

MultiDSLAs - Voice & Audio Performance Assessment

The MultiDSLAs test system for speech quality (MOS) evaluation helps by leading operators, terminal and network equipment manufacturers, chipset vendors and enterprises to understand and enhance user satisfaction.

Voice communications systems delivering poor quality of service can have a significant negative impact on corporate image, and customer satisfaction.

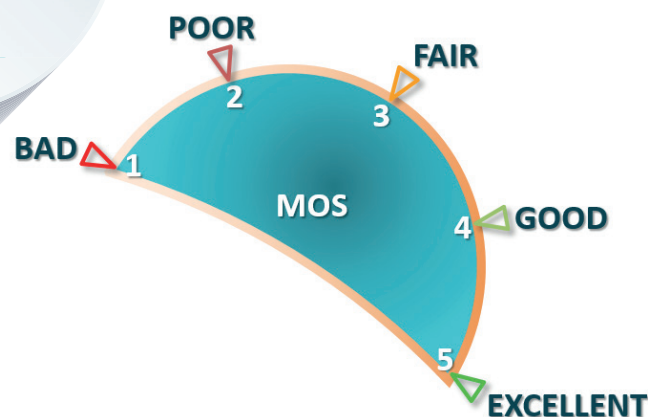
Subjective methods of measuring speech quality, if done poorly, lead to inaccurate and unrepeatable results and if done well are both expensive and time-consuming. MultiDSLAs utilises objective measurement technology to enable the user to manage Quality of Service, powerfully and effectively.

Trusted Malden measurement know-how is delivered in a versatile system which combines powerful network-wide testing with simple to use management tools.



At a glance...

- ▶ **Quality Of Experience** - Delivers true and objective Voice quality perceived by end users
- ▶ **Universal** - unparalleled interoperability allows you to test any communication system : analog, satellite, cellular, TDM, Push to talk, and many other
- ▶ **Test design flexibility** - Automation engine enables to create any test you need. Your imagination is your only limit.
- ▶ **Smart analytics** - Advanced metrics help you determine and visualize root cause for Voice performance degradation
- ▶ **Seamless Integration** - Comprehensive API enables you to automate MultiDSLAs from anywhere, by any application, at any level.
- ▶ **Modular and scalable Architecture** - Expand as you need



Making the difference

Whether you need to test a single call between two smartphones, or set up a complex automated test schedule, MultiDSLAs help you make the difference for your customers.

- ▶ **Network-Wide Testing** - call performance between any end points
- ▶ **Trustful and accurate** - measurements are based on latest international standards
- ▶ **Scalable Architecture** - makes it usable from the Lab environment to Enterprise Network Operations
- ▶ **Management by Exception** - report generation allows management by exception
- ▶ **In-Depth Analysis** - drill-down and detailed graphical metrics help resolve problems quickly
- ▶ **SLA Verification** - scheduled tests allow long term analysis
- ▶ **Ease of Use** - simple and intuitive user interface helps you make the job faster
- ▶ **Flexibility** - local and remote operation offers additional flexibility and reduced head-count
- ▶ **Reduced Engineering Time** - automation reduces regression testing time



LAB

- ▶ Interactive test creation
- ▶ Fully flexible test design
- ▶ Highest accuracy
- ▶ Extensive analysis
- ▶ Immediate feedback
- ▶ Scenario testing
- ▶ Test automation



Enterprise

- ▶ Management Reports
- ▶ Unattended operation
- ▶ Small learning curve
- ▶ Alerts on problem
- ▶ Standard tests
- ▶ Scalable and modular



Network

- ▶ NMS integration
- ▶ Central scheduling
- ▶ Central maintenance
- ▶ Multi-tier user support
- ▶ Quick and easy to use
- ▶ Web reports



Field Test

- ▶ GPS for location and synchronisation
- ▶ Low power requirement
- ▶ Interface to cell phones
- ▶ Post-process mapping



Manufacturing

- ▶ Repeatable testing
- ▶ No training to run a test
- ▶ Database of all tests
- ▶ End of day reports
- ▶ TCL, Perl, Python, TCP/IP support for automation



Inside MultiDSLAs

Analog Nodes

The Digital Speech Level Analyser (DSLAs) is available in a two-node desktop package, with four- and six-node rack-mount alternatives. DSLA firmware includes a sophisticated range of signal generation and measurement tools.

Use DSLA to include smartphones, Bluetooth devices, POTS phone lines, sound cards and PTT radio terminals in your tests.

VoIP Nodes

The VoxPort Packet (VPP) family of software nodes includes options for lab-based and network-wide testing of VoIP and VoLTE performance, with or without built-in RTP packet impairment.

Use VPP to generate real voice calls over a VoIP network. Optional built-in packet impairment generation and managed codec rate changes make VoxPort Packet+ a simple and effective way to understand, manage and even reproduce VoIP network behaviour.

