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# Level up Your Response Actions:

Hands-on Building Splunk® SOAR Apps  
Using the Splunk® SOAR App Wizard  
SEC1332C

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# Scott McCarthy

SOAR Technical Team Lead  
National Grid



**We want to  
automate, but  
we can't.**



# Introduction and Purpose

- 1) Build custom SOAR app
- 2) Ingest paginated data from an authenticated REST API source
- 3) POST data to an authenticated REST API source
- 4) Understand the basics of app development inside SOAR



# Getting introduced to the Splunk® SOAR App Dev Process



# Splunk® SOAR app architecture

**Playbooks** trigger **Actions** on the App



Playbooks

Apps

Devices / Services

# Splunk<sup>®</sup> SOAR app components

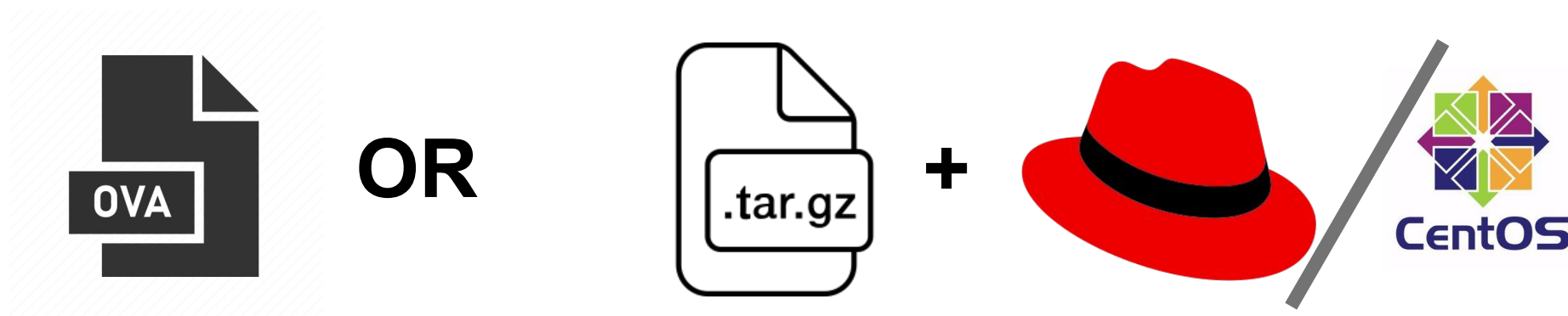
A Splunk<sup>®</sup> SOAR app consists of a number of components.

| Component                           | Description  |
|-------------------------------------|--|
| <code>__init__.py</code>            | Required to initialize and define a Python package. You can use an empty file.   |
| <code>sampleapp.json</code>         | JSON metadata that describes the app and functionality that the app provides   |
| <code>sampleapp_connector.py</code> | The App Main Connector Module (Python script) that implements the actions that are provided by the app. This module is a class that is derived from the BaseConnector class. |
| <code>sampleapp_view.py</code>      | Optional widget view.  |
| <code>sampleapp_view.html</code>    | Optional widget template.  |



# Have a development environment

It is best to develop using a development environment with an on-prem instance of Splunk® SOAR.



See resources below on setting up a dev environment:

<https://docs.splunk.com/Documentation/SOARonprem/latest/Install/Overview>

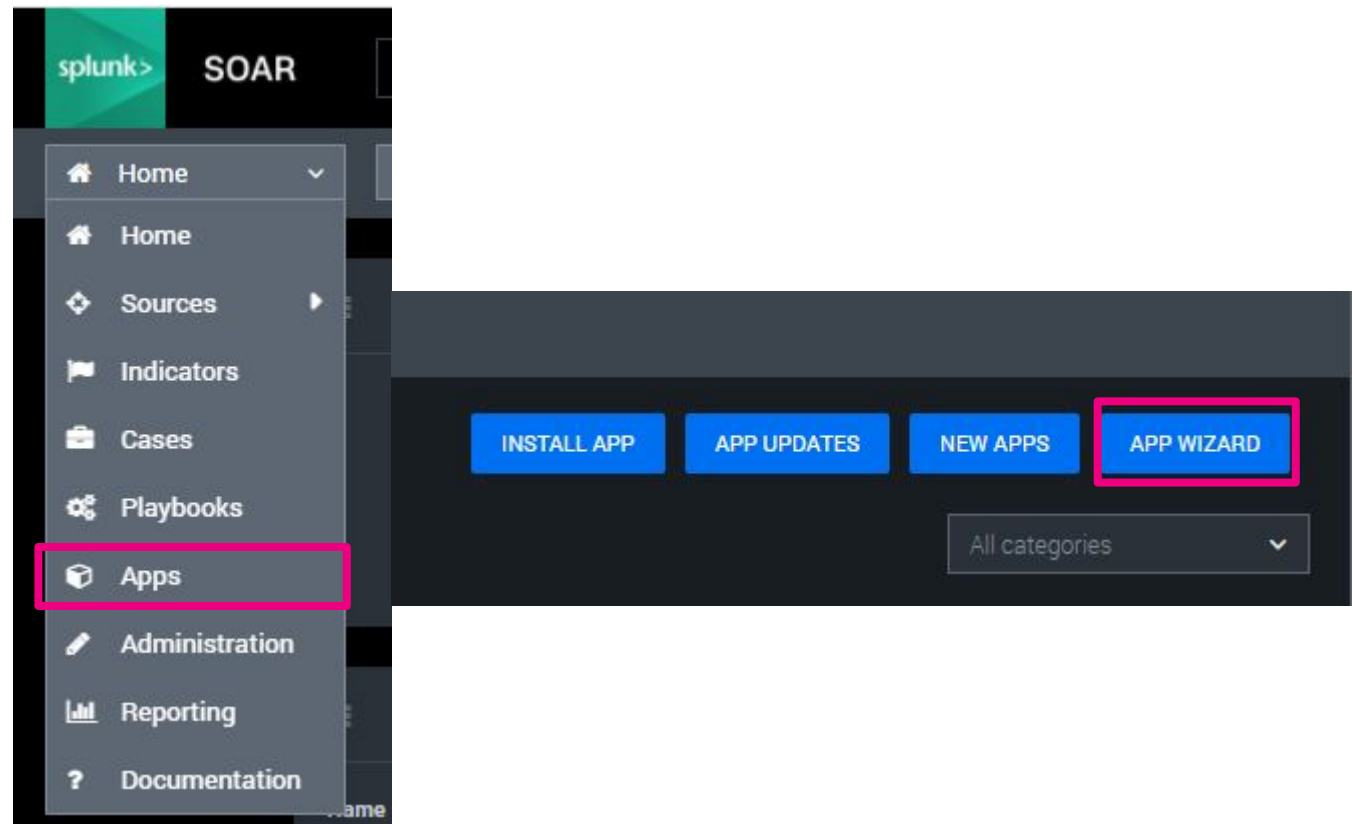
<https://docs.splunk.com/Documentation/SOAR/current/DevelopApps/SetUpADevEnvironment>

# Using the App Wizard

Navigate to the **Main Menu**.

Select **Apps**.

Click **App Wizard**.



