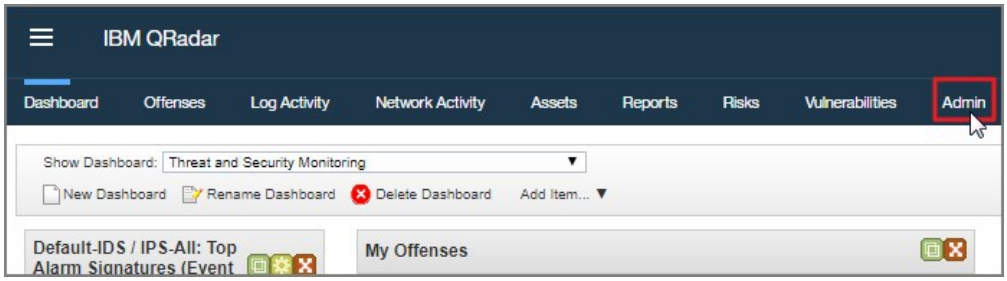
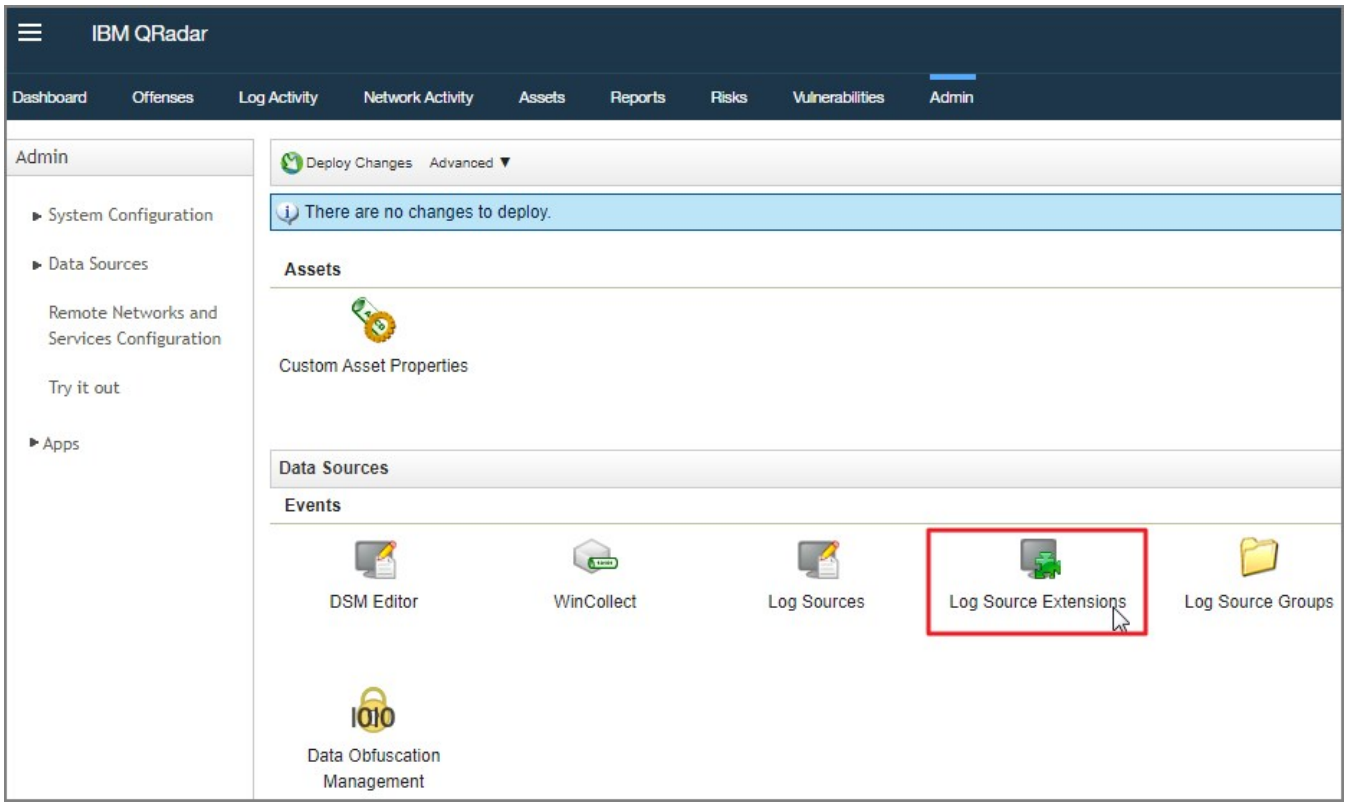
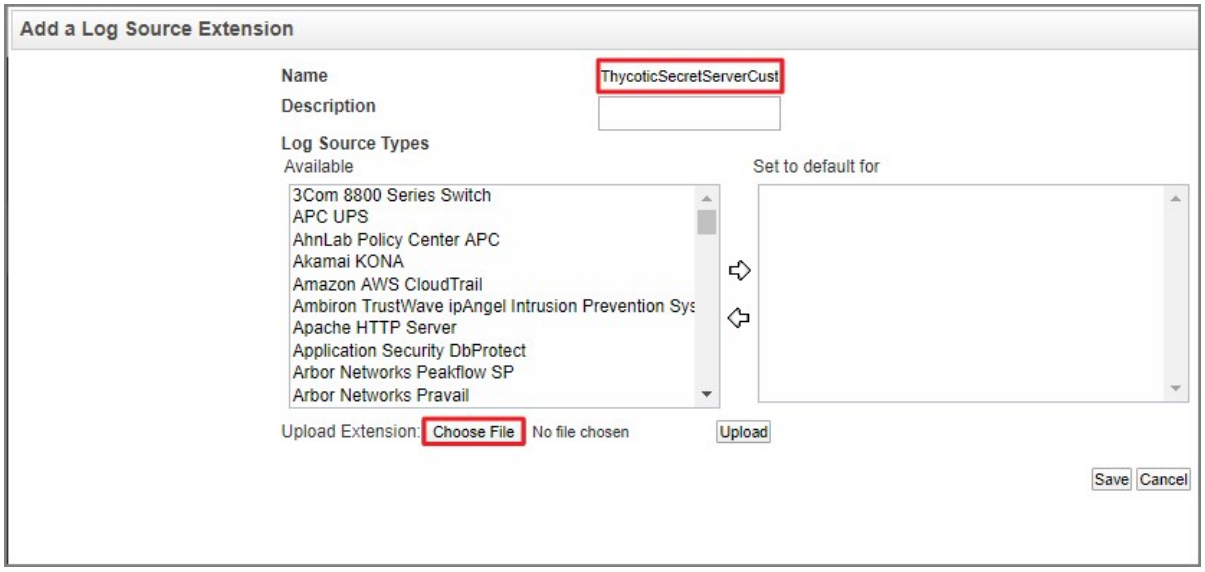


4. Click on **Log Source Extensions**.

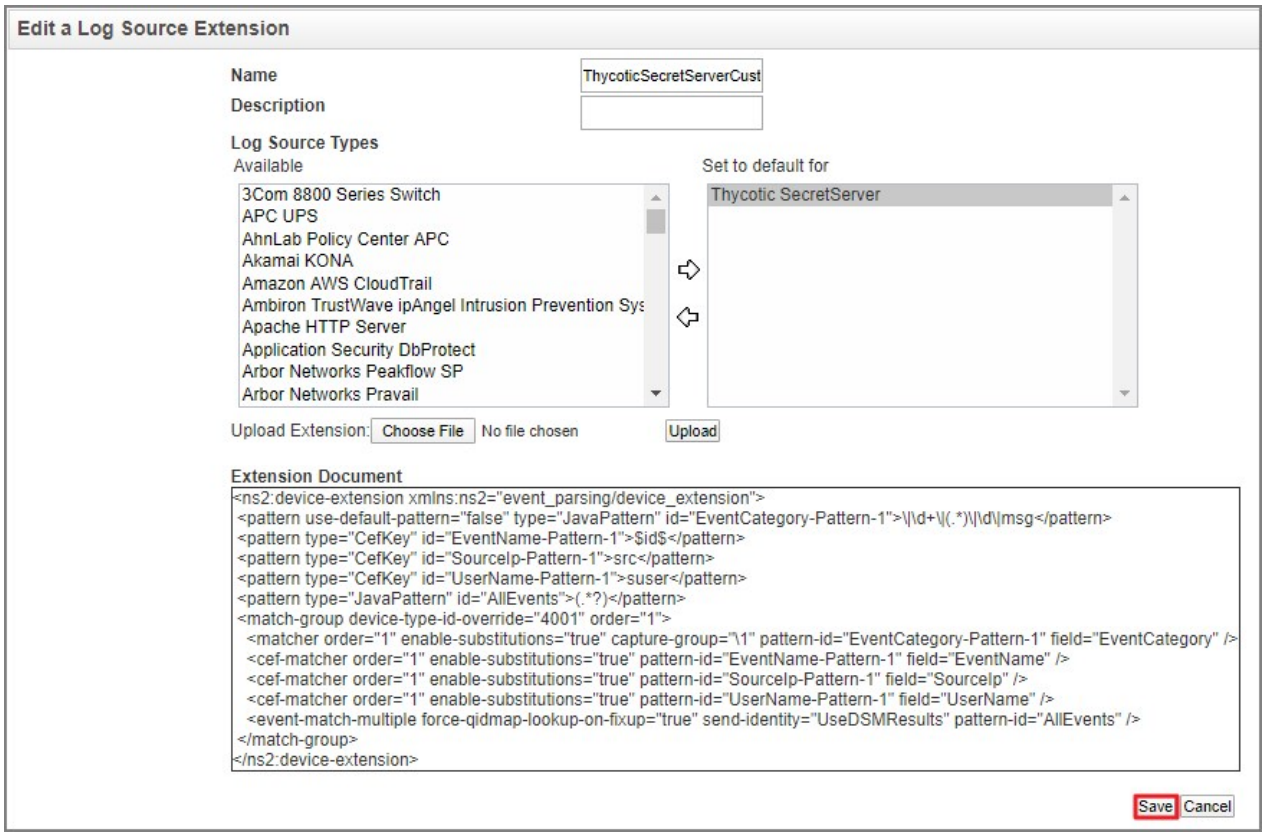


5. Click on **Add**.

6. Add a name and description for the Log Source Extension.
7. Click **Choose File**.

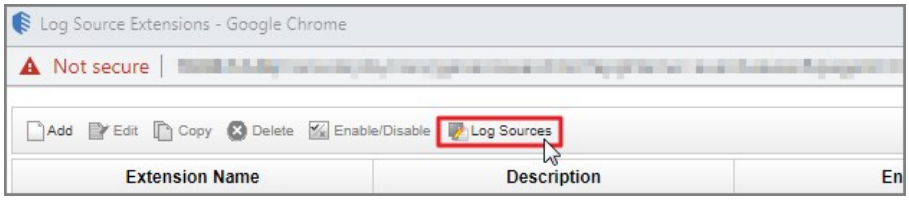


8. Select the xml file you created in step 1 with the provided example.
9. Click **Upload**.
10. Select the log source extension and **set it to the default**.

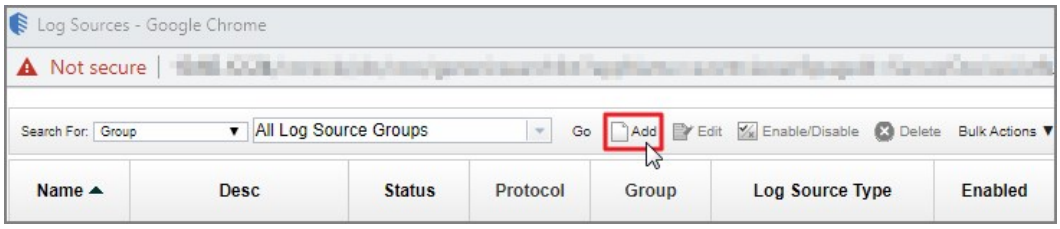


11. Click **Save**.

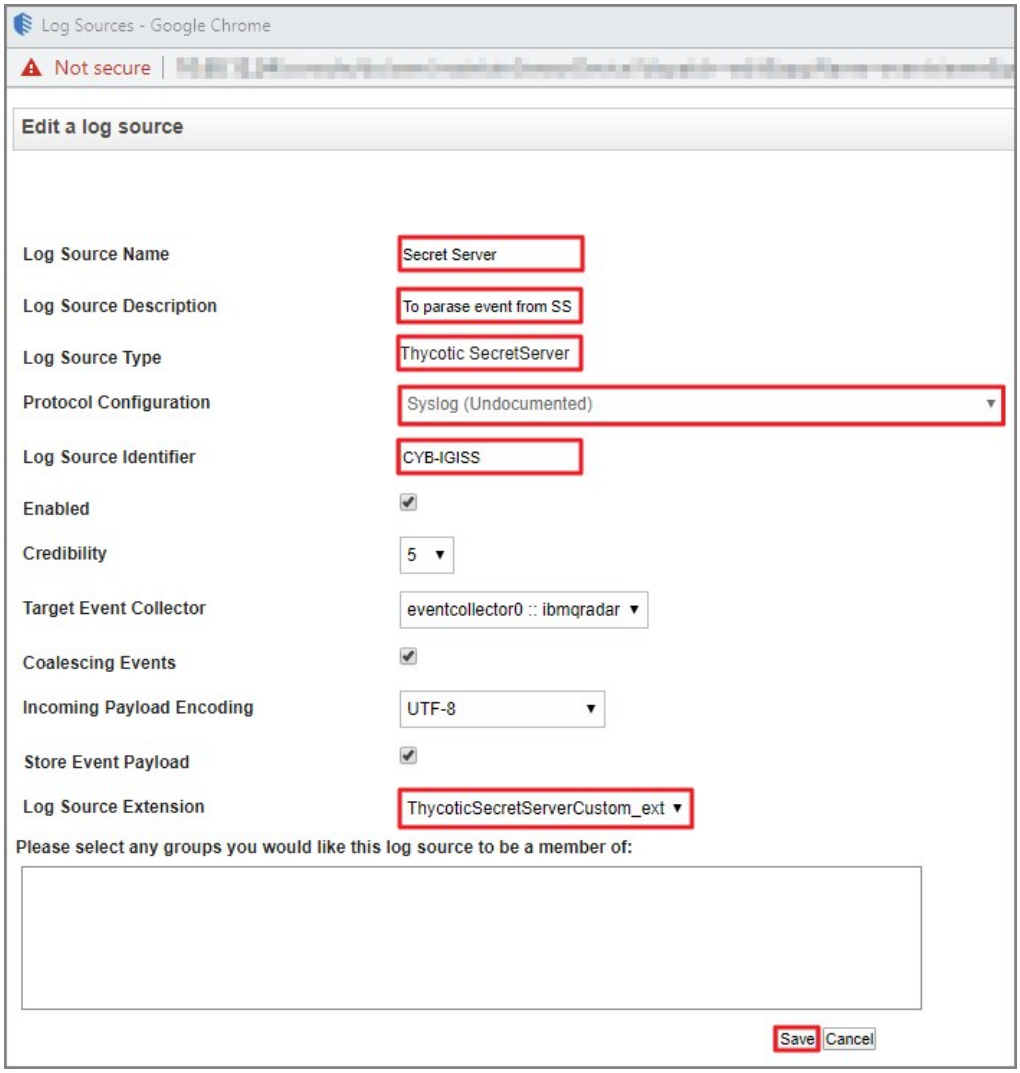
12. Click on **Log Sources**.



13. Click **Add**.



14. Fill in the required fields:
    - **Log Source Name**
    - **Log Source Description**
    - **Log Source Type**
    - **Protocol Configuration**
    - **Log Source Identifier**
    - **Log Source Extension**: Click the drop-down and choose your custom-built parser (the xml file that was saved as a log source extension).
15. Click **Save**.


Log Sources - Google Chrome
Not secure
Edit a log source
Log Source Name
Secret Server
Log Source Description
To parase event from SS
Log Source Type
Thycotic SecretServer
Protocol Configuration
Syslog (Undocumented)
Log Source Identifier
CYB-IGISS
Enabled
Credibility
5
Target Event Collector
eventcollector0 :: ibmqradar
Coalescing Events
Incoming Payload Encoding
UTF-8
Store Event Payload
Log Source Extension
ThycoticSecretServerCustom_ext
Please select any groups you would like this log source to be a member of:
Save
Cancel

QID Mappings

The QID or QRadar Identifier is what QRadar uses to give events their name, high-level category and lowlevel category.

1. We now need to create custom QIDs. Do this by SSH-ing into the QRadar console, changing the directory to **/opt/QRadar/bin** and running the following command:

   ./qidmap_cli.sh -c --qname <name> --qdescription <description> --severity <severity> --lowlevelcategoryid <ID>

   For Example:

   ./qidmap_cli.sh -c --qname "USER – LOGIN" --qdescription "A user as logged in." --severity 1 –lowlevelcategoryid 19001

Utility option	Description
-c	Creates a new QID map entry.
--qname <name>	Type the name you want to associate with this QID map entry. The name can be up to 255 characters in length, with no spaces.
--qdescription <description>	Type a description for this QID map entry. The description can be up to 2048 characters in length with no spaces.
--severity <severity>	Type the severity level you want to assign to this QID map entry. The valid range is 0 to 10.
--lowlevelcategoryid <ID>	Type the low-level category ID you want to assign to this QID map entry. The low-level category list is attached in the appendices.

2. Alternatively you could use a csv list as demonstrated in the in the **Import List** section and use it with the following command to import several QIDs at once:

   /opt/QRadar/bin/qidmap_cli.sh -i -f <filename.txt>

   19001 is used for most of the low-level category IDs as an example.

3. Using the program **sendnow**, send the list of all events to your QRadar box in the .txt file you named (example: **tss events all.txt**) to generate every possible event. The events can be found in the Event List section below.

Event List

CONFIGURATION - EDIT	The main Thycotic Secret Server configuration has been edited	10	19001
FOLDER - CREATE	A Folder has been created	2	19001
FOLDER - DELETE	A Folder has been deleted	5	19001
FOLDER - EDIT PERMISSIONS	The configuration has been edited	10	19001
FOLDER - SECRET POLICY CHANGE	The policy assigned to a folder has been changed	6	19001
FOLDER - SECRET POLICY CHANGE	The Secret policy assigned to a folder has been changed	8	19001
GROUP - OWNERS MODIFIED	The owners of a group have been modified	5	19001
LICENSE - EXPIRES 30 DAYS	Secret servers license will expire in 30 days	1	19001
POWERSHELL SCRIPT - CREATE	A PowerShell script has been created	5	19001
POWERSHELL SCRIPT - DEACTIVATE	A PowerShell script has been deactivated	5	19001

POWERSHELL SCRIPT - EDIT	A PowerShell script has been edited	8	19001
POWERSHELL SCRIPT - REACTIVATE	A PowerShell script has been reactivated	6	19001
POWERSHELL SCRIPT - VIEW	A PowerShell script has been viewed	5	19001
ROLE - ASSIGN USER OR GROUP	A role has been assigned to a user or group	5	19001
ROLE - CREATE	A role has been created	5	19001
ROLE - UNASSIGN USER OR GROUP	A role has been unassigned to a user or group	5	19001
ROLE PERMISSION - ADDED TO ROLE	A permission has been added to a role	5	19001
ROLE PERMISSION - REMOVED FROM ROLE	A permission has been removed from a role	5	19001
SECRET - ACCESS APPROVED	Access to a Secret has been approved	2	19001
SECRET - ACCESS DENIED	Access to a Secret has been denied	6	19001
SECRET - CHECKIN	A Secret has been checked in	1	19001
SECRET - CHECKOUT	A Secret has been checked out	5	19001
SECRET - COPY	A Secret has been copied	1	19001
SECRET - CREATE	A Secret has been created	1	19001
SECRET - CUSTOM AUDIT	A custom audit has been created	1	19001
SECRET - CUSTOM REQUIREMENT ADDED	A custom password requirement has been added to a Secret	2	19001
SECRET - CUSTOM REQUIREMENT REMOVED	A custom password requirement has been removed from a Secret	6	19001
SECRET - DELETE	A Secret has been deleted	5	19001
SECRET - DEPENDENCY ADDED	A dependency has been added	8	19001
SECRET - DEPENDENCY FAILURE	A dependency is missing	5	19001
SECRET - DEPENDENCY REMOVED	A dependency has been removed	8	19001
SECRET - EDIT	A Secret has been edited	5	19001
SECRET - EDIT VIEW	A Secrets view option has been edited	8	19001
SECRET - EXPIRES 1 DAY	A Secret expires in 1 day	5	19001
SECRET - EXPIRES 15 DAYS	A Secret expires in 15 days	1	19001
SECRET - EXPIRES 3 DAYS	A Secret expires in 3 days	1	19001
SECRET - EXPIRES 7 DAYS	A Secret expires in 7 days	1	19001
SECRET - EXPIRES TODAY	A Secret expires today	1	19001

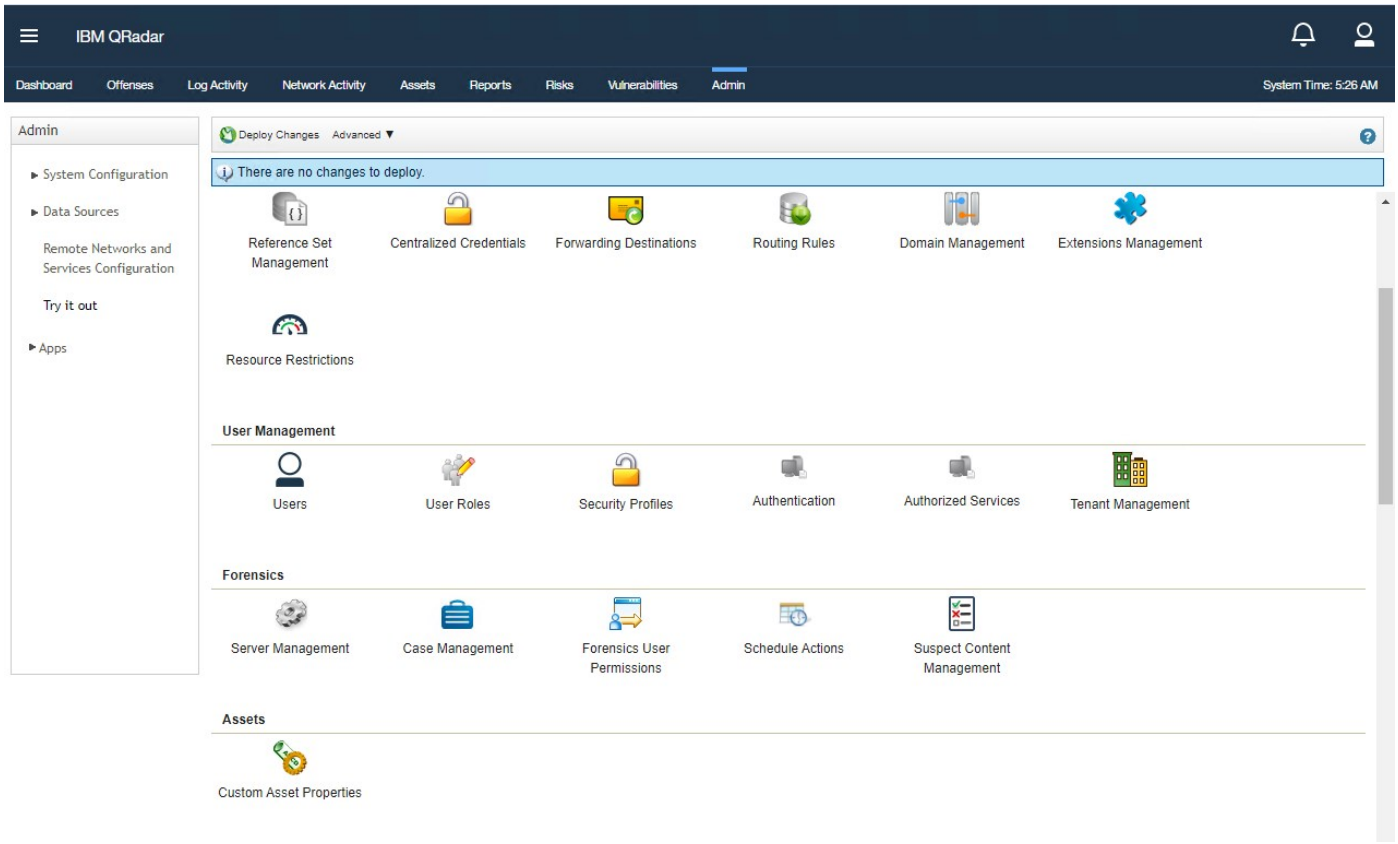
SECRET - HEARTBEAT FAILURE	Heartbeat has not been detected for over 10 seconds	5	19001
SECRET - HEARTBEATSUCCESS	Heartbeat has been detected	1	19001
SECRET - HOOK CREATE	A hook has been created	3	19001
SECRET - HOOK DELETE	A hook has been deleted	8	19001
SECRET - HOOK EDIT	A hook has been edited	6	19001
SECRET - HOOKFAILURE	A hook has failed to initialise a PowerShell script	8	19001
SECRET - HOOKSUCCESS	A hook has successfully initialised a PowerShell script	1	19001
SECRET - LAUNCH	A Secret has been launched	1	19001
SECRET - PASSWORD COPIED TO CLIPBOARD	A password has been copied to the clipboard	5	19001
SECRET - PASSWORD_DISPLAYED	A Secret password has been displayed	5	19001
SECRET - SECRET POLICY CHANGE	The Secret policy assigned to a Secret has been changed	8	19001
SECRET - SESSION RECORDING VIEW	A Secret recording is being viewed	5	19001
SECRET - UNDELETE	A Secret has been restored	1	19001
SECRET - VIEW	A Secret has been viewed	1	19001
SECRET POLICY - CREATE	A Secret policy has been created	1	19001
SECRET POLICY - EDIT	A Secret policy has been edited	6	19001
SECRET TEMPLATE - COPY	A Secret template has been copied	1	19001
SECRET TEMPLATE - CREATE	A Secret template has been created	1	19001
SECRET TEMPLATE - EDIT	A Secret template has been edited	1	19001
SECRET TEMPLATE - FIELD ENCRYPTED	A field in a template has been encrypted	1	19001
SECRET TEMPLATE - FIELD EXPOSED	A field in a template has been exposed	6	19001
SECRETS EXPORTD	Secrets have been exported	10	19001
SECRETS IMPORTED	Secrets have been imported	1	19001
SYSTEM LOG	Thycotic Secret server system logs	1	19001
UNLIMITED ADMIN - DISABLED	Unlimited admin has been disabled	10	19001
UNLIMITED ADMIN - ENABLED	Unlimited admin has been enabled	10	19001
USER - ADDED TO GROUP	A user account has been added to a group	8	19001

USER - CREATE	A user account has been created	5	19001
USER - DISABLE	A user account has been disabled	5	19001
USER - ENABLE	A user account has been enabled	5	19001
USER - LOCKOUT	A user account has been locked out see payload for information	10	19001
USER - LOGIN	A user has logged on	1	19001
USER - LOGIN FAILURE	A user has entered an incorrect password	8	19001
USER - LOGOUT	A user has logged out	1	19001
USER - PASSWORD CHANGE	A users password has been changed	8	19001
USER - REMOVED FROM GROUP	A user account has been removed from a group	5	19001
USERAUDIT - EXPIRENOW	All Secrets a user has accessed have expired	5	19001

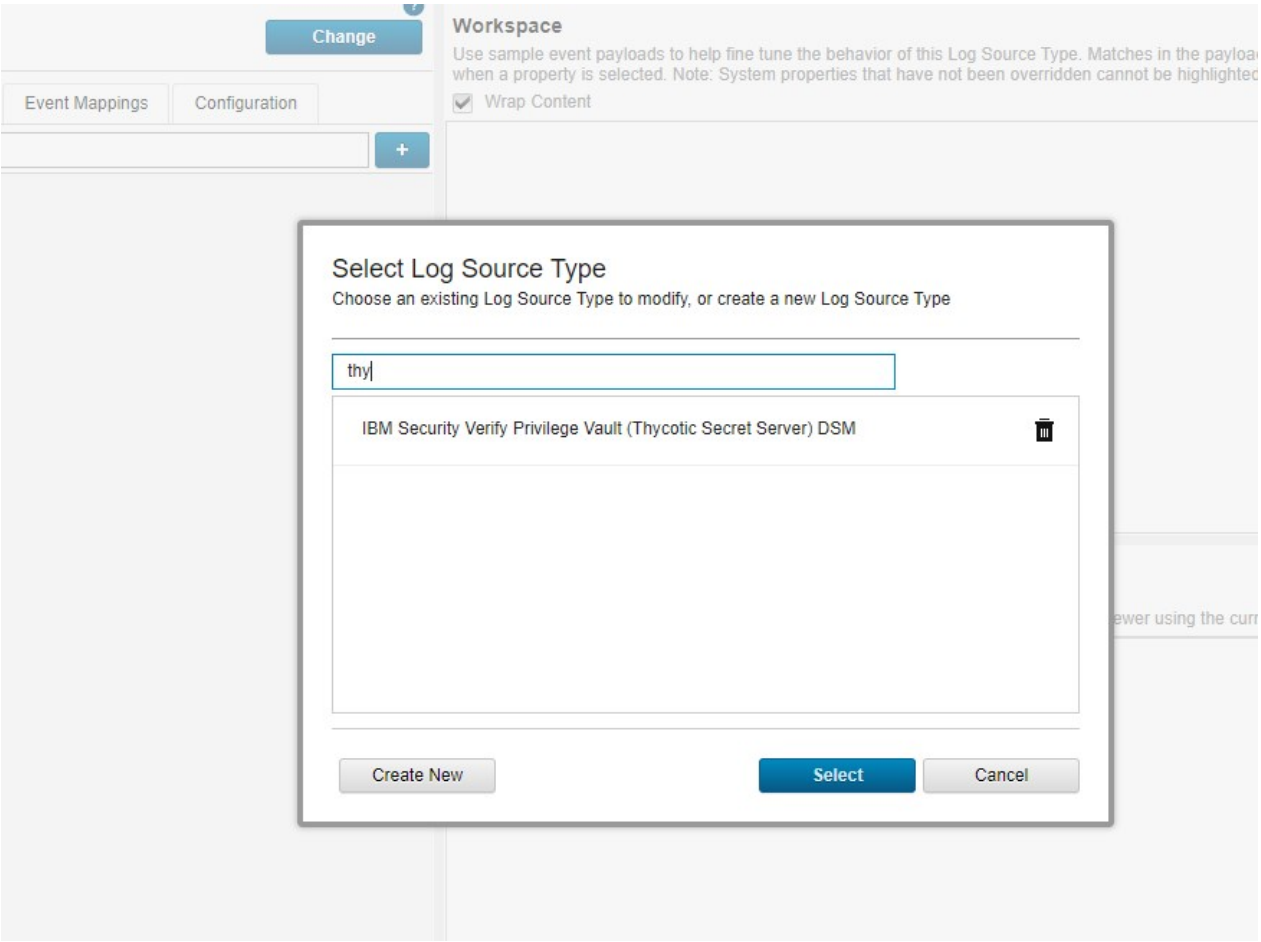
How to export the event mappings along with the Custom DSM

After Creating your QIDmap entries, you can map them to your events using the DSM editor and export them via the export option.

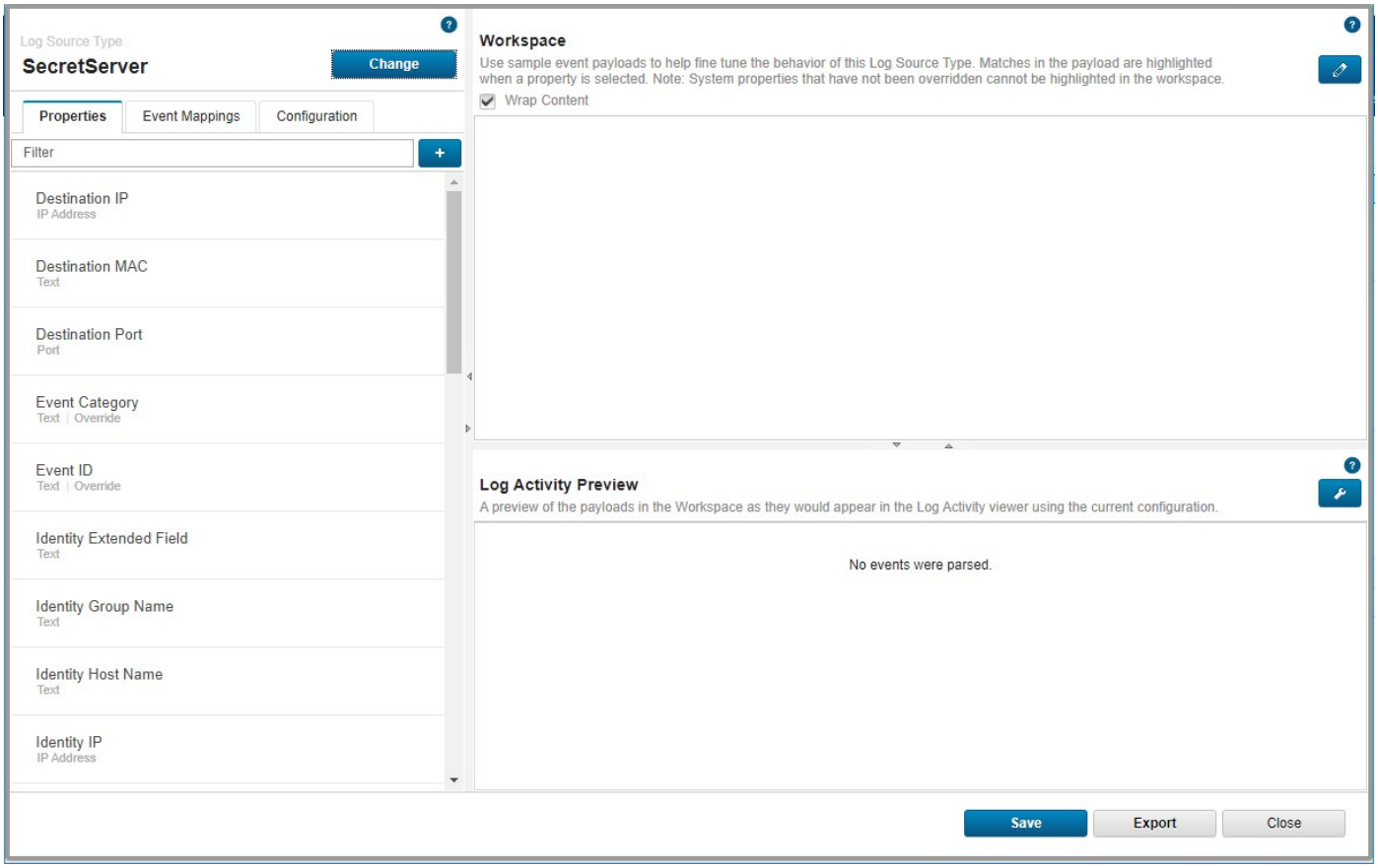
1. Navigate and login to **Qradar**.
2. Click on **Admin**.



