



# Fujitsu Enterprise Postgres 15 for Kubernetes Release Notes

Linux

# Preface

---

## Purpose of this document

This document provides release information for Fujitsu Enterprise Postgres for Kubernetes.

## Structure of this document

This document is structured as follows:

### [Chapter 1 New Features and Improvements](#)

Explains the new features and improvements in this version.

## Abbreviations

The following abbreviations are used in this manual:

Full Name	Abbreviations
Fujitsu Enterprise Postgres for Kubernetes	FEP
Fujitsu Enterprise Postgres	
Custom Resource	CR
Universal Base Image	UBI
OpenShift Container Platform	OCP
Mutual TLS	MTLS

## Abbreviations of manual titles

The following abbreviations are used in this manual as manual titles:

Full Manual Title	Abbreviations
Fujitsu Enterprise Postgres for Kubernetes Release Notes	Release Notes
Fujitsu Enterprise Postgres for Kubernetes Overview	Overview
Fujitsu Enterprise Postgres for Kubernetes User's Guide	User's Guide
Fujitsu Enterprise Postgres for Kubernetes Reference	Reference

## Trademarks

- Linux is a registered trademark or trademark of Mr. Linus Torvalds in the U.S. and other countries.
- Red Hat and all Red Hat-based trademarks and logos are trademarks or registered trademarks of Red Hat, Inc. in the United States and other countries.
- S/390 is a registered trademark of International Business Machines Corporation in the United States or other countries or both.
- Power and Power Systems are registered trademarks of International Business Machines Corporation in the United States or other countries or both.

Other product and company names mentioned in this manual are the trademarks or registered trademarks of their respective owners.

## Export restrictions

If this document is to be exported or provided overseas, confirm legal requirements for the Foreign Exchange and Foreign Trade Act as well as other laws and regulations, including U.S. Export Administration Regulations, and follow the required procedures.

## Issue date and version

Edition 3.0: January 2024
Edition 2.0: October 2023
Edition 1.1: June 2023
Edition 1.0: April 2023

## Copyright

Copyright 2021-2024 Fujitsu Limited

# Contents

---

Chapter 1 New Features and Improvements.....	1
1.1 Features Added FEP15 Operator in v5.2.0.....	1
1.1.1 OSS.....	1
1.1.1.1 PostgreSQL Rebase.....	1
1.1.2 Security.....	1
1.1.2.1 Enabling Client Authentication with scram-sha-256 Authentication.....	2
1.1.3 Operation.....	2
1.1.3.1 Disaster Recovery Using Velero.....	2
1.2 Features Added FEP15 Operator in v5.1.7.....	2
1.2.1 OSS.....	2
1.2.1.1 PostgreSQL Rebase.....	2
1.2.2 Operation.....	2
1.2.2.1 Disk Auto Expansion.....	2
1.2.2.2 Disaster Recovery in Hot Standby Configuration.....	3
1.3 Features Added FEP15 Operator in v5.1.0.....	3
1.3.1 OSS.....	3
1.3.1.1 PostgreSQL Rebase.....	3
1.3.2 Platform Enhancement.....	3
1.3.2.1 Additional OCP Support.....	3
1.3.2.2 Additional Kubernetes Support.....	3
1.3.3 Collaboration Tools.....	4
1.3.3.1 Additional Tool Support.....	4
1.3.4 Security.....	4
1.3.4.1 Confidentiality Management.....	4
1.3.4.2 Automating Audit Log Operation.....	4
1.3.4.3 Cloud-based Key Management Service Integration.....	4
1.3.4.4 Cloud-based Secret Management.....	5
1.3.5 Operation.....	5
1.3.5.1 Customize the FEP Server Container Image.....	5

# Chapter 1 New Features and Improvements

This chapter explains Fujitsu Enterprise Postgres for Kubernetes new features and improvements added in this version.

Table 1.1 New features and improvements

Version and level	Classification	Feature
FEP 15 Operator image tag:v5.2.0  Container image tag:ubi9-15-1.0	OSS	<a href="#">PostgreSQL Rebase</a>
	Security	<a href="#">Enabling Client Authentication with scram-sha-256 Authentication</a>
	Operation	<a href="#">Disaster Recovery Using Velero</a>
FEP 15 Operator image tag:v5.1.7  Container image tag:ubi8-15-1.6	OSS	<a href="#">PostgreSQL Rebase</a>
	Operation	<a href="#">Disk Auto Expansion</a>
		<a href="#">Disaster Recovery in Hot Standby Configuration</a>
FEP 15 Operator image tag:v5.1.0  Container image tag:ubi8-15-1.0	OSS	<a href="#">PostgreSQL Rebase</a>
	Platform enhancement	<a href="#">Additional OCP Support</a>
		<a href="#">Additional Kubernetes Support</a>
	Collaboration tools	<a href="#">Additional Tool Support</a>
	Security	<a href="#">Confidentiality Management</a>
		<a href="#">Automating Audit Log Operation</a>
		<a href="#">Cloud-based Key Management Service Integration</a>
		<a href="#">Cloud-based Secret Management</a>
Operation	<a href="#">Customize the FEP Server Container Image</a>	

## 1.1 Features Added FEP15 Operator in v5.2.0

This section explains the improvement in Fujitsu Enterprise Postgres for Kubernetes v5.2.0.

