



everbridge™  
redsky

# E911 Cloud Solutions & Single Sign-On Interface Control Document

Version 1.2 | June 23, 2023

Copyright © 2023 by RedSky Technologies, Inc.

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of RedSky Technologies, Inc., except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law. For permission requests, write to RedSky Technologies, Inc., addressed “Attention: Permissions Coordinator,” at the address below.

RedSky Technologies, Inc.  
333 North Michigan Avenue, Suite 1600  
Chicago, IL 60601  
[www.redskye911.com](http://www.redskye911.com)

E911 Anywhere®, Horizon Mobility®, MyE911®, and HELD+® are registered trademarks of RedSky Technologies, Inc.

## Revision History

Date	Version	Revision	Made By
05/30/2023	0.1	Initial Draft	Katrina Vlasich
06/06/2023	1.0	Adjusted wording in Section 4.1 and 4.2 based on feedback, mitigating possible confusion.	Katrina Vlasich
06/08/2023	1.1	Updated URLs and added disclaimer statement.	Katrina Vlasich
06/23/2023	1.2	Added important information about SSO not being supported on the EON client.	Katrina Vlasich

# Table of Contents

- Introduction..... 2
- 1 Requirements ..... 3
- 2 Building the Application Integration..... 4
  - 2.1 RedSky: Determine API Name..... 4
  - 2.2 RedSky: Share Assertion and Audience URLs with Organization ..... 4
  - 2.3 Organization: Create Application Integration ..... 5
- 3 Application Configuration Information ..... 7
  - 3.2 Security Hash Algorithm ..... 8
- 4 E911 Anywhere®/Horizon Mobility® Configuration ..... 10
  - 4.1 Organization Level SSO Configuration ..... 10
  - 4.2 Organization Administrator SSO Configuration ..... 11
- 5 Testing ..... 13
  - 5.1 RedSky/Organization Administrator SSO User Login ..... 13
  - 5.2 RedSky/Organization Administrator Local-User Login ..... 14

## Introduction

RedSky has introduced the ability for users of the E911 Anywhere®/Horizon Mobility® admin portals to login using their identity provider's SSO service. This integration allows for a higher level of security and provides users of the admin portal with an improved UX by making the login process much smoother.

System level, Service Provider, Reseller/Business Partner, and Customer level administrators can use the integration if the organization (including System) and administrators are correctly configured.

This document covers what information will be needed and what steps must be taken by RedSky and a customer, for integration to be successful.

# 1 Requirements

To complete the integration steps outlined below, some prerequisites must be met:

1. The organization is using and is familiar with configuring application integrations on the admin console of their identity provider (IdP).
2. The identity provider (IdP) supports SAML 2.0 protocols. (e.g., Okta or OneLogin)
3. The organization has been onboarded onto the E911 Anywhere®/Horizon Mobility® platform.

**\*\* DISCLAIMER:** RedSky Support will not have the ability to support the configuration of an IdP application integration. IdP configuration questions should be directed to the IdP itself. **\*\***

## 2 Building the Application Integration

An organization wanting to use the Single Sign-On (SSO) service, provided by their IdP, to log in to the E911 Anywhere®/Horizon Mobility® portals will need to create an application integration based on some information they get from RedSky. This section covers what that information is and some examples of where it would be used.

### 2.1 RedSky: Determine API Name

RedSky will need to determine a unique API Name for the organization. The recommendation is that the API Name is a variation on the Organization Name given during onboarding.

Some important considerations when determining the API Name for an organization:

1. Spaces in the API Name are not supported,
2. Special characters, outside of dashes and under-scores, are strongly discouraged.
3. It is suggested that API Name should be all lower-case.

Examples of valid API Names:

- acme-widget-company
- mr\_donut
- orion

### 2.2 RedSky: Share Assertion and Audience URLs with Organization

The combination of an environment URL, `"/sso/saml/"`, and API Name becomes the Assertion URL, which will need to be sent to the organization, so that they can create the application integration for E911 Anywhere®/Horizon Mobility®. Here are some valid examples of Assertion URLs:

- <https://api.anywhere.e911cloud.com/sso/saml/acme-widget-company>
- [https://api.primelab.e911cloud.com/sso/saml/mr\\_donut](https://api.primelab.e911cloud.com/sso/saml/mr_donut)
- <https://api.horizon.e911cloud.com/sso/saml/orion>

