

**USER GUIDE
TO
INSTALL AND SET-UP
AUTHENTIC8
SPLUNK ADD-ON**

REVISION HISTORY

Version	Date	Author	Summary
1.0	1-Jul-2020	Divya Pandia	Initial Draft

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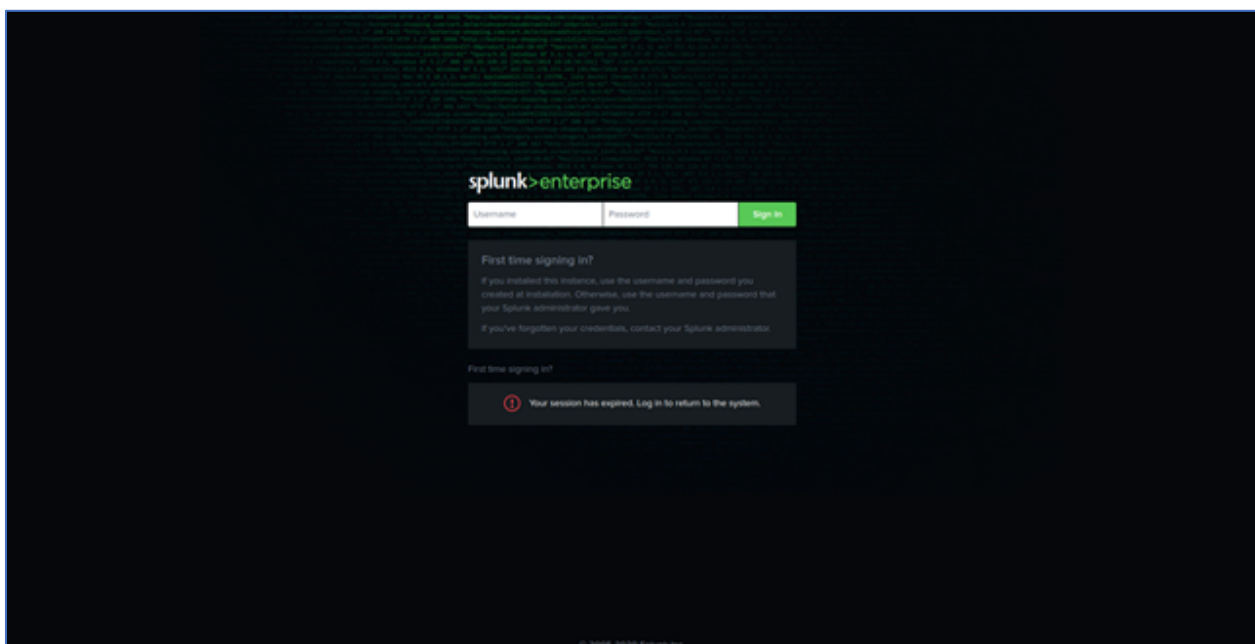
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1. INTRODUCTION

This User Guide is designed to provide documentation for anyone who needs to install and set-up Authentic8 add-on in Splunk. This guide provides you with all the details needed to successfully setup the Splunk Addon on a local Splunk Enterprise 8.x instance and will also provide a quick overview of the Splunk addon.

2. PRE-REQUISITES

- 2.1 Prior to the install and setup of Splunk Addon of Authenticate8 you will need to have access to an instance Splunk Enterprise 8.x or above as an administrator. Please follow the instructions as provided by Splunk for the installation of Splunk Enterprise 8.x or above.
- 2.2 To be able to view the CIM visualizations, the CIM package needs to be installed from the following link: <https://splunkbase.splunk.com/app/1621/#/overview> .
- 2.3 In order to successfully access Splunk for installing the addon, you must have the administrator credentials of the Splunk Enterprise 8.x local instance. Below is a typical screenshot of the Splunk Enterprise login page.

