

FortiSandbox PaaS - Deployment Guide

Version 24.1.4436

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FortiSandbox PaaS 24.1.4436 Deployment Guide

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Change Log

Date	Change Description
2024-04-16	Initial release.

Introduction

FortiSandbox PaaS is a cloud-based sandbox service. The service subscription is available for purchase under FortiCloud.

For upgrade information, product integration and support, and resolved and known issues, see the [FortiSandbox Cloud Release Notes](#).

Requirements

The following items are required before you can initialize FortiSandbox PaaS:

- **FortiCloud account:** Subscribe to a FortiCloud Premium account. A FortiCloud account is required to launch FortiSandbox PaaS Cloud.
- **Internet access:** You must have internet access to create a FortiSandbox PaaS instance.
- **Browser:** A device with a browser to access FortiSandbox PaaS.



Once you create a new FortiCloud account, please wait 30 minutes before proceeding to deploy FortiSandbox PaaS.

Licensing

FortiSandbox PaaS requires a FortiCloud Premium license.

SKU	Description
FC-15-CLDPS-219-02-DD	FortiCloud Premium Account License. Access to advanced account and platform features. Per account license.

The Cloud VM Expansion license is required to utilize Cloud VMs for AI-powered sandbox dynamic analysis.

SKU	Description
FC1-10-SACLP-433-01-DD	FortiSandbox Cloud Single VM (1 VM) Expansion: Expands dedicated sandbox instance by 1 Cloud VM
FC2-10-SACLP-433-01-DD	FortiSandbox Cloud 5 VMs Expansion: Expands dedicated sandbox instance by 5 Cloud VMs

Deploying FortiSandbox PaaS

This section explains how to deploy and manage FortiSandbox PaaS with FortiGate and FortiMail devices.

FortiSandbox PaaS supports TLS v1.2. Ensure your browser and firewall setting permits TLS v1.2.



FortiSandbox PaaS Cloud can only communicate with FortiGate, FortiMail and FortiClient.

Provision FortiSandbox PaaS

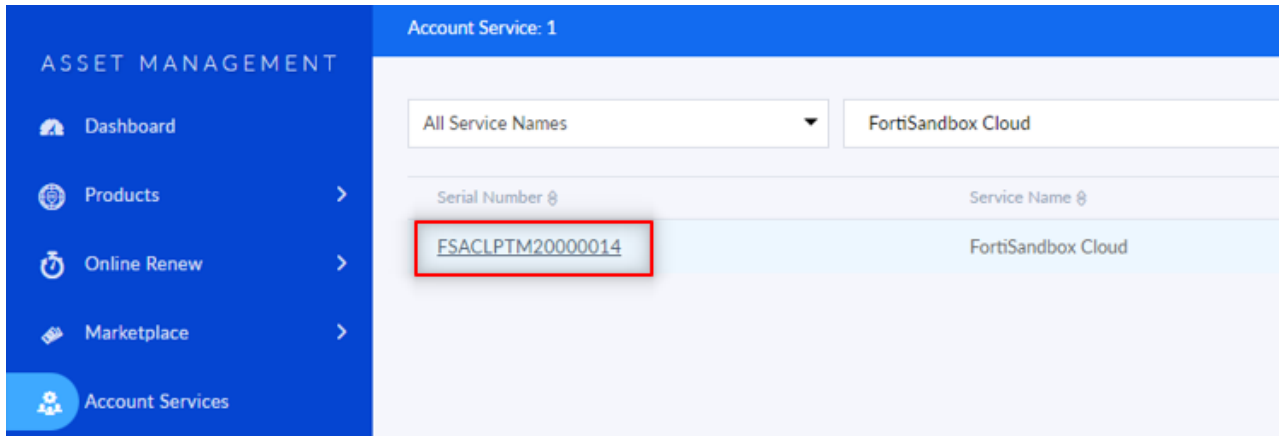
To verify you have a product entitlement:

1. Log in to [FortiCloud](#). The *Asset Management* portal opens.
2. Go to *Account Services* and verify the subscription for FortiSandbox PaaS.

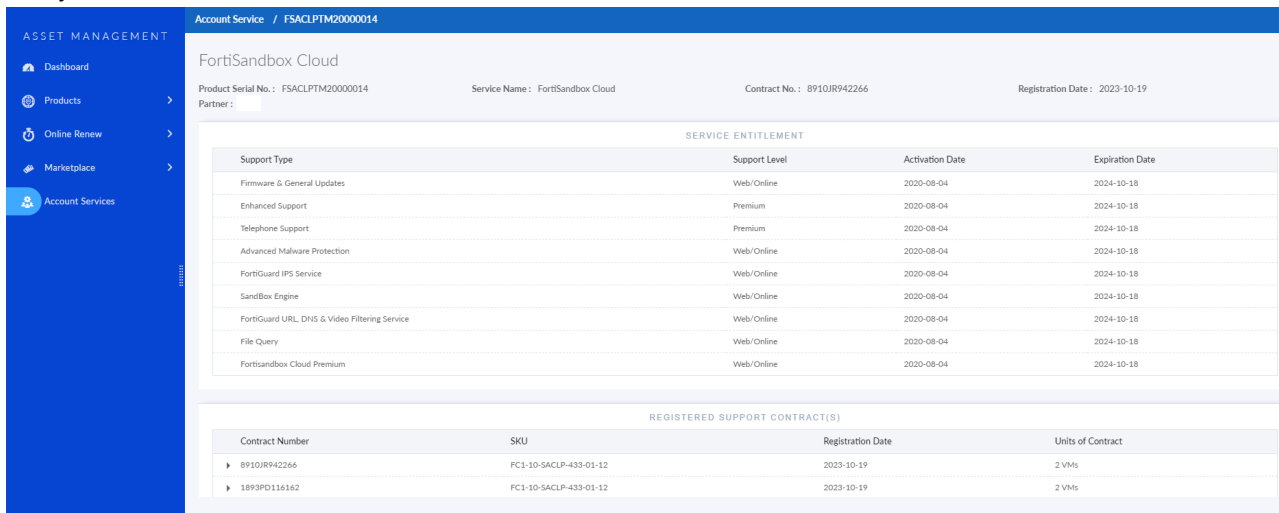
The screenshot shows the FortiCloud Premium Asset Management portal. The top navigation bar includes the FortiCloud Premium logo, 'Services' dropdown, and 'Support' dropdown. The left sidebar is titled 'ASSET MANAGEMENT' and contains links for Dashboard, Products, Online Renew, Marketplace, and Account Services (highlighted with a red box). The main content area is titled 'Account Service: 1' and features a search bar with 'All Service Names' and 'FortiCloud Premium Subscription'. Below the search bar is a table with columns for 'Serial Number' and 'Service Name'. The table contains one entry with the serial number 'FCLDPS0000014958' and the service name 'FortiCloud Premium Subscription' (highlighted with a red box).

