

🔒 How To Provision A New Gateway Using USB

Version 6.0

Applies to Platform: Switchboard 6.9.x

Last update: 18 Dec 2025

This article describes how to easily onboard a new gateway using USB provisioning. This feature allows an administrator to deploy (provision) a new gateway using a physical USB stick connected to a new gateway in order to connect it to an existing Switchboard installation.

How USB Provisioning Works

The USB provisioning procedure works in three basic steps:

1. Download the appropriate USB provisioning file from the Switchboard.
2. Create the USB key and insert it into the new gateway.
3. Connect power and Internet to the gateway and wait for the provisioning process to complete.

Prerequisites

- An Endian Switchboard that is already [setup](#) and accessible on a public IP or FQDN.
- An Endian gateway device that you want to add to the Switchboard.
- A valid Switchboard user account with appropriate permissions (manage gateway).

Format the USB Drive

It's recommended to format your USB drive to a generic Microsoft FAT32 as this is recognized by Endian. To do so, use the following generic instructions:

- If you're using Windows (XP, Vista, Win7), you can format a drive by right-clicking the drive in My Computer and select Format
- If you're using Mac OS X, you can format a drive using the Disk Utility (by default located in the Utilities folder of your Applications directory)

- If you're using Linux, some distributions provide a graphical disk utility or you can use the command "sudo mkfs.vfat -F 32 /dev/sda1" (where sda1 is the partition you wish to format)

Note

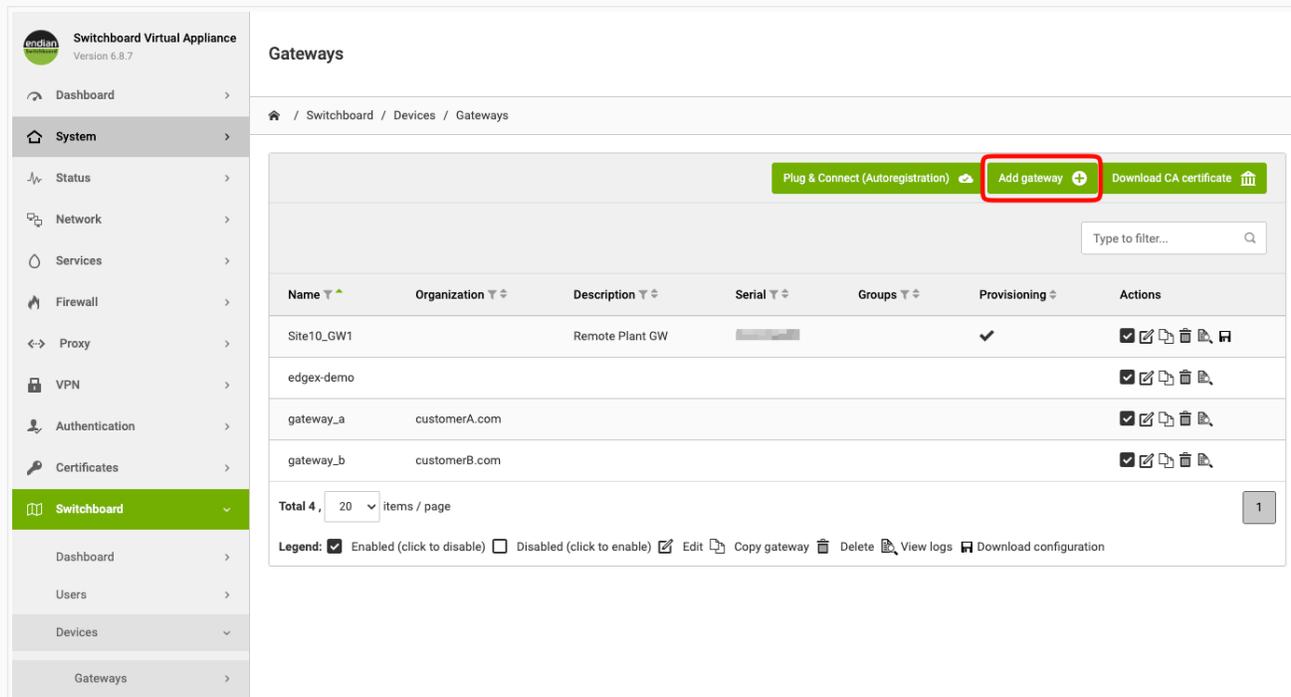
If you're going to provisioning an appliance which is already configured, and not set at "factory default", you need to add a file named "force_provisioning" in the usb key, without any extention.

That file can be created using, e.g., Linux's utility **touch**. Under Windows, Click on "Start", then paste the following string in the "search program and files" field, and press "Return" (**replace "X" with the letter assigned to your USB key**)

```
cmd /C "cd. > X:/force_provisioning"
```

Provision the Gateway on the Switchboard

The user should login to the Switchboard using the fully-qualified domain name (FQDN) or IP address and navigate to *Devices > Gateways* and click **Add Gateway**.



