

**Technical White Paper** 

# Dell EMC PowerProtect Data Manager: Deployment and Configuration on Microsoft Azure

A next generation software platform for proven and modern cloud data protection

#### Abstract

This white paper describes how to deploy and configure Dell EMC PowerProtect Data Manager on Microsoft Azure for seamless protection of workloads on Azure cloud.

October 2021

### Revisions

Date	Description
June 2021	Initial release
October 2021	White paper updated with PowerProtect Data Manager v19.9 release updates

### Acknowledgments

Author: Vinod Kumar Kumaresan

The information in this publication is provided "as is." Dell Inc. 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 software described in this publication requires an applicable software license.

This document may contain certain words that are not consistent with Dell's current language guidelines. Dell plans to update the document over subsequent future releases to revise these words accordingly.

This document may contain language from third party content that is not under Dell's control and is not consistent with Dell's current guidelines for Dell's own content. When such third-party content is updated by the relevant third parties, this document will be revised accordingly.

Copyright © 2021 Dell Inc. or its subsidiaries. All Rights Reserved. Dell Technologies, Dell, EMC, Dell EMC and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners. [10/21/2021] [Technical White Paper] [H18800.1]

## Table of contents

Re	vision	S	2
Acl	nowle	edgments	2
Tal	ole of	contents	3
Exe	ecutiv	e summary	4
Au	dience	9	4
1	Intro	duction	5
	1.1	Dell EMC PowerProtect Data Manager for Azure	5
	1.2	Basic architecture Overview	6
	1.3	Azure data transfer costs	6
2	Depl	oying Data Manager and DDVE on Azure	7
	2.1	Deploying Data Manager and DDVE on Azure	8
3	Man	ual Configuration of Data Manager deployed on Azure	18
Α	Tech	inical support and resources	24
	A.1	Related resources	24

### **Executive summary**

As more enterprises adopt a multi-cloud strategy, leveraging a common data protection solution across the onpremises infrastructure and the public cloud will enable enterprises to achieve operational efficiencies and lower costs.

For organizations that have workloads running in Azure cloud and need self-service backup and restores from enterprise application tools, Dell EMC PowerProtect Data Manager provides data protection of workloads in Microsoft Azure and Azure Government.

Data owners and administrators can deploy Data Manager with automation from the Azure Marketplace to protect business-critical workloads in the cloud. Data Manager enables the protection of traditional workloads including Oracle, SQL, SAP HANA, and file systems and cloud native applications running in Kubernetes containers. Easy to install and deploy from the Azure Marketplace, Data Manager and Dell EMC PowerProtect DD Virtual Edition (DDVE) provide high levels of performance and deduplication.

### **Audience**

This white paper is intended for Dell Technologies customers, partners, and employees looking for options to protect the workloads hosted on Azure cloud using Data Manager and DDVE.

## 1 Introduction

### 1.1 Dell EMC PowerProtect Data Manager for Azure

Data Manager software is an enterprise solution that provides software-defined data protection, deduplication, operational agility, self-service, and IT governance. Data Manager for Azure provides protection for cloud-based assets such as the following:

- Oracle, SQL, and SAP HANA databases
- Virtual machines in Azure VMware Solution for Azure
- Kubernetes clusters deployed to Azure
- File systems

Data Manager and DDVE can be deployed as one package from the Azure Marketplace. DDVE on Azure can also be deployed outside of the Data Manager deployment process. DDVE scales up to 256TB per instance in-cloud and supports Azure Government. Data Manager includes a 90-day trial license by default.



Using Microsoft Azure Resource Manager (ARM), Data Manager can be deployed to a virtual appliance in an Azure cloud. Data Manager is deployed with a private IP address. A VPN connection configuration is required to access Data Manager from an external site.

Data Manager deployed on Azure cloud requires DDVE as the protection storage appliance. DDVE is a software-only protection storage appliance that provides data protection for entry, enterprise, and service-provider environments. With Data Manager and DDVE on Azure, the business-critical workloads deployed on Azure cloud can be protected.

#### 1.2 Basic architecture Overview

The following diagram represents the basic architecture of Data Manager on Azure. The diagram shows a possible distribution of Data Manager and DDVE in one private subnet, and application hosts in another.



Access to Data Manager and DDVE is managed by Virtual Network (VNet) service endpoints and their policies, and by network and application security groups. DDVE uses blob containers to store the backed-up data of virtual appliances and virtual machines deployed to Azure. Sensitive Data Manager data, such as passwords, is encrypted and stored in a lockbox.

#### 1.3 Azure data transfer costs

Microsoft charges a monthly fee based on the amount and types of data transferred by Data Manager and DDVE in an Azure cloud.

Consider the following information when planning the Azure architecture:

- In an Azure cloud, most of the data transferred is between the hosts being protected and DDVE
- If Kubernetes is being used, data is also transferred between the protection engine hosts and DDVE
- Microsoft does not have data transfer fees for hosts that are in the same region

For current details of all Microsoft data transfer costs and other fees, see <u>Bandwidth Pricing Details</u> and the <u>Pricing Calculator</u>.