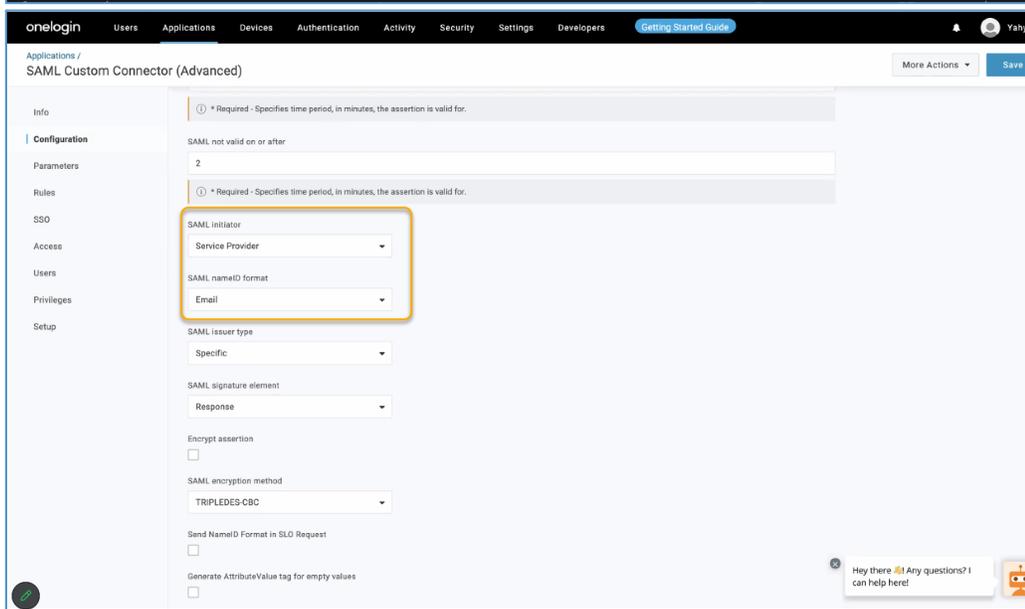
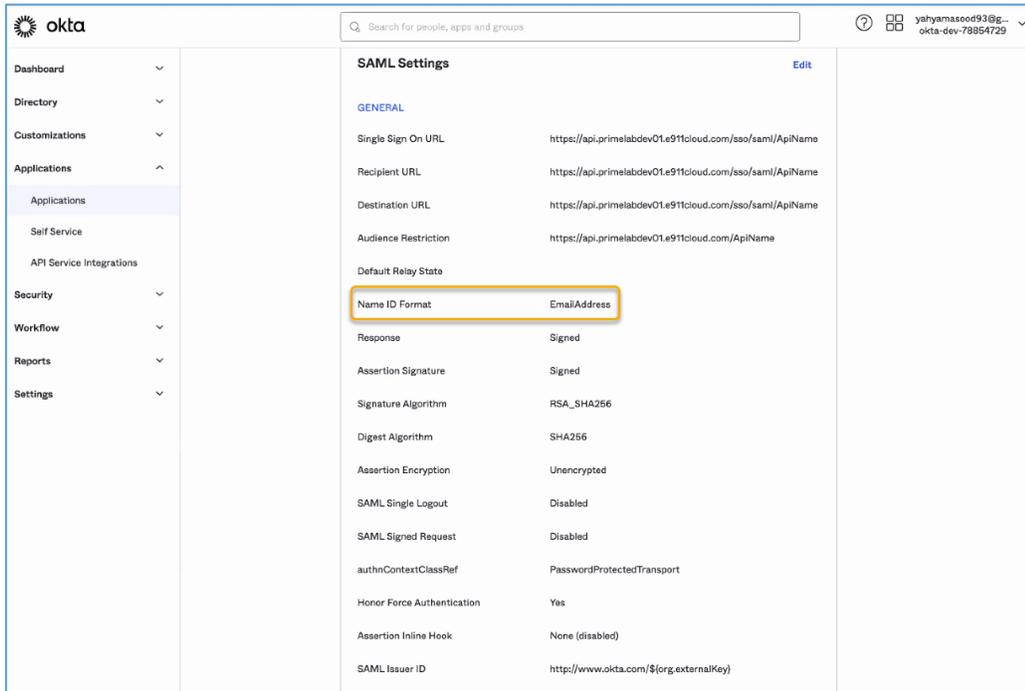
The Audience URL is the combination of the environment URL and the API Name. Here are some valid examples:

- <https://api.anywhere.e911cloud.com/acme-widget-company>
- [https://api.primelab.e911cloud.com/mr\\_donut](https://api.primelab.e911cloud.com/mr_donut)
- <https://api.horizon.e911cloud.com/orion>