# App Wizard

Set required fields

Upload icon svg or  
png file 200x150px to  
400x300px

**App Wizard**

Basic App Information

App Name ?  
App Name

App Description ?  
App Description

Product Vendor ?  
Product Vendor

Product Name ?  
Product Name

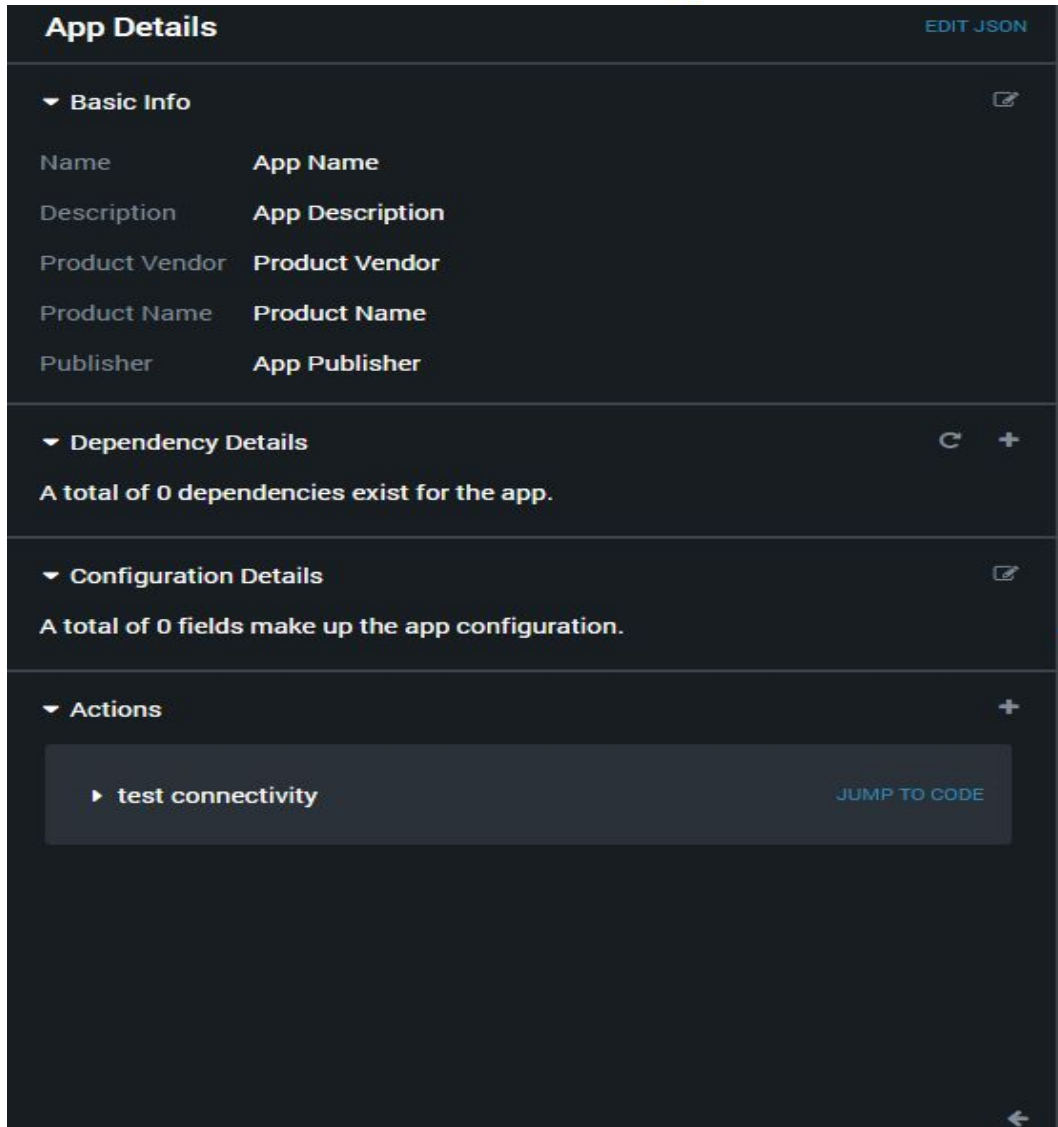
App Publisher ?  
App Publisher

App Type ?  
Required  
devops  
email  
endpoint  
identity management  
information  
network device  
network security

Upload your light theme app logo here ?  
only svg (preferred) and png files allowed

Upload your dark theme app logo here ?  
only svg (preferred) and png files allowed

CONTINUE



The screenshot shows the 'App Details' interface in Splunk. At the top right is a link to 'EDIT JSON'. The interface is divided into four main sections: 'Basic Info', 'Dependency Details', 'Configuration Details', and 'Actions'. 'Basic Info' contains fields for Name, Description, Product Vendor, Product Name, and Publisher. 'Dependency Details' shows a message that no dependencies exist. 'Configuration Details' shows a message that no configuration fields exist. 'Actions' contains a 'test connectivity' button and a 'JUMP TO CODE' link.

### App Details

EDIT JSON

▼ Basic Info

|                |                 |
|----------------|-----------------|
| Name           | App Name        |
| Description    | App Description |
| Product Vendor | Product Vendor  |
| Product Name   | Product Name    |
| Publisher      | App Publisher   |

▼ Dependency Details

A total of 0 dependencies exist for the app.

▼ Configuration Details

A total of 0 fields make up the app configuration.

