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# 1. Tech Data Site Recovery Step by Step

## 1.0 Things to know prior to using this Guide

- You would need to familiarize yourself with this document prior to diving in.
- All the Screen Shots in this Guide are for reference only.
- This Guide will assist you with the deployment of the Azure Site Recovery Bundle in an Azure CSP subscription that was purchased through the StreamOnePortal.  
In depth training on Azure is outside of this guide.
- *Accessing the Azure Site Recovery in Azure*  
You would need to login to the Azure portal to get the IP address
  - <https://portal.azure.com>
  - You would need to login using the same user name and password as the one created in StreamOne and what was emailed to you.
- For example: [john.doe@contoso.onmicrosoft.com](mailto:john.doe@contoso.onmicrosoft.com)
- It will give you a one-time password and you will need to change it.
  - To access the Azure Backup, you must ensure you have the **Login** and **Password** that were created during the StreamOne ordering process.
  - If you were not the person who accessed the StreamOne ordering portal to do the purchasing, please get with that person and obtain the user login and password that were initially created.

## 1.1 Azure Backup on Azure deployment.

Connect to StreamOne Cloud Marketplace:

**STREAMONE**  
Software and Services on Demand

Reseller Resource Center | Reseller Portal | Contact | Cart  
Logged in as William.Matyas@azlan.com [ Log Off ]

You are currently ordering for Aida Dzinovic of TECH DATA FINLAND OY EI TILAUKSIA [Change Reseller](#)

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**BitTitan** **TechData Cloud**

### Office 365 automated assessment, migration and deployment

Better margins for you, better experiences for your customers

**RESELLER RESOURCE CENTER**

How to get started  
Video demos  
FAQs

[Explore Resources](#)

**Notifications**

Dear reseller, We are pleased to announce that StreamOne is now live in Slovakia. With this addition the platform reaches now 17 European countries, strengthening the TD Cloud presence in Europe.

Most Viewed		Newest	
<b>Office 365 Enterprise</b> Microsoft Office Application	SaaS	<b>UAT TEST Sprint 3.30</b> Microsoft Cloud Storage	SaaS
<b>Microsoft Azure</b> Microsoft Business Intelligence	IaaS/PaaS	<b>Automation_MSP_Listing_FIN</b> oneQATest Cloud Storage	SaaS
<b>BitTitan Cloud Enablement Services</b> BitTitan Encryption	SaaS	<b>Microsoft Annual Billing</b> Microsoft Email Archiving	SaaS
<b>Automation Listing FIN</b> oneQATest Migrations Tools	SaaS	<b>Cisco Spark - Prepaid Annual</b> Cisco Communications	SaaS
<b>Cisco Spark-Monthly</b> Cisco Communications	SaaS	<b>Intercompany Test</b> IBM Softlayer Cloud Storage	SaaS

**Partner Links**

[Go back to Tech Data](#)  
[Reseller Portal](#)

**Advertisement**

**Käyttöohjeet**  
kohta kohdalta suomeksi!

**USER MANUAL**

You can search for the Microsoft Azure SKU in Most Viewed, browsing by Categories or Vendor, or directly searching for it in the search field:

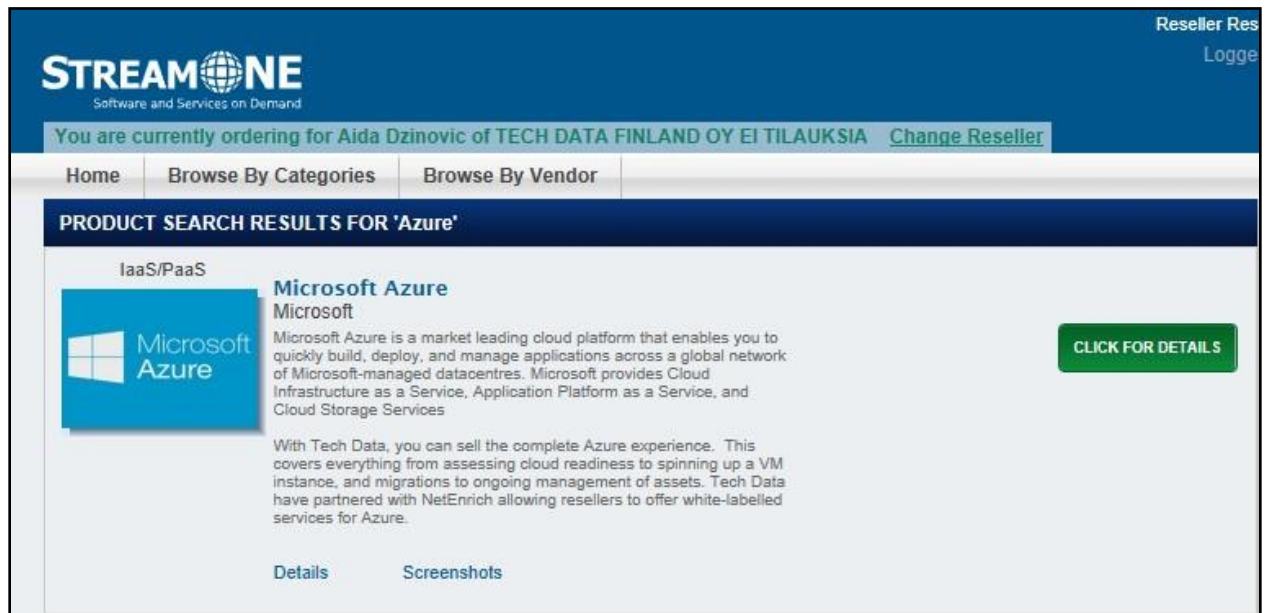
**STREAMONE**  
Software and Services on Demand

Reseller Resource Center | Reseller Portal | Contact | Cart  
Logged in as William.Matyas@azlan.com [ Log Off ]

You are currently ordering for Aida Dzinovic of TECH DATA FINLAND OY EI TILAUKSIA [Change Reseller](#)

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Click on Microsoft Azure:



**STREAMONE**  
Software and Services on Demand

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Home | Browse By Categories | Browse By Vendor

**PRODUCT SEARCH RESULTS FOR 'Azure'**

IaaS/PaaS

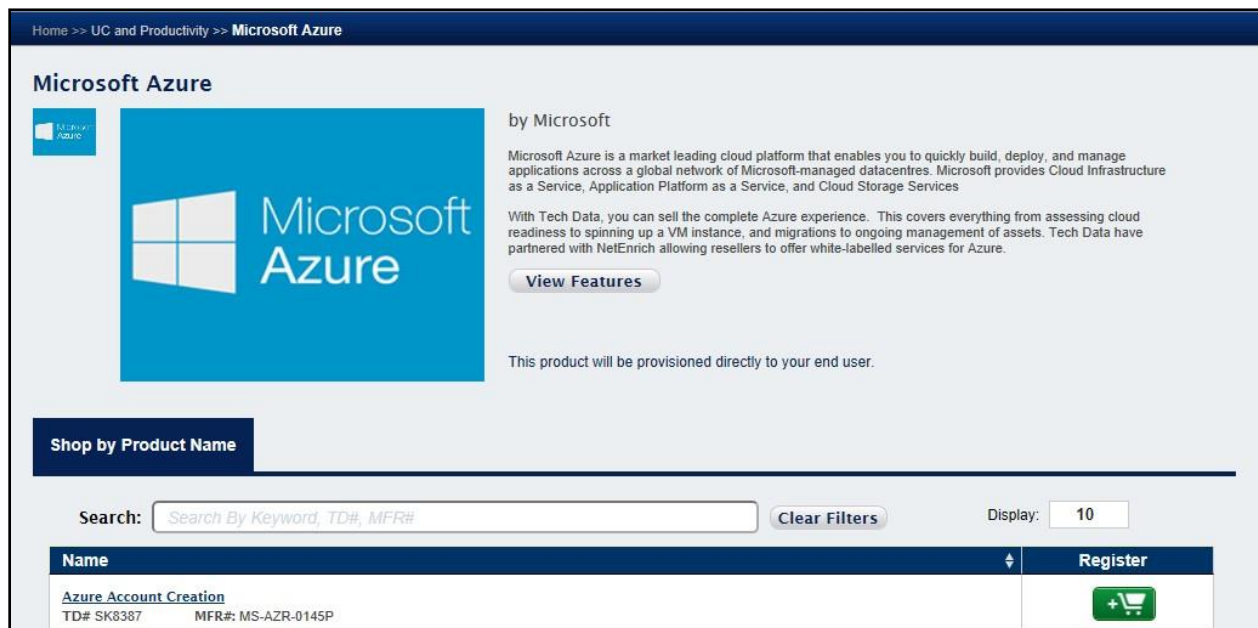
**Microsoft Azure**  
Microsoft

Microsoft Azure is a market leading cloud platform that enables you to quickly build, deploy, and manage applications across a global network of Microsoft-managed datacentres. Microsoft provides Cloud Infrastructure as a Service, Application Platform as a Service, and Cloud Storage Services

With Tech Data, you can sell the complete Azure experience. This covers everything from assessing cloud readiness to spinning up a VM instance, and migrations to ongoing management of assets. Tech Data have partnered with NetEnrich allowing resellers to offer white-labelled services for Azure.

[Details](#) [Screenshots](#) [CLICK FOR DETAILS](#)

Click on "ADD TO CART" button of registration SKU:



Home >> UC and Productivity >> **Microsoft Azure**

**Microsoft Azure**

by Microsoft

Microsoft Azure is a market leading cloud platform that enables you to quickly build, deploy, and manage applications across a global network of Microsoft-managed datacentres. Microsoft provides Cloud Infrastructure as a Service, Application Platform as a Service, and Cloud Storage Services

With Tech Data, you can sell the complete Azure experience. This covers everything from assessing cloud readiness to spinning up a VM instance, and migrations to ongoing management of assets. Tech Data have partnered with NetEnrich allowing resellers to offer white-labelled services for Azure.

[View Features](#)

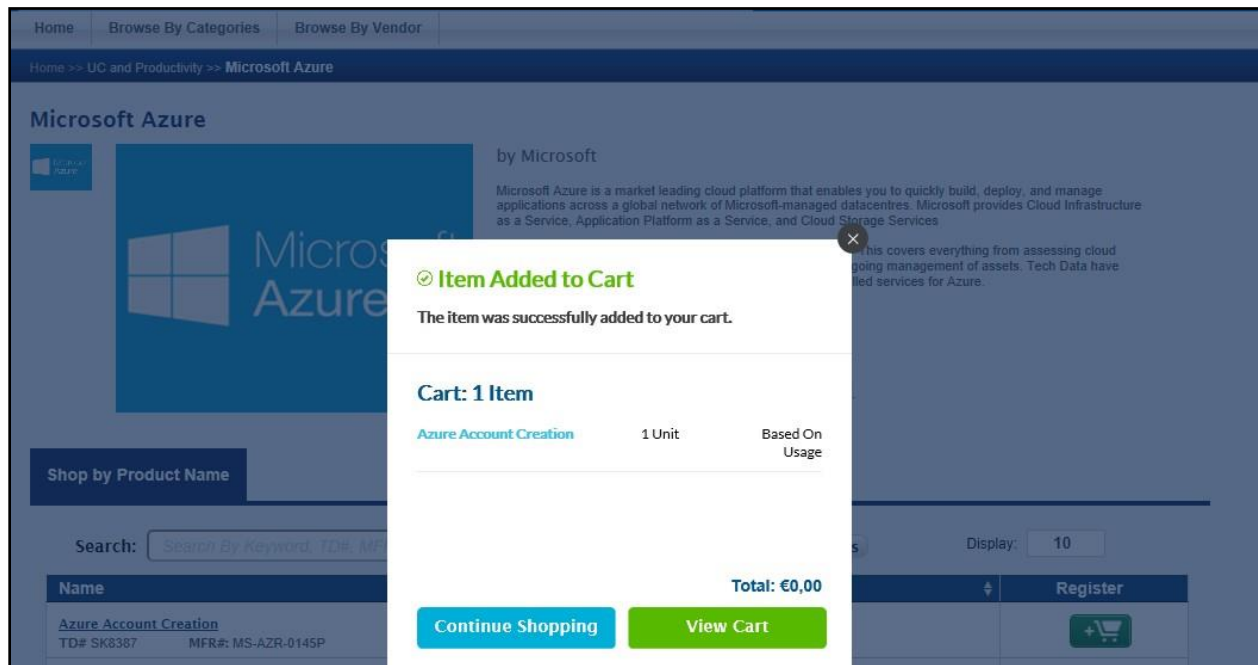
This product will be provisioned directly to your end user.

**Shop by Product Name**

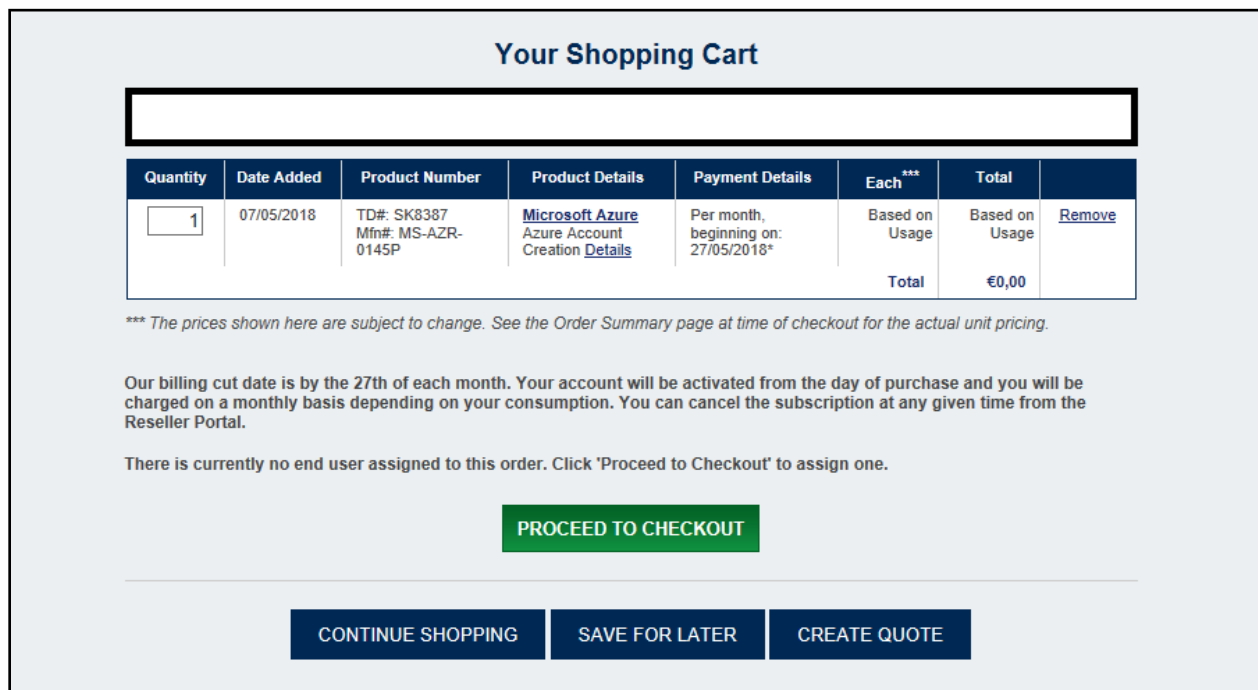
Search:  [Clear Filters](#) Display:

Name	Register
<a href="#">Azure Account Creation</a> TD# SK8387 MFR#: MS-AZR-0145P	<a href="#">+ [Shopping Cart Icon]</a>

Click on "View Cart" button:



Click on 'Proceed to Checkout' button:



Fill End User information or select any end user using your email and click on "Continue to Configuration" button.

End Customer Info

The following products require end user information: \*indicates a required field

- Azure Account Creation

Please select or enter an end user for the products above:

Select From Address Book

Company Name:\*

Techdata France

First Name:\*

alexandre

Last Name:\*

moreaux

Title/Position:

Cloud Architect

Phone Number:\*

0644892378

End Customer Email:\*

alexandre.moreaux@techdata.com

Confirm End Customer Email:\*

alexandre.moreaux@techdata.com

Address Line 1:\*

142 Avenue Stalingrad

Address Line 2:

City:\*

Colombes

Country:\*

France

Zip/Code:\*

92700

This email address MUST be associated with the end customer domain to set up the account properly. If you do not wish to send communication directly to this email you will have the option to specify a different email address during the next step in the Account Administration section.

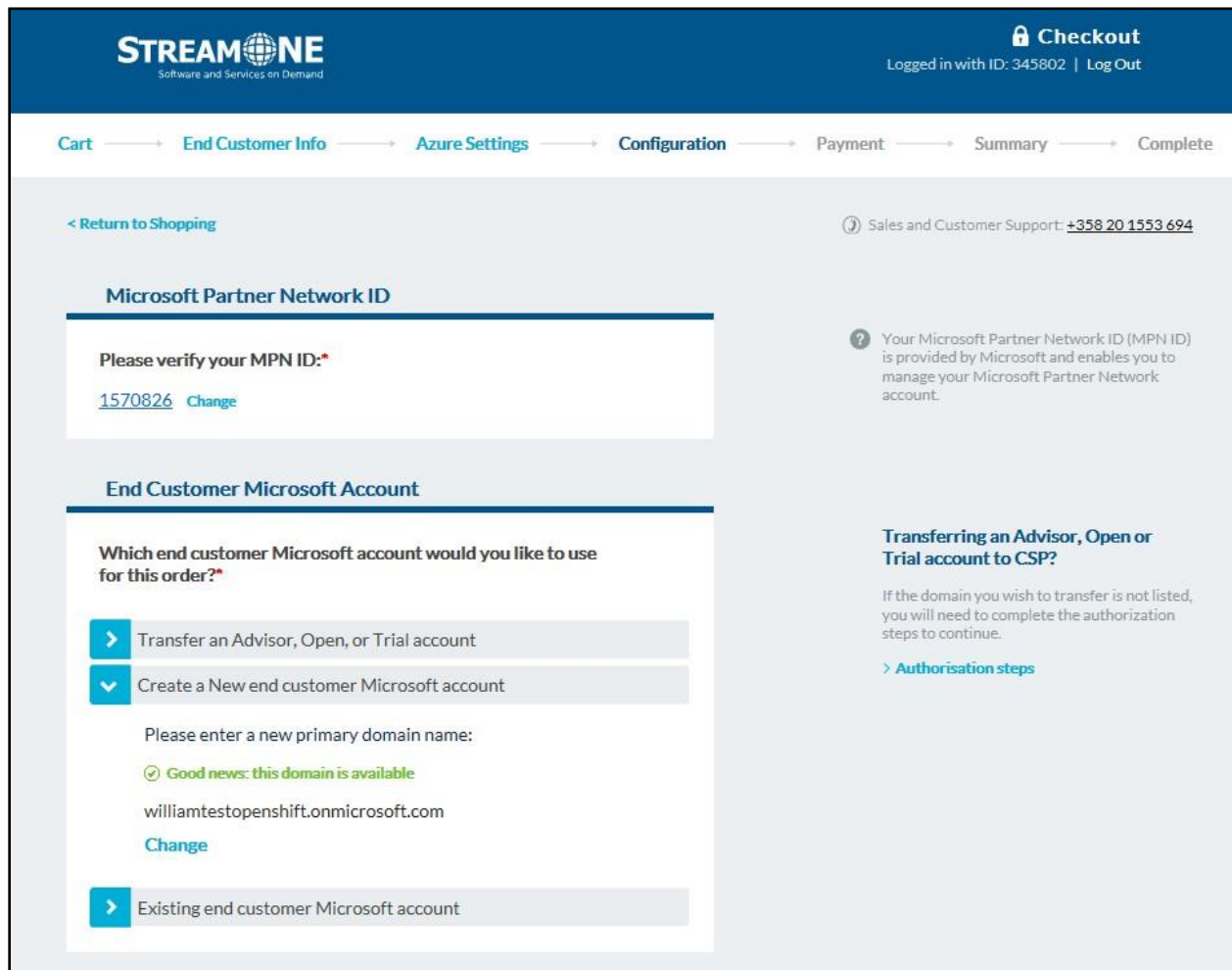
Continue to Configuration

Click on "Continue Configuration" button available in Bundle Summary section.

Configuration page should be displayed.

Fill in your Microsoft Partner Network ID.

Click on Create a New end customer Microsoft account button.



The screenshot shows the StreamOne Configuration page. The top navigation bar includes the StreamOne logo, a Checkout button, and the user's login ID. The main navigation bar shows the current step is Configuration. The page is divided into two main sections: Microsoft Partner Network ID and End Customer Microsoft Account. The first section prompts the user to verify their MPN ID, showing the value 1570826 and a Change button. The second section asks which end customer Microsoft account to use, offering options to transfer an existing account or create a new one. The 'Create a New end customer Microsoft account' option is selected, and a domain name is entered with a 'Check Availability' button. A message indicates the domain is available. The right sidebar contains contact information and a note about transferring an account to CSP.

