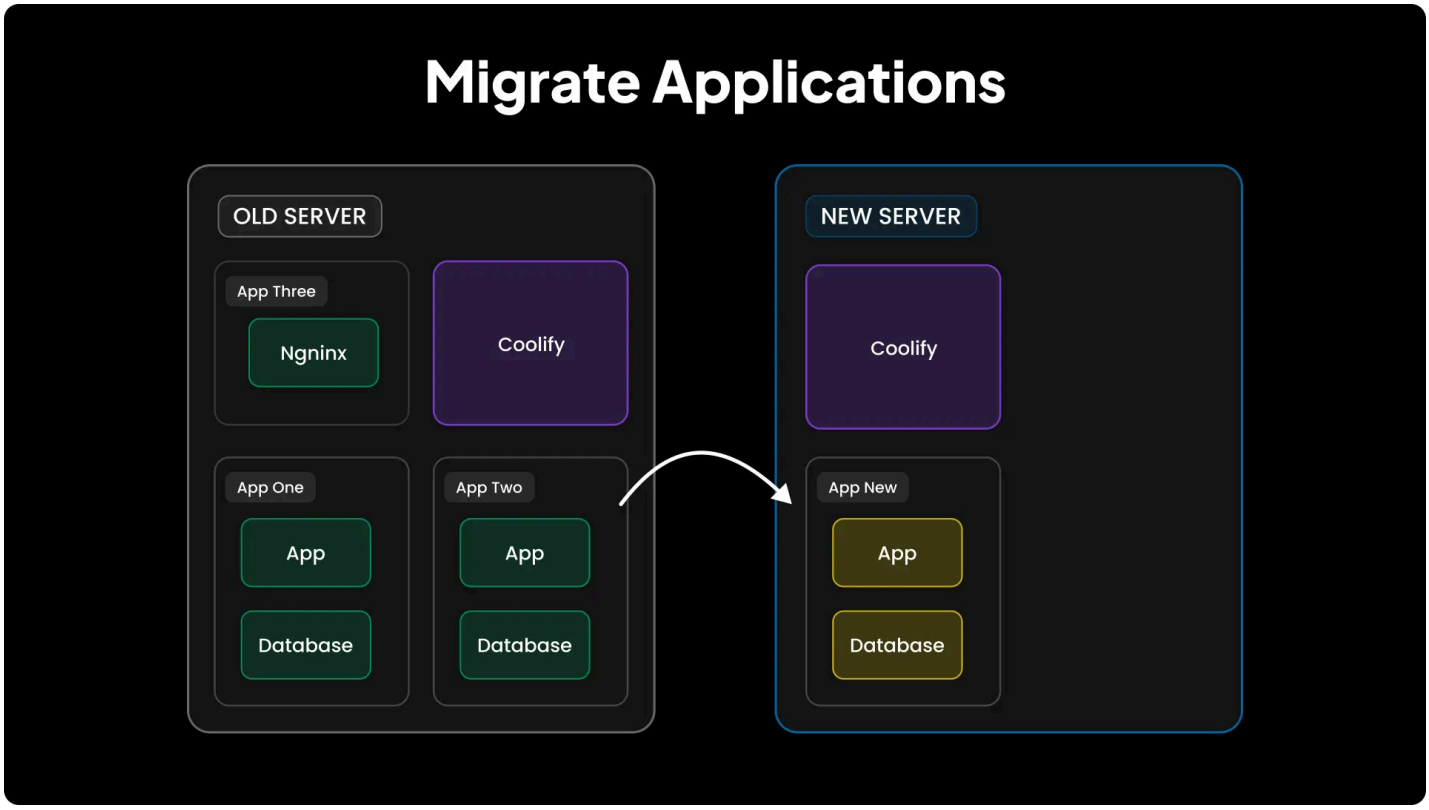

Coolify does not provide a built-in option to migrate applications from one server to another.

You have to manually deploy your app on the new server and copy over your databases and volumes. This guide walks you through that process step by step.

> **Note**
>
> We assume you already have Coolify installed on your destination server and are ready to migrate your app.

