

How to Deploy a Proxy For Bare Metal / Virtual Machine

<https://campus.barracuda.com/doc/96020652/>

This article offers the option to choose either the install script, or to use the manual steps listed below. Before you begin, check the prerequisites.

Minimum required hardware is 1 CPU and 1024MB of RAM. If using this as a proxy, then depending on the number of requests, you might need to increased those resources, and monitor for resource exhaustion and performance.

Minimum OS supported versions:

- CentOS 7
- RHEL 8
- Any modern Debian-based OS (Ubuntu 20.04)

Requires a valid CloudGen access proxy enrollment link. See step #4 of [Add Proxy](#) to get the link.

Choose **Install Script** or **Manual Steps** to proceed.

Install Script

- The steps below will download and execute a script obtained externally. Barracuda Networks recommends that you inspect the contents before execution.
- The script will install and enable a chrony service for time synchronization. This is required to ensure that tokens are validated properly.

- Download and execute the installation script:

```
sudo bash -c "$(curl -fsSL  
https://url.access.barracuda.com/proxy-linux)"
```

- This script can also be used for unattended installations:

```
curl -fsSLo install-proxy-linux.sh  
https://url.access.barracuda.com/proxy-linux  
chmod +x install-proxy-linux.sh
```

```
./install-proxy-linux.sh -h
```

Install CloudGen Access Proxy script

Available parameters:

Parameter	Action
-h	Show this help
-l string	Loglevel (debug, info, warning, error, critical), defaults to info.
-n	Do not start services after install
-p int	Specify public port (1-65535), required for unattended installation
-r string	Specify Redis host to use for token cache <only required for HA architecture>
-s int	Specify Redis port <optional>
-t token	Specify Barracuda CloudGen Access Proxy token
-u	Unattended install, skip requesting input <optional>

Example for unattended installation with CloudGen Access Proxy token:

Specify the CloudGen Access Proxy token inside quotes:

```
./install-proxy-linux.sh -p 443 -t "https://xxxxxxxxxxxxx" -u
```

Example for unattended installation with CloudGen Access Proxy token with Redis endpoint:

Specify the CloudGen Access Proxy token inside quotes:

```
./install-proxy-linux.sh -p 443 -t "https://xxxxxxxxxxxxx" -u -r localhost -s
```

6379

Example for unattended installation, skipping services start, without CloudGen Access Proxy token:

- The token can also be obtained automatically via AWS SSM/Secrets Manager.
- For more information, see [Access Proxy Parameters](#).

```
./install-proxy-linux.sh -n -p 443 -u
```

CentOS/RHEL - Manual Steps

1. Install prerequisites.

```
sudo yum -y install yum-utils chrony
```

2. Ensure chrony daemon is enabled on system boot and started.

```
sudo systemctl enable chronyd  
sudo systemctl start chronyd
```

3. Ensure time synchronization is enabled.

```
sudo timedatectl set-ntp on
```

4. Add CloudGen Access repository.

```
sudo yum-config-manager -y --add-repo  
https://downloads.access.barracuda.com/fyde.repo
```

5. Install Envoy Proxy.

```
sudo yum -y install envoy  
sudo systemctl enable envoy
```

6. Add CAP_NET_BIND_SERVICE to Envoy using a service unit override. If you choose to configure your proxy to run in a port below 1024, you will need to add the CAP_NET_BIND_SERVICE capability to Envoy.

```
sudo mkdir -p /etc/systemd/system/envoy.service.d  
sudo bash -c "cat > /etc/systemd/system/envoy.service.d/10-add-cap-net-  
bind.conf <<EOF  
[Service]  
Capabilities=CAP_NET_BIND_SERVICE+ep  
CapabilityBoundingSet=CAP_NET_BIND_SERVICE
```

```
AmbientCapabilities=CAP_NET_BIND_SERVICE
SecureBits=keep-caps
EOF"
sudo chmod 600 /etc/systemd/system/envoy.service.d/10-add-cap-net-
bind.conf
```

7. Reload and start Envoy Proxy.

```
sudo systemctl --system daemon-reload
sudo systemctl start envoy
```

8. Install CloudGen Access Proxy Orchestrator and authz system.

```
sudo yum -y install fydeproxy
sudo systemctl enable fydeproxy
```

9. Configure environment using a service unit override

```
sudo mkdir -p /etc/systemd/system/fydeproxy.service.d
sudo bash -c "cat > /etc/systemd/system/fydeproxy.service.d/10-
environment.conf <<EOF
[Service]
Environment='FYDE_ENROLLMENT_TOKEN=<paste here your CloudGen Access
Proxy enrollment link>'
Environment='FYDE_ENVOY_LISTENER_PORT=<replace with the corresponding
CloudGen Access Proxy port, as configured in CloudGen Access Enterprise
Console>'
Environment='FYDE_LOGLEVEL=info'
EOF"
sudo chmod 600 /etc/systemd/system/fydeproxy.service.d/10-
environment.conf
```

