



codima

autoVoIP™ Traffic Simulator

Codima Toolbox

autoVoIP™

autoVoIP™ Traffic Simulator

autoMonitor™

autoMap™

autoVoIP™ Consultancy Kit

autoAnalyzer™ Consultancy Kit

autoAsset™

Frame Flow Analyzer

RTP Analyzer

Report Browser

Path Analyzer

Call Playback

Remote Management

Simulate Traffic And Stress Test Network Limits- Unrivalled Pre-Assessment For VoIP Networks

autoVoIP™ Traffic Simulator is part of Codima Toolbox, the fully automated and fully integrated solution managing VoIP networks. The VoIP pre-assessment tool simulates traffic and stress tests the limits on all types of VoIP networks. The unrivalled solution addresses the growing demand for testing VoIP networks to ensure that organizations can successful install and utilize VoIP technology.

Today's increasing VoIP usage requires pre-assessment solutions in order to provide satisfactory VoIP services.

autoVoIP™ Traffic Simulator simulates traffic and stress tests the limits on all types of VoIP networks. The advanced solution helps for example a consultant or an organization to prevent unnecessary project delays and customer dissatisfaction.

autoVoIP™ Traffic Simulator can be used pre- and post deployment with any type of VoIP network.

autoVoIP™ Traffic Simulator consists of two functions that interact. The Traffic Simulation function measures Quality of Service (QoS) over time at different points on the network and can be run continuously to provide long term QoS history.

The Traffic Blasting function generates extra VoIP and non VoIP traffic identifying the loading level where the QoS is not acceptable and automatically producing reports highlighting the danger point.

Deploying multiple autoVoIP™ Traffic Simulators and operating the associated Blaster function will show the impact of adding groups of phones at different points on the network.

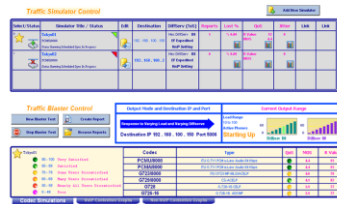
autoVoIP™ Traffic Simulator also provides a comprehensive Pre Deployment Test Report that recommends suitable phone limits and shows the impact of using different Codecs. Test results are automatically included and presented in a Microsoft® Word document.

The Report Browser supplies valuable SLA information, reporting on the QoS and historical data.

autoVoIP™ Traffic Simulator is easy to install and deploy. A Traffic Simulator Host PC and Traffic Simulator Sink PC are needed and to use the Traffic Blasting function a third PC is added to act as the Traffic Blaster Target.

Codima offers free downloadable software for the Traffic Simulator Sink PC and the Traffic Blaster Target PC that can be installed on lower specified PC Platforms, making it more cost effective to deploy. A single Traffic Simulator Host PC and multiple free Traffic Simulator Sink systems can be deployed to monitor the QoS for several paths on the network simultaneously.

Traffic Simulator Organizer



Stress Test



Traffic Blaster Report



Pre Deployment Test Report



VoIP Pre Assessment

- ▶ Real time QoS measurement with stress testing to identify loading limits
- ▶ Deploying multiple autoVoIP Traffic Simulators and operating the associated Blaster function will show the impact of adding groups of phones at different points on the network
- ▶ The unique Pre Deployment Test Report provides a Microsoft® Word document that automatically includes the test results, making recommendations on phone limits and showing the impact of using different Codecs
- ▶ The web based Report Browser provides access to automatically created daily, weekly and monthly reports covering the Simulation results - customizable for local languages and display of company logos

What Your Business Stands To Gain

- ▶ QoS assurance In VoIP networks
- ▶ Project delay Prevention
- ▶ Less end user dissatisfaction during the deployment of a VoIP network
- ▶ Lower installation costs

Expand Functionality

- ▶ autoVoIP™ Traffic Simulator can be deployed as a standalone or the Traffic Simulator Host can be integrated with other tools from Codima Toolbox

Viewing Simulation results

Traffic Simulator Organizer - % Lost Frames, Jitter and QoS Statistics

| Select/Status | Simulator Title / Status | Edit | Destination | DiffServ (ToS) | Reports | Lost % | QoS | Jitter |
|---------------|---|------|--------------------------|---|---------|------------|---------------------------|--------|
| 0 | test 1 PCMU/8000 Status: Scheduled Sync In Progress Running | | 10.0.1.208 Set Filter | DiffServ BB EF Expedited VoIP Setting | 1 | % 0.00 | R Value 23 MOS 4.3 | 0 |
| 1 | 10.0.1.200 PCMU/8000 Status | | 10.0.1.200 Set Filter | DiffServ BB EF Expedited VoIP Setting | 0 | % 0.00 | R Value MOS | 0 |
| 2 | 10.0.1.204 PCMU/8000 Status | | 10.0.1.204 Set Filter | DiffServ BB EF Expedited VoIP Setting | 0 | % 0.00 | R Value MOS | 0 |

