

RE-THINKING PRODUCT ADOPTION THROUGH DOCUMENTATION DESIGN

By Pedro MC Fernandes at  PERCONA

PEDRO

- A father and a lover
- Living in greater Lisbon, Portugal
- Hands-on creator inspired by arts
- Experience with 0-1 projects +
eCommerce + operations
- All-round designer
- Product designer at Percona
- Generalist contributor in FOSS





- Freedom to choose ethos
- Provider of open-source database services, support, and software

Known for

- Open-source, drop-in replacements for **PostgreSQL/MySQL/MongoDB**
- **Percona Toolkit** command-line tools
- **PMM** database monitoring tools
- Cloud-native database **Operators**



RE-THINKING PRODUCT ADOPTION THROUGH DOCUMENTATION DESIGN

Why would we?

MOTIVATIONS

- Databases for everyone
- Promote independence
- More and better contributions
- Optimization of Support
- Don't break the bank



**DATABASES = HARD
SOFTWARE = HARD
DESIGN = HARD**

Technical, complex, costly

Error 404: Design culture not found

Rapid software ≠ Rapid UX



While we create something better in-product,
what else could we do now?

Imagine assembling this...

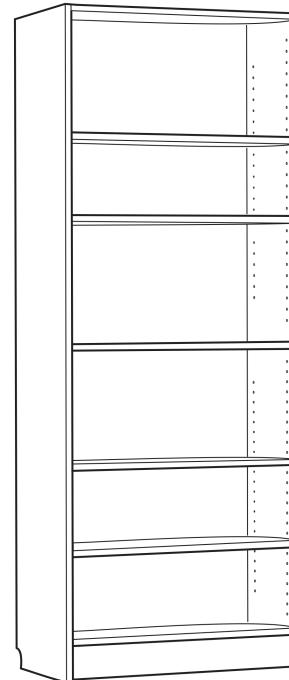


By only guessing



With documentation, we
can promote the adoption
and good use of products.

BILLY



IKEA
Design and Quality
IKEA of Sweden

With databases, even if you're an expert,
you must keep the documentation tab open.

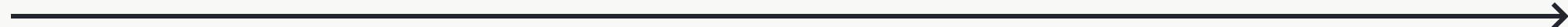
INSTALL



DEVELOP



UPKEEP





DOCUMENTATION DESIGN RATIONALE

DEFINE A STRATEGY

Who's reading our documentation?

How can it help them and us achieve our goals?

How do we know if it is helping?



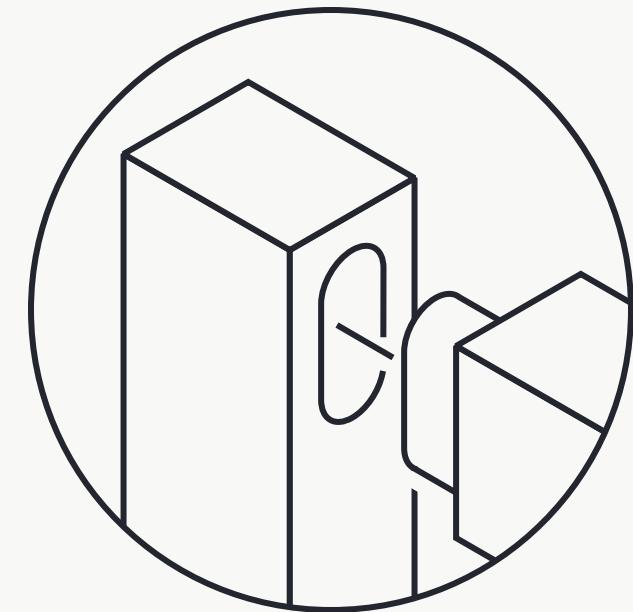
We want documentation to reach out to more
developers interested in open-source databases
for their applications so that adoption increases
through **more installations, proper retention**, and
evident ease of use.

ESTABLISH CO-OWNERSHIP

Who could help?

Where's the knowledge?

Who could share responsibilities?

