FORUM SYSTEMS RELEASE NOTES

FOR SENTRY API GATEWAY VERSION 8.1

Forum Systems Sentry Release Notes
Version 8.1.721
November 1, 2016

1. Installation Notes

Please refer to the following documents provided with the Sentry 256x, 356x, and 456x series appliance which will assist in the appliance deployment:

- FS_Sentry_V8.1_DocSet_and_Contents
- FS_Sentry_V8.1_Hardware_Installation_Guide
- FS_Sentry_V8.1_Software_Installation_Guide
- FS_Sentry_V8.1_Quick_Start_Guide
- FS_Sentry_V8.1_VMWare_VirtualOS_Installation_Guide

Visit the FS Helpdesk site at https://helpdesk.forumsys.com or contact Forum Systems Support at support@forumsys.com for links, documentation, and assistance.

1.2 Minimum Requirements/Supported Platforms

Requirements for the FS Sentry Software Instances

- Operating Systems:
  - Windows: 2000, XP, 2003, 2008, 7, 2012, 2012 R2, 8
  - RedHat, Fedora
  - Solaris SPARC, x86
- 2 GB RAM
- 1 GHz CPU
- 20 GB Disk Space

Requirements for the FS Sentry Virtual OS

- VMWare Workstation 8.x or ESX 5.x or later
- 200GB Hard Drive
- 8GB memory

1.3 Upgrade Instructions

Visit the FS Support Heldesk site at https://helpdesk.forumsys.com or contact Forum Systems Support at support@forumsys.com for documentation and assistance on upgrading to the latest release.

2. Documentation

2.1 Included Documents
The PDF documentation is available within the Help section of the product and downloadable. Contact support@forumsys.com for a download link and Quick Start Guide.

2.2 Getting Started with the Documents

The full documentation set can be found within the WebAdmin interface, on the Help page, after installing the product.

Visit the FS Support Helpdesk site at https://helpdesk.forumsys.com or contact Forum Systems Support at support@forumsys.com to obtain the PDF documentation prior to installation.

3. Known Issues / Important Changes

- SSL connectivity has been implemented for Data Sources, but is currently only supported with SQL Server databases.
- With release 8.1.656 support for stored procedures with the Query Database was added. The query results attribute format has changed which could break existing configurations that use the Query Database task and output results to attributes.
- IE 8 and IE 9 users may see some misalignment in the WebAdmin interface. Using compatibility mode should resolve the problem.
- Since release 8.1.242 there is a new option with SSL policies to use null ciphers. Due to the inherent insecurity with using null ciphers, this feature should only be enabled if transport encryption is already guaranteed by some other means. Using this feature is not recommended.
- Mapping a multi-value attribute to another attribute no longer aggregates the values incorrectly. This change could impact existing use cases that are using multi-value attributes.
- With version 8.1.160, for ClamAV updating, both the Manual and HTTP options require a new file, **bytecode.cvd** in addition to the main.cvd and daily.cvd files.
- FTPS network policies do not support SSL reuse, which is configured by default with some FTPS servers. Disabling the requirement for SSL reuse on the FTPS server should resolve the problem.
- XSD Schema Facet restrictions (schema tightening) does not support xsd:date and xsd:time minExclusive and maxExclusive facets.
- With the WS Security features: XML Signatures, Encryption, SAML, and XKMS Sentry v8.0.521 and later now outputs the X.509 attribute names instead of OIDs. This could break compatibility with older and/or broken implementations of WS Security at the client or server side.
- Changes to the Enrich Message and Remote Routing tasks as they relate to request and response processing may break existing policies. If using the Enrich Message and Remote Routing tasks to process response messages, please test this functionality after upgrading in a

test environment and/or contact Forum Systems Support at support@forumsys.com for more information.

3a.   OpenPGP Legacy System Interoperability

- Since release version 4.5, the Forum Systems OpenPGP implementation has been designed to meet the specifications set forth in RFC 2440. The OpenPGP implementation uses variable length chunk encoding to provide unlimited file size OpenPGP streaming. The RFC 2440 specification is newer than a number of PGP implementations (i.e. PGP 5.x) and therefore may cause interoperability issues when sending information to earlier PGP product implementations. Forum Systems strongly recommends regression testing your trading partner messages with the new 4.5 release in a development environment prior to upgrading from 3.3.x or earlier versions of Forum Product releases to ensure that no interoperability issues exist. The feature for RFC 1991 "fixed-length" encoding has been added for legacy support of systems that can not consume RFC 2440 formatted packets. When using the legacy RFC 1991 format, there is a document size limit of 100MB.   There is no document size limit for RFC 2440 format.

4. Feature Enhancements and Bug Fixes

Summary of Enhancements in Release 8.1.721 [11/1/2016]
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Enhancements and Bug Fixes

- **System**
  - Updates the ClamAV Engine to resolve issues with new ClamAV signature files

5. History

Summary of Enhancements in Release 8.1.705 [11/21/2014]
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Enhancements and Bug Fixes

- **Content Policies**
  - Changes to internal memory management for processing of large files
  - Resolves issues with streaming message type filter
  - Resolves issue with custom response reason phrase not being returned to client
  - Resolves issue with "virtual path case sensitivity" option and multiple WSDL policies

- **System**
  - Resolves issue with duplicate email alerts being sent for expired certificates

- o Updates SNMP Libraries
- o Resolves issue with unclean shutdowns with Sentry software instance
- o Resolves issue with GDM Imports of STS Policies

- **Network Policies**
  - o Resolves issue with runtime traffic being accepted on disabled listener policies

- **Logging**
  - o Resolves issue with SSL warnings for internal processes showing up in System log
  - o Resolves Syslog issue with message truncation when using TCP

- **Task Processing**
  - o Optimizes Pattern Match task processing

Summary of Enhancements in Release 8.1.692 [10/22/2014]
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Feature Enhancements

- **New Appliance Model – 4564C**
  - o New 4564C model now available

- **New Platform – Forum Sentry VirtualOS**
  - o Forum Sentry is now available as a virtual appliance
  - o The VirtualOS is a virtual edition of Forum System's "ForumOS" operating system that runs on the Forum Systems hardware appliances

- **New Feature – OAuth Policies**
  - o Adds ACL option to OAuth Policies
  - o Adds option to store OAuth access and refresh tokens in a database for persistence

Enhancements and Bug Fixes

- **Content Policies**
  - o Changes to internal memory management for processing of large files

- **System**
  - o Resolves issue with duplicate email alerts being sent for expired certificates
  - o Improves DEBUG logging for messages over 2gb

- **WS-Security**
  - o Updates SAML Encryption to support SAML 2.0 2012 Errata

- **Conversion Tasks**
  - Resolves issue with JSON to XML conversion where namespaces where stripped

- **Configuration Management**
  - Resolves issue with FSG files from other versions not being importable

- **Logging**
  - Resolves issues with hostnames missing from the syslog messages that impacted both Syslog formats RFC3164 and RFC5424
  - Resolves issue with cryptic log messages for STS and WSA policies

- **Network Policies**
  - Resolves issue with SMTP policies and the RCPT TO header being changed to match the TO header when they differed

Summary of Enhancements in Release 8.1.663 [08/12/2014]
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Enhancements and Bug Fixes

- **Network Policies**
  - Resolves "unexpected error has halted processing" with SSL Initiation introduced with 8.1.656 on the 4564B model only

- **System**
  - Resolves issue with missing resources for certain CLI commands

- **Logging**
  - Resolves Syslog RFC3164 timestamp format issue
  - Resolves Syslog RFC5424 format issues

Summary of Enhancements in Release 8.1.656 [07/31/2014]
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Feature Enhancements

- **New Feature – Task Processing**
  - Ability to identify LDAP errors returned to Sentry
  - Adds support for verification of SOAP-SEC digital signatures
  - Adds support for dynamic updating of WS-Addressing headers while using Group Remote policies for load balancing
  - Adds support for SAML encryption per SAML 2.0 errata
  - Adds support for stored procedure calls with the Query Database task
  - Adds support for JDBC types other than varchar with Query Database task

- **New Feature – Logging Enhancements**
    - Enhanced support for Syslog RFC 5424
    - Adds Syslog retry on failure

- **New Feature – Network Policies**
    - Adds ability to set alias IPs on LAN interface
    - Adds support for URIs with over 4096 characters

- **New Feature – SSO Enhancements**
    - Adds cache page for Sentry Authentication policies

- **New Feature – Content Policies**
    - Adds ability to disable case sensitivity when matching a virtual directory
    - Adds a global and policy level default encoding for x-www-form-urlencoded requests
    - Adds ability to copy Content Policies

- **New Feature – Admin Access**
    - Adds ability to use Sentry and REST access control policies for admin access

- **New Feature – Data Sources**
    - Adds support for SSL for MSSQL databases

Enhancements and Bug Fixes

- **WebAdmin Interface**
    - Resolves Javascript error on XML Policies screen
    - Resolves issue with IP ACLs enabled for WebAdmin access

- **Configuration Management**
    - Resolves issue with the automated configuration backup to a database related to stale database connections

- **Network Policies**
    - Enhances file name support when protocol mixing with HTTP
    - Resolves issue with FTP User policies using incorrect remote server password
    - Resolves issue with SFTP policies with a put to a read only file hanging the transaction
    - Resolves issue with Implicit FTP disabling Auth Mode
    - Resolves issue with FTP policies, where improper PROT and PBSZ commands were sent when not using FTPS
    - Resolves issue with FTPS transfers of large files
    - Resolves compatibility issues with multiple SFTP and FTP client applications including PSFTP and WinSCP

- Resolves issue with processing large SMTP attachments with the 356x model appliance

- **System**
  - Resolves issue with ClamAV startup failure causing delay in boot up
  - Adds ability to add routes with shorthand netmask
  - Resolves issue with bootstrap import not removing existing routes
  - Resolves HTTP 500 error triggered by WAF policy with Set-Cookie response header
  - Resolves NTP Syncing issues
  - Resolves startup issues related to namespace manager timeouts

- **Access Policies**
  - Resolves issue with privileged users not able to see certain policies by default

- **Task Processing**
  - Resolves issues with duplicate identity attributes being stored with the session cookie in the persistence database
  - Resolves issue with Transform Document task failing when running after the XSD schema validation task
  - Resolves issue with delay in Transform Document task when run in certain task list configurations

- **Content Policies**
  - Resolves issue with Simple message type filter corrupting form post requests missing utf-8 charset
  - Resolves error upon WSDL export due to unrecognized WSDL attributes
  - Redirect policies now include the complete original URI when option is enabled

- **Logging**
  - Adds ability to rename Syslog policies
  - Fixes Access log display issue caused by blank spaces
  - Improves startup/shutdown logging
  - Enhances MQ policy debug logging
  - Improves System log to show remote policy type
  - Resolves issue with missing IP address for admin login events in the Audit log

Summary of Enhancements in Release 8.1.335 [03/28/2014]
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Feature Enhancements

- **New Feature – Task Processing**
  - Adds ability to remove an HTTP Header
  - Adds option to add custom path to User Identity and Access Control OAuth SSO task for PingFederate
  - Adds ability to map responses from OAuth calls into User Attributes

- **New Feature – Logging Enhancements**
  - Enhanced logging for Agent Transfers
  - Multiple enhancements to Authentication event logging

- **New Feature – WebAdmin**
  - Adds ability to see cached cookies/sessions for REST, HTML, and JSON policies
  - Adds ability to copy Content Policies
  - Changes name of Default AV screen to Clam AV

- **New Feature – Network Policies**
  - Adds read and connect timeouts for WebLogic policies

- **New Feature – SSO Enhancements**
  - Removes FSSESSION max and idle timeout restrictions

- **New Feature – Configuration Management**
  - Adds ability to customize the backup configuration name for automatic backup
  - Adds ability to automated the FSX backup through the WebAdmin interface
  - Adds GDM Agent override option for Via Host Alias

- **New Feature – System**
  - Adds ability to set the User Agent override on a per policy basis, rather than for all policies
  - Provides API option for clearing LDAP cache

- **New Feature – AV Scanning**
  - Adds ability to optionally set an X-Virus-Scanned header to scanned requests or responses
  - Adds new virus scanning action, Flag, for ICAP, Clam AV, and the virus scan task

Enhancements and Bug Fixes

- **PKI Management**
  - Resolves issue with certificate chain validation

- **Configuration Management**
  - Allows importing an FSG on a software instance when network listener policy has conflict
  - Resolves problem with WSDL policy export to database

- **Network Policies**
  - Resolves problem disabling AMQP listener policies after RabitMQ server has been restarted

- **System**
  - Resolves issue with Clam AV start up procedures
  - Resolves issues with 4564B models coming up in factory reset state after reboot

- o Resolves issue with Native Failover preventing a proper shutdown and restart
- o Resolves issue with Search and Filter box alignments with IE8
- o Resolves cross site scripting vulnerability to WebAdmin's log viewer

- **Access Policies**
  - o Resolves issue with LDAP policy causing processing latency in Sentry
  - o Resolves issue accessing the cached cookies page when using an Oracle DB for session persistence

- **Task Processing**
  - o Resolves issue where incorrect Task List Group name was used when creating a Task List Group from a renamed Task List
  - o Resolves problem with Log task not working with non-XML data
  - o Resolves issue with Mapping to Full Document with GET request
  - o Adding a Task List to a Task List Group now preserves the Label of the Task List
  - o Adds ability to convert JSON messages when message start with array

- **Content Policies**
  - o Resolves issue with STS policy requiring a SAML request document
  - o Resolves issue with SwA processing related to missing and mismatched angle brackets

- **Logging**
  - o Enhances FTPS failure logging
  - o Enhances logging for GDM policy overrides
  - o Resolves issue with disabled Syslog policies being initialized
  - o Enhances logging for configuring local user accounts for Digest Auth
  - o Logging performance optimizations around pre cache error codes

Summary of Enhancements in Release 8.1.299 [01/15/2014]
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Feature Enhancements

- **New Feature – Task Processing**
  - o LDAP Query task to allow reading, adding, replacing and removing attributes from LDAP with ability to aggregate LDAP attributes across records
  - o New JSON Validation Task
  - o New task for Response Caching
  - o Adds ability to set case sensitivity with attribute values

- **New Feature – Syslog Enhancements**
  - o Adds support for Syslog RFC 5424

- **New Feature – Logging Enhancements**
  - o Logs the size of the HTTP headers

- **New Feature – CLI**
  - Adds new command to blink the UID light
  - Adds warning when HSM switch is set incorrectly

- **New Feature – WebAdmin Navigation**
  - Improved search capabilities within the WebAdmin

- **New Feature – Group Remote Policies**
  - Adds the ability to perform Server Affinity by user defined request header attribute

- **New Feature – PKI Infrastructure**
  - Adds CA (Certificate Authority)functionality

- **New Feature – SSO Enhancements**
  - Removes restriction of FSSESSION session timeout
  - Adds OAuth Authorization Server functionality
  - Adds ability to support session variables that differ across multiple sessions for the same identity

Enhancements and Bug Fixes

- **PKI Management**
  - Improvements to error handling with key generation failures

- **Configuration Management**
  - Adds ability to change the name of an existing agent
  - Fixes 'could not compile stylesheet' error when using GDM.
  - General agent transfer override improvements

- **Network Policies**
  - Fixes interoperability issue with GlobalScape EFT server
  - Fixes file leak error with SFTP Listener combined with SFTP Remote policies
  - Upgraded WebLogic client libraries to version 10.3.5.0
  - Fixes issue with time to live setting with Active MQ remote policies
  - Adds propagate time to live setting to ActiveMQ, WebLogic and MQ remote policies
  - Fixed NullPointerException in WebAdmin for WebLogic, Sun MQ and Tibco EMS when the map message type had been selected
  - Limits the number of First failure data capture (FFDC) files generated by MQ to one per type, preventing possibility of filling disk
  - Upgrade MQ libraries to the latest 7.1.0.4
  - Hardcodes MQ encoding conversion to UTF8
  - Adds functionality related to re-using the TTL from incoming JMS messages

- **System**

- o Changes temporary directory used to store uploaded files, to prevent WebAdmin upload errors
- o Resolves error with WebAdmin upgrades in FIPS mode
- o Disallows read-only users from being able to clear the logs
- o Fixes order of log messages in log viewer
- o Changes expiration audit log message for JMS to user friendly format
- o Fixes defect that caused the network information to be lost after rebooting the device
- o Fixed WS Reports to avoid generating a report whenever the data source or WS Reporting is disabled
- o Sets the content type to application/sql for data source's schema downloads from the WebAdmin
- o Resolves issue adding network routes with shorthand
- o Logging performance improvements
- o Resolves issue with Trigger for the FSADMIN Oracle Schema
- o Improves logging for replay detection

- **Access Policies**
  - o Updates SiteMinder Libraries to fix truncated SMSESSION cookie issue
  - o Improvements in STS transaction logging
  - o Renames checkbox for FSSESSION management
  - o Fixes issue with LDAP policy and Root DN syntax
  - o Resolves issue with FSSESSION cookie expiration time showing as 0 on cache screen
  - o Resolves issue with upgrading a request-only WSDL operation to request-response

- **Task Processing**
  - o Adds support to allow/deny in the filtering rules
  - o Fixed schema validation issue with non UTF-8 documents
  - o Cache task to configure what to cache dynamically
  - o Resolves issue with task list and task list group names when task list group is built from task list
  - o Identity by attribute mapping now supports identity attributes
  - o Resolves issue with expired FSSESSION cookies not being removed from external database at appropriate times

- **Content Policies**
  - o Resolves issue with WSDL Libraries when reusing embedded schema with multiple annotations
  - o Resolves issue with WSDL Policies where SOAP body validation with encoding other than utf-8 failed

Summary of Enhancements in Release 8.1.242 [09/30/2013]
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Feature Enhancements