### 1.1.1 OSS

This section explains the new feature related to OSS:

- PostgreSQL Rebase

#### 1.1.1.1 PostgreSQL Rebase

The PostgreSQL version that Fujitsu Enterprise Postgres is based on is 15.5.



See

Refer to "A OSS Supported by Fujitsu Enterprise Postgres for Kubernetes" in the Overview.

### 1.1.2 Security

This section explains the new feature related to security:

- Enabling Client Authentication with scram-sha-256 Authentication

### 1.1.2.1 Enabling Client Authentication with scram-sha-256 Authentication

The scram-sha-256 authentication method is now available for FEP server and FEPPgpool2 containers.



Refer to "Enabling Client Authentication with scram-sha-256 Authentication" in the User's Guide.

## 1.1.3 Operation

---

This section explains the new feature related to operation:

- Disaster Recovery Using Velero

### 1.1.3.1 Disaster Recovery Using Velero

Disaster recovery with Velero is now available. This enables disaster recovery by backing up a system in a Kubernetes environment to object storage and restoring the system to a different Kubernetes.



Refer to "Disaster Recovery Using Velero" in the User's Guide.

## 1.2 Features Added FEP15 Operator in v5.1.7

---

This section explains the improvement in Fujitsu Enterprise Postgres for Kubernetes v5.1.7.

### 1.2.1 OSS

---

This section explains the new feature related to OSS:

- PostgreSQL Rebase

#### 1.2.1.1 PostgreSQL Rebase

The PostgreSQL version that Fujitsu Enterprise Postgres is based on is 15.4.



Refer to "A OSS Supported by Fujitsu Enterprise Postgres for Kubernetes" in the Overview.

### 1.2.2 Operation

---

This section explains the new feature related to operation:

- Disk Auto Expansion
- Disaster Recovery in Hot Standby Configuration

#### 1.2.2.1 Disk Auto Expansion

Disk capacity can be expanded automatically when the disk usage exceeds the threshold.



Refer to "Configuring PVC Auto Expansion" in the User's Guide for details.

### 1.2.2.2 Disaster Recovery in Hot Standby Configuration

Disaster recovery can now be performed in a hot standby configuration. As a result, business systems can be restored more quickly in the event of a disaster.



Refer to "Disaster Recovery in Hot Standby Configuration" in the User's Guide for details.

## 1.3 Features Added FEP15 Operator in v5.1.0

---

This section explains the improvement in Fujitsu Enterprise Postgres for Kubernetes v5.1.0.

### 1.3.1 OSS

---

This section explains the new feature related to OSS:

- PostgreSQL Rebase

#### 1.3.1.1 PostgreSQL Rebase

The PostgreSQL version that Fujitsu Enterprise Postgres is based on is 15.0.



Refer to "A OSS Supported by Fujitsu Enterprise Postgres for Kubernetes" in the Overview.

### 1.3.2 Platform Enhancement

---

This section explains the new feature related to platform enhancement:

- Additional OCP Support
- Additional Kubernetes Support

#### 1.3.2.1 Additional OCP Support

The following additional OCP is supported:

- OCP 4.11



Refer to "Supported Platform" in the User's Guide for details.

#### 1.3.2.2 Additional Kubernetes Support

The following additional Kubernetes is supported:

- Kubernetes 1.24
- Kubernetes 1.25
- Kubernetes 1.26



See

Refer to "Supported Platform" in the User's Guide for details.

### 1.3.3 Collaboration Tools

---

This section explains the new feature related to platform enhancement:

- Additional Tool Support

#### 1.3.3.1 Additional Tool Support

Linkage with the following tools is now supported.

- Elastic Search

### 1.3.4 Security

---

This section explains the new feature related to security:

- Confidentiality Management
- Automating Audit Log Operation
- Cloud-based Key Management Service Integration
- Cloud-based Secret Management

#### 1.3.4.1 Confidentiality Management

Supports Fujitsu Enterprise Postgres Confidentiality management feature.



See

Refer to "Confidentiality Management Feature" in the User's Guide for details.

#### 1.3.4.2 Automating Audit Log Operation

When using audit logs, audit log operations suitable for security requirements are now automatically performed.



See

Refer to "Automating Audit Log Operations" in the Overview for details.

#### 1.3.4.3 Cloud-based Key Management Service Integration

The following key management system has been added to manage the master encryption key used in the transparent data encryption function.

- AWS key management service
- Azure key management service



Note

AWS and Azure key management services are only available in environments with a x86 CPU architecture.



See

.....  
Refer to "Transparent Data Encryption Using Key Management System" in the Overview.  
.....

#### 1.3.4.4 Cloud-based Secret Management

Database secrets such as database user passwords and certificates can now be managed in an external cloud secret store.



See

.....  
Refer to "Cloud Secret Store" in the Overview for details.  
.....

### 1.3.5 Operation

---

This section explains the new feature related to operation:

- Customize the FEP Server Container Image

#### 1.3.5.1 Customize the FEP Server Container Image

By adding OSS modules to the FEP server container image of Fujitsu Enterprise Postgres for Kubernetes, the FEP server container image can be customized.



See

.....  
Refer to "Ability to Customize the FEP Server Container Image" in the Overview for details.  
.....