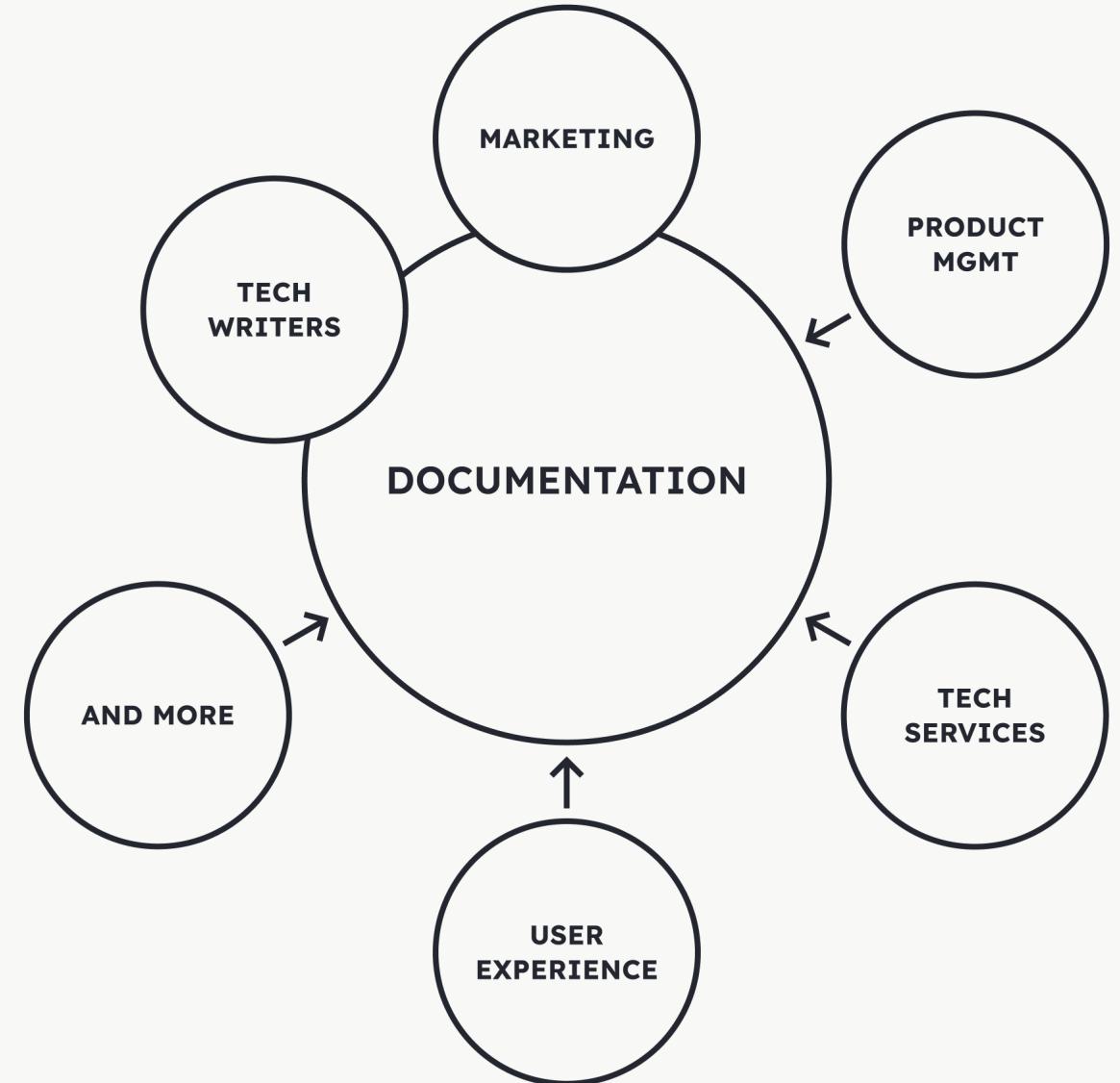


Kept

- Creation of content • Management
- Data analysis

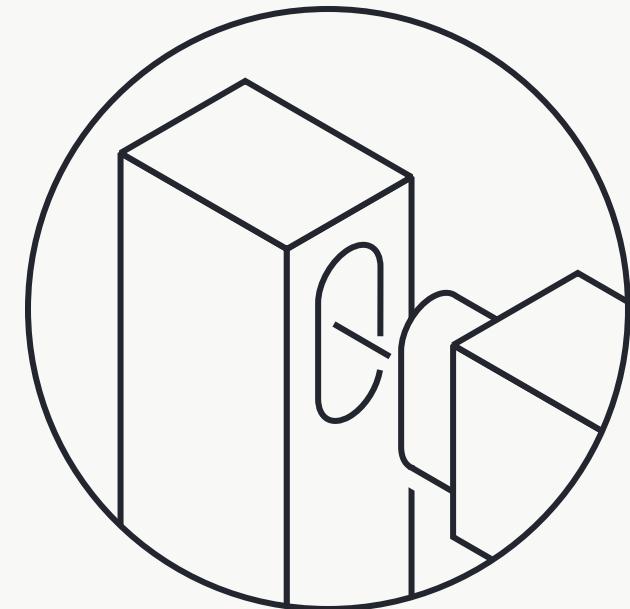
Added

- Speed • Visibility • Openness
- User's POV • Horizontal communication
- New methods • New tools



BOOST CLARITY

Is the content accessible to people?
Does it provide intuitive access to their needs?
Are there untapped opportunities?



Version 0.6.0 of the Percona Operator for MySQL is a **tech preview release** and it is **not recommended for production environments**. As of today, we recommend using Percona Operator for MySQL based on Percona XtraDB Cluster, which is production-ready and contains everything you need to quickly and consistently deploy and scale MySQL clusters in a Kubernetes-based environment, on-premises or in the cloud.



Percona Operator for MySQL
based on Percona Server for
MySQL

Welcome

Features

Quickstart guides

Installation

Configuration and
Management

Backup and restore

Upgrade Database and
Operator

Application and system
users

Anti-affinity and tolerations

Labels and annotations

Changing MySQL Options

Load Balancing with HAProxy

MySQL Router Configuration

Exposing the cluster

Transport Encryption (TLS)

Upgrade Database and Operator

Starting from the version 0.6.0, Percona Operator for MySQL based on Percona Server for MySQL fully supports upgrades to newer versions. The upgradable components of the cluster are the following ones:

- the Operator;
- [Custom Resource Definition \(CRD\)](#),
- Database Management System (Percona Server for MySQL).

The list of recommended upgrade scenarios includes two variants:

- Upgrade to the new versions of the Operator and Percona Server for MySQL,
- Minor Percona Server for MySQL version upgrade without the Operator upgrade.

