

Firebox CloudDeployment Guide

Firebox Cloud for AWS and Microsoft Azure

About This Guide

The *Firebox Cloud Deployment Guide* is a guide for deployment of a WatchGuard Firebox Cloud virtual security appliance. For the most recent product documentation, see the *Fireware Help* on the WatchGuard website at https://www.watchguard.com/wgrd-help/documentation/overview. Information in this guide is subject to change without notice. Companies, names, and data used in examples herein are fictitious unless otherwise noted. No part of this guide may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of WatchGuard Technologies, Inc. Guide revised: 4/13/2024

Copyright, Trademark, and Patent Information

Copyright © 1998-2024 WatchGuard Technologies, Inc. All rights reserved. All trademarks or trade names mentioned herein, if any, are the property of their respective owners. Complete copyright, trademark, patent, and licensing information can be found in the Copyright and Licensing Guide, available online at https://www.watchguard.com/wgrd-help/documentation/overview.

About WatchGuard

For 25 years, WatchGuard has pioneered cutting-edge cybersecurity technology and delivered it as easy-to-deploy and easy-to-manage solutions. With industry-leading network and endpoint security, secure Wi-Fi, multi-factor authentication, and network intelligence products and services, WatchGuard enables more than 250,000 small and midsize enterprises from around the globe to protect their most important assets including over 10 million endpoints. In a world where the cybersecurity landscape is constantly evolving, and new threats emerge each day, WatchGuard makes enterprise-grade cybersecurity technology accessible for every company. WatchGuard is headquartered in Seattle, Washington, with offices throughout North America, Europe, Asia Pacific, and Latin America.

For additional information, promotions and updates, follow WatchGuard on Twitter, @WatchGuard on Facebook, or on the LinkedIn Company page. Also, visit our InfoSec blog, Secplicity, for real-time information about the latest threats and how to cope with them at www.secplicity.org.

Address

255 S. King St. Suite 1100 Seattle, WA 98104

Support

www.watchguard.com/support U.S. and Canada +877.232.3531 All Other Countries +1.206.521.3575

Sales

U.S. and Canada +1.800.734.9905 All Other Countries +1.206.613.0895

Contents

Introduction to Firebox Cloud	7
About Firebox Cloud	7
Firebox Cloud Use Cases	8
Protect Virtual Servers	8
Branch Office VPN	8
Mobile VPN Gateway	8
About Microsoft Azure	9
About AWS	
Firebox Cloud System Requirements	11
Firebox Cloud License Options	12
License Types	12
Licensed Security Services	13
Deploy Firebox Cloud on Microsoft Azure	16
Identify your Firebox Cloud Software Plan and License Type	16
Identify your Firebox Cloud Software Plan and License Type	
Supported Instance Types	16 17
Supported Instance Types Create a Key Pair for SSH Authentication	16 17 19
Supported Instance Types. Create a Key Pair for SSH Authentication. Deploy Firebox Cloud.	
Supported Instance Types. Create a Key Pair for SSH Authentication. Deploy Firebox Cloud. Find the Instance ID (VM ID).	
Supported Instance Types. Create a Key Pair for SSH Authentication. Deploy Firebox Cloud. Find the Instance ID (VM ID). Activate your Firebox Cloud License.	
Supported Instance Types. Create a Key Pair for SSH Authentication Deploy Firebox Cloud Find the Instance ID (VM ID). Activate your Firebox Cloud License. Run the Firebox Cloud Setup Wizard	
Supported Instance Types. Create a Key Pair for SSH Authentication. Deploy Firebox Cloud. Find the Instance ID (VM ID). Activate your Firebox Cloud License. Run the Firebox Cloud Setup Wizard. Connect to Fireware Web UI.	
Supported Instance Types. Create a Key Pair for SSH Authentication. Deploy Firebox Cloud. Find the Instance ID (VM ID). Activate your Firebox Cloud License. Run the Firebox Cloud Setup Wizard. Connect to Fireware Web UI. Add the Feature Key.	
Supported Instance Types. Create a Key Pair for SSH Authentication. Deploy Firebox Cloud. Find the Instance ID (VM ID). Activate your Firebox Cloud License. Run the Firebox Cloud Setup Wizard. Connect to Fireware Web UI. Add the Feature Key. Next Steps	

Deploy Firebox Cloud on AWS	
AWS Regions and Availability Zones	
Supported Instance Types	31
Before You Begin	
AWS Identity and Access Management (IAM)	31
Deployment Overview.	
Allocate or Associate an Elastic IP Address	
Allocate an Elastic IP Address	
Associate an Elastic IP Address	
Create a VPC with Public and Private Subnets	
Create an Instance of Firebox Cloud	
Disable Source/Destination Checks	41
Assign an Elastic IP Address to the External Interface	41
Configure the Default Route	43
Verify the Instance Status	
Find the Instance ID (VM ID)	
Activate your Firebox Cloud License (BYOL Only)	
Run the Firebox Cloud Setup Wizard	
Connect to Fireware Web UI	
Add the Feature Key (BYOL Only)	
Next Steps	
Enable Feature Key Synchronization	
Configure Firebox Cloud to Send Feedback to WatchGuard	
Configure Firewall Policies and Services	
Troubleshooting	50
Firebox Cloud Feature Differences	
Administration	51
Licensing and Services	51

Network Interfaces	51
Default Firebox Configuration	
Fireware Features	
View Firebox Cloud VM Information	
VM Information in Fireware Web UI	55
The Front Panel Dashboard	55
The VM Information System Status Page	
The Interfaces Dashboard	
VM Information in Firebox System Manager	57
Use Firebox Cloud to Protect a Web Server	
Step 1 – Launch an Instance of Firebox Cloud	
Step 2 – Add A Static NAT Action	60
Step 3 – Add HTTP and HTTPS Proxy Policies	61
Add an HTTP-Proxy Policy	61
Add an HTTPS-Proxy Policy	
Import a Proxy Server Certificate	64
Step 4 – Enable Subscription Services	65
Enable Gateway AntiVirus	65
Enable Intrusion Prevention Service (IPS)	65
Enable Botnet Detection	65
Enable Data Loss Prevention	66
Configure Geolocation	66
Enable Logging for Firebox Cloud	67
Configure Logging to WatchGuard Cloud	67
Configure Logging to Dimension	67
Open the Configuration File for a Firebox Cloud Instance	
Download and Open the Configuration File.	69
Download and Open the Diagnostic Log Message File	

Changes that Require a Firebox Cloud Reboot	71
Administer Firebox Cloud with the CLI	
Reset the Firebox to Factory-Default Settings	
Add Firebox Cloud to WatchGuard Cloud (Cloud-Managed)	73
Before You Begin	
Add a Firebox Cloud Device to WatchGuard Cloud	74
Upload the Payload and Connect the Firebox	
Verify the Firebox Cloud Status	
Additional Resources	82
Help Center and Technical Documentation	
Help Center and Technical Documentation	82
Help Center and Technical Documentation	
Help Center and Technical Documentation. Technical Support Troubleshooting.	
Help Center and Technical Documentation Technical Support Troubleshooting Monitor Your Firebox	82 82 82 82 82 82 82

Introduction to Firebox Cloud

The WatchGuard® Firebox security platform delivers unparalleled unified threat management, superior performance, ease of use, and value for your growing network. Fireware OS and WatchGuard security services give you fully integrated protection from spyware, viruses, worms, trojans, web-based exploits, and blended threats. From firewall and VPN protection, to secure remote access, WatchGuard devices support a broad range of network environments.

About Firebox Cloud

Firebox Cloud brings the proven features and services of the Firebox to the Amazon Web Services (AWS) and Microsoft Azure cloud computing platforms. Firebox Cloud uses the same powerful Fireware OS and most of the same subscription services available on other Firebox models. You can use Firebox Cloud to protect servers deployed on your private cloud, and you can use it as a secure VPN endpoint for connections to resources on your virtual network.

For greater visibility into the status of traffic and security on your virtual network, you can use WatchGuard Dimension to monitor Firebox Cloud. The Firebox Cloud BYOL license also includes a license for WatchGuard Cloud. After you activate a WatchGuard Cloud BYOL license, you can add the Firebox Cloud instance to your WatchGuard Cloud account. For information about how you can manage your Firebox Cloud instance as a cloud-managed device in WatchGuard Cloud, go to <u>Add Firebox Cloud</u> to <u>WatchGuard Cloud (Cloud-Managed)</u>.

Firebox Cloud is available for AWS and Microsoft Azure cloud computing platforms.

Firebox Cloud Use Cases

You can use Firebox Cloud to protect any virtual network on AWS or Azure. These use cases describe some of the ways you can use Firebox Cloud to add security to your virtual network.

Protect Virtual Servers

To provide protection to one or more virtual servers that are accessible from the Internet, you can install a Firebox Cloud instance. Your instance of Firebox Cloud is then the gateway for inbound connections to your servers from the internet. You configure policies and security services on your instance of Firebox Cloud to control traffic to your virtual servers.

For a summary of how to configure policies and services on Firebox Cloud for inbound connections to a protected web server, go to <u>Use Firebox Cloud to Protect a Web Server</u>.

Branch Office VPN

You can configure your Firebox Cloud as a branch office VPN (BOVPN) gateway endpoint so you can maintain a secure VPN connection between your virtual network resources and other networks protected by a Firebox or compatible VPN gateway endpoint. You can also configure your Firebox Cloud as a BOVPN over TLS Server or Client. Firebox Cloud supports all the same VPN features as other Firebox models.

Mobile VPN Gateway

You can also enable Firebox Cloud to accept VPN connections from SSL, IPSec, IKEv2, and L2TP mobile VPN clients, and configure policies to control user and group access to your protected AWS network resources.

About Microsoft Azure

Microsoft Azure is Microsoft's cloud computing platform that provides data management, compute, networking and performance services at a variable cost based on the resources you use. If you are new to Azure, you must understand the Azure terms and concepts in this section before you deploy Firebox Cloud.

Virtual Network (Vnet)

An Azure Virtual Network is a logically isolated private virtual network environment in the Azure cloud. Firebox Cloud, and the virtual servers it protects, are all virtual machines that you deploy in a Virtual Network.

Virtual Machine Image (VHD)

A VHD file is a virtual hard disk image that contains a VM image. Firebox Cloud is distributed as a VHD file that you can use to deploy one or more Firebox Cloud instances.

Storage Account

Microsoft Azure Storage is a Microsoft-managed cloud service that provides storage. The Firebox Cloud VHD is stored in a container in your Storage Account.

Resource

A manageable item available through Azure. For example, a virtual machine, storage account, and virtual machine are each resources.

Resource Group

A group of Azure resources that you manage as a group. When you add a storage account, you specify the resource group it belongs to. Each resource can belong to only one group.

Template

An Azure template is a JSON file that defines the resources and settings required to deploy an application. To deploy Firebox Cloud, you fill out the required settings and specify required resources defined in the Firebox Cloud template.

VM ID (Instance ID)

The VM ID, or instance ID, is a unique identifier associated with an Azure virtual machine instance. For Firebox Cloud you use the instance ID to activate your Firebox Cloud license on the WatchGuard website. The Instance ID is also the default admin passphrase you use to connect to Firebox Cloud to run the setup wizard.

Regions and Availability Zones

Microsoft Azure has several regions around the world. Each region contains several Availability Zones. You must specify the region when you deploy a Firebox Cloud instance.

About AWS

Amazon Web Services (AWS) is a flexible, on-demand, cloud services platform that provides compute power, networking, database storage, and other services at a variable cost based on the resources you use. If you are new to AWS, you must understand the AWS terms and concepts in this section before you deploy Firebox Cloud.

Amazon Virtual Private Cloud (VPC)

An Amazon VPC is a logically isolated private virtual network environment in the AWS cloud. Firebox Cloud, and the virtual servers it protects, are all virtual machines that you deploy in a VPC.

Amazon Elastic Compute Cloud (EC2)

Amazon EC2 is a virtual server hosting service that provides scalable computing capacity in the AWS cloud

Amazon Machine Image (AMI)

An AMI is a virtual machine template that you use to deploy a virtual server in AWS. Firebox Cloud is delivered as an .AMI file that you use to deploy Firebox Cloud in your AWS VPC.

EC2 Instance

To launch one or more EC2 instances, you use an .AMI file. Each instance is a copy of the .AMI that runs as a virtual server. When you launch a new instance, you select the instance type, which determines the amount of CPU, storage, and network capabilities assigned to the instance. Firebox Cloud runs as an EC2 instance in your Amazon VPC. Each instance has a unique Instance ID.

Elastic IP Address (EIP)

An Elastic IP address is a static public IP address that you can assign to an EC2 instance. First, you allocate an Elastic IP address to a VPC, and then you associate it with an EC2 instance in the VPC. For Firebox Cloud, you allocate an Elastic IP address for the external interface.

Security Group

The security group is a virtual firewall that controls which inbound and outbound traffic is allowed to reach the associated instances. In the security group, you define rules that control what traffic to allow. When you launch an instance, you must specify at least one security group.

AWS Regions and Availability Zones

AWS has multiple AWS Regions. Each region contains several Availability Zones. A VPC can contain subnets in different Availability Zones.

Firebox Cloud System Requirements

Firebox Cloud can run on Amazon Web Services (AWS) and Microsoft Azure cloud computing platforms.