1. Understand Data Persistence

When using Coolify, application data lives in one of two places:

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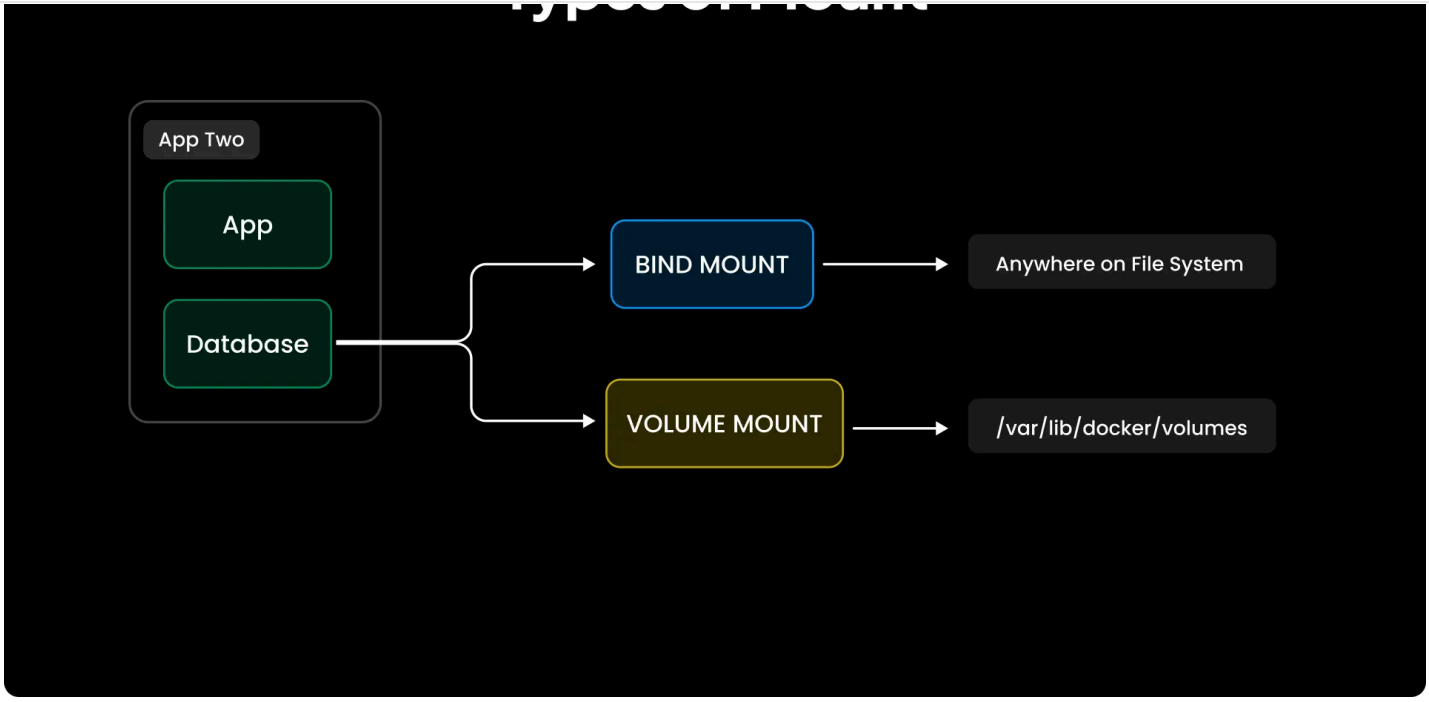

Bind mounts

- When using bind mounts, a host directory or file is mapped into the container.
- Any changes made to the directory or file on the host will immediately reflect inside the container.
- To back up data, simply copy the host directory or file to the new server and update the bind-mount path in your application's configuration.

Volume mounts

- With volume mounts, a Docker volume is created (Coolify usually creates the volume, but you can also set it up yourself.) and used to store application data.
- The volume is stored in Docker's volume directory, typically under `/var/lib/docker/volumes/<VOLUME_NAME>`
- You can't just copy that directory directly, instead Docker provides a safe backup-and-restore method using a temporary container.

> **Note**
>
> Since bind mounts are simple to migrate by copying files directly, this guide will focus primarily on volume backups.