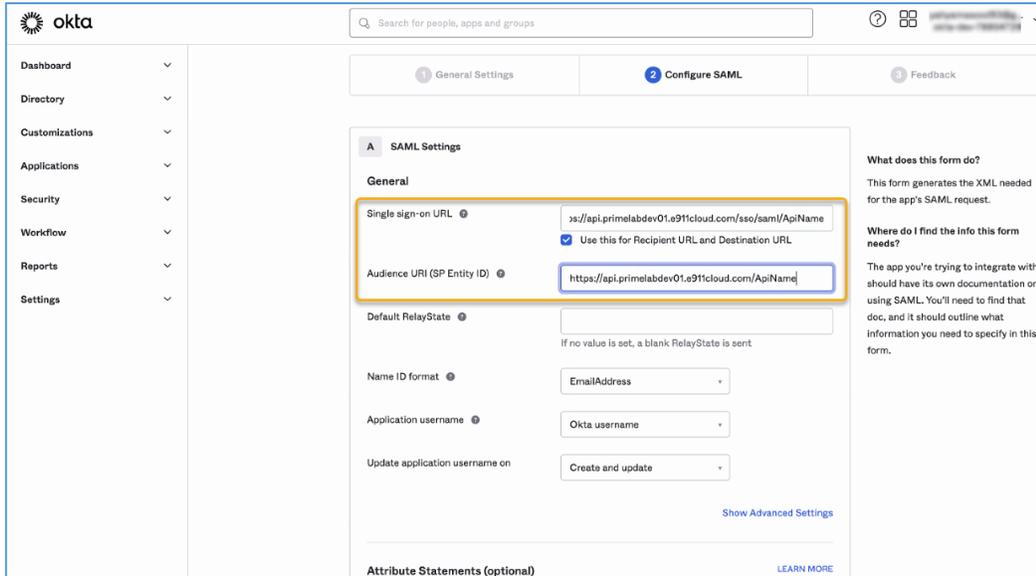
## 2.3 Organization: Create Application Integration

The organization will need to create the SSO application integration on the IdP admin console, using the information RedSky sent them. The following requirements need to be met:

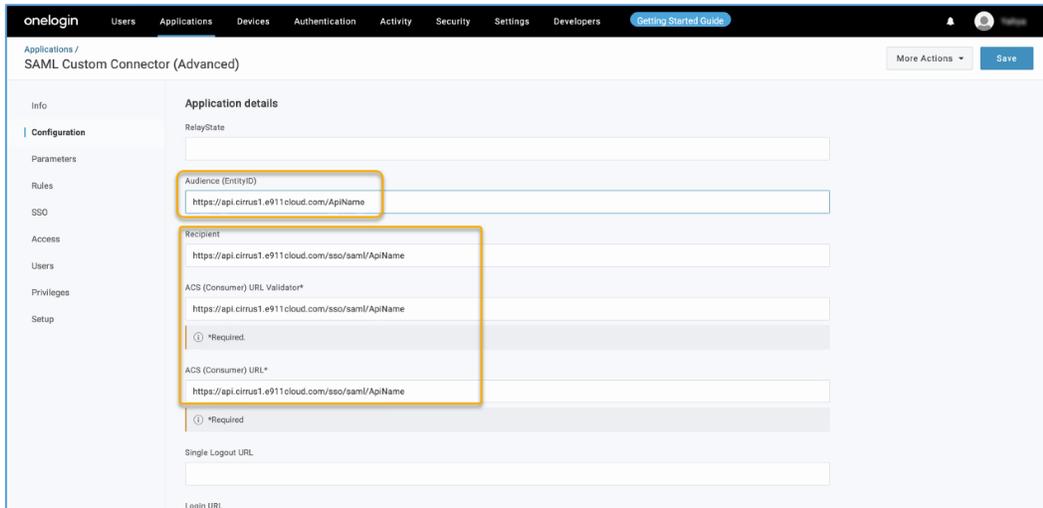
- SAML Initiator is configured as Service Provider and Email address is configured as the SAML name identifier. Below are a couple examples of where this is configured for reference:



- The integration uses the Assertion and Audience URLs sent. Below are some examples of where the Assertion and Audience URLs are configured for reference:



The screenshot shows the Okta SAML Settings configuration page. The 'General' section is highlighted with a yellow box. The 'Single sign-on URL' field contains the value 's://api.primelabdev01.e911cloud.com/sso/saml/ApiName' and the checkbox 'Use this for Recipient URL and Destination URL' is checked. The 'Audience URI (SP Entity ID)' field contains the value 'https://api.primelabdev01.e911cloud.com/ApiName' and is also highlighted with a yellow box. Other fields include 'Default RelayState', 'Name ID format' (set to 'EmailAddress'), 'Application username' (set to 'Okta username'), and 'Update application username on' (set to 'Create and update').



The screenshot shows the OneLogin SAML Custom Connector configuration page. The 'Configuration' section is highlighted with a yellow box. The 'Audience (EntityID)' field contains the value 'https://api.cirrus1.e911cloud.com/ApiName'. The 'Recipient' field contains the value 'https://api.cirrus1.e911cloud.com/sso/saml/ApiName'. The 'ACS (Consumer) URL Validator\*' field contains the value 'https://api.cirrus1.e911cloud.com/sso/saml/ApiName'. The 'ACS (Consumer) URL\*' field contains the value 'https://api.cirrus1.e911cloud.com/sso/saml/ApiName'. The 'Single Logout URL' field is empty.

