



## Telecommunications Test Platform for SIP and H.323

emutel™ Soft|Harmony is a highly efficient, cost-effective and flexible tool, invaluable for use in the development, performance verification and pre-deployment testing of many types of VoIP equipment.

### Versatility

The emutel™ Soft|Harmony combines comprehensive load testing and network simulation capabilities, detailed protocol analysis, extensive call statistics and quality of service measurements in an easily affordable and user-friendly package.

### Scalability

An advanced Bulk Call generator, the emutel™ Soft|Harmony's architecture provides a powerful, robust platform that can be tailored to meet your current testing requirements and expanded to include options as your needs evolve.

### Affordability

Not only does the emutel™ Soft|Harmony enable you to stretch your budget further by offering great value for money, but it can also significantly reduce time to market and ensure you obtain the quickest possible return on your investment.

### Simplicity

Test results and analysis are clearly presented in both tabular and graphical format enabling you to easily pinpoint and rectify any performance, protocol or functional difficulties. Results can be recorded and exported to other standard applications for further review and analysis.

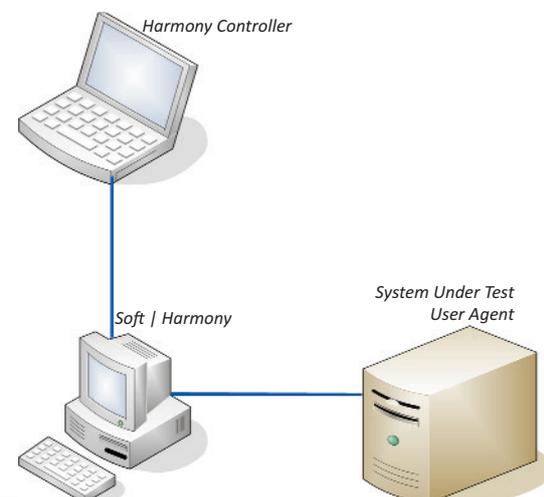
### Controllability

A suite of powerful and intuitive Windows-based applications lets you quickly and easily design, run and review test sequences on the emutel™ Soft|Harmony:

- The **Harmony Composer** application has a unique drag-and-drop functionality providing a painfree approach to writing complex test scripts. Simply choose from an extensive gallery of call components, set the required parameters for each component and build the script.
- The **Harmony Conductor** is the control application which lets you run scripts and view call statistics, call rates, QoS measurements and Protocol Analysis.

### High Capacity

emutel™ Harmony allows high capacity testing generating 1800 simultaneous calls per second (with RTP) 8000 simultaneous calls (signalling only) 1000 Endpoints.



- Bulk SIP call generation
- Easy setup with basic PC configuration
- Testing UA, Proxy, Redirect Server
- Verifying protocol compliance
- Regression testing
- Inexpensive tool for troubleshooting customer VoIP network
- Exhaustive statistics, call records, graphs
- Well integrated with Emutel Harmony Control software
- Sip and H323 Packet capture for analysis

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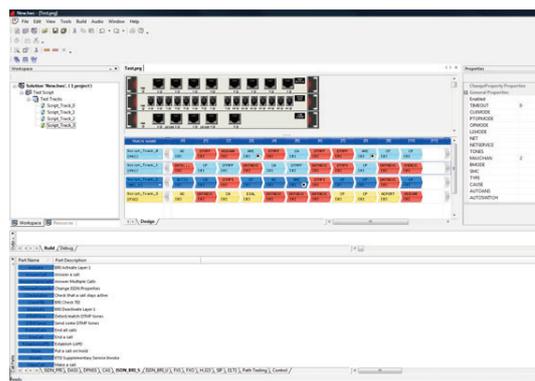
## Telecommunications Test Platform for VoIP & PSTN



emutel™ Soft|Harmony is invaluable throughout the product life cycle:

- Development testing (fault diagnosis)
- Product evaluation & performance testing
- Manufacturing (functional testing)
- PBX testing and evaluation
- Network testing

Interface Options:	Standard: 1 x LAN port support Multi-Port Option: to support all LAN ports available on PC
Protocol Options:	SIP, H323
Supported CODECs:	G.711 µlaw and A-law; G.723.1, G.728, G.729A, G.729AB, G.729E others codec available on request
Chassis Options:	USB dongle Portable handset PC Laptop
Analysis Options:	PESQ; Protocol Analysis
Powerful Bulk Call Generation:	1800 simultaneous calls per second (with RTP) 8000 simultaneous calls (signalling only) 1000 Endpoints
Intuitive Test Creation Environment:	Easy to use, drag-and-drop script building using Harmony ScriptComposer <ul style="list-style-type: none"> <li>• Off-line script creation ensures most product ive use of emutel™ Harmony at all times</li> <li>• Pre-written scripts provided for most typical test scenarios</li> <li>• Pre-defined call load distribution sequences to simulate real world conditions.</li> </ul>



emutel | Harmony ScriptComposer Application

Comprehensive Test Results:	Real time call statistics to measure perform ance, functionality and capacity of the device under test. <ul style="list-style-type: none"> <li>• Voice Quality Measurement using PESQ and path verification.</li> <li>• Extensive, built-in Protocol Analysis helps you locate, identify and rectify any performance, protocol or functional issues.</li> <li>• Download and play any G.711 wave files (µlaw and A-law) or record your own and upload to the emutel™ Harmony.</li> <li>• Generate fixed pattern RTP streams in any of the supported CODECs</li> <li>• Audio Monitoring of channels</li> </ul>
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### emutel™ Soft|Harmony Control Applications:

#### Windows Applications

A suite of powerful and intuitive Windows-based applications enables you to quickly and easily design and run multiple test scenarios to verify performance, functionality, capacity and interoperability of the device under test.

#### Web Applications

The emutel™ Harmony can be controlled using an Internet Web browser, so with a click of the mouse either a single script or a number of scripts can be initiated to run, after which a test report is generated giving the status of each test.

#### Command Line Interface

The Harmony may be controlled by using command line interface (CLI) commands and parameters. To access the CLI, the user must login to the Harmony using a Telnet or a SSH session. After starting a telnet or SSH connection to a Harmony using its IP-Address, the user will be prompted to enter the username and password. To transfer files to and from the Harmony, a TFTP server is required on the controlling computer.

**arcatech** - a world leader in emulation since 1993. Our product portfolio includes the emutel™ range of ISDN PRI, BRI and analog Central Office simulators,

**emutel™|Symphony**  
ISDN simulator,

**emutel™|Maestro**  
xDSL simulator,

**emutel™|Virtuoso**  
V5.1 and V5.2 simulator,

**arcaplex|Horizon**  
ISDN multiplexer,

**emutel™|Harmony**  
Voip and PSTN call generator and network simulator and

**arcareach|Sigma**  
S-bus extender.

