RadiusForge

Install Guide

Download, verify and install RadiusForge, step by step

RadiusForge for ISPs & WISPs · Version 2026.10.17 · radiusforge.co.uk

This guide walks through installing RadiusForge carefully, with every step explained. It works the same way on both supported operating-system families; where they differ, it's called out. If you just want the short version, see the **Quick Start**.

Before you begin

RadiusForge needs **a server of its own**. It installs and configures its own FreeRADIUS and MySQL, so it will not install next to an existing RADIUS server or database server — a safety check stops the install if it finds one, without changing anything.

You will need:

- **A clean Linux server** — physical or virtual — running one of:
  - **RHEL 8/9**, **Rocky Linux**, or **AlmaLinux** (the Red Hat family), or
  - **Ubuntu 22.04 / 24.04 LTS** or **Debian 12** (the Debian family).
- **Root /** `sudo` access on that server.
- **Outbound internet access** during install, so the installer can fetch the packages it depends on.
- The server **reachable on your network** from the computer you'll log in from.

> **RHEL needs a subscription; Rocky and Alma don't**
>
> Red Hat Enterprise Linux requires you to register it (`subscription-manager register`) before it can install software — that needs your own Red Hat account and can't be automated. **Rocky Linux** and **AlmaLinux** are free, RHEL-compatible alternatives with no subscription step, and everything here applies to them unchanged.

Step 1 — Download

On the server, download the latest release:

```
curl -LO https://radiusforge.co.uk/download/radiusforge-2026.10.17.tar.gz
```

A single download covers every supported operating system — it contains both installers plus all the documentation.

Step 2 — Verify the download

Always check the file arrived intact and unaltered. The expected **SHA-256** checksum is published on **radiusforge.co.uk/#download**. Produce the checksum of your copy:

```
sha256sum radiusforge-2026.10.17.tar.gz
```

Compare the long value it prints against the one on the website — they must match character-for-character. If they don't, delete the file and download it again.

> **Why verify?**
>
> The checksum proves two things at once: the download wasn't corrupted in transit, and it's the genuine file we published. It takes two seconds and is good practice for any server software.

Step 3 — Install

Extract the package into `/opt/radiusforge` and run the installer for your operating system:

```
sudo mkdir -p /opt/radiusforge
sudo tar -C /opt/radiusforge --strip-components=1 -xzf radiusforge-2026.10.17.tar.gz
cd /opt/radiusforge
```

Then, on the **Red Hat family** (RHEL / Rocky / AlmaLinux):

```
sudo bash scripts/install-rhel.sh
```

...or on the **Debian family** (Ubuntu / Debian):

```
sudo bash scripts/install-debian.sh
```

> **`/opt/radiusforge` is the right home**
> `/opt` is the standard location for third-party server software on Linux, and the background service is allowed to run from there. If you happen to unpack it under `/root` or your home folder instead, the installer will **automatically move it to `/opt/radiusforge`** and continue — so the one-command install works wherever you extracted it.

What the installer does

In a single pass, with no separate "now start it" step, it:

- installs **MySQL**, **FreeRADIUS** (with the SQL and LDAP modules and disconnect/CoA support), **Python** and **Nginx**;
- creates the application database and FreeRADIUS's database back-end;
- runs the database setup;
- asks you to **create your first admin login**;
- installs the production service — **Gunicorn** behind **Nginx** — running as a locked-down, non-root `radiusforge` system account that starts on boot and restarts itself if it ever crashes;
- opens the firewall for the web console and applies secure defaults.

It first **lists every system-wide change it will make** and asks only a few questions: the database name, the application username and password, the time zone to show times in, and (optionally) a MySQL root password.

> **The MySQL pause is normal**
> The first time MySQL starts, it initialises its data directory, which can take a minute on a slow or busy server. The installer waits at "*Waiting for MySQL to accept connections*" — leave it; it is not stuck.

When it finishes it prints **"Hardening complete,"** and shows the address the console is now live at, e.g. `http://192.168.1.50/`.

> **Safe to re-run**
> If the install is interrupted, you can run the same command again — it's written to pick up safely rather than double-apply.

Step 4 — Confirm it's running

Check the four services are active:

```
# RHEL / Rocky / AlmaLinux:
systemctl is-active radiusforge radiusd nginx mysqld

# Ubuntu / Debian:
systemctl is-active radiusforge freeradius nginx mysql
```

Each should report `active`. Then confirm the web server answers:

```
curl -I http://localhost/
```

You should see `HTTP/1.1 302 Found` redirecting to `/accounts/login/` — that's the console asking you to sign in.

> **RADIUS service name differs by OS**
> On the Red Hat family the RADIUS service is called **`radiusd`**; on the Debian family it's **`freeradius`**. RadiusForge manages it for you — you only need the name if you ever restart FreeRADIUS by hand.

Step 5 — First login

Open `http://your-server-ip/` in a browser and sign in with the admin account you created during install. You'll see:

- a **"Trial: 30 days left"** banner — your free trial, and
- a **welcome banner** inviting you to create your first organisation.

Continue in the **Getting Started** guide to set up your first organisation, plan and subscriber.

Step 6 — Secure the console (HTTPS)

The installer serves plain HTTP so you can log in immediately. Before real use — and required for the hotspot customer portal — put it behind HTTPS:

```
sudo bash scripts/https-setup.sh letsencrypt \
    --name radius.example.com --email you@example.com --agree-tos
```

The **Deployment Guide** covers self-signed (lab) and private-CA options, and how to check certificate status.

Troubleshooting

A service isn't `active`

Look at its log. On the Red Hat family: `journalctl -u <service> -b` (this boot) and `systemctl status <service>`. FreeRADIUS also logs to `/var/log/radius/radius.log` (RHEL) or `/var/log/freeradius/radius.log` (Ubuntu).

The install stopped saying the server is already in use

That's the safety check: RadiusForge found an existing FreeRADIUS, database, or busy ports. Install on a fresh server or VM instead — the message lists what it found.

A “Permission denied” that doesn't make sense (RHEL)

RHEL's SELinux adds extra permission layers. The installer handles the known cases; if you're troubleshooting an unusual setup, `sudo ausearch -m avc -ts recent` shows exactly what SELinux blocked.

Still stuck? Email **info@radiusforge.co.uk** with the output you're seeing.