**Note:** To minimize data transfer costs, and to minimize the path that data transfers take, use as few availability zones and regions as possible.

### 2 Deploying Data Manager and DDVE on Azure

The following shows the high-level deployment steps for Data Manager and DDVE on Azure.



Starting with Data Manager version 19.9, DDVE can be configured at the same time as Data Manager when they are deployed to Microsoft Azure using solution software configuration option.

For successful deployment of Data Manager and DDVE on Azure, see <u>Dell EMC PowerProtect Data Manager</u> <u>Azure Deployment Guide</u> and <u>Dell EMC PowerProtect DDVE on Azure Installation and Administration Guide</u> for more details on preparing for deployment, deployment requirements, and networking interoperability.

### 2.1 Deploying Data Manager and DDVE on Azure

- 1. In a browser, navigate to <u>https://portal.azure.com</u>
- 2. Log in to the Azure account.
- From the Home > Marketplace > Get Started pane, select Search the Marketplace and search for "Dell EMC PowerProtect Data Manager and PowerProtect DD Virtual Edition".

≡ Microsoft Azure		𝒫 Search resources, services	, and docs (G+/)		Σ	I 🕼 Q 🚳 🔿 🕅
Home >						
Marketplace						
Get Started		ager and PowerProtect DD $1 \times$	ricing : All 🗙 Operating System	: All $ imes$ Publisher Type : All $ imes$	Offer Type : All $ imes$ Publisher	name : All 🔀
Service Providers	Azure benefit eligible only ①					
Management	Managed Services					
Private Marketplace		2	Data*3	3	IK SIAM	<b>Å</b> <sup>®</sup> . <b>B</b>
My Marketplace	Aumatics Azure Managed	VIAcode Managed Services	Data#3 Azure Managed Services	Cloudeteer CLOUD.OPS Managed Service	Ingram Micro MSP	Quick-Fix Administration
Favorites	Aumatics	VIAcode	Data#3 Limited	Cloudeteer	Ingram Micro	Apps4Rent LLC
Recently created	Managed Services	Managed Services	Managed Services	Managed Services	Managed Services	Managed Services
Categories	Managed Services for your Azure Tenant	Extend your IT team with VIAcode Managed Services for Azure to improve your IT processes	This Cloud Management solution combines the Azure Optimiser cloud portal with Azure Managed Services	Azure Site Reliability Managed Cloud Service offering for a modern Multi Cloud Operations.	Ingram Micro MSP Managed Services	Immediate help for quick fixes on Azure. Sign up for 2 hours of minimum commitment plan!
AI + Machine Learning						
Analytics						
Blockchain	Create 🗸 💙	Create 🗸 💙	Create 🗸 💙	Create 🗸 💙	Create 🗸 💙	Create 🗸 💙
Compute						
Containers	AI + Machine Learning					See More
Databases	<u>L</u>	0				
Developer Tools	Machine Learning	Computer Vision	Face	Text Analytics		
DevOps	Microsoft	Microsoft	Microsoft	Microsoft		
Identity	Azure Service	Azure Service	Azure Service	Azure Service		
Integration	Enterprise-grade machine learning to	An AI service that analyzes content in	An AI service that analyzes faces in	An AI service that enables you to		
Internet of Things	sound and deploy models laster	inigea	magea	language text using sentiment		

4. Choose **Dell EMC PowerProtect Data Manager and PowerProtect DD Virtual Edition** and select **Create**.

	𝒫 Search resources, service	es, and docs (G+/)			Þ	Ŗ	Q	٢	?	&
Home >										
Get Started	O Dell FMC PowerProtect Data Mar	ager and Dell EMC Power		X Publisher Type : All	×	Offer T	(ne · A	$\mathbf{I}$	Pub	lisher na
Service Providers	Azure benefit eligible only ①	ager and bein Ewie Fower X	operating system . An	r ubisiter type . All		oner ij	ipe . A		T UL	
Management	Showing results for 'Dell EMC	PowerProtect Data Manager an	d Dell EMC PowerProtect DD Virtual	dition'.						
Private Marketplace	Showing 1 to 2 of 2 results.									
My Marketplace	Dellemo	DOLLEMC								
Favorites Recently created	Dell EMC PowerProtect Data Manager and Dell EMC	Dell EMC Avamar Virtual Edition (AVE)								
necently created	DPS Global Publisher	Dell Technologies								
Categories	Azure Application	Virtual Machine								
AI + Machine Learning	Next generation cloud data protection	Dell EMC Avamar Virtual Edition (AVE) offers industry leading backup, dr and replication for Azure.								
Analytics										
Blockchain	Price varies	Bring your own license								
Compute	Create 🗸 💙	Create 🗸 💙								
Containers										

5. Select the required Data Manager and DDVE version from the list. For example, "**PowerProtect Data Manager 19.9.0 and DDVE 7.6.07**".

