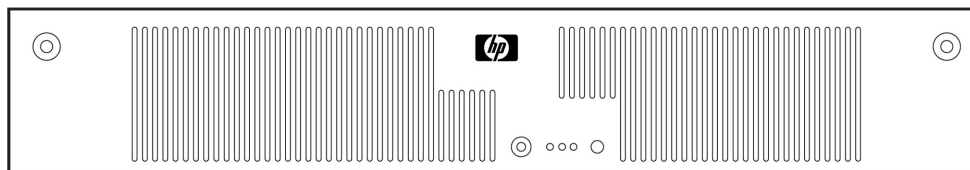


Overview

The HP Compliance Log Warehouse (CLW) is an easy-to-deploy, integrated, enterprise-class appliance that delivers a high performance, scalable means for organizations to centrally aggregate, cost-effectively store, and efficiently analyze massive volumes of event log data over long periods of time while retaining the original source data. It also includes a dedicated real-time event correlation system where alerting criteria is evaluated on any collected data element (or group of elements) to provide a fast turnaround time for delivering potential security threat information to administrators and security officers. Pre-defined management dashboards, queries and reports in HP CLW help enterprises to comply with mandates such as Sarbanes-Oxley (SOX), Payment Card Industry (PCI) Data Security Standard (DSS), the Health Insurance Portability & Accountability Act (HIPAA), the Federal Information Security Management Act (FISMA), and many others.



What's New

- Greater disk storage capacity (2TB per node)
- Enhanced real-time capability (50 new real-time alert rules, new BNF definition language, and customizable templates)
- Additional data channels for quicker analysis turnaround and remote management capability
- Fibre channel for SAN interoperability
- Integration with HP Systems Insight Manager (SIM)
- New GUI configuration screens for improved ease of installation

Models

HP Compliance Log Warehouse Models

HP CLW 1 Node System	AT070A	AJ576A
HP CLW 3 Node System	AT071A	AJ577A
HP CLW 5 Node System	AT072A	AJ578A
HP CLW 10 Node System	AT073A	AJ579A
HP CLW 2 Node Upgrade	AT074A	AJ580A
HP CLW 5 Node Upgrade	AT075A	AJ581A
HP CLW Additional Collector	AT076A	AJ582A
HP CLW Additional Log Adapter	AM271B	AJ552B
HP CLW 10 Additional Log Adapter Pack	AM272B	AJ553B
HP CLW CDR Reporting Package	AM273B	AJ555B
HP CLW 3 Node SAP Package	AM319B	AJ568B
HP CLW 5 Node SAP Package	AM320B	AJ569B
HP CLW 10 Node SAP Package	AM321B	AJ570B
HP CLW 1 Node McAfee Package	AT060B	AJ571B
HP CLW 3 Node McAfee Package	AT061B	AJ572B
HP CLW 5 Node McAfee Package	AT062B	AJ573B
HP CLW 10 Node McAfee Package	AT063B	AJ574B

Standard Features

**HP Compliance Log
Warehouse Customer
Benefits**

- Comply with government and industry mandates
 - Detect and manage security threats/breaches
 - Ensure adherence to corporate policies
-

Key Features

- Collects event log data from hundreds of sources (OSs, apps, devices, etc.)
- Linearly scalable, patented purpose-built database (stores TBs of event log data and responds to SQL queries in minutes)
- Real-time monitoring and alerting
- Out-of-the-box compliance reports (PCI DSS, SOX, HIPAA, FISMA, etc.)
- Pre-configured appliance deploys quickly and easily

Product Highlights

Log event collection HP has designed an event-centric, high performance architecture that is able to collect an enormous amount of complete log data, at high velocity. This robust data management solution maps log sources to others, virtually at query, and provides flexibility to support a broad number of sources. It enables unparalleled precision and long-term search and trending analysis, while significantly saving on storage capacity. This product supports any log source, including OS, applications and devices logs. New custom log adapters can be easily created.

