



# EDB Postgres Replication Server

**Release Notes**

**April 1, 2016**

**EDB Postgres Replication Server 6.0 Release Notes**  
**by EnterpriseDB Corporation**  
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# 1 Introduction

With this latest release of EDB Postgres Replication Server (formerly named xDB Replication Server), EnterpriseDB continues to deliver on an innovative and low cost replication solution to support PostgreSQL and EDB Postgres Advanced Server.

The headline feature of EDB Replication Server 6.0 is the introduction of a new mechanism to replicate data out of PostgreSQL or EDB Postgres Advanced Server (hereafter referred to as Postgres) using a log based capture system. This improves performance of the replication system while minimizing complexity by removing the need for shadow tables.

## 2 EDB Replication Server 6.0 New Features

The major highlights of this release are:

- Log based replication for Postgres 9.4 or later versions:
  - Starting with version 9.4, Postgres introduced a feature called logical decoding. EDB Replication Server 6.0 takes advantage of this capability to capture database changes by inspecting the Write Ahead Log, rather than requiring triggers and shadow tables in the publication database. This new mechanism enables faster and more efficient replication, and can be enabled by end users when setting up the publication databases by choosing the “WAL Stream” option for Change-set Logging.
  - The new log-based method of replication has been fully tested and verified for multi-master replication (MMR) systems. However, the log-based method is provided for early access for single-master replication (SMR) systems, as it has not been fully tested for SMR systems and should not be used in production SMR systems.
  - See Chapter 2.2.10 of the EDB Postgres Replication Server Users Guide for more information
- Integration of Control Schema into Publication databases
  - In earlier versions of EDB Replication Server, a separate physical ‘Control Database’ was required to keep track of replication meta data and the state of the replication system. This resulted in a single point of failure and additional complexity when managing the replication system. Starting in 6.0, the Control Database has been eliminated and the information that was managed there has been migrated to a new ‘control schema’. The control schema is integrated into each publication database and is replicated amongst all publication databases to simplify the

- implementation of a highly available replication solution.
  - There is no configuration required to take advantage of this enhancement.
  - See Chapter 2.3.1.11 and 6.11 of the EDB Postgres Replication Server Users Guide for more information.
- Wild card selector for bulk Publication tables selections
  - The new wild card selector provides the capability to choose a set of tables by using pattern matching similar to the technique used by the SQL statement LIKE clause when creating or adding tables to a publication.
  - See Chapter 7.1 of the EDB Postgres Replication Server Users Guide for more information.
- Multi master replication ready sequences
  - An MMR-ready sequence is an improvement upon the typical use of standard sequences for avoiding uniqueness conflicts. They can be used to avoid uniqueness (insert/insert) conflicts on tables that do not have an inherent, unique primary key.
  - See Chapter 6.6.6 of the EDB Postgres Replication Server Users Guide for more information.
- Improved interface for DDL change replication
  - The DDL change replication feature now supports acceptance of ALTER TABLE statements by direct entry into the Alter Publication Table dialog box by copying and pasting the statement text from another source, or by typing the statements directly into the dialog box. Previously, the statements must be provided by means of a saved SQL file.
  - See Chapter 7.8 of the EDB Postgres Replication Server Users Guide for more information.
- Support for range data types
  - Publication tables containing Postgres built-in range types int4range, int8range, numrange, tsrange, tstzrange, or daterange can now be included in an SMR or MMR system as long as all of the participating database servers are version 9.2 or later.
  - See Chapter 2.4.3 of the EDB Postgres Replication Server Users Guide for more information.
- Data Validator utility
  - The Data Validator compares the rows of one or more tables within a schema of a database against the rows of the tables with the same names within a schema of another database.
  - See Chapter 9 of the EDB Postgres Replication Server Users Guide for more information.

### 3 Known Issues in EDB Replication

## Server 6.0

The following known issues are applicable to the 6.0 release on April 1, 2016. The majority will be resolved in the forthcoming 6.0.1 maintenance release:

- 1) 37260 - SLES 11/12 Exception when adding database to MMR cluster
- 2) 37237 - SLES 11/12 Service stop, restart, start scripts shows errors in log
- 3) 37331 - SMR PG to SQL Server - Snapshot issue .. Violation of UNIQUE KEY constraint .. The duplicate key value is (<NULL>) (Ticket: 508939)
- 4) 37322 - SMR PG/PPAS to Oracle/SQL Server - Support for SQL Server or Oracle as a subscription (that is, target of replication) has been deprecated in Replication Server 6.0 and will be re-added if sufficient demand is generated. Customers who use this feature in 5.x can reach out to their account manager for further discussions.
- 5) 37174 - SMR Oracle to PPAS - Subscription fails if Publication has unsupported object type
- 6) 34569 - SMR Logical PPAS to PPAS- Filter is not applied during the sync operation
- 7) 37248 - CentOS/RHEL 7 - After system restart, xdb services state (i.e. systemctl status edb-xdbpubserver) is 'inactive(dead)' when it should be 'active'.
- 8) 37223 - CLI - "-printpublist" option in command line interface is not providing publication list
- 9) 37158 - Rename-column fails with long length column name

## 4 Installers

EDB Postgres Replication Server 6.0 is packaged and delivered as a series of Interactive installers or RPM packages.

Interactive Installers can be downloaded from the EnterpriseDB web site:

<http://www.enterprisedb.com/downloads/>

RPM packages can be accessed from our yum.enterprisedb.com site in the xdb6 repository. If you don't have access, customers can contact your account representative or log a support ticket, and prospects can contact [sales@enterprisedb.com](mailto:sales@enterprisedb.com).

Please refer to Chapter 3 of the EDB Postgres Replication Server 6.0 for installation and

configuration steps.

## 5 Documentation

Installation, configuration, setup and management instructions for EDB Postgres Replication Server are available in the user documentation found here:

<http://www.enterprisedb.com/documentation>

Please note that subscription holders can also access PDF versions of the documentation by logging into the EnterpriseDB website, and visiting the customer portal at:

<http://www.enterprisedb.com/support>

## 6 Platform Support and System Requirements

EDB Postgres Replications Server 6.0 supports 64 bit Linux and Windows server platforms. This includes the following:

Interactive Installers:

RHEL / CentOS / OEL 7 & 6  
Ubuntu 14.04, Debian 7.6, 8, SLES 12 & 11  
Windows 2012 R2, 2008 R2 Server

RPM Packages:

RHEL / CentOS / OEL 7 & 6

The following are the database product versions that may be used with xDB Replication Server.

- PostgreSQL versions 9.1, 9.2, 9.3, 9.4, and 9.5
- Postgres Advanced Server versions 9.1, 9.2, 9.3, 9.4, and 9.5
- Oracle 10g Release 2 version 10.2.0.1.0 has been explicitly certified. Newer minor versions in the 10.2 line are supported as well.
- Oracle 11g Release 2 version 11.2.0.2.0 has been explicitly certified. Newer minor versions in the 11.2 line are supported as well.
- SQL Server 2005 version 9.00.1399.06 has been explicitly certified. Newer minor versions in the 9.00 line are supported as well.
- SQL Server 2008 version 10.50.1617.0 has been explicitly certified. Newer minor versions in the 10.50 line are supported as well

Please refer to Chapter 10.1 for a list of Certified and Supported Database Servers and Configurations.

## 7 How to Report Problems

To report any issues you are having please contact EnterpriseDB's technical support staff:

- Email: [support@enterprisedb.com](mailto:support@enterprisedb.com)
- Phone: +1-732-331-1320 or 1-800-235-5891 (US Only)