# Enterprise and Service Provider Licensing

with the Barracuda CloudGen Firewall

## What is "Enterprise and Service Provider Licensing"?

This type of licensing (a.k.a. pool licensing) lets you centrally manage all Barracuda CloudGen Firewall licensing through the Barracuda Firewall Control Center in a flexible, independent manner. You can make the best use of pool licensing for CloudGen Firewall deployments when you have a large number of firewalls running across a wide geographic area.

This whitepaper is about pool licensing only. All content is related to the handling and behavior of CloudGen Firewall deployments running with pool licenses.
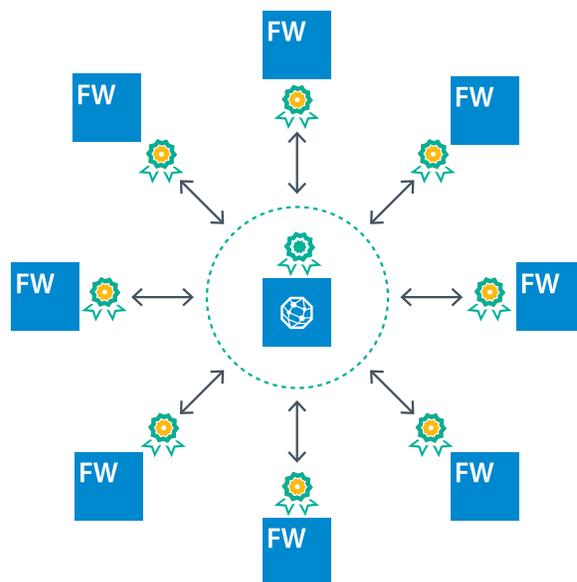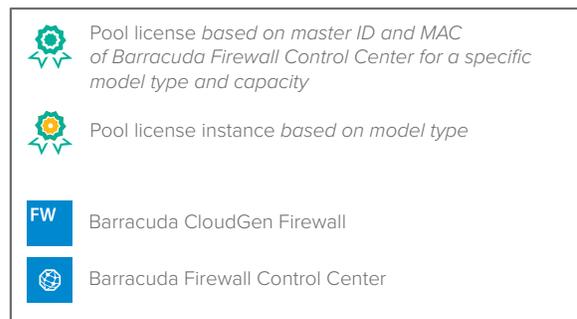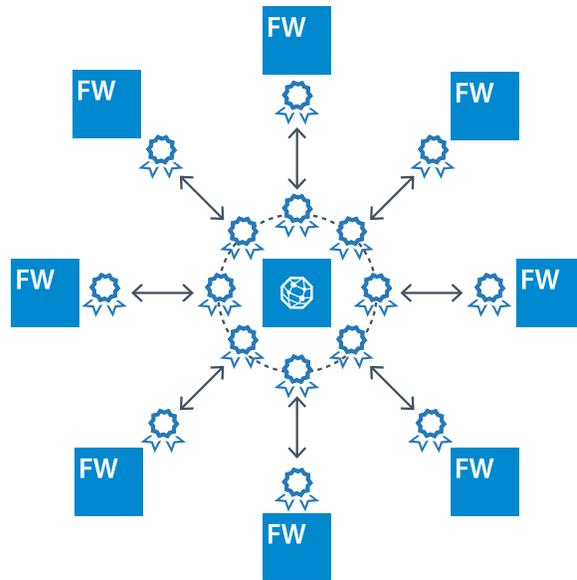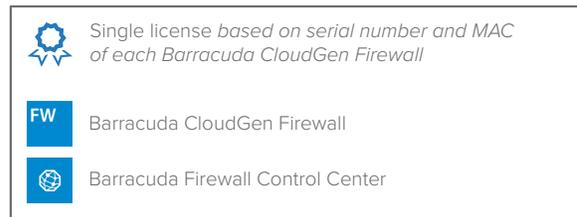
For in-depth configuration and administration of pool licensing, please visit Barracuda Campus.

## Single licensing vs. pool licensing

Barracuda CloudGen Firewall appliances are usually single licensed. This means that the licenses needed to run the firewall are related to the serial number of the box. This guarantees legal usage of the hardware, the acquired software subscriptions, and all services running on the firewall. Following activation, this also guarantees regular updates of the licenses, software, and patterns, thereby ensuring frictionless operation.

