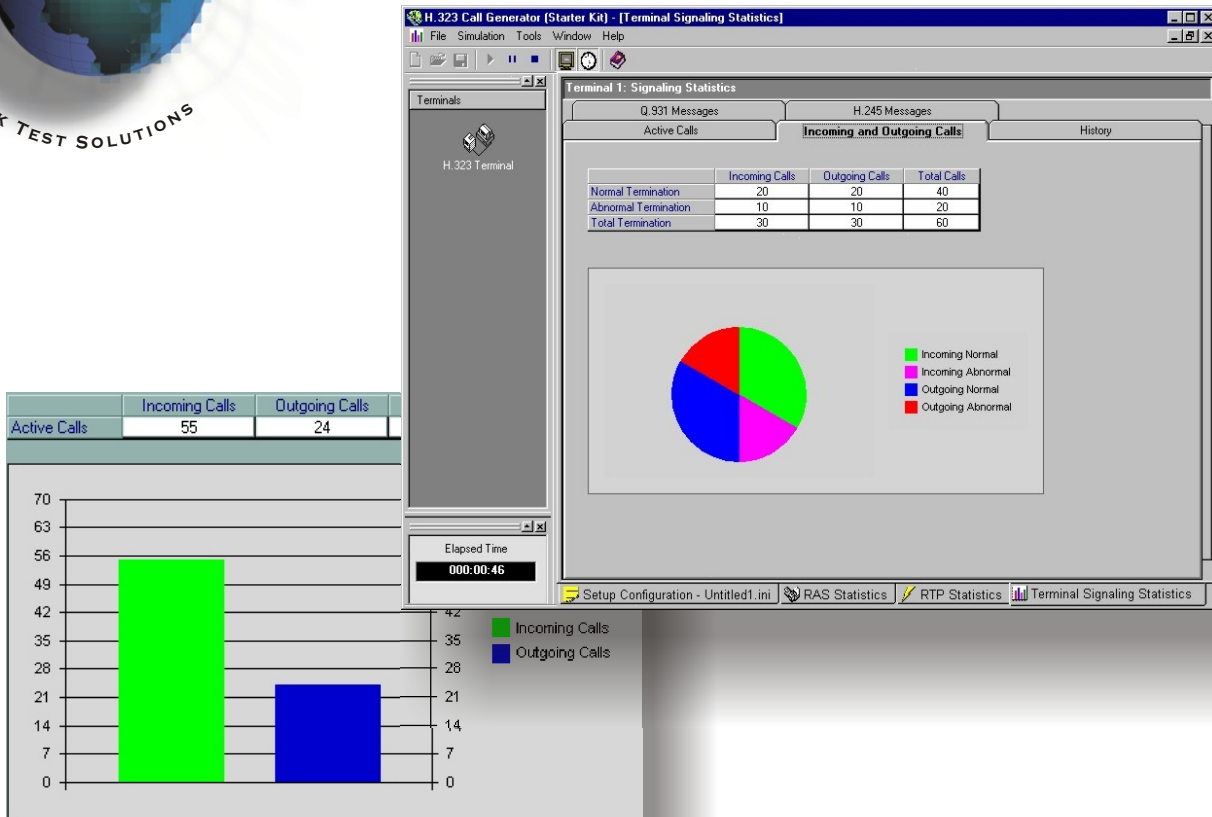




H.323 CALL GENERATOR



The H.323 Call Generator package enables developers and service providers to benchmark, load test and verify proper protocol implementation in Voice over IP equipment.

A complete H.323 implementation capable of both initiating and responding to calls, the package simulates an H.323 terminal generating calls with or without a gatekeeper, opening logical channels and

transmitting RTP voice packets. Comprehensive protocol parameter control allows the simulation of a wide variety of terminals. On-line and history statistics provide instant test results both during and after the simulation session.

Testing gateways, gatekeepers and other VoIP products with RADCOM's H.323 Call Generator package prior to their release or deployment, provides ultimate performance assurance.