## 3 Application Configuration Information

Once the customer has completed creating the application integration, they must provide the following information to RedSky, so that the SSO integration can be completed on the E911 Anywhere®/Horizon Mobility® side:

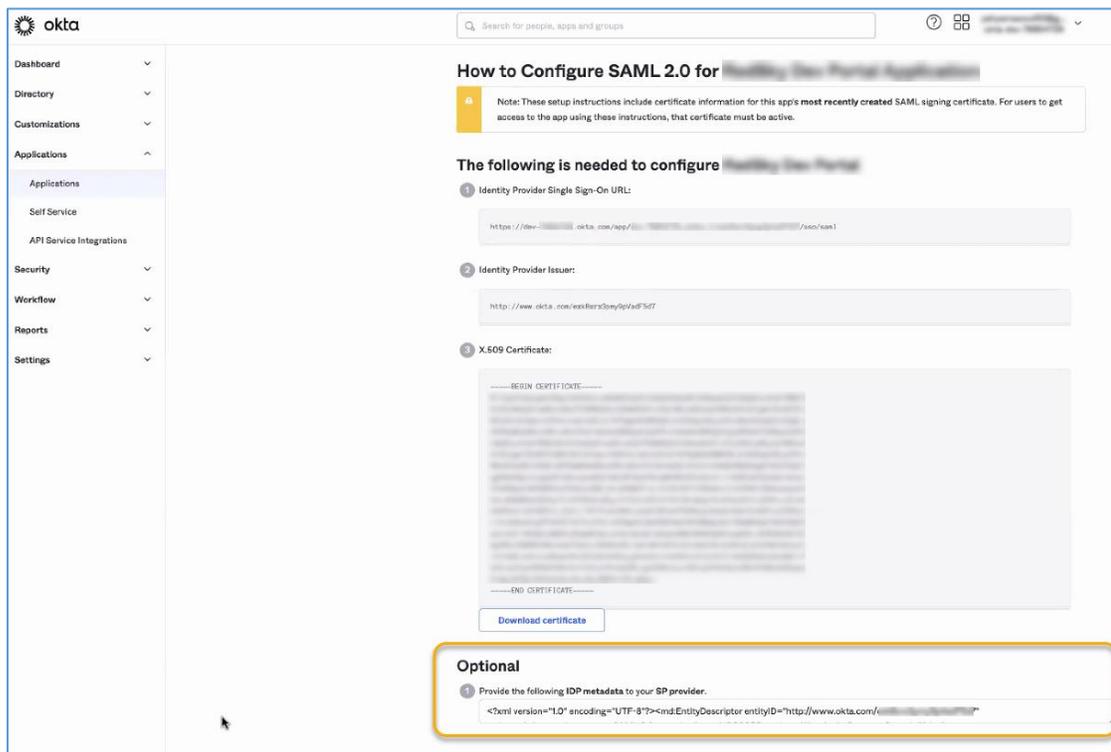
1. IdP Meta Data
2. Security Hash Algorithm
3. SAML Identity Location

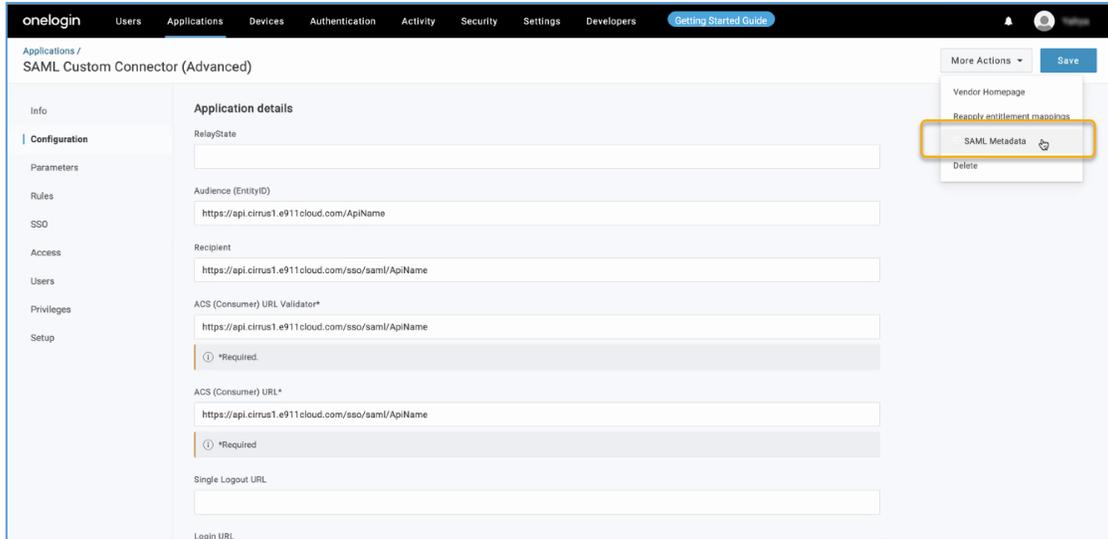
Where this information is used will be covered in Section 4.