Scalability This solution is proportionately scalable. Adding servers enables capacity and throughput to match business growth. It distributes workload equally among its clustered processing nodes enabling concurrent processing. This allows the CLW to increase the throughput and usage of each node. Storage and throughput capacity can be increased simply by adding more processing nodes.

The resulting increase in throughput and storage capacity is directly proportional to the number of processing nodes added. Event data management capacity scales directly with business growth. Cost and capacity planning are easily accomplished.

Real-time monitoring and alerting This solution is used to monitor the flow of events, correlate events in real time, and detect security intrusion patterns for the proper security response

Out-of-the-box compliance reports CLW comes with pre-defined reports mapped specifically to the various standards like PCI DSS, SOX, HIPAA, FISMA, etc. Critical events and trends are presented in graphs and table views, and dashboards. Policy exception analyses and forensic investigations can be keyed off of any field of data. Reports can be ad hoc or scheduled with electronic delivery; always consistently fast. Event data is stored for the long periods of time.

By storing and managing event data for longer periods, a consistent framework is established for security analytics, forensic investigation, and root cause analysis. By combining events from all system components into a central location, security staff can examine one homogeneous log instead of several heterogeneous ones. Consequently, an analyst is able to use his/her time more efficiently.

Easy deployment The CLW solution is deployed on an appliance platform exploiting fast HP Integrity Servers to store highly compressed data. No expensive RDBMS licenses are required. Computer resources are more efficiently utilized due to the elimination of RDBMS overhead

Service and Support, HP Care Pack, and Warranty Information

Warranty and Services Included with the Product Warranty is included in your support contract

HP Care Pack Services:

Packaged server and storage services for increased uptime, productivity and ROI

Protect your business beyond warranty

When you buy HP server and storage products and solutions, it's also a good time to think about what levels of support you may need. Our portfolio of service options reduce deployment and management worries while helping you get the most out of your server and storage investments. We take a holistic approach to your environment, bridging servers, blades, storage, software and network infrastructures with our packaged HP Care Pack Services for servers and storage.

When it comes to robustness and reliability, standard computing equipment warranties have matured along with technology. Good news that can also create problems stemming from depending on standard warranties designed to only protect against product defects and some downtime causes. Using a standard approach to warranty uplifts, such as HP Care Pack Services, helps reduce downtime risks and provides operational consistency for mission-critical and standard business computing.

HP Care Pack Services:

Upgrading or extending standard server and storage warranties cost effectively

HP Care Pack Services offer a standard reactive hardware and software support services suite sold separately, or combined with our Support Plus and Support Plus 24 services. The portfolio also provides a combination of integrated proactive and reactive services, such as Proactive 24 Service and Critical Service. In addition with HP Proactive Select, you can acquire the specific proactive constancy and technical services. HP Proactive Select menu offers a broad set of service options that you can mix and match depending on your specific requirements. Proactive service options include offers for server, storage, network, SAN device, software, environment and education services.

HP server and storage lifecycle support services offers a full spectrum of customer care-from technology support to complex migrations to complete managed services. HP Factory Express provides customization, integration and deployment services for turnkey solutions. HP Education Services offer flexible, comprehensive training on to help your IT staff get the most out of your server and storage investments. HP Financial solutions extend innovative financing and cost-effective asset management programs-from purchase to equipment retirement.

Learn more: www.hp.com/services/servers and www.hp.com/services/storage

NOTE: Care Pack Services availability may vary by product and country.

HP Care Pack Services are sold by HP and HP Authorized Service Partners:

- Services for customers purchasing from HP or an enterprise reseller are quoted using HP order configuration tools.
- Customers purchasing from a commercial reseller can find HP Care Pack Services at <http://www.hp.com/go/lookuptool>

Recommended Services**Recommended HP Care Pack Services for optimal satisfaction with your HP product.**

1-Year HP Support Plus 24 For a higher return on your server and storage investment, HP Support Plus 24 provides integrated hardware and software support services designed specifically for your technology. Available 24x7, this 1-year combined reactive support option delivers onsite hardware support and over-the-phone software support around-the-clock. Leverage the full strength of HP Technology Services - customers can trust the services professionals at HP to work collaboratively with them, putting our strategic and technical know-how to work across their entire infrastructure.

