

SITE RECOVERY ON AZURE

Step-by-Step Deployment Guide



1. TD SYNnex Azure Site Recovery Step by Step.....	3
1.0 Things to know prior to using this Guide	3
1.1 Azure Site Recovery deployment	4
1.2 How to connect	20
1.3 Post-Deployment Tasks	47
2. Azure Notions	62

1. TD SYNnex 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
- 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:

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

Search Find

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

Home | Browse By Categories | Browse By Vendor

BitTitan **TechData Cloud**

Office 365 automated assessment, migration and deployment
 Better margins for you, better experiences for your customers

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

RESELLER RESOURCE CENTER

How to get started
 Video demos
 FAQs

Explore Resources

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:

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

Search Find

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

Click on Microsoft Azure:

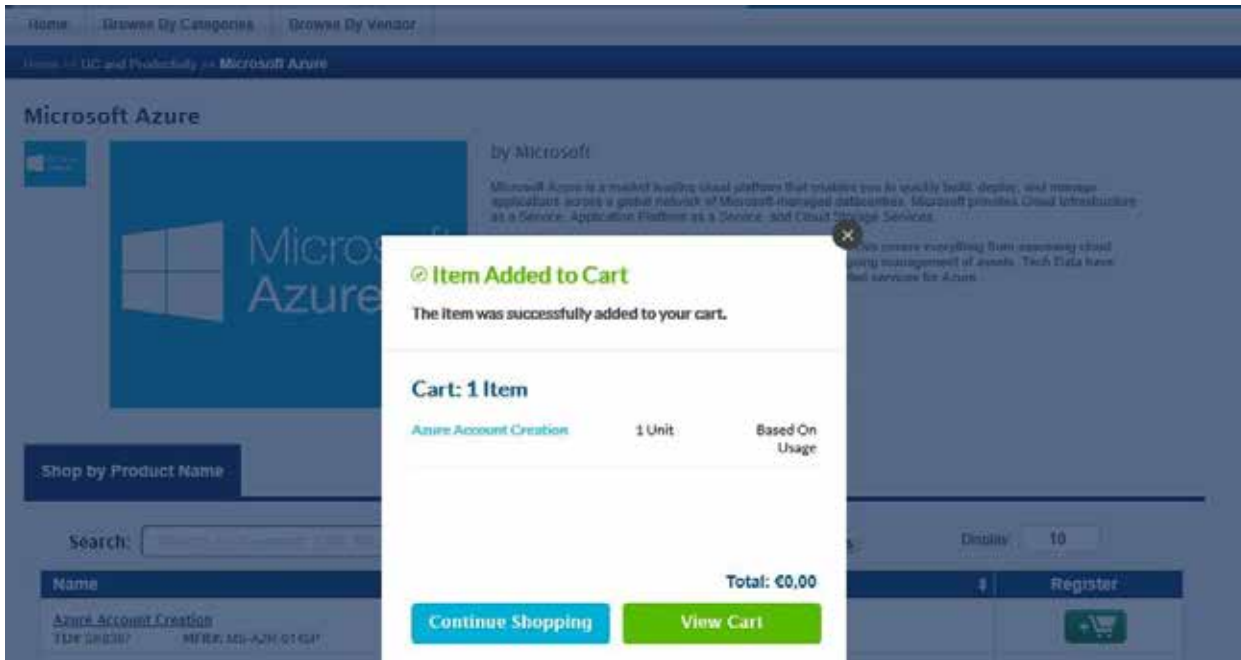
The screenshot shows the StreamOne website interface. At the top right, it says "Reseller Res" and "Logge". The StreamOne logo is on the left with the tagline "Software and Services on Demand". Below the logo, a message states: "You are currently ordering for Aida Dzinovic of TECH DATA FINLAND OY EI TILAUKSIA" with a "Change Reseller" link. A navigation bar includes "Home", "Browse By Categories", and "Browse By Vendor". The main content area is titled "PRODUCT SEARCH RESULTS FOR 'Azure'" and features a card for "IaaS/PaaS Microsoft Azure". The card includes a Microsoft Azure logo, a description of the cloud platform, and a "CLICK FOR DETAILS" button. Below the description, there are links for "Details" and "Screenshots".

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

The screenshot shows the product page for Microsoft Azure. The breadcrumb trail is "Home >> UC and Productivity >> Microsoft Azure". The page title is "Microsoft Azure" and it is "by Microsoft". A large Microsoft Azure logo is on the left. To the right, there is a description of the cloud platform and a "View Features" button. Below the description, it states "This product will be provisioned directly to your end user." At the bottom, there is a "Shop by Product Name" section with a search bar containing "Search By Keyword, TD#, MFR#", a "Clear Filters" button, and a "Display: 10" dropdown. Below this is a table with one product listing:

Name	Register
Azure Account Creation TD# 5K0307 MFR# M5-AZR-0145P	

Click on "View Cart" button:



Click on 'Proceed to Checkout' button:

Your Shopping Cart

Quantity	Date Added	Product Number	Product Details	Payment Details	Each ^{***}	Total	
1	07/05/2018	TD#: SK8387 Mfn#: MS-AZR-0145P	Microsoft Azure Azure Account Creation Details	Per month, beginning on: 27/05/2018*	Based on Usage	Based on Usage	Remove
Total						€0,00	

**** The prices shown here are subject to change. See the Order Summary page at time of checkout for the actual unit pricing.*

Our billing cut date is by the 27th of each month. Your account will be activated from the day of purchase and you will be charged on a monthly basis depending on your consumption. You can cancel the subscription at any given time from the Reseller Portal.

There is currently no end user assigned to this order. Click 'Proceed to Checkout' to assign one.

PROCEED TO CHECKOUT

CONTINUE SHOPPING

SAVE FOR LATER

CREATE QUOTE

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

[Continue to Configuration](#)

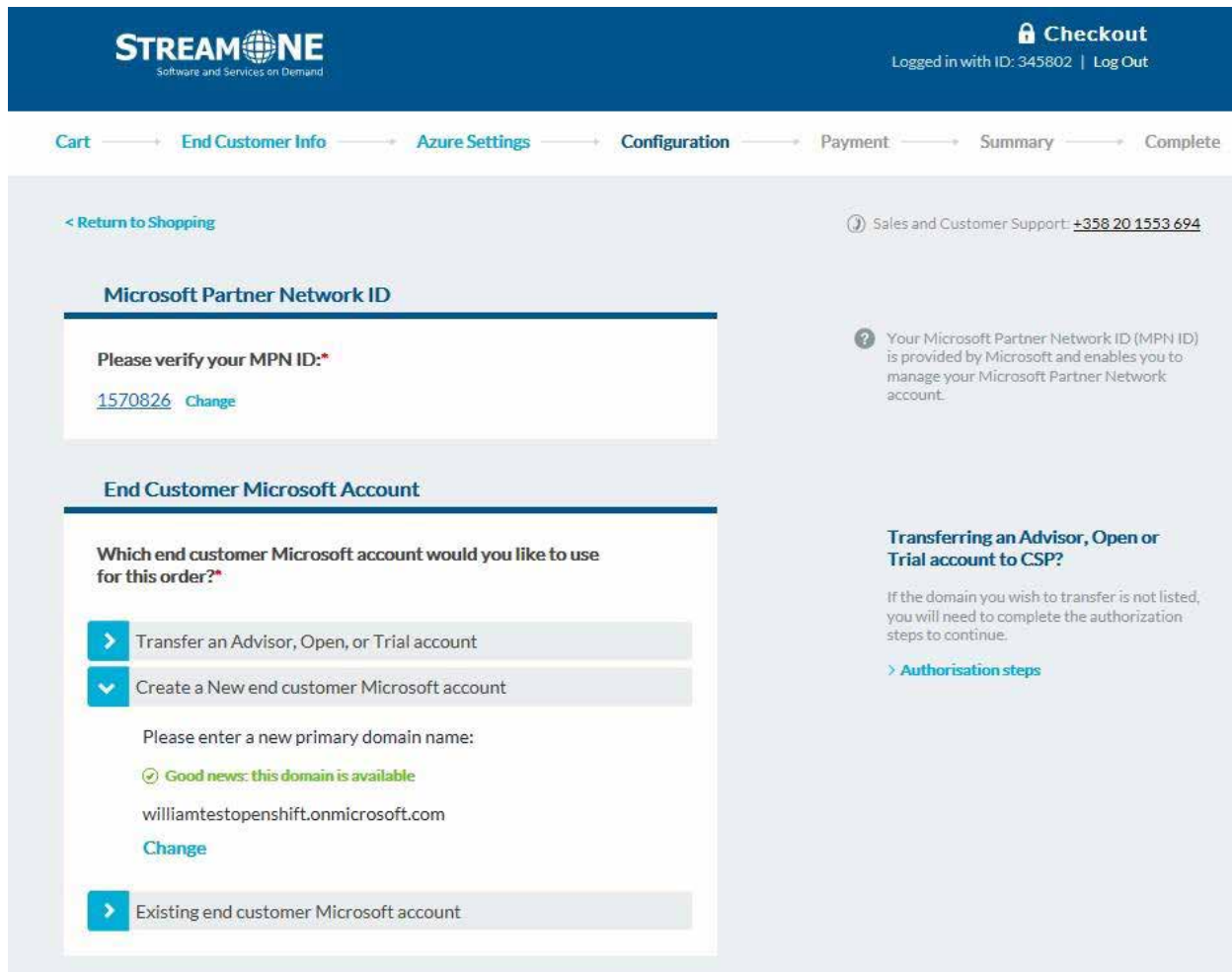
ⓘ This email address MUST be associated with the end customer domain to set up the account properly. If you do not wish to send communication directly to this email you will have the option to specify a different email address during the next step in the Account Administration section.

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.

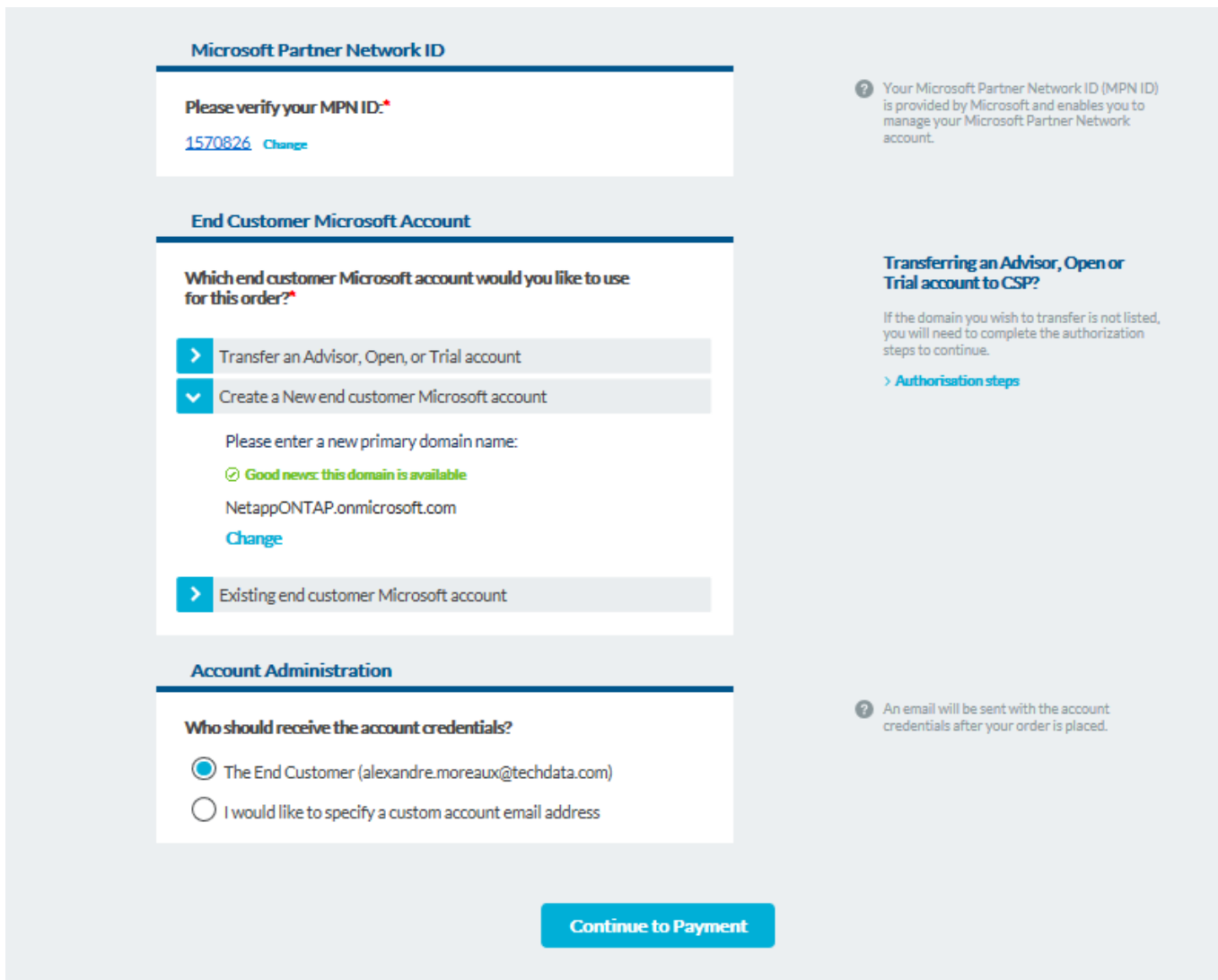


The screenshot shows the StreamOne Configuration page. At the top, there is a blue header with the StreamOne logo and a 'Checkout' button. Below the header is a navigation bar with steps: Cart, End Customer Info, Azure Settings, Configuration (highlighted), Payment, Summary, and Complete. The main content area is divided into two sections: 'Microsoft Partner Network ID' and 'End Customer Microsoft Account'. The 'Microsoft Partner Network ID' section has a text input field with the value '1570826' and a 'Change' link. The 'End Customer Microsoft Account' section has a dropdown menu with two options: 'Transfer an Advisor, Open, or Trial account' and 'Create a New end customer Microsoft account'. The 'Create a New end customer Microsoft Account' option is selected, and a form is displayed below it. The form asks for a 'new primary domain name' and shows a green checkmark with the text 'Good news: this domain is available' and the domain 'williamtestopenshift.onmicrosoft.com'. There is also a 'Change' link. To the right of the main content area, there is a 'Sales and Customer Support' contact number and a help icon with a question mark. Below that, there is a section titled 'Transferring an Advisor, Open or Trial account to CSP?' with a note that if the domain is not listed, authorization steps are needed to continue. There is also a link for 'Authorisation steps'.

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.



The screenshot shows a web form with three main sections: "Microsoft Partner Network ID", "End Customer Microsoft Account", and "Account Administration".

- Microsoft Partner Network ID:** A field labeled "Please verify your MPN ID:*" contains the value "1570826" with a "Change" link next to it.
- End Customer Microsoft Account:** A question asks "Which end customer Microsoft account would you like to use for this order?*" with two options: "Transfer an Advisor, Open, or Trial account" (selected with a right arrow) and "Create a New end customer Microsoft account" (selected with a down arrow). Under the second option, there is a text input field for a "new primary domain name" with a green checkmark and the text "Good news: this domain is available". The domain "NetappONTAP.onmicrosoft.com" is entered, with a "Change" link below it. A third option, "Existing end customer Microsoft account", is also visible with a right arrow.
- Account Administration:** A question asks "Who should receive the account credentials?" with two radio button options: "The End Customer (alexandre.moreaux@techdata.com)" (selected) and "I would like to specify a custom account email address".

On the right side of the form, there are three informational callouts:

- A question mark icon followed by the text: "Your Microsoft Partner Network ID (MPN ID) is provided by Microsoft and enables you to manage your Microsoft Partner Network account."
- A section titled "Transferring an Advisor, Open or Trial account to CSP?" with the text: "If the domain you wish to transfer is not listed, you will need to complete the authorization steps to continue." and a link "> Authorisation steps".
- A question mark icon followed by the text: "An email will be sent with the account credentials after your order is placed."

At the bottom center of the form is a blue button labeled "Continue to Payment".

Click on "Continue to Payment" button.

Enter Reseller PO number.

STREAMONE
Software and Services on Demand

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	Azure Account Creation 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?
 [Apply](#)

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*

[Place Order](#)

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/>

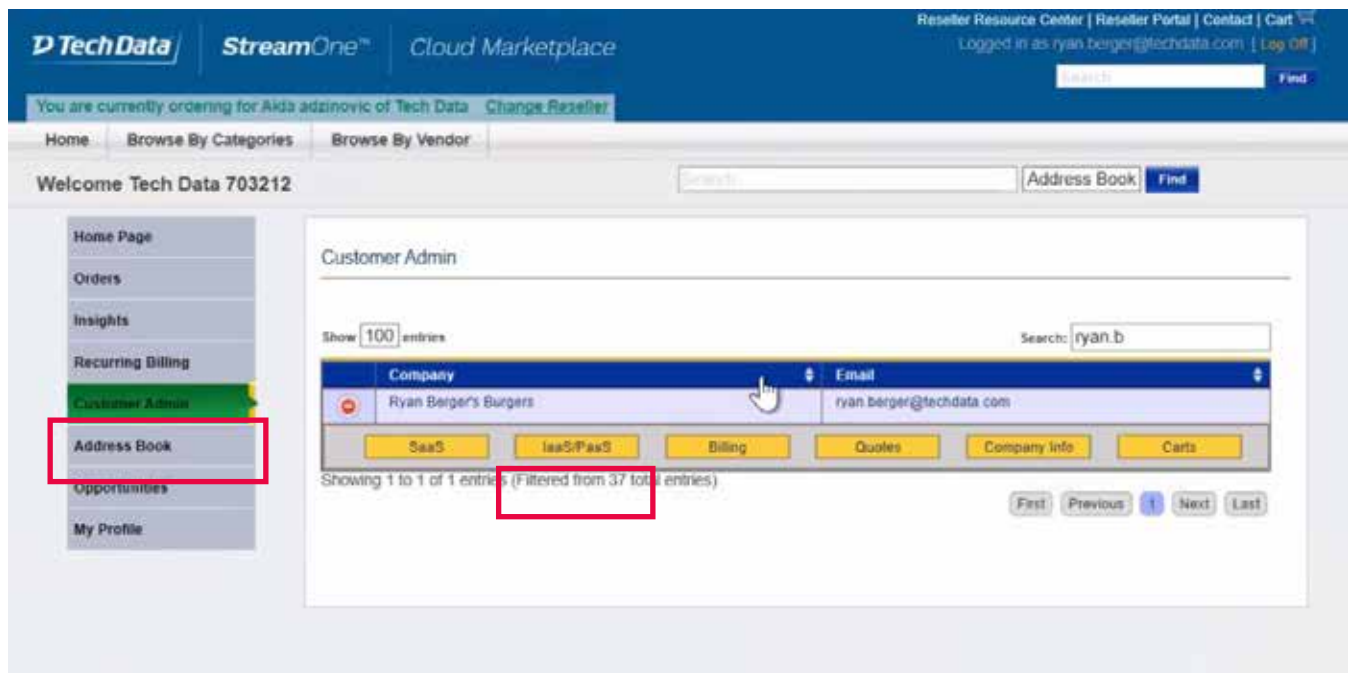
Username: admin@alexandreNETAPP2.onmicrosoft.com

Password: [X3]Nu[3]

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

Search: Address Book Find

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

Customer Admin

Show entries Search:

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

16/01/19 05:52 PM CET	S000260371 Sandbox	StreamOne	Microsoft	MS-AZR-0145P	5K7608	azrhos11td	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 Arla adzironic of Tech Data. [Change Reseller](#)

Home Browse by Categories Browse by Vendor

Welcome Tech Data 703212 Address Book Find

- Home Page
- Orders
- Insights
- Recurring Billing
- Customer Account**
- 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% **on**

Reseller Information

Reseller POB:

Tech Data
Messier House, Oxford Road Chisnam Business Park
Basingstoke, Hampshire RG24 1PA GB
310A1reseller@techdata.com
1251223111

End User Information

End User POB:

Ryan Berger's Burgers
Ryan Berger
8-B York 15 St, Peters Grove
York
YO30 6AQ
ryan.berger@techdata.com
3526502341

Subscription Settings

Doctype: azrhos11td

Subscription Name: **Microsoft Azure** **on**

Order #	Vendor	Name	Delegate	Manage	States	Created On	Modified On
S000260371 Sandbox	Microsoft	Azure Registration Event Subscription	Delegate		on	16/01/2019 05:22 PM CET	16/01/2019 05:22 PM CET
S000260371	Microsoft	Azure Example Red Hat Openstack		Click to Configure		16/01/2019 05:22 PM CET	16/01/2019 05:22 PM CET

Disclaimer: Data updates every 24 hours

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.

