Administration Guide

Identity & Access Management 26.1

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Identity & Access Management 26.1 Administration Guide
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TABLE OF CONTENTS

Change Log

Date	Change Description
2026-01-31	Initial release.

Introduction

Identity & Access Management (IAM) is a service to help you control access to FortiCloud portals and assets. You can use the portal to manage users, authentication credentials, and asset permissions.

Key Features

Permission model

The permission model has been updated with multi-dimensional permission model to provide fine grained control and easy of use. It comes with following two factors:

- *Permission Profile*: Defines the enabled portals and the access permissions available to an assigned user. Instead of assigning portal permissions directly when creating an IAM user, external IdP role, and so on, the user is assigned to a permission profile. The permission profile must be created before being assigned to a user. Permission profiles can be assigned to multiple users and user groups.
- *Permission Scope*: The permission scope defines the scope of access within the account. Management of the account is dependent on the available and selected scope.

IAM user

The IAM user type provides more control and flexibility when assigning user permissions. Save time creating new users by applying the permissions of an existing user to a new user or adding the user to a group. Account administrators can temporarily disable vulnerable IAM users and enforce Two-Factor Authentication at the account level. Migrate sub users to the IAM portal to manage all of your users in one place.

User Groups

Organize IAM users into user groups to assign portal and asset permissions to multiple users at the same time. You can create a group based on the user roles, asset permissions, or any other category of your choosing. Remove a user from a group without deleting their profile from the portal or temporarily disable a vulnerable group.

IAM API user

The IAM portal lets you quickly create and manage IAM API users for programmatic access to the API. IAM API user access types are specific to each portal.

External IdP roles

External IdP roles allow IdP users to log in to a cloud portal with their organization's ID provider. External IdP roles allow you to create one role for many users while leveraging all of the benefits of the IAM user type. One account can have more than one external IdP role. User accounts with multiple roles are required to select a role before they can access a portal.

Multi-factor Authentication (2FA)

Two-Factor Authentication is fast and easy to configure. Users can choose to receive Two-Factor Authentication security codes sent to them through FortiToken, SMS, email, or a third-party authenticator each time they log in.

What's new in version 26.1

There are no new features included in Identity & Access Management version 26.1. See the FortiCloud Services Release Notes for more information.

Resource-based permission profile sections

For portals with resource-based permission capabilities, some portals, such as FortiGate Cloud, may organize related *Resources* into multiple sections when assigning access. See Creating a permission profile on page 21.

Requirements

The following items are required to use the Identity & Access Management portal:

- FortiCloud Account, IAM user, or external IdP role
- Supported Browser

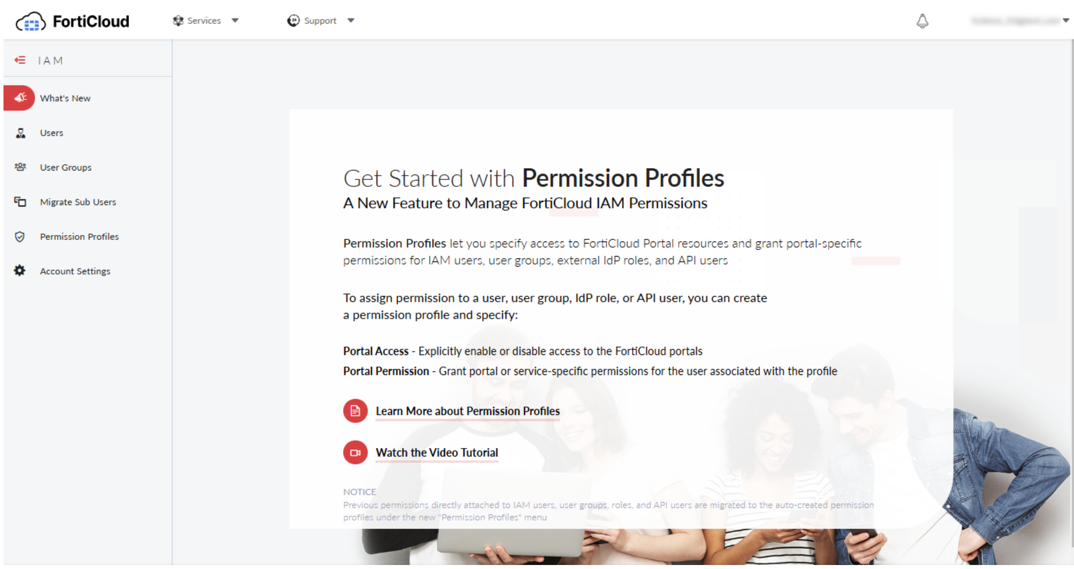
The IAM portal is only available in English at this time. For information on language support and supported browsers, see the Release Notes.

Identity & Access Management Portal

The navigation menu provides access to features for adding and managing users and user groups.

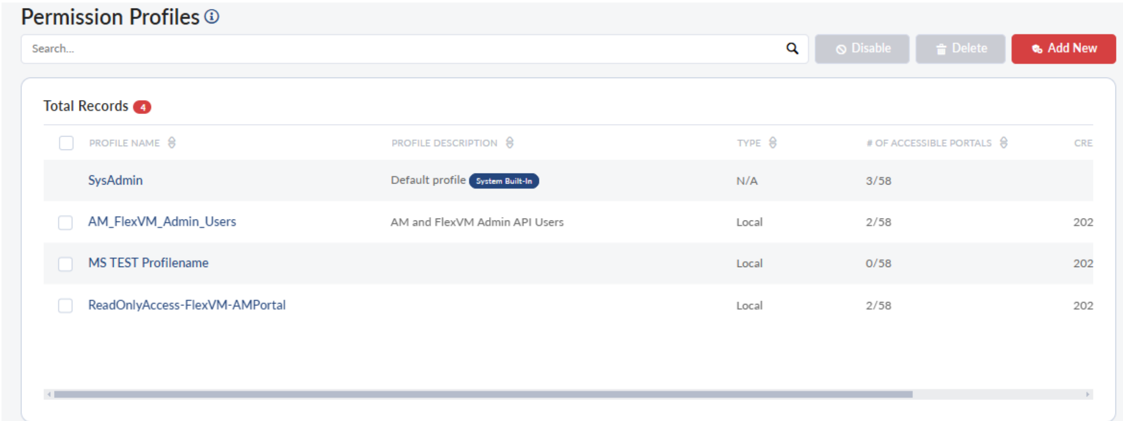
Select the search icon in the top banner to perform a search for user information in the entire Identity & Access Management portal. Select the *Search* field in the page to perform a search within the current page.

Navigate through the Identity & Access Management portal by selecting one of the available pages in left-hand navigation menu.



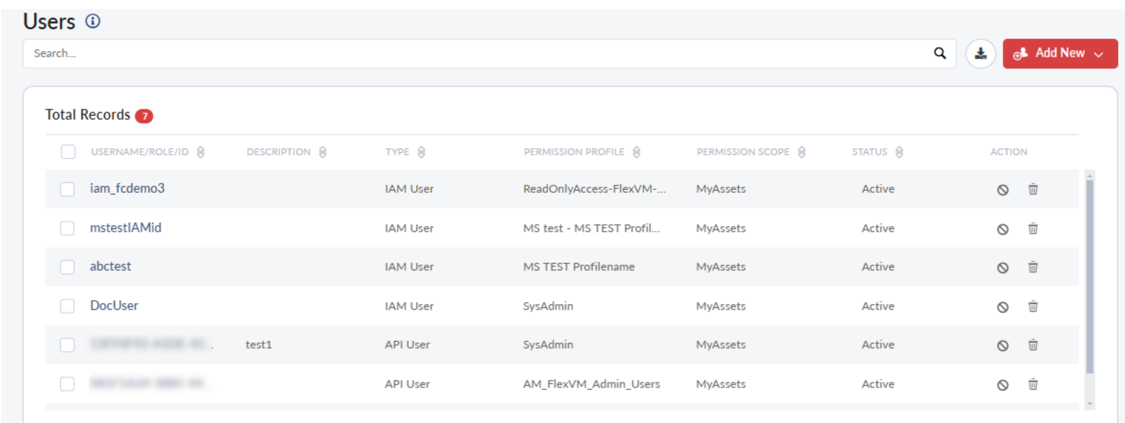
Permission Profiles

The *Permission Profiles* page displays the list of permission profiles. Permission profiles are necessary for the creation of IAM users, user groups, API users, and IdP roles. The Permission Profiles page can be access from the left-hand navigation tree. See Permission profiles on page 17.



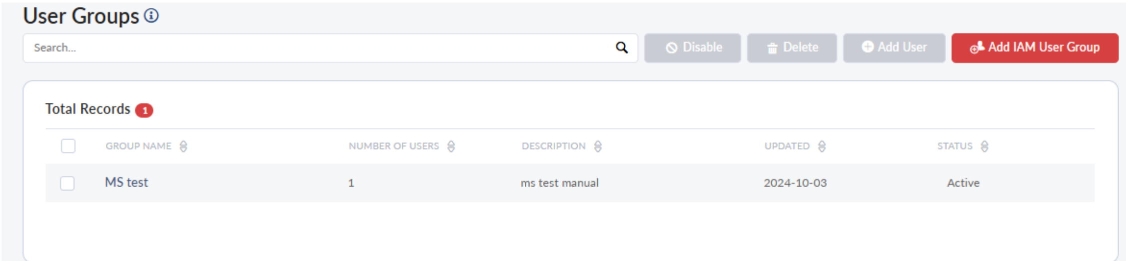
Users

The *Users* page displays the list of users and the user's details including *Username*, *Type*, *Permission Profile*, *Group*, and *Status*. Use this page to add and delete users, or temporarily disable a user. Click the user's *Full Name* to edit their profile, update their permission profile, and reset their password. See Users on page 27.



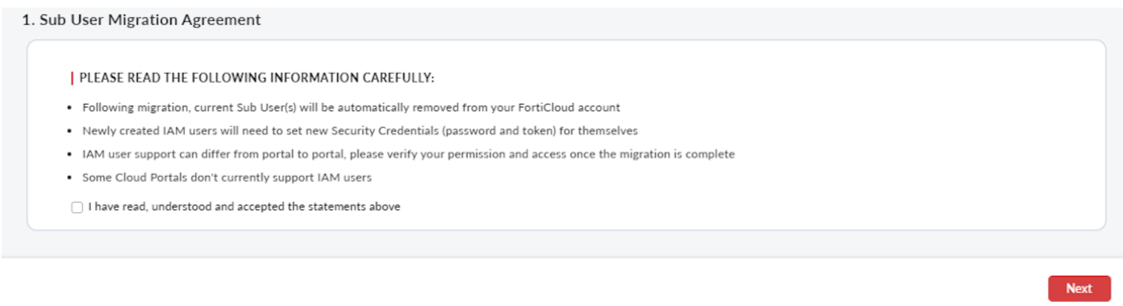
User Groups

The *User Groups* page displays a list of user groups in the portal. You can add users, disable a group, or delete a group directly from the page. Click a user group to view and edit the group's users and permission profile. See User groups on page 55.



Migrate Sub Users

The *Migrate Sub Users* wizard guides you through the process of migrating a sub user to an IAM user. After the migration is complete, the sub user account is converted to an IAM user. You cannot revert a sub user after the process is complete. See Migrating sub users on page 60.



User management models

IAM user accounts are similar to FortiCloud accounts. The legacy Sub User Model allows full and limited permissions for access and assets to individual users. The IAM User Model uses permission profiles for more control and improved security.

Basic function mode

The basic functionality for the Identity & Access Management portal includes all of the major features, including:

- Permission profiles
- IAM users
- IAM user groups
- Sub user migration
- External IdP roles
- Access to account management

Advanced mode

The advanced management mode of the Identity & Access Management portal includes the same capabilities as the basic function mode, with the addition of organization support. See Organization user management on page 86.

Sub User Model

This model will be deprecated in the near future. It is strongly recommended that you use the IAM User Model to take full advantage of the new features.

The Sub User Model has two types of user: The master user (or Account Owner) and sub user. The master user is the person who created the FortiCloud account. Master users have full Admin permissions in all of the portals associated with the FortiCloud account including:

- Creating users
- Assigning full admin or limited access permissions and assets to sub users

The Sub User Model only supports one master user for the account. The master user's email address must be unique.

Master user's can change their email address as long as the new email address remains unique. A master user can change their email address up to five times in a 24-hour period.

A master user can assign *Full Access* or *Limited Access* permissions to a sub user as well as the devices the sub user can access. Assigning *Full Access* permissions to sub users grants them the same permissions as the master user with limitations. *Limited Access* allows the master user to select the sub user's permissions and assets. See User permissions in the Asset Management Administration Guide for more information on the different access levels.

Only the master user can access the Identity & Access Management portal and make changes, such as migrating sub users to IAM users. The sub user cannot access the portal regardless if they have *Full Access* or *Limited Access*.

IAM User Model

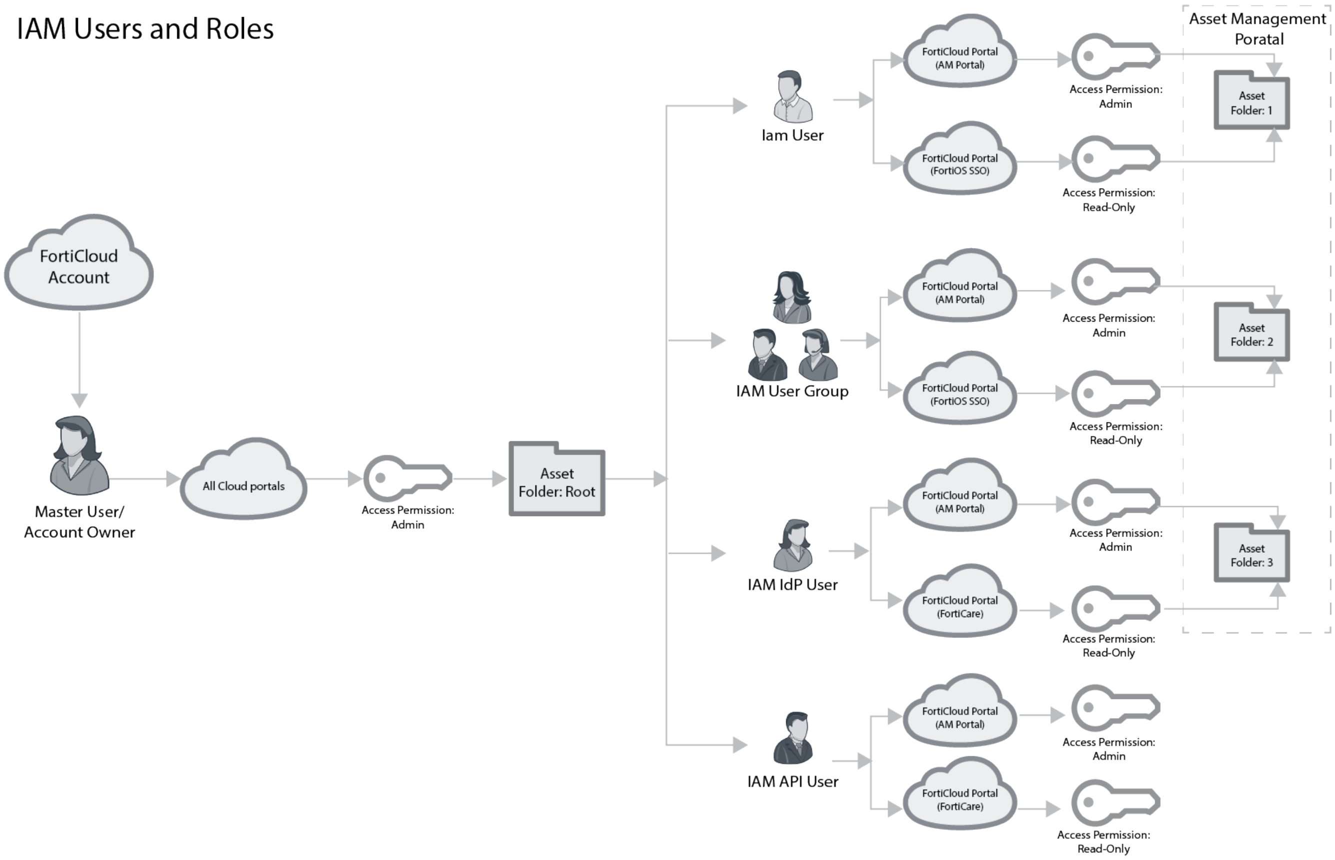
The IAM User Model uses portal-based permission profiles to manage users' access and asset permissions. Instead of assigning *Full Access* permissions or *Limited Access* for the user account, an IAM administrator selects an access type as defined by the portal when creating a permission profile. Permission scope asset permissions are based on the Organizational Unit or asset folders in the Asset Management (AM) portal. This allows for a more granular combination of access and asset permissions.

A master user (Account Owner) can access the IAM portal. IAM Users have access to the portal based on the permissions set by the master user for the IAM portal. Sub users cannot access the IAM Portal.

IAM user types

User type	Description
IAM user	IAM users can access Fortinet cloud portals with a FortiCloud account. Each IAM account requires an Account ID/Alias, User Name, and password to log in to a portal. Administrators can assign permission profiles to an IAM user or to an IAM user group.
API users	API users can access FortiCloud services through the API. API users can only use OAuth 2.0 for authentication to access web service APIs provided by each FortiCloud service portal. API user IDs and passwords are generated by the IAM service portal. One FortiCloud account can have multiple API users. The IAM service administrator can define which cloud portals the user can access, as well as the user's read/write permissions.

User type	Description
External IdP roles	External IdP roles allow external users to log in to a cloud portal using their organization's ID provider. External IdP roles are authenticated with a custom login page. After the user is authenticated, they are redirected to a jump page where they can select the cloud portal(s) assigned to their account. One account can have more than one external IdP role. User accounts with multiple roles are required to select a role before they can access a portal. Users with no roles assigned to their account are blocked.



Feature comparison chart

Identity & Access Management introduces an enhanced user model for improved security, scalability, and management.

The following table compares the features in the legacy Sub User Model with the IAM User Model.

Feature	Sub User Model	IAM User Model
Account Access Management	Add sub users to the account	Add IAM users to the account
Permission Control	Account level (Full Access/Limited Access)	Fine grained permissions for each FortiCloud Service
Asset Permissions	List of devices/Asset Groups (limited)	Asset folders or OUs with permissions hierarchy
User Groups & Permissions	User group (limited)	User groups and group-level permissions
Portal Access	No per portal control	Allow or Deny access per portal
API User Support	No	Granular permissions for each FortiCloud Service APIs
User 2FA Management	No	Enforce (or exempt) 2FA for IAM users

Permission profiles

Before you can create IAM users, user groups, external IdP roles, or API users, you must create a permission profile. Permission profiles define the level of portal access and permissions a user has. Permission profiles allow you to explicitly enable or disable access to FortiCloud portals and grant portal-specific permissions for the enabled portals.

Permissions can be role-based or resource-based depending on the portal:

- Role-based permissions can be read-only, read and write, or admin levels with more specific permissions available depending on the portal. These permissions account for all portal features unless specified in the *Additional Permissions*.
- Resource-based permissions can be read-only, read and write, or no access and can be assigned to specific resources within the portal. A permission profile can assign different access types for each of the portal resources listed. See Portals with resource-based permission on page 17 for examples of resource-based permissions.

  See the respective portal administration guide for more information on the specific access types for each portal.

> A portal can only support one permission model at a time. If an existing permission profile includes a portal that has been converted from role-based permissions to resource-based permissions, the existing role-based permissions will be migrated to resource-based permissions based on portal-specific rules. Migration settings vary between portals.

Once a permission profile has been created, IAM users, user groups, external IdP roles, and API users can be assigned to the profile. See Users on page 27 and User groups on page 55.

The *Permission Profiles* page can be accessed from the left-hand navigation menu. See Identity & Access Management Portal on page 10.

This section contains the following topics:

Portals with resource-based permission

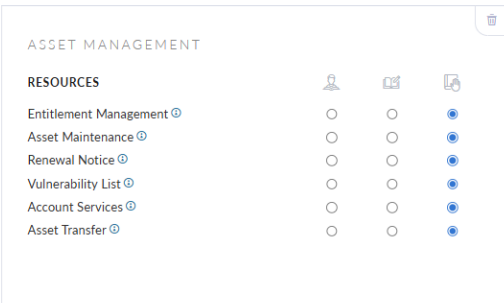
Resource-based permissions allow user permissions to be assigned by feature, instead of assigning permissions for the entire portal. The following FortiCloud portals use resource-based permissions to allow access:

- FortiCare on page 19

The permission details of other portals can be found in their respective product guides.

Asset Management

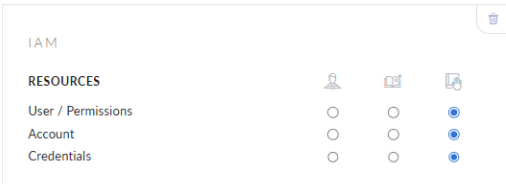
The Asset Management portal uses resource-based permissions to control access to various features and portal pages. See the Asset Management Guide for more information.



Resource	Description
Entitlement Management	Provide control over entitlements, including entitlement (product, contract, license) registration, *Pending Registration*, and *Marketplace* features. The user can be granted *Read Only*, *Read & Write*, or *No Access* privileges.
Asset Maintenance	Provide control over available assets, including license downloading, decommissioning, deregistration, *TradeUp*, transfer, and folder management. The user can be granted *Read Only*, *Read & Write*, or *No Access* privileges.
Renewal Notice	Provide the user with product renewal notifications. The user can be granted *Read Only* or *No Access* privileges. The user must have access to the root folder.
Vulnerability List	Provide the user access to the product vulnerability list. The user can be granted *Read Only* or *No Access* privileges.
Account Services	Provide access to account-level products or services, including *Account Services*, *FortiMeter*, and the *ELA Profile*. The user can be granted *Read Only*, *Read & Write*, or *No Access* privileges.

IAM

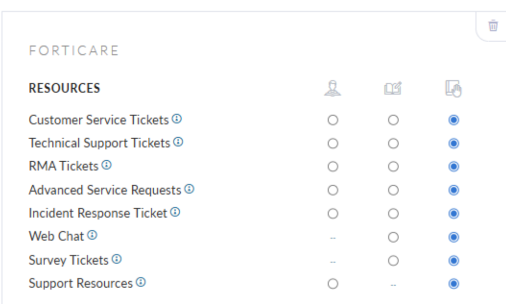
The Identity & Access Management portal uses resource-based permissions to control access to their own account and the creation and management of other users.



Resource	Description
User/Permissions	Provide control over users, user groups, permission profiles, and migrating sub users. The user can be granted *Read Only*, *Read & Write*, or *No Access* privileges.
Account	Provide account management capabilities, including managing *Account Settings*. The user can be granted *Read Only*, *Read & Write*, or *No Access* privileges.
Credentials	Provide control over account *Security Credentials*. The user can be granted *Read Only*, *Read & Write*, or *No Access* privileges.

FortiCare

The FortiCare portal uses resource-based permissions to control access to ticketing features. The FortiCare permissions can be assigned using the *FortiCare* option.



Resource	Description
Customer Service Tickets	Allow the user to create and track tickets pertaining to contracts and account management. The user can be granted *Read Only*, *Read & Write*, or *No Access* privileges.
Technical Support Tickets	Allow the user to create and track tickets for technical issues. The user can be granted *Read Only*, *Read & Write*, or *No Access* privileges.
RMA Tickets	Allow the user to create and track tickets pertaining to DOA and RMA

Resource	Description
	assets. The user can be granted *Read Only*, *Read & Write*, or *No Access* privileges.
Advanced Service Requests	Allow the user to submit an Advanced Service request for professional assistance. The user can be granted *Read Only*, *Read & Write*, or *No Access* privileges. For the *Advanced Services* page to appear in the FortiCare portal, the user must have: • *Read Only* or *Read & Write* permissions • Access to the root folder in their permissions scope • A Premium Support entitlement
Incident Response Ticket	Allow the user to submit an Incident Response ticket for evaluation. The user can be granted *Read Only*, *Read & Write*, or *No Access* privileges. For the *Incident Response* page to appear in the FortiCare portal, the user must have: • *Read Only* or *Read & Write* permissions • Access to the root folder in their permissions scope • An Incident Retainer Service entitlement
Web Chat	Allow the user to join live web chats with Fortinet support. The user can be granted *Read & Write* or *No Access* privileges.
Survey Tickets	Allow the user to submit feedback in the ticket survey. The user can be granted *Read & Write* or *No Access* privileges.
Support Resources	Allow the user to view support resources, such as resource documents, Firmware downloads, and the customer support bulletin. Partners can also view the *Bug Tracker*. The user can be granted *Read Only* or *No Access* privileges.

The FortiCare Legacy portal permissions can be assigned using the role-based *FortiCare Legacy* option.

Permission scope

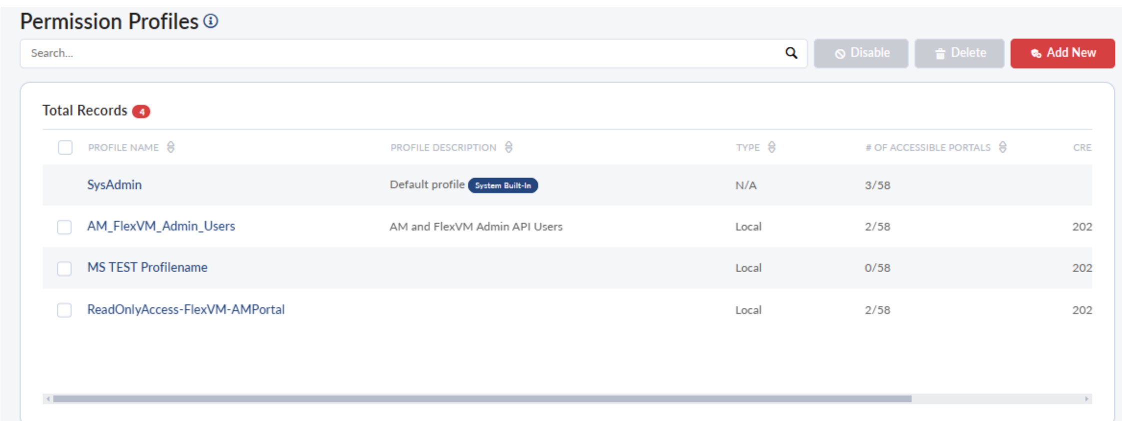
A feature of the new permission model is the permission scope. The permission scope defines what an IAM user, user group, external IdP roles, and API users can access in terms of the resources, including users, asset folders, devices, and so on.

If applicable, the permission scope also defines if the assigned users will have *Local* or *Organization* type access. If an account does not have Organizational Unit access enabled, the scope will default to the *Local* type and therefore link to asset folders. The default *Local* type is used by the majority of FortiCloud clients and allows the IAM user, user group, and so on access only to the current account. For the purpose of this document, the default *Local* access is assumed.

For information on enabling Identity & Access Management portal features with *Organization* access, see Organization user management on page 86.

Creating a permission profile

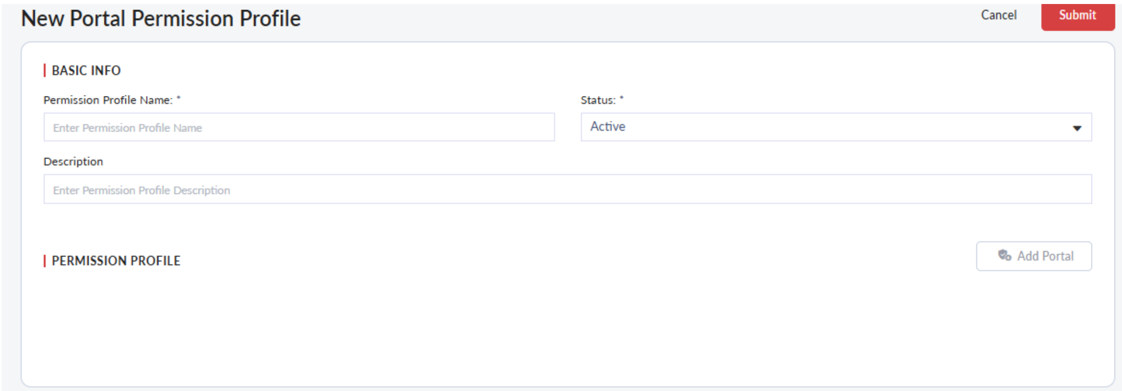
A new permission profile can be made from the *Permission Profiles* page. Permission profiles must be created before an IAM user, user group, and so on.



The *SysAdmin* permission profile is a default permission profile available at all times. When a user is assigned to *SysAdmin*, they will have full access to the Asset Management portal, Identity & Access Management portal, and FortiCare. You can find the *SysAdmin* permission profile at the top of the *Permission Profiles* list. You cannot edit, disable, or delete the default *SysAdmin* permission profile.

To create a permission profile:

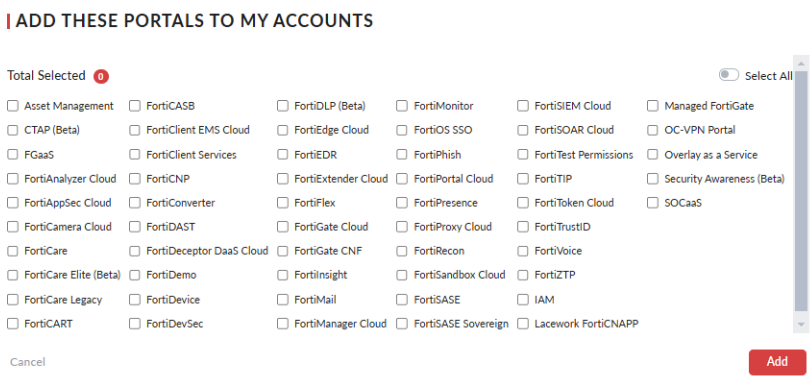
1. Select *Permission Profiles* from the left-hand navigation menu. The *Permission Profiles* page opens.
2. Select *Add New*. The *New Portal Permission Profiles* page is displayed.



3. Enter a name for the profile in the *Permission Profile Name* field.

Once the permission profile is saved, the permission profile type cannot be changed.

4. Set the *Status* to *Active*.
5. Enter a description of the portal permissions in the *Description* field.
6. Click *Add Portal*. A list of available portals is displayed.

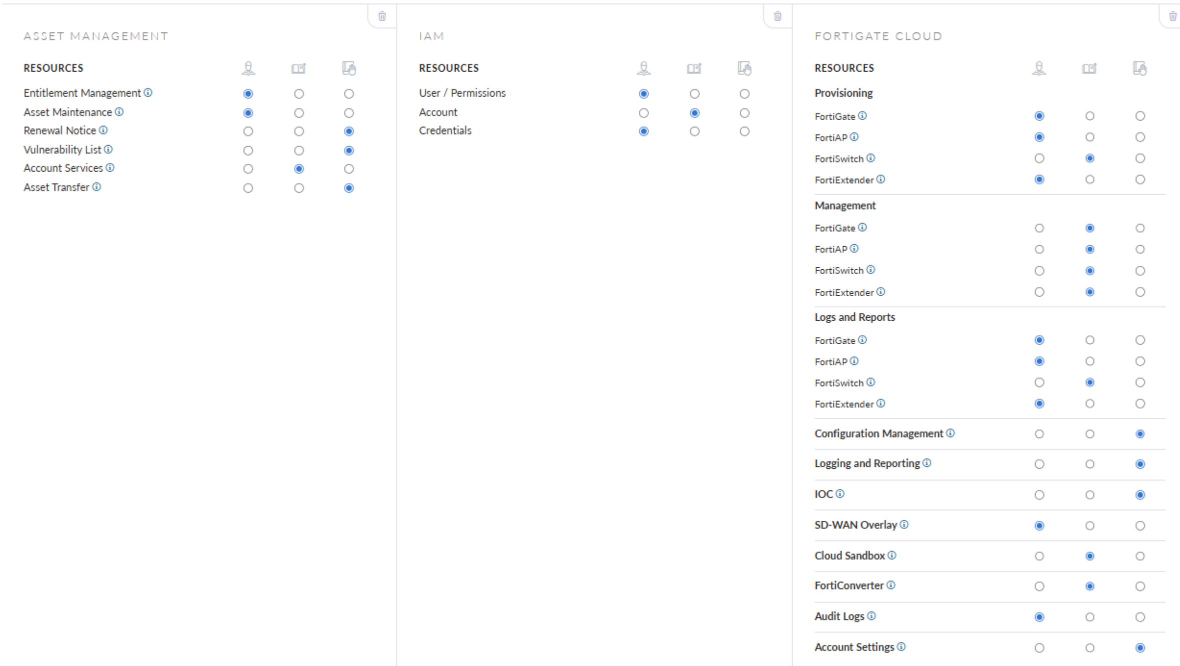


7. Select the portals you want to enable or deny access to.
8. Click *Add*. The portals are displayed in cards.
9. For each portal card, define portal permissions:

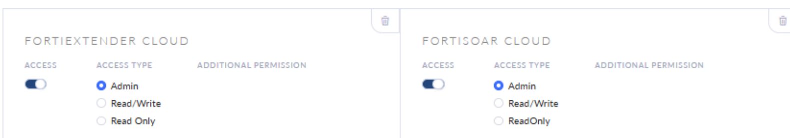
If you want to deny access to a portal, add the portal to the permission profile but do not enable any resource or portal access.

Excluding a portal from a permission profile does not deny access to that portal. If you do not add the portal to the permission profile, its status will be considered undefined. Therefore, it may be possible for the user to still access the portal from the *Services* dropdown menu if the portal itself provides open access to some features.

- For portals with resource-based permission capabilities, specify the *Resources* access type. Some portals, such as FortiGate Cloud, may organize related *Resources* into multiple sections.



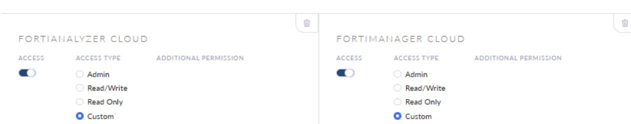
- For portals with role-based permissions, enable *Access* and specify the portal *Access Type* and any *Additional Permissions*.



10. Click *Save*. The permission profile is now available to be assigned to users.

Configuring user permissions with custom access

When creating permission profiles, some portals may allow the *Access Type* to be set to *Custom*. This means that if *Custom* is selected, any users with this permission profile should further define the users' access type within the specific portal.



For example, when configuring FortiManager Cloud permissions, you may set the *Access Type* to *Admin*, *Read/Write*, *Read Only*, and *Custom*. *Admin*, *Read/Write*, and *Read Only* access will provide the user with *Super_User*, *Standard_User*, and *Restriced_User* administrator profiles respectively, within the FortiManager Cloud portal.

If the FortiManager Cloud *Access Type* is set to *Custom* in the permission profile, when a user is created with this permission profile, the user will be automatically assigned the *Restricted_User* administrator profile when they first log in. However, a *Super_User* administration can assign a new administrator profile within the FortiManager Cloud portal. This change will then go into effect the next time the user logs in.

The following procedure defines the high-level process of using the *Custom* permission profile *Access Type* in FortiManager Cloud.

To configure custom access to the FortiManager Cloud portal:

1. Configure a permission profile with the FortiManager Cloud *Access Type* set to *Custom*.
2. Create an IAM user with the permission profile assigned. See Adding IAM users on page 29.
3. Log in as the new user. You will have the *Restriced_User* administrator profile assigned.
4. As a *Super_User*, in FortiManager Cloud, go to *System Settings > Administrators*.
5. Change the user's administrator *Profile*. See Editing administrator profiles in the FortiManager Administration Guide.
6. Log in as the new user again. You will now have the new administrator profile assigned.

