

# The CorreLog Approach to SIEM:

## Cross-platform event log management and correlation



**T**he CorreLog SIEM Server provides a standards-based method of collecting all the system log messages of your network using industry standard syslog protocol and SNMP traps. These messages are then correlated into understandable threats, alerts, and actions using sophisticated, easily configured rules, which are then reduced to actionable “tickets” that are sent to administrators as a trigger for remediation of incidents.

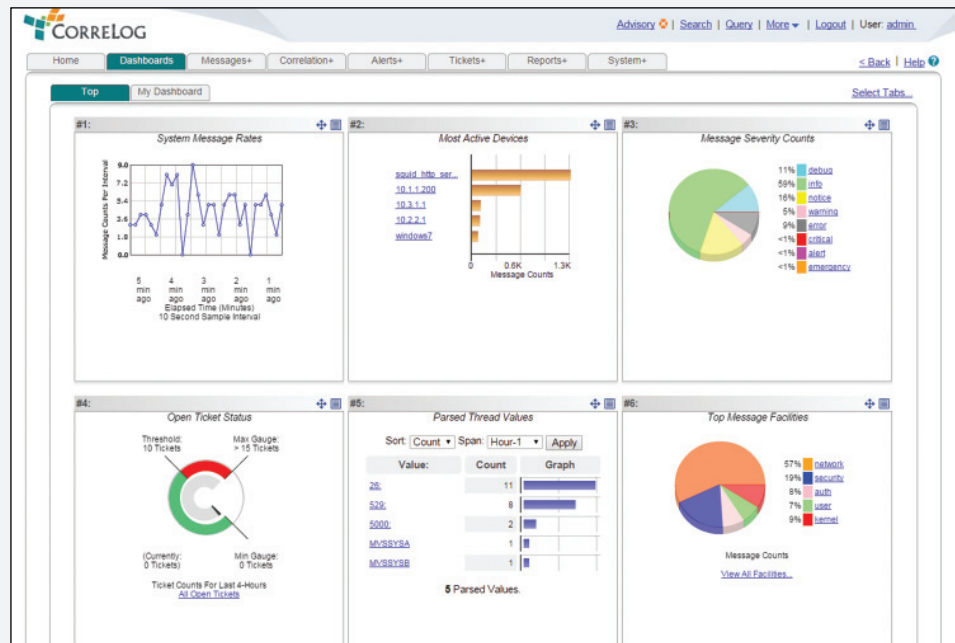
CorreLog SIEM accepts any standard syslog (RFC 3164 or 5424) data generated by UNIX platforms, routers and various enterprise applications. Additionally, CorreLog provides software agents that can convert non-standard proprietary message logs to syslog format from Microsoft Windows, IBM® z/OS, Linux, Linux on z, and Macintosh operating systems, including an agent for SAP®.

CorreLog SIEM system runs as a Windows service, with a standard web browser UI, and consumes minimal system resources. The entire CorreLog SIEM package can be downloaded in about 30 seconds on a modest 10 Mbps Internet connection. With its ability to collect and reformat disparate log data to industry-standard syslog protocol for SIEM, CorreLog provides system-wide interoperability unmatched by rival, competing SIEM vendors.

For regulatory compliance, CorreLog SIEM was architected to facilitate standards set forth by PCI DSS, HIPAA, SOX, GLBA, FISMA, and many other industry requirements and provides out of the box compliance scorecards. CorreLog SIEM’s archival and storage functionality provides up to 5,000 days of storage and uses encrypted checksums for file integrity. With no additional

software required, CorreLog SIEM employs authentication and AES 256 encryption between agent programs and the CorreLog SIEM. Any CorreLog site requiring U.S. Government compliance will be secure through a FIPS 140-2 certified cryptographic module that provides secure transactions between all deployed agents and the main CorreLog SIEM.