**Microsoft Partner Network ID**

Please verify your MPN ID:\*

1570826 [Change](#)

**End Customer Microsoft Account**

Which end customer Microsoft account would you like to use for this order?\*

☒ Transfer an Advisor, Open, or Trial account

☐ Create a New end customer Microsoft account

Please enter a new primary domain name:

Good news: this domain is available

williamtestopenshift.onmicrosoft.com

[Change](#)

☐ Existing end customer Microsoft account

**Transferring an Advisor, Open or Trial account to CSP?**

If the domain you wish to transfer is not listed, you will need to complete the authorization steps to continue.

[Authorisation steps](#)

**Checkout**  
Logged in with ID: 345802 | [Log Out](#)

[Cart](#) → [End Customer Info](#) → [Azure Settings](#) → **Configuration** → [Payment](#) → [Summary](#) → [Complete](#)

[Return to Shopping](#)

Sales and Customer Support: [+358 20 1553 694](#)

Enter any unique domain name and click on Check Availability button.



Select "The End Customer email" radio button from the "Account Administration" module.

Or select "I will administer the account" radio button from the account administration module and enter the Delegate admin email ID.

### Microsoft Partner Network ID

Please verify your MPN ID:\*

1570826 [Change](#)

### End Customer Microsoft Account

Which end customer Microsoft account would you like to use for this order?\*

>

Transfer an Advisor, Open, or Trial account

▼

Create a New end customer Microsoft account

Please enter a new primary domain name:

✔ Good news: this domain is available

NetappONTAP.onmicrosoft.com

[Change](#)

>

Existing end customer Microsoft account

### Account Administration

Who should receive the account credentials?

☒ The End Customer (alexandre.moreaux@techdata.com)

☐ I would like to specify a custom account email address

? Your Microsoft Partner Network ID (MPN ID) is provided by Microsoft and enables you to manage your Microsoft Partner Network account.

**Transferring an Advisor, Open or Trial account to CSP?**  
 If the domain you wish to transfer is not listed, you will need to complete the authorization steps to continue.  
[> Authorisation steps](#)


? An email will be sent with the account credentials after your order is placed.


Continue to Payment

Click on "Continue to Payment" button.




Enter Reseller PO number.




 Checkout  
 Logged in with ID: 345802 | Log Out

Cart —> End Customer Info —> Azure Settings —> Configuration —> **Payment** —> Summary —> Complete


[< Return to Shopping](#)

 Sales and Customer Support: [+358 20 1553 694](tel:+358201553694)

 **Purchase Order Info**

**Reseller PO Number:**

**End User PO Number:**

 **Payment Method**

**Your default payment method will be used:**


☒ Terms

You are about to buy some products based on usage. We will temporarily block €500,00 from your account to guarantee initial consumption expenses coverage.


Continue to Summary

Click on "Continue to Summary" button.


Verify the information shown and click on "Place Order" button.


**End Customer Information**
[Change](#)

**Techdata France**  
  
alexandre moreaux  
142 avenue de Stalingrad  
Colombes, 92700, France  
alexandre.moreaux@techdata.com


**Configuration**
[Change](#)


NetApp ONTAP Cloud:  
West Europe  
  
Microsoft Account Domain:  
NetappONTAP.onmicrosoft.com  
  
Credentials will be sent to:  
alexandre.moreaux@techdata.com


**Order Summary**
[Edit Cart](#)


Quantity	Product	Price Each	Total
1	<a href="#">Azure Account Creation</a>  Microsoft's cloud platform, an industry leader for both infrastructure... You will be billed based on account usage	Based on Usage	Based on Usage

Have a promo code?

**Total: €0,00**


**Payment Method**
[Change](#)

Reseller PO Number:  
123456789  
  
Payment Method:  
Terms


**Terms and Conditions**

☒ I have read and agree to the [Reseller Marketplace Terms\\*](#)  
  
☒ I have read and agree to Vendor Terms For [Microsoft\\*](#)

Your order should be complete.

## ✓ Order Complete

Order #S000186786

[Return to Shopping](#)

**Thank you for your business.**  
**Your order is currently being processed.**

To check the status of your order please visit the [Reseller Portal](#) and view [Order Tracking](#)

When we have completed processing your order:

- An email will be sent to your end user with getting started instructions,

### Order Summary

Order Date: 15-06-2018 02:48 PM CEST

Reseller PO #: 123456789

#### Sold To:

Tech Data Ltd  
Wessex House, Oxford Road Chineham Business Park  
Newbury, RG14 1PA GB  
1111111111  
arun.rana@techdata.com

#### End Customer Information:

DEmo  
alexandre moreaux  
142 avenue de Stalingrad  
Colombes 92700  
France  
alexandre.moreaux@techdata.com

### Items Purchased

Qty	M/Part#	Vendor	Description	Date	Promo	Each	Total
1	td-getting-started-ms-azure-ias	Microsoft	Azure creation sandbox	15/06/2018		Based on usage	Based on usage
Total							£0.00

You should receive an email with your Microsoft Subscription Informations:

Dear alexandre moreaux,

Your Microsoft account has been setup.

Please continue to <https://login.microsoftonline.com> and login with the username and password below for your Office 365 subscriptions.  
For Azure, please use <https://portal.azure.com/>

**Username:** [admin@alexandreNETAPP2.onmicrosoft.com](mailto:admin@alexandreNETAPP2.onmicrosoft.com)

**Password:** [X3]Nu(3

ⓘ Cliquez sur la bannière d'avis de sécurité pour en savoir plus sur la sécurité de votre compte. Pour en savoir plus, cliquez sur le lien "Sécurité" dans le menu de gauche. Cliquez sur "Sécurité" dans le menu de gauche. Cliquez sur "Sécurité" dans le menu de gauche.

**Your Subscriptions:**

Name	Quantity
Azure Account Creation	1

Now click on Reseller Portal, then Customer Admin. Look for your Customer and click on IaaS/PaaS.

Reseller Resource Center | Reseller Portal | Contact | Cart  
Logged in as ryan.berger@techdata.com | Log Off

You are currently ordering for Aida adzinovic of Tech Data | Change Reseller

Home | Browse By Categories | Browse By Vendor

Welcome Tech Data 703212

Home Page  
Orders  
Insights  
Recurring Billing  
**Customer Admin**  
Address Book  
Opportunities  
My Profile

Search

Address Book

Find

Customer Admin

Show 100 entries

Search: ryan.b

Company	Email
Ryan Berger's Burgers	ryan.berger@techdata.com

SaaS | **IaaS/PaaS** | Billing | Quotes | Company Info | Carts

Showing 1 to 1 of 1 entries (Filtered from 37 total entries)

First | Previous | 1 | Next | Last

Then Click on Modify:

16/01/19 05:52:PM CET	S000260371 Sandbox	StreamOne	Microsoft	MS-AZR-0145P	SK7608	azrhos11td	Azure Account Creation Microsoft's cloud platform, an industry leader for both infrastructure-as-a-service and platform-...	1	Support	Modify
--------------------------	-----------------------	-----------	-----------	--------------	--------	------------	--	---	---------	--------

Showing 1 to 12 of 12 entries

First Previous 1 Next Last

Cancelled IaaS/PaaS Applications

Then click on “Click to Configure”:

You are currently ordering for Aida adzinovic of Tech Data [Change Reseller](#)

Home Browse By Categories Browse By Vendor

Welcome Tech Data 703212

Search Address Book Find

Home Page

Orders

Insights

Recurring Billing

Customer Admin

Address Book

Opportunities

My Profile

Status of Subscription: **Active**

Current Billing Cycle: 12/01/2019 - 11/02/2019

Current Budget: £0.00

Subscription Usage: £0.00

Usage Threshold Notification at: 0% [edit](#)

Disclaimer: Data updates every 24 hours

**Reseller Information**  
Reseller PO#: 1234  
Tech Data  
Wessex House, Oxford Road Chineham Business Park  
Basingstoke, Hampshire RG14 1PA GB  
S1QATestingEmail@techdata.com  
1231223111

**End User Information**  
End User PO#:  
Ryan Berger's Burgers  
Ryan Berger  
B+B York 15 St. Peters Grove  
York  
YO30 6AQ  
ryan.berger@techdata.com  
3526502341

**Subscription Settings**  
Domain: azrhos11td  
Subscription name: **Microsoft Azure** [edit](#)

Order #	Vendor	Name	Delegate	Manage	Status	Created On	Modified On
S000260371 Sandbox	Microsoft	Azure Registration Base Subscription	<a href="#">Delegate</a>	<a href="#">Manage</a>	suspended / active	16/01/2019 05:22 PM CET	16/01/2019 05:52 PM CET
S000260371	Microsoft	Azure Bundle - Red Hat OpenShift			<a href="#">Click to Configure</a>	16/01/2019 05:22 PM CET	16/01/2019 05:22 PM CET

Need to access your end user's subscription  
Click the View steps option below for more information on how to get started.  
[View Steps](#)

Location

Select data center location

North Europe

Resource Group Name

ASR

Advanced Bundle Settings

Name of Recovery Services Vault

AzureSiteRecovery

Storage Replication for Recovery Services Vault

☒ Locally Redundant Storage (LRS)

☐ Geo-Redundant Storage (GRS)

Deploy Now

## ASR post deployment with Hyper-V Source

Register your Hyper-V host(s)

On-premises

Make sure the host is running Windows Server 2012 R2 or above.

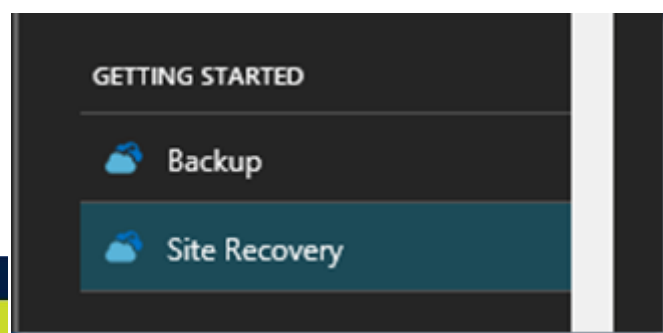
Download the Agent

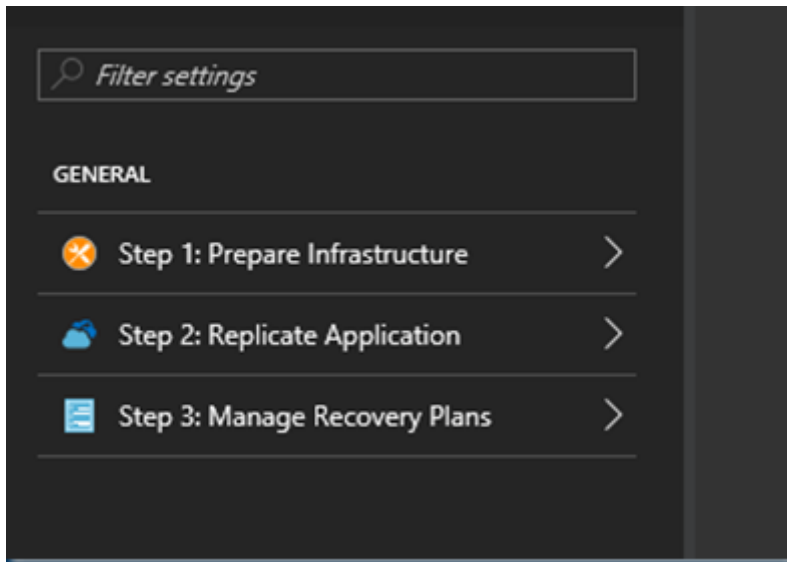
The installer for the Microsoft Azure Site Recovery Provider.

Download the vault registration key to register the host in a Hyper-V site

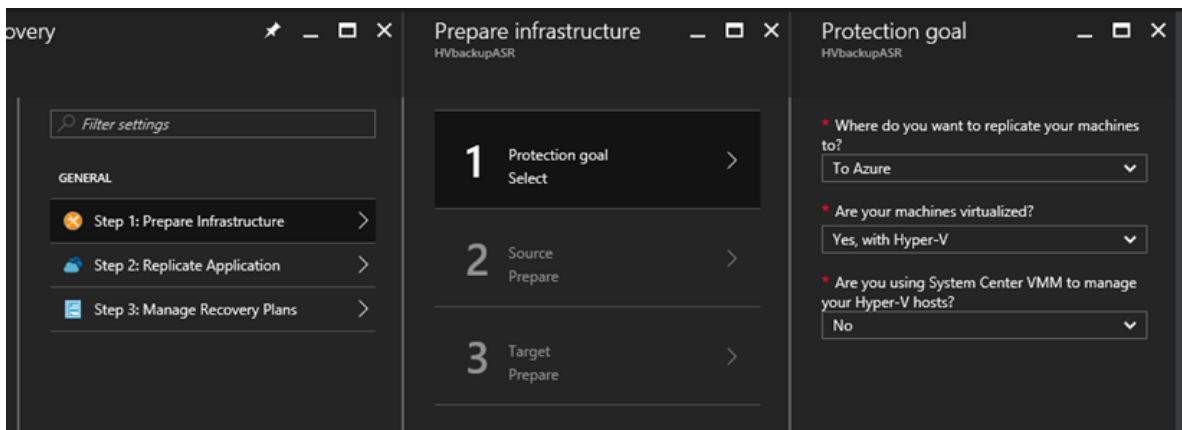


This download is replication agent to Azure and need to be installed on the Hyper-v Server



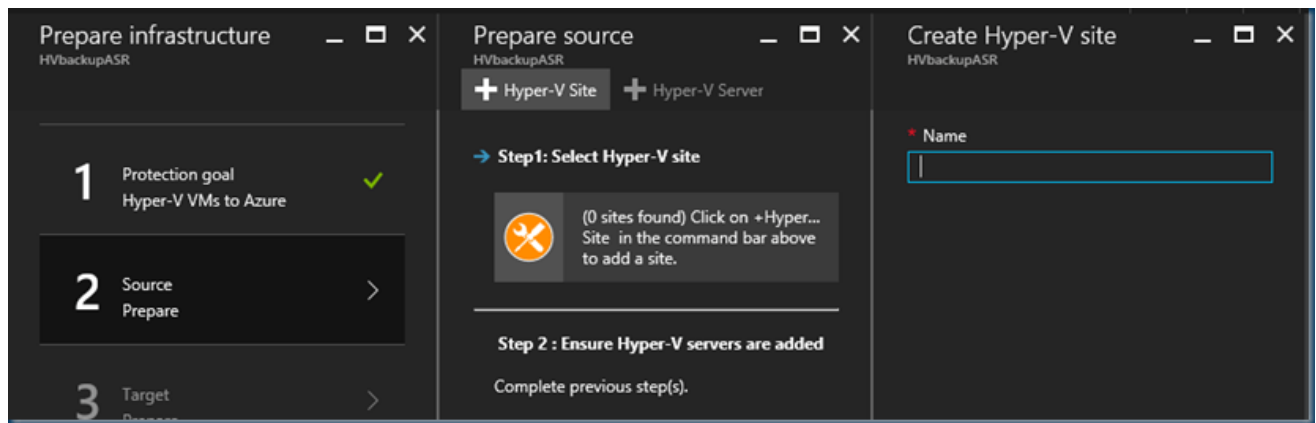


Selecting the Site Recovery and start with Step 1



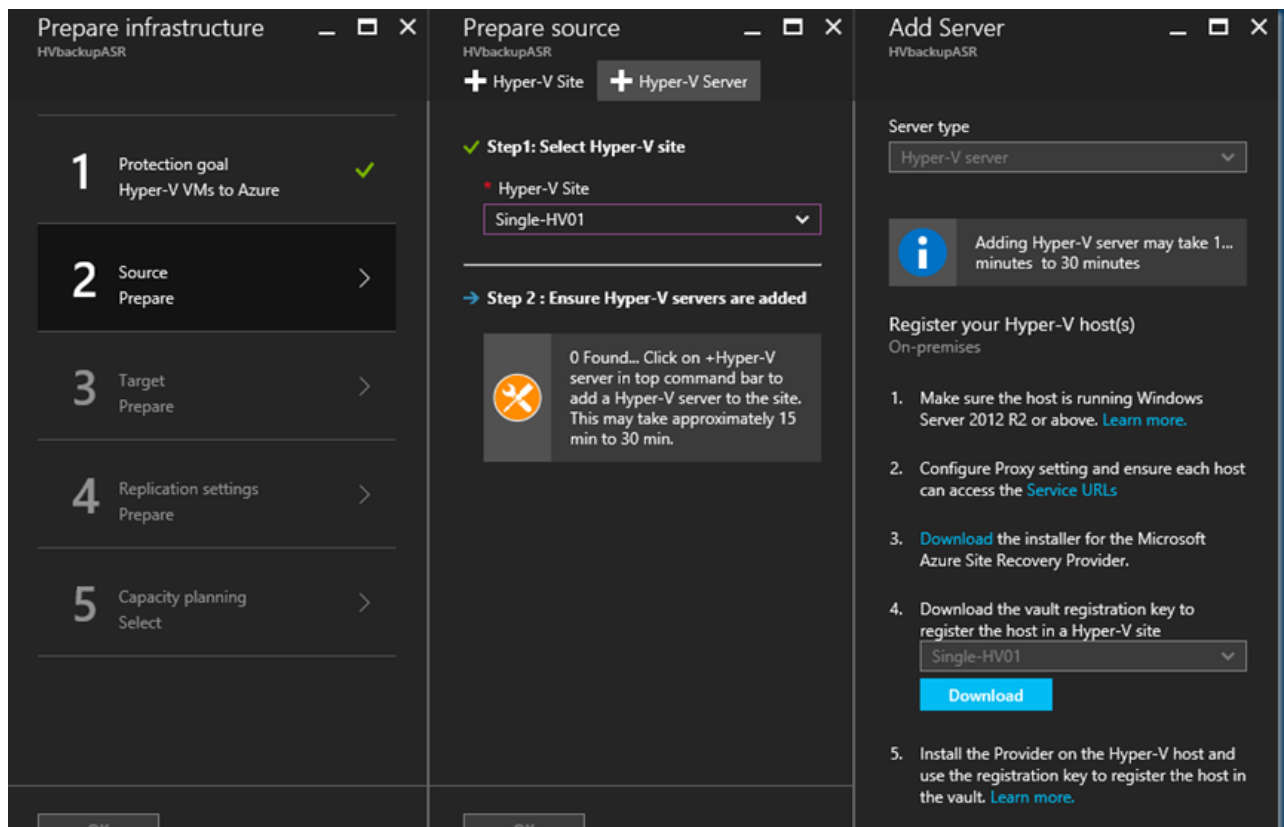
In this step We select our Protection goal select To Azure, and select Yes, with Hyper-V. Select No to confirm you're not using VMM.





We need to create a Site of this hyper-v server.

This is a Cosmetic name and points to the Hyper-v server or servers, if this is a Test server then this should be HVtest etc.