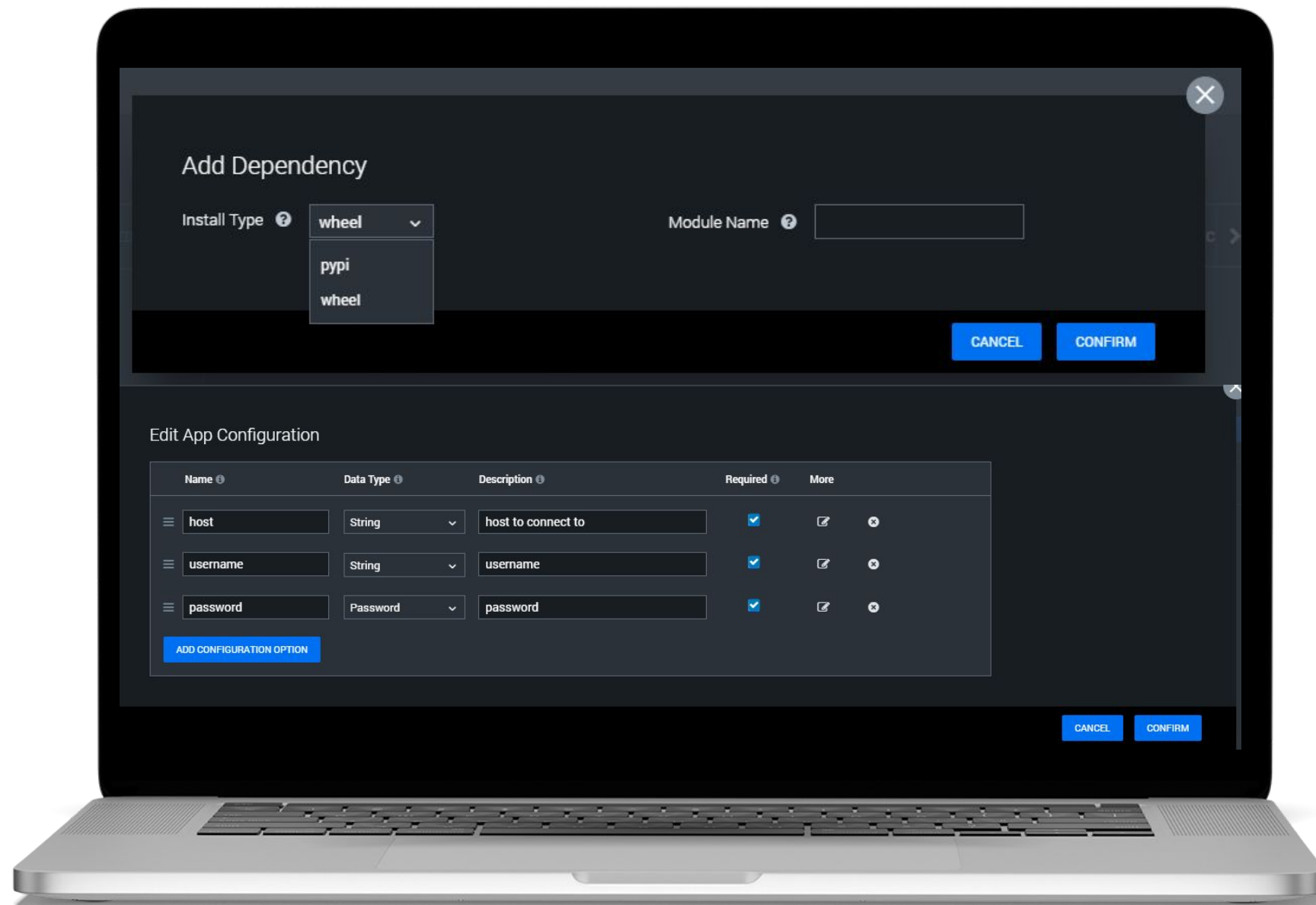
▼ Actions

► test connectivity JUMP TO CODE

## From App Details you can:

- Edit app basic information
- Add dependencies from PyPi/wheel files
- Edit app configuration (usually host and authentication information)
- Create actions