Single licensing is well-established. However, for every required hardware or licensing change, you must configure each box separately. Fortunately, such changes do not happen very often when you only have a dozen boxes running.

If, however, your company's security infrastructure contains hundreds or thousands of firewalls for all of your branches/ locations around the globe, deploying new firewalls and replacing or upgrading hardware becomes a daily job. You therefore need a quick and easy way to manage the licensing of these firewalls. Pool licensing for the Barracuda CloudGen Firewall is the ideal tool for centrally managing and maintaining your firewalls via the Barracuda Firewall Control Center. Instead of having hundreds of single licenses for your network, you have just ONE pool license that is assigned to all your firewalls.



Single license *based on serial number and MAC of each Barracuda CloudGen Firewall*

**FW**  Barracuda CloudGen Firewall

Barracuda Firewall Control Center



Pool license *based on master ID and MAC of Barracuda Firewall Control Center for a specific model type and capacity*

Pool license instance *based on model type*

**FW**  Barracuda CloudGen Firewall

Barracuda Firewall Control Center

*Barracuda Firewall Control Center: single licensing vs. pool licensing*

## How does pool licensing work?

Pool licensing is issued to a Barracuda Firewall Control Center for a specific model and a specific quantity of appliances (pool size, capacity). This makes the Barracuda Firewall Control Center the master of the pool license, enabling the administrator to assign instances (copies) of the pool license to the appliances. Since a pool license is not issued for a specific box's serial number, it does not matter which box you assign the license to as long as the gateway complies with the model type and the pool size (capacity) is not exceeded. This is also known as a floating license because it can be used for numerous gateways.

In addition to the Barracuda Firewall Control Center, which is required to operate the pool licenses, the licensing scheme consists of three main components (all with monthly-based contract terms):

| Component | Description | Example |
|---|---|---|
| Hardware only | The appliance | BNGF280p-hwo |
| Pool base account | Node required for pool licensing | BNGF280p |
| Pool unit license | Defines the number of units run via pool licensing | BNGF280pu |
| Pool Energize Updates license | To run software services on the box and to receive updates | BNGF280p-e |

## Benefits of pool licensing

When operating multiple CloudGen Firewall deployments in your network, you do not need to manage the license of every single box. You can run all boxes with one central license.

### Solution advantage 1 – Easy installation and setup

All gateways are set up and configured centrally via the Firewall Control Center. Assigning the pool license to multiple firewalls for a fast and easy rollout of all boxes requires no manual activation of box serial numbers. After the initial setup, the Firewall Control Center automatically manages all boxes assigned the pool license number.

### Solution advantage 2 – Fast hardware replacement

If a box fails, you can easily replace it without cumbersome administration. Hardware replacement is accomplished by a Firewall Control Center by removing and re-applying licenses. Informing Barracuda Customer Service about the new box serial number and license switch is not required.

### Solution advantage 3 – RMA or repair handling

In case of RMA or repair, and after the license swap in the Barracuda Firewall Control Center, the new or refurbished box can be returned to the customer to be re-used as required. That is a major advantage over single licensing. For example, after a single box RMA and license switch, the former box's serial number is irrevocably terminated.

### Solution advantage 4 – Consolidated run time

All CloudGen Firewall deployments run with instances of the pool license and therefore have the same activation and expiration dates of the software subscriptions. Compared to single licensing, in which each box has its individual license and activation date, it is much easier to manage updates and renewals of your full CloudGen Firewall deployment by utilizing a pool license.

### Solution advantage 5 – Automatic license renewals and updates

All renewals and updates for pool licenses are managed automatically via the Firewall Control Center. Administrators need only to renew the pool license on the Firewall Control Center and deploy it to all pool-licensed boxes by means of automatic configuration updates.