Firebox Cloud CPU and memory requirements:

- Minimum CPU cores: 2
- Minimum total memory: 2048 MB
- Recommended minimum total memory: 4096 MB



4096 MB is required to enable Access Portal and IntelligentAV, and to use the Full signature set for IPS/Application Control.

WatchGuard recommends an instance that has at least 1024 MB of memory for each CPU core. For example, if the instance has four CPU cores, we recommend a minimum total memory of 4096 MB. Refer to the AWS and Azure documentation to identify instances that meet these requirements.



For Firebox Cloud with BYOL license, the Firebox Cloud model determines the maximum number of CPU cores. For more information, go to *Firebox Cloud License Options*.



For a BYOL license, Azure automatically selects an instance size based on the License Type you select.

Firebox Cloud License Options

Firebox Cloud is available in both the <u>Microsoft Azure Marketplace</u> and <u>AWS Marketplace</u> with two license options.

License Types

(i)

Bring Your Own License (BYOL)

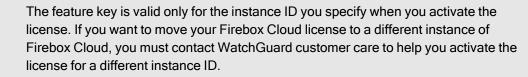
With this license option, you pay Microsoft or Amazon for the virtual machine instance and resources it uses. You then purchase a license for Firebox Cloud separately from an authorized WatchGuard reseller. For Firebox Cloud with a *BYOL* license, you must activate a license key for Firebox Cloud on the WatchGuard website. Then, add the feature key to your Firebox Cloud instance, which enables you to configure all the licensed features. This feature key is unique to that instance and has an expiration date. You can purchase a renewal from an authorized WatchGuard reseller.

After you activate the BYOL license, you can add the Firebox Cloud instance to your WatchGuard Cloud account.

For more information, go to Add a Firebox to WatchGuard Cloud.

For information about how you can manage your Firebox Cloud instance as a cloud-managed device in WatchGuard Cloud, go to <u>Add Firebox Cloud to WatchGuard Cloud (Cloud-Managed)</u>.

For information about feature keys, go to About Feature Keys.



You can purchase a Firebox Cloud for one of four models. The models are based on the maximum number of CPUs that Firebox Cloud uses. The maximum throughput of Firebox Cloud depends on both the Firebox Cloud model, and the VM size.

For Firebox Cloud with a BYOL, the model determines the maximum supported throughput rates.

Firebox Cloud Model	Maximum AWS vCPUs or Azure CPU Cores	VPN (Gbps)
Small	2	0.4
Medium	4	1.5
Large	8	3
Extra Large	Unrestricted	Unrestricted

If you deploy Firebox Cloud on a virtual machine with more CPUs than the Firebox Cloud model supports, Firebox Cloud uses only the supported maximum number of CPUs.

For details about the BYOL option for AWS, go to <u>WatchGuard Firebox Cloud (BYOL)</u>. Cost can vary based on resources used, and by region.

Hourly / Pay As You Go (PAYG)

With this license option, the cost of the license for Firebox Cloud and all security services is included in the price charged by Amazon or Microsoft. This provides a perpetual license with no fixed expiration date. There is no need to purchase, activate, or renew a separate license from WatchGuard.

Both the Azure Firebox Cloud and AWS (PAYG) option includes a 30 day free trial. For the 30 day trial period, there are no hourly software charges but Azure and AWS infrastructure charges still apply. After the 30 day trial expires, the instance converts to a paid subscription.

For details about the PAYG option and associated costs for Azure, go to <u>WatchGuard Subscription</u> <u>Costs for Azure PAYG</u>.

For details about the Hourly AWS option and associated costs, go to <u>WatchGuard Firebox Cloud</u> (Hourly).

()

To switch a Firebox Cloud instance from one license type to another, you must deploy a new instance and move the configuration to the new instance. For information about how to move a Firebox configuration, go to Move a Configuration to a New Firebox.

Licensed Security Services

Firebox Cloud supports these WatchGuard security services:

- Access Portal (requires Fireware v12.1 or higher)
- Application Control
- APT Blocker
- Botnet Detection
- Data Loss Prevention

- DNSWatch (supported with a BYOL license only)
- Gateway AntiVirus / Intelligent AntiVirus
- Geolocation
- IntelligentAV (supported for BYOL licenses and PAYG instances, and requires 4GB of memory)
- Intrusion Prevention Service (IPS)
- Reputation Enabled Defense
- spamBlocker and Quarantine Server (requires Fireware v12.2 or higher)
- WatchGuard Cloud Visibility (supported with a BYOL license only)
- WebBlocker



Firebox Cloud with an Hourly / Pay As You Go license does not support WatchGuard Cloud or DNSWatch.

Deploy Firebox Cloud on Microsoft Azure

Before you create a Firebox Cloud virtual machine, you must create a Microsoft Azure account. When you set up your account, you specify billing information and the credentials you use to connect to the Microsoft Azure portal. Firebox Cloud requires a storage account. You can create a storage account before you deploy Firebox Cloud, or you can create one as part of the deployment.

Identify your Firebox Cloud Software Plan and License Type

When you create a Firebox Cloud VM in Azure, you select one of these two software plans.

Firebox Cloud (BYOL)

With the Bring Your Own License (BYOL) software plan, you purchase a Firebox Cloud license for a specified size, **Small**, **Medium**, **Large**, or **Extra Large**. The Firebox Cloud license defines the maximum number of Azure CPU cores that the Firebox Cloud VM can use.

When you create a Firebox Cloud (BYOL) VM, you select a **License Type**. To deploy your VM with appropriate resources, select the License Type that matches your Firebox Cloud license size.

Firebox Cloud (PAYG)

With the Pay As You Go (PAYG) software plan, you do not purchase a Firebox Cloud license. The PAYG option includes a 30 day free trial.

For more information about license options and trials, go to *Firebox Cloud License Options*.

Supported Instance Types

Firebox Cloud supports these instance families:

- Av2
- Amv2
- Dv3
- Dv4
- Dsv3
- Dsv4
- F
- Fsv2

All Azure services that are part of the deployment are mandatory to run Firebox Cloud. To deploy your instance of Firebox Cloud on Azure, you must complete the following procedures.

()

For information about how to deploy load balancers with Firebox Cloud, go to <u>Deploy</u> <u>Firebox Cloud with Azure Load Balancers</u>.

Create a Key Pair for SSH Authentication

Before you create a Firebox Cloud instance, you must generate an SSH-2 RSA public key / private key pair. You can generate a new key pair when you configure your Firebox Cloud deployment, or you can use a tool such as puttygen, or ssh-keygen command in Linux to generate the key pair.

- Use the public key when you deploy your Firebox Cloud instance.
- Use the private key for ssh connections to the Fireware command line interface (CLI) for your Firebox Cloud instance.

To use the puttygen utility to generate an SSH-2 RSA key pair:

- 1. Download and install the PuTTYgen utility available from www.putty.org.
- 2. Start PuTTYgen.
- 3. Click Generate.
- 4. Move the mouse over the blank area to generate some randomness. *PuTTYgen uses the mouse movements as input to generate the key pair.*

PuTTY Key Genera	tor	?	>
le <u>K</u> ey Con <u>v</u> ersio	ons <u>H</u> elp		
Key			
Public key for pasting	into OpenSSH authorized_keys	file:	
VN8+Lr57mCq7017/ wXYV+ALrx+VgT1c	AAAABJQAAAQEA25Ksyh4wP4 kq9JvwZ2Pd4QY/lXgg3keegW 6v90hZun/49E57eCBI05DhPlb ninJ4uXjYZ/hdEjTwYNfxN8ew	/rafxYk6/v3gevRYjayÁ01VT3ul	
Key fingerprint:		3:89:a3:b3fe:5d:97:11:9c:62:36	
Key comment:	rsa-key-20180206		
Key passphrase:			
Confirm passphrase:			
Actions			
Generate a public/pri	vate key pair	Generate	•
Load an existing priva	te key file	Load	
Save the generated k	ey Sav	e public key Save private	key
Parameters			
Type of key to genera O SSH-1 (RSA)	ete:	⊖ SSH-2 <u>D</u> SA	
Number of <u>b</u> its in a ge	nerated key:	2048	

- 5. To save the generated public key to a file, click **Save public key**.
- 6. (Optional) Specify a passphrase to protect the private key file.
- 7. To save the generated private key to a file, click Save private key.

Save the private key in a secure location. You must provide the private key to connect to the Fireware command line interface.

H

Deploy Firebox Cloud

To create the Firebox Cloud instance:

- 1. Log in to the Azure portal with your Microsoft Azure account credentials.
- 2. Click Create a resource. The Azure Marketplace opens.
- 3. In the Search services and marketplace text box, enter Firebox Cloud.
- 4. Select WatchGuard Firebox Cloud. The WatchGuard Firebox Cloud license options opens.

WatchGuard Technolo		x Cloud 🛛 🖈		
	WatchGuard T Select a plan	Guard Firebox Cloud echnologies WatchGuard Firebox Cloud (PAYG)	♡ Sav	e for later Create
Overview Pla	ins			

- 5. From the Plan drop-down list, select WatchGuard Firebox Cloud (BYOL) or WatchGuard Firebox Cloud (PAYG).
- 6. Click Create.

The VM configuration steps opens.

Microsoft Azure	P Search resources, services, and	docs (G+/)	
	« Dashboard > Create a resource > N	Aarketplace > WatchGuard Firebox Cloud >	
+ Create a resource	Create WatchGuard F	irebox Cloud	
合 Home			
🔠 Dashboard			
All services	Basics Virtual Machine Settings	Network Settings Review + create	
* FAVORITES	Project details		
All resources	 Select the subscription to manage dep manage all your resources. 	loyed resources and costs. Use resource groups like folder	s to organize and
() Resource groups	manage all your resources.		
🛒 Quickstart Center	Subscription * ③	WatchGuard Engineering Test	~
S App Services	Resource group * ③	(New) WatchGuardDemo3	~
Function App		Create new	
SQL databases	Instance details		
S Azure Cosmos DB	Region * 🛈	West US	~
💶 Virtual machines	Firebox Cloud VM Name * 💿	WGDemo3	~
Load balancers		hi:	
Storage accounts			
↔ Virtual networks			
Azure Active Directory			
Monitor			
🔷 Advisor		21	
Microsoft Defender for	Previous Next Rev	riew + create	

7. On the **Basics** tab, specify basic information about your virtual machine.

Subscription

The name of the Azure subscription where the virtual machine and resources are stored. This is the account that Microsoft bills for VM use and storage.

Resource group

A resource group is a collection of resources that share the same lifecycle, permissions, and policies. All objects, such as networks and interfaces, and data for the Firebox Cloud instance will be associated with the resource group you specify. The resource group does not affect networking or connectivity from the Firebox to existing Azure resources.



Microsoft Azure does not support deployment of a managed application to a resource group with existing resources. You must create a new resource group or use an empty resource group.

Region

The Azure region for this Firebox Cloud instance.

Firebox Cloud VM Name

The name for the Firebox Cloud virtual machine in the Azure portal.

8. Click Next.

The Virtual Machines Settings configuration step opens if you are using the BYOL option, or the VM Size and Key Data section if you are using the PAYG option.

Microsoft Azure	, P Search resources, services, and docs (G+/)
«	Dashboard > Create a resource > WatchGuard Firebox Cloud >
+ Create a resource	Create WatchGuard Firebox Cloud
合 Home	
🔠 Dashboard	
E All services	Basics Virtual Machine Settings Network Settings Review + create
★ FAVORITES	Firebox Cloud License Type * ① Small
All resources	Size (Small) * ① 1x Standard A1 v2
() Resource groups	1 vcpu, 2 GB memory
🚀 Quickstart Center	Change size
S App Services	SSH public key source Generate new key pair 🗸
intersection App	Key pair name * WGSSH Public Key 🗸
🧧 SQL databases	
🦅 Azure Cosmos DB	Storage account * 🕐 (new) Storage account
📮 Virtual machines	Create New
🚸 Load balancers	
Storage accounts	
Virtual networks	
Azure Active Directory	
Monitor	
💠 Advisor	
Microsoft Defender for Cloud	Review + create < Previous

9. In the Virtual Machine Settings step, specify virtual machine configuration details.

Firebox Cloud License Type and VM Size – for Firebox Cloud (BYOL)

For a BYOL license, select the Firebox Cloud License Type. This is the Firebox Cloud license you purchased from WatchGuard or a WatchGuard reseller. Select **Small**, **Medium**, **Large** or **Extra Large**. After you select the License Type, an appropriate VM size is selected by default. To select a different size, click **Change size**. An Availability Set is created as part of the BYOL deployment.

Azure VM Tier and VM Size – for Firebox Cloud (PAYG)

For a PAYG license, select the Azure VM tier for the virtual machine. Select **Free Tier Eligible** or **Standard**. After you select the VM tier, an appropriate VM size is selected by default. To select a different size, click **Change size**.

SSH public key source

The public key for this Firebox. You can generate a new key pair, use an existing key stored in Azure, or use a tool such as puttygen, or ssh-keygen command in Linux to generate the key pair. You must use the private key associated with this public key to connect to the Firebox Cloud CLI.

Key pair name

The name for the key pair.

Storage account

The name of the storage account to store boot diagnostic log files. The storage account you select must not be in another resource group in your subscription. Boot diagnostic log files contain information that can help WatchGuard support troubleshoot issues.