Upgrading the Operator and CRD

Note

The Operator supports **last 3 versions of the CRD** including the newest one, so it is technically possible to skip upgrading the CRD and just upgrade the Operator. If the CRD version is one of these, you will be able to continue using the old CRD and even carry on Percona Server for MySQL minor version upgrades with it. But the recommended way is to update the Operator and CRD.

Table of contents

Upgrading the Operator and
CRD

Manual upgrade

Upgrade via helm

Upgrading Percona Server for
MySQL

Manual upgrade

Automated upgrade

More on upgrade strategies



Tweaked

- Applied readable fonts
- Added spacing
- Increased chromatic contrast
- Increased reading contrast (headings Vs. running text blocks)
- On-brand re-styling

BEFORE

The screenshot shows the original documentation page for the Percona Operator for MySQL 0.6.0. The header includes the Percona logo, the title "Percona Operator for MySQL 0.6.0 (2023-09-05)", a search bar, and a navigation bar with links like "About", "Installation", "How to", "Backup and Restore", "Security", "Storage Engines", "Troubleshoot", "Reference", and "Installing PMM". The main content area features a sidebar with links for "Welcome", "Features", "Quickstart guides", "Installation", "Configuration and Management", "Troubleshooting", "Reference", and "Release Notes". The main content discusses group replication topology, stability improvements, and bug fixes, noting it is a tech preview release. It also highlights the "Smart Upgrade functionality" and the role of the HAProxy load balancer. The "Improvements" section lists several pull requests (K8SPS-283, K8SPS-160, etc.) related to MySQL X protocol, monitoring, and password updates.