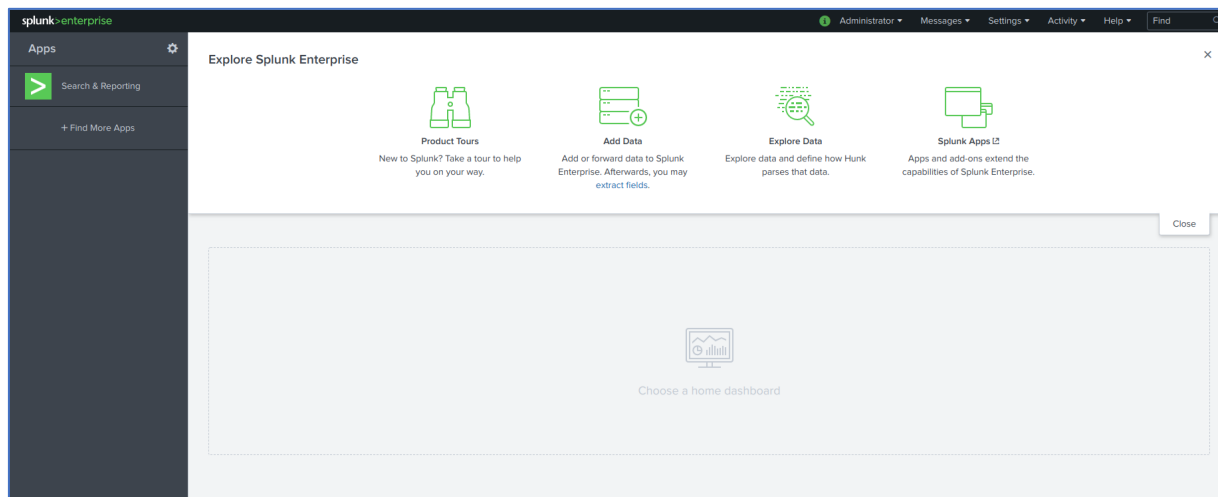


- 2.4 There are few libraries should be installed in the linux environment where the Splunk instance has been deployed and below are the commands to install them using the root user.

- `sudo apt-get install libgmp-dev`
- `sudo apt-get install libmpfr-dev`
- `sudo apt-get install libmpc-dev`

3. INSTALL AUTHENTIC8 ADDON

- 3.1 Login with your administrator credentials into the Splunk enterprise and you will be navigated to the dashboard page as shown below.



- 3.2 On the dashboard screen on the left top corner click on the settings icon and you will be navigated to the Manage Apps screen. On the page you will notice a few Splunk apps already installed by default as shown in the figure below.

