

PowerProtect Data Manager 19.15 Compatibility

November 21, 2023

Contents

DEPLOYMENT	2
BACKUP TARGET.....	3
LANGUAGE SUPPORT	3
VMWARE.....	4
SQL.....	7
EXCHANGE.....	7
ORACLE.....	8
SAP HANA.....	9
STORAGE ARRAYS VIA REST API	9
DYNAMIC NAS	10
FILE SYSTEMS.....	10
POWERPROTECT DATA MANAGER IN CLOUD MARKETPLACES.....	13
CLOUD DISASTER RECOVERY.....	14
KUBERNETES.....	16
SUPPORTASSIST.....	17
SYSLOG FORWARDING	17

DEPLOYMENT

Platform	Platform Version	Comments
Operating System	SUSE Linux Enterprise Server (SLES) 15 SP4	Installed for both upgrade and new-installation scenarios.
VMware vCenter/ESXi	6.7 U3, 7.0, 7.0 U1, 7.0 U2, 7.0 U3, 8.0, 8.0 U1	ESXi 6.7+ required.
Amazon Web Services (AWS)	AWS instance type: m5-2xlarge (8 vCPUs, 32GB memory)	Subscribe via AWS Marketplace. Delivered via CloudFormation template, which also optionally deploys PowerProtect DD Virtual Edition 7.12.0.0.
Azure	Azure VM size: Standard D8s v3 (8 vCPUs, 32GB memory)	Subscribe via Azure Marketplace. Delivered via Azure Resource Manager (ARM) template, which also optionally deploys PowerProtect DD Virtual Edition 7.12.0.0.
Google Cloud Platform (GCP)	GCP VM size: Customized (8 vCPUs, 32GB memory)	Subscribe via GCP Marketplace. Delivered via Deployment Manager (DM) template, which also optionally deploys PowerProtect DD Virtual Edition 7.12.0.0.
VMware Cloud (VMC) on AWS	SDDC 1.20, 1.22	Supported when deployed to a VMC on AWS vCenter or to the AWS native cloud.
VMware Cloud on Dell	SDDC 1.20, 1.22	Supported when deployed to a VMC on Dell vCenter.
Azure VMware Solutions (AVS)		For deployments in AVS, software is available from Dell Technologies (not the Marketplace). Subscribe via Azure Marketplace for DDVE deployment. Supported when deployed to an AVS vCenter or to the Azure native cloud
Google Cloud VMware Engine (GCVE)		For deployments in GCVE, software is available from Dell Technologies (not the Marketplace). Subscribe via GCP Marketplace for DDVE deployment. Supported when deployed to a GCVE vCenter or to the GCP native cloud.
Oracle Cloud VMware Solution (OCVS)		For deployments in OCVS, software is available from Dell Technologies (not the Marketplace).
Web browser	Google Chrome Microsoft Edge	The latest version of the Google Chrome or Microsoft Edge browser to access the PowerProtect Data Manager UI.

Notes:

- Supported datastores: vVols, vSAN, VMFS, and NFS.
- Includes VMware Cloud Foundation (VCF) versions that contain supported vCenter/vSphere versions.
- When deploying to a VMC on AWS, VMC on Dell, AVS, or GCVE vCenter, deploy PowerProtect Data Manager from the OVA and use the deployment wizard to select the corresponding configuration for this VMC environment.
- PowerProtect Data Manager only supports in-cloud VM image protection in the respective environments. Protection from in-cloud to on-premises environments, or from on-premises to in-cloud environments, is not supported.

BACKUP TARGET

Data Domain (Physical & Virtual)

DDOS / DDMC / DDVE	6.2.1, 7.0, 7.1.0, 7.2.0, 7.3.0, 7.4.0, 7.5.0, 7.6.0, 7.7.x, 7.8.0, 7.9.0, 7.10.x, 7.11.0, 7.12.0, 7.13.0	DDVE 4.0 corresponds to DDOS 6.2.
--------------------	---	-----------------------------------

Storage Units

PowerProtect DD System Model	Maximum Number of Storage Units	Configurable Concurrently Active Storage Units
9800, 9900	256	256
6800, 6900, 9300, 9400	128	128
All other supported DD systems	100	32, based on the model
PowerProtect DD Virtual Edition (DDVE)		
4, 6, 8 TB	100	6
32, 48 TB	100	14
64, 96 TB	100	32

Notes:

- Review the Data Domain Cloud Tier Support documentation for a list of supported cloud providers.
- DDBoost library packaged in PowerProtect Data Manager OVA: 7.13.0.0-1072298.

LANGUAGE SUPPORT

Supported Asset Languages

	Operating System Languages	Notes
Full Support	English	
Conditional Support	Simplified Chinese French German Italian ¹ Japanese Korean	Protection of data in these language environments must observe the following considerations: <ul style="list-style-type: none"> Application agents must be installed to the default location. Names of assets such as files, folders, and databases can use characters in any supported language. Hostnames, fully qualified domain names, and cluster names can only use the ASCII characters A-Z, a-z, 0-9, and hyphen. The operating systems of the backup source and restore destination must use the same locale.

Notes:

- PowerProtect Data Manager and its user interface support only the ASCII characters A-Z, a-z, 0-9, and hyphen in the following functions:
 - APIs.
 - Character string input and output.
 - Configuration settings.
 - Exported logs.
 - Headings and fields.
 - Informational and error messages.
 - Local time and date formats.
 - Sorting, searching, and filtering.
- For VMware virtual machines, Italian language support requires vSphere 8.0 and above.

