Open-source-based test tool for smart cards and document readers

The checking of more than 500 million electronic passports¹ in use at international borders requires their interoperability. This also applies for the corresponding readers and for the use of electronic identity documents in eGovernment and access control applications in general. Since 2004, when the first generation of electronic passports was introduced, the conformity checks have progressed significantly. During this time secunet’s GlobalTester team has been actively involved in the standardisation and development of test specifications. In secunet GlobalTester, manufacturers of both identity documents and readers have access to an automated testing tool which is open-source-based and therefore unique worldwide.

Extensive testing tools and services – based on the latest standards
With the testing tool secunet GlobalTester and the “Prove” product family which is based on it, secunet offers test suites for testing smart card protocols. These are based on the latest test specifications published by the German Federal Office for Information Security (BSI) and the International Civil Aviation Organization (ICAO). The product family comprises a range of APIs for the simulation of smart cards and smart card readers as well as simulators for electronic passports and electronic ID cards.

Benefits:
» Extensive experience in standardisation and conformity testing of eIDs
» Open-source-based platform allows flexible customization of the test tool
» Detailed failure analysis, traceability and maximum transparency

¹ Biometrics Research Group
Comprehensive functionality for test specification and test execution
The Test Specification module allows the user to view the test specification in XML format, to make his own adjustments and if necessary specify and implement customized test cases.

Our one-step approach of test specification and test execution allows users to execute test suites or individual test cases directly with the Test Specification module based on specific software test methods.

The Test Runner module allows users to execute tests, generate test reports and display and analyse results. Several functions allowing the traceability of results (e.g. repeating of test suites) assist users during product development and in the analysis and correction of errors.

Detailed failure analysis and reporting
The Failure Analysis and Reporting module offers the automatic generation of test reports and log files. Errors and problems are located automatically. Detailed log files describe both sides of the communication protocol to allow failures to be analysed precisely.

The test suites in the conformity tests are based on JavaScript, GlobalPlatform and XML. All conformity tests can be adapted to specific customer requirements and expanded using JavaScript. Customers can develop their own test suites themselves.

More information:
www.secunet.com/en/globaltester