

Websevicees

Forgejo

Forgejo is an open source source control system. As game development not only needs to track text files but large binaries (Images, Videos, Audio etc.), traditional providers like GitHub or GitLab might not scale or become quite pricey. This is why a self-hosted solution was set up.

The Forgejo instance is currently hosted on Hetzner Cloud cpx11. For storage, a 1tb Hetzner Storage Box is attached via CIFS. The Forgejo instance can be accessed on <https://code.virtuos.world>.

Installation on Ubuntu Server 22.04

- On a new server, add a new user that is not root:

```
adduser newusername
usermod -aG sudo newusername
sudo -i -u git newusername
```

- Create git user account and add it to the docker user-group, then switch to the new user.

```
sudo adduser --system --shell /bin/bash -gecos 'Git Version Control' --group --disabled-password
sudo usermod -aG docker git
```

- Automount the storage box by editing `/etc/fstab`. Important: Use the UID and GID of the newly created git user! You can get them by typing `id git`.

```
sudo nano /etc/fstab
```

- Add this line

```
//<username>.your-storagebox.de/backup /mnt/<path> cifs iocharset=utf8,rw,credentials=/etc/bac
```

Create the credentials file...

```
sudo nano /etc/backup-credentials.txt
```

...and fill it with your username and password.

```
username=uXXXXXX
```

```
password=yourpassword
```

- Install `cifs-utils`

```
apt install cifs-utils
```

- Mounting might result in an error regarding the `iocharset`, to fix that do:

```
apt install linux-generic
```

```
apt install linux-modules-extra-$(uname -r)
```

```
reboot
```

- Mount the storage

```
sudo mount -a
```

- Install `docker-compose`

```
sudo apt install docker-compose
```

- Create `docker` directory

```
sudo mkdir ~/forgejo
```

- Create docker-compose file

```
sudo nano docker-compose.yml
```

- Paste the following content. This assumes your UID is 115 and your GID is 120. Use `id -u <username>` to find your values. It also maps the repository to use the storage box.

Edit: I removed `- /mnt/source/git/repositories:/data/git/repositories` as it's slow and hooks won't work on the Storage Box!

```
version: '3'

networks:
  forgejo:
    external: false

services:
  server:
    image: codeberg.org/forgejo/forgejo:1.20
    container_name: forgejo
    environment:
      - USER_UID=115
      - USER_GID=120
    restart: always
    networks:
      - forgejo
    volumes:
      - ./forgejo:/data
      - /etc/timezone:/etc/timezone:ro
      - /etc/localtime:/etc/localtime:ro
      - /mnt/source/git/lfs:/data/lfs

    ports:
      - '3000:3000'
      - '222:22'
```

For some reason in my case, the app.ini pointed to /data/git/lfs instead of data/lfs. Fixing this resulted in actually using /mnt/source/git/lfs on the host.

- Install nginx

```
sudo apt install nginx
```

- Setup firewall

```
sudo ufw allow OpenSSH
sudo ufw allow "Nginx Full"
sudo ufw enable
```

- Open nginx config

```
sudo nano /etc/nginx/sites-available/forgejo
```

- Add:

```
server {
    listen 80;
    listen [::]:80;
    server_name my.domain.tld;

    location / {
        client_max_body_size 4G;
        proxy_pass http://localhost:3000;
        proxy_set_header Host $host;
        proxy_set_header X-Real_IP $remote_addr;
        proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
        proxy_set_header X-Forwarded-Proto $scheme;
    }
}
```

(This assumes you have registered a domain and added A and AAAA records.)

