

How to Configure HAProxy for Docker-based Nextcloud AIO

Purpose

Configure **HAProxy on pfSense** to terminate SSL and securely reverse-proxy public HTTPS traffic to an internal **Docker Nextcloud AIO server** behind your firewall.

1. HAProxy Package Installation on pfSense

On pfSense, go to:

- **System → Package Manager → Available Packages**
 - Search for **HAProxy** and install `haproxy` (not haproxy-devel unless needed).
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2. Create SSL Certificate (or Import)

In pfSense:

- **System → Certificate Manager → Certificates**
- Import or create an SSL certificate for your domain (example: `nextcloud.mydomain.com`).

3. HAProxy Settings

Go to **Services** → **HAProxy** and configure:

Global Settings

- Enable HAProxy
- Set the SSL/TLS cipher suite to "Intermediate" (recommended for compatibility and security)

Frontend (Public Side)

Name: frontend-https Bind address: WAN Address (or "any") Port: 443 Type: SSL Offloading (HTTPS) SSL Certificate: [Select imported Let's Encrypt or custom cert]

Actions:

- **Condition:** Match on Host Header = nextcloud.mydomain.com
- **Action:** Use Backend: backend-nextcloud

Optional:

- Add another frontend to redirect port 80 to 443 if you want forced HTTPS

4. HAProxy Backend (Internal Docker Host)

Name: backend-nextcloud Mode: HTTP (or HTTPS if you terminate SSL at the container) Server list: Name: nextcloud-docker Address: 192.168.100.19 Port: 11000 Health Check Method: HTTP-OPTIONS

Important Backend Options:

- Check "Use HTTP/1.1"
- Forward host headers (preserve client IP)
- Add header X-Forwarded-Proto: https

5. Nextcloud Trusted Proxy Configuration

On the Nextcloud server, we modified the trusted proxies:

```
sudo docker exec -it nextcloud-aio-nextcloud bash cd /var/www/html/config nano config.php
```

Add or verify these lines inside `config.php`:

```
'trusted_proxies' => ['192.168.100.1'], 'overwritehost' => 'nextcloud.mydomain.com', 'overwriteprotocol' => 'https', 'overwrite.cli.url' => 'https://nextcloud.mydomain.com',
```

📌 Note: Replace `192.168.100.1` with your pfSense LAN IP if different.

6. Restart Docker Nextcloud Container

```
docker restart nextcloud-aio-nextcloud
```

□ Summary

- pfSense HAProxy listens on WAN 443 (HTTPS)

- SSL terminated at pfSense, traffic forwarded to Docker Nextcloud Apache 11000
 - Client IP preserved using X-Forwarded-For headers
 - Nextcloud properly recognizes reverse proxy and HTTPS URL
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Additional Notes

- HAProxy + pfSense reduces public attack surface on your Docker server
 - Remember to update SSL certificates if using Let's Encrypt (can be automated)
 - Use Health Checks to monitor Nextcloud availability
 - Backup your pfSense HAProxy config after working setup
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