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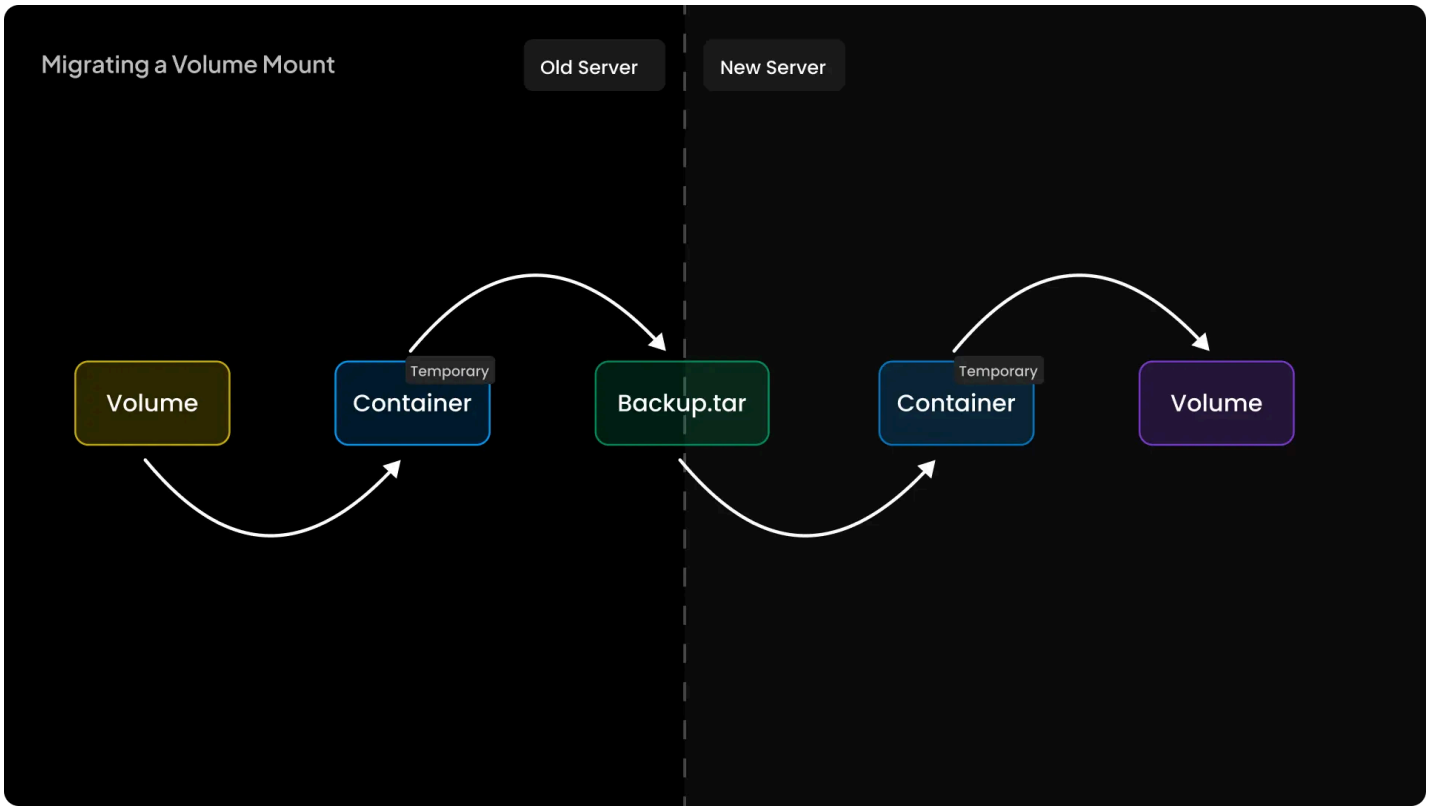
2. Backup and Restore Overview

The Docker-recommended process for volume migration looks like this:



1. **Mount** your volume into a temporary container.
2. **Archive** the volume's contents into a tarball.
3. **Copy** the tarball from the container to your host and then delete the temporary container.
4. **Transfer** the tarball to the new server.
5. **Create** a fresh volume on the destination.
6. **Mount** the transferred tarball into a temporary container.
7. **Extract** the archive into the new volume.

This series of steps ensures a consistent, safe backup and restore. Below, we'll provide ready-to-use scripts and detailed instructions.

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1. **SSH into your server** where you have the Docker volume.