$\equiv$ Microsoft Azure	𝒫 Search resources, service	es, and docs (G+/)			Σ.	Q Q	©	ଡ ନ୍ୟ
Home >								
Marketplace ····								
Get Started	P Dell EMC PowerProtect Data Man	ager and Dell EMC Power ×	Pricing : All × Operating System : Al	Publisher Type : All	× or	ffer Type : A	a ×	Publisher na
Service Providers	Azure benefit eligible only							
Management	Showing results for 'Dell EMC F	PowerProtect Data Manager ar	d Dell EMC PowerProtect DD Virtua	l Edition'.				
Private Marketplace	Showing 1 to 2 of 2 results.							
My Marketplace	DOLLEMC	DOLLEMC						
Favorites	Dell EMC PowerProtect Data	Dell EMC Avamar Virtual						
Recently created	Manager and Dell EMC	Edition (AVE) Dell Technologies						
Categories	Azure Application	Virtual Machine						
AI + Machine Learning	Next generation cloud data protection	Dell EMC Avamar Virtual Edition (AVE) offers industry leading backup, dr and replication for Azure						
Analytics								
Blockchain	Price varies	Bring your own license						
Compute	Create 🗸 🗢	Create 🗸 🗢						
Containers	PowerProtect Data Manager 19.9.0	and DDVE 7.6.0.7						
Databases	PowerProtect Data Manager 19.8.0	and DDVE 7.6.0.7						
Developer Tools	PowerProtect Data Manager 19.6.0	-7 and DDVE 6.0						

6. From the Home > Marketplace > Create Dell EMC PowerProtect Data Manager and PowerProtect DD Virtual Edition > Basics pane, provide the project and instance details. Click Next: Infrastructure Configuration.

	∽ Search resources, services, and docs (G+/)		<b>国 時</b> 4 尊 ⑦ 尽
Home > Marketplace >			
Create Dell EMC Power	Protect Data Manager and De	II EMC PowerProtect DD Virtual	Edition
Basics Infrastructure Configuration	PowerProtect Data Manager VM Configuration	PowerProtect DD Virtual Edition VM Configuration	Solution Software Configuration Review + create
Project details			
Select the subscription to manage deploy	ed resources and costs. Use resource groups like folders t	to organize and	
manage all your resources.			
Subscription * ①		<u> </u>	
Resource group * (i)	(New) PPDM_DDVE	$\sim$	
	Create new		
Instance details			
Region * 🕕	East US	~	
Review + create < Previous	Next : Infrastructure Configuration >		

 From the Home > Create Dell EMC PowerProtect Data Manager and PowerProtect DD Virtual Edition > Infrastructure Configuration pane, configure the virtual networks and storage account. Click Next: PowerProtect Data Manager VM Configuration.

Microsoft Azure	P Search resources, services, and docs (G+/) 回 ゆ 🖗 🕐 🖗								
-tome > Marketplace > Create Dell EMC PowerProtect Data Manager and Dell EMC PowerProtect DD Virtual Edition …									
Basics Infrastructure Configurat	ion PowerProtect Data Manager VM Configuration PowerProtect DD Virtual Edition VM Configuration Solution Software Configuration Review + create								
Configure virtual networks									
Virtual network * 🛈	(new) PPDM_DDVEvnet01 V Create new								
Subnet * 🛈	(new) subnet-1 (10.6.0.0/24)								
Diagnostics Storage Account * 🛈	Create New								
Review + create < Previou	s Next : PowerProtect Data Manager VM Configuration >								

8. From the Home > Create Dell EMC PowerProtect Data Manager and PowerProtect DD Virtual Edition > PowerProtect Data Manager VM Configuration pane, configure Data Manager and click Next: PowerProtect DD Virtual Edition VM Configuration.

asics Infrastructure Configuration	PowerProtect Data Manager VM Configuration	PowerProtect DD Virtual Edition VM Configuratio	n Solution Software Configuration Review + crea
ata Manager Version * 🛈	19.9.0	~	
ata Manager Name * 🛈	DemoPPDM	~	
ata Manager VM Size * 🕧	<b>1x Standard D8s v3</b> 8 vcpus, 32 GB memory Change size		
dmin User Name * 🛈	demoppdm	~	
dmin Authentication Type *	<ul> <li>Password</li> <li>SSH Public Key</li> </ul>		
M Log-in Password *	•••••	✓	
onfirm password *		~	

#### 9. From the PowerProtect DD Virtual Edition VM Configuration pane,

- Select **Yes** to deploy and launch a DDVE instance in the same subnet as Data Manager.
- Select **No** to deploy only Data Manager.