VMWARE

Platform

Platform	Platform Version	Comments
vCenter	6.7 U3, 7.0, 7.0 U1, 7.0 U2, 7.0 U3, 8.0, 8.0 U1	Includes patch releases, for example: 7.0 U1d, 7.0 U3c.
VMC on AWS	SDDC 1.20, 1.22	Includes odd numbered optional releases.
VMC on Dell	SDDC 1.20, 1.22	Includes odd numbered optional releases.
Azure VMware Solutions (AVS)		
Google Cloud VMware Engine (GCVE)		
Oracle Cloud VMware Solutions (OCVS)		

Notes:

- Supported datastores: vVol, vSAN, VMFS, NFS.
- Supported vSAN topologies: Standard Cluster, Stretched Cluster, Two-node Cluster, HCI Mesh.
- vSAN Express Storage Architecture (ESA) is currently not supported.
- PowerProtect Data Manager supports in-cloud VM image protection in the respective environments. Protection from in-cloud to on-premises environments, or from on-premises to in-cloud environments, is not supported.
- VMware has declared End of General Support for vCenter 6.7. VMware fixes for these products are no longer provided (<https://lifecycle.vmware.com/>).

Hypervisor

Platform	Platform Version	Comments
ESXi	6.7 U3, 7.0, 7.0 U1, 7.0 U2, 7.0 U3, 8.0, 8.0 U1	Includes patch releases, for example: 7.0u1d, 7.0u3c.

Notes:

- VMware has declared End of General Support for ESXi 6.5 and 6.7. VMware fixes for these products are no longer provided (<https://lifecycle.vmware.com/>).

Management (vSphere Plugin)

Platform	Platform Version	Comments
vCenter	6.7 U3, 7.0, 7.0 U1, 7.0 U2, 7.0 U3, 8.0, 8.0 U1	7.0 supported with Classic View.

Virtual Machines

Platform	Platform Version	Comments
VMware Tools	10.x, 11.x, 12.x	Version 11.1 and later is required to perform Microsoft SQL Server application-aware protection.
Open VM Tools	10.x, 11.x, 12.x	For Linux platforms.

Notes:

- All virtual machine operating systems supported by VMware.

Transparent Snapshot Data Mover (TSDM)

Supported Features & Products	Platform Version	Comments
VMware Virtual Volumes (vVols)	vSphere 7.0 U3d (and above)	
CyberSense		https://www.indexengines.com/cs
VMware Cloud Foundation (VCF)	4.4 (and above)	Bill of Materials (BOM) contains vSphere 7.0 U3c
Oracle Cloud VMware Solution (OCVS)	vSphere 7.0 U3d (and above)	
Microsoft SQL Application Aware Protection	vSphere 7.0 U3c (and above)	VM Application Aware Backup – SQL provides supported versions.

vRealize Data Protection Extension

Platform	Platform Version	Comments
VMware vRealize Automation with Embedded vRealize Orchestrator	8.10.x, 8.11.x	Includes standalone and cluster deployments.
VMware Aria Automation with Embedded Aria Orchestrator	8.12.x, 8.13.x	Includes standalone and cluster deployments.

VCF (on VxRail) Management Protection

Platform	Platform Version	Comments
VMware Cloud Foundation	4.4.x, 4.5.x, 5.0	

- Notes:
- Includes VCF on vSAN Ready Nodes and VCF on VxRail.
 - Configure protection for VCF management components with the `ppdm-vcf-component-protection.sh` script that you obtain through the UI by clicking  > **Downloads > VMware** and then selecting **VMware Cloud Formation (VCF) on VxRail**.

VMware Telco Cloud Platform

Platform	Platform Version	Comments
Telco Cloud Platform (TCP)	2.5	VMware Tanzu Kubernetes Grid (TKG) 1.5.x. ESXi and vCenter 7.0 U3 (including patch releases)
	2.7	VMware Tanzu Kubernetes Grid 1.6.x. ESXi and vCenter 7.0 U3 (including patch releases)
	3.0	VMware Tanzu Kubernetes Grid 2.1.x. ESXi and vCenter 8.0 (including patch releases)

- Notes:
- For TCP components that require file-level protection, refer to the *File Systems* table on page 10 for supported file and operating systems.
 - For TKGm workload clusters, refer to the *Kubernetes* table on page 16 for supported distributions.
 - For more information, refer to the *Dell Technologies PowerProtect Data Manager for VMware Telco Cloud Platform Solution Brief* and the [VMware Telco Cloud Platform Release Notes](#).

VM Application Aware Backup – SQL

Platform	Platform Version	Comments
VMware vSphere (ESXi and vCenter)	6.7 U3, 7.0, 7.0 U1, 7.0 U2, 7.0 U3, 8.0, 8.0 U1	SQL TSDM supports VMware vSphere 7.0 U3c (and above)
Microsoft SQL Server Version	MS SQL Server Bitness	Windows OS Version [Hardware architecture-64 bit]
2014 Service Pack 3 (supported up to CU4)	32-bit, 64-bit	2012, 2012 R2, 2016
2016 Service Pack 3	64-bit	2012, 2012 R2, 2016, 2019
2017 (supported up to CU31)	64-bit	2012, 2012 R2, 2016, 2019, 2022
2019 (supported up to CU22)	64-bit	2016, 2019, 2022
2022 CU4 and above only	64-bit	2016, 2019, 2022

- Notes:
- Clustered and cluster-less AAG Quorum supports file share witness only.
 - VMs with multi-writer/shared disks are not supported.
 - VMware Tools: 11.x and later. Clustered AAG for pure IPv6 requires VMware Tools 12.x.