- **New Feature – Simplified SSO**
  - Simplified, streamlined central authentication of FSSESSION cookies
  - New Custom Identity Policy
  - New Sentry Identity Policy

- **New Feature – Caching Enhancements**
  - Extends caching support to Form Post content
  - Extends caching support to SiteMinder SMSESSION tokens

- **New Feature – Group Remote Policy Enhancement**
  - Adds ability to perform Server Affinity by user-defined Request Header Attribute

- **New Feature – User Identity and Access Control**
  - Adds ability to control order of authentication for Admin Domains
  - Adds WebAdmin ACL
  - Adds ability to specify order of Access Policies within User ACLs
  - Enhancements to OAUTH 2.0 support
  - Adds support for disabling secure cookies

- **New Feature – SiteMinder Integration Enhancements**
  - Adds support for caching SiteMinder SMSESSION tokens
  - Adds option to use root directory, not the URL, as the SiteMinder resource

- **New Feature – Certificate Authority**
  - Adds full Certificate Authority capabilities

- **New Feature – Support for HTTP Methods**
  - Adds support for WebDAV HTTP methods and all extensions
  - Adds support for HEAD method
  - Adds support for PATCH method

- **New Feature – Task Processing**
  - Adds ability to map full document to / from user attributes
  - Adds support for repeatable encryption with the Convert Value task

Enhancements and Bug Fixes

- **PKI Management**
  - Resolves sporadic null pointer exceptions accessing keys and tasks

- **System**

- o Resolves issue with the product licensing signature certificate expiring causing license validation routine to fail to detect valid features, which disables the licensed features of the product.
- o Resolves configuration backup issue that resulted in devices coming back from a reboot in a factory reset state
- o Resolves issue with factory resetting of HSM appliances with keeping Security World
- o Resolves issue with Test functionality
- o Resolves "no new trackers" issue seen during upgrades or file imports

- **WebAdmin Interface**
  - o System Name now displayed on login page
  - o Resolves broken edit link on WS Trust policy page

- **WSDL Policies**
  - o Adds support for accessing UDDI via SSL
  - o Resolves issue with Colon character in Virtual Path

- **Configuration Management**
  - o Adds Agent override option for Virtual Host setting on virtual directory
  - o Adds Agent override option for Redirect URLs
  - o Improvements to GDM import process
  - o Improvements to handle larger GDM file transfers

- **Default AntiVirus Scanning**
  - o Resolves runtime AV scanning issue related to automatic updates

- **Logging**
  - o Resolves log filtering issue
  - o Adds host header column to Access Log
  - o Resolves issue with Log Viewer
  - o General logging performance optimizations

- **WebSeal Integration**
  - o Resolves multiple GUI issues with WebSeal policies

Summary of Enhancements in Release 8.1.207 [08/06/2013]
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Feature Enhancements

- **New Feature – Hex Binary Support**
  - o Now supports Hex Binary encoding and encoding with the Convert Value task
  - o Now supports Hex Binary decoding for AV scanning

Enhancements and Bug Fixes

- **STS / SAML SSO Policies**

- o Adds missing Destination attribute in SAMLRequest
- o Resolves issue creating STS policies that resulted in an unhandled exception error returned in the WebAdmin interface
- o Adds new sample documents for WS-Trust formats

- **Data Sources**
  - o Resolves issue with DB2 schema
  - o Updates MySQL driver to resolves issue with import/export of Sentry configurations with a MySQL database.
  - o Updates MySQL schema

- **JMS Network Policies**
  - o Enhanced support for bytes, text, and map messages for Weblogic, Tibco EMS, ActiveMQ, IBM MQ, Sun MQ, and JBoss network policies.
  - o Modifications to the test message functionality with JMS Group Remote Policies
  - o Modifications to the message priority and TTL options with JMS network policies
  - o Resolves issue with ReplyTo queue being set improperly with ActiveMQ remote policies
  - o Improved logging of JMS failures
  - o Enhances asynchronous request-response support
  - o Resolves GUI issue with Weblogic remote policy wizard

- **Configuration Management**
  - o Resolves issue with policies missing (until restart) after FSX import
  - o Resolves issue with importing with an admin user in a different domain

- **WSDL Policies**
  - o Resolves WSDL aggregation issue when the same tns prefix is used in multiple files in different namespaces

- **Performance Monitor**
  - o Resolves issue with monitoring at the Operation level
  - o Adds back the Maximum Memory usage statistic

- **Network Settings**
  - o Resolves issue with displaying static routes

- **SSL Policies**
  - o Resolves issue with SSL Termination policies requiring a listener restart to use new key

- **Logging**
  - o Now sorts the System log "Filter by Policy Name" option alphabetically
  - o Improved logging of schema validation failures
  - o Improved logging of pattern match failures
  - o Improved logging of JMS failures

- **Keys / PKI Management**
  - Resolves issue generating SSH2_DSA keys
  - Resolves issue generating SSH1_RSA keys
  - Adds support for PKCS v2 encrypted private keys

- **SNMP Management**
  - Resolves issue with MIBS links

- **Task Lists**
  - Enhances zip import in XSD Validation task to list the entries alphabetically
  - Adds support for XSLT 2.0 with the Transform Document task

- **Content Policies**
  - Renames REST Message Type Filters to better reflect their intended uses
  - Resolves GUI issue where REST, HTML, JSON and STS policies were linked to Network Listener policies as XML policies
  - Enhances support for Options method

Summary of Enhancements in Release 8.1.160 [6/03/2013]
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Feature Enhancements

- **Default AntiVirus**
  - Resolves error with manual or HTTP update related to size of daily.cvd being larger than main.cvd

Summary of Enhancements in Release 8.1.153 [5/10/2013]
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Feature Enhancements

- **New Feature –FTP Policy Enhancement**
  - FTP policies now support FTP Implicit Mode

- **New Feature – HTTP Remote Network Policy Enhancement**
  - New configurable DNS cache option on Network Remote policies

- **New Feature - STS Policy Enhancements**
  - Adds front end proxy support for STS Policies and the Identity Management and Access Control task.

- **New Feature – LDAP Access Control Policy Enhancement**
  - Adds ability to follow LDAP referrals

- **New Feature – IBM MQ Policy Enhancements**
  - Adds Option to propagate replyTo from listener to MQ Remote
  - Adds Asynchronous Request-Response Support
  - Extends support for Bytes JMS messages

- **New Feature – Default AntiVirus**
  - Now uses bytecode.cvd file in addition to main.cvd and daily.cvd
  - Adds customizable read timeout to Default AV update

Enhancements and Bug Fixes

- **SFTP**
  - Resolves issues with User ACLs set on SFTP Listener and SFTP Proxy policies
  - Resolves issues with IP ACLs on SFTP Policies
  - Resolves SFTP compatibility issues with Filezilla and CuteFTP
  - Resolves SFTP logging issues

- **IBM MQ Policies**
  - Resolves issue with Alias Queues
  - Resolves issues with SSL settings with IBM MQ Policies
  - Resolves issue with message acknowledgements which could cause the same message to be processed by multiple Sentry nodes listening on the same queue

- **Native Forum Failover**
  - Extends support for native failover to 456XB platform

- **Firewall Rules**
  - Resolves issue with enabling and disabling firewall rules while using Internet Explorer 8

- **REST Authentication Policies**
  - Resolves issue saving the remote auth path
  - Ensures REST auth username and password are not URL encoded

- **Test Feature**
  - Resolves issues with Test feature with the Sentry software instances

- **Message Type Filters**
  - Resolves issue with simple request filter losing parameter when query parameter has the same name/value

- **Logging**
  - Removes harmless error message on device startup

- **FTPS Policies**
  - Resolves compatibility issues with FTPS and different types of remote FTP servers

Summary of Enhancements in Release 8.1.97 [1/31/2013]
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<u>Feature Enhancements</u>

- **New Feature – Access Control Policies**
    o Added OAuth access control policy

<u>Enhancements and Bug Fixes</u>

- **Task Lists**
    o Resolves task list corruption issue caused by copying tasks lists in previous 8.0 builds. The task list copy issue was resolved with 8.0.672, that fix did not resolve any underlying configuration corruption.

- **System Configuration Management**
    o Resolves multiple issues with capturing and restoring "last known good" configurations to ensure clean recovery of appliances after reboot or manual power cycle.

- **Logging**
    o Resolves issue with Packet Capture utility which was not stopping when the "stop" button was clicked, rather running until 100k packets were captured.

- **REST Authentication Policies**
    o Changes default HTTP method of REST Authentication calls (via REST Access Control Policy) from GET to POST.
    o Obfuscates basic auth credentials included in a URL from the logs
    o Resolves issue with double URL encoding certain characters
- **Content Policies**
    o Resolves issue with REST parameter values where certain characters were being doubly URL encoded

- **XML Security**
    o Resolves Signature Verification regression related to exclusive canonicalization inclusive namespace parameters

- **Automated 'System Config Backup' Improvements**
    o The daily 'System Config Backup' process now supports transferring the exported FSX file via SFTP protocol as well as FTP and to a database.

- **Resources**
    o Resolves issue on Documents page creating sample document from WSDL.

Summary of Enhancements in Release 8.1.86 [1/21/2013]
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   <u>Feature Enhancements</u>

- **New Feature – Task List Enhancements**
    - The Task Lists Screen has been reorganized, tasks are now grouped by Type
    - Task Lists Groups can now be generated from Task Lists
    - Convert XML Node task can now operate on Attributes
    - New Convert CSV task to convert CSV to/from XML
    - Task List Labels
    - Encryption Task now supports canonical base64 suitable for MTOM encoding
    - Ability to use the Identify Document task lower in the task list

- **New Features – WebAdmin Improvements**
    - Moved Documents page to Resources menu
    - Moved XML Policies to Content Policies menu
    - New Content Policies menu for processing XML, REST, HTML, JSON, and STS polices
    - Enhancements to General Info Page
    - New Performance Monitor page
    - System Settings page now allows the ability to customize the CLI Login Banner
    - Adds active user session IDs to Active Users page

- **New Feature – Test Configurations**
    - Ability to test a policy by generating a request, invoking a task list, and sending to remote server.
    - Ability to specify multiple virtual clients and run tests for duration period or set number of iterations

- **New Feature –Identity Management and Access Control**
    - Support for OpenAM
    - Ability to generate a cookie for another policy based on an existing authenticated cookie
    - Task List processing with REST Authentication Access Control Policy
    - Ability to control error response on authentication failure

- **New Feature – Network Policies**
    - Adds support for AMQP versions 0-9-1
    - Significant SFTP protocol enhancements

- **New Feature – Pattern Matching**

- o Extends support for pattern matching to attribute targets
- o Extends support for pattern matching of SOAP 1.2 attachments

- **New Feature – SNMP Monitoring**
  - o Adds support for SNMP traps associated to Group Remote Policies

- **New Feature – Virus Scanning**
  - o ICAP Virus Scanning - Adds support for off-board virus scanning via ICAP
  - o Ability to perform custom action when virus is found with ICAP scanning
  - o ClamAV Update logging improvements

- **New Feature – Content Policies**
  - o XML Policies for XML services (previously existed in the product, moved to Content Policies menu)
  - o REST Policies for RESTful services
  - o JSON Policies for JSON services
  - o HTML Policies for HTML services

- **New Feature – Configuration Management Improvements**
  - o Sentry configuration files (FSX and FSG) can now be stored in and retrieved from a database, via a data source policy
  - o Ability to browse and compare configuration files stored in database

Enhancements and Bug Fixes

- **Task Lists**
  - o Resolves issue with base64 decoding for virus scanning
  - o Resolves issue with Replace Document task
  - o Resolves issue with copying task lists
  - o Resolves issue with Redirect Policies not working when User ID and Access Control task is defined.
  - o Resolves issue with Enrich Message task related to query string mappings
  - o Resolves issue with Enrich Message task related to HTTP 500 responses
  - o Resolves issue with Remote Routing task with SFTP policies
  - o Resolves issue with Convert JSON task

- **Identity Management and Access Control**
  - o Resolves incorrect error message related to TAM policies
  - o Resolves issue with upgrade of LDAP policies

- o LDAP Attributes now retrieved when credentials are processed by multiple ACLs
- o Modifies position of SAML SSO AuthnRequest Subject Signature / Issuer
- o Resolves broken 'edit' link on SAML SSO page

- **HTTP Processing**
  - o Resolves issue processing multiple values with form post requests
  - o Now responds to HTTP TRACE requests with 403 Forbidden

- **IDP**
  - o Enforce by User now works with Attribute Mapping authentication

- **Logging**
  - o Improves description of Log Filtering option – now listed as "Include these codes" and "Exclude these codes"
  - o Enhances Transaction Viewer save option, now uses the transaction ID and machine name in the default file name.

- **Network Policies**
  - o Adds ability to specify port range for PASV FTP connections
  - o Resolves issue with MQ listener policies not attempting to re-enable automatically when the MQ server is unavailable upon Sentry startup.
  - o Resolves issue with MQ Listeners losing messages while virtual directory initializes
  - o Enhances MQ policies to use dead letter queue when no backout requeue queue is defined
  - o Enhances MQ Policies to assure message affinity
  - o Group Remote Policies now support SFTP policies
  - o Enhances WebLogic policies to support WebLogic clusters
  - o Enhances WebLogic policies adding connection factory option
  - o Enhances WebLogic policies adding support for WebLogic authorization model
  - o Upgrades WebLogic libraries to 10.3.5.0.4
  - o Resolves Group Remote Policy error related to disabling a remote policy associated to a Group Remote Policy
  - o Resolves issue with chunked attachments breaking the HTTP connection

- **System Management**
  - o Logs are no longer signed nightly – this process often failed due to the size of the log file.
  - o Resolves issue with importing configurations containing invalid TAM policies
  - o Resolves issues with GDM with WebLogic policies

- **XML Security**
  - o Enhances support for XML encryption 3DES padding

- **Keys / PKI**
  - o Signer Groups now show non CA certificates

Summary of Enhancements in Release 8.0.672 [11/15/2012]
======================================

- **Task Lists**
    - Resolves issue with Copy Task List feature
    - Resolves issue with Decrypt Elements Task related to the TokenType attribute

- **MTOM / SwA**
    - Resolves SOAP to MTOM conversion issues

- **WSDL Policies**
    - Resolves issue with WSDL exporter

- **Virus Scanning**
    - Resolves issue with AV scanning after SOAP to MTOM conversion

Summary of Enhancements in Release 8.0.642 [9/13/2012]
======================================

Feature Enhancements

- **New Feature – IPv6**
    - Added support for IPv6 Listener and Remote Policies
    - Added support for IPv6 Host Headers

- **New Feature – WS-Secure Conversation**
    - Added support for WS-SecureConversation

- **New Feature – Elliptic Curve Key and Algorithm Support**
    - Added support for Elliptic Curve Key Generation, Import, and NIST ECC Algorithms

- **New Feature – Active MQ**
    - Added new protocol support for Apache ActiveMQ Listener and Remote Policies

- **New Feature – TCP Layer 3 IP Forwarding, IP Filtering, Port Filtering, NAT**
    - Added TCP Layer-3 IP forwarding, IP filtering, port filtering, and NAT support. This enables Sentry to provide support for TCP Layer-3 access control for proprietary and encrypted protocols not being terminated and processed by Sentry.

- **New Feature – Copy Tasks**
    - Added support copying task lists

- **New Feature – Asynchronous WS-Addressing**
  - Updated WS-Addressing support for asynchronous WS-Addressing with stateful MsgId correlation
  - Added session state storage database caching for asynchronous WS-Addressing with multiple Sentry instances deployed
  - Added "allow" list of endpoints for WS-Addressing targets

Enhancements and Bug Fixes

- **GUI**
  - Fixes setFormFocus to only focus input of type text or password, or text areas
  - Fixes the logging details page to default the focus to the search field
  - Moves Cipher Suite list on SSL policies to an advanced "Show Ciphers" screen
  - Fixes WS-Addressing task GUI causing "Object doesn't support this property or method" error von IE and Firefox
  - Fixes alignment of Remote Policy and Remote Path on the "Override Remote Routing" task. Changed remote path to use a text area allowing users to expand the size
  - Changed Show Interfaces command in the CLI to show network settings, which includes the interfaces in the output.
  - Modifies the console prompt for 'system config max threads' to include the current max thread value

- **Logging / Monitoring**
  - Fixes bug with log searches related to not properly collecting information until the desired number of records was reach resulting in no search results being found
  - Moves log message for "selected Group Remote strategy" from audit log to the system log
  - Optimizes CPU check for SNMP and internal monitoring routines

- **Tasks / Document Processing**
  - Fixes Database Query attribute extraction for SQL Server database types
  - Enhances pattern matching to include xml attachments
  - Map To and From XML mapping tasks extended to support XML Attributes
  - Added option to "Map Headers and Attributes" to inject PEM encoded X509
  - New task to convert MTOM to SOAP, SOAP to MTOM, XML to SOAP and SOAP to XML. This task replaces the tasks convert xml to soap and convert soap to xml

- Output X.509 attribute names instead OIDs in DSIG, XMLEnc, SAML, and XKMS

- Updates the User Identity and Access Control task to allow selection of a Redirect Policy. Previously redirect policies could only be associated at virtual directory level

- Rename identity xml mapping to attribute mapping

- Added task list association to error templates allowing more dynamic variable substitution and formats

- Renames Query Data Source task to Query Database

- **Network Policies / Protocols**
  - Adds multipart/related the SMTP MIME filter's expression
  - Upgraded IBM MQ adapter to fix memory leak
  - Fixes potential issue with IBM MQ adapter internal error handler from filling disk
  - Fixes potential deadlock issue with IBM MQ and unreliable connections
  - Ensures that 2-port topology mode only allows aliases to be created on the WAN interface
  - Fixes group remote policies to handle responses with Content-Encoding=gzip
  - Improves throughput performance of JMS adapter types via more sophisticated threading model and connection pooling
  - Changed "Use Host Header" title on Remote Policy Setting to more accurate "Use Inbound HTTP Host header (Dynamic End Point Routing)"

- **Identity / Access Control / Federation**
  - Disables optimize group search for older LDAP policies. Enables the setting for new LDAP Policies
  - Enhances SAML Web SSO profile support to handle multi-tiered SP-Initiated, or IDP-Initiated SAML integration. Allows integration with Facebook, Salesforce.com, Google, and any other SAML SSO Identity Provider.
  - Allows RelayState without SAMLRequest to support IDP-initiated redirects
  - Renames Group and Group Policy to User Group and User Group Policy respectively

- **General Bug Fixes**
  - Fixes JKS keystore import on software versions - Windows/Linux/Solaris
  - Enhances WSDL import and export to include support for user-specified soap schema

Summary of Enhancements in Release 8.0.560p [2/21/2012]
==

- **Logging**
  - Fixes search method reset cache after search criteria is cleared

- **SMTP**
  - Fixes issues with SMTP documents having content type multipart/alternative
  - Adds SMTP Text and SMTP MIME default request filters

- **Tasks**
  - Adds new Task to be able to remove attachments on SMTP

Summary of Enhancements in Release 8.0.546p [1/17/2012]
===================================

- **Alerts**
  - Adds system name, if configured, to the email alerts

- **Authentication**
  - Adds SPNEGO support

- **CRL**
  - Fixes unhandled exception for expired CRL with invalid issuer
  - Fixes to not refresh a valid CRL if the new CRL has a validity start time in the future
  - Fixes to not cache bad CRLs
  - Fixes to return a CRL from cache instead of error when another thread is doing a CRL refresh

- **Diagnostics**
  - Enhances Packet Capture feature to show Size of capture files

- **Data Source Policies**
  - Fixes SQL handing for the Update command
  - Adds ability to clear DB queue.