splunk-enterprise Apps

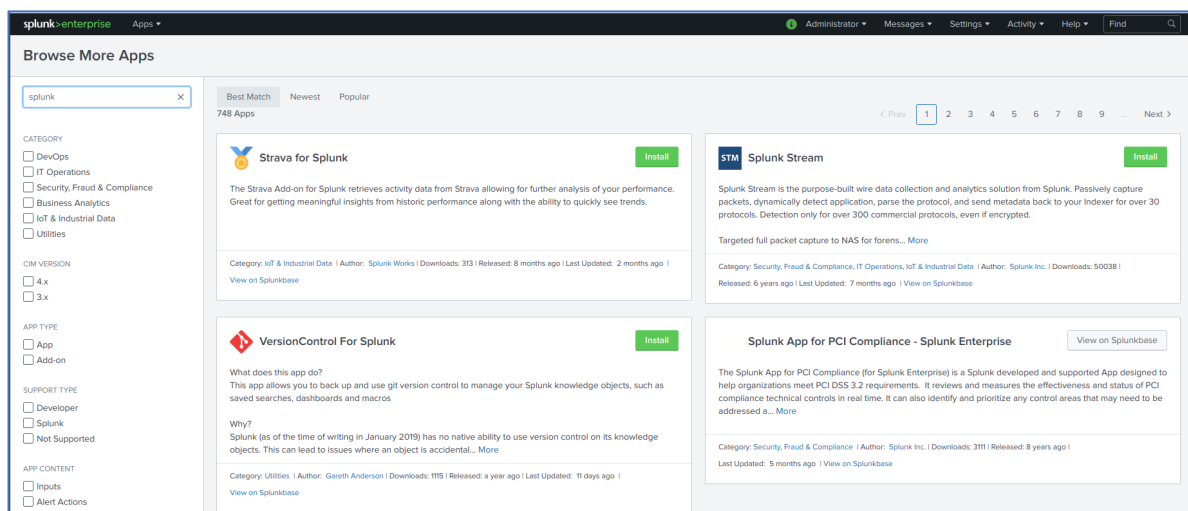
Showing 1-18 of 18 items

filter

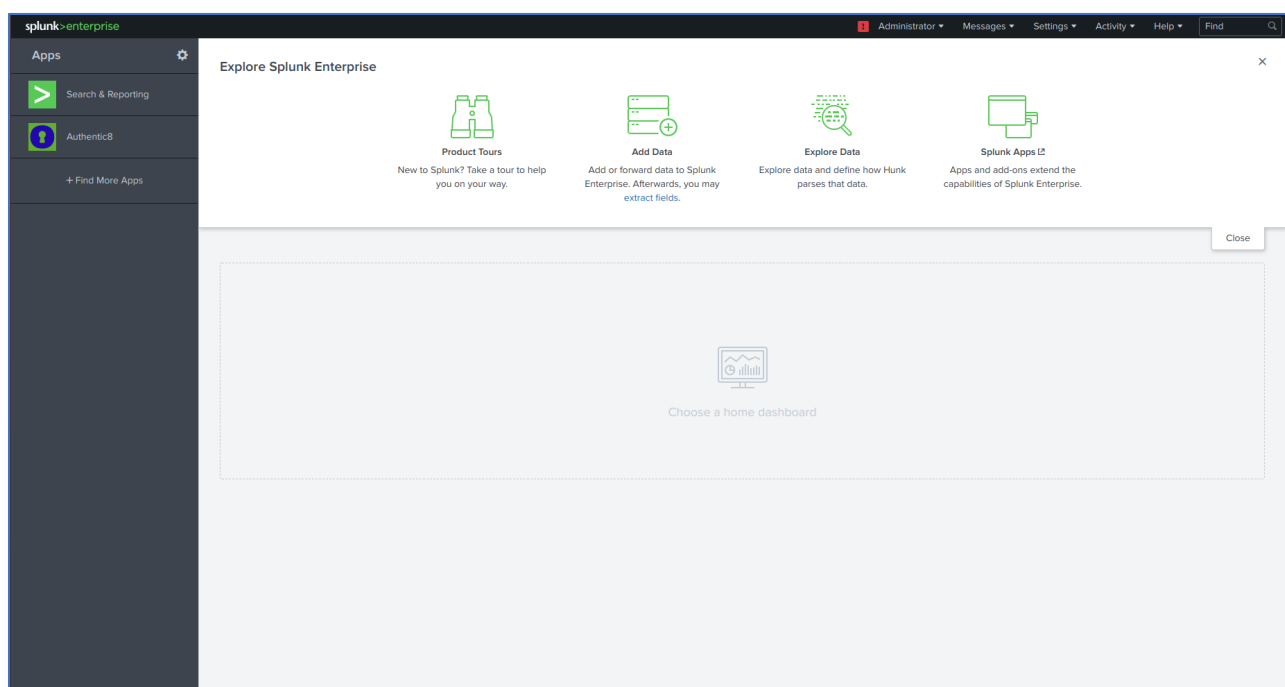
25 per page

Name	Folder name	Version	Update checking	Visible	Sharing	Status	Actions
SplunkForwarder	SplunkForwarder		Yes	No	App Permissions	Disabled Enable	
SplunkLightForwarder	SplunkLightForwarder		Yes	No	App Permissions	Disabled Enable	
Log Event Alert Action	alert_logevent	8.0.41	Yes	No	App Permissions	Enabled Disable	Edit properties View objects
Webhook Alert Action	alert_webhook	8.0.41	Yes	No	App Permissions	Enabled Disable	Edit properties View objects
Apps Browser	appsbrowser	8.0.41	Yes	No	App Permissions	Enabled	Edit properties View objects
Introspection generator addon	introspection_generator_addon	8.0.41	Yes	No	App Permissions	Enabled Disable	Edit properties View objects
Home	launcher		Yes	Yes	App Permissions	Enabled	Launch app Edit properties View objects
learned	learned		Yes	No	App Permissions	Enabled Disable	Edit properties View objects
legacy	legacy		Yes	No	App Permissions	Disabled Enable	
sample data	sample_app		Yes	No	App Permissions	Disabled Enable	
Search & Reporting	search	8.0.41	Yes	Yes	App Permissions	Enabled	Launch app Edit properties View objects
Splunk Archiver App	splunk_archiver	1.0	Yes	No	App Permissions	Enabled Disable	Edit properties View objects View details on Splunkbase
Splunk Get Data In	splunk_gdi	1.0.2	Yes	No	App Permissions	Enabled	Edit properties View objects
splunk_httpinput	splunk_httpinput		Yes	No	App Permissions	Enabled Disable	Edit properties View objects
Instrumentation	splunk_instrumentation	5.014	Yes	Yes	App Permissions	Enabled	Launch app Edit properties View objects
Clones Internal Metrics into Metrics Index	splunk_internal_metrics		Yes	No	App Permissions	Enabled Disable	Edit properties View objects
Splunk Analytics Workspace	splunk_metrics_workspace	1.2.17	Yes	Yes	App Permissions	Enabled Disable	Launch app Edit properties View objects
Monitoring Console	splunk_monitoring_console	8.0.41	Yes	Yes	App Permissions	Enabled Disable	Launch app Edit properties View objects