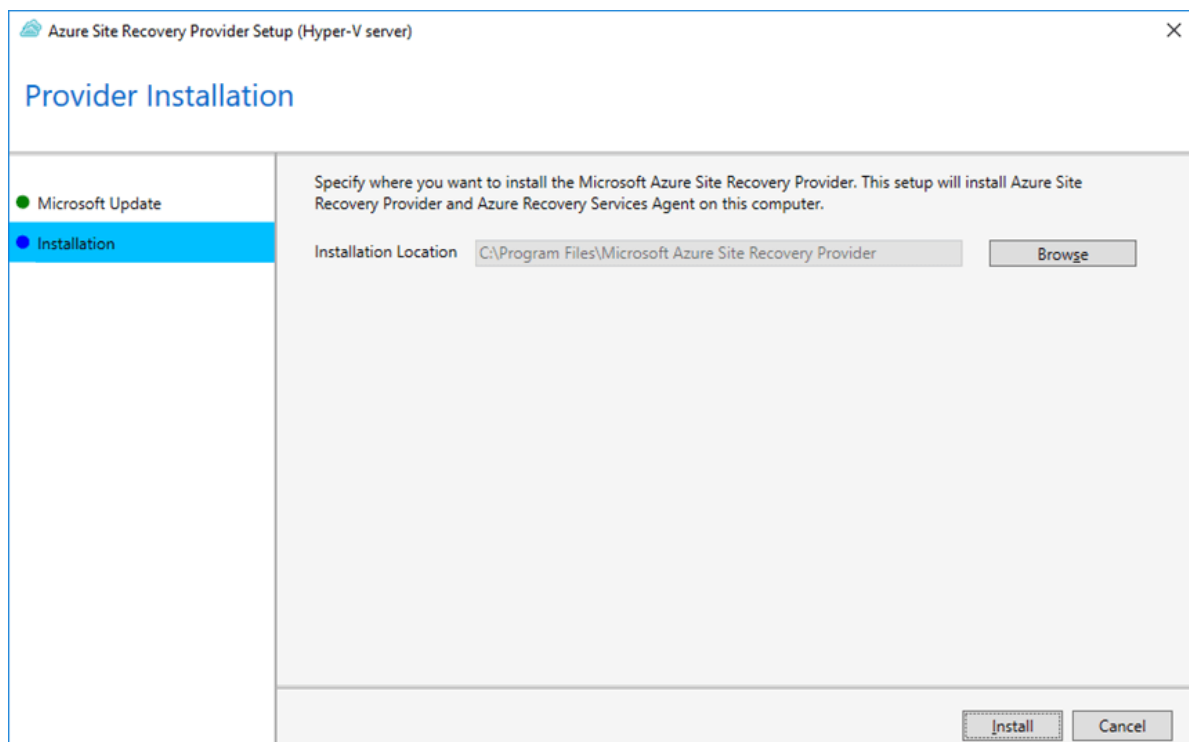
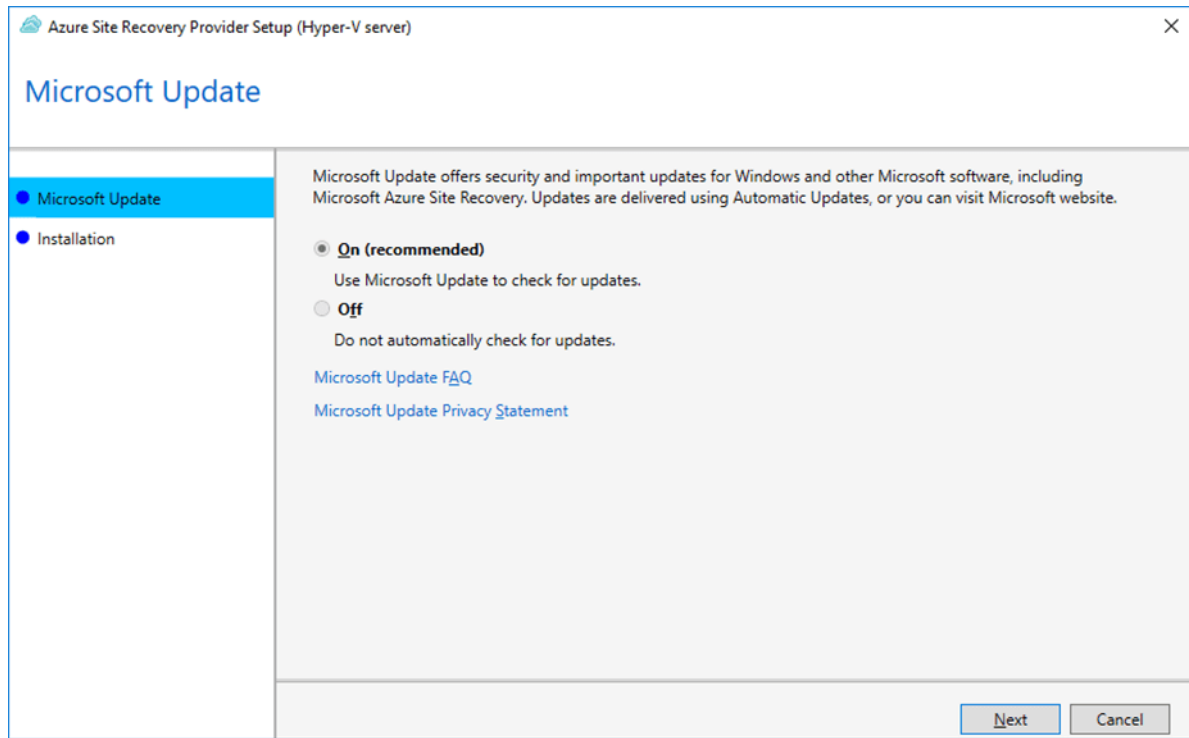
I need to install the Agent and use the vault keys to connect to Azure. Also downloaded here

Do you want to open or save HVbackupASR\_Single-HV01\_Tue Feb 07 2017.VaultCredentials (4.42 KB) from portal.azure.com?

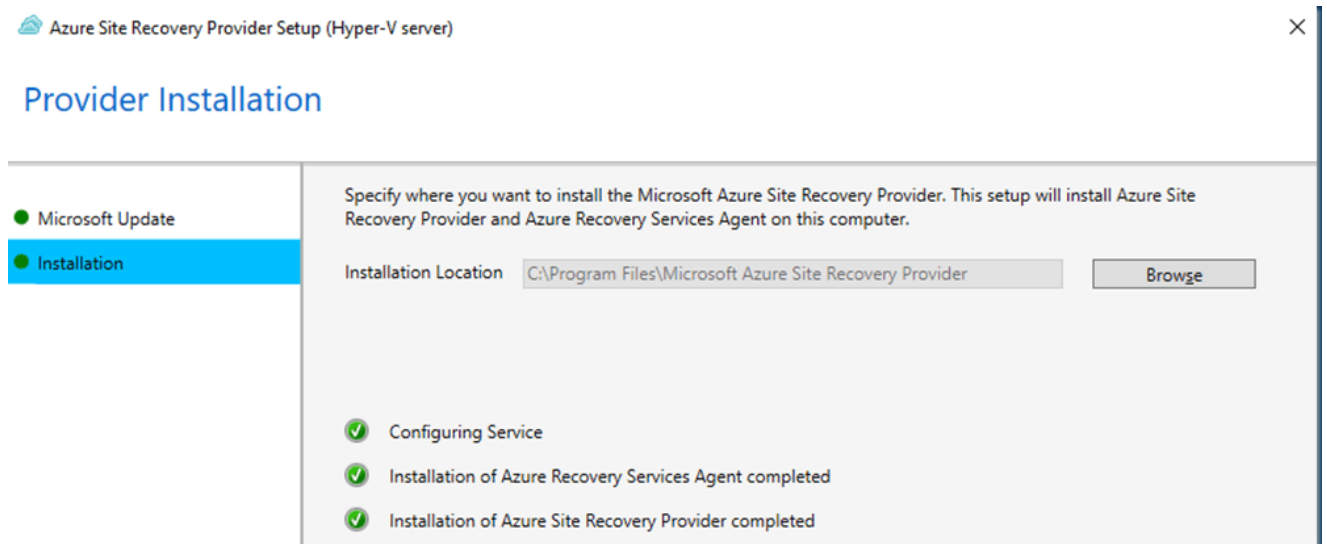
Open Save Cancel

## Installing the Hyper-v Agent

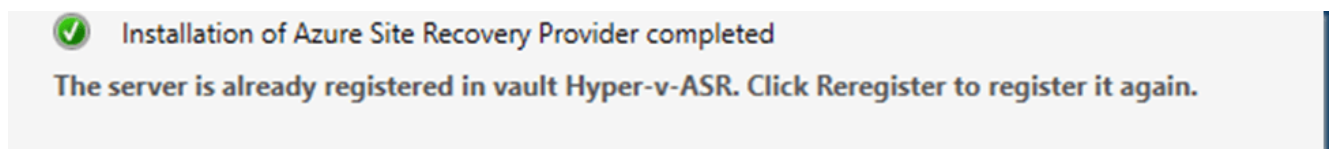
Use the Exe just downloaded and follow the steps.



Use a location be careful if not installing on the C drive and not replication the other drive there can be miscommunication in the VM. Better leave this default.



But in case You already played with this or want different naming and started all over the may be an issue " the server is already registered"

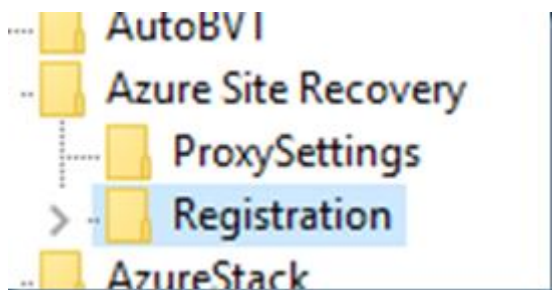


To fix this error and enable the ASR Provider and agent setup to complete successfully, follow these steps:

Go to the Register

Make a backup of the following registry key:

HKEY\_LOCAL\_MACHINESOFTWAREMicrosoftAzure Site Recovery



Delete the registry key that you backed up in step 2.

Restart the Provider and agent setup.

Microsoft Azure Site Recovery Registration Wizard

## Vault Settings...

Select the registration key file you downloaded from the Azure Site Recovery portal and specify vault settings. [Learn More](#)

Key file

Subscription

Vault name

Hyper-V site name

Use the downloaded Keys and import them.

Microsoft Azure Site Recovery Registration Wizard

## Vault Settings...

Select the registration key file you downloaded from the Azure Site Recovery portal and specify vault settings. [Learn More](#)

Key file

Subscription

Vault name

Hyper-V site name

Name	Type	Data
(Default)	REG_SZ	(value not set)
AcsCertificatePrivateKeyContainerName	REG_SZ	{40F2C3E9-9C71-465C-9F6B-549D47A28FF8}
AcsCertificateThumbprint	REG_SZ	F3168AE689D818AD80FF9D3E8E457AE407E3F8F8
AcsUrl	REG_SZ	https://wepod01id1machine54.accesscontrol.windows.net
AudienceUrl	REG_SZ	http://windowscloudbackup/m3
ChannelIntegrityKey	REG_BINARY	01 00 00 00 d0 8c 9d df 01 15 d1 11 8c 7a 00 c0 4f c2 97 eb 01 0
ChannelIntegrityKeyTokenLifetime	REG_DWORD	0x00000150 (336)
ContainerId	REG_SZ	cloud_b56658cf-5f06-5a43-8328-7e753a146474
DRARegistered	REG_SZ	True
DraVersionBackup	REG_SZ	5.1.2000.0
FabricId	REG_SZ	b56658cf-5f06-5a43-8328-7e753a146474
FriendlyName	REG_SZ	Hyperv1201.mvp.local
IsAadAuthType	REG_SZ	False
OrgIdUserName	REG_SZ	HVbackupASR
ResourceId	REG_SZ	8533770143790787569
ResourceName	REG_SZ	HVbackupASR
SiteName	REG_SZ	Single-HV01

Checking the Register you can see that the key is valid and all the info is there.

Microsoft Azure Site Recovery Registration Wizard

### Proxy Settings...

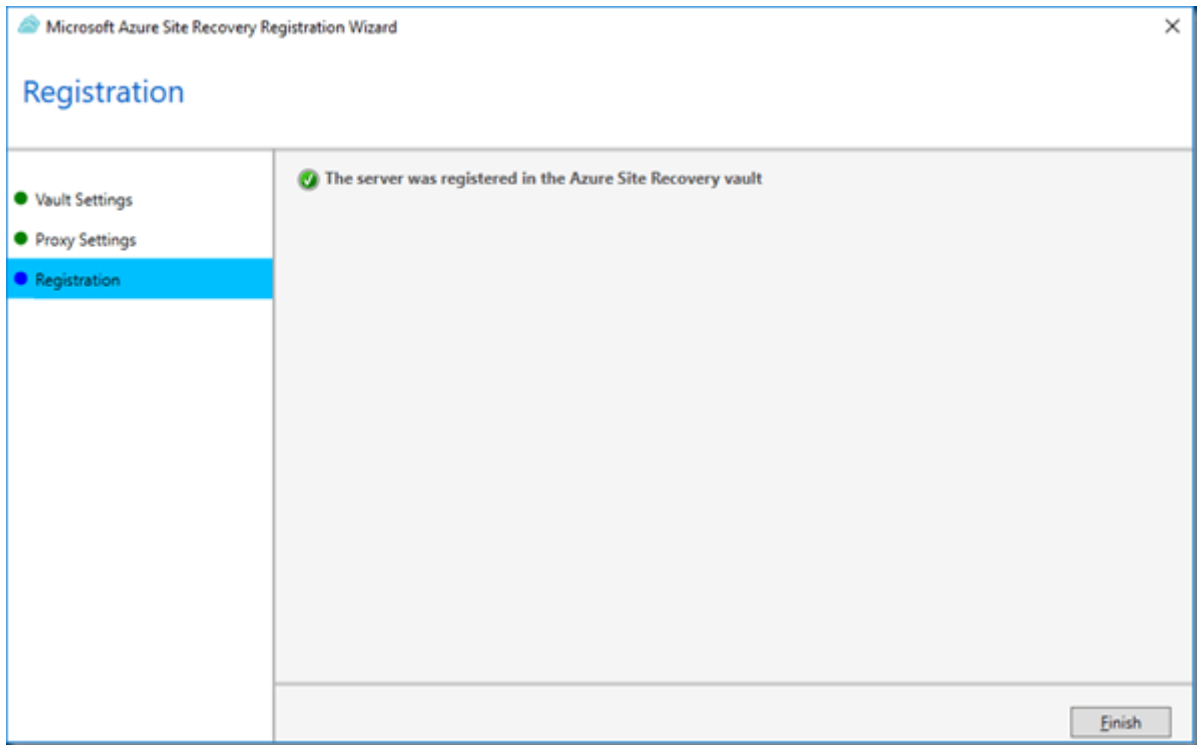
- Vault Settings
- Proxy Settings**
- Registration

Specify how the Provider running on the server connect to Azure Site Recovery. Connectivity will be verified when you click Next.

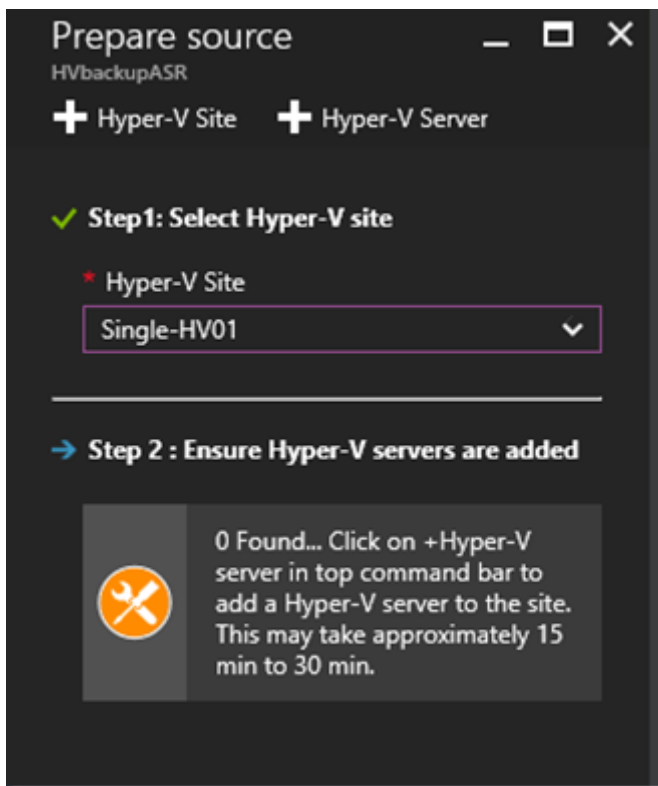
**Click next to check connectivity with Azure Site Recovery Service.**

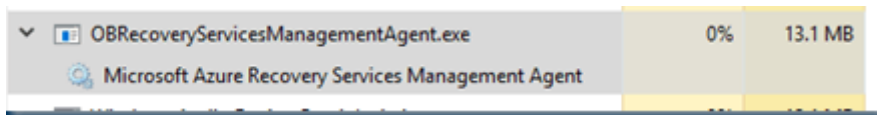
☒ Connect directly to Azure Site Recovery without a proxy server  
☐ Connect to Azure Site Recovery using a proxy server

Previous Next Cancel

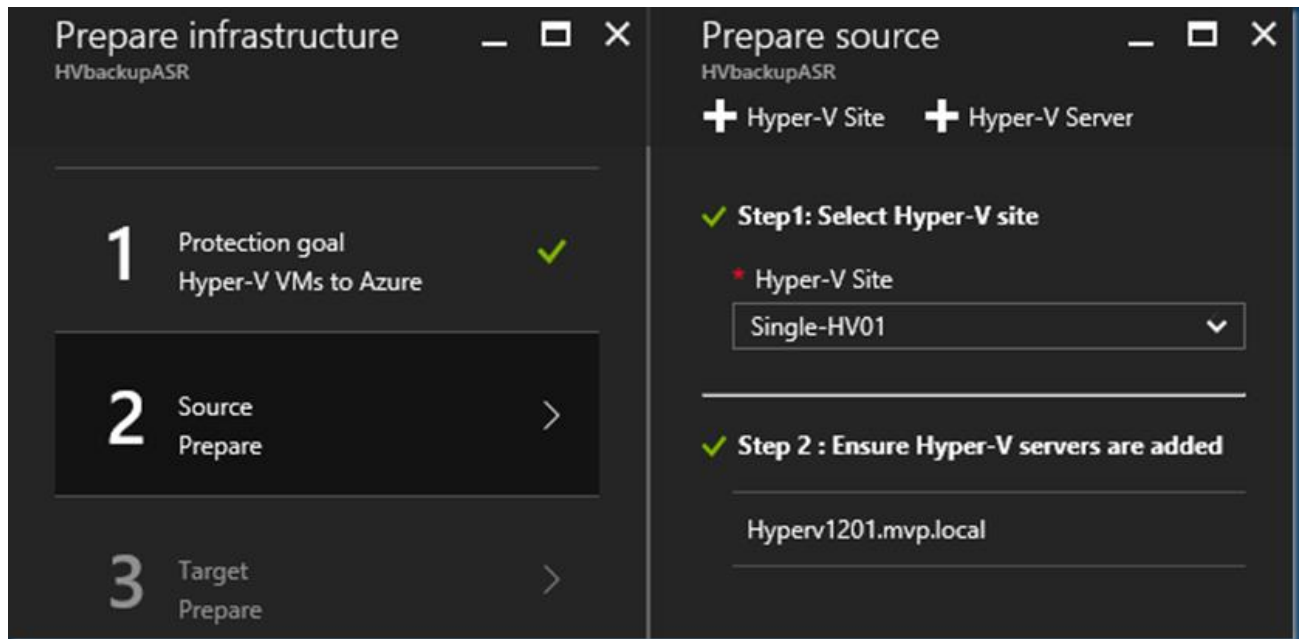


And the installation is done. It can take some time to add the server to Azure maybe several hops back and forth to the menu



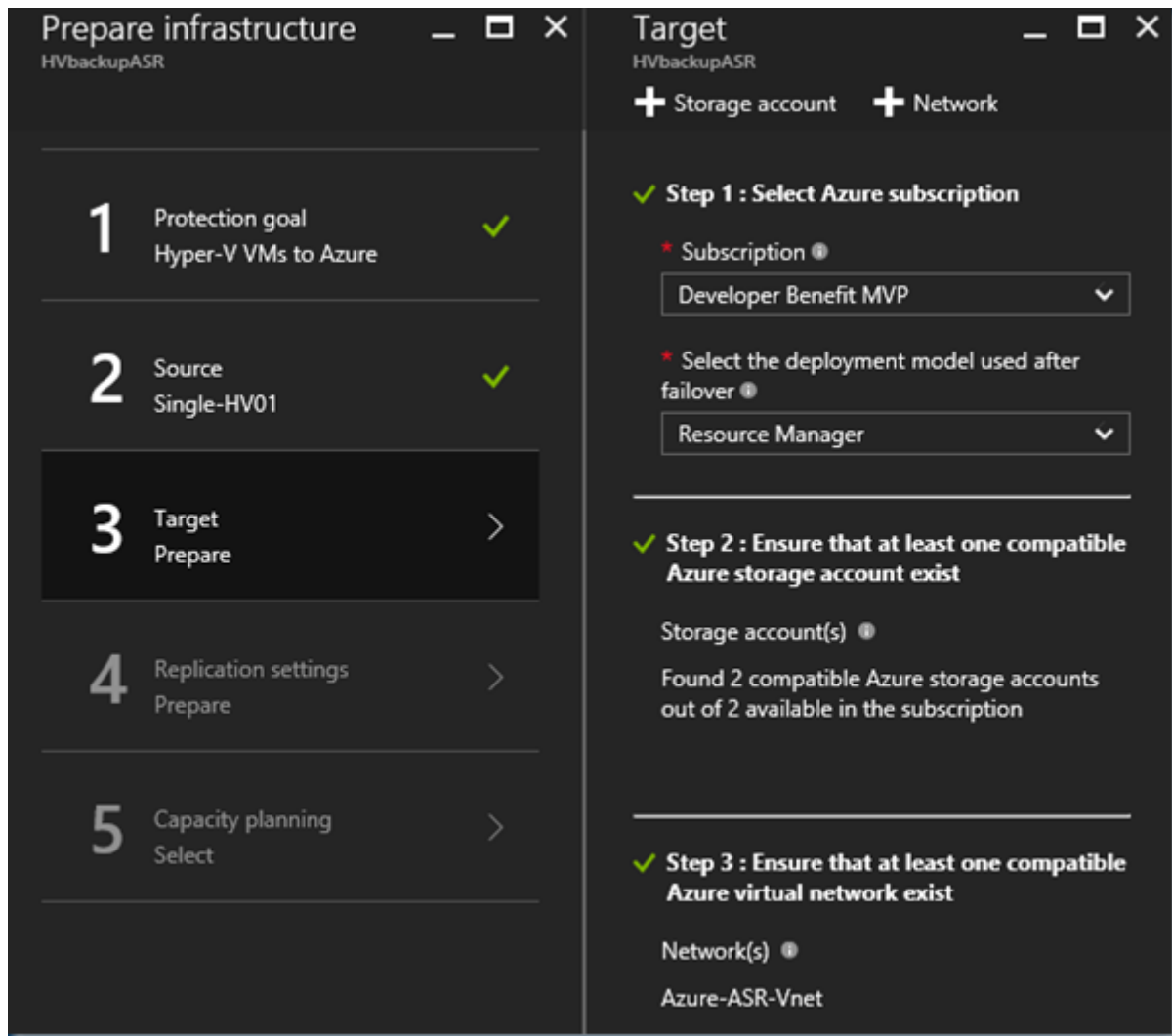


You can see the process running in the Task manager.