≡ Microsoft Azure	♀ Search resources, services, and docs (G+/)		図 16 Q Ø Ø
Home > Marketplace >			
Create Dell EMC Power	Protect Data Manager and Dell E	MC PowerProtect DD Virtual	Edition
Basics Infrastructure Configuration	PowerProtect Data Manager VM Configuration	owerProtect DD Virtual Edition VM Configuration	Solution Software Configuration Review + create
Deploy DDVE * 🛈	Yes	$\sim$	
DDVE Version * 🛈	Yes DDVE will be deployed together whith Data Manager in the same group.	e resource	
DDVE Name * 🛈	Νο		
DDVE VM Size * 🕕	DDVE will not be deployed.		
	8 vcpus, 28 GB memory Change size		
DDVE Capacity (TB) ①	1TB	~	
DDVE admin user * 🛈	sysadmin	$\sim$	
Sysadmin Authentication type *	Password		
	SSH Public Key		
VM Log-in Password *		~	
Confirm password *		~	
Review + create < Previous	Next : Solution Software Configuration >		

If you selected Yes, configure the DDVE instance and click Next: Solution Software Configuration.

reate Dell EMC Power	Protect Data Manager and De	II EMC PowerPro	otect DD Virtual	Edition	
Basics Infrastructure Configuration	PowerProtect Data Manager VM Configuration	PowerProtect DD Virtua	l Edition VM Configuration	Solution Software Configuration	n Review + create
Deploy DDVE * 🕕	Yes	$\sim$			
DDVE Version * ①	7.6.0.7	$\sim$			
DDVE Name * 🕕	DemoDDVE	~			
DDVE VM Size * ①	<b>1x Standard D4 v2</b> 8 vcpus, 28 GB memory Change size				
DDVE Capacity (TB) 🕕	1TB	~			
DDVE admin user * 🕕	sysadmin	~			
Sysadmin Authentication type *	<ul> <li>Password</li> <li>SSH Public Key</li> </ul>				
VM Log-in Password *		~			
Confirm password *		✓			

**Note:** You might choose not to deploy DDVE if you already have an instance deployed, or if you are performing PowerProtect Data Manager-server disaster recovery.

## 10. From the Home > Create Dell EMC PowerProtect Data Manager and Data Domain Virtual Editions > Solution Software Configuration pane,

• Select **Yes** to accept the EULA.

**Note:** By selecting **Yes**, you agree to accept the terms and conditions outlined in the product End User License Agreement (EULA). Do not select **Yes** if you need to restore a Data Manager disaster-recovery backup.

• Select **No** if you do not accept the EULA.

**Note:** If you select **No**, automatic configuration is disabled. Data Manager and DDVE must be manually configured after they are deployed.

The following shows the option to Enable Automatic Configuration and Accept Product End User License Agreement (EULA).

	𝒫 Search resources, services, and docs (G+/)	図 16 Q 参 の A							
Iome > Marketplace > Create Dell EMC PowerProtect Data Manager and Dell EMC PowerProtect DD Virtual Edition …									
Basics Infrastructure Configuration	n PowerProtect Data Manager VM Configuration PowerProtect DD Virtual Edition VM Configuration	Solution Software Configuration Review + create							
Enable Automatic Configuration and Accept Product End User License Agreement (EULA) * ①	No Yes By selecting "Yes" you agree to terms and conditions outlined in the product End User License Agreement (EULA) (https://www.dell.com/learn/us/en/us.corp1/legal_terms- conditions_dellgrmwebpage/art-software-license-agreements). Data Manager and DDVE will be automatically configured with the properties below after the deployment. No By selecting "No", automatic configuration is disabled. You can configure Data Manager or start ServerDR recovery from Data Manager installer UI after the deployment.								
Review + create < Previous	5 Next : Review + create >								

Note: Solution software configuration option is available starting with Data Manager version 19.9.

11. If you selected **Yes**, Data Manager and DDVE will be automatically configured after the deployment, with the properties shown below. Click **Next: Review + create**.

■ Microsoft Azure	₽ Search resources	, services, and docs (G+/)			Σ	Ð	Q 6	0	ନ
Home > Marketplace >									
Create Dell EMC Power	Protect Data Manager and De	II EMC PowerProtect DD Virtua	l Edition						
Basics Infrastructure Configuration	PowerProtect Data Manager VM Configuration	PowerProtect DD Virtual Edition VM Configuration	Solution Software Configuration	Review + creat	e				
Enable Automatic Configuration and	Yes	×							
Accept Product End User License Agreement (EULA) * ①									
Data Manager Software Configuration									
Data Manager Time Zone * ①	UTC - Coordinated Universal Time	$\sim$							
Data Manager NTP Servers ①									
Data Manager common password * 🛈									
Confirm password * ①	······								
DDVE Software Configuration									
Storage Account Name * 🛈	demotme	<b>`</b>							
Container Name * 🛈	demotme	<u>~</u>							
Storage Access Key * ①	s3SIsC10Nqs433KkhsnWTQjvTmMk9gSDbo0tdA74AIP	JYBEscqO6QcqQ 🗸							
DDVE common password * 🛈		✓							
Confirm password *	••••••	✓							
Review + create < Previous	Next : Review + create >								

12. From the Home > Create Dell EMC PowerProtect Data Manager and PowerProtect DD Virtual Editions > Review + create pane, click Create.