VM File Level Recovery

Operating System	Hardware Architecture	OS Vendor	Filesystems	Search and Indexing
Windows 10	64-bit	Microsoft	NTFS	Yes
Windows 11	64-bit	Microsoft	NTFS	Yes
Windows 2012	64-bit	Microsoft	NTFS, FAT32, ReFS	Yes ²
Windows 2012 R2 ¹	64-bit	Microsoft	NTFS	Yes
Windows 2016	64-bit	Microsoft	NTFS	Yes
Windows 2019	64-bit	Microsoft	NTFS, FAT32, Dynamic	Yes
Windows 2022	64-bit	Microsoft	NTFS, ReFS, Dynamic	Yes ²
CentOS 7.1, 7.4, 7.6, 7.8	X64	CentOS	XFS	Yes
CentOS 7.9	X64	CentOS	XFS, BTRFS ³ , EXT4	Yes
CentOS 8 Stream	X64	CentOS	XFS	Yes
CentOS 9 Stream	X64	CentOS	XFS, EXT4	Yes
Red Hat Enterprise Linux (RHEL) 7.4 – 7.8	X64	Red Hat	XFS, EXT2/3/4	Yes
RHEL 7.9	X64	Red Hat	XFS, EXT4, BTRFS ³	Yes
RHEL 8.1 – 8.5	X64	Red Hat	XFS, EXT2/3/4	Yes
RHEL 8.6 – 8.8	X64	Red Hat	XFS, EXT4	Yes
RHEL 9 – 9.2	X64	Red Hat	XFS, EXT4	Yes
SUSE Linux Enterprise Server (SLES) 12 SP5	X64	SUSE	XFS, EXT4	Yes
SLES 15 SP3	X64	SUSE	XFS	Yes
SLES 15 SP4	X64	SUSE	XFS, EXT4, BTRFS ³	Yes
Ubuntu 14.04, 16.04, 18.04, 20.04 Server	X64	Canonical	EXT4, XFS	Yes
Ubuntu 22.04 Server & Desktop	X64	Canonical	EXT4, XFS	Yes
Debian 10.13	X64	Debian	EXT4	Yes
Debian 11.3 – 11.7	X64	Debian	EXT4	Yes
Debian 12.0 – 12.1	X64	Debian	EXT4	Yes
Oracle Linux 7.7	X64	Oracle	XFS, EXT4	Yes
Oracle Linux 7.9	X64	Oracle	XFS, EXT4, BTRFS ³	Yes
Oracle Linux 8.3 – 8.4	X64	Oracle	XFS, BTRFS ³	Yes
Oracle Linux 8.5 – 8.8	X64	Oracle	XFS, EXT4, BTRFS ³	Yes
Oracle Linux 9.0 – 9.2	X64	Oracle	XFS, EXT4	Yes
OpenSUSE Leap 15.4	X64	openSUSE	EXT4, BTRFS ³	Yes
Fedora Linux 37 – 38	X64	Fedora	XFS	Yes
Rocky Linux 8.6 – 8.8, 9.0 – 9.2	X64	Rocky	EXT4, XFS	-

Notes:

- Indexing of LVM thin-pool logical volumes is not supported.
 - PowerProtect Data Manager does not support file-level restore to a target VM that is protected using Site Recovery Manager (SRM) or vSphere Replication (VR).
 - The target VM for the restore should support the same filesystem type, version, and options as the source backup. For example, the versions of `xfsplogs` on the target and source VMs must be compatible.
1. Includes Extended Security Update (ESU) from Microsoft (<https://docs.microsoft.com/en-US/lifecycle/faq/extended-security-updates>).
 2. Indexing of ReFS is not supported.
 3. Restore of files from BTRFS sub-volumes is not supported, only image-level recovery.

SQL

Microsoft SQL Server Version	Server Bitness	Microsoft App Agent Version	OS	Hardware Architecture	OS Vendor	OS Vendor Version
2014 SP3 Supported up to CU4	32-bit, 64-bit	19.11, 19.12, 19.13, 19.14, 19.15	Windows	X64	Microsoft	2012, 2012 R2, 2016, 2019
2016 SP3 (along with latest CUs)	64-bit	19.11, 19.12, 19.13, 19.14, 19.15	Windows	X64	Microsoft	2012, 2012 R2, 2016, 2019
SQL Server 2017 CU31 (latest)	64-bit	19.11, 19.12, 19.13, 19.14, 19.15	Windows	X64	Microsoft	2012, 2012 R2, 2016, 2019, 2022
SQL Server 2019 CU22 (latest)	64-bit	19.11, 19.12, 19.13, 19.14, 19.15	Windows	X64	Microsoft	2016, 2019, 2022
SQL Server 2022 CU 8	64-bit	19.11, 19.12, 19.13, 19.14, 19.15	Windows	X64	Microsoft	2016, 2019, 2022

Notes:

- Application Agent for MS SQL supports:
 - MS SQL clustering for AAG and FCI configurations.
 - MS SQL clusterless AAG configurations.
 - All combinations of OS and application versions in this table, provided that the OS is supported by the application.
 - All file systems shown in the table, provided that these file systems are supported by the application.
 - All Windows Server editions and all Service Packs (SP) for a given release, provided that the combination is supported by the application.
 - All SQL server, editions such as Standard, Enterprise, Express, Workgroup, and Web that are supported by the application release.
 - SSMS 2012 through 19.x versions in SQL Servers based on Microsoft compatibility.

EXCHANGE

Microsoft Exchange Version	Server Bitness	Microsoft App Agent Version	OS	Hardware Architecture	OS Vendor	OS Vendor Version
2013	64-bit	19.5, 19.6, 19.7, 19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Windows	X64	Microsoft	2012, 2012 R2
2016	64-bit	19.5, 19.6, 19.7, 19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Windows	X64	Microsoft	2012, 2012 R2, 2016
2019	64-bit	19.5, 19.6, 19.7, 19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Windows	X64	Microsoft	2019, 2022

Notes:

- Application Agent for Exchange supports:
 - All combinations of OS and application versions in the table, provided that the OS is supported by the application.
 - All virtualization environments (such as VMware) at the guest level, provided that the application and database app agent running on this guest OS natively support this OS.
 - All Cumulative Updates (CU) and Update Rollups (UR) for the application versions listed in this table unless explicitly stated otherwise.
- PowerProtect Data Manager for Exchange 19.13 and later supports Exchange 2019 on Windows Server Core Edition 2019 and 2022.
- PowerProtect Data Manager for Exchange only supports Windows Server 2022 from Exchange 2019 CU11 and above.
- Because Outlook cannot be installed on Windows Server Core Editions, ItemPoint is not supported directly on Windows Server Core Edition. Instead, use the proxy server method for ItemPoint operations.
- Co-existence of the Exchange agent is supported only with the File System agent.
- Installing ItemPoint for Granular-Level Recovery requires 32-bit Outlook.