- Create symlink to actually enable the site

```
sudo ln -s /etc/nginx/sites-available/forgejo /etc/nginx/sites-enabled/
```

- Install Certbot

```
sudo apt install snapd
sudo snap install --classic certbot
sudo ln -s /snap/bin/certbot /usr/bin/certbot
```

- Get Let's Encrypt certificate. For testing, add `--test-cert`.

```
sudo certbot --nginx
```

- Run your docker compose

```
cd ~/forgejo
sudo docker-compose up -d
```

- To redirect the homepage to the repository view:

```
server {
    server_name code.virtuos.world;

    location / {
        client_max_body_size 4G;
        proxy_pass http://localhost:3000;
        proxy_set_header Host $host;
        proxy_set_header X-Real_IP $remote_addr;
        proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
        proxy_set_header X-Forwarded-Proto $scheme;
    }

    location = / {
        return 301 https://$host/explore/repos;
    }

    listen [::]:443 ssl ipv6only=on; # managed by Certbot
    listen 443 ssl; # managed by Certbot
    ssl_certificate /etc/letsencrypt/live/code.virtuos.world/fullchain.pem;
    ssl_certificate_key /etc/letsencrypt/live/code.virtuos.world/privkey.pem;
```

```

    include /etc/letsencrypt/options-ssl-nginx.conf;
    ssl_dhparam /etc/letsencrypt/ssl-dhparams.pem;
}

server {
    if ($host = code.virtuos.world) {
        return 301 https://$host$request_uri;
    }

    listen 80;
    listen [::]:80;
    server_name code.virtuos.world;
    return 404;
}

```

Thanks to KeepItTechie for this tutorial: <https://www.youtube.com/watch?v=I4OQMclrIO4>

Customizing Forgejo/Gitea

On the host, the path starts from the folder with your docker-compose file, /forgejo/gitea/public/assets/

Paste the images with the respective names listed below:

- public/img/logo.svg - Used for site icon, app icon
- public/img/logo.png - Used for Open Graph
- public/img/avatar_default.png - Used as the default avatar image
- public/img/apple-touch-icon.png - Used on iOS devices for bookmarks
- public/img/favicon.svg - Used for favicon
- public/img/favicon.png - Used as fallback for browsers that don't support SVG favicons

Leantime

Leantime is an open source project management system. The Leantime instance is hosted on Uberspace.de and can be accessed on <https://manage.virtuos.world>.

Installation on Uberspace

- Download latest release package, upload and untar:

```
tar -xf <name.tar.gz>
```

- Create an empty MySQL database:

```
mysql -e "CREATE DATABASE <username>_leantime"
```

- Point your domain to the public/ directory
Edit /leantime/public/.htaccess:

```
Options +SymLinksIfOwnerMatch
RewriteEngine On
RewriteBase /
RewriteCond %{REQUEST_FILENAME} !-d
RewriteCond %{REQUEST_FILENAME} !-f
RewriteRule ^ index.php [L]
```

- Get your MySQL credentials:

```
my_print_defaults client
```

- Fill in your database credentials (username, password, host, dbname) in config/sample.env
- Rename config/sample.env to config/.env
- Navigate to <yourdomain.com>/install

- Follow instructions to install database and set up first user account

Updating Leantime

Leantime comes with an update script in `/leantime`:

```
./updateLeantime.sh
```

Wordpress

Wordpress is an open source Content Management System (CMS). The Wordpress instance is hosted on Uberspace.de and can be accessed on <https://virtuos.world>.

Installation on Uberspace

The Wordpress installation is well documented on https://lab.uberspace.de/guide_wordpress/

Updating Wordpress

Wordpress updates itself. Plugins may need manual updating via the Wordpress Interface.

Wiki.js

Wiki.js is an open source Wiki software. The Wiki.js instance is hosted on Uberspace.de and you are currently accessing it on <https://docs.virtuos.world>.

Installation on Uberspace

The Wiki.js installation is well documented on https://lab.uberspace.de/guide_wiki-js/

Updating Wiki.js

An update script is available at the same location: https://lab.uberspace.de/guide_wiki-js/

Pretix

Pretix is an open source ticketing system. It's currently not in use. This installation is not as easy, but well documented here: https://docs.pretix.eu/en/latest/admin/installation/docker_smallscale.html