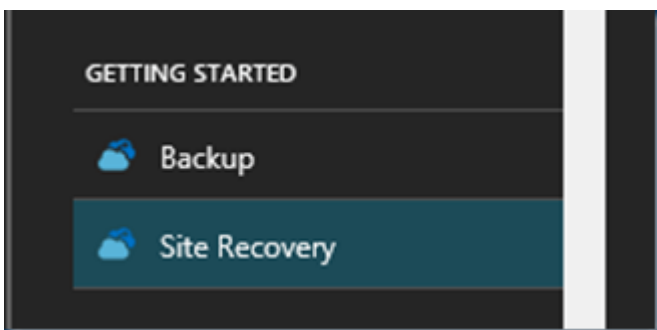
Download the Agent

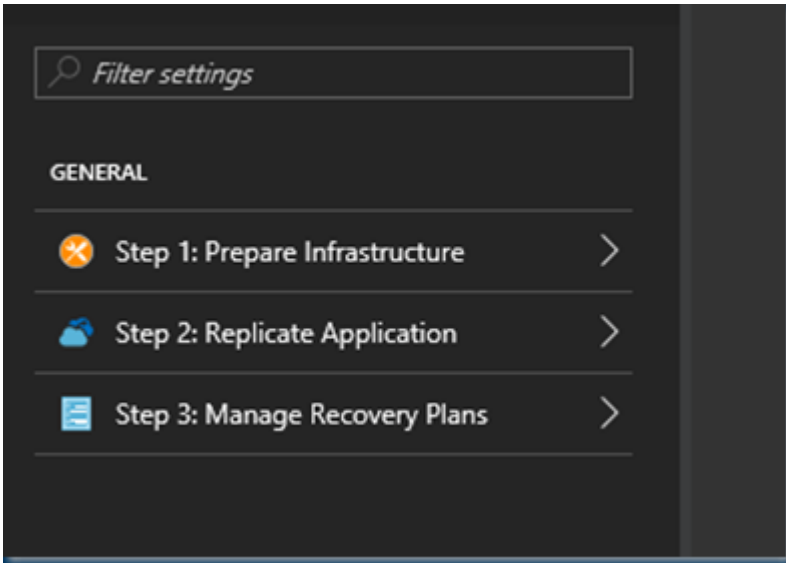
The installer for the Microsoft Azure Site Recovery Provider.

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

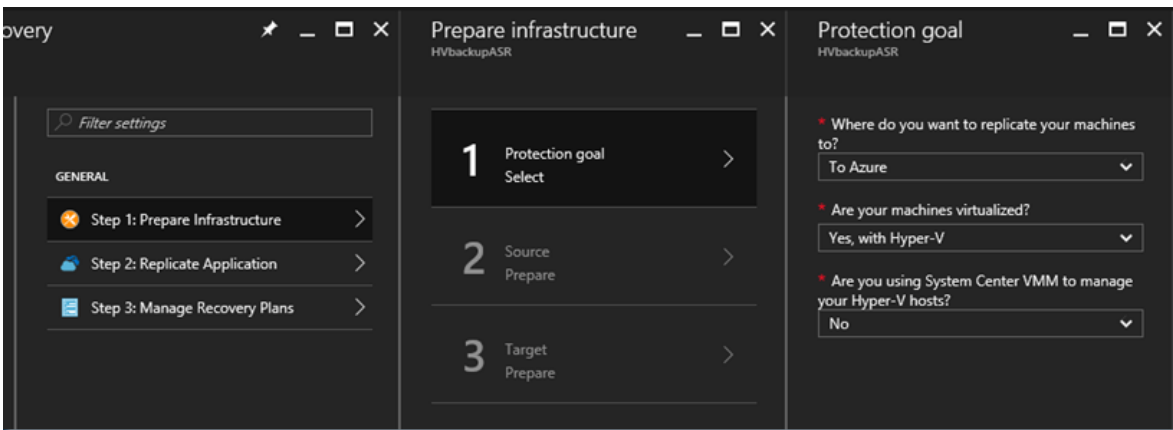


This download is replication agent to Azure and need to be installed on the Hyper-v Server



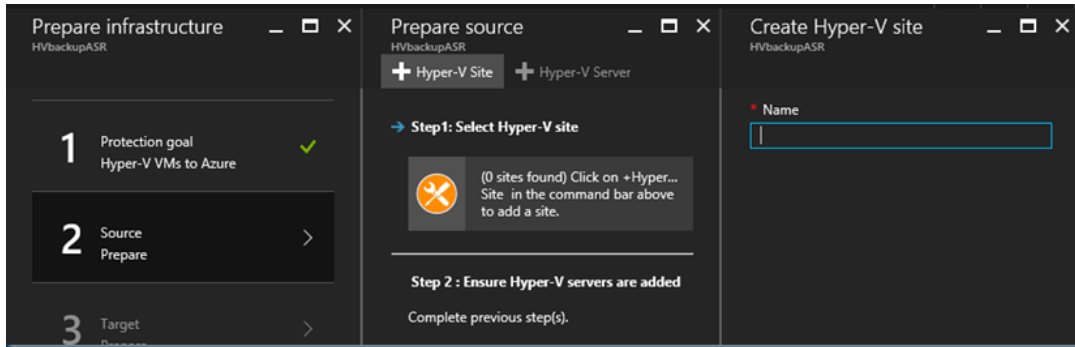


Selecting the Site Recovery and start with Step 1



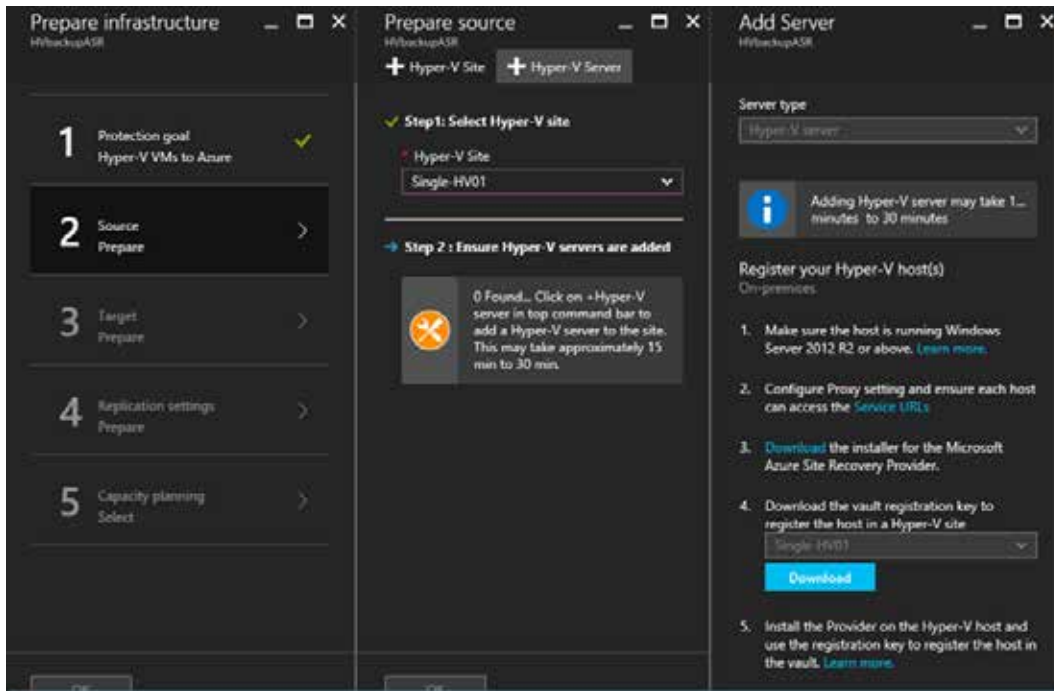
In this step We select our Protection goal select To Azure, and select Yes, with Hyper-V.

Select No to confirm you're not using VMM.

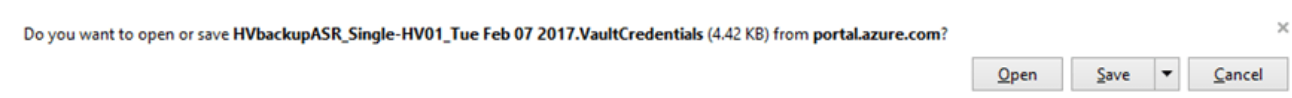


We need to create a Site of this hyper-v server.

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.

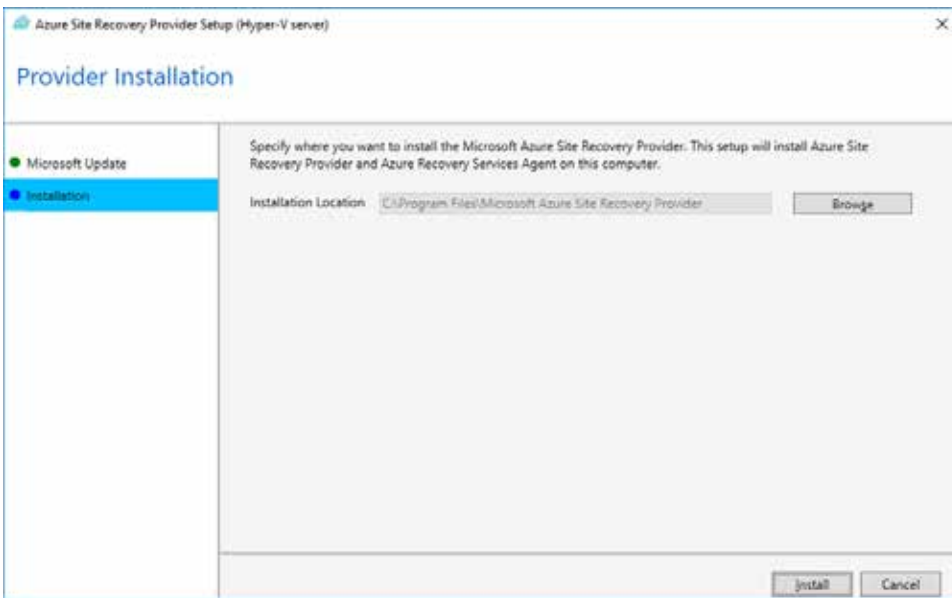
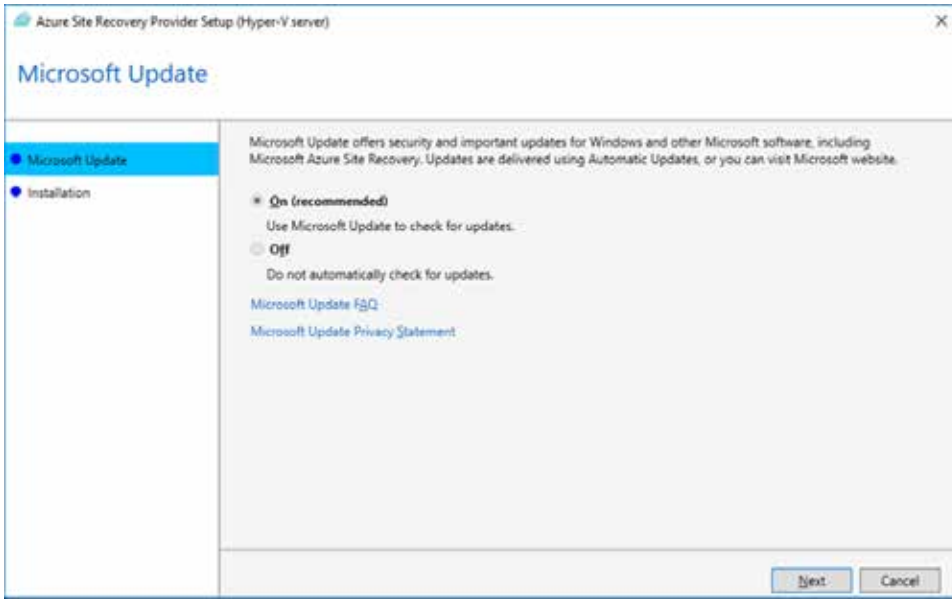


I need to install the Agent and use the vault keys to connect to Azure. Also downloaded here

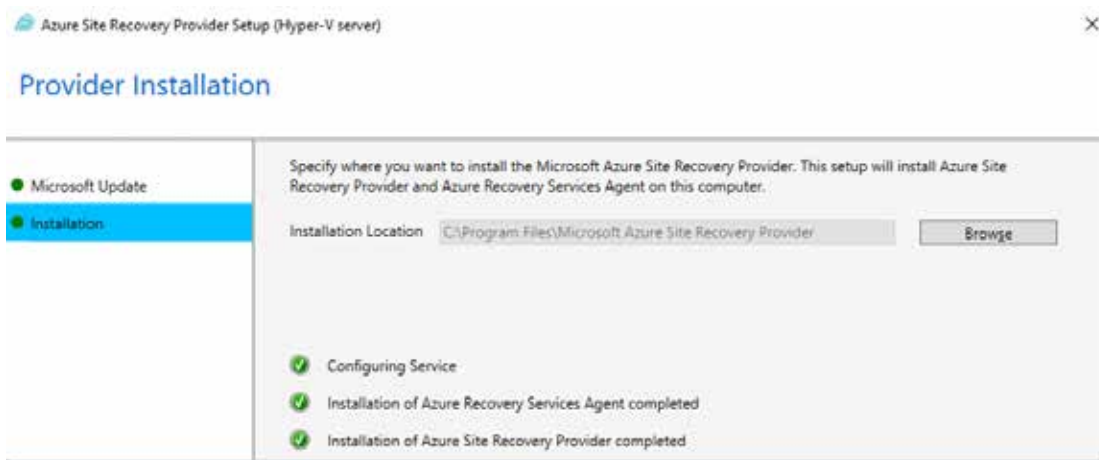


Installing the Hyper-v Agent

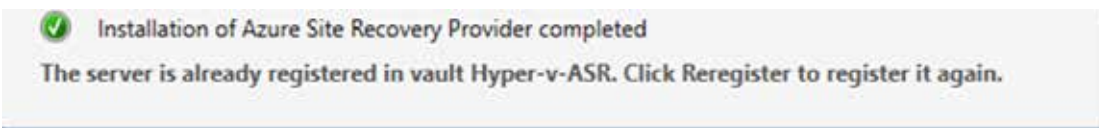
Use the Exe just downloaded and follow the steps.



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”

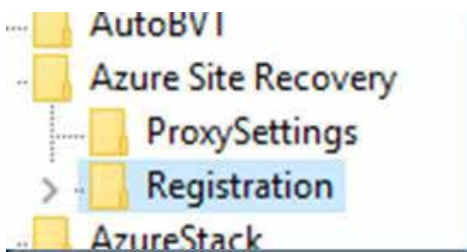


To fix this error and enable the ASR Provider and agent setup to complete successfully, follow these steps:

Go to the Register

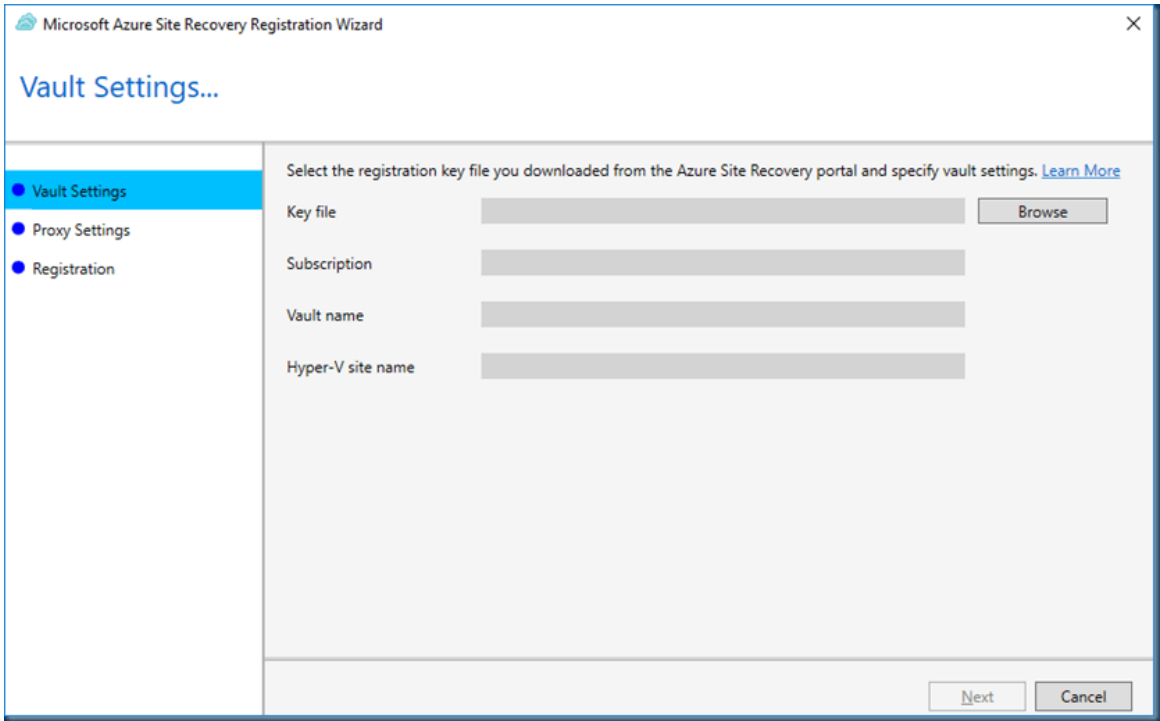
Make a backup of the following registry key:

HKEY_LOCAL_MACHINESOFTWAREMicrosoftAzure Site Recovery

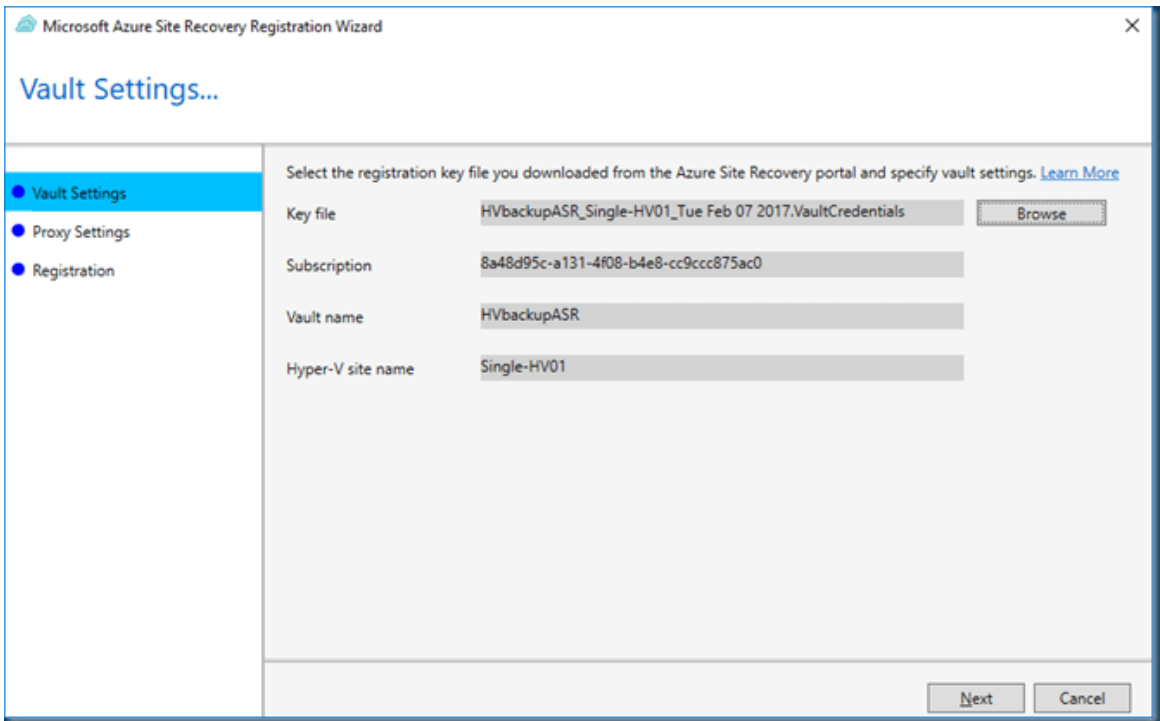


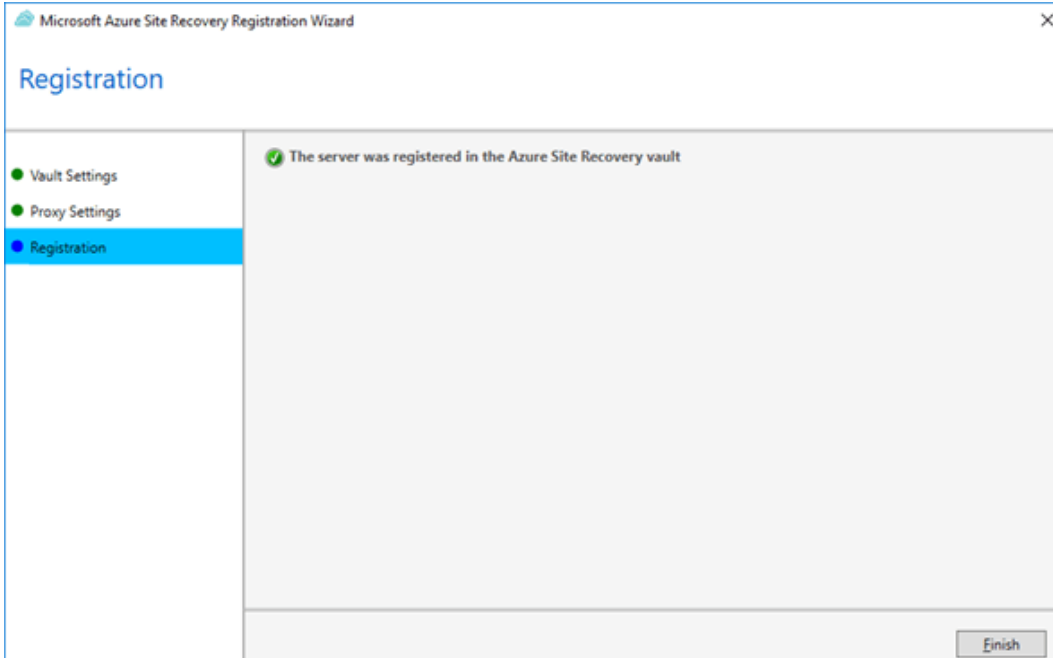
Delete the registry key that you backed up in step 2.

Restart the Provider and agent setup.

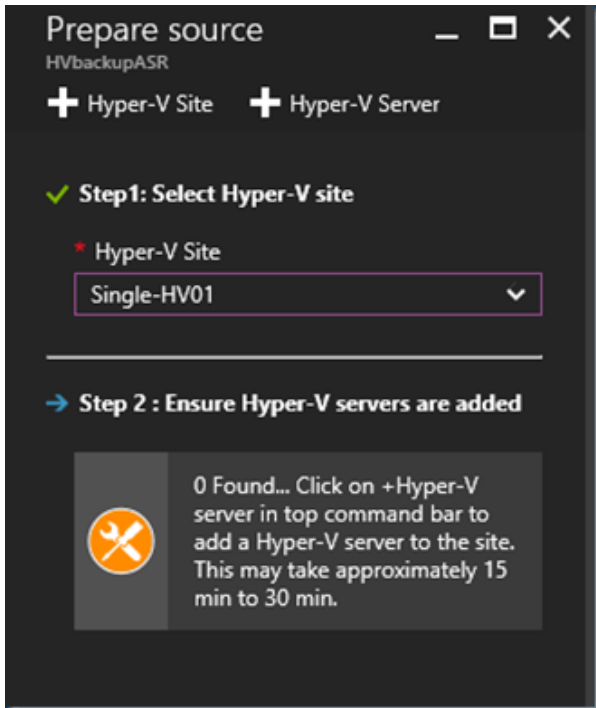


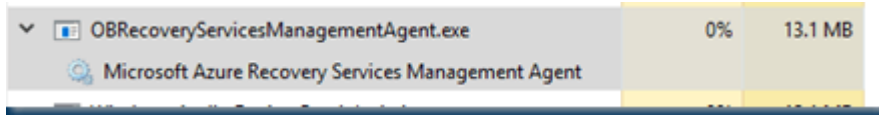
Use the downloaded Keys and import them.



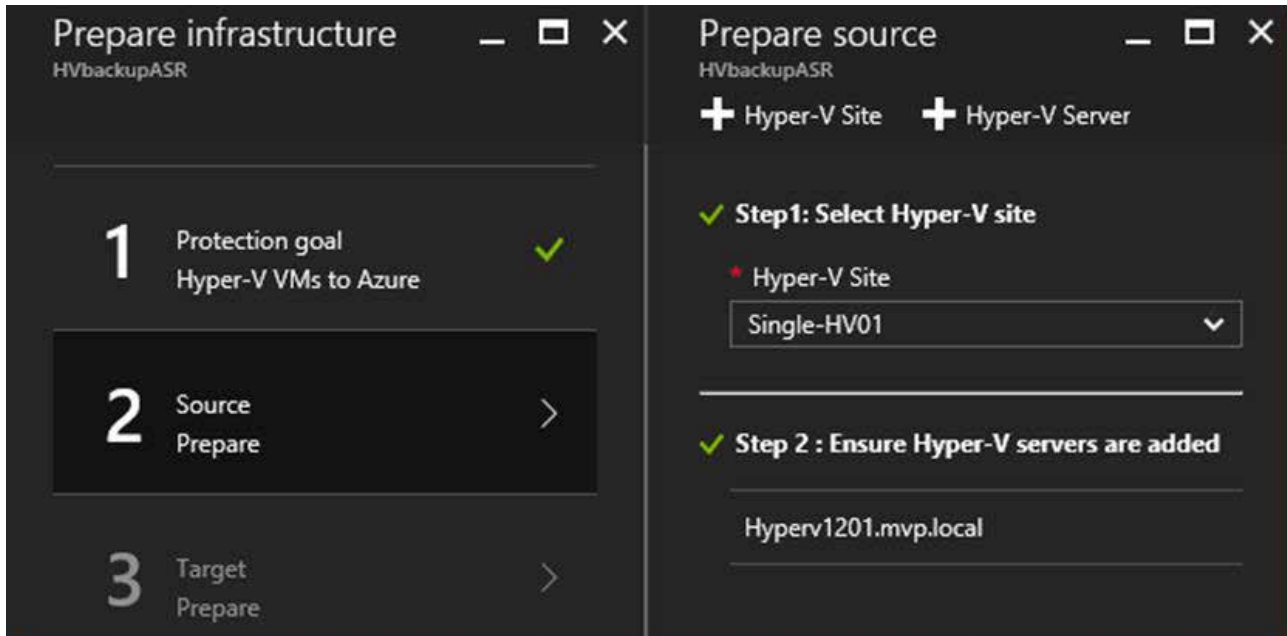


And the installation is done. It can take some time to add the server to Azure maybe several hops back and forth to the menu

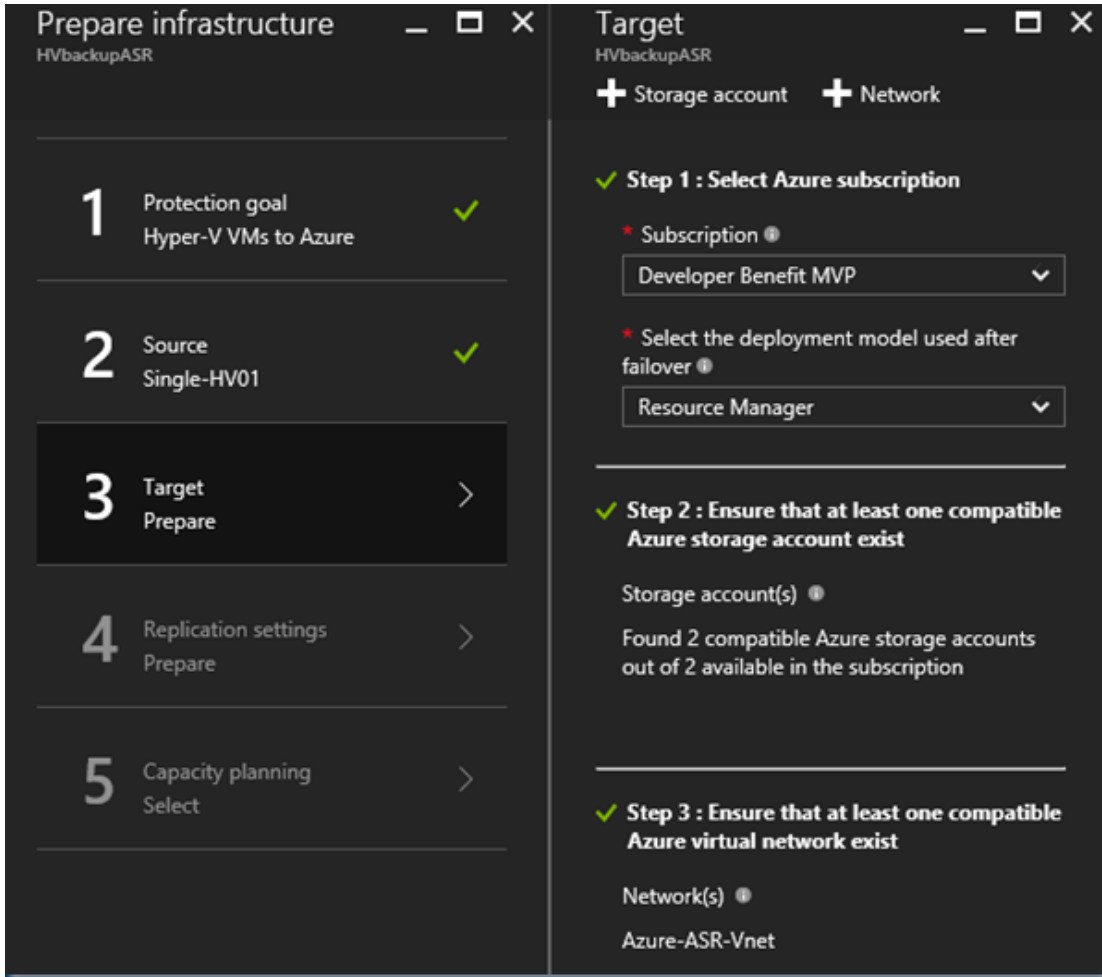




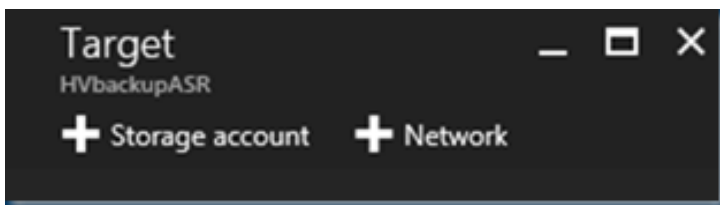
You can see the process running in the Task manager.



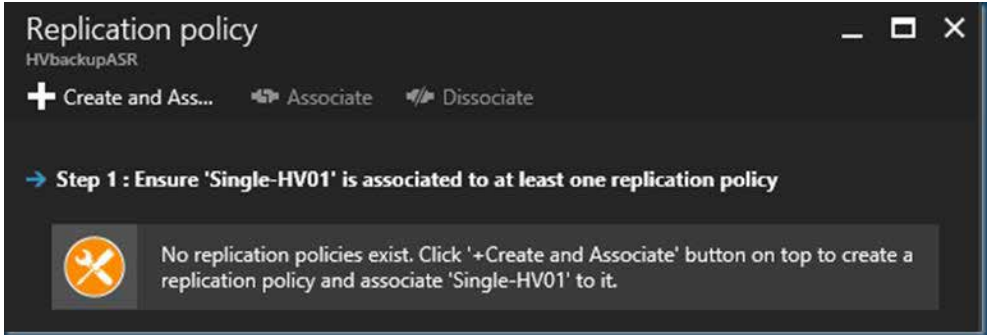
Jumping back and to the step 2 you can see the Hyper-v server is added to the Vault.



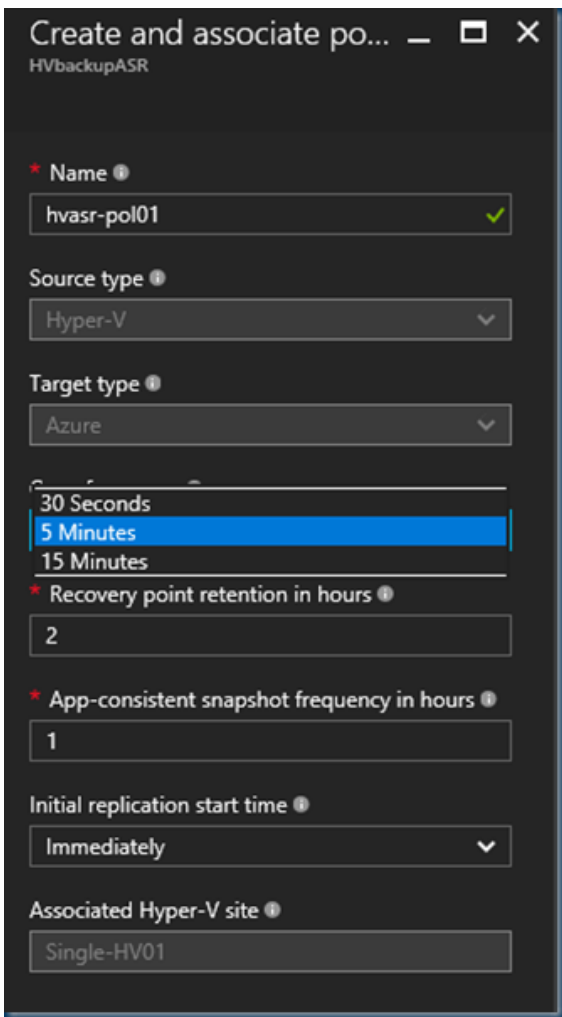
Added a storage account and a network. If this is not the storage account or network you want no worry you can change this before the replication starts.



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.

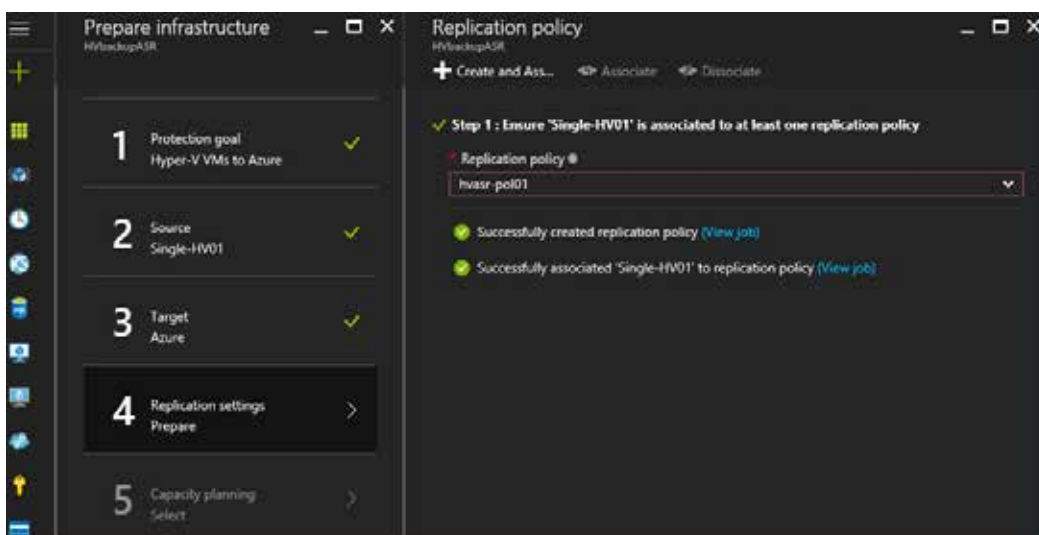
In App-consistent snapshot frequency specify how frequently (1-12 hours) recovery points containing application-consistent snapshots will be created.

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.

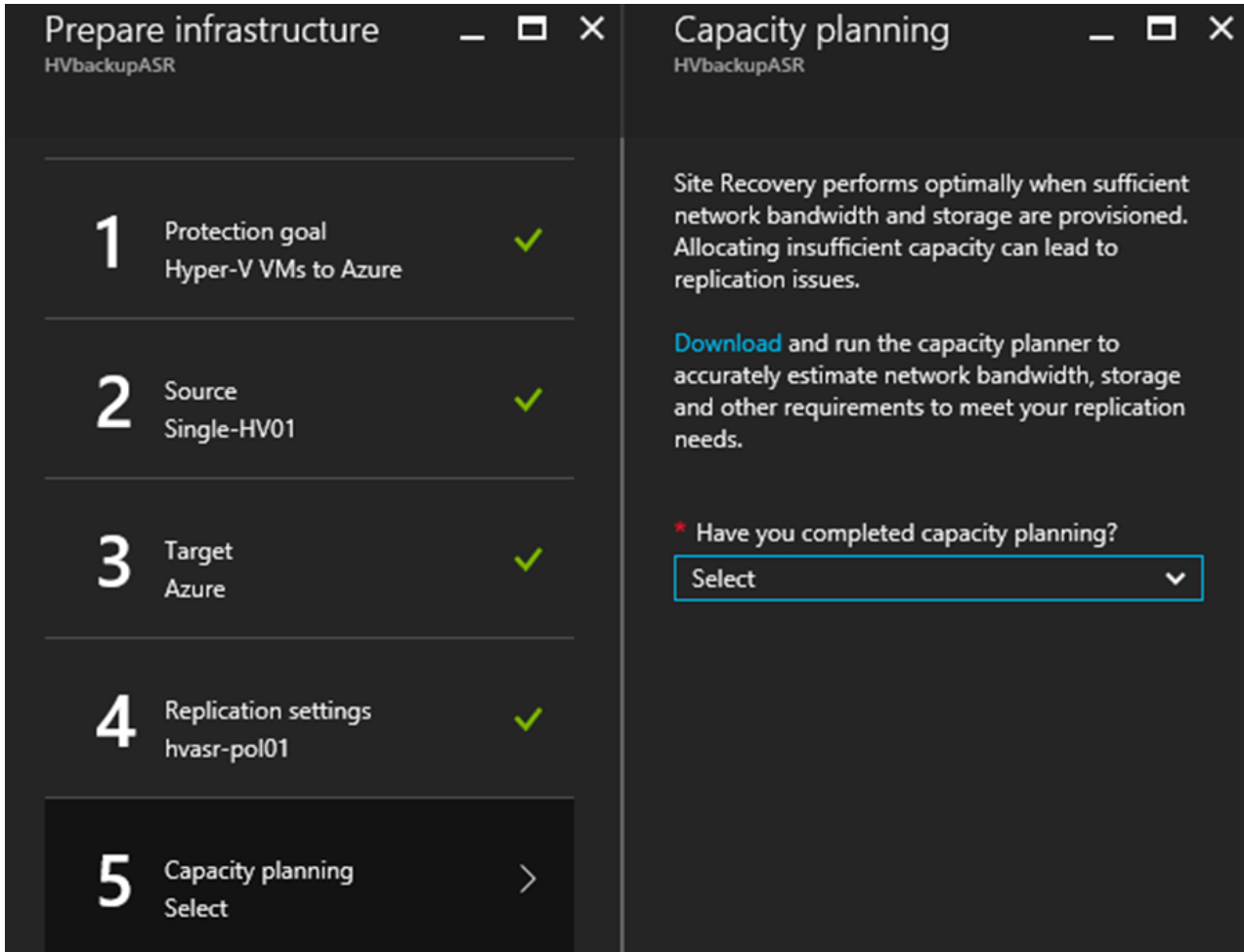
Application-consistent snapshots use Volume Shadow Copy Service (VSS) to ensure that applications are in a consistent state when the snapshot is taken. Note that if you enable application-consistent snapshots, it will affect the performance of applications running on source virtual machines.