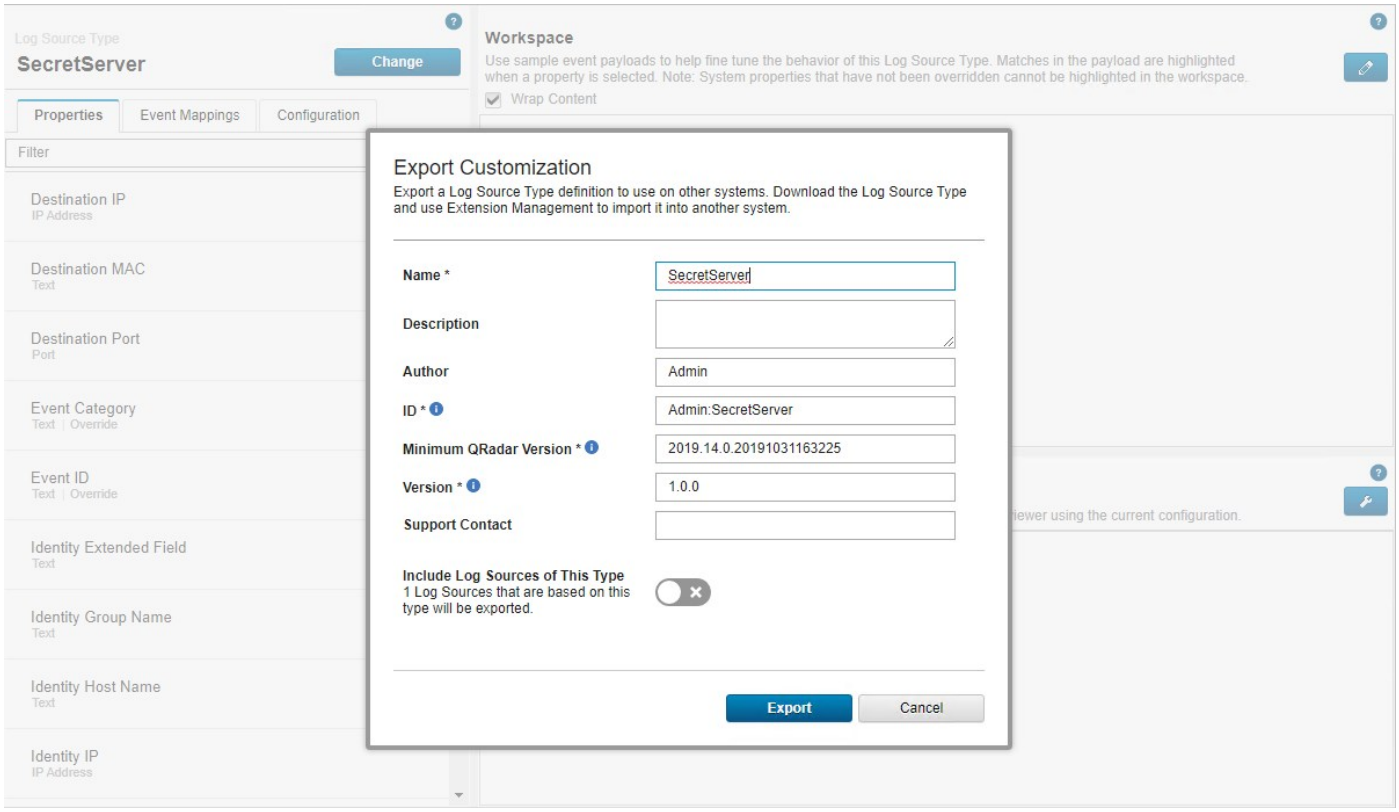
3. Click on the **DSM editor** option.
4. Select the created log source, search for **"Thy"**.



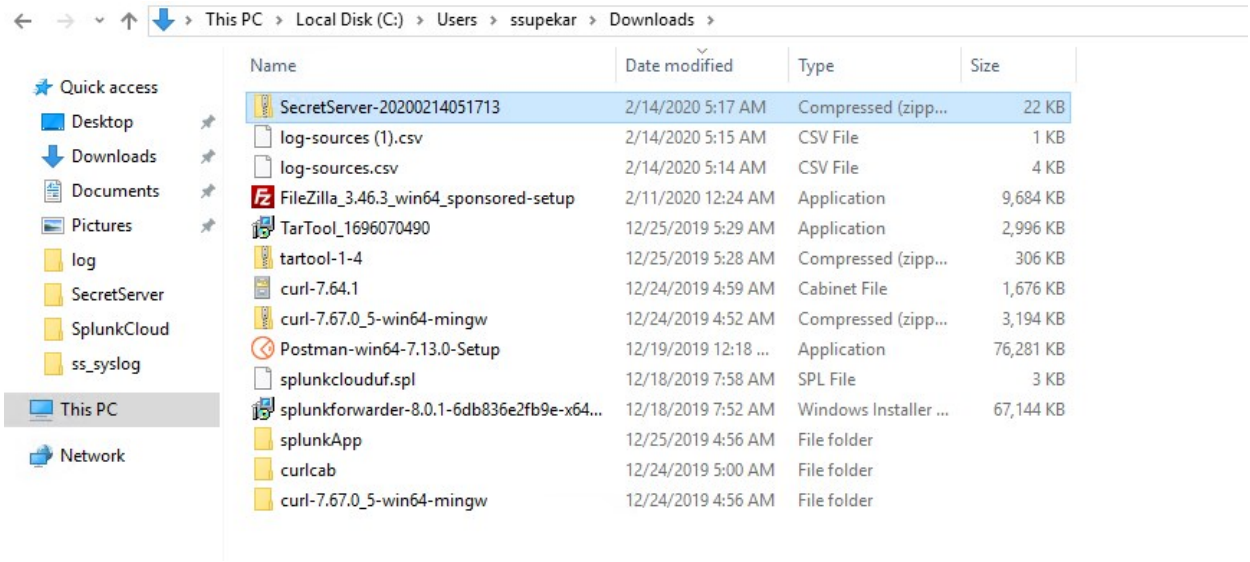
5. Click on **Select**.
6. Click on **Export.**



7. Enter in the required details.
8. Click on **Export**.



9. The zip will be downloaded.



To search for your DSM using the ContentManagement Tool

Enter in the following command:

[root\@qradar \~]\# /opt/qradar/bin/contentManagement.pl --action search --content-type 24 --id all --regex "\\w" \|grep Secret

```
[root@ibmqradar73 ~]# /opt/qradar/bin/contentManagement.pl --action search --content-type 24 --id all --regex "\w" |grep Secret
[INFO]    - [217]    - [TopSecret]                                    - [CA Top Secret]
[INFO]    - [4001]   - [SecretServerCustom]                           - [SecretServer]
```

To export the custom mappings

Enter in the following command:

[root\@qradar \~]\# /opt/qradar/bin/contentManagement.pl -a export -c all

/opt/qradar/bin/contentManagement.pl -a export -c sensordevicetype -i 4001

Result

```
[root@ibmqradar73 ~]# /opt/qradar/bin/contentManagement.pl --action search --content-type 24 --id all --regex "\w" |grep Secret
[INFO]    - [217]    - [TopSecret]                                    - [CA Top Secret]
[INFO]    - [4001]   - [SecretServerCustom]                           - [SecretServer]
[root@ibmqradar73 ~]# /opt/qradar/bin/contentManagement.pl -a export -c sensordevicetype  -i 4001
[INFO] Initializing Content Management Tool...
[INFO] (ContentManagementCLI) Start Time: 2020-02-19 08:09:37
[INFO] Starting export process
[INFO] Processing Export: content-type sensordevicetype id 4001
[INFO] Exporting content of type [sensordevicetype] with id [4001]
[INFO] Export Summary:
[INFO]  Content Type - [Number of items exported]
[INFO]          - sensordevicetype - [1]
[INFO]          - sensordeviceprotocols - [65]
[INFO]          - sensordevicecategory - [1]
[INFO]          - device_ext - [1]
[INFO] SUCCESS: Compressed exported bundle can be found here /root/sensordevicetype-ContentExport-20200219080938.zip
[root@ibmqradar73 ~]#
```

```
[INFO] Initializing Content Management Tool...
[INFO] (ContentManagementCLI) Start Time: 2020-02-14 04:02:54
[INFO] Starting export process
[INFO] Processing Export: all
[INFO] Exporting all custom content, please wait this operation may take several minutes to complete...
[INFO] Export Summary:
[INFO]  Content Type - [Number of items exported]
[INFO]          - sensorprotocolstatus - [1]
[INFO]          - dsmevent - [154]
[INFO]          - installed_application - [3]
[INFO]          - fgroup_link - [4212]
[INFO]          - fgroup - [320]
[INFO]          - fgroup_type - [13]
[INFO]          - dashboard - [14]
[INFO]          - customviewparams - [119]
[INFO]          - assetpropertytype - [34]
[INFO]          - custom_rule - [337]
[INFO]          - qidmap - [297]
[INFO]          - reference_data - [22]
[INFO]          - reference_data_rules - [14]
[INFO]          - sensordevicetype - [374]
[INFO]          - sensorprotocolconfigparameters - [4]
[INFO]          - sourcepayloadclassmapping - [70]
[INFO]          - sensorprotocolconfig - [4]
[INFO]          - sensorprotocol - [74]
[INFO]          - sensordeviceprotocols - [1535]
[INFO]          - sensordevicecategory - [6]
[INFO]          - sensordevice - [10]
[INFO]          - device_ext - [1]
[INFO]          - dsm_version - [371]
[INFO]          - offense_type - [20]
[INFO]          - ariel_regex_property - [173]
[INFO]          - ariel_property_expression - [305]
[INFO]          - application_zip - [3]
[INFO]          - report - [114]
[INFO] SUCCESS: Compressed exported bundle can be found here /root/all-ContentExport-20200214040255.zip
```

1. Rename the zip file to MyExport.zip.

2. On the new Qradar install, copy the .zip file and reimport it.

   Enter in the following command:

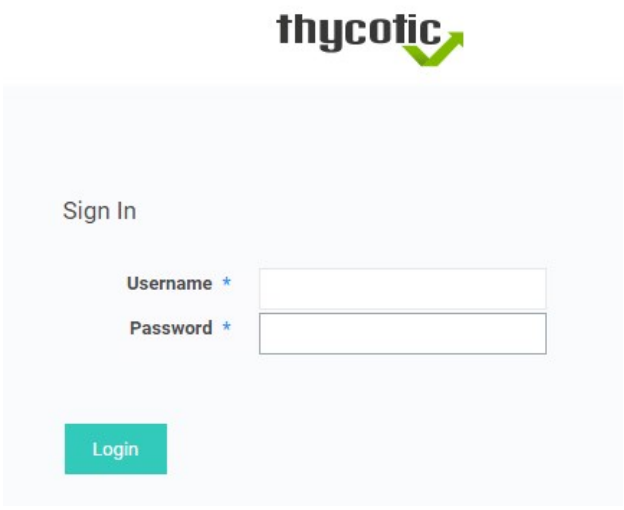
   [root\@qradar \~]\# /opt/qradar/bin/contentManagement.pl --action import --file MyExport.zip

Secret Server Dashboard Extension

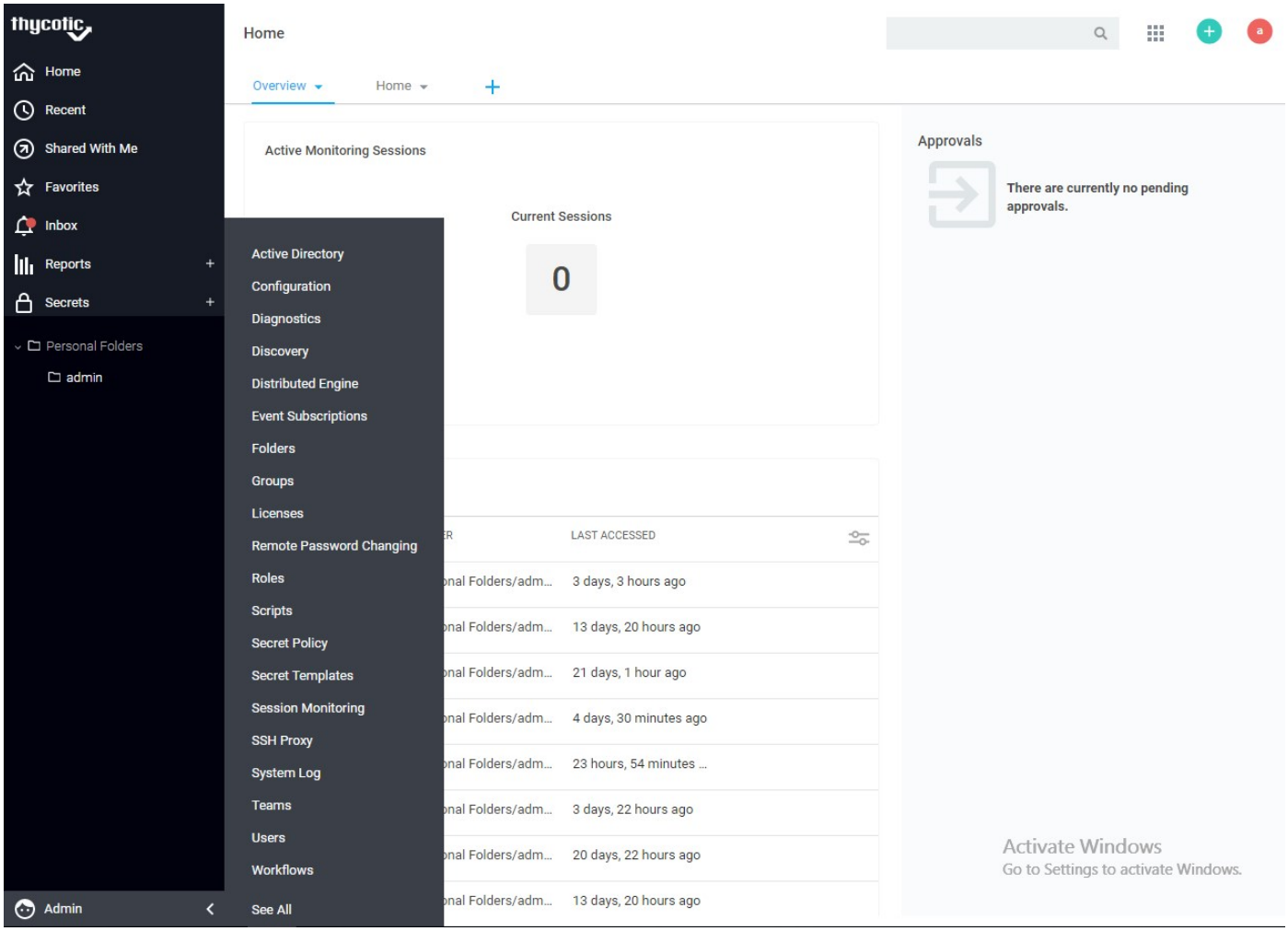
- Configuring Secret Server settings
- Accessing Secret Server Events in the Secret Server Application within QRadar
- Pulse Dashboard Setup

Configuring Secret Server settings

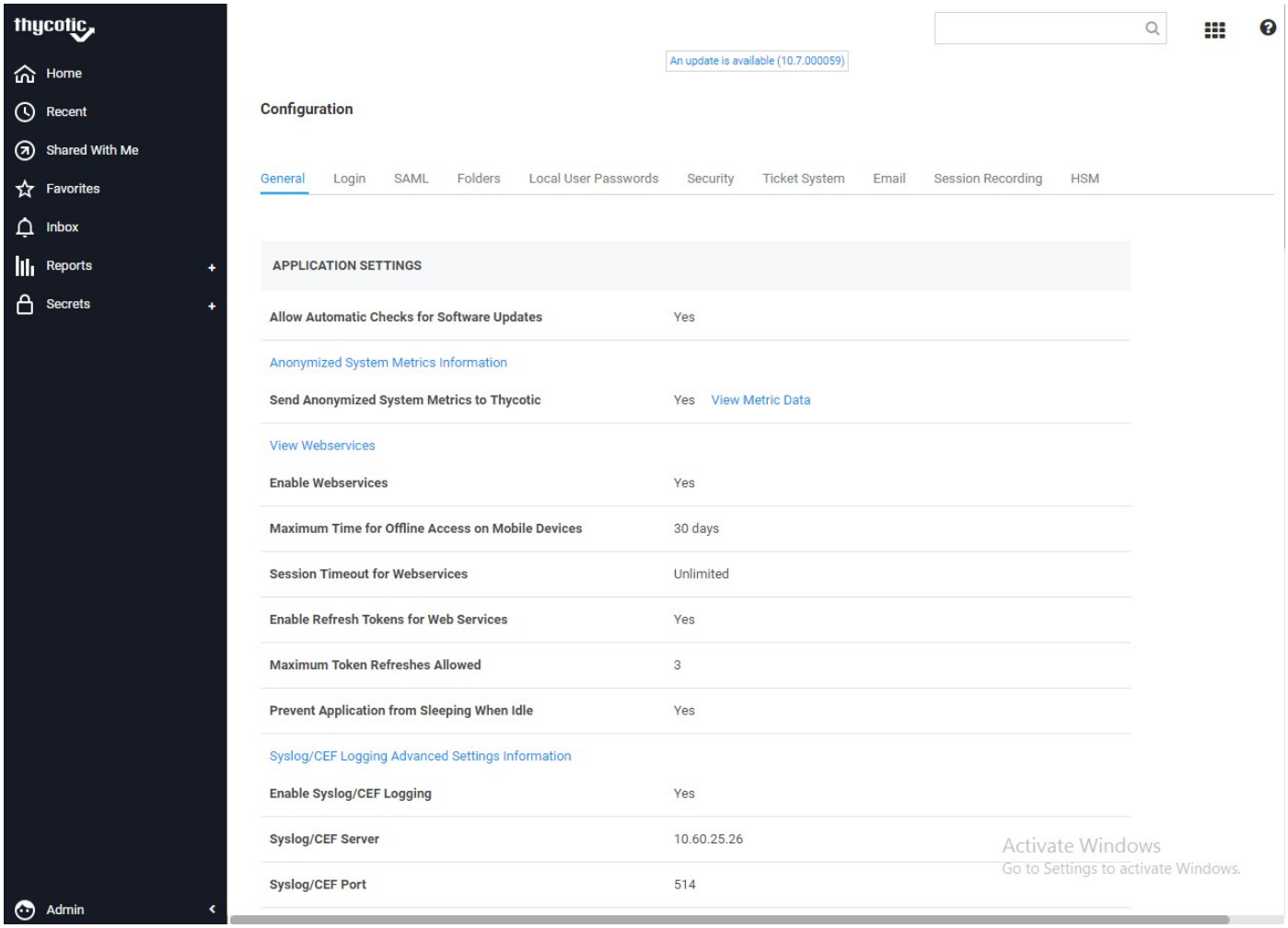
1. Sign into **Secret Server**.



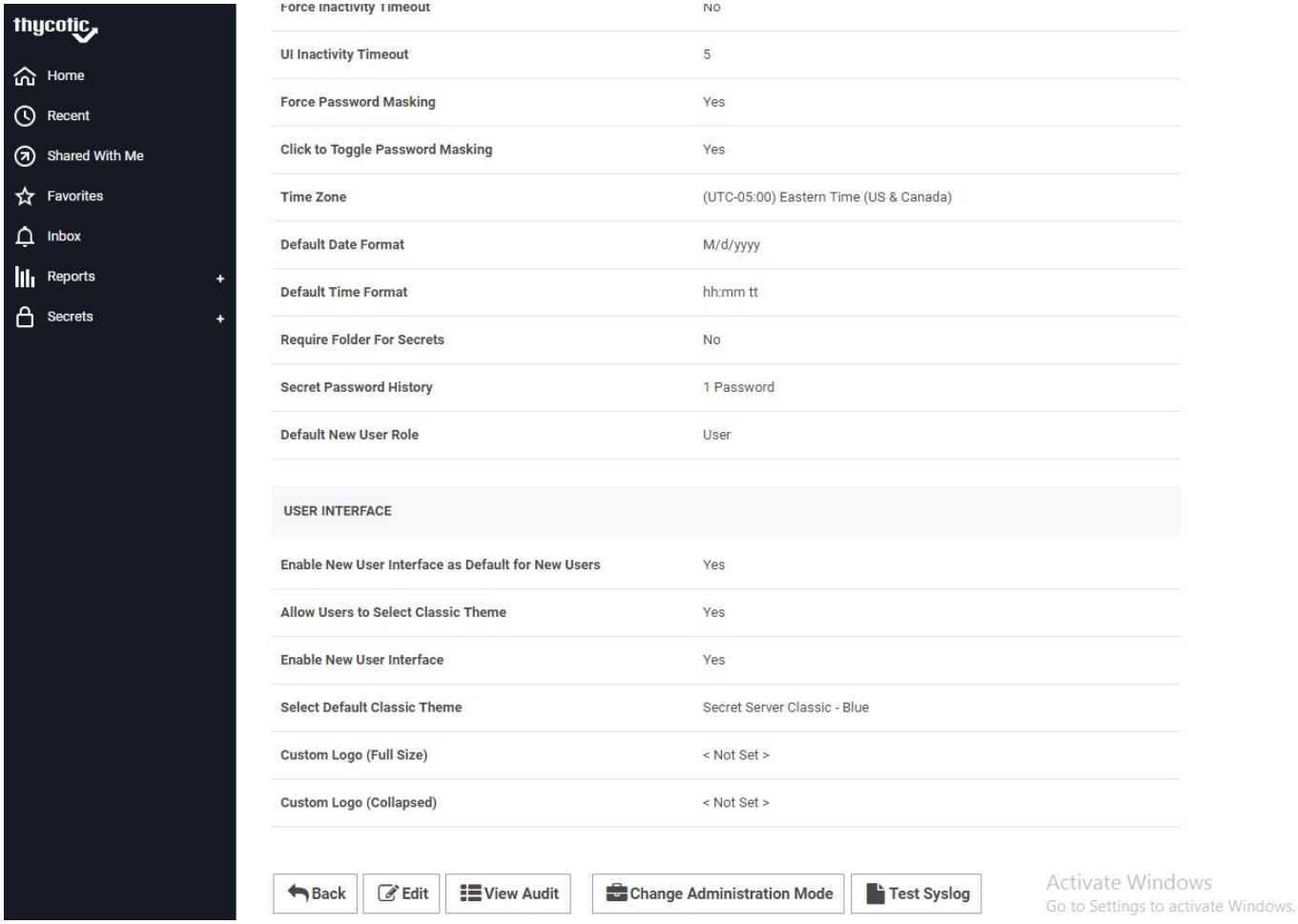
2. The **Home** page appears.



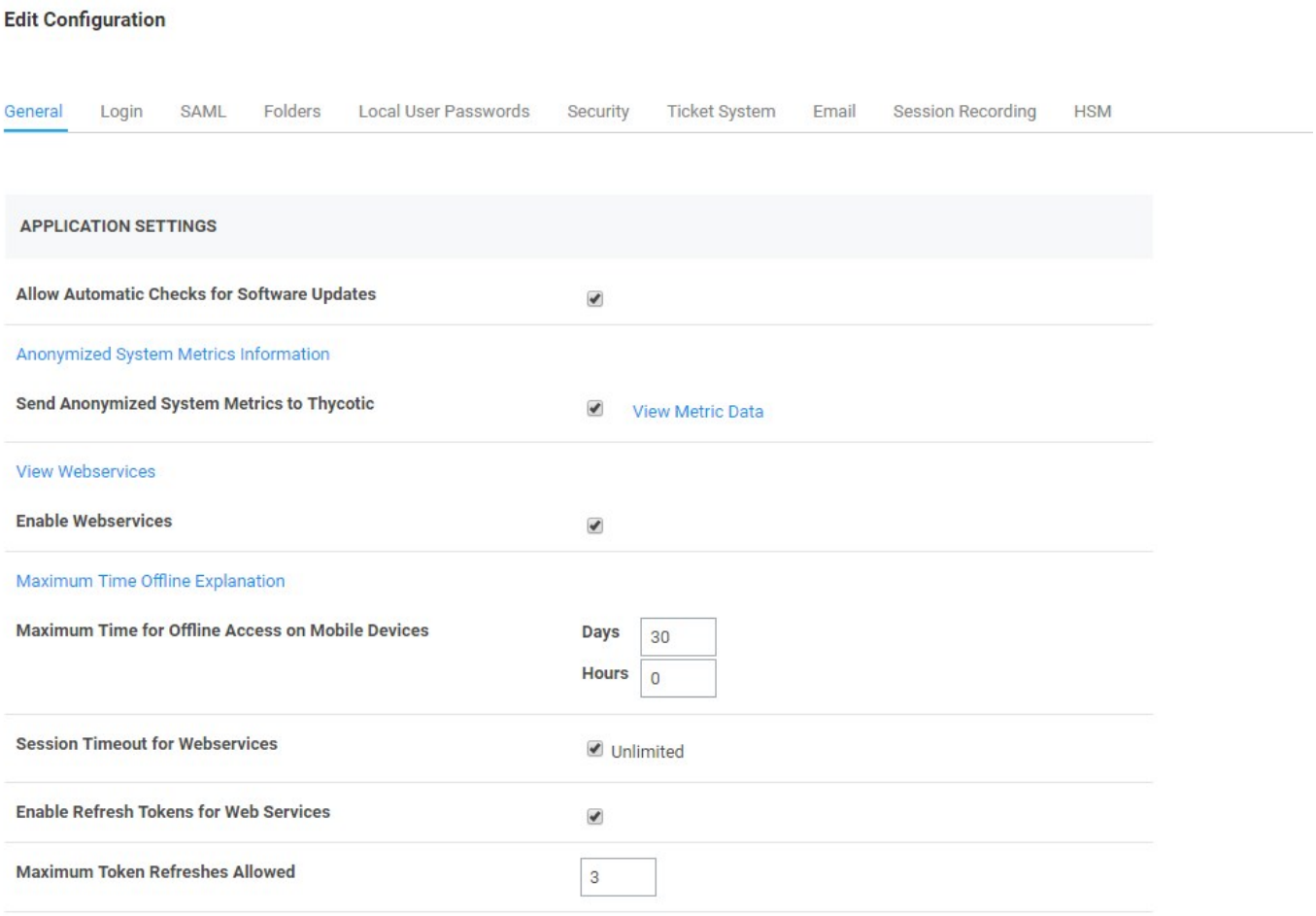
3. Click **Admin** | **Configuration**.



4. At the bottom of the page, click **Edit**.



5. The **Edit Configuration** page appears.



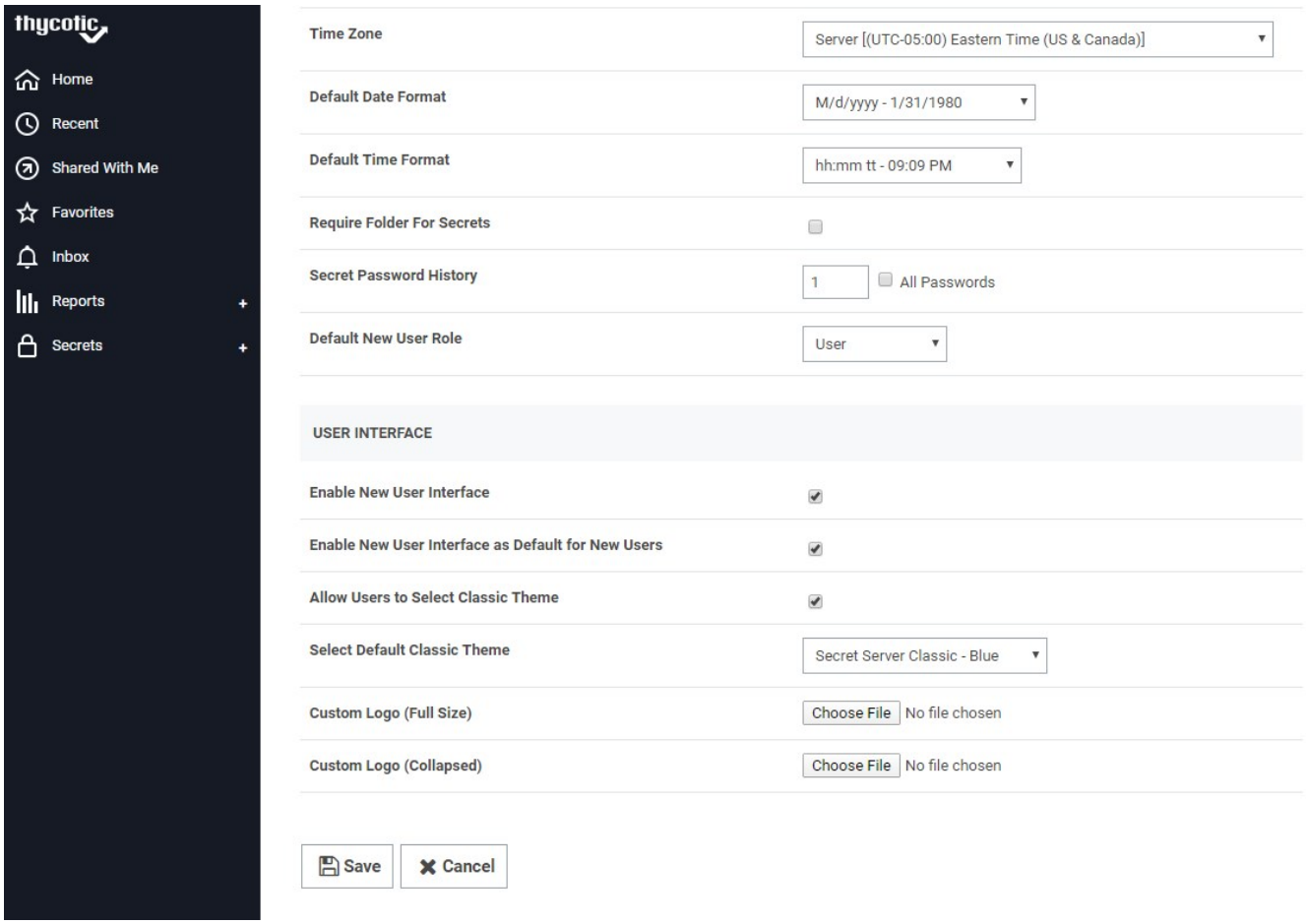
6. Select the **Enable Webservices** settings check box.
7. Under the **Syslog/CEF Logging Advanced Settings Information** area, select the **Enable Syslog/CEF Logging** check box and enter the **syslog server**.

   Note: The syslog server should be the ip of machine/server where universal forwarder is configured), UDP port etc.

Syslog/CEF Logging Advanced Settings Information

Enable Syslog/CEF Logging	Yes
Syslog/CEF Server	10.60.12.24
Syslog/CEF Port	514
Syslog/CEF Protocol	TCP
Syslog/CEF Time Zone	UTC Time
Syslog/CEF Site	Local

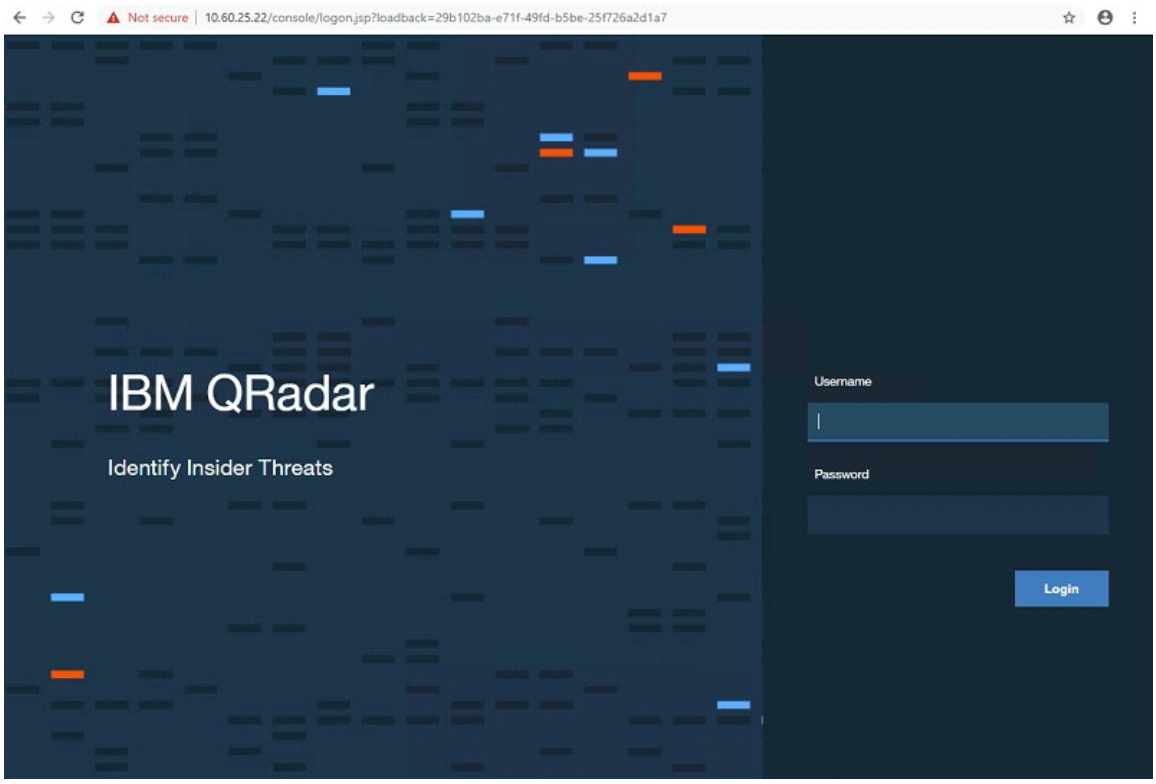
8. At the end of the page, click **Save**.



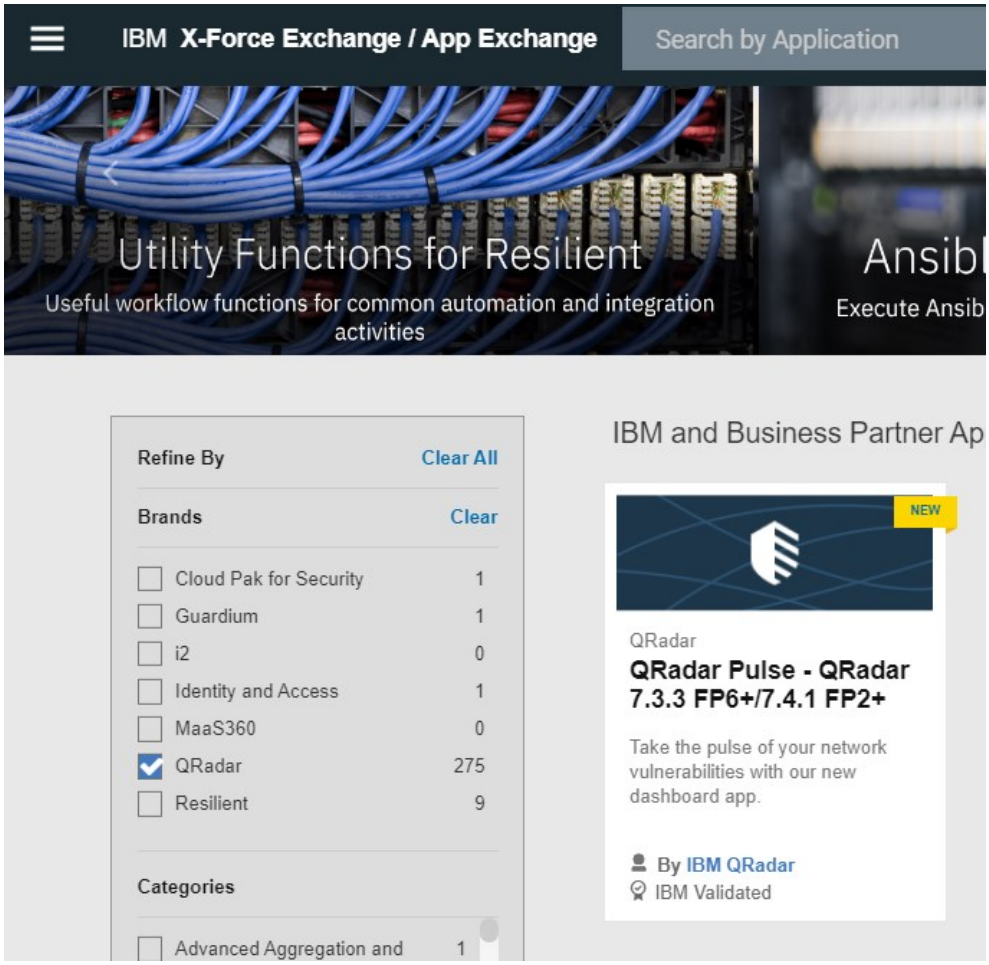
At this point all required configuration to get SysLog information from Secret Server into QRadar is complete.