AFTER

The screenshot shows the updated documentation page for the latest release, 8.0.33-25. The header includes the Percona logo, the title "Latest Release 8.0.33-25", a search bar, and a navigation bar with links for "About", "Installation", "How to", "Backup and Restore", "Security", "Storage Engines", "Troubleshoot", "Reference", and "Installing PMM". The main content area features a sidebar with links for "About", "Features", "Release Notes", and "Latest Release 8.0.33-25". The main content is organized into sections: "Highlights", "New features", "Improvements", "Bugs Fixed", "Deprecation and removal", and "Supported Platforms". A large arrow points from the "Improvements" section of the "Before" screenshot to the "New features" section of the "After" screenshot. The "New features" section lists several bugs (PS-8188, PS-8647, etc.) and their descriptions, such as adding the `clone_exclude_plugins_list` variable and concurrent execution of commands leading to deadlock.

Added

- Guidelines and resources to place icons, buttons, dividers, and tabs
- Guidelines to flag critical bits of content and decision-making points

BEFORE

Percona Operator for MySQL based on Percona Server for MySQL

Install Percona Server for MySQL on Google Kubernetes Engine (GKE)

Prerequisites

Create and configure the GKE cluster

Table of contents

- Prerequisites
- Create and configure the GKE cluster
- Install the Operator and deploy your MySQL cluster
- Verifying the cluster operation
- Troubleshooting
- Removing the GKE cluster

All commands from this guide can be run either in the [Google Cloud shell](#) or in [your local shell](#).

To use [Google Cloud shell](#), you need nothing but a modern web browser.

If you would like to use [your local shell](#), install the following:

1. [gcloud](#). This tool is part of the Google Cloud SDK. To install it, select your operating system on the [official Google Cloud SDK documentation page](#) and then follow the instructions.
2. [kubectl](#). It is the Kubernetes command-line tool you will use to manage and deploy applications. To install the tool, run the following command:
\$ gcloud auth login
\$ gcloud components install kubectl

Create and configure the GKE cluster

You can configure the settings using the [gcloud](#) tool. You can run it either in the [Cloud Shell](#) or in your local shell (if you have installed Google Cloud SDK locally on the previous step). The following command will create a cluster named `my-cluster-name`:

```
$ gcloud container clusters create my-cluster-name --project <project name> --zone us-central1
```

Note

AFTER

Percona Server for MySQL

Quickstart Guides

Installation

Quickstart Guides

Install via apt

Install via yum

Kubernetes

Docker

Manual Download

Post-installation tips

Upgrade

Downgrade

Table of contents

Install via apt

Install via yum

Package Manager

Kubernetes

Docker

Manual Download

If you're on [Ubuntu](#) or [Debian](#), use [apt](#) for convenience.

On the other hand, if you're on [Red Hat Enterprise Linux](#) or [CentOS](#), you can easily use [yum](#).

Choose your package manager below to get access to a detailed step-by-step guide.

Install via apt

Before starting, we advise updating the [apt](#) repositories and installing [curl](#) download utility to fetch the package. If you want to fetch the package manually, follow this guide instead: [Manual Installation](#).

```
$ sudo apt update  
$ sudo apt install curl
```

Once everything is updated and ready, you can follow the below tasks to install:

Extended

- New custom components
- Use of more out-of-the-box components

The screenshot shows a documentation page for "Uninstall". The top navigation bar includes links for About, Installation (which is underlined), How to, Backup and Restore, Security, Storage Engines, Troubleshoot, Reference, and Installing PMM. A search bar and a "perco" logo are also present.

The main content area has a sidebar on the left with links: Installation, Quickstart Guides, Install via apt, Installation guide, Run/Stop, apt Pinning, Uninstall (which is bolded), Install via yum, Kubernetes, Docker, Manual Download, Post-installation tips, Upgrade, and Downgrade. Two arrows point from the "Uninstall" link in the sidebar to the "Get expert help" section at the bottom right.