- **FTP**
  - Adds the ability to restrict the ports used for PASV connections.

- **Global Device Management**
  - Adds Network Policies to have the ability to transfer and export via FSG policies

- **HTTP**
  - Resolves HTTP header truncation issue at headers 5K in size or larger
  - If the inbound request does not have a user agent, and proxy user agent is set, use the default

- allow processing of HTTP PUT and DELETE
- Adds the ability to suppress error codes.

- **Logging**
  - Adds support for sending syslog messages via SSL over TCP
  - Adds the ability to configure the log level on a per user basis.
  - Enables replacing contents of the log message.

- **Online Help**
  - Resolves Online Help issue.

- **Patten Match Policies**
  - Adds Copy feature for replication of policies

- **SAML**
  - Adds ability to set SAML Audience
  - Adds support for Custom SAML Subjects
  - Updates WS-Security SAML Task to sign timestamp

- **SFTP**
  - Adds support for SFTP protocol mixing

- **SSH**
  - Upgrades library to 5.9

- **Tasks**
  - Adds new Add XML Node task

- **WSDL Policies**
  - Adds ability to modify the remote path on a WSDL Policy.

Summary of Enhancements in Release 8.0.528 [6/22/2012]
=======================================

- **HTTP Listener Policies**
  - Fixes issue with using a hostname instead of IP for the listener policy.

- **Logging**
  - Fixes log filtering issue.
  - Fixes log searching issue.

- **Group Remote Policies**
  - Fixes issue with issue with gzipped responses not handled properly when using Group Remote Policies.

- **SNMP**

- o Fixes "error in packet" issue with SNMP walk.

- **WSDL Policies**
  - o Allows importing malformed WSDLs that are missing schema imports and have circular references.
- **SSL**
  - o Fixes vulnerability exposure with SSL renegotiation as defined in the NIST NVD under ID CVE-2009-3555 (http://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2009-3555)

Summary of Enhancements in Release 8.0.521 [3/23/2012]
======================================

- **Logging**
  - o Fixes the "always log following code" option to work after nightly log rollover.

- **IBM Websphere MQ Policies**
  - o Upgrades the MQ libraries to version 7.0.0.7.
  - o Resolves MQ Listener reconnection issues.

- **LDAP Policies**
  - o Fixes issue with upgrade of 7.3 config where the new Optimized Group Search option was enabled by default.

- **Upgrading**
  - o Improves behavior of the Upgrade page in the WebAdmin to wait until the upgrade completes.
  - o Enhances upgrade procedures (internally) to prevent failed upgrades.

- **SiteMinder**
  - o Resolves deadlock scenario when SiteMinder agent auto-restart is attempted under load results in corrupted configuration and HSM CrossModule errors.

- **Network Settings**
  - o Resolves an issue with the IP aliasing that was binding the LAN IP to the WAN interface.

- **WS Security**
  - o XML Signatures, Encryption, SAML, and XKMS now output the X.509 attribute names instead of OIDs.

- **HTTP Processing**
  - o Fixes issue with corruption of HTTP form post data.

- **CRL**
  - Fixes CRL cache manager issue, ensuring that newly retrieved CRL is valid before replacing the cached copy.
  - Added new 'Allow future CRL' option to CRL policies.

Summary of Enhancements in Release 8.0.503 [1/4/2012]
===================================

- **NTP**
  - Resolves NTP synchronization issue.

Summary of Enhancements in Release 8.0.502 [12/16/2011]
===================================

- **SFTP**
  - Resolves compatibility issue with certain SFTP servers.

- **WS-Security Header Task**
  - Adds the ability to not sign the X509 when using the X.509 Binary token type.

- **Tivoli Access Manager Policies**
  - Resolves some UI issues with the TAM policies.

- **GDM Import / Export**
  - Resolves GDM export issue with error templates associated to MQ policies.

Summary of Enhancements in Release 8.0.493 [11/7/2011]
===================================

- **Mapping Attributes and Headers Task**
  - The task now supports overwriting the content-type header set by the remote server.

- **HTTP Headers**
  - Sentry now properly sets the User-Agent HTTP Header on requests sent to the remote server.

Summary of Enhancements in Release 8.0.490 [10/27/2011]
===================================

- **IBM Websphere MQ Policies**
  - Resolves an issue using the MQSTR message format.

- **SFTP Policies**
  - Improves logging for SFTP Policies.

- **Password Authentication**
  - Sentry now automatically strips the domain\ from the username prior to making the authentication call to LDAP.

- **Data Sources**
  - Resolves issue testing the MS SQL Server data sources.

Summary of Enhancements in Release 8.0.480 [9/30/2011]
====================================

- **Data Sources / Archiving**
  - Adds support for DB2 versions 8.1 through 9.7.4

Summary of Enhancements in Release 8.0.473 [9/28/2011]
====================================

- **Upgrade**
  - Fixes issue upgrading from certain 7.3 versions.

- **SFTP Policies**
  - Improves logging for SFTP Policies.
  - Resolves issue with the Propagate Credentials option with SFTP Policies.

- **IDP**
  - Fixes issues with IDP rate throttling and blocking, ensuring the action is persistent after a reboot.
  - With IDP Clustering and rate throttling, adds the ability to count a request before or after Sentry processing.
  - Resolves IDP throttling issue with multiple IDP Agents and a single IDP Policy Server (IDP clustering).
  - Modifies the 'Day' period of an IDP threshold to be midnight to midnight, rather than 24 hours from first trigger.

Summary of Enhancements in Release 8.0.468 [8/15/2011]
====================================

- **Database**
  - Fixes issue with Query Data Source task that have no results returned
  - Fixes Query Data Source task to support SQL INSERT statements
- **Error Templates**

- o Fixes issues with templates and Domain Based Administration

- **IDP**
  - o Fixes future access restriction rules for centralized IDP clustering
  - o Fixes Group tracking when using IDP clustering
  - o Changes behavior of "Day" setting which now uses the 00:00-23:99 rather than 24 hours from the point of rule creation. For 24 hours from current timer, use the Minute threshold with a value of 24.

- **Import/Export**
  - o Fixes Import/Export process to compress policies and remove vestiges.

- **SAML**
  - o Added SAML SSO Decryption Support

- **Sign Task**
  - o Fixes persistence issue with dynamic user signing key setting getting reverted to default after a reboot

- **Session Caching**
  - o Raises internal cache for 456x hardware platforms to 20,000.

- **URI Tracing**
  - o Fixes issue with URI caching that can cause excessive resource utilization.

- **WSDL**
  - o Enhances WSDL policy parser to account for circular schema references with relative filenames

- **XPath**
  - o Includes namespaces found in the attributes when identifying XML documents based on attribute mapping

Summary of Enhancements in Release 8.0.455 [7/8/2011]
====================================

- **Request Filter**
  - o Enhances the SimpleRequestHandler to handle chunk encoding for files larger than 10MB
- **JMS / MQ**
  - o Fixes delivery mode setting to set the delivery mode on the producer
  - o Updates MQ providers from 6.0 to 7.0 libraries for better status codes on error conditions.

- Enhances background offline policies in a group remote policy set to send a test message to the target queue to determine whether the failed system is back online

- **Logging**
  - Fixes issue with log file auto-refresh setting
  - Fixes log message to indicate the correct length of the decoded document

- **SAML**
  - Enhances SAML features to include complete support for SAML 2.0 Web Browser SSO Profile scenarios

- **WAF Policies**
  - Fixes issue on software instances where WAF policies would get corrupted on service restart.

- **WSDL**
  - Enhances WSDL aggregation to handle schema namespace reuse within xsd import/include statements across WSDLs
  - Fixes NPE when wsdl one-way operation interface and binding are in separate files

Summary of Enhancements in Release 8.0.445 [6/15/2011]
======================================

- **Archiving**
  - Fixes DB Schema for MySQL versions 5.x and higher to remove the argument in the timestamp definition types.

- **CRL**
  - Fixes handling of critical flag for the Issuing Distribution Point (OID 2.5.29.28) extension during CRL revocation checking.

- **IDP**
  - Adds authentication failure details from identity server in the IDP Authorization and Authentication error handlers.

- **Logging**
  - Fixes logging of host to correctly log the dynamic host in the case of the Use Host Header setting on Remote Policies

- **MQ**
  - Adds the option to configure the delivery mode of the MQ Reply when Synchronous mode is enabled.
  - Adds an option to persistence setting to include "As Queue" option which will default to the persistence setting of the target queue.

- Adds additional exception handling logic to catch more conditions to be considered failure cases per the following codes: MQRC_RESOURCE_PROBLEM, MQRC_Q_SPACE_NOT_AVAILABLE, MQRC_Q_MGR_STOPPING, MQRC_Q_MGR_NOT_AVAILABLE, MQRC_Q_MGR_NOT_ACTIVE, MQRC_Q_FULL, MQRC_Q_DELETED, MQRC_MAX_CONNS_LIMIT_REACHED, MQRC_CONNECTION_BROKEN, MQRC_CMD_SERVER_NOT_AVAILABLE

- **Pattern Matching**
  - Fixes error message "resetting to invalid mark" when using the pattern matching on full document setting

- **Hardware Upgrade**
  - Fixes issue with file size limits of upgrade packages causing upgrade attempts to fail for packages exceeding 250MB

- **WSDL**
  - Fixes WSDL export error when schema includes annotations.
  - Avoids prompting for import schema schema statements when schema is locally defined in the WSDL
  - Ensures exported WSDL with WS-Policy information is WS-I compliant
  - Allows administrator to force import of WSDLs with invalid elements and attributes

Summary of Enhancements in Release 8.0.432 [5/2/2011]
===================================

- **Algorithms**
  - Adds support for RSA-OAEP for HSM

- **Cookies**
  - Extend ability to issue cookies based on Map Headers and Attributes task mapping to cookie target
- **CRL**
  - Added support for CRL Issuing Distribution Point

- **Database**
  - Fixes MySQL schema to be compliant with 5.5 and later

- **DNS**
  - Fixes persistent caching issue

- **MQ Policies**
  - Added retry logic for connections that expire or get disconnected from the remote Queue

- **LDAP**
    - Adds LDAP login exception reason to the LDAP authentication attempt error message

- **Logging**
    - Fixes logging to not log unzip file contents

- **Redirect Policies**
    - Added ability to associate task lists to the redirect policy events to enable URI manipulation and custom mappings

- **Task Policies**
    - Fixes DataSource Query task to insert parameter boxes for variable resolution to match the "?" variable references in the SQL query
    - Fixes Enrich message task to operate on the expected headers
    - Fixes Enrich message task to allow choosing whether to propagate inbound client headers
    - Renames mapping task to Map Headers and Attributes
    - Extends Map Headers and Attributes task to include many more source and target options
    - Fixes Map Headers and Attributes to work properly on Service mode policies
    - Adds mapping support to map HTTP method from POST to GET

- **WSDL**
    - Fixes prompting of already imported schema when duplicate schema imports are detected
    - Fixes WSDL export error when WSDL schema contains annotations
    - Ensures exported WSDL is always WS-I compliant
    - Allows invalid elements and attributes to be optionally ignored on WSDL import

- **XML Encoding**
    - Fixes error text when report invalid XML encoding

- **XKMS CRL**
    - Fixes error handling such that if a CRL is failed to be refreshed, the prior CRL is retained

- **WAF Policies**
    - Adds session protection logic

Summary of Enhancements in Release 8.0.396 [2/8/2011]
======================================

- **New Hardware Platform: 456x series (firmware 8.0 or later)**
  - The new 456x platform series provides:
    - 200 MB Document Body Processing (16x increase over previous models)
    - 16 GB SwA Attachment Processing (4x increase over previous models)
    - 16 GB AV Scanning (4x increase over previous models)
    - 8192 Concurrent Worker Threads (4x increase over previous models)
  - The 456x series is available in HSM and non-HSM configurations.

- **New Feature: sFTP**
  - Added sFTP protocol support
  - Added support for protocol mixing with sFTP

- **New Feature: XACML Authentication**
  - Added XACML support

- **New Feature: Cloud Policies**
  - Direct API integrations into Cloud Computing infrastructure providers including Amazon EC2 and GoGrid.
  - Added support for dynamic instantiation and load trigger thresholds for provisioning and decommissioning Cloud Instances automatically.

- **New Feature: JBOSS JMS**
  - Added support for native JBOSS messaging.
  - Added protocol mixing support for JBOSS messaging

- **New Feature: Document Identification Enhancements**
  - Added Attribute and Header based detection criteria to trigger tasks lists.
  - Parses URI query string parameters and adds values to User Attribute map for use in Tasks.

- **New Feature: System Task List Groups**
  - Added support for creating global Request and Response task processing that applies to all traffic across all policies.

- **New Feature: ZIP File WSDL and Schema Upload**
  - Upload WSDL and Schemas for WSDL policy creation with one-click using ZIP file containing referenced WSDL and Schema files.

- **New Feature: Multiple Proxy Server Support**
  - Support for multiple proxy servers has been added to the HTTP remote policies screens.

- **New Feature: Web Application Firewall (WAF) Module**
  - Added embedded WAF features for web traffic security including OWASP Top 10 and other industry standard WAF rules.

- **New Feature: Database Query Mapping Task**
  - Added multiple data sources support
  - Added Data Source Query task enabling direct access to database information for mapping to User Attributes, rendering as XML, or updating, inserting, or deleting data in the database
  - Enables use of dynamic attributes for the SQL Query

- **New Feature: JSON Validation**
  - Added support for JSON schema validation of JSON transactions.

- **New Feature: JSON to XML Conversion**
  - Added support to automatically convert JSON to XML
  - Added support to automatically convert XML to JSON

- **New Feature: Symmetric Encryption and Decryption**
  - Adds support for symmetric encryption and decryption of data

- **New Feature: Split Request and Response Tasks in XML Policy**
  - XML policy types now have Request and Response Task Group association distinctly separated so that the task processing can be more easily allocated to the request message and response message accordingly.

- **New Feature: Policy Level Logging**
  - Logging can now be configured per policy virtual directory to override system level settings.

- **New Feature: Log Viewing Performance Improvements**
  - Logging performance improvements for WebAdmin based log viewing. Log viewing has been improved using cached indexing methods for paging.
  - Log XML file format sizes have been reduced by naming tags with shorter names.

- **New Feature: Node Fragment Capture**
  - Adds ability in Attribute Mapping to capture and map XML node fragments in additional to the already supported XML Element and Attributes value mapping.

Enhancements and Bug Fixes

- **Antivirus**
  - Fixed to display CLAM error messages
  - Added option to virus scan document task to determine whether to scan the document or the attachment.
  - Added node selection ability to target nodes to scan for BASE64 content

- **GDM**

- Added support for using override values in the Agent configuration for both partial GDM and full GDM
- Added filtering on export by selecting an Agent Policy filter
- Added override the QueueManager of IBM MQ listener and remote policies
- Added the channel to the list of editable fields for MqListenerPolicies and MqRemotePolicies.
- Fixed potential deadlock in GDM transfer
- Changed behavior to always preserve existing Domain settings on transfer to target machine rather than change domain based on the GDM user membership on the target machine.

- **LDAP**
  - Added an optimized group search option for performance improvements when using Group Containing Users.

- **Logging**
  - Avoid logging messages having content type binary
  - Added Reset link on log list screen
  - Fixed display so that first page always has 500 entries if there is more than one page.
  - Fixed potential infinite loop when using database archiving

- **Remote HTTP Policies**
  - Added option to use Host Header in the remote policy

- **WSDL Policies**
  - Fixes javascript error on settings page

Summary of Enhancements in Release 7.3.318 [1/27/2011]
=====================================

- **Antivirus**
  - Fixes boundary condition error when reading binary MTOM data in XOP format for AV scanning

- **CLI**
  - Fixes a timeout issue when using the CLI to update the session timeout flag on each issued command.

- **GDM**
  - Fixes GDM domain-based transfer issue with ACL definitions
  - Adds MQ channel to the list of editable values to overwrite on the target machine

Summary of Enhancements in Release 7.3.316 [12/31/2010]
=====================================

- **Listener Policies**
  - Fixes issue with hostname support for listener policies allowing the values to be changed back to IP address entries from hostname entries.