2. **Create a script** named `backup.sh`:

```
touch backup.sh && chmod +x backup.sh
```

3. **Open** `backup.sh` in your editor and paste the following:

backup.sh

```
#!/bin/bash

# === INPUT PROMPTS ===
# Prompt for the Docker volume name and set the variable
read -p "[ Backup Agent ] [ INPUT ] Please enter the Docker volume name to back up: " VOLU

# Inform the user of the set volume name
echo "[ Backup Agent ] [ INFO ] Backup Volume is set to $VOLUME_NAME"

# Check if the entered volume exists
if ! docker volume ls --quiet | grep -q "^$VOLUME_NAME$"; then
    echo "[ Backup Agent ] [ ERROR ] Volume '$VOLUME_NAME' doesn't exist, aborting backup.
    echo "[ Backup Agent ] [ ERROR ] Backup Failed!"
    exit 1  # Exit if volume doesn't exist
else
    echo "[ Backup Agent ] [ INFO ] Volume '$VOLUME_NAME' exists, continuing backup..."
fi

# Prompt for the directory to save the backup
read -p "[ Backup Agent ] [ INPUT ] Please enter the directory to save the backup (Optiona
# If no directory is entered, default to './volume-backup'
BACKUP_DIR=${BACKUP_DIR:-./volume-backup}

# Inform the user of the backup location
echo "[ Backup Agent ] [ INFO ] Backup location is set to $BACKUP_DIR"

# Set the backup file name based on the volume name
BACKUP_FILE="${VOLUME_NAME}-backup.tar.gz"

# Inform the user of the backup file name
echo "[ Backup Agent ] [ INFO ] Backup file name is set to $BACKUP_FILE"
```

4. **Find the volume name** by running:

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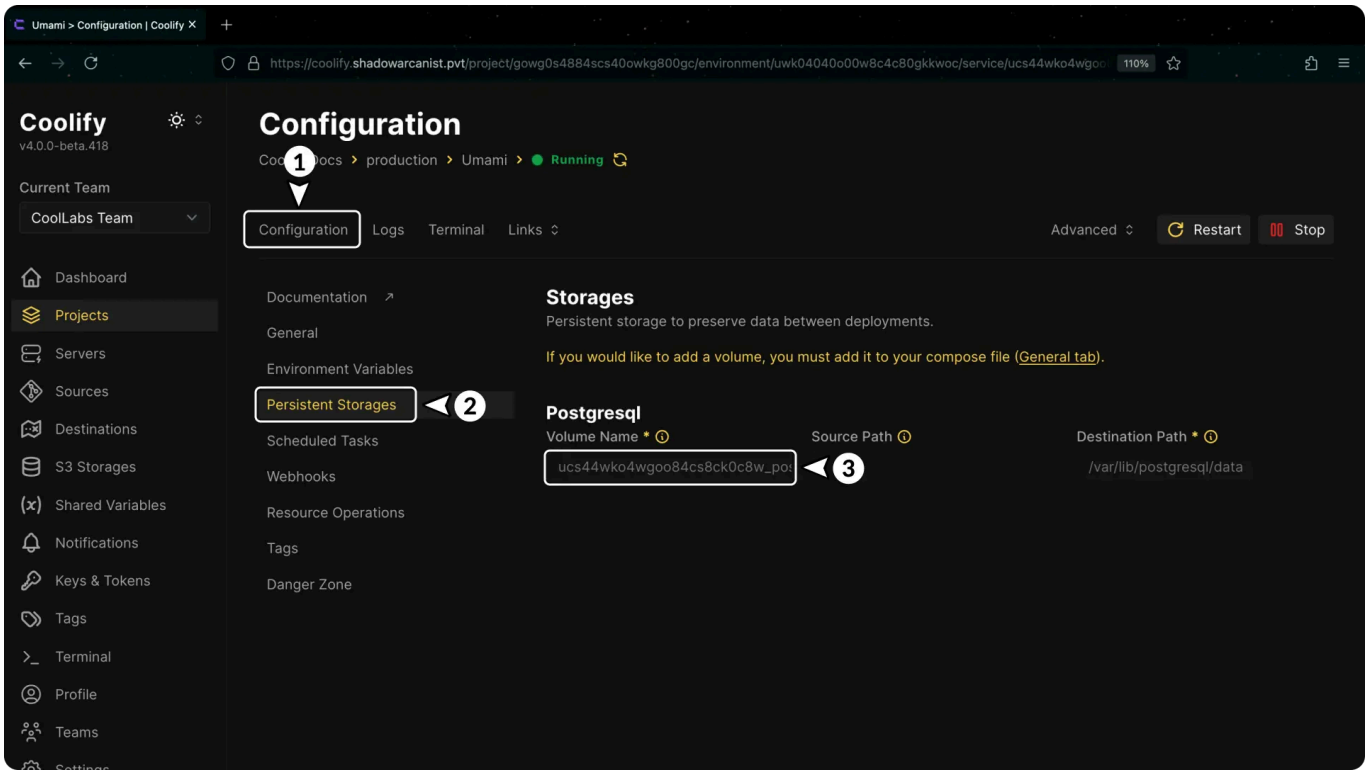
Or from Coolify's **Persistent Storage** page (see below).