Accessing Secret Server Events in the Secret Server Application within QRadar

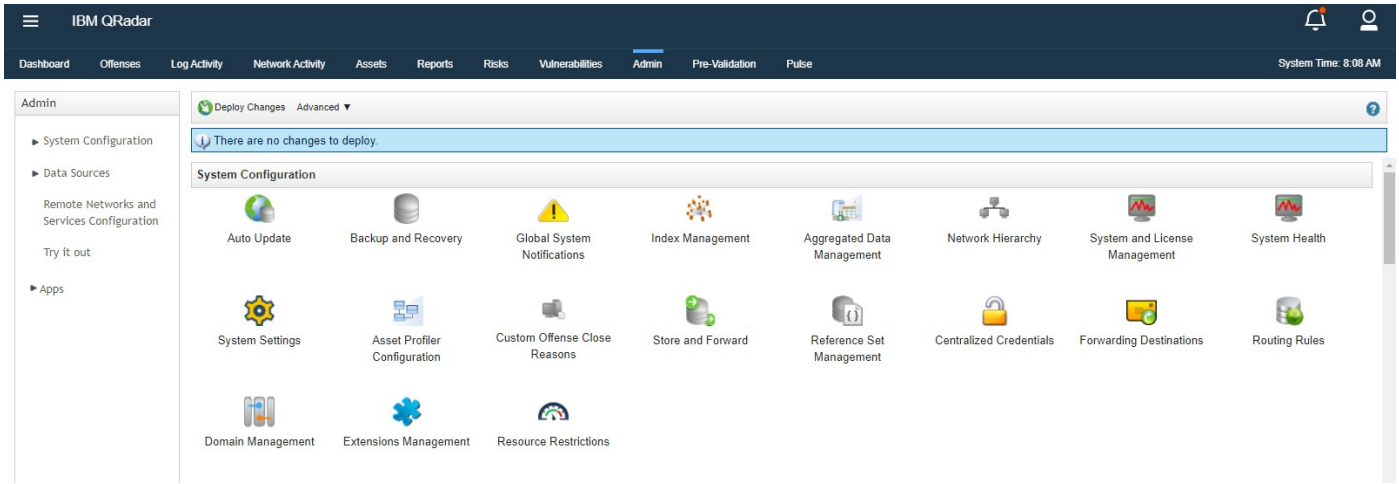
1. Login to QRadar as the admin user: https://<ipaddress>



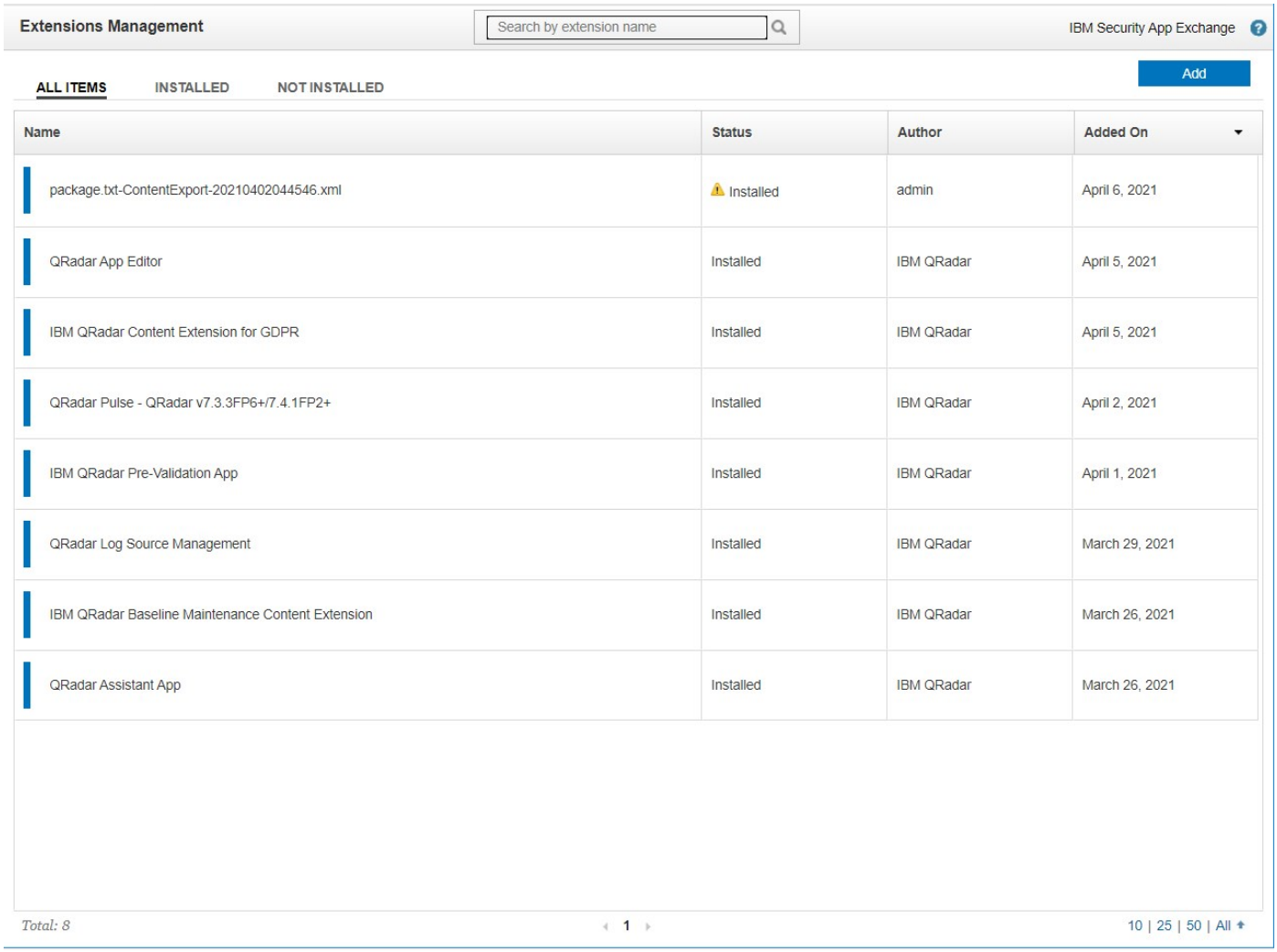
2. Download **Thycotic Secret Server Dashboard** extension from https://exchange.xforce.ibmcloud.com/.



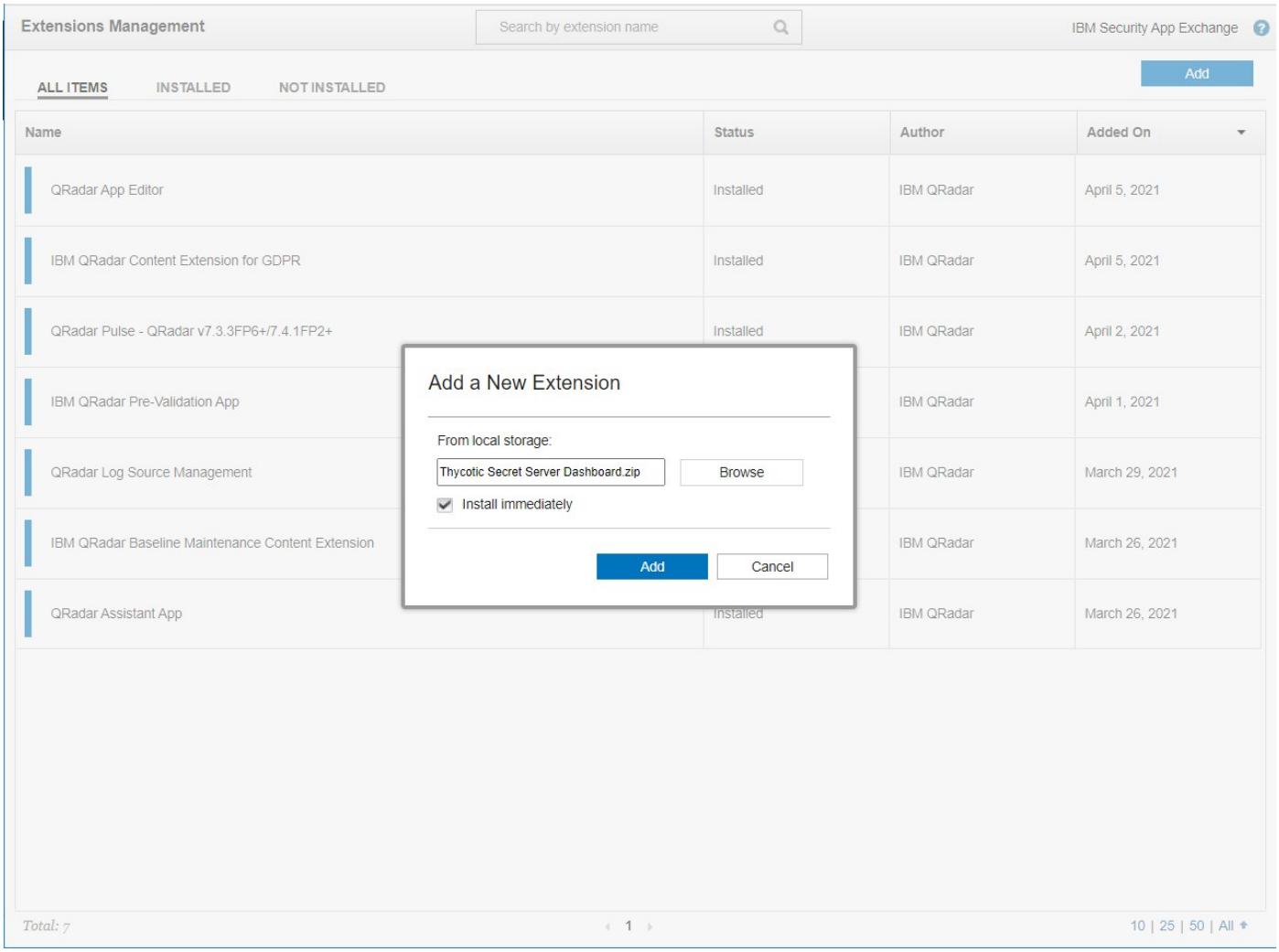
3. Login to QRadar with Admin role and navigate to the **Extension management** by clicking on **Admin | Extension Management**.



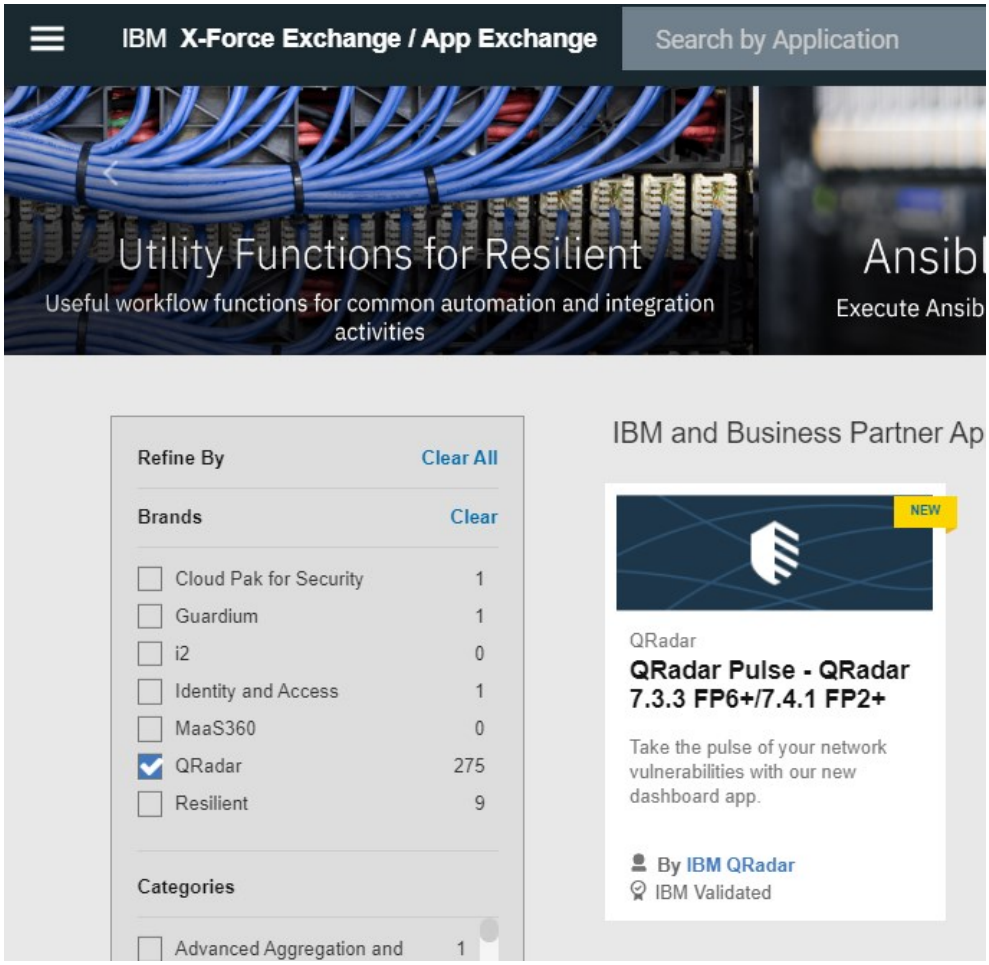
4. **Extension Management** will be displayed and click on **Add**.



5. Browse to **Thycotic Secret Server Dashboard** extension downloaded from IBM Exchange, click on the **Add button**.

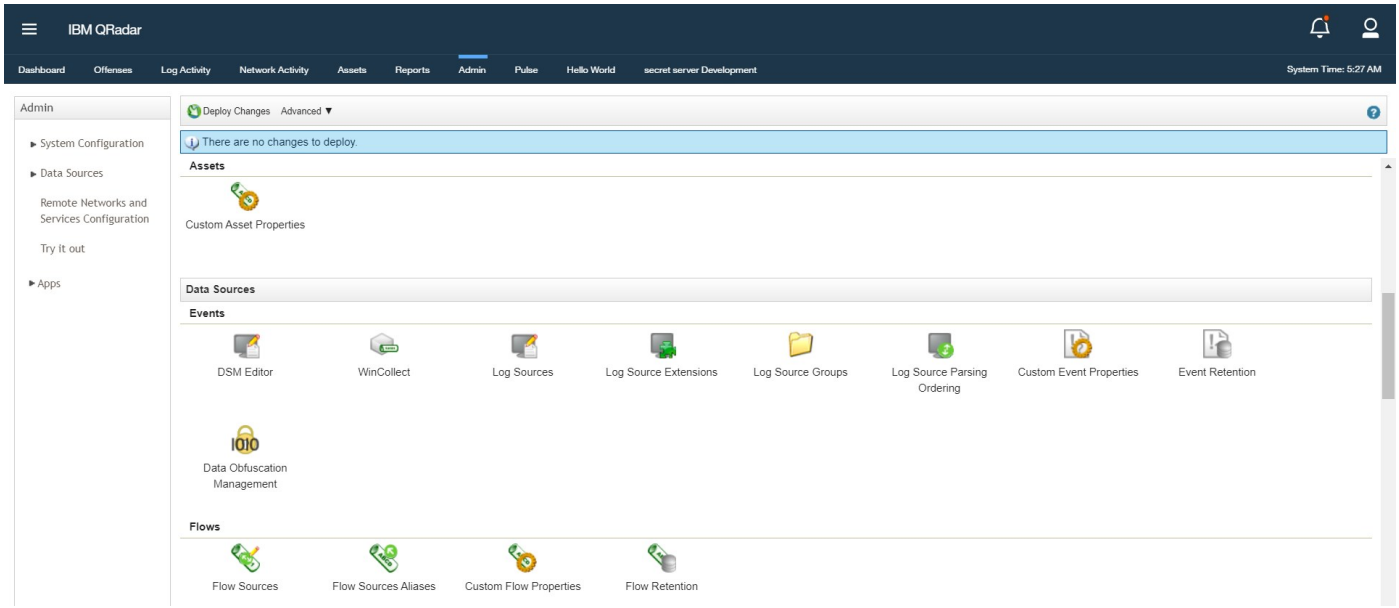


6. Download Pulse App from https://exchange.xforce.ibmcloud.com/ and install the Pulse extension by navigating to extension Management.

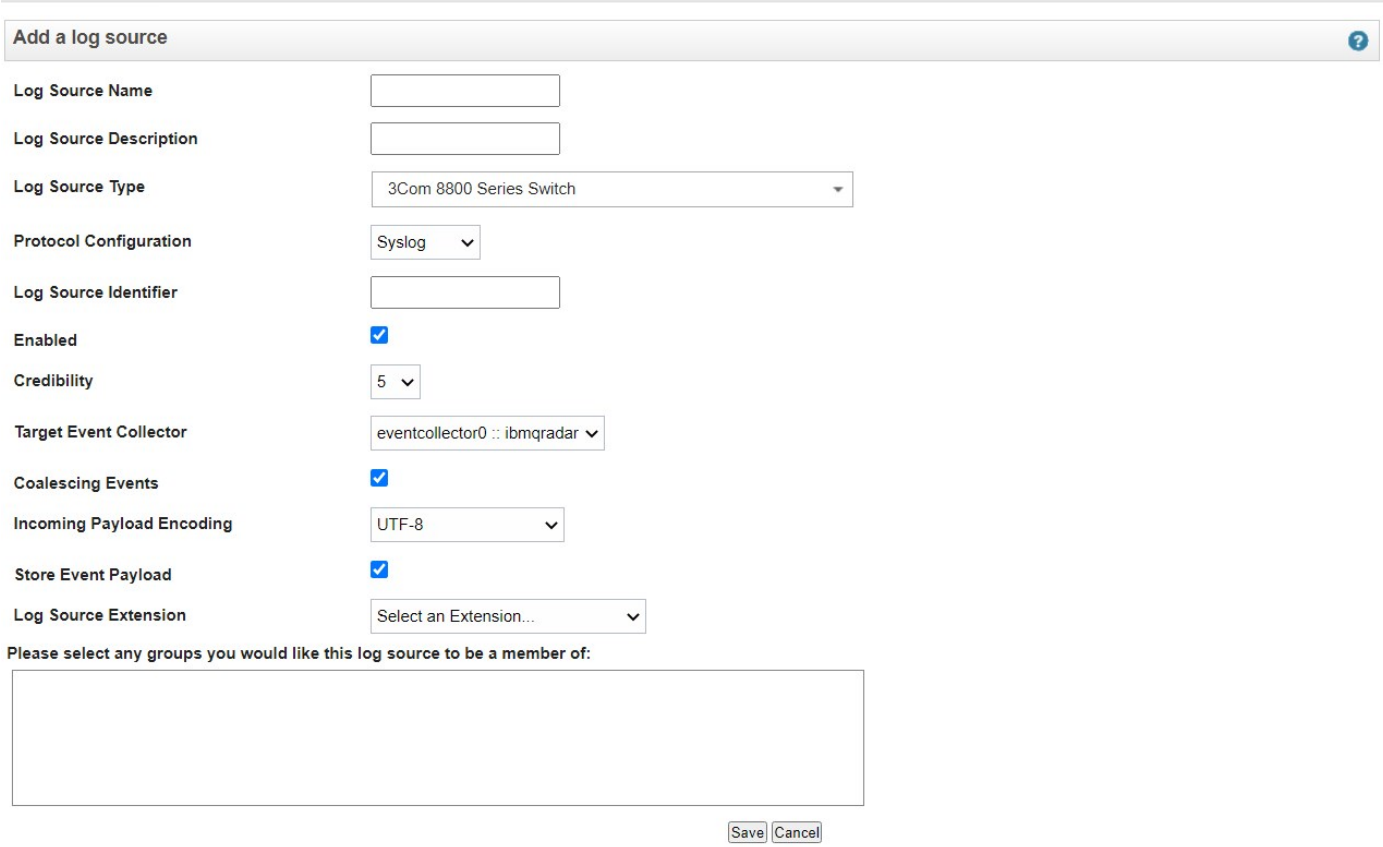


Create log source

1. Click **on Admin I Log source**.

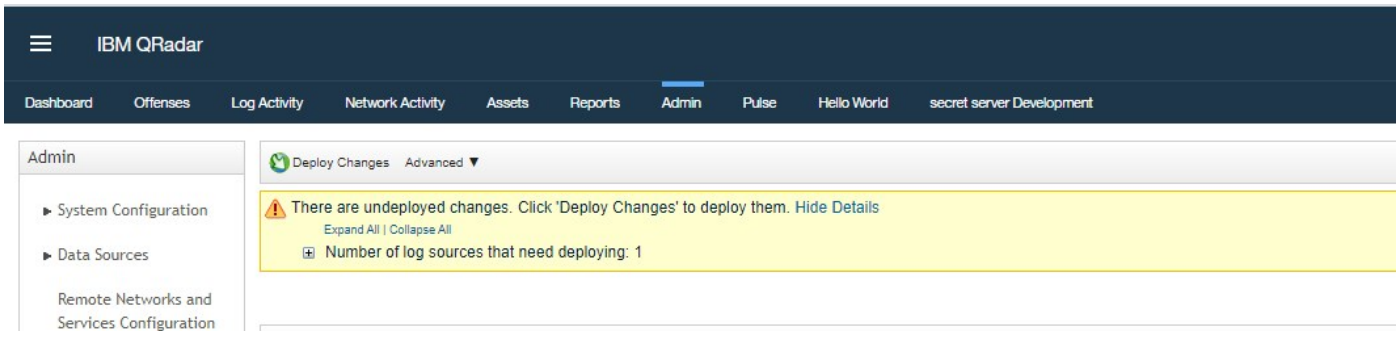


2. Click on the **Add** button.
3. Add log source popup will be displayed.
    1. Enter the Name down the Log Source Name which will be required in Step 9 in Pulse Dashboard Setup.
    2. Description.
    3. Select the log source type created in above steps.
    4. Enter the **Log source Identifier** as Host Name of machine where Secret Server is installed.
    5. Click **Save**.



Deploy Log Source

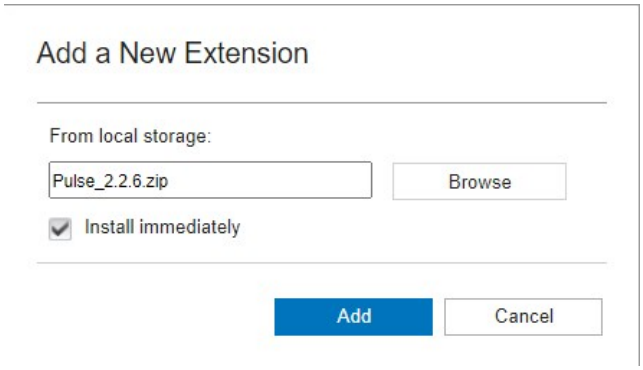
1. On the **Admin Page of QRadar**, click on **deploy changes** button.



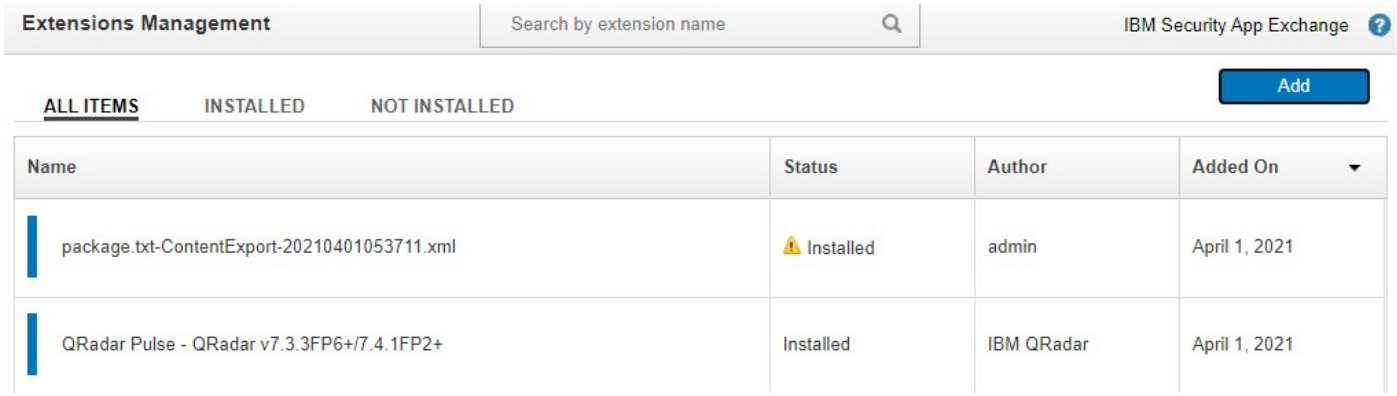
Pulse Dashboard Setup

To Configure Pulse Dashboard Setup (The QRadar integration is also available at Thycotic.com):

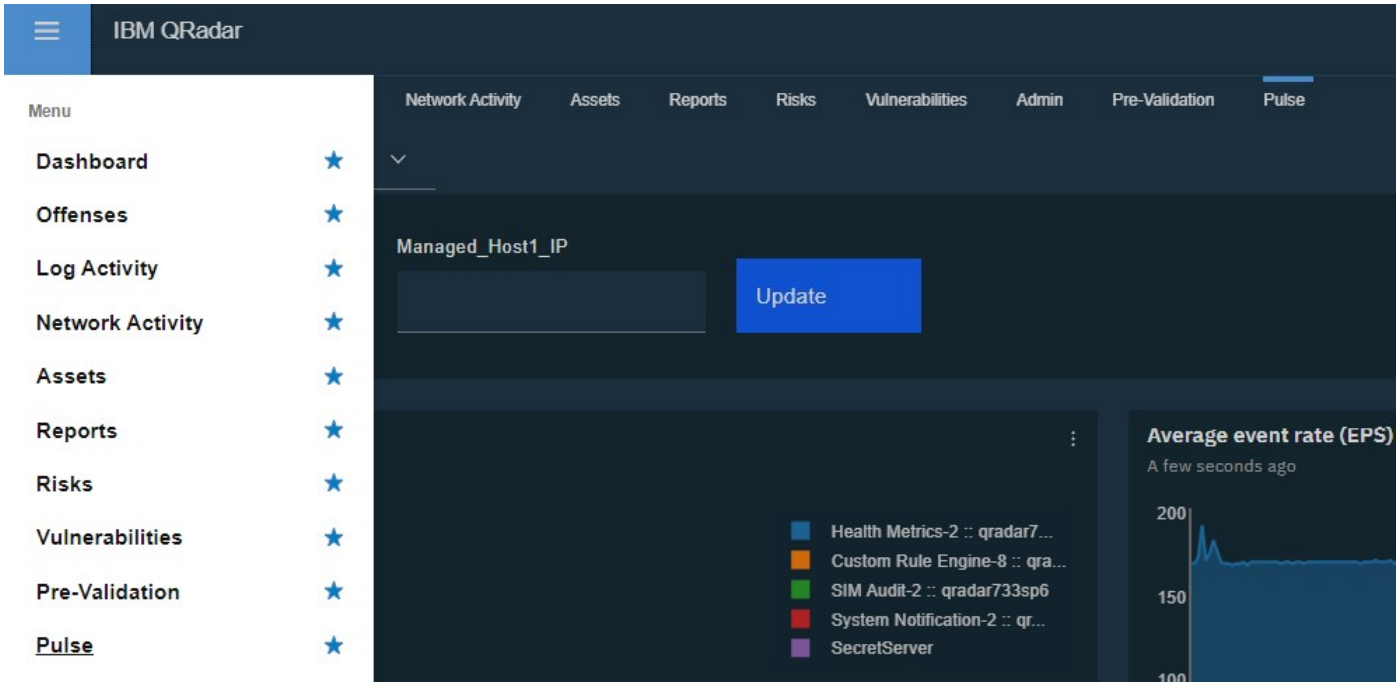
1. Click on **Add I Browse the pulse Zip file I Check "install immediately"**.
2. Click on the **Add** button.



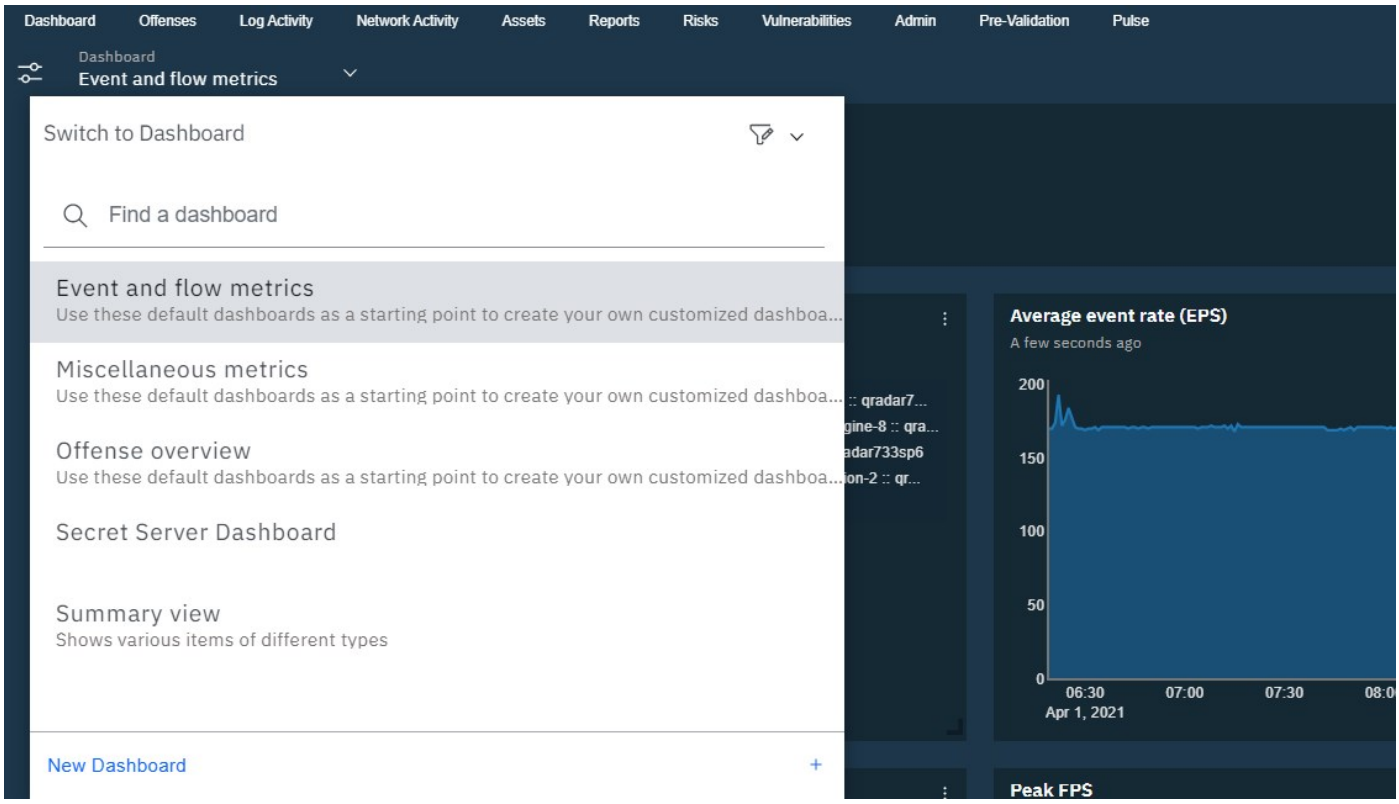
3. You should see the pulse QRadar pulse app in the extension management.



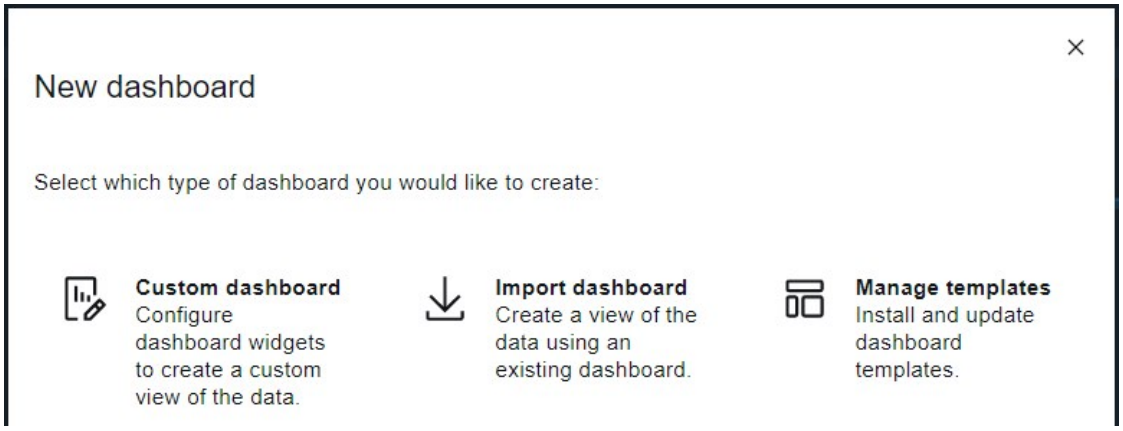
4. Click on the **Pulse** Extension from the menu.



