STINGA SIP
Simulator

Extremely cost-efficient
World class support
Very easy to use
Very Portable

Gain customers and money
by improving your networks and projects

Whether you're into mobile, VoIP, PSTN, or ISDN business,
get on top of your problems now!

UTEL SYSTEMS
Your customers will notice

Odin TeleSystems Inc.
Open Telecom for Open Minds

STINGA SIP Application Areas and Overview

IMPROVED BUSINESS WITH LOW COST SOLUTIONS

- Helps you to get the most out of your existing investments in your network
- Get your development and test projects finished on schedule
- Helps you to reduce Time To Market (TTM)
- Resolve your network problems before your customers even notice
- No 1st or 2nd line support anymore, you have 3rd line support directly by world class specialists
- Tailor made solutions in just a few days
- Training available by highly experienced and skilled protocol and signalling specialists

NETWORK MANAGEMENT

- Know the capabilities of your network
- Resolve network issues easily
- Tune up your network for better performance

DEVELOPMENT & IMPLEMENTATION

- Supports prototyping
- Reduce the risks in your project by verifying your design on an early stage
- Generate traffic and test before your system is developed
- Verify your product's capabilities in an early stage

TESTING

- Supports both **black box and white box testing**
- Use it for component, function, integration, system, acceptance and conformance testing
- **Regression Testing**: To build test suites is a breeze and enables the user to perform automated regression testing in a **cost-efficient** way.
- **Load Testing**: The SIP Simulator is able to generate calls for load testing.
- **User Agent Testing:** Test operations and configurations of SIP User Agents. Verify entities such as timeouts, redirection and authentication.
- **Server Testing:** Test and verify correct operations of a SIP proxy server.
- **Complex Networks**: Test UAC and UAS behaviour between interconnected networks, involving private LANs, NAT and firewalls.

FAULTFINDING & TROUBLESHOOTING

- Protocol decoding of SIP/SDP, RTP and related IP protocols such as DNS and ICMP makes it possible to track and search for protocol irregularities.

KEY FEATURES

- **SIP and SDP protocol simulation**
- **SIP, SDP and RTP protocol analysis/ monitoring**
- **Runs on standard PCs with Windows and an Ethernet interface (no custom hardware needed)**
- **G.711 audio codec and RTP DTMF support**
- **SIP User Agent and User Agent Server simulation**

OVERVIEW

Components

The cost-efficient STINGA test instruments from Utel Systems comprises the following components related to SIP/SDP/RTP simulation and analysis:

One or more software modules:

- STINGA NGN Monitor for protocol analysis
- STINGA SIP Simulator for protocol simulation
- One USB dongle working as a hardware lock.

Client and Server

The SIP simulator can simulate SIP User Agents (UAC) and SIP Servers.(UAS).

Highly Portable

With these hardware and software components, highly portable protocol simulators and analysers, desktop protocol simulators and analysers, and rack-based monitoring probes are supported.

Cost-efficient Windows-based Test Instruments

All software and hardware components are running on standard notebook and desktop PCs with Windows, providing cost efficient IT service, fast learning curve, easy and cheap access to replacement units.

Same User Interfaces for all Products Reduce Costs

All test instruments from Utel Systems are based on the same windows user interface framework. The user do not have to focus on how to use different applications, meaning full focus on different protocols and network technologies in use. Same decoding format for monitor and simulator results in time efficient testing.