# Adding dependencies and configurations





## Add App Actions

SWITCH TO PROVIDED ACTION

| Action Name ?   | Description ?                                     | Action Type ?                              | REST Endpoint ?                          | Read Only ?              |            |      |
|---|---|--|--|--------------------------|------------|------|
| <input type="text" value="get_assets"/>   | <input type="text" value="Get a list of assets"/> | <input type="text" value="Investigate"/> ▼ | <input type="text" value="/get_assets"/> | <input type="checkbox"/> |            |      |
| Verbose Description ?<br><input type="text" value="Get a list of assets from the API"/> |   |  |  |                          |            |      |
| Name ⓘ  | Data Type ⓘ                                       | Description ⓘ                              | Required ⓘ                               | Primary ⓘ                | Contains ⓘ | More |
| <input type="button" value="ADD PARAMETER"/>  |   |  |  |                          |            |      |

## Add App Actions

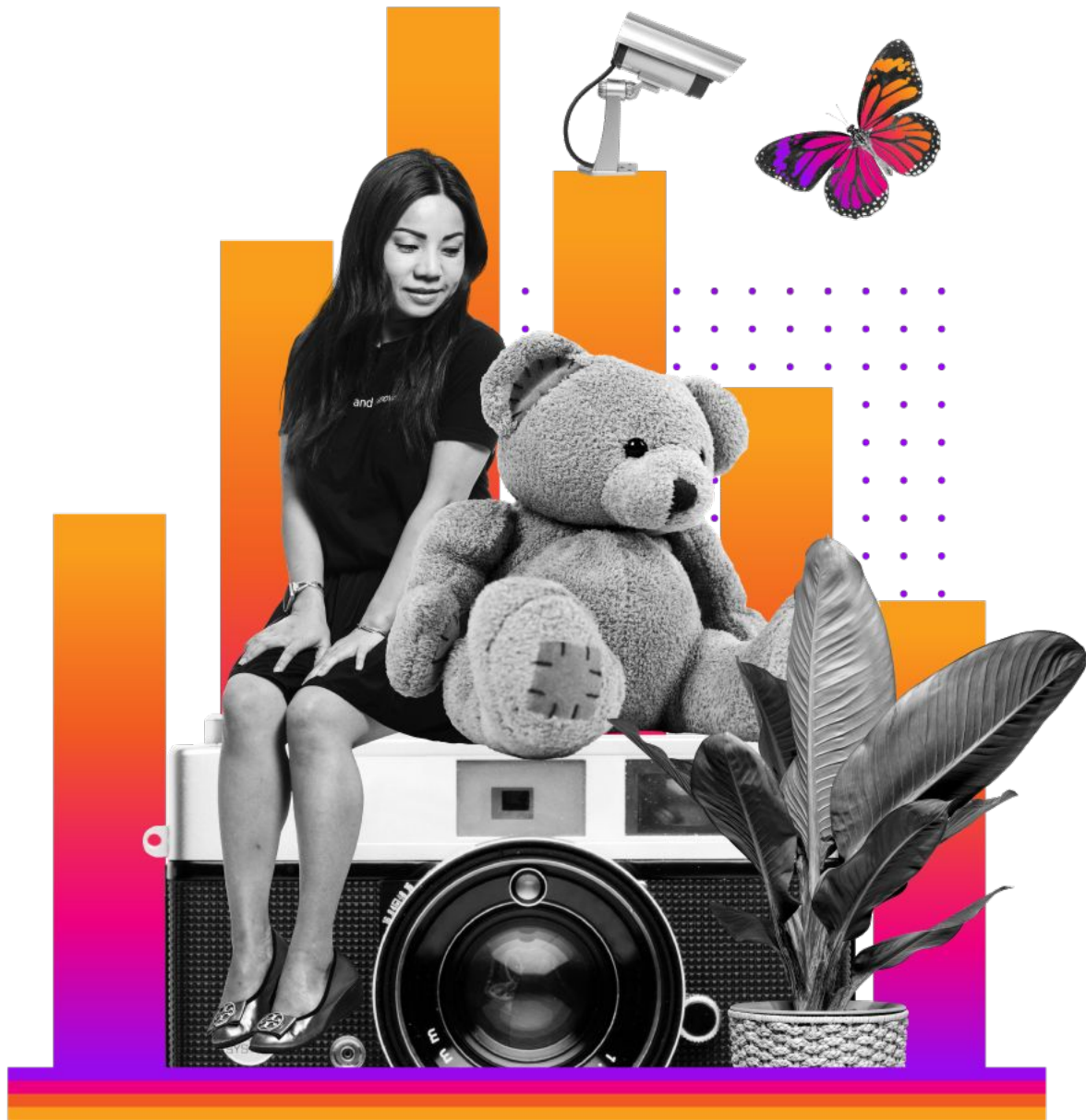
SWITCH TO PROVIDED ACTION

| Action Name ?  | Description ?     | Action Type ? | REST Endpoint ?          | Read Only ?              |
|--|-------------------|---------------|--------------------------|--------------------------|
| contain_asset  | Contain an assets | Investigate ▾ | <b>"/contain_assets"</b> | <input type="checkbox"/> |
| Verbose Description ?<br>Contain an assets <u>fromt</u> he API |                   |               |                          |                          |

| Name ⓘ       | Data Type ⓘ | Description ⓘ                | Required ⓘ                          | Primary ⓘ                | Contains ⓘ               | More   |
|--------------|-------------|------------------------------|-------------------------------------|--------------------------|--------------------------|--|
| ≡ asset_name | String ▾    | Name of the asset to contain | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

ADD PARAMETER

CONFIRM



# Getting Hands-on

Let's connect to home hosts and do this live.