Serial Number	Service Name
FCLDPS0000014958	FortiCloud Premium Subscription

3. Click the Serial Number.

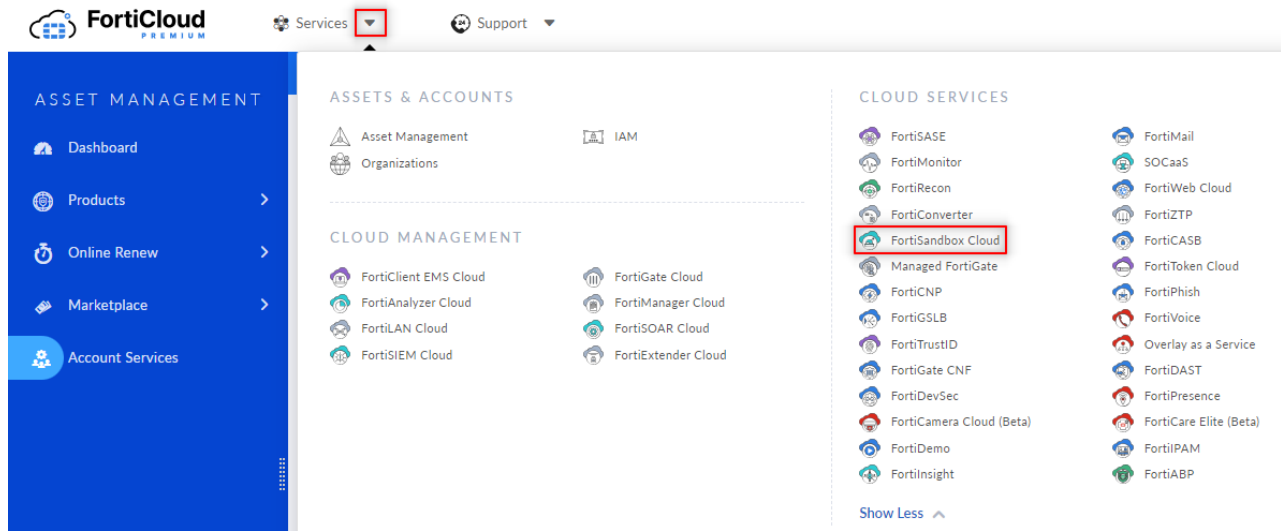


4. Verify the entitlements for FortiSandbox PaaS.



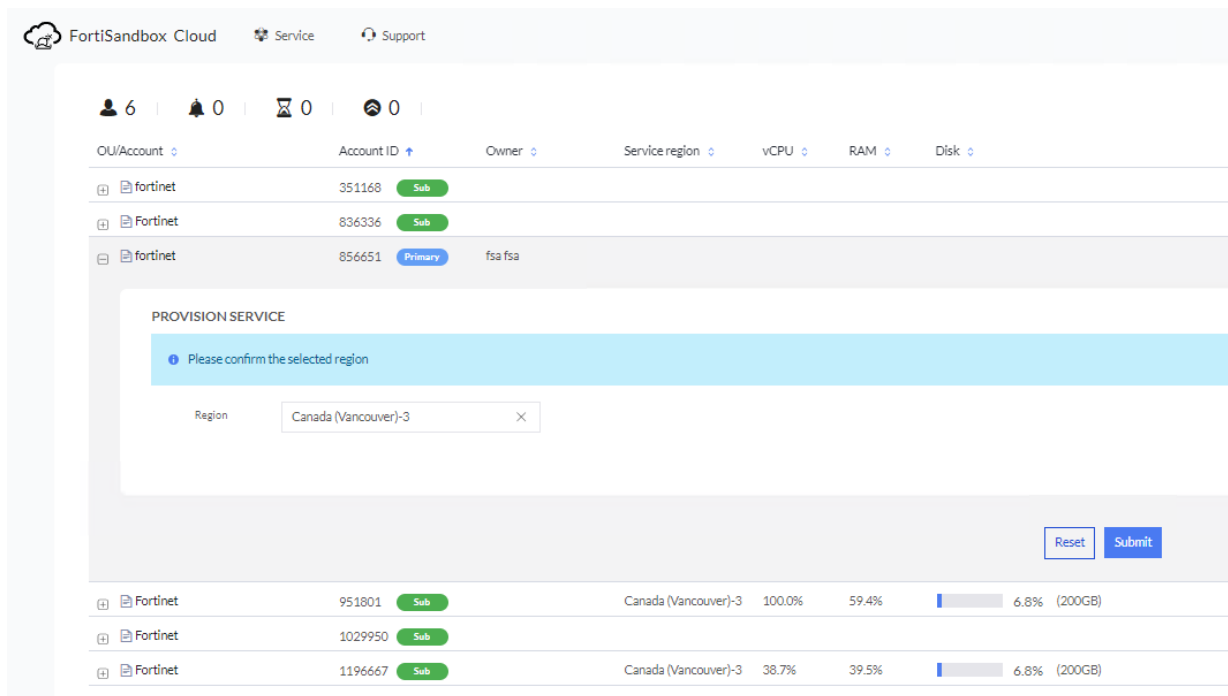
To launch FortiSandbox PaaS:

1. In the Asset Portal, go to *Services > Cloud Services > FortiSandbox Cloud*. The *FortiSandbox Cloud & Service* page opens. Alternatively, you can provision the PaaS instance from FortiSandbox Cloud Portal <https://fortisandboxcloud.com>.



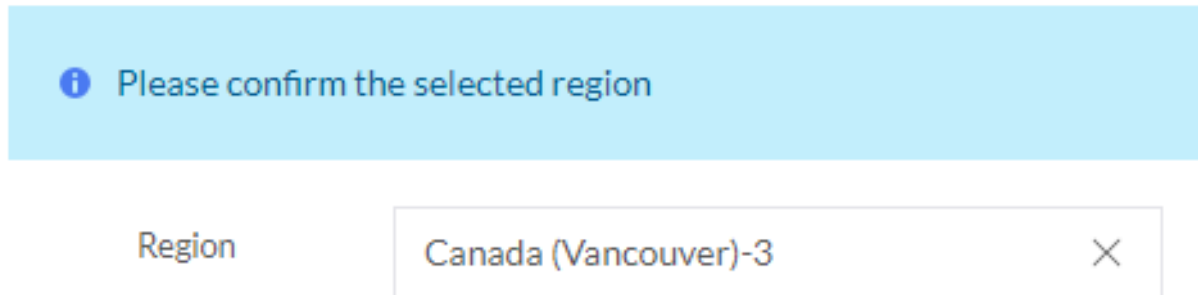
2. Select the region and provision the instance.

- a. Select the account that purchased the FortiSandbox PaaS services and expand the instance. The *Account ID* represents the dedicated instance.