ORACLE

Oracle Version	Oracle Bitness	RMAN App Agent Version	OS	Hardware Architecture	OS Distribution	OS Vendor Version
11g R2	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	RHEL	7
11g R2	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	Oracle Linux	7
11g R2	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	SLES	12
11g R2	64-bit	19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	IBM AIX	X64	AIX	7.1, 7.2
12c R1	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	RHEL	7
12c R1	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	Oracle Linux	7
12c R1	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	SLES	12
12c R1	64-bit	19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	IBM AIX	X64	AIX	7.1, 7.2
12c R2	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	RHEL	7
12c R2	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	Oracle Linux	7
12c R2	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	SLES	12
12c R2	64-bit	19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	IBM AIX	X64	AIX	7.1, 7.2
18c	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	RHEL	7
18c	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	Oracle Linux	7
18c	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	SLES	12
18c	64-bit	19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	IBM AIX	X64	AIX	7.1, 7.2
19c	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	RHEL	7, 8
19c	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	Oracle Linux	7, 8
19c	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	SLES	12, 15
19c	64-bit	19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	IBM AIX	X64	AIX	7.1, 7.2, 7.3
21c	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	SLES	15
21c	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	Oracle Linux	7, 8
21c	64-bit	19.8, 19.9, 19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	RHEL	8

Notes:

- PowerProtect Data Manager for Oracle supports:
 - Oracle Server when installed and configured on one of the following systems:
 - Stand-alone configuration.
 - Oracle RAC in active/active configuration.
 - Oracle RAC in active/passive configuration.
 - Data Guard configuration.
 - Oracle RAC on all Cluster File Systems supported by Oracle.
 - All combinations of OS and application versions in the table, provided that the OS is supported by the application.
 - All Fix Packs/Patch Sets for all application versions in this table.
 - All Service Packs, Updates, Patches, etc. of all Oss listed in this table, provided that the update is supported by the application (for example, stated support for Oracle Linux 7 also implies support for Oracle Linux 7 Update 5).
 - Raw devices and all file systems shown in the table, provided that these file systems are supported by the application.
 - All virtualization environments (such as VMware, LPAR) at the guest level, provided that the application and database app agent running on this guest OS natively support this OS.
 - Oracle Incremental Merge (OIM), but only on the Linux platform.
 - Oracle database single-node appliance X7 and X8 models.
- PowerProtect Data Manager for Oracle on AIX supports AIX 7.1 TL5 SP4 or later, and AIX 7.2 TL2 SP1 or later.
- PowerProtect Data Manager for Oracle does not support:
 - An Oracle database installation in a High Availability (active/passive) OS cluster configuration.

SAP HANA

SAP HANA Version	SAP HANA Bitness	DB App Agent Version	OS	Hardware Architecture	OS Distribution	OS Vendor Version
1.x	64-bit	19.8, 19.9, 19.10, 19.11, 19.12	Linux	X64	Red Hat Enterprise Linux	6, 7, 8
1.x	64-bit	19.8, 19.9, 19.10, 19.11, 19.12	Linux	X64	SLES	11, 12, 15
2.x	64-bit	19.9, 19.10, 19.11, 19.12, 19.13	Linux	X64	Red Hat Enterprise Linux	6
2.x	64-bit	19.9, 19.10, 19.11, 19.12, 19.13	Linux	X64	SLES	11
2.x	64-bit	19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	Red Hat Enterprise Linux	7, 8, 9
2.x	64-bit	19.10, 19.11, 19.12, 19.13, 19.14, 19.15	Linux	X64	SLES	12, 15

Notes:

- Application Agent for SAP Hana supports:
 - All combinations of OS and application versions in the table, provided that the OS is supported by the application.
 - All Fix Packs/Patch Sets for all application versions in this table.
 - All Service Packs, Updates, Patches, etc. of all OSs listed in this table, provided that the update is supported by the application.
 - Raw devices and all file systems shown in the table, provided that these file systems are supported by the application.
 - All virtualization environments (such as VMware) at the guest level, provided that the application and database app agent running on this guest OS natively support this OS.

STORAGE ARRAYS VIA REST API

Storage Array Model	Storage Array Operating System Version	Vendor
PowerStore 500T, 1000T, 1200T, 3000T, 3200T, 5000T, 5200T, 7000T, 9200T	3.5.0.x 3.6.0.x	Dell

Notes:

- This table applies for protection of block volume and volume group data. For protection of PowerStore NAS shares, refer to the Dynamic NAS table on page 10.
- The PowerStore appliance communicates with PowerProtect DD over IP (DD Boost). Storage array protection supports physical PowerProtect DD appliances, including HA models, as well as DDVE on-premises and in a public AWS, GCP, and Azure cloud.
- Block volume protection policies do not support PowerStore Metro volumes.
- If a volume or volume group is already part of a PowerStore Manager protection policy, the volume or volume group cannot be protected by PowerProtect Data Manager, and conversely.
- A PowerProtect DD storage unit that is configured as a remote system for a PowerStore Manager protection policy cannot be shared with a PowerProtect Data Manager protection policy, and conversely.
- There is no specific hard limit on the number of PowerStore clusters or appliances that can be managed by a single instance of PowerProtect Data Manager. However, other PowerProtect Data Manager limitations may impose such limits.

DYNAMIC NAS

Storage Array	Storage Vendor	Supported Protocols
Unity 4.5, 5.0.x, 5.1.x, 5.2.x	Dell	Share options: CIFSv3, NFSv3, NFSv4.
PowerStore 1.0.0.0, 1.0.4.0, 2.0.0.0, 2.1.1.0, 3.0, 3.2, 3.5	Dell	Share options: CIFSv3, NFSv3, NFSv4.
PowerScale OneFS 9.0, 9.1, 9.2, 9.2.1, 9.3, 9.4.0.13, 9.5.0.5	Dell	Share options: CIFSv3, NFSv3, NFSv4.
Generic NAS protection workflow	*	Share options: CIFSv3, NFSv3, NFSv4.