## Licensing concepts

If the single instance (single box) licensing is considered as a vertical licensing concept in which all licenses are issued for one specific machine, pool licensing can be understood as a horizontal licensing concept in which one license is used for multiple machines. Barracuda offers two types of enterprise licensing:

- Model-specific pool license

- Corporate-site pool license (user-based and for add-on security subscriptions only)

**Model-specific pool licenses** are handy when operating many firewalls of one specific model (e.g., model F280).

**Corporate-site pool licenses** are used only for add-on security subscriptions, like Malware Protection, Advanced Threat Protection, and Advanced Remote Access. The machine itself will need an individual Basic and Energize Updates subscription as a single or pool license. Corporate-site pool licensing requires an additional license agreement.

Here is an overview of all available enterprise license subscriptions:

| Enterprise license subscription | Model-specific pool | Corporate-site pool |
|---|---|---|
| Base license | ✓ | - |
| Energize Updates (incl. Barracuda Web Filter) | ✓ | - |
| Firewall Insights | ✓ | - |
| Malware Protection | ✓ | ✓ |
| Advanced Threat Protection | ✓ | ✓ |
| Advanced Remote Access | ✓ | ✓ |

## Subscriptions

Subscriptions entitle the use of specific features and services and can be divided into software, hardware, and support subscriptions.

For a single-licensed deployment, all subscriptions are based on the appliance's serial numbers and MAC addresses.

For a pool-licensed deployment, all subscriptions are based on the Firewall Control Center's master ID. However, hardware subscriptions are still related to the box serial number. The pool base license and pool Energize Updates license are mandatory.

All software subscriptions are assigned to the Firewall Control Center:

- Pool base (mandatory)

- Pool Energize Updates (mandatory)

- Pool Malware Protection

- Pool Advanced Threat Protection (requires Malware Protection)

- Pool Bundle Advanced Threat and Malware Protection (Advanced Threat Protection + Malware Protection)

- Pool Advanced Remote Access

The Premium Support subscription requires an active Energize Updates subscription.

Hardware subscriptions are assigned to the serial number of the CloudGen Firewall F appliance:

- Instant Replacement (including enhanced support)
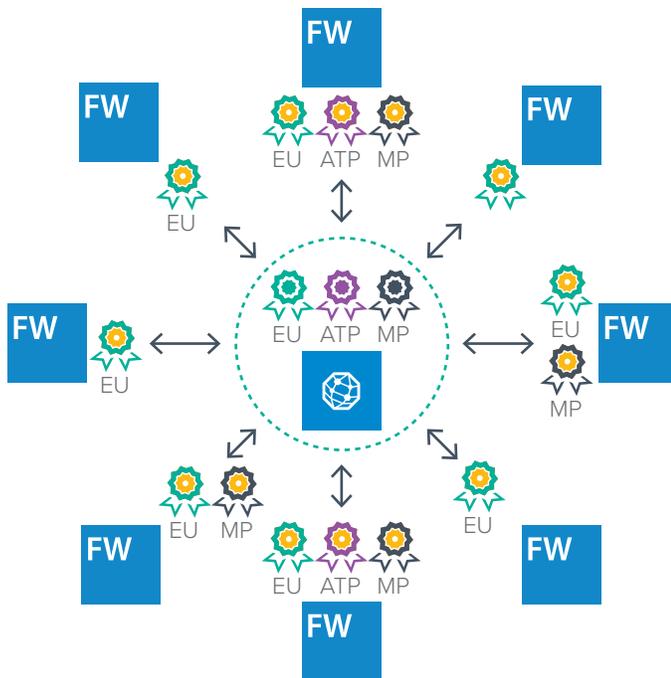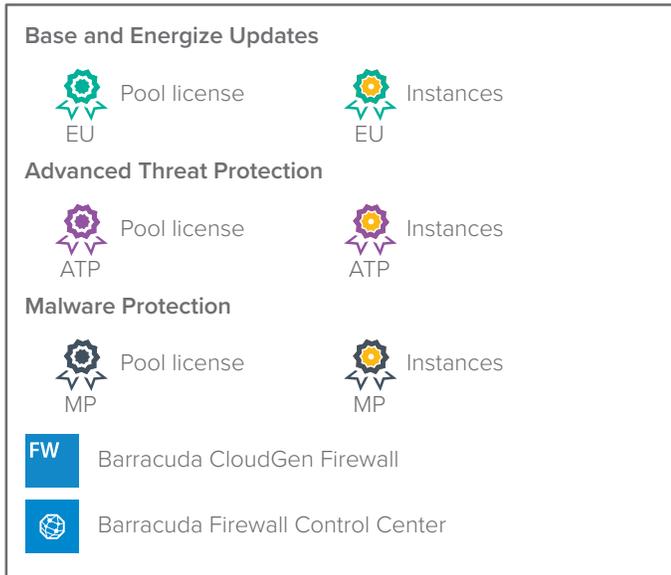
- Warranty Extension (including basic support)