- **GDM**
  - Allows to override the QueueManager of IBM MQ listener and remote policies on the Edit Policy Values GDM Agent screen

Summary of Enhancements in Release 7.3.315 [12/8/2010]
=====================================

- **Listener Policies**
  - Adds hostname support for listener policies. Listener policies can now be defined using a hostname, or an IP

- **Antivirus**
  - Adds feature to Virus Scan task to allow choosing XPath based XML nodes to scan BASE64 content

- **GDM**
  - Fixes Null pointer exception caused by regression introduced in 7.3.312

Summary of Enhancements in Release 7.3.312 [11/5/2010]
=====================================

- **Capacity**
  - Added optimization for stored policy artifacts

- **CRL Caching and XKMS**
  - Fixes issue with stale CRL entries not refreshing properly

- **Global Device Management**
  - Fixes policy parsing component to optimize memory during GDM import
  - Fixes GDM transfer of Domain-based policies to ensure same-domain creation on target import machine
  - Enables GDM transfer under domain accounts rather than limit exclusively to privileged admin (super-users).
  - Enables Agent Policy Filter definitions under domain accounts rather than limit exclusively to privileged admin (super-users).
  - Added preliminary checks on GDM import to ensure required target domains exist
  - Added IP and Port agent settings to the export policy dialog to allow override of values on export

- **LDAP**
    - Fixes issue with LDAP based Domain administration that was causing session timeouts to require waiting for cached interval prior to allowing subsequent admin access

- **Redirect Policies**
    - Added option for redirect host to dynamically use host header from the inbound request triggering the redirect.
    - Added option enabling the original URI to be included as a query string parameter in the redirected URI allowing the destination of the redirect to have the original URI.

- **XSD Schema**
    - Fixes circular reference detection on the Validate Document Task import
    - Added a ZIP file import mechanism enabling the Validate Document task to be automatically created using a ZIP schema file hierarchy.

- **WSDL Policies**
    - Added a ZIP file import mechanism enabling the WSDL and related schemas to be automatically created using a ZIP file hierarchy.

Summary of Enhancements in Release 7.3.303 [9/10/2010]
===================================

- **Antivirus**
    - Fixes issue with compressed DIME attachments that expand to sizes greater than 2GB.

Summary of Enhancements in Release 7.3.298 [8/31/2010]
===================================

- **Global Device Management**
    - Added IP and Port override setting support to partial GDM exports and transfers
    - Added IP and Port agent settings to the export policy dialog to allow override of values on export
    - Fixes IP and Port override to show all remote policy types rather than just HTTP and FTP

- **Hardware Platform**
    - Reverts memory change back to original 1GB settings prior to build 7.3.289 due to stability problems with SwA MIME, DIME, and MTOM message formats.

- **Logging**
    - Fixes issues with partial code logging which could stop logging specified codes if the System log was reset or the time was changed.

- **Validate Document Task**
    - Adds option to auto-load schema imports for HTTP based URI import references

Summary of Enhancements in Release 7.3.289 [8/6/2010]
====================================

- **Hardware Platform**
    - Increases application memory allocated for 256x and 356x devices from 1GB to 1.5GB

- **HSM Upgrade**
    - Resolves issue with HSM upgrade causing configuration to require re-initialization

- **REST Identity**
    - URL encodes REST values sent via query string parameters

- **HTTP Form Post**
    - Fixes handling of UTF-8 encoding for 'x-www-*form*-urlencoded' content types.

Summary of Enhancements in Release 7.3.286 [7/22/2010]
====================================

- **MTOM / SwA**
    - Resolves 'Unknown Exception' error when processing large MTOM transactions.
    - Resolves schema validation failures when processing large MTOM transactions.
    - Resolves sporadic issue where SwA responses over 10MB can lose first MIME part.

- **FTP**
    - Adds ability to increase the maximum number of concurrent FTP transactions using the system max threads setting.

- **Error Templates**
    - Adds ability to set content-type for HTML based error templates.

- **LDAP**
    - Resolves authentication issues when multiple LDAP servers/policies are configured.

- **Import/Export**
    - Resolves issue with exporting XML policies.

- **HSM Initialization**
    - Resolves issue with HSM initialization via bootstrap (FSB) file.

- **HTTP**
    - Adds ability to control chunk encoding on HTTP Listener Policies.

Summary of Enhancements in Release 7.3.278 [6/15/2010]
======================================

- **Memory Profiling**
  - Added internal memory profiling metrics.

- **ASIC Crypto**
  - Modifications to crypto card drivers to ensure proper operation on all hardware platforms.
  - Fixes issue on certain hardware platforms with CLI crypto commands

- **Hardware**
  - Fixes LCD display issues on certain hardware platforms

- **ACL Authentication**
  - Fixes regression bug with ACL policies associated with more than 1 LDAP identity policy causing the identity check to occur on all configured policies rather than association with the policy that first matches the user credentials.

Summary of Enhancements in Release 7.3.275 [5/27/2010]
======================================

- **Antivirus – CLAM AV**
  - Added additional synchronization to ensure AV engine refresh does not destabilize ongoing scans
  - Added automatic daemon restart logic to start up the AV daemon if scan requests are queued with no daemon currently running.
  - Added logic to distinguish scan failures due to daemon issues instead of actual virus detected failures.
  - Added additional diagnostic logging for AV activities
  - Added fault tolerance retry logic for scans that fail due to bad AV daemon states
  - Prevent redundant database refresh unless new signature database is available
  - Added last known good configuration failover to previously known good virus signature files if daemon stability is impacted from signature update.
  - Enhanced details of log messages for AV signature file updates to show the results of the download and integrity validation of the files.

- **NTP**
  - Fixes potential denial of service exposure via NTP per https://support.ntp.org/bugs/show_bug.cgi?id=1331

Summary of Enhancements in Release 7.3.265 [4/16/2010]
======================================

- **CRL Caching**
  - Fixes memory management and caching issues including cache clear, database clear, and auto-refresh.
  - Fixes issue arising from stale CRL and prevents CRL retrieval from disabled database policy
  - Added feature to manually clear CRL database

- **FAILOVER**
  - Fixes logic to ensure manually disabled policy that belongs to Group Remote Policy failover group gets retried for reentry into the sequence.

- **FSSESSION COOKIES**
  - Added a persistent cookies option to explicitly specify whether a database cookie table should be utilized for persistent cookie storage and sharing of cookies across Sentry instances.

- **IDP Clustering**
  - Fixes issues with aggregate centralized IDP rules to properly handle rate threshold windows.

- **JBOSS**
  - Added new message adaptor for comprehensive JBOSS messaging support including Queues, Topics, SSL enabled sessions, and protocol mixing.

- **STS Logout**
  - Added support for WS-Trust based session logouts to the existing Logout task.. Sentry will auto-detect the proper logout session handling based on the ACL and the associated identity adaptor (i.e. WS-Trust, Siteminder). If WS-Trust was used to authentication, a WS-Federation logout sequence will trigger to the back-end STS.

- **STS Policies**
  - Updates STS policies with revised WS-Trust support and SAML Browser Artifact profile
  - Enable cookie based authentication to existing WS-Trust policies for SAML generation using ?RAW uri format.
  - Updated policy to make STS FSSESSION cookie exposure to client and server configurable.
  - Updated the mechanism to relay cookies between STS and Sentry to ensure conformance to HTTP RFC with regard to cookie path preservation.

- **Virtual Hosts**
  - Added checks to prevent using same virtual hosts on different virtual directories where this may cause a processing conflict.

- **WS-Trust Identity Adaptor**

- o Enhanced adaptor to support legacy Forum STS interface, and new WS-Trust standards based interfaces

Summary of Enhancements in Release 7.3.257 [3/10/2010]
==================================

- **WebAdmin**
  - o Raises the limit for upgrade packages to be allowed to be uploaded directly through the WebAdmin interface via HTTP Post

Summary of Enhancements in Release 7.3.256 [3/1/2010]
==================================

- **Antivirus**
  - o Updates ClamAV engine version to 0.95.3.
  - o Updates ClamAV signature update routine to prevent AV service from failing on impartial or invalid signature update files

- **Database**
  - o Updates to the latest SQL Server drivers
  - o Added support for SQL Server named instances

- **Cache**
  - o Fixes the cancel selection for the Expire All button on the cache screen

- **STS**
  - o Updates storing of attributes for use across multiple STS instances
  - o Changes attribute lookup in storage to a case insensitive match

- **Virtual Hosts**
  - o Adds support for multiple virtual host settings per policy. Multiple entries can be provided as a comma separated list.

- **MTOM**
  - o Enhances canonical base64 check for MTOM optimization targets

- **REST Identity**
  - o Adds optional Host field

Summary of Enhancements in Release 7.3.247 [1/19/2010]

==

- **SSL Initiation**
  - Improves performance of SSL Initiation

Summary of Enhancements in Release 7.3.245 [1/7/2010]
==

- **Antivirus**
  - Rollback a change made in build 7.3.239 which causes AV scanning to occur erroneously and at a significantly higher frequency per document by sending empty node content to the AV scan engine.

Summary of Enhancements in Release 7.3.244 [1/6/2010]
==

- **MTOM**
  - Fixes cases for multiple BASE64 tag detection when performing MTOM optimization
  - Adds flag to Error Templates to enable MTOM content-type for SOAP Faults. This feature can be used to mitigate the bug in Microsoft WSE 3.0 client MTOM handling.

- **Logging**
  - Updates log optimization "previous message repeated" to ensure it is placed in the log sequence correctly.

- **WebAdmin**
  - Updates copyright logo to 2010.

Summary of Enhancements in Release 7.3.239 [12/10/2009]
==

- **Antivirus**
  - Modifies the virus scanning to decode BASE64 encoded parts and scan them separately rather than all together.
  - Updates version detection to show on the interface immediately after signature updates

- **AS2**
  - Adds support for AS2 in proxy mode and with HTTP to FTP translation mode

- **Attribute Mapping**
  - Modifies the behavior to allow empty attributes from user policy store attributes rather than failing in the event that attributes do not exist

- **Diagnostics**
  - Adds the ability to download diagnostics file from the WebAdmin after the CLI command 'runDiagnostics" is run and the device is restarted. This eliminates the need for ZMODEM to download the diagnostics information.

- **Database**
  - Avoids infinite recursion of failed retry attempts in the database pool by stopping after first retry.

- **Cache**
  - Adds the first 3 and last 3 characters of any generated cookies to the Cache table in the WebAdmin

- **Cookies**
  - Fixes handling of FSSESSION cookies for REST authentication identity adaptor.
  - Fixes SET-COOKIE to work properly for REST authentication for the Authentication Success redirect event to set the cookie along with the HTTP 303 redirect.

- **Group Remote Policies**
  - Fixes issue with upgrade of Group Remote policies configured with Static authentication credentials.

- **HTTP**
  - Adds the ability to proxy the actual client User-Agent header through to the back-end server
  - Adds checking for HTTP remote policies to avoid corruption if Wizard is not run all the way to the end
  - Fixes issue with HTTP GET sending back FORM POST parameters from initial call

- **IDP**
  - Adds entity recursion limit to protect against DOCTYPE entity bombs

- **LDAP**
  - Enhances LDAP error message reporting to propagate underlying LDAP exceptions to the error template variables

- **MTOM**
  - Fixes memory exposure for large MTOM transfers
  - Added Fault handling compatibility update to accommodate for bug in Microsoft WSE3 implementation of SOAP fault handling when MTOM is enabled

- **NTP**
  - Logs exception if NTP sync fails

- **REST Identity Adaptor**
  - Adds new REST (HTTP GET) based Identity adaptor (license required).

- **Siteminder**
  - Adds support for SM Policy Server 6.0 agent API.

- **SSL**
  - Adds option to X509 user mapping to map based on DN segment instead of full DN. Last DN segment can be UID or CN

- **System Hardware Appliance**
  - Adds additional logic to recognize failure state caused by potential system instability and ensures a clean restart if recovery mechanisms are triggered.
  - Fixes platform detection logic on log initialization message

- **WS-Addressing**
  Adds support for asynchronous WS-Addressing

- **XSLT**
  - Fixes attribute ID on elements after transform to ensure signed data references are maintained

Summary of Enhancements in Release 7.3.219 [10/8/2009]
====================================

- **CRL Cache**
  - Fixes a bug with the CRL cache setting that was causing a stack overflow when a cache refresh event triggered.

- **HTTP**
  - Removes explicit setting of server header for better conformance with the HTTP protocol RFC.

- **MTOM**
  - Adds MTOM as a default filter available for selection.

Summary of Enhancements in Release 7.3.215 [9/25/2009]
====================================

- **MTOM and MIME**
  - Attachment processing updates for debug logging to better inform on MIME attachment sizes and types

- **Configuration Management**
  - Fixes issues related to policy optimization introduced in builds 7.3.208-7.3.212.

Summary of Enhancements in Release 7.3.212 [9/4/2009]
====================================

- **CLI**
  - Adds a command to disable firmware version downgrade check to allow downgrading to any previous version if necessary

- **Archiving**
  - Replaces empty strings in the request and response tag names with '-' since Oracle database throws errors on the empty strings

- **Policy Import - Optimizations and Enhancements**
  - Updated architecture to catch any errors, including out-of-memory errors during the import process to ensure a recovery backup can be re-imported to put the machine back to it's original state if the import has an error.

  - Redesigned the policy parser to reduce memory overhead of rendering the policy file itself in memory while extracting and creating the respective policy objects.

  - Moves compression routine to trigger dynamically on each policy object creation, rather than at the end of the policy load. This provides more discrete compression of large policies and lower memory overhead to import a configuration.

  - Adds logic check on reboot for last known good configuration to ensure a disaster recovery is always possible on a failed import followed by a hard reboot.

Summary of Enhancements in Release 7.3.203 [8/11/2009]
====================================

- **Import/Export**
  - Resolves issue with Redirect policies not getting automatically loaded on configuration import.

- **Diagnostics**
  - Updated runDiagnostics command to preserve the timestamps of files collected.

- **Network**
  - Fixes issue where netmasks on listener aliases did not match the interface netmask. Now aliased IPs will be configured with the netmask of the interface alias.

- **SNMP**
  - Fixes display of correct CPU utilization from the General MIB
  - Extended SNMP statistics to support the following parts of the RFC1158 MIB: system, interfaces, ip, tcp, udp

- **PKI**
  - Updated automatic X509 certificate expiry notification email with proper expiration date and time rather than the configured alert notification window.

- **Native Failover**
  - Resolves an issue with FTP streaming transaction impacting native failover causing devices to failover under load.

- **Reporting**
  - Fixes GUI issue where the Edit link on the report generation screen was showing multiple times

- **XML Encryption**
  - Added option to the XML Encryption policy to use the certificate from an identified user.

Summary of Enhancements in Release 7.3.194 [7/22/2009]
====================================

- **Authentication**
  - Adds support for latest version of Oracle Access Manager, previously Oblix CoreID. Support utilizes Sentry STS for credential brokering
  - Added logout functionality for CoreID cookies

- **MQ Policy**
  - Fixes issue with remote MQ SSL configuration

- **Reporting**
  - Fixes GUI issue with multiple edit links showing next to selection widgets on the report generation screen

Summary of Enhancements in Release 7.3.190 [7/9/2009]
====================================

- **Authentication**

- Modifies WS-Trust identity adapter to specify name of cookie in the case where cookies are used for authentication and policy caching.
- Modifies WS-Trust identity policy to pass SET-COOKIE headers received from the STS call to be sent to the back-end server as well as back to the client. This allows back-end server correlation ability of the initial cookie without requiring a subsequent call from the client.

- **Database Schema**
  - Modifies the cookie table for MS SQL Server and MySQL database schemas to change the cookie size from 1024 to 255 to prevent index too large database errors
  - Changes the primary key since the cookie entry was too large for the combined key index on these database types..

- **Import/Export**
  - Fixes issue with failed import stopping listener policies

- **MQ Policy**
  - Fixes issues relating to MQ policy settings requiring a reboot before taking effect.
  - Fixes issues with MQ policy upgrades from 7.1 versions
  - Fixes issue with synchronous HTTP to MQ protocol mixing where the response message was empty.
  - Fixes underlying MQ architecture to help prevent JMSMQ2002 and java.nio.bufferoverflowexception errors

- **FTPS**
  - Adds support for PBSZ and PROT for SSL authentication.

- **Group Remote Policies**
  - Fixes issue with group remote policies that fail not being returned to the eligible list of remote servers.
  - Fixes potential deadlock if an administrator removes or adds a remote policy while an existing runtime transaction is in progress.

- **Logging**
  - Fixes regression logging issue for self-check diagnostics appearing in the log messages.
  - Truncates SYSLOG messages to 1K per the spec.
  - Adds Pattern Match policy setting to the log configuration to all selective pattern matching on which messages to log.
  - Adds transaction tracing popup dialog
  - Adds expand icons to GUI log viewer to maximize summary viewing of logs
  - Adds Access log to provide one line summary of transactions. Access logs link back to System logs for full transaction diagnostics.
  - Adds XML/WSDL/HTML policy to the debug logs for easier tracking
  - Enhances cookie logging to include SET-COOKIE responses and also truncates cookie displays to the first and last characters of the cookie with "…" separator

- **URI Filtering**
  - Enables Patten Match policy for enforcement of URI query string parameters for policies that are HTTP GET based (i.e. HTML, REST, etc).

- **FTP**
  - Added support for NATing/External IPs for FTP listeners in DMZ.

- **Platform**
  - Firmware kernel enhancements for the 3564 hardware platform to improve performance and interoperate with legacy nCipher HSM modules.

