes the MediaStress module, which can be used to generate loads of 6,000 sessions per segment and supports full signaling and RTP streams in various codecs. Utilizing RADCOM's hardware transmission capabilities, MediaStress enables users to test carrier grade gateways and mediators. It verifies media servers' behavior and reliability with high volumes of calls. The MediaStress module is also useful when testing network readiness for H.323 solutions, or large-scale gateways between packet and switched-circuit networks and media servers.



RADCOM's MasterScript scripting capabilities are fully integrated into the 323Sim, enabling users to automate and optimize procedures, find the best performance versus quality, improve QoS over VoIP systems and devise any required test scenario.



Portable Performer

### Highlights

- ▶ Up to 6000 simultaneous calls with media per segment; up to 24,000 per system
- ▶ Sends and receives H.323 voice and video calls and interacts with other H.323 entities
- ▶ Provides fine-grain control over call setup rates and parameters
- ▶ Tests integrity of gatekeeper communication procedures under stress by enabling RAS message generation
- ▶ Displays call activity and completion statistics such as setups, releases, active calls online and GoS
- ▶ Transmits RTP packets (encoded in various codec formats) for gateway load testing
- ▶ Supports H.261, H.263 and MPEG-4 video streams
- ▶ Tests DTMF integrity
- ▶ Enables activation of specific portions of the call setup process (RAS, Q.931 or H.245) for pinpoint testing
- ▶ Supports fast start connections and early H.245
- ▶ Supports tunneling mode H.245 using H.225 signaling
- ▶ Simulates predictive test conditions using 3 different traffic profiles: Ramp, Poisson and Normal Distribution
- ▶ Supports objective voice quality measurement in collaboration with other Performer components
- ▶ Provides automatic test capabilities through MasterScript, a powerful scripting tool
- ▶ Supports H323 V4
- ▶ Supports alternate gatekeeper

### Media Capabilities

- ▶ When used with the 323Sim, generates up to 6,000 RTP sessions per segment in various codecs, for H.323 calls created by H.323 signaling; up to 24,000 per system
- ▶ Generates RTP channels at a very high level of accuracy, using RADCOM's proprietary hardware
- ▶ Transmits predefined or user-defined speech signals for voice quality evaluation (PAMS/PESQ)
- ▶ Enables control of RTP packet structures including the number of frames per packet and RTP packet duration
- ▶ Allows configuration of the SSRC field and UDP ports
- ▶ Allows configuration of RTCP packet transmit intervals

**RADCOM**

TEST-OF-THE-ART

## The Performer

Performer is a comprehensive solution for pre- and post-deployment stages, R&D verification, stress testing, troubleshooting and recurring IPMM, Cellular and VoD system performance testing. It generates realistic network environment stress levels on new VoD devices and applications, and then tests the quality and grade of service delivered. Additionally, the Performer provides session-oriented Consultants, using a wide range of interfaces based on the GEAR. The GEAR is a proprietary generic analyzer processor chip offering hardware-based full line rate analysis capabilities at up to 2.5 Gbps.

### Service over IP Performer Suite

The IP Multi-media Performer is a comprehensive IP test solution that integrates GEAR-based hardware and software. Controlled from an easy-to-use console, the complete Performer SoIP suite includes the SIPSim™, 323Sim™, IPMM call generator, MediaPro™ session-oriented IPMM consultant and QPro™ voice quality evaluation tool.

## Target Users

Developers use 323Sim to test equipment under stress, verify standard compliance and assess signaling integrity during development stages.

QA labs utilize 323Sim to stress equipment in order to substantiate QoS and voice quality.

Internet service providers and carriers use 323Sim to test different systems, analyze price-performance, verify system integrity for the deployment stage and confirm standard compliance verification for interoperability issues.

Field service personnel utilize 323Sim to identify and troubleshoot network interoperability and signaling integrity.

### Cellular Performer Suite

The Cellular Performer is a comprehensive cellular test solution for vendors, QA and integration labs, R&D and operators. Based on the field-proven Performer platform, it integrates RADCOM's proprietary GEAR. The complete Cellular Performer suite offers a range of applications for troubleshooting 2.5 and 3G networks, including GPRS, UMTS and CDMA2000.

### Performer Analyzer

The Performer Analyzer is a comprehensive datacom test solution. Based on the field-proven Performer platform, it integrates RADCOM's proprietary GEAR which provides hardware-based full line rate capture and analysis at up to 2.5 Gbps.

The Performer Analyzer uses RADCOM's powerful proprietary hardware-based GenFEP, offering a flexible and upgradeable solution as well as a wide range of full line rate technology and protocol-independent capabilities. The complete Performer Analyzer suite offers a wide range of technologies and applications for analyzing, decoding and troubleshooting datacom networks.

## Specifications

### Statistics

General, RAS messages, registration information, Q.931 messages, H.245 messages, call information.

### Codecs for Audio Generation

G.711 u-LAW, G.723.1, G.711 A-LAW, G728, G.722, G.729.

### Minimum Requirements

PC: Pentium IV 1.4 GHz, 512 MB RAM or more  
Monitor: VGA 1024 x 768  
Hard disk: Minimum 4 GB free for program files  
At least 2 GB recommended for data storage  
Operating system: Windows 2000/XP

### R1000, Rack-mount 2U, Performer/Probe Server

HW: Pentium IV, 2.4GHz; 1 GB DDR, 266 MHz; 80 GB Hard disk

Number of FEPS: Up to 2, plus Sync card

Dimensions: w x d x h: 440 x 470 x 88 mm (17.5 x 18.7 x 3.5 in) Weight: 9.2 Kg (20.3 lb)

Power: 100V - 240V, Maximum 300W.

### R4000, Rack-mount 5U, Performer/Probe Server

Number of FEPS: Up to 8, plus Sync card

### P1000, Portable Server

Number of FEPS: Up to 3, plus Sync card

### PerformerLite, Portable Server

Number of FEPS: Up to 3, plus Sync card

### Ordering Information

PA-323Sim - Starter up to 75 calls

PA-323Sim - Pro up to 500 calls

PA-323Sim - Platinum up to 2000 calls



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