One Identity Safeguard for Privileged Sessions 6.11.0

Using Splunk with One Identity Safeguard for Privileged Sessions

Legend

WARNING: A WARNING icon highlights a potential risk of bodily injury or property damage, for which industry-standard safety precautions are advised. This icon is often associated with electrical hazards related to hardware.

CAUTION: A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

SPS Using Splunk with One Identity Safeguard for Privileged Sessions
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Contents

Introduction

This document describes how you can use the services of the One Identity Safeguard for Privileged Sessions Add-on for Splunk (the Splunk Add-on) and the One Identity Safeguard for Privileged Sessions App for Splunk (the Splunk App) to process and visualize your events from One Identity Safeguard for Privileged Sessions (SPS).

One Identity Safeguard for Privileged Sessions:

One Identity Safeguard for Privileged Sessions (SPS) controls privileged access to remote IT systems, records activities in searchable, movie-like audit trails, and prevents malicious actions. SPS is a quickly deployable enterprise device, completely independent from clients and servers — integrating seamlessly into existing networks. It captures the activity data necessary for user profiling and enables full user session drill down for forensic investigations.

SPS and Splunk Add-on / Splunk App

If you have an SPS device forwarding events to your Splunk, and you want to process and visualize these events with your own, custom dashboards, the Splunk Add-on can provide you with useful event types that you can use in your custom searches. For more information about visualizing events and customizing dashboards, see The Splunk App and Macros and search expressions.

The Splunk Add-on is an add-on for Splunk that defines useful event types for your sessions originating from SPS. For more information, see Event types.

The Splunk App creates useful dashboards to visualize your sessions audited with SPS.

Also, if you want to use your Microsoft Windows or Linux session logs for gap analysis and you have the Splunk Add-on for Microsoft Windows or the Splunk Add-on for Unix and Linux installed, the Splunk App allows you to spot potential audit gaps.

The Splunk Add-on

The Splunk Add-on is an add-on for Splunk that defines useful event types for your sessions originating from SPS. For more information, see Event types.

If you have an SPS device forwarding events to your Splunk, and you want to process and visualize these events with your own, custom dashboards, the Splunk Add-on can provide you with useful event types that you can use in your custom searches. For more information about visualizing events and customizing dashboards, see The Splunk App and Macros and search expressions.

When using SPS together with the Splunk Add-on, the events originating from SPS are parsed, indexed and labeled with tags. These tags help standardize data coming from various data sources. As a result, custom-searching in Splunk will be more effective.

Prerequisites and restrictions

- Your SPS appliance must be installed and configured to forward events to Splunk, using the **JSON-CIM** format.
- The Splunk Add-on is supported from SPS version 6.0.

Installation and configuration

To install the Splunk Add-on and configure SPS to forward events to Splunk

1. Use your favorite install method to install the app (either by searching for the One Identity Safeguard for Privileged Sessions Add-on for Splunk app on your Splunk web UI, or by navigating to the SplunkBase website and installing the app manually).
2. Configure SPS to forward events to Splunk. For detailed instructions, see "Using the universal SIEM forwarder" in the Administration Guide.

Parsing and indexing with the Splunk Add-on

If you want to search for a specific event type in your SPS index (for example, because you want to have a chart on your own dashboard about the distribution of different event types), look at the "Event type name" column in Event types to filter for the different kinds. As an example, if you would like to count the number of "`ServerConnect`" events and visualize the results on a graph, you can do so with the following search expression:

```
search index=* | stats count(eval(eventtype=oneidentity_sps_server_connect)) AS
count_server_connect BY eventtype
```

Event types

The table below lists the definitions of event types for your sessions originating from SPS and the definitions' descriptions.

Event type name	Description
`oneidentity_sps_server_connect`	ServerConnect event coming from SPS SIEM forwarder
`oneidentity_sps_session_closed`	SessionClosed event coming from SPS SIEM forwarder
`oneidentity_sps_server_authentication_success`	ServerAuthenticationSuccess event coming from SPS SIEM forwarder
`oneidentity_sps_server_authentication_failure`	ServerAuthenticationFailure event coming from SPS SIEM forwarder
`oneidentity_sps_gateway_authentication_failure`	GatewayAuthenticationFailure event coming from SPS SIEM forwarder
`oneidentity_sps_session_scored`	SessionScored event coming from SPS SIEM forwarder
`oneidentity_sps_command_channel_event`	CommandChannelEvent event coming from SPS SIEM forwarder
`oneidentity_sps_window_title_channel_event`	WindowTitleChannelEvent event coming from SPS SIEM forwarder
`oneidentity_sps_rdp_embedded_in_tsg`	RdpEmbeddedInTsg event coming from SPS SIEM forwarder
`oneidentity_sps_file_transfer`	FileTransfer event coming from SPS SIEM forwarder