≡ Microsoft Azure		;, services, and docs (G+/)		E	₽ ¢	©	୭ ନ
Home > Marketplace >							
Create Dell EMC Pow	erProtect Data Manager and De	II EMC PowerProtect DD Virtual	Edition				
Validation Passed							
Basics Infrastructure Configuration	n PowerProtect Data Manager VM Configuration	PowerProtect DD Virtual Edition VM Configuration	Solution Software Configuration	Review + create			
PRODUCT DETAILS							
Dell EMC PowerProtect Data Manag	er						
and Dell EMC PowerProtect DD Virte Edition	ial						
by DPS Global Publisher							
Terms of use   Privacy policy							
TERMS							
By clicking "Create", I (a) agree to the l	egal terms and privacy statement(s) associated with the Marl	<pre>ketplace offering(s)</pre>					
with the same billing frequency as my, and transactional information with the activities. Microsoft does not provide ri details.	builing current payment method for the fees associated with Azure subscriptions: and (c) agree that Microsoft may share in provider(s) of the offering(s) for support, billing and other tr ghts for third-party offerings. See the Azure Marketplace Ter	t me omening(s), y contact, usage ansactional ms for additional					
Basics							
Subscription							
Resource group	PPDM_DDVE						
Region	East US						
Infrastructure Configuration							
Virtual network	PPDM_DDVEvnet01						
Subnet	subnet-1						
Address prefix (Subnet)	10.6.0.0/24						
Diagnostics Storage Account							
PowerProtect Data Manager VM	Configuration						
Data Manager Version	- 19.9.0						
Data Manager Name	DemoPPDM						
Data Manager VM Size	Standard_D8s_v3						
Admin User Name	demoppdm						
VM Log-in Password	***						
ReverProtect DD Vistual Edition	MA Configuration						
	Vin configuration						
DDVE Version	7607						
DDVE Name	DemoDDVE						
DDVE VM Size	Standard_D4_v2						
DDVE Capacity (TB)	1TB						
DDVE admin user	sysadmin						
VM Log-in Password	******						
Solution Software Configuration							
Enable Automatic Configuration and A	c Yes						
Data Manager Time Zone	UTC - Coordinated Universal Time						
Data Manager NTP Servers							
Data Manager common password	******						
Storage Account Name	demotme						
Container Name	demotme						
Storage Access Key	zuUCd/Pqjr+zEvwvK63zCGV215JpsBxNBgjBO+tldJpp/S	L3c8iLGxYOoCVNSB6r					
DDVE common password	*******						
Create < Previous	Next Download a template for automation						

The following figure shows the Data Manager and DDVE deployments in progress.

$\equiv$ Microsoft Azure		rces, services, and docs (G+/)		D 🕼 🗘 🌚 Ø R
Home >				
Aellemc.ppdm_ddve	e_0_0_1-20211007172953   Ov	erview 🖈 …		
	📋 Delete 🚫 Cancel 🟦 Redeploy ไ R	efresh		
👶 Overview	ℳ We'd love your feedback! →			
😫 Inputs				
š≣ Outputs	<ul> <li>Deployment is in progress</li> </ul>	SS		
📄 Template	Deployment name: dellemc.ppdm_ddve_0 Subscription Resource group: PPDM_DDVE Deployment details (Download)	_0_1-20211007172953 Start time: 10/7/2021, 5:39:34 PM Correlation ID: 2e0698c4-9852-46cf-8644	f26452fea2da	
		_		
	Resource	Туре	Status	Operation details
	OemoDDVE	Microsoft.Compute/virtualMachines	Created	Operation details
	OemoPPDM	Microsoft.Compute/virtualMachines	Created	Operation details
	OemoDDVE-nic-0	Microsoft.Network/networkInterfaces	Created	Operation details
	OemoPPDM-nic-0	Microsoft.Network/networkInterfaces	Created	Operation details
	OemoPPDM-nsg	Microsoft.Network/networkSecurityGroups	ОК	Operation details
	OemoDDVE-nsg	Microsoft.Network/networkSecurityGroups	ОК	Operation details
	PPDM_DDVEvnet01	Microsoft.Network/virtualNetworks	ОК	Operation details
	pid-00613ffe-c69d-4d17-a906-88ff88	364af3-partnercenter Microsoft.Resources/deployments	ОК	Operation details
	cs2b9b546ac0e3ex436fx861	Microsoft.Storage/storageAccounts	ОК	Operation details

**Note:** This takes between approximately 20 and 25 minutes, depending on whether automatic configuration is enabled.

13. When the Data Manager and DDVE deployment are complete, select **Go to resource group** to view the Data Manager instance details.

