

[How-To] Add Web Server to Proxmox VE Node

Introduction

This allows you to access Proxmox VE via the port 443

Tested from Proxmox 3.4 - 6.3

Why do I need this?

Sometimes there is a firewall restriction that blocks port 8006 and since we shouldn't touch the port config in proxmox we'll just use nginx as proxy to provide the web interface available on default https port 443. Now let's begin...

Configuration

- **install nginx**

```
apt install nginx
```

- **remove the default config file**

```
rm /etc/nginx/conf.d/default
```

or in newer PVE and Debian versions:

```
rm /etc/nginx/sites-enabled/default
```

- **create a new config file**

```
nano /etc/nginx/conf.d/proxmox.conf
```

Note: You can choose the configuration filename freely, but it must have a `.conf` ending.

The following is an example config that works for the web interface and also the noVNC console:

```
upstream proxmox {
    server "YOUR.FQDN.HOSTNAME.HERE";
}

server {
    listen 80 default_server;
    rewrite ^(.*) https://$host$1 permanent;
}

server {
    listen 443;
    server_name _;
    ssl on;
    ssl_certificate /etc/pve/local/pve-ssl.pem;
    ssl_certificate_key /etc/pve/local/pve-ssl.key;
    proxy_redirect off;
    location / {
        proxy_http_version 1.1;
        proxy_set_header Upgrade $http_upgrade;
        proxy_set_header Connection "upgrade";
        proxy_pass https://localhost:8006;
    }
}

proxy_buffering off;
client_max_body_size 0;
proxy_connect_timeout 3600s;
    proxy_read_timeout 3600s;
    proxy_send_timeout 3600s;
    send_timeout 3600s;
}
```

When doing this for a proxmox backup server, use the dir `/etc/proxmox-backup/proxy.pem` and `/etc/proxmox-backup/proxy.key` as that is where they are located. Also, use port 8007 as that is the port that pbs listens on.

Change the FQDN part to the fully qualified domain name of your host, you can check `cat /etc/hosts` output to find yours. in my case it was `pve-dev-machine.proxmox.com`. save the file and then check the syntax:

```
nginx -t
```

you should see:

```
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
```

If you see this message then everything should work and you can proceed.

- **Restart nginx**

```
systemctl restart nginx
```

After nginx service restarts you should be able to reach the web interface via either <https://your.fqdn.goes.here> or <https://your.ip.address.goes.here>

Post Setup

- **ensure that nginx gets only started after the certificates are available**

As the certificates reside on `/etc/pve` which is provided by the `pve-cluster.service` we need to tell `nginx.service` to only start after that one.

The easiest and cleanest way to do that is to add a `Requires` and `After` as a systemd override snippet.

This can be done with `systemd edit UNIT` which opens your `$EDITOR`:

```
systemctl edit nginx.service
```

here add:

```
[Unit]
Requires=pve-cluster.service
After=pve-cluster.service
```

and save + exit.

Enjoy the web interface on HTTPS port 443!

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