5. Click on the dashboard dropdown and select **New Dashboard**.

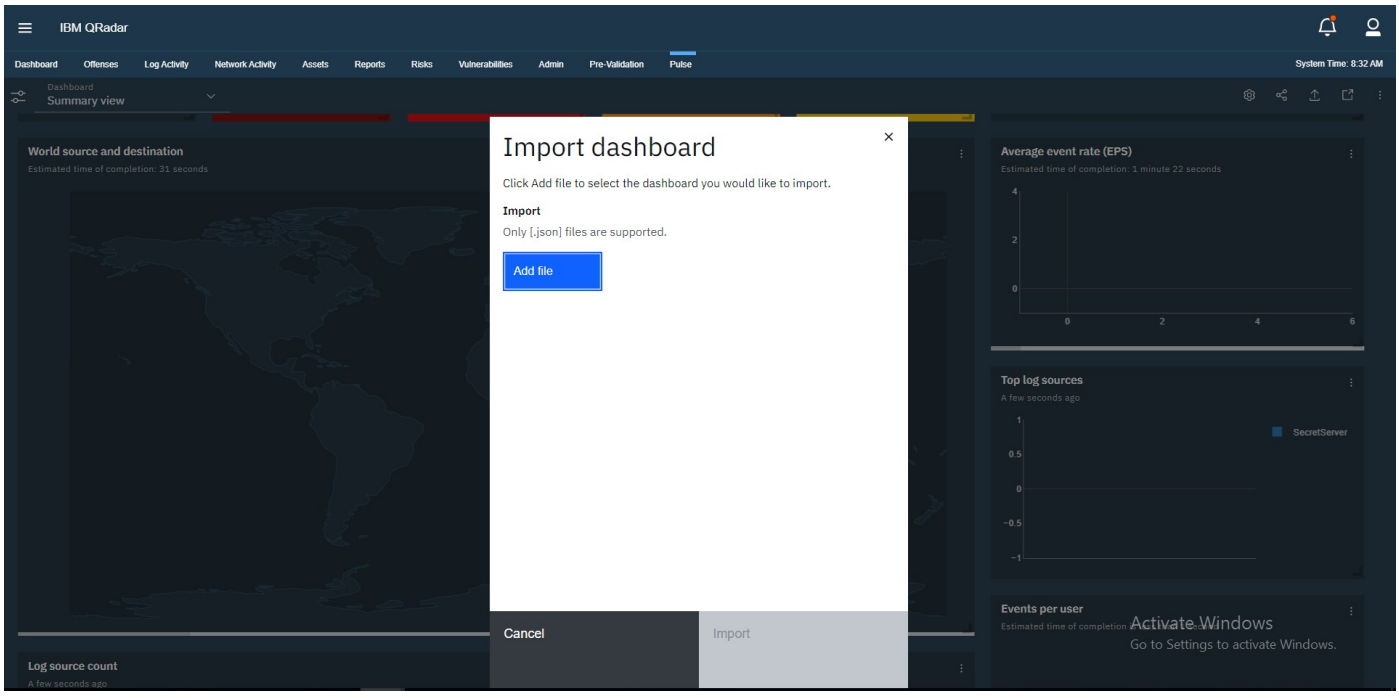


6. Click on **Import Dashboard**.

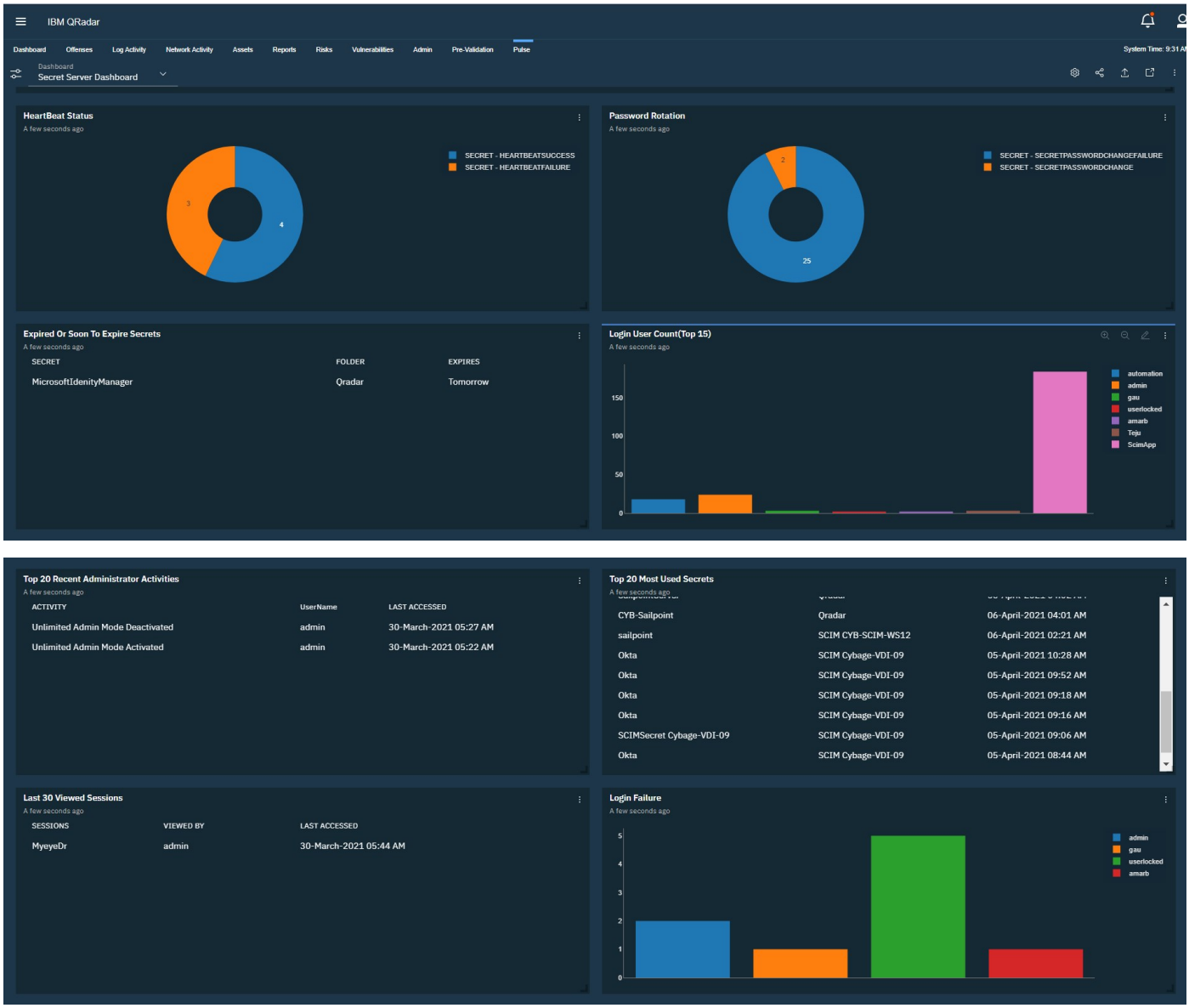


7. Extract the **Thycotic Secret Server dashboard zip**.

8. Click on **Add File**.
9. Navigate to **Secret Server Dashboard.json**.
10. Click on the **Import** button.

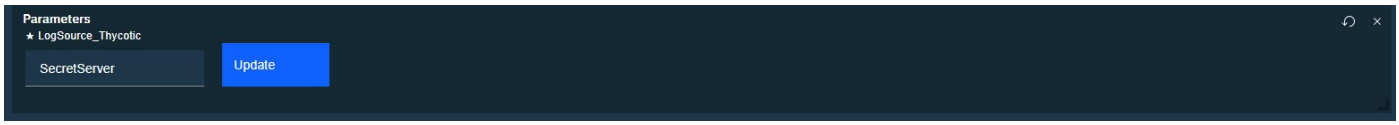


11. The **Secret Server Dashboard** will be displayed in Pulse.

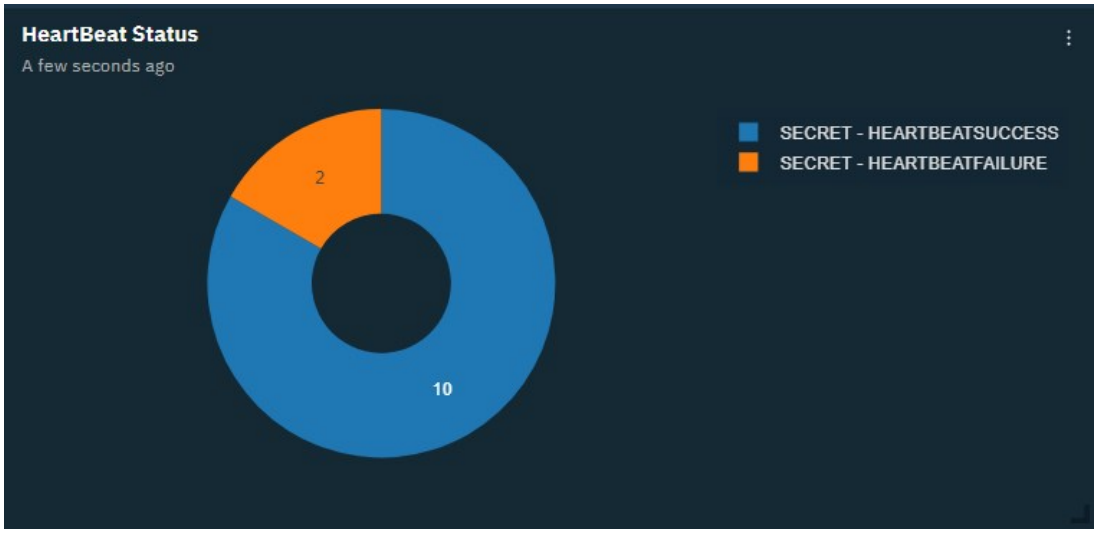


Secret Server Dashboard Widget

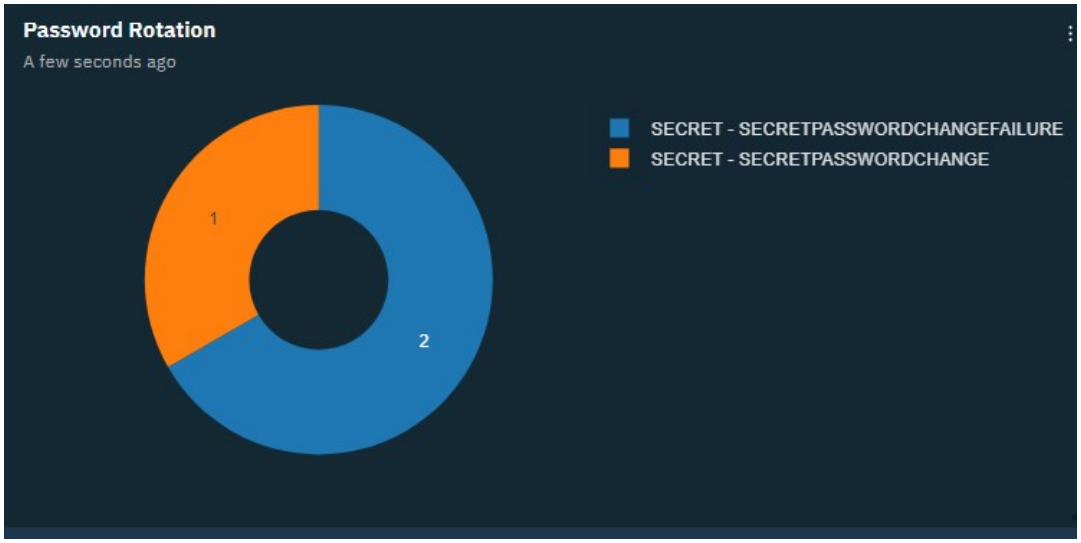
- Add **Log Source Name** to the **LogSource_Thycotic** Parameters.



- **Heartbeat Status**
  - **Success:** The credentials in the Secret authenticated successfully with the target system.
  - **Failed:** The credentials in the Secret failed authentication with the target system.

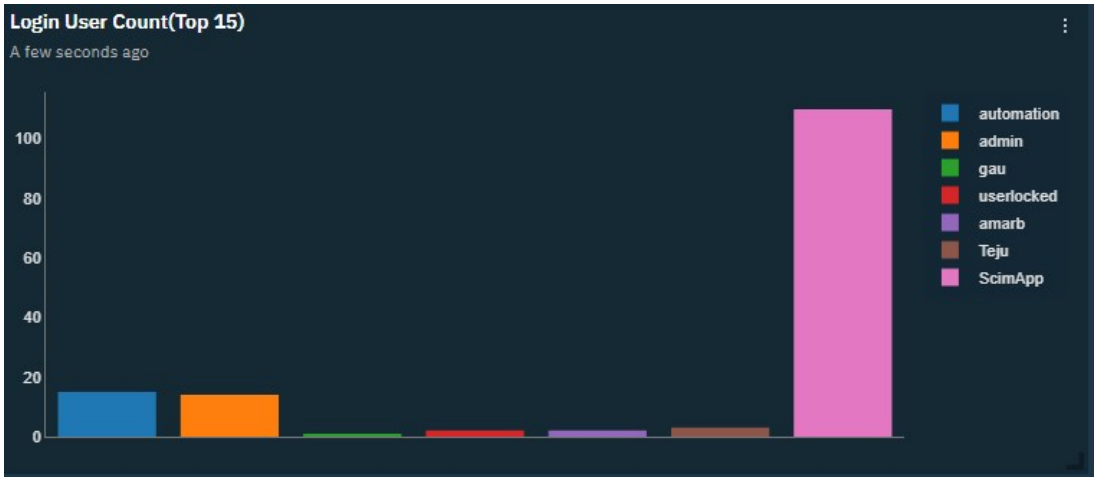


- **Password Rotation**
  - **Success:** A Secret Password has changed.
  - **Failed:** A Secret Password has failed to change.



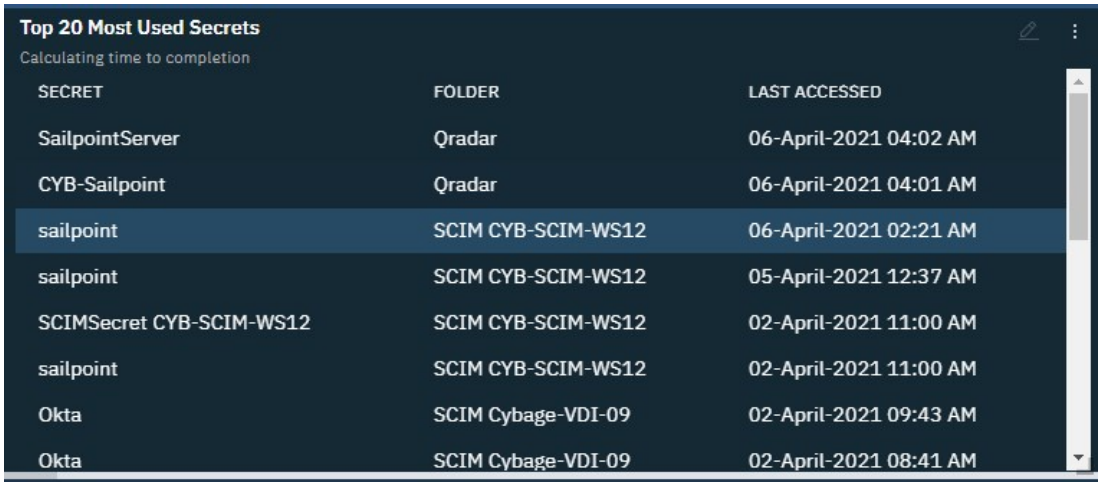
- **Secret expired or Soon to be expired**

- **Top 15 login user count**



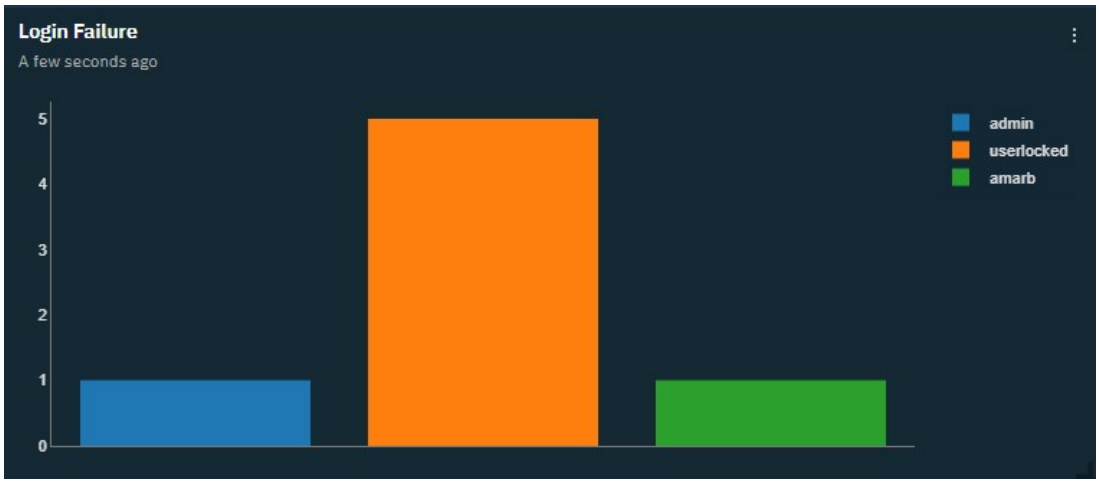
- **Top 20 Recent Administrator Activities**

- **Top 20 Most Used Secrets**



- **Last 30 Viewed Sessions**

- **Last 30 Login Failure Users**



Support

Integrations are supported to the extent of the third-party product procedures documented for this integration. Please contact the third-party for any customized setup of the integrated product.

Thycotic customers have access to support by phone and email. You also can open a case in Thycotic's support ticketing system, which promotes follow-through to issue resolution.

> **Note**: Please see our Support Services Guide for details about our support policy. This page provides a high-level summary of portions of that guide.

Use the means you prefer, except for Severity 1 issues—for those, always use phone support.

Severity 1 means a critical problem that has caused *complete loss of service* and work cannot reasonably continue at your worksite.

Obtaining a Support PIN

To obtain support by email or phone, first log in to the Support Portal to obtain a PIN. The PIN validates that your license includes support, and you must provide the PIN in your email or when you call. The PIN also makes it easier for the person helping you to locate your customer records and give you better support.

- Visit the Support Portal Login Page using the credentials you received when you became a customer.
- After logging in, you will be on the main page. Click on the large blue bar labeled PIN to obtain a PIN number.

Support by Phone

Thycotic delivers support by phone worldwide. Select the applicable number from this list:

Region	Country	Support Number
AMERICAS	all	+1 202 991 0540
EMEA	UK	+44 20 3880 0017
	Germany	+49 69 6677 37597
APAC	Australia	+61 3 8595 5827
	Philippines	+63 2 231 3885
	New Zealand	+64 9-887 4015
	Singapore	+65 3157 0602

Support by Email

Send your email to support@thycotic.com **with the PIN number as part of the subject line** of your email, for example:

- PIN 345 Workflow Stopped Unexpectedly

Include this information:

1. company name
2. contact name
3. contact phone number
4. product name

5. details of the issue

You must send your email using an email address already noted in your account with Thycotic.

- Sending a support request from an email address not on file may delay our response.

Support Ticketing

As an alternative to support by email or phone, you can open a support ticket and track your issue to resolution.

- Visit the Support Portal Login Page using the credentials you received when you became a customer.
- After logging in, you will be on the main page. Click the **Cases** tab, then **Create a Case**.
- Follow the instructions to complete your case.

IBM Verify Gateway for RADIUS Server

> **Note**: Integration details coming soon

This document discusses integrating IBM Verify Gateway for Remote Access Dial-In User (RADIUS) Server with Thycotic Verify Privilege Vault.

Thycotic IT security and password management solutions empower companies to remove the complexities of proper access control and management of privileged accounts. An Inc. 5000 company, Thycotic is trusted by more than 3,000 organizations worldwide—including Fortune 500 members, enterprises, government agencies, technology firms, universities, non-profits, and managed service providers. To learn more, please visit thycotic.com.

Verify Privilege Vault

Thycotic Verify Privilege Vault (SS) is an on-premises Web-based password vault used throughout the world to help organizations properly manage privileged account passwords. SS allows users to control access and automate password changes for a variety of enterprise resources, such as servers, databases, network devices, and applications. SS features auditing throughout the application and role-based access control (RBAC) on all its information and features. Organizations can easily deploy SS to ensure security, reduce labor costs, adopt password best practices, and satisfy audit requirements.

IBM Verify Gateway for RADIUS Server

IBM Verify Gateway for RADIUS component includes a RADIUS interface where VPNs and other RADIUS clients can request authentication making use of the multi-factor authentication mechanisms from the Cloud.

IBM Verify Gateway for RADIUS documentation and installation can be found in the IBMCloud.

IBM Red Hat

- OpenShift

OpenShift Deployment

The integration provided by Thycotic for managing OpenShift Secrets is a Mutating Admissions Webhook. The webhook functions by intercepting Kubernetes Secrets calls that feature the webhook's annotation and translating these in to requests for Secrets from Thycotic Secret Server.

This guide is designed to walk you through how the integration fits together with all its constituent parts, and gives some example templates (in OpenShift YAML), designed to get you up and running with the integration quickly and effectively.

As a reference, the integration itself is available open source from here, hence you're able to modify it to suit the specific needs of your organization:

https://github.com/thycotic/tss-k8s

https://github.com/thycotic/dsv-k8s

The integration also backs off to the Thycotic golang integration components, which are also available open source:

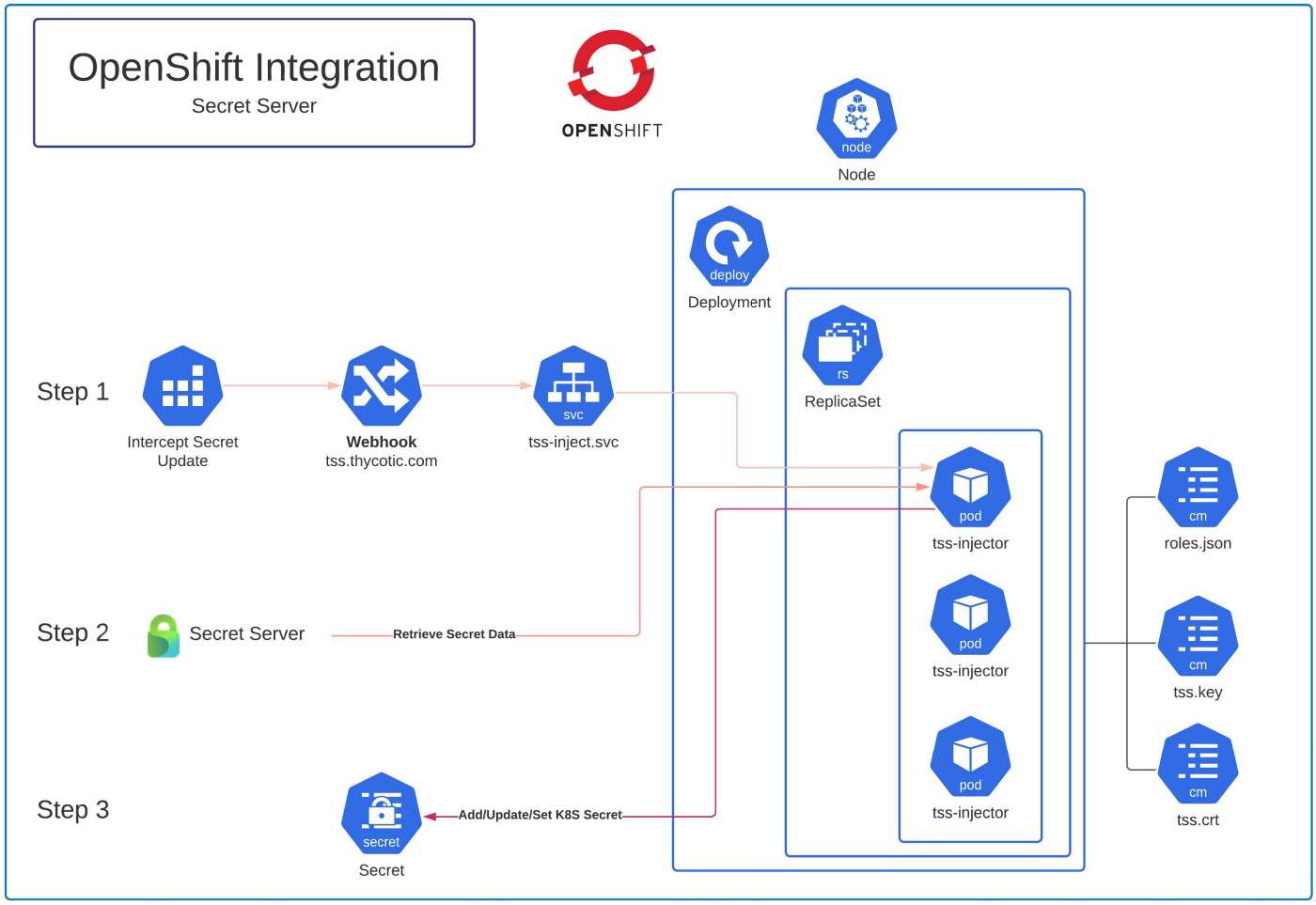
https://github.com/thycotic/tss-sdk-go

https://github.com/thycotic/dsv-sdk-go

> **Note**: This guide is tailored towards OpenShift deployment, however the method is also generally supported and cross-compatible on Kubernetes.

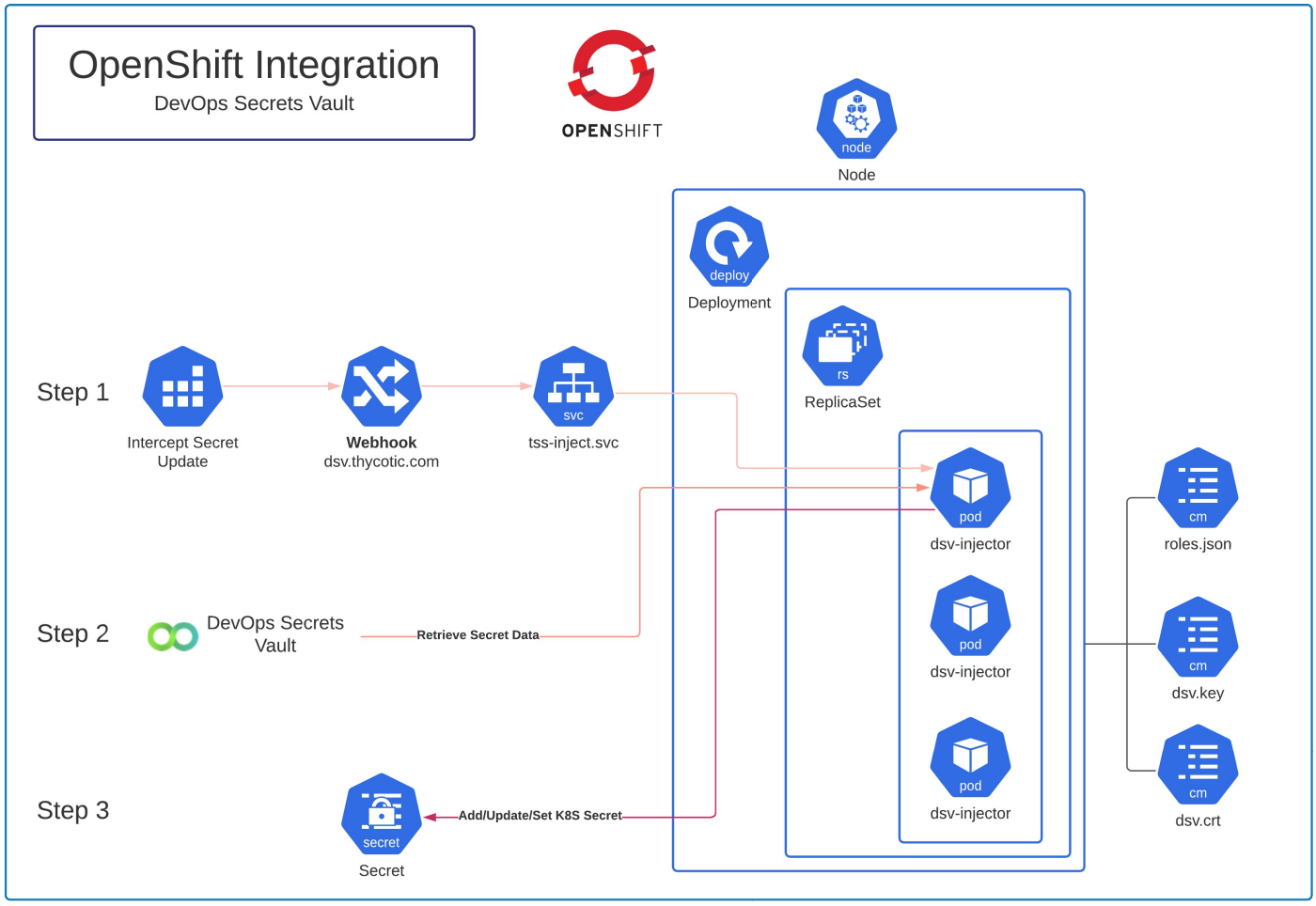
Architecture

Secret Server



The diagram above represents the visual version of the architecture and its components.

DSV



The diagram above represents the visual version of the architecture and its components.

Integration with Secret Server

The integration is a Mutating Admissions Webhook that intercepts requests for OpenShift Secrets using a specialized annotation. The request is then updated with data from Secret Server and passed in to the OpenShift Secrets vault. This ensures that credentials in the OpenShift Secrets Vault are aligned with the values as managed by Secret Server, hence password changes can occur on the Secret Server side and be able to be reflected in the OpenShift Secrets Vault.

The deployment is designed to be easily integrated with existing deployment environments, as Secret requests only need to have the various Annotations added to them in order for the Secret Server based workflow to be enacted.

> **Note**: There are numerous different ways of configuring OpenShift for different operating environments. Hence this guide, although intending to give a solid baseline idea for deployment of the integration, will not be the sole, authoritative way in which the integration can function or be deployed. All examples below use the `default` namespace which, alongside some other components, will likely need to be modified to ensure suitability with your organization's OpenShift environment.

The Webhook

The webhook is at the front end of the integration and intercepts the requests for Secrets that are inbound to the OpenShift Secrets store, when the requests are given the appropriate annotation. Below is a basic configuration YAML for deploying the webhook in your OpenShift instance.

Example Webhook YAML

```
---
apiVersion: admissionregistration.k8s.io/v1
kind: MutatingWebhookConfiguration
metadata:
  name: tss-injector
  labels:
    app: tss
webhooks:
  - name: tss.thycotic.com
    rules:
      - apiGroups: ["*"]
        apiVersions: ["*"]
        operations: ["CREATE", "UPDATE"]
        resources: ["secrets"]
    clientConfig:
      service:
        namespace: default
        name: tss-injector
        path: "/inject"
        port: 8543
      caBundle: ""
    admissionReviewVersions: ["v1","v1beta1"]
    sideEffects: None
    timeoutSeconds: 5
```

The Webhook Certificate

Each of the pods in the deployment are in possession (via ConfigMaps) of a certificate that they present in order to identify themselves to the OpenShift instance. The `caBundle` value in the webhook must be the base64 encoded version of the public certificate (crt) that the pods are presenting.

The Service

As per standard OpenShift configuration, a load balanced service allows orchestrated applications to be handled effectively from an internal OpenShift networking standpoint. Hence, we want this service to direct all requests to the appropriate deployment/pods when an annotated Secret request comes in.

Below is an example of the service and how it could look against the `default` namespace:

Example Service YAML

```
---
```

```
apiVersion: v1
kind: Service
metadata:
  name: tss-injector
  namespace: default
  labels:
    app: tss-injector
spec:
  ports:
    - port: 8543
      targetPort: 18543
  selector:
    app: tss-injector
  type: LoadBalancer
```

ConfigMaps

Roles Configuration

The roles.json file is accessed by the pods in the deployment through a ConfigMap. The file gives the pods information about where Secret Server is located, and how they should authenticate with it (via a set of credentials).

Secret Server Cloud Example

```
{
    "default": {
        "credentials": {
            "username": "username",
            "password": "password"
        },
        "serverURL": "https://mytenant.secretsvaultcloud.com"
    }
}
```

Multiple roles and vaults can also be used.

> **Note**: In the absence of a role being explicitly specified, the default role will be used.

Multiple Vaults Example

```
{
    "alternaterole": {
        "credentials": {
            "username": "username",
            "password": "password"
        },
        "serverURL": "https://myfirsttenant.secretsvaultcloud.com"
    },
    "default": {
        "credentials": {
            "username": "username",
            "password": "password"
        },
       "serverURL": "https://mysecondtenant.secretsvaultcloud.com"
    }
}
```

Certificate

Two ConfigMaps are required for the certificate. One to hold the public certificate (.crt), and one for the private key associated therewith (.key).

IMPORTANT The public certificate must have a CN (Command Name) of deploymentname.namespace.svc. To fit directly in to the examples given here, a CN of tss-injector.default.svc must be present on the certificate.

Examples of these config maps (tss-crt and tss-key) are in the Sample Deployment YAML under volumes.

Container Mapping: These items are mapped in to the injector container through the ENTRYPOINT in the Dockerfile, which is, in its most basic form:

```
FROM tss-injector:latest
```

```
ARG cert_file
ARG key_file
ARG roles_file
COPY ${cert_file} ./tss.pem
COPY --chown=tss ${key_file} ./tss.key
COPY ${roles_file} ./roles.json
ENTRYPOINT ["tss-injector-svc", "-cert", "tss.pem", "-key", "tss.key", "-roles", "roles.json" ]
```

> **Note**: The tss-injector image on Docker Hub does not include these references, however the Docker Hub image reference (thycotictc/openshift:latest) in the Deployment below already includes the above configuration.

The Deployment

The final component of the integration is the deployment and the pods associated with it. Each pod includes a single running container that is the injector application, which is designed to go out to the target vaulting platform and retrieve the intended Secret values.

Note that the deployment example below includes all of the configuration input as detailed in the sections above.

Example Deployment YAML

```
---
apiVersion: apps/v1
kind: Deployment
metadata:
  name: tss-injector
  namespace: default
  labels:
    app: tss-injector
spec:
  replicas: 5
  selector:
    matchLabels:
      app: tss-injector
  template:
    metadata:
      labels:
        app: tss-injector
      namespace: default
    spec:
      containers:
        - image: thycotictc/openshift:latest
          name: tss-injector
          command: ["tss-injector-svc", "-cert", "tss.crt", "-key", "tss.key", "-roles", "roles.json" ]
          workingDir: "/config"
          resources:
            requests:
              memory: "512Mi"
              cpu: "250m"
            limits:
              memory: "2048Mi"
              cpu: "1000m"
          ports:
           - containerPort: 18543
             name: tss
          volumeMounts:
          - name: config-volume
            mountPath: /config
      volumes:
       - name: config-volume
         projected:
           sources:
             - configMap:
                 name: tss-config
                 items:
                 - key: roles.json
                   path: roles.json
             - configMap:
                 name: tss-key
                 items:
                 - key: tss.key
                   path: tss.key
             - configMap:
                 name: tss-cert
```

```
        items:
        - key: tss.crt
          path: tss.crt
```

The Requests

Annotations

The four annotations that affect the behavior of the webhook are:

```
const(
    roleAnnotation   = "tss.thycotic.com/role"
    setAnnotation    = "tss.thycotic.com/set-secret"
    addNotation      = "tss.thycotic.com/add-to-secret"
    updateAnnotation = "tss.thycotic.com/update-secret"
)
```

- roleAnnotation identifies the role that should be used, as per the roles.json entry
- addAnnotation adds missing fields without overwriting or removing existing fields.
- updateAnnotation adds and overwrites existing fields but does not remove fields.
- setAnnotation overwrites fields and removes fields that do not exist in the TSS Secret.

> **Note**: Only one of these should be specified on any given k8s Secret, however, if more than one are defined then the order of precedence is setAnnotation then addAnnotation then updateAnnotation.

Secret Examples

In addition to the annotation, the secretID value will also need to be provided. This corresponds to the value of the target Secret within Secret Server from which data needs to be retrieved.

> **Note**: The data fields on the request itself are generally ignored, depending on the annotation used.

SET

```
---
apiVersion: v1
kind: Secret
metadata:
  name: my-secret-name
  annotations:
    tss.thycotic.com/set-secret: "10"
type: Opaque
data:
  data: dW5tb2RpZmllZC11c2VybmFtZQ==
```

ADD

```
---
apiVersion: v1
kind: Secret
metadata:
  name: user-domain
  annotations:
    tss.thycotic.com/add-to-secret: "10"
type: Opaque
data:
  data: dW5tb2RpZm
```

Integration with DSV

The integration is a Mutating Admissions Webhook that intercepts requests for OpenShift Secrets using a specialized annotation. The request is then updated with data from DevOps Secrets Vault and passed in to the OpenShift Secrets vault. This ensures that credentials in the OpenShift Secrets Vault are aligned with the values as managed by DevOps Secrets Vault, hence password changes can occur on the DevOps Secrets Vault side and be able to be reflected in the OpenShift Secrets Vault.