Please note: For a hardware subscription transfer to another serial number, please contact Barracuda Customer Services.
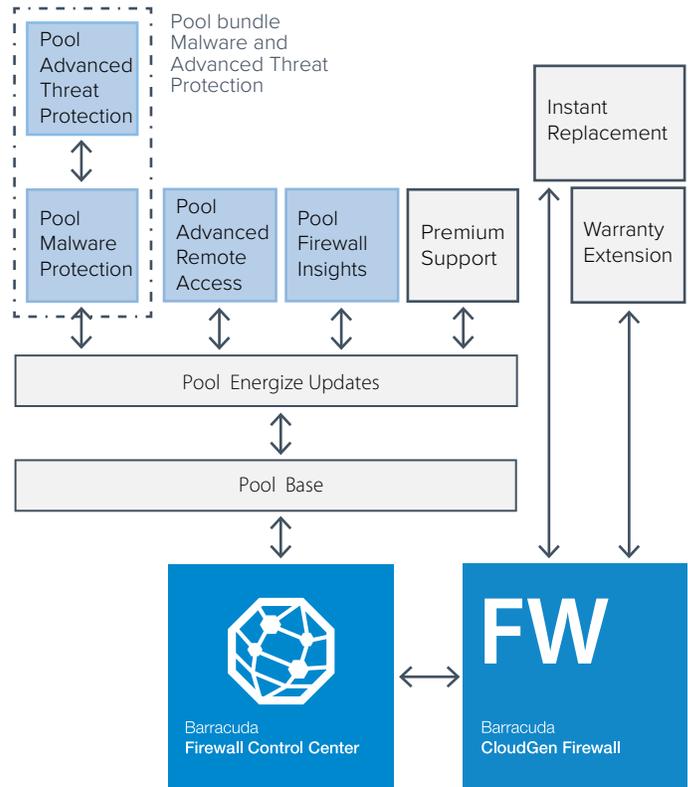

*Pool license subscriptions*

To run a pool-licensed environment, the minimum subscription setups are Pool Base and Pool Energize Updates. The pool license concept is made for large deployments and is issued for a fixed number of a specific Barracuda CloudGen Firewall model. The total number of appliances you can run with a pool license is called capacity. The capacity of the Pool Base license and the Pool Energize Updates license is the same. Pool Energize Updates is mandatory to run firewall and VPN services on the Barracuda CloudGen Firewall. Barracuda Premium Support service is also based on the Pool Energize Updates license.

For all other subscriptions, a lower capacity can be used. This enables CloudGen Firewall to run with a basic CloudGen Firewall feature set and - at the same time - have a subset of gateways running additional features, such as Malware Protection, Advanced Threat Protection, or Advanced Remote Access. Hardware replacement options like Instant Replacement or Warranty Extension are also offered as subscriptions, but only for a subset of your deployment. For example, Instant Replacement is only purchased for mission-critical locations like datacenters, headquarters, or regional main offices.