Service and Support, HP Care Pack, and Warranty Information

- Improve uptime with responsive hardware and software services
- Enjoy consistent service coverage across geographically dispersed sites
- Update HP software at a predictable cost
- Increase customer satisfaction-with no interoperability gaps

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-6638EEE>

HP Installation Service

For smooth startup and better business outcomes, HP Installation Service provides initial installation of your product into your technology environment (system configuration is not included). In today's new era of business technology- customers can trust the services professionals at HP to work collaboratively with them, putting our strategic and technical know-how to work across their entire infrastructure.

- Allows your IT resources to stay focused on their core tasks and priorities
- Reduces implementation time, impact and risk to your storage environment

<http://h71028.www7.hp.com/ERC/downloads/5981-9356EN.pdf>

Optional HP Care Pack Services that will enhance your HP product experience.

3-Year HP Support Plus 24 As an alternative to our recommended support level, for customers who need 3 years of access to responsive 24x7 hardware and software support plus software updates on HP and selected third party products:

HP Support Plus 24 helps you increase performance and availability with comprehensive, consistent hardware and software services. Working with your IT team, HP Services engineers deliver onsite hardware support and over-the-phone software support around-the-clock 365 days per year. Service coverage encompasses HP products and selected multivendor hardware and software.

In addition, this convenient HP Care Pack packaged service makes software updates available to you at substantial savings.

Choose Support Plus 24 when you need to:

- Improve uptime with responsive hardware and software services available anytime
- Cost-effectively obtain expert 24x7 multivendor hardware and software support
- Enjoy consistent service coverage across geographically dispersed sites
- Update HP and selected third-party software at a predictable cost
- Take advantage of subscription savings on software updates

Service and Support, HP Care Pack, and Warranty Information

eSupport

HP eSupport is a portfolio of technology-based services that assist you with managing your business environment - from the desktop to the data center.

Support Portal

The HP support portal provides one-stop access to the information, tools and services you need to manage the daily operations of your IT environment.

Features include:

- Access to self-solve tools (including search technical knowledge base)
- Efficient logging and tracking of support cases
- Collaboration with other business and IT professionals
- Download of patches and drivers
- Access to diagnostic tools
- Proactive notification of relevant information

Access to certain features of the support portal requires an HP service agreement. To access the support portal, visit: <http://www.hp.com/support>

HP Insight Remote Support software delivers secure remote monitoring and support for your HP Servers and Storage, 24 X 7, so you can spend less time solving problems and more time focused on your business. You can have your systems remotely monitored for hardware failure using secure technology that's been proven at thousands of companies around the world. In many cases, you can avoid problems before they occur.

Customer Technical Training**HP Education Services**

In today's cost-conscious business environment, IT professionals, developers, consultants and users face an interesting challenge: how to keep up with the latest technologies and expand important skills while delivering profitable results on current projects. To help address this challenge, HP offers innovative training solutions that help keep you up-to-date on virtualization, server, storage, Insight Control, Citrix, Microsoft® and open source/Linux-related topics-while spending less time away from business-critical activities.

HP Services Awards

HP Technology Services continues to be recognized for service and support excellence by customers, partners, industry organizations and publications around the world. Recent honors and award reflect our services team's dedications, technical expertise, professionalism and uncompromising commitment to customer satisfaction.

Additional Services Information

To learn more on HP ProLiant servers, HP BladeSystem servers and HP StorageWorks storage products, please contact your HP sales representative or HP Authorized Channel Partner. Or visit www.hp.com/services/proliant or www.hp.com/services/bladeSystem or <http://www.hp.com/services/storage> or <http://www.hp.com/>

