

VOTER

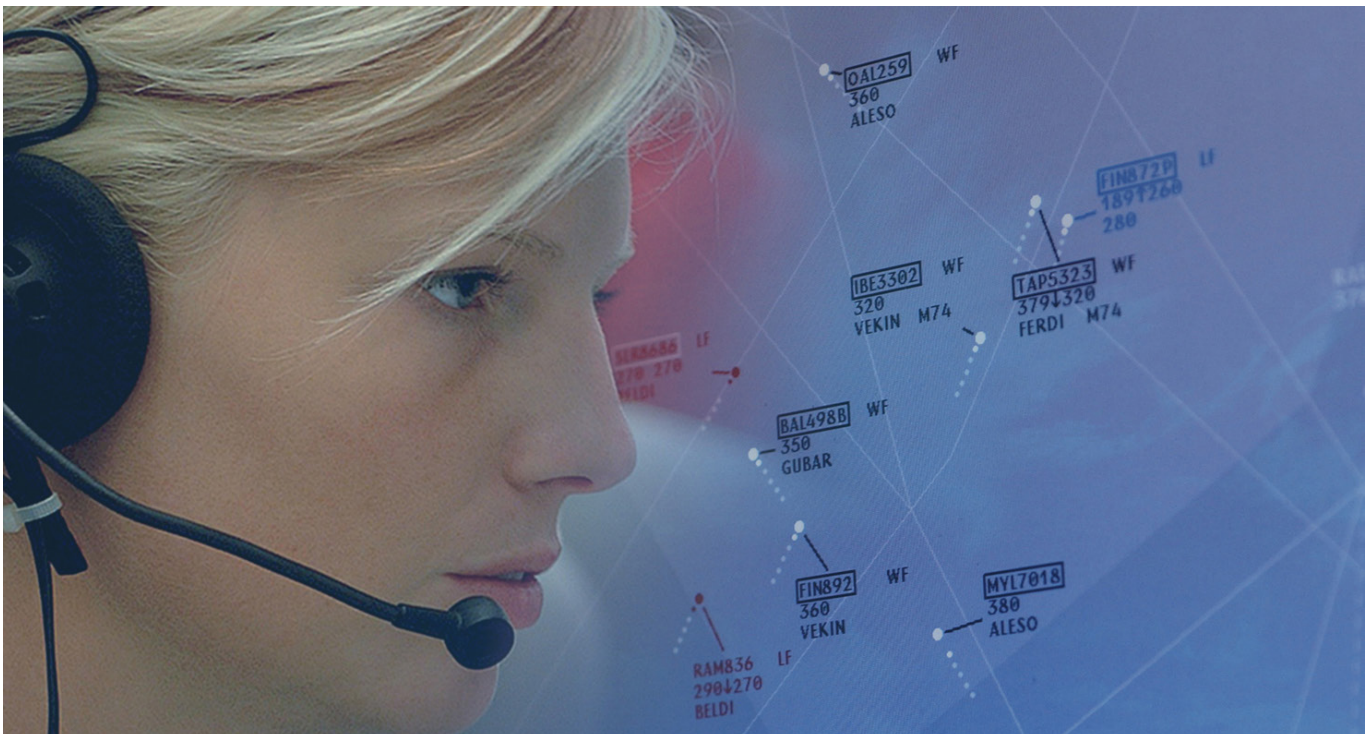
EUROCONTROL VoIP in ATM Test Suite



VOTER is the EUROCONTROL VoIP in ATM Test Suite designed to test conformance and performance of the main components of a VoIP Air Traffic Management (ATM) system according to the EUROCAE ED-137 standard.

Features

- More than 850 full-featured conformance and performance tests for SIP, RTP, RTSP and SNMP interfaces within a
 - Radio or Radio Gateway (GRS or RRC)
 - Voice Communication System (VCS)
 - Recorder
- Tests for valid, invalid and inopportune behavior
- Conformance tests for basic ATS services as well as for ATS supplementary services (e.g. Conference, Intrusion, Position Monitoring, IA or Override Calls, Presence Information, Linked Session Management, Real Time Session Supervision, Signal Quality Information, CLIMAX-Time Delay, Radio Remote Control, etc.)
- Performance tests that target the VCS and GRS devices or the transport network
- Voice Quality tests using E-Model and PESQ (optional)
- Exhaustive set of context parameters for flexible adaptation of the tests to different implementations under test
- Fully automated test execution
- Test tracing on different levels of detail
- Summary of test results
- Test definition and documentation in the standardized test notation TTCN-3
- More than 150 interoperability test scenarios defined by EUROCONTROL (based on the requirements defined by EUROCAE document ED-136/137) to automatically
 - Analyze saved logs
 - Sniff the communication on all interfaces in real-time: Radio, Telephony and Recorder



Benefits

- Standards-based testing according to EUROCAE and EUROCONTROL specifications
- Fast and simple test execution and analysis
- Repeatability of tests and full support of test automation
- Flexibility through usage of the constantly evolving standardized test notation TTCN-3



Potential Users

- Air Navigation Service Providers (ANSPs) in support of implementation & transition activities towards VoIP in ATM
- Voice Communication Systems (VCS) suppliers to perform testing on the SIP Telephone User Agents and SIP Radio User Agents within a Voice Communication System or a Gateway
- Ground Radio Stations (GRS) suppliers to perform testing on the SIP Radio User Agents within a Radio or Radio Gateway
- Recorder suppliers to perform testing on the SIP Recorder User Agents within a Recorder

The screenshot displays the TTCN-3 Execution Management interface in TTworkbench Professional. It is divided into several panes:

- Management View:** A table listing test cases with columns for Test Case, Runs, INCONC/FAIL, Action, and Retries. The test case 'VoIP_in_ATM_Demo' is selected.
- Test Data View:** A table showing the 'Expected TTCN-3 Template' and 'Data' for the selected test case. The 'Data' pane shows a response with statusLine 'SIP/2.0', sipVersion 'SIP/2.0', and statusCode '488'.
- Parameters View:** A table listing various parameters such as >PX_SIP_TRANSPORT, >PX_R2S_KEEP_ALIVE_PERIOD, and >etsConfiguration.
- TTCN-3 Graphical Logging:** A sequence diagram showing the test execution flow. It includes messages like 'send INVITE_Request', 'receive sip', and 'send ACK_Request'. A 'fail' event is noted as '>Unexpected message received.'.

Requirements

- Standard PC
- OS: Windows, Linux
- Java 8
- TTworkbench VOTER bundle: TTworkbench Professional + TTsuite-VOTER

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