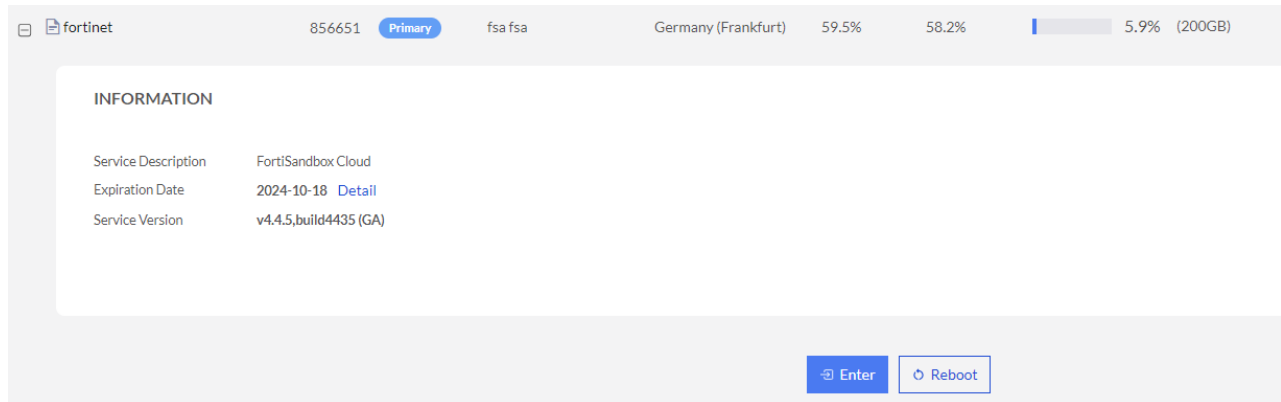
- b. Select the region from the dropdown menu.

PROVISION SERVICE



- c. Click *Submit* to provision the instance. Allow a few minutes for the FortiSandbox PaaS Cloud instance to be provisioned.
If an entitlement is not set up correctly, the provisioning will report an error. For information, see the [Ordering Guide](#).

3. When provisioning is complete, the dedicated PaaS instance displays the resources and firmware information.



4. Click *Detail*. The *License Detail* information is displayed.

License Detail					
SN	Start Date	End Date	License Status	Action	
FSACLPTM20000014	2020-08-04	2024-10-18	Active	-	

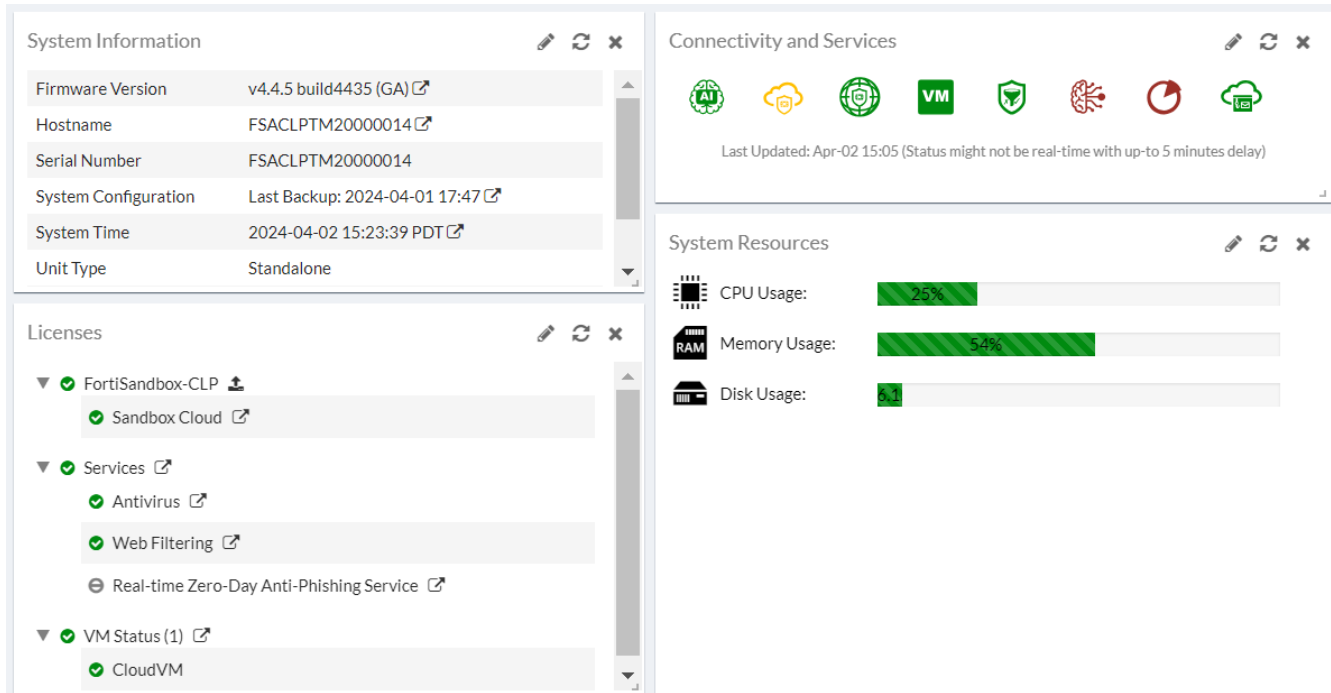
5. Click *Enter* to access the web GUI.

Verifying system status

When you log into FortiSandbox PaaS, *Dashboard > Status* is displayed.

Verify the following in the PaaS Dashboard:

- A *Serial Number* has been assigned.
- The *Licenses* are valid.
- The *System Resources* and *Disk Monitor* widgets show normal usage.
- The *Connectivity and Services* (Deep AI, Community Cloud Server, FDN Download Server, VM image Server, Web Filtering Server, FortiNDR Server, FortiAnalyzer Log Server and Real-time Zero-Day Anti-Phishing Server).



Assigning sandboxing VM clones

For new setups, the sandboxing VM clones are not assigned by default since there are different types of VMs. Assign a clone number to use the dynamic analysis feature. The Cloud VM for FortiSandbox PaaS supports scanning files for Windows, Microsoft Office, Linux, MAC and Android.

To assign a clone number:

1. Go to *Scan Policy and Object > VM Settings*.
2. Double-click the *Clone #* to modify it. Click the Green Arrow icon to update and then click *Apply*.

VM Images

Actions	Name	Status	Clone #	Load #	Browser	Extensions
- Remote VM						
	CloudVM	activated	<input type="text" value="0"/> →			exe htm ppsx ppt pptx xls xlsx dll doc docx rtf ps1 js msi msg url dot xlt pps pot upx apk WEI

Integrating Security Fabric

FortiSandbox PaaS uses a Fortinet proprietary traffic protocol (based on OFTP) to communicate with connected Security Fabric devices via TCP port 514. FortiSandbox PaaS uses port TCP/4443 for FortiGate Inline Block (HTTP/2). The traffic data is encrypted over TLS. Ensure any firewall between FortiSandbox PaaS and the fabric devices allows for them to communicate.

For devices connected to the Security Fabric, ensure they are configured properly. Do all related configuration from either the root Fabric or FortiManager.