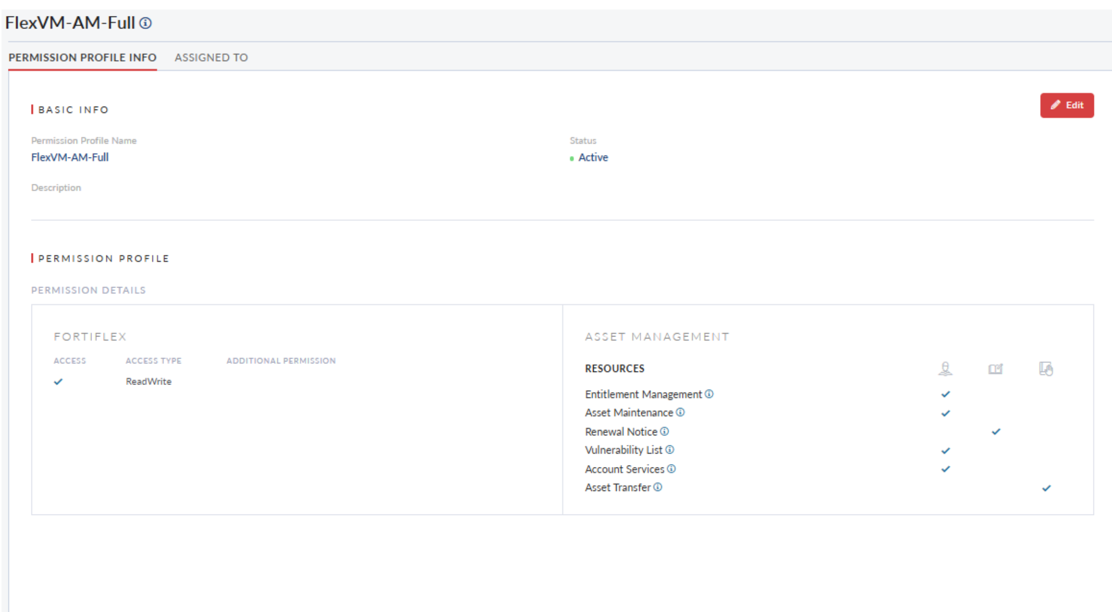
For information on configuring custom access and administrator profiles in FortiManager Cloud and FortiAnalyzer Cloud, see:

- Adding IAM users in the FortiManager Cloud Deployment Guide
- Administrator profiles in the FortiManager Administration Guide
- Administrator profiles in the FortiAnalyzer Administration Guide

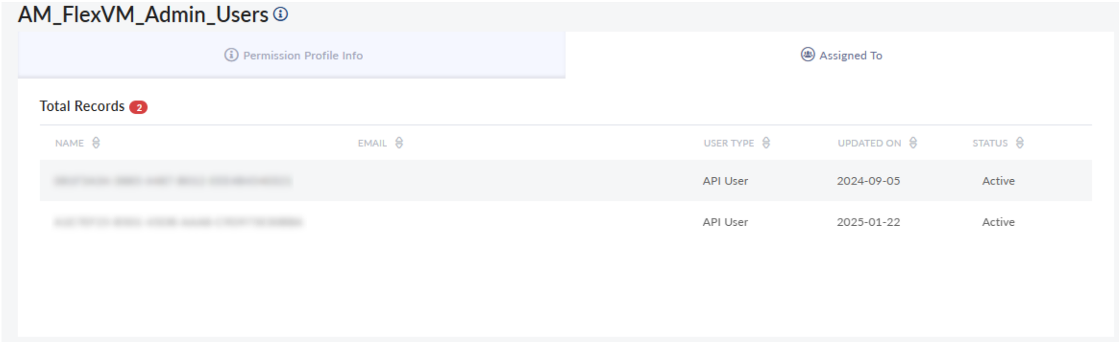
Managing permission profiles

Permission profiles are listed on the *Permission Profiles* page. By selecting a permission profile, you can review specific details of the profile:

- *Permission Profile Info* tab: Displays *Basic Info* and *Permission Details*, including linked portals and portal permissions.



- *Assigned To* tab: Lists all user accounts linked to the permission profile.



You can edit, disable, and delete permission profiles from the *Permission Profiles* page.

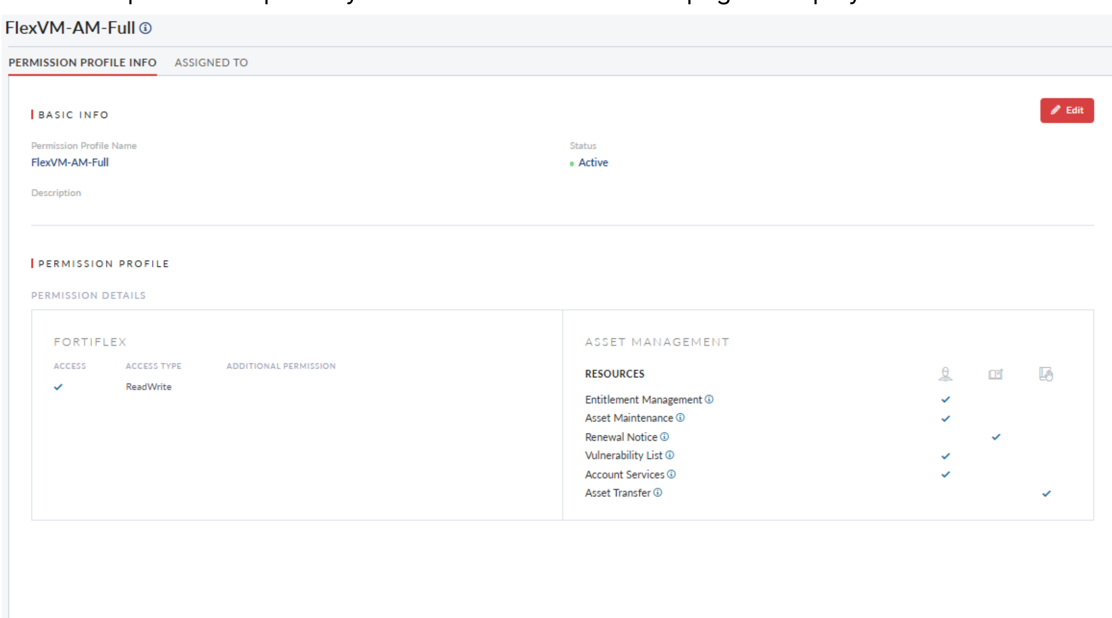
> You cannot edit, disable, or delete the default *SysAdmin* permission profile. See Creating a permission profile on page 21.

Editing a permission profile

Permission profile *Basic Info* and portal permissions can be edited.

To edit a permission profile:

1. Select *Permission Profiles* from the left-hand navigation menu. The *Permission Profiles* page opens.
2. Select the permission profile you want to edit. The details page is displayed.



3. Click *Edit*.
4. Make changes as required to *Description* and portal permissions.

5. Click *Update*. The profile has been updated for all users assigned to it.

Disabling a permission profile

If a permission profile is not needed at the moment, but may be required in the future, it can be temporarily disabled. A permission profile cannot be disabled if an active IAM user is assigned to it.

To disable a permission profile:

1. Select *Permission Profiles* from the left-hand navigation menu. The *Permission Profiles* page opens.
2. Select the profile you want to disable.
3. Click *Disable*. The profile and any assigned users are disabled.

Deleting a permission profile

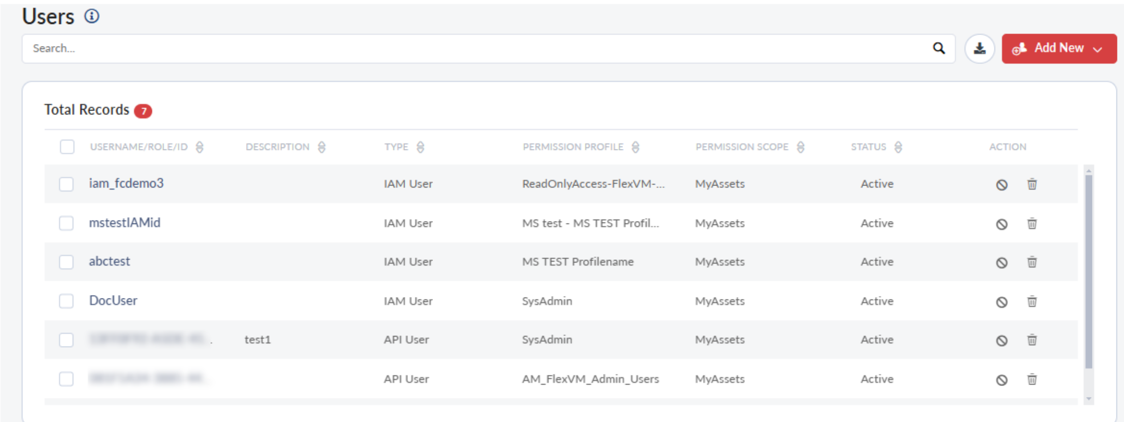
You can permanently delete a permission profile that is no longer needed. A permission profile cannot be deleted if an active IAM user is assigned to it.

To delete a permission profile:

1. Select *Permission Profiles* from the left-hand navigation menu. The *Permission Profiles* page opens.
2. Select the profile you want to delete.
3. Click *Delete*.

Users

The *Users* page displays information on all registered users, including the user *Type*, *Permission Profile*, and *Permission Scope*.



You can use the *Search* field to find a specific user. Partial results are returned as you enter information.

Select the download button to export a list of the IAM users as an Excel or CSV file. Information included in the file include:

- Username
- Description
- Email
- Type
- Permission Profile
- Permission Scope
- Status

The types of users accessible from the *Users* page include:

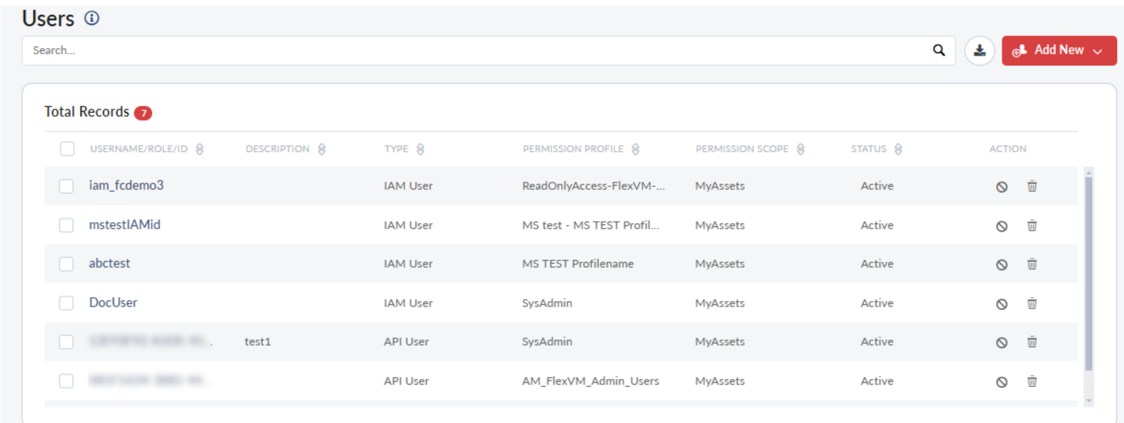
- IAM users on page 28
- API users on page 41
- External IdP roles on page 48
- Partner roles on page 53

IAM users

The IAM user details can be found in the *Users* page, including *Username*, *Type*, *Permission Profile*, *Group*, and *Status*. Use this page to add and delete users, or temporarily disable a user. Click the user's *Username* to edit their profile, update their permission profile, and reset their password.

Use the *Add New* wizard to create a new IAM user. You can also migrate FortiCloud sub users to create a new IAM user. After the user is created, you can update the user's permission profile at any time from the *User Permission* tab.

The *Users* page can be accessed from the left-hand navigation menu. See Identity & Access Management Portal on page 10.



IAM users are separate, additional users to the FortiCloud account. Even if an IAM user and the FortiCloud account use the same login credentials, they are independent of each other.

This section contains the following topics:

For additional information on IAM users, see IAM user FAQ on page 122.

Adding IAM users

Use *Add New* to configure IAM users and generate their login credentials.

To save time, you can apply a permission profile or assign the user to a group. Before you can create IAM users, you must create a permission profile. See Permission profiles on page 17.

To add a new IAM user, you must:

1. Create the new user account. See Creating a new IAM user on page 29.
2. Generate the password reset link and share it with the selected IAM user. See Generating the password reset link on page 31.

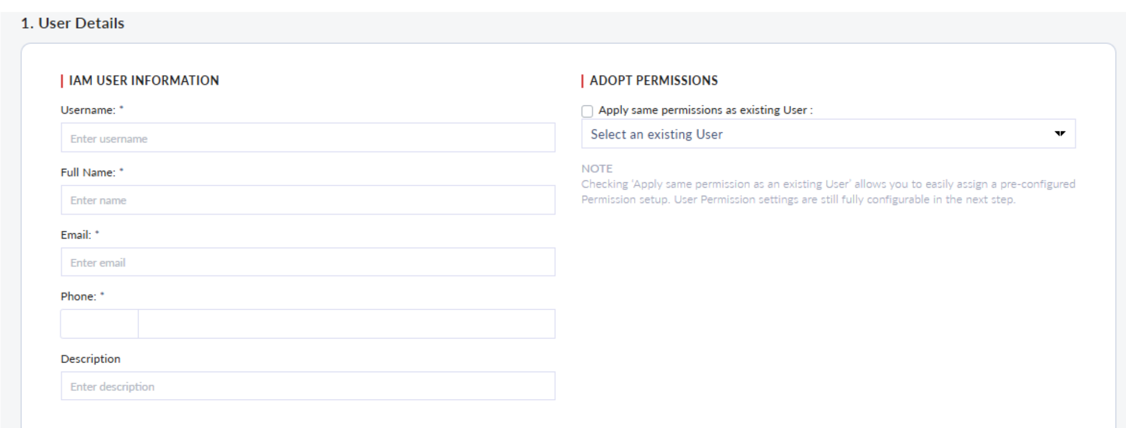
Creating a new IAM user

You can create a new IAM user with the *Add New* wizard.

To create an IAM user with the wizard:

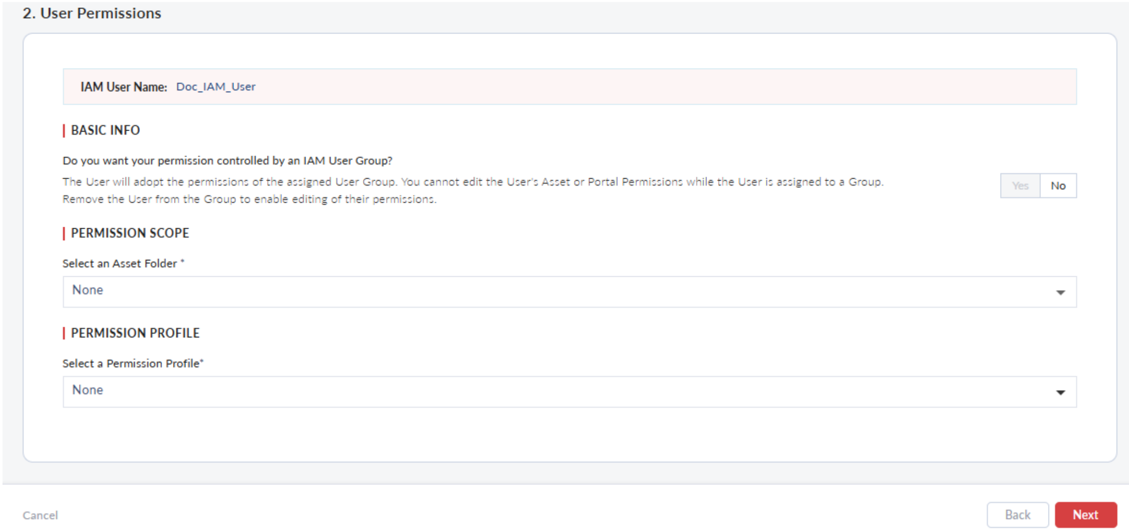
1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Click *Add New > IAM User*. The *User Details* pane opens.
3. (Optional) Click *Apply same permissions as existing User*, and then select a user from the dropdown. You can configure the permissions later.
4. Enter the user's details and click *Next*.

Username	Type the username with no spaces.
Full Name	Type the user's first and last name.
Email	Type the user's email address.
Phone	Select the country code from the dropdown, and type the user's phone number.
Description (Optional)	Type a description of the user.



5. (Optional) Add the user to an IAM user group. See User groups on page 55.

a. Select *Yes* from *Basic Info*.



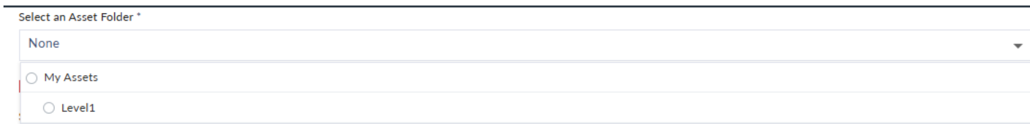
A dropdown list of user groups is displayed.

b. Select a user group from the dropdown.

c. Click *Next*, and proceed to Step 10.

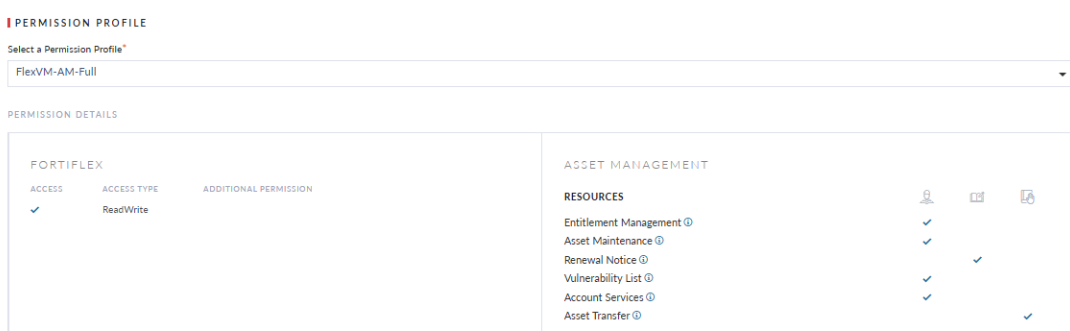
6. From the *Permission Scope* dropdown, select an asset folder or Organizational Unit.

Permission Scope hierarchy and options depend on the type you select in the previous step.



7. In the *Permissions Profile* dropdown, select a profile.

The *Permission Details* assigned to the selected profile are displayed.



If the *SysAdmin* profile is selected, a message will display instead of portal cards to denote that the user has full access to the Asset Management, IAM, and FortiCare portals. *SysAdmin* has access to *Assets&Accounts* and *Support* but does not provide access to *Cloud Management* or *Cloud Services*. See Creating a permission profile on page 21.

8. Click *Next*. The *Confirmation* page is displayed.
9. Review the user information, and click *Confirm*. The user's details are displayed.

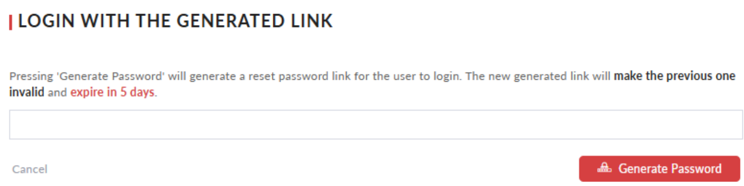
Account credentials must be shared with the user. The account password can be configured using *Generate Password*. See Generating the password reset link on page 31 to configure the account password and share user credentials.

Generating the password reset link

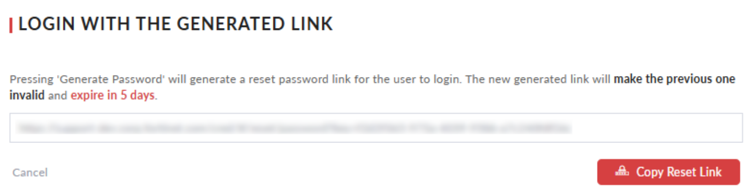
You can choose to generate the password reset link and share it with the selected IAM user.

To generate the password reset link:

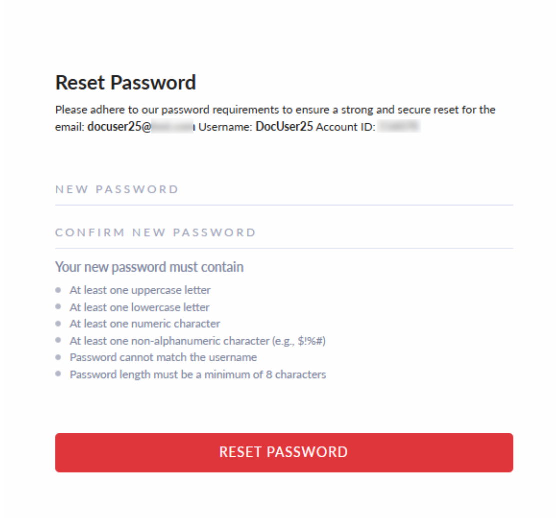
1. On the *Successful User Registration* page, click *Generate Password*. The *Login with the Generated Link* dialog opens.



2. Click *Generate Password*. A reset link is generated.



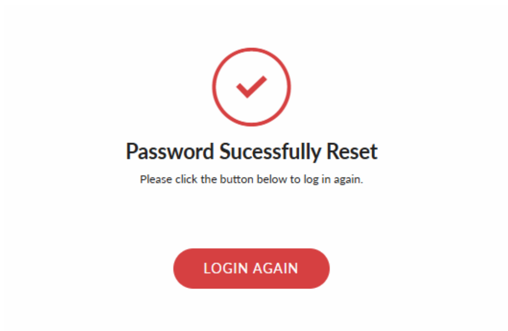
3. Click *Copy Reset Link*. The reset link is copied to your clipboard and you can now share it with the IAM user.
4. For the IAM user to reset their password, paste the reset link into your browser. The *Reset Password* page opens and account credentials are displayed.



5. Enter the password in the *New Password* and *Confirm New Password* fields.

When resetting the password, password criteria, such as necessary character length, are listed. As you reset the password, the criteria will update to confirm which criteria have been successfully included and which are still outstanding.

6. Click *Reset Password*. A confirmation message displays.



The *Generate Password* link can also be accessed on *Security Credentials* tab of the *Users > IAM user* page. See Resetting an IAM user password on page 35.

Send the credentials to the user.

Managing IAM users

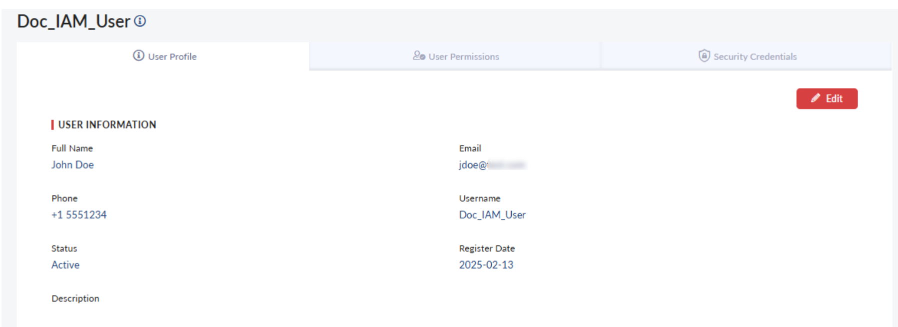
Select an IAM user from the *Users* page to update a user's details or generate the password reset link.

The *Users > IAM user* page displays the following information:

Column	Description
Username	The user's display name.
Full Name	The user's first and last name.
Email	The email address for the IAM user account. Updating the email address in the *User Profile* tab will also change the IAM user's email address in the *Security Credentials > Contacts* page. See Contacts on page 73.
Updated	The date the user's information was updated.
Group	The user group the user is assigned to.
Status	The user's status (*Active*/*Disabled*).

Updating user details

To update the user name, ID, email, and status, go to the *User Profile* tab.



If you change the email address used by the user, email Two-Factor Authentication tokens will be sent to the new email address. See Two-Factor Authentication on page 77 for more information.

To update user details:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Select the IAM user *Username*.
3. Click *Edit*.
4. Edit the user's information, and click *Update*.

To activate a user:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Select the IAM user *Username*.
3. Click *Edit*.

4. From the *Status* dropdown, select *Active*.
5. Click *Update*.

Updating user status

You can enable, disable, and delete an IAM user from the *Users* page.

You can also update multiple user statuses at once from the *Users* page. See Bulk updating users on page 53.

To enable a user:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Find the user your want to enable.
3. Under *Actions*, click *Enable*. The *Confirm to Enable User* dialog is displayed.
4. Click *Yes, I want to continue*.

To delete a user:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Select a user from the list, and click *Delete*. The *Delete User(s)* dialog opens.
3. Click *Confirm*.

To disable user:

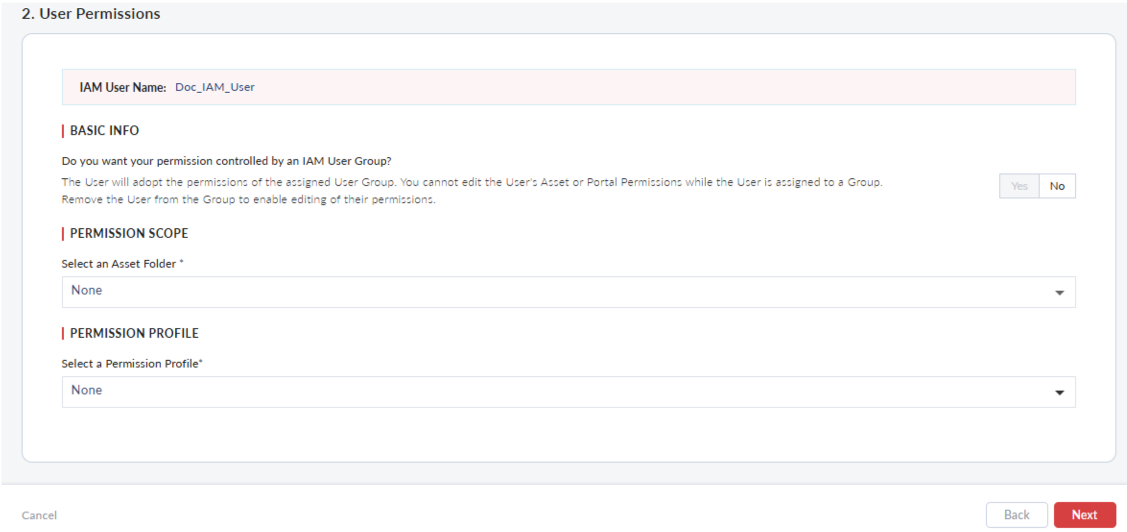
1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Select a user in the list.
3. Click *Disable*. The *Permission Changed Confirmation* dialog opens.
4. Click *Confirm*.

Updating a user in a user group

You can add or remove a user from a group.

To add a user to a user group:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Select the user's *Username*. The *Users > IAM user* page is displayed.
3. Click *User Permissions*.
4. Click *Edit*.
5. In *Basic Info*, select *Yes* to add a user to a user group.



6. Select the user group from dropdown list.
7. Click *Update*.

Resetting an IAM user password

You can generate a reset IAM user password link and enable Two-Factor Authentication.

You cannot regenerate a password if the user has enabled Two-Factor Authentication at the account level.

To generate a password:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Select the user's *Username*. The *Users > IAM user* page is displayed.
3. Click *Security Credentials*.
4. (Optional) Click *Two Factor Authentication*.
5. Click *Generate Password*. The password is generated.
6. Click *Copy Reset Link*. The link is copied to your clipboard.
7. Share the password reset link with the IAM user.

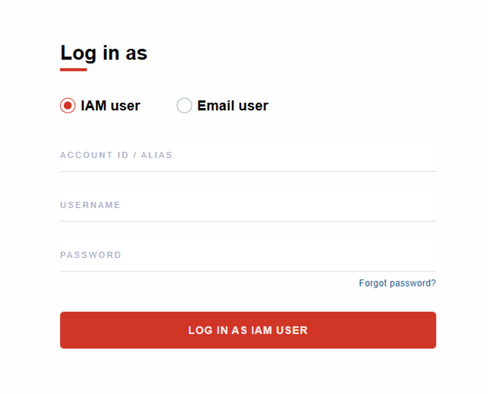
Validating IAM users

IAM users are required to verify their email address if it has been changed.

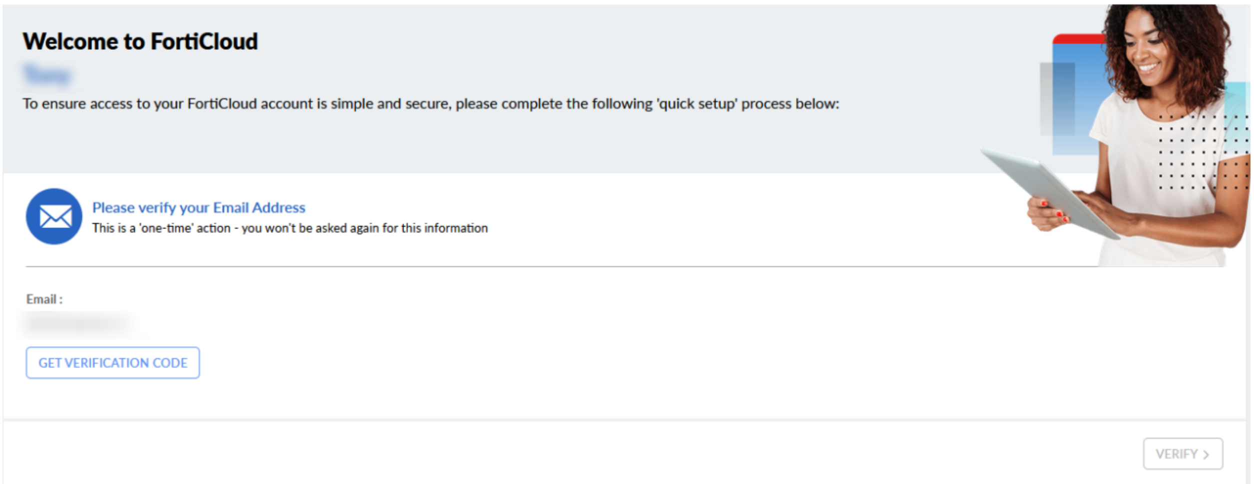
When Two-Factor Authentication (2FA) is enabled, new IAM users will bypass this step and set up 2FA authorization instead. See Logging in with Two-Factor Authentication for the first time on page 80.

To validate a new email address:

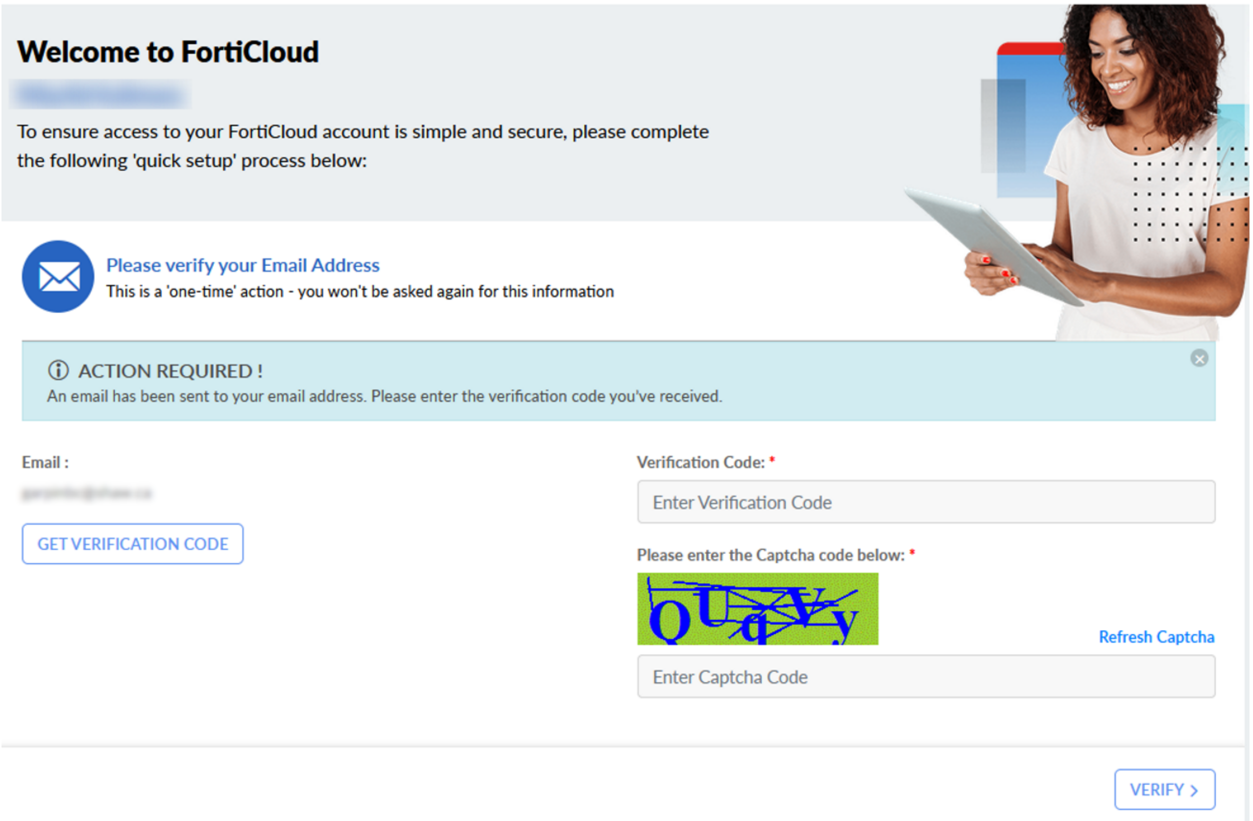
1. Go to www.forticloud.com and click *Login*.
2. Select *IAM user*.



3. Enter the *Account ID* or *Alias ID*, as well the *Username* and *Password* provided by the account administrator. The *Welcome to FortiCloud* page opens.
4. Click *Get Verification Code*. A verification code is emailed to you.

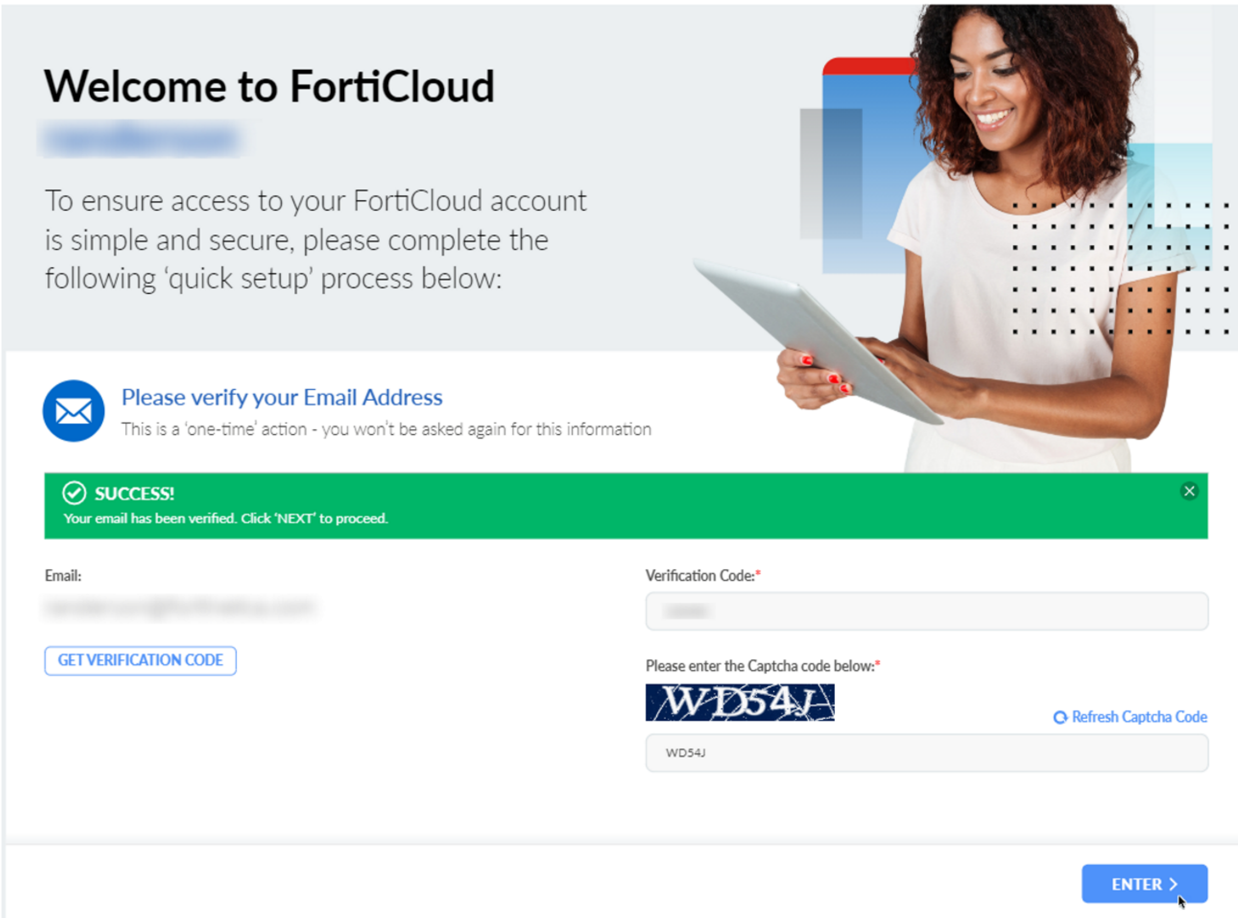


5. Enter the codes in the *Validation Code* and *Enter Captcha Code* fields.



6. Click *Verify*. The *Welcome to FortiCloud* page opens.

7. Click *Enter*.



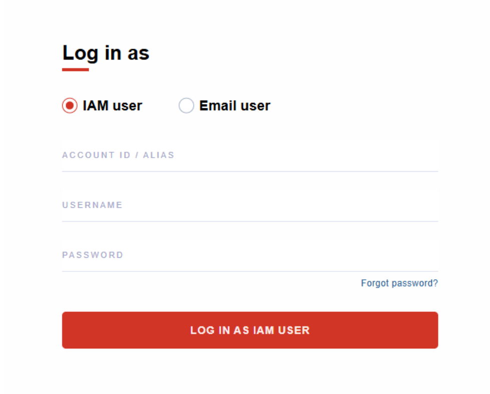
Logging in as an IAM user

Users can access FortiCloud services and support as an IAM user with their IAM user credentials.

While it is optional, it is strongly recommended that you enable Two-Factor Authentication (2FA). If the administrative account enforces 2FA for the entire account, IAM users should complete 2FA setup after logging in to www.forticloud.com for the first time. See Two-Factor Authentication on page 77.

To log in as an IAM user:

1. Go to www.forticloud.com.
2. Select *Login*. The log in portal opens.
3. Select *IAM user*.



4. Enter your credentials in the *Account ID/Alias*, *Username*, and *Password* fields.

> You can enter either your account ID number or alias in the *Account ID/Alias* field.
>
> Regardless of if you are logging into an OU or local account, the *Account ID/Alias* required on the login page refers to that of the IAM user you are logging in as. It does not refer to the ID of the account you will select once you have logged in.

> When entering your password, select the eye icon to show or hide your password.

5. Click *Log In as IAM User*. The default page will be displayed.

Migration of existing users

The new permission profile model is replacing the previous portal permission model. While the portal permission model had portal permissions configured directly for an IAM user, user group, IdP role, or API user, the permission profile is configured separate of users and can be linked to multiple IAM users.

