

SOAPSonarTM Data Sheet

Features

- Simple Navigation
- File, URI, Drag/Drop WSDL Loading
- WSDL Loading via HTTPS and Basic Auth
- HTTP Header Authoring
- Drag/Drop Test Suite Management
- Complex WSDL support (WSDL and XSD imports)
- XSD Polymorphism support (abstract types)
- Dynamic XSD Array Expansion
- XML Attribute and Element Exclusion
- SOAP Encoding support (arrays and data types)
- Response Variable WSDL Operation chaining
- Success criteria regression test builder

Authentication and Identity Management

- WS-Security Username Token
- WS-Security X509 Token
- WS-Security Kerberos Token
- WS-Security SAML Token
- SSL w/ X509 Client Auth
- HTTP Basic Authentication

Performance

- Concurrent Virtual Clients
- Transaction Rate Throttling
- Error tracing
- Distributed Agents

WS-Security

- WS-Signature
- WS-Encryption
- SOAP with Attachments

Compliance Assessment[±]

- Design Time WSI-BP 1.1 with WSDL Highlighting
- Active Runtime WSI-BP 1.1 Compliance

Vulnerability Diagnostics[±]

- Auto-generate SOAP tests using WSDL and XSD Mutation Technology
- Author Custom Data Inputs and Attack Vectors (AAF)
- Author Custom Vulnerability Definitions (AVD)
- Risk Assessment and Remediation Diagnostics

Integrated PKI

- Key Generation
- Key Import/Export
- RSA, DSA, DH, SHA, MD5 algorithms

Reporting

- Detailed Statistics Logging
- Extensible XML output format
- Graphical Reports
- Export Reports in PDF, CSV, and MS Word

[±] Patent Pending Technology

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Comprehensive Web Services Diagnostics using SOAPSonar™

Crosscheck Networks has developed enterprise-class diagnostics products that enable preemptive risk mitigation of business transactions exposed via Web Services. The SOAPSonar™ product provides the ability to develop and deploy robust and reliable Web Services that have been thoroughly put through functional, stress, penetration, vulnerability, and compliance testing. The business owners can be assured that a reliable infrastructure has been established to meet corporate goals.

The SOAPSonar™ product is selected by enterprises to provide comprehensive, code-free SOA and Web Services testing that is extremely easy to set up and run. Unlike other products on the market, our product does not require sophisticated knowledge of Web Services and SOAP to configure and use the product. You will be generating functional, performance, interoperability and vulnerability test suites in minutes. Combine ease of use with sophisticated SOAPSonar™ WSDL parsing engine, a comprehensive graphical SOAP viewer, a regression test success criteria engine, and patent-pending active compliance and vulnerability testing and you will soon see why SOAPSonar is the leading Web Services diagnostics product.

Crosscheck Networks maintains its lead in the industry as demonstrated by its exclusive technology for Active Compliance and Active Vulnerability testing. Using patent-pending dynamic XSD mutation technology, the SOAPSonar™ product can automatically detect and report compliance violations, and vulnerability exposures specific to the Web Services in your environment. Unlike other products that simply inject abstract string parameters into the SOAP document, SOAPSonar™ patent-pending technology intelligently mutates the Web Service SOAP requests to isolate and identify specific compliance and vulnerability criteria dynamically at runtime.

Functional Regression Testing

Functional regression testing allows setup and maintenance of Web Service testing to automatically generate operation requests and define success criteria for the responses. This allows quick isolation of functional issues and provides the framework to build and maintain regression test harnesses to ensure functionality remains robust through various stages of the deployment lifecycle. SOAPSonar™ facilitates a no-code intuitive solution for building and maintaining test suites using a proprietary graphical SOAP viewer with dynamic array boundary selection, abstract type handling, and selective inclusion of attributes and elements. Success criteria allow authoring of simple or complex response evaluation within the SOAP and HTTP header to assess the success or failure of the tests.

Testing can also be extended through the use of Automatic Attack Function (AAF) libraries that allow you to define base inputs for SOAP parameters and associate the AAF function for value replacement. This quickly allows extending data inputs and data structures without writing any code.

Functional regression testing would not be complete without the ability to chain results together to test the true functional threads of the Web Services. SOAPSonar™ provides response variable technology which allows you to dynamically extract response information from both the HTTP Header and the SOAP response to use in a subsequent request. Web Services requiring authentication and session variable persistence are examples of where response variables are used.

Performance Load Testing

Performance load testing provides the ability to extend SOAP requests across multiple concurrent clients in order to determine the transactional throughput capabilities of your Web Services and also to isolate and detect functional issues exposed by increased traffic load.

Within the SOAPSonar™ testing console, you can control an unlimited number of loading agents each containing a core engine capable of up to 50 concurrent virtual client connections. The local instance of SOAPSonar Enterprise can also be licensed for up to 50 concurrent virtual clients. This allows for an extensible framework leveraging existing machine resources to accomplish your performance and endurance testing goals. SOAPSonar™ can also optionally be configured to use proprietary throttling technology to limit the concurrent requests to known Service Level Agreement (SLA) transaction rates.

Simplified graphical reporting allows a concise view of the consolidated performance testing data as well as individual data from each virtual client. Debugging criteria also allows you to enable trace debugging under concurrent client load to isolate and detect anomalies exposed under load.

Compliance and Interoperability Testing

SOAPSonar™ is the only product that provides active WS-I Basic Profile testing in addition to design-time WSDL analysis. At design time, SOAPSonar™ provides a WS-I Basic Profile 1.1 WSDL analysis and graphical highlighting of reported violations. While design-time analysis is important, this can only serve as a guideline for compliance assessment as it does not actively validate that the exposed Web Service is in fact adhering to the provisions of the WS-I profile. Patent-pending SOAPSonar™ technology actively submits requests to your Web Services with dynamic XSD mutation designed to break each specific WS-I requirement and assess the results – automatically. Simplified reporting then provides easy to read highlights of non-compliance.

Vulnerability Testing

With proven patent-pending XSD mutation technology, SOAPSonar™ provides the only product that can intelligently attack and expose vulnerabilities dynamically based on each specific Web Service. Using a base request, SOAPSonar™ builds a vulnerability assessment model and auto-generates penetration tests dynamically for each Web Service using the information provided in the WSDL and XSD. SOAPSonar™ also supports static based attacks such as SQL Injection, XPath injection, entity attacks, etc. Static based attacks serve as an important capability in the Vulnerability assessment space, but often have limited applicability in many SOAP/XML environments. It is the patent-pending dynamic XSD mutation technology that targets the application layer of a Web Service specific to each exposed service that allows SOAPSonar™ to stand alone as the only true enterprise-class Web Services vulnerability diagnostics product.

WS-Security Testing

SOAPSonar™ provides standards based features for testing the WS-Security protocol specifications include WS-Username, WS-X509, WS-Kerberos, WS-SAML, WS-Encryption, and WS-Signature. SOAPSonar™ also provides integrated PKI features including key generation and private key retrieval.