- 3.3 Click on the Browse more apps button on the top right corner of the dashboard screen to navigate to the Splunk Marketplace, where we will search for the authentic8 addon from the search bar of the top left of the screen as shown in the figure below. Once you can see the Authentic8 addon you can install the addon to add it to your Splunk instance.



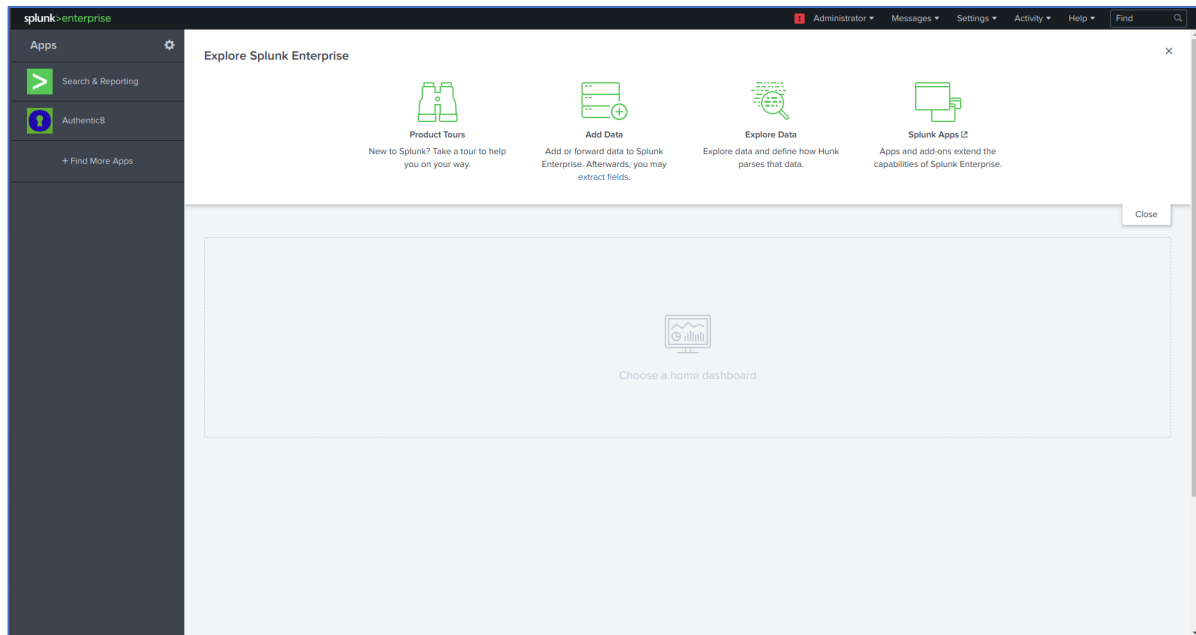
- 3.4 After the install you will be taken back to the dashboard screen with the list of apps and you should now be able to see Authentic8 listed as one of the apps on the Splunk instance as depicted in the figure below.