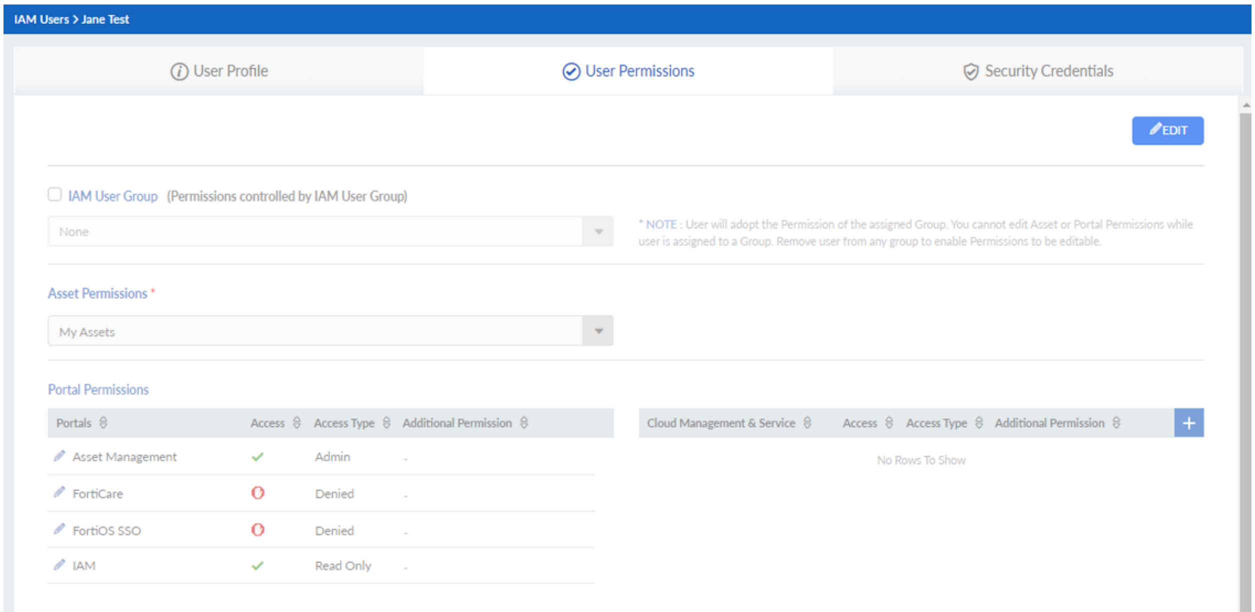
To effectively convert the Identity & Access Management portal to the new permission profile model, any pre-existing IAM users, user groups, and so on will automatically be converted to the new model. This migration of users will result in the existing IAM user being split into an IAM user and a permission profile following the conversion to the new permission profile model. Therefore, any permissions assigned to the IAM user will be used to create a new permission profile containing the same portals and permissions that is automatically assigned to the IAM user.

> Each pre-existing IAM user with unique portal permissions will result in a unique permission profile following the migration. For example, if before the conversion to the new model there are five IAM users, each with independently created portal permissions assigned, then there will be five IAM users and five permission profiles following the migration.

Example of IAM user migration to the new permission profile model

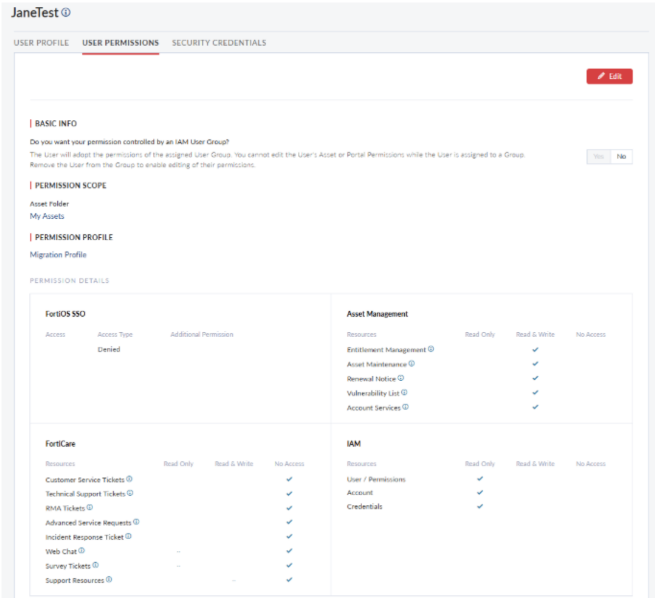
The following scenario describes the migration of an IAM user to the new permission profile model.

Before the conversion to the new model, an IAM user named Jane Test has portal permissions directly assigned to it. These portal permissions allow administrative access to the Asset Management portal and read only access to the IAM portal.

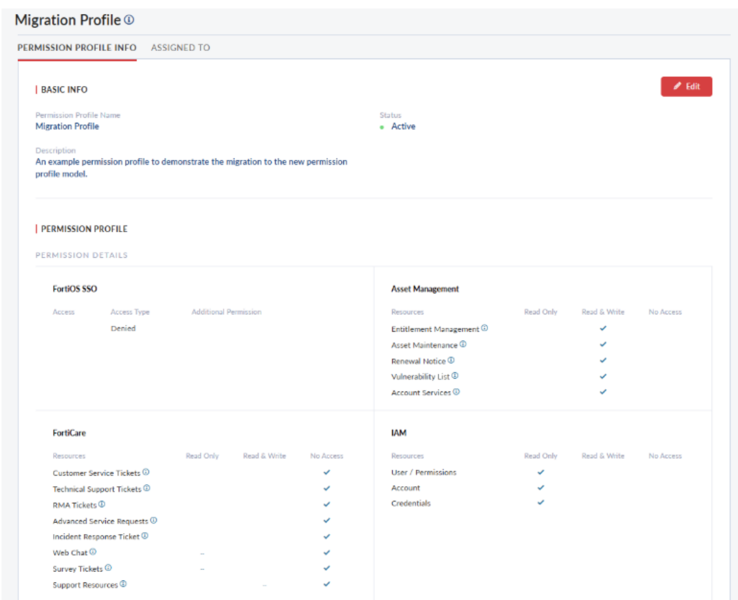


Following the conversion to the new model, the Jane Test IAM user can be found in the *IAM Users* page. It has been migrated forward with the same *User Profile* information but it no longer has portal permissions directly assigned to it. Instead, Jane Test is assigned to a permission profile that has automatically been created when the conversion occurred. The permission profile defines the same permissions and access as the portal permissions before the conversion: administrative access to the Asset Management portal and read-only access to the Identity & Access Management portal.

For the purpose of this example, the permission profile has been named *Migration Profile* for clarity. When migration of an IAM user occurs following the conversion in a real-world scenario, it will not follow this naming convention.



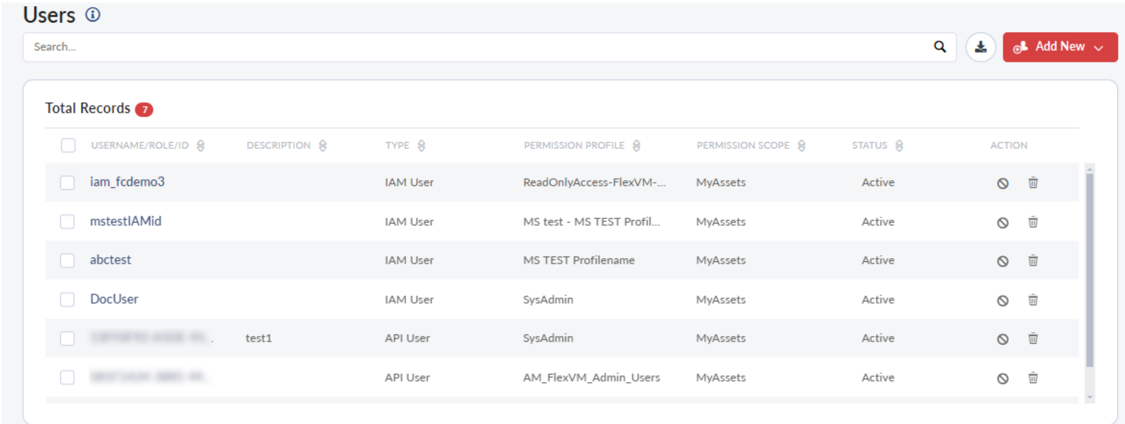
You can review and edit the permission profile by selecting it from the *Permission Profiles* page.



API users

API users can access FortiCloud services through the API. API users can only use OAuth 2.0 for authentication then access web service APIs provided by each FortiCloud service portal.

You can disable or delete a user directly from the *Users* page. Click the *ID* to update the user's status and permissions. The *Users* page can be accessed from the left-hand navigation menu. See Identity & Access Management Portal on page 10.



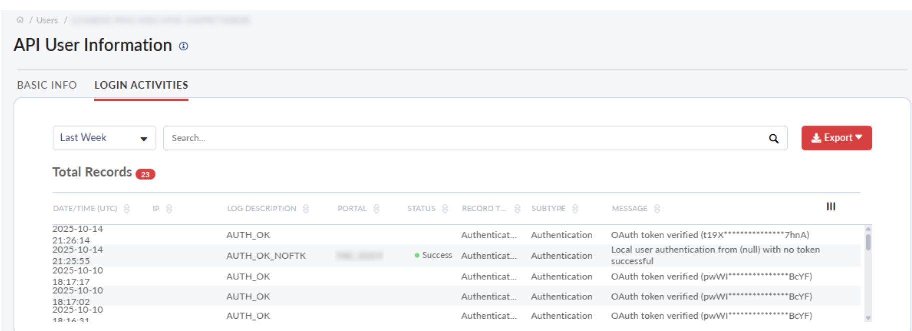
This section contains the following topics:

- Adding an API user on page 43
- Managing API users on page 44
- Accessing FortiAPIs on page 45

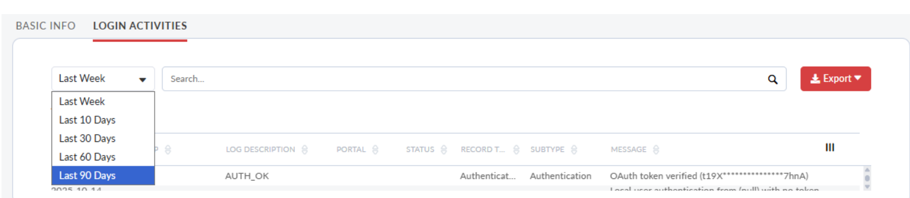
Login Activities

When viewing an API user from the Users page, the user details are displayed in the *Basic Info* tab. Navigating to the *Login Activities* tab will display a list of login activities performed by the API user in the past 90 days.

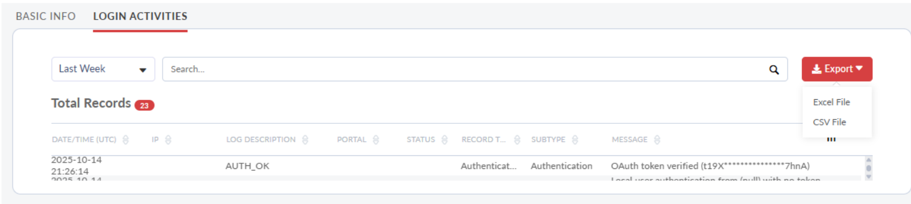
Email and IAM user login activities can be viewed in the *Security Credentials > Login History*. See Login History on page 85.



Select the duration dropdown menu to define the time period included in the table.



Select the *Export* dropdown menu to select the file type you would like to export the login history list as to your device.



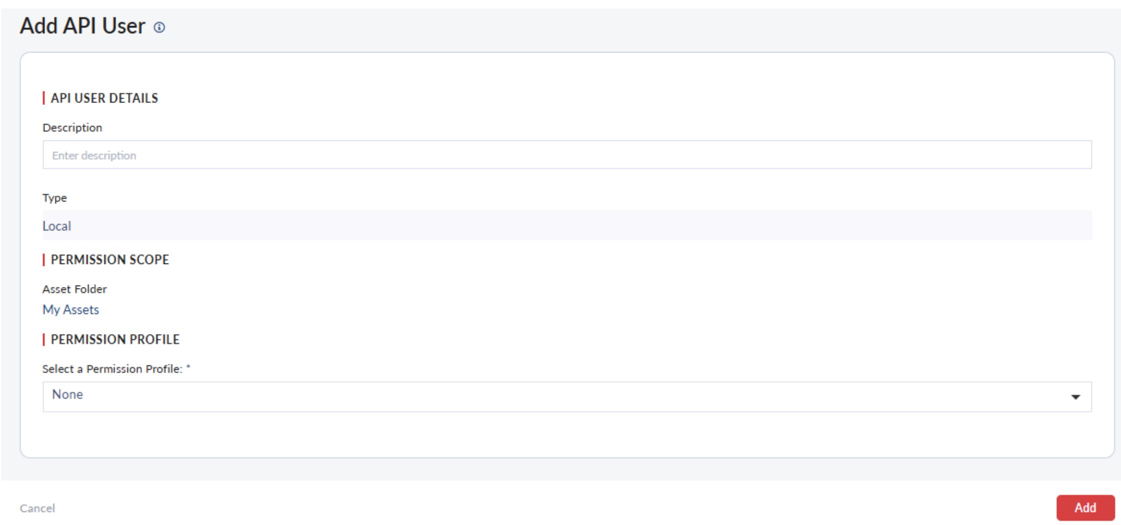
Adding an API user

Use *Add New* to generate API user IDs and passwords. IAM users can use their credentials to obtain an OAuth token from FortiAuthenticator.

Before you can create API users, you must create a permission profile. See Permission profiles on page 17.

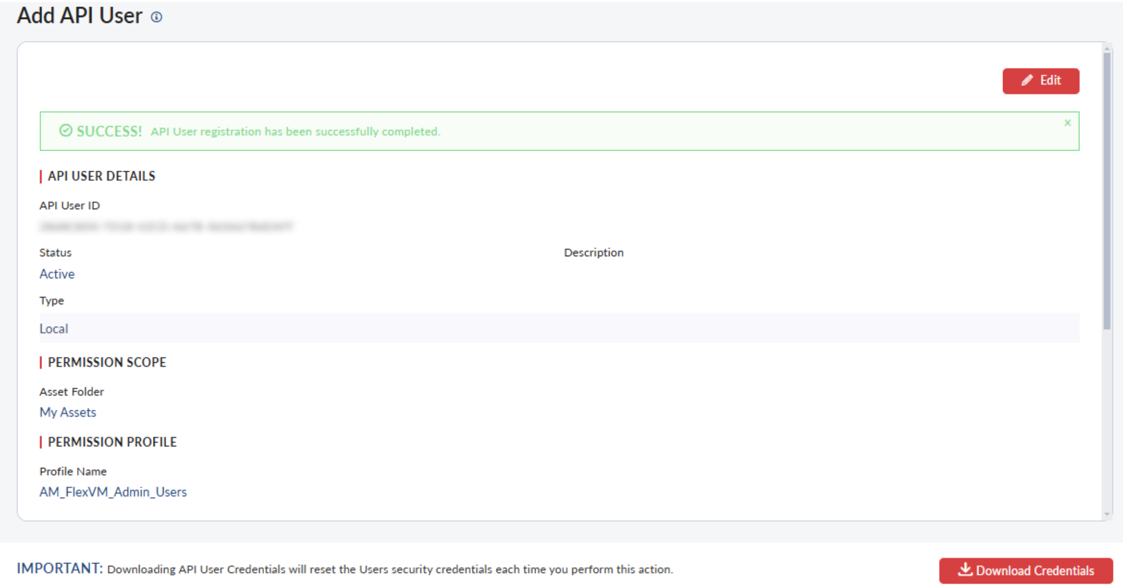
To create an API user:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Click *Add New > API User*.



3. (Optional) In the *Description* field, enter a description of the user.
4. Select a permission profile from the *Permission Profile* dropdown list.

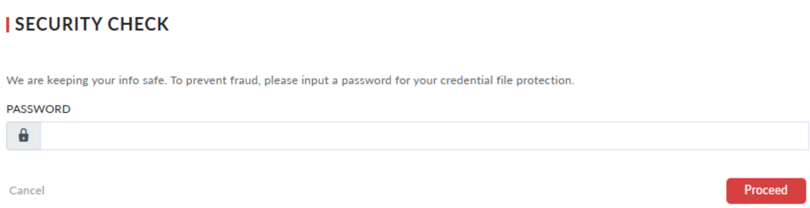
5. Click *Add*.



6. Click *Download Credentials*. The *Security Check* dialog opens.

Downloading API user credentials will reset the user's security credentials each time you perform this action. The API user only exists within the account scope.

7. Enter your password to protect the credential file and click *Proceed*. The credentials are downloaded to your computer.



8. When API requests need to request authorization tokens, they can use the API user's credentials file. See Accessing FortiAPIs on page 45.

Managing API users

You can delete or temporarily disable an API user by selecting the user from the *Users* page.

You can also update multiple user statuses at once from the *Users* page. See Bulk updating users on page 53.

The *Users* > *API user* page displays the following information:

Column	Description
API User ID	The user's API ID. Click the user ID to update the user details.
Description	A description of the user.
Updated	The date the user profile was updated.
Status	The status (*Active*/*Disabled*)

Updating API user permissions

To disable an API user:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Select an *ID* in the list. The *API User Information* pane opens.
3. Click *Disable*. The *Permission Changed Confirmation* dialog opens.
4. Click *Confirm*.

To activate an API user:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Select an *ID* in the list. The *API User Information* pane opens.
3. Click *Edit*.
4. From the *Status* dropdown, select *Active*.
5. Click *Update*.

To update an API user's portal permissions:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Select an *ID* in the list. The *API User Information* pane opens.
3. Click the *Edit* button.
4. Select a new *Permission Profile*.
5. Click *Update*. The update will immediately take effect, even with the same token and credential file.

Accessing FortiAPIs

API specifications are located in the Fortinet Developer Network. To access the APIs, click *FortiAPI* and select a product from the list.

The Fortinet Developer Network (FNDN) can only be accessed if you have an account registered. See Accessing Fortinet Developer Network in the FortiGate Administration Guide for information on registering for an FNDN account.

Authentication and authorization

To obtain an OAuth token, an API user must send their credentials to the FortiAuthenticator API. Once the token is obtained, in all subsequent requests to any other FortiCloud API, include the token in request's *Authorization* header using the *Bearer* scheme, as in the example below:

```
Authorization: Bearer jVSjRMx5hpw5ZfASk8Hjo16X
```

For information about creating an OAuth token, see the *FortiAuthenticator REST API Solution Guide* > *OAuth server token (/oauth/token/)*.

To obtain an access token:

1. Log in to the IAM portal as an IAM User with SysAdmin permissions.
2. Create an IAM API user. See Adding an API user on page 43.
3. Download the IAM API user credentials (API Key, Password, client ID).
4. Open the ZIP file that contains the credentials. When prompted, enter the password that was used to encrypt the file. Alternatively, use a key management system.

   Do not extract the credentials in the ZIP and save them to a plain TXT file. Unencrypted credentials at rest are a security risk.

5. In your script or an API client such as Postman, configure it to save the response from the next command as an environment variable.

   Run scripts as the correct username. Different systems should only use the environment variable under their own username. Unrestricted access to this environment variable and inaccurate username logging are a security risk.

6. Request the access token. For example:

   On Mac/Linux:

```
$curl  -X POST https://customerapiauth.fortinet.com/api/v1/oauth/token/ -H 'Content-Type:
application/json' -d '{"username":"<apiId>","password":"<password>","client_
id":"<clientId>","grant_type":"password"}'
```

   On Windows:

```
$ curl -X POST "https://customerapiauth.fortinet.com/api/v1/oauth/token/" --header "Content-
Type: application/json" --data "{""username"": ""<apiId>"", ""password"": ""<password>"",
""client_id"": ""<clientId>"", ""grant_type"": ""password""}"
```

   where:

   - `<apiId>` is the API user ID.
   - `<password>` is the API user's encrypted password that is inside the TXT file in the credentials ZIP file.
   - `<clientId>` is the FortiCloud service ID that the API calls will need authorization for; portals that the API user had permissions for when the account was created are listed in the credentials ZIP file, such as `"iam"`, `"assetmanagement"`, or `"forticameracloud"`.

   If successful, then the response code is 200 OK with a JSON body such as:

```
{
    "access_token": "<access_token>",
    "expires_in": 3660,
    "token_type": "Bearer",
    "scope": "read write",
    "refresh_token": "<refresh_token>",
    "message": "successfully authenticated",
    "status": "success"
}
```

where:

- <access_token> is a token that you must include in all subsequent other FortiCloud API calls (except for calls to refresh the token) to authenticate each request.
- `expires_in` is the access token's TTL in number of seconds.
- <refresh_token> is a special access token that you must include if you send a request to the IAM API with to extend an existing session and prevent timeout of the regular access token.

If authorization fails, then the response code is 400 Bad Request (not 401 Unauthorized) with a body that varies, such as:

```
{
    "error": "invalid_grant",
    "error_description": "Invalid credentials given."
}
{
    "error": "unsupported_grant_type"
}
curl: (6) Could not resolve host: application
{
    "error": "unsupported_grant_type"
}
curl: (3) URL rejected
```

Error messages may indicate a bad `password`/`access_token`/`grant_type`, but could also indicate invalid syntax such as incorrect quotes or escape sequences for special characters on your Linux/Mac/Windows command line or SDK. For JSON and strong passwords in any environment, generally the following reserved characters may require an escape sequence:

"`'~^&!/*:;

See the documentation for your CLI or SDK.

To show the HTTP response code and more details during troubleshooting, add the curl argument "-v".

7. Make API calls to other FortiCloud services before the access token expires. To authorize each request, include the header Authorization: Bearer <access_token> where the access token is from the previous step's response.
8. Refresh the token. For example:

   On Mac/Linux:

```
$ curl -X POST https://customerapiauth.fortinet.com/api/v1/oauth/token/ --header 'Content-
Type: application/json' --data '{"client_id": "<client_id>", "grant_type": "refresh_token",
"refresh_token": "<refresh_token>"}'
```

On Windows:

```
$ curl -X POST "https://customerapiauth.fortinet.com/api/v1/oauth/token/" --header "Content-
Type: application/json" --data "{""client_id"": ""<client_id>"", ""grant_type"": ""refresh_
token"", ""refresh_token"": ""<refresh_token>""}"
```

where:

- <client_id> is the FortiCloud service ID that the token is authorized to access.
- <refresh_token> is the special access token that you received from the initial authorization; it has permission to extend the session and prevent timeout of the regular access token.

If successful, then the HTTP response code is 200 OK with a JSON body in the following format:

```
{
    "access_token": "<access_token>",
    "expires_in": 3660,
    "token_type": "Bearer",
    "scope": "read write",
    "refresh_token": "<refresh_token>",
    "message": "Token has been refreshed successfully",
    "status": "success
}
```

If the refresh fails, then the HTTP response code is 400 Bad Request with a JSON body in the following format:

```
{
    "error": "invalid_grant"
}
```

Various causes for a failed response exist, such as reusing a refresh token or an expired access token session. If that happens, you must return to the previous step for the initial authentication.

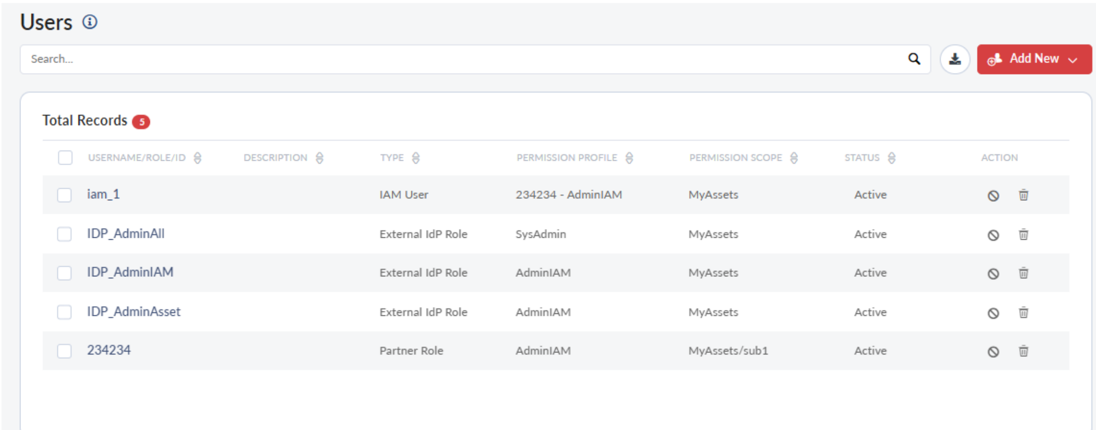
External IdP roles

External IdP roles allow external users to log in to a cloud portal using their company’s user credentials with a third-party ID provider. External IdP users are authenticated by their company's ID provider. After the user is authenticated, they can access the cloud application based on their role.

For more information on enrolling for and configuring external IdP, see External IdP on page 103.

When an IdP user clicks *Logout*, they are only logging out of the portal, not their company's ID provider.

If applicable, the external IdP roles can be accessed from the *Users* page in the left-hand navigation menu. See Identity & Access Management Portal on page 10.



FortiCloud external IdP integration supports only FortiCloud services. FortiGate directly supports SAML SSO which can be enabled in FortiOS.

This section contains the following topics:

For additional information on external IdP roles, see External IdP role FAQ on page 123.

Adding external IdP roles

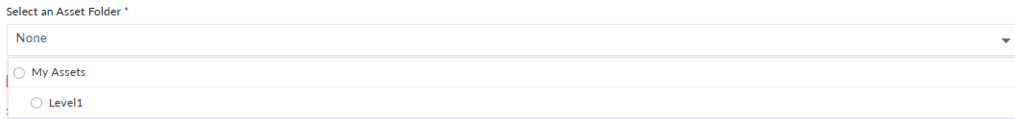
Create external IdP roles to allow users to log in to a cloud portal with their organization's user credentials using a third-party ID provider.

Before you can create external IdP roles, you must create a permission profile. See Permission profiles on page 17.

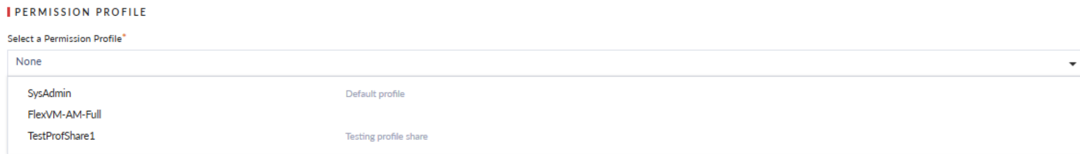
To add an external user role:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Click *Add New > External IdP Role*. The *External IdP Role* page opens.
3. In the *Role Name* field, type the name of the role. For more information on what to name the role, see Adding external IdP roles to the application on page 110.
4. (Optional) In the *Description* field, enter a description of the role.

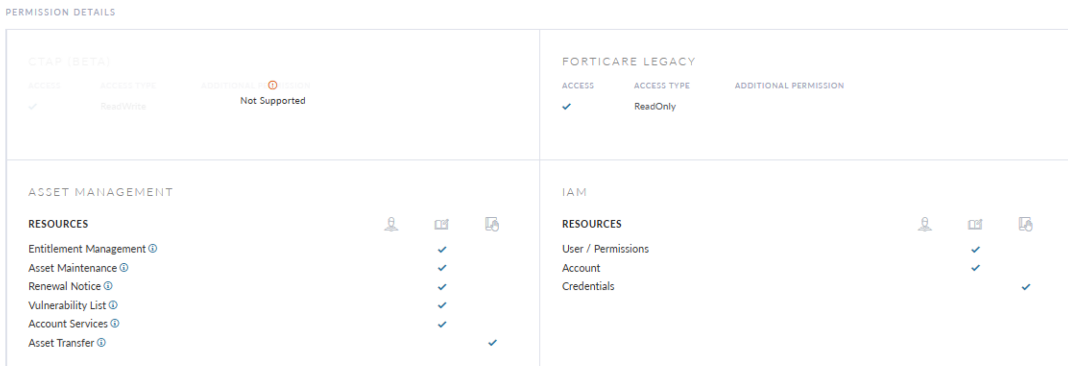
5. From the *Permission Scope* dropdown, select an asset folder.



6. In the *Permissions Profile* dropdown, select a profile.



The *Permission Details* assigned to the selected profile are displayed.



If the *SysAdmin* profile is selected, a message will display instead of portal cards to denote that the user has full access to the Asset Management, IAM, and FortiCare portals. *SysAdmin* has access to *Assets&Accounts* and *Support* but does not provide access to *Cloud Management* or *Cloud Services*. See Creating a permission profile on page 21.

If the permission profile selected includes portals that do not support external IdP, the portals will be marked as *Not Supported*.

7. Click *Add Role*.

Managing external IdP roles

You can manage external IdP roles from the *Users* page, including enabling, disabling, and deleting users.

To delete a role:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Select a role from the list.
3. Click *Delete*. The *Delete Third Party IdP Role(s)* dialog is displayed.
4. Click *Confirm*.

To disable a role:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Select a role from the list.
3. Click *Disable*. The *Disable User Third Party IdP Role(s)* dialog is displayed.
4. Click *Confirm*.

To enable a role:

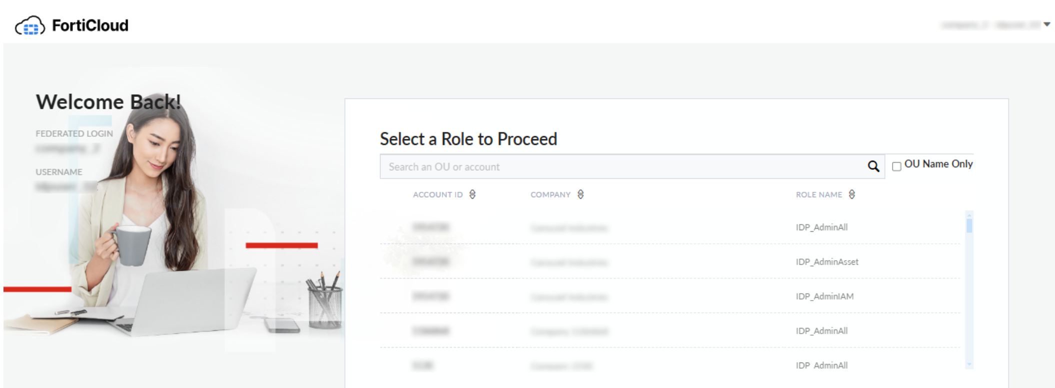
1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Double-click the disabled role. The *Manage External IdP Roles ><name>* pane opens.
3. Click *Edit*.
4. From the *Status* dropdown, select *active*.
5. Click *Update*.

Selecting IdP roles

An external user can be assigned to more than one IdP role. When a user logs into a cloud portal through a third-party ID provider, their user account is mapped to their IdP roles in the portal.

After the user logs in with the third-party ID provider, the roles connected to the user's account determines their access to the portal.

- If no roles are assigned to the account, a blocker message appears.
- If only one role is assigned to the account, the user proceeds directly to the portal.
- If multiple roles are assigned to the account, the *Select a Role to Proceed* page opens, and the user must select a role before proceeding to the portal.



Logging into an IdP role

Users can access FortiCloud using external IdP roles when logging in with their company's ID provider.

To access the external IdP role:

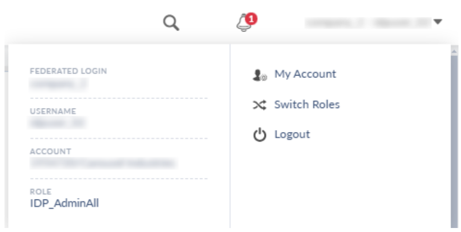
1. Log in using your company's ID provider. The log in portal opens.
2. Select the *Service Provider*.
3. Select *External IDP Role*. The roles available based on your credentials are displayed.
4. Hover over the role you want to choose and click *Select*.
   The *Dashboard* is displayed.

Switching from an IdP role

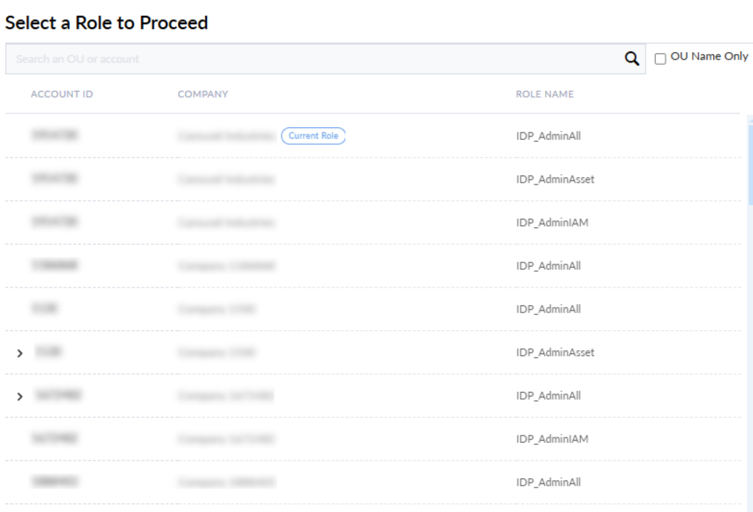
If you are logged into an external IdP role, you can switch to another linked role.

To switch to an IdP role:

1. Click the profile menu in the top right.



2. Select *Switch Roles*. The *Select a Role to Proceed* dialog is displayed.



3. Hover over the role you want to change to and click *Select*.
   You will be redirected to the *Dashboard* of the selected account.

Partner roles

A Partner role refers to the specific function that a partner assumes within a business relationship or collaborative venture. It provides a standardized and secure way for customers to collaborate with partners, replacing legacy mechanisms with a more scalable and manageable model.

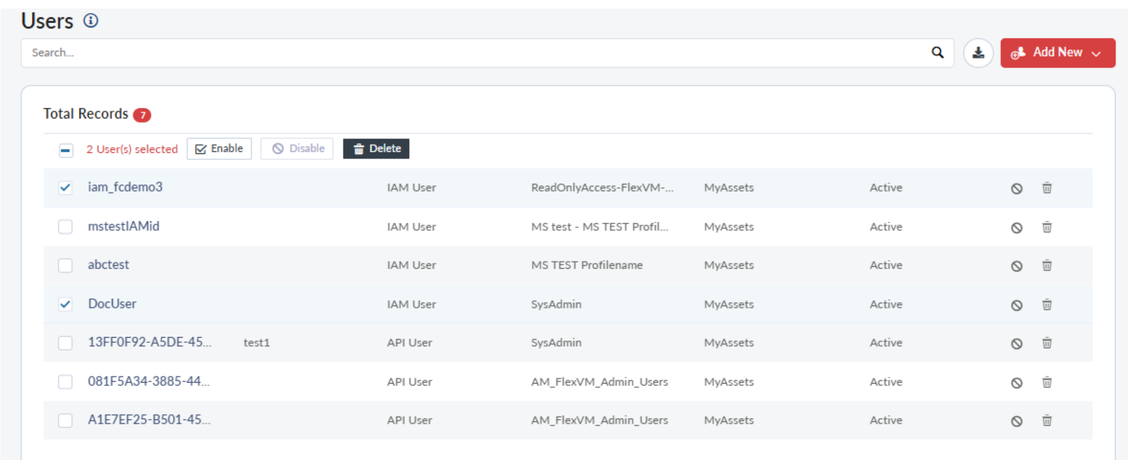
For information on Partner roles, see the Partner Administration Guide.

Bulk updating users

You can take bulk actions on users statuses, including enabling, disabling, and deleting users.

To enable users in bulk:

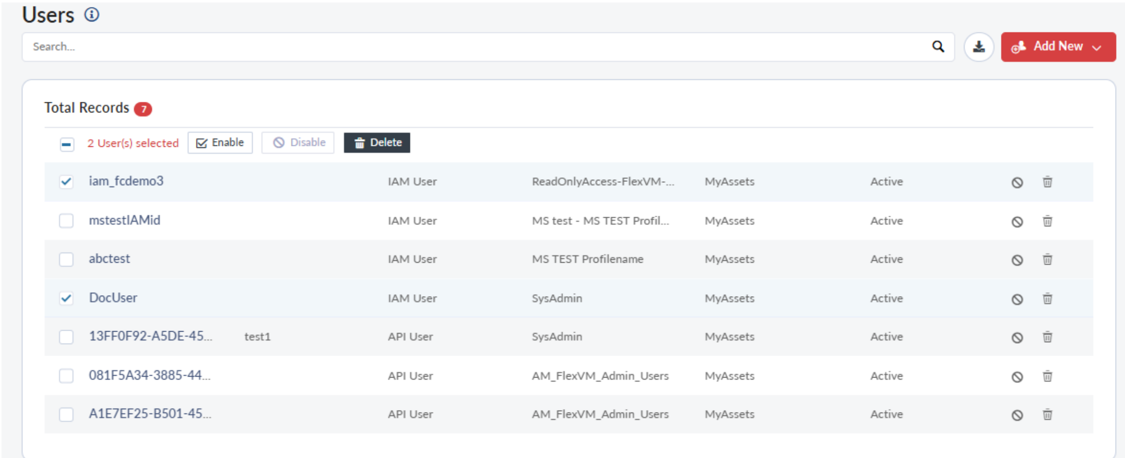
1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Select the users you want to enable. The bulk action buttons are displayed.