10. For highly available installations, access to a redis server is required for communication between CloudGen Access Orchestrators.

```
sudo bash -c "cat >> /etc/systemd/system/fydeproxy.service.d/10-
environment.conf <<EOF
Environment='FYDE_REDIS_HOST=<specify redis host ip or dns>'
Environment='FYDE_REDIS_PORT=<specify redis port, defaults for 6379 if
not included>'
EOF"
```

11. Reload and start CloudGen Access Proxy Orchestrator daemon.

```
sudo systemctl --system daemon-reload
sudo systemctl start fydeproxy
```

12. Configure the firewall (if enabled).

```
sudo firewall-cmd --zone=public --add-port="<replace with the
```

```
corresponding CloudGen Access Proxy port, as configured in CloudGen  
Access Enterprise Console>/tcp" --permanent  
sudo firewall-cmd --reload
```

Debian / Ubuntu - Manual Steps

1. Ensure time synchronization is enabled.

```
sudo timedatectl set-ntp on
```

2. Add CloudGen Access repository.

```
REPO_URL="downloads.access.barracuda.com"  
wget -q -O - "https://$REPO_URL/fyde-public-key.asc" | sudo apt-key add  
-  
sudo bash -c "cat > /etc/apt/sources.list.d/fyde.list <<EOF  
deb https://$REPO_URL/apt stable main  
EOF"  
sudo apt update
```

3. Install Envoy Proxy.

```
sudo apt -y install envoy  
sudo systemctl enable envoy
```

4. Add CAP_NET_BIND_SERVICE to Envoy using a service unit override. If you choose to configure your proxy to run in a port below 1024, you will need to add the CAP_NET_BIND_SERVICE capability to Envoy.

```
sudo mkdir -p /etc/systemd/system/envoy.service.d  
sudo bash -c "cat > /etc/systemd/system/envoy.service.d/10-add-cap-net-  
bind.conf <<EOF  
[Service]  
Capabilities=CAP_NET_BIND_SERVICE+ep  
CapabilityBoundingSet=CAP_NET_BIND_SERVICE  
AmbientCapabilities=CAP_NET_BIND_SERVICE  
SecureBits=keep-caps  
EOF"  
sudo chmod 600 /etc/systemd/system/envoy.service.d/10-add-cap-net-  
bind.conf
```

5. Reload and start Envoy Proxy.

```
sudo systemctl --system daemon-reload  
sudo systemctl start envoy
```

6. Install CloudGen Access Proxy Orchestrator and authz system.

```
sudo apt -y install fydeproxy
sudo systemctl enable fydeproxy
```

7. Configure environment using a service unit override.

```
sudo mkdir -p /etc/systemd/system/fydeproxy.service.d
sudo bash -c "cat > /etc/systemd/system/fydeproxy.service.d/10-
environment.conf <<EOF
[Service]
Environment='FYDE_ENROLLMENT_TOKEN=<paste here your CloudGen Access
Proxy enrollment link>'
Environment='FYDE_ENVOY_LISTENER_PORT=<replace with the corresponding
CloudGen Access Proxy port, as configured in CloudGen Access Enterprise
Console>'
Environment='FYDE_LOGLEVEL=info'
EOF"
sudo chmod 600 /etc/systemd/system/fydeproxy.service.d/10-
environment.conf
```

8. For highly available installations, access to a redis server is required for communication between CloudGen Access Orchestrators.

```
sudo bash -c "cat >> /etc/systemd/system/fydeproxy.service.d/10-
environment.conf <<EOF
Environment='FYDE_REDIS_HOST=<specify redis host ip or dns>'
Environment='FYDE_REDIS_PORT=<specify redis port, defaults for 6379 if
not included>'
EOF"
```

9. Reload and start CloudGen Access Proxy Orchestrator daemon.

```
sudo systemctl --system daemon-reload
sudo systemctl start fydeproxy
```

10. Configure the firewall (if enabled).

```
sudo firewall-cmd --zone=public --add-port="<replace with the
corresponding CloudGen Access Proxy port, as configured in CloudGen
Access Enterprise Console>/tcp" --permanent
sudo firewall-cmd --reload
```

Upgrading CloudGen Access Proxy

To upgrade your CloudGen Access Proxy to the latest version, execute one of the following.

For Debian/Ubuntu:

```
sudo apt upgrade fydeproxy envoy
```

For CentOS/RHELL:

```
sudo yum upgrade fydeproxy envoy
```

Troubleshooting

See [Troubleshooting the CloudGen Access Proxy](#) in Barracuda Campus.

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