

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><secure-password></code>

freshrss_prod (Application Credentials)

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

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
TZ	America/New_York	Timezone for feed refresh
CRON_MIN	3,18,33,48	Refresh feeds every 15 minutes
FRESHRSS_ENV	production	Production mode
COPY_LOG_TO_SYSLOG	On	Enable syslog
COPY_SYSLOG_TO_STDERR	On	Output logs to stderr
DB_TYPE	pgsql	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