4. CONFIGURE AUTHENTIC8 ADDON

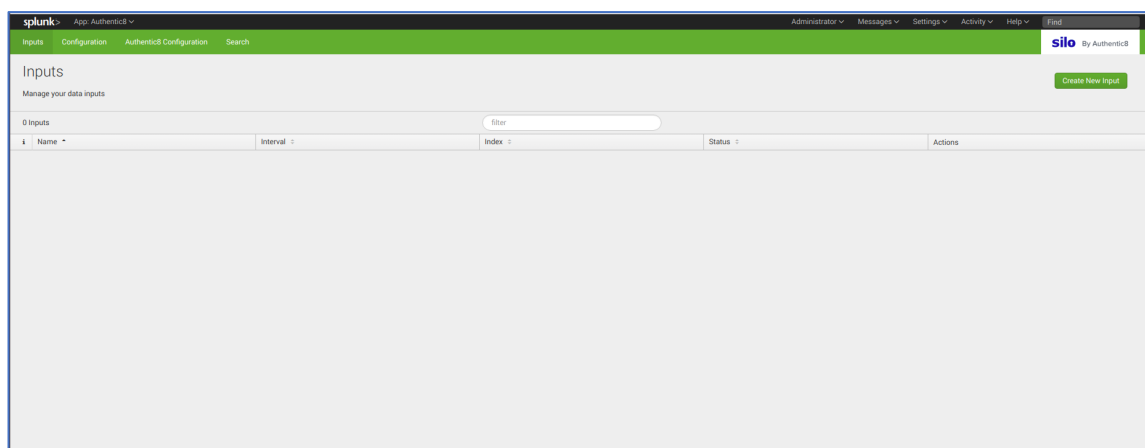
4.1 Verify Authentic8 Addon installed:

Login into the Splunk instance and you should be able to see Authentic 8 addon listed as apps on your left pane as shown in the figure below.



4.2 Configure inputs for the Authentic8 addon:

4.2.1 When you click on the addon you will be navigated to the configurations screen as shown below. Here you can configure the Authentic8 addon



- 4.2.2 The first step in configuring the addon is to Create New Input, by clicking on the button in the top right corner. This will open the configuration screen for the user to Add a new configuration for the addon.

The screenshot shows the Splunk web interface with the 'Add Authentic8' dialog box open. The dialog box contains the following fields and options:

- Name ***: A text input field with a placeholder 'Enter a unique name for the data input'.
- Interval ***: A text input field with a placeholder 'Time interval of input in seconds'.
- Index ***: A dropdown menu with 'default' selected.
- Authentic8 API URL ***: A text input field with the placeholder 'https://extapi.authentic8.com/api/' and a note 'Please enter Authentic8 api url'.
- API Key ***: A text input field with a placeholder 'Please enter auth token for authentic8 api' and a password icon.
- Organization Name ***: A text input field with a placeholder 'Please enter your organization name'.
- Log Type**: A dropdown menu with 'all' selected and a note 'Please enter the log types which you want to fetch by default it will fetch all if you want any particular logs to fetched provide the name of login case of a single log or with comma separated'.

Buttons for 'Cancel' and 'Add' are at the bottom of the dialog. In the background, the Splunk interface shows the 'Inputs' section with a 'Create New Input' button in the top right corner.

The configuration screen consists of the following fields:

Field Name	Description
Name	The user needs to provide a name for the input. (Any name can be entered here)
Interval	User need to provide the interval after which the data will be pulled to Splunk. (For example, if 100 is given, after every 100 seconds, data will be pulled in Splunk.)
Index	Splunk has an index feature. The log types which will be retrieved in Splunk saves against an index. The index is set to default.
Authentic8 API URL	User need to provide the API URL which fetches the log types from Silo Browser. The default string is 'https://extapi.authentic8.com/api/'. It is preferred to use https URL only.
API Key	User need to provide the API Key provided by Authentic8 to authorise the user for retrieving log data via the API.
Organization Name	User need to provide their organization name as set in the Silo system from which the log types are to be retrieved.
Log type	<p>User need to provide the log type which needs to be retrieved from Silo system (Individual log types, multiple log types separated by comma can be provided and 'ALL' value is to fetch all the log types)</p> <p>Supported Log types values: URL, EXPLOIT, DOWNLOAD, UPLOAD, POSTDATA, ENC, COOKIES, ADMIN_AUDIT, BLOCKED_URL, TRANSLATION, A8SS, AUTH, PRINT, LOCATION_CHANGE, HARVEST and ALL</p>

The screenshot shows the 'Add Authentic8' dialog box in the Splunk interface. The dialog has the following fields and values:

- Name ***: TestEncrypted
- Interval ***: 200
- Index ***: default
- Authentic8 Api Url ***: https://testapi-eng.authentic8.com/api/
- Api Key ***: [Redacted]
- Organization Name ***: Sacumen - Eng
- Log Type**: ENQ

At the bottom of the dialog are 'Cancel' and 'Add' buttons.