10. Click Next.

Basics Virtual Machine Settings	Network Settings Review + create	
Configure virtual networks		
Virtual network * 🕕	(new) vnet01	~
	Create new	
External (Public) subnet * 💿	(new) External (10.22.0.0/24)	~
Trusted (Private) subnet * 🛈	(new) Trusted (10.22.1.0/24)	~
External Network Security Group * ①	O None	
, , , ,	Management Only	
	O Allow All	
allowed. The security group policy ca		ind connections are
	n be modified post-deployment. (new) undefined	and connections are
allowed. The security group policy ca	an be modified post-deployment.	und connections are

11. In the **Network Settings** step, specify required network configuration information.

Virtual network

The virtual network to use for this Firebox Cloud. By default, a new available address space with a /16 netmask is selected. You can use the default virtual network, edit the default virtual network, or choose another existing virtual network.

External (Public) subnet

Review and configure the subnet to use for the External (Public) network. By default, a new external network 10.7.0.0/24 is selected.

Trusted (Private) subnet

Review and configure the subnet to use for the Trusted (Private) network. By default, a new trusted network 10.7.1.0/24 is selected.

External Network Security Group

A network security group contains security rules that allow or deny inbound network traffic to, or outbound traffic from, the virtual machine. If you select **None**, no external network security group is applied. If you select **Management Only**, an external network security group is applied which allows inbound traffic on TCP 8080, TCP 4118, TCP 4117 for Web UI, CLI, and WatchGuard System Manager connections to the Firebox. If you select **Allow All**, all inbound traffic to the Firebox is allowed.

Public IP address

Select or create a public IP address to use for your Firebox Cloud external interface. For a new public IP address, specify a name, and select the SKU type (**Basic** or **Standard**). If you select a Basic SKU type, select the IP address assignment type, **Dynamic** or **Static**. If you select a **Standard** SKU type, select the routing preference, **Microsoft network** or **Internet**. For more information, go to <u>Routing Preference</u>.

Inbound connections to a public IP address with the Standard SKU type fail until you create and associate a network security group and explicitly allow the desired inbound traffic. For more information, go to the article <u>IP address types and allocation methods</u> in Azure in the Microsoft Azure documentation.



(†

To assign a secondary IP address, go to <u>Assign multiple IP addresses to virtual</u> machines using the Azure portal.

Domain name label

Specify the DNS label for the Firebox Cloud public IP address. It must be all lowercase letters and numbers.

12. Click Next.

- 13. In the Next: Review + Create step, review the information, and correct any errors.
- 14. Click Create.

The deployment begins.

After the deployment is completed, you can go to the resource group or pin the VM to the Microsoft Azure dashboard.

Find the Instance ID (VM ID)

After you deploy your Firebox Cloud instance, you must find the Instance ID, also known as the VM ID. You will need this to activate your license, and to log in to the Fireware Web UI to run the Firebox Cloud Setup Wizard. You can find the instance ID in the name of the storage container for boot diagnostic logs.

To find the Firebox Cloud Instance ID:

- 1. In the Azure left navigation menu, select Storage accounts.
- 2. Click the name of the storage account associated with your Firebox Cloud instance.
- 3. In the Data Storage section, select Containers.
- 4. To find the boot diagnostic container, click the container to view its details.
- 5. On the container details page, in the **Location** field, the name of the boot diagnostic container is in the format:

```
<bootdiagnostics>-<vmname>-<vmid>
```

For example:

```
bootdiagnostics-fbcloud-<u>11111111-2222-3333-4444-f86331913a6d</u>, where <u>1111111-2222-3333-</u>
4444-f86331913a6d, is the VMID.
```

6. Copy the VMID at the end of the container name.



You must have this instance ID to activate your Firebox Cloud license and to run the Firebox Cloud Setup Wizard.

Activate your Firebox Cloud License

For Firebox Cloud with a BYOL license, you must activate the Firebox Cloud serial number at <u>www.watchguard.com</u>. Before you can activate Firebox Cloud, you must have the Firebox Cloud serial number you received from WatchGuard and you must know the Firebox Cloud Instance ID.

To activate your Firebox Cloud license:

- 1. Go to www.watchguard.com.
- 2. Click Support.
- 3. Click Activate Products.
- 4. Log in to your WatchGuard Customer or Partner account. If you do not have an account, you can create one.
- 5. If necessary, navigate to the Support Center and select My WatchGuard > Activate Products.
- 6. When prompted, provide your Firebox Cloud serial number and Instance ID.
- 7. When activation is complete, copy the feature key and save it to a local file.

For more information about how to activate your Firebox Cloud license, go to Activate a WatchGuard Device or Feature.

Run the Firebox Cloud Setup Wizard

After you deploy Firebox Cloud, you can connect to Fireware Web UI through the public IP address to run the Firebox Cloud Setup Wizard. You use the wizard to set the administrative passphrases for Firebox Cloud.

To run the Firebox Cloud Setup Wizard:

- Connect to Fireware Web UI for your Firebox Cloud with the public IP address: https://<eth0_public_IP>:8080
- 2. Log in with the default Administrator account user name and passphrase:
 - User name admin
 - Passphrase The Firebox Cloud Instance ID The Firebox Cloud Setup Wizard welcome page opens.
- 3. Click Next.

The setup wizard starts.

4. Review and accept the End-User License Agreement. Click Next.

WatchGuard		Fireware Web UI			User:	?	
Create pass	phrases	for your Firebox	Cloud				
Your Firebox Cloud H admin has read-wr status has read-on Type the passphrase	rite privileges Ily privileges. 2 to use with	each account.					
		etween 8 and 32 characters					
User name Passphrase	status (read-	oniy)					
Confirm passphrase							
User name	admin (read-	write)					
Passphrase							
Confirm passphrase							
					BACK	NEXT	

- 5. Specify new passphrases for the built-in status and admin user accounts.
- 6. Click Next.

The configuration is saved to Firebox Cloud and the wizard is complete.

WatchGuard does not store any sensitive customer information in the Firebox Cloud configuration or on the Azure cloud-based platform.

Connect to Fireware Web UI

To connect to Fireware Web UI and administer Firebox Cloud:

- Open a web browser and go to the public IP address for your instance of Firebox Cloud at: https://<eth0_public_IP>:8080
- 2. Log in with the *admin* user account. Make sure to specify the passphrase you set in the Firebox Cloud Setup Wizard.

By default, Firebox Cloud allows more than one user with Device Administrator credentials to log in at the same time. To prevent changes by more than one administrator at the same time, the configuration is

locked by default. To unlock the configuration so you can make changes, click

If you prefer to allow only one Device Administrator to log in at the same time, select **System > Global Settings** and clear the **Enable more than one Device Administrator to log in at the same time** check box.

> Microsoft Azure automatically terminates your management connection to Firebox Cloud after 30 minutes of inactivity. To avoid unexpected disconnection of your management session, do not set the Management Session **Idle Timeout** in the Fireware **Authentication > Settings** page to a value higher than 30 minutes.

Add the Feature Key

If you have received or downloaded the Firebox Cloud feature key to a local file, in the Feature Key Wizard select **Yes I have a local copy of the feature key** and paste the feature key into the wizard.

If you activated a Firebox Cloud license at <u>www.watchguard.com</u>, your feature key is available directly from WatchGuard. You must add this feature key to the Firebox Cloud configuration to enable all functionality and configuration options on Firebox Cloud.



After you add the feature key, Firebox Cloud automatically reboots with a new serial number.

To add the feature key, from Fireware Web UI:

1. Select System > Feature Key. The Feature Key Wizard page opens.

	k the lock to make changes
Weld	come to the Feature Key Wizard
W	atchGuard
	ard helps you to activate your WatchGuard device. To unlock all the features on this device, you must complete product on and install the feature key.
Have yo	u already activated this device on the WatchGuard web site?
Yes,	download and install the feature key now
🔍 Yes,	I have a local copy of the feature key
No,	I have not activated this device yet
	NEX

- 2. To unlock the configuration file, click
- 3. To download and install the feature key, click Next.
- 4. On the **Summary** page, verify that your feature key was successfully installed. When your feature key has been installed, Feature Key Retrieval Success appears on the Summary page.

The feature key wizard is comp	lete.	
Activation	Successful	
Feature Key	Retrieval Success	
		NEX

5. Click Next.

The wizard completes and Firebox Cloud reboots with a new serial number.

Next Steps

After you run the setup wizard and add the feature key you can use Fireware Web UI or Policy Manager to configure the settings for Firebox Cloud.

Enable Feature Key Synchronization

Enable Firebox Cloud to automatically check for feature key updates when services are about to expire.

To enable feature key synchronization, in Fireware Web UI:

- 1. Select System > Feature Key.
- 2. Select the Enable automatic feature key synchronization check box.
- 3. Click Save.

To enable feature key synchronization, in Policy Manager:

- 1. Connect to Firebox Cloud in WatchGuard System Manager.
- 2. Open Policy Manager.
- 3. Select System > Feature Keys.
- 4. Select the Enable automatic feature key synchronization check box.
- 5. Click Save.

Configure Firebox Cloud to Send Feedback to WatchGuard

To enable Firebox Cloud to send feedback, in Fireware Web UI:

- 1. Select System > Global Settings.
- 2. Select the Send device feedback to WatchGuard check box.
- 3. Select the Send Fault Reports to WatchGuard daily check box.

To enable Firebox Cloud to send feedback, in Policy Manager:

- 1. Connect to Firebox Cloud in WatchGuard System Manager.
- 2. Open Policy Manager.
- 3. Select Setup > Global Settings.

- 4. Select the Send device feedback to WatchGuard check box.
- 5. Select the Send Fault Reports to WatchGuard daily check box.

Configure Firewall Policies and Services

The default WatchGuard and WatchGuard Web UI policies allow management connections from any computer on the trusted, optional, or external networks.

We strongly recommend that you do not allow management connections from the external network, and that you edit the WatchGuard and WatchGuard Web UI policies to remove the *Any-External* alias from the From list after you complete initial configuration.

To allow management from only a specific computer on the external network, you can add the address of that management computer to the From list in these policies.

Configure other policies and services as you would for any other Firebox.



Firebox Cloud does not support every Fireware feature. For a summary of the differences between Firebox Cloud and other Firebox models, go to *Firebox Cloud Feature Differences*.

Deploy Firebox Cloud on AWS

WatchGuard Firebox Cloud brings the proven protection of Firebox UTM appliances to public cloud environments and enables organizations to extend their security perimeter to protect business critical assets in Amazon Web Services. Under the <u>AWS Shared Responsibility Model</u>, security in the cloud falls to the customer. For this reason, it is crucial that administrators take every step possible to defend their data and deflect cyber criminals. Firebox Cloud can quickly and easily be deployed to protect a Virtual Private Cloud (VPC) from attacks such as Botnets, cross-site scripting, SQL injection attempts, and other intrusion vectors.

AWS Regions and Availability Zones

AWS has multiple AWS Regions. Each region contains several Availability Zones. A VPC can contain subnets in different Availability Zones.

Regions available in AWS:

- Africa (Cape Town) af-south-1
- Asia Pacific (Hong Kong) ap-east-1
- Asia Pacific (Tokyo) ap-northeast-1
- Asia Pacific (Seoul) ap-northeast-2
- Asia Pacific (Osaka) ap-northeast-3
- Asia Pacific (Mumbai) ap-south-1
- Asia Pacific (Singapore) ap-southeast-1
- Asia Pacific (Sydney) ap-southeast-2
- Asia Pacific (Jakarta) ap-southeast-3
- AWS GovCloud (US-East) us-gov-east-1
- AWS GovCloud (US-West) us-gov-west-1
- Canada (Central) ca-central-1
- Europe (Frankfurt) eu-central-1
- Europe (Ireland) eu-west-1
- Europe (London) eu-west-2
- Europe (Milan) eu-south-1
- Europe (Paris) eu-west-3
- Europe (Stockholm) eu-north-1
- Middle East (Bahrain) me-south-1
- South America (São Paulo) sa-east-1
- US East (N. Virginia) us-east-1
- US East (Ohio) us-east-2

- US West (N. California) us-west-1
- US West (Oregon) us-west-2



If you deploy a Firebox Cloud instance with the following instructions, each virtual machine instance is available in a single region and single availability zone.



AWS accounts have default quotas, or limits, for each AWS service. For information, go to <u>AWS Service Quotas</u>.

Supported Instance Types

Firebox Cloud supports these instance sizes and families:

- M4
- M5
- C4
- C5

For detailed information about supported EC2 instance types for Firebox Cloud (BYOL) and Firebox Cloud (Hourly) specific to selected regions, go to the Firebox Cloud product information in the <u>AWS Marketplace</u>.

Before You Begin

Deployment of Firebox Cloud on AWS requires familiarity with AWS. We recommend you have familiarity with networking, cloud networking, and network security.

For more information about how to get started with AWS, go to:

http://docs.aws.amazon.com/gettingstarted/latest/awsgsg-intro/gsg-aws-intro.html

For information about the AWS Management Console, go to:

http://docs.aws.amazon.com/awsconsolehelpdocs/latest/gsg/getting-started.html

AWS Identity and Access Management (IAM)

Before you can use Firebox Cloud, you must create an AWS account. When you set up your AWS account, you specify billing information and the security credentials you use to connect to the AWS Management Console.

AWS IAM is a web service that enables you to securely control access to AWS resources. You use IAM to control who is authenticated and authorized to use resources. When you first create your AWS account, you begin with a root user, which is a single sign-in identity that has complete access to all AWS services and resources in the account. Because of this access, we recommend you do not use the root user for your Firebox Cloud deployment or operations. The root user should only be used to create your first IAM user.

