CryptoAuditor™

Don't Let a Trusted Insider Become an Exploit

ssh®

CryptoAuditor™

CryptoAuditor is a centrally managed inline or virtual appliance for auditing and reviewing encrypted data and monitoring privileged users' activities in encrypted environments.

It lowers security risks, increases resiliency and enables compliance.

The Problem

Privileged users need access to critical systems, devices and data to do their jobs. Their activities are secured by protocols such as SSH, RDP and SSL. Shared accounts and encrypted communications make it difficult to know which privileged user is doing what, where and when. However, there has to be accountability and control. Every session and command must be traced to an individual and individuals should not have more access than they need to do their jobs. Finally, malicious activity must be stopped in real time. These are not just "nice to have" capabilities. Lack of accountability, control and real time response expose your organization to data breach, denial of service and compliance failures.

The Solution

CryptoAuditor is a network-based, inline traffic monitor that decrypts and records the activities of privileged users without interfering with their normal workflow. Because there are no agents to deploy, it works regardless of what devices users connect with and what they connect to.

CryptoAuditor is more than a passive monitor. It provides identity-based policy controls that limit where privileged users can go in your network and what they can do. CryptoAuditor also integrates with your DLP, IDS and SIEM systems, enabling real time detection and prevention of data loss. Here is how CryptoAuditor protects your critical assets:

- Accountability: You know exactly who the user is and what they did.
- Control: Privileged access on a "need to know, need to do" basis.
- Audit: An indexed database of privileged sessions including video replay of graphical sessions.
- Real time defense: Your SIEM, DLP and IDS gain real time visibility into encrypted sessions.
- Easy deployment: Transparency and distributed architecture enable efficient, low-cost deployment.

awsmarketplace

* Available at Amazon Web Services Marketplace

Cloud Protection
Use CryptoAuditor to monitor and control access to your public or private cloud.

Database Protection
Monitor traffic into and out of key databases. Stop data loss in real time.

Compliance
Demonstrate privileged user accountability, continuous monitoring and audit.

CryptoAuditor

How It Works

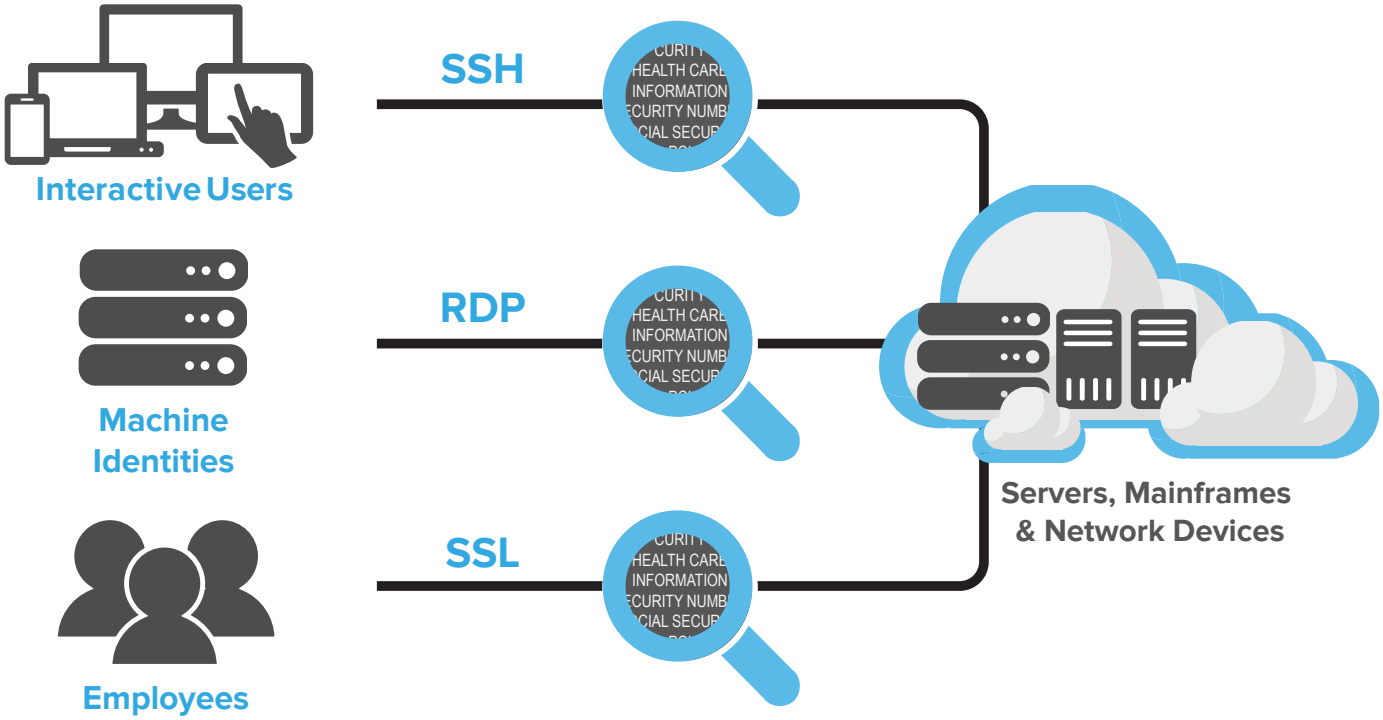
CryptoAuditor works as a trusted audit point. It decrypts, inspects, records and re-encrypts privileged user sessions in real time. Virtual appliances are deployed at key locations in the network - in front of server farms, databases and network entry points. It can be deployed in a fully transparent mode so you don't need to change end user access and login procedures. A centralized console provides unified management. Sessions are indexed and stored in an encrypted database for reporting, replay and forensic investigation.