The Splunk App

The One Identity Safeguard for Privileged Sessions App for Splunk creates useful dashboards to visualize your sessions audited with SPS. With this app, you can get an overview of your audited sessions and pinpoint interesting ones to be able to investigate them further. Also, if you have other sources of information about your audited hosts (for example, Microsoft Windows logs or Unix/Linux logs) as well as those originating from SPS, you can compare the two sources of information and see if all the necessary sessions are audited without audit gaps.

When used together with the Splunk App, you can customize your search with the help of your defined events and visualize your sessions originating from SPS on customized dashboards.

Prerequisites and restrictions

NOTE: It is a prerequisite to have the Splunk Add-on installed for the Splunk App to work. When you install the Splunk App, it is presumed that SPS is already configured to forward events to Splunk and Splunk already receives these forwarded events. In such a setup, all events from SPS should arrive to a separate index in Splunk (if it's not the case, fix it before installing and setting up the Splunk App).

- If you want to use your Microsoft Windows or Unix / Linux session logs for gap analysis (see Visualizing events and performing gap analysis with the Splunk App), you need to have the Splunk Add-on for Microsoft Windows or the Splunk Add-on for Unix and Linux installed.
- The Splunk App is supported from SPS version 6.0.

Installation and setup

To install and setup the Splunk App

1. Use your favorite install method to install the app (either by searching for the One Identity Safeguard for Privileged Sessions App for Splunk app on your Splunk web UI, or by navigating to the SplunkBase website and installing the the app manually).
2. On the setup page of the Splunk App, provide the name of the index into which the SPS events will be arriving.
3. (Optional) If such an index does not exist yet and you want to configure forwarding later, just specify an index name of your choice and the Splunk App will create the index for you. In this case, pay attention to forward the events into this index later, when configuring forwarding from SPS.
4. There is another index you can specify, which will be the origin of data coming from logs. You can use this app to spot "audit gaps" (that is, unaudited sessions), but for that to work, you need logs from the hosts directly.
5. (Optional) If you already have forwarders set up to forward logs from your hosts to Splunk, specify the name of the index for the app into which the logs are forwarded.

Visualizing events and performing gap analysis with the Splunk App

Prerequisites and restrictions

- To visualize events from SPS, you must have your SPS configured to forward events to Splunk and the Splunk Add-on installed.
- To use the gap analysis function, you must have the Splunk App and the Splunk Add-on for Microsoft Windows or the Splunk Add-on for Unix and Linux installed.

Installation

For information about the setup process, see The Splunk App.

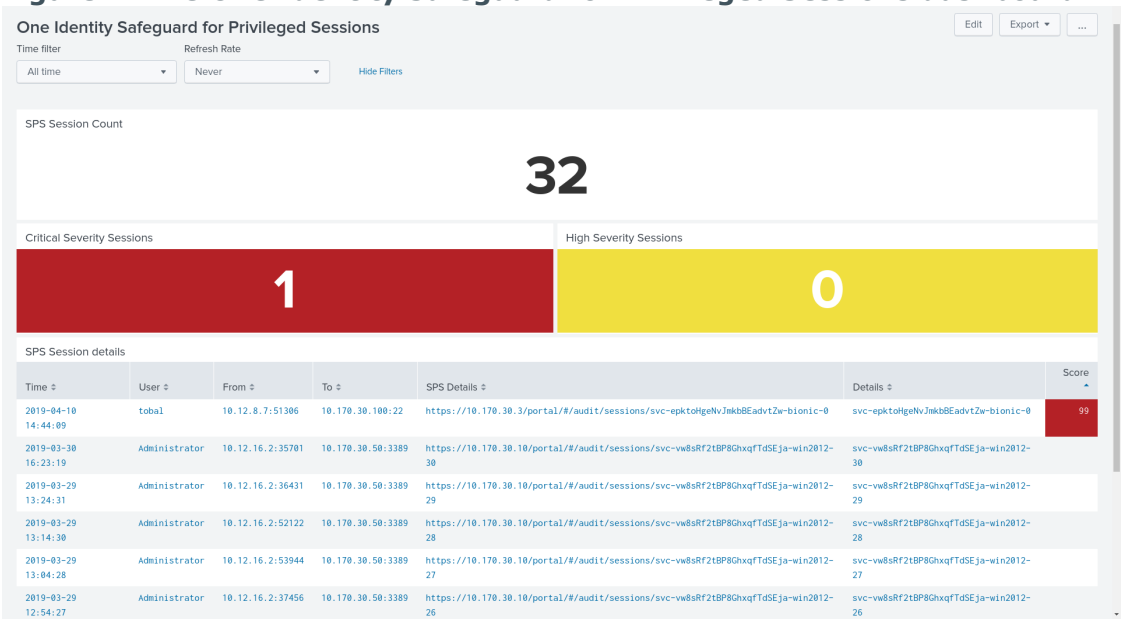
Visualizing events using the One Identity Safeguard for Privileged Sessions dashboard