3. Click *Enable*. The *Confirm to Enable User(s)* dialog is displayed.
4. Click *Yes, I want to continue*.

To disable users in bulk:

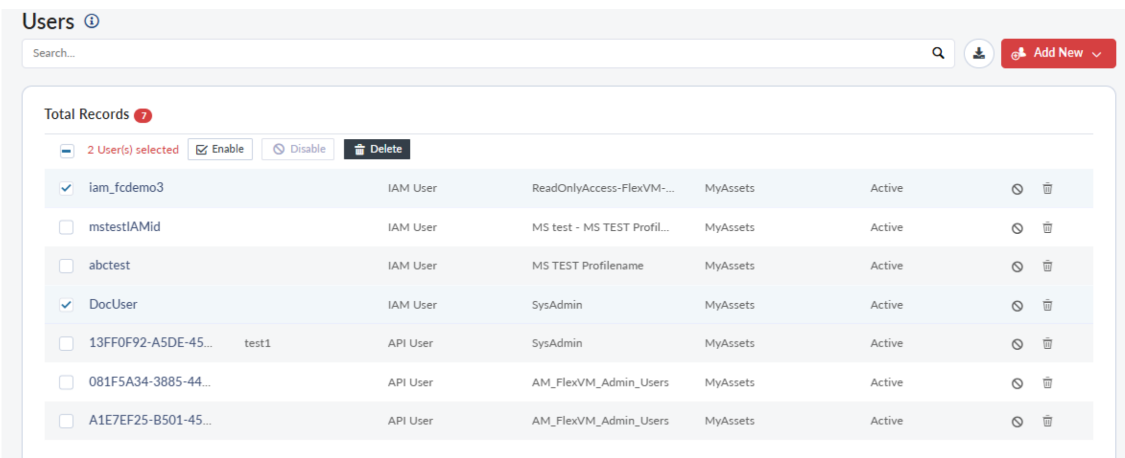
1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Select the users you want to disable. The bulk action buttons are displayed.



3. Click *Disable*. The *Confirm to Disable User(s)* dialog is displayed.
4. Click *Yes, I want to continue*.

To delete users in bulk:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Select the users you want to delete. The bulk action buttons are displayed.

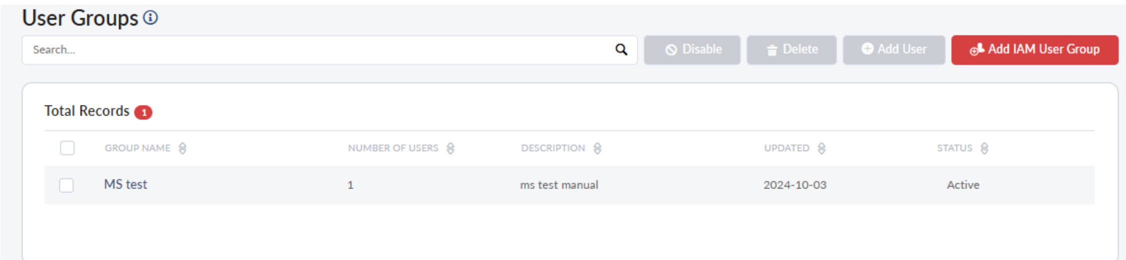


3. Click *Delete*. The *Confirm to Delete User(s)* dialog is displayed.
4. Click *Yes, I want to continue*.

User groups

User groups save time assigning asset and portal permissions to users. Use a group to create sets of conditions and then assign users to the group. A user can only belong to one group at a time.

The *User Groups* page can be accessed from the left-hand navigation menu. See Identity & Access Management Portal on page 10.



This section contains the following topics:

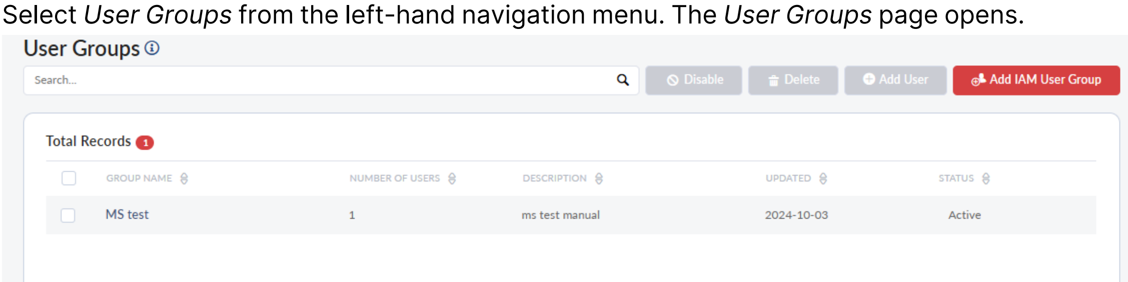
Adding an IAM user group

Create a group of asset and portal permissions, and then assign users to the group.

Before you can create IAM user groups, you must create a permission profile. See Permission profiles on page 17.

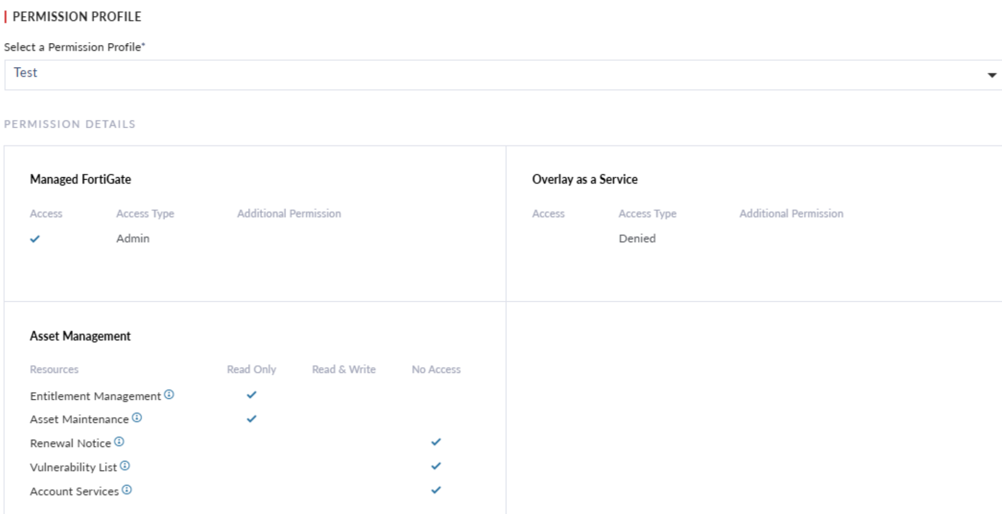
To create a user group:

1. Select *User Groups* from the left-hand navigation menu. The *User Groups* page opens.



2. Click *Add IAM User Group*. The *IAM User Group Information* page is displayed.
3. In the *Group Name* field, enter a name for the group.
4. (Optional) In the *Description* field, describe the group.
5. (Optional) Set the *Status* to *Disabled*. The status is *Active* by default.
6. Click *Next*.

7. From the *Permission Scope* dropdown, select an asset folder.
8. In the *Permissions Profile* dropdown, select a profile. The *Permission Details* assigned to the selected profile are displayed.



If the *SysAdmin* profile is selected, a message will display instead of portal cards to denote that the user has full access to the Asset Management, IAM, and FortiCare portals. *SysAdmin* has access to *Assets&Accounts* and *Support* but does not provide access to *Cloud Management* or *Cloud Services*. See Creating a permission profile on page 21.

9. Click *Next*. The *Add IAM user(s)* page is displayed.
10. Assign users to the group.
    a. Click *Add User*.
    b. (Optional) Click *Filter users by Group*, to view users in a group. Selecting a user in a group will remove the user from that group.
    c. (Optional) Enter a username in the search bar, and enter the user name. As you type, partial results are returned.
    d. Select the users and click *Add*.
    e. Click *Next*.The *Confirmation* page is displayed.
11. Review the group permissions, and click *Confirm*.
12. (Optional) Click *Add Another Group*.

Managing IAM user groups

You can update the members in a group and their permissions from the *Group Information* page. Use the *Status* setting to temporarily suspend a group's permissions.

The *User Group* page displays the following information:

Column	Description
Group Name	The name of the user group.
Number of Users	The number of users assigned to the group.
Description	The description of the group.
Updated	The date the group was updated.
Status	The group's status (*Active*/*Disabled*)

This section contains the following topics:

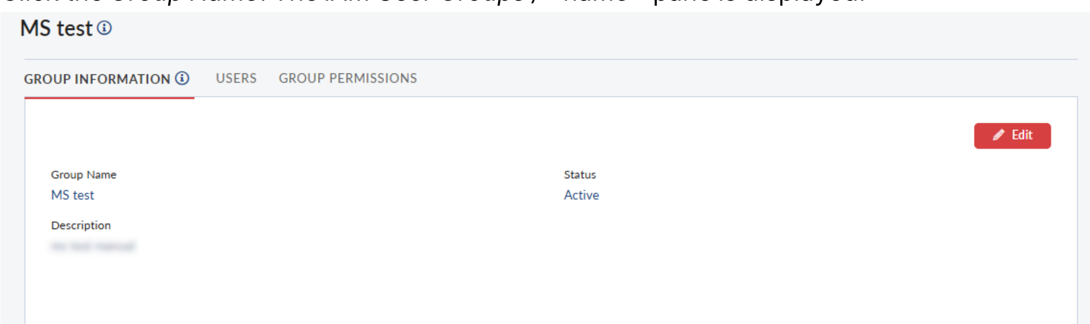
- Editing user groups on page 57
- Adding and removing users on page 58
- Updating user group permission on page 59

Editing user groups

User groups can be added, edited, disabled, or deleted from the *User Groups* page.

To update group details:

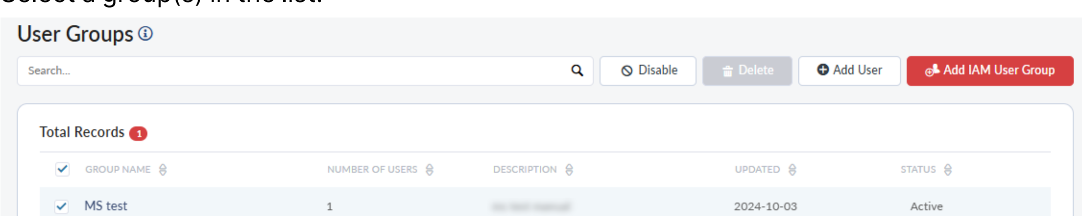
1. Select *User Groups* from the left-hand navigation menu. The *User Groups* page opens.
2. Click the *Group Name*. The *IAM User Groups / <name>* pane is displayed.



3. Click *Edit*.
4. Update the *Group Name*, *Status*, and *Description*, and then click *Update*.

To disable a user group:

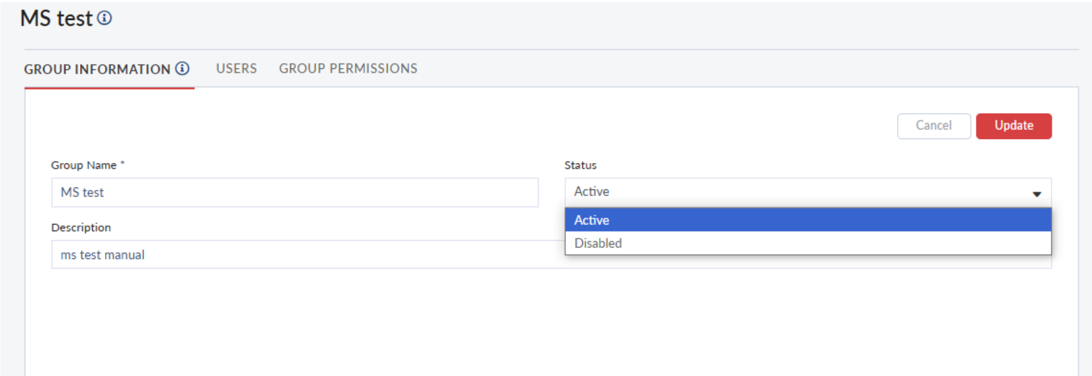
1. Select *User Groups* from the left-hand navigation menu. The *User Groups* page opens.
2. Select a group(s) in the list.



3. Click *Disable*. The *Permission Changed Confirmation* dialog opens.
4. Click *Yes*. The group's *Status* is changed to *Disabled* and the members' portal permissions are suspended until you re-activate the group.

To activate a user group:

1. Select *User Groups* from the left-hand navigation menu. The *User Groups* page opens.
2. Click the *Group Name*. The *IAM User Group > <group_name>* page is displayed.
3. Click *Edit*.
4. From the *Status* dropdown, select *Active*.



5. Click *Update*. The group's *Status* changes to *Active* and the members' portal permissions are restored.

To delete a user group:

You cannot delete a group that has members or a group with *Status* of *Disabled*.

1. Go to *IAM User Groups*.
2. Select the user group(s), and click *Delete*. The *Permission Changed Confirmation* dialog is displayed.
3. Click *Yes*. The group is removed from the list.

Adding and removing users

Add or remove users from the *Users* tab in the group details page.

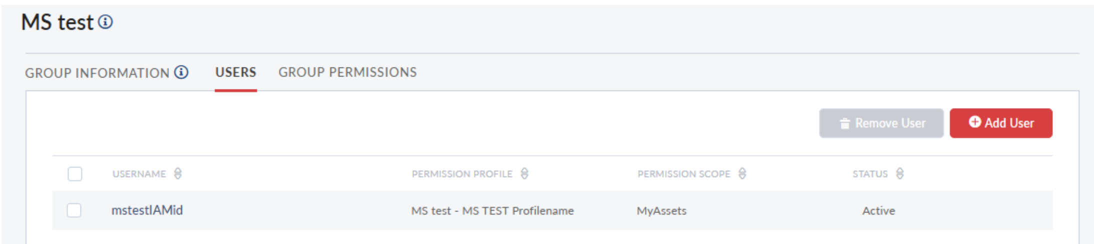
To add users to a group:

1. Select *User Groups* from the left-hand navigation menu. The *User Groups* page opens.
2. Select a user group, and click *Add User*. The *Add User:<group_name>* dialog appears.
3. Select users from the list. You can filter the list with the *Filter Users by Group* dropdown, or use the *Search* field to find a specific user.
4. Click *Add*.

You can also add users to a group from the *Users* tab in the group details.

To remove a user from a group:

1. Select *User Groups* from the left-hand navigation menu. The *User Groups* page opens.
2. Click the *Group Name*. The *Manage IAM User Group > <group_name>* page is displayed.
3. Click the *Users* tab.



4. Select the user(s), and then click *Remove User*. The *Remove User from User Group* dialog opens.
5. Configure the user's permission profile and click *Confirm*. If you do not configure the permissions the user will lose access to the portal.
6. Click *Confirm*.

Updating user group permission

The *Permission Scope* and *Permission Profile* of a user group can be edited from the *Group Permissions* tab. Any changes made to *Group Permissions* will automatically affect any users within the group.

To update portal permissions:

1. Select *User Groups* from the left-hand navigation menu. The *User Groups* page opens.
2. Click the *Group Name*. The *IAM User Group > <group_name>* page is displayed.
3. Click the *Group Permissions* tab.
4. Click *Edit*.
5. Select the *Permission Scope* from the dropdown list.
6. Select the *Permission Profile* from the dropdown list.
7. Click *Update*.

Migrating sub users

You can migrate a sub user account from FortiCloud and convert it to an IAM user. After a sub user is migrated, they are required to update their login credentials the next time they access a portal.

Most of the Fortinet Inc. Cloud portals support IAM users at this time.

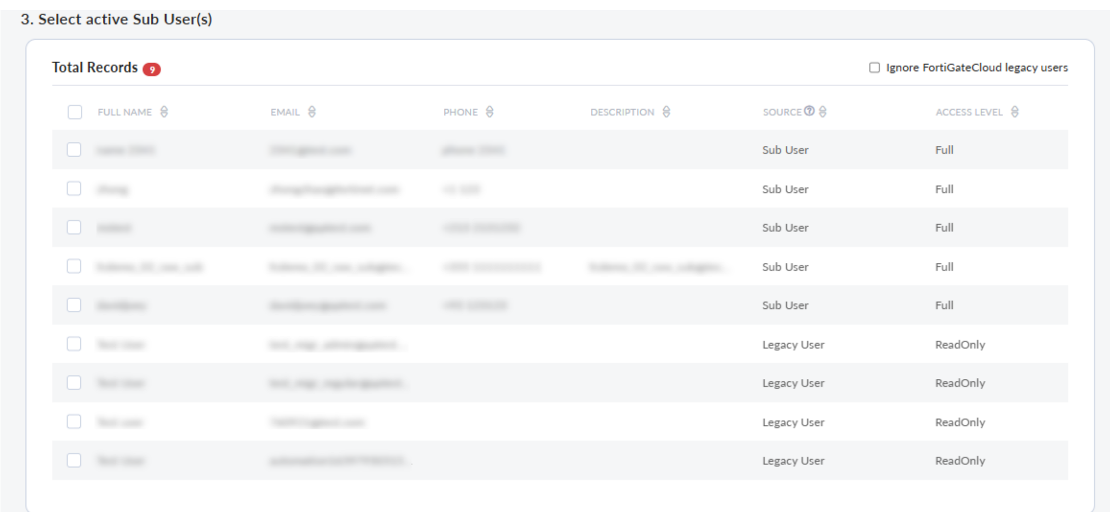
After migration is complete:

- The sub user is automatically removed from your FortiCloud account. A sub user cannot be restored in FortiCloud.
- The user's data and settings in the cloud portals are migrated with the user.

The *Migrate Sub Users* page can be accessed from the left-hand navigation menu. See Identity & Access Management Portal on page 10.

FortiGate Cloud Legacy users

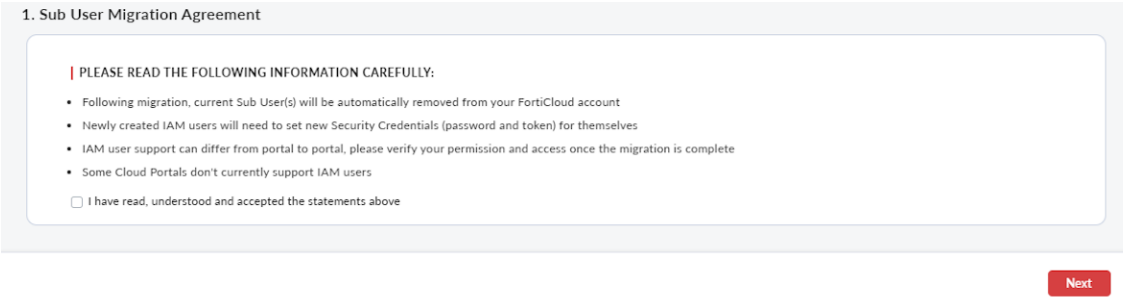
A FortiGate Cloud Legacy user can be migrated to an IAM user using the same process as a sub user. If Legacy users are available for migration, they will be listed in the active sub users page in the *Source* column. Select *Ignore FortiGate Cloud legacy user* to hide the *Source* column.



When you are migrating FortiGate Cloud Legacy users and assigning permission profiles for the new IAM users, if the permission profile selected does not have FortiGate Cloud permissions enabled, an error will display and the Legacy users cannot be migrated.

To migrate a sub or Legacy user:

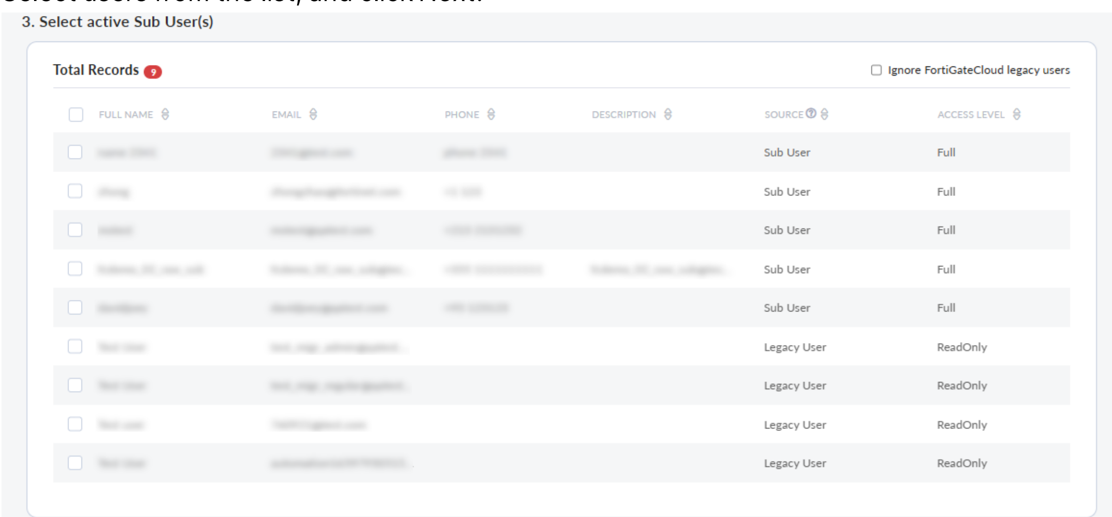
1. Select *Migrate Sub Users* from the left-hand navigation menu.



2. Read and accept the terms of migration, and click *Next*.
3. Select a User ID formatting option, and click *Next*.

Format	Description
Use email account name	Maps the user's FortiCloud *Email (Account ID)* to the IAM *User ID* field.
Use username as ID and filter with space	Maps the user's FortiCloud *Name* to the IAM *User ID* field.

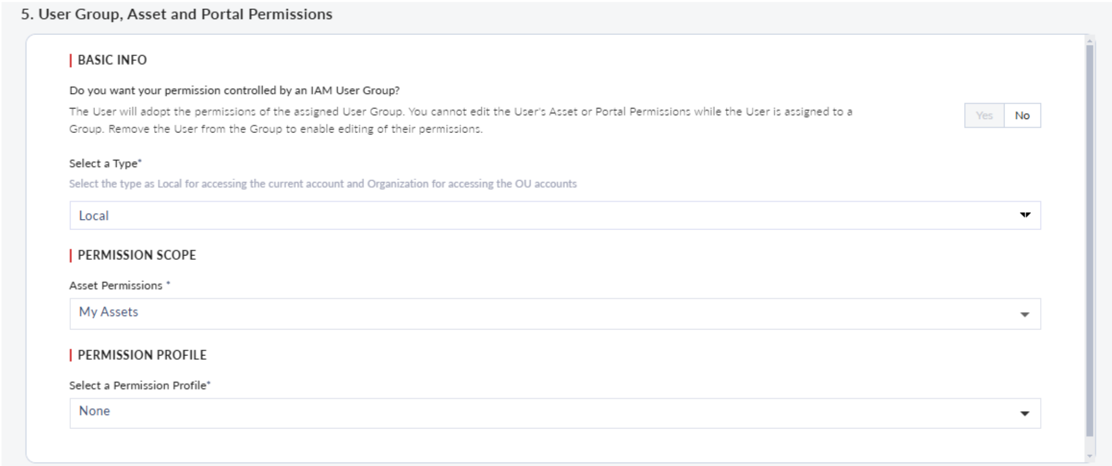
4. Select users from the list, and click *Next*.



The *User Details* page is displayed.

Select *Ignore FortiGate Cloud legacy user* to hide the *Source* column.

5. Review the user's details, and click *Next*. The *User Group, Asset and Portal Permissions* pane opens.



Legacy users being migrated must be assigned to a permission profile with FortiGate Cloud permissions enabled.

6. (Optional) Add the user to an IAM user group. See User groups on page 55.
   1. Select Yes from *Basic Info*, and select a group from the dropdown.
   2. Click *Next* to proceed to Step 10.
7. Select an asset folder from the *Asset Permissions* dropdown.
8. Select a permission profile from the *Choose A Permission Profile* dropdown.
9. Click *Next*. The *Confirmation of Sub User(s) to migrate* page is displayed.
10. Click *Confirm*. The *Confirmation* page is displayed.
11. Click *Download IAM User Credentials* and send them to the user.

Account management

Use the Account menu to update your account information, change your password and enable Two-Factor Authentication. To open the account menu, click the your account email at the top-right of the page.

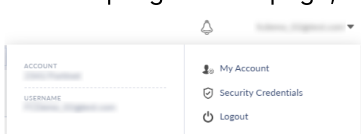
This section contains the following topics:

My Account

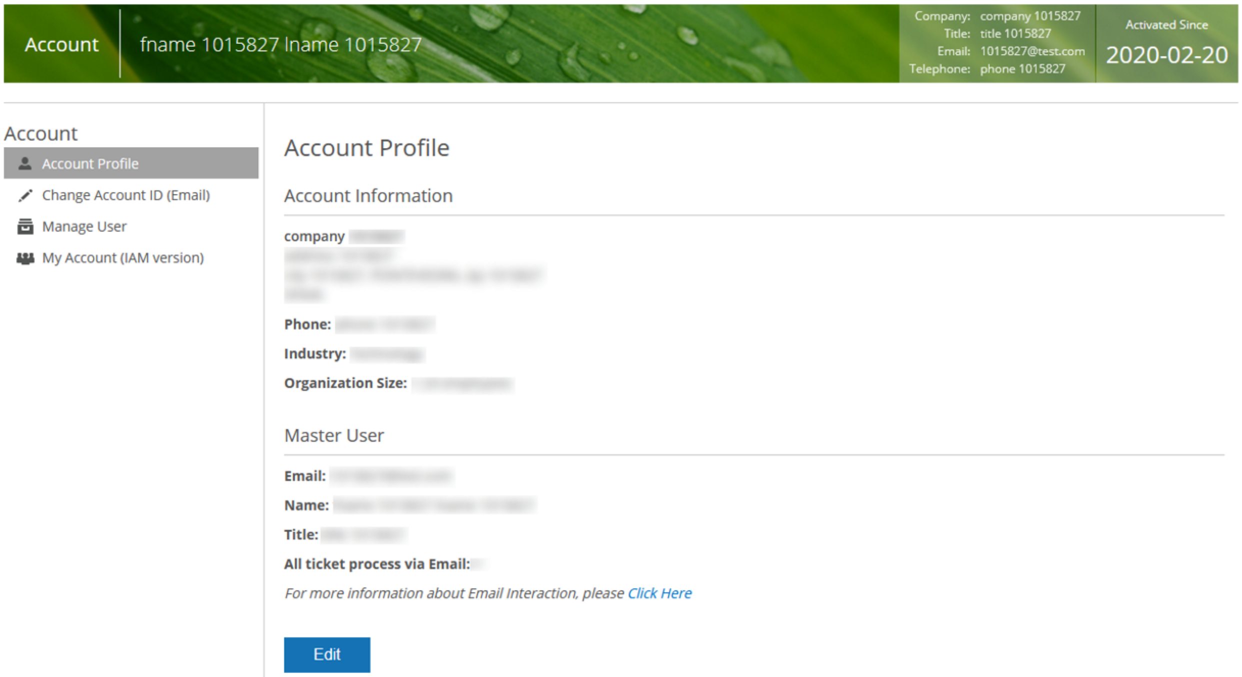
Use the *My Account* portal to update your account information and preferences. You can also use the portal to enable the Organizations feature.

To access the My Account portal:

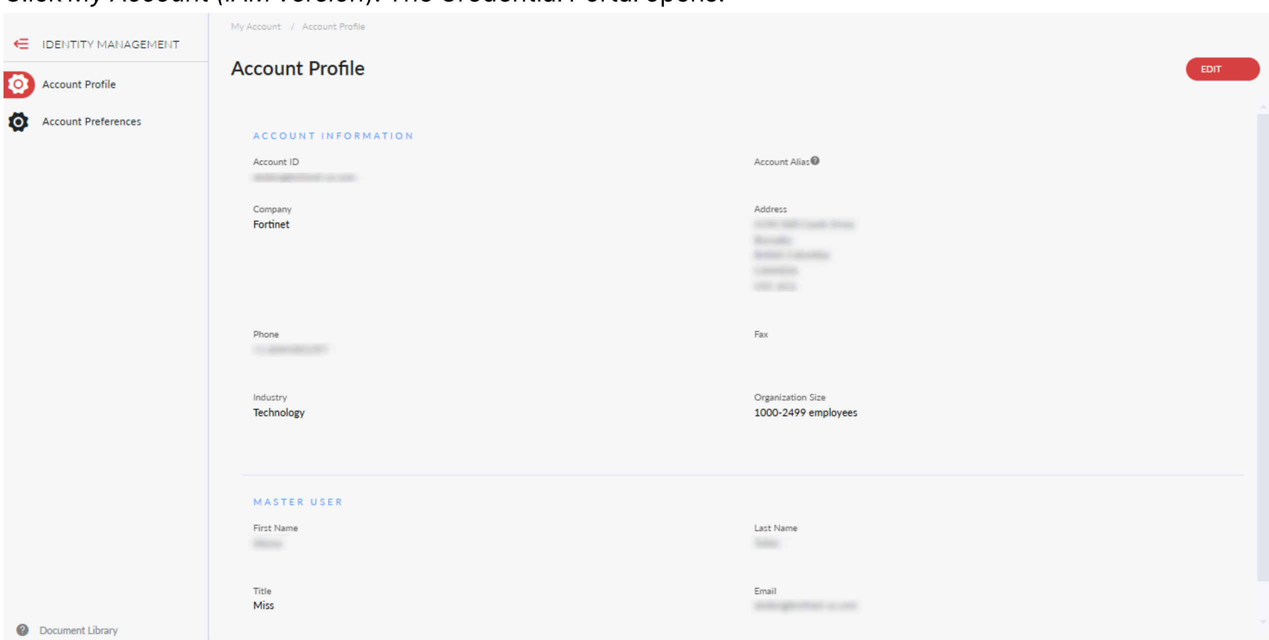
1. Log in to FortiCloud. The *Asset Management* portal opens.
2. At the top-right of the page, click the Account menu. This is your email address.



3. Click *My Account*. The *Account Profile* page opens.



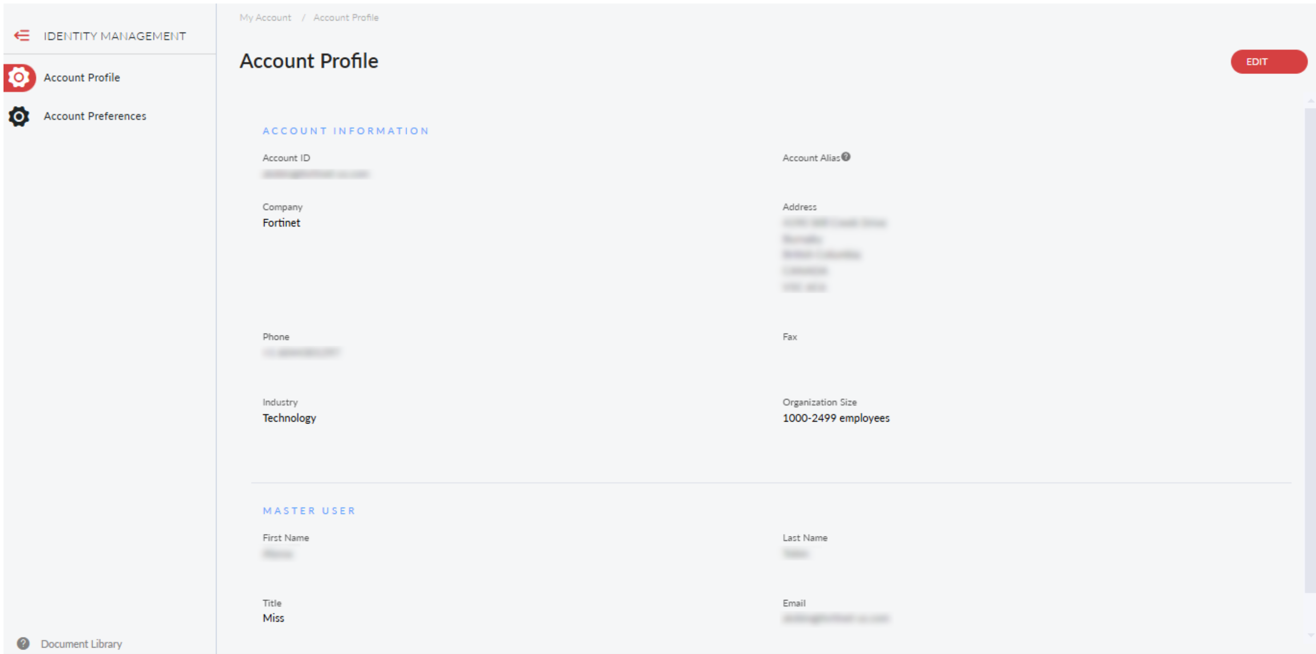
4. Click *My Account (IAM version)*. The Credential Portal opens.



Account Profile

The *Account Profile* page displays the *Account Information* such as the company name and address, as well is the name and contact information of the master user for the account. Only the master user can access the *Account Profile*.

The master user is the person who created the account. An account can only have one master user. You cannot change the master user of the account. Master users can add users to the account and assign roles, permissions, and assets to the users.



To edit the Account Profile:

1. Go to *Account Profile*.
2. Click *Edit*.
3. Update the account information and click *Update*.

Account Preferences

Use the *Account Preferences* page to enable ticket processing by email and link a partner to the account by default.

Ticket Processing

Allow Ticket Processing by Email enables Customer Support to manage your help desk processes via email as well as other built-in procedures. Ticket processing by email automatically routes tickets to the proper technician and updates your customer.

To enable ticket processing by email:

1. Go to *Account Preferences*.
2. Click *Edit*.
3. Select *Allow Ticket Processing by Email*.
4. Click *Update*.

Default Partner

You can select a partner to be linked to this account by default. You can change this selection at any time.

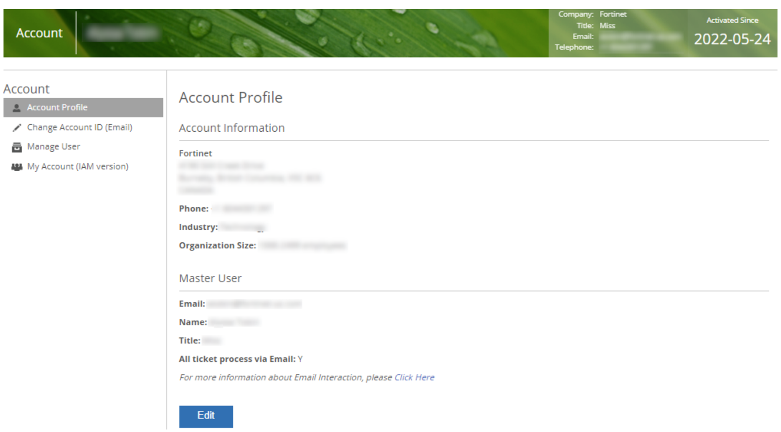
1. Go to *Account Preferences*.
2. Click *Edit*.
3. From the *Default Partner* dropdown, select a partner account from the list.
4. Click *Update*.

PSIRT Contact

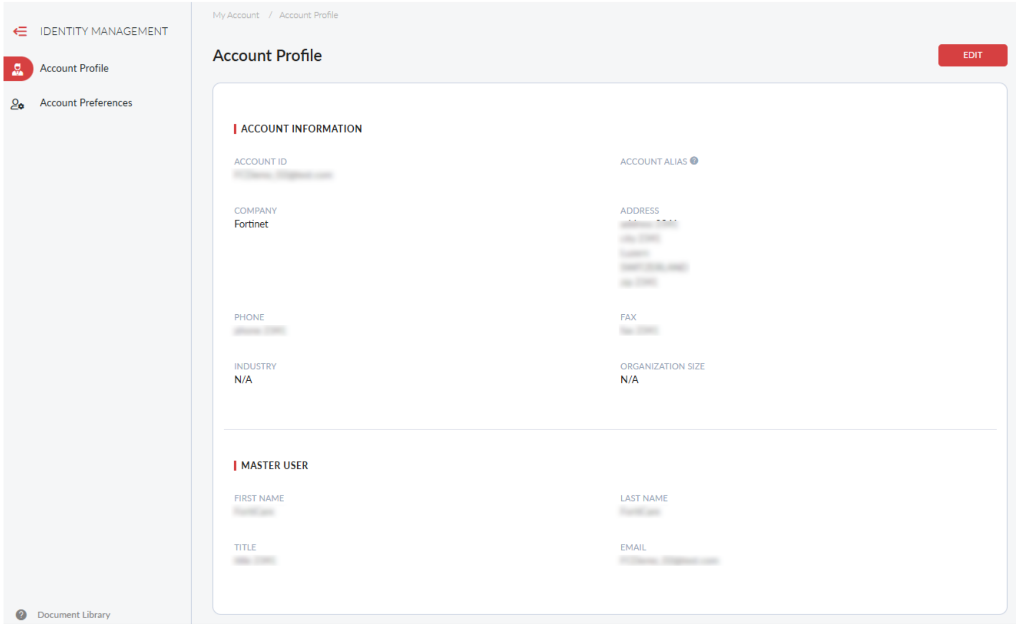
You can specify a *PSIRT Contact* to receive Monthly and Out-of-cycle Critical PSIRT Advisories. This ensures that the emails are directed to the appropriate contact.

To add a *PSIRT Contact*:

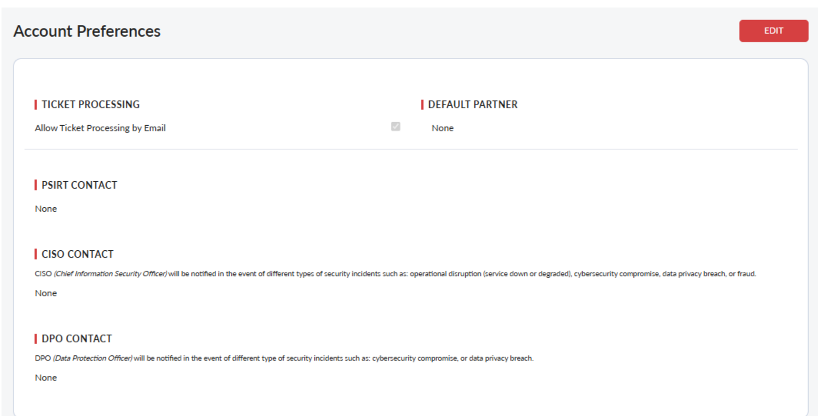
1. Log in as a Master Account user and go to *My Account*.