Notes:

- The generic NAS protection workflow involves backing up a live mount of the target share, without taking a snapshot.
- The generic NAS protection workflow supports all NAS appliances and file servers.
- The release schedule of each storage array in this table may differ from that of PowerProtect Data Manager. Contact [Customer Support](#) before you deploy a storage array release that is not listed in this table.

FILE SYSTEMS

Operating System	Hardware Architecture	OS Vendor	Feature Options	Search and Indexing
Windows 2022	64-bit	Microsoft	Filesystem: NTFS, ReFS.	Filesystem: NTFS.
Windows 2012/2012R2	64-bit	Microsoft	Filesystem: NTFS, ReFS.	Filesystem: NTFS.
Windows 2016	64-bit	Microsoft	Filesystem: NTFS, ReFS.	Filesystem: NTFS.
Windows 2019	64-bit	Microsoft	Filesystem: NTFS, ReFS.	Filesystem: NTFS.
Windows 10	64-bit	Microsoft	Filesystem: NTFS.	Filesystem: NTFS.
Windows 11	64-bit	Microsoft	Filesystem: NTFS.	Filesystem: NTFS.
RHEL 7.0	X64	Red Hat	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 3.10.0-123.	Filesystem: ext3, ext4. Kernel version: 3.10.0-123.
RHEL 7.1	X64	Red Hat	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 3.10.0-229.	Filesystem: ext3, ext4. Kernel version: 3.10.0-229.
RHEL 7.2	X64	Red Hat	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 3.10.0-327.	Filesystem: ext3, ext4. Kernel version: 3.10.0-327.
RHEL 7.3	X64	Red Hat	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 3.10.0-514.	Filesystem: ext3, ext4. Kernel version: 3.10.0-514.
RHEL 7.4	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 3.10.0-693.	Filesystem: ext3, ext4. Kernel version: 3.10.0-693.
RHEL 7.5	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 3.10.0-862.	Filesystem: ext3, ext4. Kernel version: 3.10.0-862.
RHEL 7.6	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 3.10.0-957.	Filesystem: ext3, ext4. Kernel version: 3.10.0-957.
RHEL 7.7	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 3.10.0-1062.	Filesystem: ext3, ext4. Kernel version: 3.10.0-1062.
RHEL 7.8	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 3.10.0-1127.	Filesystem: ext3, ext4. Kernel version: 3.10.0-1127.
RHEL 7.9	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 3.10.0-1160.	Filesystem: ext3, ext4. Kernel version: 3.10.0-1160.
RHEL 8.0	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 4.18.0-80.	Filesystem: ext3, ext4. Kernel version: 4.18.0-80.
RHEL 8.1	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 4.18.0-147.	Filesystem: ext3, ext4. Kernel version: 4.18.0-147.
RHEL 8.2	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 4.18.0-193.	Filesystem: ext3, ext4. Kernel version: 4.18.0-193.
RHEL 8.3	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 4.18.0-240.	Filesystem: ext3, ext4. Kernel version: 4.18.0-240.

RHEL 8.4	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 4.18.0-305.	Filesystem: ext3, ext4. Kernel version: 4.18.0-305.
RHEL 8.5	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 4.18.0-348.	Filesystem: ext3, ext4. Kernel version: 4.18.0-348.
RHEL 8.6	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 4.18.0-372.	Filesystem: ext3, ext4. Kernel version: 4.18.0-372.
RHEL 8.7	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 4.18.0-425.	Filesystem: ext3, ext4. Kernel version: 4.18.0-425.
RHEL 8.8	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 4.18.0-477.10.1.el8_8.	Filesystem: ext3, ext4. Kernel version: 4.18.0-477.10.1.el8_8.
RHEL 9.0	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 5.14.0-70.	Filesystem: ext3, ext4. Kernel version: 5.14.0-70.
RHEL 9.1	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 5.14.0-162.6.1.el9_1.	Filesystem: ext3, ext4. Kernel version: 5.14.0-162.6.1.el9_1.
RHEL 9.2	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: 5.14.0-284.11.1.el9_2.	Filesystem: ext3, ext4. Kernel version: 5.14.0-284.11.1.el9_2.
RockyLinux 8.8	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: NA.	Filesystem: ext3, ext4. Kernel version: NA.
RockyLinux 9.0	X64	Red Hat	Filesystem: ext3, ext4, xfs. Kernel version: NA.	Filesystem: ext3, ext4. Kernel version: NA.
SLES 12 SP3	X64	SUSE	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 4.4.73-5.	Filesystem: ext3, ext4. Kernel version: 4.4.73-5.
SLES 12 SP4	X64	SUSE	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 4.12.14-94.41.	Filesystem: ext3, ext4. Kernel version: 4.12.14-94.41.
SLES 12 SP5	X64	SUSE	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 4.12.14-120.	Filesystem: ext3, ext4. Kernel version: 4.12.14-120.
SLES 15 SP1	X64	SUSE	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 4.12.14-195.	Filesystem: ext3, ext4. Kernel version: 4.12.14-195.
SLES 15 SP2	X64	SUSE	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 5.3.18-22.	Filesystem: ext3, ext4. Kernel version: 5.3.18-22.
SLES 15 SP3	X64	SUSE	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 5.3.18-57.	Filesystem: ext3, ext4. Kernel version: 5.3.18-57.
SLES 15 SP4	X64	SUSE	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 5.14.21-150400.	Filesystem: ext3, ext4. Kernel version: 5.14.21-150400.
CentOS 7.0	X64	CentOS	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 3.10.0-123.	Filesystem: ext3, ext4. Kernel version: 3.10.0-123.
CentOS 7.1	X64	CentOS	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 3.10.0-229.	Filesystem: ext3, ext4. Kernel version: 3.10.0-229.
CentOS 7.2	X64	CentOS	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 3.10.0-327.	Filesystem: ext3, ext4. Kernel version: 3.10.0-327.
CentOS 7.3	X64	CentOS	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 3.10.0-514.	Filesystem: ext3, ext4. Kernel version: 3.10.0-514.
CentOS 7.4	X64	CentOS	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 3.10.0-693.	Filesystem: ext3, ext4. Kernel version: 3.10.0-693.
CentOS 7.5	X64	CentOS	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 3.10.0-862.	Filesystem: ext3, ext4. Kernel version: 3.10.0-862.
CentOS 7.6	X64	CentOS	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 3.10.0-957.	Filesystem: ext3, ext4. Kernel version: 3.10.0-957.
CentOS 7.7	X64	CentOS	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 3.10.0-1062.	Filesystem: ext3, ext4. Kernel version: 3.10.0-1062.
CentOS 7.8	X64	CentOS	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 3.10.0-1127.	Filesystem: ext3, ext4. Kernel version: 3.10.0-1127.
CentOS 7.9	X64	CentOS	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 3.10.0-1160.	Filesystem: ext3, ext4. Kernel version: 3.10.0-1160.
CentOS 8.0	X64	CentOS	Filesystem: ext3, ext4, xfs. Kernel version: 4.18.0-80.	Filesystem: ext3, ext4. Kernel version: 4.18.0-80.