CorreLog SIEM also ships with many packaged reports templates designed with auditors in mind. These reports can be easily customized to fit users’ requirements and CorreLog SIEM can be set up to send reports to any e-mail address at any scheduled interval.



## Features

**Pure software browser-based solution:** Deploys across a small footprint and consumes minimal system resources. The complete system downloads in less than 30 seconds on a 10 Mbps connection. It is a pure software solution viewable on any web browser.

**High-speed search and correlation:** Uses an advanced correlation engine, which performs semantic analysis of your messages in real-time.

**High-speed message reception:** Can process more than 10,000 messages per second and can handle burst traffic of more than 20,000 messages per second.

**Automatic response for fast remediation:** Incorporates a simple, extensible “actions” capability that allows targeting specific messages based upon device, keyword, facility, severity and/or time of day. The solution can run programs on that data including updating relational ODBC databases, relaying syslog messages, send SNMP traps, and then send e-mail alerts, or create a helpdesk notifications and other actions.

**Flexible reporting:** Delivers a host of bundled reports for threat detection and cyber-forensics right out of the box. These reports facilitate compliance requirements set forth by PCI DSS, HIPAA, SOX, FISMA, GLBA and many other standards. These reports can be easily customized to fit management requirements.

## Our ability to do three things very well separates the CorreLog SIEM experience from many of our competitors in a crowded marketplace:

1. **We deliver best-in-class event log monitoring and correlation:** CorreLog SIEM correlates syslog messages employing automated event management and self-learning algorithms to uncover user behavior indicative of threat. When an alert is generated, CorreLog SIEM creates an actionable ticket, which can be reflected in a help-desk, or used in e-mail or other notifications. The CorreLog correlation engine consumes minimal resources yet is capable of receiving burst traffic of up to 20,000 messages per second.
2. **We expand SIEM capabilities with agent technology for virtually every platform:** CorreLog can aggregate syslog messages into a single security system in real-time from a myriad of diverse systems including Windows, UNIX, Linux, Linux on z Systems, IBM z/OS, Macintosh and SAP, plus log-generating devices such as routers and firewalls. The security console that receives the log data can be the CorreLog SIEM or other SIEM product.
3. **We provide simple installation and implementation:** The CorreLog SIEM package takes about 30 seconds to download on a 10 Mbps connection. Within just a few minutes the CorreLog SIEM console is receiving user/system log data, correlating event logs for any sign of potential threat, ready to alert.

## Distributed approach to log management and correlation

At the heart of the CorreLog SIEM Correlation engine is a distributed management approach to message transmission that reduces large amounts of random, aggregate log data into smaller amounts of pertinent and actionable data. One or more instances of CorreLog SIEM continuously gathers log data from devices and agents in real-time. This log data is stored, filtered through an advanced correlation engine and monitored for anomalous threat patterns.

When a threat is detected, the system creates an internal ticket, viewable to CorreLog users which can trigger specific actions ranging from simple e-mail notifications to sending a message to the help desk warning of the threat. Consequently a ticket can be created in your help-desk, or can be sent to a higher level SIEM system, CorreLog or other. CorreLog SIEM can operate in an “unattended mode,” operate as a correlation component in a larger log management strategy, or operate as the central security console of your enterprise.

The result is a highly scalable and flexible architecture that supports log aggregation, filtering, correlation, real-time notification, a trigger for remediation, as well as a full suite of forensic tools and reporting functions – all in one easy-to-use package.

## The CorreLog SIEM Architecture

### Web Server Apps, IDS, Anti-virus

CorreLog SIEM monitors a variety of applications, including third-party anti-virus systems, IDS systems, HTTP servers, mail servers, and other infrastructure assets in your enterprise. CorreLog also includes a simple SDK that lets you extend the range of what you want to monitor.

### Linux & UNIX Servers

CorreLog SIEM monitors Linux and UNIX syslog data via standard agentless syslog, or via special CorreLog agents. This provides the ability to flag suspicious messages such as unauthorized access attempts, and track user access to these systems.