### 3.1 IdP Provider Metadata

IdP metadata is required to configure the SAML connection settings for the integration. The XML of the metadata can be downloaded or copy/pasted into a file from the admin console of the IdP.

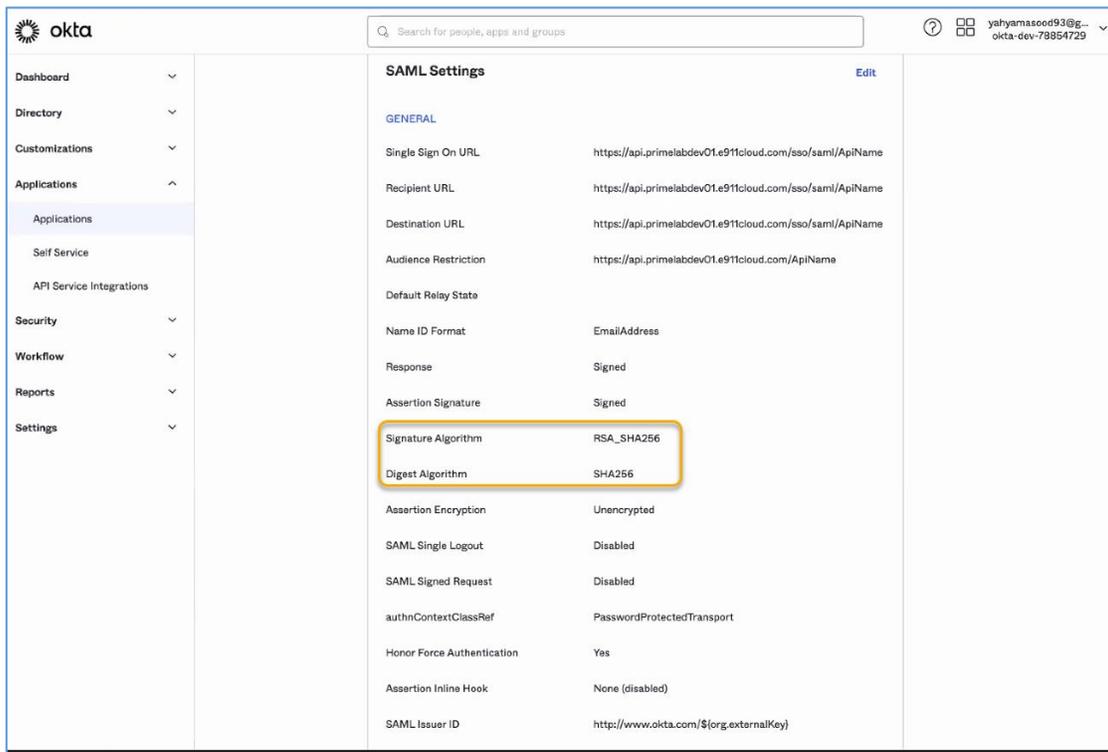
Below are screenshots of the Okta and OneLogin admin consoles to help illustrate where this information can be gathered in the case that an organization may need some assistance in finding the information.:





### 3.2 Security Hash Algorithm

The correct Security Hash Algorithm will be needed. This information is generally configured at the organization level at the IdP and can be accessed via the SAML 2.0 settings. Here are examples from both Okta and OneLogin:



The screenshot shows the OneLogin configuration interface for a SAML Custom Connector. The left sidebar contains navigation options: Info, Configuration, Parameters, Rules, SSO (selected), Access, Users, Privileges, and Setup. The main content area is titled 'Enable SAML2.0' and includes the following configuration details:

- Sign on method:** SAML2.0
- X.509 Certificate:** Standard Strength Certificate (2048-bit) with 'Change' and 'View Details' links.
- SAML Signature Algorithm:** A dropdown menu highlighted with a yellow box, currently set to 'SHA-256'.
- ISSUER URL:** <https://app.onelogin.com/saml/metadata/53836ee6-34af-4fa0-b88a-c9254eb541af>
- SAML 2.0 Endpoint (HTTP):** <https://redskydevtest.onelogin.com/trust/saml2/http-post/ssc/53836ee6-34af-4fa0-b88a-c9254eb54>
- SLO Endpoint (HTTP):** <https://redskydevtest.onelogin.com/trust/saml2/http-redirect/slo/2198300>