CentOS 8.1	X64	CentOS	Filesystem: ext3, ext4, xfs. Kernel version: 4.18.0-147.	Filesystem: ext3, ext4. Kernel version: 4.18.0-147.
CentOS 8.2	X64	CentOS	Filesystem: ext3, ext4, xfs. Kernel version: 4.18.0-193.	Filesystem: ext3, ext4. Kernel version: 4.18.0-193.
CentOS 8.3	X64	CentOS	Filesystem: ext3, ext4, xfs. Kernel version: 4.18.0-240.	Filesystem: ext3, ext4. Kernel version: 4.18.0-240.
Ubuntu 16.04	X64	Canonical	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 4.4.0-21.	Filesystem: ext3, ext4. Kernel version: 4.4.0-21.
Ubuntu 18.04	X64	Canonical	Filesystem: ext3, ext4, xfs, btrfs. Kernel version: 4.15.0-29.	Filesystem: ext3, ext4. Kernel version: 4.15.0-29.
Ubuntu 20.04.1 LTS	X64	Canonical	Filesystem: ext3, ext4, xfs. Kernel version: 5.8.0-59-generic.	Filesystem: ext3, ext4. Kernel version: 5.8.0-59-generic.
Ubuntu 22.04	X64	Canonical	Filesystem: ext3, ext4, xfs. Kernel version: 5.15.0-25-generic.	Filesystem: ext3, ext4. Kernel version: 5.15.0-25-generic.
Oracle Linux 7.x UEK	X64	Oracle	Filesystem: ext3, ext4, xfs. Kernel version: NA.	Filesystem: ext3, ext4. Kernel version: NA.
Oracle Linux 8.x UEK	X64	Oracle	Filesystem: ext3, ext4, xfs. Kernel version: NA.	Filesystem: ext3, ext4. Kernel version: NA.
Oracle Linux 9.x UEK	X64	Oracle	Filesystem: ext3, ext4, xfs. Kernel version: NA.	Filesystem: ext3, ext4. Kernel version: NA.
AIX 7.1 TL5 SP2	X64	IBM	Filesystem: JFS, JFS2. Kernel version: NA.	Not supported.
AIX 7.2 TL2 SP1	X64	IBM	Filesystem: JFS, JFS2. Kernel version: NA.	Not supported.
AIX 7.2 TL3	X64	IBM	Filesystem: JFS, JFS2. Kernel version: NA.	Not supported.
AIX 7.2 TL4	X64	IBM	Filesystem: JFS, JFS2. Kernel version: NA.	Not supported.
AIX 7.2 TL5	X64	IBM	Filesystem: JFS, JFS2. Kernel version: NA.	Not supported.
AIX 7.3 TL0	X64	IBM	Filesystem: JFS, JFS2. Kernel version: NA.	Not supported.
AIX 7.3 TL1	X64	IBM	Filesystem: JFS, JFS2. Kernel version: NA.	Not supported.

Notes:

- The File System agent supports Microsoft failover clustering for both CSV and cluster volumes configurations.
- Kernel versions are applicable for BBB (block-based backups), that is, for image-level backups ONLY. The File System agent uses BBB technology if there are no exclusion filters associated with a policy. Only LVM-based volumes are supported for protection. Backups of non-LVM/physical disks are not supported with BBB.
- If a protection policy is associated with one or more exclusion filters, the file system agent performs backups using FBB (file-based backup) technology. Backups using FBB are independent of the kernel version.
- Backups in the following scenarios are always taken using FBB regardless of whether the policy is associated with exclusion filters or not, as BBB does not support these use cases:
 - Backups on Oracle Linux 7.x UEK platform (use `--skip-driver` during agent installation to skip the BBB driver)
 - Backups on Ubuntu 20.04.1 LTS
 - Backups of non-LVM/physical disks
 - Backups of btrfs volumes
- The File System agent on AIX supports only FBB. BBB is not supported.
- The File System agent on AIX requires the `xlc` runtime environment 16.1.0.7 or later.
- The *PowerProtect Data Manager for File System Agent User Guide* provides installation steps and configuration information for AIX.
- The File System agent supports disaster recovery backups, which consist of bare metal recovery (BMR) backup and system state recovery (SSR) backup, for Windows only.
- The File System agent supports Microsoft Distributed File System (DFS).
- The File System agent supports ZFS and only supports FBB. BBB is not supported.