To enable an IAM user to launch an instance with an IAM role or to attach or replace an IAM role for an existing instance, you must grant the user permission to use the following API actions:

- iam:PassRole
- ec2:AssociateIamInstanceProfile
- ec2:ReplaceIamInstanceProfileAssociation

For more information about roles for Amazon EC2, go to IAM Roles for Amazon EC2.

For more information about policies and permissions, go to Policies and Permissions in IAM.

Deployment Overview

This diagram shows a basic Firebox Cloud deployment on AWS.

aws AWS Cloud			
Region			
		Availability Zone	
		Internet gateway	
Public subnet	P –	$\rightarrow \stackrel{-}{\rightarrow}$	
	Elastic network interface	Elastic IP address	Public Route Table
		:	
10.0.0/24	Fireb	oox Cloud Instance	
Private subnet	\downarrow		
			122415000 1222161100 122215220
	Elastic network interface		Private Route Table
10.0.1.0/24	Internace		

All AWS services that are part of the deployment are mandatory to run Firebox Cloud. To deploy your instance of Firebox Cloud on AWS, you must complete these procedures:

Allocate an Elastic IP address

Allocate an Elastic IP address from Amazon's pool of public IPv4 addresses, or from a custom IP address you brought to your AWS account.

Create a Virtual Private Cloud (VPC)

Use the VPC Wizard to create a VPC with public and private subnets.

Create an instance of Firebox Cloud

Launch an EC2 instance for Firebox Cloud with these properties:

- VPC Configuration VPC with Public and Private Subnets
- AMI WatchGuard Firebox Cloud
- Instance Type If you select Firebox Cloud with a BYOL license, make sure to select the instance type that has the same number of vCPUs as the Firebox Cloud license you purchased
- Network A VPC with public and private subnets
- Interfaces Eth0 must use a public subnet; Eth1 must use a private subnet
- Storage Keep the default size
- Security Group Allow all inbound traffic

Disable the Source/Destination checks for Firebox Cloud

For your Firebox Cloud to function as a NAT device for your VPC, you must disable the source/destination check for the instance of Firebox Cloud.

Assign an Elastic IP address to the instance of Firebox Cloud

Assign an Elastic IP (EIP) address to the eth0 interface for your instance of Firebox Cloud.

Configure the default route for the private network

Change the routing for the private subnet so that it uses the instance of Firebox Cloud as the default gateway.

Check instance status

Check the state of the instance of Firebox Cloud to verify that it has powered up, that it has a public IP address and DNS server assigned, and the correct security group is configured.

Each of these procedures is described in detail in the next sections. Deployment will take approximately 20 minutes.

Allocate or Associate an Elastic IP Address

Before you create a VPC, you must allocate or associate an elastic IP to the external interface. You can either select an existing elastic IP, or allocate an elastic IP from Amazon's pool of IPv4 addresses.

Allocate an Elastic IP Address

To allocate an elastic IP:

- 1. Log in to the AWS Management Console at aws.amazon.com.
- 2. From the top navigation bar, select **Services > Compute > EC2**. *The EC2 Dashboard page opens.*
- 3. In the Network & Security section, select Elastic IPs.
- 4. Click Allocate Elastic IP address. The Allocate Elastic IP address page opens with Amazon's pool of IPv4 addresses selected.
- 5. Click Allocate and record your allocated elastic IP address.

Associate an Elastic IP Address

To associate an existing elastic IP address:

- 1. Log in to the AWS Management Console at <u>aws.amazon.com</u>.
- 2. From the top navigation bar, select **Services > Compute > EC2**. *The EC2 Dashboard page opens.*
- 3. In the Network & Security section, select Elastic IPs.
- 4. Select the check box next to the elastic IP address you want to associate.
- 5. Select the Actions drop-down list. Click Associate Elastic IP address. The Associate Elastic IP address page opens.
- 6. In the Resource type section, select Network interface.
- 7. In the Network interface drop-down list, select a network interface.
- 8. In the Private IP address drop-down list, select a private IP address.
- 9. Click Associate.

Create a VPC with Public and Private Subnets

If you do not already have a VPC with public and private subnets, you must create one.

To use the VPC Wizard to create a VPC:

- 1. Log in to the AWS Management Console at aws.amazon.com.
- 2. From the top navigation bar, select **Services > Networking & Content Delivery > VPC**. *The VPC Dashboard page opens.*
- 3. Click Create VPC.
- 4. In the VPC settings section, select VPC and more.

VPC settings	
Resources to create Info Create only the VPC resource or	the VPC and other networking resources.

 In the Name tag auto-generation section, you can edit the name tag of individual resources, or autogenerate the name tags. Clear the Auto-generate check box to edit the name tags of your VPC and subnets.

- 6. In the IPV6 CIDR block section, select Amazon-provided IPv6 CIDR block for the VPC.
- 7. Configure the Availability Zone for each subnet. Make sure that the public subnet and private subnet are in the same zone.
- 8. (Optional). If you use two or more availability zones, you can customize the order of the availability zones. For more information, go to <u>Regions and Zones</u>.
- 9. Configure at least one public and one private subnet for each Availability Zone the VPC is in. You can use the default public and private subnets or select other subnets. AWS requires that each subnet must include enough space for a least 16 IP addresses.
- 10. Configure the NAT gateways, VPC endpoints, and DNS options.
- 11. Click Create VPC.

The wizard creates the VPC.

Create an Instance of Firebox Cloud

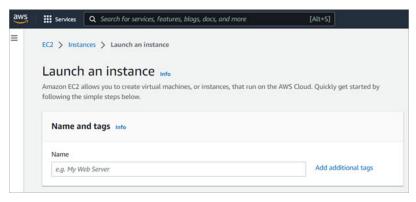
From the EC2 dashboard, you can create an EC2 instance for Firebox Cloud.

To launch an instance of Firebox Cloud:

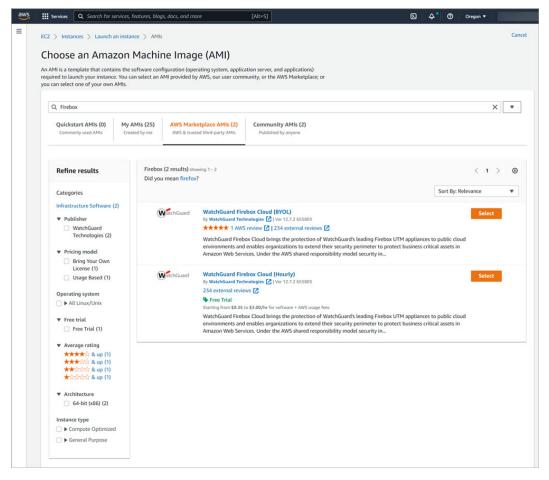
- 1. Log in to the AWS Management Console at aws.amazon.com.
- 2. From the top navigation bar, select **Services > Compute > EC2**. *The EC2 Dashboard page opens.*
- 3. From the navigation menu, in the Instances section, click Instances.
- 4. Click Launch instances.

New EC2 Experience X Tell us what you think	Instances (3) Info		C	Co	nnect Instan	ace state 🔻 🛛 Actions	▼ Lau	nch instances 🛛 🔻
	Q Search							< 1 > @
EC2 Dashboard EC2 Global View	Name 🗢	Instance ID	Instance state	▽	Instance type	7 Status check	Alarm statu	s Availability Zo
Events	JenkinsDemo	i-0aa81d219001245dd	Running	QQ	t2.micro	⊘ 2/2 checks passed	No alarms	+ ca-central-1a
Tags		i-074705aa53e74feee	⊘ Running	QQ	t2.micro	⊘ 2/2 checks passed	No alarms	+ ca-central-1a
Limits	<u>.</u>							

5. In the Name text box, enter a name for your instance.



6. In the Application and OS Images (Amazon Machine Image) search text box, enter Firebox and select the AWS Marketplace AMIs tab.



- 7. Select WatchGuard Firebox Cloud Hourly or BYOL.
- 8. Click **Continue** if you already have a license, or **Subscribe on instance launch** or **Subscribe now** if you do not have a subscription.
- In the Instance type section, select the AWS instance type from the drop-down list or from the Compare instance types page. If you selected Firebox Cloud with a BYOL license, select an instance that has the number of vCPUs your Firebox Cloud license supports.
 - For information about the maximum number of vCPUs supported for each Firebox Cloud model, go to *Firebox Cloud License Options*.
 - For information about supported EC2 instance types for Firebox Cloud (BYOL) and Firebox Cloud (Hourly), go to the Firebox Cloud product information in the <u>AWS Marketplace</u>.

Instance type Info	
nstance type c4.xlarge Family: c4 4 vCPU 7.5 GiB Memory Current generation: true	▼ All generations
he AMI vendor recommends using a c4.xlarge instance (or larger) for the best expe	Compare instance types erience with this product.

- 10. In the **Key pair (login)** section, select or create a key pair for SSH authentication. The key pair is needed only for ssh connections to the Fireware command line interface (CLI) for Firebox Cloud. You do not need the key pair to connect to Fireware Web UI. If you proceed without a key pair, you can log in to Fireware Web UI, but you cannot connect to the CLI from outside of the VPC.
 - a. To use an existing key pair, select a key pair from the drop-down list.
 - b. To create a new key pair, select **Create new key pair**. *The Create key pair dialog box opens.*
 - c. In the Key pair name text box, type a name for the new key pair.
 - d. Click **Create key pair**. *The .PEM file that contains the private key is downloaded.*
 - e. Save the private key to a location that is secure and accessible. You cannot download the private key file again.

Create key pair	×
Key pair name Key pairs allow you to connect to your instance sect	urely.
Enter key pair name	
The name can include upto 255 ASCII characters. It Key pair type	can't include leading or trailing spaces.
 RSA RSA encrypted private and public key pair 	C ED25519 ED25519 encrypted private and public key pair
Private key file format pem	
For use with OpenSSH	
.ppk For use with PuTTY	
When prompted, store the private ke your computer. You will need it later more 🔀	
	Cancel Create key pair



Save the private key file in a secure location. You must provide the private key to connect to the Fireware command line interface.

- 11. In the Network settings section, click Edit.
 - a. From the VPC drop-down list, select your VPC.
 - b. From the **Subnet** drop-down list, select the public subnet to use for eth0.
 - c. From the Auto-assign public IP drop-down list, select Disable.
 - d. In the **Firewall (security groups)** section, select **Create security group**. By default, the instance uses a security group that functions as a basic firewall. Because Firebox Cloud is a firewall, you must add a new security group that allows all traffic, and assign that security group to this EC2 instance.
 - e. Edit the Security group name and Description.
 - f. In the **Inbound Security Groups Rules** section, configure an existing security group rule or add a new security group rule. Make sure that the security group rule selected allows all traffic. From the **Type** drop-down list, select **All traffic**.

 Security group rule 1 (All, 	All, 0.0.0.0/0, Example)	Remove
Type Info	Protocol Info	Port range Info
All traffic	All	All
Source type Info	Source Info	Description - optional Info
Anywhere	▼ Q. Add CIDR, prefix list or security	Example

12. To add a second interface, expand the Advanced network configuration section.

- **Description** Type a description for the new network interface.
- Subnet The subnet in which to create the new network interface. For the primary network interface (eth0), this is the subnet used to launch the instance. If you enter an existing network interface for eth0, the instance is launched in the subnet where the network interface is located.
- Security groups The security group in your VPC to associate with the network interface.
- Primary IP A private IPv4 address from the range of your subnet. Leave blank to allow Amazon EC2 to select a private IPv4 address.
- Secondary IP One or more additional private IPv4 addresses from the range of your subnet. Select Manually assign and enter an IP address or select Automatically assign to allow Amazon EC2 select an IP address, and enter a value to indicate the number of IP addresses to add.
- IPv6 IPs An IPv6 address from the range of the subnet. Select Manually assign and enter an IP address or select Automatically assign to allow Amazon EC2 select an IP address, and enter a value to indicate the number of IP addresses to add.
- IPv4 Prefixes The IPv4 prefixes for the network interface.
- IPv6 Prefixes The IPv6 prefixes for the network interface.
- Delete on termination Select Yes or No to delete the network interface when the instance is deleted.

Advanced network c	onfiguration	1	
Network interface 1		MARKET AND AN ANY COMM	NG1 80-02 1.01
Device index Info		Network interface Info	Description Info
0		New interface	My Primary ENI
Subnet Info		Security groups Info	Primary IP Info
subnet-Ocaef682aa6453 IP addresses available: 250	82b	New security group	
Secondary IP Info		IPv6 IPs Info	IPv4 Prefixes Info
Select		Select	▼ Select ▼
			The selected instance type does not support IPv4 prefixes.
IPv6 Prefixes Info		Delete on termination Info	Elastic Fabric Adapter Info
Select	W	Select	Enable
The selected instance type de support IPv6 prefixes.	oes not		EFA is only compatible with certain instance types.

- 13. In the **Configure Storage** section, use the default storage size (5 GB).
- 14. Review the **Summary** side panel. Click **Launch instance**.