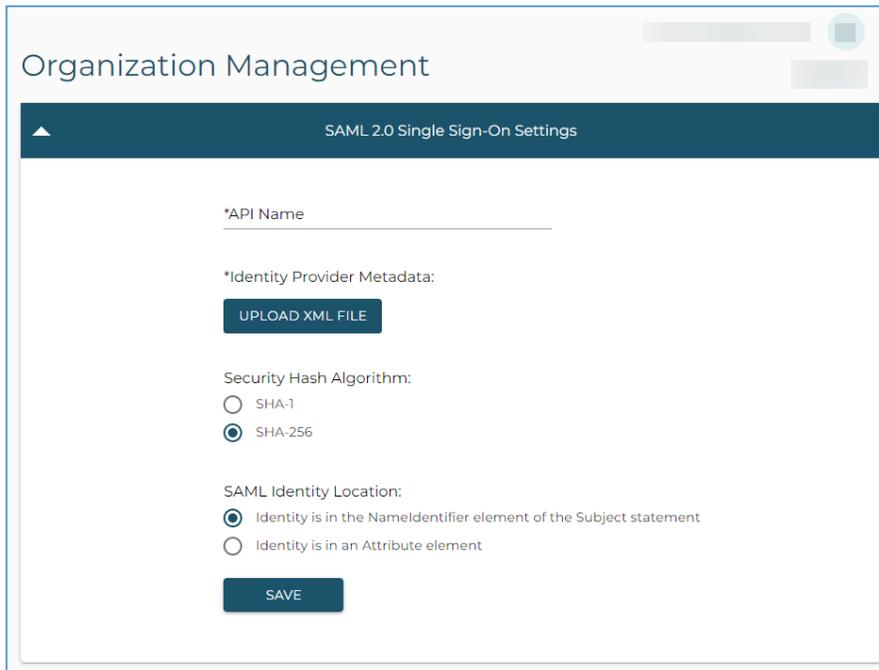
At the bottom of the configuration area, there is a 'Login Hint' section and a chatbot widget with the text: 'Hey there! Any questions? I can help here!'.

## 4 E911 Anywhere®/Horizon Mobility® Configuration

### 4.1 Organization Level SSO Configuration

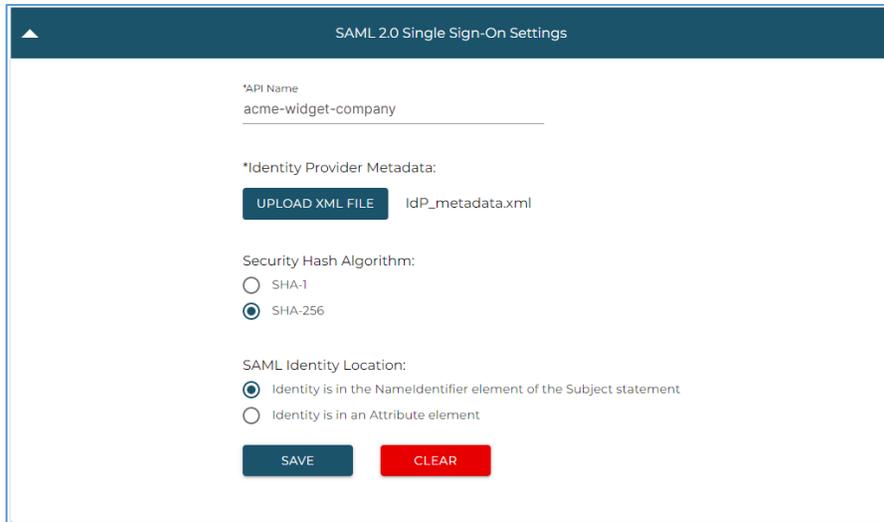
Each organization, regardless of type, including System, must be configured before using SAML 2.0 SSO. Currently, this can only be done by a RedSky Administrator.

To integrate with an organization's IdP SSO service, the RedSky Administrator will navigate to the *Organization Management* page for the organization in question then complete the *SAML 2.0 Single Sign-On Settings* form. To complete the form, the API Name generated in Section 2.1 must be provided as well as the information outlined in Section 3, which should have been shared by the customer. Here is a screenshot of the form:



The screenshot shows the 'Organization Management' page with a sub-section for 'SAML 2.0 Single Sign-On Settings'. The form includes the following fields and options:

- \*API Name: A text input field.
- \*Identity Provider Metadata: A button labeled 'UPLOAD XML FILE'.
- Security Hash Algorithm: Radio buttons for 'SHA-1' and 'SHA-256', with 'SHA-256' selected.
- SAML Identity Location: Radio buttons for 'Identity is in the NamelIdentifier element of the Subject statement' (selected) and 'Identity is in an Attribute element'.
- A 'SAVE' button at the bottom.