To integrate with the Security Fabric in FortiGate:

1. Go to *Security Fabric > Fabric Connectors* and double-click the *Cloud Sandbox* card.
2. Set *Status* to *Enable*.
3. For *Type*, select *FortiSandbox Cloud*.



If the FortiSandbox PaaS option is grayed out or not visible, enter the following in the CLI:

```
config system global
    set gui-fortigate-cloud-sandbox enable
end
```

4. Click *OK*.
5. In FortiSandbox PaaS, go to *Security Fabric > Device*, click the *Authorize* icon on the FortiGate so that it can establish Fabric connectivity. Verify that the *Status* is updated.

To integrate with Security Fabric in the FortiGate CLI

For information, see [Configuring sandboxing](#) in the *FortiGate / FortiOS Administration Guide*.

To integrate with Security Fabric in FortiMail:

1. In FortiMail, go to *System > FortiSandbox*.
2. For *FortiSandbox PaaS type*, click *Enhanced Cloud*.

- In FortiSandbox PaaS, go to *Security Fabric > Device*, click the *Authorize* icon on the FortiMail so that it can establish Fabric connectivity. Verify that the *Status* is updated.



Specific firmware versions of FortiMail models support the above Security Fabric connectivity. See [Requirements on page 5](#).

To troubleshoot the connection on FortiMail:

Run the following CLI command:

```
diagnose debug application sandboxclid <ID>
```

Example:

In the example below, the connection failed due to a firewall policy on the client side to block connectivity to port 514.

```
insidemail02 # diagnose debug application sandboxclid 65
System Time: 2023-04-12 09:02:43 JST (Uptime: 5d 8h 48m)

insidemail02 # diagnose debug application sandboxclid display
System Time: 2023-04-12 09:03:07 JST (Uptime: 5d 8h 48m)
sandboxclid:2023-04-12T09:03:00:SandboxJob.cpp:145:process():use configured FortiSandbox
server
sandboxclid:2023-04-12T09:03:00:Connection.cpp:31: __s2ip():'fortisandboxcloud.com' is not an
IP, try to resolve it
sandboxclid:2023-04-12T09:03:00:Connection.cpp:321:ConnectionSecure__():remote address is
fortisandbox cloud, user_id=1423794
sandboxclid:2023-04-12T09:03:00:Connection.cpp:31: __s2ip():'fortisandboxcloud.com' is not an
IP, try to resolve it
sandboxclid:2023-04-12T09:03:00:Connection.cpp:167:Connect():connecting to 66.35.19.98
sandboxclid:2023-04-12T09:04:02:Connection.cpp:171:Connect():connect() failed, errno = 115
sandboxclid:2023-04-12T09:04:02:Session.cpp:248:ConnectImpl():FortiSandbox server is not
available at the moment. Connection block time: 1 seconds
sandboxclid:2023-04-12T09:04:02:Session.cpp:101:Connect0():connection broken
sandboxclid:2023-04-12T09:04:10:Connection.cpp:31: __s2ip():'fortisandboxcloud.com' is not an
IP, try to resolve it
sandboxclid:2023-04-12T09:04:10:Connection.cpp:321:ConnectionSecure__():remote address is
fortisandbox cloud, user_id=1423794
sandboxclid:2023-04-12T09:04:10:Connection.cpp:31: __s2ip():'fortisandboxcloud.com' is not an
IP, try to resolve it
sandboxclid:2023-04-12T09:04:10:Connection.cpp:167:Connect():connecting to 66.35.19.98
sandboxclid:2023-04-12T09:04:15:Connection.cpp:31: __s2ip():'fortisandboxcloud.com' is not an
IP, try to resolve it
sandboxclid:2023-04-12T09:04:15:Connection.cpp:321:ConnectionSecure__():remote address is
fortisandbox cloud, user_id=1423794
sandboxclid:2023-04-12T09:04:15:Connection.cpp:31: __s2ip():'fortisandboxcloud.com' is not an
IP, try to resolve it
sandboxclid:2023-04-12T09:04:15:Connection.cpp:167:Connect():connecting to 66.35.19.98
sandboxclid:2023-04-12T09:04:20:Connection.cpp:31: __s2ip():'fortisandboxcloud.com' is not an
IP, try to resolve it
sandboxclid:2023-04-12T09:04:20:Connection.cpp:321:ConnectionSecure__():remote address is
fortisandbox cloud, user_id=1423794
sandboxclid:2023-04-12T09:04:20:Connection.cpp:31: __s2ip():'fortisandboxcloud.com' is not an
IP, try to resolve it
sandboxclid:2023-04-12T09:04:20:Connection.cpp:167:Connect():connecting to 66.35.19.98
```

```
sandboxclid:2023-04-12T09:05:11:Connection.cpp:171:Connect():connect() failed, errno = 115
sandboxclid:2023-04-12T09:05:11:Session.cpp:248:ConnectImpl():FortiSandbox server is not
available at the moment. Connection block time: 1 seconds
sandboxclid:2023-04-12T09:05:11:Session.cpp:101:Connect0():connection broken
sandboxclid:2023-04-12T09:05:11:Session.cpp:72:Connect0():connection is blocked for 1
seconds
```

```
^C
insidemail02 # execute telnettest fortisandboxcloud.com:514
Connection timed out in 30 seconds.
```

```
Connection status to fortisandboxcloud.com port 514:
Connecting to remote host failed.
```

```
insidemail02 #
```

To integrate with the Security Fabric in FortiClient:

1. In the FortiClient Console, go to *Sandbox Detection*.
2. Enter the domain in the *IP* field. For example: *856651.eu-central-1.fortisandboxcloud.com*



3. In FortiSandbox PaaS, go to *Security Fabric > FortiClient*, click the *Authorize* icon on the FortiClient so that it can establish Fabric connectivity. Verify that the *Status* is updated.

To integrate with the Security Fabric in FortiClient EMS

1. In the EMS Console, go to *Endpoint Profiles > Sandbox > Edit the profile for FortiSandbox PaaS > Enable Sandbox Detection*.
2. In the *IP address/Hostname* field, enter the FortiSandbox PaaS FQDN. For example: *us-west-1.fortisandboxcloud.com*
3. In the *Account ID* field, enter the Account ID.
4. In FortiSandbox PaaS, go to *Security Fabric > Device*, click the *Authorize* icon on the EMS so that it can establish Fabric connectivity with all FortiClient Endpoints automatically.
5. In the FortiClient Endpoints, go to *Sandbox Detection*, verify the IP field is overridden by EMS and connected to the FortiSandbox PaaS.
6. In FortiSandbox PaaS, go to *Security Fabric > FortiClient*, verify the *Status*.

Setting up and making an API call

To set up and establish a session to your FortiSandbox PaaS instance, generate a token first. On the client software, use the token to authorize and make the API call to establish the session.