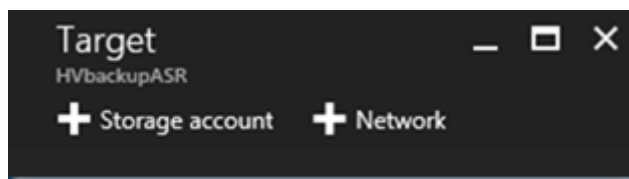


Jumping back and to the step 2 you can see the Hyper-v server is added to the Vault.

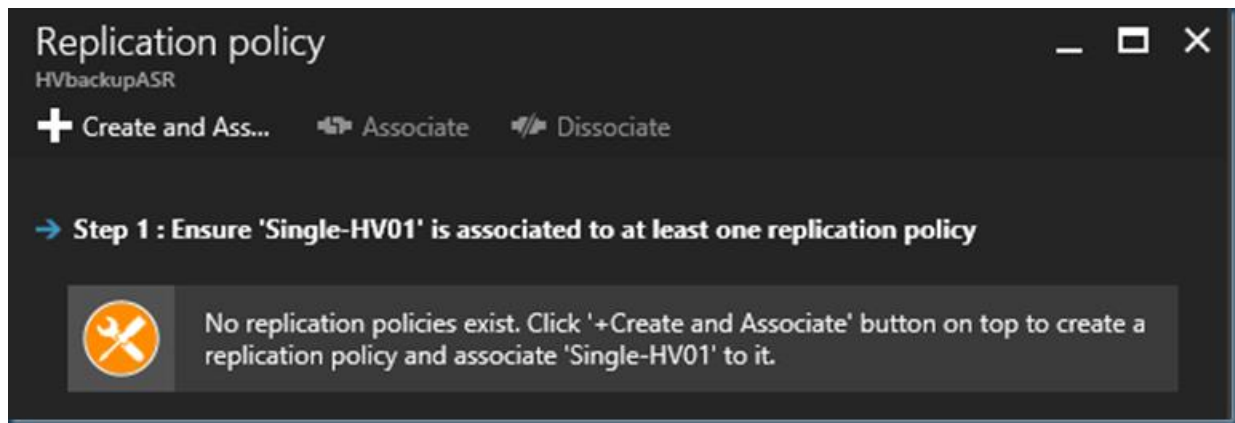




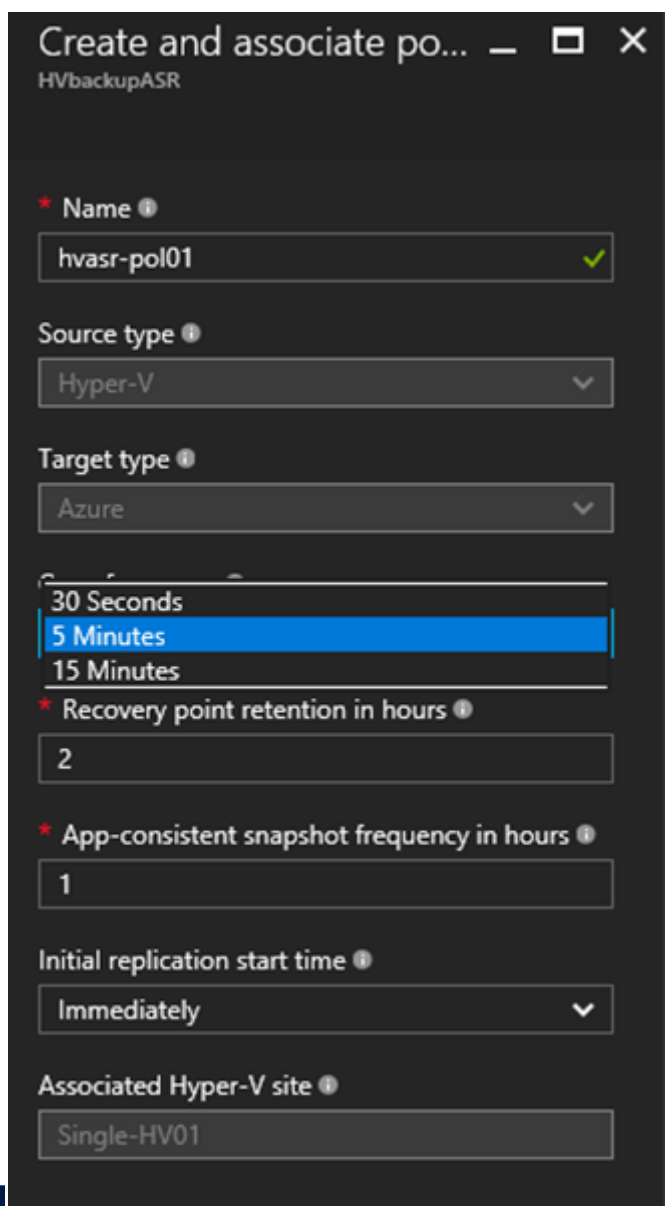
Added a storage account and a network. If this is not the storage account or network you want no worry you can change this before the replication starts.



Check this if you want a new account or different network.



Next step would be creating a replication policy.



In Create and associate policy specify a policy name.

In Copy frequency specify how often you want to replicate delta data after the initial replication (every 30 seconds, 5 or 15 minutes).

In Recovery point retention, specify in hours how long the retention window will be for each recovery point. Protected machines can be recovered to any point within a window.

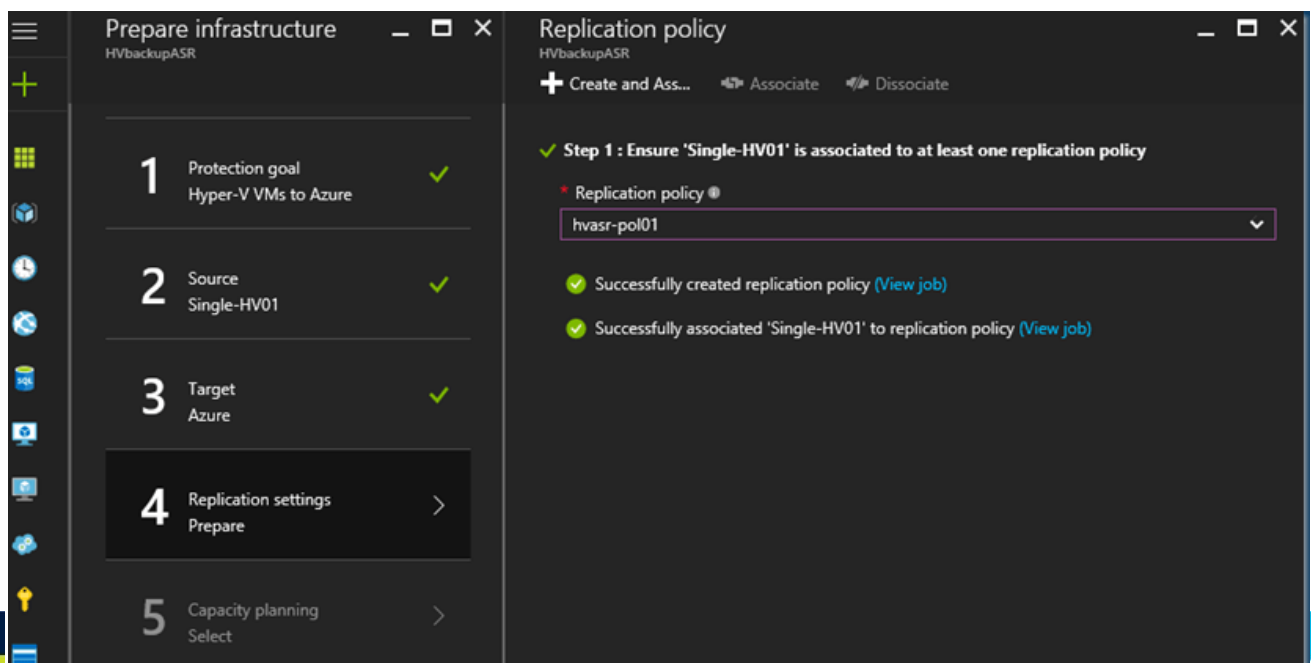
In App-consistent snapshot frequency specify how frequently (1-12 hours) recovery points containing application-consistent snapshots will be created.

Hyper-V uses two types of snapshots — a standard snapshot that provides an incremental snapshot of the entire virtual machine, and an application-consistent snapshot that takes a point-in-time snapshot of the application data inside the virtual machine.

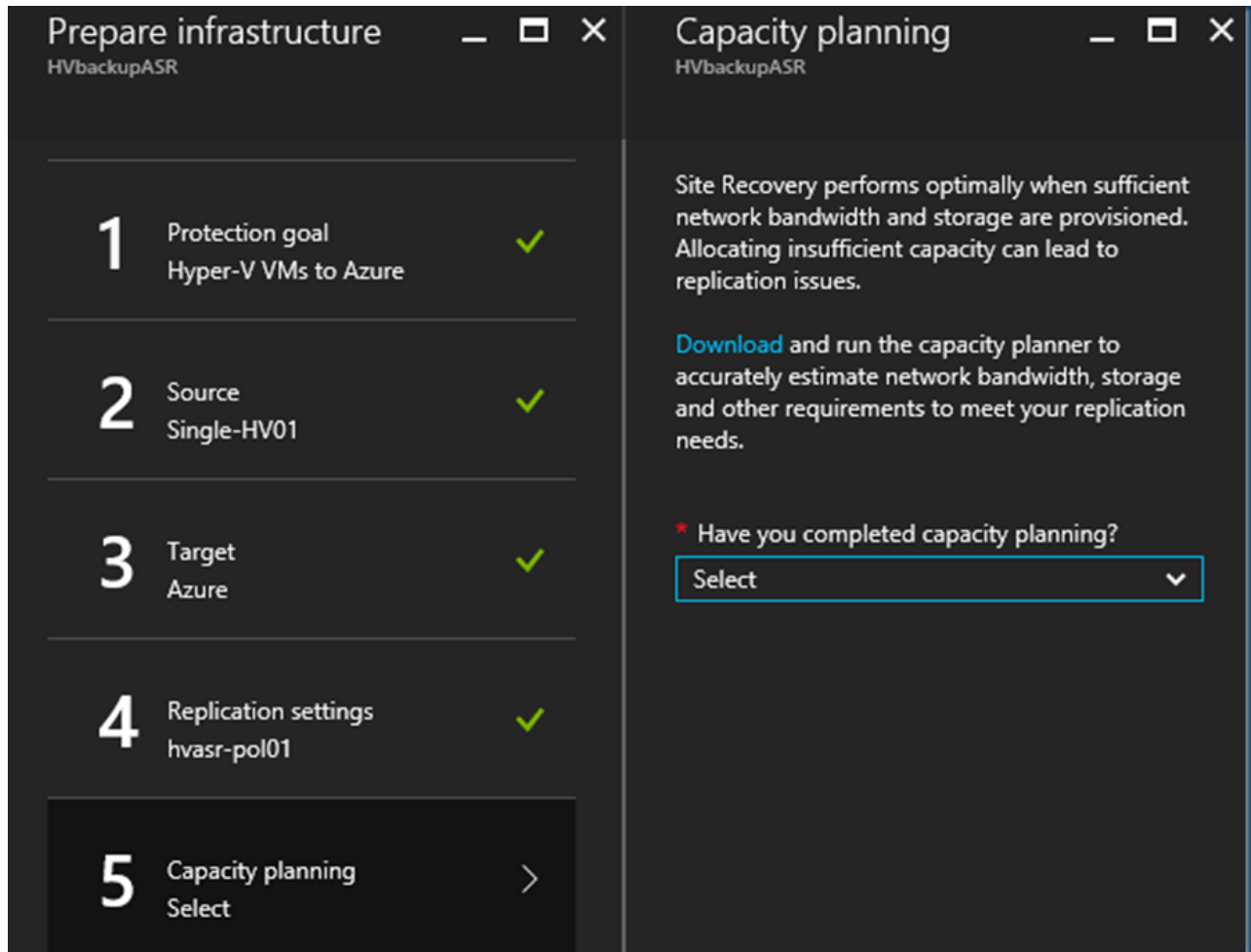
Application-consistent snapshots use Volume Shadow Copy Service (VSS) to ensure that applications are in a consistent state when the snapshot is taken. Note that if you enable application-consistent snapshots, it will affect the performance of applications running on source virtual machines.

Ensure that the value you set is less than the number of additional recovery points you configure.

In Initial replication start time specify when to start the initial replication. The replication occurs over your internet bandwidth so you might want to schedule it outside your busy hours.



As you can see the policy's are applied but you can create multiple but you can use only one at each site.

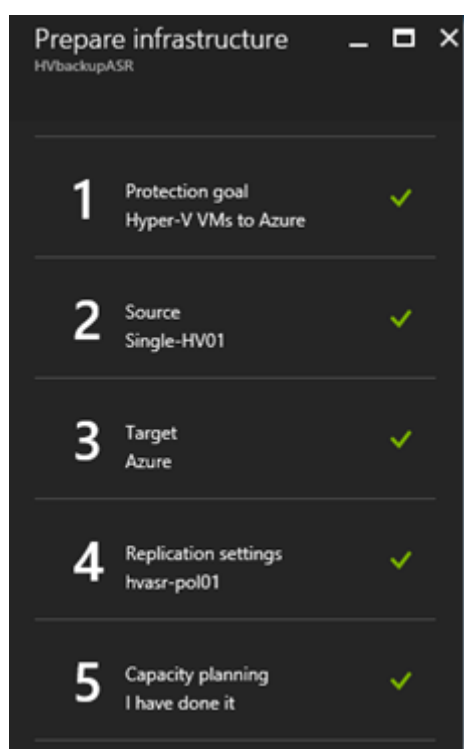


Allocating insufficient capacity can lead to replication issues. Site Recovery provides a capacity planner to help you allocate the right resources for your source environment, the site recovery components, networking and storage.

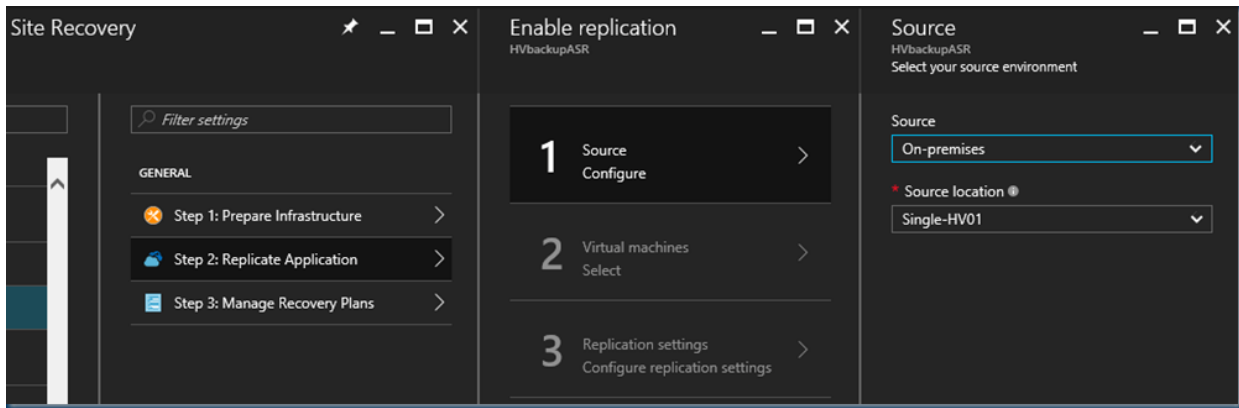
You can run the planner in quick mode for estimations based on an average number of VMs, disks, and storage, or in detailed mode in which you'll input figures at the workload level.

Capacity Planner		
INPUTS		
Infra Inputs source	Manual	
Select your scenario	Hyper-V to Azure	Reset to Defaults
Total number of virtual machines	100	
Average number of VHDs per virtual machine	2	
Average size of VHD (in GBs)	300	
Average utilization per disk (%)	70%	
Total data to be replicated (in GBs)	42000	
Churn Inputs		
Average daily data change rate (%)	5%	
Amount of data changed per day (in GBs)	2100	
Compression	0%	
Amount of data Xfered per day (in GBs)	2100	
Retention Inputs		
Number of recovery points	16	
Initial Replication Inputs		
Number of hours in which initial replication for the batch of virtual machines should complete	16	
Number of virtual machines per initial replication batch	3	
OUTPUT		
Network Bandwidth requirements		
Bandwidth required for delta replication (in Megabits/sec)	200 Mbps	
Bandwidth required for initial replication (in Megabits/sec)	180 Mbps	Adjust B18,B19 to suit available bandwidth
Bandwidth refers to dedicated bandwidth for replication.		
Azure requirements		
Storage required (in GBs)	43400	
Total IOPS on standard storage accounts	3186	
Number of standard storage accounts required	5	
Number of Blob disks required	200	
Number of premium storage accounts required	0	
Total IOPS on premium storage accounts	0	
Other Infra requirements		
Number of Configuration Servers required	NA	
Number of additional Process Servers required	NA	
100% additional storage on the Source	60000	

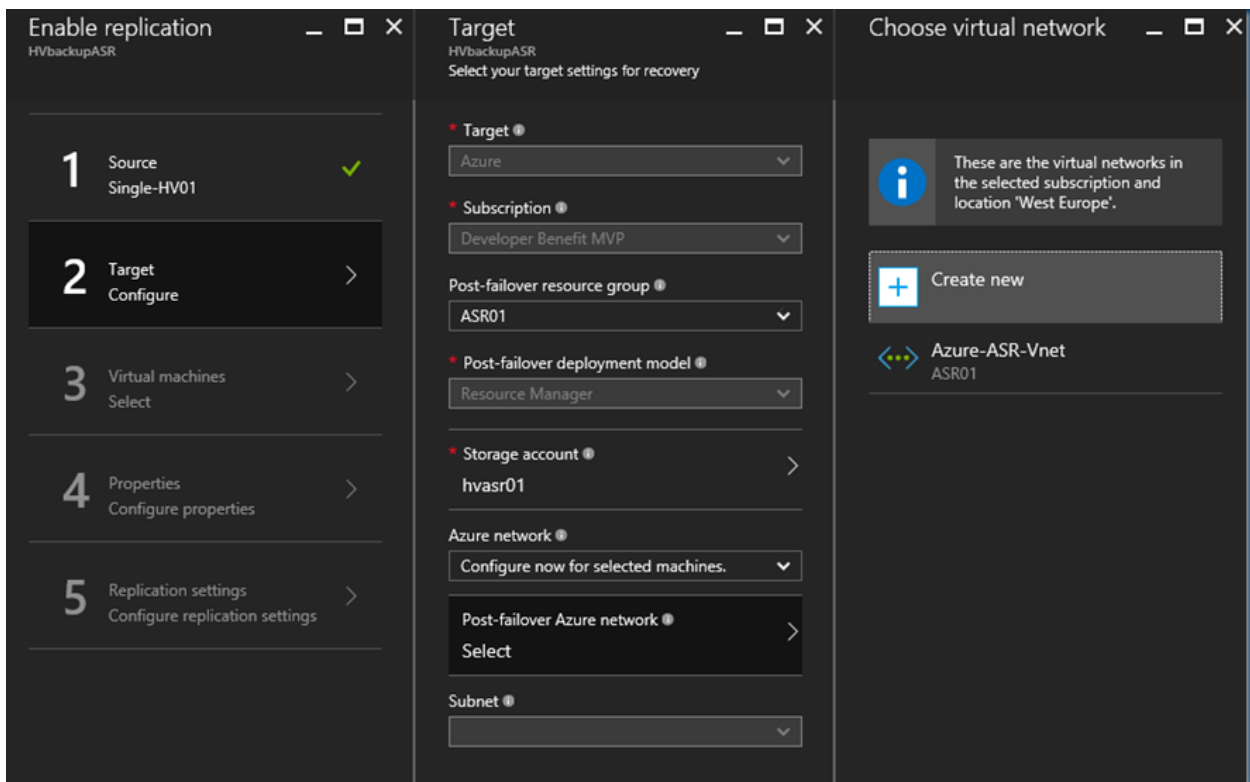
If you skip this or thinking this will be fine I'll show you later what can happen.