$\equiv$ Microsoft Azure	∠ Search resources, services	, and docs (G+/)		요 🗣 🖓 🕸 🕅 전
Home >				
dellemc.ppdm_ddve	_ <b>0_0_1-20211007172953</b>   Overview	A		
	📋 Delete 🚫 Cancel 🏦 Redeploy 🍐 Refresh			
👶 Overview	𝒞 We'd love your feedback! →			
š≣ Outputs	Your deployment is complete			
F Template	Deployment name: dellemc.ppdm_ddve_0_0_1-202110 Subscription: Resource group: PPDM_DDVE	07172953 Start time: 10/7/2021, 5:39:34 PM Correlation ID: 2e0698c4-9852-46cf-8644-f,	26452fea2da	
	<ul> <li>Deployment details (Download)</li> </ul>			
	Resource	Туре	Status	Operation details
	O DemoDDVE	Microsoft.Compute/virtualMachines	ОК	Operation details
	OemoPPDM	Microsoft.Compute/virtualMachines	ОК	Operation details
	DemoDDVE-nic-0	Microsoft.Network/networkInterfaces	Created	Operation details
	DemoPPDM-nic-0	Microsoft.Network/networkInterfaces	Created	Operation details
	OemoPPDM-nsg	Microsoft.Network/networkSecurityGroups	ОК	Operation details
	OemoDDVE-nsg	Microsoft.Network/networkSecurityGroups	ОК	Operation details
	PPDM_DDVEvnet01	Microsoft.Network/virtualNetworks	ОК	Operation details
	pid-00613ffe-c69d-4d17-a906-88ff88364af3-partne	ercenter Microsoft.Resources/deployments	ОК	Operation details
	S cs2b9b546ac0e3ex436fx861	Microsoft.Storage/storageAccounts	ОК	Operation details
	∧ Next steps			
	Go to resource group			

The following figures show that the Data Manager and DDVE instances are running.

#### Data Manager instance

$\equiv$ Microsoft Azure	٩	Search resources, services, and docs (G+/)		D 🕼 🖓 🕸 🔿 R
Home > dellemc.ppdm_ddve_0_0_1-202	11007172953 > PPDM_DDVE >			
▶ DemoPPDM 🖉 … Virtual machine				
	💋 Connect ▷ Start 🦿 Resta	rt 🔲 Stop 😥 Capture 📋 Delete 🖒 Refresh 🔋 Open in mobile ♡ Fee	edback	
Overview	↑ Essentials			
Activity log	Resource group (change) : PPDM_D	DVE	Operating system : Linux (sus	e 12)
Access control (IAM)	Status : Running		Size : Standard	D8s v3 (8 vcpus, 32 GiB memory)
🧳 Tags	Location : East US		Public IP address : -	
	Subscription (change) :		Virtual network/subnet : PPDM_DD	VEvnet01/subnet-1
C Diagnose and solve problems	Subscription ID :		DNS name : -	
Settings	Tags (change) : Click her	e to add tags		
2 Networking	Descention Manitasian Can			
🔗 Connect		abilities (7) Recommendations Tutonais		
🛢 Disks	Virtual machine		🙊 Networking	
📮 Size	Computer name	demoppdm	Public IP address	-
Security	Operating system	Linux (suse 12)	Public IP address (IPv6)	-
<ul> <li>Advisor recommendations</li> </ul>	Publisher	dellemc	Private IP address	10.6.0.4
	Offer	ppdm_0_0_1	Private IP address (IPv6)	-
	Plan	powerprotect-data-manager-19-9-0-13	Virtual network/subnet	PPDM_DDVEvnet01/subnet-1
ta Continuous delivery	VM generation	V1	DNS name	-
😒 Availability + scaling	Agent status	Ready	Size	
Configuration	Agent version	2.4.0.2	Size	Standard D8s v3
🚷 Identity	Host group	None	vCPUs	8
III Properties	Provimity placement group	-	RAM	32 GiB
🔒 Locks	Colocation status	N/A	_	
On continue	Capacity reservation group	-	🖀 Disk	
Operations			OS disk	DemoPPDM-osdisk
✓ Bastion	🚯 Availability + scaling		Azure disk encryption	Not enabled

#### **DDVE** instance



See <u>Dell EMC PowerProtect Data Manager Azure Deployment Guide</u> for more details on Data Manager deployment to Azure.

Note: The Data Manager and DDVE instance deployment takes a few minutes to start and initialize.

See <u>Dell EMC PowerProtect DDVE on Azure Installation and Administration Guide</u> for details on how to configure the DDVE instance deployed on Azure.

3 Manual Configuration of Data Manager deployed on Azure

After the PowerProtect Data Manager instance is deployed, it is referred to as a virtual appliance. After the virtual appliance is started, you might need to configure it.

Perform the following steps from a host that has access to the virtual appliance.

1. From a host that has network access to Data Manager, use Google Chrome connect to the appliance: https://<appliance\_hostname or IP address>.

Note: To connect to the appliance by its hostname, you must configure DNS.

2. On the Welcome page, select New Install to set up Data Manager as a new installation and click Next.

D&LLEMC   PowerProtect	t Data Manager
Install	Welcome to PowerProtect Data Manager
1 Welcome	Would you like to setup PowerProtect Data Manager as a new appliance or restore all of your settings from a previous backup?
2 End User License Agreement 3 Software License 4 Authentication 5 System Settings 6 Email Setup 7 AutoSupport	New install Install and configure a new PowerProtect Data Manager appliance     Restore Backup     Use PowerProtect Data Manager backup to restore your appliance     After restore, keep the product in recovery mode so that scheduled workflows are not triggered.
8 Summary	Next