**Audience Participation is encouraged**

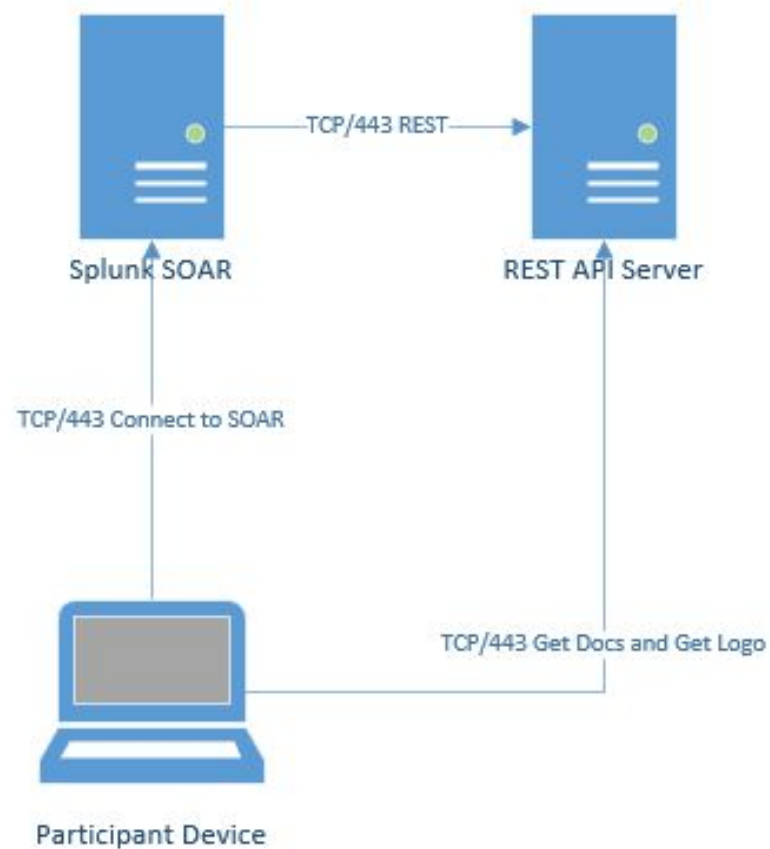
splunk> .conf23

# Scenario

**We have a new REST API source for managing endpoints and users that does not have an existing SOAR App.**

- We need to get a list of users
- We need to contain an asset





**Rest API Server:**

**<https://api.splunktools.net>**

**Splunk SOAR Server:**

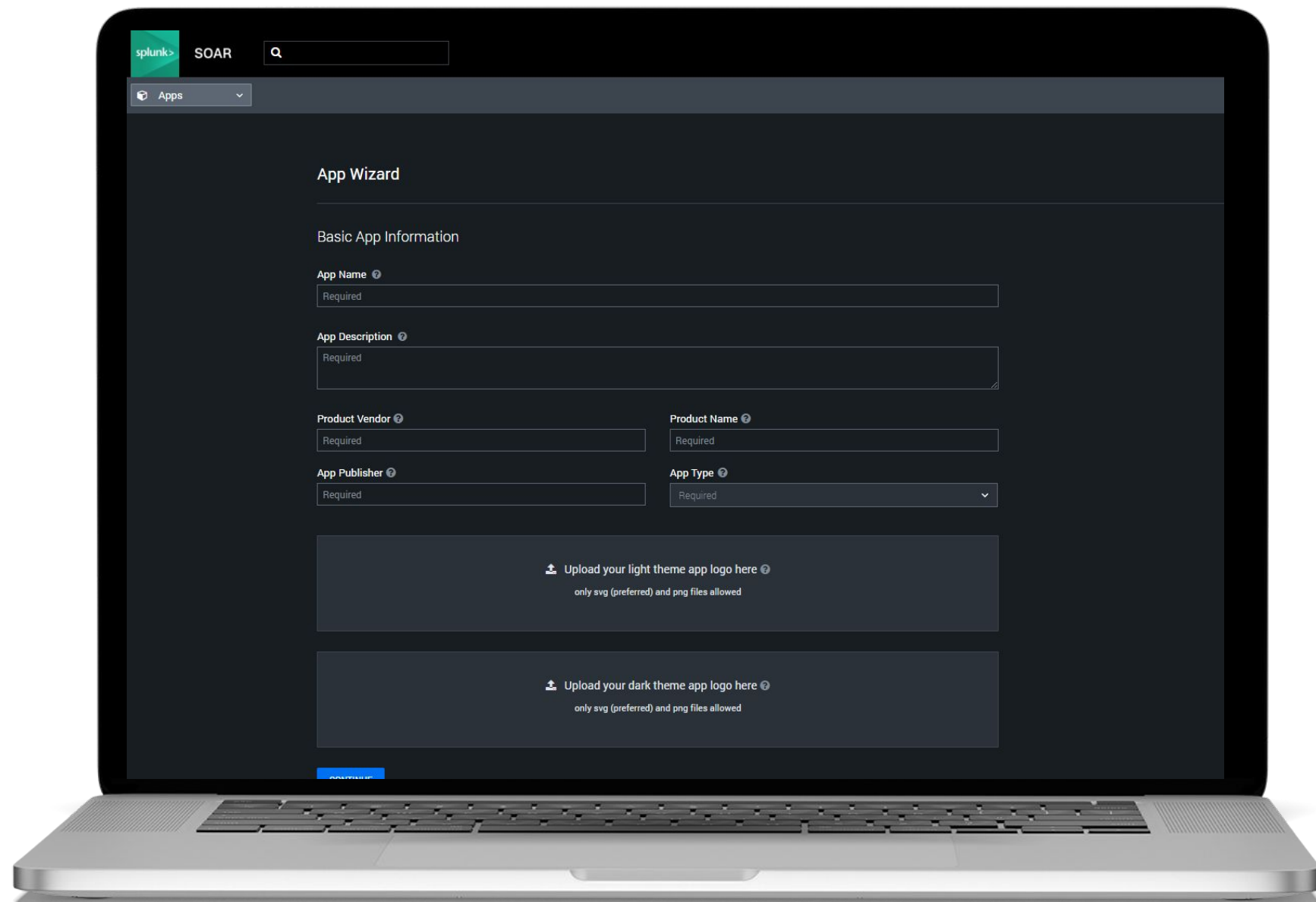
**<https://soar.splunktools.net>**

**GitHub Link:**

**<https://github.splunktools.net>**



# Let's Build An App!





# Q&A

splunk> .conf23

# Resources

[Splunk Official SOAR Development Documentation](#)

[Ingest Actions](#)

[App Github Repository](#)

[FastAPI GitHub Repository](#)

[splunktools.net](#)

## Related .Conf Talks

[SEC1104C - Jump to Hyperspace - Publish Apps at Lightspeed with Open SOARce](#)

[SEC1700C - Ready, Set, SOAR: How Utility Apps Can Up Level Your Playbooks!](#)

# Make something tomorrow you couldn't yesterday





# Thank You

