# OpenText™ Behavioral Signals Analytics

**OpenText™ Behavioral Signals (formerly ArcSight Intelligence) behavioral analytics gives you a new lens through which to detect, investigate, and respond to threats that may be hiding in your enterprise—before your data is stolen.**

Using machine learning, OpenText™ Behavioral Signals distills billions of events into a prioritized list of high-quality leads to focus and accelerate the efforts of your security operations center (SOC). Behavioral Signals' machine learning models, combined with a highly intuitive user interface (UI), accelerate threat detection and investigation, drastically reducing attacker dwell time.

## Why OpenText™ Behavioral Signals

Many organizations have important assets to protect, whether it is customer information, intellectual property, critical infrastructure controls, or all of the above. Unfortunately, existing approaches to protecting these assets from advanced threats frequently fall short, leaving security teams to contend with rigid, rules-based analytics, fragmented security ecosystems, and a never-ending barrage of alerts—most of which are false alarms. Meanwhile, these teams are expected to flawlessly protect against critical threats like data exfiltration and unauthorized network access.

Behavioral Signals is uniquely positioned to find the threats that matter for enterprises with valuable data to protect, limited security or financial resources, and significant surface area to monitor. Unlike other solutions, Behavioral Signals goes beyond traditional rule and threshold based detection and instead assesses the potential risk of a user or entity in your enterprise based on mathematical probability and online unsupervised machine learning models. This approach, combined with Behavioral Signals' native big-data architecture, allows your security team to detect threats with speed and at scale.

## Detect. Investigate. Respond.


**Figure 1.** Behavioral Signals views your existing security data through a new lens in order to identify advanced threats (such as novel attacks, low and slow attacks, and insider threats) by looking for anomalous behavior. This produces high-quality threat leads, allowing your security teams to respond and remediate quickly and effectively.

Using unsupervised machine learning—a type of artificial intelligence (AI) that doesn't need pre-labeled datasets—Behavioral Signals' algorithms extract available entities (users, machines, IP addresses, servers, etc.) from within log files and observe events that involve these entities to determine expected behavior—a measurement we call "unique normal." As new information comes through the analytics process, events are evaluated

## Threat Detection Use Cases

### Insider Threat

- At-Risk employee
- High-Risk Employees
- Account Misuse
- Privilege Account Misuse
- Terminated Employee Activity

### Data Breach

- Data Staging
- Data Exfiltration
- Network Exfiltration
- USB Exfiltration
- Unusual data access
- Unusual uploads

### Advanced Threat

- Compromised Account
- Internal Recon
- Unusual Traffic
- Abnormal Processes
- Unusual Applications
- Infected Host
- Malicious Tunneling
- Bot Detection

### IP Theft

- Interactions with dormant resources/files
- High Risk IP/Data Access
- Lateral Movement

**Figure 2.** Behavioral Signals uses advanced mathematical algorithms to constantly mine billions of data points and reveal indicators of insider threats, data breaches, advanced persistent threats (APT), IP theft, and more.

against previously observed behavior to assess potential risk.

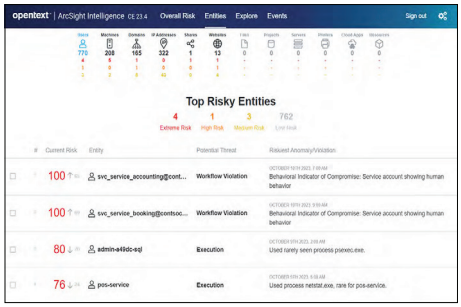
With this process of baselining and scoring, Behavioral Signals boosts the efficiency and speed at which security teams detect, triage, investigate, and respond to threats. Behavioral Signals' output risk assessments can be used to initiate actions via automation, orchestration, and alerting solutions to execute faster-than-human actions as risks are found. Behavioral Signals also provides downloadable reports summarizing immediate organizational risks.

## Viewing Risky Entities

As a security practitioner, your primary mechanism for interacting with Behavioral Signals is the intuitive, web-based dashboard. Behavioral Signals' dashboard allows users to quickly and easily determine which entities represent the greatest potential risk. As risky entities are identified, the dashboard allows you to explore a time line of events so that the potential risk can be understood in the context of the generated alerts and, if desired, the raw events that produced them. The screenshots below show a drilldown from the list of riskiest users down to the raw events.



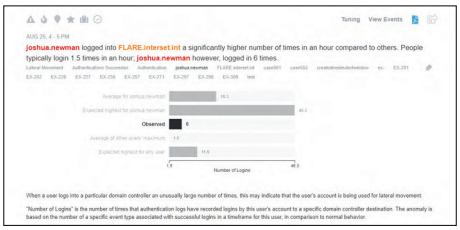
1. View all entities within the enterprise with analytics to display, grouped by entity type. The screenshot shows a list of users, with a presentation that displays them in order of risk score from highest to lowest.




2. When any entity is viewed, its risk score over time is displayed in a timeline view. This perspective shows not only the change in risk score, but also broadly characterizes the types of behavior that drove it.


3. When viewing an entity, a display of the alerts associated with the entity can be seen below the timeline view. They can be filtered by associated entities and types of risk and, because they display in chronological order linked to the timeline view, it is simple to see a narrative of the unfolding behavior in the context of other events.


4. Clicking on any of the alerts allows for examination that shows the event in context of the user's baseline and other relevant entities in the enterprise. The risk associated with the alert is displayed, and the model that triggered the alert is described in detail. Note that the user's baseline is compared to both itself, as well as to other similar entities. These similar entities are identified through statistically determined peer groups.



5. The raw events that triggered an alert are only one click away. In addition to seeing the actual contents of the log file responsible for the analytics, users have the ability to enter additional queries using this interface.

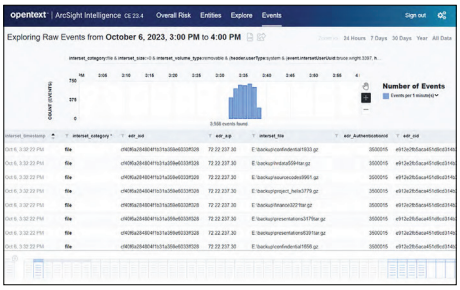



**Table 1.** Screenshots of the Behavioral Signals dashboard showing navigation through the analytical results

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