5. **Stop your application** to perform a clean backup.

6. **Run** the script:

```
./backup.sh
```

   - When prompted, paste the volume name.
   - Press **Enter** to accept the default backup directory (`./volume-backup`), or type a custom path.

7. **Verify** that you now have a folder (e.g., `volume-backup`) containing `<VOLUME_NAME>-backup.tar.gz`.

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If you already know how to manually transfer the backup file, feel free to move on to the next step.

1. **Create** a second script named `transfer.sh`:

```
touch transfer.sh && chmod +x transfer.sh
```

2. **Open** `transfer.sh` in your editor and paste the following:

transfer.sh

```
#!/bin/bash

# =============== CONFIG VARIABLES ===============
SSH_PORT=22
SSH_USER="root"
SSH_IP="192.168.1.244"
SSH_KEY="$HOME/.ssh/remote-server-ssh"
SOURCE_PATH="./volume-backup"
DESTINATION_PATH="/root/backups/volume-backup"
MAX_RETRIES=3  # Max number of password attempts

echo "[ Transfer Agent ] [ INFO ] Starting transfer..."
echo "[ Transfer Agent ] [ INFO ] Trying SSH key: $SSH_KEY"
echo "[ Transfer Agent ] [ INFO ] Transfer from: $SOURCE_PATH"
echo "[ Transfer Agent ] [ INFO ] Transfer to: $SSH_USER@$SSH_IP:$DESTINATION_PATH"

# If SSH key file doesn't exist, fall back to password mode
if [ ! -f "$SSH_KEY" ]; then
  echo "[ Transfer Agent ] [ WARN ] SSH key '$SSH_KEY' not found. Falling back to passwor
  SSH_KEY=""
fi

# If we need password-based auth, ensure Expect is installed
if [ -z "$SSH_KEY" ] && ! command -v expect >/dev/null 2>&1; then
  echo "[ Transfer Agent ] [ ERROR ] The package expect is required for password authentic
  exit 1
fi

# ------------------------------------------
# Helper: test whether $1 (the password) is valid by doing "ssh … exit"
# Returns 0 if OK, 1 if "Permission denied" (or any other failure)
test_password_with_expect() {
```

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4. **Run** the transfer:

```
./transfer.sh
```

- If key-based authentication succeeds, the backup folder copies over via SCP.
- Otherwise, you'll be prompted for the SSH password.

---

5. Restore the Backup on the New Server

> **Note**
>
> In this example, we'll use Umami Analytics (PostgreSQL) to show how you restore a database-backed app. Adjust paths and volume names for your own database.

1. **Deploy your application** on the new server with Coolify, then **stop it** so volumes will be created but won't be in use.

2. **SSH into** the new server and **create** a script called `restore.sh`:

```
touch restore.sh && chmod +x restore.sh
```

3. **Paste** the following into `restore.sh`:

restore.sh

```
#!/bin/bash

# === VOLUME NAME INPUT ===
# Prompt for the target Docker volume name to restore into
read -p "[ Restore Agent ] [ INPUT ] Enter the target Docker volume name to restore into:

# === VOLUME CHECK ===
# Check if the target volume exists
if ! docker volume ls --quiet | grep -q "^$TARGET_VOLUME$"; then
```

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```
  read -p "[ Restore Agent ] [ INPUT ] Do you want to create a new volume with the name '$
  if [[ "$create_volume" == "y" ]]; then
    echo "[ Restore Agent ] [ INFO ] Creating volume '$TARGET_VOLUME'..."
    docker volume create "$TARGET_VOLUME" || {
      echo "[ Restore Agent ] [ ERROR ] Failed to create volume '$TARGET_VOLUME', abortin
      echo "[ Restore Agent ] [ ERROR ] Restore Failed!"
      exit 1
    }
    echo "[ Restore Agent ] [ INFO ] Volume '$TARGET_VOLUME' created successfully."
  else
    echo "[ Restore Agent ] [ INFO ] Volume '$TARGET_VOLUME' doesn't exist and user opted
    echo "[ Restore Agent ] [ ERROR ] Restore Failed!"
    exit 1
  fi
else
  echo "[ Restore Agent ] [ INFO ] Volume '$TARGET_VOLUME' exists, continuing..."
fi