 Summary 	
Number of instances Info	
1	
Software Image (AMI)	
WatchGuard Firebox Cloud (ami-00d28a301ad3d1b63	BYOL read more
Virtual server type (instance	type)
c4.xlarge	
Firewall (security group)	
New security group	
Storage (volumes)	
1 volume(s) - 5 GiB	
Cancel	Launch instance

Disable Source/Destination Checks

By default, each EC2 instance completes source/destination checks. For the networks on your VPC to successfully use your instance of Firebox Cloud for NAT, you must disable the source/destination check for the network interfaces assigned to the instance of Firebox Cloud.

To disable source/destination checks for the public interface:

- 1. From the EC2 Management Console, select **Instances > Instances**.
- 2. Select the check box next to the instance of Firebox Cloud.
- 3. Select Actions > Networking > Change source/destination check. The Source / destination check page opens.
- 4. Select the **Stop** check box.
- 5. Click Save.

Services 🔻	Q Search for services, features, marketplace products, and docs	[Alt+S]	\$	
EC2 > Instances >	i-Oaa81d219001245dd > Change source / destination check			
		estination of all the t	raffic it	
Instance ID				
-				
	n checking Into			
Stop				
		must be able to s	end	
▼ AWS CLI Comm	and			
aws ec2 modify-: check	instance-attributeinstance-id=i-0aa81d219001245ddno-sou	arce-dest-	Сору	
		Cancel	Sa	/e
	EC2 > Instances > Source / destin Each EC2 instance per sends and receives. Instance ID ☐ i-Oaa81d21900 Network interface ☐ eni-O02b0a584 Source / destinatio If this is a N and receive w AWS CLI Comm aws ec2 modify-i	EC2 > Instances > i-Oaa81d219001245dd > Change source / destination check Source / destination check Info Each EC2 instance performs source and destination checks by default. The instance must be the source or d sends and receives. Instance ID ☐ i-Oaa81d219001245dd (JenkinsDemo) Network interface Info ☐ eni-O02b0a5841ef585dd Source / destination checking Info I stop If this is a NAT instance, you must stop source / destination checking. A NAT instance and receive traffic when the source or destination is not itself. I AWS CLI Command aws ec2 modify-instance-attributeinstance-id=i-0aa81d219001245ddno-source	EC2 > Instances > i-0aa81d219001245dd > Change source / destination check Source / destination check info Each EC2 instance performs source and destination checks by default. The instance must be the source or destination of all the t sends and receives. Instance ID i-0aa81d219001245dd (JenkinsDemo) Network interface info eni-002b0a5841ef585dd Source / destination checking info Stop i ft his is a NAT instance, you must stop source / destination checking. A NAT instance must be able to s and receive traffic when the source or destination is not itself. AWS CLI Command aws ec2 modify-instance-attributeinstance-id=i-0aa81d219001245ddno-source-dest- check	EC2 > Instances > i-Oaa81d219001245dd > Change source / destination check Source / destination check Info Each EC2 instance performs source and destination checks by default. The instance must be the source or destination of all the traffic it sends and receives. Instance ID i-Oaa81d219001245dd (JenkinsDemo) Network interface Info c eni-002b0a5841ef585dd Source / destination checking Info Stop If this is a NAT instance, you must stop source / destination checking. A NAT instance must be able to send and receive traffic when the source or destination is not itself. AWS CLI Command aws ec2 modify-instance-attributeinstance-id=i-0aa81d219001245ddno-source-dest- check

Assign an Elastic IP Address to the External Interface

You must assign an Elastic IP (EIP) address to the eth0 interface for the instance of Firebox Cloud. To make sure you assign it to the correct interface, find and copy the eth0 interface ID for your instance of Firebox Cloud.

To find the eth0 interface ID for your instance of Firebox Cloud:

- 1. From the EC2 Dashboard, select Instances.
- 2. Select the instance of Firebox Cloud. *The instance details appear.*

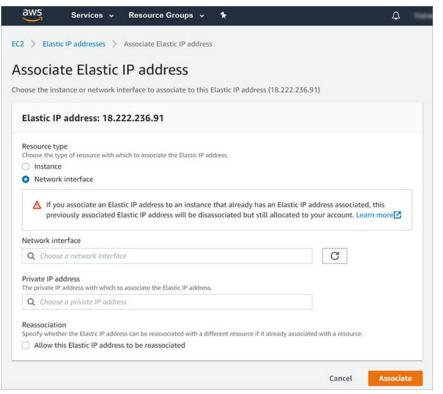
- 3. Select the Networking tab.
- 4. In the **Network interfaces** section, copy the **Interface ID** from the **Primary network interface**. *The Interface ID copied confirmation is displayed.*

Network inte	erfaces (1)					
Q Filter network	interfaces					
Interface ID	De	scription	Public IPv4 address	Private IPv4 address	Private IPv4 DNS	
□ < ⊘ Interfa	ce ID copied	ary network inte	35.183.37.243	10.0.0.250	-	•
Elastic IP addre	esses Info					

To associate the Elastic IP address with the eth0 interface:

- 1. From the EC2 Management Console, select Network & Security > Elastic IPs.
- 2. Select an available Elastic IP address.
- 3. Select Actions > Associate Elastic IP Address.

The Associate Elastic IP Address page opens.



- 4. In the Resource type settings, select Network interface.
- 5. In the Network Interface text box, paste the Interface ID for eth0.
- 6. Click Associate.

You can now use the EIP address to connect to Fireware Web UI for your instance of Firebox Cloud.

To connect to Fireware Web UI, open a web browser and go to https://<eth0_EIP>:8080.

Configure the Default Route

To enable Firebox Cloud to control outbound traffic from the private network connected to eth1, you must change the route table for the private subnet so that it uses Firebox Cloud as the default gateway.

To find the network interface ID of the private network:

- 1. On the EC2 dashboard, select Network & Security > Network Interfaces.
- 2. Find the private network interface for your instance ID. It is the interface that does not have a public IP address assigned.
- 3. Copy the network interface ID.

To edit the route table:

- 1. Select Services > VPC.
- 2. In the Virtual Private Cloud section, select Route tables.
- 3. To find the interface for the private network, select each route table for your VPC one at a time. *The route table details appear, with the interface information for each route table.*
- 4. To view the routes for each network, select the Routes tab.
- 5. On the Routes tab for the private network, click Edit routes.

Target		Status	Propagated	
local	•	active	No	
nat-x0000000000	•	blackhole	No	۲
			Can	cel Save rou
	local	local	local 👻 active	local active No nat-socococococo blackhole No

6. In the **Target** text box, paste the Interface ID over the NAT Gateway ID. *The route status changes from Black Hole to Active.*

te Table: rtb-0592	bb79fee7148fc				_
Summary	Routes S	ubnet Associations	Edge Associations	Route Propagation	Tags
Edit routes					
	View	All routes	•		
Destination		Tarç	get	Status	Propagated
10.0.0/16		loca	d	active	No
0.0.0/0		eni-	04988b4753857713c	active	No

7. Click Save routes.

Verify the Instance Status

After you finish all the steps to deploy your instance of Firebox Cloud, review the instance details on the EC2 **Instances** page to verify that:

- Public IP address and Public DNS server are assigned
- The security group to allow all traffic is assigned



If you delete the Firebox Cloud VM, make sure you delete the associated resources to avoid additional charges.

Find the Instance ID (VM ID)

After you deploy your Firebox Cloud instance, you must find the Instance ID, also known as the VM ID. You will need this to activate your license, and to log in to the Fireware Web UI to run the Firebox Cloud Setup Wizard.

To find the Firebox Cloud Instance ID:

- 1. From the EC2 Management Console, select Instances > Instances.
- 2. Open your instance.
- 3. Copy the Instance ID.



You must have this instance ID to activate your Firebox Cloud license and to run the Firebox Cloud Setup Wizard.

Activate your Firebox Cloud License (BYOL Only)

For Firebox Cloud with a BYOL license, you must activate the Firebox Cloud serial number at <u>www.watchguard.com</u>. Before you can activate Firebox Cloud, you must have the Firebox Cloud serial number you received from WatchGuard and you must know the Firebox Cloud Instance ID.

To activate your Firebox Cloud license:

- 1. Go to www.watchguard.com.
- 2. Click Support.
- 3. Click Activate Products.
- 4. Log in to your WatchGuard Customer or Partner account. If you do not have an account, you can create one.
- 5. If necessary, navigate to the Support Center and select My WatchGuard > Activate Products.

- 6. When prompted, provide your Firebox Cloud serial number and Instance ID.
- 7. When activation is complete, copy the feature key and save it to a local file.

Run the Firebox Cloud Setup Wizard

After you deploy Firebox Cloud, you can connect to Fireware Web UI through the public IP address to run the Firebox Cloud Setup Wizard. You use the wizard to set the administrative passphrases for Firebox Cloud.

To run the Firebox Cloud Setup Wizard:

- Connect to Fireware Web UI for your Firebox Cloud with the public IP address: https://<eth0_public_IP>:8080
- 2. Log in with the default Administrator account user name and passphrase:
 - User name admin
 - Passphrase The Firebox Cloud Instance ID The Firebox Cloud Setup Wizard welcome page opens.
- 3. Click Next.

The setup wizard starts.

4. Review and accept the End-User License Agreement. Click Next.

Watch	Guard	Fireware Web UI			User:	
Create	passphrases	for your Firebox	Cloud			
admin ha status ha Type the pa	x Cloud has two buil s read-write privilege s read-only privileges ssphrase to use with	s. each account.				
Each passp User name	hrase must contain b status (read	etween 8 and 32 characters				
Passphrase		viii)				
Confirm pa	sphrase					
User name	admin (read	-write)				
Passphrase						
Confirm pa	ssphrase					
					BACK	

- 5. Specify new passphrases for the built-in status and admin user accounts.
- 6. Click Next.

A

The configuration is saved to Firebox Cloud and the wizard is complete.

WatchGuard does not store any sensitive customer information in the Firebox Cloud configuration or on the AWS cloud-based platform.

Connect to Fireware Web UI

To connect to Fireware Web UI and administer Firebox Cloud:

- 1. Open a web browser and go to the public IP address for your instance of Firebox Cloud at: https://<eth0_public_IP>:8080
- 2. Log in with the *admin* user account. Make sure to specify the passphrase you set in the Firebox Cloud Setup Wizard.

By default, Firebox Cloud allows more than one user with Device Administrator credentials to log in at the same time. To prevent changes by more than one administrator at the same time, the configuration is

locked by default. To unlock the configuration so you can make changes, click

If you prefer to allow only one Device Administrator to log in at the same time, select **System > Global Settings** and clear the **Enable more than one Device Administrator to log in at the same time** check box.

Add the Feature Key (BYOL Only)

If you activated a Firebox Cloud license at <u>www.watchguard.com</u>, your feature key is available directly from WatchGuard. You must add this feature key to the Firebox Cloud configuration to enable all functionality and configuration options on Firebox Cloud.



After you add the feature key, Firebox Cloud automatically reboots with a new serial number.

To add the feature key, from Fireware Web UI:

1. Select System > Feature Key.

The Feature Key Wizard page opens.

atur	c Key Click the lock to make changes
W	elcome to the Feature Key Wizard
V	NatchGuard
	s wizard helps you to activate your WatchGuard device. To unlock all the features on this device, you must complete product ivation and install the feature key.
Hav	ve you already activated this device on the WatchGuard web site?
۲	Yes, download and install the feature key now
0	Yes, I have a local copy of the feature key
0	No, I have not activated this device yet
	NEXT

- 2. To unlock the configuration file, click
- 3. To download and install the feature key, click Next.
- 4. On the **Summary** page, verify that your feature key was successfully installed. *When your feature key has been installed, Feature Key Retrieval Success appears on the Summary page.*

The feature key wizard is comp	lete.	
Activation		
Feature Key	Retrieval Success	
		NEXT

5. Click Next.

The wizard completes and Firebox Cloud reboots with a new serial number.

Next Steps

After you run the setup wizard and add the feature key you can use Fireware Web UI or Policy Manager to configure the settings for Firebox Cloud.

Enable Feature Key Synchronization

Enable Firebox Cloud to automatically check for feature key updates when services are about to expire.

To enable feature key synchronization, in Fireware Web UI:

- 1. Select System > Feature Key.
- 2. Select the Enable automatic feature key synchronization check box.
- 3. Click Save.

To enable feature key synchronization, in Policy Manager:

- 1. Connect to Firebox Cloud in WatchGuard System Manager.
- 2. Open Policy Manager.
- 3. Select System > Feature Keys.
- 4. Select the Enable automatic feature key synchronization check box.
- 5. Click Save.

Configure Firebox Cloud to Send Feedback to WatchGuard

To enable Firebox Cloud to send feedback, in Fireware Web UI:

- 1. Select System > Global Settings.
- 2. Select the Send device feedback to WatchGuard check box.
- 3. Select the Send Fault Reports to WatchGuard daily check box.

To enable Firebox Cloud to send feedback, in Policy Manager:

- 1. Connect to Firebox Cloud in WatchGuard System Manager.
- 2. Open Policy Manager.
- 3. Select Setup > Global Settings.

- 4. Select the Send device feedback to WatchGuard check box.
- 5. Select the Send Fault Reports to WatchGuard daily check box.

Configure Firewall Policies and Services

The default WatchGuard and WatchGuard Web UI policies allow management connections from any computer on the trusted, optional, or external networks.

We strongly recommend that you do not allow management connections from the external network, and that you edit the WatchGuard and WatchGuard Web UI policies to remove the *Any-External* alias from the From list after you complete initial configuration.