The deployment is designed to be easily integrated in to existing deployment environments, as Secret requests only need to have the various Annotations added to them in order for the DevOps Secrets Vault based workflow to be enacted.

> **Note**: There are numerous different ways of configuring OpenShift for different operating environments. Hence this guide, although intending to give a solid baseline idea for deployment of the integration, will not be the sole, authoritative way in which the integration can function or be deployed. All examples below use the `default` namespace which, alongside some other components, will likely need to be modified to ensure suitability with your organization's OpenShift environment.

The Webhook

The webhook is at the front end of the integration and intercepts the requests for Secrets that are inbound to the OpenShift Secrets store, when the requests are given the appropriate annotation. Below is a basic configuration YAML for deploying the webhook in your OpenShift instance.

Example Webhook YAML

```
---
apiVersion: admissionregistration.k8s.io/v1
kind: MutatingWebhookConfiguration
metadata:
  name: dsv-injector
  labels:
    app: dsv
webhooks:
  - name: dsv.thycotic.com
    rules:
      - apiGroups: ["*"]
        apiVersions: ["*"]
        operations: ["CREATE", "UPDATE"]
        resources: ["secrets"]
    clientConfig:
      service:
        namespace: default
        name: dsv-injector
        path: "/inject"
        port: 8543
      caBundle: ""
    admissionReviewVersions: ["v1","v1beta1"]
    sideEffects: None
    timeoutSeconds: 5
```

The Webhook Certificate

Each of the pods in the deployment are in possession (via ConfigMaps) of a certificate that they present in order to identify themselves to the OpenShift instance. The `caBundle` value in the webhook must be the base64 encoded version of the public certificate (crt) that the pods are presenting.

The Service

As per standard OpenShift configuration, a load balanced service allows orchestrated applications to be handled effectively from an internal OpenShift networking standpoint. Hence, we want this service to direct all requests to the appropriate deployment/pods when an annotated Secret request comes in.

Below is an example of the service and how it could look against the `default` namespace:

Example Service YAML

```
---
```

```
apiVersion: v1
kind: Service
metadata:
  name: dsv-injector
  namespace: default
  labels:
    app: dsv-injector
spec:
  ports:
    - port: 8543
      targetPort: 18543
  selector:
    app: dsv-injector
  type: LoadBalancer
```

ConfigMaps

Roles Configuration

The roles.json file is accessed by the pods in the deployment through a ConfigMap. The file gives the pods information about where DevOps Secrets Vault is located, and how they should authenticate with it (via a set of credentials).

DevOps Secrets Vault Example

```
{
   "default": {
      "credentials": {
         "clientid": "<ClientID>",
         "clientsecret": "<ClientSecret>"
      },
       //  "TLD":"eu", Optional for non-US instances
      "tenant": "tenantname"
   }
}
```

Multiple Vaults Example

Multiple roles and vaults can also be used.

> **Note**: In the absence of a role being explicitly specified, the default role will be used.

```
{
   "alternaterole": {
     "credentials": {
         "clientid": "<ClientID>",
         "clientsecret": "<ClientSecret>"
      },
        "tenant": "tenantname"
   },
   "default": {
      "credentials": {
         "clientid": "<ClientID>",
         "clientsecret": "<ClientSecret>"
      },
       "tenant": "anothertenantname"
   }
}
```

Certificate

Two ConfigMaps are required for the certificate. One to hold the public certificate (.crt), and one for the private key associated therewith (.key).

> **IMPORTANT**: The public certificate must have a CN (Command Name) of deploymentname.namespace.svc. To fit directly in to the examples given here, a CN of dsv-injector.default.svc must be present on the certificate.

Examples of these config maps (dsv-crt and dsv-key) are in the Sample Deployment YAML under volumes.

Container Mapping

These items are mapped in to the injector container through the ENTRYPOINT in the Dockerfile, which is, in its most basic form:

```
FROM dsv-injector:latest
ARG cert_file
ARG key_file
ARG roles_file
COPY ${cert_file} ./dsv.pem
COPY --chown=dsv ${key_file} ./dsv.key
COPY ${roles_file} ./roles.json
ENTRYPOINT ["dsv-injector-svc", "-cert", "dsv.pem", "-key", "dsv.key", "-roles", "roles.json" ]
```

> **Note**: The dsv-injector image on Docker Hub does not include these references, however the Docker Hub image reference (thycotictc/openshiftdsv:latest) in the Deployment below already includes the above configuration.

The Deployment

The final component of the integration is the deployment and the pods associated with it. Each pod includes a single running container that is the injector application, which is designed to go out to the target vaulting platform and retrieve the intended Secret values.

Note that the deployment example below includes all of the configuration input as detailed in the sections above.

Example Deployment YAML

```
---
apiVersion: apps/v1
kind: Deployment
metadata:
  name: dsv-injector
  namespace: default
  labels:
    app: dsv-injector
spec:
  replicas: 5
  selector:
    matchLabels:
      app: dsv-injector
  template:
    metadata:
      labels:
        app: dsv-injector
      namespace: default
    spec:
      containers:
        - image: thycotictc/openshiftdsv:latest
          name: dsv-injector
          command: ["dsv-injector-svc", "-cert", "dsv.crt", "-key", "dsv.key", "-roles", "roles.json" ]
          workingDir: "/config"
          resources:
            requests:
              memory: "512Mi"
              cpu: "250m"
            limits:
              memory: "2048Mi"
              cpu: "1000m"
          ports:
           - containerPort: 18543
             name: dsv
          volumeMounts:
          - name: config-volume
            mountPath: /config
      volumes:
       - name: config-volume
         projected:
           sources:
             - configMap:
                 name: dsv-config
                 items:
                 - key: roles.json
                   path: roles.json
             - configMap:
                 name: dsv-key
```

```
        items:
        - key: dsv.key
          path: dsv.key
      - configMap:
          name: dsv-cert
          items:
          - key: dsv.crt
            path: dsv.crt
```

The Requests

Annotations

The four annotations that affect the behavior of the webhook are:

```
const(
    roleAnnotation   = "dsv.thycotic.com/role"
    setAnnotation    = "dsv.thycotic.com/set-secret"
    addNotation      = "dsv.thycotic.com/add-to-secret"
    updateAnnotation = "dsv.thycotic.com/update-secret"
)
```

- roleAnnotation identifies the role that should be used, as per the roles.json entry
- addAnnotation adds missing fields without overwriting or removing existing fields.
- updateAnnotation adds and overwrites existing fields but does not remove fields.
- setAnnotation overwrites fields and removes fields that do not exist in the DSV Secret.

> **Note**: Only one of these should be specified on any given k8s Secret, however, if more than one are defined then the order of precedence is setAnnotation then addAnnotation then updateAnnotation.

Secret Examples

In addition to the annotation, the path value that leads to the Secret will also need to be provided. This corresponds to the value of the target Secret within DevOps Secrets Vault from which data needs to be retrieved.

> **Note**: The data fields on the request itself are generally ignored, depending on the annotation used.

SET

```
---
apiVersion: v1
kind: Secret
metadata:
  name: example-secret
  annotations:
    dsv.thycotic.com/set-secret: /folderpath/secretname
type: Opaque
data:
  username: dW5tb2RpZmllZC11c2VybmFtZQ==
  domain: dW5tb2RpZmllZC1kb21haW4=
```

ADD

```
---
apiVersion: v1
kind: Secret
metadata:
  name: example-secret
  annotations:
    dsv.thycotic.com/update-secret: /folderpath/secretname
type: Opaque
data:
  data: dW5tb2RpZmllZC11c2VybmFtZQ==
```

Support

Integrations are supported to the extent of the third-party product procedures documented for this integration. Please contact the third-party for any customized setup of the integrated product.

Thycotic customers have access to support by phone and email. You also can open a case in Thycotic's support ticketing system, which promotes follow-through to issue resolution.

> **Note**: Please see our Support Services Guide for details about our support policy. This page provides a high-level summary of portions of that guide.

Use the means you prefer, except for Severity 1 issues—for those, always use phone support.

Severity 1 means a critical problem that has caused *complete loss of service* and work cannot reasonably continue at your worksite.

Obtaining a Support PIN

To obtain support by email or phone, first log in to the Support Portal to obtain a PIN. The PIN validates that your license includes support, and you must provide the PIN in your email or when you call. The PIN also makes it easier for the person helping you to locate your customer records and give you better support.

- Visit the Support Portal Login Page using the credentials you received when you became a customer.
- After logging in, you will be on the main page. Click on the large blue bar labeled PIN to obtain a PIN number.

Support by Phone

Thycotic delivers support by phone worldwide. Select the applicable number from this list:

Region	Country	Support Number
AMERICAS	all	+1 202 991 0540
EMEA	UK	+44 20 3880 0017
	Germany	+49 69 6677 37597
APAC	Australia	+61 3 8595 5827
	Philippines	+63 2 231 3885
	New Zealand	+64 9-887 4015
	Singapore	+65 3157 0602

Support by Email

Send your email to support@thycotic.com **with the PIN number as part of the subject line** of your email, for example:

- PIN 345 Workflow Stopped Unexpectedly

Include this information:

1. company name
2. contact name
3. contact phone number
4. product name

5. details of the issue

You must send your email using an email address already noted in your account with Thycotic.

- Sending a support request from an email address not on file may delay our response.

Support Ticketing

As an alternative to support by email or phone, you can open a support ticket and track your issue to resolution.

- Visit the Support Portal Login Page using the credentials you received when you became a customer.
- After logging in, you will be on the main page. Click the **Cases** tab, then **Create a Case**.
- Follow the instructions to complete your case.

IBM WebSphere

Note: Integration details coming soon.

IBM WebSphere Integration with Secret Server WebSphere is a set of Java-based tools (middleware and application server) from IBM that allows customers to create and manage sophisticated business Web sites. The central WebSphere tool is the WebSphere Application Server (WAS), an application server that a customer can use to connect Web site users with Java applications or servlets.

The integration between Secret Server and WebSphere ensures that:

- Passwords are securely vaulted in Secret Server
- Users can enable Secret Server Credential Provider (SSCP) to fetch credentials from the Secret Server for JDBC data sources
- Users can configure credentials retrieval on a global level, data source level and a combination of enterprise application and data source level
- Users can configure local credentials cache so credentials fetched from the Secret Server are cached in-memory

In combination, these tools allow developers and organizations that are leveraging Websphere to move away from statically assigned passwords to a centralized, audited and dynamic password and credential schema. Credentials are retrieved "on demand" and can be regularly rotated, without interfering with the underlying running of the Websphere platform, or the applications that depend upon it.

ID Agent

Below are the following integrations that are available with ID Agent:

- Radius

Introduction

The integration between Thycotic Secret Server and Radius is created and maintained by Radius. This document provides guidance and best practice for implementing the integration. It is based on the following publicly available documentation from the vendor and testing performed by Thycotic. Integrations are supported to the extent of the third-party product procedures documented for this integration. Please contact the third-party for any customized setup of the integrated product.

Thycotic

Thycotic IT security and password management solutions empower companies to remove the complexities of proper access control and management of privileged accounts. An Inc. 5000 company, Thycotic is trusted by more than 3,000 organizations worldwide—including Fortune 500 members, enterprises, government agencies, technology firms, universities, non-profits, and managed service providers. To learn more, please visit thycotic.com.

Secret Server

Thycotic Secret Server (SS) is an on-premises Web-based password vault used throughout the world to help organizations properly manage privileged account passwords. SS allows users to control access and automate password changes for a variety of enterprise resources, such as servers, databases, network devices, and applications. SS features auditing throughout the application and role-based access control (RBAC) on all its information and features. Organizations can easily deploy SS to ensure security, reduce labor costs, adopt password best practices, and satisfy audit requirements.

RADIUS

RADIUS is an acronym for Remote Access Dial-In User. An instance of the RADIUS service installation to which different devices may connect for network authentication or access.RADIUS Client: RADIUS clients are network access servers—such as wireless access points, 802.1X-capable switches, virtual private network (VPN) servers, and dial-up servers. This entry area shows the name and device IP.

Getting Started with Radius

Sign up for RADIUS

Check out the On-Demand signup page at https://authanvil.com/try-it-free.

Before you begin, please download the walk-through guide and follow along.

RADIUS On-Demand

RADIUS is designed to enhance your existing login systems and can protect the many systems, including:

- Windows servers and workstations.
- Linux and Unix servers and desktops.
- Terminal and remote desktop services, including RD Web Access and RemoteApp.
- Citrix Access Gateway, XenApp, and XenDesktop.
- Web applications running on IIS and Apache.
- Virtual private networks (VPN) and SSL-VPN.
- Firewalls, routers, and switches.
- RMM solutions like Kaseya VSA and LabTech.
- PSA solutions like Connectwise and Autotask.

For further information please visit:

- https://authanvil.com/try-it-free
- https://help.authanvil.com/hc/en-us/articles/218394478
- https://help.authanvil.com/hc/en-us/articles/115001913808-How-Should-I-setup-RADIUS-
- https://help.authanvil.com/hc/en-us/articles/218924497-Testing-RADIUS-Communication

Integration Requirements

Pre-requisites

- Visual C++ -This update can be downloaded here.
- Microsoft .NET v4.6 This update can be downloaded here.
- .Net 4.6.0 or Higher must be installed on the host machine or the RADIUS installation package will not install.

Configuration

Please review the following steps below to properly configure Radius for Secret Server:

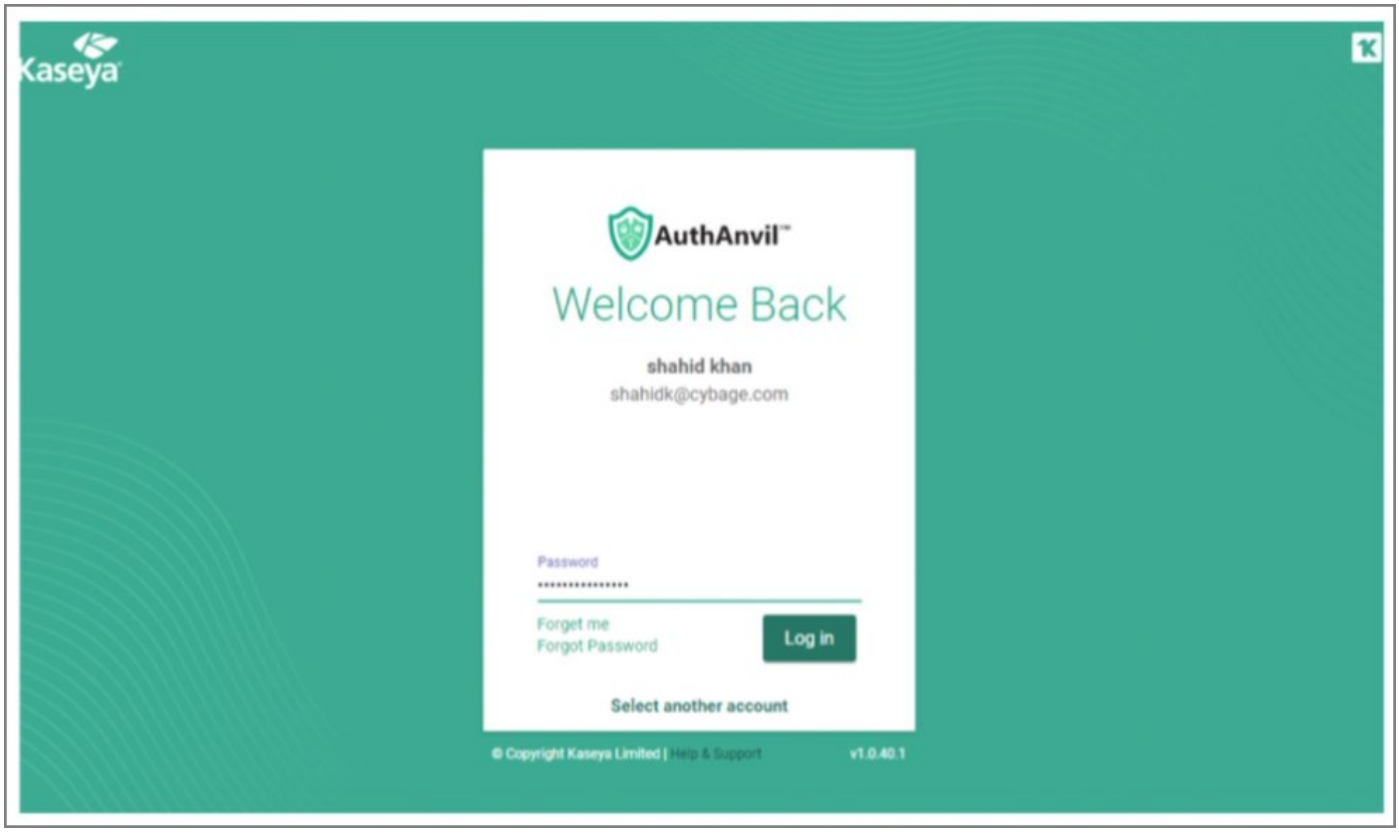
- Add a RADIUS Agent.
- Download the RADIUS Agent Installer.
- Configure RADIUS for the Secret ServerInstance.

Add a RADIUS Agent

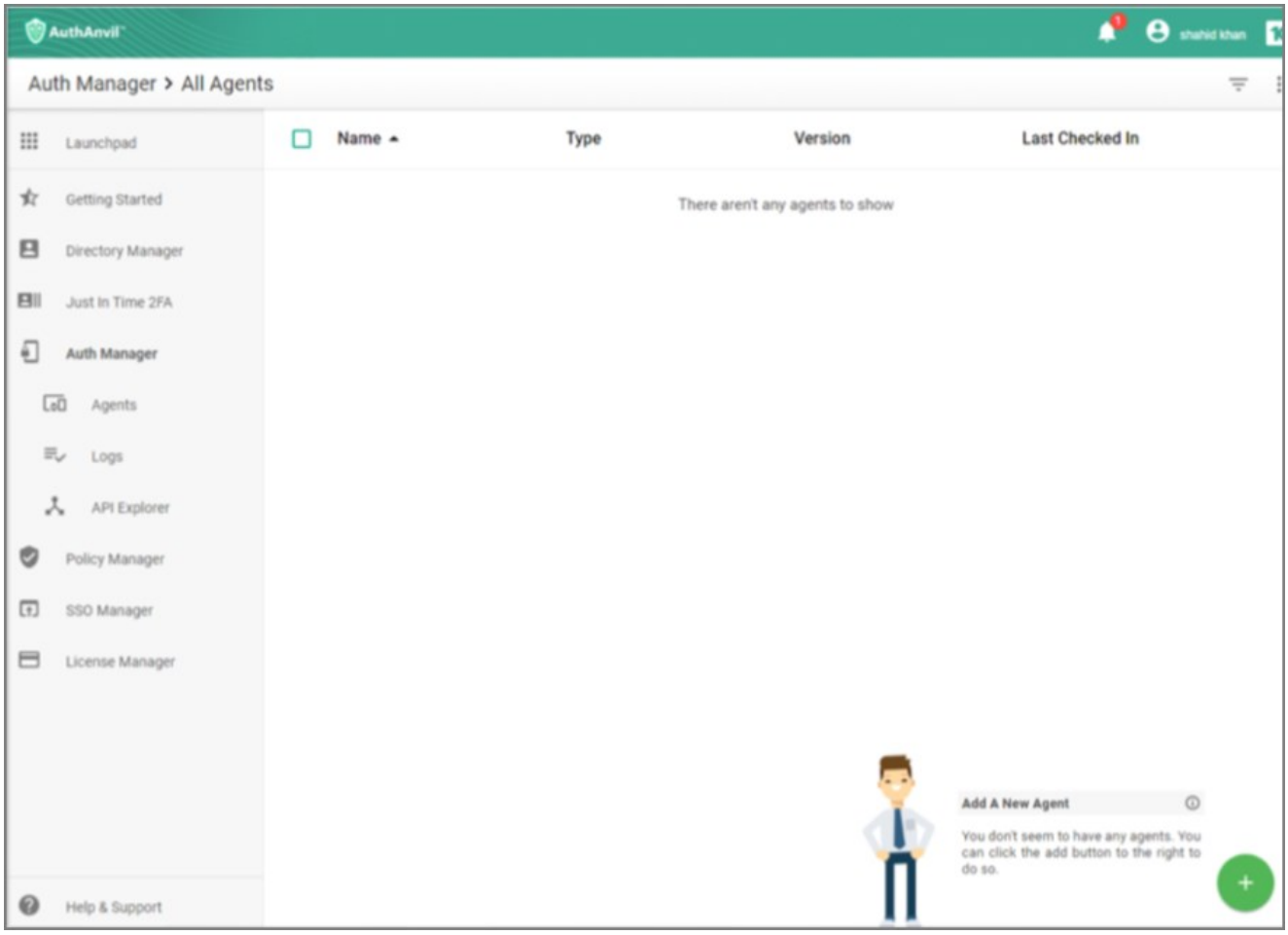
Before you start

- Ensure you have administrative access to your AuthAnvil on Demand tenant.
- Ensure access to a computer that will host the RADIUS Client.
- Ensure access to the desired VPN capable device and are familiar with the configuration.

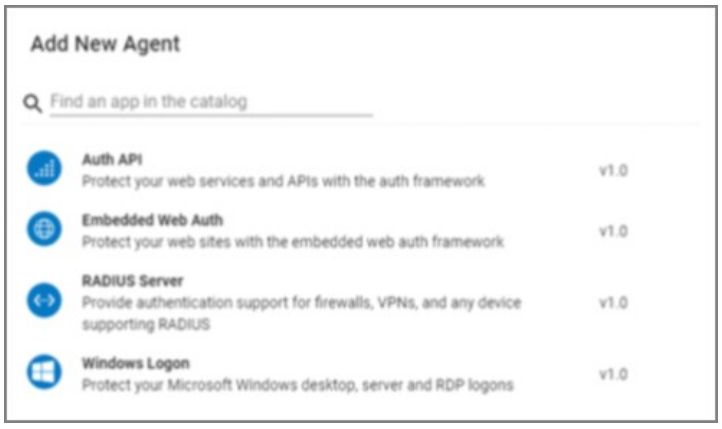
1. Log into your instance of AuthAnvil on Demand.



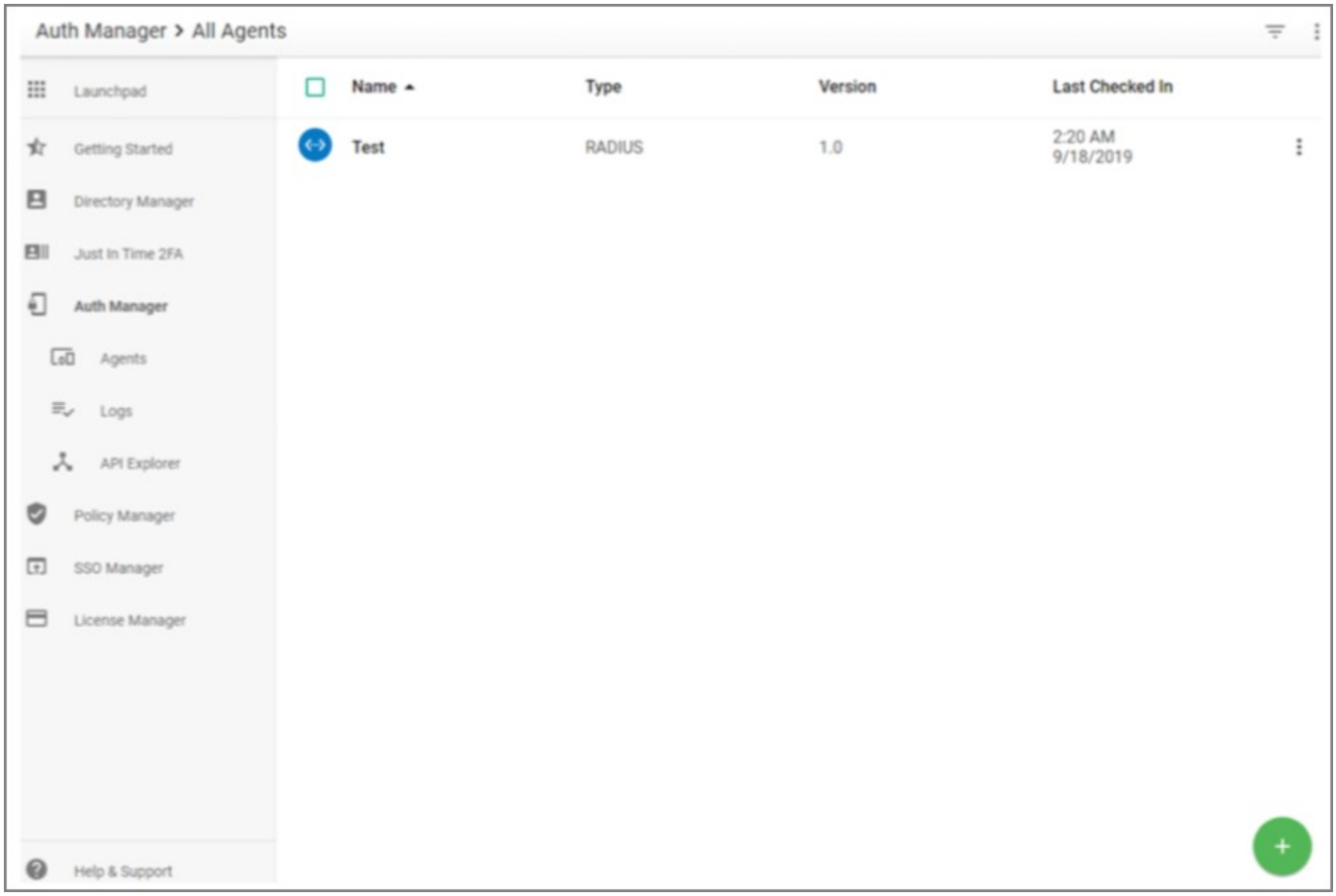
2. Click **Auth Manager | plus sign** to add a new Agent.



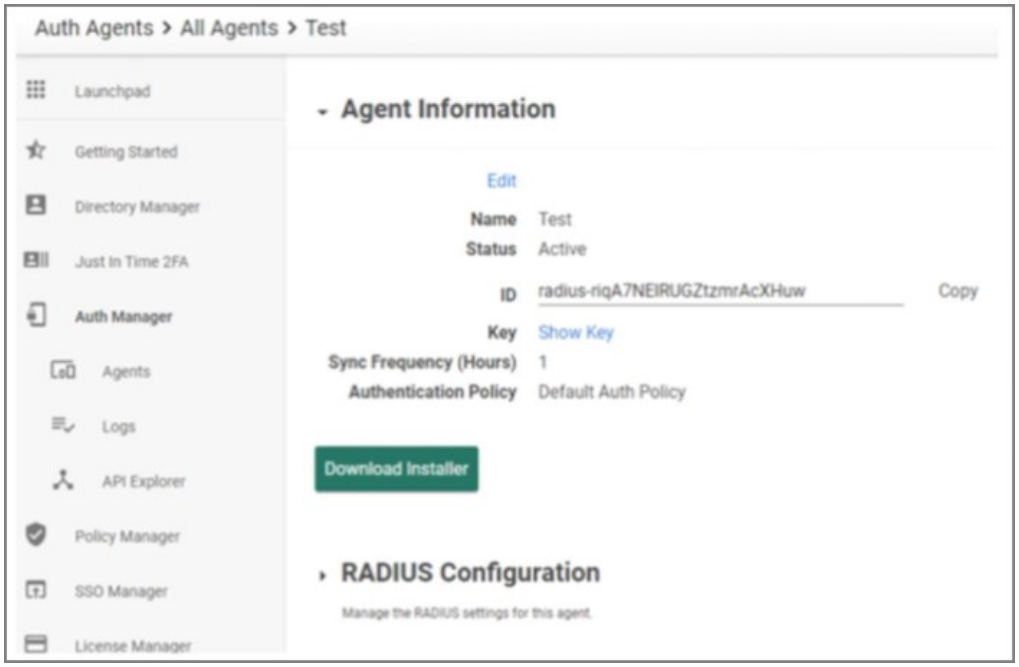
3. Select **RADIUS Server**.



4. Enter a **name for the Agent** to identify its uniqueness from the other agents.
5. Click **Add Agent** in the lower right corner.(The content in the fields is only demonstrative and not to be used for your work.)The All Agents screen will appear with the new Agent listed.

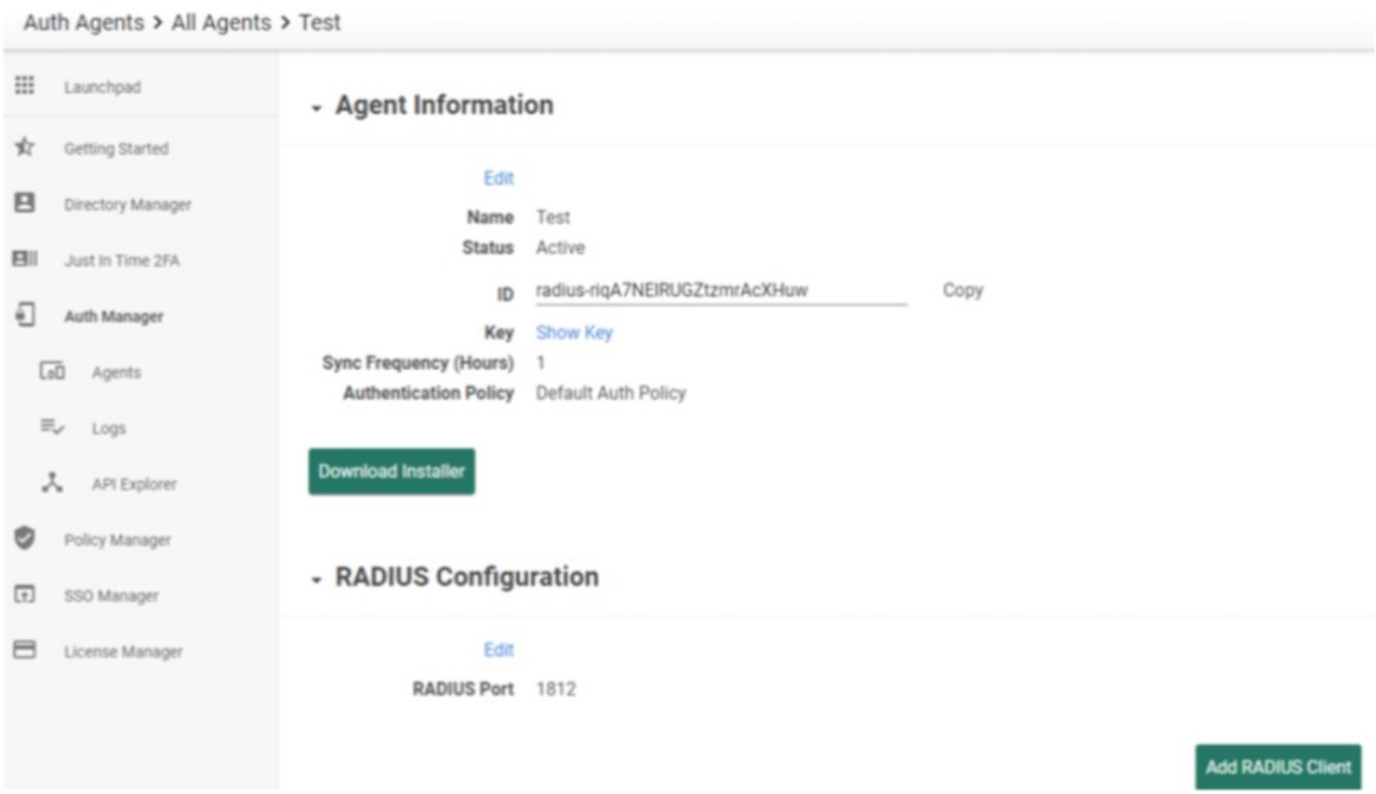


6. Click the **name** to display the Agent Information, and note the following as you will be prompted for this when installing the RADIUS Agent service:
    - ID: The unique ID of the agent.
    - Key: The auto-generated secret value of the agent.



Note: The above information is to be used ONLY at the time of installing the service.

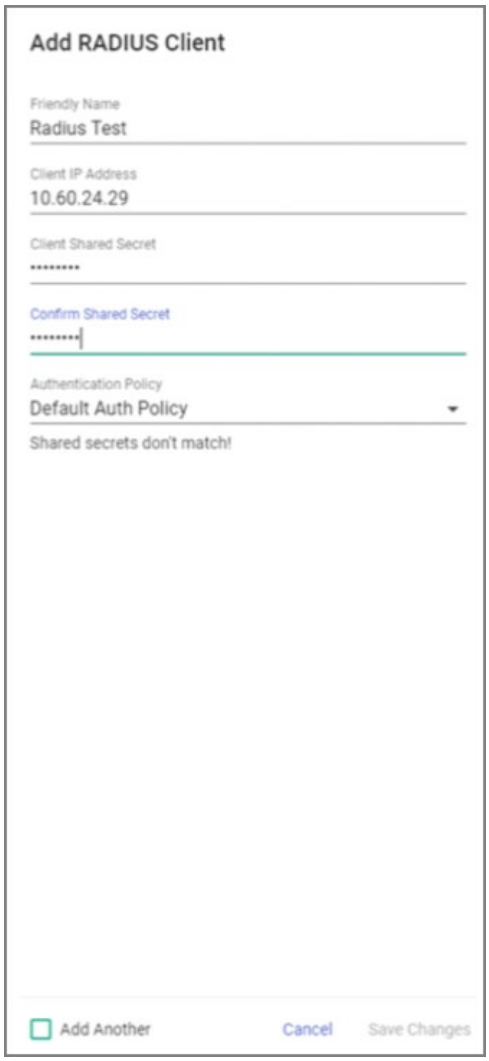
7. Click **RADIUS Configuration** and click **Add RADIUS Client** button or edit the port to use for communication (default port is 1812).



8. In the Add RADIUS Client screen, perform the following:

- Add a **friendly name** for the Client, add the **Client IP address**, and add a **Client Shared Secret**. (The Client Shared Secret key is the password or key setup on each client added in AuthAnvil portal. The same key must be entered in the RADIUS configuration tab in Secret Server under RADIUS Shared Secret).
- Confirm Shared Secret (formerly Confirm Password) for the Client.

  Note: This is the shared Secret that will be placed on the forwarding device/router to authenticate the communication.