28



The replication can't be Throttled only for backup operations you can Enable internet bandwidth usage throttling.



Selecting the Right networks for the replicated VM's and subnets and the correct Storage account.

Next is selecting what VM's I need to replicate. If there is no VM list then there is something wrong with your connection.



Filter settings

GENERAL

Step 1: Prepare Infrastructure

Step 2: Replicate Application

Step 3: Manage Recovery Plans

1 Source  
Single-HV01

2 Target  
Azure

3 Virtual machines  
Select

4 Properties  
Configure properties

5 Replication settings  
Configure replication settings

Finished retrieving data.

Filter items...

MVPSCORCH12  
MVPAZHFS01  
Windows 2012 WDS live  
MVPRAS01  
Windows 2016 DC Live  
dpm01 (Disk size unsupported)  
MVPGW02  
Windows 2012 DC Live  
ex2010  
tstsql161

1 2 3

Selected virtual machines  
0

☒ MVPNLB504
 ☒ MVPNLB502

Enable replication  
HVBackupASR

1 Source  
Single-HV01

2 Target  
Azure

3 Virtual machines  
4 Selected

4 Properties  
Configure properties

5 Replication settings  
Configure replication settings

Configure properties

Selected Virtual Machines (1) has non supported name format. Please enter a valid name.

NAME	OS TYPE	OS DISK	DISKS TO REPLICATE	TARGET NAME
Defaults	Select	Need to select per VM.	Need to select per VM.	Fix per VM
MVPNLB501	Select	Select	Select OS disk first	MVPNLB501
MVPNLB502	Select	Select	Select OS disk first	MVPNLB502
MVPNLB504	Select	Select	Select OS disk first	MVPNLB504
Windows 2012 WDS live	Select	Select	Select OS disk first	Windows 2012 WDS I

Selecting a few VM's you can see even the names can be changed to the right Azure style or if there a characters in the name that are not supported.

### Configure properties

Selected Virtual Machines (1) has non supported name format. Please enter a valid name.

NAME	OS TYPE	OS DISK	DISKS TO REPLICATE	TARGET NAME
Defaults	Select	Need to select per VM.	Need to select per VM.	Fix per VM
MVPNLB501	Windows	MVPNLB501	All Disks [17]	MVPNLB501
MVPNLB502	Windows	MVPNLB502	All Disks [17]	MVPNLB502
MVPNLB504	Windows	MVPNLB504	All Disks [17]	MVPNLB504
Windows 2012 WDS live	Windows	Windows 2012 W...	All Disks [2]	Windows2012WDS

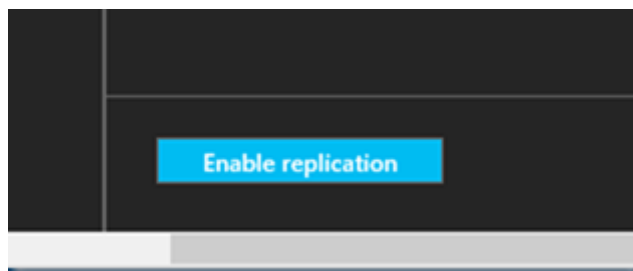
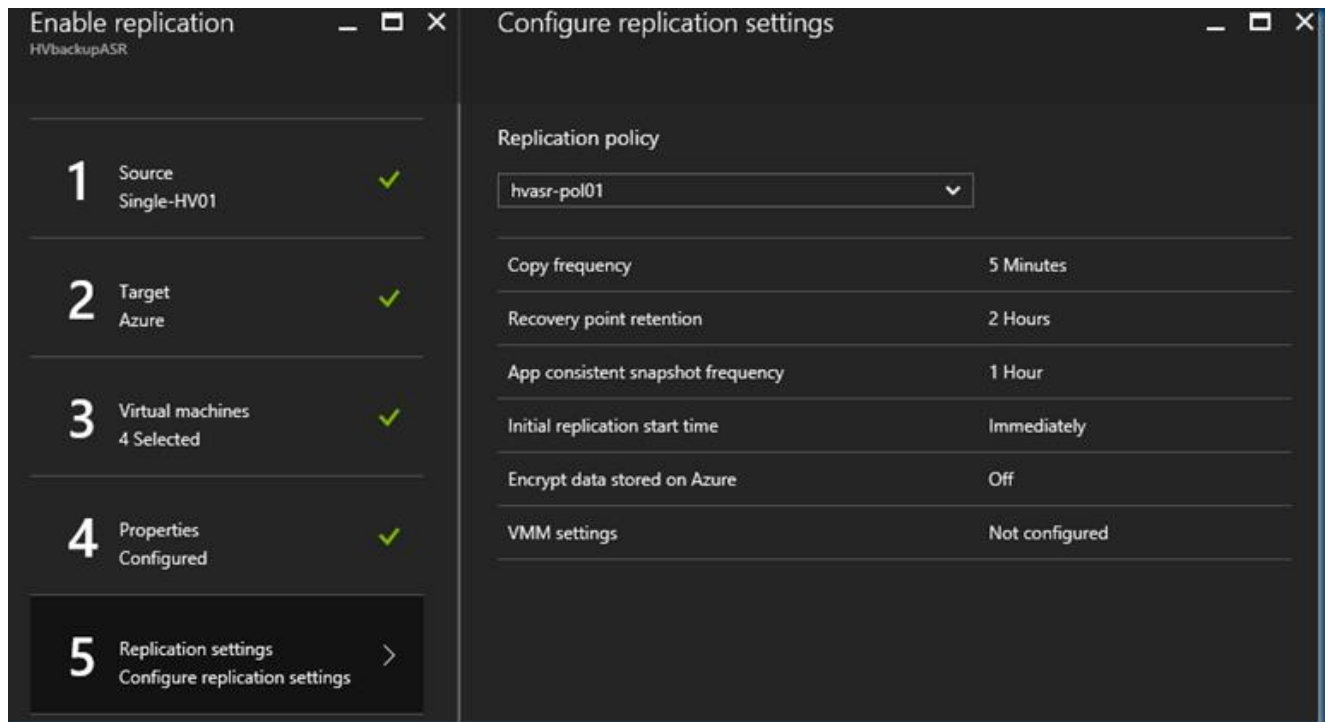
you can select what disk you want and what to skip.

All Disks [17]

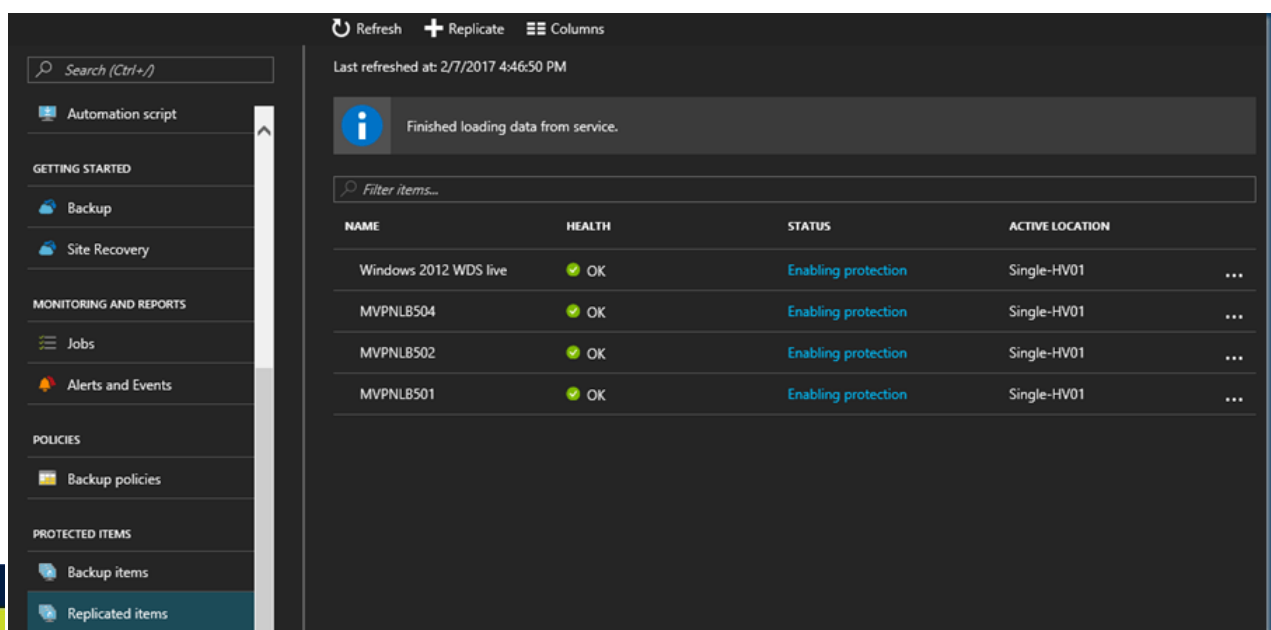
MVPNLB504

☒ MVPNLB504 [50 GB]
 ☒ MVPNLB504-1 [1000 GB]
 ☒ MVPNLB504-10 [1000 GB]
 ☒ MVPNLB504-11 [1000 GB]
 ☒ MVPNLB504-12 [1000 GB]
 ☒ MVPNLB504-13 [1000 GB]
 ☒ MVPNLB504-14 [1000 GB]
 ☒ MVPNLB504-15 [1000 GB]
 ☒ MVPNLB504-16 [1000 GB]

After these final steps we are ready to replicate



In a quick overview we can start the replication.



The replication is started and as you can see here comes the ASR Capacity planner.

NAME	HEALTH	STATUS	ACTIVE LOCATION
Windows 2012 WDS live	✓ OK	0% synchronized	Single-HV01
MVPNLB504	✓ OK	0% synchronized	Single-HV01
MVPNLB502	✓ OK	0% synchronized	Single-HV01
MVPNLB501	✓ OK	0% synchronized	Single-HV01

Checking the Hyper-v server you can see the progress there or in Azure

NAME	HEALTH	STATUS	ACTIVE LOCATION
Windows 2012 WDS live	✓ OK	Protected	Single-HV01
MVPNLB504	✓ OK	40% synchronized	Single-HV01
MVPNLB502	✓ OK	39% synchronized	Single-HV01
MVPNLB501	✓ OK	39% synchronized	Single-HV01

Windows 2012 WDS live

Replicated item

Settings

Planned Failover

Unplanned Fail...

Test Failover

More

Essentials

Recovery Services vault

HVbackupASR

Replication policy

hvasr-pol01

Target storage account

hvasr01

Operating system

Windows

Target network

Azure-ASR-Vnet

Source location

Single-HV01

ID

1c057d0a-8b88-4e40-a0f9-bac62e21e20e

Target size

Basic\_A1

Protected disks

2

All settings

Replication

Health

Replication health

OK

Status

Protected

Latest Recovery Points

Crash-consistent

2/7/2017 6:06:49 PM

App-consistent

Not available

Events

0

Settings

Windows 2012 WDS live

SUPPORT + TROUBLESHOOTING

Diagnose and solve problems

GENERAL

Properties

Compute and Network

Disks

RESOURCE MANAGEMENT

Locks

Replication Health for "Windows 2012 WDS live"

Replication

Replication State:

Replication enabled

Replication Mode:

Primary

Current Primary Server:

Hyperv1201.mvp.local

Current Replica Server:

Microsoft Azure

Replication Health:

Normal

Statistics for past 1 Hour 30 Minutes

From time:

2/7/2017 4:47:06 PM

To time:

2/7/2017 6:17:29 PM

Average size:

16.93 GB

Maximum size:

254 GB

Average latency:

0:01:41

Errors encountered:

2 [View events](#)

Successful replication cycles:

15 out of 15 (100%)

Pending replication

Size of data yet to be replicated:

8 KB

Last synchronized at:

2/7/2017 6:16:50 PM

Reset Statistics

Save As...

Refresh

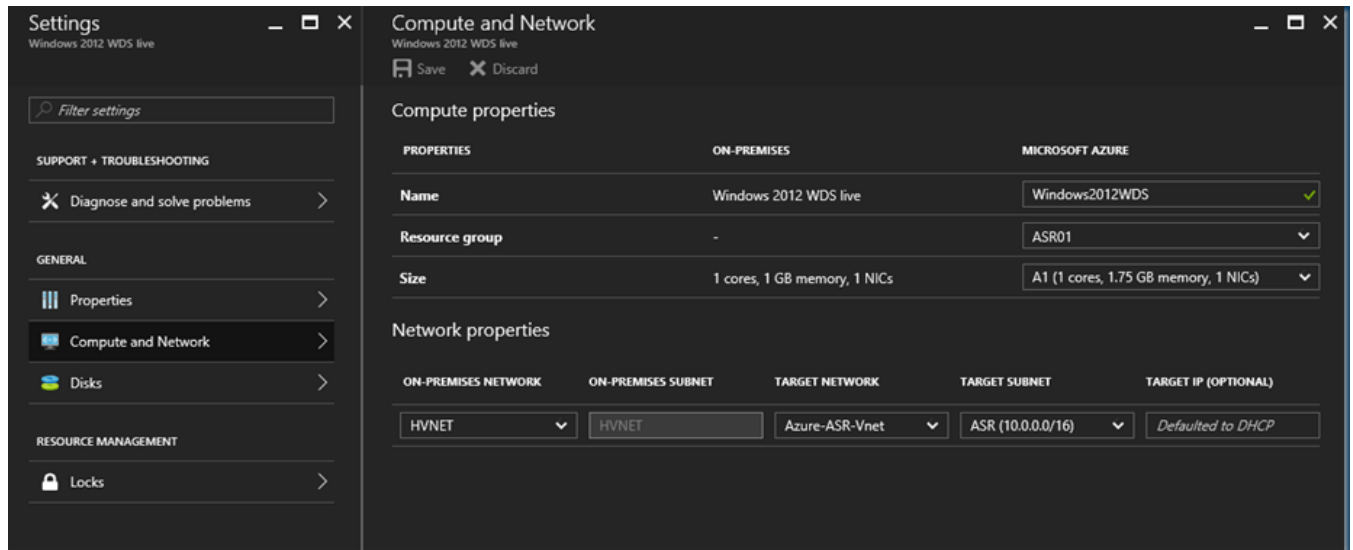
Close

35

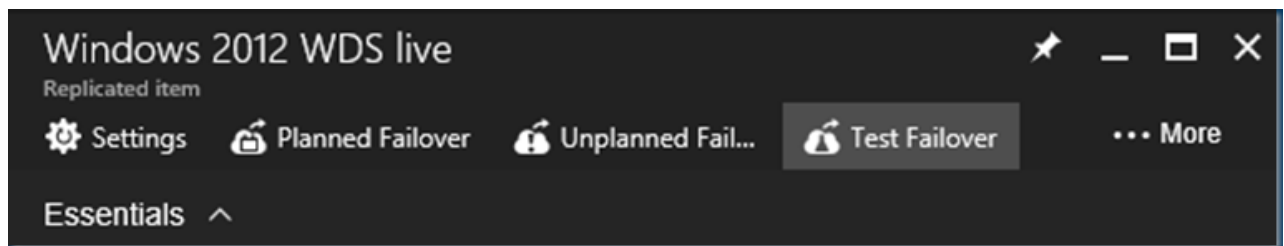
Microsoft Azure Backup- Step-by-Step

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But As ASR is using ASR you can also drill down on the replica options.



When the replica is done you can change the Azure VM in any way change the network , VM size the VM can be better than on prem.



As ASR stands for recovery you can do a test failover or planned. As you are not using VMM the Azure portal is the Orchestrator for the Failover.

Test failover

Windows 2012 WDS live

Failover direction

From

Single-HV01

To

Microsoft Azure


Recovery Point

Choose a recovery point

Latest processed (low RTO) (2/7/2017 6:1...

Azure virtual network

Azure-ASR-Vnet

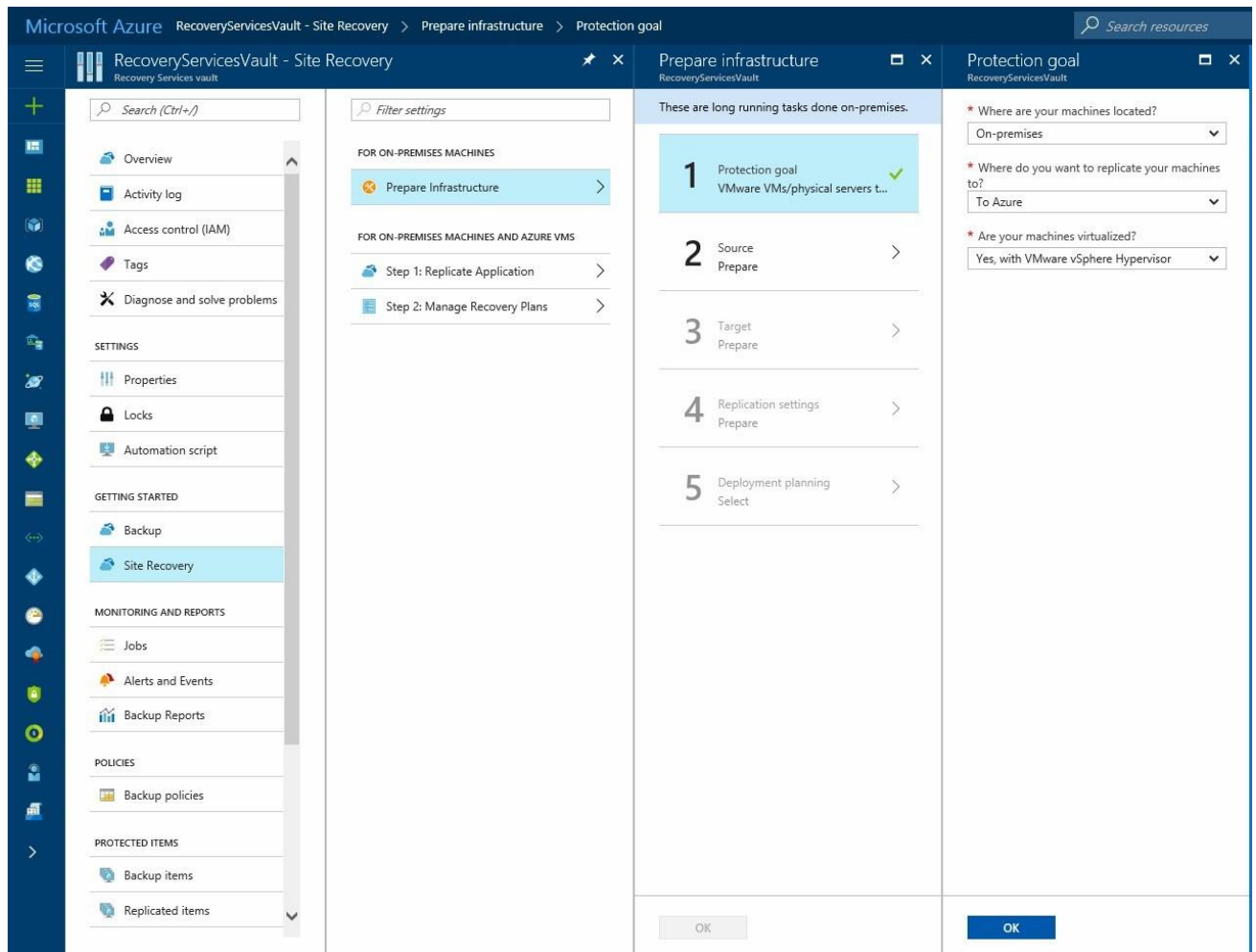


It is recommended that for a test failover you use a network different from production network (as specified under Compute and Network settings of the virtual machine).

Testing the VM is easy as you can run the VM Side by Side and you can change all the settings. A great option to get started with Azure.



## ASR post deployment with VMware Source



Next, we will prepare the source.

We will use the Configuration Server.

This must be installed on Server 2012 R2 on-prem, and will act as a processor to continuously back up VMs to ASR.

Download the setup and vault credentials in step 3 and 4.

Prepare infrastructure

RecoveryServicesVault

These are long running tasks done on-premises.

1

Protection goal

VMware VMs/physical servers t...