HIGHLIGHTS

- Generates and receives H.323 calls.
- Provides fine-grain control over call setup rates and parameters.
- Simulates gatekeeper communication procedures by enabling RAS message generation.
- Displays call activity and completion statistics such as setups, releases, and active calls on-line.
- Transmits RTP voice packets encoded in various codec formats for load testing a gateway.
- Scripting capabilities for automatic test procedures using the Performer MasterScript (Pro and Platinum versions only).
- Tests DTMF integrity.
- Simulates a wide variety of H.323 terminals by providing detailed RAS, Q.931, and H.245 parameter definitions.
- Loads gateways and gatekeepers with thousands of simultaneous calls.
- Enables activation of specific portions of the call setup process (RAS, Q.931 or H.245) for pinpoint testing.
- Displays gatekeeper statistics.
- Supports fast start connections and early H.245.
- Supports tunneling mode H.245 using H.225 signalling.

APPLICATIONS

A PC running the H.323 Call Generator is connected to the LAN to test H.323 equipment. The gatekeeper is loaded with RAS registrations and the gateways are loaded with call setups and RTP voice packets. The gateways, connected in a loopback configuration, can be tested on all ports by configuring the H.323 Call Generator to call a variety of addresses.

Load Testing Gateways and Gatekeepers

As VoIP is integrated into carrier networks, gateways and gatekeepers must be capable of supporting high call volumes. The H.323 Call Generator stresses the signalling, packetization, and compression/decompression processes in a gateway by sending both call setup messages and actual voice media in various codec formats. Optional RAS message generation enables loading of a gatekeeper with registrations.

SPECIFICATIONS

Statistics

General: active calls, normal terminations, abnormal terminations, total calls, average call duration, longest call, shortest call

RAS Messages: gatekeeper discovery, registration, unregistration, admission, bandwidth, location, disengage

Registration Information: alias, alias type, status, registration duration, registration time, time to live

Q.931 Messages: alerting, call proceeding, connect, connect acknowledge, progress, setup, setup acknowledge, disconnect, release, release complete, resume, resume reject, suspend, suspend acknowledge, suspend reject, user information, miscellaneous messages, congestion control information, notify, status, status inquiry

H.245 Messages: master/slave determination, capability set, open logical channel, close logical channel

Call Information: source, destination, start time, duration, stop reason, type, call ID, errors, RAS, Q.931, H.245, and RTP parameters

Codecs for Audio Generation

G.711 LAW G.723.1
G.711 aLAW G728
G.722 G729

Additional codecs may be added upon request.

Simulation Parameters

Working Modes: include or exclude Q.931, H.245 (standard, early, or fast start), and RTP/codecs

Call Control: number of sessions (infinite, finite), number of calls per session, delay between sessions (seconds), maximum incoming calls, setup rate (setups per second), delay after last setup, multiple destinations

Protocol Implementation and Interoperability Testing

Developers verify proper H.323 protocol implementation by generating calls with the H.323 Call Generator. By configuring the various protocol parameters, users evaluate how effectively their equipment interacts with a variety of H.323 terminal types.

Benchmarking Vendor Equipment

Service providers use the H.323 Call Generator to benchmark competing VoIP products in the lab before selection and implementation in the network. Equipment can be tested for both performance and compatibility with existing H.323 network components.

Gatekeeper Mode: without RAS, automatic discovery, default gatekeeper

RAS: response time out, maximum fail, terminal alias, time to live, RAS multicast address, RAS port, max. retries, timer time out, time to live

Support for Various Address Formats: IP, NSAP, IPX, IPv6, address, netbios

Aliases: E164, H323-ID, Url-ID, transport-ID, email-ID, party number

Q.931: response time out, connect time out, call signalling port, call proceeding control

H.245: channels timeout, request close timeout, request mode timeout, media loop timeout, master slave capabilities configuration, channels configuration

System Requirements

Notebook or Desktop PC with standard 10/100 Ethernet adapter card; Windows NT operating system
Recommended PC: Pentium III, 800 MHz, 256 MB RAM
H.323 Call Generator performance is directly related to the processing power and memory of the PC

For detailed product information, please see www.radcom-inc.com/H323sim

Ordering Information

H.323-Sim-Starter up to 75 calls
H.323-Sim-Pro up to 500 calls
H.323-Sim-Platinum up to 2000 calls

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