

# 8: Vaultwarden - Password Manager

Vaultwarden is a self-hosted password manager that lets you store and manage all your passwords securely on your own server. It's compatible with all Bitwarden apps, so you can use it with your phone, computer, and web browser. For comprehensive usage instructions and advanced features, please refer to the [official Vaultwarden documentation](#).

## What is Vaultwarden?

**Vaultwarden** is like a digital safe for all your passwords. Instead of remembering dozens of different passwords, you only need to remember one master password to access all your accounts.

### Why Vaultwarden is useful:

- **Store passwords securely** - All passwords are encrypted and safe
- **Generate strong passwords** - Creates secure passwords for you
- **Works everywhere** - Phone, computer, web browser
- **Sync across devices** - Your passwords are available everywhere
- **You own your data** - Everything stays on your server

**Think of it like this:** Instead of writing passwords on sticky notes or using the same password everywhere, Vaultwarden keeps them all safe in one encrypted vault that only you can access.

## Prerequisites

Before installing Vaultwarden, make sure you have:

- **Traefik installed** (from Chapter 4)
- **Docker running** (from Chapter 3)
- **A domain name** (recommended for security)
- **An email address** (for SSL certificates)

## Why These Prerequisites Matter

**Traefik:** Provides secure HTTPS access to your password manager

**Docker:** Runs Vaultwarden in a secure container

**Domain name:** Makes it easier to access and more secure

**Email:** Required for SSL certificates to keep your passwords safe

# Step 1: Start Infinity Tools

Make sure you're connected to your server via SSH, then start Infinity Tools:

```
sudo infinity-tools
```

## Using the Infinity Tools GUI

When you start Infinity Tools, you'll see the main menu. Look for the **APPLICATIONS** section - this is where all your apps are located.

- **Color-coded sections** - Applications have their own section
- **Clear descriptions** - Each app shows what it does
- **Status indicators** - Shows if apps are installed or running
- **Easy navigation** - Use arrow keys to move around

## Step 2: Navigate to Vaultwarden

In the Infinity Tools menu:

1. Use your arrow keys to navigate to **APPLICATIONS**
2. Press **Enter** to open the Applications menu
3. Look for **Vaultwarden** in the list
4. Select it and press **Enter**

## Understanding the Application Menu

The Applications section shows you all available apps:

- **Security Apps** - Vaultwarden, WireGuard, Warpgate
- **Cloud Apps** - Nextcloud, Syncthing
- **Web Apps** - WordPress, Matomo
- **Monitoring Apps** - Netdata, Uptime Kuma

**Look for the turquoise cursor** - it shows what you're about to select!

## Step 3: Install Vaultwarden

When you select Vaultwarden, you'll see installation options. Choose **Install Vaultwarden**.

### What Happens During Installation

Vaultwarden installation will:

- Create a secure container for your password data
- Set up SSL certificates for secure access
- Configure the web interface
- Generate an admin token for management
- Start the service

**This usually takes 2-3 minutes.**

## Step 4: Configure Vaultwarden

During installation, you'll be asked several questions:

### SSL Configuration

You'll see a prompt like:

```
██SSL Certificate Configuration
=====
Do you want to use Traefik for SSL certificates and domain routing?

Y) Yes (default) - Use Traefik with Let's Encrypt SSL and domain
N) No - Standalone with self-signed certificate and direct port access
```

**Choose "Y" (Yes)** - This uses Traefik for secure HTTPS access (recommended).

### Domain Configuration

You'll be asked for your domain name:

Enter the domain name for Vaultwarden:

[vault.example.com]

**What to enter:** Use a subdomain like `vault.yourdomain.com` or `passwords.yourdomain.com`

### Examples:

- `vault.myinfinitytools.com`
- `passwords.mydomain.com`
- `vault.home.local` (for local testing)

## User Signup Policy

You'll be asked about user signups:

```
██ User Signup Policy
```

```
=====
```

```
Do you want to allow new users to sign up?
```

```
Y) Yes - Allow anyone to create an account
```

```
N) No - Only admin can create accounts (recommended)
```

**For beginners:** Choose "N" (No) - This keeps your password manager private and secure.

## Step 5: Wait for Installation

After answering the questions, Vaultwarden will install and start. You'll see messages like:

```
██ Installing Vaultwarden...
```

```
██ Creating configuration...
```

```
██ Setting up SSL certificates...
```

```
██ Generating admin token...
```

```
█ Vaultwarden installed successfully!
```

## Step 6: Get Your Admin Token

After installation, you'll see important information:

☐☐Vaultwarden Admin Information

=====

Admin Token: abc123def456ghi789...

