Dell EMC OpenStack Data Protection Extension

Version 19.2

Release Notes

302-005-844
REV 01
November 2019

These release notes contain supplemental information about Dell EMC OpenStack Data Protection Extension (OpenStack DPE).

- Revision history 2
- About the OpenStack DPE 2
- New features in this release 2

Revision history

The following table presents the revision history of this document.

Revision history

Table 1 Revision history

Revision	Date	Description
01	November 15, 2019	GA release of Avamar 19.2

About the OpenStack DPE

The OpenStack DPE allows backup administrators to manage backup and restore operations for projects in an OpenStack cloud infrastructure. An OpenStack administrator who has access rights to back up and restore the projects and associated instances performs the role of backup administrator. The backup administrator can manage the protection provider (currently an Avamar server), all projects that are protected by the protection providers, and configure backup policies for scheduling backups of a particular project. The backup administrator also manages the backup proxies that are deployed in the OpenStack cloud and are used to perform backup and restore operations.

The OpenStack DPE provides project administrators the ability to manage instances they want to be protected, and browse the backup inventory of a protected instance. The project administrator can then select a backup and restore it to replace the original instance, or restore it to a new location. Progress of the backup or restore operation can be monitored. Project administrators can also add instances to a backup policy created by the backup administrator for scheduled backups. Backups can use Changed Block Tracking (CBT) to enhance backup performance.

Graphically or with the OpenStack DPE REST API, backup administrators can create interfaces to authenticate with OpenStack, create projects, instances, and policies, and perform backups and recoveries. Support for multiple domains allows the OpenStack DPE to back up tenant projects.

OpenStack DPE 19.2 and later supports OpenStack clouds deployed with Kolla.

New features in this release

This is the fourth release of the OpenStack DPE.

Additional platform and operating system support

This release adds support for the OpenStack Queens platform, deployed with Kolla. Supported operating systems include Red Hat 7.6 and 7.7, CentOS 7.6 and 7.7, and Ubuntu 16.04 LTS. OpenStack DPE 19.2 discontinues support for the OpenStack Newton and Ocata platforms.

Installation on compute nodes

This release enables users to install the OpenStack DPE service on either a controller node or a compute node. Previous releases required installation on controller nodes.

OpenStack Horizon integration

OpenStack DPE 19.2 provides integration with the OpenStack Horizon user interface container service.

Components of the OpenStack DPE product

The following table lists the components of the OpenStack DPE product.

Table 2 Components of the OpenStack DPE product

Component	Description
Avamar server	Also referred to as the Protection Provider.
Data Domain	Provides scalable storage for backups, with features including source data deduplication.
OpenStack DPE API	Management API for OpenStack DPE, provided as a qcow2 image. Includes the following: • API reference documentation via the Swagger UI. • OpenStack DPE file-level restore (FLR) module, which provides FLR capability and a web interface.
OpenStack DPE UI	OpenStack Horizon management plug-in for graphical management of OpenStack DPE.
OpenStack DPE proxy (`dpe-avamar-proxy`)	An Avamar proxy or worker, provided as a qcow2 image and registered to the Avamar server.
OpenStack DPE service (`dpe-proxy-service`)	Integrates with OpenStack controller or compute nodes to provide the ability to clone, attach, and detach Cinder volumes for backup. Provided as an RPM package for RHEL distributions and as a DEB package for Ubuntu.
CBT driver (`dpe-cbt-driver`) and agent (`dpe-cbt-agent`)	Provides the ability to complete incremental backups of changed data since the last full backup.
Avamar REST API	The Avamar REST API provides middleware services between the OpenStack DPE API and the Avamar server. These services provide the interface to the Avamar server.

Resource requirements

The following components should meet these resource requirements:

Table 3 Resources requirements for components of the OpenStack DPE system

Component	Virtual CPUs	Virtual disk size	Virtual RAM
OpenStack DPE proxy	2	16 GB	2 GB
OpenStack DPE API	2	16 GB	6 GB[a]
Avamar REST API	2	4 GB	6 GB[a]

a. Additional RAM may provide greater performance in high-demand environments.

Avamar prerequisites

The following Avamar prerequisites apply to installations of OpenStack DPE:

- An Avamar server that is installed and running Avamar 19.2 or later.
- Data Domain can be used as back-end storage and must be configured within the Avamar Administrator GUI.
- The Data Domain must run a version of DDOS that is supported by the Avamar server.

Only one protection provider is supported per OpenStack installation.

OpenStack Data Protection Extension Compatibility

You can find information related to the latest information regarding OpenStack DPE compatibility with Avamar in the *E-LAB Navigator* at https://elabnavigator.emc.com/eln/elnhome.

Documentation

This section describes the documentation and information products that are available with the OpenStack DPE.

The following publications, available at https://support.emc.com, include:

- *OpenStack Data Protection Extension Installation and User Guide*
- *OpenStack Data Protection Extension REST API Getting Started Guide*
- *Avamar Administration Guide*

Copyright © 2016-2019 Dell Inc. or its subsidiaries. All rights reserved.

Dell believes the information in this publication is accurate as of its publication date. The information is subject to change without notice.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS-IS." DELL MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. USE, COPYING, AND DISTRIBUTION OF ANY DELL SOFTWARE DESCRIBED IN THIS PUBLICATION REQUIRES AN APPLICABLE SOFTWARE LICENSE.

Dell Technologies, Dell, EMC, Dell EMC and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be the property of their respective owners. Published in the USA.