To generate a token in FortiSandbox PaaS:

1. In FortiSandbox PaaS, open the CLI console by clicking the CLI icon at the top-right of the page.
2. In the CLI console, run the following CLI command to generate a new token.

```
login-token -g
```

To authorize and make the API call on the client software:

1. On your client software, make the following API call to:

```
https://<account-id>.<region>.fortisandboxcloud.com/jsonrpc
{
  "method": "get",
  "params": [
    {
      "url": "/sys/login/token",
      "token": "<token>"
    }
  ],
  "session": "",
  "id": 53,
  "ver": "2.5"
}
```

Field	Description
id	The user-id on the portal or one used in the URL in your FortiSandbox PaaS instance.
token	The token you just generated.

When the session is established, all API calls are similar to the FortiSandbox API document.



We recommend renewing your token on a regular basis to keep access to your PaaS instance secure.

Establishing a connection to a region

FortiSandbox PaaS 24.1.4436 supports the EMEA region. When EMEA is selected, FortiOS v7.0.4 will automatically re-establish the connection to the location where the FortiSandbox PaaS is provisioned.

FortiOS v7.0.3

For FortiOS v7.0.3 and earlier, we recommend making the following configurations using the CLI:

```
config system fortisandbox
  set status enable
  set forticloud enable
  set server ""<your Instance ID>.eu-central-1.fortisandboxcloud.com"
  set email "<your email>"
end
```



FortiMail and FortiClient connectivity to the EMEA region are not currently supported since the server cannot be overridden.

FortiMail v7.0.3 and earlier

For FortiMail 7.0.3 and earlier, the network traffic is directed to *fortisandboxcloud.com* that is mainly hosted in Canada . The traffic is then forwarded to the EMEA location.

FortiClient EMS v7.0.3

For FortiClient EMS 7.0.3, configure the server to *eu-central-1.fortisandboxcloud.com*.

Feature limitations

The following is a list of features in FortiSandbox that are not available in FortiSandbox PaaS.

GUI	<ul style="list-style-type: none"> • Custom VM modification within FortiSandbox PaaS.
Fabric integration	<ul style="list-style-type: none"> • Multiple ICAP adapter profile for multi-tenancy support. • Multiple ICAP Adapter Profile. • <i>Hold</i> option to ICAP adapter deployment. • Sending TCP RST on <i>Sniffer</i> mode deployment.
Scan	<ul style="list-style-type: none"> • <i>Configurable Internet Browser on Dynamic Scan</i>. • Hot-standby VMs on AWS and Azure cloud deployment for improving

performance.

- Email relay with MTA adapter.

System & Security

- System time discrepancy on HA-Cluster deployment and logged a Warning event.
- Custom Linux VM support on public cloud.

Maintaining FortiSandbox PaaS

You are responsible for maintaining the FortiSandbox PaaS firmware, VM capacity, and users. Fortinet maintains the contracts, services, and infrastructure.

- [Expanding VM capacity on page 17](#)
- [Keeping firmware up-to-date on page 18](#)
- [Renewing the contract on page 20](#)
- [Adding an IAM user on page 20](#)
- [Subscribe to service status updates on page 22](#)

Expanding VM capacity

VMs can be easily expanded to hold more files for sandboxing. The limit is 200 VMs. The current VM count is displayed in the *Dashboard > Sandbox Cloud Contract*.

You can purchase additional VMs and add them to your existing deployment.

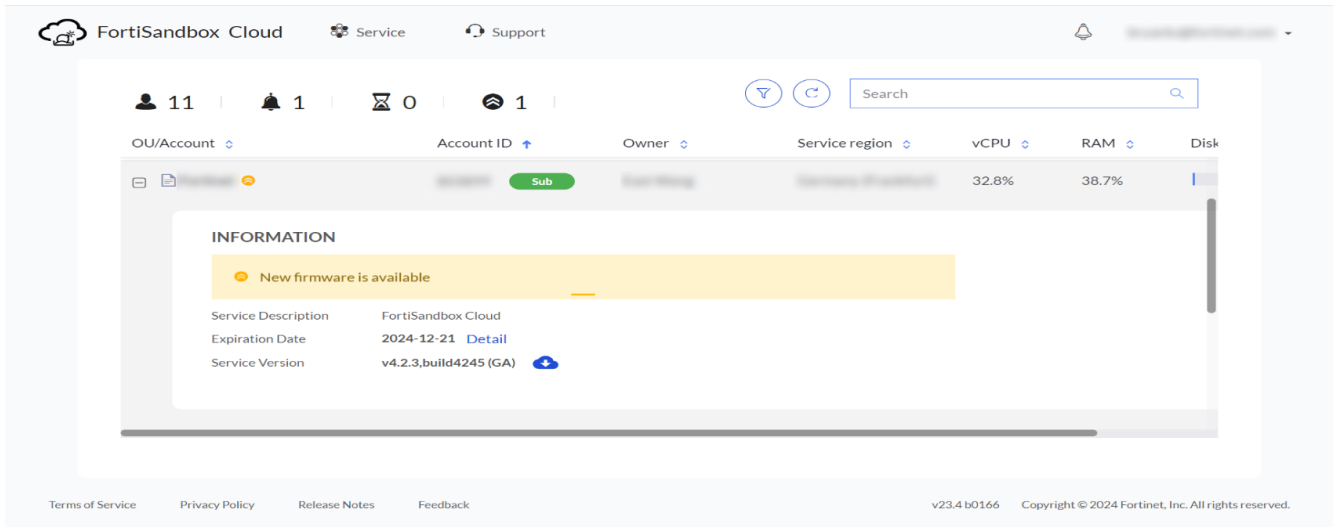
When adding VMs, you must change the *Clone #* to 1 or higher. For details, see [Assigning sandboxing VM clones on page 10](#).

The screenshot displays the FortiSandbox PaaS management portal interface. The top header shows the instance ID 'FSACLPTM20000014'. A left-hand navigation menu includes options like 'Dashboard', 'Status', 'Scan Performance', 'Operation Center', 'Threats by Topology', 'Threats by Hosts', 'Threats by Files', 'Threats by Device', 'Security Fabric', 'Scan Job', 'Scan Policy and Object', 'System', and 'Log & Report'. The main content area is divided into two sections: 'System Information' and 'Licenses'. The 'System Information' section lists details such as Firmware Version (v4.4.5 build4436 (GA)), Hostname (FSACLPTM20000014), Serial Number (FSACLPTM20000014), System Configuration (Last Backup: 2024-04-02 16:57), System Time (2024-04-02 17:10:28 PDT), Unit Type (Standalone), Uptime (0 day(s) 0 hour(s) 12 minute(s)), and Username (fsa fsa). The 'Licenses' section shows a list of active licenses: FortiSandbox-CLP (with a download icon), Sandbox Cloud, Services (including Antivirus, Web Filtering, and Real-time Zero-Day Anti-Phishing Service), and VM Status (0).

