

The Longhorn Documentation

Cloud native distributed block storage for Kubernetes

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[Install with Kubectl](#)
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Longhorn is a lightweight, reliable, and powerful distributed **block storage** system for Kubernetes.

[Install with Fleet](#)
[Install with Flux](#)

Longhorn implements distributed block storage using containers and microservices.

[Install with Argo CD](#)

Longhorn creates a dedicated storage controller for each block device volume and

[Air Gap Installation](#)

synchronously replicates the volume across multiple replicas stored on multiple

[Accessing the UI](#)

nodes. The storage controller and replicas are themselves orchestrated using

Kubernetes.

[Create an Ingress with Basic Authentication](#)
[\(nginx\)](#)

Features

[Create an Ingress with Basic Authentication](#)
[\(Traefik\)](#)

- Enterprise-grade distributed block storage with no single point of failure

[Create an HTTPRoute with Gateway API](#)

- Incremental snapshots of block storage

[Upgrade](#)

- Backup to secondary storage (**NFS** or **S3**-compatible object storage) built on efficient change block detection

[Upgrading Longhorn Manager](#)

- Recurring snapshots and backups

[Manually Upgrading Longhorn Engine](#)

- Automated non-disruptive upgrades. You can upgrade the entire Longhorn

What is Longhorn?

Architecture and Concepts

Terminology

Best Practices

V1 and V2 Volume Feature Support

Document Conventions

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Installation and Setup

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Quick Installation

Install as a Rancher Apps & Marketplace

Install with KubectI

Install with Helm

Install with Helm Controller

Install with Fleet

Install with Flux

Install with ArgoCD

Air Gap Installation

Accessing the UI

Create an Ingress with Basic Authentication
(nginx)

Create an Ingress with Basic Authentication
(Traefik)

Create an HTTPRoute with Gateway API

Upgrade

Upgrading Longhorn Manager

Manually Upgrading Longhorn Engine

Automatically Upgrading Longhorn Engine

