

EDB GlobalConnect Technology Partner

Test Environment Guide

**Contents**

[Introduction 3](#_heading=h.17dp8vu)

[Provisioning Test Resources 4](#_heading=h.3rdcrjn)

[On OpenStack 4](#_heading=h.26in1rg)

[On AWS 7](#_heading=h.4d34og8)

[On Partner Platform 8](#_heading=h.4d34og8)

[Installing Products 9](#_heading=h.3rdcrjn)

[Testing Products 11](#_heading=h.3rdcrjn)

[Appendix 13](#_heading=h.2s8eyo1)

# Introduction

This document contains information on the test environments used to conduct testing for the EDB GlobalConnect Technology partners. The platforms where test resources are deployed typically fall under the following categories:

Private (EDB) Cloud Platform Public Cloud Platform Partner Platform

(Example)

A picture containing logo

Description automatically generated A picture containing text, clipart

Description automatically generated Logo, company name

Description automatically generated

## Provisioning Test Resources

**On OpenStack**

Virtual machines (and associated resources) are provisioned using the OpenStack console. The following steps show an example of how to create a VM instance.

**NOTE:** This is for informational purposes only. VMs with pre-installed products are available for testing and should be used whenever feasible.

1. Login to the [OpenStack console (Rocky)](https://os-controller.ox.uk.enterprisedb.com/auth/login/?next=/)

Graphical user interface, application

Description automatically generated

1. On the dashboard click on Launch Instance button

Graphical user interface

Description automatically generated

1. Fill in the details for:

Flavor (hardware configuration)

Instance Boot Source: where to create the instance from

Graphical user interface, table

Description automatically generated with medium confidence

1. Create Keys (public and private) to login to the OpenStack instance. Copy and paste the contents of the public key and press import key pair button.

Graphical user interface, text, application, email

Description automatically generated

1. Click on Launch button. Now the instance is displayed in the instances list.

A computer screen capture

Description automatically generated with medium confidence

1. Assign a floating IP address which will be used to access this instance.

Graphical user interface, application

Description automatically generated

Graphical user interface, text

Description automatically generated

**On AWS**

Virtual machines (EC2 instances) are provisioned using the following methods:

* AWS console
* tpaexec utility (specific to EDB products)

**NOTE:** Once testing is completed, all provisioned resources should be released to avoid unnecessary charges.

**Using AWS Console**

1. Login to the [AWS console](https://275761063523.signin.aws.amazon.com/console)

Graphical user interface, application

Description automatically generated

1. Create EC2 instances by following the [AWS documentation](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EC2_GetStarted.html).

**Using** tpaexec **Utility**

EC2 instances can be provisioned in order to deploy certain EDB products, such as BDR, using the

tpaexec utility.

1. Install and configure the AWS CLI on a client machine to access the AWS environment by following the [AWS documentation](https://docs.aws.amazon.com/cli/latest/userguide/install-cliv2.html).
2. Install the tpaexec utility on the client machine using the [TPAexec Installation Guide](https://documentation.2ndquadrant.com/tpa/snapshot/20.11.43-2/INSTALL/).
3. Provision the test resources:

tpaexec provision <config-file>

See [sample config-file](https://drive.google.com/file/d/1RZjHrQkl-yh5vdbcxxQxyYQd7U_i0XdK/view?usp=sharing) for provisioning resources for BDR-Always-ON architecture using tpaexec.

For detailed information on how to use the tpaexec utility to provision resources on AWS, refer to the [TPAexec documentation](https://documentation.2ndquadrant.com/tpa/release/21.3-1/).

**NOTE:** All TPAexec related documentation requires EDB access credentials.

**On Partner Platform**

Test resources on a partner platform are deployed per specific instructions for the platform, e.g., Nutanix.

## Installing Products

The following is the list of EDB products that may need to be installed for testing (list may grow). The products selected for testing vary according to the requirements of the partner.

* [EDB Postgres Advanced (EPAS)](https://www.enterprisedb.com/docs/epas/latest/epas_guide/)
* [EDB Postgres Enterprise Manager (PEM)](https://www.enterprisedb.com/docs/pem/latest/)
* [EDB Failover Manager (EFM)](https://www.enterprisedb.com/docs/efm/latest/)
* [EDB Backup Recovery Manager (barman)](https://www.enterprisedb.com/docs/supported-open-source/barman/)
* [EDB Bi-Directional Replication (BDR)](https://www.enterprisedb.com/docs/bdr/latest/)

Additionally, the following non-EDB products may need to be installed for testing depending on the partner:

* Partner Product
* [Community Postgres](https://www.postgresql.org/docs/)

**On OpenStack**

Follow these installation steps:

1. Copy ssh [key](https://drive.google.com/file/d/1yRPHh9z7E8AvESJU7NRhE3cncuFcNJN_/view?usp=sharing) (tpp-test.pem)to the client machine
2. Set appropriate permissions on the key file

chmod 600 ./tpp-test.pem

1. Access the (CentOS7) VM via a ssh session using the provided [key](https://drive.google.com/file/d/1yRPHh9z7E8AvESJU7NRhE3cncuFcNJN_/view?usp=sharing) (tpp-test.pem):

ssh -i ./tpp-test.pem centos@<host-address>

1. Install the product per the documentation provided above.

**NOTE:** This is for informational purposes only. VMs with pre-installed products are available for testing and should be used whenever feasible. Details provided in the [Appendix](#_heading=h.2s8eyo1) section.

