Hammer DEX™

The Industry's Most Advanced and Flexible VoIP Device Emulation Platform

Hammer DEX is designed to reduce cost and speed up the testing, validation and verification of VoIP devices, applications and networks. Created to meet the emerging test requirements for NGN devices, Hammer DEX provides developers, QA labs, service provider labs, system integration and rollout teams, a cost effective emulation platform that is extensible, multi-user capable and easy to use. Hammer DEX allows for emulating specific device functionality, behavior and configuration eliminating the need for real devices in test setups. It can be used in conjunction with other Empirix functional and load testing products for the isolation test of VoIP devices. The Hammer DEX platform provides users with a full range of device templates that work 'out of the box', which can be easily customized to meet changing test requirements.

Templates and Protocols

The Hammer DEX first release is focused on passive, non-endpoint VoIP device emulation with templates available for SIP Proxy, MGCP Call Agent and H.248 Trunk gateway. This release of the Hammer DEX platform has support for a wide range of VoIP protocols including SIP, MGCP, NCS, H.248 (Binary/ASCII) and H.323. Customers requiring specific device templates can modify the current available device templates or develop new device templates using the template creation and modification options in the Hammer DEX platform.

Functionality

Hammer DEX provides a number of unique value-added features including multi-user remote access, emulation statistics monitoring and template customization. Multi-user remote access allows for up to four users to share a single Hammer DEX solution to start, stop and monitor emulations in real-time. Statistics on active emulations can be monitored in real time using a table or graphical format. Statistics that need to be monitored can be set as part of a device template definition and can be changed using the template modification tools. The behavior of an emulation can be easily changed to imitate behavior of unique or vendor specific devices by modifying the device templates used to create them.
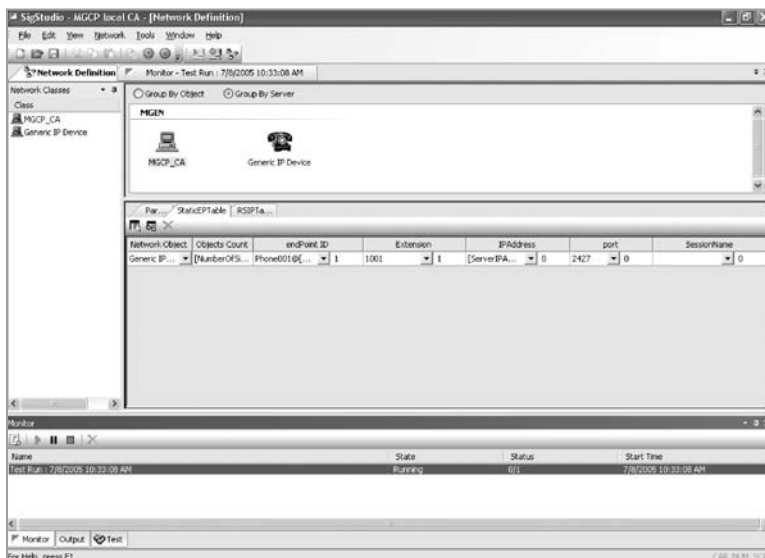
Powerful and flexible User Interface allows for emulation creation, configuration and execution.

FEATURES

- Intuitive and easy to use interface for creating, configuring and running emulations
- Comprehensive signaling support with customizable message content and sequence
- Scripted device templates that work 'out of the box'
- Emulation creation through drag and drop of templates in the user interface
- Emulated device statistics monitoring using graphs and tables
- Multi-user support
- Remote test access for control of emulations
- Used with other Hammer test tools allows for complete device isolation testing

BENEFITS

- Makes available a wide range of VoIP devices for testing, at a fraction of the cost of the actual network devices
- Minimizes lab space, availability and management issues with procuring actual network devices
- Flexible platform allows for multiple emulations of different devices to be configured, and monitored using a single user client
- Pre-packaged device templates make it easy for users to create emulations 'out of the box'
- Easy to use template creation and modification components make Hammer DEX extensible to meet changing testing requirements

TYPICAL TEST APPLICATIONS

- MTA based broadband VoIP service
- Class 5 and enhanced services
- Proof of concept lab testing
- Softswitch testing
- VoIP Gateways (Residential, Access and Trunk)
- IP Centrex

Hammer DEX Features

Interfaces and Signaling

:- Signaling Protocols
  – Supports SIP, MGCP, H.248 (ASCII/Binary), H.323 V4
  – Mixed-protocol configurations supported
  – Highly configurable message content and sequence

:- Network Interfaces
  – Upto 4 10/100 Ethernet ports

System Options

:- Device Templates: The Fastest Way to Emulate Devices
  – Generic device templates available for MGCP CA, SIP proxy, H.248 (ASCII/Binary) TGW
  – Device templates work 'out of the box'
  – Device templates can be customized for specific test needs
  – New device templates can be created for specific devices

:- Signaling Editor: Customize Template Behavior and Message Content
  – Flexible state based architecture provides comprehensive template customization capability
  – Develop state machines to handle call flows specific to your applications and device under test
  – Create your own message or calls flows, or customize existing ones
  – Import messages from Hammer Call Analyzer™ or third-party protocol analyzers

Test Creation, Execution and Monitoring

:- Hammer DEX User Interface
  – Easy to use UI allows for emulations to be created by drag and drop of templates
  – Emulations on various servers can be managed from a single UI
  – Real-time debug information on the emulations in the output window
  – User interface projects can be saved and opened on a different system

:- Multi-User Capability
  – Upto 4 UI can share resources on a single server
  – Multiple UI connected to a server can run independent emulations of different devices

:- Real-Time Monitoring and Reporting
  – Real-time monitoring and reporting of statistics on the emulation
  – Statistics to be monitored can be set on a per emulation basis
  – Export data to other applications for customized user reports
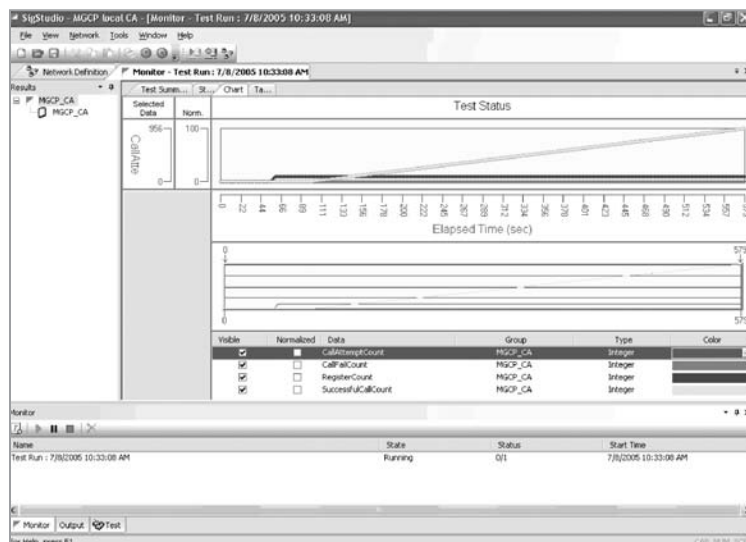
Emulation statistics monitoring in real-time using graphs and tables.

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