2. Select *My Account (IAM version)*.



3. Select *Account Preferences*.



4. Click *Edit*.
5. Add the contact in the *PSIRT Contact* field.
6. Click *Update*.

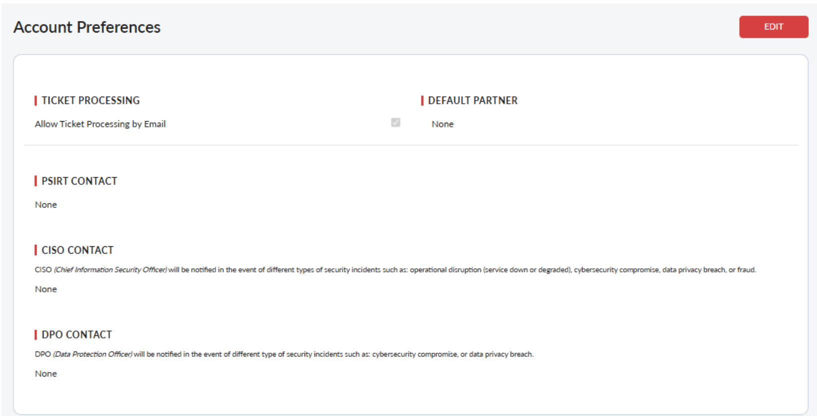
Company contacts for breach notifications

The contact information of your company's Chief Information Security Officer (CISO) and Data Protection Officer (DPO) can be added in the *Account Preferences* page:

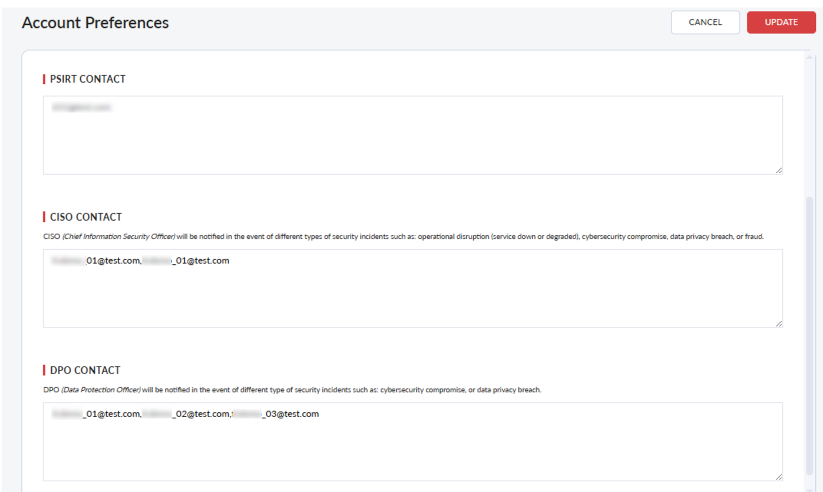
- The *CISO Contact* is intended for contact in the event of security incidents, such as operational disruption (service down or degraded), cyber security compromise, data privacy breach, fraud, and so on.
- The *DPO Contact* is intended for contact in the event of security incidents, such as cyber security compromise data privacy breach, and so on.

To update the CISO Contact:

1. Log in as a Master Account user and go to *My Account*.
2. Select *My Account (IAM version)*.
3. Select *Account Preferences*.



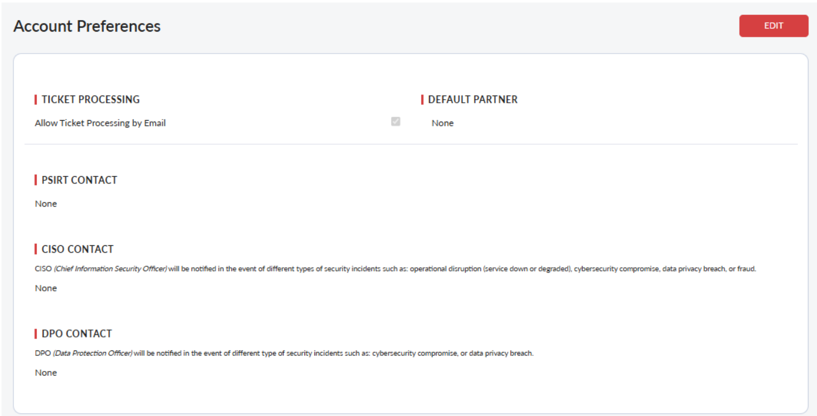
4. Click *Edit*.



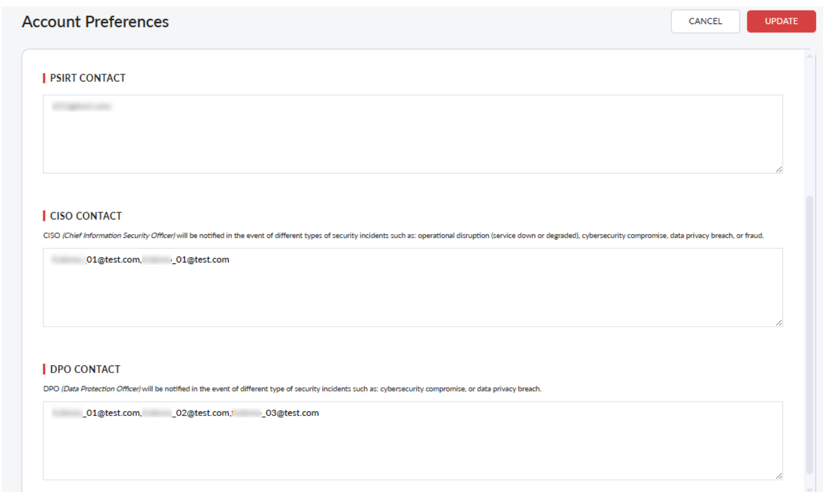
5. Add the contact in the *CISO Contact* field, with multiple entries separated by commas or semicolons.
6. Click *Update*.

To update the DPO Contact:

1. Log in as a Master Account user and go to *My Account*.
2. Select *My Account (IAM version)*.
3. Select *Account Preferences*.



4. Click *Edit*.



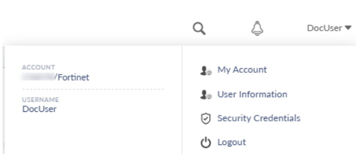
5. Add the contact in the *DPO Contact* field, with multiple entries separated by commas or semicolons.
6. Click *Update*.

Creating connected accounts (Partners)

For information on Partner connected accounts, see Partner roles on page 53.

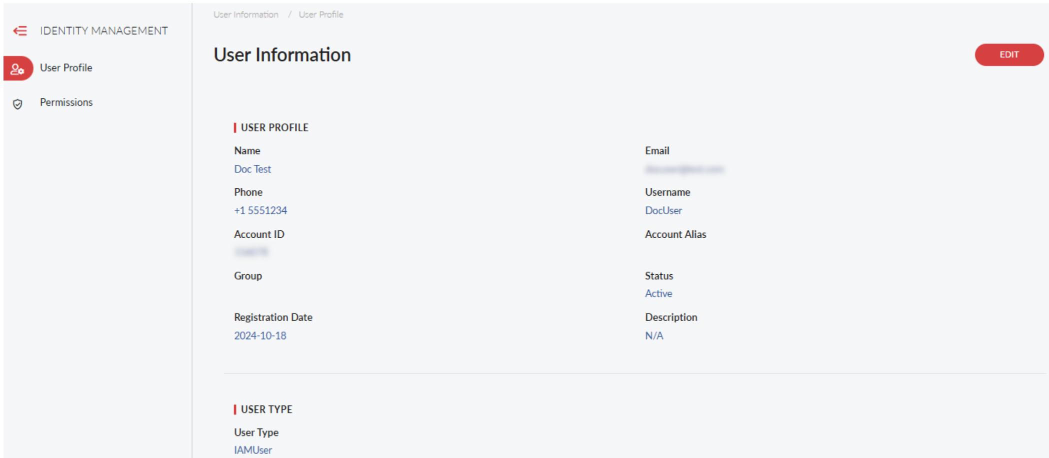
User Information

If you are logged in as an IAM user, you can access the *User Information* page from the profile menu.

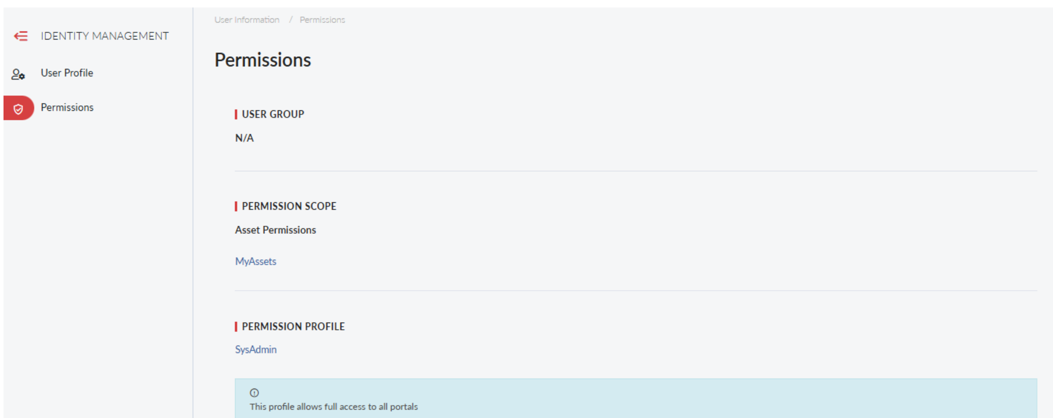


The *User Information* page provides information on your current IAM user account in multiple tabs:

- *User Profile*: Displays information about your current IAM user account, including *Name*, *Phone*, *Account ID*, *Email*, and *Username*.



- *Permissions*: Displays information about your permission scope, current permission profile, and any user group your IAM user is a part of.



Security Credentials

Use the *Security Credentials* settings to change your account password, update your contact information, and enable Two-Factor Authentication (2FA).

This section contains the following topics:

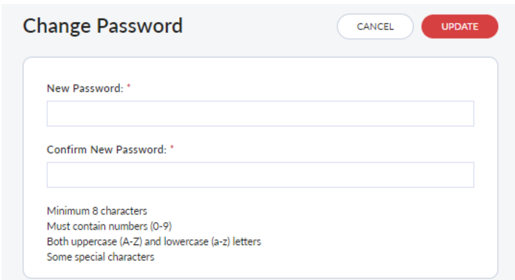
- Password on page 71
- Contacts on page 73
- Two-Factor Authentication on page 77
- Login History on page 85

Password

The account password can be managed in the *Security Credentials > Change Password* page.

To change the account password:

1. Click the account menu at the top-right of the page. This is your account email address.
2. Click *Security Credentials*. The *Change Password* page opens.
3. Click *Edit*.



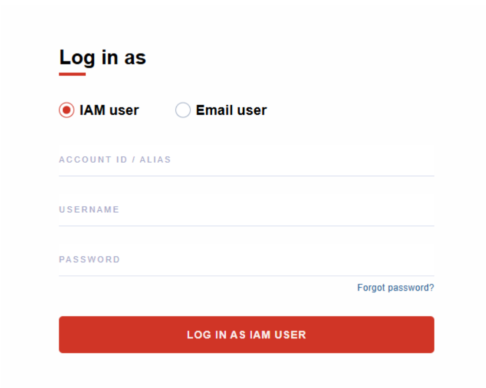
4. In the *New Password* field, enter your new password.
5. In the *Confirm New Password* field, re-enter you new password.
6. Click *Update*.

Resetting the account password

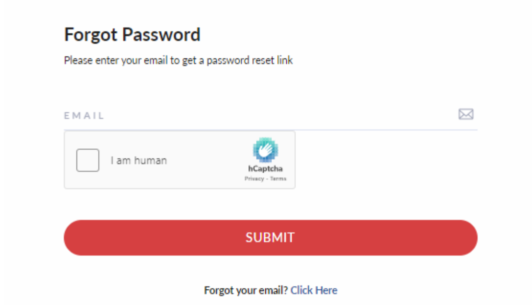
If you have forgotten your password, you can reset the password in the login page.

To reset the password:

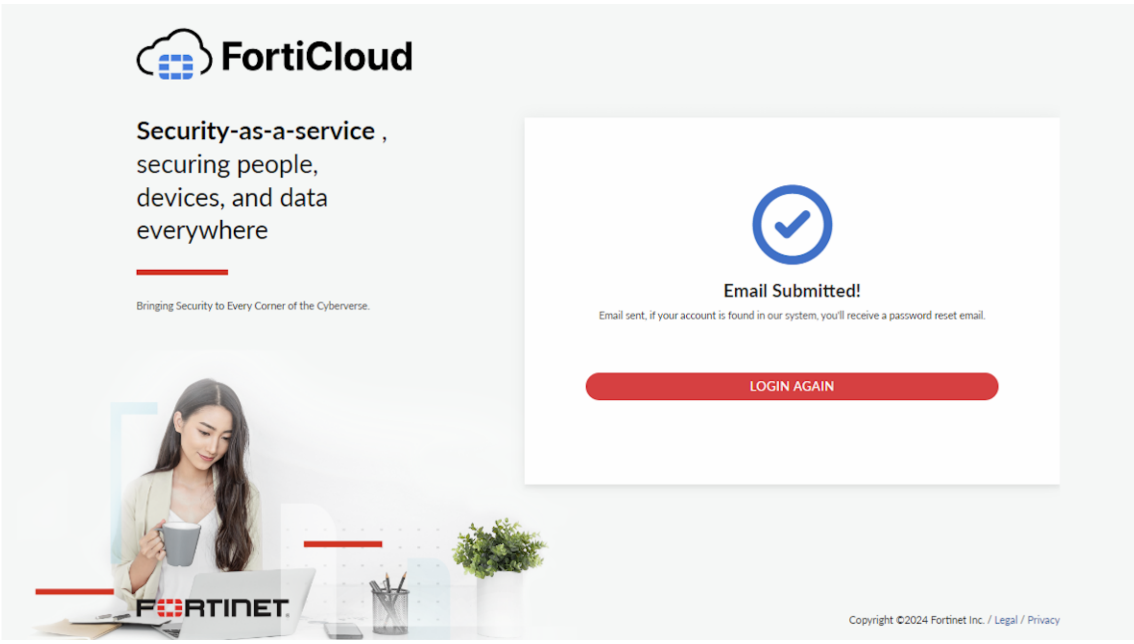
1. On the login page, click *Forgot password?*.



2. Enter the account information:
   a. Enter the account *Email*.
   b. Select *I am a human*.



3. Click *Submit*. An email will be sent that includes a reset link.



4. Follow the instructions in the email.
5. If you have Two-Factor Authentication enabled:
   a. Enter the FortiToken, SMS code, or both in the provided fields.

   The verification codes required when resetting your password depends on the information included in your account. If you have FortiToken enabled and a mobile number included in your account, you will be required to enter verifications received from both methods. If you only have one method included in your account, you will only be required to enter one verification code. See Contacts on page 73 and Two-Factor Authentication on page 77.

   b. Click *Confirm*.
6. Enter the new password twice in the *Reset Password* link.
7. Click *Reset Password*.
8. Log into your account using the new password.

Contacts

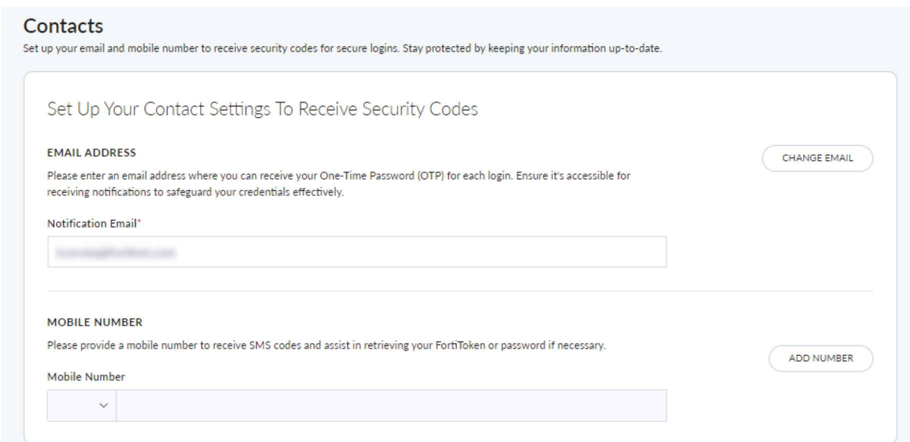
The *Contacts* page contains information on your email address and mobile number, which can be used for Two-Factor Authentication codes, notifications, or FortiToken and password retrieval. See Password on page 71 and Two-Factor Authentication on page 77.

Email address

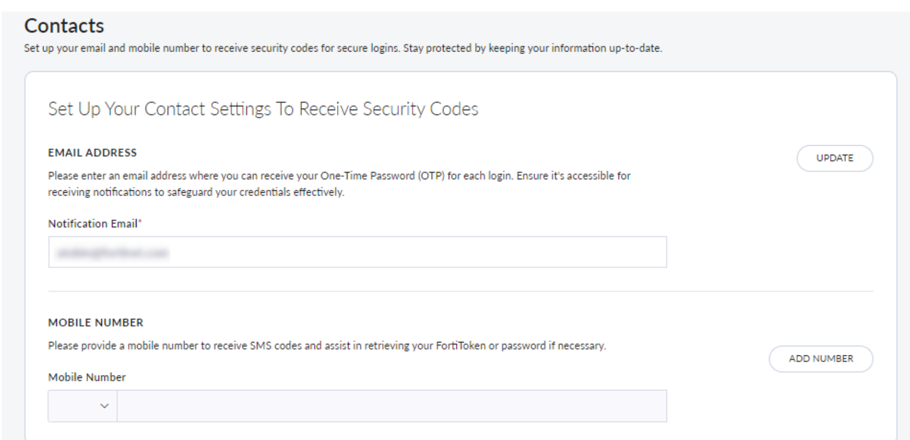
The account email address is used for one-time password verification, notifications, and FortiToken or password retrieval.

To update the email address:

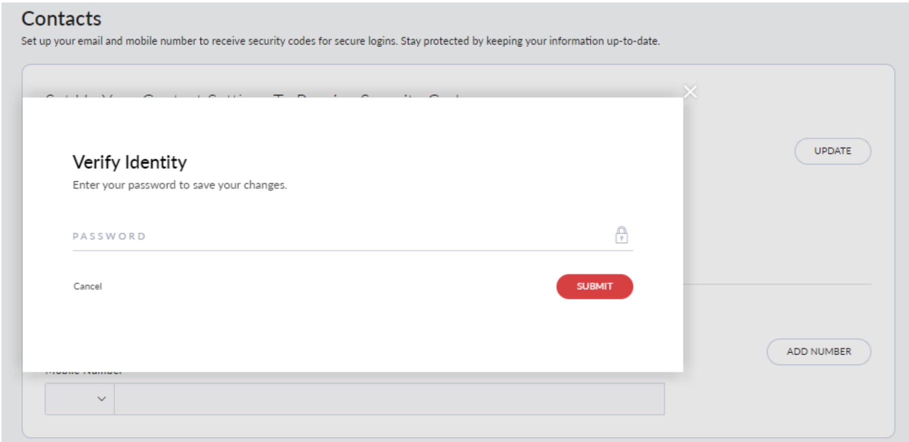
1. Click the account menu at the top-right of the page.
2. Go to *Security Credentials > Contacts*.



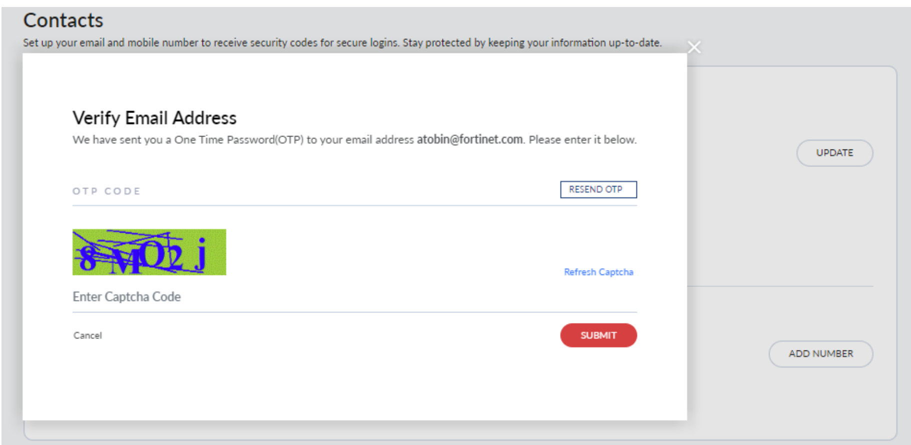
3. Enter the new email address in the *Notification Email* field.



4. Click *Update*.
5. Enter your password in the *Verify Identity* dialog.



6. Click *Submit*.
7. Verify your email address:
   a. Enter the *One Time Password* that was emailed to you.
   b. Enter the *Captcha Code*.
   c. Click *Submit*.

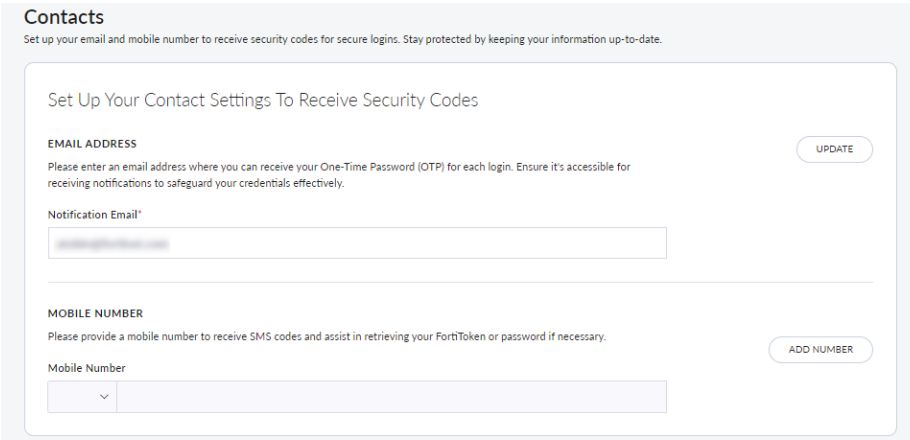


IAM users

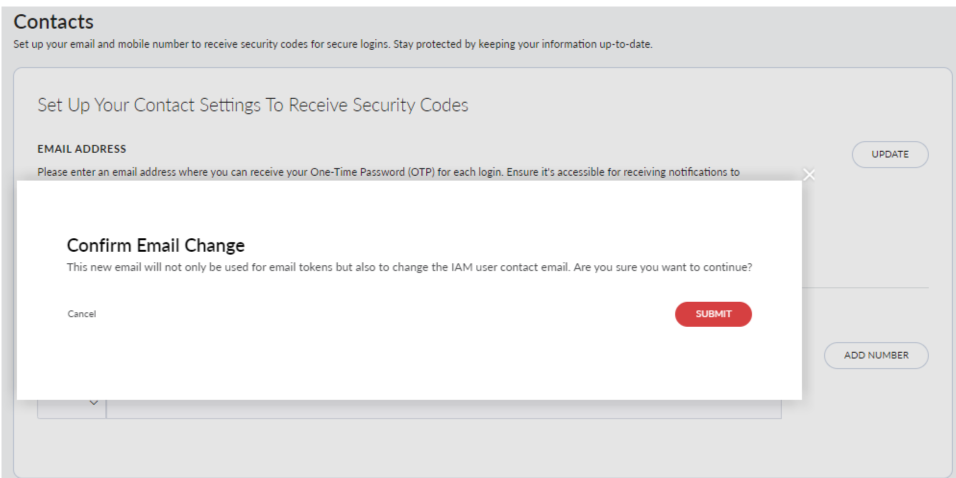
If an IAM user is updating the email address in the *Contacts* page, the IAM user email address will also change in the *Users > IAM Users > User Profile* tab in the Identity & Access Management portal. See Managing IAM users on page 32.

To change the email address of an IAM user:

1. Click the account menu at the top-right of the page.
2. Go to *Security Credentials > Contacts*.
3. Enter the new email address in the *Notification Email* field.



4. Click *Update*.
5. Click *Submit* in the email change acknowledgment dialog.

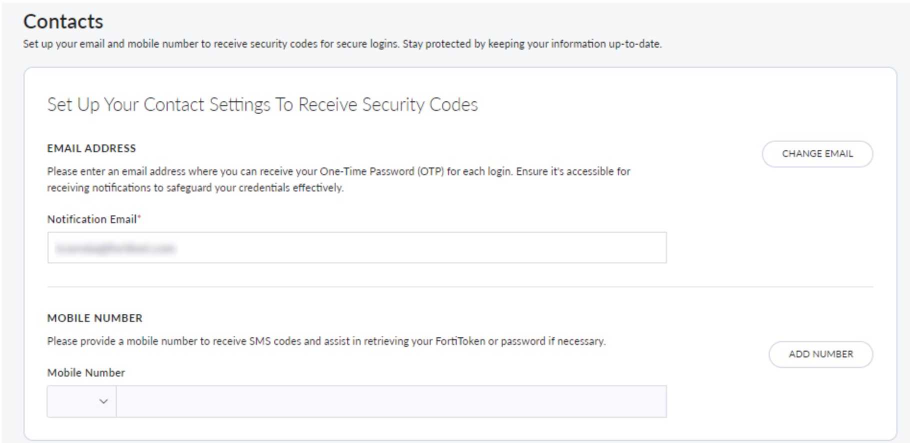


Mobile number

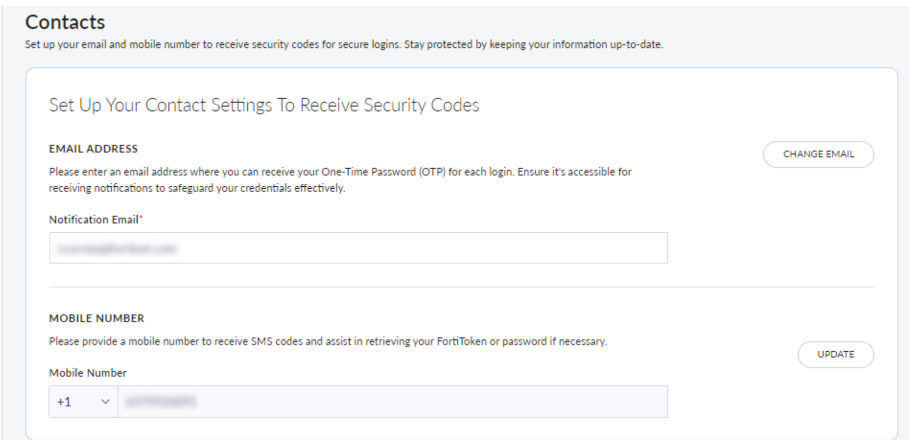
The account mobile number is used for one-time password verification, and FortiToken or password retrieval.

To add a mobile number:

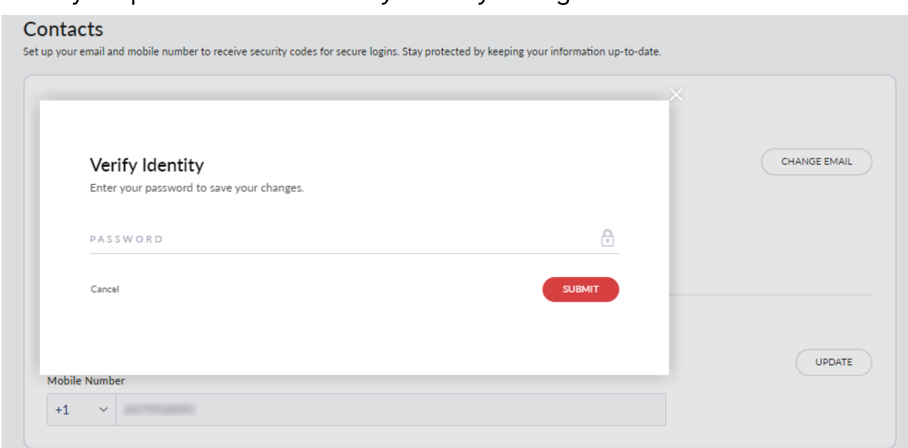
1. Click the account menu at the top-right of the page.
2. Go to *Security Credentials > Contacts*.



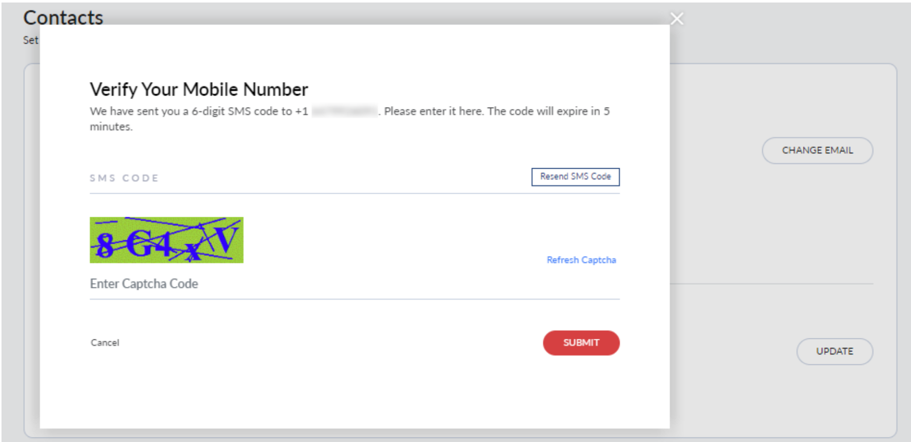
3. Select a region code and enter the mobile number.



4. Click *Update*.
5. Enter your password in the *Verify Identity* dialog.



6. Click *Submit*.
7. Verify your mobile number:
   a. Enter the verification code that was texted to your mobile number in the *SMS Code* field.
   b. Enter the *Captcha Code*.
   c. Click *Submit*.



To remove a mobile number:

1. Click the account menu at the top-right of the page.
2. Go to *Security Credentials > Contacts*.
3. Click *Remove Number* in the *Mobile Number* section.

If SMS tokens are enabled for Two-Factor Authentication, you must change the Two-Factor Authentication method before you can remove the mobile number. See Switching Two-Factor Authentication methods on page 81.

Two-Factor Authentication

Two-Factor Authentication (2FA) requires users to enter a security code to log in to a portal.

Users can choose to receive Two-Factor Authentication security codes sent to them through FortiToken, SMS, email, or a third-party authenticator each time they log in. Email authentication is enabled as the default method for new accounts. However, FortiToken is the recommended method of authentication for greater security.

FortiToken Two-Factor Authentication is enforced for all email account users if it has been selected at the Organization or Account level that the email account belongs to.

This section contains the following topics:

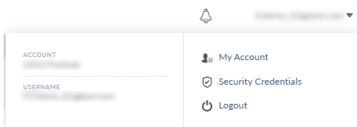
For information on transferring tokens from one mobile device to another for Two-Factor Authentication, see the FortiToken Frequently Asked Questions guide.

Enabling Two-Factor Authentication

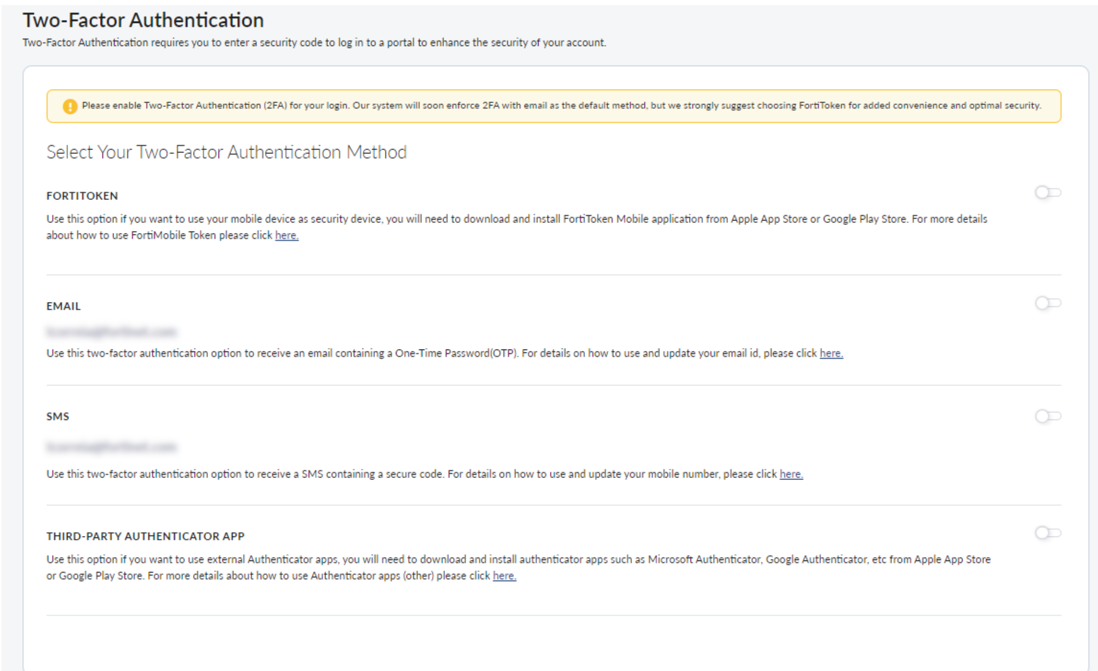
You can select the Two-Factor Authentication method at the user level or the account level. See Settings in the Organization Portal guide for information on enforcing Two-Factor Authentication at the Organization level.

To enable Two-Factor Authentication for your account:

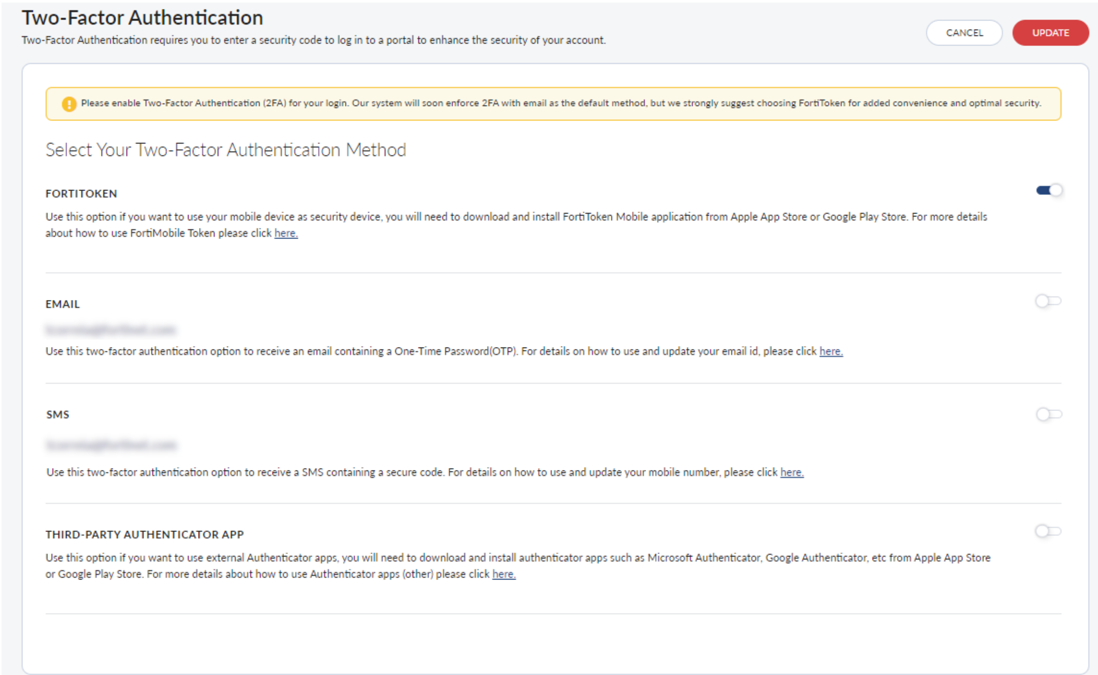
1. Click the *Account* menu at the top-right of portal and select *Security Credentials*.



2. In the navigation pane, click *Two Factor Authentication*. The *Two Factor Authentication* page opens.



3. Enable the Two-Factor Authentication option you prefer.



While email authentication is the default method, FortiToken is the recommended Two-Factor Authentication method to give your account the best security. Email accounts that already have email-based Two-Factor Authentication enabled cannot change the email address used and are encouraged to switch to FortiToken. See Switching Two-Factor Authentication methods on page 81.

SMS Two-Factor Authentication will only be available if a mobile number has been added to the account. See Contacts on page 73.

4. Click *Update*.
5. A verification dialog will open. The dialog that appears is dependent on the authentication method you chose. Follow the steps provided in the dialog to complete verification.
6. Click *Submit*.

Managing user authentication

You can edit the email address used for Two-Factor Authentication for a user in the *User > User Profile* tab. See Managing IAM users on page 32.

If a user has FortiToken or a third-party authenticator app enabled for Two-Factor Authentication and needs to reset it on a new device, you can temporarily change their authentication method to email. This allows the user to access their account using email authentication and re-enable the token for their new device.