To allow management from only a specific computer on the external network, you can add the address of that management computer to the From list in these policies.

Configure other policies and services as you would for any other Firebox.

()

Firebox Cloud does not support every Fireware feature. For a summary of the differences between Firebox Cloud and other Firebox models, go to *Firebox Cloud Feature Differences*.

Troubleshooting

If you experience issues with your Firebox Cloud deployment on AWS, check to make sure that you have followed the procedures in the *Deployment Overview* section:

- Allocate an Elastic IP address
- Create a Virtual Private Cloud (VPC)
- Create an instance of Firebox Cloud
- Disable the Source/Destination checks for Firebox Cloud
- Configure the default route for the private network
- Check the instance status. With instance status monitoring, you can check if Amazon EC2 has detected any problems with the health of your instance and set up an Amazon CloudWatch alarm. For more information, go to Status checks for your instances.

Firebox Cloud Feature Differences

Because Firebox Cloud is optimized to protect servers in a virtual private cloud, some setup requirements, configuration options, and available features are different from other Firebox models. This section summarizes the differences between Firebox Cloud and other Fireboxes.

Administration

You use Fireware Web UI, WatchGuard System Manager, or WatchGuard Cloud to manage a Firebox Cloud instance. You can use WatchGuard Cloud or WatchGuard Dimension to monitor the traffic and security status of the networks your Firebox protects. You can use Dimension Command to manage a Firebox Cloud instance that runs Fireware v11.12.4 or higher.

To add a Firebox Cloud instance to WatchGuard Cloud, the Firebox Cloud instance must have a BYOL license.

To manage Firebox Cloud from Policy Manager or a WatchGuard Management Server you must install WatchGuard System Manager v12.2 or higher.

Licensing and Services

For Firebox Cloud with a *BYOL* license, you must activate a license key for Firebox Cloud on the WatchGuard website, and add the feature key to your instance of Firebox Cloud. For more information, go to *Deploy Firebox Cloud on AWS* or *Deploy Firebox Cloud on Microsoft Azure*.

Most supported features and services are included with Firebox Cloud. Some security services are supported only for Firebox Cloud with a BYOL license. For information about license options and supported services, go to *Firebox Cloud License Options*.

Network Interfaces

Firebox Cloud supports two to eight interfaces. It supports one external interface (eth0), and up to seven private interfaces (eth1-eth7). All Firebox Cloud interfaces use DHCP to request an IP address. Because you must configure all network interface IP addresses and settings in AWS or Azure, you cannot configure the network interfaces in Fireware Web UI. The **Network > Interfaces** configuration page is not visible in Fireware Web UI for Firebox Cloud.

For Firebox Cloud on AWS, you assign an Elastic IP (EIP) address to the external interface. For Firebox Cloud on Azure, you can configure the external interface with a dynamic or static IP address. The internal IP addresses are assigned based on the private networks assigned to your Firebox Cloud instance in AWS or Azure.

A

Firebox Cloud supports one or more secondary IP addresses on the external interface in Fireware v12.1 and higher.

Default Firebox Configuration

When you launch an instance of Firebox Cloud, it automatically starts with a default configuration. For Firebox Cloud with a BYOL license, you must get a feature key to enable configuration of all features.

The Firebox Cloud Setup Wizard runs the first time you connect to Fireware Web UI. In the wizard you accept the End User License Agreement and choose new passphrases.

After you run the setup wizard, the default configuration for Firebox Cloud is different from other Firebox models in these ways:

- All interfaces use DHCP to obtain an IPv4 primary IP addresses
- Firebox Cloud allows more than one Device Administrator to connect at the same time
- You can connect to any interface for administration with Fireware Web UI
- The default policies allow management connections and pings to Firebox Cloud, but do not allow outbound traffic from private subnets through Firebox Cloud
- Licensed subscription services are not configured by default

The default WatchGuard and WatchGuard Web UI policies allow management connections from any computer on the trusted, optional, or external networks.

We strongly recommend that you do not allow management connections from the external network, and that you edit the WatchGuard and WatchGuard Web UI policies to remove the *Any-External* alias from the From list after you complete initial configuration.

To allow management from only a specific computer on the external network, you can add the address of that management computer to the From list in these policies.

Fireware Features

Firebox Cloud supports most policy and security features available on other Firebox models. It supports a subset of networking features appropriate for the AWS environment. For supported features, the available configuration settings are the same as for any other Firebox. Most features and options that are not supported for Firebox Cloud do not appear in Fireware Web UI.

Networking features not supported:

- Drop-in mode and Bridge mode
- DHCP server and DHCP relay (all interfaces are DHCP clients)
- PPPoE
- IPv6
- Multi-WAN (includes sticky connections and policy-based routing)
- ARP entries
- Link Aggregation
- VLANs
- FireCluster
- Bridge interfaces
- DNS forwarding and conditional DNS forwarding

Policies and Security Services not supported:

- Explicit-proxy and Proxy Auto-Configuration (PAC) files
- Quotas
- DNSWatch (supported with a BYOL license only)
- Network Discovery
- Mobile Security

Authentication features not supported:

Hotspot



Firebox Cloud supports Single Sign-On (SSO) in Fireware v12.2 or higher.

System Administration features not supported:

- Logon disclaimer for device management connections
- USB drive for backup and restore

Other features not supported:

- Gateway Wireless Controller
- Mobile VPN with SSL Bridge VPN Traffic option
- SD-WAN

Features you cannot configure from Fireware Web UI:

- Change the logging settings for default packet handling options
- Edit the name of an existing policy
- Add a custom address to a policy
- Use a host name (DNS lookup) to add an IP address to a policy
- Add or edit a secondary PPPoE interface



It is possible to configure some features, such as IPv6 routes, that are not supported for Firebox Cloud. This does not enable the unsupported feature, but does no harm.

View Firebox Cloud VM Information

You can view information about the Firebox Cloud virtual machine in Fireware Web UI and Firebox System Manager.

VM Information in Fireware Web UI

For Firebox Cloud, some pages in Fireware Web UI include information about the Firebox Cloud virtual machine and virtual interfaces.

The Front Panel Dashboard

For Firebox Cloud, the **Front Panel** dashboard page includes this information about the Firebox Cloud instance:

- Instance ID The virtual machine identifier
- Instance Type The type of AWS or Azure virtual machine instance
- Availability Zone The AWS Availability Zone or Azure region where the Firebox Cloud virtual machine is deployed

The VM Information System Status Page

The **System Status > VM Information** page includes more details about the Firebox Cloud virtual machine.

The VM Information for Firebox Cloud for AWS includes:

- Instance ID The virtual machine identifier
- Instance Type The type of AWS virtual machine instance
- Availability Zone The AWS Availability Zone
- Public Hostname The public host name of the Firebox Cloud virtual machine
- Public IPv4 Address The public IPv4 address for the external interface
- Security Group The AWS security group
- Public Key The public key for this Firebox Cloud virtual machine

The VM Information for Firebox Cloud for Azure includes:

- VM ID The virtual machine ID. This is the same as the Instance ID on the Front Panel.
- VM Size The Azure VM size. This is the same as the Instance Type on the Front Panel.
- Location The Azure region. This is the same as the Availability Zone on the Front Panel.
- Public Hostname The host name for the Firebox Cloud instance external interface
- Public IPv4 Address The public IPv4 address for the external interface

The Interfaces Dashboard

The **Interfaces** Dashboard page includes information about the status of virtual network interfaces associated with each Firebox Cloud interface. The content shown in the **Detail** tab varies slightly for Firebox Cloud on AWS or Azure.

For Firebox Cloud on AWS, the Interfaces Dashboard page includes this information:

- Interface ID The elastic network interface (eni) ID
- Public Hostname The public DNS host name for the external interface
- Public IPv4 address The public IPv4 address for the external interface
- Local Hostname The private DNS host name for the network interface
- Device Number The interface number
- VPC ID The ID of the VPC where the instance of Firebox Cloud is deployed
- Link Status The link status of each interface (Up or Down)
- DNS Servers The list of DNS servers that generate the public IPv4 address

xternal (eth0)			Enabled Yes Link Status Up
Enabled	Yes	Interface ID	eni-ca27849a
Link Status	Up	Public Hostname	
Zone	External		2.compute.amazonaws.com
IPv4 Address	10.0.0.211/24	Public IPv4	52.38.221.202
Gateway	10.0.0.1	Local Hostname	ip-10-0-0-211.us-west-2.compute.internal
MAC Address	0A:64:65:EC:24:55	Device Number	0
		VPC ID	vpc-40508c27
rusted (eth1)			Enabled Yes
			Link Status Up
Enabled	Yes	Interface ID	eni-58278408
Link Status	Up	Local Hostname	ip-10-0-1-253.us-west-2.compute.internal
Zone	Trusted	Device Number	1
IPv4 Address	10.0.1.253/24	VPC ID	vpc-40508c27
Gateway	10.0.1.1		
MAC Address	0A:B3:D5:CD:05:37		
Gateway	10.0.1.1	VPC ID	vpc-40508c27

The Interfaces Dashboard for a Firebox Cloud instance on AWS

For Firebox Cloud on Azure, the Interfaces Dashboard page includes this information:

- Public IPv4 address The public IPv4 address for the external interface
- Local IPv4 address The private IPv4 address for the external interface
- Device Number The interface number
- Link Status The link status of each interface (Up or Down)
- DNS Servers The list of DNS servers that generate the public IPv4 address

terfaces					
External (eth0)				Enabled	Yes
				Link Status	Up
Enabled	Yes	Public IPv4	40.80.153.5		
Link Status	Up	Local IPv4	10.0.0.5		
Zone	External	Device Number	0		
IPv4 Address	10.0.0.5/24				
Gateway	10.0.0.1				
MAC Address	00:0D:3A:31:65:6A				
Trusted (eth1)				Enabled	Yes
				Link Status	Up
Enabled	Yes	Local IPv4	10.0.1.5		
Link Status	Up	Device Number	1		
Zone	Trusted				
IPv4 Address	10.0.1.5/24				
Gateway	0.0.0.0				
MAC Address	00:0D:3A:33:18:CD				

The Interfaces Dashboard for a Firebox Cloud instance on Azure

You can also view some information about the virtual machine in Firebox System Manager, as described in the next section.

VM Information in Firebox System Manager

To use Firebox System Manager to monitor Firebox Cloud, you must install WatchGuard System Manager v12.2 or higher. When you use Firebox System Manager to manage Firebox Cloud, the **VM Information** tab shows information about the Firebox Cloud virtual machine.

The VM Information for Firebox Cloud for AWS includes:

- Instance ID The virtual machine identifier
- Instance Type The type of AWS virtual machine instance
- Availability Zone The AWS Availability Zone

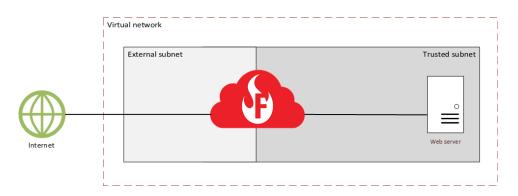
- Public Hostname The public host name of the Firebox Cloud virtual machine
- Public IPv4 Address The public IPv4 address for the external interface
- Security Group The AWS security group
- Public Key The public key for this Firebox Cloud virtual machine

The VM Information for Firebox Cloud for Azure includes:

- VM ID The virtual machine ID. This is the same as the Instance ID on the Front Panel.
- VM Size The Azure VM size. This is the same as the Instance Type on the Front Panel.
- Location The Azure region. This is the same as the Availability Zone on the Front Panel.
- Public Hostname The host name for the Firebox Cloud instance external interface
- Public IPv4 Address The public IPv4 address for the external interface

Use Firebox Cloud to Protect a Web Server

You can configure the proxy policies and subscription services in your Firebox Cloud configuration file to protect a web server on the virtual network connected to your Firebox Cloud instance.



For more information about Firebox Cloud features, go to:

- Introduction to Firebox Cloud
- <u>Firebox Cloud Feature Differences</u>

Step 1 – Launch an Instance of Firebox Cloud

To protect a web server with Firebox Cloud, you must launch an instance of Firebox Cloud in the same virtual network as the web server you want to protect. You must assign a public IP address to eth0 of the Firebox Cloud instance. This is the public IP address of Firebox Cloud. The web server to protect must be on the private subnet of the virtual network where you deploy the instance of Firebox Cloud.

For detailed steps to launch and configure a Firebox Cloud instance on AWS or Azure, go to:

- Deploy Firebox Cloud on AWS
- Deploy Firebox Cloud on Microsoft Azure

After you deploy the instance of Firebox Cloud, connect to it with Fireware Web UI at the public IP address of the Firebox external interface:

https://<eth0_public_IP>:8080

After you have connected to Fireware Web UI for your instance of Firebox Cloud, you can configure your Firebox Cloud.

Step 2 – Add A Static NAT Action

Add a static NAT action for traffic from the external interface to the internal IP address of the web server. You can then use the static NAT action in policies that allow traffic to your web server.

To add a static NAT action, from Fireware Web UI:

- 1. Select Firewall > SNAT.
- 2. Add a static NAT action that allows traffic from the external interface to the private IP address of the web server. In Fireware v12.2 or higher, you can also specify an FQDN in the static NAT action.