Kit Contents

Model	Description	Part Number	
HP CLW 1 Node System	<p>HP CLW 1 Node System</p> <p>Supplied with each HP CLW 1 Node System</p> <ul style="list-style-type: none"> (1) HP CLW combined Collector and Scalable Log Server appliance <p>NOTE: Capable of collecting 5-10 Gb of event data per day (variation depends on your reporting and collection requirements). Effective event storage is approximately 4-5 Tb.</p>	AT070A	AJ576A
HP CLW 3 Node System	<p>HP CLW 3 Node System</p> <p>Supplied with each HP CLW 3 Node System</p> <ul style="list-style-type: none"> (1) HP CLW Collector (3) HP CLW Scalable Log Servers <p>NOTE: Capable of collecting 15-35 Gb of event data per day (variation depends on your reporting and collection requirements). Effective event storage is approximately 15 Tb.</p>	AT071A	AJ577A
HP CLW 5 Node System	<p>HP CLW 5 Node System</p> <p>Supplied with each HP CLW 5 Node System</p> <ul style="list-style-type: none"> (1) HP CLW Collector (5) HP CLW Scalable Log Servers <p>NOTE: Capable of collecting 25-50 Gb of event data per day (variation depends on your reporting and collection requirements). Effective event storage is approximately 25 Tb.</p>	AT072A	AJ578A
HP CLW 10 Node System	<p>HP CLW 10 Node System</p> <p>Supplied with each HP CLW 10 Node System</p> <ul style="list-style-type: none"> (1) HP CLW Collector (10) HP CLW Scalable Log Servers <p>NOTE: Capable of collecting 50-100 Gb of event data per day (variation depends on your reporting and collection requirements). Effective event storage is approximately 50 Tb.</p>	AT073A	AJ579A
HP CLW 2 Node Upgrade	<p>HP CLW 2 Node Upgrade</p> <p>Supplied with each HP CLW 2 Node Upgrade</p> <ul style="list-style-type: none"> (2) HP CLW Scalable Log Servers 	AT074A	AJ580A
HP CLW 5 Node Upgrade	<p>HP CLW 5 Node Upgrade</p> <p>Supplied with each HP CLW 5 Node Upgrade</p> <ul style="list-style-type: none"> (5) HP CLW Scalable Log Servers 	AT075A	AJ581A
HP CLW Additional Collector	<p>HP CLW Additional Collector</p> <p>Supplied with each HP CLW Additional Collector</p> <ul style="list-style-type: none"> (1) HP CLW Collector 	AT076A	AJ582A
HP CLW Additional Log Adapter	<p>HP CLW Additional Log Adapter</p> <p>Supplied with each HP CLW Additional Log Adapter</p>	AM271B	AJ552B

Kit Contents

- (1) HP CLW Log Adapter

HP CLW Additional Log Adapters are supplied and installed by HP service...

HP CLW 10 Additional Log Adapter Pack	HP CLW 10 Additional Log Adapter Pack Supplied with each HP CLW 10 Additional Log Adapter Pack	AM272B	AJ553B
	<ul style="list-style-type: none"> • (10) HP CLW Log Adapters 		
	HP CLW Additional Log Adapters are supplied and installed by HP service...		
HP CLW CDR Reporting Package	HP CLW CDR Reporting Package HP CLW CDR Reporting Package is supplied and installed by HP service...	AM273B	AJ555B
HP CLW 3 Node SAP Package	HP CLW 3 Node SAP Package HP CLW 3 Node SAP Package is supplied and installed by HP service...	AM319B	AJ568B
HP CLW 5 Node SAP Package	HP CLW 5 Node SAP Package HP CLW 5 Node SAP Package is supplied and installed by HP service...	AM320B	AJ569B
HP CLW 10 Node SAP Package	HP CLW 10 Node McAfee Package HP CLW 10 Node McAfee Package is supplied and installed by HP service...	AM321B	AJ570B
HP CLW 1 Node McAfee Package	HP CLW 1 Node McAfee Package HP CLW 1 Node McAfee Package is supplied and installed by HP service...	AT060B	AJ571B
HP CLW 3 Node McAfee Package	HP CLW 3 Node McAfee Package HP CLW 3 Node McAfee Package is supplied and installed by HP service...	AT061B	AJ572B
HP CLW 5 Node McAfee Package	HP CLW 5 Node McAfee Package HP CLW 5 Node McAfee Package is supplied and installed by HP service...	AT062B	AJ573B
HP CLW 10 Node McAfee Package	HP CLW 10 Node McAfee Package HP CLW 10 Node McAfee Package is supplied and installed by HP service...	AT063B	AJ574B