- **Upgrade**
  - Fixes upgrade problem from 7.1 to 7.3 for MQ Remote policies

Summary of Enhancements in Release 7.3.78 [12/9/2008]
=====================================

- **New Platform: 3560 series (firmware 7.3 or later)**
  - Our new 3560 platform series provides 60% faster CPU processing than the 2560 series, can process XML and SOAP documents up to 8x larger in size, and can perform 4x the number of crypto operations per second.
  - The 3560 series is available in HSM and non-HSM configurations.

- **New Feature: WS-Policy**
  - Added support for creating WS-Policy instructions in the WSDL to define Sentry security and identity settings.

- **New Feature: WS-Addressing**
  - Added support for consuming and generating WS-Addressing headers

- **New Feature: MTOM**
  - Added support for MTOM transactions to process messages in the original SOAP format and then re-serialize back to MTOM after processing.

- **New Feature: WS-Trust**
  - Added caching for basic auth, cookie auth, email auth, username auth, sha1 auth, cert auth, and DN auth to provide SSO solutions for both browser based HTTP transactions, and SOAP/XML based transactions.

- **New Feature: Capacity Improvement**
  - Increase processing capacity for XML documents to 20MB on 2564 platforms, and 80MB on the new 3564 platform.

- **New Feature: Connection limit Enforcement for FTP Policies**
  - Added the ability to enforce connection limits on FTP transactions

- **New Feature: CLI Diagnostics**
  - Added new CLI command 'runDiagnostics' for more comprehensive diagnostic capture of deployed systems.

- **New Feature: HTTP Redirects**
  - Added new Redirect Policies allowing HTTP transaction events to trigger redirects to designated URL locations.

- **New Feature: Virtual Hosts**
  - Added support on XML and HTTP policies to allow multiple virtual directories to be defined and distinguished further by the incoming HTTP Host header.

- **New Feature: IDP Rate Based Rule Aggregation**
  - Added central policy server logic to allow all instances of Sentry in a deployment to share, track and enforce IDP rates across machines.

- **New Feature: Automatic REST to SOAP Conversion**
  - Added request filter to map and convert REST requests to XML. Subsequent processing can then be applied through tasks to configure or alter the XML representation.

- **New Feature: Convert XML Node Task**
  - Added new task which allows to base 64 encode/decode and URL decode/encode any number of nodes in the document.

- **WSDL**
  - Improve error messages when importing a WSDL to include the target namespace of the offending schema that failed.
  - Updated the default filter for virtual directories to allow sub-domains

- **Tasks**
  - Support for processing instructions, PI, on the Document Identification Task.

- **FTP Policies**
  - Changed connection limit to be equal to the number of threads, rather than number of TCP sessions.

- **WS-Trust**

- o Enhanced integration between Sentry and STS via more comprehensive WS-Trust features.
- o Added persistent cookies with ability to store cookies in a database

- **Memory Management**
  - o Updates the memory manager reservation logic to better prevent HTTP 503 server too busy messages caused by resource constraints.

- **XML**
  - o Updated the default filter for virtual directories to allow sub-domains

- **Identity**
  - o Enhances framework to support multiple attributes from LDAP or any other identity server. The attributes can now be used for SAML attributes, template errors, headers and/or mapping values to a document
  - o Modifies local login module to behave like any other module. Now the local users will not be verified by default all the time. Only if the acl is set to allow all or if a local group has access the local users will be verified. This should improve usability since before there was no way of avoiding the check against local users.
  - o Updated cookie processing such that if the same cookie appears more than once in a request, use only the first appearance and ignore any values after that.

- **LDAP**
  - o Added support to configure the search scope of the root context

- **XSLT**
  - o Adds support for external file references

- **Pattern Match**
  - o Updated interface to allow editing the regex and replacement fields.
  - o Fixes deleting rules.
  - o Fixes error messages

- **SOAP**
  - o Adjusts the prefix from "s" to "soap" for generated SOAP messages

- **MQ**
  - o Allow large MQ messages to be processed

- **General**
  - o Fixes the display of port values to not include "," value for values > 999.
  - o Updated listener logic for HTTP to properly handle 100 continue requests with HTTP POST

Summary of Enhancements in Release 7.1.166
==============================

- **FTP Policies**
  - Adds new configuration option to override the PASV IP address used with Passive Mode FTP.

- **WebAdmin**
  - Fixes SSL compatibility issue with Internet Explorer 6.

Summary of Enhancements in Release 7.1.149
==============================

- **FTP Policies**
  - Adds read timeout for FtpListenerPolicies

- **Global Device Management**
  - Fixes bug not allowing an user to export his or her own policies into an FSG
  - Fixes GDM import by super users to a domain other than the default
  - Now allows the target machine's MGMT IP address to be used as an Override Value on the Edit Policy Values screen.

- **Logging**
  - Added the serial number to the logging message showing the license
- **Tasks**
  - Fixes bug that will make XPaths expression disappear for a validation tasks after an upgrade.
  - Allows multiple signature verifications tasks when establishing identity via digital signature.

- **Reporting / Database**
  - Adds a DB queue of 50,000.
  - Adds db graph bar to the General Info screen which will show the number of entries in the reporting

Summary of Enhancements in Release 7.1.146
==============================

- **AntiVirus**
  - Raises virus scanning timeout limit for documents under 10MB from 2 minutes to 120 minutes.
- **Attachment Task Processing**
  - Fixes corner case for XML parser to handle SOAP attachment processing with UTF-8 encoded XML documents containing line feed and carriage return on the internal read buffer boundary which could result in an "entity is not well-formed" error.

Summary of Enhancements in Release 7.1.145
============================

- **AntiVirus**
  - Updates the ClamAV engine with the latest stable engine version 0.92.1

- **MQ**
  - Upgraded IBM MQ to 6.0 binaries. Solution is still backward compatible with IBM 5.3 Queue Manager.
  - Fixes persistent setting on remote MQ policy to ensure the MessageProducer in addition to the session both have the persistent setting explicitly set to honor the value of the MQ policy.
  - Fixes threading issue which can cause MQJMS1024: session closed on synchronous MQ transactions.
  - Adds configurable message "time to live" parameter to allow messages to expire if not processed on the queue within the specified duration of time (0=infinite)

- **SAML**
  - Fixes signature task to allow Sign task to sign SAML assertion per SAML 2.0 specification. Can now sign SAML 2.0 within the SAML task, or outside the SAML task using the Signature task.

- **WSDL**
  - Fixes WS-I Basic Profile 1.1 engine to handle assertion BP2102 for circular references.

- **Software Form Factor**
  - Upgraded embedded JVM to version 1.5.0_13 for Solaris, Linux, and Windows.

Summary of Enhancements in Release 6.5.153
============================

- **FTP Policies**
  - Adds read timeout for FtpListenerPolicies

- **Global Device Management**
  - Fixes bug not allowing an user to export his or her own policies into an FSG
  - Fixes GDM import by super users to a domain other than the default

- **Logging**
  - Added the serial number to the logging message showing the license

- **Tasks**
  - Fixes bug that will make XPaths expression disappear for a validation tasks after an upgrade.

- **Reporting / Database**
  - Adds a DB queue of 50,000.
  - Adds db graph bar to the General Info screen which will show the number of entries in the reporting

Summary of Enhancements in Release 6.5.146
============================

- **AntiVirus**
  - Raises virus scanning timeout limit for documents under 10MB from 2 minutes to 120 minutes.
  - Enhanced log message to indicate which file is being scanned, and the size. If an error occurs, the specific file being scanned is now included in the log message.

- **Attachment Task Processing**
  - Fixes corner case for XML parser to handle SOAP attachment processing with UTF-8 encoded XML documents containing line feed and carriage return on the internal read buffer boundary which could result in an "entity is not well-formed" error.

- **SAML**
  - Fixes Signature Task to allow signing of SAML 1.1 and 2.0 messages from the Signature Task in addition to signing within the SAML task itself.

Summary of Enhancements in Release 6.5.134
============================

- **AntiVirus**

- Updates the ClamAV engine with the latest stable engine version 0.92.1

- **MQ**
  - Upgraded IBM MQ to 6.0 binaries. Solution is still backward compatible with IBM 5.3 Queue Manager.
  - Fixes persistent setting on remote MQ policy to ensure the MessageProducer in addition to the session both have the persistent setting explicitly set to honor the value of the MQ policy.
  - Fixes threading issue which can cause MQJMS1024: session closed on synchronous MQ transactions.
  - Adds configurable message "time to live" parameter to allow messages to expire if not processed on the queue within the specified duration of time (0=infinite)

Summary of Enhancements in Release 6.5.129
=============================

- **WSDL**
  - Rolled back change to multiple inline schemas which was causing existing inline schemas to not be detected and incorrectly prompting the user.

Summary of Enhancements in Release 6.5.127
=============================

- **CLI**
  - Adds the server start date to the 'show general' display output
  - Updated the uptime algorithm to use the system OS uptime since previous uptime calculation mechanism was unreliable.

- **CA Siteminder**
  - Upgraded the CA Siteminder SDK binaries to v5.5 SP4 CR16
  - Added synchronization to the Siteminder SDK initialization call per CA recommendation.

- **GDM**
  - Updates partial GDM to allow no ACL to be configured.

- **WebAdmin**
  - Fixes compatibility issue with Group Remote Policies which was preventing the checkboxes from being used on IE 6.0 or earlier IE browser versions.

Summary of Enhancements in Release 6.5.121
=============================

- **WebAdmin**

o Fixed regression issue with not allowing binding to port 0.0.0.0 on software ports. Now again allows binding WebAdmin port 0.0.0.0 (all interfaces) on software port distributions.

Summary of Enhancements in Release 6.5.118
=============================

- **CLI**
  - Fixed regression issue introduced in 6.5.99 with 'system config time' command.

- **IDP**
  - Moved IP ACL IDP blocking messages to debug level to prevent denial of service attacks to flood log messages.
  - Added default value of 10MB for Max Payload IDP Rule

- **Networking**
  - Removed FQDN restriction on server names and allow single segment host names

- **Reporting**
  - Added logic to mitigate duplicate table entries at Sentry startup
  - Added logic to handle and properly write reporting information for failed requests and disabled operations
  - Updated Oracle database queries and database schema to account for Oracle databases treating empty values as nulls.

- **WSDL**
  - Fixes NoSuchElementException on WSDL Library upgrade

- **WS-I**
  - Fixed runtime assertions for WSI1011 and WSI1013 which were incorrectly triggering the IDP process error rule.

Summary of Enhancements in Release 6.5.99
=============================

- **CLI**
  - Fixes issue with expect script running 'show connections' requests repeatedly.

- **Reporting**
  - Added XML policy reporting and monitoring
  - Updated response processing time to incorporate the time for the entire transaction to complete. The new calculation starts the timer when the request is received and ends the timer once the response to the client is sent (i.e. the entire transaction time).

- **WSDL**

- o Added new task "Display WSDL URIs" which when associated will result in a HTML response with the list of WSDL policies active on the device.
- o Fixes warning on new STS policy creation

Summary of Enhancements in Release 6.5.88
=============================

- • **Archiving**
  - o Removes local database functionality.
  - o Upgrades oracle libraries to 10.2.0.3 to resolve infinite timeout connection issues.
- • **IDP**
  - o Prevent the user from saving the system IDP group if either the request or the response is missing a max payload size IDP rule
- • **Logging**
  - o Adds a log message for any job queued in the AsynchronousThreadPool.
  - o Adds a log message for viewing and downloading logs
  - o Adds the ability to configure certain codes to always be logged regardless of the log level of the error message
  - o New logging task for focused logging within task flow
- • **Import/Export**
  - o Additional catalog export updates
- • **LDAP**
  - o Restrict menus for LDAP users
  - o Fixes LDAP login module to support DN auth. Improves debugging messages for finding user by DN, email or username
- • **Messaging**
  - o Added JSAM integration
  - o Added Java Message Queue integration
- • **Schema**
  - o Added URL decoding schema validation support for node contents to be treated as separate XML document for schema validation purposes.
- • **Reporting**
  - o Improves error reporting and error messages for reporting module.
  - o Fixes setting the doc id correctly for the AsynchronousThreadPool.
- • **Tasks**
  - o Added Receive and Send signature confirmation tasks
- • **WSDL**
  - o Added dynamic query for ?WSDLs to provide a list of available URIs to the authenticated requesting client
  - o Reduces the memory footprint and the size of the preferences in disk by compressing WSDL files
- • **XKMS**
  - o Added central CRL caching
  - o Added XMKS support for revocation checking and retrieval of central CRL cached results

Summary of Enhancements in Release 6.3.688
=============================

- **CLI**
  - Enabled session timeout parameter from System->Settings->System WebAdmin screen to apply to both WebAdmin and CLI sessions.   This will result in CLIsessions being disconnected by the server if the connection is not used for the session timeout interval. This will prevent CLI sessions from getting locked indefinitely by errant scripts such as TCL Expect.
  - Increased the number of concurrent CLI sessions from 15 to 50

Summary of Enhancements in Release 6.3.686
=============================

- **Archiving**
  - Updates memory management calculations for queued messages.
  - Optimizes object copies of database archive objects to reduce memory overhead.

- **CLI**
  - Protect CLI threads from locking due to resource issues that may be created by other processes on the system. The CLI could become inaccessible in certain of these memory and resource constraint scenarios.

- **Import/Export**
  - Added file buffering for configuration imports to prevent out of memory exceptions attempting to parse and import large configuration files.
  - Added file buffering for export to prevent storing multiple copies in memory.

- **Network**
  - Added changes to handle ErrorInput streams. This help mitigates issues with remote connections that are slow or unreliable causing CLOSE_WAIT connections to appear and remain in that state.
  - Added logic to handle SSL handshake and HTTPs CLOSE_WAIT issues.

- **General**
  - Preventative fixes for out of memory errors.
  - Updates to memory manager for more robust preemptive recognition of capacity limitations
  - Updates exception handling to catch memory and capacity exceptions more robustly.

- **Logging**
  - SiteMinder query warning message regarding invalid DN has been moved from Warning to Debug log level

- **WSDL**
  - Updated logic to handle schema references with duplicate namespaces having mutually exclusive elements. Although non-standard, these schemas will be combined providing there are no collisions of same named schema declarations across 2 referenced schemas with the same namespace.

Summary of Enhancements in Release 6.3.685
============================

- **Import/Export**
  - Adds catalog export functionality to list all configured policies and relationships in XML format.

- **Logging**
  - Restricts the number of log entries that can be viewed from CLI to 500.
  - Replaces use of XSLT to transform the logs from XML to text or HTML. Large log files could previously trigger an OutOfMemory error. The error can leave the appliance in an unresponsive state. The new mechanism will serialize every log record into text or HTML and immediately write it to the browser. This avoids holding in memory large amount of the logs.
  - Enhanced logging of SSL connection errors.

- **WSDL Upgrade**
  - Fixes regression issue on WSDL policy upgrade from version 6.3.681

Summary of Enhancements in Release 6.3.681
============================

- **WSDL**
  - Fixed regression issue with WSDL policy "Validate SOAP Envelope" option not properly validating incoming messages.
  - Fixed WSDL Library Upgrade issue when upgrading WSDL Library with new WSDL revision which has a different service port setting than the previous version of the same WSDL. This case was causing the WSDL policy to be disabled until a new service endpoint policy association was made.
  - Modified aggregate WSDL policies to only be selected for upgraded from the WSDL library source in which they were generated.

- **Reporting**
  - Fixed issue with scheduled reporting only happening at a fixed rate where scheduled reports were only triggering once.

Summary of Enhancements in Release 6.3.675
============================

- **Logging**
  - Enhanced the logging information provided when a Reporting Manager exception is thrown to aid in problem diagnostics.
  - Corrects Document ID shown in the log file when a Reporting Manager exception occurs.
  - Added client source IP and Port to abort processing log messages to aid in correlation to packet capture diagnostics.
  - Added setting dialog to configure the maximum allowed size of a local log file
  - Added the size of the local log files to the Internal Log screen display
  - Changed default Today log download to always download the Today log file as compressed according to Log Settings screen configuration for compression algorithm to reduce the system overhead on downloading the file.

- **Reporting**
  - Removed Synchronous call to database for record ID before placing data on asynchronous memory queue. This will prevent database inaccessibility from causing transactions to hang when reporting is enabled. Record ID retrieval is now performed on asynchronous database access threads as expected.

- **Upgrade Process**
  - Fixed memory issues related to upgrade package size and existing configuration size which could cause the upgrade process to fail in certain cases.

Summary of Enhancements in Release 6.3.670
==============================

- **Performance**
  - Updated thread setting to allow between 8 to 1024 worker threads.
  - Optimized performance and memory utilization of background storage of last known good configuration

- **MQ**
  - Fixed thread pool deadlock issue when using synchronous HTTP-to-MQ protocol translation
  - Optimized session connection management and memory consumption

- **CRL**
  - Fixed CRL issuer DN matching issue when DN issuer contains spaces or non alphanumeric characters.

- **CLI**
  - Revised ping utility to provide more detailed feedback of the ping execution
  - Updated max-threads settings range to 8-1024

- **Logging**
  - Separated Audit and System log level settings
  - Separated Syslog log level settings from file based (local) log level settings

- **MIME**
  - Fixed issue with SwA processing causing Sentry to reset connection. Issue was related to large SwA streaming processing.

- **Networking**
  - Added defensive code for exception handling for network acceptor threads on listener policies. This will prevent accept connection exceptions from stopping the acceptor thread, which in previous versions would cause all subsequent connections to the listener policy to be reset at the TCP layer.

- **WSDL**
  - Fixed WSDL virtualization issue combining schema within WSDL files which have different namespaces, but the same namespace prefixes.
  - Fixed issue of virtual WSDL policies getting disabled after a WSDL library member update
  - Fixed export issues with aggregate WSDL contents and wsdl:include statements
  - Fixed export issues with aggregate XSD contents and xsd:include statements

Summary of Enhancements in Release 6.3.652
==============================

- **Error Templates**
  - Fixed bug where custom error templates could disappear after a CLI reboot

- **IDP Rules**
  - Enhanced error detail for XML parsing errors to be provided in the %errormsg% and %msgdetail% error template variables.