The screenshot shows a web form titled "SAML 2.0 Single Sign-On Settings". It contains the following fields and options:

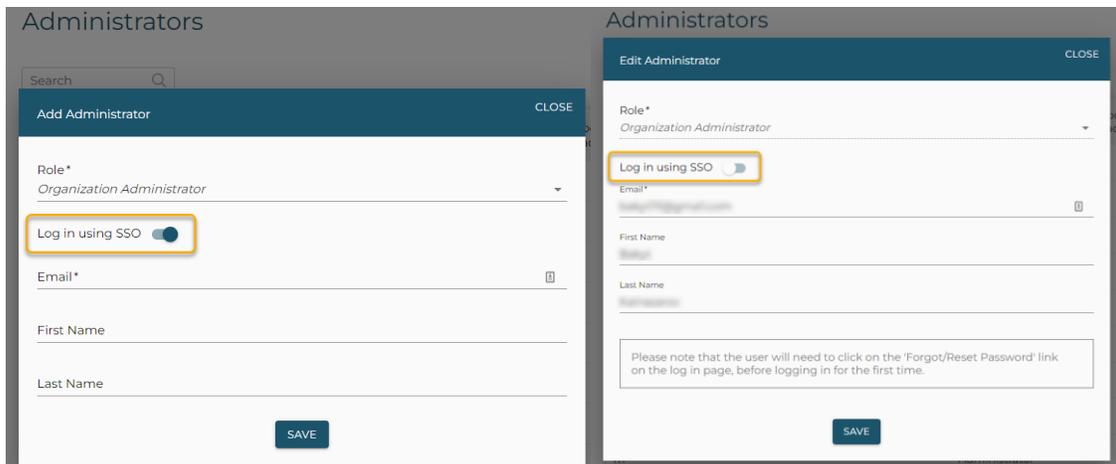
- \*API Name: acme-widget-company
- \*Identity Provider Metadata: An "UPLOAD XML FILE" button next to the filename "IdP\_metadata.xml".
- Security Hash Algorithm: Two radio buttons, "SHA-1" (unselected) and "SHA-256" (selected).
- SAML Identity Location: Two radio buttons, "Identity is in the NameIdentifier element of the Subject statement" (selected) and "Identity is in an Attribute element" (unselected).
- At the bottom, there are "SAVE" and "CLEAR" buttons.

*Note:* As SAML 2.0 currently only supports Email as the name identifier, so the first radio button should stay selected for *SAML Identity Location*.

When the need arises the current SAML 2.0 SSO integration can be disabled and cleared at system/organization level by clicking the CLEAR button. Please note that any exiting RedSky/Organization Administrators configured as SSO users will stay SSO users and the log in process will fail unless another SAML 2.0 SSO integration is successfully configured. Those SSO Users can be converted to local-login users, which is covered in Section 4.2.

## 4.2 Organization Administrator SSO Configuration

Once an organization has been configured to use SSO, RedSky and Organization Administrators will need to be configured individually on the E911 Anywhere®/Horizon Mobility® platform to log in using SSO. This can be done by any RedSky/Organization Administrators that belong to the organization. Configuring a RedSky/Organization Administrator is as simple as turning ON/OFF a toggle on the Add/Edit Administrator modals.



By default, new RedSky/Organization Administrators will be set as SSO users. Simply toggle-off the *Log in using SSO* setting to make them local-login users.

Existing RedSky/Organization Administrators will stay configured as local-login users. Meaning they will use the email address and password configured on the E911 Anywhere®/Horizon Mobility platform. Simply toggle-on the *Log in using SSO* setting to make them SSO users.

As a reminder, if the SAML 2.0 SSO integration is disabled and cleared at system/organization level, any exiting RedSky/Organization Administrators configured as SSO users will stay SSO users and the log in process will fail unless another SAML 2.0 SSO integration is successfully configured. Those SSO Users can be converted to local-login users; however, those users would need to go through the process of setting the password if they have never set their password locally.

**IMPORTANT NOTE:** Any Organization Administrators that are set as SSO Users may no longer be able to log in to the EON desktop client because the EON client currently does not support SSO. Until it does, we strongly recommend that Organization Administrators needing access to the EON client not be configured as an SSO user, or if another email address is available, provision a separate EON user.

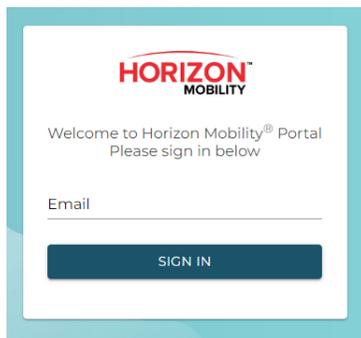
# 5 Testing

## 5.1 RedSky/Organization Administrator SSO User Login

To test if the SAML 2.0 SSO integration is working, an SSO user should be created at system level or the organization in question, and they should attempt to log in to the environment in question.