Related Options

HP ProCurve Networking HP ProCurve Networking
For details please visit: <http://procurve.hp.com/>

Configuration Information

NOTE: Only rack-mount units are available

Step 1 - Select HP CLW product

HP CLW 1 Node System	AT070A	AJ576A
HP CLW 3 Node System	AT071A	AJ577A
HP CLW 5 Node System	AT072A	AJ578A
HP CLW 10 Node System	AT073A	AJ579A
HP CLW 2 Node Upgrade	AT074A	AJ580A
HP CLW 5 Node Upgrade	AT075A	AJ581A
HP CLW Additional Collector	AT076A	AJ582A

Step 2 - Add additional software packages (optional)

HP CLW Additional Log Adapter	AM271B	AJ552B
HP CLW 10 Additional Log Adapter Pack	AM272B	AJ553B
HP CLW CDR Reporting Package	AM273B	AJ555B
HP CLW 3 Node SAP Package	AM319B	AJ568B
HP CLW 5 Node SAP Package	AM320B	AJ569B
HP CLW 10 Node SAP Package	AM321B	AJ570B
HP CLW 1 Node McAfee Package	AT060B	AJ571B
HP CLW 3 Node McAfee Package	AT061B	AJ572B
HP CLW 5 Node McAfee Package	AT062B	AJ573B
HP CLW 10 Node McAfee Package	AT063B	AJ574B

Step 3 - Install CLW

The following steps provide an overview of the setup procedure:

- Rack and cable each component in your data center.
- Attach a keyboard, monitor, and (optionally) a mouse to the first component of the appliance. This component is called the "Head Node" and connects to your internal network.
- Initialize the Head Node with all the information needed to connect to your network.
- If you are initializing a CLW 1 Node appliance, you are done with setup. For all other configurations, attach the keyboard, monitor, and mouse to each component of the appliance to initialize every node

Step 4 - Configure CLW

The following steps provide an overview of the configuration procedure:

- Install CLW Console on a Workstation.
- Customize the CLW Console Display. This may include
 - Rebranding CLW Console
 - Changing defaults for Exported Reports
 - Changing the Maximum Length of Chart Labels
 - Changing How Modules are Displayed and Accessed
- Setting the CLW Console Timeout value
- Suppressing the Sending of Reports with Zero Rows

