

AI-03040 Docker Migration to Another Server

👤 Owner	Ⓒ Rigel Arcayan
☰ Tags	Project
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Educate me: and this is my understanding of Docker.

1. All my docker files, folder, images and volumes are in the `/home/docker` folder, I can make a copy of this folder and transfer it to another Ubuntu server VM and run it from the new location.

You're on the right track, Rigel! Let's break down your understanding and refine it a bit:

✅ **Your Understanding:** "All my Docker files, folders, images, and volumes are in the `/home/docker` folder. I can make a copy of this folder and transfer it to another Ubuntu server VM and run it from the new location."

This is **partially correct**, but there are **important caveats** to consider.

🧠 **Key Concepts to Clarify:**

1. Docker Images and Containers

- Docker images are stored in a **centralized Docker storage location**, typically under `/var/lib/docker`, **not** in your project folder unless you've explicitly exported them.
- Containers are also managed by Docker internally and are not portable just by copying folders.

2. Your `/home/docker` Folder

- This likely contains:
 - `Dockerfile` S
 - `docker-compose.yml`
 - App source code
 - Bind-mounted volume folders (if configured)
- These are **portable**, and you can copy them to another server and re-run `docker`

`compose up` or `docker build` .

3. Volumes

- Named volumes (created via `docker volume create` or `docker-compose`) are stored in `/var/lib/docker/volumes` .
- If you're using **bind mounts** (e.g., `./data:/var/lib/postgresql/data`), then the data is in your project folder and **can be copied**.

4. Transferring to Another Server

To fully replicate your Docker setup on another Ubuntu VM:

- Copy your `/home/docker` folder (if it contains your Compose files and bind-mounted data).
- Reinstall Docker and Docker Compose on the new server.
- Run `docker compose up` again.
- But if you want to preserve **images**, **named volumes**, or **container states**, you need to:

- Use `docker save` and `docker load` for images.
- Use `docker volume inspect` and `rsync` or `tar` to copy named volume data from `/var/lib/docker/volumes` .

Suggested Workflow for Migration

```
# On old server
docker save my_image > my_image.tar
scp my_image.tar user@newsrvr:/home/docker/
scp -r /home/docker user@newsrvr:/home/docker/
```

```
# On new server
docker load < my_image.tar
cd /home/docker
docker compose up -d
```

Would you like a checklist or script to automate this migration between two Ubuntu VMs? Or maybe a diagram to visualize how Docker stores things?