Web Vault: https://vault.yourdomain.com

Admin Panel: https://vault.yourdomain.com/admin

## Save Your Admin Token

**IMPORTANT:** Save your admin token in a safe place! You'll need it to:

- Access the admin panel
- Manage users and settings
- Configure advanced options

**How to save it:**

- Copy it to a secure note on your phone
- Write it down and store it safely
- Don't share it with anyone

## Step 7: Verify Vaultwarden is Working

Let's make sure Vaultwarden is running properly.

### Check Status in Infinity Tools

In the Infinity Tools menu, go to:

- ☐☐ **STATUS & HEALTH** → **STATUS**

You should see Vaultwarden listed as "RUNNING" or "ACTIVE".

### Using the Status Dashboard

The Status & Health section shows you:

- ☐ **Service Status** - Which applications are running
- ☐ **System Health** - CPU, memory, and disk usage
- ☐ **Docker Info** - All your containers and their status
- ☐ **Network Status** - Shows your Docker networks

**Look for the green checkmarks** - they indicate everything is working properly!

## Test Your Web Vault

Open your web browser and visit your Vaultwarden URL:

- Go to `https://vault.yourdomain.com`
- You should see the Vaultwarden login page
- Look for the lock icon in your browser (secure connection)

## Step 8: Create Your First Account

Now it's time to set up your password manager!

### Sign Up Process

1. Visit your Vaultwarden URL in your browser
2. Click "**Create Account**"
3. Enter your email address
4. Create a strong master password
5. Confirm your password
6. Click "**Create Account**"

### Choosing a Strong Master Password

Your master password protects all your other passwords. Make it:

- **At least 12 characters long**
- **Mix of letters, numbers, and symbols**
- **Easy for you to remember**
- **Unique (don't use it anywhere else)**

**Example:** `MyDog@2024!Loves#Treats`

## Step 9: Understanding What Was Created

Vaultwarden installation creates several important files and configurations:

# Data Storage

Your password data is stored in:

- `/opt/speedbits/vaultwarden/data/` - Your encrypted password database
- `/opt/speedbits/vaultwarden/admin_token.txt` - Your admin access token

# Web Access

Vaultwarden provides:

- **Web Vault:** `https://vault.yourdomain.com` - Main interface
- **Admin Panel:** `https://vault.yourdomain.com/admin` - Management interface

# Security Features

Vaultwarden includes:

- **End-to-end encryption** - Your passwords are encrypted
- **HTTPS access** - Secure connection
- **Admin controls** - Manage users and settings
- **Backup ready** - Data can be backed up easily

# What's Next?

Congratulations! You now have your own password manager running securely on your server.

# Next Steps

- **Download [Bitwarden apps](#)** - For your phone and computer
- **Import existing passwords** - From other password managers
- **Set up two-factor authentication** - For extra security
- **Create your first password** - Start using your vault

# Getting Help

For detailed usage instructions, advanced features, and troubleshooting, please refer to the [official Vaultwarden documentation](#).

# Troubleshooting

## Can't Access Vaultwarden

If you can't access your Vaultwarden:

- Check that Traefik is running: `docker ps | grep traefik`
- Verify your domain points to your server
- Wait a few minutes for SSL certificates to be issued
- Check Vaultwarden logs: `docker logs vaultwarden`

## SSL Certificate Issues

If you see security warnings:

- Make sure your domain is correctly configured
- Check that ports 80 and 443 are open
- Wait for certificates to be generated (can take 5-10 minutes)
- Try refreshing the page after a few minutes

## Can't Create Account

If signup is disabled:

- Use the admin panel to create accounts
- Go to `https://vault.yourdomain.com/admin`
- Use your admin token to log in
- Create user accounts from the admin interface

## Quick Reference

### Check Vaultwarden status:

```
docker ps | grep vaultwarden
```

### View Vaultwarden logs:

```
docker logs vaultwarden
```

### Restart Vaultwarden:

```
docker restart vaultwarden
```

### Access admin panel:

```
https://vault.yourdomain.com/admin
```

# You're Ready!

Vaultwarden is now installed and running! You have your own secure password manager that you control completely.

### What you accomplished:

- Installed and configured Vaultwarden
- Set up secure HTTPS access
- Created your admin account
- Secured your password data

**Next step:** Download the Bitwarden apps for your devices and start using your new password manager!

# What You Learned

- **Vaultwarden** - A self-hosted password manager
- **Password Security** - How to store passwords safely
- **Admin Management** - How to control access to your vault
- **SSL Security** - How HTTPS protects your data

You now have a professional-grade password manager running on your own server!

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*Next: Installing Your Next Application (Coming Soon)*

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