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.

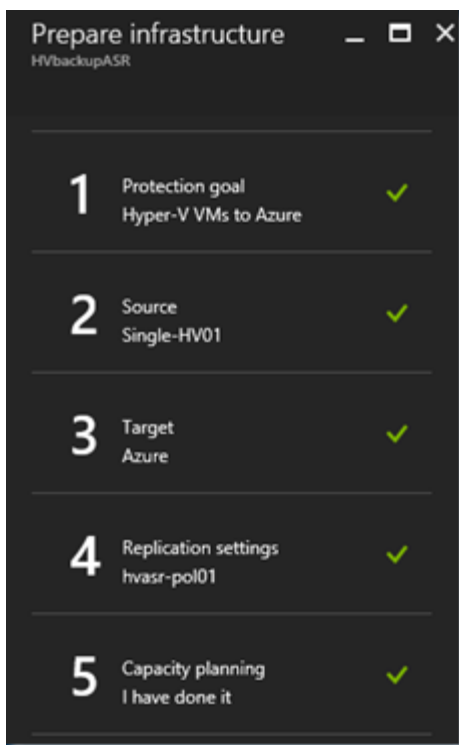
You can run the planner in quick mode for estimations based on an average number of VMs, disks, and storage, or in detailed mode in which you'll input figures at the workload level.

Get the Azure Site Recovery Capacity planner here: [Download](#)

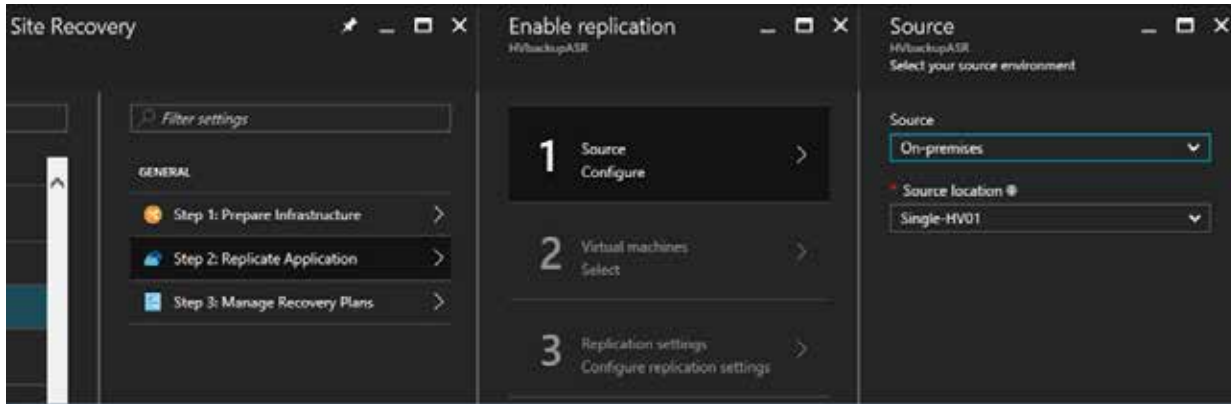
Capacity Planner		OUTPUT	
INPUTS		Network Bandwidth requirements	
Infra Inputs source	Manual	Bandwidth required for delta replication (in Megabits/sec)	200 Mbps
Select your scenario	Hyper-V to Azure	Bandwidth required for initial replication (in Megabits/sec)	180 Mbps
Total number of virtual machines	100	Adjust 818.819 to suit available bandwidth	
Average number of VHDs per virtual machine	2	Bandwidth refers to dedicated bandwidth for replication.	
Average size of VHD (in GBs)	300	Azure requirements	
Average utilization per disk (%)	70%	Storage required (in GBs)	43400
Total data to be replicated (in GBs)	42000	Total IOPS on standard storage accounts	3186
Churn Inputs		Number of standard storage accounts required	5
Average daily data change rate (%)	5%	Number of Blob disks required	200
Amount of data changed per day (in GBs)	2100	Number of premium storage accounts required	0
Compression	0%	Total IOPS on premium storage accounts	0
Amount of data Xfered per day (in GBs)	2100	Other Infra requirements	
Retention Inputs		Number of Configuration Servers required	NA
Number of recovery points	16	Number of additional Process Servers required	NA
Initial Replication Inputs		100% additional storage on the Source	60000
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		

A quick overview of the Azure Site Recovery Capacity planner

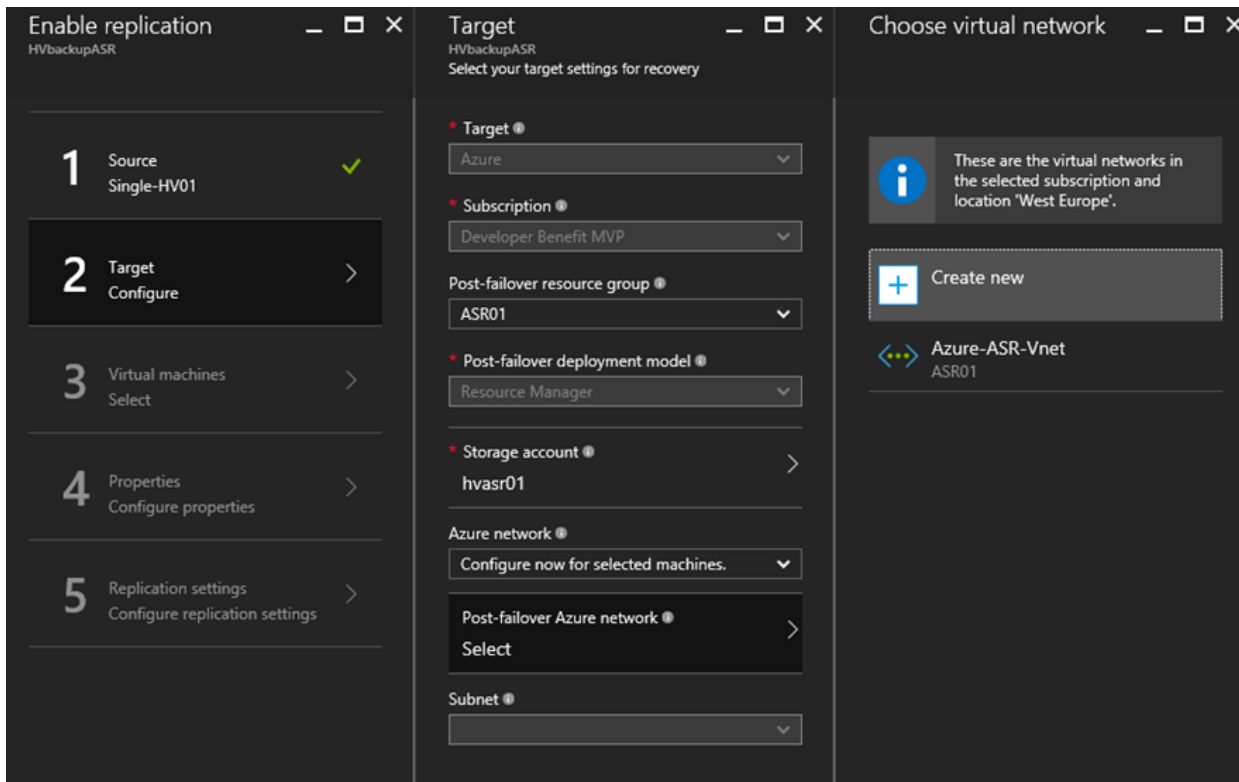
If you skip this or thinking this will be fine I'll show you later what can happen.



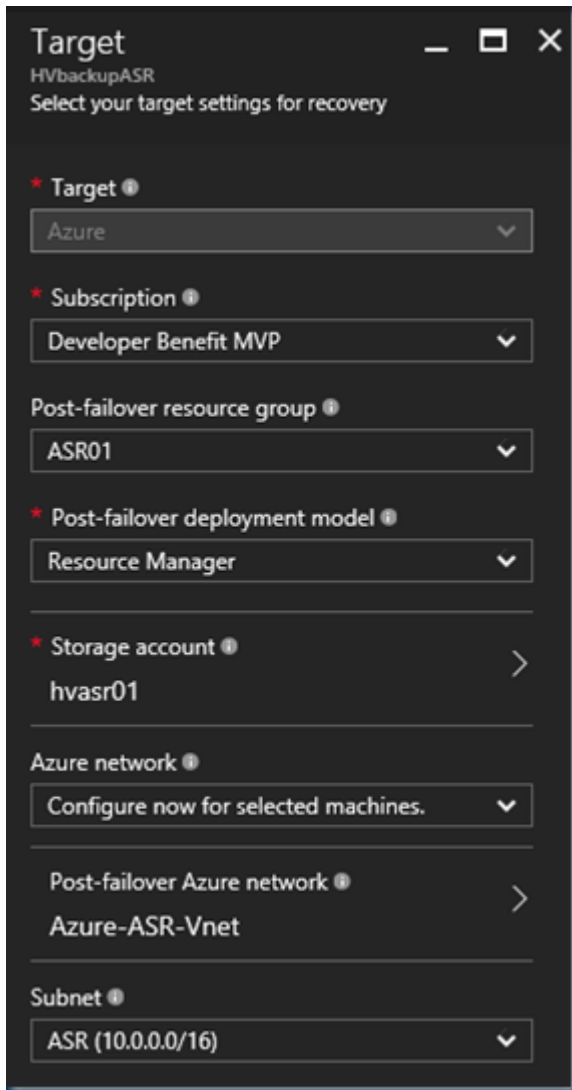
Now that all steps are completed in the ASR infrastructure we can start



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

- Source: Single-HV01 ✓
- Target: Azure ✓
- Virtual machines: Select
- Properties: Configure properties
- 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

Selected virtual machines: 0

- MVPNLB504
- MVPNLB502

Enable replication (HVbackupASR)

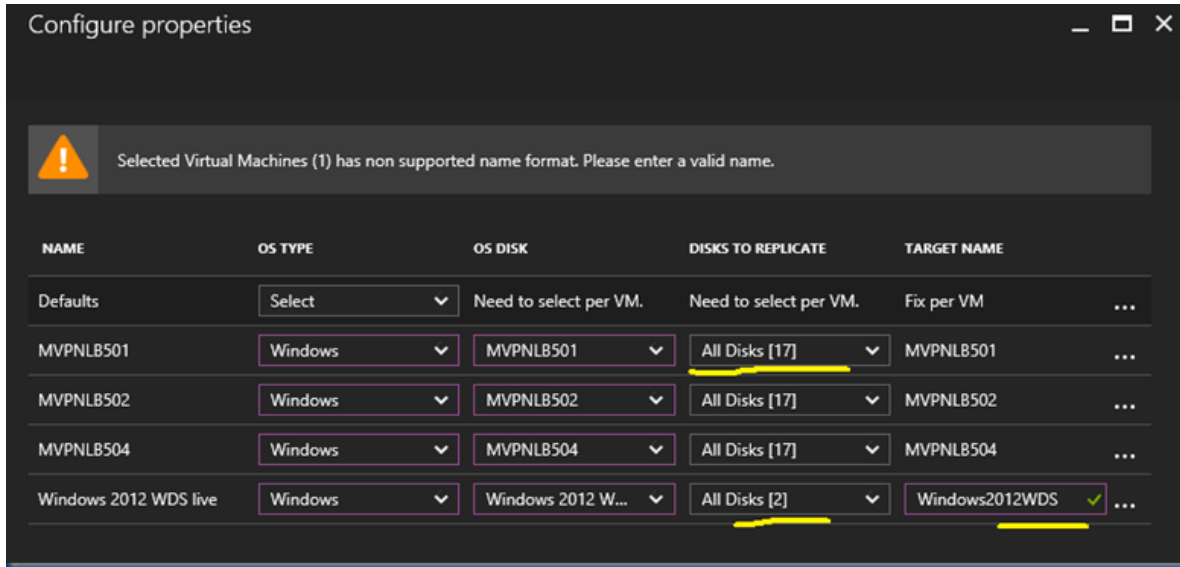
- Source: Single-HV01 ✓
- Target: Azure ✓
- Virtual machines: 4 Selected ✓
- Properties: Configure properties
- Replication settings: Configure replication settings

Configure properties

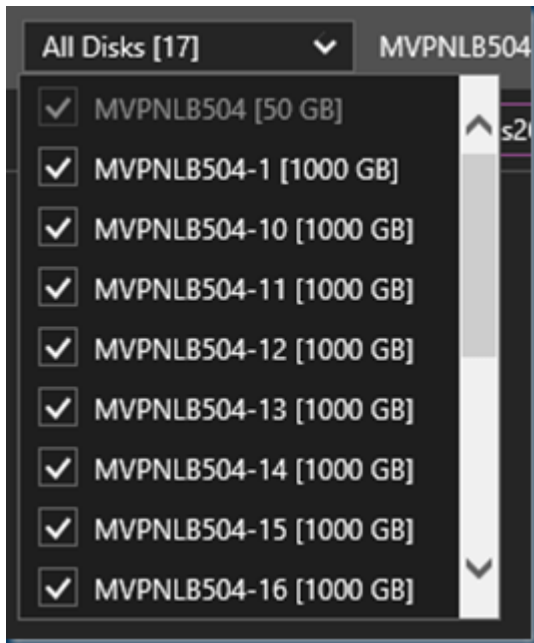
Selected Virtual Machines (1) has non supported name format. Please enter a valid name.

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 1 !

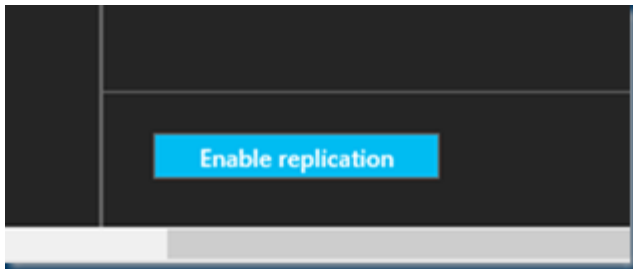
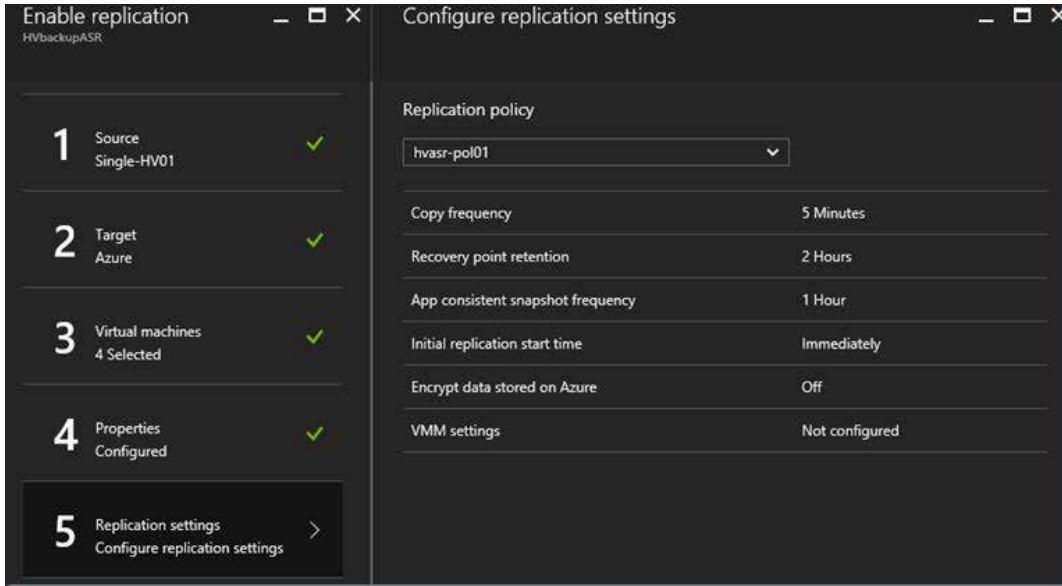
Selecting a few VM's you can see even the names can be changed to the right Azure style or if there a characters in the name that are not supported.



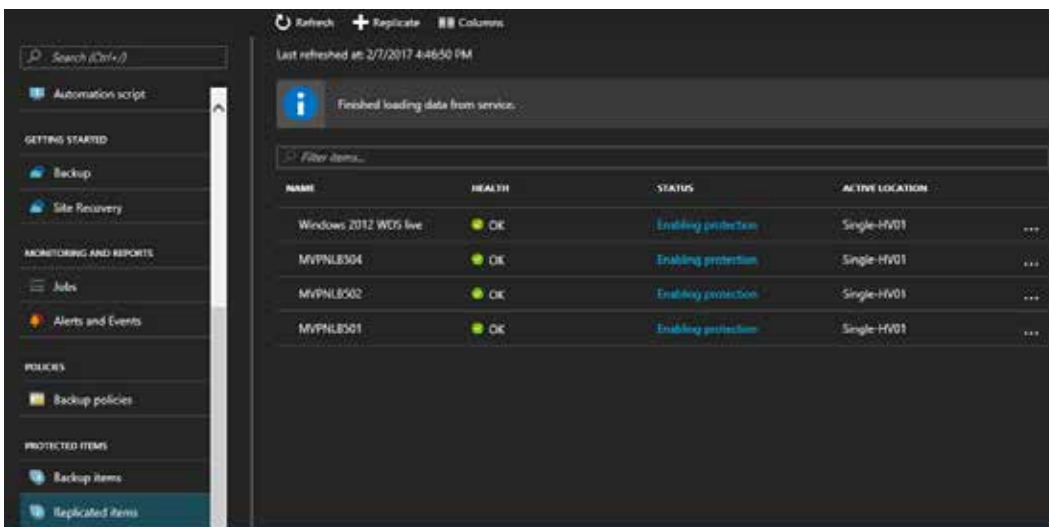
you can select what disk you want and what to skip.



