

Testing Standard Compliancy of a Voice Communications System (VCS)

Air Traffic Management | Compliance Testing | VoIP Standardization

About ENGIE Ineo ES

ENGIE Ineo ES is a major player in Energy and electrical engineering, information, communications systems, and related services.

Our company provides private and public customers with comprehensive and flexible solutions - from design to production and maintenance.

Besides creating ATC/ATM and Airport products (for instance the AIR product line within the be-safe.com brand), ENGIE Ineo ES also integrates solutions for Runway infrastructures, Telecommunications & Networks, and Oil & Gas.

We focus on automated management solutions for the security and safety of the personnel on all hazardous sites.



Project Description

Whatever the circumstances, air-traffic controllers must be able to communicate right away with aircraft, local teams or the neighboring control towers or centers.

Our secured and full IP product AIRvoice is a voice communications system designed to provide radio and phone facilities to the air traffic controller working position. It incorporates all of the analog, digital, IP radio, and telephone interfaces enabling the exchange of data with all IP systems.

In order to launch a reliable VCS, ENGIE Ineo ES used VOTER (the EUROCONTROL VoIP in ATM Test Suite) to test AIRvoice in respect of VoIP telephone and radio communications conformance according to the ED-137 standard.

Main Requirements for a Test Tool

Most important to us was the capability of the test tool to check and guarantee the compliance of AIRvoice to EUROCONTROL ED-137 interoperability requirements.

Also, we were hoping to find a user-friendly tool that enables fast and simple test development, execution and analysis to minimize the effort of training, time, and costs.

Reasons for Choosing Spirent Tools

Since VOTER is determined the official test suite for ED-137 interoperability standards by EUROCONTROL, the selection of the appropriate tool proved quite easy.

VOTER contains over 850 full-featured conformance and performance tests, and more than 150 interoperability test scenarios. Based on the test automation platform TTworkbench, VOTER enables

- Testing of valid, invalid, and inopportune behavior,
- Flexible adaptation of tests to different implementations under test,
- Test tracing on different levels of detail,
- Repeatability of tests and fully automated test execution,
- Summary of test results,

just to name a few of the features. Over all, we were quickly convinced of the benefits of TTworkbench, not only for test execution and analysis but also for being a userfriendly test automation tool in general.

Kinds of Systems Tested

We are testing full IP voice communication switches to meet the specifics of narrowband networks and satellite telecommunications while guaranteeing optimal voice quality.

The VOTER test cases can be executed interactively or automatically overnight. A very helpful feature is the option to combine the test analysis perspective with source-code level debugging at run-time. That makes it possible to execute a test scenarios step by step while inspecting the behavior of the test environment.

Customer Support

Luckily there had not been many issues that we needed support for since the VOTER tool is intuitive to use and already well set for our specific requirements. The few issues we needed assistance for were successfully solved within a short timeframe.

Spirent support team works fast and carefully, understanding issues from a customer's point of view. We are very satisfied with the expertise and the accomplished services.

"ENGIE Ineo ES is now able to market secure and high quality VCSs that have been tested with VOTER to be standard compliant. We can offer our customers AIRvoice, allowing a smooth migration from current telecom systems to VoIP technology as per EUROCONTROL ED-137 interoperability recommendations"

*"We thank Spirent for their professional tool and service support, helping us to realize this project fast and uncomplicated."
-Makrem ROMDHANE, Product Manager.*



Contact Us

For more information, call your Spirent sales representative or visit us on the web at www.spirent.com/ContactSpirent.

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