### Routers/Firewalls

CorreLog accepts real-time syslog data from routers and firewalls, looking for anomalous data and failed access attempts. CorreLog SIEM includes a “geo database” of IP addresses, to track the location of all access attempts to specific countries.

### Windows Active Directory

CorreLog SIEM monitors AD for user and account changes, as well as tracks user logons, logoffs, lockouts, failed logons, and other user activity.

### SAP Activity

CorreLog SIEM provides an agent that is specific to SAP, which monitors a variety of SAP messages and events, including user logons, logoffs, and other access items.

### SQL Databases/Log Files

CorreLog SIEM provides techniques and adapters that permit special visibility to SQL databases through ODBC connections and log file monitoring.

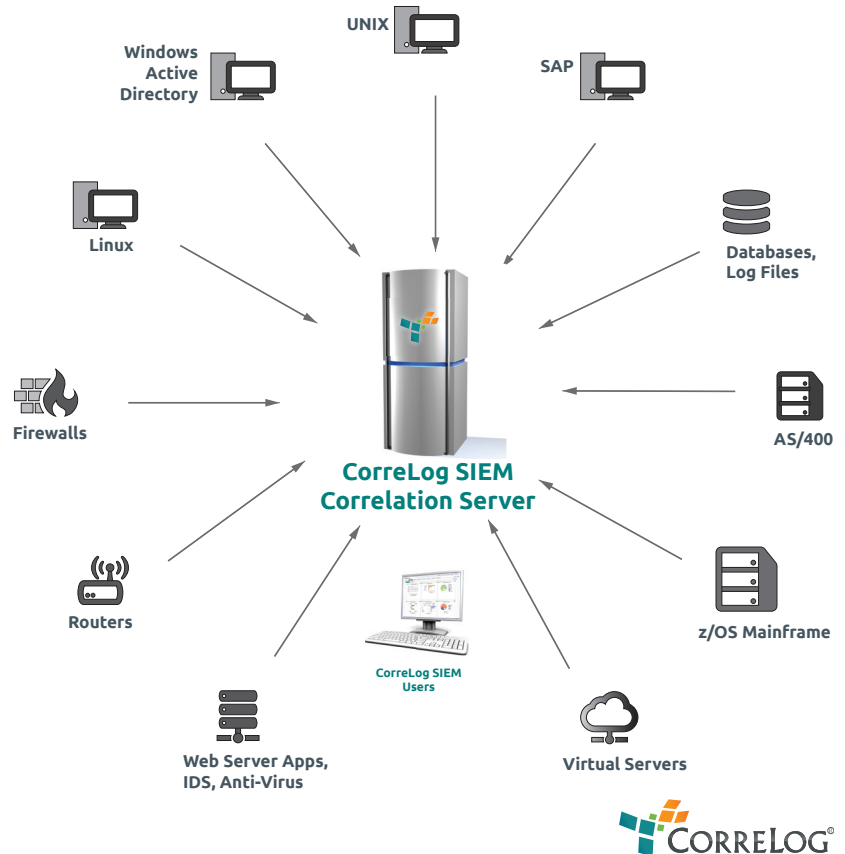
### IBM z/OS Mainframe

CorreLog SIEM provides a software agent for z/OS that intercepts, in real time, RACF, ACF2, Top Secret, DB2 accesses, CICS, IMS, TCP, FTP, TSO plus other events and reformats the mainframe messages to syslog protocol for the CorreLog SIEM or a number of other SIEM systems. CorreLog’s SIEM Agent has certified integrations with IBM® Security QRadar®, HP ArcSight, and a strategic partnership with McAfee. SIEM Agent has field integrations with many other leading SIEM solutions including Splunk® and LogRhythm.