9. Click **Save Changes**.

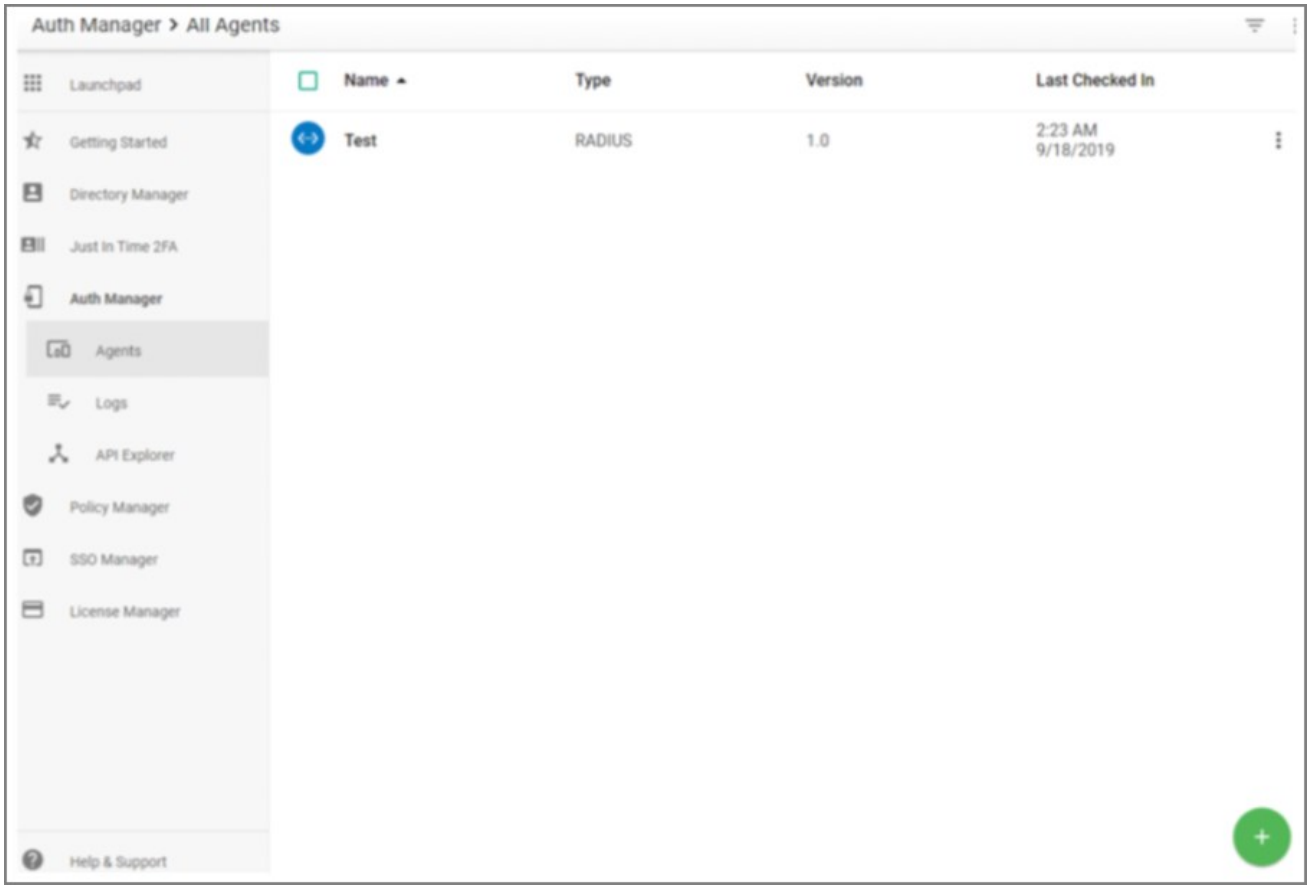
   Note: To add more than one client, select the **Add Another** checkbox before selecting the Add RADIUS client button.

Download the RADIUS Agent Installer

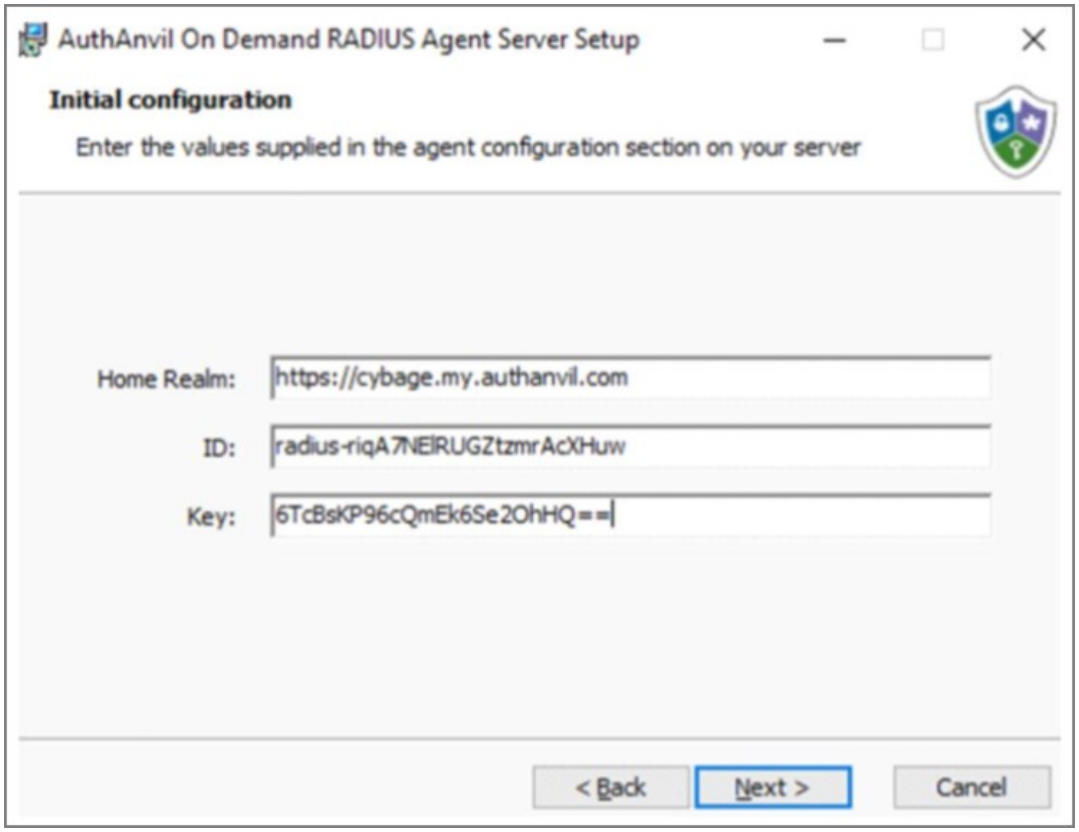
Before you start

- Ensure you have administrative access to your AuthAnvil on Demand tenant.
- You should be performing the following on the machine that will host the RADIUS Service.

1. On the left navigation tree, select the **Auth Manager I Agents**.

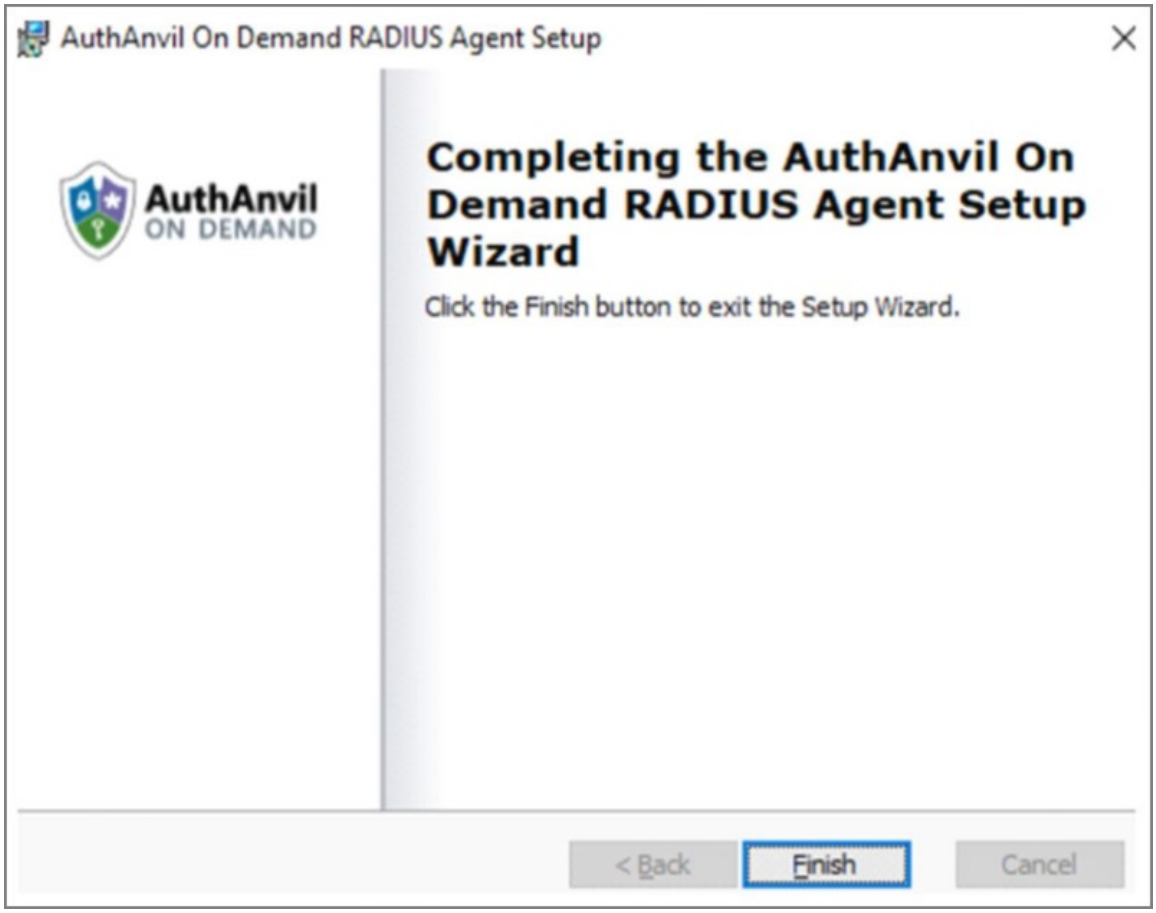


2. Download the RADIUS installer by performing one of the following options:
    - Click the ellipsis to the right of the agent and select **Download** from the dropdown list.
    - Click the **Agent name** and select the **Download Installer** button that appears.
3. Once downloaded, run through the installation wizard on the machine hosting the RADIUS service.
4. Enter in the **ID** and **Key** that were copied during the RADIUS client creation.
5. Click **Next**.



Note: Home Realm is the user account used to sign in to the AuthAnvil On-Demand portalhttps://yourcompany.my.authanvil.com.

6. Complete the install steps with the Wizard and click **Finish** when complete.



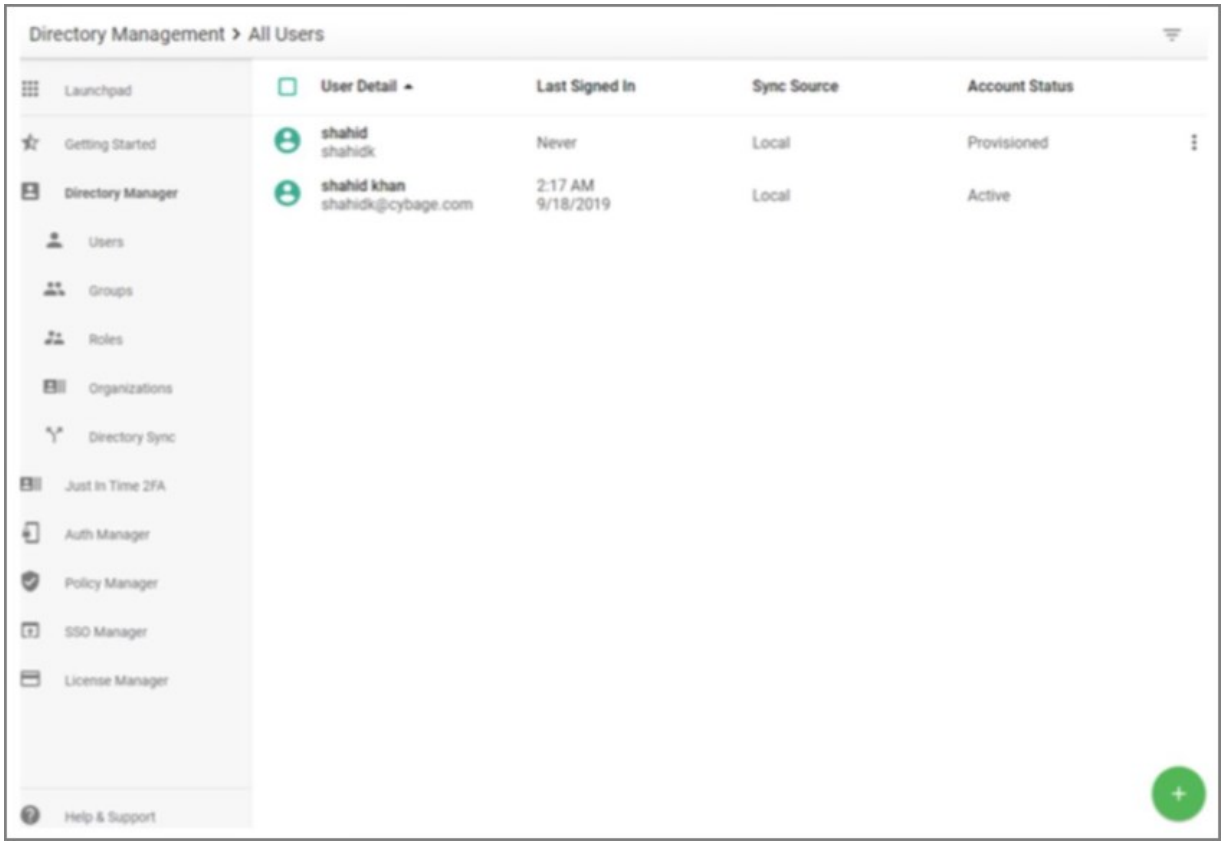
Add a User (Example content)

This example shows you how to add a single new user with AuthAnvil's interactive wizard.

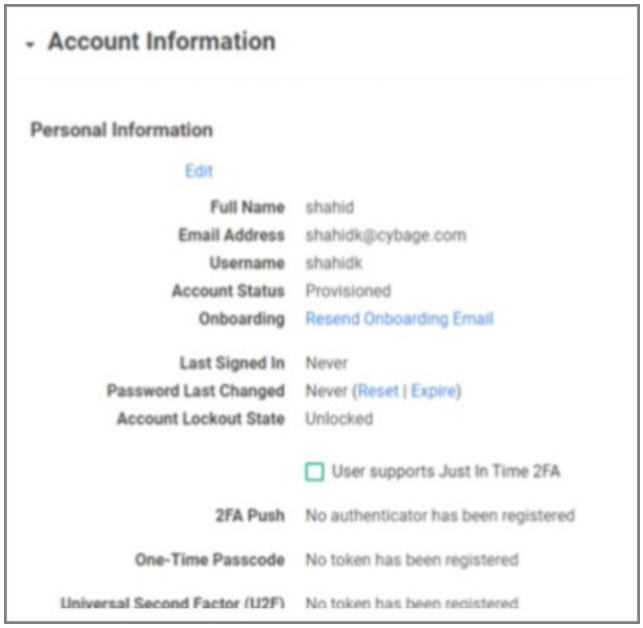
1. Sign in to your AuthAnvil portal.
2. In the left navigation menu, select the **Directory Manager**. The All Users window appears.
3. In the All Users window, click **green plus sign I Add a User**. The Add New User panel appears.
4. Enter the **display name, email address, and username** with your information.
    - Display name – name
    - Email – xxxx@companyname.com
    - Username – username
    - Choose a policy for the new user

Note: The Default Policy does not send an onboarding email. The Full Onboarding Policy sends an activation email to the specified email address.

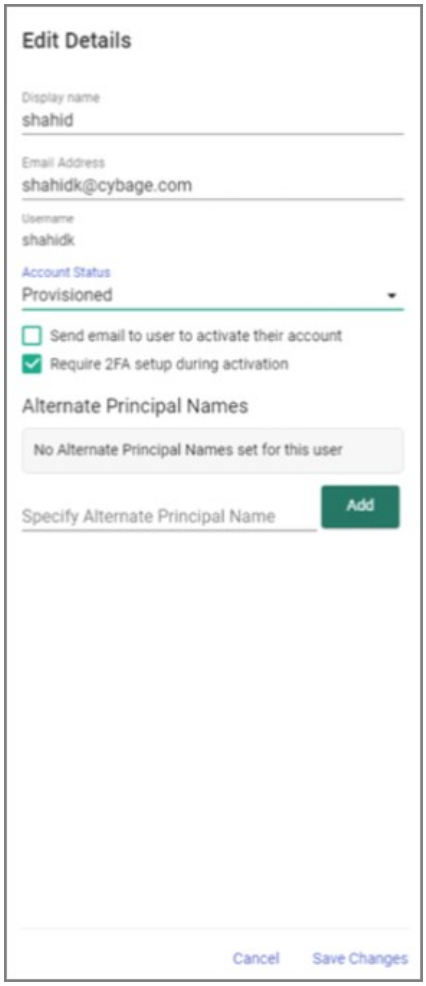
5. Click **Add User**. AuthAnvil returns to the All Users view and the new user is now on the list.



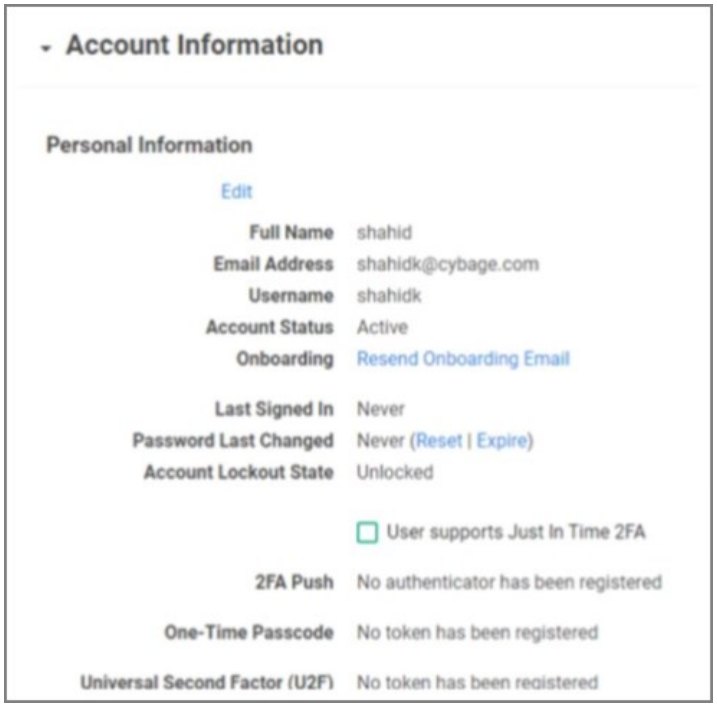
6. Click the **ellipsis** next to the new user. The Account Information window appears.



7. Click **Edit**.



8. Click the **Account Status** dropdown menu and change the status to **Active**.
9. Click **Save Changes**.
10. Next to Password Last Changed, click **Reset** to reset the user password.


Account Information
Personal Information
Edit
Full Name
shahid
Email Address
shahidk@cybage.com
Username
shahidk
Account Status
Active
Onboarding
Resend Onboarding Email
Last Signed In
Never
Password Last Changed
Never (Reset | Expire)
Account Lockout State
Unlocked
User supports Just In Time 2FA
2FA Push
No authenticator has been registered
One-Time Passcode
No token has been registered
Universal Second Factor (U2F)
No token has been registered

Configure RADIUS for the Secret Server Instance

Enable RADIUS Two-Factor Authentication in Thycotic Secret Server 10.6 version

Secret Server allows the use of RADIUS two-factor authentication on top of the normal authentication process for additional security needs.

Configure RADIUS for the Secret Server Instance

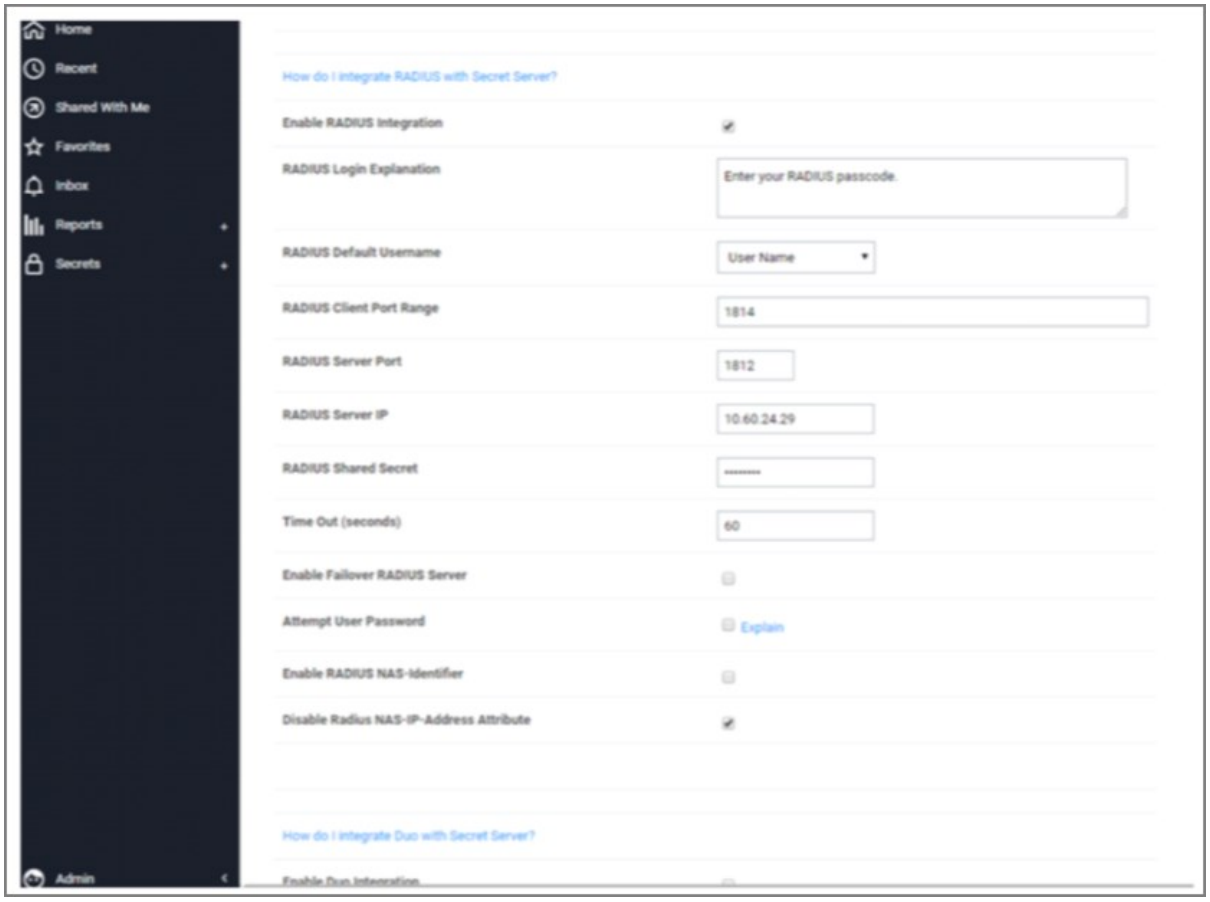
1. Sign in to an account with Administer Configuration and Administer RADIUS permissions.
2. Navigate to **Administration menu | Configuration | Login**.
3. Enable Secret Server with your RADIUS server information by going into edit mode.
    - RADIUS Server IP: IP address to your RADIUS Server.
    - RADIUS Client Port: default 1812.

      Note: If your RADIUS server runs on the same machine as your Secret Server, client and server ports must be different.

    - RADIUS Server Port(default 1812 for RSA and 1812 for AuthAnvil).
    - RADIUS Shared Secret must match the chosen RADIUS shared secret on your RADIUS Server. (Shared Secret is a RADIUS term and not related to any Secret Server secret.)
    - RADIUS Login explanation(custom message or instruction). Defaults to Please enter your RADIUS passcode.
4. Click **Save** after the entries are confirmed.

Test RADIUS settings

1. Click the **Test RADIUS Login** button.

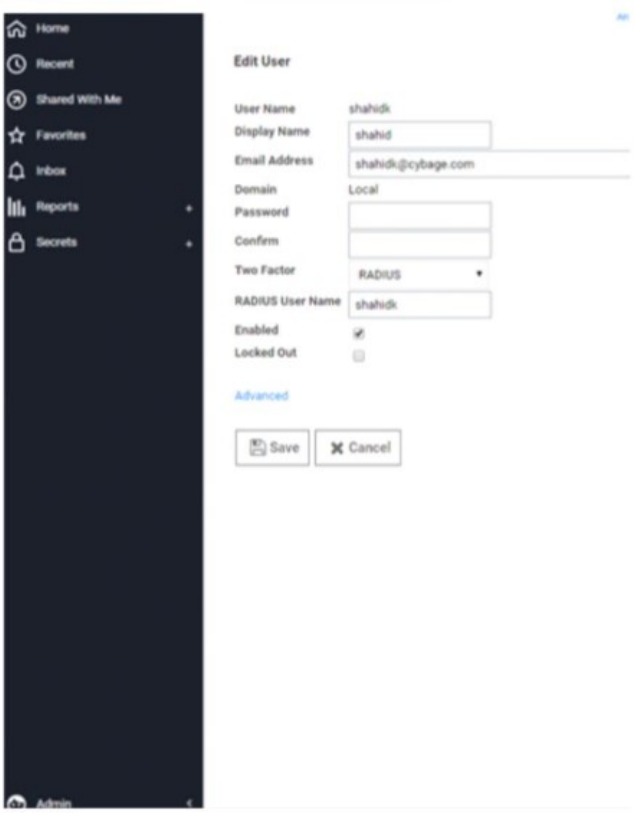


Note: After enabling RADIUS in your Secret Server instance, you must also enable **RADIUS two-factor authentication** for each user. You can enable it on a per-user basis.

2. Sign in to an account with Administer Configuration and Administer RADIUS permissions.
3. Navigate to **Administration I Users I Username** of user to enable.
4. Click the **Edit** button and check the **RADIUS Two Factor Authentication** checkbox.
5. Enter the **RADIUS username** in the text field.

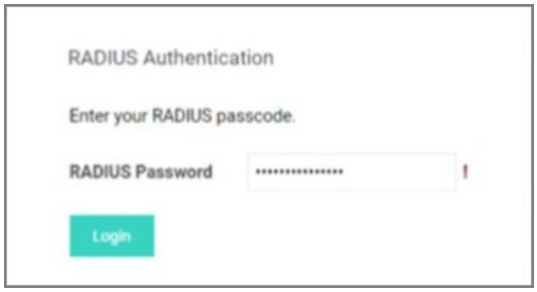
   Note: Secret Server defaults this value to its username. If you wish to use this default name, it must match the username on the RADIUS server.

6. Review the settings and click **Save**.
7. Repeat 3-5 for each user.



Validate Authentication through RADIUS Server

1. Sign into **Secret Server**. The RADIUS Authentication screen appears.



2. Enter your **RADIUS user password** created in AuthAnvil On-Demand.

You should be successfully logged into Secret Server using two-factor authentication through RADIUS.

Microsoft

Below are the following integrations that are available with Microsoft:

- Azure Sentinel

Connect your Thycotic Secret Server to Azure Sentinel

This article explains how to connect your Thycotic Secret Server appliance to Azure Sentinel. The Thycotic Secret Server data connector allows you to easily connect your Thycotic Secret Server logs with Azure Sentinel, to view dashboards, create custom alerts, and improve investigation. Integration between Thycotic and Azure Sentinel makes use of the CEF Data Connector to properly parse and display Secret Server Syslog messages.

> **NOTE**: Data will be stored in the geographic location of the workspace on which you are running Azure Sentinel.

Configure Logs and Connect Thycotic Secret Server to the Syslog Agent

Configure Thycotic Secret Server to forward Syslog messages in CEF format to your Azure workspace via the Syslog agent. If you don't have such a log forwarding server, see these instructions to get one up and running.

1. In the Azure Sentinel portal:
    1. Click Data connectors.
    2. Select Thycotic Secret Server.
    3. Open the connector page.
2. Follow the configure Secret Server instructions to configure sending syslog data to the log forwarding server.
3. Validate your connection and verify data ingestion using these instructions. It may take up to 20 minutes until your logs start to appear in Log Analytics.

Find Your Data

After a successful connection is established, the data appears in Logs, under the Azure Sentinel section, in the **CommonSecurityLog** table.

To query the Thycotic logs in Log Analytics, enter **CommonSecurityLog** at the top of the query window.

Next Steps

In this document, you learned how to connect Thycotic Secret Server to Azure Sentinel. To learn more about Azure Sentinel, see the following articles:

- Learn how to get visibility into your data, and potential threats.
- Get started detecting threats with Azure Sentinel.
- Use workbooks to monitor your data.

Okta

Below are the following integrations that are available with Okta:

- SAML
- SCIM

Okta SCIM Integration

This document explains how to connect Okta with the SCIM Connector application for Thycotic Secret Server (SS). This includes what Okta configuration settings are required for connection, known issues, and other related information.

The following topic are available:

- Configuring an Okta Endpoint to Work with the SCIM Connector
- Okta Provisioning

Resources

SCIM Connectors

For more information on the SCIM Connector, please see the below links:

- Secret Server SCIM Connector – Installation
- Secret Server SCIM Connector – Getting Started

OKTA Documentation

- SCIM: Provisioning with Okta's Lifecycle Management
- Okta Basic User Schema
- Okta Universal Director

Configuring an Okta Endpoint to Work with the SCIM Connector

The steps in this topic are required to configure Okta for use as a SCIM EndPoint for the SS SCIM Connector application. They are in addition to making a SCIM Endpoint connection within the SCIM Connector application itself.

By default, there are two fields in OKTA that are marked as mandatory and used to identify users; these are the First Name and Last Name fields (please see the Okta Universal Directory link below for details).

However, the SS SCIM Connector application uses the primary email value to identify users instead, so if the SCIM connector uses the SCIM standard to request user values, it passes blank values for these two fields, resulting in data request or importation failure. To allow OKTA and the SCIM Connector to communicate successfully, you must change the status of these two fields (First Name and Last Name) from mandatory to optional.

Once the fields are made optional, some additional changes are required in the code for the JSON body of the POST call (the yellow-highlighting shows the modified text):

Original JSON body for the POST call:

```
{
  "schemas":[
     "urn:ietf:params:scim:schemas:core:2.0:User"
  ],
  "userName":"{{randomUsername}}",
  "name":{
     "givenName":"{{randomGivenName}}",
     "familyName":"{{randomFamilyName}}"
  },
  "emails":[
     {
        "primary":true,
        "value":"{{randomUsername}},
        "type":"work"
     }
  ],
  "displayName":"{{randomGivenName}} {{randomFamilyName}}",
  "active":true
}
```

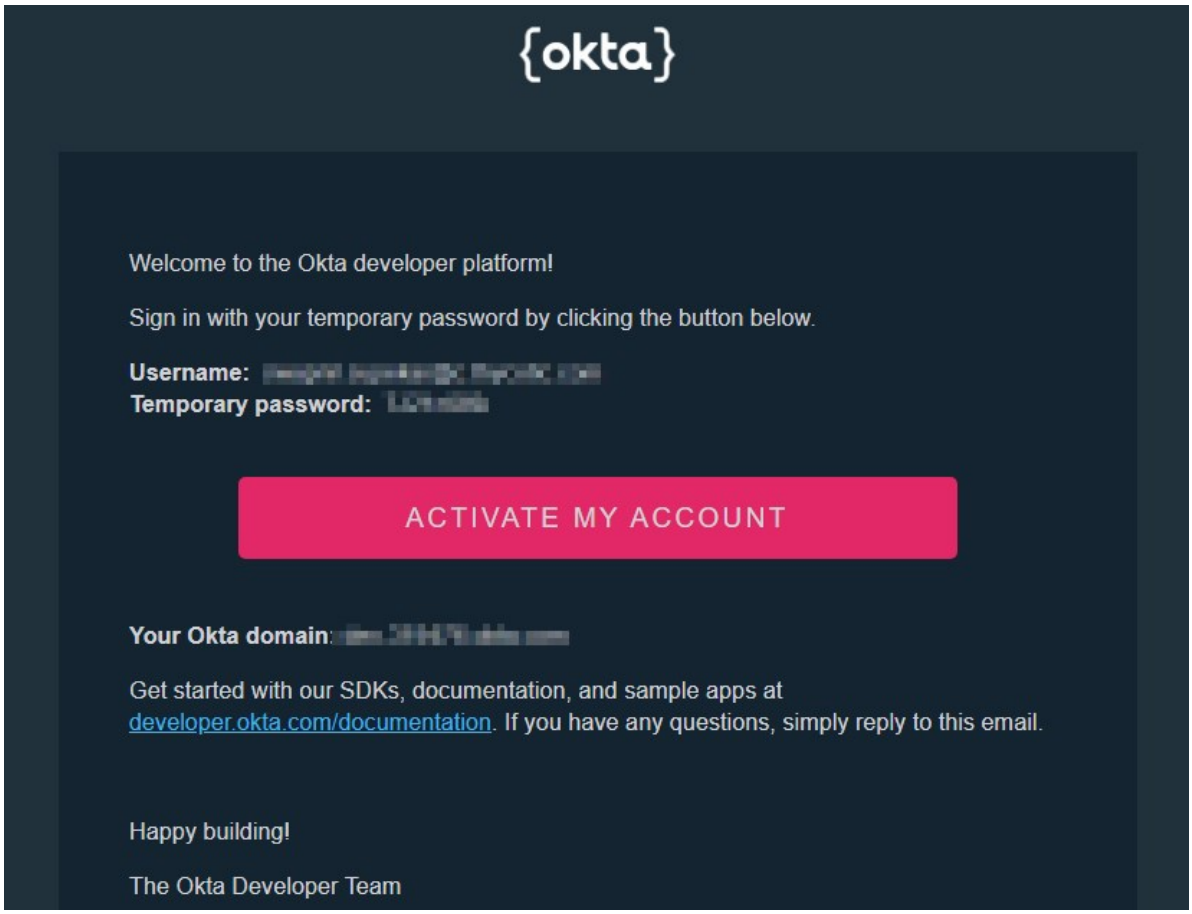
Modified JSON body for the POST call:

```
{
  "schemas":[
     "urn:ietf:params:scim:schemas:core:2.0:User"
  ],
  "userName":"{{randomUsername}}",
  "emails":[
     {
        "primary":true,
        "value":"{{randomEmail}}",
        "type":"work"
     }
  ],
  "displayName":"{{randomUsername}}",
  "active":true
}
```

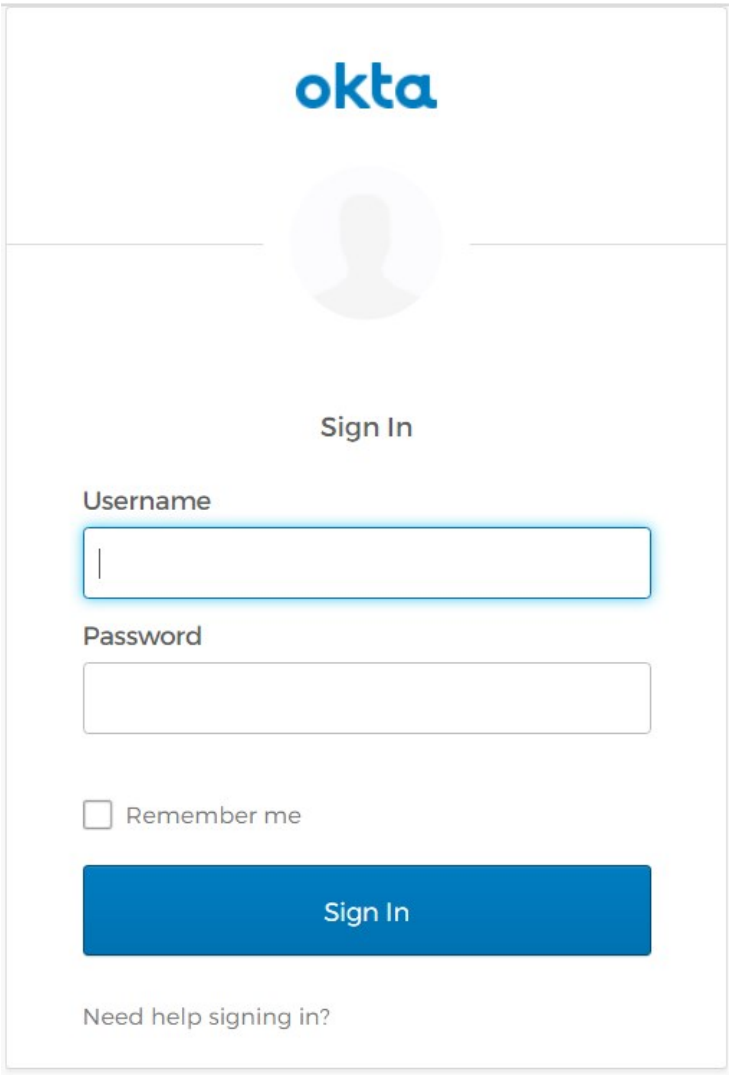
Okta Provisioning

Connect your SCIM service with a Okta integration

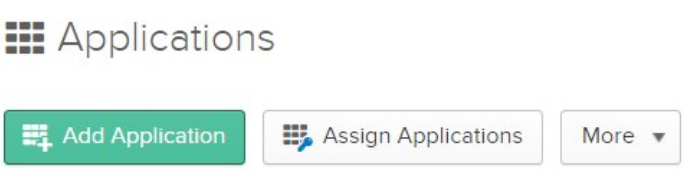
1. Begin by signing up for a developer account using URL: https://developer.okta.com/signup
2. After creating the account you will receive an email, open the link to your developer account.