Name	Web-Server	
Description		
Туре	Static NAT	
	Server Load Balancing	
SNAT MEMBERS 🖣		
External> 10.0.1.80		
ADD EDIT REMOVE		

3. Click Save.

Step 3 – Add HTTP and HTTPS Proxy Policies

After you add the static NAT action, to allow HTTP and HTTPS traffic to the web server, you can add proxy policies that use the new static NAT action. You also clone the predefined proxy actions for each policy and create user-defined proxy actions that you can edit.

Add an HTTP-Proxy Policy

To allow HTTP traffic through Firebox Cloud to the web server over port 80, you must add an HTTP-proxy policy to the Firebox Cloud configuration.

To add the HTTP-Proxy policy, from Fireware Web UI:

- 1. Select Firewall > Firewall Policies.
- 2. Click Add Policy.
- 3. Select Proxies.
- 4. Select the HTTP-proxy and the HTTP-Server.Standard proxy action.
- 5. Click Add Policy. By default, the policy allows traffic from Any-External to Any-Trusted.
- 6. From the policy **To** list, remove **Any-Trusted**, then click **Add**.
- 7. From the **Member type** drop-down list, select **Static NAT** and select the static NAT action you added. Click **OK**.

The static NAT action is added to the policy.

Firewall Policies /		HTTP-prox	у		C Enable			
Settings	Application (Control	Traffic Man	agement	Proxy Action	Scheduling	Advanced	
connections are	Allowed		v	Policy Type PORT * 80	HTTP-proxy PROTOCOL TCP			
FROM 🗢	ıl				Server (SNAT) > 10.0.1.80			
ADD REMOV	E			ADD F	REMOVE			

To select a user-defined proxy action for HTTP traffic:

- 1. Select the Proxy Action tab.
- 2. From the **Proxy Action** drop-down list, select **Clone the current proxy action**. A user-defined proxy action based on the predefined proxy action is created and assigned to the policy. The cloned proxy action has a number appended to the name. For example, HTTP-Server.Standard.1.
- 3. Click Save.

Add an HTTPS-Proxy Policy

To allow secure web traffic (HTTPS) to your web server, you must also add an HTTPS-proxy policy that allows HTTPS connections to the server over port 443. In the proxy configuration, you clone the predefined HTTPS proxy action and enable inspection of HTTPS content.

To add the HTTPS-proxy policy, from Fireware Web UI:

- 1. Select Firewall > Firewall Policies.
- 2. Click Add Policy.
- 3. Select Proxies.
- 4. Select the HTTPS-proxy and the HTTPS-Server.Standard proxy action.
- 5. Click Add Policy. By default, the policy allows traffic from Any-External to Any-Trusted.
- 6. From the To list, remove Any-Trusted, then click Add.
- 7. From the **Member type** drop-down list, select **Static NAT** and select the static NAT action you added. Click **OK**.

The static NAT action is added to the policy.

To select a user-defined proxy action and enable inspection of HTTPS content:

- 1. Select the **Proxy Action** tab.
- 2. From the **Proxy Action** drop-down list, select **Clone the current proxy action**.

A user-defined proxy action based on the predefined proxy action is created and assigned to the policy. The cloned proxy action has a number appended to the name. For example, HTTPS-Server.Standard.1.

Firewall Policies	/ Add							
	Name	HTTPS-pr	оху	C Enable				
Settings	Application	Control	Traffic Management	Proxy Action	Scheduling	Advanced		
Proxy Action								
Clone the curre	nt proxy action	۲						
HTTPS P	roxy Actior	n Setting	js					
	Name	HTTPS	S-Server.Standard.1					
	Description	Watch	Guard recommended standa	ard configuration for	HTTPS-Server with	logging enabled		
General	Content Insp	ection	Domain Names Web	Blocker Proxy a	and AV Alarms			
Content I	Inspection							
	ontent Inspection	1						
Content In	spection applie	s only to Do	main Name rules with the	Inspect action and t	o WebBlocker cate	gories you select	to inspect.	
	tent Inspection 1126/certportal	is enabled y	you can download the Prox	y Authority certifica	te from the Certific	ate Portal at http	:// <firebox ip<="" td=""><td></td></firebox>	
Allow S	SLv3							
Proxy Actio	on HTTP-Ser	ver.Standar	d.1 v					

- 3. In the HTTPS Proxy Action Settings section, select the Content Inspection tab.
- 4. Select the Enable Content Inspection check box.
- 5. From the **Proxy Action** drop-down list, select the user-defined HTTP proxy action you created when you cloned the HTTP proxy action in the HTTP-Proxy policy. For example, select **HTTP-Server.Standard.1**.
- 6. Click Save.

Import a Proxy Server Certificate

If you enable inspection of HTTPS content, the HTTPS proxy intercepts the HTTPS request and starts a new connection to the destination HTTPS server on behalf of the client. The HTTPS proxy in your Firebox Cloud configuration sends a self-signed certificate to the client that originated the connection. To avoid certificate errors in the web browser for users that connect to the server with HTTPS, you must get the proxy server certificate and key pair from the web server and import it to Firebox Cloud as a proxy server certificate.

To import the certificate, from Fireware Web UI:

- 1. Select System > Certificates.
- 2. Select Import Certificate.
- 3. For the Certificate Function, select Proxy Server.
- 4. Import the certificate file from your web server.
- 5. Save the configuration.

For more information, go to Manage Device Certificates (Web UI) in Fireware Help.

Step 4 – Enable Subscription Services

Firebox Cloud includes activated subscription services you can use to control network traffic. Follow the instructions in these procedures to enable subscription services for the HTTP and HTTPS proxy policies.

Enable Gateway AntiVirus

Gateway AntiVirus works with the SMTP, POP3, HTTP, FTP, and TCP-UDP proxies. When a new virus is identified, the features that make the virus unique are recorded. These recorded features are known as the signature. Gateway AntiVirus uses these signatures to find viruses when content is scanned by the proxy.

To enable Gateway AntiVirus in the user-defined HTTP-proxy action assigned to your HTTP-proxy policy, from Fireware Web UI:

- 1. Select Subscription Services > Gateway AV. The Gateway AntiVirus Activation Wizard starts automatically if Gateway AntiVirus is not already enabled.
- 2. Complete the wizard.

Enable Intrusion Prevention Service (IPS)

Intrusion Prevention Service (IPS) provides real-time protection from threats, such as spyware, SQL injections, cross-site scripting, and buffer overflows.

To enable IPS, from Fireware Web UI:

- 1. Select Subscription Services > IPS.
- 2. Select the Enable Intrusion Prevention check box.
- 3. Make sure that IPS is enabled in the HTTP-proxy and HTTPS-proxy policies you added.

Enable Botnet Detection

The Botnet Detection subscription service uses a feed of known botnet site IP addresses gathered by Reputation Enabled Defense (RED). These known botnet sites are added to the Blocked Sites List that enables Firebox Cloud to block these sites at the packet level.

To enable Botnet Detection, from Fireware Web UI:

- 1. Select Subscription Services > Botnet Detection.
- 2. Select the Block traffic from suspected botnet sites check box.
- 3. Click Save.

Enable Data Loss Prevention

The Data Loss Prevention (DLP) service enables you to detect, monitor, and prevent accidental unauthorized transmission of confidential information outside your network or across network boundaries. You can use the built-in PCI Audit or HIPAA Audit sensors, or create your own sensor.

For example, to enable Data Loss Prevention for PCI compliance, from Fireware Web UI:

- 1. Select Subscription Services > Data Loss Prevention.
- 2. Select the Enable Data Loss Prevention check box.
- 3. Select the Policies tab.
- 4. Configure the HTTP-proxy and HTTPS-proxy to use the PCI Audit Sensor.
- 5. Click Save.

The default Data Loss Prevention sensors monitor and send log messages when they detect data that matches the rules enabled in the sensor. To change the action for the sensor, you can clone the sensor and then edit the settings in the new sensor.

Configure Geolocation

The Geolocation subscription service uses a database of IP addresses and countries to identify the geographic location of connections through the Firebox. Geolocation is enabled by default. You can configure Geolocation to block connections to or from specific regions.



If your internal network configuration includes IP addresses outside the reserved private IP address ranges defined in RFC 1918, RFC 5737, or RFC 3330, make sure to look up the geolocation of the IP addresses in your network before you block a country.

To look up the geolocation of an IP address, from Fireware Web UI:

- 1. Select Dashboard > Geolocation > Lookup.
- 2. Specify the IP address to look up.

To select the countries to block, from Fireware Web UI:

- 1. Select Subscription Services > Geolocation.
- 2. Select the Enable Geolocation check box.
- 3. Select countries to block on a map or from a list.
- 4. If there are sites you want to allow in the blocked countries, configure exceptions.
- 5. Save the configuration.

For more information about how to select countries and configure exceptions, go to <u>Configure</u> <u>Geolocation</u> in *Fireware Help*.

Enable Logging for Firebox Cloud

You can enable Firebox Cloud to send log messages to WatchGuard Cloud or WatchGuard Dimension[™]. Both WatchGuard Cloud and Dimension are virtual visibility and management solutions you can use to view Firebox log data in real-time, track it across your network, view the source and destination of the traffic, view log message details of the traffic, monitor threats to your network, and view reports of the traffic.

Configure Logging to WatchGuard Cloud

To enable Firebox Cloud to send log messages to WatchGuard Cloud, you can add your Firebox Cloud to WatchGuard Cloud. When you enable WatchGuard Cloud, the Firebox sends log messages to WatchGuard Cloud in addition to any other log servers you configure. After you activate a Firebox Cloud license at www.watchguard.com, you can add the Firebox Cloud instance to your WatchGuard Cloud account.

For more information, go to Add a Firebox to WatchGuard Cloud.

For information about how you can manage your Firebox Cloud instance as a cloud-managed device in WatchGuard Cloud, go to Add Firebox Cloud to WatchGuard Cloud (Cloud-Managed).



Firebox Cloud is not supported for WatchGuard Cloud with a PAYG license.

Configure Logging to Dimension

If you have an instance of Dimension, you can configure Firebox Cloud to send log messages to Dimension.

To configure Firebox Cloud to send log messages to your instance of Dimension:

- 1. Select **System > Logging**.
- 2. Select the Send log messages to these WatchGuard Log Servers check box.
- In the Log Servers list, add the IP address of your instance of Dimension.
 If your instance of Dimension is behind another Firebox, specify the external IP address of the Firebox that protects your instance of Dimension.
- 4. Type and confirm the Authentication Key for your instance of Dimension.
- 5. Click Save.

If your instance of Dimension is behind another Firebox, make sure that the configuration file of the Firebox that protects Dimension includes a **WG-Logging** policy to allow traffic from the external interface to a static NAT action that translates the public IP address of the Firebox to the private IP address of Dimension.

For more information about Dimension, go to these Video Tutorials:

- Dimension Kernel Upgrade in Hyper-V (11 minutes)
- Dimension Kernel Upgrade in VMware ESXi (11 minutes)

For more information about how to configure the logging settings, go to Fireware Help.

Open the Configuration File for a Firebox Cloud Instance

From Fireware Web UI, you can download your Firebox Cloud configuration to a compressed file. This can be useful if you want to open the configuration file in Policy Manager but cannot connect to the Firebox from Policy Manager.

Before you can open a configuration file in offline mode, you must download the configuration file from your Firebox.

From Fireware Web UI, there are two methods to download the configuration file for your Firebox Cloud instance:

- Download the configuration file, config.xml
- Download the diagnostic log message file, support.tgz

Download and Open the Configuration File

You download the configuration file, config.xml, in a compressed (.GZ) file format. Before you can open the configuration file with Policy Manager, you must use a utility such as Winzip or 7-Zip to extract the contents of the .GZ file to a location on your computer.

After you extract the files, you can open the configuration file from Policy Manager for this Firebox Cloud instance.

To download and open the configuration file, from Fireware Web UI:

- 1. Select System > Configuration File. The Configuration File page opens.
- 2. Click **Download the Configuration File**. *The browser downloads the .GZ file.*
- 3. Open the compressed file and extract the contents.

To open a Firebox Cloud configuration file with Policy Manager, you must extract the vmhost.json file and the config.xml file into the same folder. Both files are necessary to open the configuration file in Policy Manager.

4. In Policy Manager, with an existing configuration file open, select File > Open > Configuration File.

Download and Open the Diagnostic Log Message File

The diagnostic log message file, support.tgz, includes the configuration file for your Firebox Cloud instance. Before you download the diagnostic log message file, make sure that diagnostic logging is enabled on your device. For more information about how to enable diagnostic logging, go to <u>Set the</u> <u>Diagnostic Log Level</u>.

To download the diagnostic log message file support.tgz, from Fireware Web UI:

- 1. Select System Status > Diagnostics.
- 2. Click **Download a Support Log File**. *The browser downloads the file.*



The configuration file, config.xml, is located inside the compressed diagnostic log file, support.tgz. The default location is \support\config\config.xml.gz.

To open the configuration file:

- 1. Extract the config.xml file from config.xml.gz.
- 2. Copy vmhost.json from \support\networking\vmhost.json to the \support\config folder.
- 3. Rename vmhost.json to config_vmhost.json.
- 4. In Policy Manager, with an existing configuration file open, select File > Open > Configuration File.

Changes that Require a Firebox Cloud Reboot

If you change the configuration of the network interfaces assigned to your Firebox Cloud instance in AWS or Azure, a reboot might be required for the Firebox to recognize the change. You can restart Firebox Cloud from the AWS console, or from Fireware Web UI.