- **Logging**
  - Fixed module setting for debug trace to allow it to enable tracing regardless of log mode setting.

- **PKI**
  - Fixed issue with 1000 bit keys on the 1503 and 2563 platforms.

Summary of Enhancements in Release 6.3.648
==============================

- **Antivirus**
  - Added logic to not trigger Antivirus IDP rule when the internal AV engine is performing a virus signature update. This event will now trigger a document processing error.

- **DST**
  - Updates added to handle new 2007 Daylight Savings Time changes

- **CLI**
  - Reduced synchronization for write operations to minimize the "Server is busy performing a synchronous operation" message.

- **FTP/PGP**
  - Fixed regression issue disallowing FTP user policies to be removed.

- **SOAP With Attachment Processing**
  - Fixed issue with file handle allocation which was allocating a file handle for each MIME part of an incoming SwA document. This could lead to resource allocation failure and device instability.
  - Fixed exception handling code paths to ensure IDP rule set responses are adhered to in all situations and error conditions.
  - Fixed handle leak when IDP Max XML Doc Size rule triggers
  - Fixed handle leak when no XML inspection rules are enabled

- **Software Agent**
  - Fixed code obfuscation issue which was preventing the Basic Auth to be used for remote HTTP policies.

- **WebAdmin**
  - Reduced UI synchronization for write operations to minimize the "Server is busy performing a synchronous operation" message.
  - Fixed issue where it was unable to set the path when using HTTP Group Remote Policy with Remote Routing Task

Summary of Enhancements in Release 6.3.641
===============================

- **General**
  - Fixed packet capture delete from WebAdmin
  - Fixed IE browser issue with context sensitive online help
  - Updated error message to mask out the hostname/port in the "Connection refused while interacting with server:port" message.

- **Import/Export**

- Fixed issue with FSX import where in some cases the import was changing the active user session and causing policies imports to fail.

- Fixed the "user does not exist anymore" error message which could appear in the audit log when attempting an FSX import. The bug was related to the FSX import session persistence.

- **LDAP**
  - Fixed issue with not being able to set group member attribute on "Group Containing Users" policies

- **Tibco EMS**
  - Fixed Tibco EMS WebAdmin GUI screen password field

- **SAML**
  - Provided fix to support processing documents with multiple SAML assertions in the SOAP header. This only applies to non-WSS standards based SAML assertion tasks.

- **WSDL**
  - Fixed issue caused by disassociating a task list from a WSDL message via the WSDL policy task list Screen. A regression bug was causing a corruption of the WSDL policy which no longer allowed traffic through the policy.
  - Fixed WSDL parse error on WSDL import for schema items which are defined recursively.

Summary of Enhancements in Release 6.3.632
==============================

- **Access Control**
  - Added ACL to SSL policies in addition to ACLs on the Network policies.

- **Failover**
  - Revised synchronization logic to prevent failover trigger from occurring when active device is under load or performing administrative activities.
  - Added configurable parameters for heartbeat interval and number of heartbeats allowed to be lost before standby becomes active.

- **IDP**
  - Added SNMP traps as IDP action
  - Added error mediation support to consume back-end server SOAP Faults and protocol error and generate local responses with IDP SOAP Faults.
  - Fixed rate based sensor tracking for tracking by group, IP, and user.

- **Key Management**
  - Added email notification alerts for soon to be expiring PKCS keys loaded in the product.

- **LDAP**
  - Added LDAP filter command support for LDAP filter queries for LDAP group membership policies.

- **Logging and Diagnostics**
  - Revised logging viewer interface
  - Added packet capture diagnostics

- **Network and Protocol**
  - Added Network Policy Load Balancing schemes for remote network policies
  - Added configurable parameters for request timeouts, connection timeouts, and size of listener connection (thread) pool
  - Added new IP ACL policies for IP restriction on network policies.
  - Fixed SSL for Tibco EMS

- **SAML**
  - Added support for consuming and generating SAML 2.0 messages
  - Relaxed requirement to map SAML credentials to a user policy. There is now the option to validate and authenticate based solely on the SAML assertion.
  - Signature check has been placed at the logical beginning of the SAML processing to reject based on signature error as the first check.
  - Added clock skew to SAML messages time validation

- **WS-Security**
  - Added clock skew to WS-Security message time validation
  - Added SendSignatureConfirmation and ReceiveSignatureConfirmation tasks for support of section 8.5 of the WS-Security 1.1 2004 specification

- **WSDL**
  - Added Virtual WSDL schema filtering support for filtering schema on exported WSDL to only provide necessary schema structures based on access control.
  - Added WSDL operation overloading support
  - Added SOAP 1.2 WSDL 1.1 Binding Support
  - Fixed WSDL upgrade issue when new version WSDL has operations removed

- **Tasks**
  - New Task List group architecture allows creating tasks and task groups and associating a task like group to an XML or WSDL policy
  - Added new Map to XML task with X.509 attribute and protocol mapping options
  - Added new Map XML to Attributes task for mapping data from XML to protocol attributes

- Enhanced Override Remote Routing task to allow sending message copies to other destinations and allowing for message enrichment before sending to remote server.
- Added manual XPath entry support
- Added RegEx task
- Added Pattern Match task
- Added Remove Node task for simply XPath based XML node removal.
- Added settings for disabling design-time validity checks on sample documents (timestamp expiration, invalid signatures, etc).

- **Syslog**
  - Fixed issues with IP destination restrictions

- **3rd Party Integration Support**
  - HP Select Access Integration
  - Tivoli Access Manager Enhancements for protocol header and cookie analysis
  - Updated Siteminder test feature to perform full handshake authentication via integrated native Siteminder agent to the Policy server.

Summary of Enhancements in Release 6.1.582
============================

- **LDAP**
  - Fixed bug LDAP option "Group containing Users" which was not properly closing connections to LDAP when binding on the member property DN contexts.

- **WSDL**
  - Fixed bug with export schema references which was not correctly setting the schemaLocation attribute for child referenced schemas with different relative namespaces on dynamic WSDL export. Fix resolves export and dynamic retrieval for standard and virtual WSDL policies.

Summary of Enhancements in Release 6.1.579
============================

- **Native Failover**
  - Fixed issue with CLAM Antivirus auto-updates setting preventing Standby device from proper transition to Master device on failover event.

- **WSDL**
  - Added performance enhancements for dynamic WSDL and XSD retrieval and WSDL export.
  - Fixed WSDL Library upgrade bug which was overwriting WSDL policy endpoints. Endpoints set on WSDL policies are now maintained after the WSDL Library upgrade.
  - Enhanced virtual WSDL policies to handle duplicate XSD schema definitions more robustly.

Summary of Enhancements in Release 6.1.575
============================

- **HTTP Content-Encoding**
    - Fixes issues with request filter Convert Content-Encoding feature to now properly encode the outgoing message as specified.

- **X.509 DN Matching**
    - Fixed DN matching issue with T61String BER encoding in X.509 certificates.

- **WSDL**
    - Added WSDL library auto-load feature for referenced import WSDLs and XSDs.

Summary of Enhancements in Release 6.1.571
============================

- **Authentication and Access Control**
    - Virtual directory ACL on WSDL and XML Policies can now be used to require auth in the case where the associated listener does not have auth set, and filters the policies checked for authenticated to adhere to only those associated with the ACL.

- **FTPS**
    - Fixed performance issues with FTPs by buffering the output stream for AsciiOutputStream.

- **LDAP**
    - Added support for checking multiple same named attributes when using the LDAP filter expression.

- **Windows Software Agent**
    - Fixed issue with Forum service stopping when current user logs out

- **WSDL**
    - Fixed issue with XSD links in WebAdmin not showing document source when clicked.

Summary of Enhancements in Release 6.1.567
============================

- **Archiving**

- Fixed issues with database pool cleanup on database policy change and configuration import. Previous behavior could show more database connections than noted by the current policy maximum due to old database pools not being properly cleanup up when the policy was modified, either by an Administrator directly or via a configuration import.

- **Configuration Import**
    - Modified behavior to close all listener connections during a configuration update. This includes any connections currently in session. Listener policies are re-enabled once the import sequence is complete.

- **Hard Reboot Recovery (Power Fail)**
    - Modified Raid synchronization parameters to ensure optimal time is provided to firmware loading at startup.
    - Modified detection logic to determine if last known good configuration is necessary to the beginning of the startup sequence to speed the firmware loading process.

Summary of Enhancements in Release 6.1.563
==============================

- **CLI**
    - Fixed 'log config wizard' regression bug.

- **Network**
    - Makes Remote HTTP read and connect timeouts configurable
    - Fixes second attempt timeout bug when back-end server is not accessible.

- **Reporting**
    - Fixed several cursor leaks identified in the reporting code which were regression issued introduced as part of the 6.1 release redesign.

- **WSDL**
    - Fixes auto-load of WSDL and Schema import references for HTTPS based URIs.

Summary of Enhancements in Release 6.1.557
==============================

- **Antivirus**
    - Fixed socket management issue with CLAM AV which was causing performance degradation under load.

- **Error Templates**
  - Changed the way error templates are defined. New functionality provides single error template policies each containing the relevant fields which will be used depending on the source and nature of the error (i.e. SOAP Fault, SOAP Header Fault, general error, IDP trigger, etc)

- **Failover**
  - Fixed potential deadlock issue when using database logging and native failover

- **Global Device Management**
  - Fixed issue with partial GDM import/export which was incorrectly mapping system policy dependencies in some cases on export. For this fix to apply, policies will need to be exported again after upgrade.

- **HTTP**
  - Added dynamic remote HTTP Basic Auth capability. Generation of remote basic auth credentials can now be performed based on the identified user (proving that the password on the user object is accessible)
  - Fixed regression bug introduced on software agent installations where remote HTTP basic auth settings were not working.

- **Memory Management**
  - Improved memory management logic for HTTP form post data.
  - Added configurable parameter for worker thread pool allocation. CLI command is 'system config max-threads' to set the value, and 'show max-threads' to see the current setting.
  - Added configurable parameter for client request timeout. CLI command is "system config idle-timeout" to set the value, and 'show idle-timeout" to see the current setting.

- **Network**
  - Fixes issue with NAT firewall IP sources addresses which was in some circumstances preventing a SYN-ACK response for a SYN-SEQ.

- **Online Help**
  - Fixed some broken online help context links

- **Security**
  - Added new setting to require authentication in order for messages to be processed and passed to back-end server.

- **SSL Policies**
  - Fixed regression bug which was closing SSL sessions immediately after completing session rather than keeping the connection open in the case that the application

protocol (i.e. https) is persistent. The result of this regression bug was slower than expected SSL termination performance.
- o Fixed upgrade issue which was disassociating ACL policies on the SSL policies

- **SiteMinder**
  - o Fixed regression issue where SiteMinder policies were not being checked iteratively on failed instances. Now all the policies allocated to be checked will be iteratively checked until a match is found.

- **Tasks**
  - o Added support to XSLT task for the XSLT document() function

- **WSDL**
  - o Added support for non-ratified WSDL 1.1 Binding Extension for SOAP 1.2 (http://www.w3.org/Submission/wsdl11soap12/)
  - o Added support for associating error templates directly on the WSDL policy in addition to the network policy
  - o Added support for WSDL export with 2 ports sharing the same URI
  - o Fixed issue with HTTPS retrieval of WSDL policies using SSL X509 mutual auth.

Summary of Enhancements in Release 6.1.532
=============================

- **Antivirus**
  - o Added support for CA Antivirus

- **Archiving**
  - o Added support for Microsoft SQL Server
  - o Added Oracle RAC support
  - o Added configuration for database logging to selectively enable Audit and System logging.

- **Identity Management**
  - o Added integration support for RSA ClearTrust
  - o Added integration support for HP SOA Manager
  - o Updated CA Siteminder integration to allow creation and sharing of a single smhost configuration.

- **System Management**
  - o Changed naming convention and WebAdmin configuration layout for Domain based administration. Previous release Access Control Lists (ACLs) with Read or Write privileges enabled will now appear as Domains with the same privileges
  - o Added Role Based Administration control. Role policies can now be created with specified WebAdmin menu restrictions. Role policies can then be associated with Domains in order to restrict access based on the role policy when non-privileged administrators login to the WebAdmin under the specified Domain policy.

- **IDP**
  - Added new IDP error template variables to allow custom IDP text to be used in the XML response to the client.

- **HTTP**
  - Added new System preferences option to enable HTTP 1.1 chunk-encoded requests to the back-end servers. Use of HTTP 1.1 chunk encoding will improve performance and also allow HTTP file transfer of files > 4GB.

- **Key Management**
  - Added dynamic CDP revocation checking support for HTTP and HTTPS CDP locations
  - Added integration support for SafeLayer Luna SA network based HSM

- **Monitoring**
  - Added JMX Remote logging
  - Enhanced SNMP implementation to allow test traps
  - Added virus scanning statistics
  - Added integration support for Oracle WSM
  - Added integration support for CA WSDM
  - Fixed problem with SNMP port not being applied properly to the MGMT IP when using the MGMT port on the WAN interface

- **Global Device Management**
  - Architected new paradigm to allow partial policy import, export, and transfer. WSDL and XML policies can now be imported, exported, or transferred directly to another machine. All policy dependencies will automatically be detected and dependent policies will be transferred along with the XML or WSDL policy.

- **XML**
  - Added Project level task association. Tasks are now defined as global policies that can be associated with the XML project.

- **SSL Policies**
  - Access control settings are now tied directly to the SSL policies to allow for more comprehensive configurations of access control using SSL X509 in conjunction with other document or protocol based credential authorization.
  - Enabled configuration settings for protocol (TLSv1 and SSLv3) and cipher suite configuration.

- **Tasks**
  - Changes all tasks to be defined at a global policy level and associated with the WSDL or XML policies. Most tasks no longer require an Identify Document task, but rather can be associated generally to the WSDL or XML policy and will be invoked accordingly without a requirement for XPath identification. Sample documents can

be used for tasks which require XPath identification and these documents are stored and managed globally for easy reuse.

- o New Map XML task allows mapping of XML element values to Protocol session Header values.
- o New "Identity established by XML mapping" option added to the User Identity task. This option allows extraction of user credentials from anywhere within an incoming XML document for authentication and authorization.
- o New "Identity established by digital signature" option added to the User Identity task. This option allows authentication and authorization based on the designated signature and associated X509 of an incoming document.

- **WSDL**
  - o Added Project level task association. Tasks are now defined as global policies that can be associated with the WSDL project.
  - o Added Operation Message level task association. Tasks are now defined as global policies that can be associated at the Operation Message level.
  - o WSDL fault message policies now trigger IDP rules for the WSDL messages and are processed under the WSDL message input and output policies with regard to the IDP group that applies.

- **WebAdmin**
  - o Fixed GUI problem with the "Always Show Expanded" link on the WSDL policies page

Summary of Enhancements in Release 5.5.60
==============================

- **Antivirus**
  - o Fixed null pointer exception which would occur if antivirus engine was enabled, but the Virus Detected IDP rule was not configured

- **Archiving**
  - o Fixed a deadlock issue with database write access under load
  - o Fixed cursor leak issue with quarantine database writes under load
  - o Fixed quarantine database slowdown under load

- **LDAP**
  - o Fixed issue with SSL connections to LDAP server

- **Software Agent Service control**
  - o Fixed issue on software agents where stopping the service via the control scripts or service control manager would result in an unclean shutdown. If you have custom scripts written to control the service, they will need to be revised.

- **SiteMinder**

o Removed user caching logic which was causing problems when generating cookies based on existing sessions that created many to 1 relationships rather than the expected 1 to 1 relationship.

- **SMMP**
  o Fixed issue with SNMP v1 public queries causing excessive processing

- **WSDL Policies**
  o Fixed issue with WSDL policy upgrade losing schema tightening settings
  o Fixed issue with Invalid WSDL published by Sentry when an LDAP ACL is set on the Port settings page

Summary of Enhancements in Release 5.5.40
=============================

- **Archiving**
  o Fixed database connection pool limit to adhere to policy setting.
  o Fixed "Log to Database" issue seen on appliance restart to prevent attempting to write data to the database before the network interfaces are active.
  o Added logic to preserve existing database driver for DB2. If a custom DB2 driver was imported, it will now remain through the upgrade.
  o The log to database feature is now a licensable feature and disabled if not licensed.

- **Error Template**
  o Fixed bug where error template changes were not being preserved after a restart.

- **FTP-PGP**
  o Updated the Sign/Encrypt feature to sign the document using a selected keypair and then encrypt the resulting signed document using the provided public key.
  o Added ability to set the embedded filename.

- **Identity Management**
  o SiteMinder APS (Advanced Password Services) support with custom regular expression replacement capability for response messages.
  o Removed SiteMinder 4.x legacy authentication support for new SiteMinder policies (existing policies defined with 4.x authentication will be unaffected).
  o Added integrated smreghost capability to provide TrustedHost entry creation on the Siteminder policy server.
  o Added RSA ClearTrust authentication and authorization support
  o Added logging messages to indicate whether authentication results come from local cache or directly from identity server.

- **IDP Rules**

- Custom text for the IDP error detail on the IDP Rule. New error template code %abortmsg% will show the custom text in the response.
- Fixed issue with future access restriction setting where no future access restriction value provided would prevent the getting placed on the blocked list.

- **Protocols**
  - Added support for generic HTTP FORM post of data. Can now configure a new request filter to parse the applicable portion of a generic FORM post and process the referenced file.
  - HTTP cookie proxying – product will now pass incoming cookies to the back-end server.
  - Added HTTPS Proxy support for outgoing requests.

- **Monitoring**
  - Added additional SNMP MIB statistics information. MIBS are displayed on the WebAdmin Monitoring->SNMP screen.
  - Fixed statistics display issue with system and application memory to all display in KB.