POWERPROTECT DATA MANAGER IN CLOUD MARKETPLACES

Cloud Provider	Cloud Service	Supported Assets	Supported Regions
Amazon	AWS, AWS Glacier Instant Retrieval (IR)	SQL, Oracle, SAP HANA, and File System agents, and Kubernetes asset sources are supported. VM protection is available for VMs in VMC for AWS (SDDC 1.16, 1.18, 1.20).	[DDOS 7.4.0.5 onwards]: ca-central-1 (Canada - Central), eu-south-1 (EU - Milan), me-south-1 (Middle East - Bahrain) [From DDOS 6.0 onwards]: us-east-1, us-west-1, us-west-2, eu-west-1, ap-northeast-1, ap-southeast-1, ap-southeast-2, sa-east-1 (South America - Sao Paulo), ap-south-1 (Asia Pac - Mumbai), ap-northeast-2 (Asia Pac - Seoul), eu-central-1 (EU - Frankfurt)
	AWS GovCloud/C2S	SQL, Oracle, SAP HANA, and File System agents, and Kubernetes asset sources are supported. VM protection is available for VMs in VMC for AWS (SDDC 1.16, 1.18, 1.20).	[DDOS 7.2 onwards]: us-gov-east-1, us-gov-west-1
Microsoft	Azure	SQL, Oracle, SAP HANA, and File System agents, and Kubernetes asset sources are supported. VM protection is available for VMs in Azure VMWare Solution.	All regions listed under General Purpose storage class. Azure Gov requires DDOS 6.1.1.x or later.
	Azure Government Cloud	SQL, Oracle, SAP HANA, and File System agents, and Kubernetes asset sources are supported. VM protection is available for VMs in Azure VMWare Solution.	US Gov Arizona, US Gov Texas, US Gov Virginia
Google	GCP	SQL, Oracle, SAP HANA, and File System agents, and Kubernetes asset sources are supported. VM protection is available for VMs in Google Cloud VMware Engine.	us, eu, asia, northamerica-northeast1, us-central1, us-east1, us-east4, us-west1, southamerica-east1, europe-north1, europe-west1, europe-west2, europe-west3, europe-west4, asia-east1, asia-northeast1, asia-south1, asia-southeast1, australia-southeast1

- Notes:
- Enabling Cloud DR and Search functionality is not supported in PowerProtect Data Manager instances running in the public cloud. This restriction does not apply to PowerProtect Data Manager instances running in VMware in Cloud.

CLOUD DISASTER RECOVERY

VMware Infrastructure

Platform	Platform Version	Comments
VMware vCenter/ESXi	6.5, 6.7, 7.0, 7.0u1, 7.0u2, 7.0u3 ,8.0	

Cloud Vendor Support

Vendor Name	Cloud Service
Amazon	AWS (Amazon Web Services) & AWS GovCloud
Microsoft	Microsoft Azure & Azure Government Cloud

AWS Target Supported Virtual Machine Operating Systems

Windows 64-bit	Linux or Unix
Microsoft Windows Server 2012 Standard, Datacenter. 64-bit only.	Ubuntu 14.04, 14.10, 16.04, 16.10
Microsoft Windows Server 2012 R2 Standard, Datacenter. 64-bit only. Nano Server installation not supported.	Red Hat Enterprise Linux 6.1–6.9, 7.0–7.3, 8 (6.0 lacks required drivers)
Microsoft Windows Server 2016 Standard, Datacenter. 64-bit only.	SUSE Linux Enterprise Server 15 SP3 and SP4
Microsoft Windows Server 2019 Standard, Datacenter. 64-bit only.	CentOS 7
Microsoft Windows 10 Professional, Enterprise, Ultimate. US English. 32-and 64-bit.	Oracle Linux 6.1–6.6, 7.0–7.1

Supported AWS Regions

Region Name	Region ID	Supported
US East (Ohio)	us-east-2	Yes
US East (N. Virginia)	us-east-1	Yes
US West (N. California)	us-west-1	Yes
US West (Oregon)	us-west-2	Yes
Africa (Cape Town)	af-south-1	Yes
Asia Pacific (Hong Kong)	ap-east-1	Yes
Asia Pacific (Mumbai)	ap-south-1	Yes
Asia Pacific (Singapore)	ap-southeast-1	Yes
Asia Pacific (Sydney)	ap-southeast-2	Yes
Asia Pacific (Jakarta)	ap-southeast-3	Yes (Windows only)
Asia Pacific (Tokyo)	ap-northeast-1	Yes
Asia Pacific (Seoul)	ap-northeast-2	Yes
Asia Pacific (Osaka)	ap-northeast-3	Yes
Canada (Central)	ca-central-1	Yes
Europe (Frankfurt)	eu-central-1	Yes
Europe (Ireland)	eu-west-1	Yes
Europe (London)	eu-west-2	Yes
Europe (Paris)	eu-west-3	Yes
Europe (Stockholm)	eu-north-1	Yes
Europe (Milan)	eu-south-1	Yes
Middle East (Bahrain)	me-south-1	Yes
South America (Sao Paulo)	sa-east-1	Yes

Supported AWS GovCloud Regions

AWS GovCloud (US-Gov-West)	us-gov-west-1	Yes
AWS GovCloud (US-Gov-East)	us-gov-east-1	Yes

Azure Cloud Supported Virtual Machine Operating Systems

Windows 64-bit	Linux or Unix
Microsoft Windows Server 2012 Standard, Datacenter. 64-bit only.	Ubuntu 14 and 16
Microsoft Windows Server 2016 Standard, Datacenter. 64-bit only.	Red Hat Enterprise Linux 6–9 (DR supported only for the registered machines)
Microsoft Windows 10 Professional, Enterprise, Education. US English. 64-bit.	CentOS 7
Microsoft Windows Server 2019 Standard, Datacenter. 64-bit only.	Oracle Linux 6.4 – 7 (non-UEK3 and up)
Microsoft Windows Server 2022 Standard, Datacenter. 64-bit only.	Debian 9, 10, 11. SLES 15 SP3 and SP4.