To modify the Two-Factor Authentication method for a user:

1. Go to *Users* and select the user from the list.
2. Go to the *Security Credentials* tab.

3. Under *Two Factor Authentication*, click *Switch to Email Token*.

Logging in with Two-Factor Authentication for the first time

Users are required to validate and set up Two-Factor Authentication the first time they log in to www.forticloud.com if it is being enforced by their account or Organization.

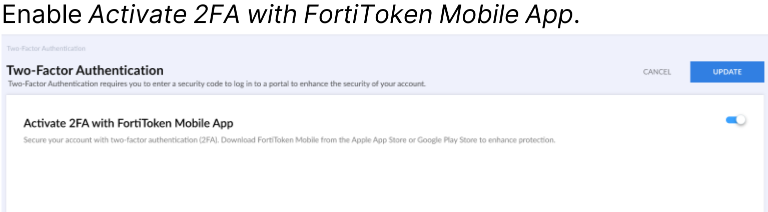
Email users

Master and legacy sub users logging in with an email account will be forced to enable Two-Factor Authentication using FortiToken if it is being enforced at the account or OU level. See Enabling Two-Factor Authentication on page 78 for information on enforcing Two-Factor Authentication at the account level. See Settings in the Organization Portal guide for information on enforcing Two-Factor Authentication at the Organization level.

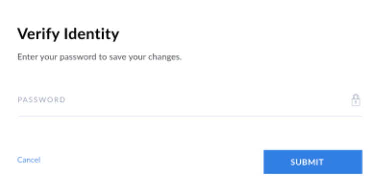
To set up Two-Factor Authentication for FortiToken if you are in an Organization:

1. Log in using your email account credentials. You will be redirected to the *Two-Factor Authentication* page.

2. Enable *Activate 2FA with FortiToken Mobile App*.



3. Click *Update*. The *Verify Identity* dialog opens.



4. Enter your account password and click *Submit*.
5. (Optional) Click *Test Token Now* to verify Two-Factor Authentication has been enabled.
   a. Enter the security code and click *Submit*. A dialog opens if the test is successful.

6. Log in using your email credentials again and use FortiToken to verify your account.

IAM users

Users logging in with an IAM account can set up Two-Factor Authentication for email, SMS, FortiToken, or through a third-party authenticator app. See Enabling Two-Factor Authentication on page 78.

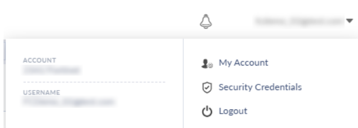
SMS Two-Factor Authentication will only be available if a mobile number has been added to the account. See Contacts on page 73.

Switching Two-Factor Authentication methods

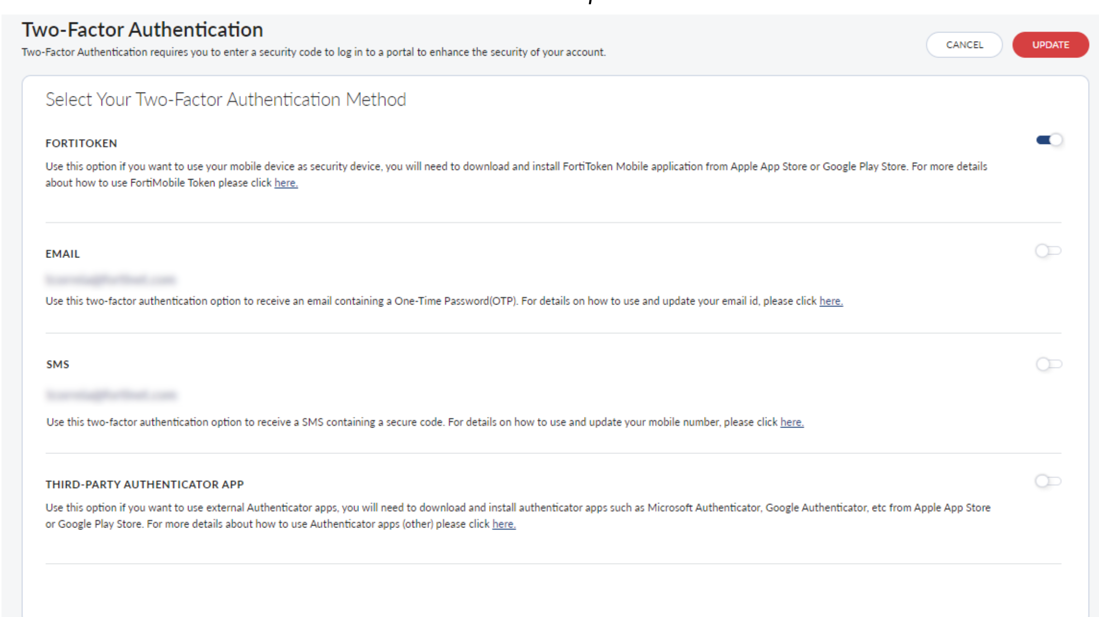
You can switch authentication methods from your account settings. Users logging in using email account credentials cannot switch to the email Two-Factor Authentication method and are encouraged to switch to the FortiToken method for better security.

To switch Two-Factor Authentication methods:

1. Log in to the portal.
2. Click the *Account* menu at the top-right of portal and select *Security Credentials*.



3. In the navigation pane, click *Two Factor Authentication*. The *Two Factor Authentication* page opens.
4. Select the new authentication method and click *Update*.



5. A verification dialog will open. The dialog that appears is dependent on the authentication method you chose. Follow the steps provided in the dialog to complete verification.
6. Click *Submit*.

Resetting tokens for Two-Factor Authentication

You can reset tokens for FortiToken Mobile and third-party authenticator apps:

- Resetting a FortiToken on page 82
- Resetting a third-party authenticator app token on page 83

Resetting a FortiToken

You can reset FortiToken for Two-Factor Authentication from your account from the *Welcome* page after you log into a portal. For example, you have upgraded your phone and you want to configure FortiToken on your new device to use with Two-Factor Authentication.

To reset FortiToken for Two-Factor Authentication for a new device:

1. Install the FortiToken app on the new device.
2. Log in to the portal with the FortiToken app on the old device and go to *Security Credentials > Two Factor Authentication*.
3. Click *Reset Token* under *FortiToken*.

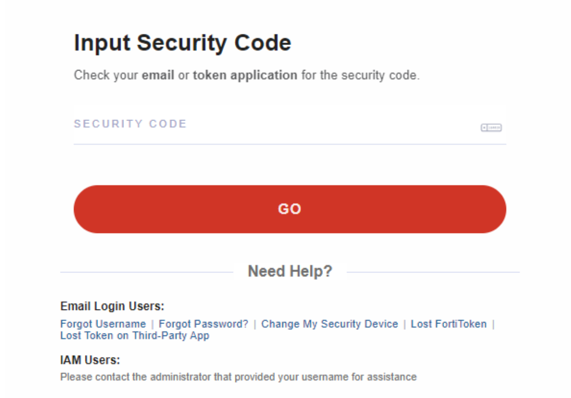
   If a mobile number is included in your account, an SMS code will be sent to the number.
4. Enter the *SMS Code* and account *Password*.
5. Click *Submit*. A FortiToken reset email will be sent to the account email address.
6. Configure the FortiToken app for your new device and log in.

Lost FortiToken device

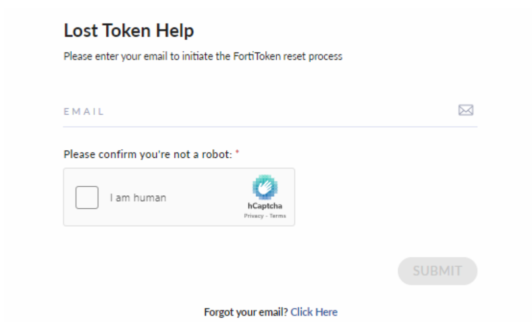
You can reset the FortiToken for a lost device if you have added the mobile number to the account. If you have not added a mobile number to the account, contact Customer Service. See Contacts on page 73.

To reset FortiToken for a lost device:

1. Attempt to log into the portal.
2. When you are directed to the *Input Security Code* page, select *Lost FortiToken*.



3. Enter your account email address and verify the Captcha.



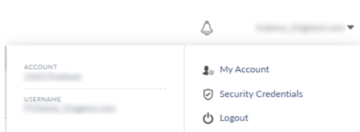
4. Click *Submit*.
5. Enter the verification that was sent to your email.
6. Click *Next*.
   If a mobile number is included in your account, an SMS code will be sent to the number.
7. Enter the *SMS Code* and account *Password*.
8. Click *Next*. A FortiToken reset email will be sent to the account email address.

Resetting a third-party authenticator app token

You can also reset the token for a third-party authenticator app if that it your chosen mode of authentication.

To reset a third-party authenticator token:

1. Click the *Account* menu at the top-right of portal and select *Security Credentials*.



2. In the navigation pane, click *Two Factor Authentication*. The *Two Factor Authentication* page opens.
3. Click *Reset Token* under *Third-Party Authenticator App*.
4. Enter your password to verify your identity and click *Next*.
   If a mobile number is included in your account, an SMS code will be sent to the number.
5. Enter the *SMS Code* and account *Password*.
6. Click *Next*.

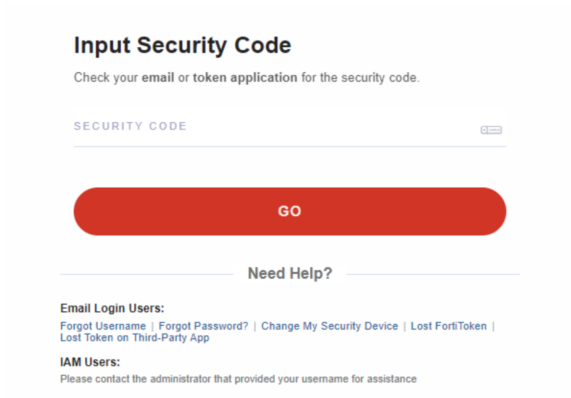
7. Scan the QR code from the authenticator app or enter the activation code.
8. Click *Next*.
9. Enter the token code from the authenticator app.
10. Click *Next*. A confirmation message is displayed.

Lost token on a third-party authenticator app

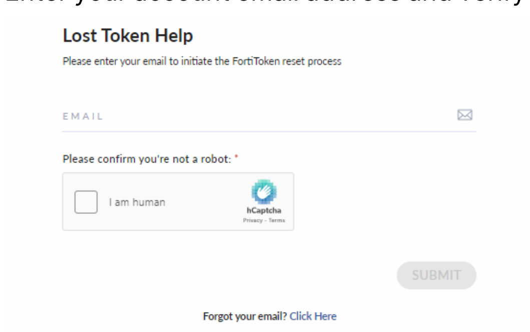
You can reset the token of a third-party authenticator app from the login page.

To reset a third-party authenticator:

1. Attempt to log into the portal.
2. When you are directed to the *Input Security Code* page, select *Lost Token on Third-party app*.



3. Enter your account email address and verify the Captcha.

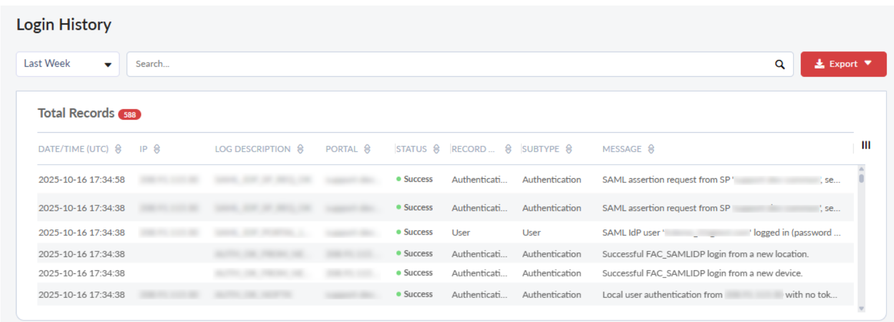


4. Click *Submit*.
5. Enter the verification that was sent to your email.
6. Click *Next*.
   If a mobile number is included in your account, an SMS code will be sent to the number.
7. Enter the *SMS Code* and account *Password*.
8. Click *Next*.
9. Scan the QR code from the authenticator app or enter the activation code.
10. Click *Next*.
11. Enter the token code from the authenticator app.
12. Click *Next*. A confirmation message is displayed.

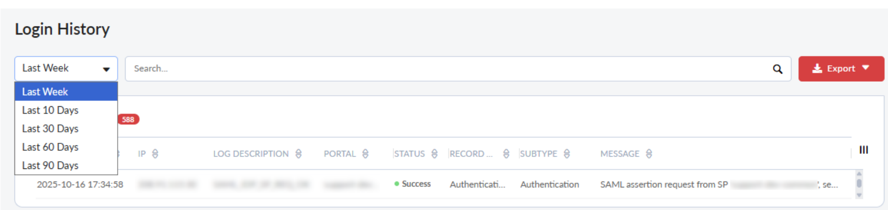
Login History

The *Login History* page displays the login activities within the account for email and IAM users. Login information includes the *IP* address that performed the request, the *Portal* that was accessed, the *Status* of the attempt, the *Record Type*, and so on for the previous 90 days.

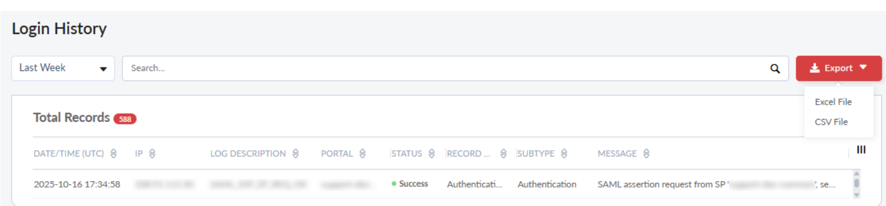
API user login activities can be viewed in the user details. See API users on page 41.



Select the duration dropdown menu to define the time period included in the table.



Select the *Export* dropdown menu to select the file type you would like to export the login history list as to your device.



Organization user management

Advanced management features are available when using organizations. An Organization and Organizational Units can be created in the Organization portal and are used to enhance your company's security.

IAM users, user groups, and so on can be created and associated with Organizational Units and OU accounts with the proper permissions. If you are using OUs to organize your company, you will need to create permission profiles that reflect this hierarchy so that the necessary users, user groups, and roles can be assigned.

For more information on the Organization portal, see the Organization Portal Administration Guide.

An IAM administrative user must be created to manage IAM users for the Organization's OUs. The IAM administrative user must have the user type as *Organization* and permissions for the IAM portal. See Overview of creating and managing Organizations in the Organization Portal guide.

This section contains the following topics:

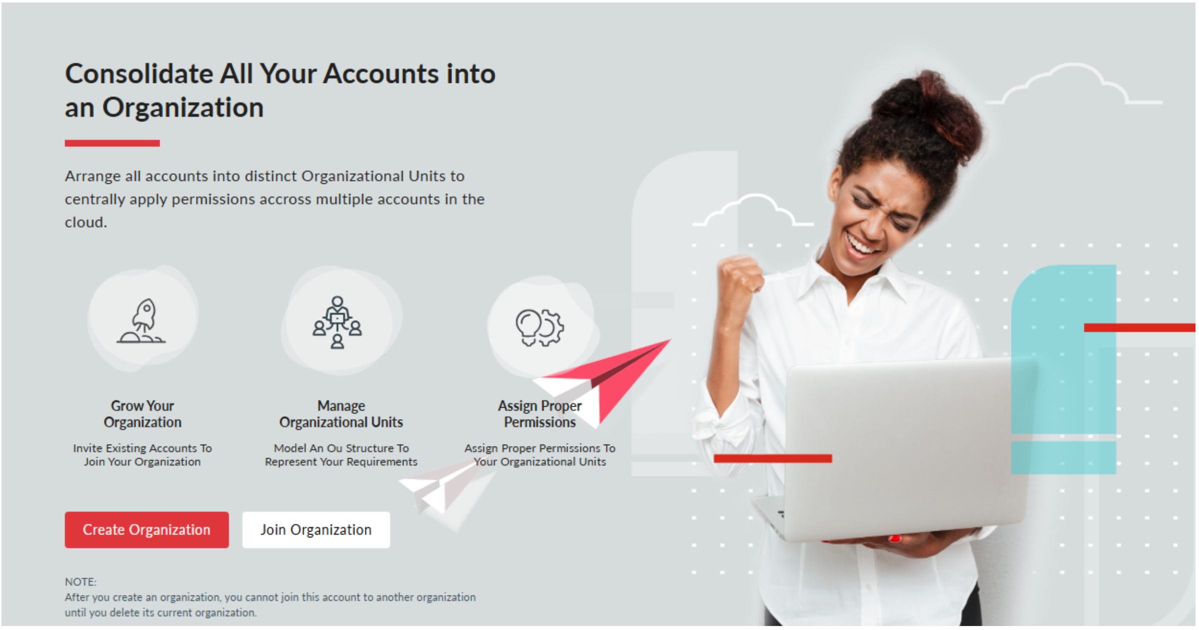
Enabling Organizations

Enable the Organizations feature to arrange all accounts into distinct Organizational Units to centrally apply permissions across multiple accounts in the cloud.

Only the master user can enable the Organizations feature.

To enable Organizations from the Organization portal:

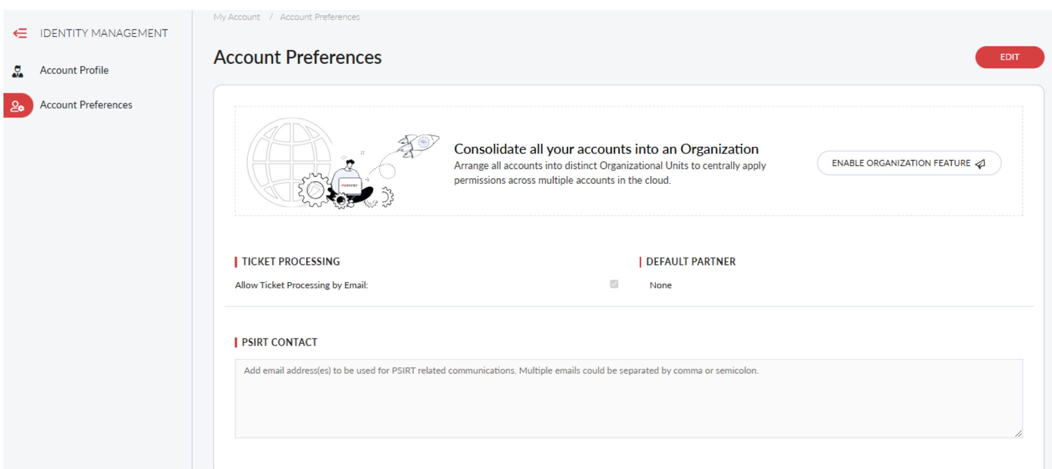
1. From the *Services* dropdown menu, select *Organizations*.
2. Click *Create Organization*.



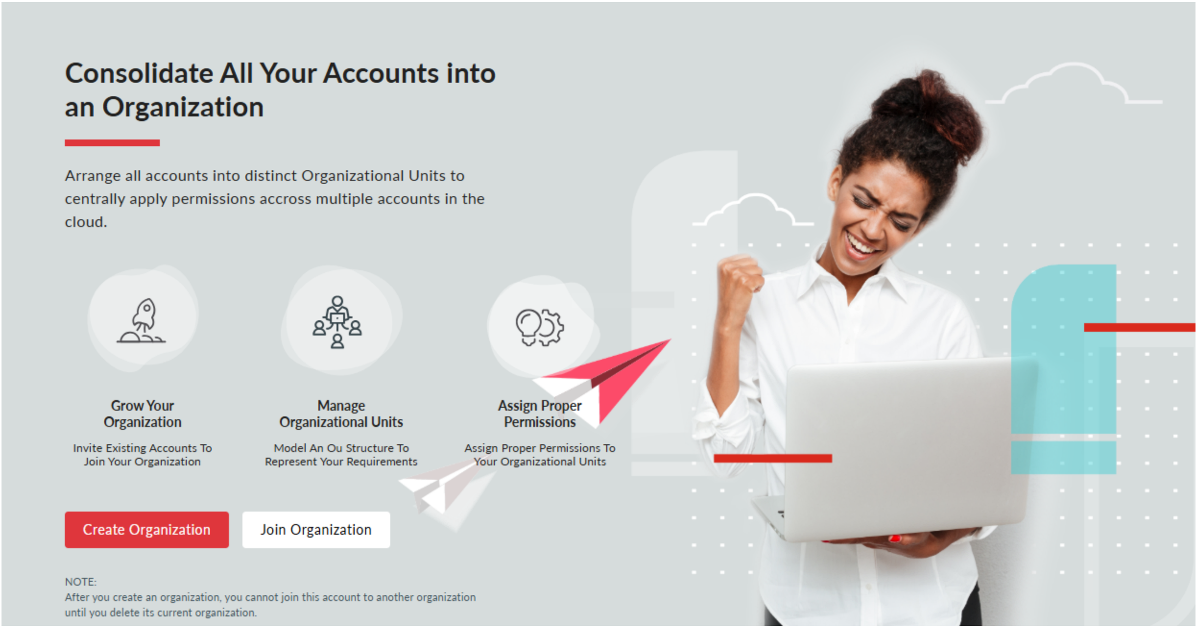
3. Create an Organization. For information, see the *Organization Portal Administration Guide*.

To enable Organizations from *My Account*:

1. From the profile menu, select *My Account*.
2. Select *My Account (IAM version)*.
3. Go to *Account Preferences*.
4. Click *Enable Organization Feature*.



5. Create an Organization. For information, see the *Organization Portal Administration Guide*.



Permission scope with Organizations

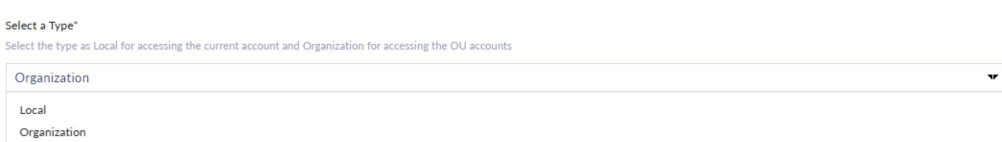
Permission scope is assigned when creating a permission profile or an IAM user, user group, or IdP role. It defines the scope of access a user has in terms of asset folders or OU hierarchy.

Local and Organization scope

Permission scope is further defined by *Local* versus *Organization* access type. *Local* access is the default for the Identity & Access Management portal. IAM users, user groups, and so on can be created as usual when in the *Local* type and will be limited to the asset folders in the selected account. See Permission scope on page 20.

However, if organizations are enabled and created in the Organization portal, the *Organization* type can be used for more advanced settings. This more advanced version allows IAM users, user groups, and so on to be assigned to OUs and OU member accounts that define your company's organization structure.

Permission scope can be defined as *Local* or *Organization* using the *Select A Type* feature. The *Local* type is automatically assigned to all permission profiles when OU access is not enabled. However, if a login user does have OU access enabled, the scope can be set to either the *Local* or *Organization* type. Once selected, permission scope can then be based on hierarchical OU (*Organization* type) or asset folder (*Local* type) paths in the Organization portal and Asset Management portal, respectively.



If you are logged in with OU permissions scope, you can see both *Local* and *Organization* permission profiles in the *Permission Profiles* page. However, if you are logged in to your local account, you will only be able to see *Local* permission profiles.

Available and selected scope

A user's permission scope is independent to the account they belong to. Once specified, in OU context, the selected scope is not necessarily the same as the available scope:

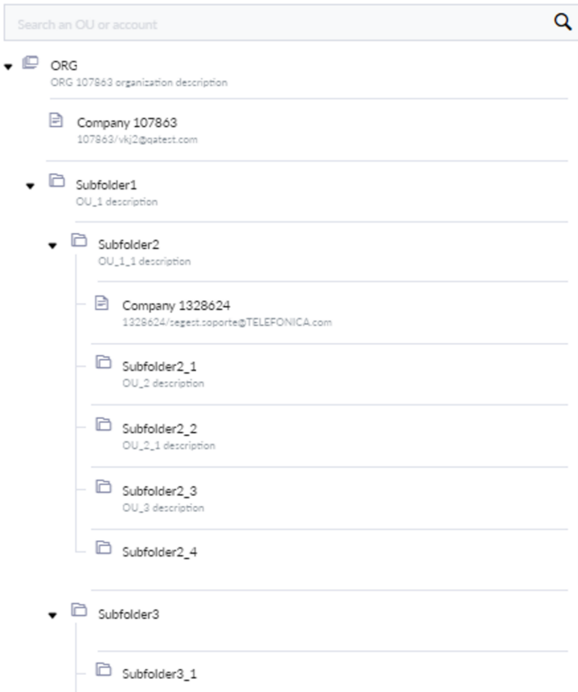
- **Available scope**: The available scope refers to the total accessing scope the login user is assigned with. It covers all organizations, OUs, and member accounts the user can access. The available scope defines what a user is capable of doing and is assigned with the permission scope. This scope can include up to and including the organization account if the user has the proper permissions. Available scope is applied when the current login user tries to configure IAM user or external IdP roles permission scopes.
- **Selected scope**: The selected scope refers to the current login user's selected OU context within the current session. It can be changed at anytime within this session. It includes the current account a user is accessing and any accounts below this level in the hierarchy. The selected scope is used to focus your view within the available scope. The selected scope defines what is visible and available to the user. For example, if the user is currently accessing an OU account, the Asset Management portal *Dashboard* will display an aggregated view of the member accounts under that OU. See Organizational Unit account views in the Asset Management Administration Guide.

The selected scope can be changed to another account within the available scope by selecting a new account from the context switch dropdown. See OU context switch on page 101.

Example of selected scope

If the current selected scope is lower in the organization hierarchy than the available scope, this does not limit the overall abilities of the user. The user will be able to assign users and permission profiles to any level of the organization within their available scope; including higher in the hierarchy than the selected scope.

The following organization structure will be used for the example.



If a user has permissions up to and including the *ORG* account but they select *Subfolder2* when logging in, the scope of their account is:

- Available scope: The *ORG* account and all OUs and member accounts within it.
- Selected scope: The *Subfolder2* account and all accounts below it in the hierarchy.

While they are accessing *Subfolder2*, the information they see in the portals will relate to that OU and the member accounts within it. However, since they have an available scope of *ORG*, they are not limited to the selected scope. For example, when creating a new IAM user, they can delegate that IAM user to any account within *ORG*, such as *Subfolder1* which is higher in the organization hierarchy than *Subfolder2*.

Permission profiles within Organizations

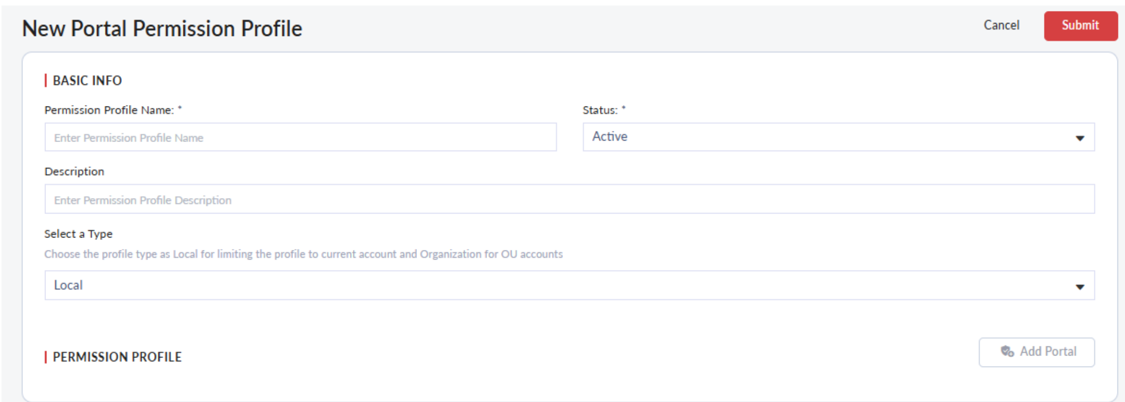
Permission profiles are required before you can create IAM users, user groups, and so on. Permission profiles allow you to define access to portals and the level of access within the portal, such as admin or read only permissions. When creating an IAM user, user group, and so on while having access to OUs in the Organization portal, a permission scope must be defined to allow for current account access, OU access, or OU account access.

If you have organizations enabled and created in the Organization portal, permission profiles can be created for a specific OU or OU account using the *Organization* type, or the current account using the *Local* type. Once a permission profile is created, IAM users, user groups, and so on can be created and assigned to the permission profile.

Existing permission profiles can be copied to other member accounts within an Organization. For more information, see Sharing permission profiles within an Organization on page 93.

To create a permission profile:

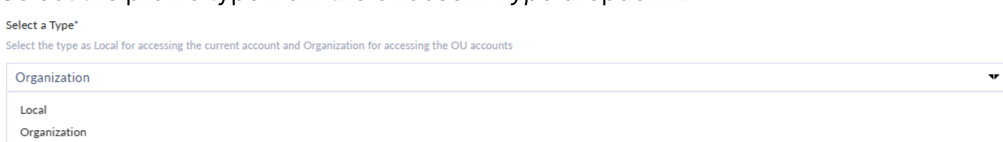
1. Select *Permission Profiles* from the left-hand navigation menu. The *Permission Profiles* page opens.
2. Select *Add New*. The *New Portal Permission Profiles* page is displayed.



3. Enter a name for the profile in the *Permission Profile Name* field.

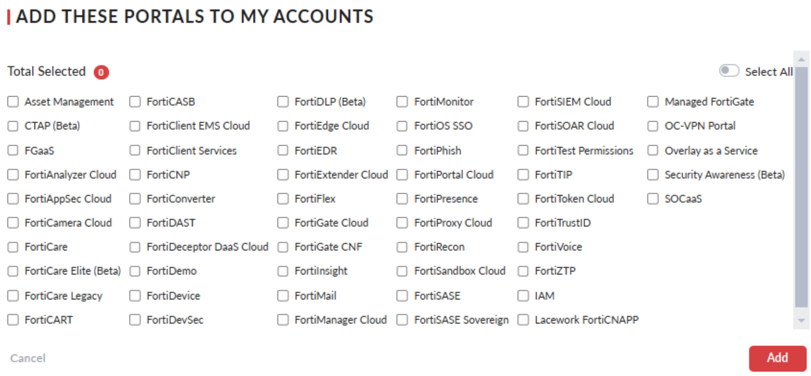
Once the permission profile is saved, the permission profile type cannot be edited.

4. Set the *Status* to *Active*.
5. Enter a description of the portal permissions in the *Description* field.
6. Select the profile type from the *Choose A Type* dropdown.

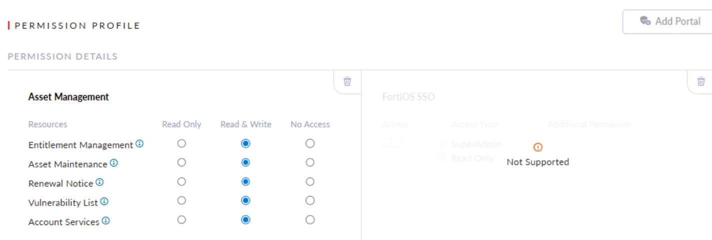


Once the permission profile is saved, the type cannot be edited.

7. Click *Add Portal*. A list of available portals is displayed.



8. Select the portals you want to include in the permission profile.
9. Click *Add*. The portals are displayed in cards.



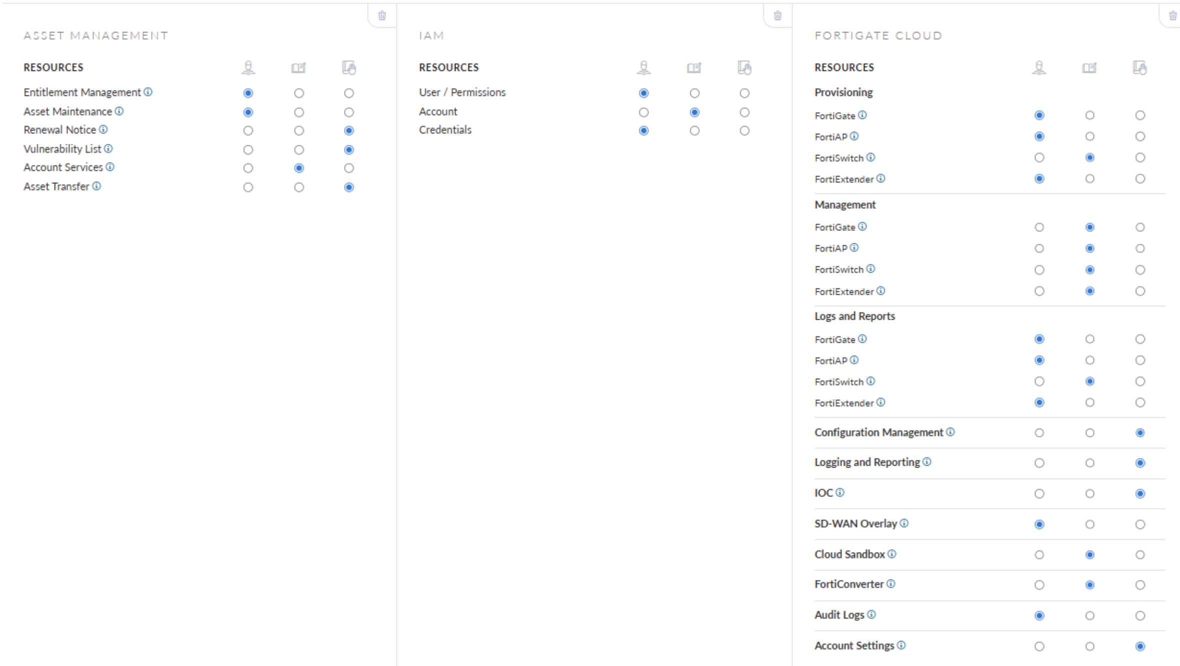
If the portal does not support Organizations, the portal will be marked as *Not Supported*.

10. For each portal card, define portal permissions:

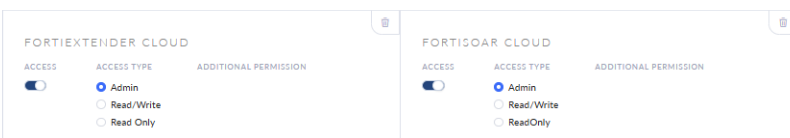
If you want to deny access to a portal, add the portal to the permission profile but do not enable any resource or portal access.

Excluding a portal from a permission profile does not deny access to that portal. If you do not add the portal to the permission profile, its status will be considered undefined. Therefore, it may be possible for the user to still access the portal from the *Services* dropdown menu if the portal itself provides open access to some features.

- For portals with resource-based permission capabilities, specify the *Resources* access type.



- For portals with role-based permissions, enable *Access* and specify the portal *Access Type* and any *Additional Permissions*.



11. Click *Save*. The permission profile is now available to be assigned to users.

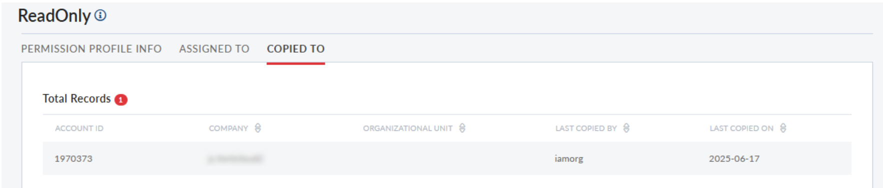
Sharing permission profiles within an Organization

Existing permission profiles can be copied to other member accounts within an Organization. This allows for quick distribution, reuse, and alignment of permissions between OUs.

Copying permissions can be performed by an Organization IAM user that has write access. The source account can only share permissions with target accounts that are included in their current scope. For more information on permission scopes, see Permission scope with Organizations on page 88.

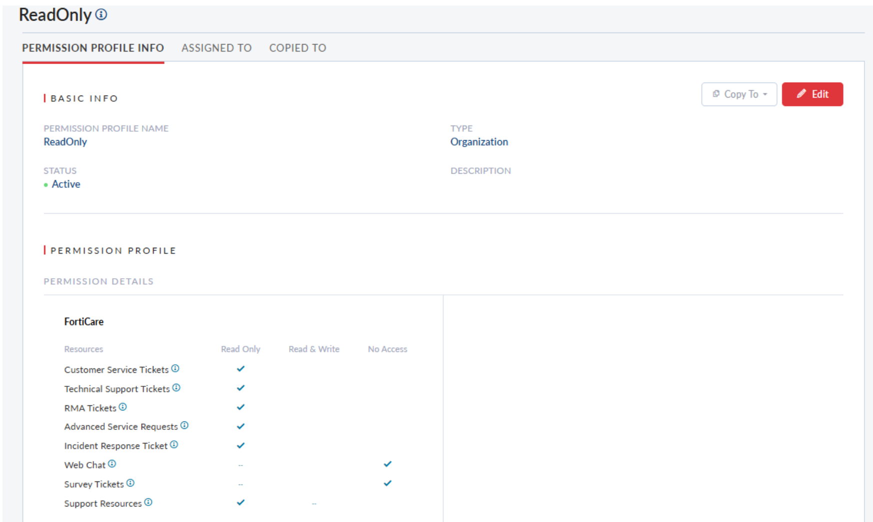
If the source and target accounts are different types, for example one account is *Local* while the other is *Organization*, the permission profile cannot be shared and overwrite the target's permission profile. However, permission profiles of either type can be shared.

Permission profile sharing information is included with the permission profile details. The *Copied To* tab displays users in other OUs in the Organization that have had the permission profile shared with them.

