

# FreshRSS Kubernetes Deployment

This deployment uses the official FreshRSS Docker image with CloudNativePG PostgreSQL database, following the same patterns as the Wallabag deployment.

## Prerequisites

### 1Password Secrets

Create the following entries in 1Password:

#### `freshrss_prod_db` (Database Credentials for CloudNativePG)

Field	Description	Example
<code>username</code>	PostgreSQL username	<code>freshrss</code>
<code>password</code>	PostgreSQL password	<code>&lt;secure-password&gt;</code>

#### `freshrss_prod` (Application Credentials)

Field	Description	Example
db_user	Database username	freshrss
db_password	Database password	<same-as-above>
db_name	Database name	freshrss
db_host	Database host (CloudNativePG service)	freshrss-prod-cluster-rw.freshrss.svc.cluster.local
db_port	Database port	5432
admin_user	FreshRSS admin username	admin
admin_password	FreshRSS admin password	<secure-password>
admin_email	Admin email address	admin@example.com
admin_api_password	API password for mobile apps	<secure-password>
base_url	Public URL of FreshRSS	https://freshrss.home-0ps.com

## File Structure

```
freshrss/  
├─ kustomization.yaml      # Kustomize configuration  
├─ namespace.yaml         # Namespace definition  
├─ freshrss-configmap.yaml # Non-sensitive configuration  
├─ freshrss-external-secret.yaml # App credentials from 1Password
```

```
└─ freshrss-db-secret.yaml      # DB credentials from 1Password
└─ freshrss-database.yaml      # CloudNativePG PostgreSQL cluster
└─ freshrss-app.yaml           # Deployment, PVCs, Service, HTTPRoute
```

## Configuration Details

### Environment Variables (ConfigMap)

Variable	Value	Description
<code>TZ</code>	<code>America/New_York</code>	Timezone for feed refresh
<code>CRON_MIN</code>	<code>3,18,33,48</code>	Refresh feeds every 15 minutes
<code>FRESHRSS_ENV</code>	<code>production</code>	Production mode
<code>COPY_LOG_TO_SYSLOG</code>	<code>On</code>	Enable syslog
<code>COPY_SYSLOG_TO_STDERR</code>	<code>On</code>	Output logs to stderr
<code>DB_TYPE</code>	<code>pgsql</code>	PostgreSQL database type

### Database Configuration

The CloudNativePG cluster is configured with:

- **3 instances** for high availability
- **10Gi storage** for data
- **5Gi storage** for WAL
- **Daily backups** via Barman plugin
- **scram-sha-256** authentication
- SSL connections from pod network (10.43.0.0/16)

## Storage

- **Data PVC:** 5Gi for FreshRSS configuration and SQLite cache
- **Extensions PVC:** 1Gi for third-party extensions

## Deployment

```
bash

# Apply with kubectl
kubectl apply -k applications/prod/freshrss/

# Or let Flux handle it via GitOps
```

## Post-Deployment

1. Access FreshRSS at your configured URL
2. The auto-install parameters will configure the database and create the admin user on first run
3. Configure mobile apps using the API password

## Mobile App Configuration

FreshRSS supports the Google Reader API. Configure your mobile app with:

- **Server URL:** `https://freshrss.home-0ps.com/api/greader.php`
- **Username:** Your admin username
- **Password:** Your API password

Recommended apps:

- **Android:** Readrops, FeedMe, Read You
- **iOS:** Reeder Classic, lire

- **Desktop:** Fluent Reader, NewsFlash