## Base and Energize Updates

Pool license EU · Instances EU

## Advanced Threat Protection

Pool license ATP · Instances ATP

## Malware Protection

Pool license MP · Instances MP

**FW** Barracuda CloudGen Firewall

Barracuda Firewall Control Center

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EU ATP MP

EU · EU · EU · EU · MP · EU MP · EU ATP MP

### Pool license

| Pool license | Capacity | Consumed | Free seats |
|---|---|---|---|
| Base and Energize Updates | 10 | 8 | 2 |
| Malware Protection | 5 | 4 | 1 |
| Advanced Threat Protection | 5 | 2 | 3 |
| Premium Support | 10 | - | - |
| Warranty Extension | 3 | Box serial 1, 2, 3 | - |

*Subscription handling*

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## Possible combinations of license types

| License | Single<br>CGF 1<br>*Single licensed* | Mix 1<br>CGF 2<br>*Single + Corporate-Site licensed* | Pool<br>CGF 3<br>*Pool licensed* | Mix 2<br>CGF 4<br>*Pool + Corporate-Site licensed* | Enterprise Licensing<br><br>Firewall Control Center |
|---|---|---|---|---|---|
| BASE | Single license | Single license | Pool license | Pool license | ← |
| ENERGIZE UPDATES | Single license | Single license | Pool license | Pool license | ← |
| FIREWALL INSIGHTS | Single license | Corporate-site license | Pool license | Corporate-site license | ← |
| MALWARE PROTECTION | Single license | Corporate-site license | Pool license | Corporate-site license | ← |
| ADVANCED THREAT PROTECTION | Single license | Corporate-site license | Pool license | Corporate-site license | ← |
| ADVANCED REMOTE ACCESS | Single license | Corporate-site license | Pool license | Corporate-site license | ← |

Enterprise Licensing columns: Corporate-site license | Pool license

On a Firewall Control Center you can use all types of licensing for your managed boxes. Therefore, on a box it is possible to combine single licensing with corporate-site licensing, and pool licensing with corporate-site licensing, but NOT single licensing with pool licensing. Possible combinations are:

- **Single + Corporate-Site license** – Base and Energize Updates are single licensed and further subscriptions can be either single or corporate-site licensed.

- **Pool + Corporate-Site license** – Base and Energize Updates are pool licensed and further subscriptions can be either pool or corporate-site licensed.

| License | Single<br>CGF 1<br>*Single licensed* | Pool<br>CGF 3<br>*Pool licensed* | Enterprise licensing<br><br>Firewall Control Center |
|---|---|---|---|
| BASE | Single license | Pool license | ← |
| ENERGIZE UPDATES | Single license | Pool license | ← |
| FIREWALL INSIGHTS | Single license | Pool license | ← |
| | Corporate-site license | Corporate-site license | |
| MALWARE PROTECTION | Single license | Pool license | ← |
| | Corporate-site license | Corporate-site license | |
| ADVANCED THREAT PROTECTION | Single license | Pool license | ← |
| | Corporate-site license | Corporate-site license | |
| ADVANCED REMOTE ACCESS | Single license | Pool license | ← |
| | Corporate-site license | Corporate-site license | |

Enterprise licensing columns: Corporate-site license | Pool license

## Deployment of pool licenses

After purchasing a CloudGen Firewall pool license, a token (1) is issued for its initial download and activation from the Barracuda Update Server (2) via the Firewall Control Center. The pool license can then be assigned to the corresponding CloudGen Firewall (3). The pool license can be assigned to multiple firewalls until capacity is reached.
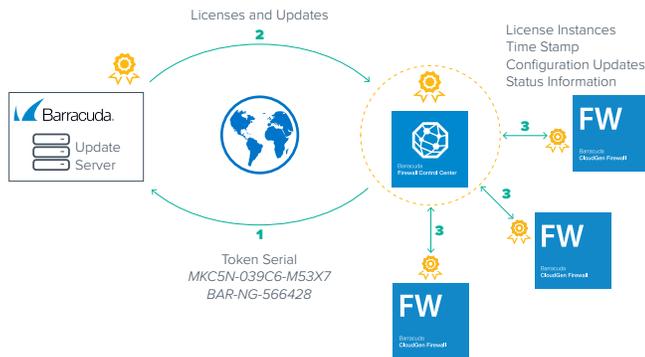


*Pool license activation and assignment*

The pool licenses are activated when the licenses are first downloaded using the license token. Hardware-related subscriptions, like Instant Replacement or Warranty Extension, must be activated manually via the Barracuda Activation web form or via Barracuda Support on the first day of productivity. (https://www.barracuda.com/activate)

Starting a CloudGen Firewall without licenses activates the demo mode. This is a basic and very limited operation mode for setup and configuration purposes. The configuration and license assignment for each CloudGen Firewall is set up via the Firewall Control Center and can then be easily distributed to the deployed appliances.