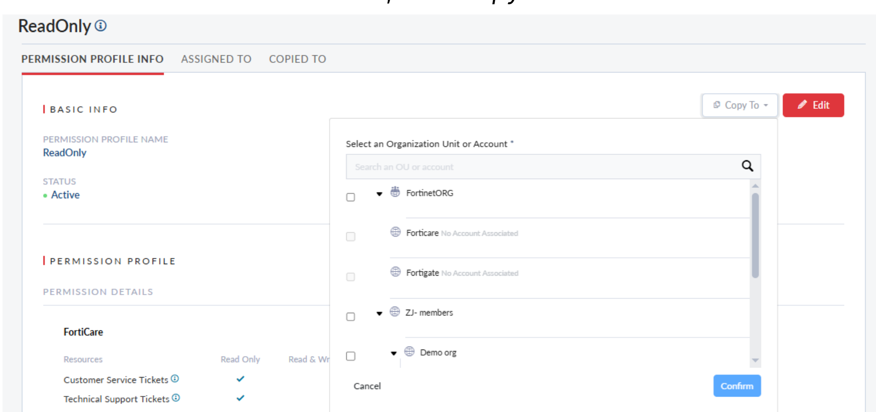


To share a permission profile with target accounts:

1. Go to *Permission Profiles*.
2. Select the permission profile you want to apply to other accounts in the Organization.



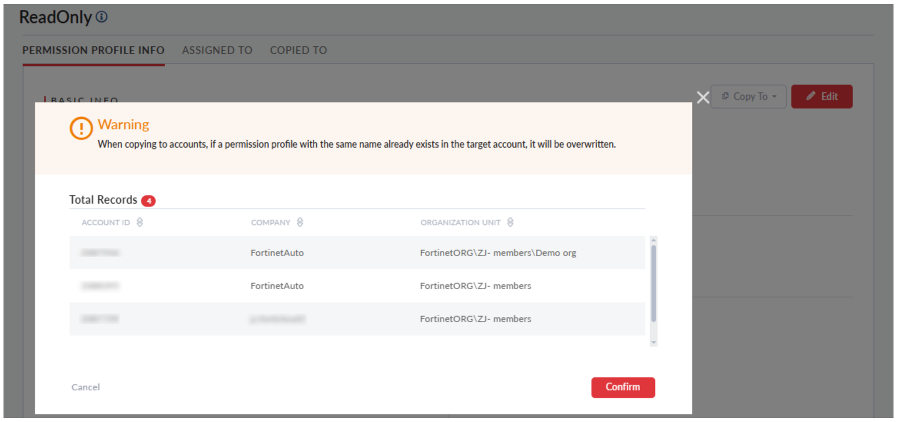
3. In the *Permission Profile Info* tab, click *Copy To*.



4. Select the OUs or accounts you want to share the permission profile with.

> If an OU included in the selected scope does not have any accounts, it will appear grayed out in the list and the permission profile will not be shared with it.

5. Click *Confirm*. A confirmation dialog is displayed.



The name of the permission profile being shared is retained when it is copied to the target account. If the target account has a permission profile with the same name as that being shared, the source permission profile will overwrite that of the target account.

6. Click *OK*. The permission profile will be shared with the selected accounts.
   A list of accounts that the permission profile was shared with will appear in the *Copied To* tab.

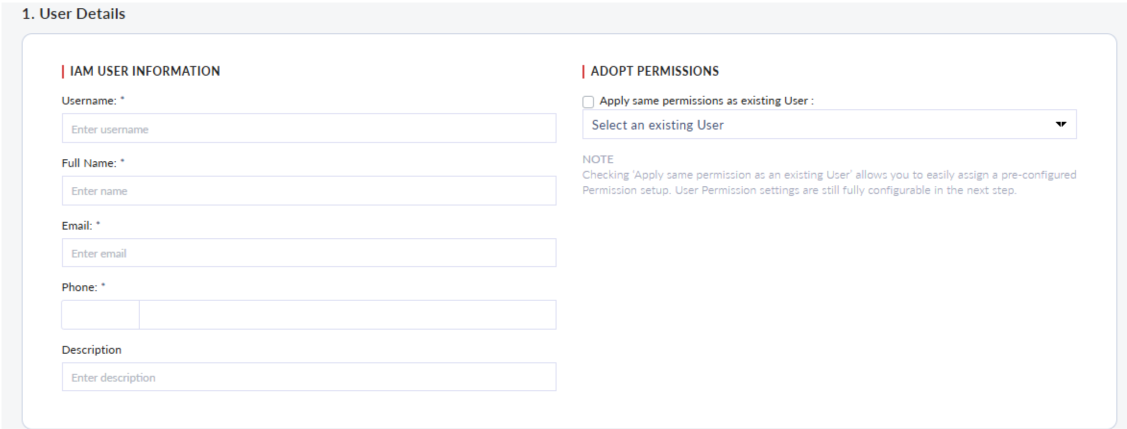
Creating users, user groups, and roles within Organizations

New IAM users, user groups, API users, and IdP roles can be created from the appropriate Identity & Access Management portal pages. When you configure the details, the *Choose a Type* and *Permission Scope* features can be used to define *Local* or *Organization* type, and the asset folder or OU path, respectively.

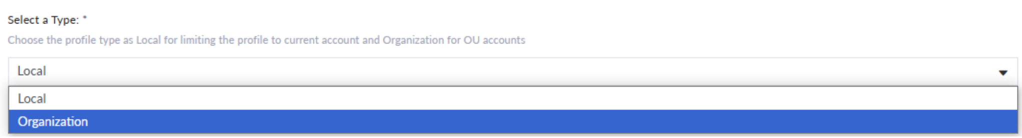
To create an IAM user:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Click *Add New > IAM User*. The *User Details* pane opens.
3. (Optional) *Click Apply same permissions as existing User*, and then select a user from the dropdown. You can configure the permissions later.
4. Enter the user's details and click *Next*.

Username	Type the username with no spaces.
Full Name	Type the user's first and last name.
Email	Type the user's email address.
Phone	Select the country code from the dropdown, and type the user's phone number.
Description (Optional)	Type a description of the user.



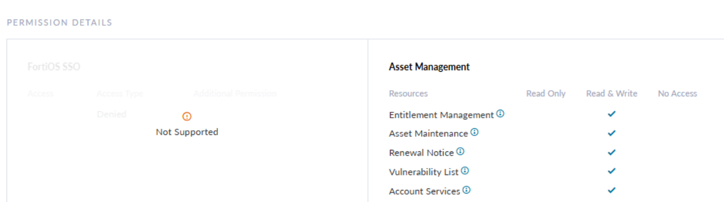
5. (Optional) Add the user to an IAM user group. See User groups on page 55.
   a. Select *Yes* from *Basic Info*. A dropdown list of user groups is displayed.
   b. Select a user group from the dropdown.
   c. Click *Next*, and proceed to Step 10.
6. Select the *Organization* user type from *Select A Type* dropdown list.



7. Select the scope from the *Permission Scope* dropdown.

Permission Scope options depend on the type you select in the previous step. For example, if the *Organization* type is selected, the OU scope will be selected here. The available scope will be applied in this case.

8. In the *Permissions Profile* dropdown, select a profile. The *Permission Details* assigned to the selected profile are displayed.



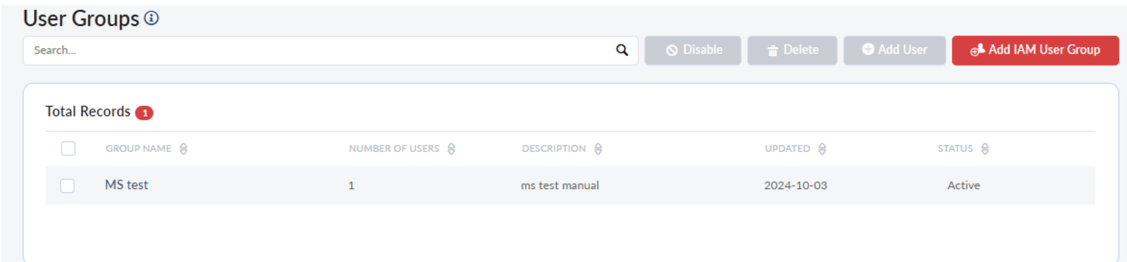
If the permission profile selected includes portals that do not support Organizations, the portals will be marked as *Not Supported*.

9. Click *Next*. The *Confirmation* page is displayed.
10. Review the user information, and click *Confirm*. The user's details are displayed.

Account credentials must be shared with the user. The user can generate a password reset link and share it with the newly created IAM user.

To create a user group:

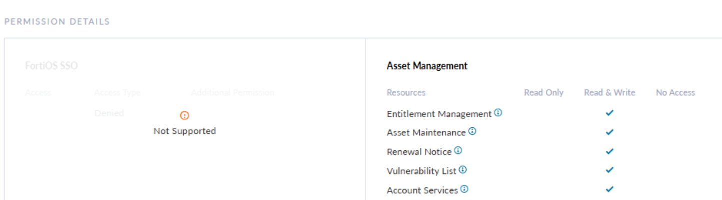
1. Select *User Groups* from the left-hand navigation menu. The *User Groups* page opens.



2. Click *Add IAM User Group*. The *IAM User Group Information* page is displayed.
3. In the *Group Name* field, enter a name for the group.
4. (Optional) In the *Description* field, describe the group.
5. (Optional) Set the *Status* to *Disabled*. The status is *Active* by default.
6. Click *Next*.
7. Select the user type from *Select A Type* dropdown list.
8. Select the scope from the *Permission Scope* dropdown.

Permission Scope options depend on the type you select in the previous step. For example, if the *Organization* type is selected, the OU scope will be selected here. The available scope will be applied in this case.

9. In the *Permissions Profile* dropdown, select a profile. The *Permission Details* assigned to the selected profile are displayed.



If the permission profile selected includes portals that do not support Organizations, the portals will be marked as *Not Supported*.

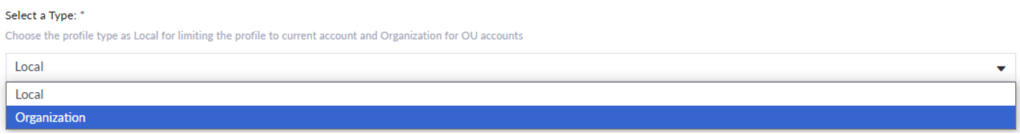
10. Click *Next*. The *Add IAM user(s)* page is displayed.
11. Assign users to the group.
    a. Click *Add User*.
    b. (Optional) Click *Filter users by Group*, to view users in a group. Selecting a user in a group will remove the user from that group.

c. (Optional) Enter a username in the search bar, and enter the user name. As you type, partial results are returned.
d. Select the users and click *Add*.
e. Click *Next*.The *Confirmation* page is displayed.

12. Review the group permissions, and click *Confirm*.
13. (Optional) Click *Add Another Group*.

To create an API user:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Click *Add New > API User*.
3. (Optional) In the *Description* field, enter a description of the user.
4. Select the *Organization* user type from *Select A Type* dropdown list.

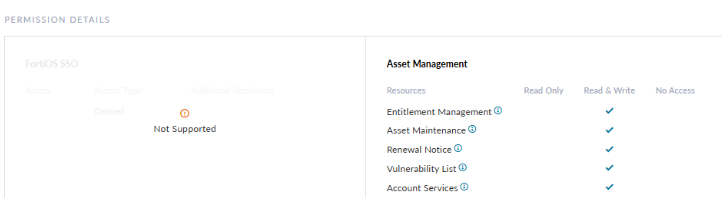


When creating an API user that can be added to an Organization, if the user is set to the *Local* type instead, they will be unable to specify the permission scope. They will automatically be assigned *My Assets* for the permission scope.

5. Select the scope from the *Permission Scope* dropdown.

Permission Scope options depend on the type you select in the previous step. For example, if the *Organization* type is selected, the OU scope will be selected here. The available scope will be applied in this case.

6. In the *Permissions Profile* dropdown, select a profile. The *Permission Details* assigned to the selected profile are displayed.



If the permission profile selected includes portals that do not support Organizations, the portals will be marked as *Not Supported*.

7. Click *Add*.

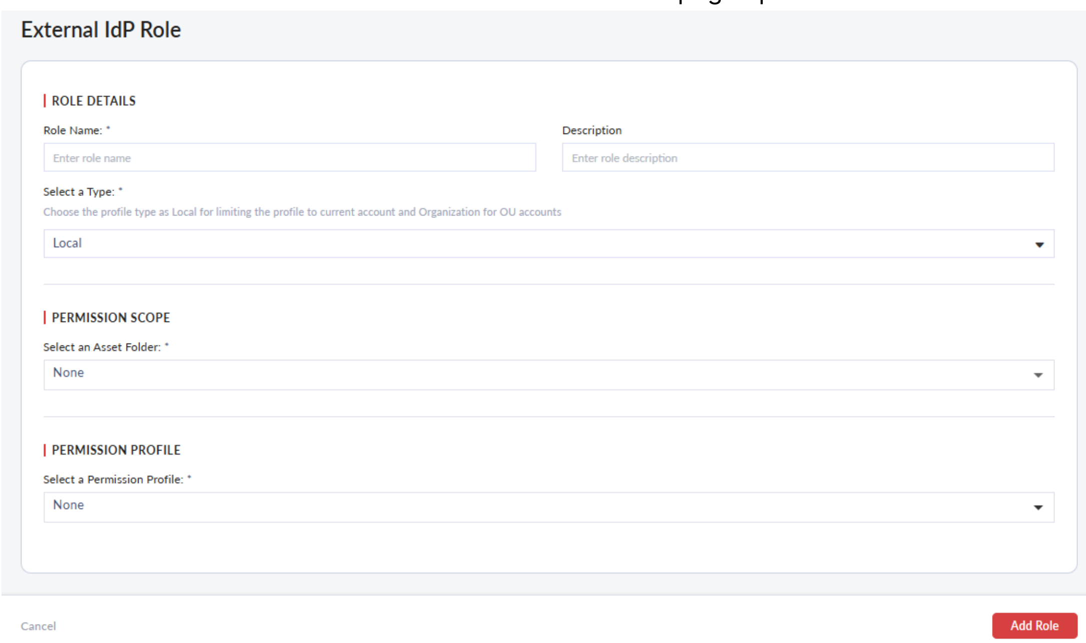
8. Click *Download Credentials*. The *Security Check* dialog opens.

Downloading API user credentials will reset the user's security credentials each time you perform this action. The API user only exists within the account scope.

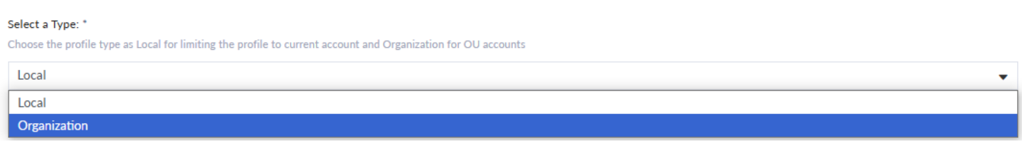
9. Enter your password to protect the credential file and click *Proceed*. The credentials are downloaded to your computer.
10. Request an authorization token. SeeAccessing FortiAPIs on page 45

To add an external user role:

1. Select *Users* from the left-hand navigation menu. The *Users* page opens.
2. Click *Add New > External IDP Role*. The *External IdP Role* page opens.

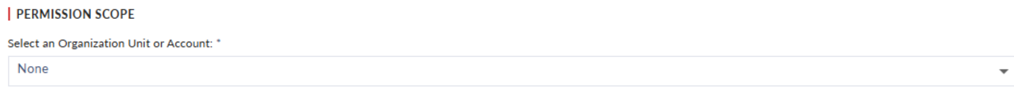


3. In the *Role Name* field, type the name of the role.
4. (Optional) In the *Description* field, enter a description of the role.
5. Select the *Organization* user type from *Select A Type* dropdown list.

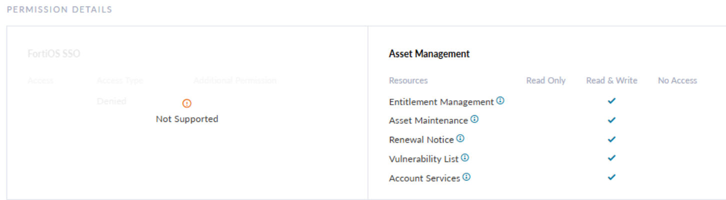


6. From the *Permission Scope* dropdown, select an asset folder or Organizational Unit.

Permission Scope options depend on the type you select in the previous step. For example, if the *Organization* type is selected, the OU scope will be selected here. The available scope will be applied in this case.



7. In the *Permissions Profile* dropdown, select a profile. The *Permission Details* assigned to the selected profile are displayed.



If the permission profile selected includes portals that do not support Organizations, the portals will be marked as *Not Supported*.

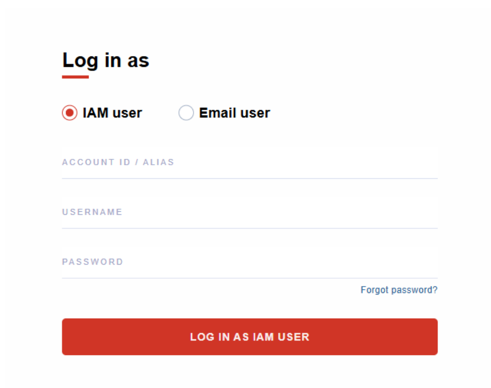
8. Click *Add Role*.

Logging into an OU account

Users can access FortiCloud using IAM user accounts or an OU account when logging in with their IAM user credentials. Once the login credentials have been verified, users can then choose to proceed with an Organizational Unit (OU) account. OU access is dependent on the permission profile assigned to your login credentials. Available OUs and member accounts will turn blue when hovered over and display the *Select* button.

To access Organizational Unit accounts with IAM user credentials:

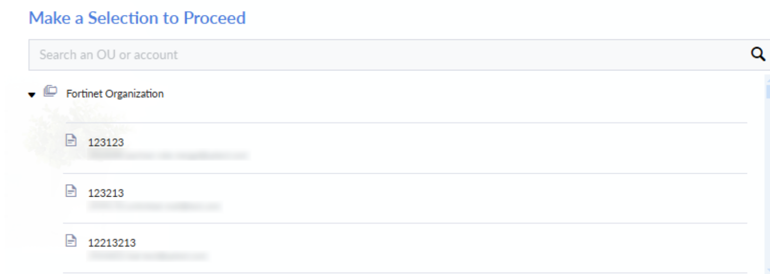
1. Go to www.forticloud.com.
2. Select *Login*. The log in portal opens.



3. Select *IAM user*.
4. Enter your credentials in the *Account ID/Alias*, *Username*, and *Password* fields.

You can enter either your account ID number or alias in the *Account ID/Alias* field. Regardless of if you are logging into an OU or local account, the *Account ID/Alias* required on the login page refers to that of the IAM user you are logging in as. It does not refer to the ID of the account you will select once you have logged in.

5. Click *Log In*. If the current user has Organization/OU scope configured, a list of Organizational Units and member accounts is displayed.



6. Select the access method:
   - Hover over an OU and click *Select* to log in to a root account.
   - Hover over a member account and click *Select* to log into the account.

   For OU and member account selection, it depends on the target portal. Most of the portals only support the user selecting a member account. The Asset Management portal supports the user selecting an OU.

   The *Dashboard* is displayed.

To access Organizational Unit accounts with external IdP credentials:

1. Log in using your company's ID provider. The log in portal opens.
2. Select the *Service Provider*.
3. Select *Organizations*. A list of Organizational Units and member accounts is displayed.
4. Select the access method:
   - Hover over an OU and click *Select* to log in to a root account.
   - Hover over an OU member account and click *Select* to log into the account.

   The *Dashboard* is displayed.

OU context switch

You can change your selected scope from the context switch dropdown menu when you are logged in using IAM user or external IdP role credentials. See Available and selected scope on page 89.

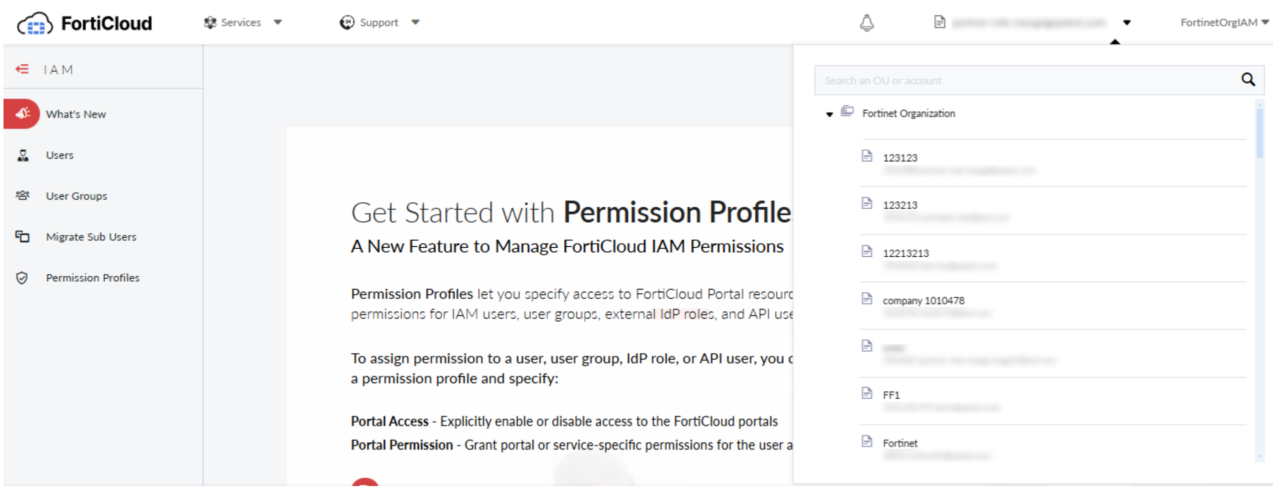
The Asset Management portal can support both OUs (with aggregated information on the member accounts within the OU) and OU member accounts. Therefore, if you are in the Asset Management portal, you can switch to either OUs or OU member accounts.

However, other portals, such as the Identity & Access Management portal, can only support OU member accounts. Therefore, you can only switch to other OU member accounts through the OU dropdown menu.

If multiple roles are available for one OU, the OU will be repeated in the list.

To switch to a different OU account:

1. Select the context switch dropdown menu. Accounts within the organization are displayed.



2. Select an account within your available scope:
   - Hover over a folder and click *Select* to switch to an OU.
   - Select the OU folder dropdown arrow to see available OU member accounts for that OU. Hover over the OU member account you want to switch to and click *Select*.

If you are not in the Asset Management portal, you will only be able to select an OU member account.

If you are logged in with an external IdP role, you can only switch within the current organization. To switch to a different organization, use the *Switch Roles* option in the profile menu. See Selecting IdP roles on page 51.

External IdP

FortiCloud supports using an external identity provider with SAML 2.0 and IdP initiated authentication. Once the setup is complete, external users can authenticate with the desired provider and access FortiCloud services based on the roles defined by the administrator.

FortiCloud supports fine grained permission profile for external IdP users through external IdP IAM role. External IdP roles allow external users to log in to a cloud portal using their organization’s ID provider. External IdP roles are authenticated with a custom login page. After the user is authenticated, they are redirected to a page where they can select the cloud portals assigned to their account.

Once external IdP has been configured for the account, you can proceed with creating external IdP roles. External IdP roles can then access the account and the various FortiCloud Services portals. See Selecting IdP roles on page 51 for more information on accessing the portal with an external IdP role.

This document only covers configuring external IdP with Okta and Microsoft Entra ID. However, multiple external identity providers are supported by FortiCloud.

This section includes:

Enrolling for external IdP

Before you can access the external IdP features supported by FortiCloud, you must first enroll for the service.

To enroll for external IdP access to FortiCloud, you must:

1. Contact your Fortinet sales representative.
2. Configure your IdP application.
3. Fill out the enrollment form with information about your IdP application and FortiCloud account.
4. Download and share the IdP Metadata file with your Fortinet sales representative.

Once your enrollment has been approved, you should:

- Update the application URLs based on what you received from your Fortinet sales representative. See Configuring external IdP on page 108.
- Configure external IdP roles with which to access the account and FortiCloud Services portals. See Adding external IdP roles to the application on page 110 and External IdP roles on page 48.
- Configure a co-exist end date for any IAM or sub-users in your account.

All IAM and sub-users of the account will be disabled following the IdP transition period. You can extend this if necessary by setting a co-exist date. See Setting a co-exist end date on page 115.

This document only covers configuring external IdP with Okta and Microsoft Entra ID. However, multiple external identity providers are supported by FortiCloud. This topic includes the following enrollment examples:

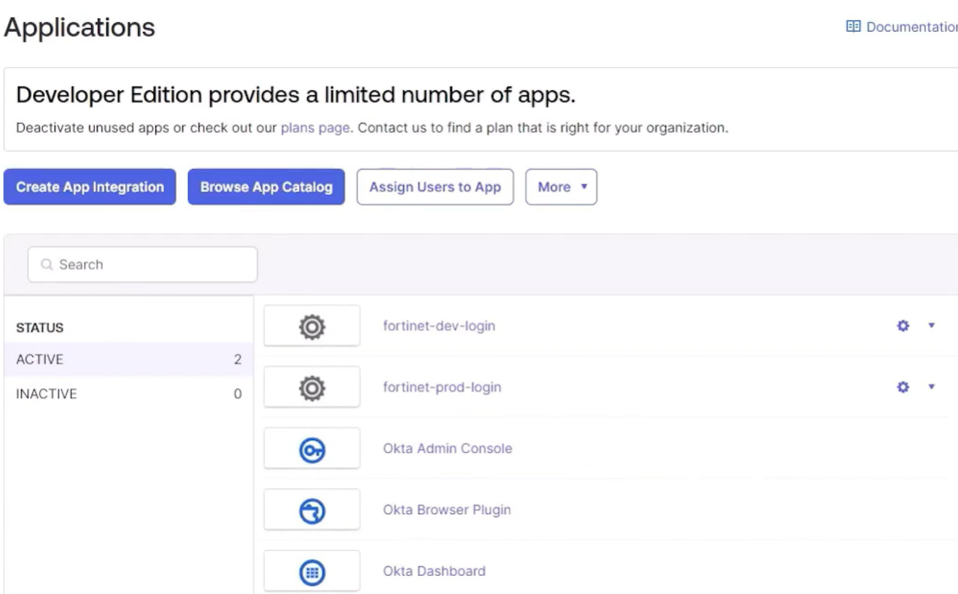
- Enrolling with Okta on page 104
- Enrolling with Microsoft Entra ID on page 106

Enrolling with Okta

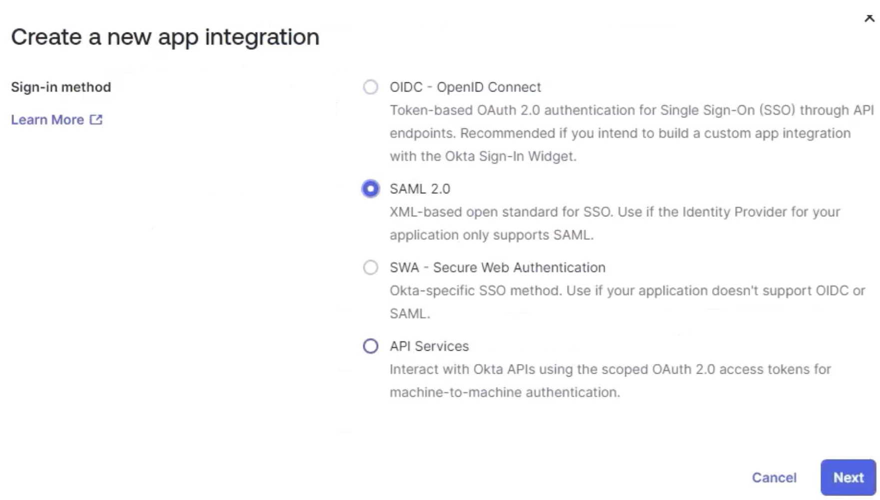
External IdP can be enrolled with Okta.

To enroll for external IdP with Okta:

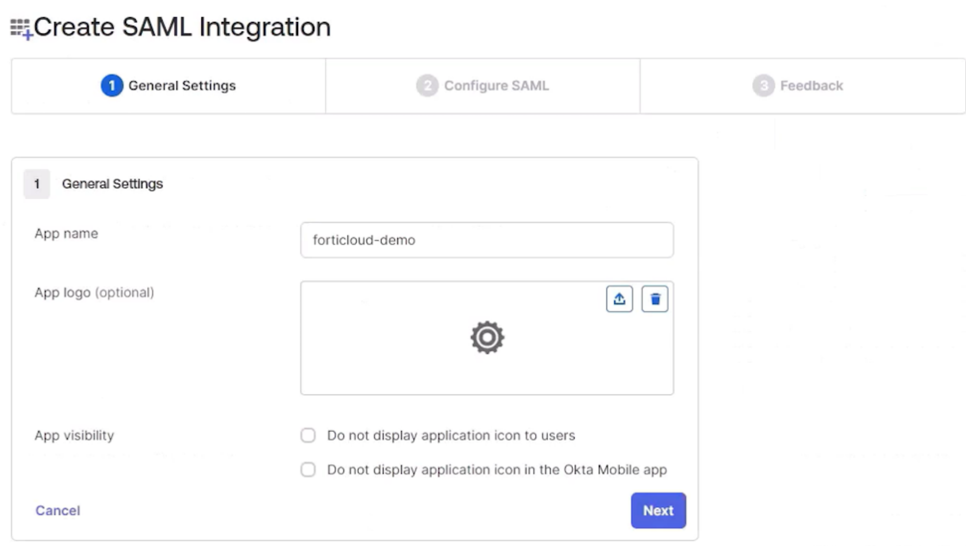
1. Contact your Fortinet sales representative about enrolling for external IdP.
2. Prepare the application:
   a. In Okta, go to *Applications > Applications*.



   b. Click *Create App Integration*.
   c. Select *SAML 2.0*.



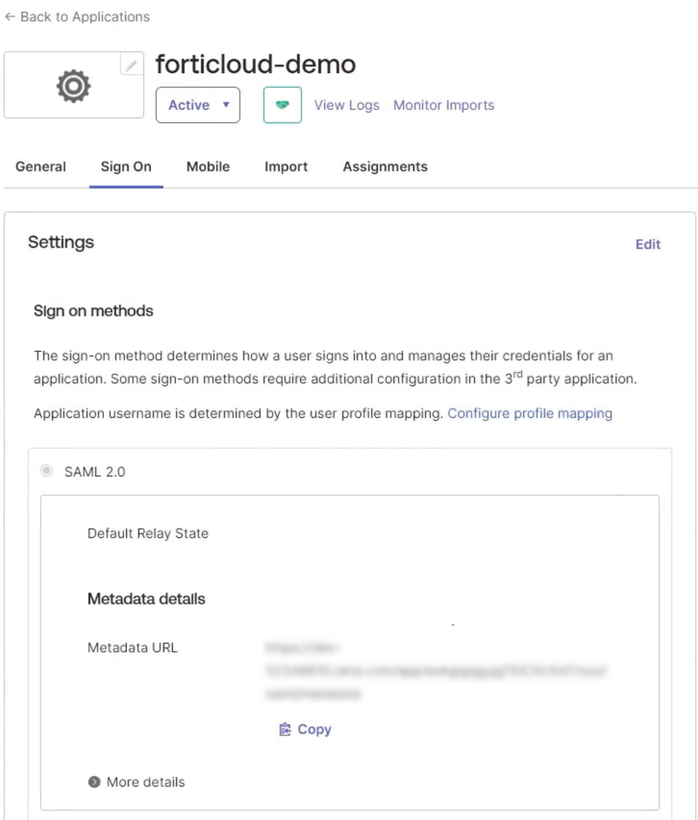
d. Click *Next*.
e. Enter an *App Name*.



f. Click *Next*.
g. Enter a temporary URL into the *Single sign-on URL* and *Audience URI (SP Entity ID)* fields, such as https://customersso1.fortinet.com/.

> After enrollment is complete, your Fortinet sales representative will provide you with the necessary URLs.

h. Click *Next*.
i. Select the *App type*.
j. Click *Finish*. The Metadata file is generated.



   k. Download and save the Metadata file.

3. Fill out the enrollment form. The following information must be included in the enrollment form:
   - Company name
   - SAML 2.0 IdP name (Okta)
   - Account ID and the Master user email
   - Company administrator and Fortinet Inc. contact
   - IdP Metadata file

The account ID and email can be found in your FortiCloud account dropdown menu. To find the information, log into the Master account. In the top, right corner, select the account. A dropdown menu is displayed that lists the account ID and email information on the left side.

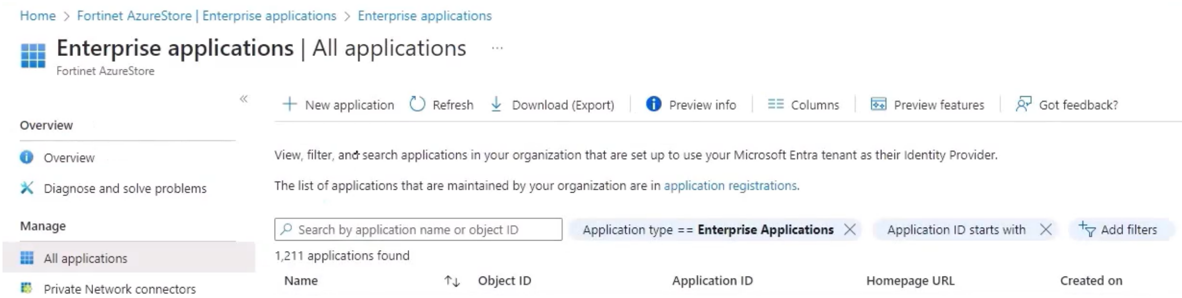
4. Send the enrollment form and Metadata file to your Fortinet sales representative.
   Once you have been approved, you will receive an email with the next steps and SAML information.

Enrolling with Microsoft Entra ID

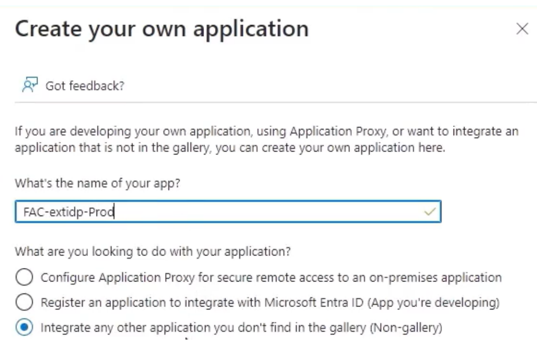
External IdP can be enrolled with Entra ID.

To enroll for external IdP with Microsoft Entra ID:

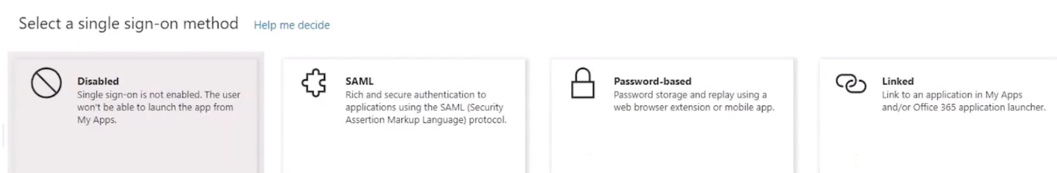
1. Contact your Fortinet sales representative about enrolling for external IdP.
2. Prepare the application:
   a. In Microsoft Azure, select *Microsoft Entra ID*.
   b. Go to *Enterprise applications*.



   c. Click *New application*.
   d. Click *Create your own application*. The *Create your own application* pane is displayed.



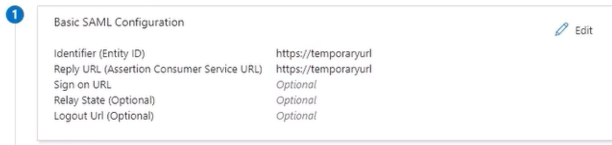
   e. Enter the name of the application.
   f. Click *Create*. The *Overview* page is displayed.
   g. Select *Set up single sign on*.



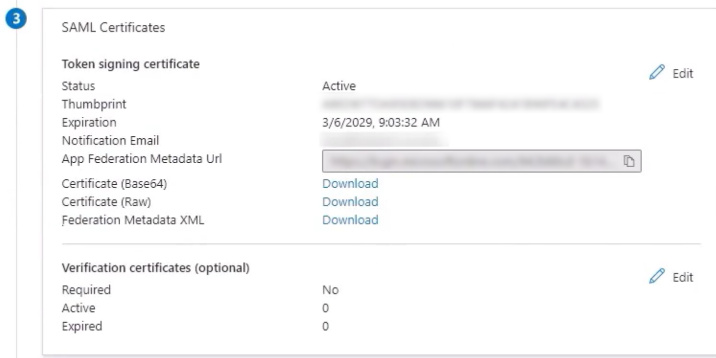
   h. Select *SAML*.
   i. Edit the *Basic SAML Configuration*:
      i. Enter a temporary URL for the *Identifier (Entity ID)* and *Reply URL (Assertion Consumer Service URL)* fields, such as https://customersso1.fortinet.com/.

         After enrollment is complete, your Fortinet sales representative will provide you with the necessary URLs.

      ii. Click *Save*.



j. Download the *Federation Metadata XML* file from the *SAML Certificates* section.



3. Fill out the enrollment form. The following information must be included in the enrollment form:
   - Company name
   - SAML 2.0 IdP name (Microsoft Entra ID)
   - Account ID and the Master user email
   - Company administrator and Fortinet Inc. contact
   - IdP Metadata file

   The account ID and email can be found in your FortiCloud account dropdown menu. To find the information, log into the Master account. In the top, right corner, select the account. A dropdown menu is displayed that lists the account ID and email information on the left side.