2

Source

Prepare

3

Target

Prepare

4

Replication settings

Prepare

5

Deployment planning

Select

Prepare source

RecoveryServicesVault

+ Configuration Server

+ vCenter

→ Step 1: Select Configuration Server

(0 servers found) Click on +Configuration Server in the command bar above to setup one on your source environment and register it with this vault.

Step 2: Select vCenter server/vSphere host

Complete previous step(s).

Add Server

RecoveryServicesVault

Server type

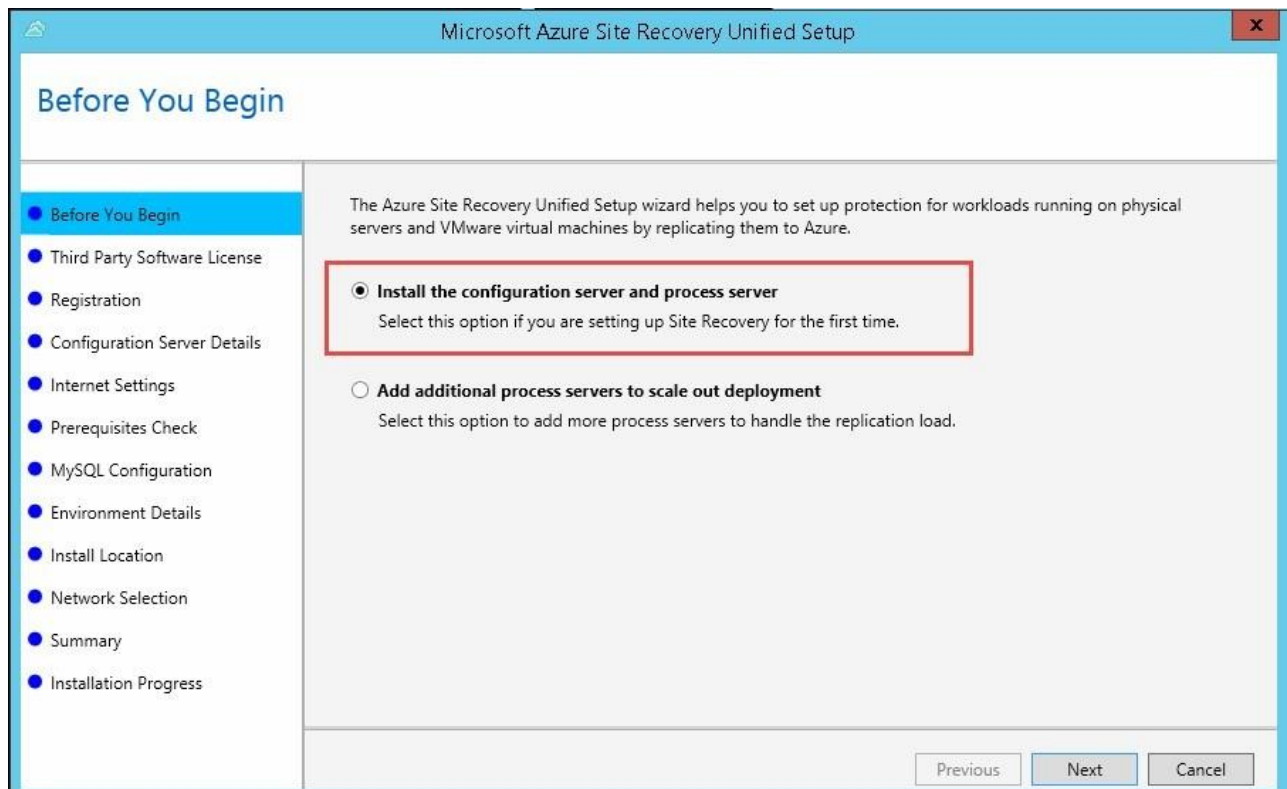
Configuration Server

Adding Configuration Server may take 15 minutes to 30 minutes

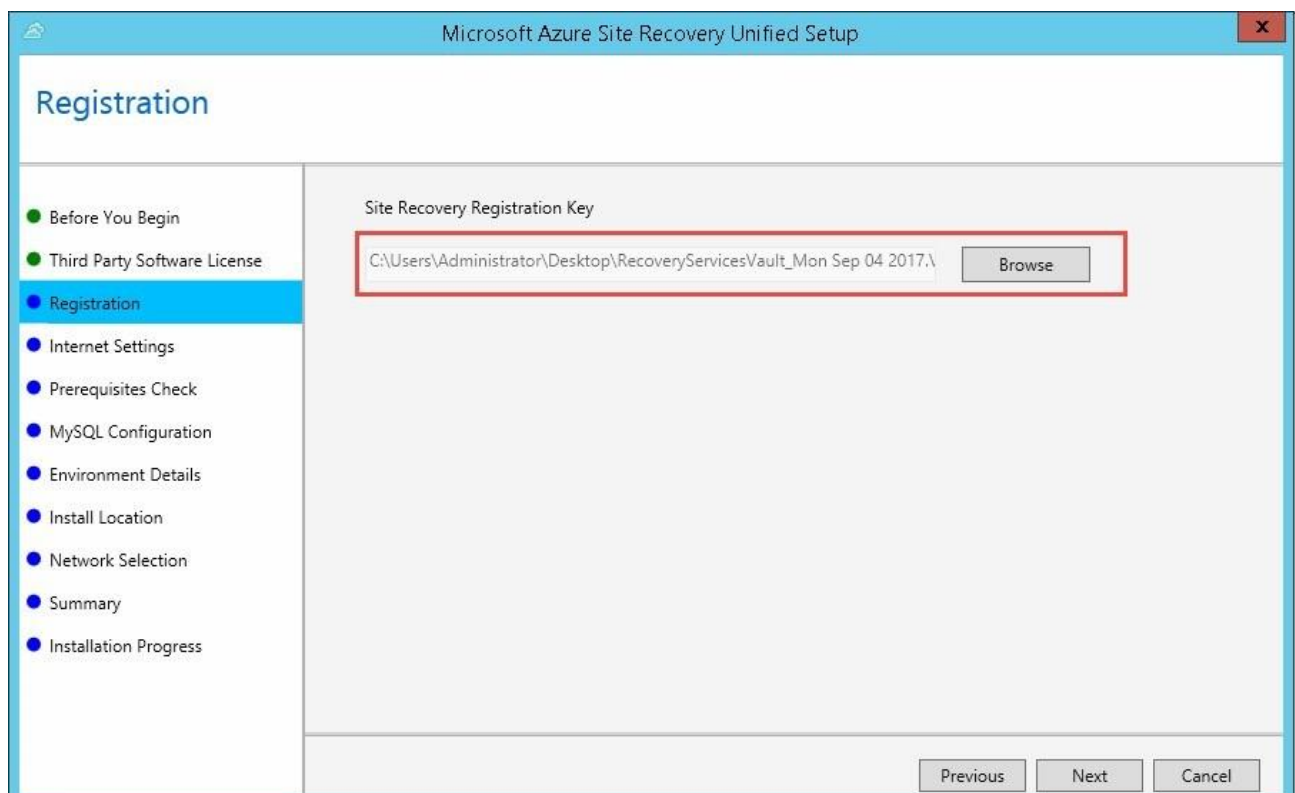
Register your Configuration Server On-premises

- Make sure server on which you plan to set up the Configuration Server is running Windows Server 2012 R2 virtual machine
- Configure Proxy so that server can access the Service URLs
- Download the Microsoft Azure Site Recovery Unified Setup
- Download the vault registration key
- Run the installer to set up the Configuration Server and Process Server and use the vault registration key to register it with the vault. [Learn more.](#)
- Run cspconfigtool.exe to create one or more management accounts on the configuration server.
- If you're protecting VMware VMs make sure the management accounts have administrator permissions on the vCenter server/vSphere host Server/ESXi host from which you'll replicate virtual machines. [Learn more.](#)
- If you're protecting physical servers make sure the management accounts have administrator permissions on the physical server.

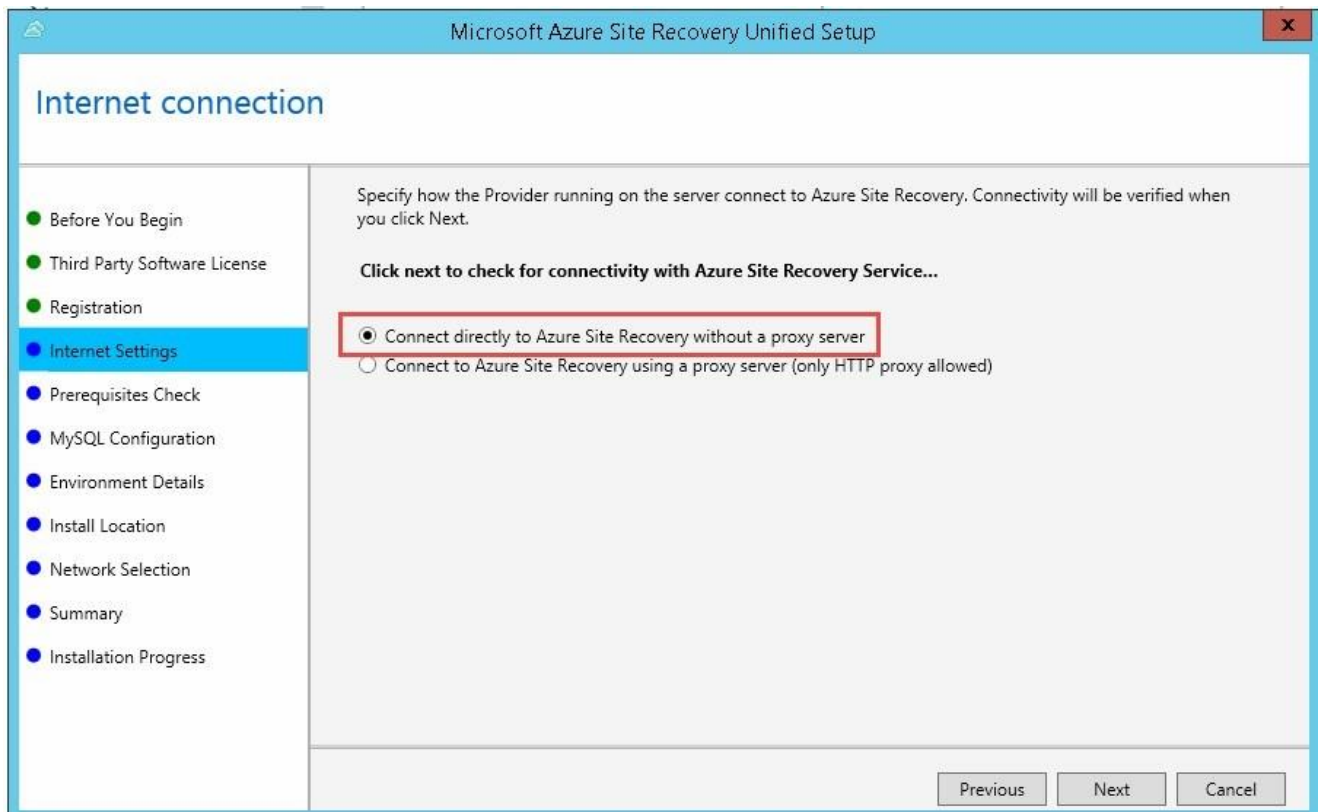
Run the Configuration Server setup and choose to install the Configuration Server and process server.



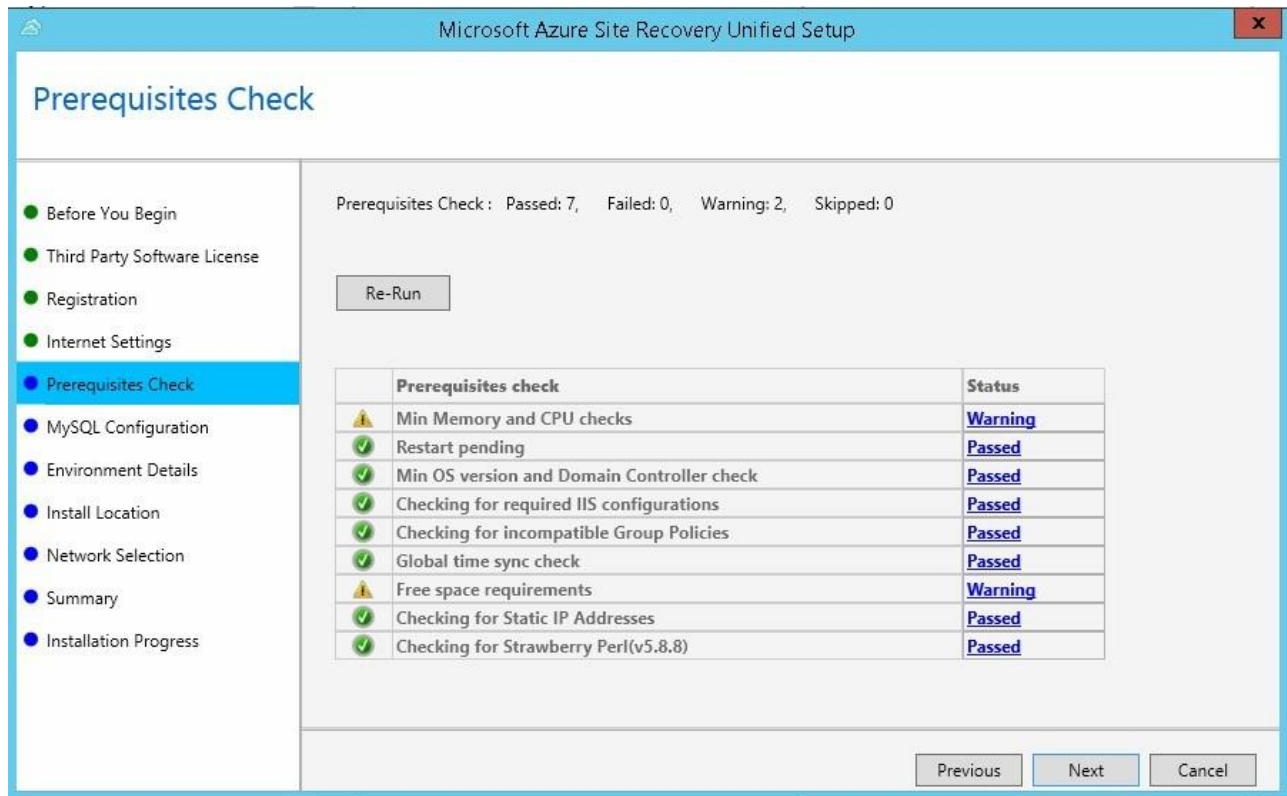
Enter the path to the vault credentials you downloaded on the next step.



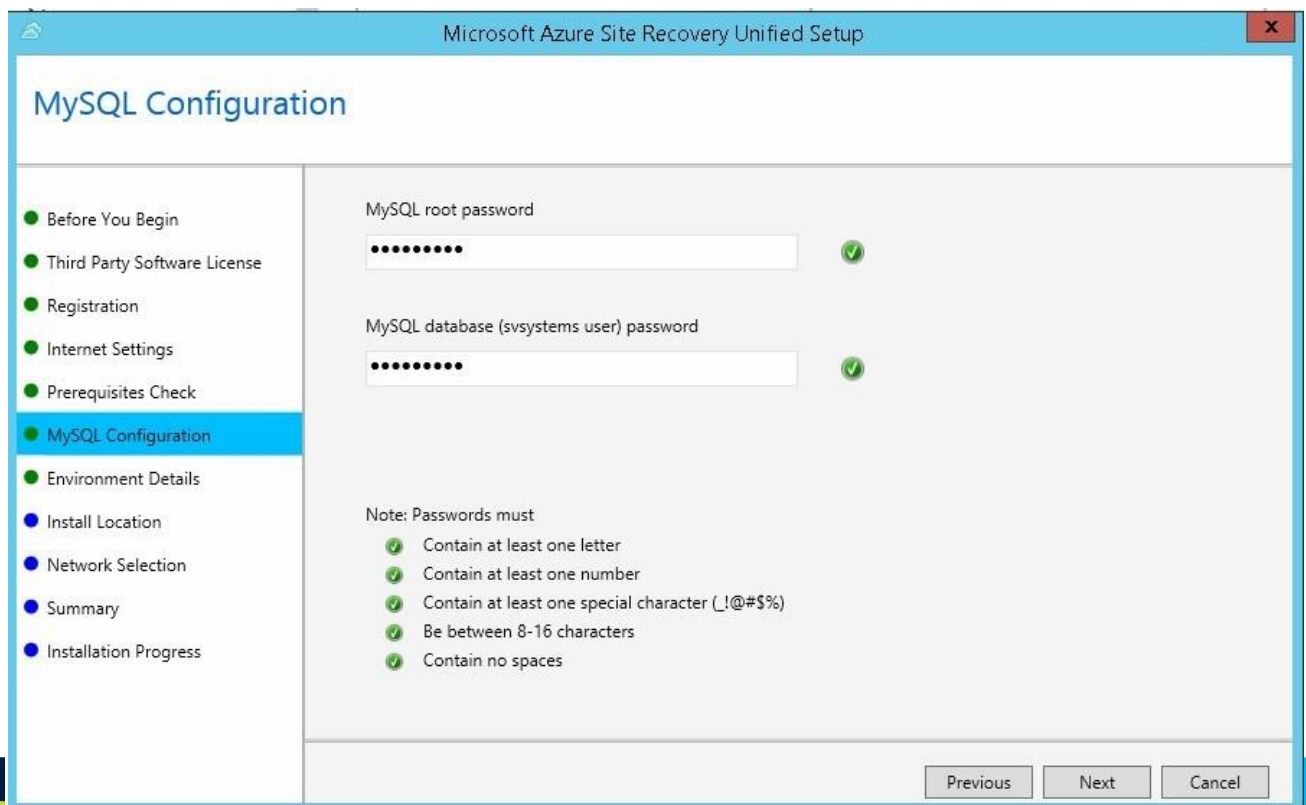
Configure a proxy server if you server does not have a direct connection to the Internet. ASR works directly over the Internet or proxy and does not require a VPN connection to Azure.



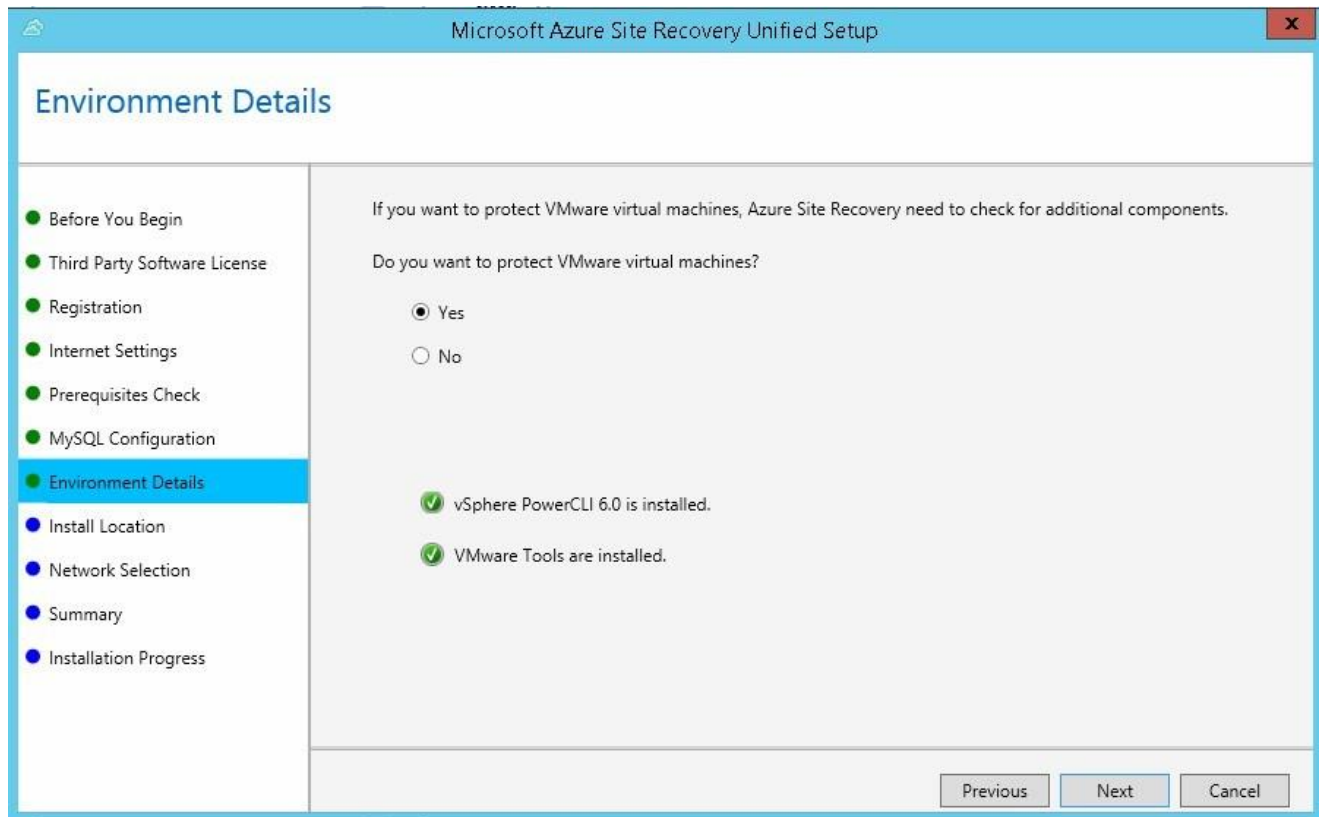
Check that you pass all prerequisites and continue.