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

The screenshot shows the Windows 2012 WDS live Settings application. The main window is titled "Windows 2012 WDS live" and contains several sections:

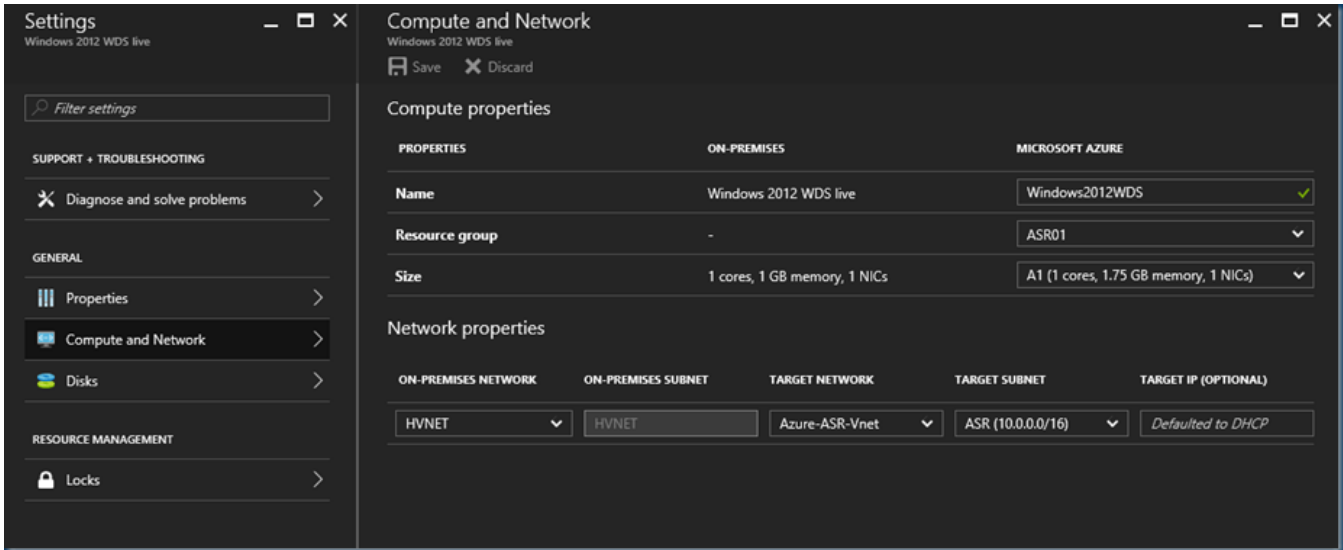
- Essentials:** Lists configuration details such as Recovery Services vault (HVbackupASR), Replication policy (hvasr-pol01), Target storage account (hvasr01), Operating system (Windows), and Target network (Azure-ASR-Vnet).
- Source location:** Shows Single-HV01 with ID 1c057d0a-8b88-4e40-a0f9-bac62e21e20e, Target size Basic_A1, and Protected disks 2.
- Replication Health:** A summary card showing "Replication health" as OK (green checkmark), "Status" as Protected, and "Events" as 0.
- Latest Recovery Points:** A table showing recovery points for Crash-consistent (2/7/2017 6:06:49 PM) and App-consistent (Not available).
- Settings Panel:** A sidebar on the right with search, "SUPPORT + TROUBLESHOOTING" (Diagnose and solve problems), "GENERAL" (Properties, Compute and Network, Disks), and "RESOURCE MANAGEMENT" (Locks).

The screenshot shows the "Replication Health for 'Windows 2012 WDS live'" dialog box. It provides detailed information about the replication process:

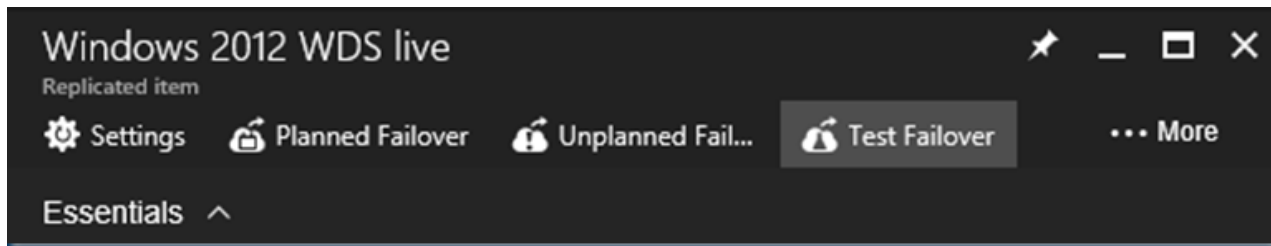
- Replication State:** Replication enabled (Primary).
- Current Primary Server:** Hyperv1201.mvp.local
- Current Replica Server:** Microsoft Azure
- Replication Health:** Normal (indicated by a green checkmark).
- Statistics for past 1 Hour 30 Minutes:**
 - From time: 2/7/2017 4:47:06 PM
 - To time: 2/7/2017 6:17:29 PM
 - Average size: 16.93 GB
 - Maximum size: 254 GB
 - Average latency: 0:01:41
 - Errors encountered: 2 (with a link to [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

Buttons at the bottom include "Reset Statistics", "Save As...", "Refresh", and "Close".

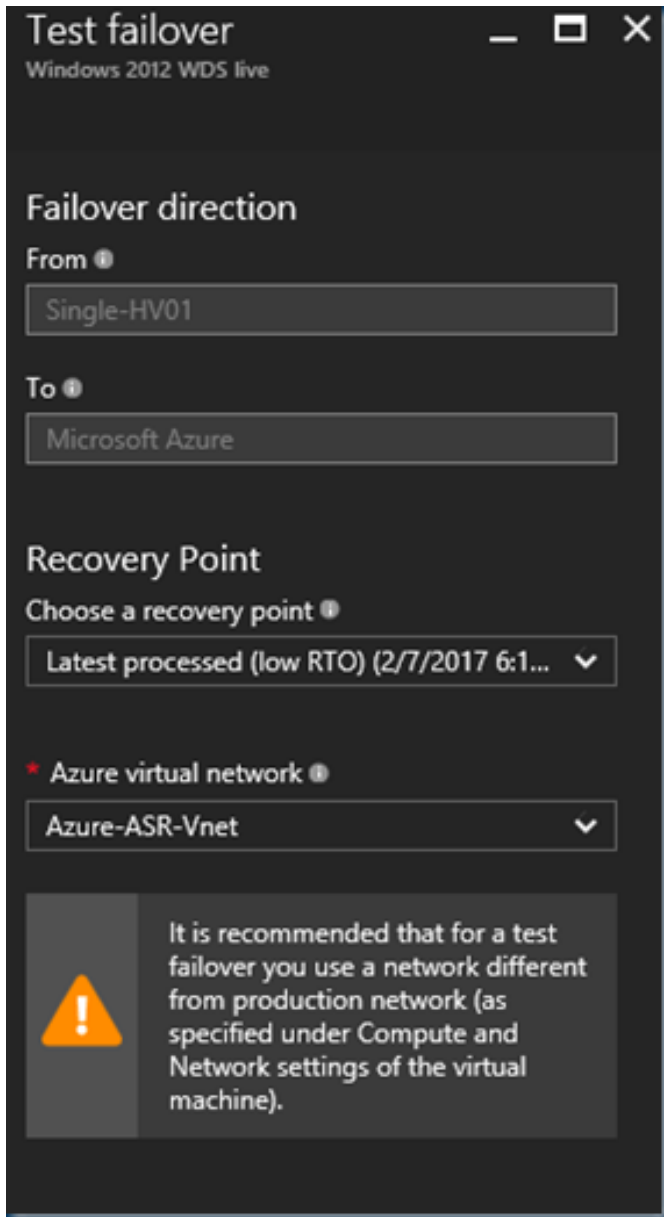
But As SR is using ASR you can also drill down on the replica options.



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.

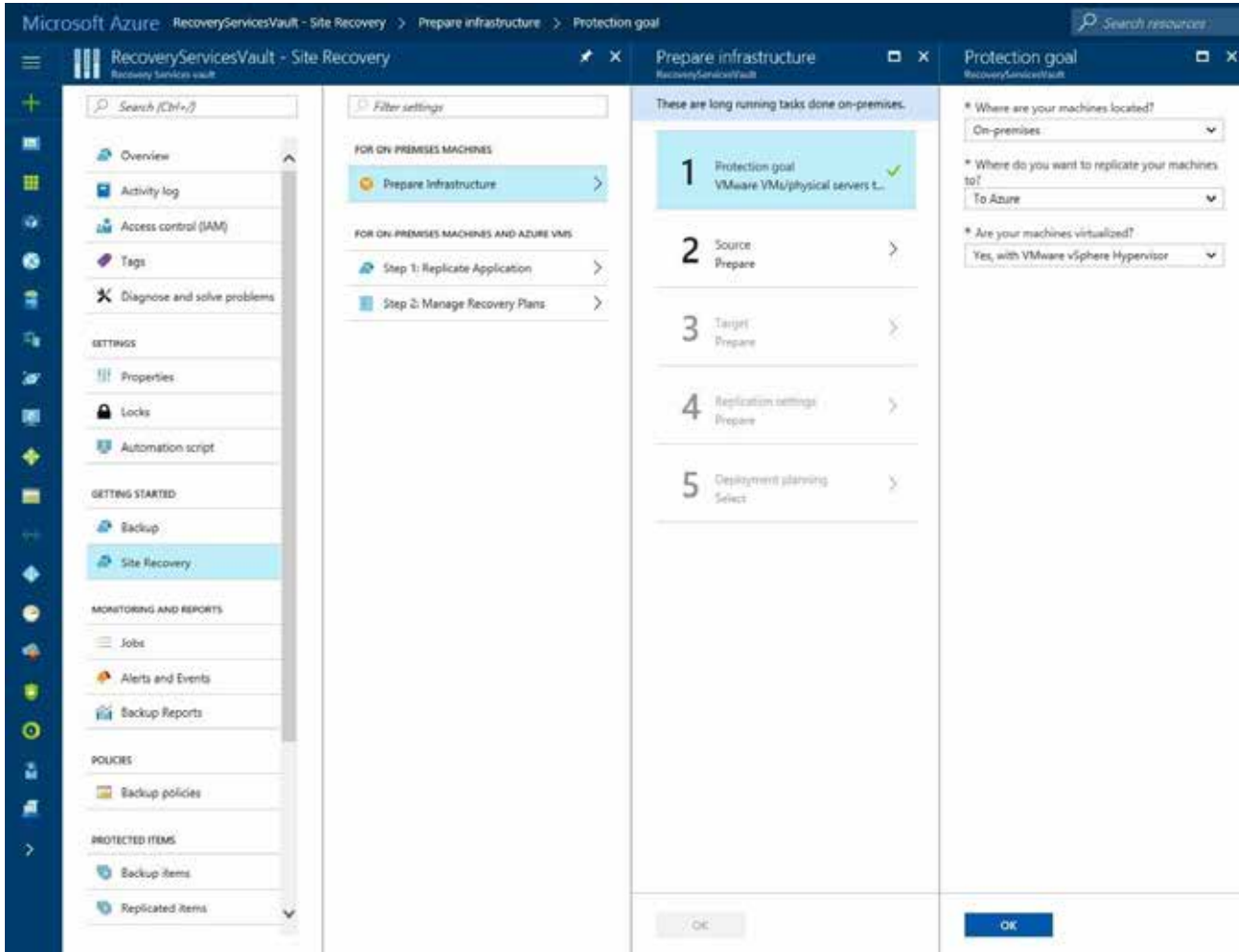


As ASR stands for recovery you can do a test failover or planned. As you are not using VMM the Azure portal is the Orchestrator for the Failover.



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.

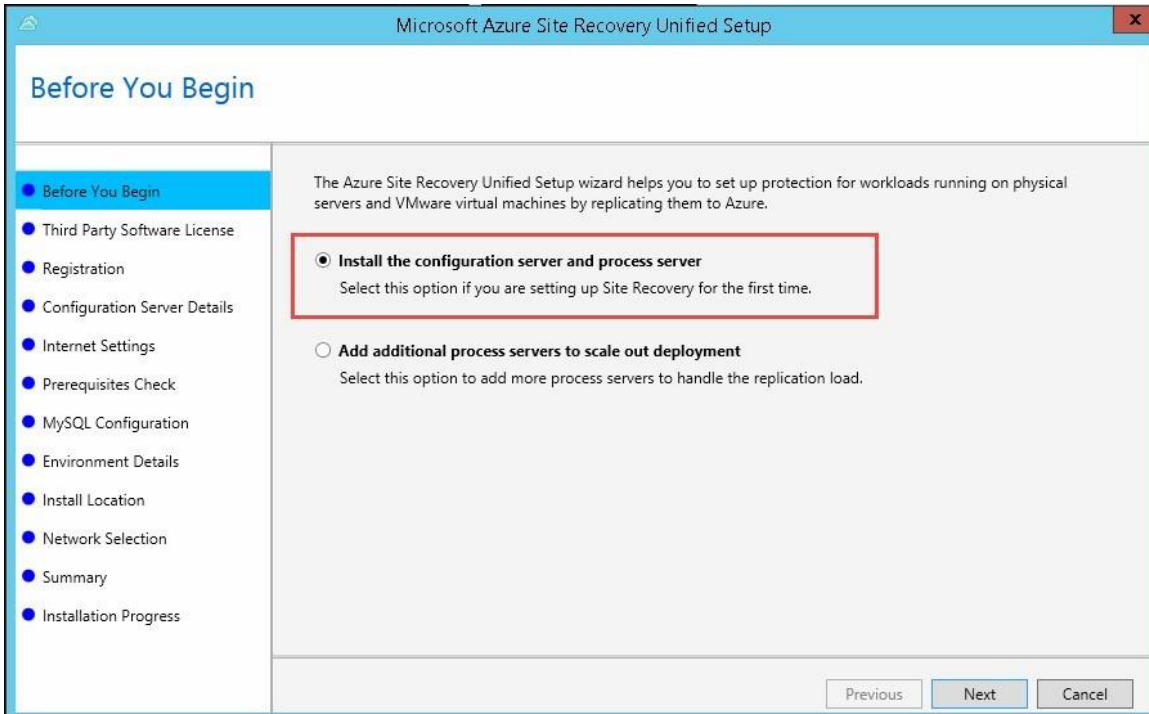
This must be installed on Server 2012 R2 on-prem, and will act as a processor to continuously back up VMs to ASR.

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

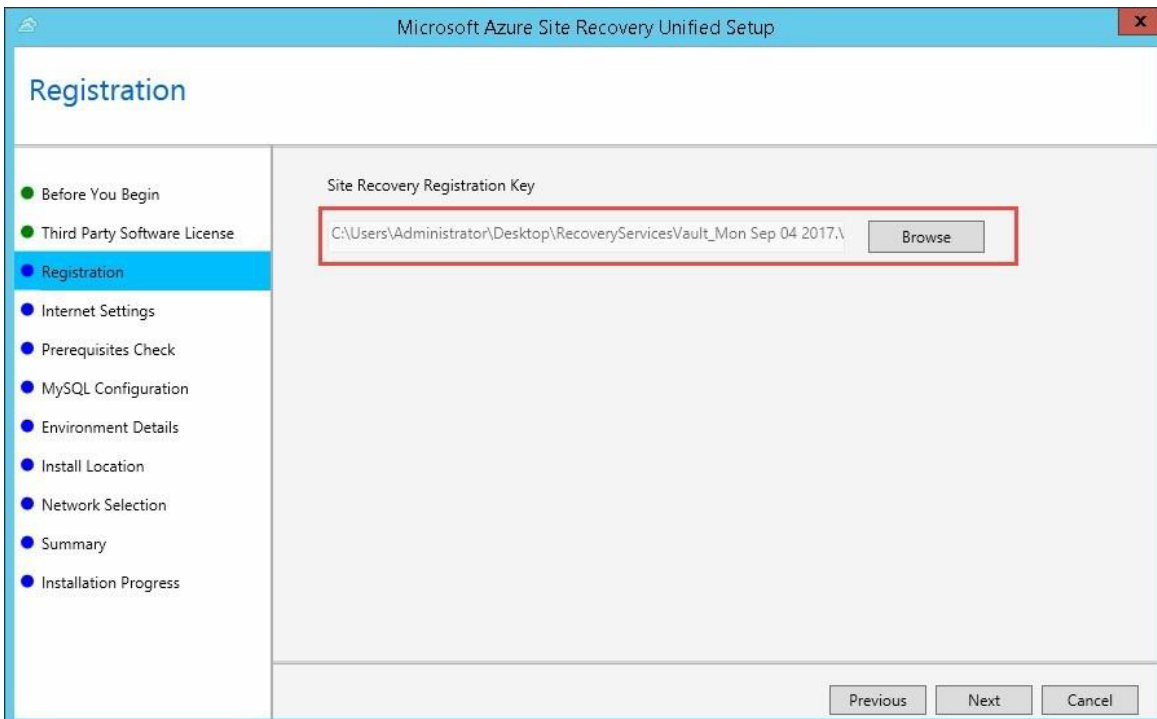
The screenshot displays the 'Add Server' window in the Recovery Services Vault interface. The window is divided into three main sections:

- Left Panel (Progress):** Shows five steps: 1. Protection goal (VMware VMs/physical servers t...), 2. Source Prepare (highlighted), 3. Target Prepare, 4. Replication settings Prepare, and 5. Deployment planning Select.
- Middle Panel (Configuration):**
 - Buttons for '+ Configuration Server' and '+ vCenter' are visible at the top.
 - Step 1: Select Configuration Server:** A message states '(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:** A message says 'Complete previous step(s).'
- Right Panel (Instructions):**
 - Server type:** A dropdown menu is set to 'Configuration Server'.
 - Information:** A blue 'i' icon indicates 'Adding Configuration Server may take 15 minutes to 30 minutes'.
 - Register your Configuration Server On-premises:** An 8-step list:
 - 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** (with a red box around the text and a 'Download' button below it)
 - Download the vault registration key** (with a red box around the text and a 'Download' button below it)
 - 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.

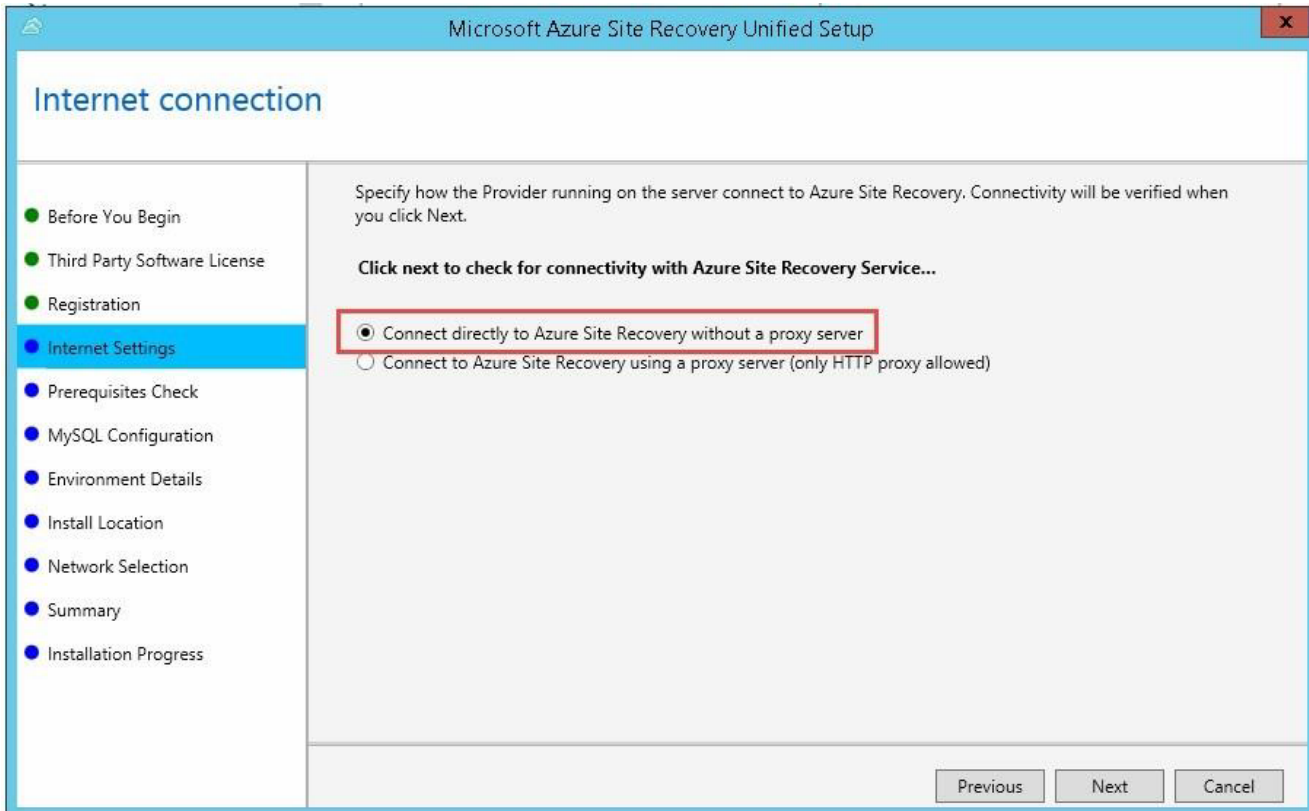
Run the Configuration Server setup and choose to install the Configuration Server and process server.