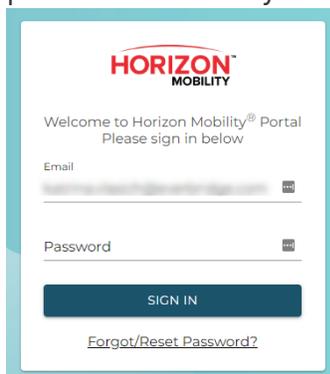
The following is the valid workflow for SSO user log in:

1. When a RedSky/Organization Administrator logs in, they will only be prompted for their email address at first.



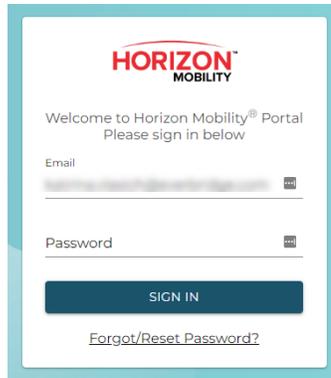
The screenshot shows the Horizon Mobility login portal. At the top is the logo for HORIZON MOBILITY. Below it, the text reads "Welcome to Horizon Mobility® Portal Please sign in below". There is an "Email" input field with a horizontal line underneath it. Below the input field is a dark blue button with the text "SIGN IN" in white capital letters.

2. Once the SIGN IN button is selected, the system will check if SSO integration is enabled at the system/organization level and what SSO provider is being used.
  - a. If SSO integration is not configured at the system/organization level, the RedSky/Organization Administrator will be prompted to provide their password on the system, as they did, prior to SSO integration.

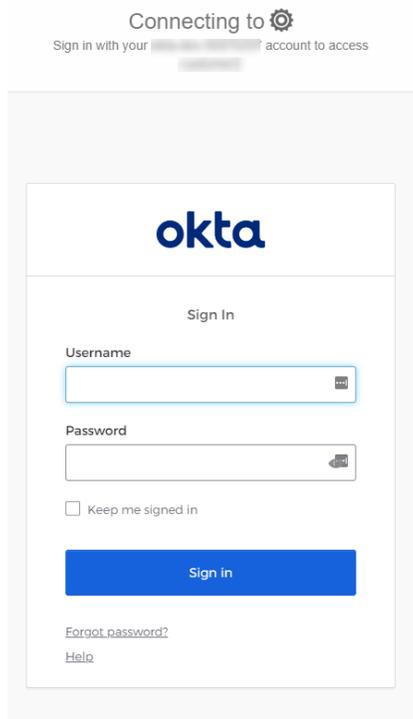


The screenshot shows the Horizon Mobility login portal with the password field added. It includes the HORIZON MOBILITY logo, the welcome text, the "Email" input field, and a "Password" input field with a small icon to its right. Below the password field is a dark blue "SIGN IN" button. At the bottom of the form, there is a link that says "Forgot/Reset Password?".

- b. If SSO integration is configured at the system/organization level, the system will do an additional check to see if the RedSky/Organization Administrator is configured as an SSO user.
  - i. If the RedSky/Organization Administrator is not configured as an SSO user, they will be prompted to provide their password on the system, as they did prior to SSO integration.



- ii. If the RedSky/Organization Administrator is configured as an SSO user, they will be taken to the system’s/organization’s IdP login page, where they can provide their credentials.

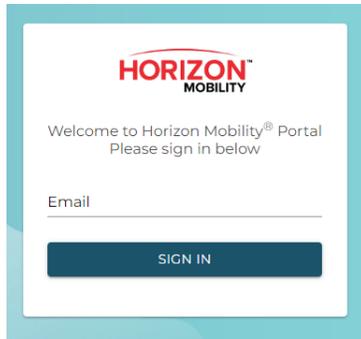


## 5.2 RedSky/Organization Administrator Local-User Login

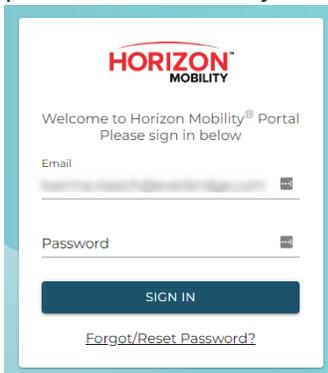
To test if a local-login user can still login using the credentials set on the E911 Anywhere®/Horizon mobility platform.

Below is the valid local-user login workflow:

1. When a RedSky/Organization Administrator logs in, they will only be prompted for their email address at first.



2. Once the SIGN IN button is selected, the system will check if SSO integration is enabled at the system/organization level and what SSO provider is being used.
  - a. If SSO integration is not configured at the system/organization level, the RedSky/Organization Administrator will be prompted to provide their password on the system, as they did, prior to SSO integration.



- b. If SSO integration is configured at the system/organization level, the system will do an additional check to see if the RedSky/Organization Administrator is configured as an SSO user.
      - i. If the RedSky/Organization Administrator is not configured as an SSO user, they will be prompted to provide their password on the system, as they did prior to SSO integration.