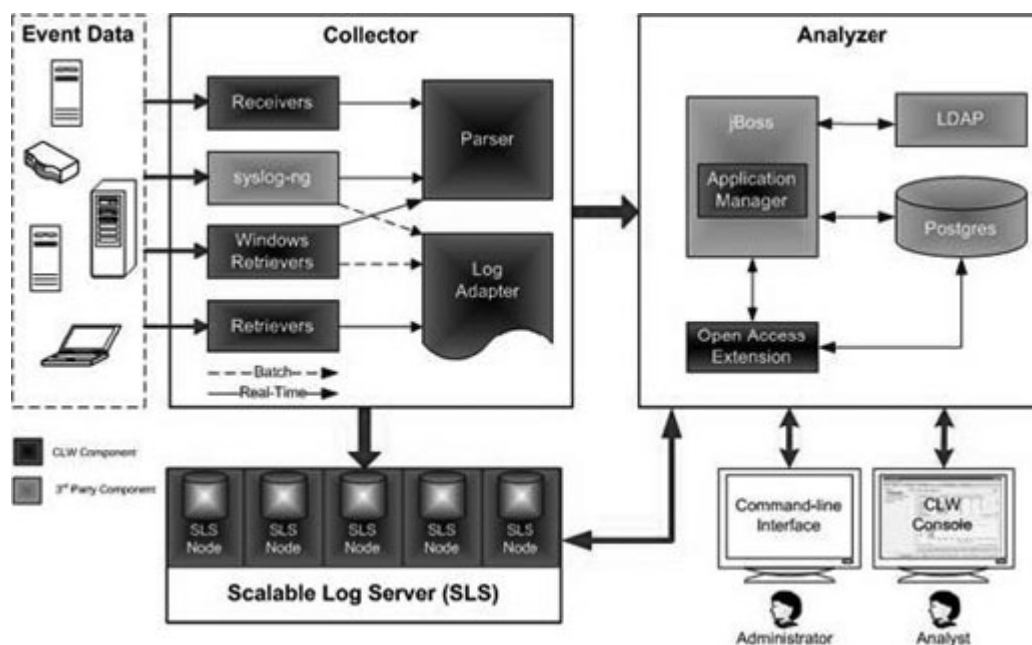
Configuration Information

Step 5 - Install Analytics: Report Packages and Log Adapters

The following steps provide an overview of this procedure:

- Installing, Importing and Installing Reports and Dashboards. This may include
 - Exporting Reports and Dashboards
 - Exporting all or subset of Reports and Dashboards
 - Importing Reports and Dashboards

HP CLW Architecture and Data Flow



Using the HP Compliance Log Warehouse

This section introduces you to the components of a CLW system and of CLW Console, the web interface that facilitates several administration tasks.

1. Overview of CLW System Administration

CLW system administrators perform the following tasks:

- **Installation and configuration**-Installation and initial configuration of your CLW software is discussed in the Compliance Log Warehouse Setup Guide.
- **Administration**-Administration tasks discussed in this manual include:
 - Configuring batch collection of event data-After basic installation, you configure CLW to collect batched event data by installing log adapters and configuring the Collector, Retrievers, and Loaders.
 - Configuring real-time modules-Optionally, you configure CLW real-time components such as Parsers and the Writer to receive and process real-time streams of event data.
 - Managing the SLS data store-As you configure CLW, you will load test data and run test queries against that data. You can also create tables, views, and column filters, manage users and permissions for data access, monitor performance, and archive or retire data.
 - Managing the SLS instance-You configure and manage clustered nodes in an SLS instance and configure nearline storage devices.
 - Manage Near-line storage-you can archive event data stored in the SLS to a variety of nearline storage devices such

Configuration Information

- as EMC Centera, NetApp Snaplock, Hitachi HCAP, Fujitsu Eternus, and Remote NFS (Network) or CIFS (Common Internet) File System.
- Manage access to CLW Console—Users open a browser and use HTTPS to access CLW Console. You configure authentication and authorization for this access and provide users with the URL to access CLW Console.
- Backing up and restoring event data and raw log files.
- Managing users, permissions and authentication—Permissions for your CLW deployment and its users must be managed carefully to limit access to information and ensure a secure environment.
- Managing the report cache—You manage the retention of cached report data.
- Network configuration—You configure network connections between CLW components and the machines or devices from which you are collecting event data.
- Monitoring system performance and source health—Your CLW software provides tools to monitor the performance of the CLW deployment and event data sources. You configure these components to issue alerts when performance is diminished or event data collection is interrupted.

2. Overview of CLW Components and Processing

A HP CLW system comprises the following core components:

- **Scalable Log Server (SLS)**—stores event data from multiple sources in a scalable and highly compressed format. Parallel processing enables clustered servers to execute as a single instance, allowing high-speed loading and querying on terabytes of data.
- **Analyzer**—is a set of services running on the head node of a CLW cluster. These services include:
 - **Application Manager**—manages reporting functions and communicates with CLW Console to display reports, alerts, and dashboards. Command-line utilities also communicate with the Application Manager to access stored data and configuration information. The Application Manager also manages report cache entries and schedules. The application manager is implemented as a set of services that run within a jBoss Application Server, which is installed and configured transparently during installation of CLW software.
 - **Open Access Extension (OAE)**—provides access to data stored in the SLS through standard database connectivity tools such as ODBC and JDBC.
 - **Postgres**—is a database that stores report cache entries, configuration data, and other run-time objects used internally by CLW. Postgres is installed and configured automatically when you install CLW software.
 - **LDAP**—provides authentication services for a CLW deployment.
- **CLW Console**—provides a rich client, system-independent user interface for monitoring, analyzing, resolving, and reporting real-time and historical event data. The console supports alert drill-down and reporting, ad-hoc querying, and scheduled reporting.
- **Collector**—pulls event data from disparate sources, uses log adapters to parse it, and loads the data into the SLS. Once data has been loaded, it is available for queries and reports through the CLW Console and the Application Manager. The Collector also manages collection of real-time, streaming data. The Collector contains the following modules:
 - **Parsers**—process streaming data from event sources in real time. Parsers use Parsing and Alerting rules written in CLW Event Processing Language (SenSage EPL) to examine the incoming data and to send alerts when the data matches patterns defined in the rules. These rules can also raise alerts based on correlation of multiple events from multiple sources. The alerts appear in the Security Alerts widget of CLW Console. You can define multiple parsers in a CLW deployment.
 - **Syslog-ng**—The Collector uses the industry-standard syslog-ng to receive event data from internal and external sources.
 - **Retrievers**—define how the Collector obtains batched event data from event sources.
 - **Receivers**—define how the Collector obtains streaming event data from event sources.
 - **Log Adapters**—define how incoming batched data is parsed and stored in the SLS.

3. Events enter in one of two ways:

- **Streaming**—events flow into the HP system as a real-time stream from network devices and software applications that publish the events. As raw event data enters the system, the appropriate Receiver receives the data and passes it to the Parser. The Parser uses the parser rule specific to the log source that recorded the event and assigns a unique ID to the data. The Parser can also use Alerting rules that correlate data from multiple sources. When incoming events match an Alerting rule's criteria, the

Configuration Information

Parser raises security alerts to the Application Manager.

The Application Manager then:

- maps security alerts to predefined organization assets
- persists the security alert in its data store
- forwards the security alert to CLW Console and to specified notification recipients by email.

CLW Console displays the security alerts and enables reports on the data. As illustrated at the top of the diagram, the Parser also sends all streamed event data to the Writer (if one is configured), which loads the data into the SLS.

Analysts can access security alerts and reports through the CLW Console, which provides powerful graphic interface.

Overview of CLW Components and Processing

To learn more about security alerts and viewing reports, see Viewing Security Alerts in Chapter 2, "Using Dashboards" and Viewing Reports in Chapter 2, "Using Dashboards" in the Reporting Guide.

- **Batched**-events are collected from log files and other event repositories maintained by network devices, operating systems, and software applications. The Collector polls a data source or repository to retrieve event data, which it loads into the SLS. The SLS makes the event data available to the Application Manager for report and alert management. Administration users can access SLS data either by using command-line interface (CLI) utilities on a Linux system or by viewing reports and alerts through the CLW Console.

Technical Specifications

HP Compliance Log Warehouse

Server product numbers	2 processor/4 core capable HP Integrity server base system with two processor modules: Configure with two 1.66 GHz/18 MB dual core 9140M processor modules In addition to two processor modules, the base system includes one power supply, 2×10/100/1000 GbE ports (supports Wake On LAN), and 8 port SAS controller.
I/O Buses and Slots	PCI-X/PCI Express combo card cage (2×Express slots with 4×333 MHz ropes, and 1×133 MHz/64 bit PCI-X)
System Memory	Memory capacity (2x 4GB DIMMs), 8GB DDR2
RAID Controller	Integrated RAID controller, SAS p400 Smart Array card
Additional power supply	2×10/100/1000 GbE ports (supports Wake On LAN)
Storage	HP Integrity 300GB 10k SAS Drive (Eight)
Removable Media Drive	HP Integrity DVD ROM drive, Slimline
Mass storage Host bus adapters	PCI 2(dual) channel Ultra320 SCSI, PCI-X
Additional Interface cards	HP StorageWorks PCIe Dual Port 4 Gb Fibre Channel adapter
Additional Interface cards	HP PCIe 4 port HP NC364T Gbit Adapter

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