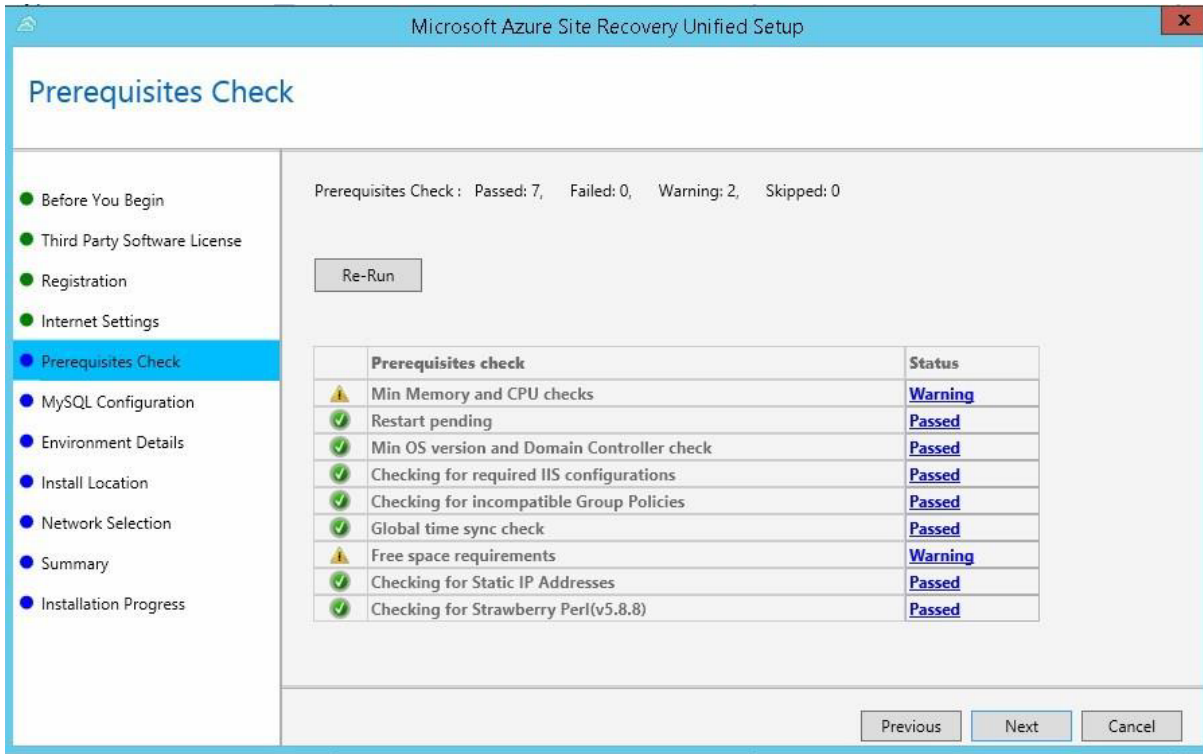
Enter the path to the vault credentials you downloaded on the next step.



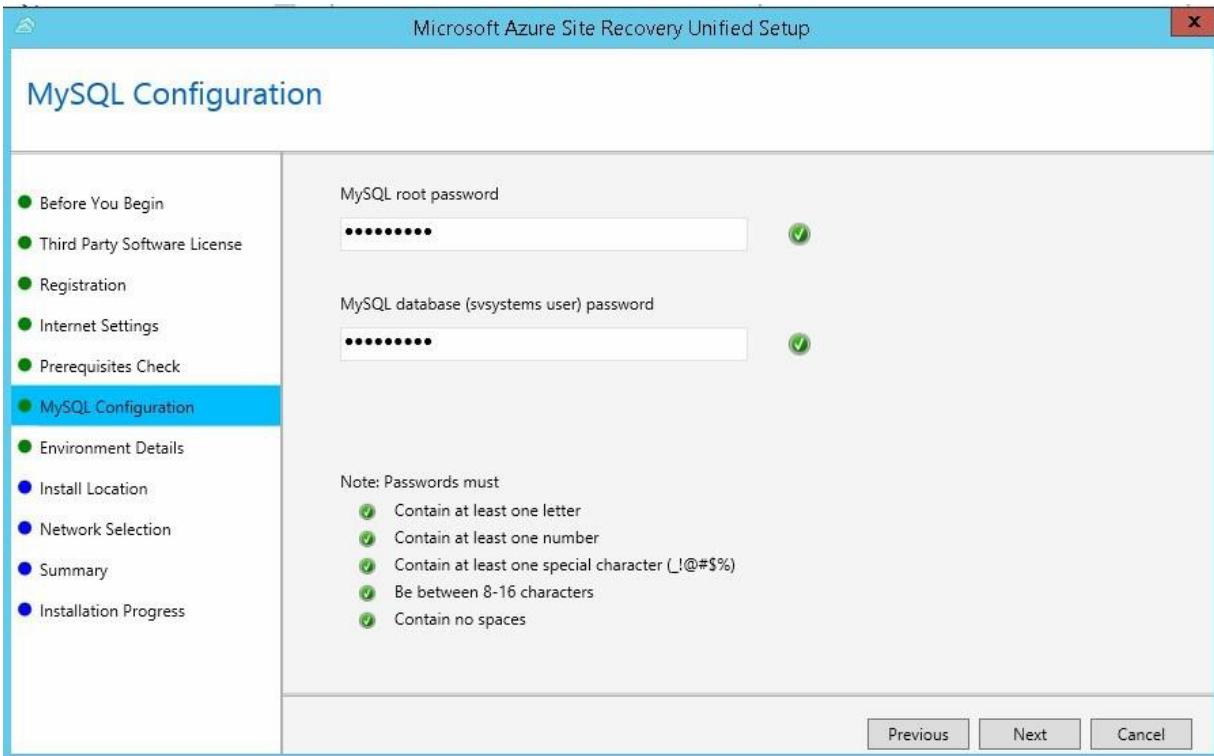
Configure a proxy server if your server does not have a direct connection to the Internet. ASR works directly over the Internet or proxy and does not require a VPN connection to Azure.



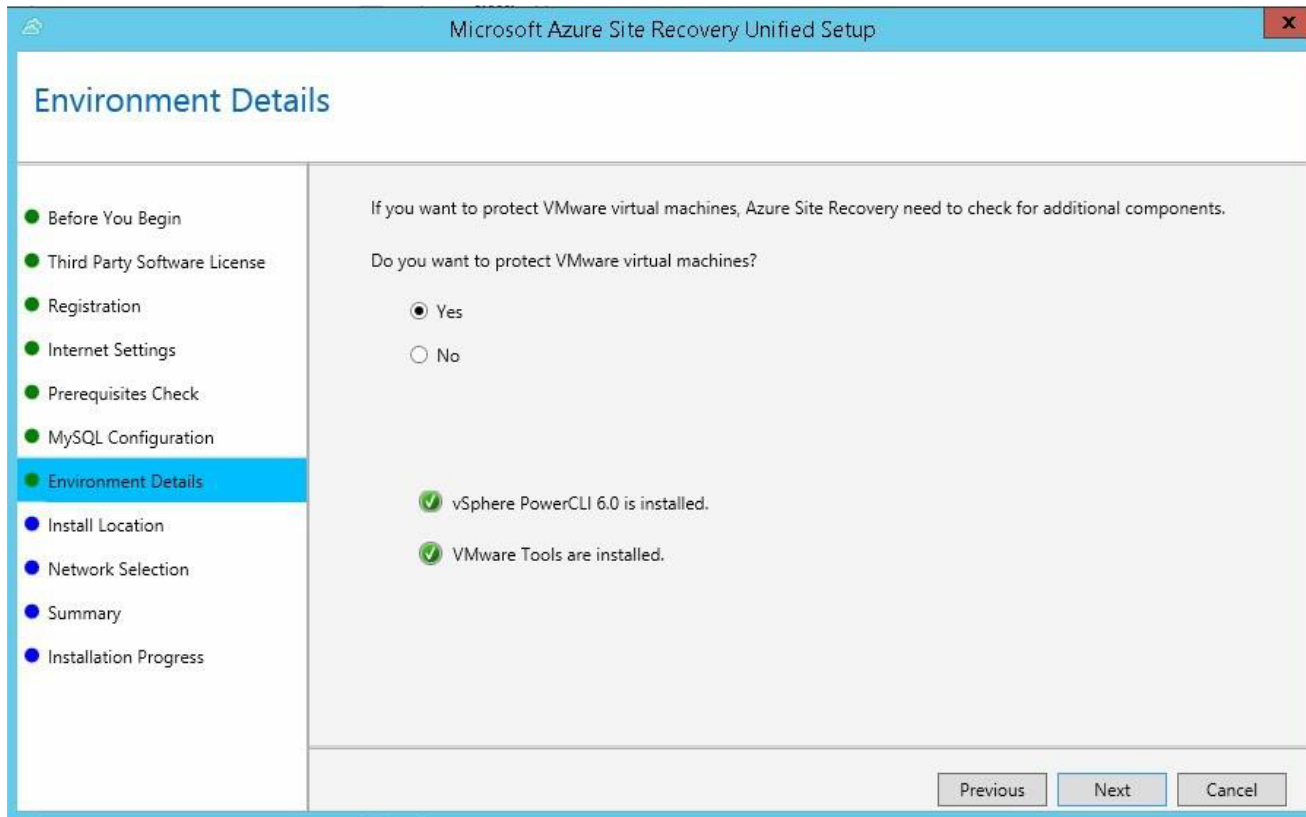
Check that you pass all prerequisites and continue.



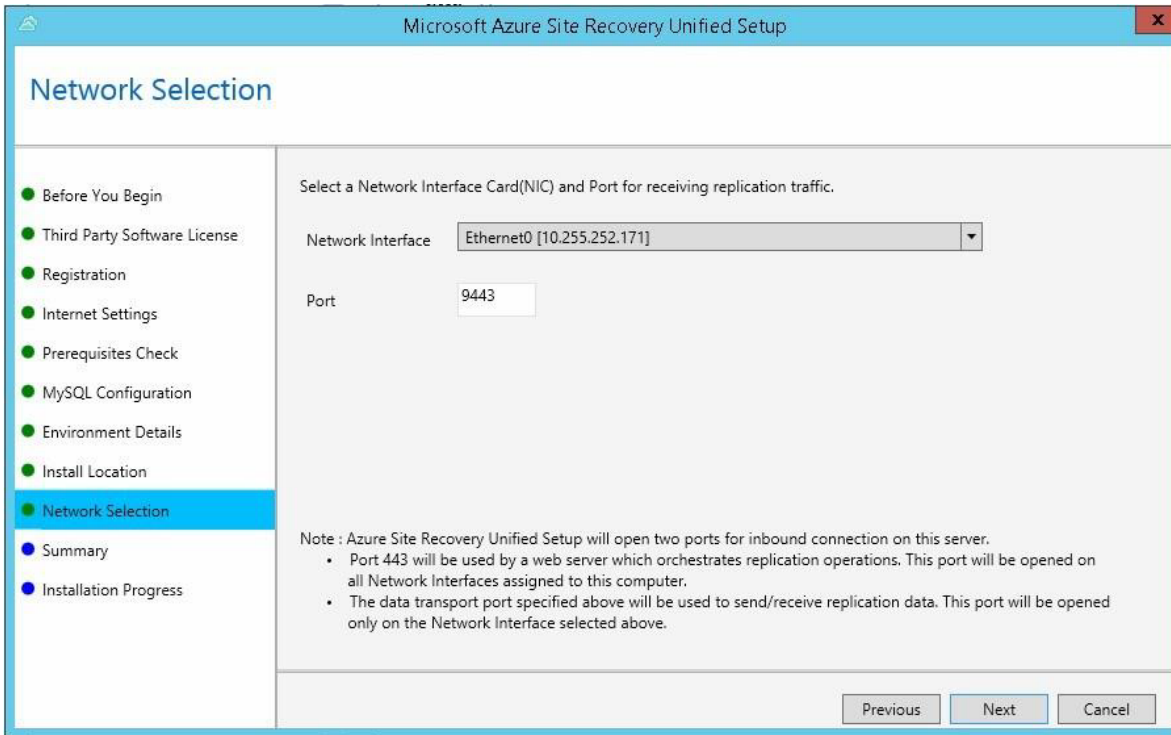
Choose a MySQL password and continue the wizard.



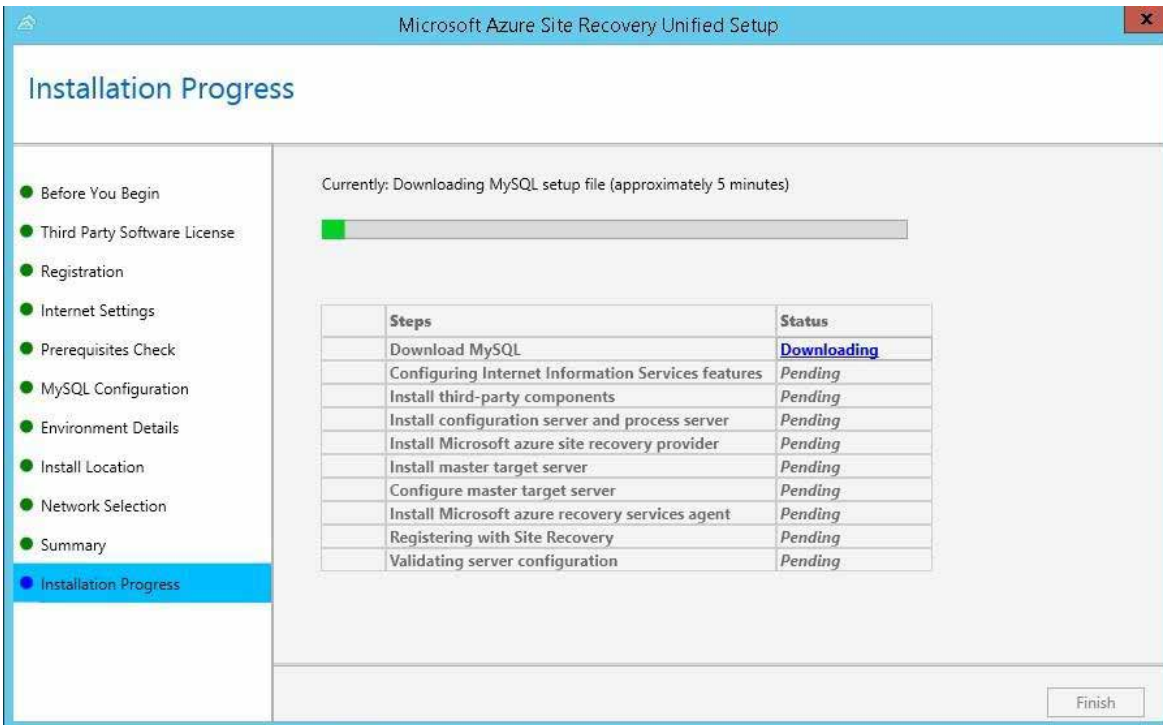
Choose yes when asked to protect VMware virtual machines. This may require you to install VMware tools and the vSphere PowerCLI if they are not already present on the Configuration Server.



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

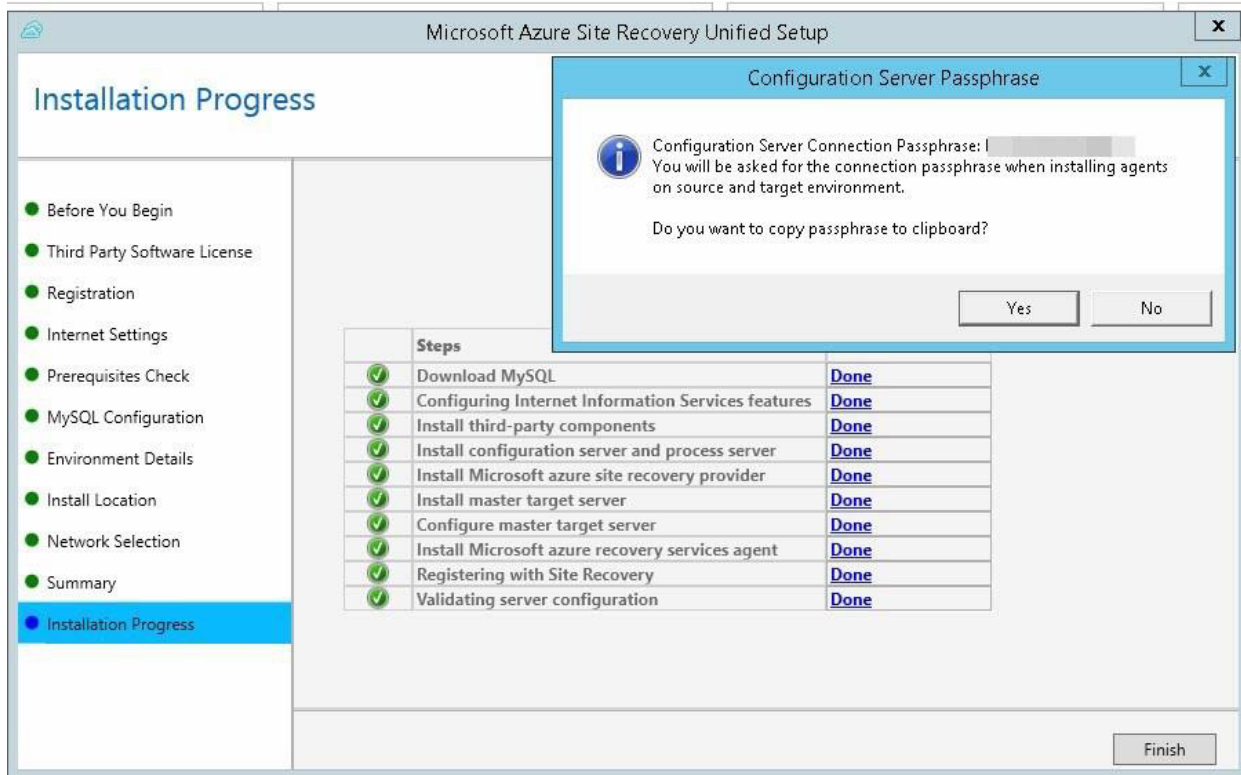


Allow setup to complete. It should take 15 minutes or so.