*60-day grace period for pool licenses*

### What is a time stamp?

When you assign a pool license to a box, the Firewall Control Center creates a unique child license (float license) for each box and issues a time stamp for validity check. The time stamp needs to be renewed periodically. A pool-licensed box must therefore be reachable by the Firewall Control Center to receive time stamp renewals. For more information about pool licensing, please see Barracuda Campus documentation on Enterprise Licensing (Pool).

The Firewall Control Center's status page enables administrators to check the connectivity status of the firewall managed by the Firewall Control Center. In addition, the Firewall Control Center will send alerts to administrators as soon as a pool license expires. Administrators can also configure events on the Firewall Control Center and/or the CloudGen Firewall to get automatic notifications for license issues.
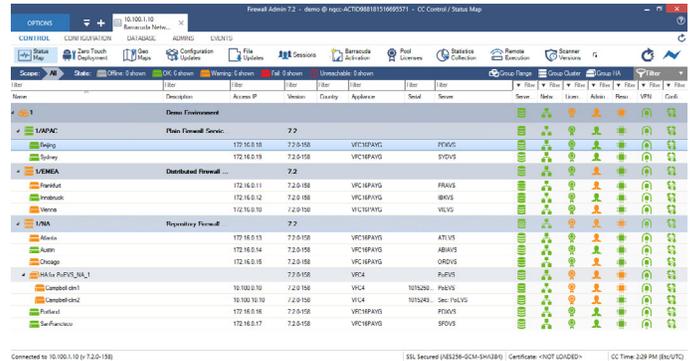


*Barracuda Firewall Control Center - status map*

### What happens when a pool license expires?

When a pool license expires, the Firewall Control Center stops renewing time stamps of child licenses on boxes, which means you must renew the pool license of all subscriptions to guarantee that the Firewall Control Center may update the time stamp on boxes.

### What happens when a pool-licensed unit doesn't get time a stamp renewal by the Firewall Control Center?

The time stamp has the same grace period as the pool license itself. This means when the pool license has a grace period of 60 days, the time stamp of the float license (child license) also needs to be renewed within 60 days to stay valid. In case the time stamp of the child license on the box doesn't get an update within the grace period, it becomes invalid. With firmware release 7.2.1 or lower, the service of an invalid license stops immediately. Running release 7.2.2 or higher the service keeps running with an additional grace period of 24 hours. After that, functionality entitled by this license keeps working, but configuration and updates are blocked.

The base license has an expiration date of 2030 – but all boxes must still be reachable by the Firewall Control Center to get the time stamp updated. If not, the base float license (base child license) on the box also becomes invalid after the grace period plus an additional 24 hours.
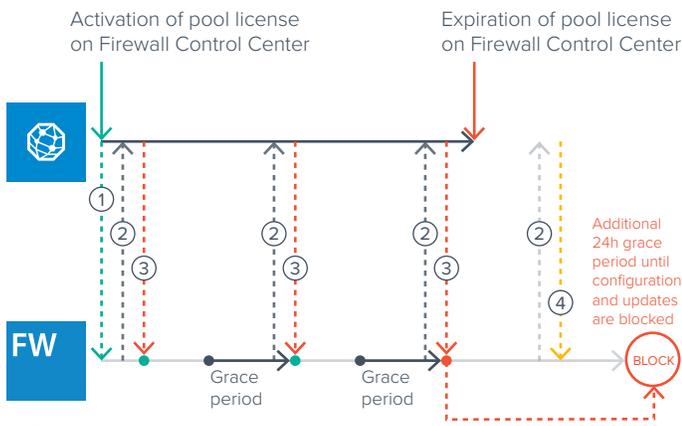
After that, the functionality entitled by the base license keeps working, but configuration and updates are blocked.
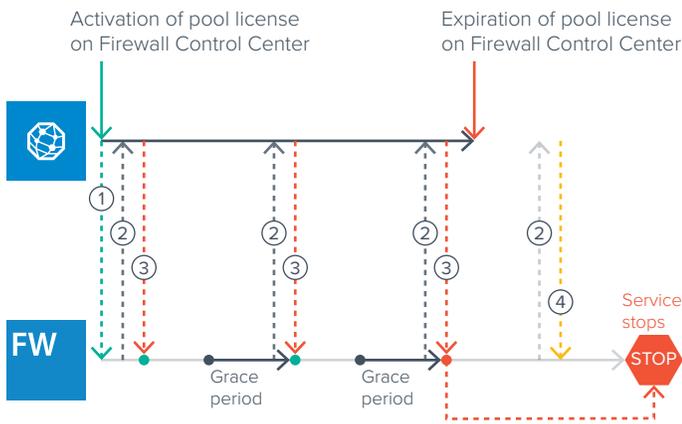