The screenshot shows the Switchboard Virtual Appliance web interface. The left sidebar contains a navigation menu with options like Dashboard, System, Status, Network, Services, Firewall, Proxy, VPN, Authentication, Certificates, and Switchboard. The main content area is titled "Gateways" and shows a table of existing gateways. A red box highlights the "Add gateway" button in the top right corner of the main content area. Below the table, there is a legend for gateway status (Enabled/Disabled) and a list of actions (Edit, Copy gateway, Delete, View logs, Download configuration).

Name	Organization	Description	Serial	Groups	Provisioning	Actions
Site10_GW1		Remote Plant GW			✓	✓ ✎ 🗑️ 🔍 📄
edgex-demo						✓ ✎ 🗑️ 🔍
gateway_a	customerA.com					✓ ✎ 🗑️ 🔍
gateway_b	customerB.com					✓ ✎ 🗑️ 🔍

You can choose to fully configure the gateway or do the minimum requirements in order to provision the appliance. The minimum would be to configure the main gateway settings (shown below):

Switchboard Virtual Appliance
Version 6.8.7

Gateways

Home / Switchboard / Devices / Gateways

Add Gateway

Gateway Groups Endpoints Permissions Provisioning Port Forwarding Location

1 Name *

gateway-name

2 Organization

Description

3 Remote Site

4 Serial number

P220482945

Use External Password Provider

5 Password

Confirm password

Enabled

Add Cancel

- 1. Name:** Enter the name of the gateway to be used on the dashboard (to identify the gateway).
- 2. Organization:** Here you can select which organization the gateway should belong.
- 3. Description:** Enter a gateway description.
- 4. Serial number:** Enter the gateway serial number (for Endian hardware appliances).
- 5. Password:** Enter a gateway password and confirm it.

Next since we are doing the minimum configuration we can jump to the **Provisioning** tab



- Dashboard >
- System >
- Status >
- Network >
- Services >
- Firewall >
- Proxy >
- VPN >
- Authentication >
- Certificates >
- Switchboard >**
- Dashboard >
- Users >
- Devices >
- Gateways >
- Groups >
- Applications >
- Messages >
- Sessions >
- Client Download >
- Organizations >
- Statistics >
- Settings >
- Logs >
- Docker >
- Logs and Reports >

Gateways

Home / Switchboard / Devices / Gateways

Add Gateway

Gateway | Groups | Endpoints | Permissions | **Provisioning** | Port Forwarding | Location

Model

Endian UTM Mini 25

Activation Code

SSH authorized public keys (one on each line)

GENERAL SETTINGS

Root password

Password

Admin password

Password

Host name

Domain name

Company

switchboard

E-mail

admin@switchboard

Timezone

Europe/Rome

Country

Italy

UPLINK

Red type

DHCP

Red device

eth3

4

ZONES

Green device

eth0 x

eth1 x

eth2 x

Green IPs/CIDRs

192.168.0.15/24

Enable L2VPN access to Green zone

Blue device

Select option

Blue IPs/CIDRs

Enable L2VPN access to Blue zone

Orange device

Select option

Orange IPs/CIDRs

Enable L2VPN access to Orange zone

OPENVPN

Custom OpenVPN server IP/FQDN, port, and protocol

Custom OpenVPN fallback IP/FQDN, port, and protocol

OpenVPN through HTTP proxy

+ Advanced options

Add

Cancel

1. **Model:** Choose your gateway model in order for the device specific gateway info to be configured.
2. **Activation Code:** Enter the activation code for the gateway that should be provided by Endian.
3. **General Settings:** Complete the gateway settings fields.
4. **Zones:** For those zones you wish to preconfigure, complete the information for each one.

Once done, click **Add** to save your changes.

Back on the *Device > Gateways* page, you will a disk icon next to the gateway. Click this to download the provisioning file and save it locally to your computer.



Name	Organization	Description	Serial	Groups	Provisioning	Actions
Site10_GW1		Remote Plant GW			✓	

Create the USB Stick

Insert the USB stick into your computer and copy the provisioning file (which should have naming like config_*.txt) to the USB drive. If your gateway is new and in factory state, this is all that must be done.

If your gateway is not in a factory state, you can force the provisioning by creating an empty file named "force_provisioning" without any file extension in the root directory of the USB drive along with the configuration file.

Run Provisioning Procedure

1. Turn on the gateway.
2. Wait 2 minutes then insert the USB key into the appliance.
3. The provisioning procedure will now start. Not all the appliance have a built in speaker, in case it's present you will hear a recognizable sound indicating the end of the procedure. In case it is not present, you may need to wait up to a maximum of 5 minutes for completion.
4. The appliance will shut down. Wait one more minute. The shutdown state is clearly indicated by the LEDs state. Check your product documentation.
5. At this point remove the USB key.
6. Turn the appliance on again.

Verify the configuration – All platform

To **verify that the configuration** of the Endian Appliance has been successfully completed, open the text file "provisioning.log" you'll find on the USB drive. Note that you can do this even on your computer.

At the bottom of that log file appear the following two strings:

```
2013-08-06 12:50:03,678 - provisioning-install[2252] - INFO - Configuration done  
2013-08-06 12:50:03,726 - provisioning-install[2252] - INFO - Halt
```

These two lines, especially the string "Configuration done" are the sign of a successful configuration.

Comments