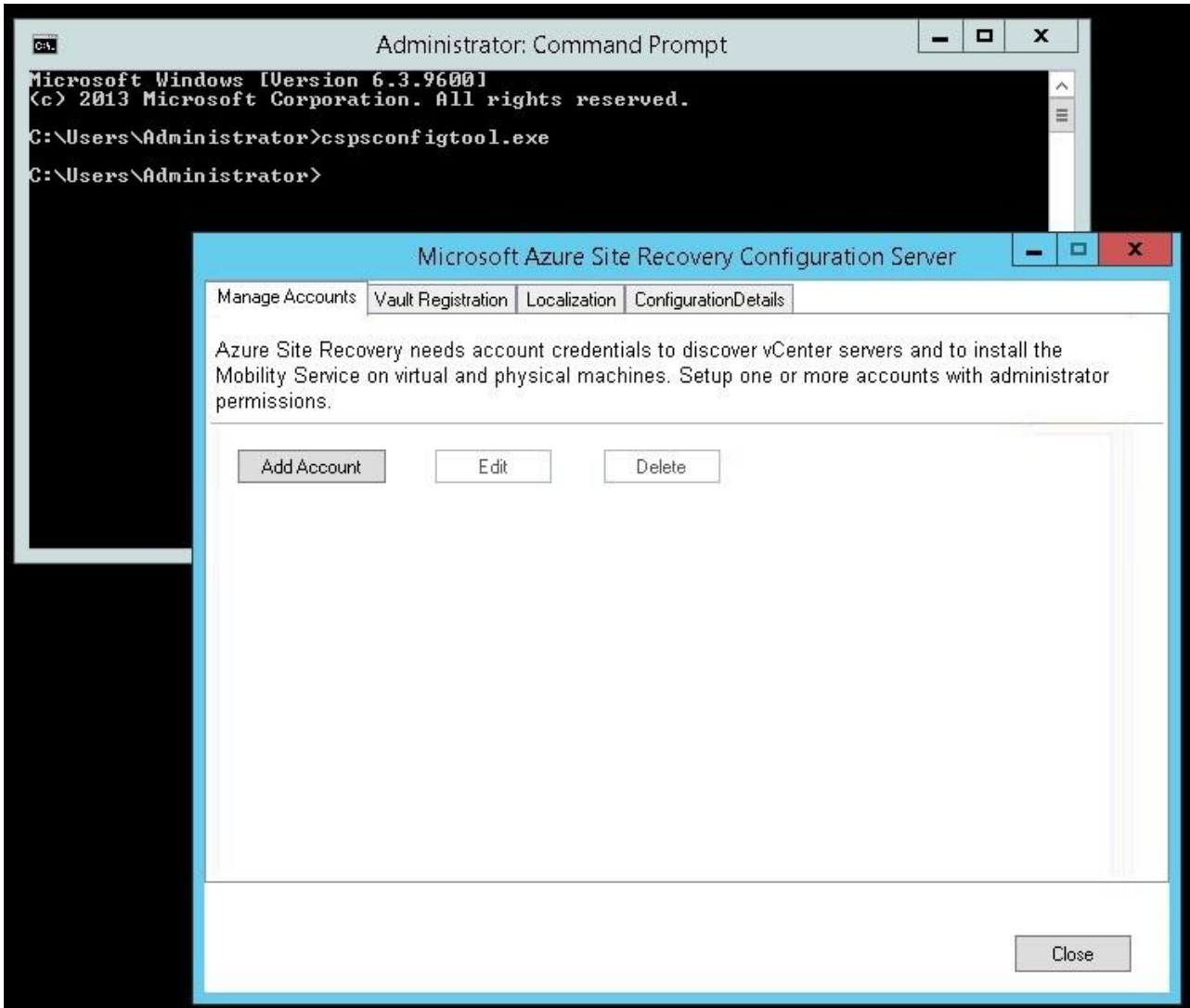
Save the passphrase generated at the end of the installation.

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



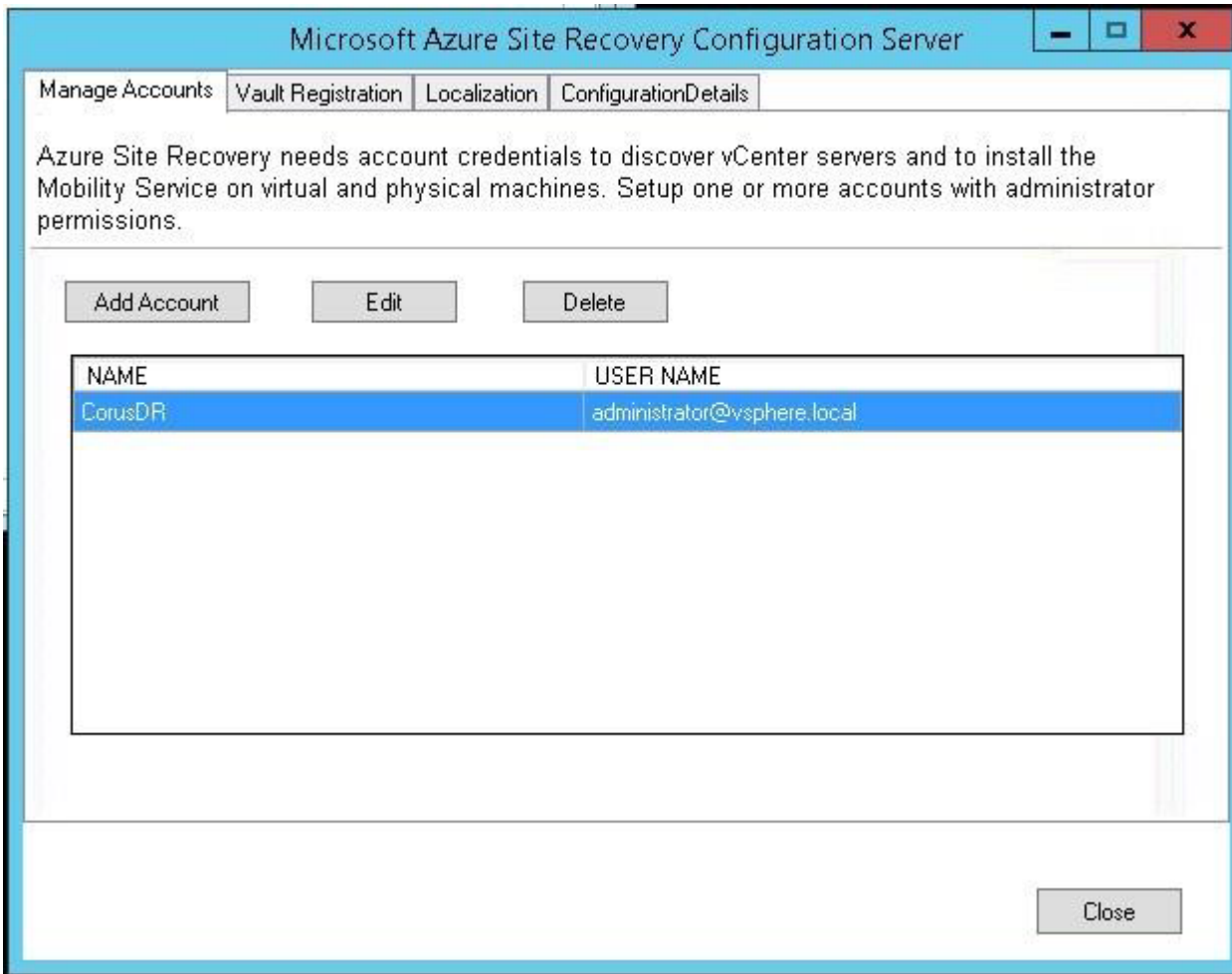
When the installation is complete, you will be prompted to reboot the server – do that before continuing.

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.

The screenshot displays three windows from the Recovery Services Vault configuration wizard:

- Prepare infrastructure:** Shows a progress list with five steps: 1. Protection goal (VMware VMs/physical servers t...), 2. Source Prepare (highlighted in blue), 3. Target Prepare, 4. Replication settings Prepare, and 5. Deployment planning Select.
- Prepare source:** Shows 'Step 1: Select Configuration Server' with 'ASRCONFIG01' selected. Below it, 'Step 2: Select vCenter server/vSphere host' is active, displaying a message: '(0 servers found) Click on +vCenter on command bar above to register a vCenter server/vSphere host'. A red box highlights the '+ vCenter' button.
- Add vCenter:** Shows configuration fields for '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: CorusDRA red box highlights the 'vCenter server/vSphere host friendly name' and 'vCenter server/vSphere host name or IP address' fields. An information icon notes: 'After you click OK, it can take 15 to 30 minutes to complete this operation.'

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

The image shows two side-by-side windows from the Recovery Services Vault interface. The left window, titled 'Prepare infrastructure', contains a list of five steps: 1. Protection goal (VMware VMs/physical servers t...), 2. Source Prepare (highlighted in blue), 3. Target Prepare, 4. Replication settings Prepare, and 5. Deployment planning Select. A note at the top states 'These are long running tasks done on-premises.' The right window, titled 'Prepare source', shows configuration options for the 'Configuration Server' (set to ASRCONFIG01) and 'vCenter' (set to CorusDR). Both windows have an 'OK' button at the bottom.

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

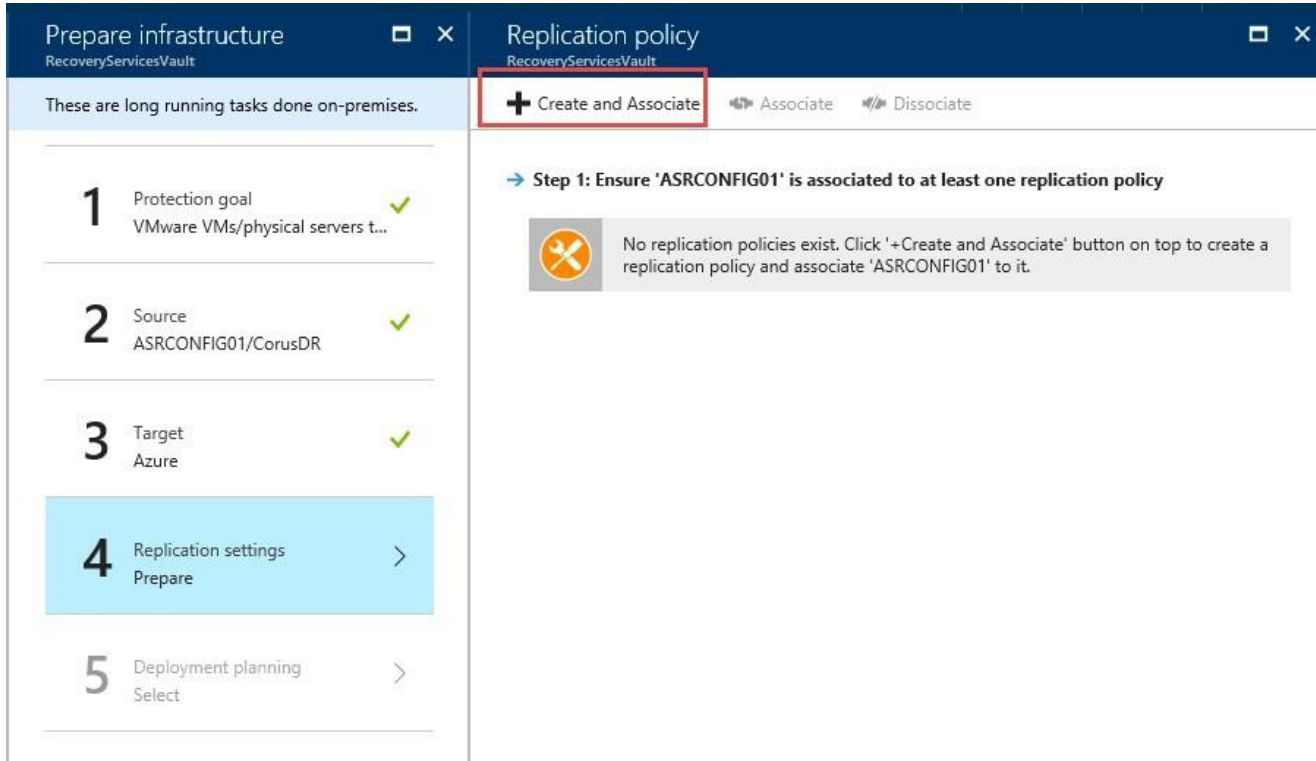
✓ **Step 2: Ensure that at least one compatible Azure storage account exist**

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.



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

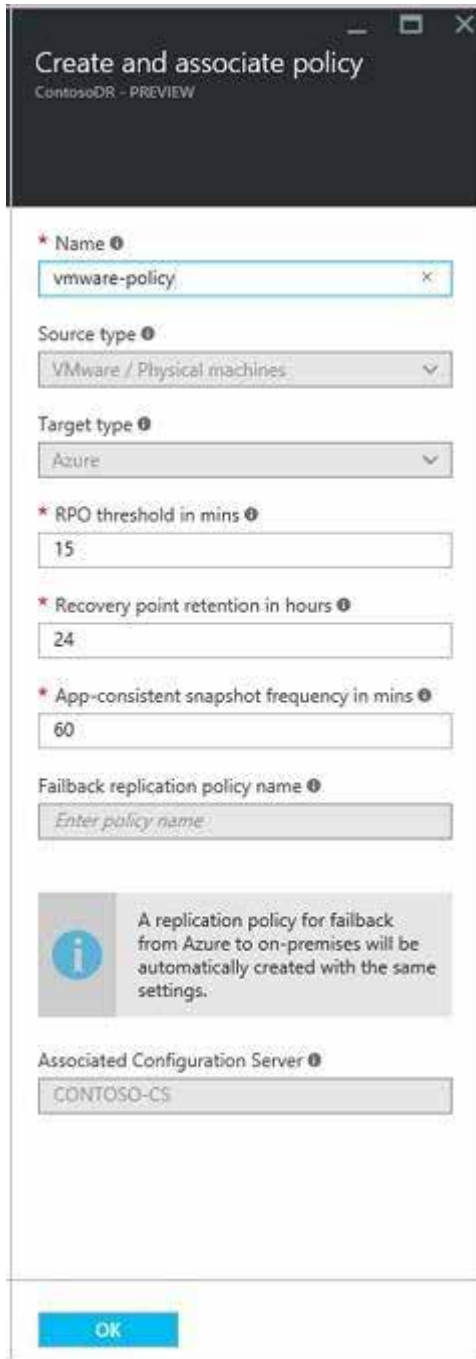
→ Step 1: Ensure 'ASRCONFIG01' is associated to at least one replication policy

No replication policies exist. Click '+Create and Associate' button on top to create a replication policy and associate 'ASRCONFIG01' to it.

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

 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.

The screenshot displays two side-by-side windows from the Azure Recovery Services Vault interface. The left window, titled 'Prepare infrastructure', shows a progress list of five steps: 1. Protection goal (VMware VMs/physical servers t...), 2. Source (ASRCONFIG01/CorusDR), 3. Target (Azure), 4. Replication settings Prepare (highlighted), and 5. Deployment planning Select. The right window, titled 'Replication policy', shows a success message for Step 1: 'Ensure ASRCONFIG01 is associated to at least one replication policy'. It includes a dropdown menu for 'Replication policy' set to 'DefaultReplicationPolicy' and four green checkmarks indicating successful creation and association of policies: 'Successfully created replication policy', 'Successfully created failback replication policy', 'Successfully associated ASRCONFIG01 to replication policy', and 'Successfully associated ASRCONFIG01 to failback replication policy'.

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.

The screenshot shows two side-by-side windows from the Recovery Services Vault. The left window, titled 'Prepare infrastructure', contains a list of five steps, each with a large number and a green checkmark: 1. Protection goal (VMware VMs/physical servers t...), 2. Source (ASRCONFIG01/CorusDR), 3. Target (Azure), 4. Replication settings (DefaultReplicationPolicy), and 5. Deployment planning (Select). The fifth step is highlighted in light blue. The right window, titled 'Deployment planning', contains text explaining that site recovery performs optimally with sufficient network bandwidth and storage, and provides a link to 'Download and run the deployment planner'. Below this text is a dropdown menu with the text 'Yes, I have done it' and a downward arrow.

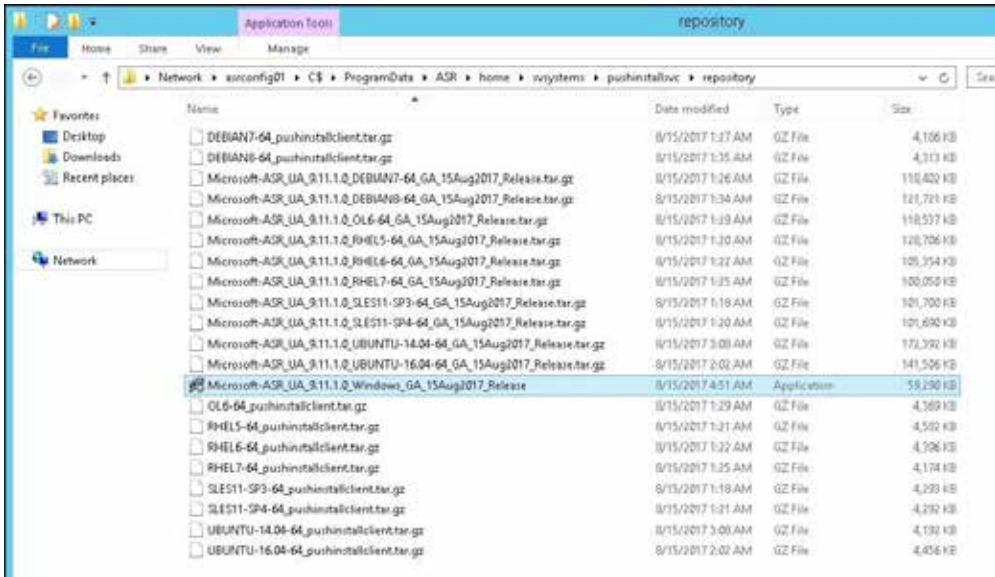
The ASR agent is also referred to as the Mobility Service, which can be deployed several ways. In this guide, we will install it manually using the GUI on our target server which will be restored to ASR.

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

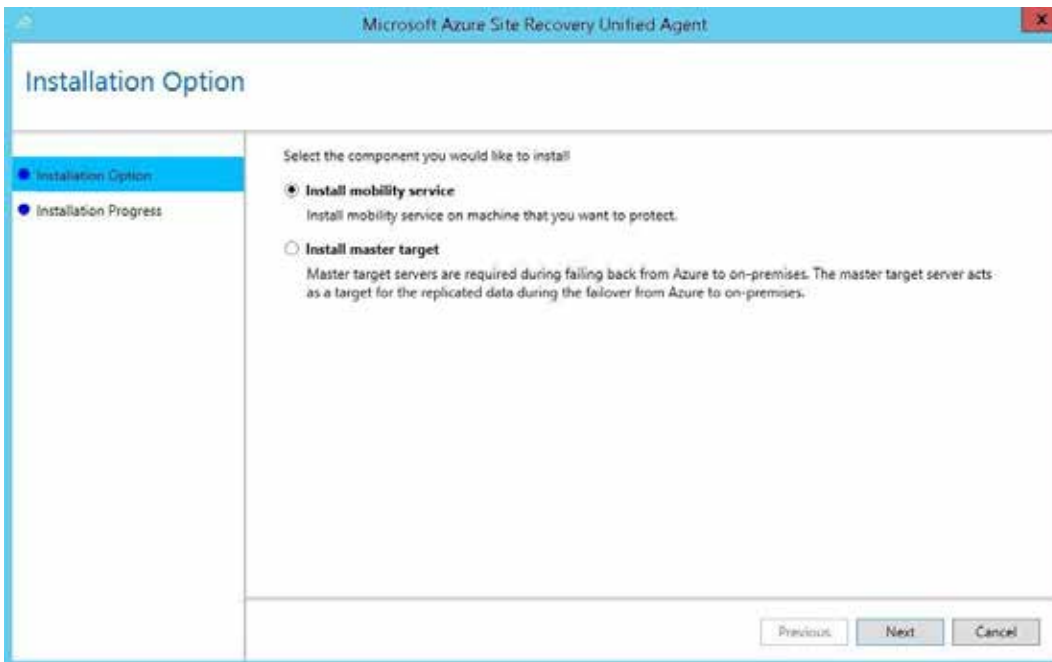
On the Configuration Server, the installation files for the ASR Agent/Mobility Service are located under:

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

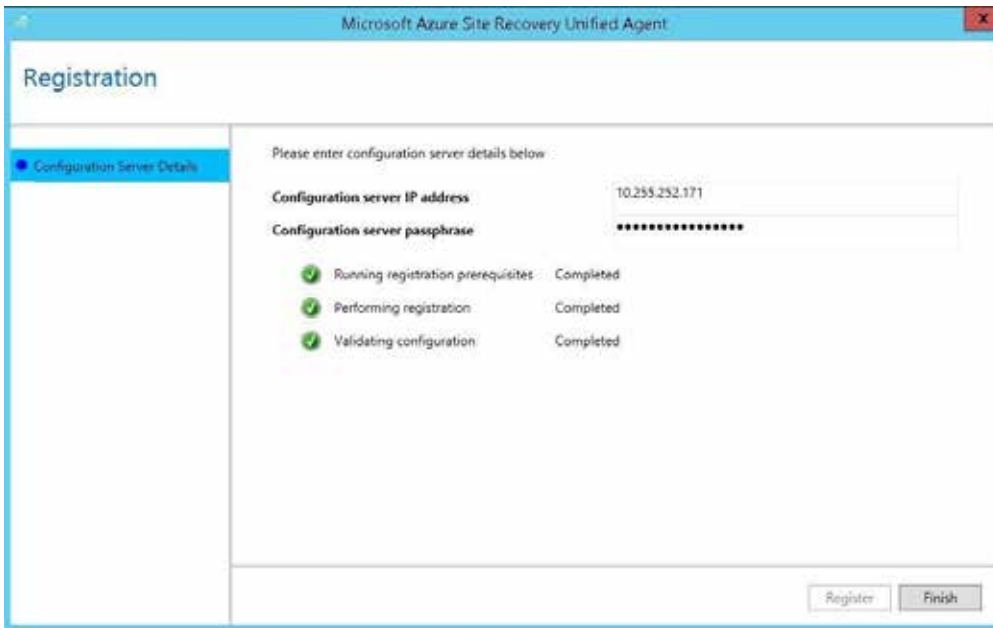
Copy them to the target server and run the binary that matches the OS of the target system.