3. Enter the **username** and **password**.

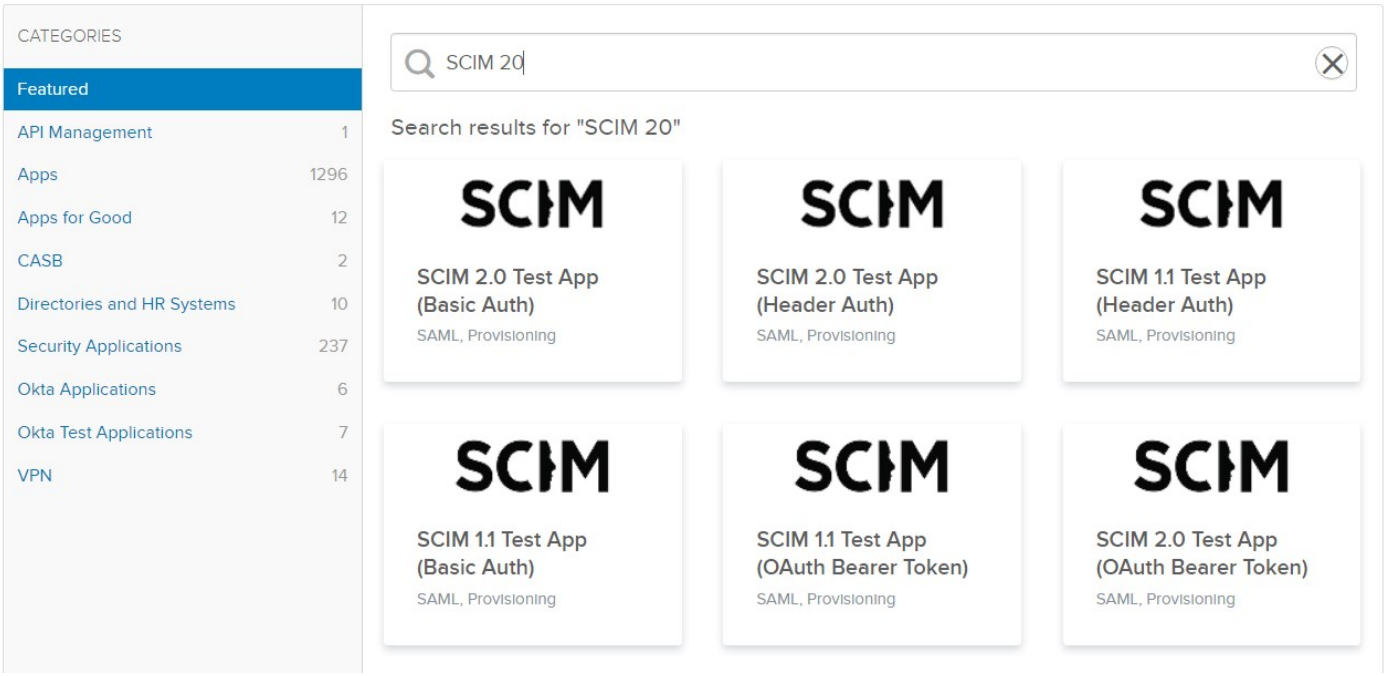


4. Navigate to the Admin Console in your Okta org by clicking **Admin**.
5. If you are in the Developer Console, click **Developer Console** and then **Classic UI** to switch over to the Admin Console in your Okta org.
6. Click **Applications**.
7. Click **Add Application**.



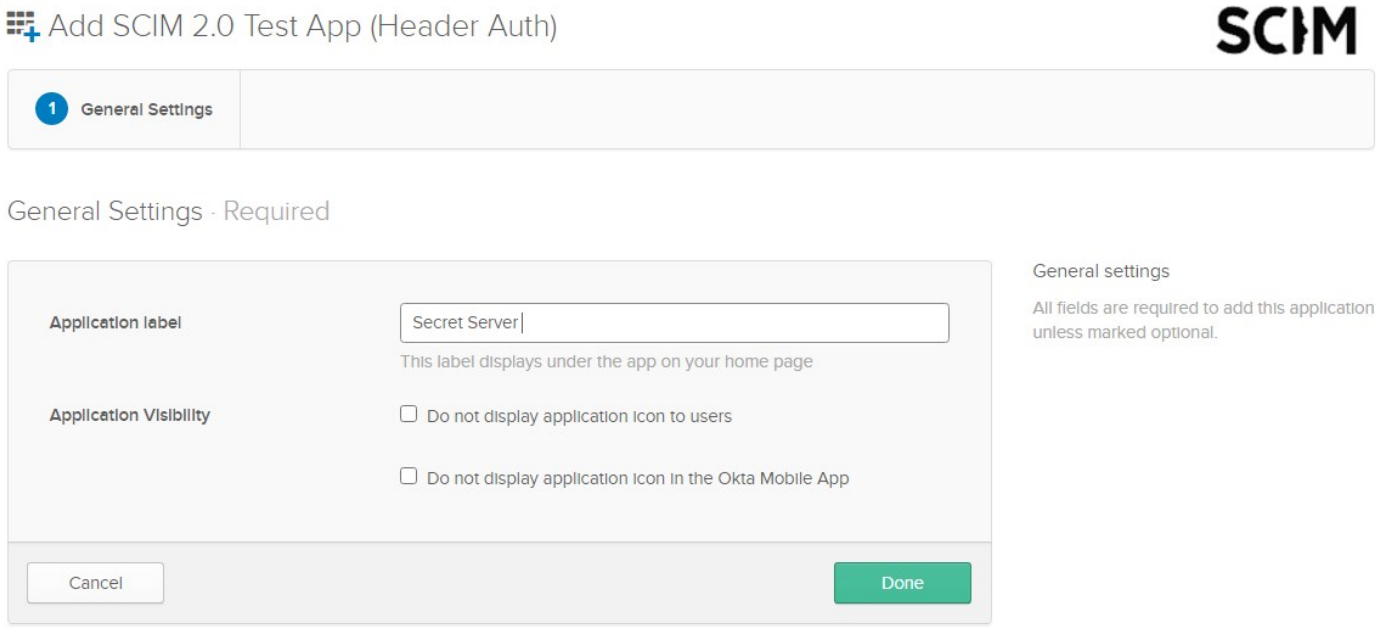
8. Search for **SCIM 2.0**.

   Note: Three different SCIM template applications, will be displayed each of the three authentication methods that you can use to connect to your SCIM implementation (Basic Auth, Header Auth, or OAuth Bearer Token).

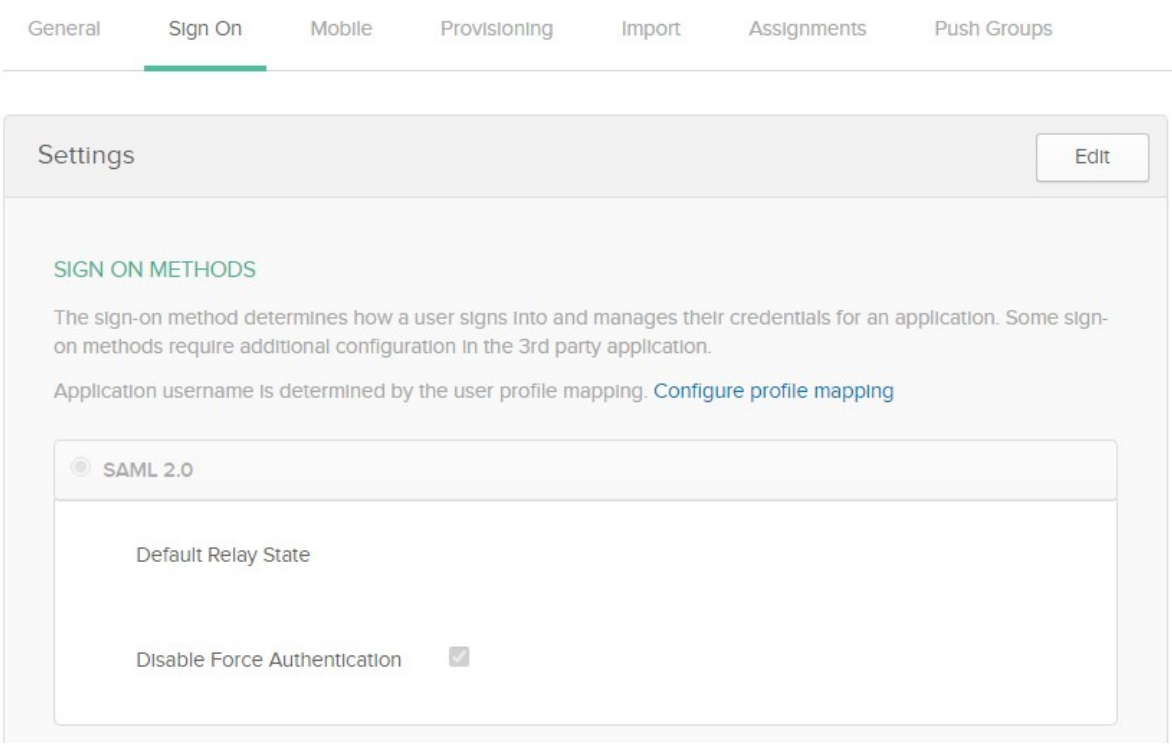


9. Select **SCIM 2.0 Test App** (Header Auth).
10. Click **Add** on the template to use.

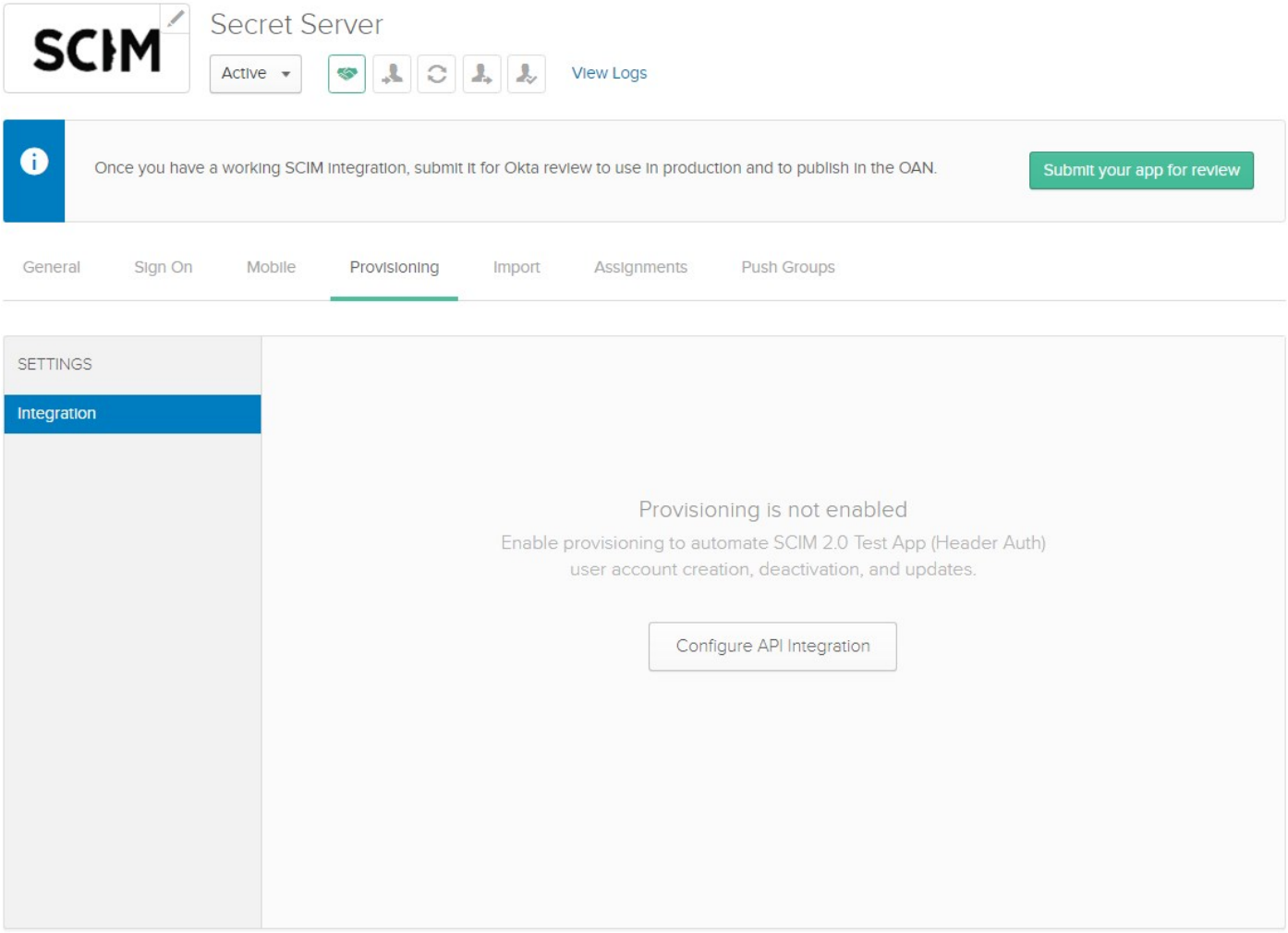
11. On the **General Settings** page, give your integration a descriptive name and click **Done**.



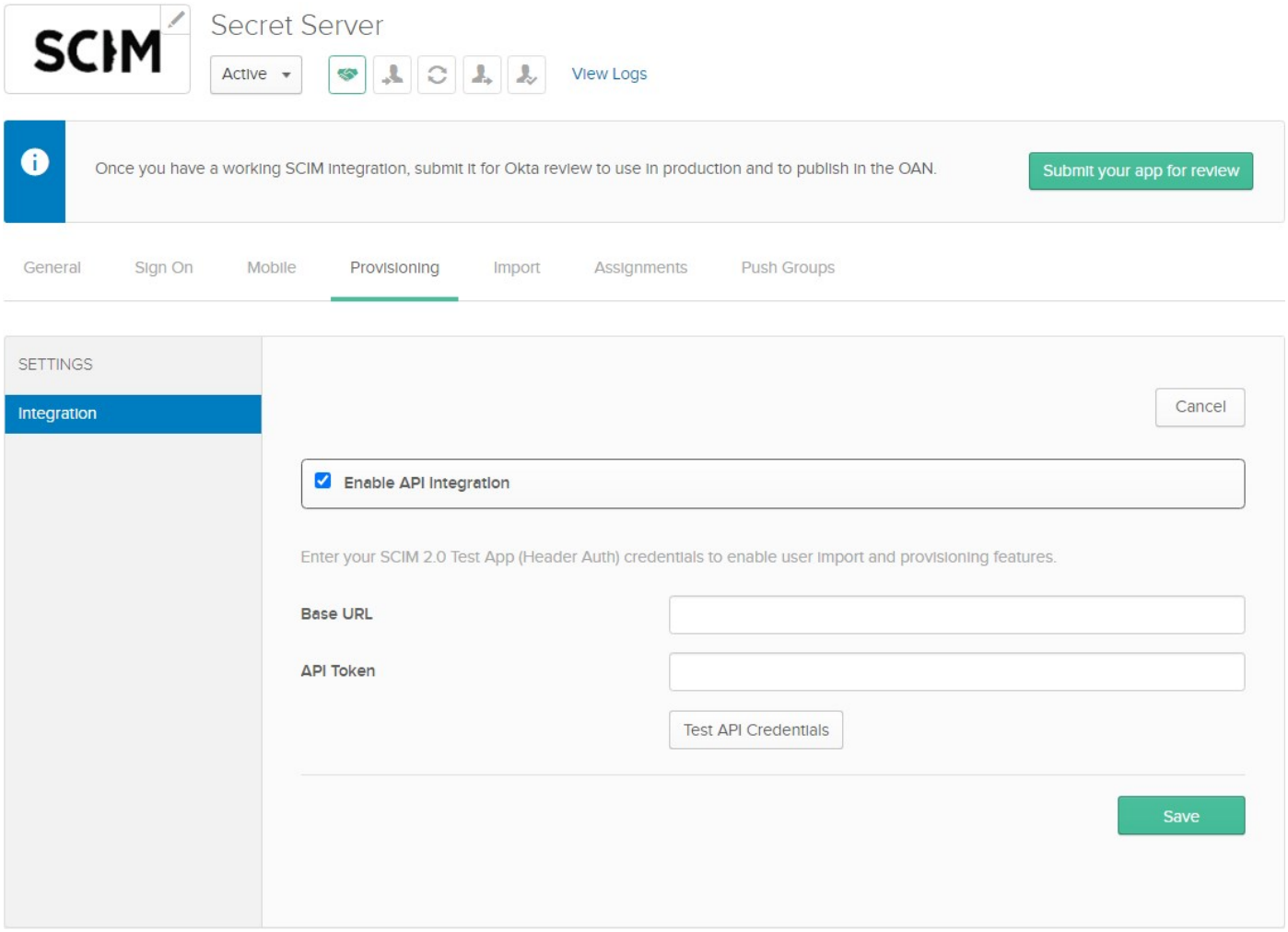
12. On the **Sign-On Options** page, verify SAML 2.0 is selected.



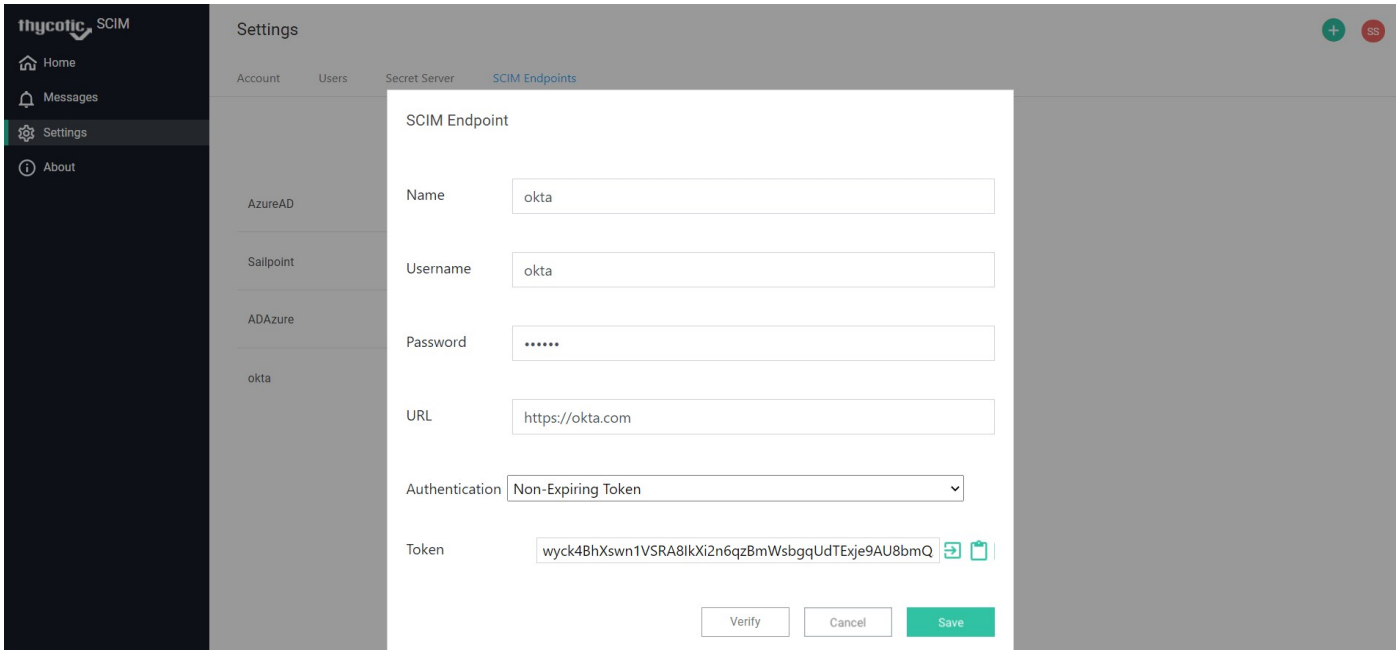
13. Click the **Provisioning** tab, and in the main panel, click **Configure API Integration**.



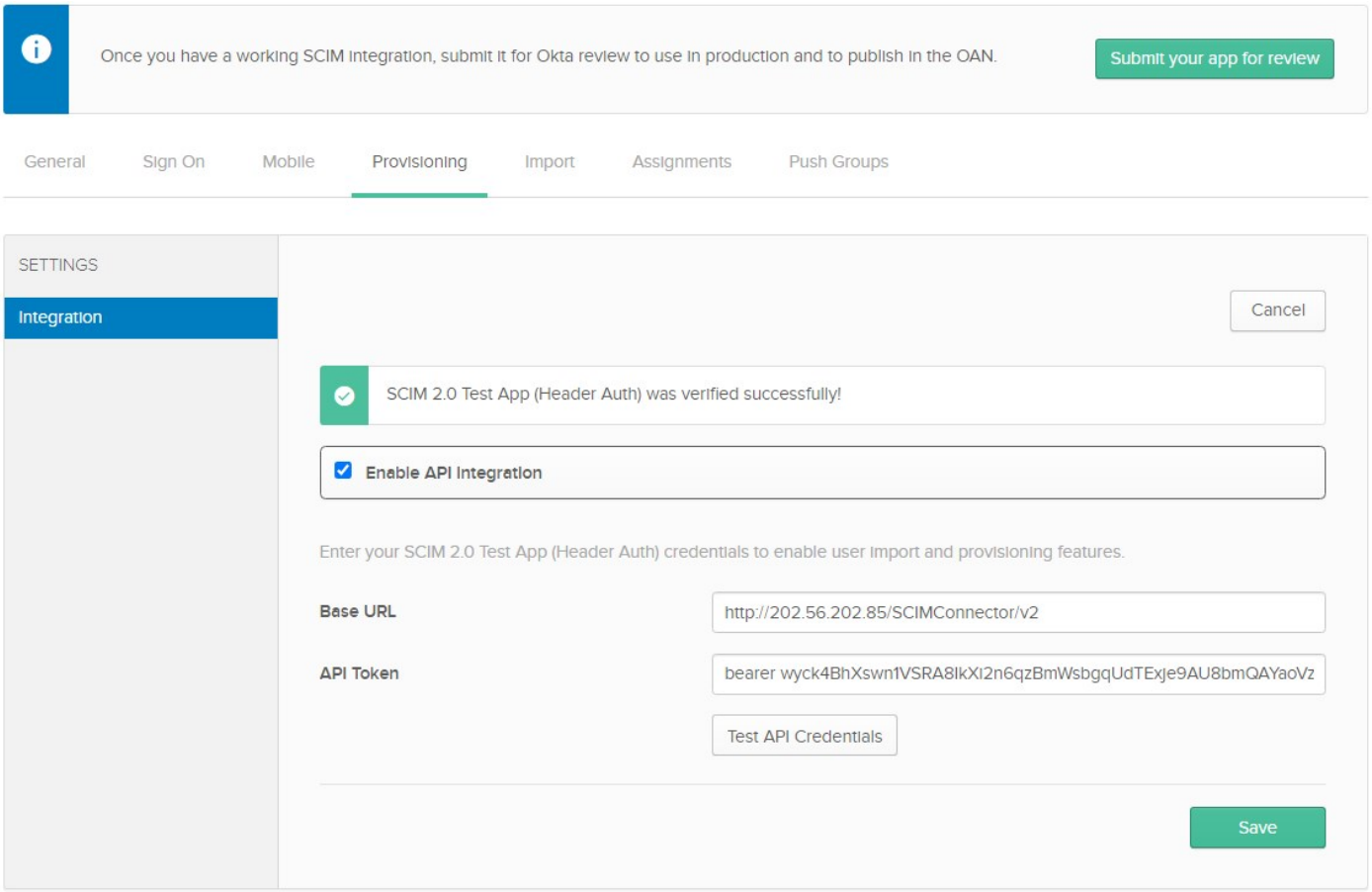
14. Select the **Enable API Integration** check box.



15. Enter the base URL and Token from the Thycotic SCIM Connector HTTP Header. To authenticate using HTTP Header, provide a bearer token to access your SCIM implementation.



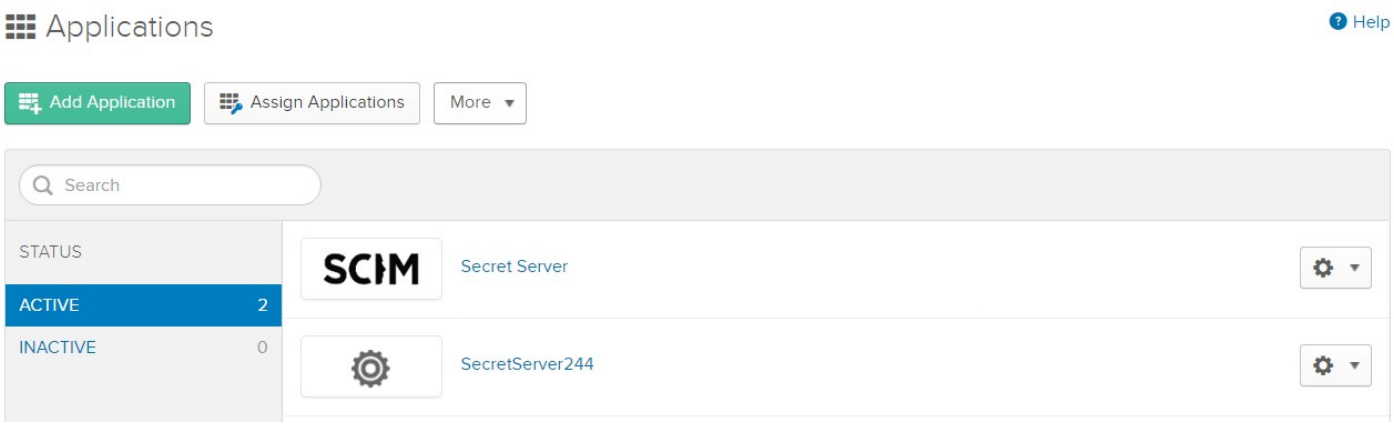
16. Click **Test API Credentials** to test whether the Okta integration can connect to your SCIM API.



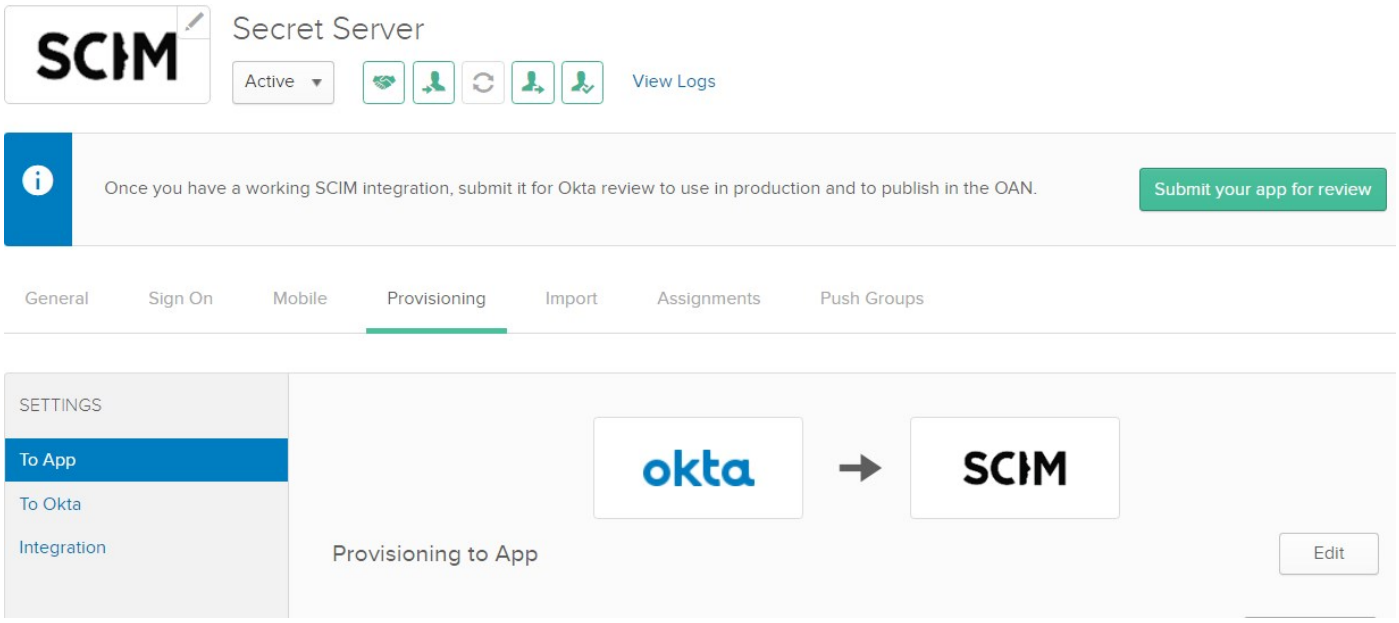
17. Click **Save** to complete the API integration.

Configure your Okta integration

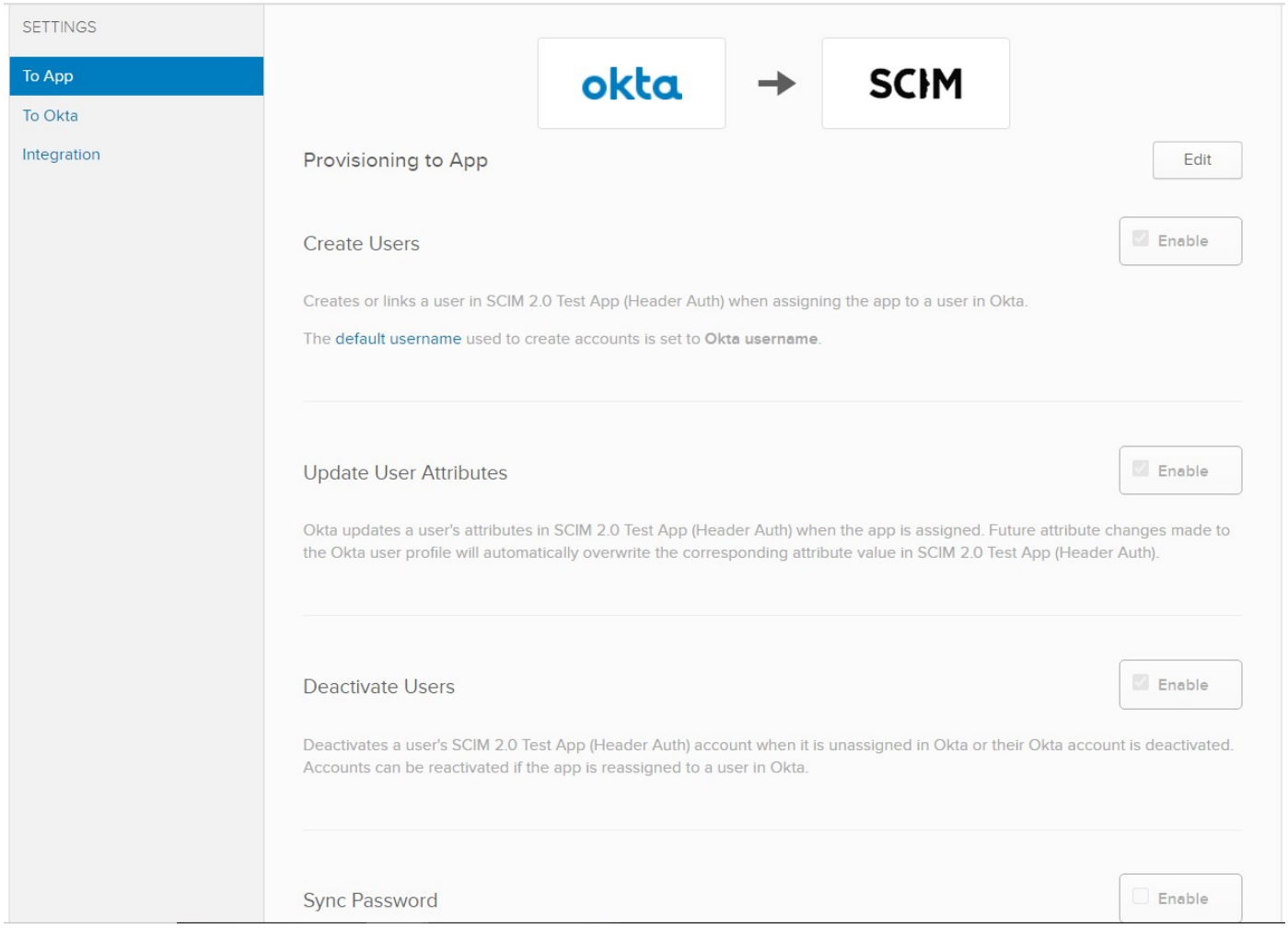
1. Login to **Okta** using dev account.
2. Click on **application** I **applications**.
3. Click on the **SCIM application** created above.