- **SNMP**
  - Revised SNMP to be a feature that can be used on both the hardware and software platforms.
  - Updated to support tight integration with HP Openview.

- **XSD Schema Tightening**
  - Complete rewrite of Schema Tightening (XSD Facet) logic. Comprehensive schema tightening editor and validation support is now provided.

- **WS-Security**
  - Added dynamic Encryption where the response can be encrypted based on the certificate provided in the request
  - Added policy level decryption with optional signature verification for WSDL policies

- **WebAdministration**
  - Fixed filter and sort display issues with SSL list, Signature list, Verification list, Encryption list, and Decryption list screens.
  - Added Ability to sync time with NTP server on the System settings screen.
  - Clear username and password on HTML page for failed authentication
  - Disabled auto-complete for username field on login screen

Summary of Enhancements in Release 5.3.431
============================

- **SSL**
  - Re-enabled RC4 cipher suites (RSA_RC4_128_MD5, RSA_RC4_128_SHA)

Summary of Enhancements in Release 5.3.430
============================

- **SiteMinder**
  - Added logic to continue to iterate through SiteMinder policies which have been granted read or write access in an ACL for WebAdministration login access until an isAuthorized() check is successful. Previously this iteration stopped based on the isAuthenticated() check.

- **WebAdministration**
  - Updated JSESSIONID length to be 128 bytes
  - Updated JSESSIONID to be reset after successful login.

Summary of Enhancements in Release 5.3.428
============================

- **Archiving**
  - Added debug logging for failed SQL statements to include SQL query and parameters.
  - Added logic for administrative_log and runtime_log tables to trim data according to the schema constraints before issuing the query.

- **WebAdministration**
  - Updated cookies to be marked as secure.
  - Disabled auto-complete for password input fields for IE browsers via the autocomplete form attribute.

Summary of Enhancements in Release 5.3.426
============================

- **Archiving**
  - Fixed "too many open cursors" issue on Oracle databases when using audit logging.
  - Added the ability to manually update the driver used by the Archiving policy in order to keep up to date with the latest revs of the various database servers.

- **CLI**
  - Revised synchronization logic to not lock other administration sessions when performing "network utils traceroute", "network utils ping", and other CLI network related commands which require network dependent responses. The current CLI session will still wait for these commands to complete, but additional CLI sessions and WebAdmin sessions will not be locked as they previously were.

- **Key Management**
  - For the HSM enabled platforms, added synchronization to prevent keystore corruption when Administration tasks include concurrent removal of keys when runtime processing with SSL mutual authentication is taking place.

- o Updated logic for SSL Key Pairs usable for WebAdmin to allow Netscape certificate extensions that have both the SSL Server and SSL Client extension bits set.

- **Logging**
  - o Fixed issues with Today log disappearing or having 2 instances of the Today log showing up on the log screen.

- **HTTP**
  - o Added URL encoding to outgoing HTTP(s) requests to ensure valid URLs.

- **Pattern Matching**
  - o Optimized pattern matching to consolidate multiple policies into composite regular expressions for faster processing.

- **SiteMinder**
  - o Updated Agent caching algorithm to use the session cache values specified on the range where the new algorithm will use the min time between session start time + max timeout value) and (last active time + idle timeout value).
  - o Updated Agent caching to remove cached session when policy server indicates session is invalid.
  - o Provide feedback for SiteMinder policy Apply and Save buttons
  - o Added IsAuthorized() call for SiteMinder WebAdmin access control checks.

- **LDAP**
  - o Removed negative caching of failed authentications.
  - o Fixed connection cache issue where connections were not being reestablished to LDAP if the LDAP server terminated the connections.
  - o Fixed LDAP connection timeouts to close LDAP connections after being idle for 10 minutes.

- **SSL**
  - o Removed support for cipher suites that could negotiate 64-bit SSL connections. Only 128 bit encryption or higher is now supported.

- **WSDL**
  - o Added project level decryption and signature verification capability. Incoming data can now be decrypted and signature verified independent of the WSDL operation and prior to invoking the WSDL operation task list.
  - o Resolved issue dynamically retrieving a WSDL with ACL policy configured on the Port Settings page. Authentication credentials now validated against LDAP policy defined in the ACL policy only.
  - o New "Task Lists" tab for easy access to defined Task Lists.
  - o Added a method for Global Verification and Global Decryption on the Settings tab.
  - o WSDL Library generation now checks to ensure that the namespaces are unique within each WSDL.
  - o WSDL files with circular imports and invalid schemas are now allowed to be imported.

- **WebAdministration**
  - Revised synchronization logic to not lock other administration sessions when performing manual AV updates or when performing a GDM (Global Device Management) transfer.
  - Added CPU utilization to the WebAdmin General Info screen.
  - Added Ability to use HTTPS Proxy Server for remote connections.

Summary of Enhancements in Release 5.3.393
============================

- **IDP**
  - Fixed IDP Throttling and Blocking controls for LDAP Groups to allow track by user setting to apply when associating an LDAP Group.

- **LDAP**
  - Updated ACL mapping logic to only use the LDAP policy associated with the configured ACL(s) for a network, WSDL, or XML policy.
  - Fixed an LDAP connection cache timeout issue which would prevent reconnecting to the LDAP server until the cache expired or was flushed.

- **Logging**
  - Fixed Audit log scrollbar. Scrollbar was not appearing in version 5.3.365.
  - Added hyperlinks to the log files when viewing from the WebAdmin.
  - Enhanced debug logging for failed user authentication

- **Network**
  - New Group Network policies provide for priority based network policy failover. This feature allows creating multiple remote policies and associating them with a remote policy group with a preference order in which access attempts will be made. If the primary policy is not available, the secondary policy will be contacted and so on. Once policies of a higher preference again become available they will be automatically used per their defined preference.

- **OpenPGP**
  - Fixed an issue with the Sign+Encrypt task where only the Encryption key pair was being used for both the signature and encryption. Updated logic to use the Encryption policy for the encryption and the signature policy for the signature as the policy screen correctly indicates.

- **WebAdmin**
  - Added online HTML help to the Help screen.
  - Fixed sizing issue with report charts having multiple columns.

- o Added CPU Utilization to the General Info screen.
- o Added Hyperlinked log filtering on the log screens.

- **WSDL**
  - o Fixed issue with dynamically Access WSDL using LDAP policy credentials. The new capabilities for ACL based LDAP filtering now applies to retrieval of WSDL files using the dynamic WSDL retrieval "?WSDL" mechanism. When you have an ACL protected WSDL policy, only the applicable LDAP policies will be iterated through to determine user credentials, rather than iterating through all defined policies.

- **Misc**
  - o Fixed issue with HSM appliances preserving Security World when performing a factory-reset. Security world is now properly preserved when that option is selected.

Summary of Enhancements in Release 5.3.365
=============================

- **Antivirus**
  - New antivirus scanning engine added. Antivirus feature are available by license.

- **Archiving / Logging**
  - New database logging tables (administrative_log, runtime_log, idp_audit) added to support database auditing capabilities.
  - Archiving database schemas are now accessible via WebAdmin Archiving screen by clicking on the hyperlink for the specified database platform.
  - New logging settings "Log to Archive Database" added to enable database logging to the tables noted above.
  - New SOAP based IDP Quarantine feature added. This feature allows selection of any HTTP(s) remote policy as the Quarantine target in the IDP Action. The option "DATABASE" still remains as the selection to Quarantine to the active database policy.
  - New refresh link added to archive view database table pages
  - New Auto-refresh feature added to logging screen.
  - Debug logging mode will now display incoming and outgoing messages (up to 10 MB).
  - Removed support for MySQL 4.x. MySQL has put their 4.x driver license into GPL licensing and therefore Forum can not redistribute these binaries. If you require MySQL 4.x support you will be able to download the binaries and install them onto the product, thus adhering to the GPL license agreement. Please contact Forum Systems technical support if you require more information on this topic.

- **Command Line Interface (CLI)**

  - Less command pipe "|" capability added which provides paging capability for all CLI command outputs
  - New Host File Customization command added to CLI called "network static-host". This command allows adding and removing entries to the local hosts file for name resolution.
  - New Automated Backup features added to allow scheduling and on-demand backups. New commands are 'system config backup-start', 'system config backup-enable', 'system config backup-wizard', 'system config backup-test' and 'show backup-settings'. The backup ftp server can be accessed using passive or active ftp mode.
  - New 'show arp' command to show the system arp table.
  - New 'network utils dns-flush' command added to flush DNS cache.
  - New default gateway settings allow specifying the interface or letting the system automatically choose.
  - New show log commands for AV and OPSEC logs.

- **CRL**
  - New WebAdmin button to clear CRL cache added to CRL screen.

- **FTP/PGP**
  - New feature to embed filename in the OpenPGP encrypted message. This allows interoperability with systems using the GPG command line tool with option "--use-embedded-filename"
  - Fixed issues with FTPS SSL initiation and SSL termination.
  - Added ability to perform multiple OpenPGP operations per transfer. These new tasks are "Verify and Decrypt" and "Sign and Encrypt".
  - Added ability to export entire OpenPGP key ring.

- **Intrusion Detection and Prevention (IDP)**
  - New Virus Detected IDP rule added to handle detection of viruses.
  - New Large Payload IDP rule allows attachment size limit policies.
  - New Blocking and Throttling IDP actions were added. Blocking allows for the detection criteria to block the offending user, IP, or group until a specified period or upon administrator action to release. Throttling provides a means to further restrict access based on a percentage of the current detection criteria to the user, IP, or group until a specified period or upon administrator action to release.
  - A new IDP Blocking screen has been added which shows all current sessions that have triggered blocking or throttling actions in the IDP rules. Administrative action provides a means to release the session from the blocked or throttled state.
  - IDP Rules, Groups, Actions, and Schedules are now all policy based. The WebAdministration interfaces have a new IDP section where the policies can be defined and then these policies can be consumed within WSDL and XML policies.
  - A new IDP Group called the "System" group has been added. The System IDP group is active across all policies per the specified schedule.
  - IDP Groups now provide links to the specific rules they contain as well as a list of the policy associations.

- **LDAP**
  - The single static LDAP policy is no longer available. LDAP policies are now exclusively dynamic. Upgrades will preserve the static LDAP policy if it was configured, but otherwise it will not appear in the GUI. For upgrades with the static policy, administrators should convert this to a dynamic LDAP policy as the Forum product lines will no longer support static LDAP import capability in future releases.
  - A Test button has been added to test access credentials to the LDAP server.
  - LDAP policies are now designed as an Administrator policy or Runtime policy. Administrator policies are used for domain based administration access while runtime policies are used for messages processing access control.
  - Fixed issue with LDAP username attribute not being saved when "Group containing users" option was selected.
  - Added LDAP caching which is configurable from the LDAP policy screen. LDAP performance increases approximately 10x with the caching enabled.

- o Changed the LDAP "Group containing users" option to use case-insensitive matching.
- o Added ACL to LDAP mapping where only the LDAP policies associated with the applicable ACL are used for user association.

- **Forum Group Hierarchy**
  - o Forum Groups created as subgroups will no longer be supported as a hierarchy. Groups are all considered distinct when associated with an Access Control List (ACL) and require an ACL association of Read, Write, or Execute for each Group defined.

- **Network / Protocol**
  - o Added Remote Policy Groups to provide native failover capabilities directly within the product.

- **Partner Integrations**
  <u>Checkpoint</u>
  - o Checkpoint OPSEC certified integration has been added to the Forum logging features. Availability of the Checkpoint OPSEC integration requires the checkpoint license feature.

- <u>**SiteMinder**</u>
  - o New support for existing SiteMinder 5.5 native agent allows the secret key authentication to the SiteMinder policy server (5.5 mode) in addition to the legacy 4.x authentication mechanism to the 5.5 policy server.
  - o SiteMinder performance improvements for authentication and credential caching.

- **Reporting**
  - o Added clear local database option.
  - o Adding additional debug diagnostic logging for reporting

- **SOAP with Attachments (SwA)**
  - o Large file size support has been enhanced for MIME and DIME attachment handling.
  - o Added SwA Embedded zip file handling to process zip attachments for XSD validation and IDP rule criteria.

- **Tibco EMS**
  - o Timeout value has been extended to 5 minutes for remote synchronous Tibco EMS policies when protocol mixed with incoming HTTP and HTTPs policies.
  - o SSL Initiation with mutual authentication added to listener and remote Tibco EMS policies.

- **XML and WSDL Tasks**
  - o New Logout Task added. This task performs logout for the current active session when the user had authenticated using SiteMinder.

- New SAML Authentication with session cookie option. Can be used for session cookie tracking to persist cookie in the SAML assertion.

- **WebAdmin GUI Enhancements**
  - All capabilities provided in earlier releases in the XMLSec™ Workbench have been migrated into the WebAdministration interface. A single web based interface is now provided to access and manipulate the product features. The separate XMLSec™ Workbench is no longer required or supported.
  - XML Policies have been added to the WebAdministration interface to provide the ability to build policies based on XML in additional to WSDL.
  - Added yellow color indicator on WSDL and XML policies indicating that the listener status network policy is currently disabled. The indicator will be green if the network policy is enabled.
  - Added display of network routes on the Network screen.
  - Fixed memory stats on the General Info screen.
  - New Active Users screen shows all administrators currently logged into the system.
  - Added item on Settings screen to change the machine name
  - Added yellow indicator to XML and WSDL policies virtual directory screens to indicate that the associated network policy is currently offline and therefore the policy is not accessible.
  - Added ability to change System name on the network settings screen

- **WSDL Policy**
  - WSDL policy import now provides option to automatically import each referenced WSDL and schema rather than prompting for each location.
  - WSDL Mediation has been enhanced to allow merging of WSDLs with services, ports, and operations whose names are common among the WSDLs (where the namespaces differ)
  - Added ability to import WSDLs from HTTPs using SSL initiation policy.
  - Fixed issue with importing and exporting WSDLs having duplication Operation names (WSDL Operation overloading).

- **WS-Security Features**
  - New support for WS-Kerberos token authentication consumption. User Identity and Access Control task now has WS-Kerberos option. Kerberos screen on WebAdmin allows import of the keytab file from the Kerberos server.
  - WS-Signature support added to check the certificate for non-repudiation bit on signature verification.
  - WS-Signature enhancement options for better interoperability with other vendor implementations.

- **Miscellaneous**
  - Added the ability to add X-Forwarded-For headers on outgoing requests. This setting is found on the System Settings screen
  - Fixed signal handling issues on Windows Agent installations where a user logout event could trigger a service shutdown signal.

Summary of Enhancements in Release 4.5.250
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- **SSL X509 Authentication**
  - Relaxed constraint requiring a full handshake for SSL termination with X509 Auth. This now allow abbreviated handshakes to re-use SSL session with X509 client authentication.
- **Archiving**
  - Added database configuration timeout. Previously setting a database policy to a server which held the connection would result in a non-expiring lock of the WebAdministration console until the server released the connection.

- **Key Support**
  - Added 4096 Key size support for 1504 HSM platforms

- **User Identification**
  - Added WS-Kerberos Support for Identity Management and SAML Assertion generation
  - Fixed issue where HTTPs with X509 Client Auth was requiring the Basic Authentication setting on the Network policy to enforce ACL restrictions. Basic Auth setting is no longer required when HTTPs SSL Auth is associated for the Network policy ACL to be set.

- **FTP/OpenPGP**
  - Fixed interoperability issue with OpenPGP tool MegaCryption which generates ASCII Armored line separators having leading or trailing whitespace. Whitespace is now ignored per RFC2440

  - Fixed interoperability issue with OpenPGP tool MegaCryption for RFC2440 encoding of the PublicKeyEncryptedSessionKeyPackets (PKESKP).

- **WSDL**
  - Fixed issue with propagate Basic Auth when using WSDL library

Summary of Enhancements in Release 4.5.230
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- FTP/OpenPGP

  o For the remote data connection in passive mode, the FTP policy will now bind to
    the same port as the source port of the control connection, or fall back and bind to a
    local port > 1024.

  o FTP policy now performs the following OpenPGP file format vs. FTP transfer
    mode checks to prevent OpenPGP data from getting corrupted while in transit:

    ▪ If an Encryption or Signature operation is performed over ASCII FTP
      transfer mode and the user has not selected the "Use ASCII Armor" option
      for the corresponding OpenPGP policy, then the FTP transfer will fail. This
      is to prevent the binary encrypted or signed data from getting corrupted as a
      result of sending non-printable binary over the FTP ASCII transfer channel.
      The user must either switch to binary FTP transfer mode, or they must select
      the "Use ASCII Armor" option for the OpenPGP policy if they wish to use
      ASCII FTP transfer mode.

    ▪ Similarly, for Decryption and Verification operations, if the FTP policy
      detects that the incoming file is in binary OpenPGP format but the FTP
      transfer mode is ASCII, then the decryption or verification operation will
      fail. The user must perform the operation using binary FTP transfer mode. If
      the incoming file from the remote server is in the OpenPGP ASCII
      ARMORED format, then the user can chose either ASCII or BINARY FTP
      transfer mode as both modes will not corrupt the incoming OpenPGP
      ASCII ARMORED data.

      Error messages:
      451-OpenPGP Encryption failed: Use BINARY FTP transfer mode
      451 OpenPGP Decryption failed: Use BINARY FTP transfer mode
      451-OpenPGP Signature failed: Use BINARY FTP transfer mode
      451 OpenPGP Signature Verification failed: Use BINARY FTP transfer
      mode

  o Fixed interoperability issue with PGP 5.x, 6.x, and 7.x RFC1991 signature messages
    where the signer private key used to generate the signature was an RSA key, which
    PGP 5.x, 6.x, and 7.x use to generate RFC1991 signatures. Note: if the signer key is
    DH/DSS, these tools would have generated an RFC2440 OnePass signature
    message which was already being handled properly by the FTP OpenPGP policy.