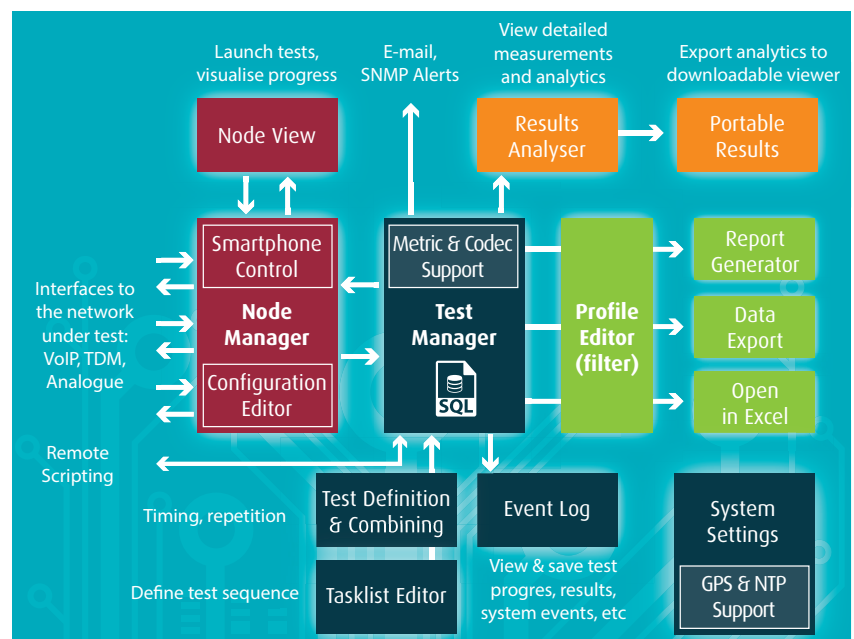
ISDN Nodes

Basic Rate (BRI) and Primary Rate (E1/T1) interfaces are based on industry standard cards supported by Opale software.

Use BRI and PRI nodes to test TDM time slots using real speech signals. Tests may be run on one or more time slots and may be simultaneous or have any defined schedule. Select between many ISDN standards.

MultiDSLAs Controller

The MultiDSLAs Controller is at the heart of each MultiDSLAs configuration: it manages the test process and stores settings and results in an SQL database



MultiDSLAs Controller provides the tools to optimise testing and verify the validity of POLQA and PESQ scores. As one MultiDSLAs user said:



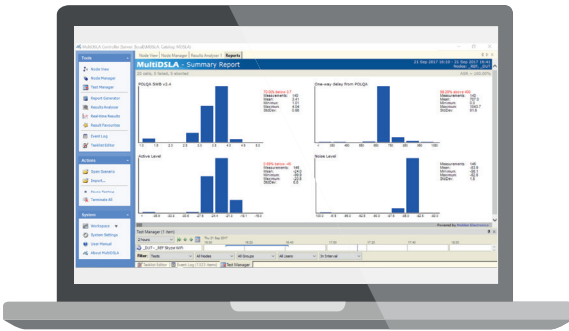
I didn't know much about MOS when I got my first MultiDSLAs system, so I decided to do some tests. I quickly learned that MOS is not like Volts – you can't just clip on a meter and measure it. The choice of speech material, the speech power level, signal filtering and the performance stability of the system under test are all factors which must be taken into account in setting up the test process. MultiDSLAs makes it simple to do this, and to document and store those settings to ensure accuracy and repeatability.

It works.

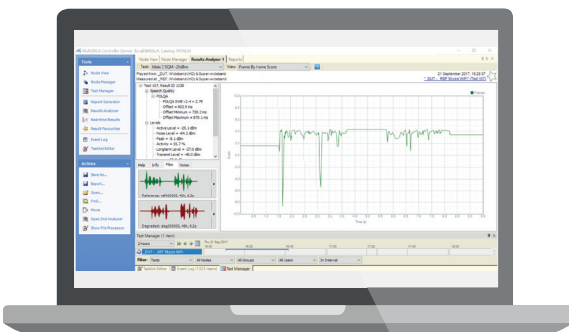


Tests

On-screen Report



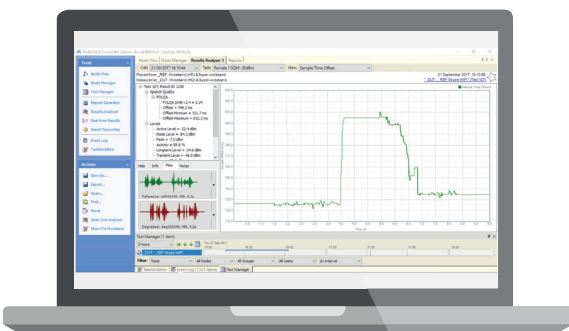
Error localization



Visualization with playback



Detailed analytics



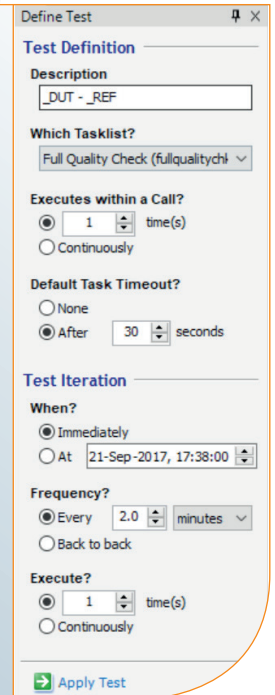
Managing and Planning Tests

Immediate tests + Regular tests + Scheduled tests + Automated tests

- ▶ Tests how and when you need them

Creating New Tests

If the pre-defined tests do not meet your needs, simply edit to adapt them, using a palette of Measurement, Sound, Timing and Control events.



Define Test

Test Definition

Description:

Which Tasklist?:

Executes within a Call?

1 time(s)

Continuously

Default Task Timeout?

None

After 30 seconds

Test Iteration

When?

Immediately

At 21-Sep-2017, 17:38:00

Frequency?

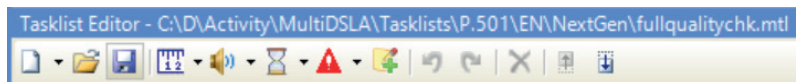
Every 2.0 minutes

Back to back

Execute?

1 time(s)

Continuously



Results

- Display Numerical and Analytical data
- Results sharing
- Export
- Statistical analysis
- Report options
- Drill-down to root cause
- Verify thresholds
- Trigger alerts