3. Review the End User License Agreement, choose I accept, and select Next.

nstall	End User License Agreement
1 Welcome	Congratulations on your new Dell EMC purchase!
2 End User License Agreement	Your purchase and use of this Dell EMC product is subject to and governed by the Dell EMC Commercial Terms of Sale, unless you have a separate written agreement with Dell EMC that specifically applies to your order, and the Dell End User License Agreement (EULA), which are each presented below in the following order:
3 Software License	Commercial Terms of Sale     End User License Agreement (EULA)
4 Authentication	The Commercial Terms of Sale for the United States are presented below and are also available online at the website below that corresponds to the country in which this product was purchased.
5 System Settings	By the act of clicking "I accept," you agree (or re-affirm your agreement to) the foregoing terms and conditions. To the extent that Dell Inc. or any Dell Inc.'s direct or indirect subsidiary ('Dell') is deemed under applicable law to have accepted an offer by your (a) Dell hereby objects to and rejects all additional or inconsistent terms that may be contained in any purchase order or other documentation submitted by you in connection with wain order and (h) Dell hereby conditions is accentance more hereoning terms and conditions chall exclusive rontol
6 Email Setup	IF YOU DO NOT AGREE WITH THESE TERMS, DO NOT USE THIS PRODUCT AND CONTACT YOUR DELL REPRESENTATIVE WITHIN FIVE BUSINESS DAYS TO ARRANGE A RETURN.
7 AutoSupport	
8 Summary	Commercial remis of user These Commercial Terms of Sale ("CTS") apply to orders for hardware, software, and services by direct commercial and public sector purchasers and to commercial end-users who purchase through a reseller ("Customer"), unless Customer's purchase and use of such specific products or services.
	The term "Supplier(s)" means, as applicable:
	EMC Corporation ("EMC")
	176 South Street
	Hopkinton, Massachusetts 01748
	☑ laccept
	Cancel Back Net

- 4. On the **Software License** pane, perform the following actions:
- a. In the License Type field, select a type of license.
  - To use an evaluation license, select **90 days evaluation license**.
  - To load a license, select License File > Choose File and browse to and select the license file to load.
  - To copy the contents of the license file, select Plain Text and copy the contents of the license file into the Plain Text field.

#### b. Click Next.

D&LLEMC   PowerProtect	Data Manager				
Install	Software License				
1 Welcome	License Type	90 day evaluation license 🗸			
2 End User License Agreement	License File	The evaluation license supports all the PowerProtect Data Manager features without any restrictions for 90 days.			
3 Software License					
4 Authentication					
5 System Settings					
6 Email Setup					
7 AutoSupport					
8 Summary					
			Cancel	Back	Next

5. In the **Authentication** pane, perform the following actions:

The **Use common password** option is selected by default. This toggle sets one initial password for use with all Data Manager interfaces.

D&LLEMC   PowerProtect	Data Manager	
Install	Authentication	
1 Welcome 2 End User License Agreement	Use same initial password for all     Password     Set a password for use across all the PowerProtect Data Manager interfaces.	
3 Software License	Enter a new password	
4 Authentication 5 System Settings	Reenter password to confirm	
6 Email Setup 7 AutoSupport 8 Summary	Use common password Set a password for use with all PowerProtect Data Manager interfaces and for the lockbox passphrase. Interface passwords are not synchronized after installation and may expire at different intervals. The lockbox passphrase does not expire. Description of the lockbox	¢
	Do not doe the sociology passpringer. The passpringe to choose on name operations: The decarry comignation cause promoes more information.	
	Cancel Back	Next

a. Optionally, clear the **Use common password** option.

If the **Use common password** option is selected, in the **Enter a new password** and **Reenter password to confirm** fields, specify a password.

If the **Use common password** option is not selected, in the **Enter a new password** and **Reenter password to confirm** fields, specify individual passwords for the interfaces.

Ensure that the password meets the following requirements:

- A minimum of nine characters and a maximum of one hundred characters
- At least one numeric character (0-9)
- At least one uppercase character (A-Z)
- At least one lowercase character (a-z)
- At least one special character from the following list of acceptable characters:
   !@#\$%^&\*()\_-+=~{}[]<>?/`;;',...\" (Spaces are allowed)

b. Click Next.

6. In the System Settings pane, perform the following actions:

a. In the Current Timezone list box, select the time zone where the system is physically located.

- b. To add an NTP server, click Add.
- c. In the Server IP Address field, specify the NTP server IP address.

d. Click Add.

e. To change the list of NTP servers, click Edit or Delete.

f. Click Next.

D&LLEMC   PowerProtect	Data Manager			
Install	System Settings			
1 Welcome	Current Timezone	PSTSPDT - Pacific Standard Time		
3 Software License	NTP	Add Edit Delete		
4 Authentication 5 System Settings		There is currently no data to view. Click the 'add' button above to enter NTP server details.		
6 Email Setup				
7 AutoSupport				
8 Summary				
			Cancel Back	Next

- 7. In the Email Setup Optional pane, perform the following actions:
- a. In the Mail Server field, specify the SMTP server IP address.
- b. In the Admin Email field, specify the administrator email address.
- c. In the Recipient for Test Email field, specify the recipient email address.
- d. In the Port field, specify the TCP port to connect to the SMTP server.
- e. In the **Username** field, specify the mail username.
- f. In the **Password** field, specify the mail password.
- g. To send a test email to the specified IP address, click Send Test Email.
- h. To acknowledge the test email was successfully sent, click OK.

i. To send diagnostic and usage data to Dell Technologies for proactive support and to help improve our products and services, switch **Auto Support** to **ON**.