1. Float license (child)
2. Validation
3. Time stamp
4. No time stamp renewal due to expired pool license or no connection to Firewall Control Center

*Time stamp renewal process for firmware version 7.2.1 or lower*



1. Float license (child)
2. Validation
3. Time stamp
4. No time stamp renewal due to expired pool license or no connection to Firewall Control Center

*Time stamp renewal process for firmware version 7.2.2 or higher*

| Pool license | Functionality | Validity of pool license | Grace period of license / time stamp |
|---|---|---|---|
| Barracuda hardware Fp | Base | within Energize Updates sub | 60d / 60d + 24h |
| | Subscriptions | termed until expiration date | 60d / 60d + 24h |
| Virtual appliance VFp | Base | non-termed until 2030 | none |
| | Subscriptions | termed until expiration date | 15d / 15d + 24h |
| Standard hardware TSFp | Base | within Energize Updates sub | 60d / 60d + 24h |
| | Subscriptions | termed until expiration date | 60d / 60d + 24h |
| Public cloud instance VFCp | Base | within Energize Updates sub | 60d / 60d + 24h |
| | Subscriptions | termed until expiration date | 60d / 60d + 24h |

### What happens when a pool base license is removed?

Without a base license – or without any license – the CloudGen Firewall runs in demo mode. As soon as base services are correctly licensed, the full functionality of the service is available. When the base license is removed at a later date, the CloudGen Firewall reverts to demo mode. Please note that for pool licensing and corporate-site licensing, all base functionality is entitled by an Energize Updates subscription.



1. Float license (child)
2. Validation
3. Time stamp
4. No time stamp renewal due to removed pool license or no connection to Firewall Control Center
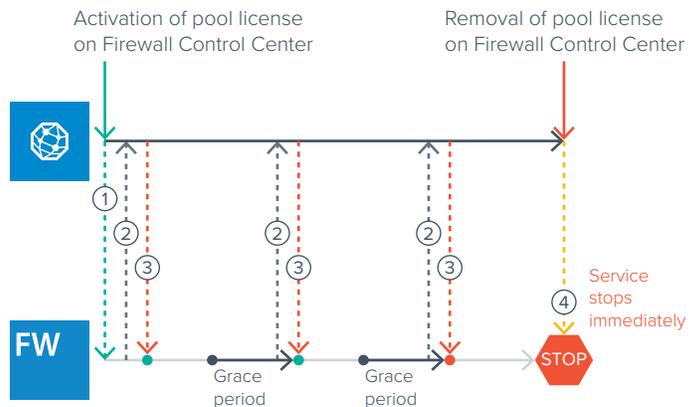
*Removed license process for firmware version 7.2.1 or lower*

