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.
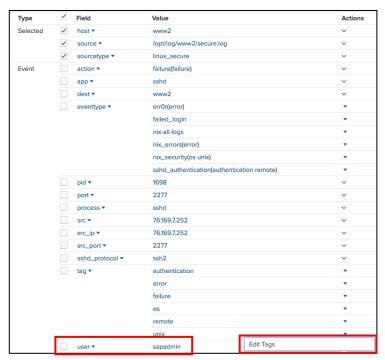
    index=security failed user=*admin*

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**.
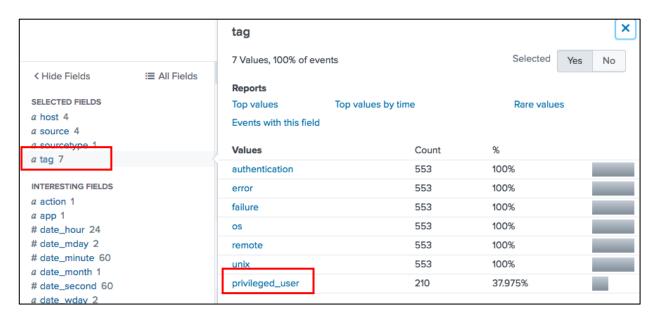
Example:

Type	✔	Field	Value	Actions
Selected	✔	host ▾	www2	⌄
	✔	source ▾	/opt/log/www2/secure.log	⌄
	✔	sourcetype ▾	linux_secure	⌄
Event	☐	action ▾	failure(failure)	⌄
	☐	app ▾	sshd	⌄
	☐	dest ▾	www2	⌄
	☐	eventtype ▾	err0r(error)	▾
			failed_login	▾
			nix-all-logs	▾
			nix_errors(error)	▾
			nix_security(os unix)	▾
			sshd_authentication(authentication remote)	▾
	☐	pid ▾	1698	⌄
	☐	port ▾	2277	⌄
	☐	process ▾	sshd	⌄
	☐	src ▾	76.169.7.252	⌄
	☐	src_ip ▾	76.169.7.252	⌄
	☐	src_port ▾	2277	⌄
	☐	sshd_protocol ▾	ssh2	⌄
	☐	tag ▾	authentication	▾
			error	▾
			failure	▾
			os	▾
			remote	▾
			unix	▾
	☐	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:

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%	

< 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

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.
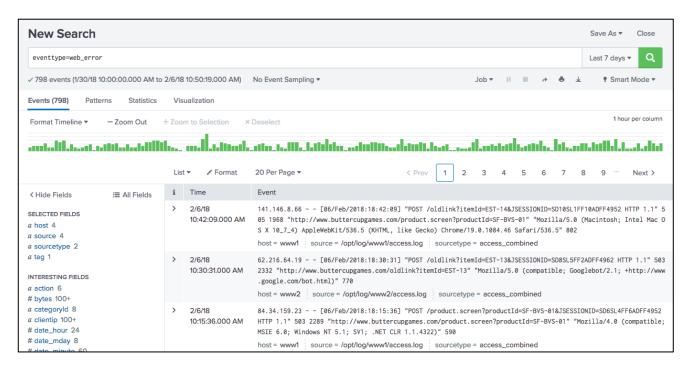
8. Search for all online sales and Web security appliance data with status error codes greater than 500 in the **last 7 days.**

   (index=web sourcetype=access_combined) OR (index=network sourcetype=cisco_wsa_squid) status > 500

9. Select Save As > Event Type.

10. Name your event type: **web_error**

11. Leave the **Priority** set to 1 (Highest).

12. Click **Save**.

13. Perform a search for the web_error event type for the **Last 7 days**.

14. Expand an event and click the checkbox next to **eventtype** to add it to the Selected fields.

15. How many sourcetypes are returned?

Results Example:

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