The "Uninstall" section contains two bullet points:

- Either remove the packages.
\$ sudo apt remove percona-server\
- Or purge the packages and delete data files.
\$ sudo apt purge percona-server\

A warning message states: "This will leave the data files (databases, tables, logs, configuration, etc.) behind. If you don't need them, you must remove them manually."

The "Warning" message for the purge command states: "Warning: This command removes all the packages and deletes all the data files (databases, tables, logs, and so on.)."

The "Get expert help" section at the bottom right contains the following text:
If you need assistance, visit the community forum for comprehensive and free database knowledge, or contact our Percona Database Experts for professional support and services.
[Community Forum](#) [Get a Percona Expert](#)

At the very bottom, there is a "Was this page helpful?" section with smiley and frowny face icons.

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Made with [Material for MkDocs](#)

IMPROVE THE USER EXPERIENCE

What can we do for people?

How might we anticipate their needs?

How can we make them succeed?



Invested in

- Understanding people's needs
- Experimenting
- Creating guidelines
- Forming quickstart guides
- Visual prominence for what matters the most

The screenshot shows the 'Installation' section of the Percona Installation guide. The left sidebar lists various installation methods: Installation, Quickstart Guides, Install via apt, Install via yum, Kubernetes, Docker, Manual Download, Post-installation tips, Upgrade, and Downgrade. The 'Install via apt' section is expanded, showing sub-links for Installation guide, Run/Stop, apt Pinning, Uninstall, and curl command examples (\$ sudo apt update and \$ sudo apt install curl). The main content area describes the steps to download the percona-release repository package, install it with apt, use percona-release to set up the repository for MySQL 8.0, and finally install the server package with sudo apt install percona-server-server. It also mentions checking the /etc/apt/sources.list.d/percona-original-release.list file for repository setup.

Installation guide

About **Installation** How to Backup and Restore Security Storage Engines Troubleshoot Reference Installing PMM

Before starting, we advise updating the apt repositories and installing curl download utility to fetch the package. If you want to fetch the package manually, follow this guide instead: [Manual Installation](#).

Installation

Quickstart Guides

Install via apt

Installation guide

Run/Stop

apt Pinning

Uninstall

Install via yum

Kubernetes

Docker

Manual Download

Post-installation tips

Upgrade

Downgrade

\$ sudo apt update
\$ sudo apt install curl

Once everything is updated and ready, you can follow the below tasks to install:

- ① The first step is downloading the `percona-release` repository package:

```
$ curl -O https://repo.percona.com/apt/percona-release_latest.generic_all.deb
```
- ② Install the downloaded package with `apt` as root or with `sudo`, and then refresh the local cache to update the package information:

```
$ sudo apt install gnupg2 lsb-release ./percona-release_latest.generic_all.deb  
$ sudo apt update
```
- ③ Use `percona-release` to set up the repository for the Percona Server for MySQL 8.0 version:

```
$ sudo percona-release setup ps80
```
- ④ Install the server package with the `percona-release` command:

```
$ sudo apt install percona-server-server
```

You can check the repository setup for the Percona original release list in `/etc/apt/sources.list.d/percona-original-release.list`.

For more information on `percona-release` command see [Configuring Percona Repositories](#).

⑤ It should now be installed! Percona Server runs automatically after installation. To control the

We crafted journeys and woven them together so we could guide people into discovering the value of our software.

☰ Percona Server for MySQL

Percona Server for MySQL



Percona Server for MySQL is a high-performance, open-source drop-in replacement for MySQL. It allows you to enhance your database with superior performance, scalability, availability, and enhanced backups and is trusted by enterprises for demanding workloads.

Starting with Percona Server for MySQL is easy. Follow our documentation guides, and you'll be set up in a minute.

⊕ Installation guides

Want to see it for yourself? Get started quickly with our step-by-step installation instructions.

[Quickstart Guides →](#)

🛡 Top-notch security

Rest assured! Learn more about our security features designed to protect your valuable data.

[Security Measures →](#)

✉ Smooth your deployment

Discover the requirements to start with Percona Server for MySQL production.

