



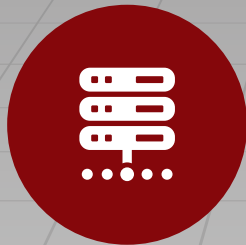
FORUM SYSTEMS

AGILE API SECURITY



FORUM SENTRY

API SECURITY GATEWAY



ACCESS CONTROL



SINGLE SIGN-ON (SSO)



THREAT MITIGATION



SECURE INTEGRATION



FORUM SENTRY BENEFITS AND SPECIFICATIONS

FORUM SENTRY

SERVICE & API VIRTUALIZATION	<ul style="list-style-type: none"> ⇒ API creation and virtualization ⇒ URI cloaking and conversion ⇒ Format conversion among XML, SOAP, REST, and JSON ⇒ WSDL-virtualization from multiple endpoints into single virtual WSDLs ⇒ Selectively expose service & API definitions to consumers based on credentials
DEEP CONTENT PAYLOAD INSPECTION	<ul style="list-style-type: none"> ⇒ Threat prevention for message-content including HTML, XML, SOAP, REST, and JSON ⇒ On-Board Antivirus with embedded BASE64 and Binary scanning ⇒ Comprehensive support of security standards such as OASIS, NIST, and SWIM ⇒ Protection against OWASP Top 10 and NIST Web Service Vulnerabilities ⇒ Bi-directional Content-based Access Control
AGGREGATION	<ul style="list-style-type: none"> ⇒ Message enrichment for mashups and API aggregation
ACCESS CONTROL	<ul style="list-style-type: none"> ⇒ Protocol Level and Message Level Access Control ⇒ RBAC, ABAC, and CBAC ⇒ SSO and session management
THREAT MITIGATION	<ul style="list-style-type: none"> ⇒ Bi-directional defense against XML, SOAP, REST, and JSON threat vectors ⇒ Combines Identity with IDP and DLP. ⇒ Block, Throttle and Quarantine Malicious messages
DATA LEVEL PRIVACY & INTEGRITY	<ul style="list-style-type: none"> ⇒ Content-level message encryption and signatures, asymmetric and symmetric PKI ⇒ Extensive WS-Standards support for superior interoperability ⇒ XML and JSON Schema Validation, XML Schema Facet Tightening, HTTP RFC Conformance.
INFORMATION ENRICHMENT & TRANSFORMATION	<ul style="list-style-type: none"> ⇒ Policy and task libraries and functions for comprehensive document workflow processing ⇒ Comprehensive Message Transformation and Content-Based Routing ⇒ Extensible APIs for scripting automation including REST API, and ability to script API workflow adapters via languages such as JavaScript, VBScript, Perl, Groovy, Python, Ant ⇒ Streaming one-pass high-speed XSLT transformation and data mapping ⇒ Dynamic value mapping across protocol headers, X509, IdM attributes, Databases, message-content, and external APIs
CENTRALIZED POLICY MANAGEMENT	<ul style="list-style-type: none"> ⇒ Secure Web-based Administration with centralized policy storage ⇒ Distribute policies across multiple product deployments with environment mappings ⇒ Role-based and domain-based administration enable selective access to designated policies ⇒ Policy versioning and rollback
SUPERIOR SECURITY & PERFORMANCE	<ul style="list-style-type: none"> ⇒ Low latency processing ⇒ Accelerated XML processing with hybrid wire-speed XML parser ⇒ Large file payload processing