**On AWS**

There are a few different installation methods depending on the product:

1. Manual installation by accessing the EC2 instance via ssh. Refer to the [AWS documentation](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AccessingInstancesLinux.html) on how to access EC2 instances via ssh.
2. Install using the tpaexec utility (for EDB products only). Ensure the required test resources are already provisioned as outlined in the previous section.

tpaexec deploy <config-file>

See [sample config-file](https://drive.google.com/file/d/1RZjHrQkl-yh5vdbcxxQxyYQd7U_i0XdK/view?usp=sharing) for deploying BDR-Always-ON architecture using tpaexec.

For detailed information on how to use the tpaexec utility to deploy products on AWS, refer to the [TPAexec documentation](https://documentation.2ndquadrant.com/tpa/release/21.3-1/).

**NOTE:** All TPAexec related documentation requires EDB access credentials.

1. Install using provided AMI by following the [AWS documentation](https://aws.amazon.com/premiumsupport/knowledge-center/launch-instance-custom-ami/).

**On Partner Platform**

Details provided by partner.

## Testing Products

Specific EDB products are tested with the partner product per the requirements provided by the partner. The baseline tests for the products are listed in the [test spreadsheet](https://drive.google.com/file/d/1bxix-SROlecXawjJXULGXLvSMGTb8hWC/view?usp=sharing). Testing of additional features may be needed depending on the partner requirements.

**Sample Test Deployments**

**EDB Postgres Advanced and Tools**

The following diagram shows EDB Postgres Advanced and associated tools deployed in a test environment:

Diagram

Description automatically generated

**EDB Postgres Extended with BDR-Always-ON**

The following diagram shows the BDR-Always-ON architecture. For more details, refer to the BDR-Always-ON [Architecture](https://documentation.2ndquadrant.com/tpa/release/21.1-1/architecture-BDR-Always-ON/) documentation.

**NOTE:** The documentation requires EDB access credentials.

Diagram

Description automatically generated

# Appendix

**Pre-Deployed VMs On OpenStack**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EDB Product** | **Version** | **Host/Console Address** | **Operating System** | **Credentials** |
| EDB Postgres Advanced | 13 | 172.16.209.175 | CentOS7 | Provided via [key](https://drive.google.com/file/d/1yRPHh9z7E8AvESJU7NRhE3cncuFcNJN_/view?usp=sharing) |
| EDB Postgres Advanced Cluster | 13 | 172.16.208.175 (master)  172.16.209.173  172.16.209.195 | CentOS7 | Provided via [key](https://drive.google.com/file/d/1yRPHh9z7E8AvESJU7NRhE3cncuFcNJN_/view?usp=sharing) |
| EDB Failover Manager | 4.1 | 172.16.208.175 (master)  172.16.209.173  172.16.209.195 | CentOS7 | Provided via [key](https://drive.google.com/file/d/1yRPHh9z7E8AvESJU7NRhE3cncuFcNJN_/view?usp=sharing) |
| EDB Postgres Enterprise Manager | 8 | <https://172.16.208.125:8443/pem> | CentOS7 | See [PEM test doc](https://drive.google.com/file/d/19zmxyxLwyhGFUnC9R4Mveot9fuadMhxc/view?usp=sharing) |
| EDB Backup and Recovery Manager | 2.12 | 172.16.209.134 | CentOS7 | Provided via [key](https://drive.google.com/file/d/1yRPHh9z7E8AvESJU7NRhE3cncuFcNJN_/view?usp=sharing) |

**NOTE:** All passwords are set to the value ‘postgres’.

**Example Partner Test Environments**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Partner** | **Test Platform** |  | **Products Installed** | **Operating System** |
| Nutanix | Nutanix |  | EPAS EFM PEM barman | CentOS7 |
| Thales | AWS |  | EPAS BDR (Always-ON architecture) CipherTrust Manager (Partner Product) | CentOS7 |
| Liquibase | OpenStack |  | EPAS Liquibase Pro (Partner Product) | CentOS7 |
| Swarm64 | AWS (Partner) |  | Pre-installed by Partner (validation only) | CentOS7 |