The One Identity Safeguard for Privileged Sessions dashboard visualizes data from SPS (including your events parsed and indexed by the Splunk Add-on and the metadata that the Splunk Add-on attaches to those events).

To access the One Identity Safeguard for Privileged Sessions dashboard

1. Login to the Splunk Enterprise online administration page.
2. Select **One Identity Safeguard for Privileged Sessions** under **Apps**.

Figure 1: The One Identity Safeguard for Privileged Sessions dashboard



The top filters bar allows you to configure your filters, the middle section shows an overview of logged sessions, and the lower section shows a more detailed list of audited sessions.

Under **Time filter** you can set a time interval in which you want to browse your data, and configure relevant settings. Under **Refresh Rate** you can specify a refresh rate (if you want to). To hide the **Time filter** and **Refresh Rate** items, click **Hide Filters/Show Filters**.

Below the filters bar, you see the details of logged sessions (such as **SPS Session Count**, the number of **Critical Severity Sessions**, and the number of **High Severity Sessions**) in the given time range.

The listed elements below **SPS Session details** show the audited sessions.

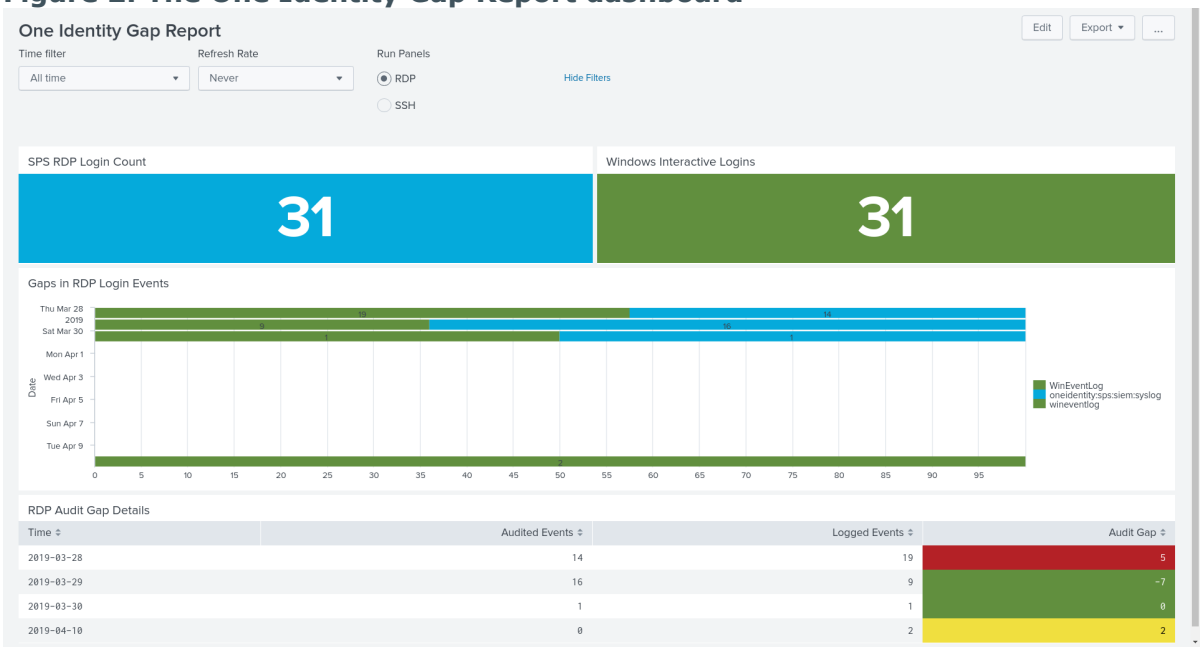
The One Identity Gap Report dashboard

The One Identity Gap Report dashboard allows you to use other sources of information about your audited hosts (for example, Microsoft Windows logs or Unix/Linux logs) as well as those originating from SPS to compare the two sources of information and see if all the necessary sessions are audited without audit gaps