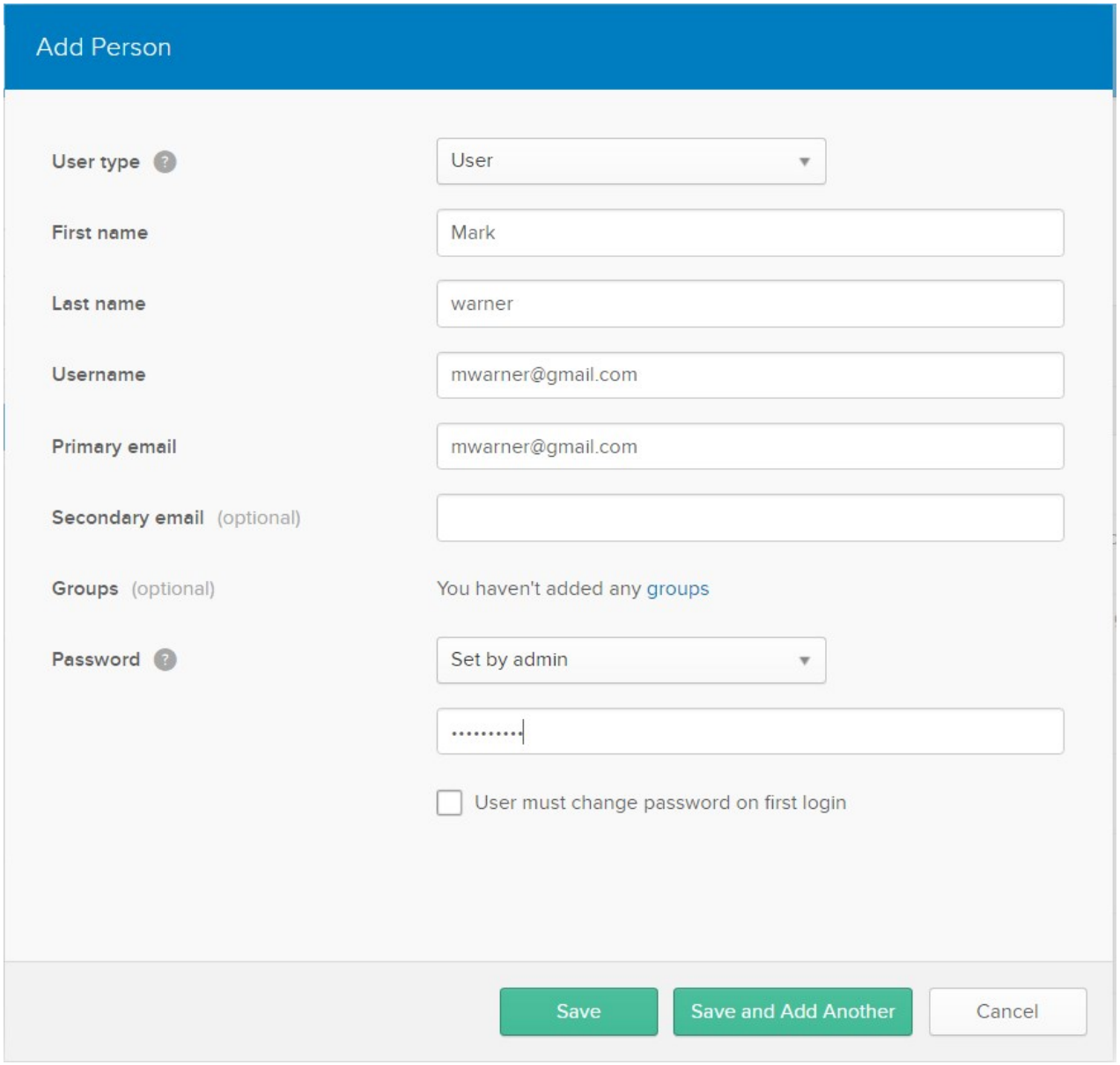
4. Click On the **Provisioning** tab of your Okta integration page, there are now three options listed in the **SETTINGS** panel:
   - **To App**
   - **To Okta**
   - **API Integration**
5. Click **App**.



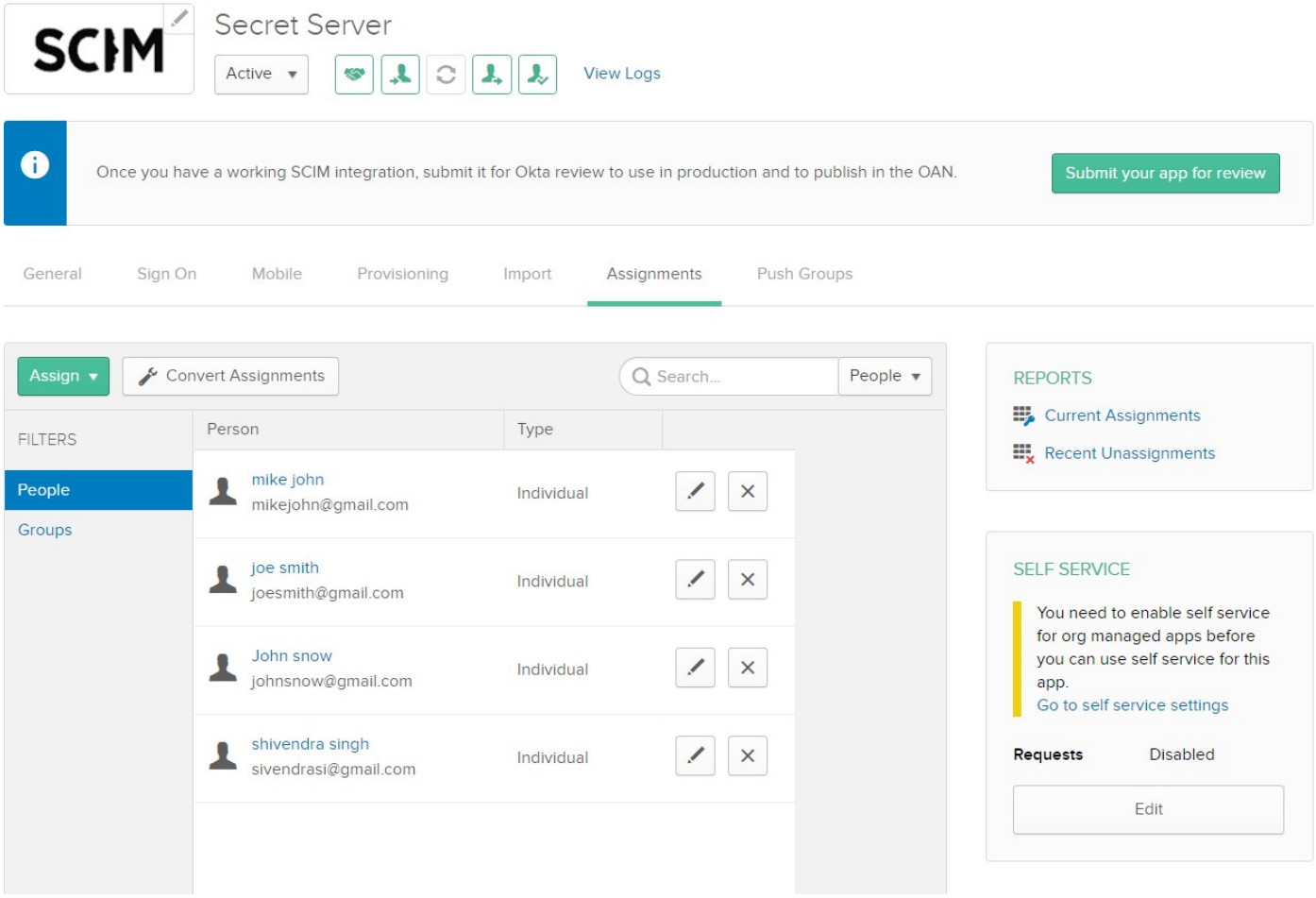
6. Click **Edit** to make changes to the following sections.



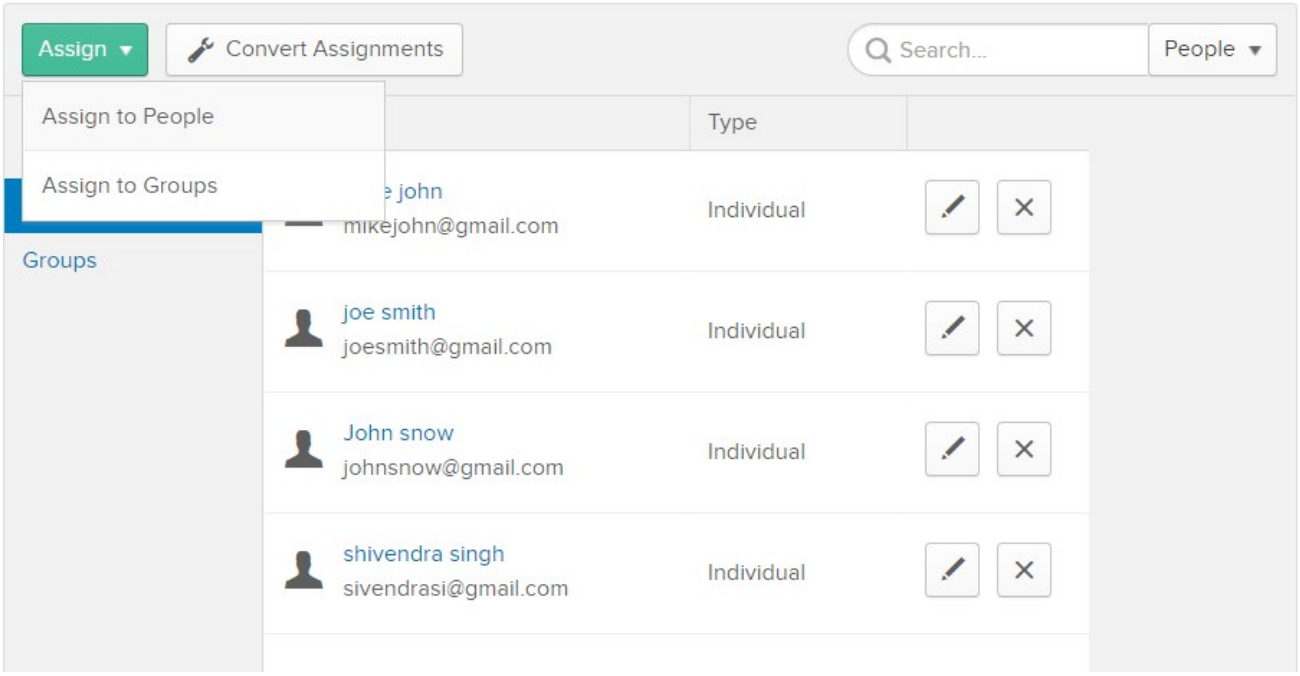
7. Navigate to **Directory**.
8. Click on **People**.
9. Click on **add Person** and enter the details.
10. Click on **Save**.



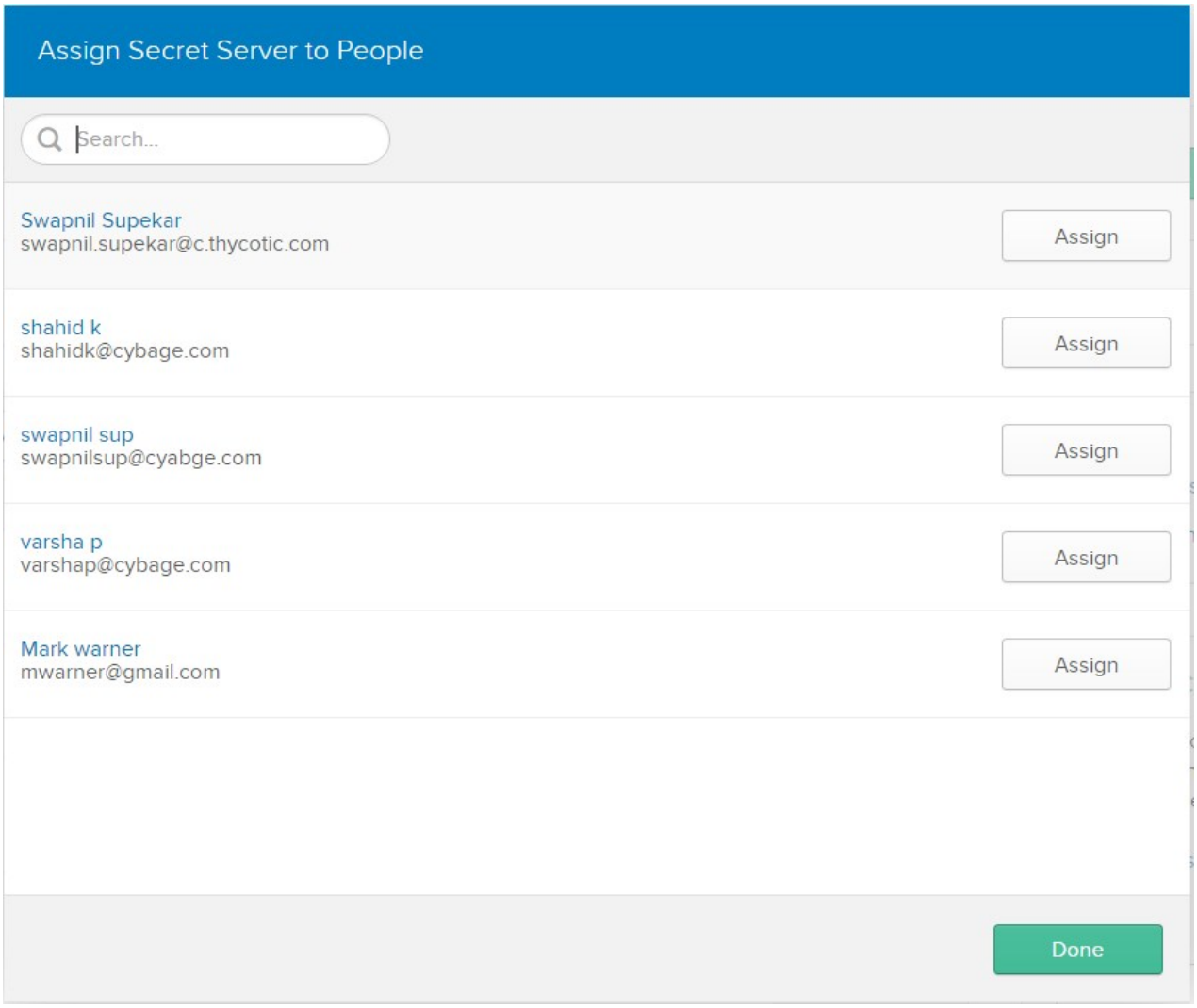
11. Again go to **SCIM** Application and click on **Assignments**.



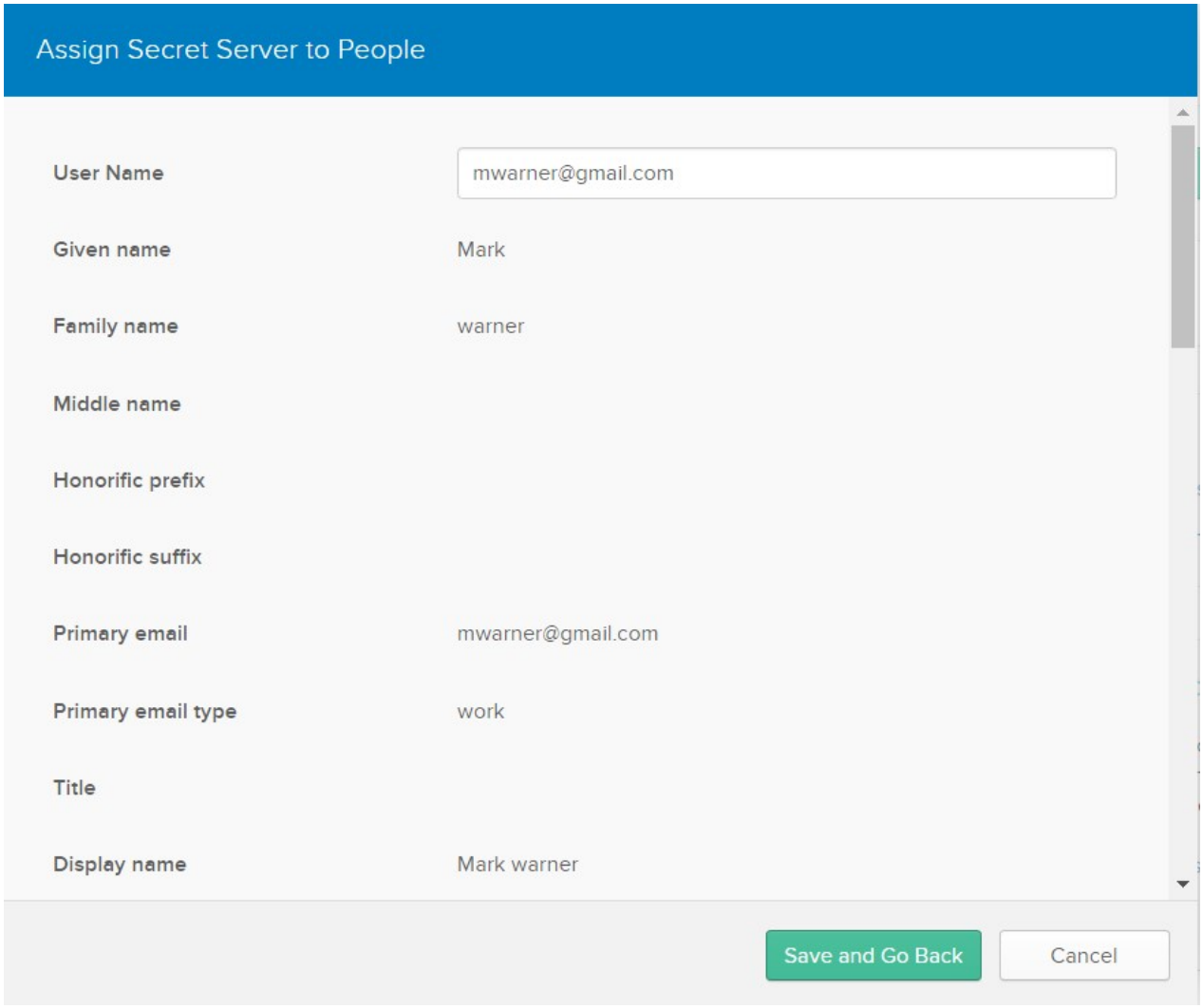
12. Click on **Assign** and select **Assign to People**.



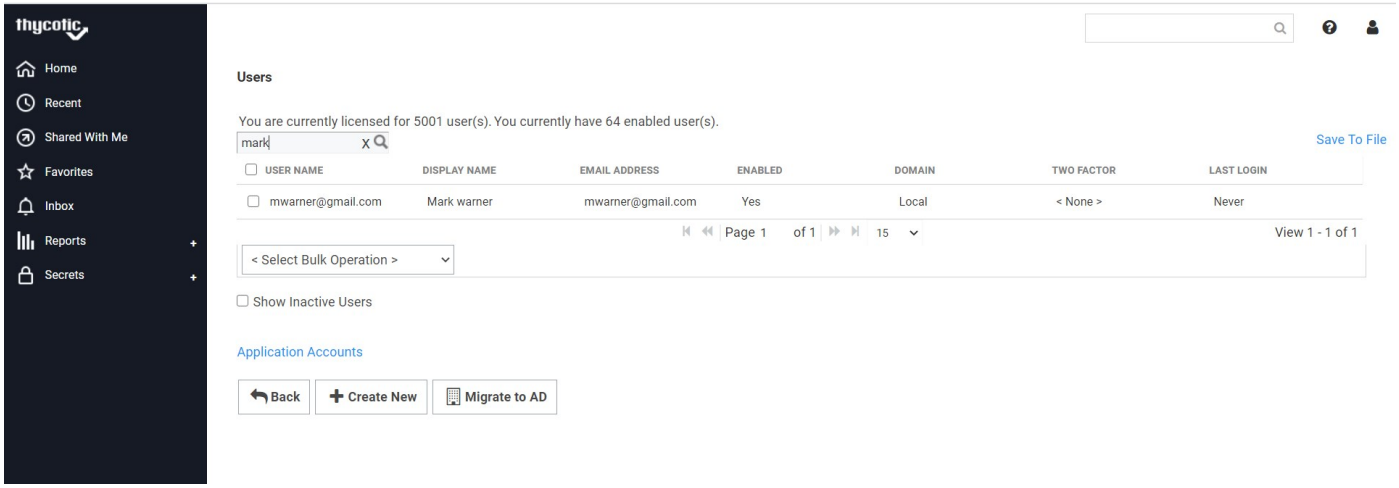
13. Select the user which we want to sync to Secret Server and select **Assign** and then click on **Done**.



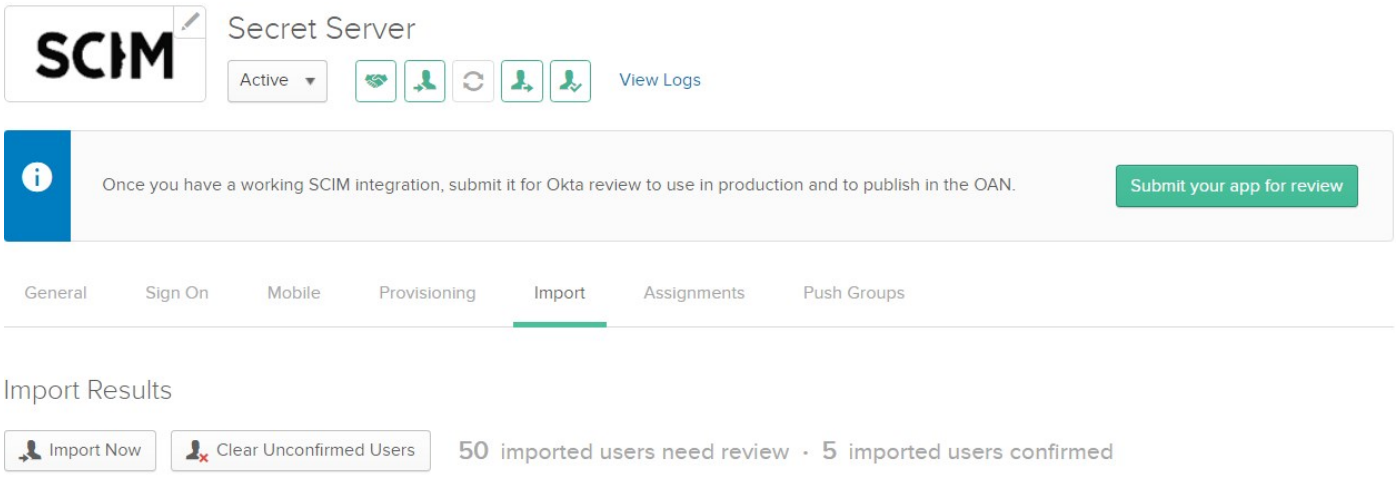
14. Click on **Save and GoBack**.



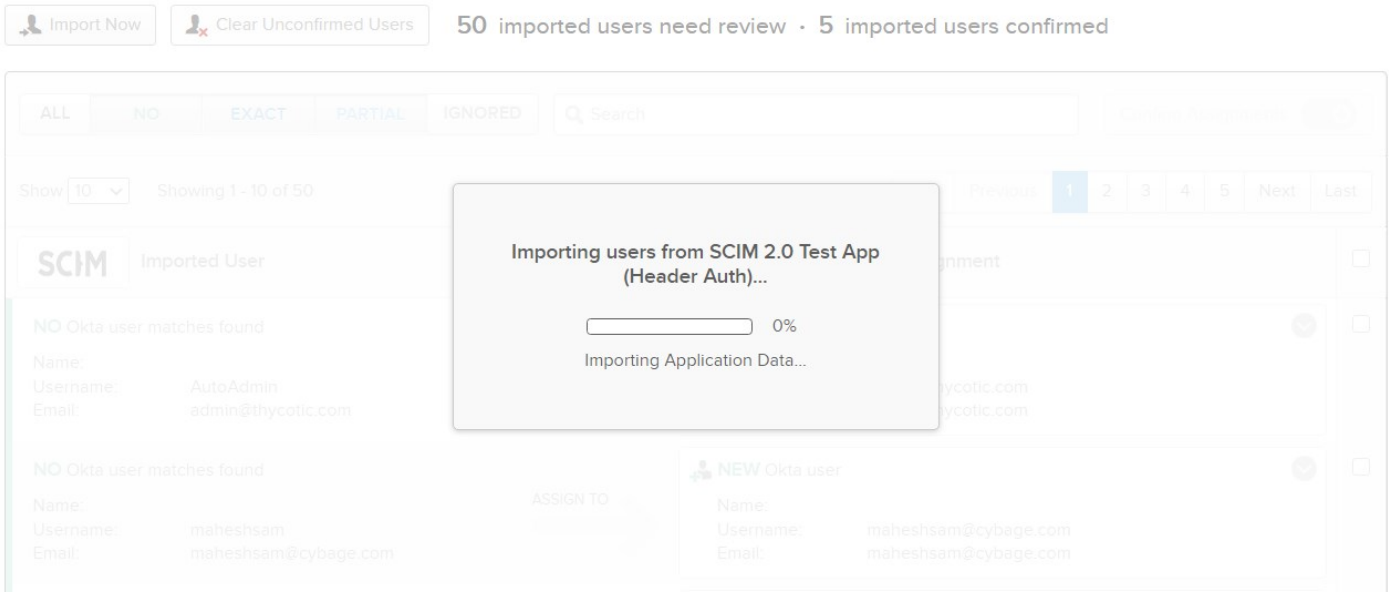
15. User will be sync to Secret Server.
16. Login to **SecretServer I click on Admin I Users**.
17. Search for the user created in Okta in Secret Server



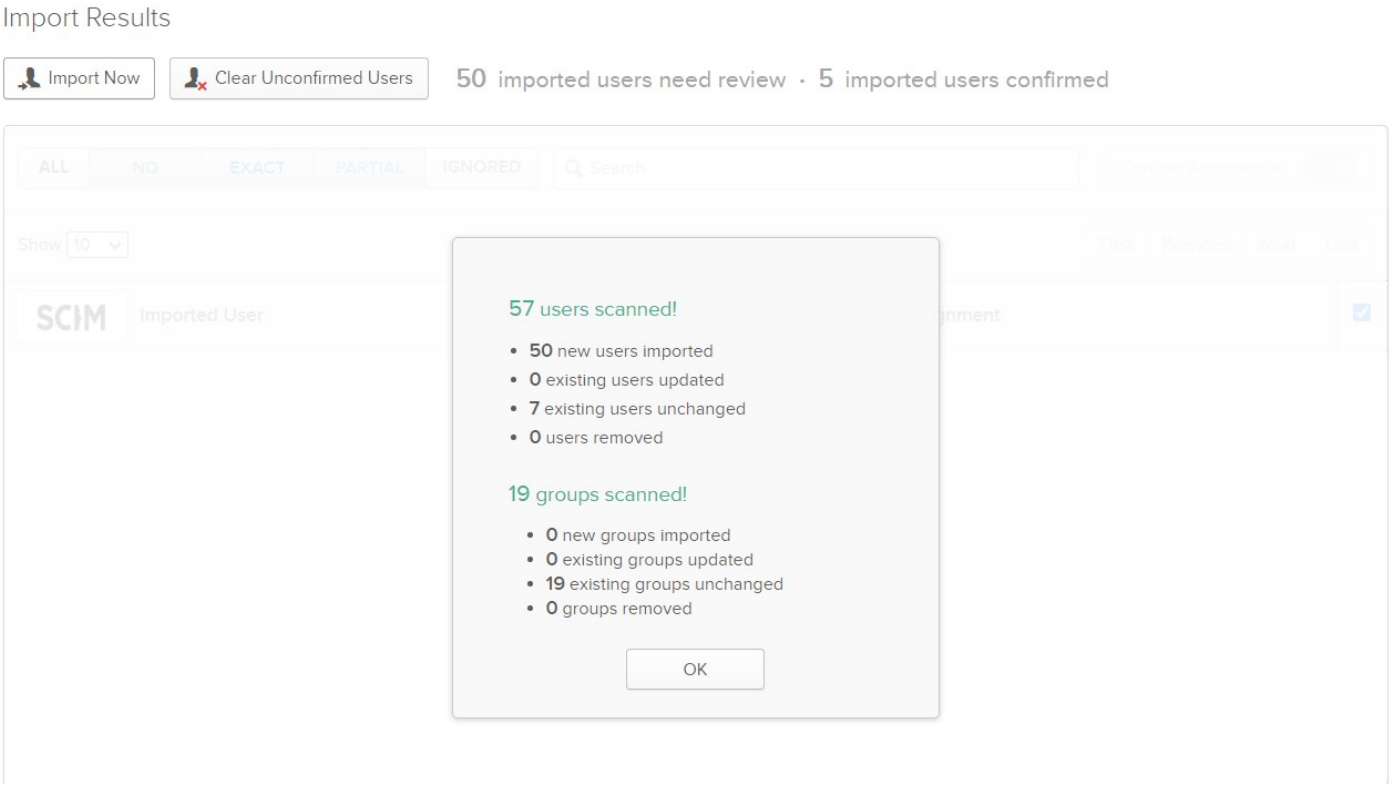
18. To import the user and groups from Secret Server click on the **Import tab**.



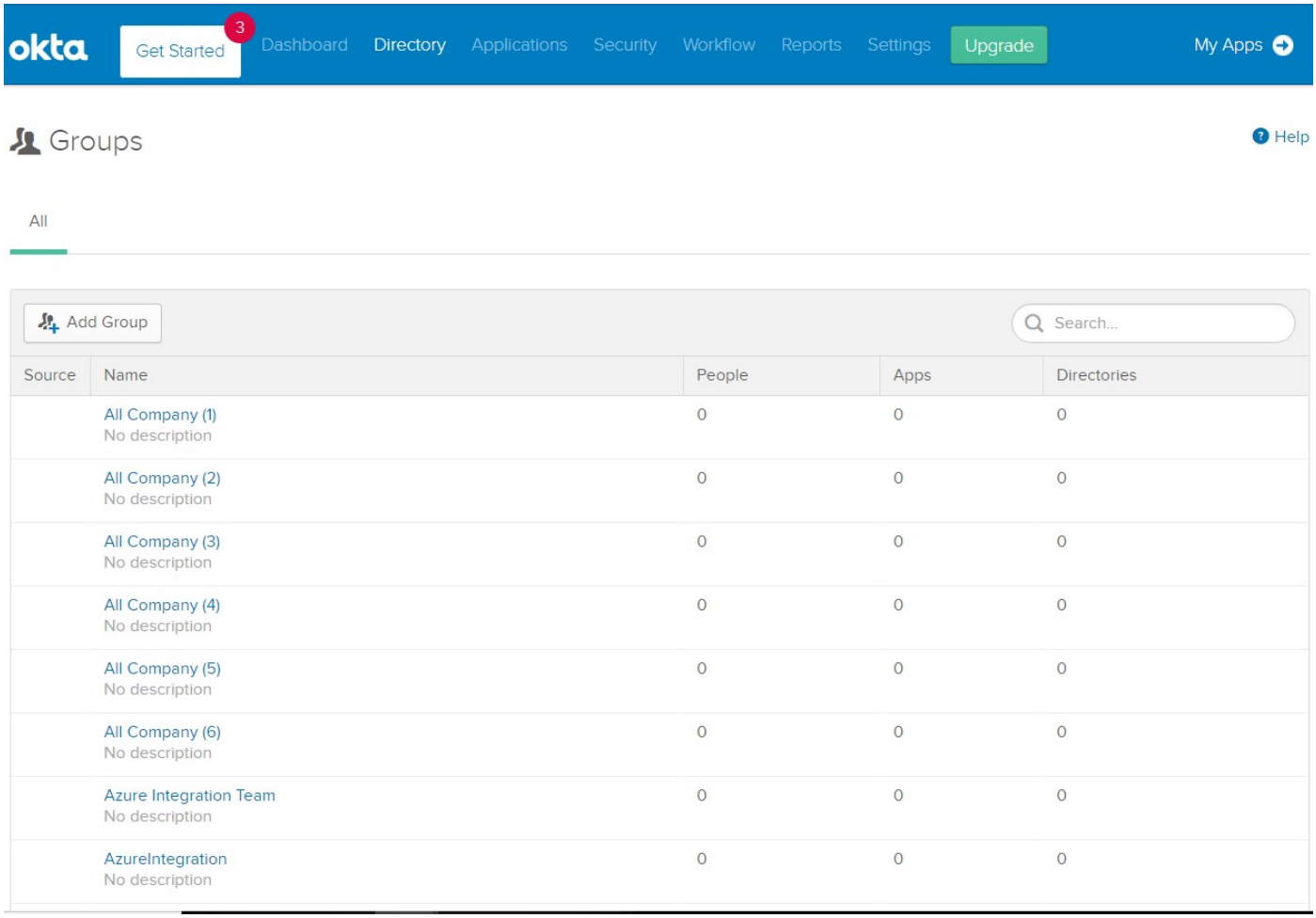
19. Click on **Import Now**.



20. After completion of process users from Secret Server will be displayed.



21. Click on **Directory I Groups**.
22. SecretServer Groups will be displayed.


okta
Get Started
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Dashboard
Directory
Applications
Security
Workflow
Reports
Settings
Upgrade
My Apps
Groups
Help
All
Add Group
Search...
Source
Name
People
Apps
Directories
All Company (1)
No description
0
0
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All Company (2)
No description
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0
0
All Company (3)
No description
0
0
0
All Company (4)
No description
0
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0
All Company (5)
No description
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0
0
All Company (6)
No description
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0
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Azure Integration Team
No description
0
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AzureIntegration
No description
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Okta for SAML Integration

The integration between Thycotic Secret Server and Okta is created and maintained by Okta. This document provides guidance and best practice for implementing the integration. It is based on the following publicly available documentation from the vendor and testing performed by Thycotic. Integrations are supported to the extent of the third-party product procedures documented for this integration. Please contact the third-party for any customized setup of the integrated product.

This document is to serve as the configuration document for integrating Okta for SAML and Secret Server.

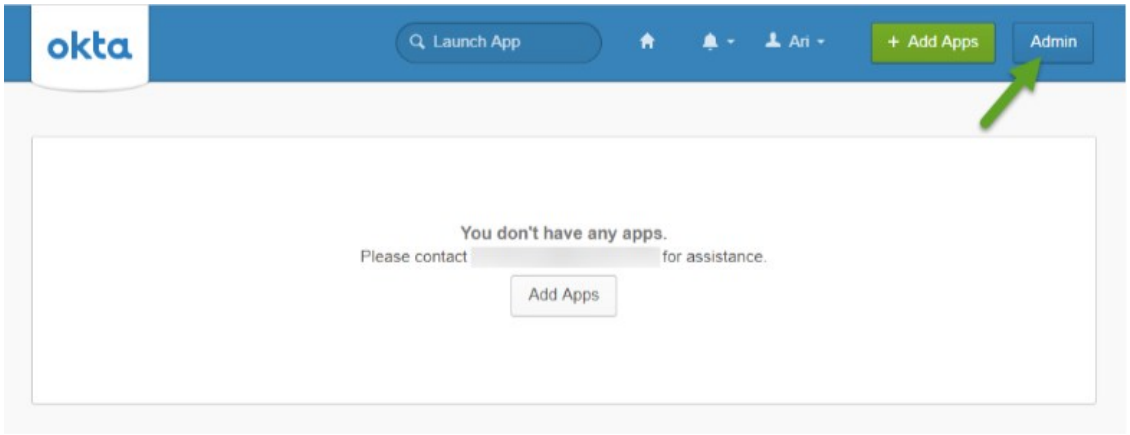
Secret Server acts as a SAML Service Provider that can communicate with Okta for authentication. This allows Secret Server the use of SAML Identity Provider (IdP) authentication instead of the normal authentication process for single sign-on (SSO). To do this, Secret Server acts as a SAML Service Provider (SP) that can communicate with any configured SAML IdP, including Okta.

Getting Started with Okta for SAML

As an Okta Administrator you can create new apps to setup integration. As part of the getting started steps the Setting up Secret Server as a new App needs to be completed first.

Setting up Secret Server as a new App

1. Login to your Okta instance using an administrative account.
2. Navigate to the App Home page ([Instance Name]/app/UserHome), and click **Admin** | **Applications** | **Add Application** | **Create New App**.



3. In the **Create a New Application** pop-up window, select **SAML 2.0** and click **Create**.