Keeping firmware up-to-date

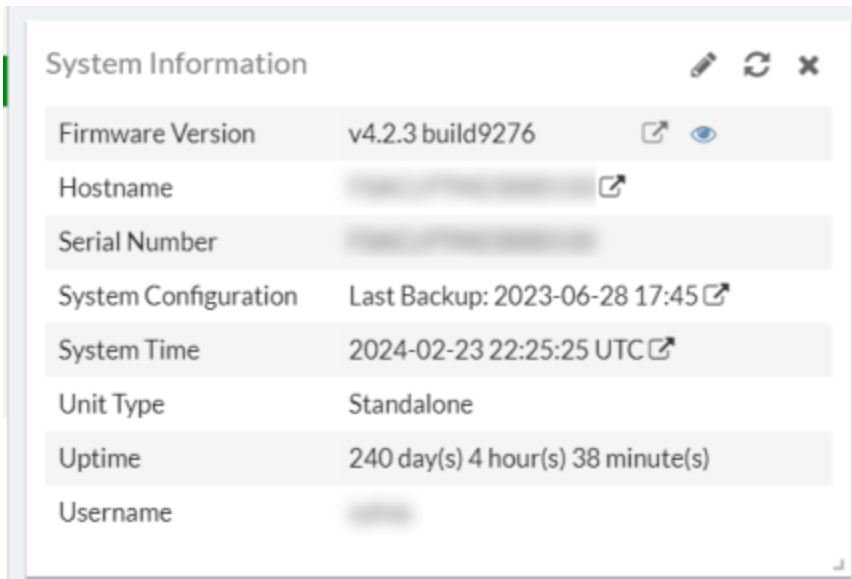
Firmware updates include new features and bug fixes. If there is an updated firmware, the *Dashboard* in the portal displays a notification and a download link. Your maintenance schedule should include upgrading the firmware.

You can download the firmware from the portal to your local PC.



To upgrade the firmware:

1. Go to *Dashboard > Status > System Information widget > Firmware Version*.
2. Click the *View all firmware* icon beside Firmware Version.



3. Choose one of the following options:

Upload Firmware

Choose this option if you have downloaded the image via the Portal.

Download & Upgrade

Choose this option to allow the system to upgrade on its own.

FortiSandbox Firmware Information:

Current Version

FortiSandbox v4.2.3.build

New firmware update is available

Upload Firmware

Upgrade firmware manually with a file from local host



Available Firmware

Recommended All Available

FortiSandbox V4.4.0 Build 4367



Note: Upgrading firmware will cause system to reboot.

Note: Please read the release notes of new version to see if you can upgrade directly to it.





Renewing the contract

The contract must be renewed annually. FortiSandbox PaaS notifies you to renew the contract before it expires.

Click the *Detail* link beside the *Expiration Date* to check the expired *License Detail*. Entitlements and the sandboxing services are not available until you renew the contract. If you renew the contract after the expiry date, it may take a day for the license to be applied.

Expiration Date

[Detail](#)



An expired instance is preserved for 30 days.

Adding an IAM user

Identity and Access Management (IAM) is a service to manage user access and permissions to FortiCloud portals and assets. For more information about creating IAM users, see [Adding IAM users](#) in the *Identity & Access Management (IAM) Administration Guide* of FortiCloud.

IAM provides three types of access: *Admin*, *Read-Write* and *Read-Only*.

In FortiSandbox PaaS:

IAM Profile	FortiSandbox PaaS access
Admin	The IAM <i>Admin</i> profile is mapped to the hidden FortiSandbox PaaS Admin profile. This profile grants full access to all the features of the FortiSandbox PaaS.
Read-Write	There is no Admin profile for the IAM <i>Read-Write</i> access type. This is by-design.
Read-Only	The <i>Read-Only</i> Admin profile is mapped to the IAM Read-Only access type. This FortiSandbox PaaS profile is configurable.

Adding a secondary account

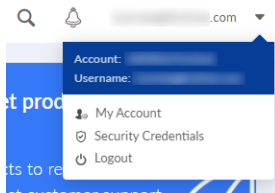
You can create a secondary account for FortiSandbox PaaS. A secondary account allows the Fortinet support team to troubleshoot the FortiSandbox PaaS deployment.



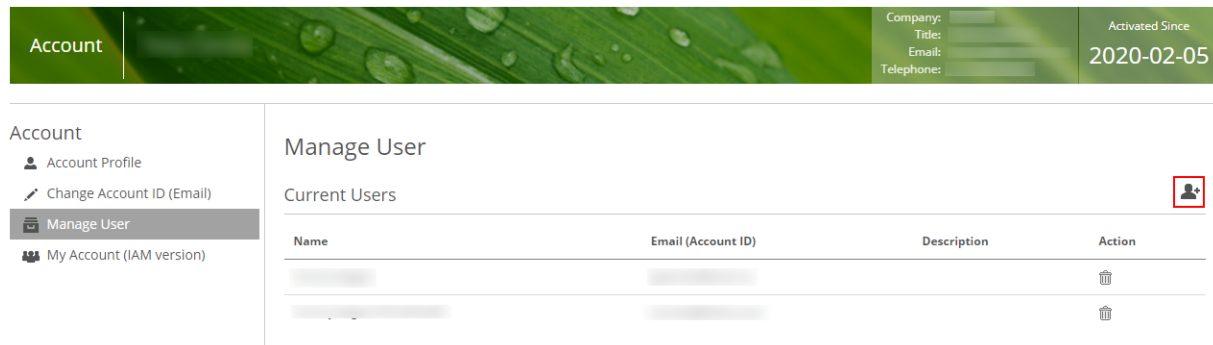
You can also create secondary accounts for additional users.

To add a secondary account:

1. Log in to [FortiCloud](#).
2. In the banner, click the *Account* menu and click *My Account*. The *Account* page opens.



3. Click *Manage User*.
4. Click the new user icon to add a new user.



5. When creating an account for the Fortinet support team, specify an email for the secondary account, and select *Full Access* or *Limit Access*.

A user with full access has the same access level as a primary account user. A user with limited access can only manage the assigned product serial number and will be unable to receive renewal notices or create additional secondary account users.

Account

- Account Profile
- Change Account ID (Email)
- Manage User

Add User

User Information

User Name:*

Telephone:*

Email (Account ID):*

Confirm Email (Account ID):*

Description:

Permissions

- Customer Service
- RMA/DOA
- Technical Assistance
- Notify the master account of ticket updates
- Send renewal notices
- Can create user
- Full Access Limit Access

You are about to create a sub-account for Fortinet, Inc. By doing so, you agree to share visibility for this account, including ticket history and asset management, as per the settings that you have defined. You agree to assure that sharing visibility does not breach any confidentiality obligations or applicable data protection legislation.

Note: If you have another account same email address, those accounts will be consolidated into one login account. Your original connection between email and accounts (master account or sub account) will be kept, you will use one login user ID/ password to access those accounts.

