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:

<table>
<thead>
<tr>
<th>Full Name</th>
<th>Abbreviations</th>
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</thead>
<tbody>
<tr>
<td>FUJITSU Software Enterprise Postgres for Kubernetes</td>
<td>FEP or FUJITSU Enterprise Postgres</td>
</tr>
<tr>
<td>FUJITSU Software Enterprise Postgres</td>
<td>CR</td>
</tr>
<tr>
<td>Custom Resource</td>
<td>UBI</td>
</tr>
<tr>
<td>Universal Base Image</td>
<td>OCP</td>
</tr>
<tr>
<td>OpenShift Container Platform</td>
<td>MTLS</td>
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Abbreviations of manual titles
The following abbreviations are used in this manual as manual titles:

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<tr>
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<th>Abbreviations</th>
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<td>FUJITSU Software Enterprise Postgres for Kubernetes Release Notes</td>
<td>Release Notes</td>
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<tr>
<td>FUJITSU Software Enterprise Postgres for Kubernetes Overview</td>
<td>Overview</td>
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<tr>
<td>FUJITSU Software Enterprise Postgres for Kubernetes Reference</td>
<td>Reference</td>
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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

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<tr>
<th>Version and level</th>
<th>Classification</th>
<th>Feature</th>
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<tr>
<td>FEP 14 Operator</td>
<td>OSS</td>
<td>PostgreSQL Rebase</td>
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<tr>
<td>Container image tag:ubi8-14-1.0</td>
<td>Platform enhancement</td>
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<tr>
<td></td>
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<td>Additional OCS Support</td>
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<td>Additional Kubernetes Support</td>
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<tr>
<td>Collaboration tools</td>
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<td>Installing Operator with Helm Chart</td>
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<td>Additional Rancher Support</td>
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<tr>
<td>Operation</td>
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<td>Disaster Recovery</td>
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<td>Server Log Monitoring</td>
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<td>Changing the Switchover FEPAction Interface</td>
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<td>Major Version Upgrade</td>
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1.1 Features Added FEP14 Operator in v4.1.0

This section explains new features and improvements in FUJITSU Enterprise Postgres for Kubernetes v4.1.0.

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 14.0.

See

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

1.1.2 Platform Enhancement

This section explains the new features related to platform enhancement:

- Additional OCP support
- Additional OCS support
- Additional Kubernetes support
- Additional platform support

1.1.2.1 Additional OCP Support

The following additional OCP is supported:

- OCP 4.9
1.1.2.2 Additional OCS Support

The following additional OCS is supported:
- OCS 4.8
- OCS 4.9

1.1.2.3 Additional Kubernetes Support

The following additional Kubernetes is supported:
- Kubernetes 1.21
- Kubernetes 1.22

Support environments are as follows:
- Azure Kubernetes Service
- Amazon EKS
- Rancher Kubernetes Engine (on Linux hosts)

1.1.3 Collaboration Tools

This section explains the new features related to installation:
- Installing Operator with Helm Chart
- Additional Rancher support

1.1.3.1 Installing Operator with Helm Chart

Supports Operator installation and upgrades with Helm Chart. This makes it easy to deploy operators to your Kubernetes cluster.

1.1.3.2 Additional Rancher Support

Supports Rancher. This makes you to deploy FEP Operators on Kubernetes clusters and deploy/update various custom resources (such as FEPCluster) from the Rancher UI.
1.1.4 Operation

This section explains the new features related to operation:

- Disaster Recovery
- Server Log Monitoring
- Changing the Switchover FEPAction Interface
- Major Version Upgrad
- On-Demand Backup

1.1.4.1 Operator Support Feature Matrix

This Operator release supports deploying FEP14 and earlier release (FEP13 and FEP12) Cluster. For supported feature on each release, please refer to table below.

<table>
<thead>
<tr>
<th>Feature</th>
<th>FEP12</th>
<th>FEP13</th>
<th>FEP14</th>
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<tr>
<td>fep server</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>backup sidecar</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>restore</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>pgpool2</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>fep exporter</td>
<td>-</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>fep logging (fluentD)</td>
<td>-</td>
<td>-</td>
<td>Y</td>
</tr>
<tr>
<td>fep logging sidecar (fluentbit)</td>
<td>-</td>
<td>-</td>
<td>Y</td>
</tr>
<tr>
<td>pgBadger</td>
<td>-</td>
<td>-</td>
<td>Y</td>
</tr>
</tbody>
</table>

Y: Supported
-: Not supported

1.1.4.2 Disaster Recovery

By using OSS (pgBackRest) functionality to store backup data in object storage, data can be migrated to a database cluster in a different OCP environment. Even if it is difficult to operate in an OCP environment with a database cluster due to a disaster, it is possible to continue operating in a different OCP environment.

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

1.1.4.3 Server Log Monitoring

Adds server log monitoring to the monitoring item. You can also use pgBadger to analyze logs.

Refer to "FEP Logging" in the User's Guide for details.
1.1.4.4 Changing the Switchover FEPAction Interface

Previously, the parameter required the specification of the master POD, but this is no longer necessary.

See
Refer to "FEPAction Custom Resource Parameters" in the Reference for details.

1.1.4.5 Major Version Upgrade

You can upgrade a major version of FEP by specifying the upgrade parameters when you create the latest FEP cluster.

See
Refer to "Major Version Upgrade" in the Overview.

1.1.4.6 On-Demand Backup

On-demand backup can be taken at any time other than a preset schedule.

See
Refer to "On-Demand Backup" in the Overview.