4.2.3 Once the input is created it is enabled by default. Only for the first time the input is created, it will retrieve log types for the last 90 days per the earlier configurations. We can create multiple inputs for the same addon and the other inputs will retrieve data based on the sequence id already retrieved by the addon.. Each of the inputs have a few operations that can be performed.

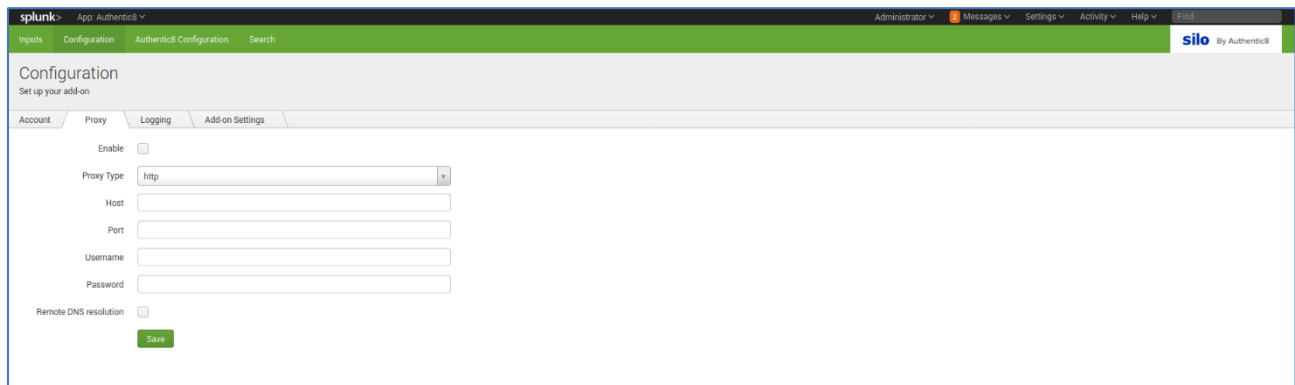
- User can click on “Edit” to edit the input.
- User can click on “Delete” to delete the input.
- User can click on “Disable” to disable the input. This will restrict the log types to be added to Splunk.
- User can click on “Clone” to create a duplicate input.

The screenshot shows the 'Inputs' table in the Splunk interface. The table has the following columns: Name, Interval, Index, Status, and Actions. There is one input named 'TestEncrypted' with an interval of 200, index of default, and status of Enabled. A context menu is open over the 'TestEncrypted' row, showing the following options: Edit, Delete, Disable, and Clone.

Name	Interval	Index	Status	Actions
TestEncrypted	200	default	Enabled	Edit Delete Disable Clone

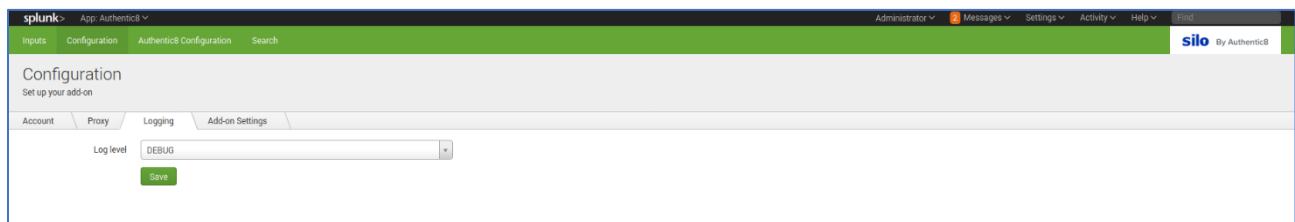
4.3 Configuring settings

4.3.1 User needs to navigate to Configuration tab to provide additional configuration on Proxy settings if proxy is being used.