Save
Cancel

6. Log into FortiSandbox Cloud Portal (<https://fortisandboxcloud.com>), you will see an account listed as a sub-user.

OU/Account	Account ID	Owner
Fortinet	1196667	Sub
Fortinet	1029950	Sub
Fortinet	836336	Sub
Fortinet	951801	Sub
fortinet	856651	Primary fsa fsa
fortinet	351168	Sub

Subscribe to service status updates

Go to the FortiSandbox Cloud Service Status (<https://status.fortisandboxcloud.forticloud.com>) page to:

- View up-time in the last 10 weeks.
- Check any recent incidents.
- Subscribe via email, atom and Slack for any scheduled updates.

Click *Subscribe to Updates* to get email notifications whenever FortiSandbox Cloud Service Status creates, updates or resolves an incident.

Setting up multiple PaaS

Prerequisites

The Organization Portal full functionality requires a valid *FortiCloud Premium* contract in the Root account.

Setup Organizational Units (OU)

When you create an Organization, your account becomes the Root Account for the organization. Users with the proper permissions can add Organizational Units (OU) and invite members to join the organization.



The Organization Portal must first be enabled by the Master User. See [Enabling Organizations](#) in the *Identity & Access Management (IAM) Guide*.

Create Organizational Units (OU) and subOU

Organizational Units (OU) are folders for organizing your accounts. You can create a maximum of three levels of OUs to build the structure of your organization. Users with the proper permissions can move Member Accounts between OUs, remove accounts from the organization, edit the organization details, move the OU, or delete it.

To create organizational units:

1. In the Organization Portal (<https://support.fortinet.com/organizations/>), click *Create Organization*. See [Creating an organization](#)
2. Create Organizational Units (OU) and SubOU. See [Adding and deleting OUs](#)
3. Create Member Accounts under different Organizational Units (OU). See [Creating new Member Accounts](#).

Invitations

Invitation tokens are a secure method of inviting Member Accounts to join your organization. the Root Account for the organization can generate a token and then distribute it via SMS, Teams, or Slack. After a Member Account replies to the invitation, the root account can verify the invitation and accept or decline the response.

Creating invitation tokens

1. Log into the Organization Portal (<https://support.fortinet.com/organizations/>) as Root Account (e.g. Fortinet Email LDAP account) to create invitation token for each SubOU. See [Creating invitation tokens](#).



We recommend generating a separate token for each SubOU.

2. After the invitation tokens are created, click *Download* to save it to your computer as an Excel file.
3. Send the invitation token and the link to the Organization Portal (<https://support.fortinet.com/organizations/>) to the Member Account master users. You can share the Organization Portal link by copying the URL from your browser.

To approve the invitation:

1. After receiving the valid invitation token, the Member Account user goes to the Organization Portal (<https://support.fortinet.com/organizations/>), and clicks *Join Organization* with the invitation token. See [Joining an organization](#).
2. The Root Account approves the invitation after the member account user joins the organization. See [Invitation Approval](#).

Organization user management

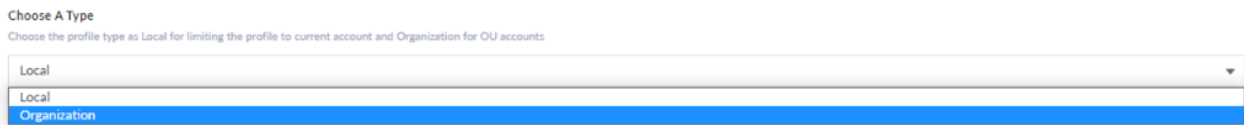
Advanced management features are available when using organizations. An Organization and Organizational Units can be created in the Organization portal and are used to enhance your company's security.

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, see [Organization user management](#).

After the Master User creates the organization, they can create an IAM user with the same level of permissions. The IAM user can be used to create other IAM users and delegate their permissions. For more information, see [the Identity & Access Management \(IAM\) Administration Guide](#) and [User permissions](#).

To create an IAM permission profile:

1. Create a permission profile. See [Permission profiles within Organizations](#).
2. Make sure to select *Organization* as the profile type. **Once the permission profile is saved, the type cannot be edited.**



3. Click *Add Portal*. Add the following portals with a minimum of *Read-Only* the access type. Admin access of FortiSandbox PaaS Cloud Portal is required for provision FSA PaaS.
 - Asset Management
 - FortiCare
 - IAM
 - FortiSandbox Cloud
4. Repeat the steps above to create different IAM permission profiles for different OU scopes or member account users.

To create an IAM user group

1. Create an IAM user group. See [Adding an IAM user group](#).
2. Ensure the IAM user group type is associated with OU.
 - a. From the *Type* dropdown, select *Organization*.
 - b. From the *Permission Scope* dropdown, select an OU created in the previous step.
 - c. From the *Permission Profile* dropdown, select the permission profile created in the previous step for the selected OU.

3. Skip add IAM user. Repeat the steps above to create different IAM user groups for different OU scopes or member account users.

To create an IAM user:

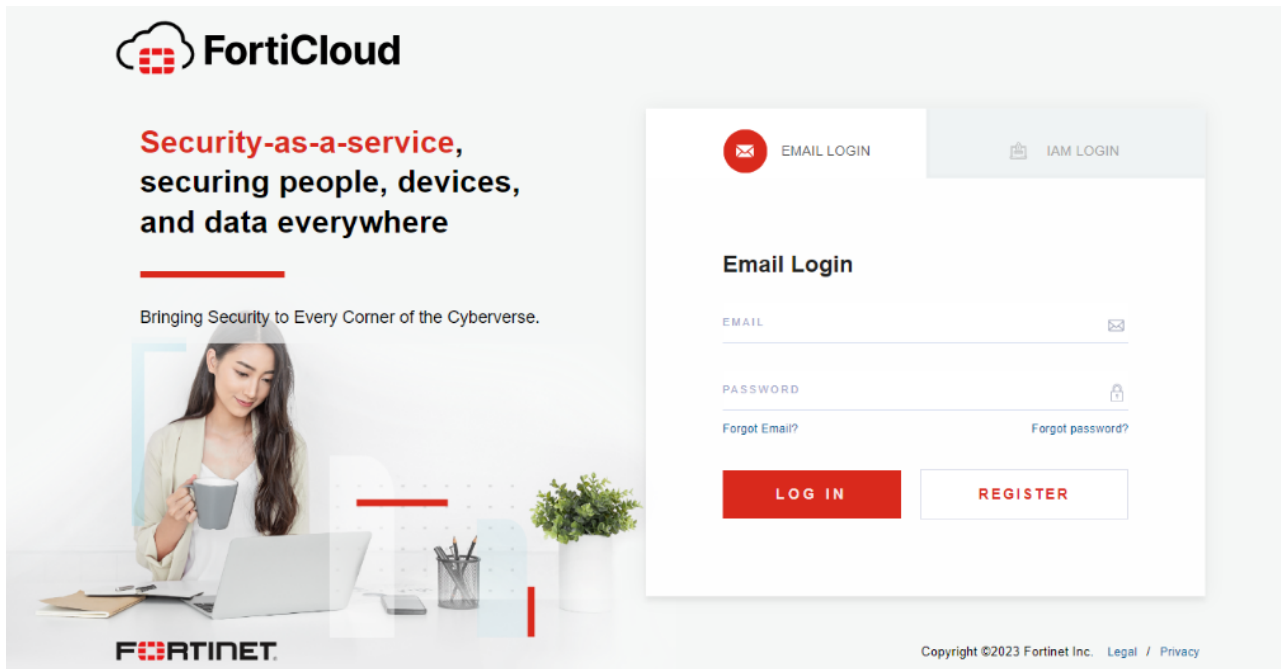
1. Add a new IAM user. See [Creating users, user groups, and roles within Organizations](#).
2. Ensure the IAM user type is associated with an OU.
 - a. From the *Type* dropdown, select *Organization*.
 - b. From the *Permission Scope* dropdown, select an OU created in previous step.
 - c. From the *Permission Profile* dropdown, select the permission profile created in previous step for the selected OU.
3. From the *Permission Scope* dropdown, select the permission to associate with an OU or a member account.
4. From the *Permissions Profile* dropdown, select the profile created for the selected OU or member account.
5. Associate the IAM user to the IAM user group.
6. Repeat the steps above to create different IAM users for different OU scopes or member account users.