Choose a MySQL password and continue the wizard.



Choose yes when asked to protect VMware virtual machines. This may require you to install VMware tools and the vSphere PowerCLI if they are not already present on the Configuration Server.



Choose an install location for the ASR Configuration Server and choose the network interface used for replication traffic on the Configuration Server.



### Microsoft Azure Site Recovery Unified Setup

## Network Selection

- Before You Begin
- Third Party Software License
- Registration
- Internet Settings
- Prerequisites Check
- MySQL Configuration
- Environment Details
- Install Location
- Network Selection**
- Summary
- Installation Progress

Select a Network Interface Card(NIC) and Port for receiving replication traffic.

Network Interface:

Port:

Note : Azure Site Recovery Unified Setup will open two ports for inbound connection on this server.

- Port 443 will be used by a web server which orchestrates replication operations. This port will be opened on all Network Interfaces assigned to this computer.
- The data transport port specified above will be used to send/receive replication data. This port will be opened only on the Network Interface selected above.

Previous Next Cancel

Allow setup to complete. It should take 15 minutes or so.

### Microsoft Azure Site Recovery Unified Setup

## Installation Progress

- Before You Begin
- Third Party Software License
- Registration
- Internet Settings
- Prerequisites Check
- MySQL Configuration
- Environment Details
- Install Location
- Network Selection
- Summary
- Installation Progress**

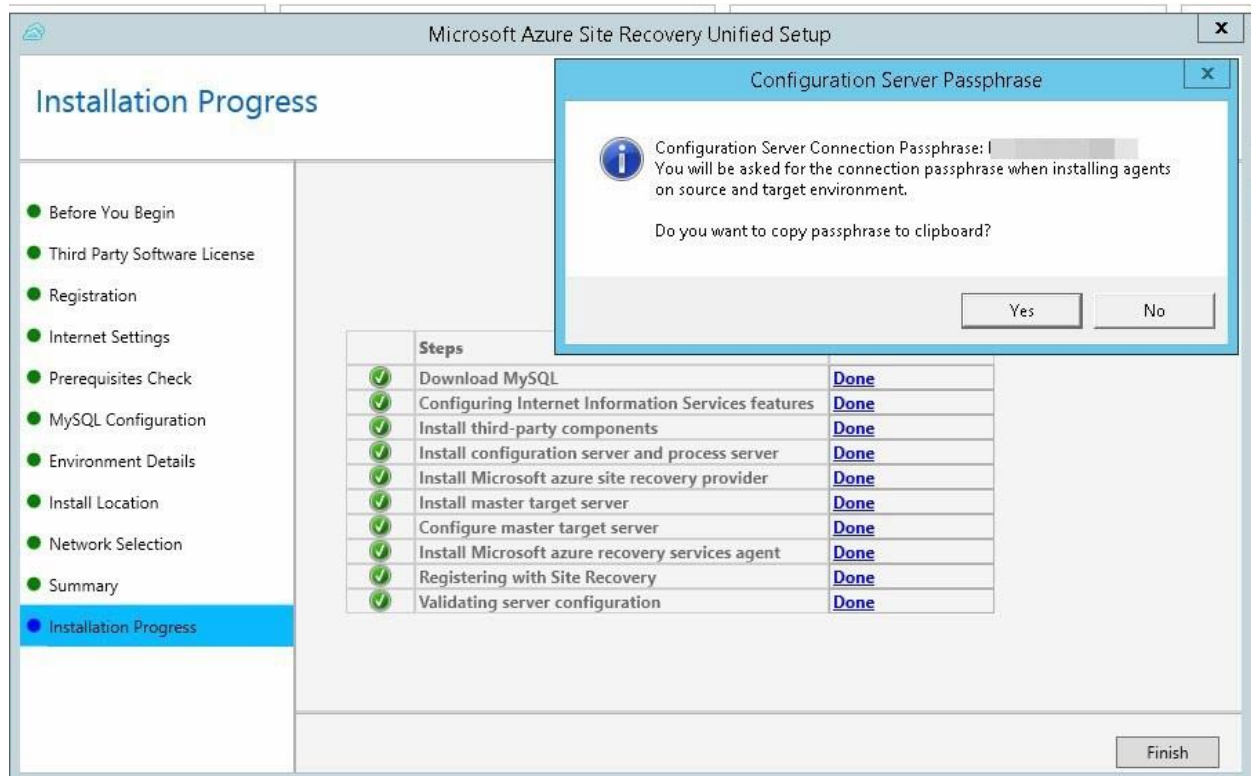
Currently: Downloading MySQL setup file (approximately 5 minutes)

Steps	Status
Download MySQL	<a href="#">Downloading</a>
Configuring Internet Information Services features	Pending
Install third-party components	Pending
Install configuration server and process server	Pending
Install Microsoft azure site recovery provider	Pending
Install master target server	Pending
Configure master target server	Pending
Install Microsoft azure recovery services agent	Pending
Registering with Site Recovery	Pending
Validating server configuration	Pending

Finish

Save the passphrase generated at the end of the installation.

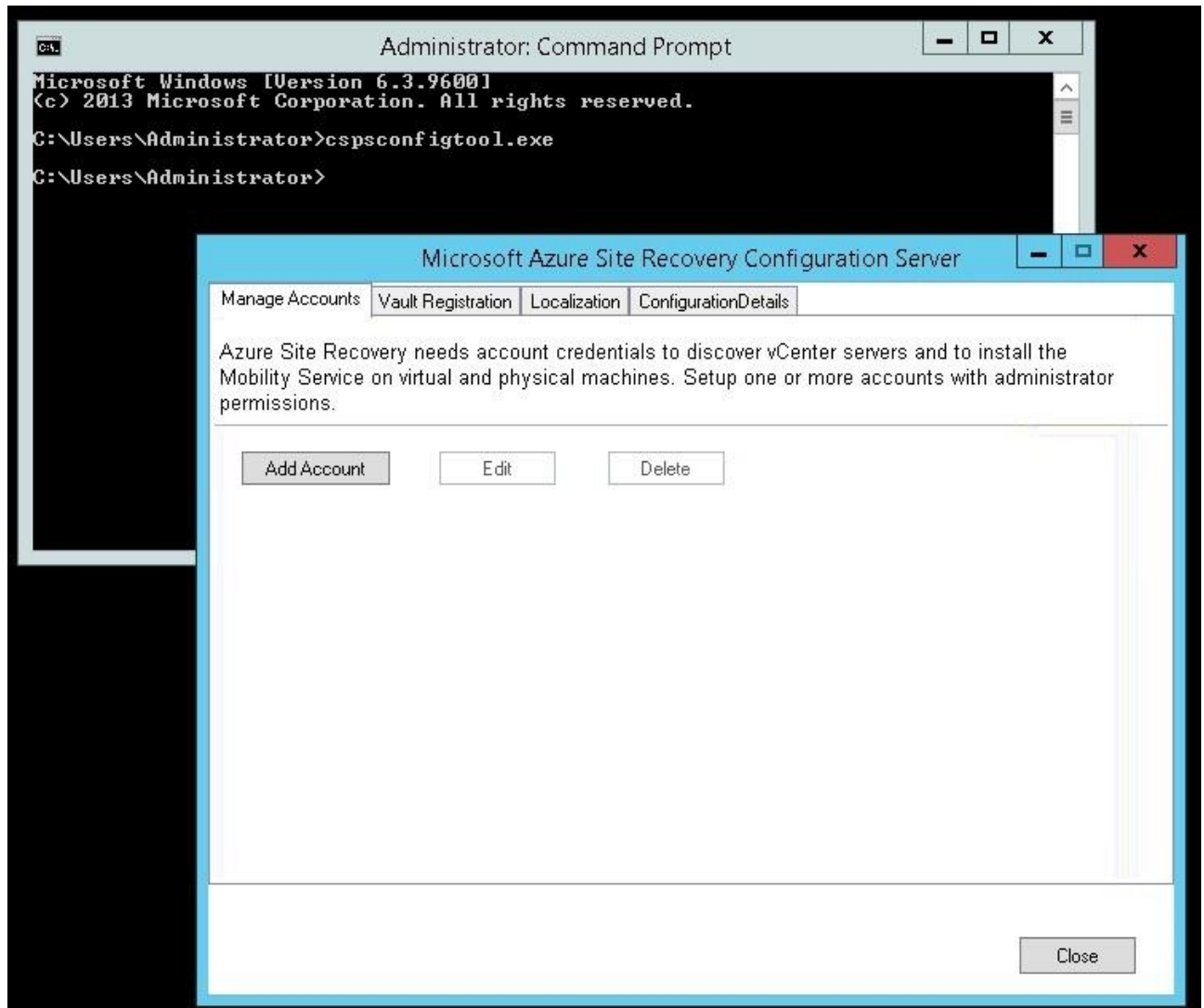
This will be used as an approval mechanism when ASR agents are deployed. You can also regenerate the passphrase later if desired.



When the installation is complete, you will be prompted to reboot the server – do that before continuing.

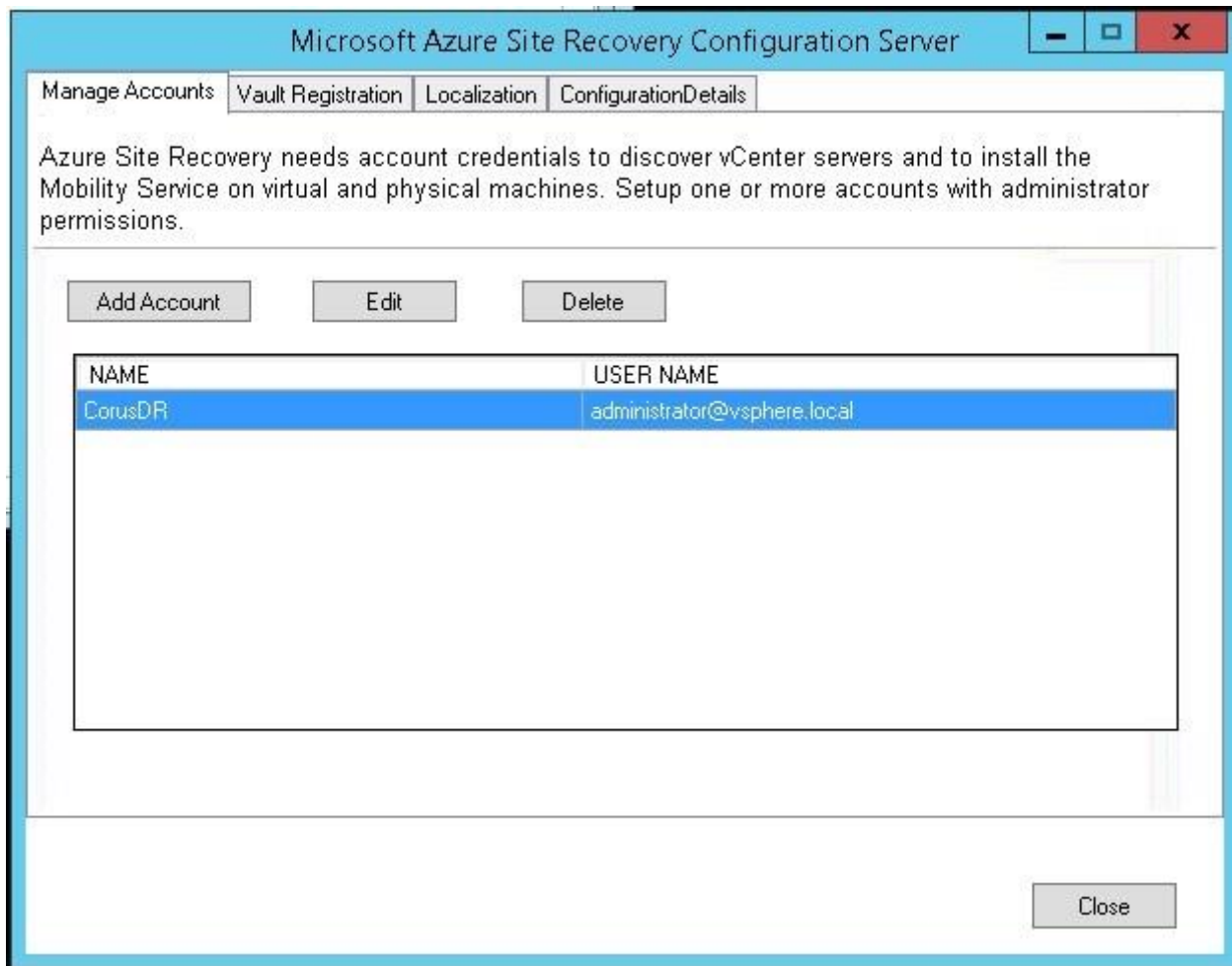
After reboot, launch the ASR Configuration tool from Start Menu or just type in "cspconfigtool.exe" from command prompt.





Add an account that has administrative permissions to the VMs you want to migrate from VMware.

Once complete, close the configuration tool.



Go back to the Azure portal and go to Step 2 (Prepare).

Your Configuration Server and VMware account should show in the Azure portal after 15 minutes from being added on the local server. Click "+vCenter" and enter the local IP/hostname of the VMware host server in your datacenter. This configures the connection from Azure.

Prepare infrastructure

RecoveryServicesVault

These are long running tasks done on-premises.

1

Protection goal

VMware VMs/physical servers t...

2

Source

Prepare

3

Target

Prepare

4

Replication settings

Prepare

5

Deployment planning

Select

OK

Prepare source

RecoveryServicesVault

Configuration Server

+ vCenter

✓ Step 1: Select Configuration Server

\* Configuration Server

ASRCONFIG01

→ Step 2: Select vCenter server/vSphere host

(0 servers found) Click on +vCenter on command bar above to register a vCenter server/vSphere host

OK

Add vCenter

ASRCONFIG01

Configuration Server

ASRCONFIG01

\* vCenter server/vSphere host friendly name

CorusDR

\* vCenter server/vSphere host name or IP address

10.255.254.34

\* Port

443

\* vCenter server/vSphere host account

CorusDR

After you click OK, it can take 15 to 30 minutes to complete this operation.

OK

Once the VMware host server is added, you should be able to complete step 2.

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Microsoft Azure Backup- Step-by-Step

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Prepare infrastructure

RecoveryServicesVault

These are long running tasks done on-premises.

1

Protection goal

VMware VMs/physical servers t...

✓

2

Source

Prepare

>

3

Target

Prepare

>

4

Replication settings

Prepare

>

5

Deployment planning

Select

>

OK

Prepare source

RecoveryServicesVault

+

 Configuration Server
 

+

 vCenter

✓ Step 1: Select Configuration Server

\* Configuration Server

ASRCONFIG01

▼

✓ Step 2: Select vCenter server/vSphere host

vCenter server/vSphere host

CorusDR

▼

OK

On step 3, enter the resource group and subscription that you'd like to use for ASR.

Prepare infrastructure

RecoveryServicesVault

These are long running tasks done on-premises.

1

Protection goal

VMware VMs/physical servers t...

✓

2

Source

ASRCONFIG01/CorusDR

✓

3

Target

Prepare

>

4

Replication settings

Prepare

>

5

Deployment planning

Select

>

Target

RecoveryServicesVault

+ Storage account

+ Network

✓ Step 1: Select Azure subscription

\* Subscription ⓘ

Pay-As-You-Go

▼

\* Select the deployment model used after failover ⓘ

Resource Manager

▼

✓ Step 2: Ensure that at least one compatible Azure storage account exist

Storage account(s) ⓘ

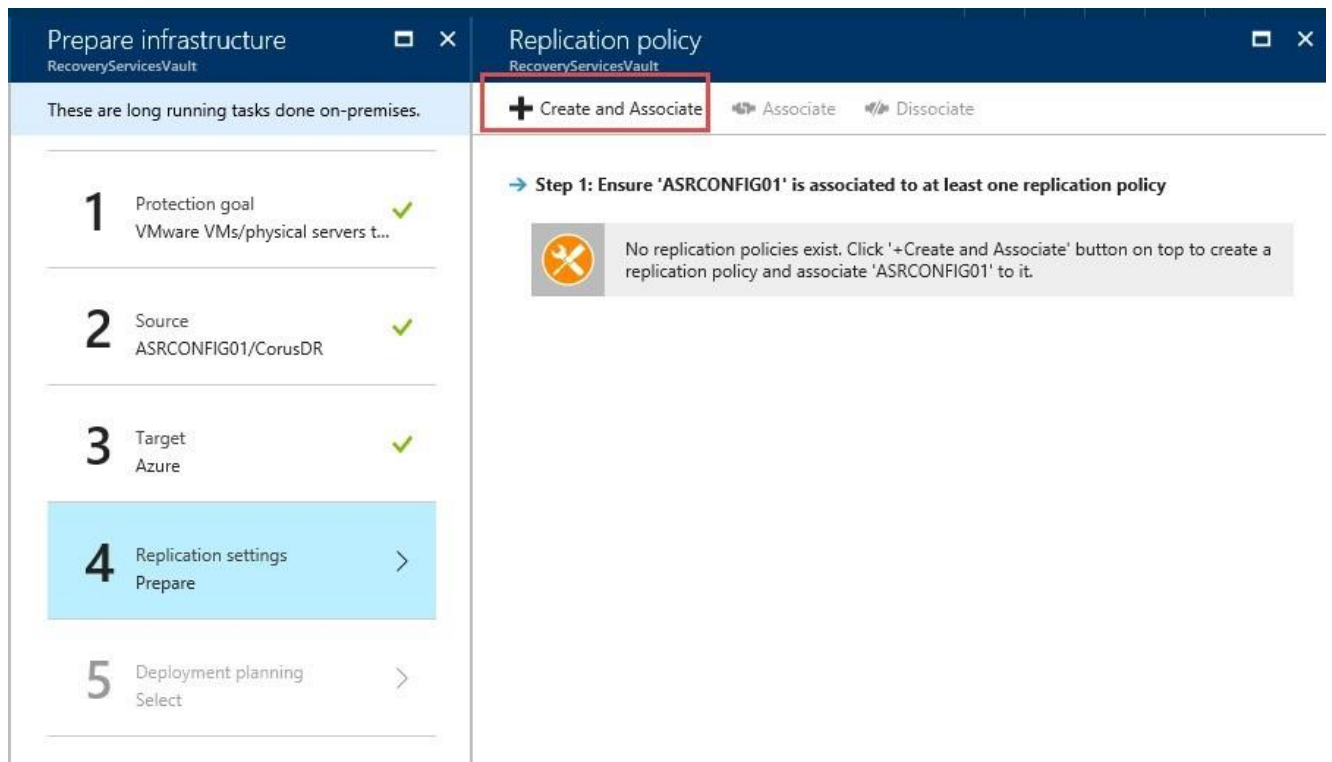
Found corus360asr (Standard) storage account.

✓ Step 3: Ensure that at least one compatible Azure virtual network exist

Network(s) ⓘ

ASR

On step 4, click Create and Associate.



You will now create a backup policy.

The RPO threshold controls how often data recovery points are created. The Recovery Point Retention controls how long data recovery points are stored

(your limit is 24 hours if you used premium storage for your blob, or 72 hours if you used standard storage). The default values work fine if you're not sure what to use, and new policies can be created and applied later.

Create and associate policy

ContosoDR - PREVIEW

\* Name ⓘ

vmware-policy x

Source type ⓘ

VMware / Physical machines v

Target type ⓘ

Azure v

\* RPO threshold in mins ⓘ

15

\* Recovery point retention in hours ⓘ

24

\* App-consistent snapshot frequency in mins ⓘ

60

Failback replication policy name ⓘ

Enter policy name

i

A replication policy for failback from Azure to on-premises will be automatically created with the same settings.

Associated Configuration Server ⓘ

CONTOSO-CS

OK

Your replication policy should now be created and associated, and you can continue to Step 5.

Prepare infrastructure

RecoveryServicesVault

These are long running tasks done on-premises.

1

Protection goal

VMware VMs/physical servers t...