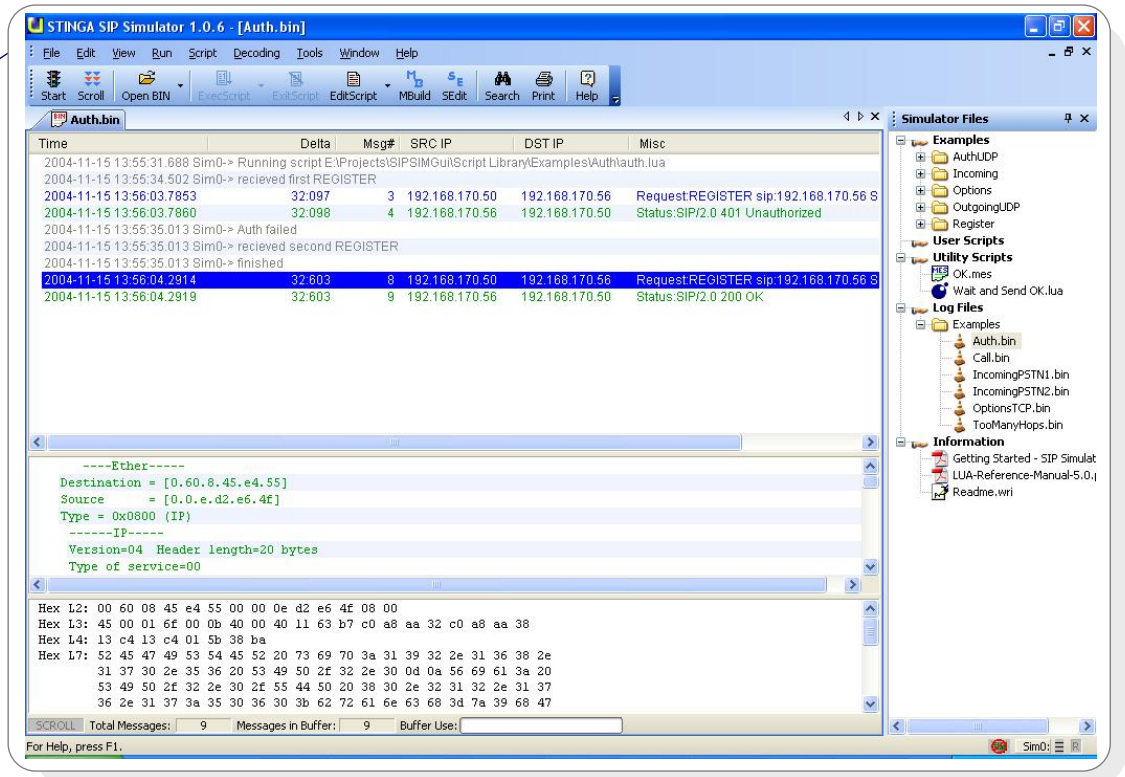
Open script format

Content and order of any message of information element can be changed. The simulator can therefore simulate any regular or irregular/incorrect protocol implementation and be adapted to new protocol elements.

Simultaneous Protocol Simulation and Analysis

Possible to simulate on one side of a test object (i.e. a switch) and monitor on the "other" side.

STINGA SIP Simulator - protocol simulation



Easy to use Windows-based user interfaces.

Script files, parameter files, messages files and log files are easily accessed from the Simulator Files pane to the riht.

SIP SIMULATOR - PROTOCOL SIMULATION

STINGA SIP Simulator is designed to be used by users skilled in the SIP protocol - having an open system for developing SIP test scenarios and conformance tests.

Simulator Concept

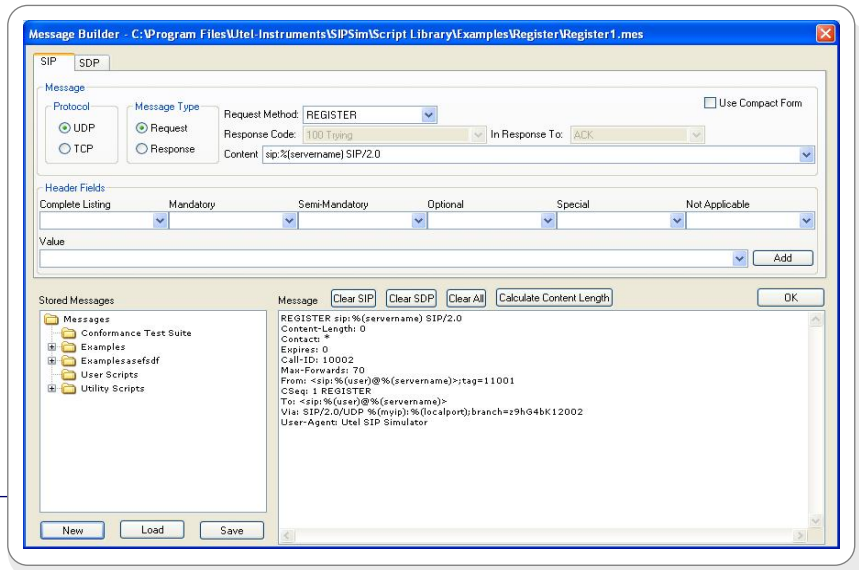
The SIP simulator consists of a user interface for showing and decoding the SIP messages sent and received, and a script language used to drive the simulation. Template messages are built by the user, and the message exchange and information of incoming messages are extracted and put together according to the running script. This allows for full customization of both message content and signalling sequences.

Script and Message Editor

Integrated into the simulator is a script editor for easy editing and organization of the test scripts. A message editor for building SIP and SDP message templates with allowed values according to the SIP RFC specifications is also included. Extensible scripting through the LUA programming language.

Audio and DTMF

A G.711 audio codec allows testing of audio/RTP reach ability to the remote endpoint. Sending of RTP DTMF signals is also supported.



The message builder helps in constructing SIP and SDP messages

TECHNICAL SPECIFICATIONS

Hardware & Software Requirements

- Software modules runs on Windows Vista/ XP/2003 Server/2000/NT 4.0.
- Any Network Interface Card (NIC) providing a standard Ethernet interface.

Protocols Supported

- G.711 audio codec for transmitting audio from microphone or raw files.
- Message decoding of SIP/SDP, RTP,TCP/IP and related IP protocols.
- Supports SIP over both TCP and UDP.
- Can simulate SIP according to RFC 2327,2617, 2778,2779 2833, 2976,3261,3262,3264,3265, 3311,3515 and 3550
- Other protocols and national protocol variants are implemented on customer requests.

Related Products

- STINGA BICC Monitor & Simulator
- STINGA IRI Analyser
- STINGA ISDN PRA Monitor & Simulator
- STINGA ISDN BA Monitor & Simulator
- STINGA MEGACO Monitor & Simulator
- STINGA MOBILE Monitor
- STINGA NGN Monitor
- STINGA PNNI Monitor & Simulator
- STINGA SCTP Simulator
- STINGA SS7 Monitor & Simulator
- STINGA V5 Monitor & Simulator
- E1/T1/J1 support for Wireshark (Ethereal)

Note: The **BICC** products includes all the functionality of the SS7 products, in addition to support for the BICC protocol. The SS7 test instruments can easily be upgraded to the BICC products.

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