Activation of pool license on Firewall Control Center

Removal of pool license on Firewall Control Center

① ② ③ ②③ ②③ ④

Service stops

STOP

FW

Grace period  Grace period  24h grace period

1. Float license (child)
2. Validation
3. Time stamp
4. No time stamp renewal due to removed pool license or no connection to Firewall Control Center
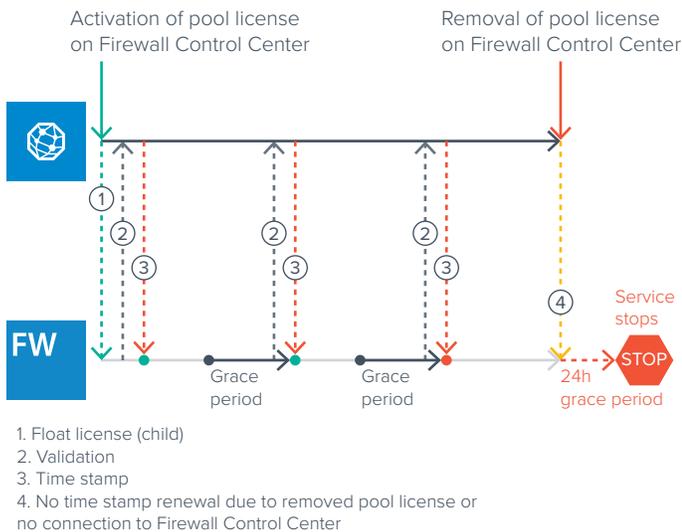
*Time stamp renewal process for firmware version 7.2.2 or higher*

## What happens when a pool add-on license (i.e., subscription) is removed?

Subscriptions or add-on licenses entitle specific add-on features and services. Please note that for pool licenses all base functionality is entitled by an Energize Updates subscription. When an add-on license is removed at a later date, CloudGen Firewall shuts down this service. That is the main difference to an invalidated license, where the service keeps on running. When removing an add-on license on firmware release 7.2.1 or lower, the service is stopped immediately. Running release 7.2.2 or higher, the service keeps running with an additional grace period of 24 hours before it stops working.

## Model check

Pool licenses are issued for a specific CloudGen Firewall model. When assigning pool licenses to the gateway, a model check is made to prove that the assigned license is valid. It is possible to run lower models with a higher pool license, but not vice versa. For example, CloudGen Firewall F400 pool licenses can run on F12, F18, F80, F180, F280, F380, and F400 — but not on a model F600 or higher.

| CloudGen Firewall F pool license | CloudGen Firewall F models | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | F12 | F18 | F80 | F82 | F93.R | F180 | F183 | F183R | F280 | F380 | F400 | F600 | F800 | F900 | F1000 |
| | F12 | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | F18 | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | F80 | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - | - | - |
| | F82 | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - | - |
| | F93.R | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| | F180 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - |
| | F183 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - |
| | F183R | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - | - |
| | F280 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - |
| | F380 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - |
| | F400 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - |
| | F600 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - |
| | F800 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| | F900 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - |
| | F1000 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

## License renewals and updates

The Firewall Control Center regularly connects to Barracuda Update Servers to check for updates or renewals. The Firewall Control Center also obtains updates for the pool licenses.

An administrator can update existing licenses on the Firewall Control Center and, later, push the updates to all CloudGen Firewall deployments. It depends on the type of license update.

**Additional subscriptions for existing pool** – With the update, the additional license file is downloaded and can then be assigned to the CloudGen Firewall.

**Capacity change of existing pool size** – With the update, the license gets a higher capacity. The Barracuda Firewall Control Center updates the existing license and reassigns it to the Barracuda CloudGen Firewall deployments.

**Pool license exchange** – The Firewall Control Center downloads a new pool license to replace the existing one. For example, due to a model upgrade, the Firewall Control Center downloads the new pool license files and then the administrator overwrites the former pool license on the Barracuda CloudGen Firewall deployments.

## Changing from single to pool licensing

Changing from single-licensed CloudGen Firewall deployments to pool licenses is simple and can be done at anytime. All that is required is a Firewall Control Center and the pool licenses for the subscriptions you are already running. Once you have purchased the pool licenses, you can download and activate the licenses via the Firewall Control Center.

If you are not using a Firewall Control Center for centrally managing your CloudGen Firewall deployments, you must set up your Control Center and import the configuration PAR files from each box to the Firewall Control Center. Once completed, CloudGen Firewall is re-configured to a Firewall Control Center-managed box.

In the Firewall Control Center, assign the pool licenses to the boxes and remove the former single license files. Inform Barracuda Customer Service about all box serials that have been changed to a pool-licensed box.

There is no need to change all of your CloudGen Firewall deployments at once. Depending on your rollout plan for the pool licenses, the transition can be done smoothly, box by box.



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Your journey, secured.