[Production Requirements →](#)

🚧 Troubleshooting and Q&A

Our comprehensive resources will help you overcome challenges, from everyday issues to specific doubts.

[Troubleshoot and Q&A →](#)

☰ Quickstart Guides

```
$ sudo percona-release setup ps80
```

You can check the repository setup for the Percona original release list in `/etc/apt/sources.list.d/percona-original-release.list`.

- 4 Install the server package with the `percona-release` command:

```
$ sudo apt install percona-server-server
```

For more information on `percona-release` command see [Configuring Percona Repositories](#).

- 5 It should now be installed! Percona Server runs automatically after installation. To control the service, learn how to [Stop/Run Percona Server](#).

Next steps

Want to quickly test Percona Server for MySQL? Navigate into our easy-to-follow guide below, so you can understand the power of fast and performant databases with Percona.

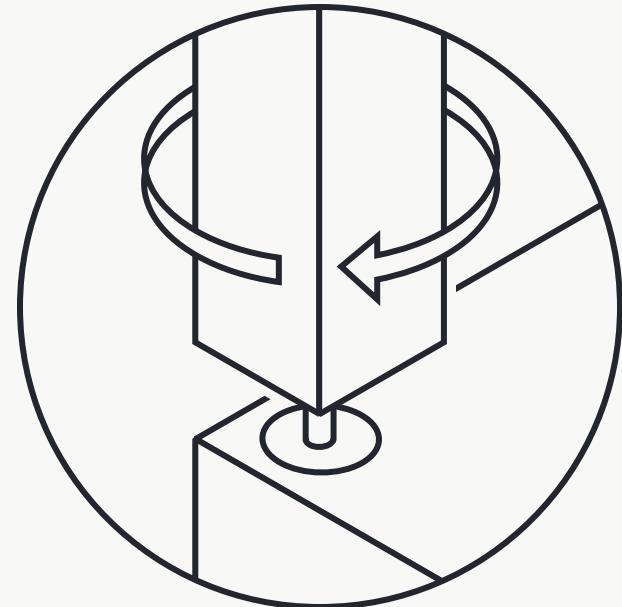
[Create a database →](#)