4. Send the enrollment form and Metadata file to your Fortinet sales representative.

   Once you have been approved, you will receive an email with the next steps and SAML information.

Configuring external IdP

After you have successfully enrolled for external IdP for your FortiCloud account, you can begin to configure the external IdP with the URLs provided by Fortinet Inc..

This document only covers configuring external IdP with Okta and Microsoft Entra ID. However, multiple external identity providers are supported by FortiCloud. This topic includes the following configuration examples:

- Configuring with Okta on page 109
- Configuring with Entra ID on page 109

Configuring with Okta

External IdP can be configured with Okta.

To configure external IdP with Okta:

1. In Okta, go to *Applications* > *Applications*.
2. Navigate to the application you created when enrolling.
3. Edit the *General* > *SAML Settings*:
   a. Replace the temporary URLs with the information provided by Fortinet Inc. team:

Entra ID field	Fortinet Inc. external IdP information
Single sign-on URL	SP Login (Assertion Consumer Service ACS) URL
Audience URI (SP Entity ID)	SP Entity ID
Default RelayState	Portal URL (Relay State)

   b. Click *Save*.

Configuring with Entra ID

External IdP can be configured with Okta.

To configure external IdP with Entra ID:

1. In Microsoft Azure, select *Microsoft Entra ID*.
2. Go to *Enterprise applications*.
3. Navigate to the application you created when enrolling.
4. Select *Set up single sign on*.
5. Edit the *Basic SAML Configuration*:
   a. Replace the temporary URLs with the information provided by Fortinet Inc. team:

Entra ID field	Fortinet Inc. external IdP information
Identifier (Entity ID)	SP Entity ID
Reply URL (Assertion Consumer Service URL)	SP Login (Assertion Consumer Service ACS) URL
Relay State	Portal URL (Relay State)
Logout Url	SP Logout (SLS)

   b. Click *Save*.

Adding external IdP roles to the application

Once you have configured the external IdP application, you can begin to add external IdP roles. For more information on roles, see External IdP roles on page 48.

This document only covers configuring external IdP with Okta and Microsoft Entra ID. However, multiple external identity providers are supported by FortiCloud. This topic includes the following examples on adding external IdP roles:

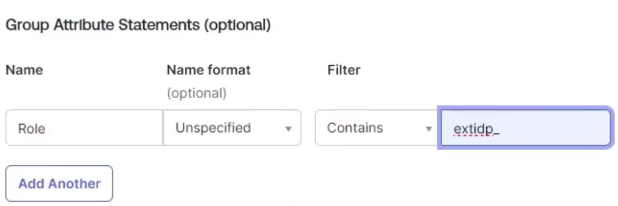
- Adding roles in Okta on page 110
- Adding roles in Entra ID on page 113

Adding roles in Okta

External IdP roles can be added in Okta.

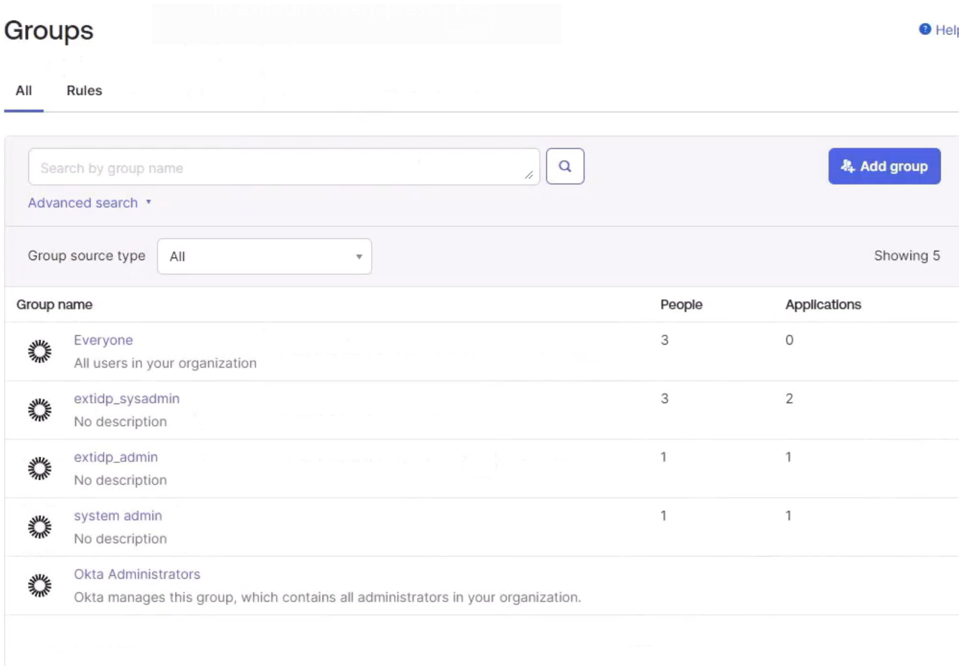
To add external IdP roles in Okta:

1. In Okta, go to *Applications* > *Applications*.
2. Navigate to the application you created when enrolling.
3. Edit the *General* > *SAML Settings*:
    a. In *Group Attribute Statements*, set the *Name* to *Role* and the *Filter* to *Contains* > *externidp_*.

    b. Click *Next*.
    c. Click *Finish*.
4. Assign the users and groups:

a. Go to *Directory > Groups*.



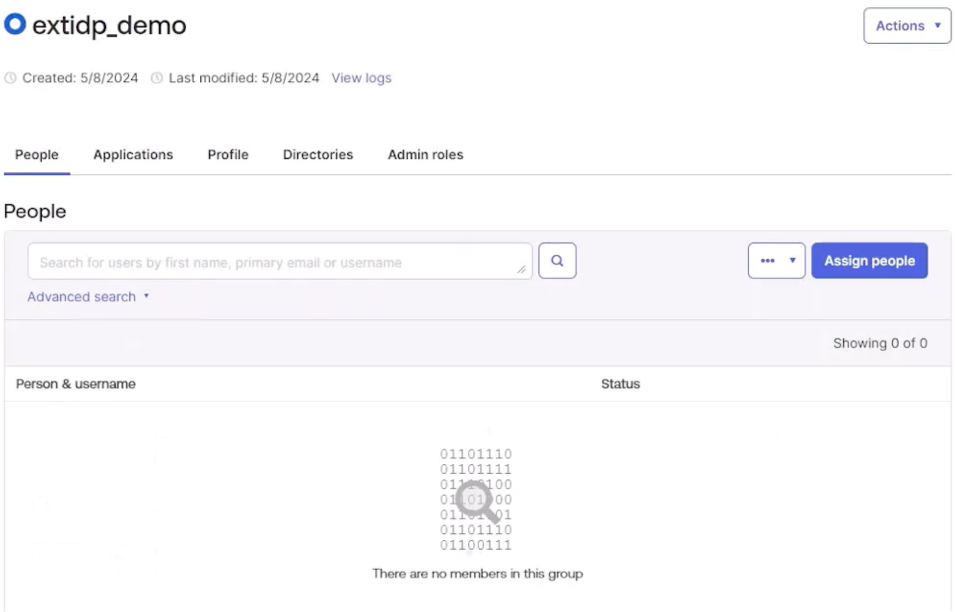
b. Click *Add group*.

c. Set the *Name* to *extidp_<name>*.

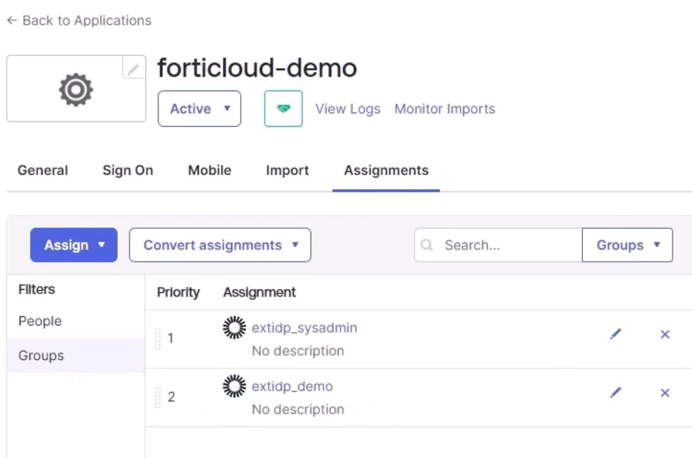
d. Click *Save*.

e. Select *Group name > Everyone*.

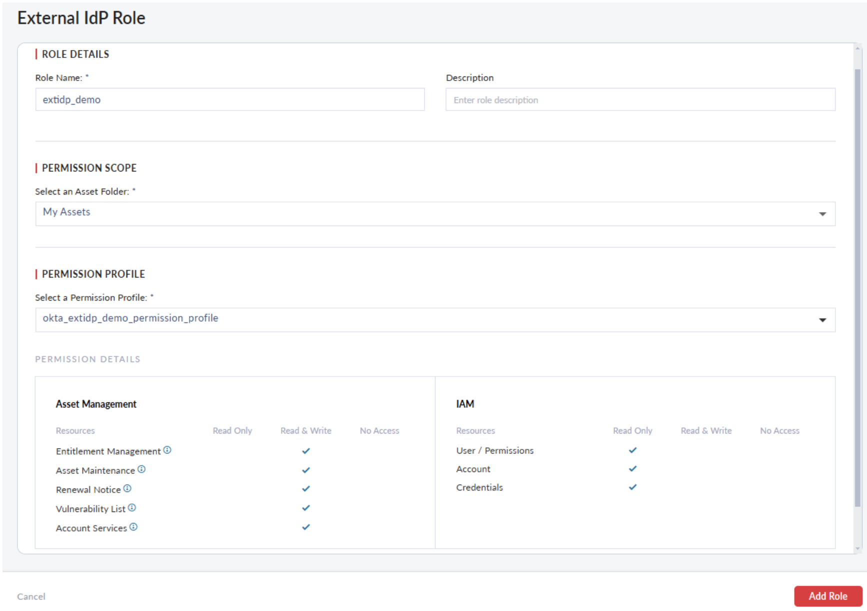
f. Select the group you created.



   g. Click *Assign people* to select the users you want to add.
   h. Go to the *Applications* tab and click *Assign applications* to select the application you created.
5. Create the external IdP roles:
   a. Go to *Applications > Applications*.
   b. Select the application and go to the *Assignments* tab.
   c. Copy the group name.



   d. In the FortiCloud IAM portal, create an external IdP role with the role *Name* set to the group name you copied. See Adding external IdP roles on page 49.



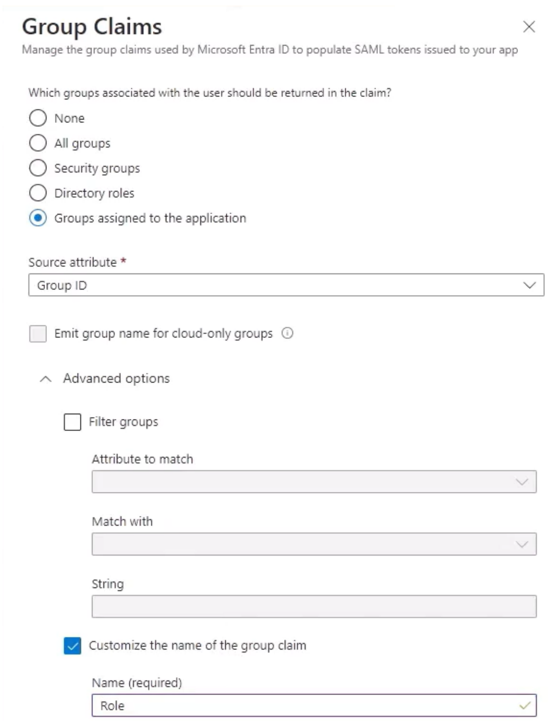
e. Repeat these steps for other groups, as needed.
   You can now log into FortiCloud Services using the external IdP roles. See Selecting IdP roles on page 51.

Adding roles in Entra ID

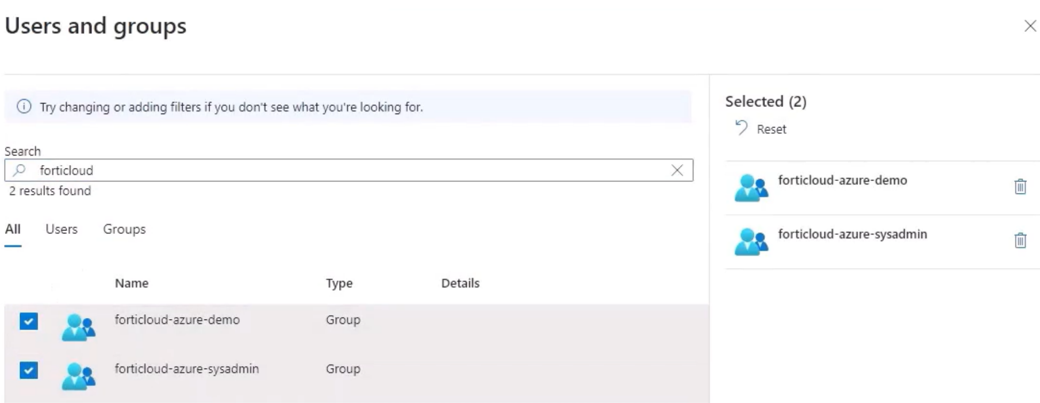
External IdP roles can be added in Entra ID.

To add external IdP roles in Entra ID:

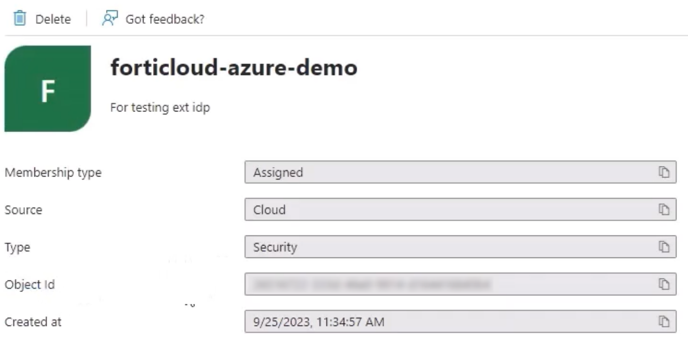
1. In Microsoft Azure, select *Microsoft Entra ID*.
2. Go to *Enterprise applications*.
3. Navigate to the application you created when enrolling.
4. Select *Set up single sign on*.
5. Edit *Attributes & Claims*:
   a. Click *Add new claim* to create a username source attribute.
   b. Click *Add a group claim* to create a role group claim.



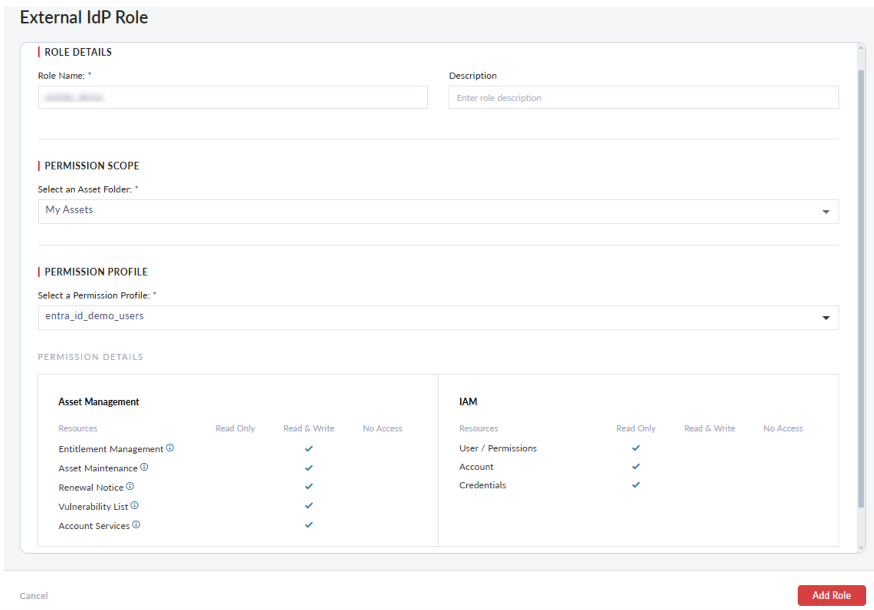
6. Assign the users and groups:
   a. Go to *Overview > Assign users and groups*.
   b. Click *Add user/group*.
   c. Select *Users and groups*.
   d. Search for the desired groups and select them.



   e. Click *Assign*.
7. Create the external IdP roles:
   a. Go to *Overview > Assign users and groups*.
   b. Select the group.
   c. Copy the *Object Id*.



d. In the FortiCloud IAM portal, create an external IdP role with the role *Name* set to the *Object Id*. See Adding external IdP roles on page 49.



e. Repeat these steps for other groups, as needed.

You can now log into FortiCloud Services using the external IdP roles. See Selecting IdP roles on page 51.

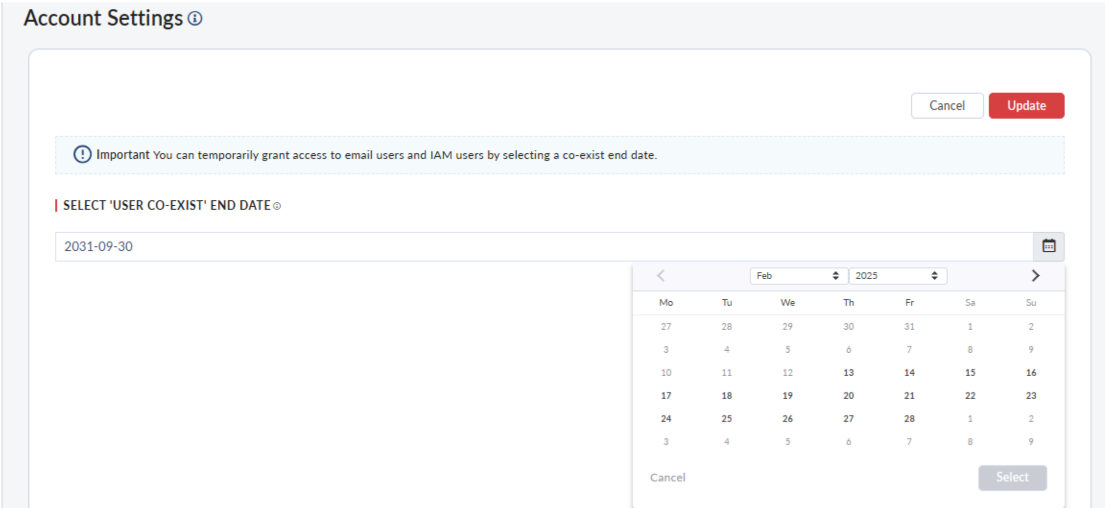
Setting a co-exist end date

External IdP integration enables users managed by the SAML 2.0 IdP to access their FortiCloud Accounts through external IdP roles defined in IAM portal. During the transition to external IdP user management, sub users or IAM users can be granted temporary access to FortiCloud using the co-exist date setting.

The co-exist date is the deadline until which sub users, IAM users, and external IdP users can access the IAM portal. Once the co-exist end date has passed, sub user and IAM user access are disabled.

To set a co-exist end date:

1. Go to *Account Settings*.
2. Click *Edit*.
3. Click the *Select 'user co-exist' end date* calendar icon. A calendar is displayed.



4. Select the date that you want to limit the account to external IdP users only.
5. Click *Select*.
6. Click *Update*. A confirmation message is displayed.

Troubleshooting external IdP

The following topic provides possible errors encountered from external IdP and troubleshooting suggestions. Content covered in this topic includes:

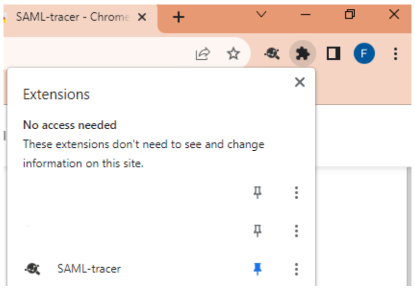
- Verifying SAML assertion values with SAML tracer on page 116
- FortiCloud errors on page 118
- SAML login portal errors on page 120
- The option to add an External IdP Role in the FortiCloud IAM portal is missing on page 121
- Permission details of an external IdP role display Not Supported for some of the cloud portal permissions even though they are enabled in permission profile on page 121

Verifying SAML assertion values with SAML tracer

If there are any SAML-related errors, a SAML tracer plugin may be useful to verify if the required fields are in the SAML assertion.

To use the Chrome SAML-tracer:

1. Install the SAML-tracer chrome extension from Chrome Web Store.
2. Clear your browser cookies or open an incognito browser.
3. Open the SAML tracer from the extensions.

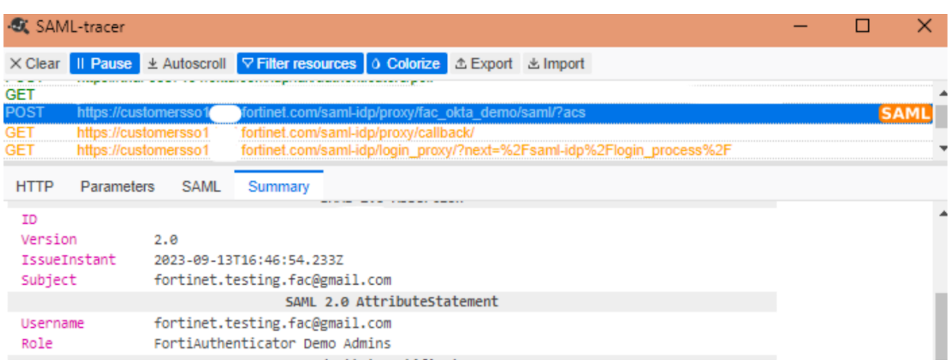


4. Begin recoring the login process.
5. Log in with the external IdP and navigate to FortiCloud Services.
6. Click *Pause* after login process is done.
7. Verify the SAML assertion values:
   a. In the SAML tracer, locate the *https://customersso1.fortinet.com/saml-idp/proxy/{REALM}/saml/?acs* POST API call.
   b. Check that both the *Subject* field with the username and the *Role* attribute are included in the SAML assertion. See POST request from IdP to https://customersso1.fortinet.com on page 117 and POST request from https://customersso1.fortinet.com to https://support.fortinet.com on page 118 for more information.
8. If there are errors in the SAML assertion, click *Export* to export the file and send it to the Fortinet Inc. team. For more information on potential errors, see FortiCloud errors on page 118.

The process should be similar for Firefox and other web browsers.

POST request from IdP to https://customersso1.fortinet.com

Under the POST request, after the redirect from external IdP, make sure that there are two attribute statements (*Username* and *Role*). Take note of the *Role* value and make sure there is a corresponding FortiCloud IAM portal external IdP role.

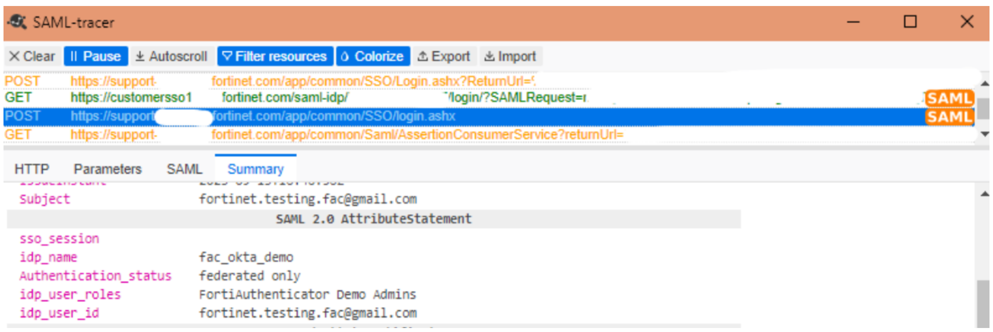


POST request from https://customersso1.fortinet.com to https://support.fortinet.com

After customersso1 redirects to support.fortinet.com, make sure that there are three key attributes:

- *idp_name*: The realm name assigned during enrollment (*https://customersso1.fortinet.com/saml-idp/proxy/{realm name}/saml/?acs*)
- *idp_user_roles*: The external IdP role
- *idp_user_id*: The username

If errors continue, please provide a screenshot of the error, the IdP information, and SAML tracer logs to Fortinet Inc. team.



FortiCloud errors

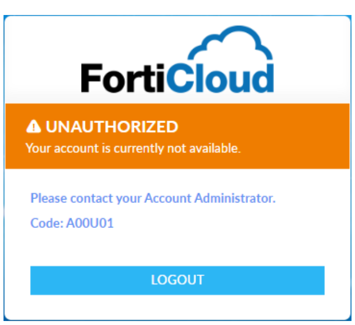
After successful login, you will redirect to support.fortinet.com. The landing page is the FortiCare portal.

The following are errors that may be encountered inside FortiCloud Services.

A00U01 error

If there is an A00U01 error shown, this is mostly caused by a missing or incorrectly spelled *Role* attribute in the SAML assertion. Make sure that *Role* is set under the attributes section of the IdP configuration.

Role is case sensitive.

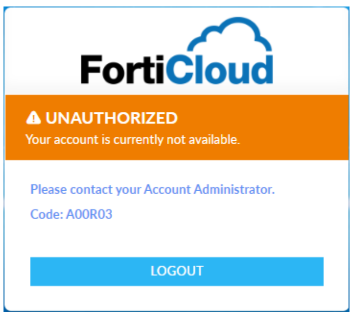


To troubleshoot the A00U01 error:

1. Run a SAML tracer. See Verifying SAML assertion values with SAML tracer on page 116.
2. In the *Summary* tab, check if the *Role* attribute is absent. If it is absent:
   a. Navigate to the SAML settings of your IdP application.
   b. Add the *Role* information and save the settings.
   c. Log in again to see if the issue has been resolved. If it has not been resolved, contact Fortinet Inc. Support.

A00R03 error

If there is an A00R03 error shown, this is mostly caused by a mismatch in the value of the *Role* attribute in the SAML assertion to an external IdP role in the FortiCloud IAM portal.

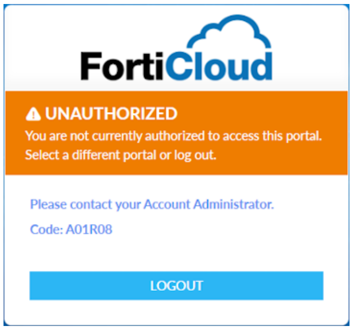


To troubleshoot the A00R03 error:

1. Run a SAML tracer to identify the *Role* attribute. See Verifying SAML assertion values with SAML tracer on page 116.
2. In the FortiCloud IAM portal, check to see if an external IdP role that matches the *Role* from the SAML tracer exists.
3. If the role is missing, create an external IdP role with the same name as the *Role* attribute. See Adding external IdP roles on page 49.
4. Log in again to see if the issue has been resolved. If it has not been resolved, contact Fortinet Inc. Support.

A01R08 error

If there is an A01R08 error shown, this is mostly caused by the external IdP role (assigned to the user) not having the permissions needed to access the Asset Management portal.



To troubleshoot the A01R08 error:

1. Using the master account, navigate to the IAM portal.
2. Review the permission profile assigned to the external IdP role.
3. If they do not have permissions for the Asset Management portal, select *Asset Management* in *Add Portal*.
4. Configure the access level of the role.
5. Log in again as the external IdP role to see if the issue has been resolved. If it has not been resolved, contact Fortinet Inc. Support..

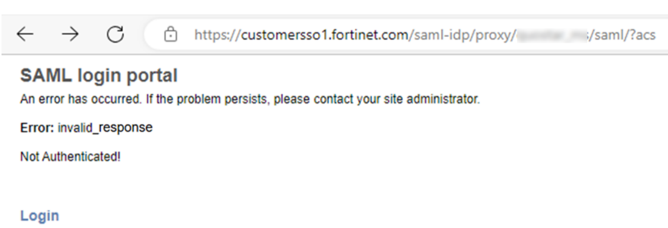
SAML login portal errors

Below are possible errors that may be encountered when an IdP redirects to customersso1.fortinet.com.

invalid_response error

The *invalid_response* error may occur when:

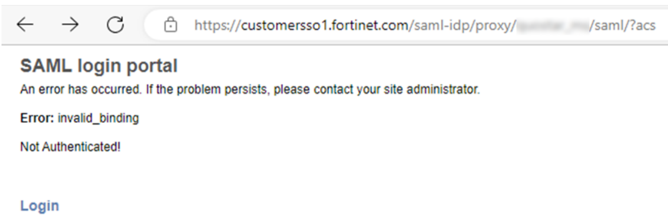
- The wrong ACS or Entity ID URL is used in the SAML assertion. For example, the incorrect use of http versus https, or vice versa.
- The incorrect attributes are provided in the SAML assertion. For example, since the *Role* attribute is case sensitive, entering *role* would result in an error.
- The ACS or Entity ID URL was inputted into the incorrect place while setting up the IdP.
- The certificate configured in the IdP does not match the certificate provided in the IdP Metadata during enrollment. New Metadata would need to be provided to the Fortinet Inc. team.



invalid_binding error

The *invalid_binding* error may occur when:

- No attributes are provided in the SAML assertion. For example, the *Username* or *Role* attribute is missing.
- No account is bound to the external IdP. Contact the Fortinet Inc. team.
- The ACS URL is called with POST binding but there is no SAML response. The ACS URL generally accepts only HTTP-POST binding.
- The ACS URL is used as the login URL instead of the portal URL.



The option to add an *External IdP Role* in the FortiCloud IAM portal is missing

After successfully logging into FortiCloud Services, in order to add external IdP roles in the IAM portal, the user account and account ID should be provided to the Fortinet Inc. team in the Enrollment Form during setup. See Enrolling for external IdP on page 103.

If there is no *External IDP Role* option under *Add New* in the IAM portal *Users* page, make sure the correct account ID and username was provided to the Fortinet Inc. team. If more FortiCloud users are required to have this permission, please send the list of account IDs and username to Fortinet Inc. team.

The account ID and username can be found when the user is logged into FortiCloud Services and clicks in the top right corner. The dropdown should show a six or seven digit number, which is the account ID.

After the user is given access to external IdP feature, there will be an *External IDP Role* option under *Add New* in the IAM portal *Users* page. See Adding external IdP roles on page 49.

Permission details of an external IdP role display *Not Supported* for some of the cloud portal permissions even though they are enabled in permission profile

The permission profile is a generic set of permissions that can be used for IAM users, API users, and external IDP roles. The permission details card is marked as *Not Supported* if the Cloud service does not support external IDP role permissions.

Frequently asked questions

This section answers some frequently asked questions (FAQ) related to the Identity & Access Management portal:

General questions

This topic discusses general questions related to the Identity & Access Management portal.

1. **Can anyone access the IAM portal or does it require special permissions?**
   Any Account Owner (the person who created the account, also known as the master user) can access the IAM portal. IAM users have access to the portal based on the permission profile assigned. See Permission profiles on page 17.
2. **Why are you changing user management?**
   FortiCloud supports many cloud services all accessible with a unified FortiCloud account. IAM introduces granular access control for various cloud services and improved common user management for all services. For example, an IAM user can be created by an admin with access to specific services with a designated role such as admin or read only.
3. **What benefit does IAM offer me?**
   IAM provides in-depth access and permission control for services. Permission profiles provide additional security and strong access control for account admins.

IAM user FAQ

This topic discusses frequently asked questions related to the IAM users.

1. **Do I need to be a master user to create IAM users?**
   Master users can create IAM users. IAM users with Admin/Read-Write permissions to the IAM portal can also create IAM users. See Adding IAM users on page 29.
2. **Which FortiCloud portals support IAM users?**
   Most FortiCloud portals include IAM user support. Refer to the product portal administration guides for more information about IAM user support and permissions.
3. **What is the *alias* for IAM users?**

Each account is identified with a unique Account ID. Instead of remembering the Account ID, the account admin can set an alias (a unique string) to easily identify the account. An account alias can be used by IAM users when they log in to a portal.

4. **Is an alias required?**

   Adding an account alias is optional. IAM users can use an Account ID or alias if set.

5. **Can I modify or change the alias?**

   Yes, admins can update the alias from the *My Account* menu in the top menu bar.

   If you are using the legacy Sub User Model, only the master user can change the alias.

6. **How do I set a password for an IAM user?**

   When creating an IAM user, the system generates a link to create a password which can be shared with the IAM user. After the IAM user is logged in, they can set a new password of their choice. See Adding IAM users on page 29.

7. **Do I have to provide new IAM users with the generated password file?**

   You should provide the generated reset password link to the IAM user.

8. **Can admins update or edit an IAM user's permissions to portals or assets?**

   Yes. An admin (master user or IAM user with Admin/Read-Write permissions) can change the permissions from IAM Portal after creating the IAM user.

9. **Can I change an IAM user's individual permissions in a user group?**

   Once an IAM user is added to a user group, only the group permission profile applies. See Managing IAM users on page 32.

10. **How do IAM users log in to the FortiCloud account?**

    On the Login screen, select *IAM Login* and enter the Account ID (or Alias), IAM username and password. See Logging in as an IAM user on page 38.

External IdP role FAQ

This topic discusses frequently asked questions related to the external IdP roles.

1. **After enabling external IdP, if the external IdP has any problem, is it possible to still access the FortiCloud account?**

   The master user can always access the account even if external IdP is enabled. Using one user management method is recommended. That said, if a local IAM User is needed for some scenario, you can configure a co-exist date to use both the local IAM users and external IdP roles. See Setting a co-exist end date on page 115.

2. **Can I login directly to www.forticloud.com with the users in my external IdP?**

   Users are stored in an external IdP (such as Azure, Okta, and so on) and FortiCloud does not store user information or credentials. Therefore, logging in directly to www.forticloud.com using the email or IAM login tab would not work. Only IAM users (and legacy sub-users) created under the master account can login directly through www.forticloud.com, however that access will expire when the co-exist period ends.

3. **How do you resolve the *Receive Microsoft error: Authentication method by which the user authenticated with the service doesn't match requested authentication method 'Password, Protected Transport. Contact the FortiCloud Application owner* error?**

   Please contact your Fortinet Sales representative or the Customer Service team through a ticket with the screenshots of the error and URLs.

4. **Why does logging into FortiCloud as an IAM User or legacy sub-user no longer work?**

   Once the transition period stated in the enrollment form is passed, only the master account will be able to log in directly. IAM users and sub users will not be able to log in anymore. The co-exist end date may be updated to allow for more transition time. See Setting a co-exist end date on page 115.

5. **How do you disable the External IdP feature?**

   Contact your Fortinet Sales representative or the Customer Service team through a ticket to disable the feature.

6. **Do we need to reach out to Fortinet every time we want to add new users within external IdP?**

   No. User management is handled on the external IdP (such as Azure, Okta, and so on) and permissions may be controlled through the *Role* attribute value mapping to corresponding external IdP role and permission profile in FortiCloud.

7. **Why does the FortiCloud account not show the option to add an external IdP role in the FortiCloud IAM portal?**

   The option to add external IdP roles is displayed only for accounts enrolled for external IdP. If external IdP is enabled for the FortiCloud account, ensure that the user is logged in as the master user with the account ID matching that of the enrollment form.

8. **How do you update the certificate for External IdP when it is going to expire?**

   Contact your Fortinet Sales representative or the Customer Service team through a ticket in advance with the new certificate. It may be updated on Fortinet side with specified date, time, and time zone.

9. **Can I have multiple *Role* values for a single user?**

   Yes, multiple values of the *Role* attribute can be passed to FortiCloud. When multiple roles are configured, users will be prompted by a screen to select a role to proceed. Each value of Role must have a corresponding external IdP role in the master account.

10. **Can I use External IdP to log into a FortiGate?**

    No. SSO on devices from external IdP is not supported for now. Instead, the external IdP can be configured directly onto the device. See Configuring SAML SSO login for FortiGate administrators with Entra ID acting as SAML IdP.

11. **How do I link a different account number to my external IdP?**

    Provide your account number and Fortinet SAML URLs to your Fortinet Sales representative or the Customer Service team through a ticket.

12. **How do I update the IdP meta data?**

    Contact your Fortinet Sales representative or the Customer Service team through a ticket with the new IdP metadata file and Fortinet SAML URLs.

13. **Can I have both external IdP users and IAM users?**

    It is recommended to use one method of managing users. However, a co-exist date may be updated until the customer feels ready to transition to external IdP fully.

14. **Will the master user access expire after the co-exist period ends?**

    No. The master user access with email and password credentials to the FortiCloud account is not impacted by co-exist period. You can always login with master user and update co-exist period if needed.

15. **What do I do if the URL is not redirecting to IdP login page?**

Try the login in incognito mode and use the portal URL provided by Fortinet team:
https://customersso1.fortinet.com/saml-idp/proxy/**{ext-idp-Id}**/login/

16. **Is External IdP supported when using FortiCloud Organization?**

    External IdP works with FortiCloud Organizations.

    Please ensure the following:

    - The external IdP is connected to the organization root account.
    - The permission profile is set to type Organizations. See Permission scope on page 20.
    - The external IdP role type is also set to Organizations with required scope.

Partner role FAQ

For Partner role-related FAQs, see the Partner Administration Guide.

Legacy sub-user account FAQ

This topic discusses frequently asked questions related to legacy sub-user accounts.

1. **Can I still create traditional sub accounts?**

   Yes, however we strongly recommend migrating your users to the IAM portal to take advantage of the security features. The IAM portal includes a sub user migration wizard for easy migration.
2. **Will you stop supporting sub accounts, and if so, when?**

   While both models co-exist currently, the legacy user management model is expected to be deprecated in the near future. The timeline for deprecation will be communicated later.
3. **What limitations do legacy sub accounts have?**

   Legacy sub accounts have limited permission controls. The IAM permission model enhances the access control with fine grained permissions for various cloud products and services.

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