### Virtual Log Management & Correlation

CorreLog SIEM can receive VMWare vCenter and vSphere syslog files in the CorreLog SIEM correlation engine and monitor security threats as if monitoring a physical server. Because vCenter is a centralized cloud platform and generates

## CorreLog SIEM Server Architecture



a syslog format native to SIEM, CorreLog SIEM is capable of receiving and correlating virtual Windows, Linux and UNIX event logs from the VMWare platform.

## TRY IT BEFORE YOU BUY IT – The CorreLog SIEM 30-day Trial Package



CorreLog offers a fully-functioning, complete version of CorreLog SIEM to try for free for 30 days with no obligations whatsoever. Please visit [correlog.com/downloads](http://correlog.com/downloads), or scan the QR code here to download the CorreLog SIEM 30-day trial package. We have

included in the download package complete documentation on installation and system use. Additional information on CorreLog SIEM installation and use may be found in our public support portal located at [correlog.com/support-public/resources.html](http://correlog.com/support-public/resources.html).

## Features

**Data aggregation and archiving:** Can collect in excess of 50 Gigabytes of data each day at a single site, and save this data online for up to 500 days (given enough storage.) The system can compress and archive data for a period of more than 10 years (5000 days).

**Input filtering:** Filters input data by device, facility, severity, message keyword, time of day, or any combination thereof. Filtered data can be discarded, or put into a separate repository (and possibly permanently archived) for further analyses or forensics.

**Improved syslog categorization:** Syslog protocol "facility" codes, which define the data sources for syslog messages, are limited to 24 predefined categories. CorreLog SIEM removes this restriction, permitting users to define their own facilities, such as "applications," and "devmsgs," so that data can be better categorized and managed. Also expands syslog message categorization and correlation, not otherwise available using the standard specification.

**High-speed search:** Uses a proprietary data extraction program that employs high-speed, real-time indexing. Users can search a terabyte of data for a particular keyword in less than one second.

**Taxonomy, ontology, and cataloging:** Automatically catalogs information by IP address, username, facility, and severity. Users can further create catalogs of information based upon simple or complex match patterns bringing flexibility in managing and grouping message data, while maintaining high data throughput.

## Installation Requirements

The CorreLog SIEM Correlation Server requires Windows Vista, Windows 7, Windows 8, and Windows 20xx workstation or server platforms. There are no hard limits on CPU, disk space, or memory resources. The CorreLog SIEM download package incorporates the Apache HTTP server, easy Windows-based installation setup, a ready-to-run configuration, and a comprehensive user manual.

The system also includes a copy of the CorreLog Syslog Windows Tool Set with a user manual so users can easily add Syslog capability to an existing Windows platform, making the CorreLog Security Server fully enterprise-capable. The Windows Tool Set is also available as a standalone download from the CorreLog website. Additional information on installation requirements for all CorreLog products may be found at [correlog.com/support.html](http://correlog.com/support.html).

## About CorreLog

CorreLog, Inc. is the leading independent software vendor (ISV) for cross-platform IT security log management and event correlation. CorreLog's flagship product, the CorreLog SIEM Correlation Server leverages its unique correlation engine that manages user/system event logs through syslog, syslog-NG, and SNMP protocols. CorreLog SIEM employs auto-learning functions and neural network modeling in a proprietary semantic log-management correlation program that can issue an automated help-desk alert when a threat is identified. CorreLog SIEM operates across Windows, UNIX, Linux, IBM z/OS, Linux on z, and virtualized platforms.

CorreLog is also the leading ISV for real-time mainframe SIEM. CorreLog SIEM Agent for IBM z/OS allows users to view mainframe RACF, ACF2, Top Secret, and DB2 events in real-time, alongside security events from Windows, UNIX, Linux, routers, firewalls, and other IT assets monitored in an enterprise SIEM system. For enterprises that need extended mainframe visibility for users that don't have access to their SIEM, CorreLog offers Visualizer for z/OS which delivers live mainframe security dashboards through any standard web browser. For more information on CorreLog products, please visit [correlog.com/products](http://correlog.com/products).



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