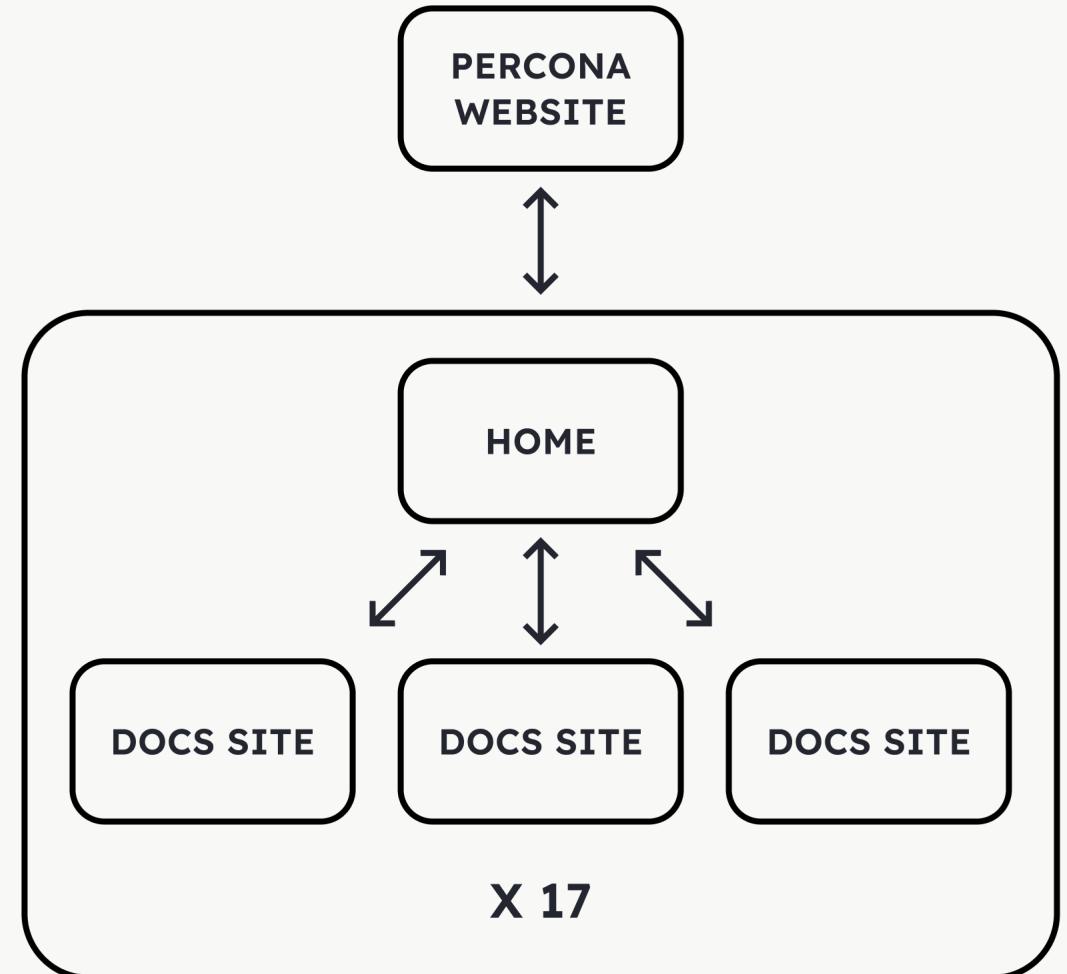
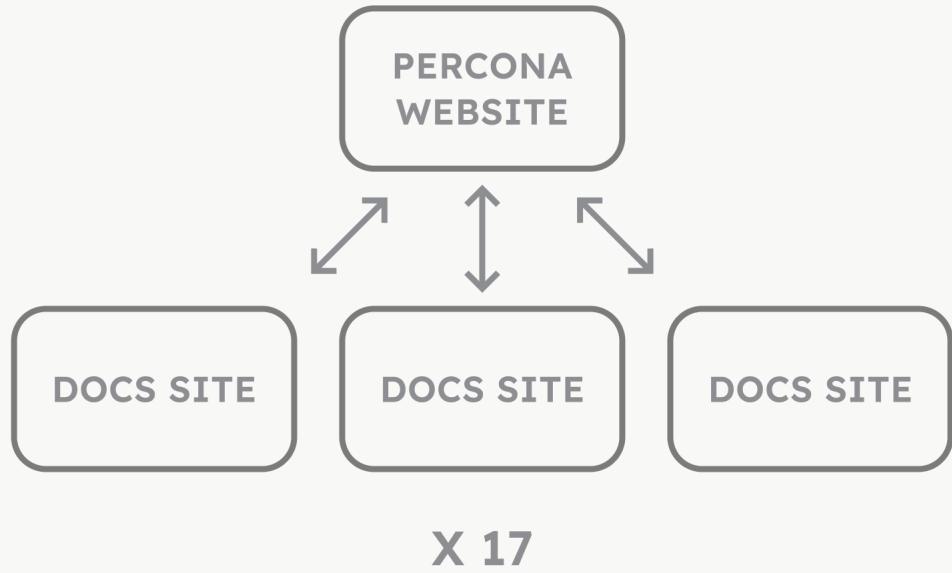
Here are a few other useful topics to continue venturing into Percona Server:

- Follow our [Prepare for production](#) guide to run a robust and scalable enterprise-grade database.
- Check if you want to [change the storage engine](#).

UNIFY THE EXPERIENCE

Imagine using the documentation.
How does it look? How might we improve it?
Does it feel whole and credible?





```
<div class="marpit"> <video autoplay controls mute loop  
src="../img/docs_design/final.mp4"></video> </div>
```

OVERVIEW

- Defined a strategy for the documentation
- Established the co-ownership
- Made it clearer and accessible
- Improved the user experience
- Unified documentation websites' experience

TO DO

- How users are experiencing changes
- Review outdated content
- Weed out inconsistencies
- Add practical examples/recipes



THANK YOU!

Re-thinking product adoption through documentation design

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Rendered with [Marp](#) and [Lexend](#)