Some of our Customers

CryptoAuditor solves diverse security challenges in the cloud and traditional data centers:

- **Cloud and Hosting Provider:** Meets the security SLAs customers demand.
- **Global Financial Services:** Protects multi-trillion dollar financial settlement services.
- **Gaming Operator:** Monitors Windows and Unix administrators.
- **Technology Company:** Prevents contractors from removing source code and designs.

CryptoAuditor
Privileged Access Monitoring



Additional Resources

www.ssh.com

White Paper | Demo | Case Study | Webinar

*Crypto*Auditor Technical Specifications

Features	Benefits
Multiple deployment modes: Bridge, Router, Bastion	Fits into diverse network topologies including VLAN based audit and policy control.
High-availability clustering for Hounds, and configurable failure-tolerance policy	Minimal downtime in event of a single Hound node failure. If a single Hound node fails, the system can recover and continue relaying new connections.
Transparent “man-in-the-middle”	No need to retrain users or provide them with new SSH keys.
Session replay, including video sessions	Straightforward audit of privileged activity.
Searchable database	Quick and easy access to recorded session information.
Encrypted storage with audit zones	Audited activity is secured from unauthorized access. Separate audit zones enable access on a need to know basis.
Monitors and records SSH, SFTP, RDP, SSL/TLS, HTTPS	Audit high value, privileged access. Comply with security mandates.
Customizable auditing policies	Focus on high value targets, activities.
Identity-based policy control with integration to directory services	Control which users can access which servers and what activities they can perform.
Distributed architecture with multiple freely-distributable Hound audit-points, and shared Vault storage.	Adapts easily to changes in network topologies and business processes, enabling fast deployment and low Total Cost of Ownership.
Integrates with SIEM, IDS, DLP, Network AV	Leverage existing security infrastructure.

Amazon Web Services EC2 Instance	Virtual Appliance
AMI image available in AWS Marketplace	• Supported platforms: VMware ESXi and MS Hyper-V • For evaluation purposes Oracle VirtualBox and VMware Workstation (no production use support)

Performance*

Throughput	• 930 Mbit/s (unaudited passthrough) • 400 Mbit/s (single encrypted SFTP connection)
Simultaneous Connections	• 3000 SSH • 300 RDP

* Performance figures with benchmark hardware.

Deployment and System Administration

High Availability	• Active-Passive redundancy (Hound) * VMware (and hardware appliance) in production use
Operation	• Transparent bridge and router modes • Non-transparent bastion mode • SOCKS proxy functionality for HTTP/HTTPS auditing
VLAN	• Supported in bridge mode
Management	• Web-based admin UI (current version of Mozilla Firefox for optimal experience) • Dedicated management interface • CLI
Administration	• On device management accounts • AD/LDAP-based management accounts • Customizable role-based administration and audit rights

*Crypto*Auditor Technical Specifications

Auditing, End-User Authentication & Authorization

Inspected Protocols	• SSH (v2), SCP, SFTP, RDP, SSL/TLS-protected TCP, HTTP/HTTPS
Audit Levels	• Metadata only • Full channels
Monitoring and Policy Control	• Rules by protocol, address, port, VLAN, or user group • Easy-to-use rule verification tool
End-User Authentication & Authorization	• On device password or SSH public key • Passthrough password or keyboard-interactive • AD/LDAP-compliant directories • RADIUS • RSA SecurID/OTP • X.509 certificate (SSH only), with PIV/CAC smart card support • HTTP REST API for user authorization
Shared account management	• Secure password and SSH key safe
Other	• OCR-based content recognition for RDP • Indexing-enabled free-text content searching

Security

Encryption	• Key Exchange: Diffie-Hellman, RSA • Host Key: RSA, DSA • Connection: AES-CTR/CBC (128-, 192-, 256-bit), 3DES-CBC, Blowfish, RC4
Data Integrity	• HMAC SHA-1 (160-bit, 96-bit) • HMAC MD5 (128-bit, 96-bit)
Compliancy	• FIPS 140-2 compliant operation through certified OpenSSL library
System Security	• All communication between Hound and Vault secured by TLS • All information stored in the Vault is encrypted with 128-bit AES • No user passwords captured and stored
Alerts and Reports	• System and connection based alerts to SIEM and syslog • Customizable e-mail reports

Third-Party Application Support

SIEM & Syslog	• IBM Security QRadar SIEM • Splunk Enterprise • RSA Security Analytics • HP ArcSight Logger • Rsyslog • Syslog-ng
IDS	• RSA Security Analytics • Bro
DLP and Network AV	• RSA Data Loss Prevention Suite • Symantec Cloud Protection Engine • McAfee Web Gateway • F-Secure Internet GateKeeper * DLP and network AV integration support through the standard ICAP protocol