The screenshot shows the Splunk web interface with the 'Configuration' tab selected. The 'Proxy' sub-tab is active, displaying a form to configure proxy settings. The form includes an 'Enable' checkbox, a 'Proxy Type' dropdown menu (currently set to 'http'), and input fields for 'Host', 'Port', 'Username', and 'Password'. There is also a 'Remote DNS resolution' checkbox and a 'Save' button at the bottom.

4.3.2 User needs to changing the logging level to enable a higher level of logging as required in the Splunk instance.



The screenshot shows the Splunk web interface with the 'Configuration' tab selected. The 'Logging' sub-tab is active, displaying a form to configure logging settings. The form includes a 'Log level' dropdown menu (currently set to 'DEBUG') and a 'Save' button at the bottom.

4.3.3 The Account tab and the Addon configuration tab are blank as there is no other configuration required.

4.4 Configuring Encryption keys for Encrypted log type

4.4.1 When the user navigates to the 'Authentic8 configuration' tab, the user will be presented with an option to add multiple key name and private key the addon can use for decryption of encrypted log types depending on the configuration in the Silo system.

Field /button name	Description
Key Name	User need to enter the Key Name (same as entered in Silo Browser).
Private Key	User need to enter the Private Key (same as entered in Silo Browser).
Add button	Enables addition of the Key Name and Private Key for an Organization for the addon to decrypt encrypted log types.
Edit button	User can edit the already created key name / private key entry to rectify any errors while entering the values

Delete button	User can delete an already existing key name/ private key combination in the configuration as it might have expired.
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If the organization in the silo system is encrypted and the key name /private key combination is not provided the addon will not be able to decrypt the data received from the Silo system.

4.5 Verifying on the search tab

4.5.1 Navigate to the search tab and user should be able to see log type events being retrieved from the Silo System. This confirms that the configuration and addon is setup and working.

5. ANALYSE LOGTYPES IN SPLUNK

5.1 We can check the log types by adding “source=”authentic8” in the search box. We can see the data of all time and different time frames by selecting the pop-up as shown in the figure below.

The screenshot shows the Splunk Enterprise interface with the search bar containing 'source=authentic8'. The search results show two events. A pop-up menu is open, displaying various time range and format options.

REAL TIME	RELATIVE	OTHER
30 second window	Today	Last 15 minutes
1 minute window	Week to date	Last 60 minutes
5 minute window	Business week to date	Last 4 hours
30 minute window	Month to date	Last 24 hours
1 hour window	Year to date	Last 7 days
All time (real-time)	Yesterday	Last 30 days
	Previous week	
	Previous business week	
	Previous month	
	Previous year	

5.2 We can also search a log type by adding to the search tab type= “URL” as shown in the figure below.

The screenshot shows the Splunk Enterprise interface with the search bar containing 'source=authentic8 type=URL'. The search results show a single event with detailed log data.

```

[{"_source": "www.google.com", "create_ts": 159384588.196112, "domain": "www.google.com", "headers": "Host: www.google.com\nUser-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:60.0) Gecko/20100101 Firefox/60.0\nAccept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8\nAccept-Language: en-US,en;q=0.5\nAccept-Encoding: gzip, deflate, br\nConnection: keep-alive\nUpgrade-Insecure-Requests: 1\n\nhttp_method: GET\norg_id: 83def530211deb2a6c94bd3b41e74b8c\nport: 443\nresponse_headers: content-type: text/html; charset=UTF-8\ndate: Thu, 25 Jun 2020 11:29:46 GMT\nexpires: -1\nCache-Control: private, max-age=0\nstrict-transport-security: max-age=31536000\np3p: CP=\"This is not a P3P policy! See g.co/p3phelp for more info.\" content-encoding: br\nserver: gws\nx-ssr-protection: 0\nx-frame-options: SAMEORIGIN\nalt-svc: h3-27=\"443\"; ma=2592000, h3-1050=\"443\"; ma=2592000, h3-Q050=\"443\"; ma=2592000, h3-Q046=\"443\"; ma=2592000, h3-Q043=\"443\"; ma=2592000, quic=\"443\"; ma=2592000;\nv=46,43\"\nx-firefox-spdy: h2"}]
  
```

- 5.3 The Authentic8 addon has mapped some of the fields of the log types to the Splunk Common information model (CIM) in order to provide for visualizations on the log data.