When enabling auto support, click **View Terms** to review the telemetry software terms. Scroll down to click **Accept** to finish enabling auto support or **Decline** to disable auto support.

j. Click Next.

D&LLEMC   PowerProtect	t Data Manager		
Install	Email Setup		
instan			
1 Welcome	Configure Email		
2. End User License Agreement	Required to enable AutoSupport		
2 End oast Electrice Agreement	Server Settings		
3 Software License	Mail Server	hostname or ip address	(Required)
4 Authentication			
5 System Settings	Admin Email	administrator email	<ul> <li>(Required)</li> </ul>
6 Email Setup			7
7 AutoSupport	Recipient for Test Email	recipient email	
8 Summary		Required in order to send a test email	
o Summary	Port	25	
	Authentication		
			ן ר
	User Name	user name	
	Password	password	
		, ,	
	Send Test Email		

8. On the **Summary** pane, review the configuration choices and select **Done**.

D&LLEMC   PowerProtect	Data Manager			
Install	Summary			
1 Welcome	Installation may take several minutes			
2 End User License Agreement	End User License Agreement			
3 Software License	EULA Accepted	Yes		
4 Authentication	License Type Days left for expiry	TRIAL 90 days		
5 System Settings	Authentication			
6 Email Setup	Password	Set		
7 Summary	Current Timezone	PST8PDT - Pacific Standard Time		
	Email Catura	onder		
	Mail Server	Unset		
	Admin Email	Unset		
	Mail Server Port	25		
	User Name	Unset		
	Password	Unset		
	AutoSupport			
	Enable AutoSupport	No		
	Telemetry Notice Accepted	No		
			_	
			Cancel Back	Done

9. Within a few minutes, the Data Manager configuration is complete, and the login prompt appears.

DELLEMC	PowerProtect Data Manager	
		Setting up your PowerProtect Data Manager
		Seta Statu:

10. Login with username as "admin" and use the password set during the configuration.

PowerProtect Data Manager Copyright © 2015-2021 Dall Inc. or its subsidiaries. All Rights Reserved						
· · · · · · · · · · · · · · · · · · ·						
>						

#### 11. Data Manager is now ready to protect the cloud workloads running on Azure.

D&LLEMC   PowerPr	otect Data Manager			Q
습 Dashboard				Skip This
%     Infrastructure     >       ()     Protection     >	Getting Started The following steps will assist in configuring key elements of the application.			
Alerts     Administration	$\bigcirc$	O		
Jobs <u>II</u> Reporting	Support	Disaster Recovery Backup	VMware vCenter	Protect Assets
	View support content and setup the email server for application notifications and messages	Setup backup of PowerProtect Data Manager to protect metadata catalog and ensure Disaster Recovery readiness	Discover vCenter assets so they can be added to a protection policy	Setup protection of Assets now including Schedule, Interval, RPO, Target for Recovery later if needed.
	bbA	Add	Add	Add

DØLLEMC PowerProtect Data Manager Q A @+ &+ 0 @+ #						
බ Dashboard	Dashboard					
<ul> <li>Infrastructure &gt;</li> <li>Protection &gt;</li> </ul>	Alerts	Jobs   Protection @ 1 Day :	Health			
<sup>∩</sup> <sup>∩</sup> <sup>∧</sup> <sup></sup>	Healthy     13 minutes     ago     The system has been restarted.     View All	Q     Critical     0       ▲     Warning     0       ④     Success     0       ∅     Canceled     0       ∅     Running     0       ∅     Queued     0       ∅     Completed     0	O Errors Services     Trial : Valid License       Not Configured Support     Operational Protection Engines       Not Scheduled Server Backups     O Days Uptime			
	Protection  Dest 24 Hours <ul> <li>No Protection Policies Found.</li> <li>Add</li> <li>View All</li> </ul>	View All Protection Storage   Highest Utilization No Data Domains associated. Add a Data Domain Add	Compliance       Image: No Protection Policies Found.     Add       All     Image: Total SLA Successes     0       Image: Total SLA Failures     0			
©	Recovery					

## A Technical support and resources

Dell.com/support is focused on meeting customer needs with proven services and support.

<u>Data Protection Info Hub</u> provides expertise that helps to ensure customer success with Dell EMC storage and data protection products.

### A.1 Related resources

#### Dell EMC PowerProtect Data Manager

- Dell EMC PowerProtect Data Manager Azure Deployment Guide
- Dell EMC PowerProtect Data Manager Administration and User Guide
- <u>PowerProtect Data Manager Compatibility Matrix</u>

#### **Dell EMC PowerProtect DD Virtual Edition**

Dell EMC PowerProtect DDVE on Azure Installation and Administration Guide