If you add interfaces to a Firebox Cloud instance, you must reboot Firebox Cloud twice for new interfaces to receive IP addresses.

The types of changes that require a reboot depend on the version of Fireware.

Fireware v12.4 and Higher

In Fireware v12.4 and higher, you must reboot the Firebox after you add or remove a network interface.

If you make changes to an interface that Firebox Cloud already uses, a reboot is not required. Firebox Cloud detects the change within five minutes after you save the change in AWS or Azure.

Fireware v12.3.x and Lower

In Fireware v12.3.x and lower, you must reboot the Firebox after you:

- Add or remove a network interface
- Change interface configuration
- Manually assign an elastic IP address to an interface

To restart Firebox Cloud from Fireware Web UI:

- 1. Connect to Fireware Web UI.
- 2. On the Front Panel page, click Reboot.

If you added an interface, repeat these steps to restart Firebox Cloud a second time.

Administer Firebox Cloud with the CLI

For most Firebox Cloud administration tasks, we recommend that you use Fireware Web UI. You can also use the Fireware command line interface (CLI) to administer your instance of Firebox Cloud. To connect to the Fireware CLI you must have a terminal client that supports SSH2 and public key authentication.



If you did not specify a key pair when you launched your instance of Firebox Cloud, you cannot connect to Firebox Cloud with the Fireware CLI.

To connect to your Firebox Cloud with the Fireware CLI, use an SSH terminal client and specify these settings:

- User name The Device Administrator user name that you use to log in to Fireware Web UI
- Private key The private key file for your instance of Firebox Cloud
- Address The public IP address of Eth0 for your instance of Firebox Cloud
- Port 4118

For information about how to use the CLI to manage Fireware, go to the Fireware Command Line Interface Reference.

Reset the Firebox to Factory-Default Settings

If you want to run the Web Setup Wizard again for a Firebox Cloud instance, you can use the CLI to reset the virtual machine to factory default settings.

To reset the Firebox to factory-default settings:

- 1. Log in to the CLI with the admin account.
- 2. Run the command restore factory-default.



When you reset a Firebox Cloud instance with a BYOL license to factory-default settings, this also resets the Firebox serial number. To restore the serial number, you must add the device feature key to the Firebox configuration.

Add Firebox Cloud to WatchGuard Cloud (Cloud-Managed)

Applies To: Cloud-managed Fireboxes¹

The Firebox Cloud Bring Your Own License (BYOL) also includes a license for WatchGuard Cloud. After you activate a Firebox Cloud BYOL license, you can add the Firebox Cloud instance to your WatchGuard Cloud account.

Firebox Cloud is available for Amazon Web Services (AWS) and Microsoft Azure cloud computing platforms.

To manage Firebox Cloud from WatchGuard Cloud, you must add Firebox Cloud as a cloud-managed device and then upload a payload to your Firebox Cloud instance.

Because Firebox Cloud is optimized to protect servers in a virtual private cloud, some setup requirements, configuration options, and available features are different from other Firebox models. For more information, go to *Firebox Cloud Feature Differences*.

Before You Begin

Before you add a Firebox Cloud instance to WatchGuard Cloud, make sure that:

- You have purchased a Firebox Cloud BYOL license.
- You have deployed the AWS or Azure instance.
- You have your Instance ID, also known as the VM ID. You need this to activate your license, and to log in to Fireware Web UI to run the Firebox Cloud Setup Wizard.
- You have activated the Firebox Cloud instance in your WatchGuard account.
- The Firebox Cloud instance is allocated to a Subscriber account (Service Providers only). For more information, go to <u>Firebox Allocation</u>.

To add a Firebox Cloud instance as cloud-managed, it must meet these requirements:

Runs Fireware v12.7.1 or higher

For a Firebox Cloud instance to successfully connect to WatchGuard Cloud as cloud-managed, it must run Fireware v12.7.1 or higher.

The version of Fireware originally manufactured on the device appears in the **Device Information** section of the **Product Details** page in the WatchGuard website.

¹This topic applies to Fireboxes you configure in WatchGuard Cloud.

If your Firebox uses a lower version of Fireware, you must first set up the Firebox as a locallymanaged device and upgrade it to Fireware to v12.7.1 or higher before you can add it as a cloudmanaged device. For information about Fireware upgrade methods, go to <u>Firebox Upgrade</u>, <u>Downgrade</u>, and <u>Migration</u>.

Uses factory-default settings

If you previously configured the Firebox Cloud instance as locally-managed, you must reset it to factory-default settings before it can connect to WatchGuard Cloud as a cloud-managed device. For the steps to reset your Firebox Cloud instance, go to *Changes that Require a Firebox Cloud Reboot*.

Add a Firebox Cloud Device to WatchGuard Cloud

When you add a Firebox Cloud instance to WatchGuard Cloud as a cloud-managed device, you configure the device name, time zone, and device passwords. Network settings are configured by Microsoft AWS or Microsoft Azure.

To add Firebox Cloud to WatchGuard Cloud as a cloud-managed device:

- 1. Log in to your WatchGuard Cloud account.
- 2. For Service Provider accounts, from Account Manager, select My Account.
- 3. Select Manage > Devices or Configure > Devices.
- 4. Click Add Device. A list of activated Fireboxes opens.
- 5. Click the **Name** of the Firebox you want to add or click . *A confirmation dialog box opens.*
- 6. Click Add Device.

The Add Device to WatchGuard Cloud page opens.

Add Device to WatchGuard Cloud	
Your Firebox was added to WatchGuard Cloud.	
	DEVICE DETAILS
Select how you want to manage your Firebox configuration.	
Device Management *	Name: Milton2 Model: FireboxV Sm
Cloud Management 🗸	Serial Number: FVE
What is cloud management? When a Firebox is cloud-managed, you manage the device configuration in WatchGuard Cloud. You can also monitor live status, and see log messages and reports for the devices. If you currently manage the device configuration in WSM, Fireware Web UI, or the Command Line Interface, your configuration will be replaced with the cloud- managed configuration. For more information, see Firebox Monitoring and Configuration Features.	
NEXT Cancel	

- 7. Select Cloud Management.
- 8. Click Next.
- 9. Configure Firebox system settings:
 - Name The name to identify the Firebox in WatchGuard Cloud.
 - **Time Zone** The time zone of the location where the Firebox is installed.
 - Device Folder Select the folder that you want to add your device to. <u>Device Folders</u> help you to view status and summarized data for groups of devices.
 If you only have one root folder, the folder list does not appear.

WatchGuard	Dashboard	Monitor	Configure	Administration	
Add Device	to WatchG	iuard Cl	oud		
Begin Setting Up You Specify the Firebox name Name *		zone.			
Corporate Firebox Bos	ton				
Select the time zone whe and time that appear in t			-	ls the date	
(GMT-08:00) Pacific Tir	ne (US & Canada)		~		
Select the folder you wou	uld like to add your Fi	rebox to.			
Baltimore					
Boston					
San Francisco					
🗎 Seattle					
Boston					
BACK	Cancel	_			

- 10. Click Next.
- 11. Set Firebox device passwords for connections to Fireware Web UI on the Firebox. Device passwords must be 8-32 characters long, and must contain uppercase and lowercase letters, at least one number, and at least one symbol.

()

The admin password you specify here is used to encrypt the payload. You must use the same admin password when you upload the payload in the Firebox Cloud Web Setup Wizard.

Add Device to WatchGuard Cloud
Set the Status and Admin Passwords
Set passwords for the built-in status and admin user accounts. These users can log in to Fireware Web UI on this device.
Status Password
Password for status account (8-32 characters) *
۲
Admin Password
Password for admin account (8-32 characters) *
۲
BACK NEXT Cancel

To keep your device secure, make sure you do not use the default passphrases for the admin account (readwrite) and status account (readonly). We recommend you specify unique passphrases for each Firebox you manage and change them frequently.

For a cloud-managed Firebox, you can use Fireware Web UI to recover the Firebox connection to WatchGuard Cloud. You cannot use Fireware Web UI to modify the Firebox configuration.

(i

12. Click Next.

13. Click Download Payload.

A dialog box opens for you to save the payload file to your default download folder in your browser. The package has a TGZ extension. For example, package_FVE1028C0754.

Add Device to WatchGuard Cloud
Download Payload to Virtual Firebox
To enable a virtual Firebox, you must download the encrypted payload. The payload includes:
 Verification code Admin and status passwords Initial configuration Feature key
DOWNLOAD PAYLOAD



Record the location where you saved the payload file. In the next section, you will upload the payload in the Fireware Web UI to connect your Firebox Cloud instance to WatchGuard Cloud.

Add Device to WatchGuard Cloud
Download Payload to Virtual Firebox To enable a virtual Firebox, you must download the encrypted payload. The payload includes:
 Verification code Admin and status passwords Initial configuration Feature key
DOWNLOAD PAYLOAD Payload download complete
The payload is now encrypted with your admin password and your virtual Firebox was added to WatchGuard Cloud.
The next step is to upload the payload to your virtual Firebox.
DONE

Your device is now added to WatchGuard Cloud, but not yet connected. You must now upload the payload to your Firebox Cloud instance in the Fireware Web UI.

Upload the Payload and Connect the Firebox

Before you can manage Firebox Cloud in WatchGuard Cloud, you must upload the payload you downloaded from WatchGuard Cloud.

The payload includes:

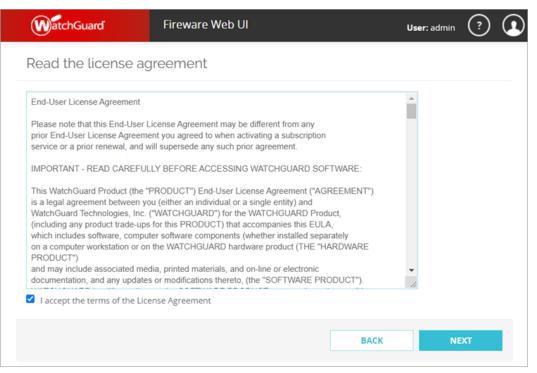
- Verification code
- Admin and status passwords
- Initial configuration
- Feature key

To upload the payload and connect your Firebox Cloud instance to WatchGuard Cloud:

- 1. Open a web browser and go to https://<eth0_public_IP>:8080.
- 2. Log in with the default administrator account user name and password:
 - Username admin
 - Password the Firebox Cloud Instance ID
- 3. Select Enable cloud management.

WatchGuard	Fireware Web UI	User: admin ? 🚺
Welcome to the Fir	rebox Cloud Setup Wizard	
Select a Configuration	n Type	
 Create new Configuration Manage the Firebox configuration 	ration locally. You can add the Firebox to WatchGi	uard Cloud for monitoring only.
Enable cloud management Manage the Firebox configu	ration from WatchGuard Cloud.	
		NEXT

- 4. Click Next.
- 5. Accept the terms of the License Agreement.



6. Click Next.

- 7. Upload the payload.
 - a. Type the admin password you created in the Add Device Wizard in WatchGuard Cloud. This password is used to decrypt the payload.
 - b. Click **Browse**, navigate to the location where you saved the payload, and select the payload file.

	Fireware Web UI
Upload Payload to	Virtual Firebox
	r cloud-management, you must upload the payload. your admin password. Enter your admin password and select the file
Admin Password	•••••
Select File	Browse package_FVE1028C0C571.tgz
	BACK NEXT

8. Click Next.

The payload file uploads and applies changes to the Firebox. When the process finishes, you see a message.



Verify the Firebox Cloud Status

After you upload the payload and connect Firebox Cloud in the Fireware Web UI, log in to WatchGuard Cloud to verify the connection status and other summary information on the Device Settings page and the Deployment History page.



Because AWS or Azure controls the networking information for Firebox Cloud, the Networking and Live Status Monitoring sections in WatchGuard Cloud do not show the same level of detail as physical Fireboxes or FireboxV.

For more information, go to:

- WatchGuard Cloud Device Summary
- Monitor Live Status for Cloud-Managed Fireboxes

Additional Resources

This guide described how to set up a Firebox Cloud on AWS or Microsoft Azure. After you launch and successfully connect to your instance of Firebox Cloud, use these resources to learn more about how to configure the supported features and services.

Help Center and Technical Documentation

- Fireware Help From Fireware Web UI, click for context-sensitive help, or go to <u>WatchGuard</u> <u>Help Center</u>.
- Complete Fireware documentation For the complete set of documentation for Fireware and related software go to the WatchGuard <u>Technical Documentation</u> page.

Technical Support

- If you require assistance with your Firebox Cloud instance, including how to handle fault conditions, go to <u>Support Information</u>.
- For information about Support tiers and targeted response times, go to <u>Compare Support Levels</u>.

Troubleshooting

Fireware Help – For Fireware troubleshooting documentation, go to Troubleshooting.

Monitor Your Firebox

 Fireware Help – For more information about how to monitor your Firebox Cloud instance, go to Monitor your Firebox.

Manage Users and Roles on Your Firebox

 Fireware Help – For Firebox users and roles information, go to Manage Users and Roles on Your <u>Firebox</u>.

Firebox Upgrade, Downgrade, and Migration

Fireware Help – For Firebox upgrade, downgrade, and migration information, go to <u>Firebox Upgrade</u>, <u>Downgrade</u>, and <u>Migration</u>.

Firebox Backup and Restore

• *Fireware Help* – For Firebox backup and restore information, go to *Firebox Backup and Restore*.