Key Features

- Use of real RTP frames when running the Traffic Simulation function, sent at a standard frame rates over UDP using RTP ports. This ensures that the QoS engineering in the network will treat the stream the same as normal VoIP traffic, a more effective approach for checking QoS than using e.g. an ICMP Pinger.
- Ability to load network with extra VoIP and non VoIP traffic, providing a means of identifying the loading level where the QoS is not acceptable
- Easy to install and deploy - free downloads of remote end software enables users to deploy as many Traffic Simulator Sink Systems and Traffic Blaster Target systems as needed
- Deploying multiple autoVoIP™ Traffic Simulators and operating the associated Traffic Blasting function enables user to simulate loading for groups of phones at different locations on the network and monitor the QoS before installation of a VoIP phone system
- QoS is measured in parallel for all simulation sites on the network giving a true indication of the behavior of the whole phone deployment
- The Report Browser providing access to automatically created daily, weekly and monthly reports covering the Simulation results - customizable for local languages and display of company logos
- A Pre-deployment Test Report covering the impact of increasing loading levels, recommending phone limits and showing what the impact would be when using different Codecs

Key Benefits

- Prevents customer or client dissatisfaction with the start up of the VoIP network
- Prevents unnecessary project delays
- Provides value for money - can be used pre deployment and also post deployment to measure the effect of adding more phones to an existing VoIP system
- Provides QoS analysis at a glance, user can see if VoIP is within safe limits, marginal or likely to be seriously degraded when loading increases (6 color bands used)

Key Functions

Traffic Simulation function which provides:

- A Simulator Organizer used to build Simulators, which create a stream of RTP frames addressed to a Traffic Simulator Sink system, and display the QoS achieved between the two points on the network.
- Traffic Simulator Sink systems - free software for installation at the destination address (remote end). Sink Systems reports back using RTCP, in the same way a phone would. This method allows the autoVoIP™ Traffic Simulator (and if required a third party) to measure jitter and frame loss.
- Codec comparisons - shows what the QoS would have been if different Codecs has been used in the simulation. Codecs supported include:
 - o PG711 PCMu o G711 PCMa o G723 - 8k o GG726 -16 o G728 o G729 - 8k
- History graphs - displays the long term QoS statistics for each simulation
- Automated Correlation Engine (ACE) analysis of History graphs - finds root causes

Traffic Blasting function which:

- Sends out competitive traffic and non competitive traffic to show the QoS for paths when different levels of VoIP and non VoIP traffic are present
- Specifies load by bandwidth (kbps) or frames per second
- Specifies load by phone/codec using easy to understand phone counts. Codec options for loading include:
 - o G711 - 64k o G723 - 6.3k o G729 - 8k o Additional ones can be added
- Finds the limits of the network by automatically exploring traffic patterns and highlighting the QoS degradation using the Blaster autoCheck Mode
- Controls Blasting - using a Safety facility to ensure the Traffic Blasting function does not send traffic out indefinitely, it runs for 8 hours unattended, stops and can be restarted manually for another 8 hours run

Requirements

Three PC platforms for autoVoIP™ Traffic Simulator:

- One PC to act as a console to activate the Traffic Simulation and Traffic Blasting functions and view results
 - o Processor : 2 GHz or faster
 - o Memory: 1Gb minimum
 - o Microsoft Windows XP Professional, Microsoft 2003 Server
 - o Disk space : 30 Gb for live system
 - o Monitor resolution: 1280 x 1024 (recommended), 1240 x 768 (minimum)
- Two PCs for the remote ends of the links - one for Traffic Simulator Sink System and one for the Traffic Blaster Target system
 - o Processor: 1Ghz
 - o Memory: 512 Mb RAM
 - o Microsoft Windows XP Professional, Microsoft 2003 Server
 - o Monitor resolution: 1024 x 768

About

Codima Toolbox

Codima Toolbox is a versatile, scalable and integrated solution that helps system integrators, service providers and large organizations as well as small and medium sized companies to manage their networks successful. Built from the ground up the easy-to-use, cost efficient, and highly visual tools deliver a unique beginning-to-end solution for VoIP pre-assessment through post-deployment through post-deployment in addition to automated network monitoring and network discovery with visualization directly in Visio®.

Key Features include:

- Traffic Simulation and Stress Testing
- Real Time Monitoring
- Automatic Correlation Engine
- Troubleshooting Grid Overview
- In-depth Reports
- Network Monitoring - One Stop Solution
- Automatic Network Inventory and Mapping directly in Visio®

About Codima

Codima's team has a long track record of bringing highly advanced network technology to the market. Today we are recognized for tools that help organizations to reduce costs, save time and successfully manage their infrastructure networks from beginning to end. Codima is a Microsoft® Certified Partner. autoMonitor™ and autoMap™ are key solution providers to Microsoft® Visio® Toolbox. Codima is an Avaya DevConnect Gold Partner and autoVoIP™, autoMap™ and autoAsset™ are tested and accepted as Avaya Compliant. Codima Toolbox resells through our partners globally.



Microsoft Visio Toolbox



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