Setup FSA PaaS

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.

OU account login

1. OU member account user log into the FortiSandbox PaaS Cloud portal (<https://fortisandboxcloud.com/>) with the invitation token. See [Logging into an OU account](#)



2. Select the Organization scope and then select the assigned OU or account for having access.

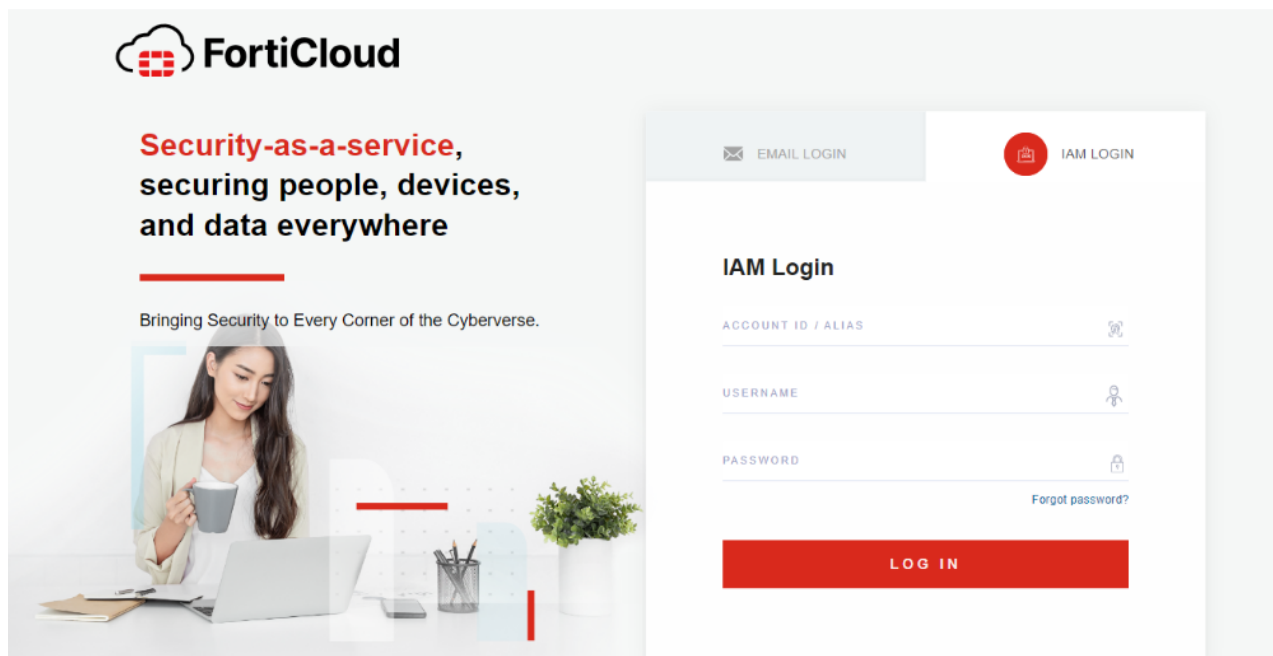
Make a Selection to Proceed

Search an OU or account

- dev team
 - Fortinet
1196667/lockiu@fortinet.com
 - ftnt
1695747/shasha826@foxmail.com
 - ftnt
1695783/user01devOU.Zhao@1695783.forticloud

IAM OU account login

1. IAM user logs into the FortiSandbox PaaS Cloud portal (<https://fortisandboxcloud.com/>) via IAM login.



2. The Root Account manages the Account ID/Alias. the Root account ID is the Account ID for IAM users by default.
3. Select the Organization scope and then select the assigned OU or account for having access.

Appendix A: Supported regions

The following provides a list of ingress and egress IP addresses for FortiSandbox PaaS. You can use this list in access control lists to allow access to internal applications from FortiSandbox PaaS only.

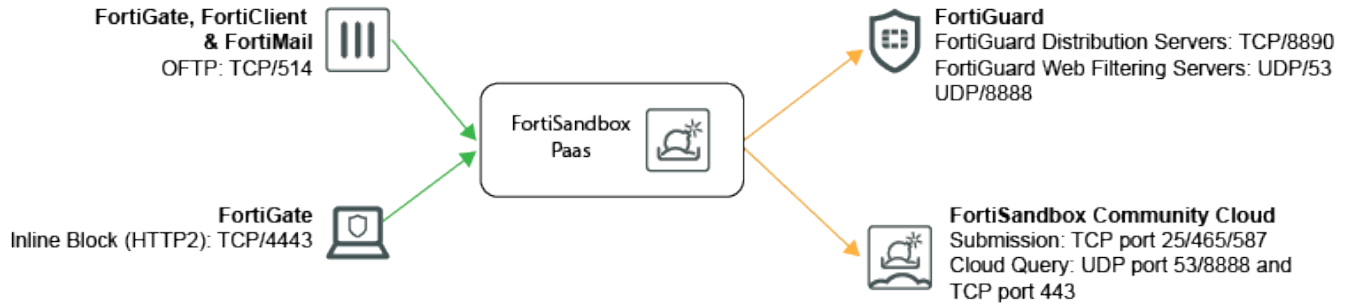
Region	Data center	Security ingress	Security egress
North America	Burnaby, Canada	66.35.19.98	173.243.137.20 - 29
Europe	Frankfurt, Germany	154.52.2.163	194.69.174.8
North America	San Jose, United States	38.21.192.35	208.184.237.20

Appendix B: Port and access control information

This topic contains information about the default ports by interface as well as the endpoints that need to be reachable by FortiSandbox PaaS.

Default Ports

The following topology provides information about ports by configuration.



Access Control List

All access to FortiGuard and FortiSandbox services are pre-configured within FortiCloud.



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