✓

2

Source

ASRCONFIG01/CorusDR

✓

3

Target

Azure

✓

4

Replication settings

Prepare

>

5

Deployment planning

Select

>

Replication policy

RecoveryServicesVault

+ Create and Associate

Associate

Dissociate

✓ Step 1: Ensure 'ASRCONFIG01' is associated to at least one replication policy

\* Replication policy ⓘ

DefaultReplicationPolicy

▼

✓ Successfully created replication policy (View job)

✓ Successfully created failback replication policy (View job)

✓ Successfully associated 'ASRCONFIG01' to replication policy (View job)

✓ Successfully associated 'ASRCONFIG01' to failback replication policy (View job)

Step 5 is a friendly reminder to plan for your network bandwidth and storage. In short, you should balance the frequency of backup snapshots with the storage and bandwidth requirements of your environment. If snapshot jobs take longer to run, you may want to reduce their frequency so they don't overlap.



Prepare infrastructure

RecoveryServicesVault

These are long running tasks done on-premises.

1

Protection goal

VMware VMs/physical servers t...

✓

2

Source

ASRCONFIG01/CorusDR

✓

3

Target

Azure

✓

4

Replication settings

DefaultReplicationPolicy

✓

5

Deployment planning

Select

>

Deployment planning

RecoveryServicesVault

Site Recovery performs optimally when sufficient network bandwidth and storage are provisioned. Allocating insufficient capacity can lead to replication issues.

Download and run the deployment planner to accurately estimate network bandwidth, storage and other requirements to meet your replication needs. [Learn more](#)

\* Have you completed deployment planning?

Yes, I have done it

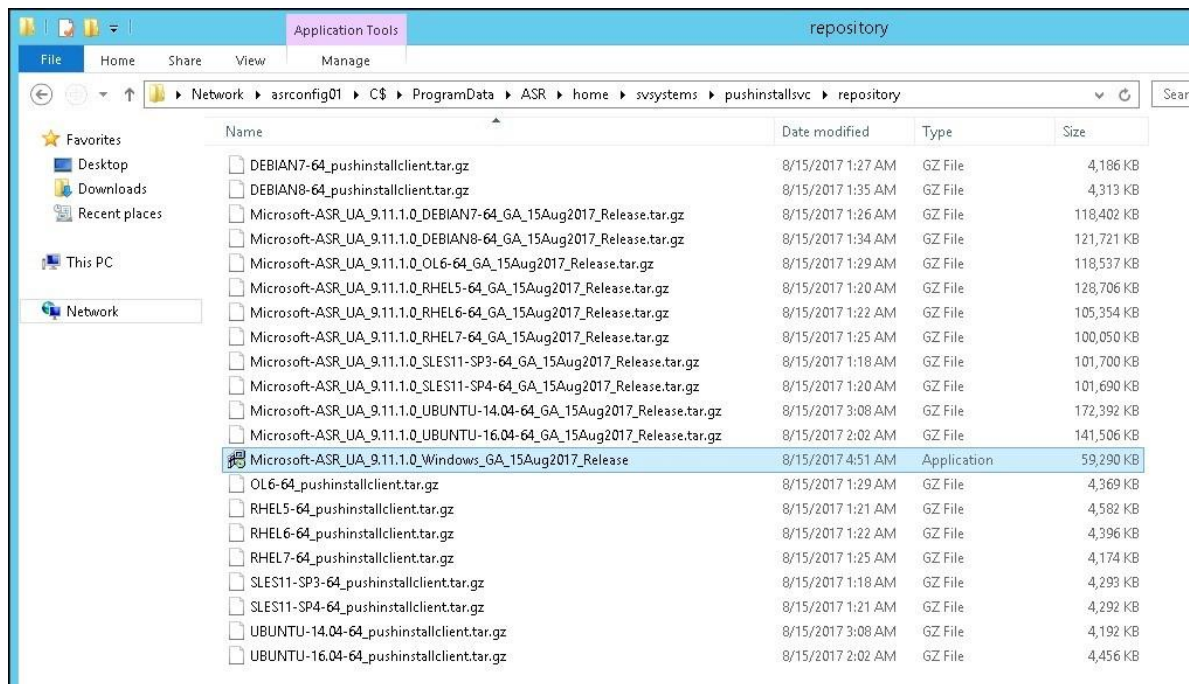
The ASR agent is also referred to as the Mobility Service, which can be deployed several ways. In this guide, we will install it manually using the GUI on our target server which will be restored to ASR.

For all of the ways to install the ASR agent, check <https://docs.microsoft.com/en-us/azure/site-recovery/vmware-walkthrough-install-mobility>

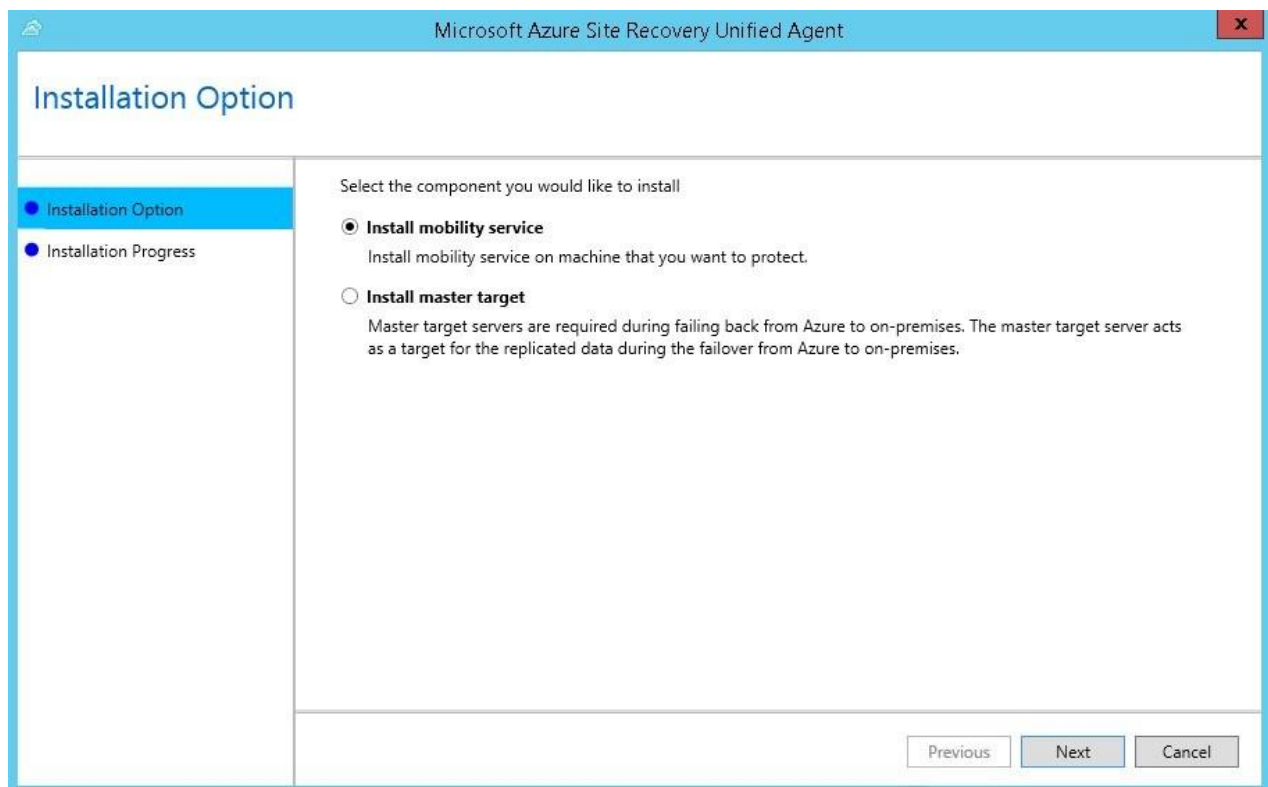
On the Configuration Server, the installation files for the ASR Agent/Mobility Service are located under:

*C:\ProgramData\ASR\home\svsystems\pushinstallsvc\repository*

Copy them to the target server and run the binary that matches the OS of the target system.



Launch the setup and choose Install Mobility Service.



Enter the IP address for your Configuration Server and enter the passphrase that was generated at the end of the Configuration Server setup process.

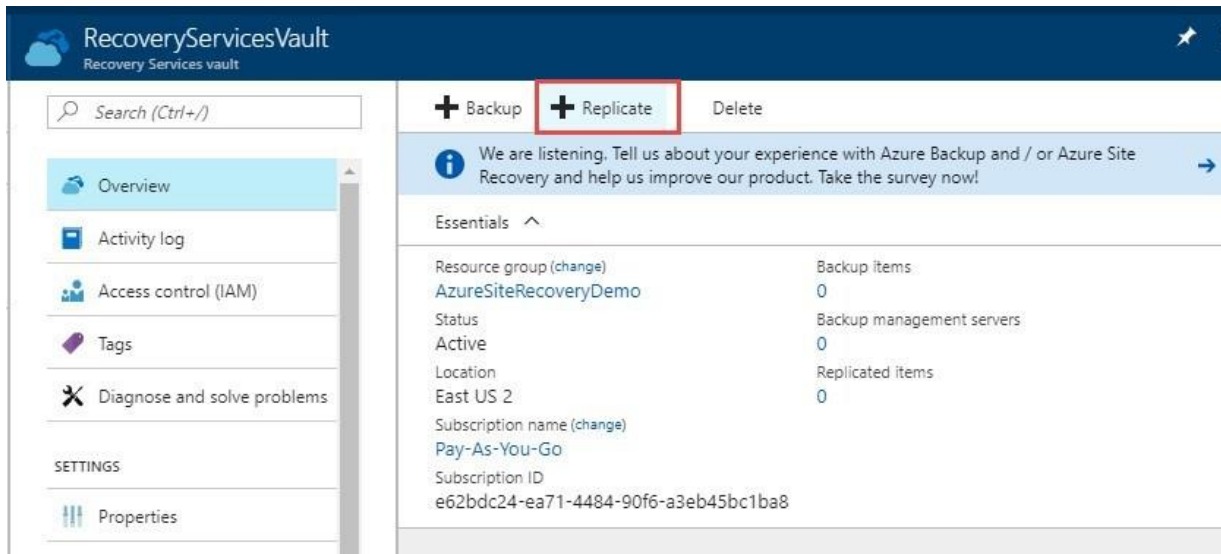
The screenshot shows the 'Registration' window of the Microsoft Azure Site Recovery Unified Agent. The window has a blue title bar and a sidebar on the left with a 'Configuration Server Details' section. The main area contains a form for entering configuration server details. The 'Configuration server IP address' field is filled with '10.255.252.171'. The 'Configuration server passphrase' field is filled with a series of dots. Below the form, there is a progress list showing three steps: 'Running registration prerequisites', 'Performing registration', and 'Validating configuration', all marked as 'Completed' with green checkmarks. At the bottom right, there are 'Register' and 'Finish' buttons.

Give the agent an installation path and Proceed to Configuration, which will complete the setup process.

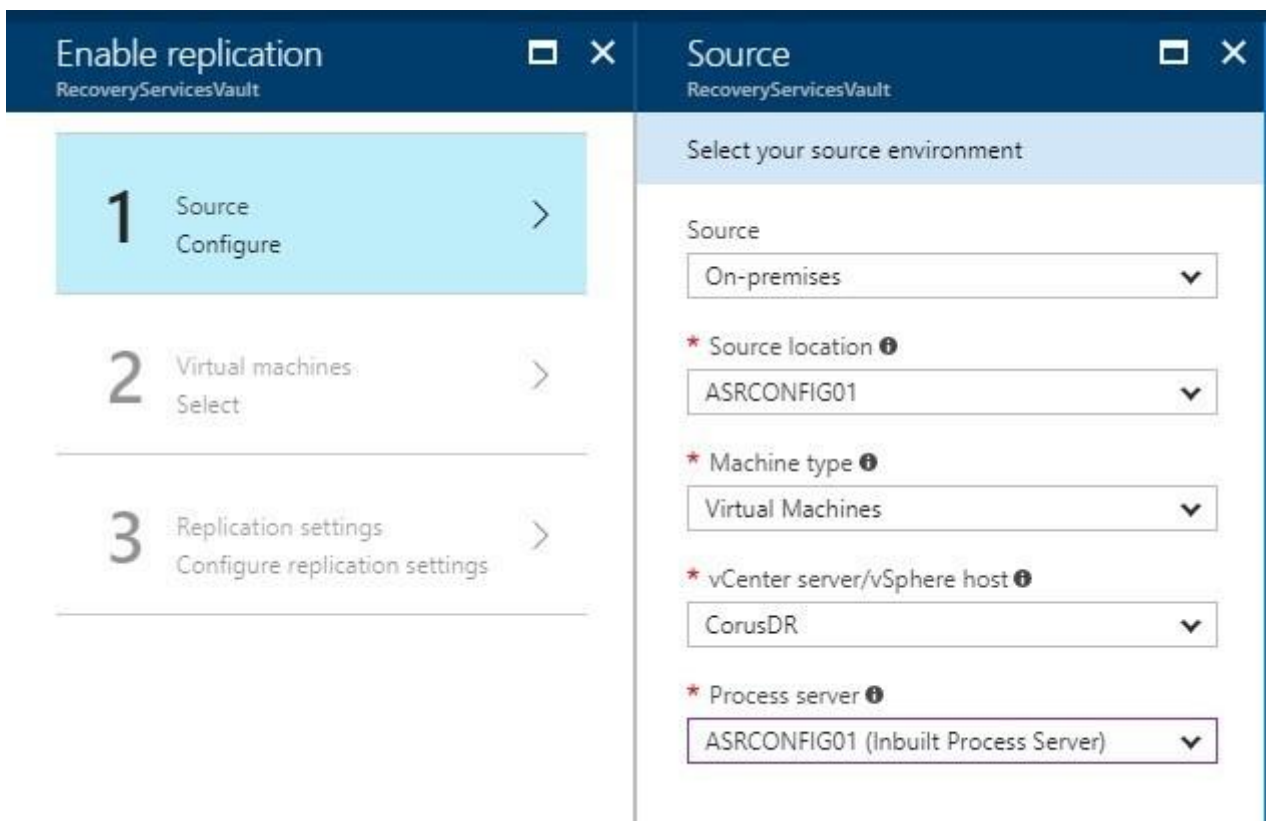
The screenshot shows the 'Installation Progress' window of the Microsoft Azure Site Recovery Unified Agent. The window has a grey title bar and a sidebar on the left with two sections: 'Installation Option' and 'Installation Progress'. The main area contains a progress list showing three steps: 'Running installation prerequisites', 'Installing binaries', and 'Running post install configurations', all marked as 'Completed' with green checkmarks. Below the progress list, there is a message: 'Agent is not yet configured. Press Next to configure the agent.' At the bottom right, there are 'Proceed To Configuration' and 'Cancel' buttons.

The agent will check into the Configuration Server and be available in the Azure portal.

Go back to your Recovery Services Vault in Azure and choose Replicate in the top menu.



Choose your source settings which use the Configuration Server and the VMware host account.



In Step 2, configure your recovery target. These settings control where a restored VM will reside once it has been failed over to Azure.

Enable replication

RecoveryServicesVault

1 Source

ASRCONFIG01

✓

2 Target

Configure

>

3 Virtual machines

Select

>

4 Properties

Configure properties

>

5 Replication settings

Configure replication settings

>

Target

RecoveryServicesVault

Select your target settings for recovery

\* Target ⓘ

Azure

▼

\* Subscription ⓘ

Pay-As-You-Go

▼

Post-failover resource group ⓘ

AzureSiteRecoveryDemo

▼

\* Post-failover deployment model ⓘ

Resource Manager

▼

\* Storage account ⓘ

corus360asr

>

Azure network ⓘ

Configure now for selected machines.

▼

Post-failover Azure network ⓘ

ASR

>

Subnet ⓘ

default (20.255.252.0/24)

▼

In Step 3, check the box next to the VMs that you want to be able to restore to Azure Site Recovery.

These will need the ASR agent installed if you have not done so already. In this guide, we will use just one target server.

Enable replication

RecoveryServicesVault

1 Source

ASRCONFIG01

✓

2 Target

Azure

✓

3 Virtual machines

Select

>

4 Properties

Configure properties

>

5 Replication settings

Configure replication settings

>

Select virtual machines

Finished retrieving data.

Filter items...

☒ Heffner\_ASRSVR01

1

2

3

<

>

Selected virtual machines

1

>

In Step 4, configure the VM settings for the restored VM in Azure.

These are properties like the size of the VM, managed disks, etc. These settings can be modified later if you're not sure what to use yet.



Enable replication

RecoveryServicesVault

Configure properties

1

Source

ASRCONFIG01

✓

2

Target

Azure

✓

3

Virtual machines

1 Selected

✓

4

Properties

Configure properties

>

5

Replication settings

Configure replication settings

>

⚠

Selected Virtual Machines (1) has unsupported name format. Please enter a valid name.

NAME	ACCOUNT	DISKS TO REPLICATE	TARGET NAME
Defaults	CorusDR	Need to select per VM.	Fix per VM
Heffner_ASRSVR01	CorusDR	Disk0(Basic.OS) [100.00 GB,...]	ASRSVR01

On step 5, you can choose the Replication Policy that you'd like to use, which we created in a previous step.

Enable Multi-VM consistency if you are backing up multiple VMs that share the same workloads.

Enable replication

RecoveryServicesVault

Configure replication settings

1

Source

ASRCONFIG01

✓

2

Target

Azure

✓

3

Virtual machines

1 Selected

✓

4

Properties

Configured

✓

5

Replication settings

Configure replication settings

>

Replication policy

DefaultReplicationPolicy

RPO threshold

240 Minutes

Recovery point retention

24 Hours

App consistent snapshot frequency

60 Minutes

Multi-VM consistency

Do you want to enable Multi-VM consistency by creating a new Replication group?

Yes

No

Now that replication has been configured, you can see every VM being protected under Replication Items under the Recovery Services Vault. Each item will have a synchronization status.

RecoveryServicesVault - Replicated items

Search (Ctrl+/)

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

SETTINGS

Properties

Locks

Automation script

GETTING STARTED

Backup

Site Recovery

MONITORING AND REPORTS

Jobs

Alerts and Events

Backup Reports

POLICIES

Backup policies

PROTECTED ITEMS

Backup items

Replicated items

Refresh + Replicate Columns

You can run your machines on managed disks after a failover or migration from on-premises to Azure. Set the option to use managed disks in Replicated item -> Settings -> Compute i

Last refreshed at: 9/4/2017, 9:36:24 PM

Finished loading data from service.

Filter items...

NAME	HEALTH	STATUS	ACTIVE LOCATION
Heffner_ASRSVR01	OK	0% synchronized	ASRCONFIG01

If you click one of the replicated items, you can view/change the properties set during initial configuration, but you can also choose to Test Failover, which will spin up an instance of the protected VM in Azure within minutes. Choosing Failover will perform a real production failover.



Heffner\_ASRSVR01

Replicated item

Settings

Failover

Test Failover

Cleanup test failover

More

Essentials

Recovery Services vault

RecoveryServicesVault

Replication policy

DefaultReplicationPolicy

Target storage account

corus360asr

Operating system

Windows

Target network

-

Source location

ASRCONFIG01

VM ID

66349c7e-91e3-11e7-b232-005056a2daa1

Target size

Standard\_A5

Protected disks

1

All settings

Replication

Health

Replication health

OK

Status

0% synchronized

Events

0

Latest Recovery Points

Crash-consistent

Not available

App-consistent

Not available

Settings

Heffner\_ASRSVR01

Filter settings

SUPPORT + TROUBLESHOOTING

Diagnose and solve problems

RESOURCE MANAGEMENT

Locks

GENERAL

Properties

Compute and Network

Disks

Once the failover completes, you should see the replicated VM running in your Resource Group. Using the test failover method will leave the original VM intact and append the name of the Azure VM with a "-test".

AzureSiteRecoveryDemo

Resource group

Search (Ctrl+J)

Overview

Activity log

Access control (IAM)

Tags

SETTINGS

Quickstart

Resource costs

Deployments

Policies

Properties

Locks

Automation script

+ Add

Columns

Delete resource group

Refresh

Move

Essentials

Subscription name (change)

Pay-As-You-Go

Subscription ID

e62bdc24-ea71-4484-90f6-a3eb45bc1ba8

Deployments

4 Succeeded

Filter by name...

All types

All locations

No grouping

5 items

NAME	TYPE	LOCATION
ASR	Virtual network	East US 2
ASRSVR01-test	Virtual machine	East US 2
ASRSVR01-test2a3b510a-85c3-48c6-8bfe-061250921a60	Network interface	East US 2
corus360asr	Storage account	East US 2
RecoveryServicesVault	Recovery Services vault	East US 2

From here, you can utilize your Disaster Recovery site in Azure Site Recovery or use ASR as a migration tool to easily move your systems up to Azure.