

Lab Exercise 10: Tags and Event Types

Description

This lab exercise walks you through the steps to create tags and event types.

Steps

Scenario: The IT Operations team needs to monitor failed login attempts made with any variation of admin/administrator user accounts to their network devices. To avoid lengthy searches, include all events with these user accounts and create tags.

Task 1: Create tags to identify all admin accounts.

1. Run a search over the **Last 24 hours** for all failed login attempts for any variation of the user *admin* under the security index. You should see the following five users: admin, administrator, sysadmin, itmadmin, and sapadmin.

`index=security failed user=*admin*`

NOTE: Only trailing wildcards make efficient use of indexes. For that reason, it's generally a best practice *not* to use wildcards at the beginning of a string, as such searches have to scan all events within the specified time frame. However, doing a search with a wildcard at the beginning of a string is *possible* and sometimes necessary in particular scenarios. Be advised, however, that such searches are inefficient and, in general, should be avoided.

2. Expand an event and find the row for the **user** field. Click the **down arrow** under the **Actions** column and select **Edit Tags**.

Example:

Type	Field	Value	Actions
Selected	<input checked="" type="checkbox"/> host	www2	▼
	<input checked="" type="checkbox"/> source	/opt/log/www2/secure.log	▼
	<input checked="" type="checkbox"/> sourcetype	linux_secure	▼
	<input checked="" type="checkbox"/> action	failure(failure)	▼
Event	<input type="checkbox"/> app	sshd	▼
	<input type="checkbox"/> dest	www2	▼
	<input type="checkbox"/> eventtype	errOr(error)	▼
		failed_login	▼
		nix-all-logs	▼
		nix_errors(error)	▼
		nix_security(os unix)	▼
		sshd_authentication(authentication remote)	▼
	<input type="checkbox"/> pid	1698	▼
	<input type="checkbox"/> port	2277	▼
	<input type="checkbox"/> process	sshd	▼
	<input type="checkbox"/> src	76.169.7.252	▼
	<input type="checkbox"/> src_ip	76.169.7.252	▼
	<input type="checkbox"/> src_port	2277	▼
	<input type="checkbox"/> sshd_protocol	ssh2	▼
	<input type="checkbox"/> tag	authentication	▼
		error	▼
		failure	▼
		os	▼
		remote	▼
		unix	▼
	<input type="checkbox"/> user	sapadmin	▼

Edit Tags

3. In the **Tag(s)** field, type **privileged_user** and click **Save**.
4. Create tags for each variation of the user *admin* (admin, administrator, sysadmin, itmadmin, and sapadmin). You can create the subsequent tags the same way you created the first one, from the Events tab of the search results. Alternatively, you can also create the subsequent tags by going to the **Settings > Tags > List by tag name** screen, choosing the newly created **privileged_user** tag, adding the other four types of admins, and clicking **Save**.
5. Run the search again and check to see that the privileged_user tag was created.
`index=security failed user=*admin*`
6. If it isn't already, add **tag** to your list of Selected Fields.

Results Example:

< Hide Fields

All Fields

SELECTED FIELDS

a host 4

a source 4

a sourcetype 1

a tag 7

INTERESTING FIELDS

a action 1

a app 1

date_hour 24

date_mday 2

date_minute 60

a date_month 1

date_second 60

a date_wday 2

tag

7 Values, 100% of events

Selected

Yes

No

Reports

Top values

Top values by time

Rare values

Events with this field

Values	Count	%	
authentication	553	100%	
error	553	100%	
failure	553	100%	
os	553	100%	
remote	553	100%	
unix	553	100%	
privileged_user	210	37.975%	

Task 2: Use tags in a search.

7. Search for all failed login attempts by privileged user accounts for the **Last 7 days**. You should see the following five users: admin, administrator, sysadmin, itmadmin, sapadmin
`index=security failed tag=privileged_user`

Scenario: Customers are reporting issues trying to purchase items from the Buttercup Games online store and internal users get errors trying to access the internet. IT Ops wants an easy way to determine if there is any correlation when both systems encounter problems.

Task 3: Create an event type for status errors greater than 500 on web servers/devices.

8. Search for all online sales and Web security appliance data with status error codes greater than 500 in the **last 7 days**.
`(index=web sourcetype=access_combined) OR (index=network sourcetype=cisco_wsa_squid status>500)`

- Results Example:*

NOTE: Depending upon add-ons or apps you have installed, additional event types may be displayed.