To access the One Identity Gap Report dashboard

1. Login to the Splunk Enterprise online administration page.
2. Select **One Identity Safeguard for Privileged Sessions** under **Apps**.
3. Click **One Identity Gap Report** on the top tab bar to switch from the the **One Identity Safeguard for Privileged Sessions** dashboard.

Figure 2: The One Identity Gap Report dashboard



The top filters bar allows you to configure your filters and whether you want to visualize your RDP or your SSH sessions, the middle section shows an overview of logged sessions, and the lower section shows a more detailed list of unaudited sessions.

You can set a time interval in which you want to browse your data, and configure relevant settings under the **Time filter**. Under **Refresh Rate** you can specify a refresh rate (if you want to). The **Run Panels** option allows you to switch between RDP and SSH sessions. To hide the **Time filter**and **Refresh Rate** items, click the **Hide Filters/Show Filters**.

Below the filters bar, you see the number of audited sessions (under **SPS RDP Login Count**), and the number of logged sessions (under **Windows Interactive Logins**) in the given time range.

Under **Gaps in RDP Login Events**, a bar chart shows the proportion between audited and logged sessions, by day.

Under **RDP Audit Gap Details**, you can see the specific data (such as **Time** (for the audit gap date), the number of **Audited Events**, the number of **Logged Events** and the number of unaudited sessions, under **Audit Gap**), grouped by day.

Macros and search expressions

If you have the Splunk App installed on your Splunk, but want to build your own custom dashboard, you can use the event types and macros defined by the app. The events originating from SPS are CIM-compliant (specifically, they use the Network Sessions, the Network Traffic and the Intrusion Detection data models), so the field names will be familiar. For more information about Splunk's Search Tutorial, click here.

Macros

The table below lists macros defined by the Splunk App and their descriptions.

Macro name	Description
`OI_SPS_events`	Individual events coming from SPS
`OI_SPS_sessions`	Sessions audited by SPS (events correlated into full sessions)
`OI_SPS_monitored_hosts`	Hosts monitored by SPS
`OI_SPS_scored_sessions`	Sessions audited by SPS which have a score given by SPS analytics
`OI_SSH_logins`	All SSH sessions coming from SPS
`OI_WIN_interactive_logins`	All windows interactive logins audited by SPS

Useful search expressions for SPS-specific events

The macros listed in the Macros section can be used to narrow your search in Splunk for SPS-specific events. You can see a few useful search expressions below.

- **example_user was on server 1.2.3.4**

  ```
  `OI_SPS_events` tag=authentication dest_ip=1.2.3.4 user=example_user
  ```

- **List users logged onto server 1.2.3.4**

  ```
  `OI_SPS_events` tag=authentication dest_ip=1.2.3.4 | table user | uniq
  ```

- **Get ID of all sessions with rm command**

  ```
  `OI_SPS_events` eventtype=oneidentity_sps_command_channel_event command=rm | table session_id | uniq
  ```

- **Get ID of sessions with a score higher than 70**

  ```
  `OI_SPS_events` aggregated_score>70 | table session_id | uniq
  ```

About us

One Identity solutions eliminate the complexities and time-consuming processes often required to govern identities, manage privileged accounts and control access. Our solutions enhance business agility while addressing your IAM challenges with on-premises, cloud and hybrid environments.

Contacting us

For sales and other inquiries, such as licensing, support, and renewals, visit https://www.oneidentity.com/company/contact-us.aspx.

Technical support resources

Technical support is available to One Identity customers with a valid maintenance contract and customers who have trial versions. You can access the Support Portal at https://support.oneidentity.com/.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request
- View Knowledge Base articles
- Sign up for product notifications
- Download software and technical documentation
- View how-to videos at www.YouTube.com/OneIdentity
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product