# === BACKUP DIRECTORY INPUT ===
```

4. **Run** the script:

```
./restore.sh
```

- Enter the **volume name** (from `docker volume ls` command or Coolify's Persistent Storage page).
- Press **Enter** to accept `./volume-backup`, or type a custom backup path.
- Enter the backup filename (e.g., `umami_postgresql-backup.tar.gz`).
- Confirm you want to proceed by typing `y`.

---

6. Start Your Application

Once the restore finishes, go to Coolify's dashboard and click **Deploy**.

Your application should now use the migrated data. If it does not, or if logs show errors then repeat the restore step to ensure all files copied correctly.

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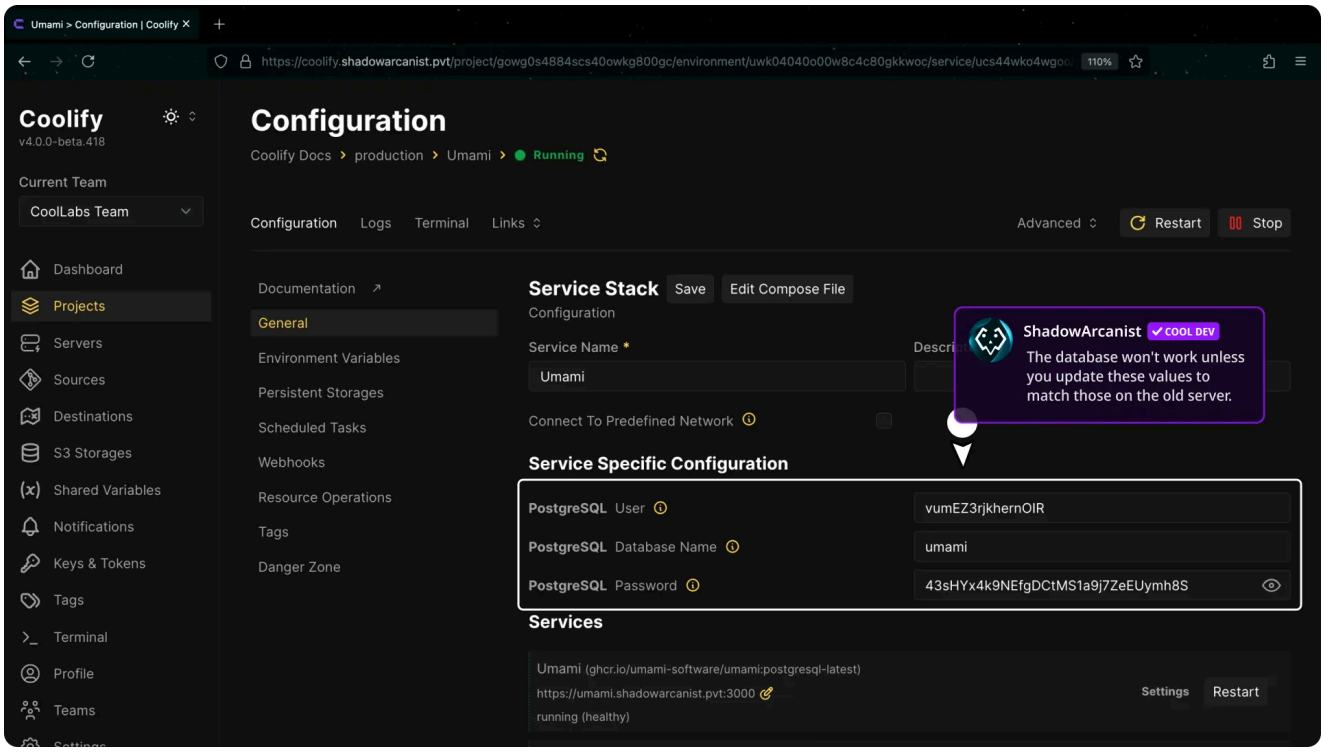
update them in Coolify's dashboard to match those from the old server.



Support

If this guide doesn't resolve your issue, please join the Coolify Discord server and seek assistance there.

Links

Coolify Support Server

Author's Website

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