- WSDL

  o Fixed bug preventing the enforcement of the schema in the case where an rpc
    WSDL operation input or output is in one namespace (i.e. <soap:body

namespace="foo">) and a part of that same message references a schema from a different namespace (i.e. <part type="ns:xxx" xmlns:ns="bar">).
   o Fixed issue with WSDL export where SOAP Header definitions were being filtered.

- FAILOVER

   o Failover has been redesigned to now use virtual MAC addresses of the Master machine. When a failover event occurs, the Standby machine will become active with the same MAC addresses that the Master machine network cards were using. The previous broadcast ping approach has been removed.
   o Failover now auto-synchronizes the Master configuration with the Standby. Whenever configuration changes are detected, a synchronization event is scheduled and within 5 minutes will synchronize the configurations.
   o Failover / reboot install-wizard bug has been fixed. If the machine was configured using the bootstrap import, and subsequently used in a failover configuration, the network interface values were not being properly set on the Standby box which would cause a loss of information resulting in the install wizard appearing after a failover event.

- CLI
   o New CLI commands network 'static-host [add/remove]' added for static host configuration.
   o Reboot causing rescue-mode / maximum number of CLI connections reached issue has been fixed.

- ARCHIVING
   o Archive database setup infinite timeout on bad configuration has been resolved. The policy configuration timeout occurs when database is inaccessible.

- MISC
   o Fixed issue with processing changes the HTTP Error Code in a custom Error Template. This only applies to error responses for non-WSDL projects and non-SOAP messages (i.e. Raw XML only).
   o Fixed issue with HTTP GET requests being proxied to the back end server with method POST.

Summary of Enhancements in Release 4.5.208
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- XML Signatures
    - ID element now starts with a character and is conformant to
      http://www.w3.org/TR/1999/REC-xml-names-19990114/#NT-NCName
- WSDL
    - Added Feature to enable processing of WSDL with forward referencing schemas.
    - Fixed WSDL Export Issues with missing schema elements
- Tibco and MQ
    - Admin GUI wizard enhancements.
    - Added support for MQSTR

Summary of Enhancements in Release 4.5.398
===============================

- Performance
    - Software Agent performance and memory resource enhancements
    - Appliance memory leak caused by the CLI connection was identified and fixed.
- Logging
    - Fixed issues with Log signing and archiving on software agents
    - Fixed formatting issues with text and html formats.
    - Fixed missing audit log items and format on policy creation
    - Enhanced SSL debug logging for failed X509 authentication
- FTP/PGP Enhancements
    - Reverted error messages for PGP failures to the v3.3.36 error messages
    - If an Encryption or Signature operation is performed over ASCII FTP transfer mode and the user has not selected the "Use ASCII Armor" option for the corresponding PGP policy, then the FTP transfer will fail. This is to prevent the binary encrypted or signed data from corruption as it travels over the FTP ASCII transfer channel. The user must either switch to binary FTP transfer mode, or they must select the "Use ASCII Armor" option for the PGP policy if they wish to use ASCII FTP transfer mode.
    - Similarly, for Decryption and Verification operations, if the incoming file is detected to be in binary PGP format but the FTP transfer mode is ASCII, then the decryption or verification operation will fail. The user must perform the operation using binary FTP transfer mode. If the incoming file from the remote server is in the PGP ASCII ARMORED format, then the user can chose either ASCII or BINARY FTP transfer mode as both modes will not corrupt the incoming PGP ASCII ARMORED data.
- IDP Rule Enhancements
    - More detail in Alert and Log messages
- Partners
    - **Misc** Oblix COREid integration is now available for licensing
    - Oblix COREsv integration is now available for licensing

- Misc
  - Added automated backup to ftp server feature in the CLI
  - Failed SSL Client Authentication no longer results in an IDP rule failure. The SSL session is terminated at the SSL protocol layer per the SSL handshake specification.

Summary of Enhancements in Release 4.3.172
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- Performance
  - Overall performance and tuning enhancements
- WebAdmin GUI Enhancements
  - Option to use the device IP added to Network pane on the WebAdmin UI.
  - Pattern Match policies includes new option, to use Attachment Bytes mode.
  - WSDL Import Wizard URL path cache
- WSDL Policy Enhancements
  - Schema tightening fields added to WSDL Input and Output panes
  - WSDL endpoint location override on exported WSDL document
  - WSDL Summary Page now includes Operation policy hyperlinks
- XML Security Enhancements
  - Added SAML 1.1 Support
- Web Service Rule Enhancements
  - Content Based Routing task extended to include URI, IP and/or Port routing.
- FTP/PGP Enhancements
  - FTP Site Name added to credential prompt
  - Added Support for Legacy RSA v3 keys
  - Added verification support for PGP 6 RSA Keys
  - Added duplicate key checks
  - Added full key principal to expiry alert detail
- IDP Rule Enhancements
  - Triggered Pattern Match policy is now specified in log and alert detail
- Logging Enhancements
  - Ability to download Today logs
  - Ability to clear System Today log
  - Internal mode diagnostic log messages moved to Debug Mode
  - Internal Mode Logging removed
  - Invalid character detection added
  - X509 path validation success and failure debug messages added
  - Syslog now shows designation for Audit and System logs as well as the priority of the log message items.
  - Syslog formatting now provides single-line comma-delimited format for previously multiple line messages.
- GDM Enhancements
  - Override options added for Syslog Policy names and System email settings
- Partner Integrations
  - Native Netegrity SiteMinder Policy Server 5.5 Integration
  - Native IBM Tivoli WebSeal Integration

- Other
  - Match Policies tab of WSDL documents now includes options for Bytes, Text Nodes, or Attachment Bytes
  - Routing enhancement for displaying LAN, WAN, and Management routes
  - CLI Upgrade Feedback added
  - Added Failover synchronization of enable mode password
  - More factory default pattern match policies added for credit card and phone numbers

Summary of Enhancements in Release 4.1.156
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- WebAdmin GUI Enhancements
  - Upgrade appliance software
  - Error Templates renamed to Templates
  - Hierarchical Administration renamed to Multi-domain Administration
  - Schema Tightening added to WSDL policies
  - Added Pattern Match Policies
  - Added Tibco-Rendezvous Policies
  - Added Tibco-EMS Policies
  - Added Websphere MQ Policies
  - Added Netegrity SiteMinder Policies
  - Added IBM Tivoli Web Access integration for WebSEAL Policies
  - Added HTTP/S listener and HTTP/S remote policies
  - Changed Import WSDL Wizard from Getting Started pane
- Workbench Enhancements
  - Schema Constraints Editor on Workbench renamed to Schema Tightening
  - Protocol Mixing on XML Policies
- WSDL Policy Enhancements
  - Added Protocol Mixing on WSDL policies
  - Added Match Policies tab on WSDL policies
  - Added mustUnderstand attribute
  - Changed Import WSDL Wizard from WSDL Policies pane
  - Added Recipient Processing is mandatory option in WS-Security header
  - Override Remote IP:Port when initially importing or initially upgrading a WSDL from WSDL Policies pane
- XML Security Enhancements:
  - Supports ebXML signatures
  - Supports Sign attachments while signing
  - Supports Encrypt attachments while encrypting
  - Added WS2002 and WS2004 signature support
  - Enforced well-formed XML checks on XML documents
- IDP Rule Enhancements:
  - Added Matched Pattern Match policy rule
  - Added Did not match Pattern Match policy rule
- Web Service Rule Enhancements
  - Added Override Remote routing on WSDL policies

- FTP/PGP Enhancements:
    - Allow FTP over SSL/TLS network policies
    - Allow FTP over SSL/TLS user policies
    - Added FTP Error Codes
- Other
    - Added URL-encoding support for Response Processing
    - Added visual indication of which policies reference a selected policy

Summary of Enhancements in Release 3.3.36
============================

- Added software ports for Red Hat© Linux 9.0 and Solaris™ 8
- WebAdmin GUI Enhancements
    - Getting Started Page
    - Wizard based WSDL Import with WSI Basic Profile 1.0 Validation
    - New menu structure
    - New hyperlinked policy listing for Network and WSDL policies
    - Revised WSDL merging wizard
    - System instance naming support (system name)
- WSDL Policy Enhancements
    - SOAP with Attachments
    - SOAP compress/uncompress
    - Schema tightening editor fixes
- Logging Enhancements:
    - Page indexed logging with string searching
    - SSL debug logging
- User Management Enhancements:
    - New LDAP Attribute Filter for dynamic LDAP policies
    - LDAP policy connection pooling
    - LDAP static policy custom password attribute support
    - Support for Sun™ One Directory Proxy Server
    - Validate LDAP settings added to LDAP policy screen
- IDP Rule Enhancements:
    - New Authentication failed IDP rule
- Web Service Rule Enhancements
    - New Abort Task rule
    - New Strip WS-Security Header rule
    - New Content-based Routing task
    - Strip signatures added to Verify Document Signature rule
- FTP/PGP Enhancements:
    - Allow FTP re-bind to source port 20
    - Fixed issues with FTP proxy waiting for client to close socket
    - OpenPGP Encryption compression
    - Fixed verification policy to specify key policy
    - New Log message for request queue for OpenPGP tasks

- Global Device Management Enhancements
  - Renamed Managed Machines to Agents
  - Specify SSL Key for Agent connection
  - No longer transfer SNMP settings to Agents
  - No longer transfer routing information to Agents
- Other
  - Named time zone support added to CLI
  - DNS verification utility added to CLI

Summary of Enhancements in Release 3.1.210
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- Added component licensing for
  - IBM WebSphere® MQ.
  - Unicenter® WSDM Observer.
- Added support for IBM Websphere® MQSeries.
- Added support for CA Unicenter® WSDM Observer.
- Added ability to upload New Licenses from the General Pane of the WebAdmin.
- Added WS Reporting.
- Added configuration options for From email address on alerts.
- Added configuration of an email address to receive OpenPGP key expiry alerts.
- Added Dual IP Inline mode support.
- Added ability to control management/device network filter rule from WebAdmin.
- Added ability to control which physical interface the management listeners run on.
- Added ability to paste CRLs, PKCS Certificates and private keys, and OpenPGP Public and Private keys from the clipboard.
- Added additional Error Templates that were relevant to WSDL/SOAP processing.
- Added WSDL Library Support.
- Added Abort Processing task to Web Services Rules.
- Added WSDL Schema constraints for additional control over SOAP message validation.
- Added WSDL access to virtual directories to determine if placing ?WSDL at the end of a URL on a virtual listener will return the WSDL running on that virtual directory.
- Separated HTTP Policies into Local and Remote Policies.
- Adds ACLs to Listener Policies.
- Added ability to create a sample SOAP message using the schema from the WSDL.
- Began use of OpenPGP for FTPPGP.
- Increased file capacity to 3.8 Gigabytes.

Summary of Enhancements in Release 2.7.144
==============================

- Added component licensing
  - WSDL Policies
  - XMLSec™ Workbench
  - XML Security
  - SSL Policies
  - HTTP Policies
  - FTP and OpenPGP Policies
  - TIBCO Policies
  - XML Archiving
  - XML Intrusion Detection and Prevention
  - XML Transformation
  - XML Validation
  - Unlimited Concurrent Connections
  - AmberPoint© Agent Control
- Added HTTP proxy support.
- Added TIBCO Rendezvous™ protocol support.
- Added WSDL support to the WebAdmin.
- Added Dynamic LDAP policies to complement the existing Static LDAP policy.
- Dynamic LDAP policies can be added to ACLs as if they were groups on the appliance.
- Added support for AmberPoint©.
- Added HTTP Get filter to the default XML policy request filters.
- Added ACLs to virtual directories.
- Added ACLs to individual WSDL operations.
- Added allowed client ranges to HTTP Server policies.
- Added ability to retrieve CRLs and PKCS Certificates over LDAP.
- Added UDDI Publishing/Retrieval support.

Summary of Enhancements in Release 2.5.93
=============================

- Web Service Monitoring.
- Manageability
  - No longer using HTTP Basic Authentication, using internally tracked sessions instead.
  - Global Device Management (GDM).
  - WebAdmin/Workbench/GDM ports configurable through WebAdmin as well as through the CLI.
  - Ability to set SMTP server for alerts via the WebAdmin as well as the CLI.
  - Session timeouts for WebAdmin.
- Configurable Logging
  - Internal logging simplified to just system and audit logs.
  - You can select the logging level for both the system and the audit logs (Info, Debug, Error, and Severe) from the WebAdmin.
  - You can configure the life span of logs on the system.
  - You can select individual modules and their logging level for the system log.
- Ability to sign the logs.
- Ability to download and delete logs from the WebAdmin.
- Added WSDL support to the Workbench (WSDL Policies)
  - Can import WSDLs.
  - Can export WSDLs.
  - Can upgrade Imported WSDLs.
  - SOAP requests can be validated against schema present in WSDLs and the SOAP schema.
  - WSDL operations can be enabled and disabled individually.
- Added Virtual directories
  - Virtual paths.
  - Regular expression filtering and URL rewriting.
  - Server policies can be created based on the WSDL from the Workbench by users who have WebAdmin and Workbench privileges.
- Intrusion Detection Prevention rules added.
- Alert rules added to notify user when an IDP rule is triggered.
- Added SOAP 1.1 request filter to support WSDL.
- Failover configuration simplified and moved entirely into the CLI.

Summary of Enhancements in Release 2.3.78
============================

- Performance
  - The 1500 series now offers models 1501, 1502, 1503, and 1504 which provides faster hardware acceleration capability over the 1500 model. The new models also provide a Gigabit Ethernet interface.
  - Significant advances have been made in the XML processing throughput. Throughput has increased up to 400% for XML operations across service mode and proxy mode processing. SSL acceleration has also been enhanced to provide up to 150% faster SSL connection handling for the 3DES algorithm.
- Compound XML Schema Support.
- Compound XML Schemas are now supported for the XML Validation task.
- Admin GUI
  - The Policy screens are now enabled with scrollable frames to allow for large numbers of policies to be managed. Search and paging functions are also provided.
  - DN association for a User Policy is now easily performed with a Find button that allows extraction of a DN from a previously imported key or certificate.
- LDAP Identity Management
  - Full LDAP v3 integration is now supported for User and Group management. User authorization can be performed dynamically through LDAP at run time.
- Hardware Security Management (HSM)
  - The 1500 series now offers an HSM solution in the 1504 model. With this appliance model, all keys and certificates are securely stored on a FIPS-compliant, embedded hardware device.
- FTP OpenPGP
  - Enhancements were made to the file size limits for transfers using FTP OpenPGP encryption. The limits are now 250MB for binary transfers and 200MB for ASCII armor.

Summary of Enhancements in Release 2.1.24
============================

- Performance
  - Performance enhancements were applied to the HTTP Proxy server policies to provide throughput capacities over 2 times what was previously achievable.
- Statistics
  - Statistical counters were enabled in both the WebAdmin and the SNMP objects to provide visibility for the XML Security task operations completed during the running session.
- Time Zones
  - Ability to configure time zones was added.
- Admin GUI
  - The Admin GUI has been redesigned to provide a consistent interface across all screens. Item ordering is now consistent as well as manipulation of editing, deleting, enabling and disabling of server and XML policies. New HTTP Policy creation wizards have also been added.
- Error Templates
  - Task errors can now be returned to the client using one of the default provided error templates, or a custom created template. Templates provide variable substitution for server error number, description, task list and task.

Summary of Enhancements in Release 2.0.118
============================

- SNMP
    o An SNMP Manager was added to the Forum product, providing status information for statistical counters as well as system information for appropriate authorization privilege levels.
- Response Processing
    o The capability to process the document on the back-end server response was added to support processing of SOAP and Web Services messaging.
- SAML and WS-Security
    o SAML 1.0 and WS-Security 1.0 were added to the product for both document credential generation and document credential authentication and authorization.
- Access Control Lists
    o Access control lists (ACLs) were added to provide access control restriction to task lists. Users and Groups were enhanced to provide this capability.
- Dynamic Signatures
    o The User Policy was modified to associate a signing key pair. This key pair can be subsequently used in a task list to dynamically sign an XML document based on the authenticated user.
- Archiving
    o Modified the error checking to provide log and halt capability when errors are detected during the archive task. Errors are propagated back to the client when log and halt is enabled and the task list processing is aborted.
- CLI
    o The command line interface was enhanced to provide command-completion as well as access to the additional product features with new hierarchically-structured commands.

Summary of Enhancements in Release 1.3.211
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- Archiving
  - Several fixes surrounding the archive capability of the appliance were added to this release. These include:
    - Previous connections were established and would remain in a TCP established state when modify was pressed on the Admin GUI. These connections are now expired correctly.
    - The Max connection setting was not limiting the number of concurrent established connections. This now limits the connections as configured by the Archive screen.
    - A fix was provided for the propagation of exceptions back to the client in synchronous mode archiving when the log configuration is set to log and halt.
    - When network or database failures were detected, the software was re-using the existing invalid connection. A fix has been provided which robustly handles network and database errors and automatically recreates connections as necessary.
- Performance Enhancements
  - A number of performance enhancements have been added for the sign, verify, encrypt and decrypt task operations.
- Command-Line Interface (CLI) Upgrade Capability
  - Upgrade capability has been added to the CLI. The upgrade can utilize an FTP or HTTP connection to the Forum Systems server to obtain available appliance upgrades.
- Administration GUI
  - A fix was provided for the server up-time display on the General screen of the Admin GUI.

Summary of Enhancements in Release 1.3.184
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- Archiving
  - DB2 database schema support was added to the code base and the GUI. Archiving GUI interface now includes a field to enter the defined schema as applicable when DB2 database is selected.
- Import/Export
  - A bug was detected in the export format of existing policies where the data was not encrypted as expected. This data is now encrypted and compressed correctly.
- Network Updates
  - An issue was fixed where the creation of the network broadcast address may be incorrect based on the netmask applied to the interface IP. The broadcast address is now calculated correctly in all cases.