Supported Azure Regions

Region Name	Region ID	Supported
Central US	us-central	Yes
East US	us-east	Yes
East US 2	us-east-2	Yes
North Central US	us-north-central	Yes
South Central US	us-south-central	Yes
West Central US	us-west-central	Yes
West US	us-west	Yes
West US 2	us-west-2	Yes
North Europe	europa-north	Yes
West Europe	europa-west	Yes
East Asia	asia-pacific-east	Yes
Southeast Asia	asia-pacific-southeast	Yes
Japan East	japan-east	Yes
Japan West	japan-west	Yes
Brazil South	brazil-south	Yes
Australia East	australia-east	Yes
Australia Southeast	australia-southeast	Yes
Central India	central-india	Yes
South India	south-india	Yes
West India	west-india	Yes
Canada Central	canada-central	Yes
Canada East	canada-east	Yes
UK South	united-kingdom-south	Yes
UK West	united-kingdom-west	Yes
France Central	france-central	Yes
France South	france-south	Yes
Korea Central	korea-central	Yes
Korea South	korea-south	Yes
South Africa North	south-africa-north	Yes
UAE North	uae-north	Yes

Supported Azure Government Cloud Regions

Region Name	Region ID	Supported
Virginia	US-Gov-Virginia	Yes

Notes:

- Cloud DR is not supported as part of PowerProtect Data Manager when deployed in AWS, Azure, or GCP.

KUBERNETES

Distributions

Supported Distributions	Versions
All Cloud Native Computing Foundation (CNCF) certified Kubernetes distributions	1.25 – 1.28
Distributions Validated and Tested by Dell	Versions
Upstream Kubernetes	1.25 – 1.28
RedHat OpenShift	4.10, 4.11 ¹ , 4.12 ¹ , 4.13 ¹ (using OADP 1.1.5)
VMware Tanzu Kubernetes Grid Integrated (TKGi)	1.14, 1.15, 1.16, 1.17
VMware TKGm (Multi-Cloud) Workload Cluster/TKG 2.x (Standalone)	1.5, 1.6, 2.1.1, 2.2, 2.3
VMware vSphere with Tanzu Guest Cluster (TKGs/TKG 2.0)	7.0 U3(d-h), 8.0, 8.0 U1 ²
SUSE Rancher Kubernetes Engine (RKE)	1, 2
SUSE K3s on SLE Micro	
Google Anthos (On-Premises)	

Notes:

- Restore to another cluster is not supported in OpenShift for namespaces using integrated registry.
 - vSphere with Tanzu Supervisor Clusters is not supported for protection.
1. vSphere CSI driver storage classes with volume binding mode of `WaitForFirstConsumer` are not supported (for all distributions).
 2. Includes the vSphere Distributed Switch (VDS) networking stack. Requires `velero-vsphere-operator` 1.4.

Cloud Distributions

Distributions Validated and Tested by Dell	Versions
Microsoft Azure Kubernetes Service (AKS)	
Google Kubernetes Engine (GKE)	
Amazon Elastic Kubernetes Service (EKS)	

Storage

Supported Storage

Any on-prem or cloud storage Container Storage Interface (CSI) driver with snapshot support, version 1.0 or higher.

- List of available CSI drivers: <https://kubernetes-csi.github.io/docs/drivers.html>
- CSI support matrix for Dell Technologies storage: <https://dell.github.io/csm-docs/docs/csdriver/>

CSI drivers without snapshot support	vSAN Files Services	
CSI Drivers Validated and Tested by Dell	vSphere Versions	Notes
vSphere Cloud Native Storage (CNS) storage for Tanzu Kubernetes guest clusters	7.0u3(d-h), 8.0	vSphere CSI driver 2.6 to 3.0 using FCD snapshots ^{3,4}
vSphere CNS for native K8s clusters	6.7u3 and above	vSphere CSI driver 2.6 to 3.0 using FCD snapshots ^{3,4}
OpenShift Data Foundation (ODF)	<ul style="list-style-type: none"> • CEPH-FS¹ • CEPH-RDB 	
PowerFlex	PowerScale ²	PowerStore

Notes:

- For NFS-based CSI storage, storage class with root client access enabled is required for backup. See the *PowerProtect Data Manager for Kubernetes User Guide* for information about protection of root squashed persistent volumes.
1. Limited support for CEPH-FS persistent volumes. Protection may fail for volumes greater than 25 GB.
 2. CSI driver version for PowerScale must be 1.5 or higher and the user provided must additionally have `ISI_PRIV_IFS_BACKUP` and `ISI_PRIV_IFS_RESTORE` privileges. See CSI Driver for PowerScale Installation Guide for more information. The storage classes in the Kubernetes cluster should use only one PowerScale access zone.
 3. vSphere CSI driver storage classes with volume binding mode of `WaitForFirstConsumer` are not supported.

Container Images

Image	Repository	Tag
dellemc/powerprotect-k8s-controller	https://hub.docker.com/r/dellemc/powerprotect-k8s-controller/tags	19.15.0-2
dellemc/powerprotect-cproxy	https://hub.docker.com/r/dellemc/powerprotect-cproxy/tags	19.15.0-2
dellemc/powerprotect-velero-dd	https://hub.docker.com/r/dellemc/powerprotect-velero-dd/tags	19.15.0-2
velero/velero	https://hub.docker.com/r/velero/velero/tags	v1.9.3
vsphereveleroplugin/velero-plugin-for-vmware	https://hub.docker.com/r/vsphereveleroplugin/velero-plugin-for-vmware/tags	v1.5.1
vsphereveleroplugin/backup-driver	https://hub.docker.com/r/vsphereveleroplugin/backup-driver/tags	v1.5.1

SUPPORTASSIST

Gateway	Gateway Version
SCG	5.10 and higher
Notes: <ul style="list-style-type: none">SRS and SAE gateways are not supported by SupportAssist 4.0 and higher. Update these gateways to SCG before you update PowerProtect Data Manager.Alternatively, you can configure SupportAssist by connecting directly to the backend.	

SYSLOG FORWARDING

Protocol	Rsyslog Version
UDP	8.24.0 - 8.2204.0
TCP	8.24.0 - 8.2204.0
TLS	8.24.0 - 8.40.0
Notes: <ul style="list-style-type: none">When you use TLS, the installed versions of <code>rsyslog-gnutls</code> and <code>rsyslog</code> must match.	