# splunk>

# Splunk<sup>®</sup> User Behavior Analytics

Detect Cyber Attacks and Insider Threats – Powered by Caspida

## HIGHLIGHTS

- Improve detection of known, unknown and hidden cyber attacks and insider threats.
- Increase security analyst effectiveness by prioritizing threats and reduced false positives.
- Easy to use for SOC analysts and incident responders.

## **New Layer of Cyber Defense**

Splunk User Behavior Analytics helps organizations find known, unknown and hidden threats using machine learning, behavior baseline, peer group analytics, and advanced correlation to find lurking APTs, malware infections, and insider threats. It addresses security analysts and hunter workflows, requires minimal administration, and integrates with existing infrastructure to locate hidden threats.

## **Behavior-Based Threat Detection**

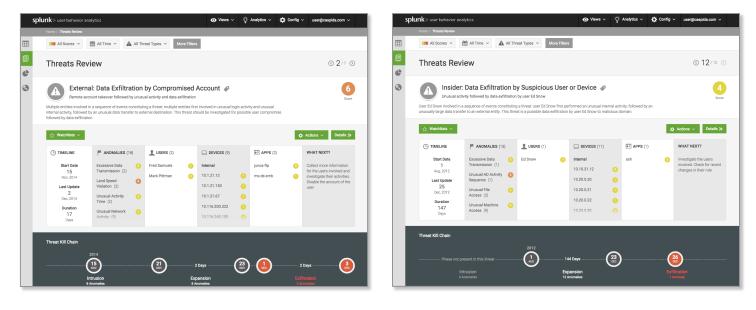
- Multi-entity behavior profiling and peer group analytics users, devices, service accounts and applications
- Threat and anomaly detection with sophisticated kill-chain visualization
- Machine learning no signatures, no human analysis

#### **Key Use Cases**

- Cyber Attack Detection
- Insider Threats
- On-line Account Takeovers

#### **Data Sources**

- Identity and Privileged User Activity: entity ID and authentication events (Active Directory, single signon, VPN, etc.), and privileged account management applications
- Activity: HTTP transactions, intra-network activities (firewall, web gateway, VMs, proxy, DPL, etc.)
- **SIEM:** existing SIEM and log management products (HP/ ArcSight, LogRhythm, IBM/QRadar, etc.)
- Hadoop Ecosystem: existing Hadoop data repositories (Cloudera, HortonWorks, etc.)
- Malware Detection: existing sandbox or dynamic analysis products (FireEye, Palo Alto Wildfire, etc.)
- External Threat Feeds: external threat feeds (FS-ISAC, Google CIF, etc.)
- **Cloud, Mobile:** mobile device events, remote application logs, AWS CloudTrail, Box, etc.
- Endpoint: application and security logs from laptops, desktops and servers
- **Custom Apps:** live event streaming via JavaScript, Java, REST, Syslog



Sample Threats Prevented				
Suspicious login activity	Privileged account abuse	Virtual machine and container breach	Data exfiltration	Unusual SaaS and remote user behavior
Rogue mobile device transmitting malware	Privileged app infiltration, data theft	AWS and cloud asset compromise	Malware CnCs or bad IP addresses	Systems infected with malware

#### Streamlined Threat Workflow

- Splunk User Behavior Analytics reduces billions of raw events to thousands of anomalies, which result in tens of threats that the security team can review and resolve quickly
- Powerful security semantics-aware machine learning algorithms, dynamic statistical methods, and correlations identify hidden threats for review
- Context, location and container aware such that security anomalies are detected and correlated into threats with low rate of false positives

#### Kill Chain Detection and Attack Vector Discovery

- Automatic identification of abnormal APT/breach activity (CnC, lateral communication, etc.) and suspicious killchains, e.g. pass-the-hash attacks
- Detection of lateral (east-west) patterns of malware or malicious insider proliferation
- Real-time flagging of anomalous activity, e.g. suspicious URL activity or land-speed violations of logins
- Behavior-based detection of device or system irregularities, e.g., VM or AWS container threat activity
- Detection of botnet or Command-and-Control activity, e.g., Trojans or polymorphic malware

#### **Threat Review and Exploration**

- Threat path sequencing, highlighting abnormal/suspicious paths and frequencies
- · Advanced correlations across models resulting in critical threat identification
- Self-learning and adaptive algorithms machine learning and statistical
- Interactive threat exploration and supporting evidence presentation

## Architecture

Splunk User Behavior Analytics is built as a platform that includes Hadoop ecosystem for scalable, cost-efficient and open data persistence. The platform is designed for real-time and large-scale event analysis, includes time-series databases and graph databases for processing and representing security connections within the network. The platform provides RESTful APIs for integrating with third-party products to ingest data automatically, as well as to drive action for remediation and prevention. The product is proven to scale over hundreds of TBs and billions of events.

#### **Deployment Options**

- On-premise VM or software
- WS and vCloud Air public cloud

## Why Behavioral Analytics from Splunk?

Machine learning, statistical profiling and other anomaly detection techniques need a foundation. A massively scalable and readily available data platform is required to support advanced analytics, one that provides users accessibility, quality and data coverage from a range of security and enterprise systems. The entire lifecycle of security operations: prevention, detection, response, mitigation, to the ongoing feedback loop, must be unified by continuous monitoring and advanced analytics to provide context-aware intelligence. The threat detection capabilities in Behavioral Analytics extend the search/ pattern/expression (rule) based approaches currently in Splunk and Splunk Enterprise Security for detecting threats.

Splunk can provide the data platform as well as the security analytics capabilities needed to allow organizations to monitor, alert, analyze, investigate, respond, share, and detect known and unknown threats regardless of organizational size or skillset.

Learn more about Splunk User Behavioral Analytics by contacting ubainfo@splunk.com.

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