BASE STANDARDS	<ul style="list-style-type: none"> ⇒ XML, XHTML, SOAP, REST, JSON, WSDL, UDDI, XPath, XSD, DTD, XSLT, SwA MIME, DIME, MTOM, WS-Addressing, WS-RM, WS-I Basic Profile, WS-Policy, AS2, ebXML, cXML, SAML, OAuth
PROTOCOLS	<ul style="list-style-type: none"> ⇒ HTTP(S), IBM MQ, Tibco EMS, Oracle JMS, JBOSS JMS, ActiveMQ, OpenWire, SolaceJMS, AMQP, FTP(S), SMTP, sFTP ⇒ Protocol Mixing ⇒ Remote Service Endpoint Load Balancing ⇒ Virtual network interface aliasing.
SECURITY	<ul style="list-style-type: none"> ⇒ Encrypted key storage ⇒ Encrypted policy storage ⇒ XML Firewall XML Threat Detection and Prevention, XPath, Schema Tightening and RegEx ⇒ Integrated On-board AV Engine with large file scanning, BASE64 scanning, and ICAP integration ⇒ Web Application Firewall with OWASP Top 10, schema poisoning, cookie tracking ⇒ WS-Security 1.1 and 2004 ⇒ SSL v3, TLS 1.0/1.1/1.2 ⇒ Application DoS ⇒ Authorization breach detection ⇒ Data Leakage prevention
CRYPTOGRAPHY & PKI	<ul style="list-style-type: none"> ⇒ Import, Generation and Management of X.509 and PKCS Formats. Direct Java Key Store Import ⇒ PKCS #1, PKCS #7, PKCS #8, PKCS #11, PKCS #12, X.509 Certificates and CSRs ⇒ OCSP, CRL via LDAP, XKMS, HTTP, FILE, CDP ⇒ DoD PKI Certified X509 Certificate Authentication with Chain Traversal and CRL checking ⇒ RSA, DSA, ECDSA, SHA-1, SHA-2, RSA-SHA2, RIPEMD, HMAC, AES, 3DES, RSA-OAEP
ENCODING & DIGESTS	<ul style="list-style-type: none"> ⇒ BASE64, HEX, URL ⇒ Symmetric Encrypt, Decrypt, Digest Hashing
IDENTITY	<ul style="list-style-type: none"> ⇒ HTTP Basic Auth, SSL X.509, Digest Auth, Cookie, Form Post, Kerberos, NTLM, SPNEGO, URI ⇒ WS-Security Auth (Username Token, X.509, Kerberos and SAML, DSIG), SAML, STS ⇒ Flexible Authentication using custom designated URI, Header or Body content ⇒ Identity Token Mediation and format conversion ⇒ OAuth SSO, SAML SSO, and Cookie SSO ⇒ Federation session management ⇒ IdM Adapters: Local, LDAP, Active Directory, SiteMinder, RSA SecureID, HP Select Access, IBM TAM, JSAM, OpenAM, XACML, OAuth, SAML SSO, WS-Trust, PingIdentity, Google, Facebook, LinkedIn, Salesforce, REST



RATE & SIZE	⇒ API throttling and size-based limiting
THROTTLING	⇒ SLA and Quota based rules
LOGGING, REPORTING, & MONITORING	⇒ Data-Level Evidence Repository with External Archiving to MySQL, IBM DB2, Oracle, MS SQL ⇒ SYSLOG UDP/TCP/SSL, SNMP v3, JMX, SOAP Logging, Database Logging, Customized logging ⇒ Integrated 3rd party Monitoring: HP-OpenView, Oracle WSM, CA WSDM ⇒ Traffic Reporting ⇒ Transaction and throughput statistics, ⇒ Latency processing statistics ⇒ SLA monitoring for enforcement and audit ⇒ Configurable logging of any attribute ⇒ Configurable logging levels globally and per policy ⇒ Debug log tracing with unique session identifiers to distinguish transactions
ALERTS	⇒ Real-time alert sensors for customized event triggers or standard handling of errors and exceptions ⇒ Alerts via SNMP Trap, email, SYSLOG, Database, or custom API
TRANSFORMATION	⇒ Bi-directional protocol translation and message translation
ADMINISTRATION	⇒ Secure Web-based GUI ⇒ Command-line Interface (CLI) with SSH access and Virtual Serial Terminal ⇒ REST API ⇒ Global Device Management (GDM) with Full Mirroring and Individual Policy Version & Promotion ⇒ Role-based Access Control (RBAC) and Multi-Domain Administration

FORUM SENTRY DEPLOYMENT
FORUMSENTRY™

HARDWARE MODELS	⇒ Forum Sentry™ 4564 FIPS 140-2 Level II Chassis FIPS 140-2 Level III HSM Crypto Acceleration ⇒ Forum Sentry™ 4563 FIPS 140-2 Level II Chassis ASIC Crypto Acceleration	
VIRTUAL VMWARE OVA	⇒ Sentry Virtual OS V8.x Up to 6 cores per OVA instance (additional cores available via license upgrade) Up to 32 GB RAM ⇒ Minimum Requirements VMWare Workstation 8.x or ESX 5.x or later 8GB RAM	
SOFTWARE MODELS	⇒ Windows, Linux, Solaris ⇒ Minimum Requirements 1GHz CPU, 2GB RAM, 20GB Disk	

Forum Systems is the global leader in API and Cloud Security technology with industry-certified, patented, and proven products deployed in the most rigorous and demanding customer environments worldwide. Forum Systems has been an industry leader for over 14 years and has built the core architecture of its technology on the foundation of FIPS 140-2 and NDPP. Forum Systems security-first mindset enables trusted, network edge deployments of its technology for protecting critical enterprise transactions. Our product technology is purpose-built and designed for mission-critical, enterprise-class scalable solutions where business solutions require the modern day security and identity enforcement protection, while enabling a scalable architecture and low-latency, high-volume throughput.

Forum Systems supports global enterprise customers across industries in commercial, government, and military sectors. Forum Systems technology provides the leading-edge of modern-day cyber-security innovation with integrated identity and SSO features that enable out-of-the box business solutions with point-and-click technology. Forum's patented, FIPS 140-2 and NDPP certified hardware and virtual products make modern-day business communications secure by actively protecting and accelerating data exchange and API service access across networks and business boundaries.

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