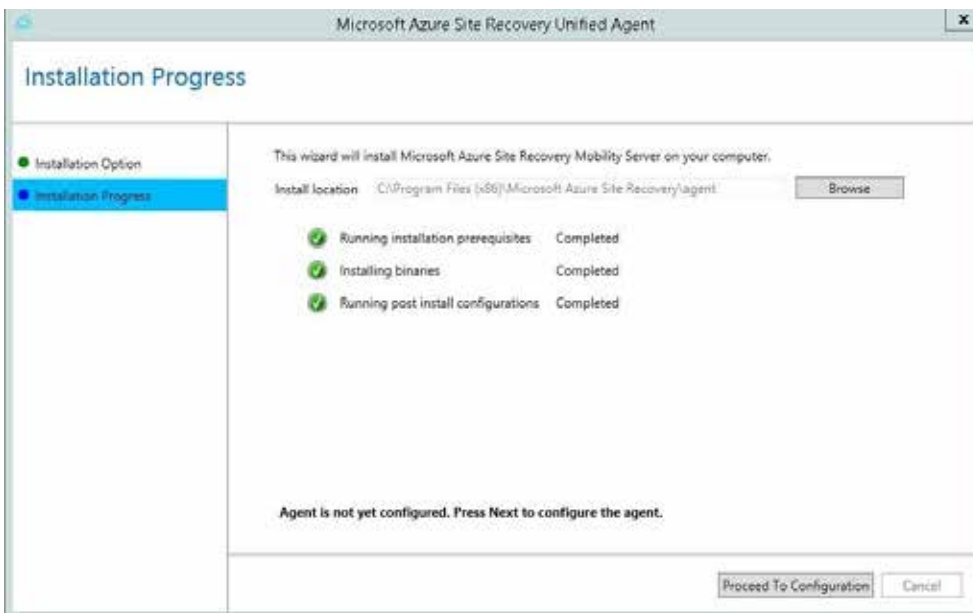
Launch the setup and choose Install Mobility Service.



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

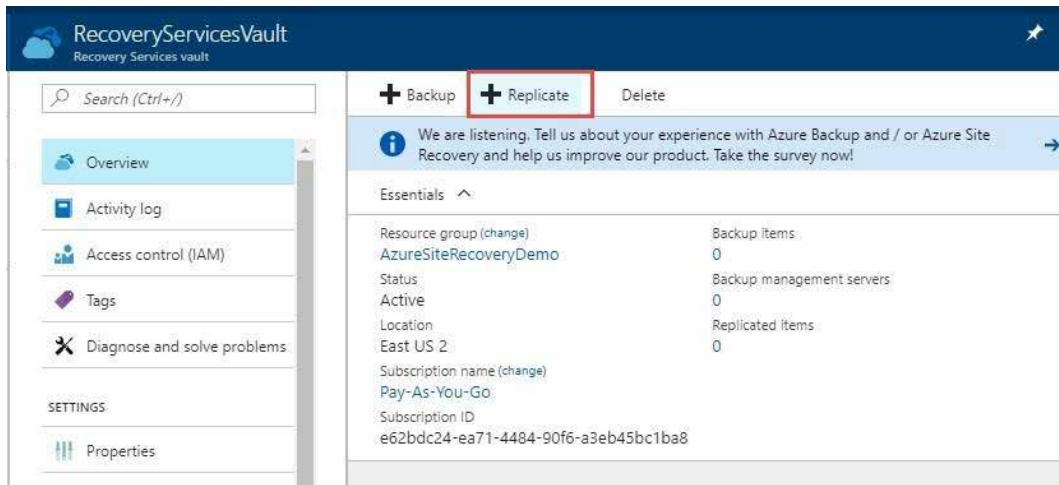


Give the agent an installation path and Proceed to Configuration, which will complete the setup process.

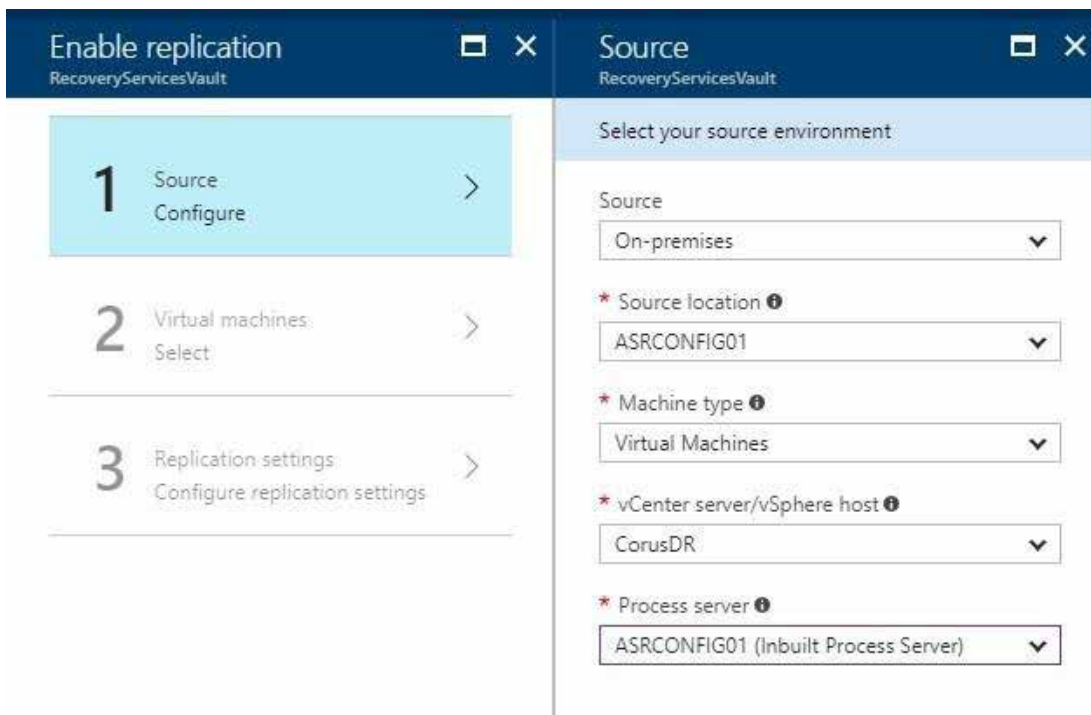


The agent will check into the Configuration Server and be available in the Azure portal.

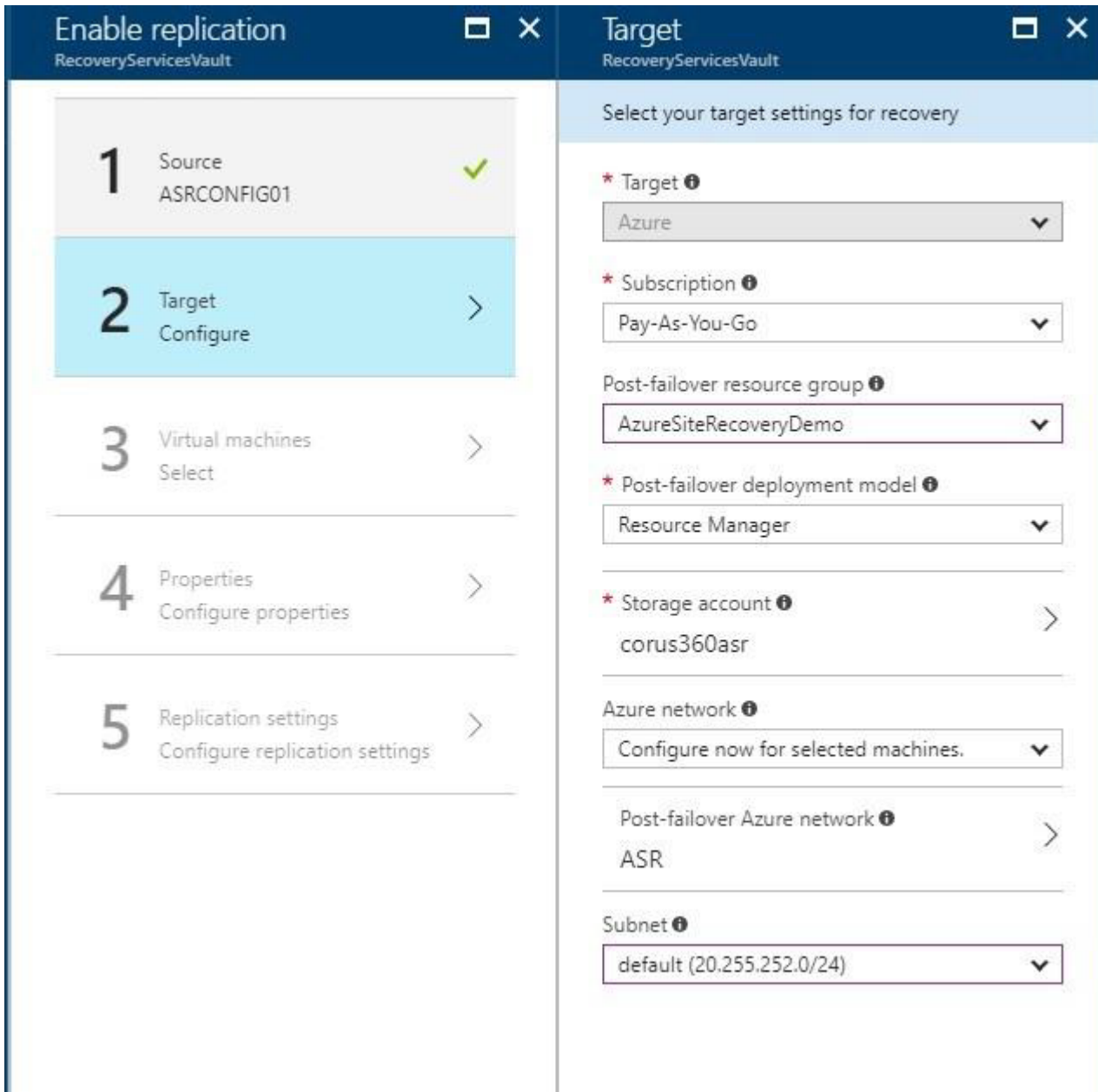
Go back to your Recovery Services Vault in Azure and choose Replicate in the top menu.



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

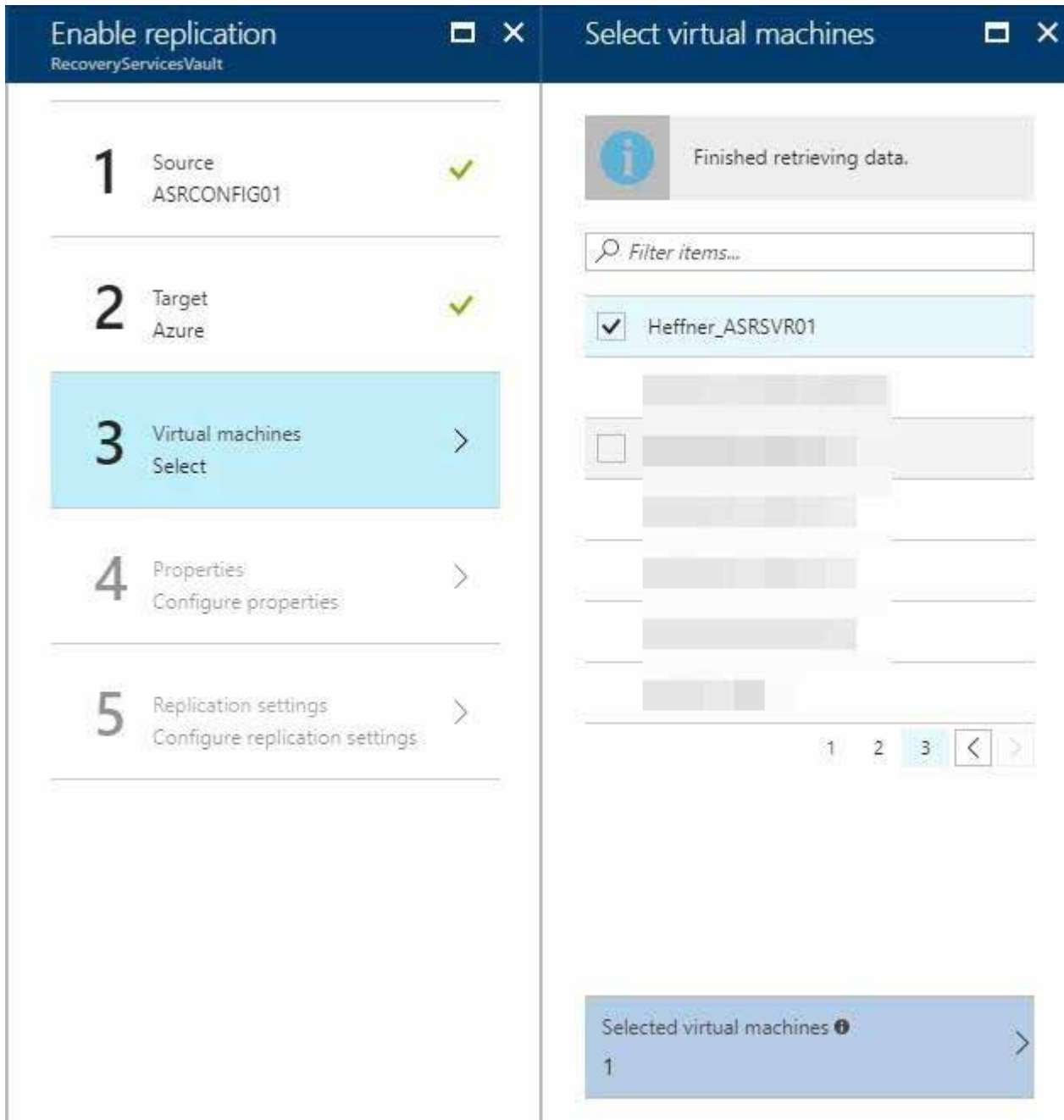


In Step 2, configure your recovery target. These settings control where a restored VM will reside once it has been failed over to Azure.



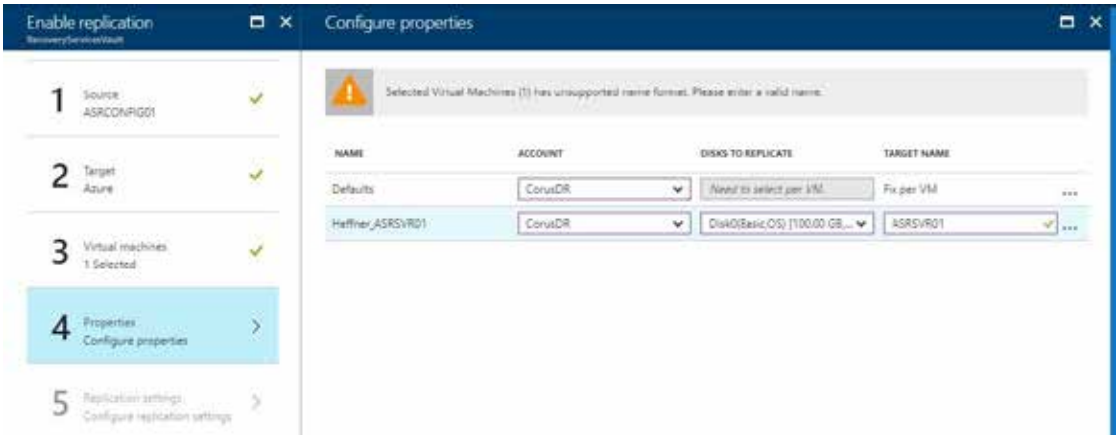
In Step 3, check the box next to the VMs that you want to be able to restore to Azure Site Recovery.

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



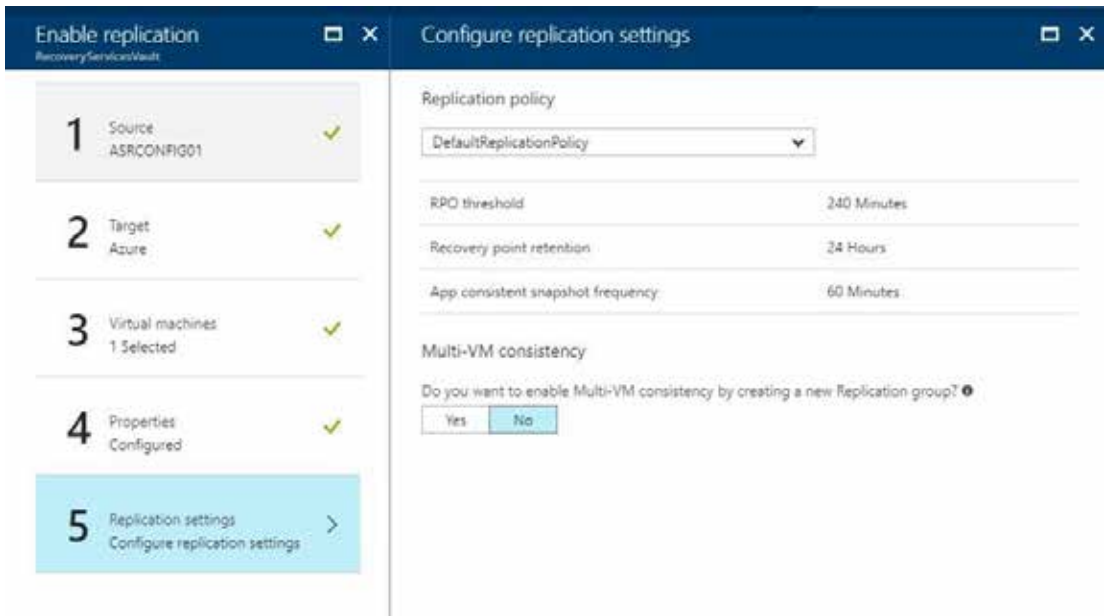
In Step 4, configure the VM settings for the restored VM in Azure.

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.

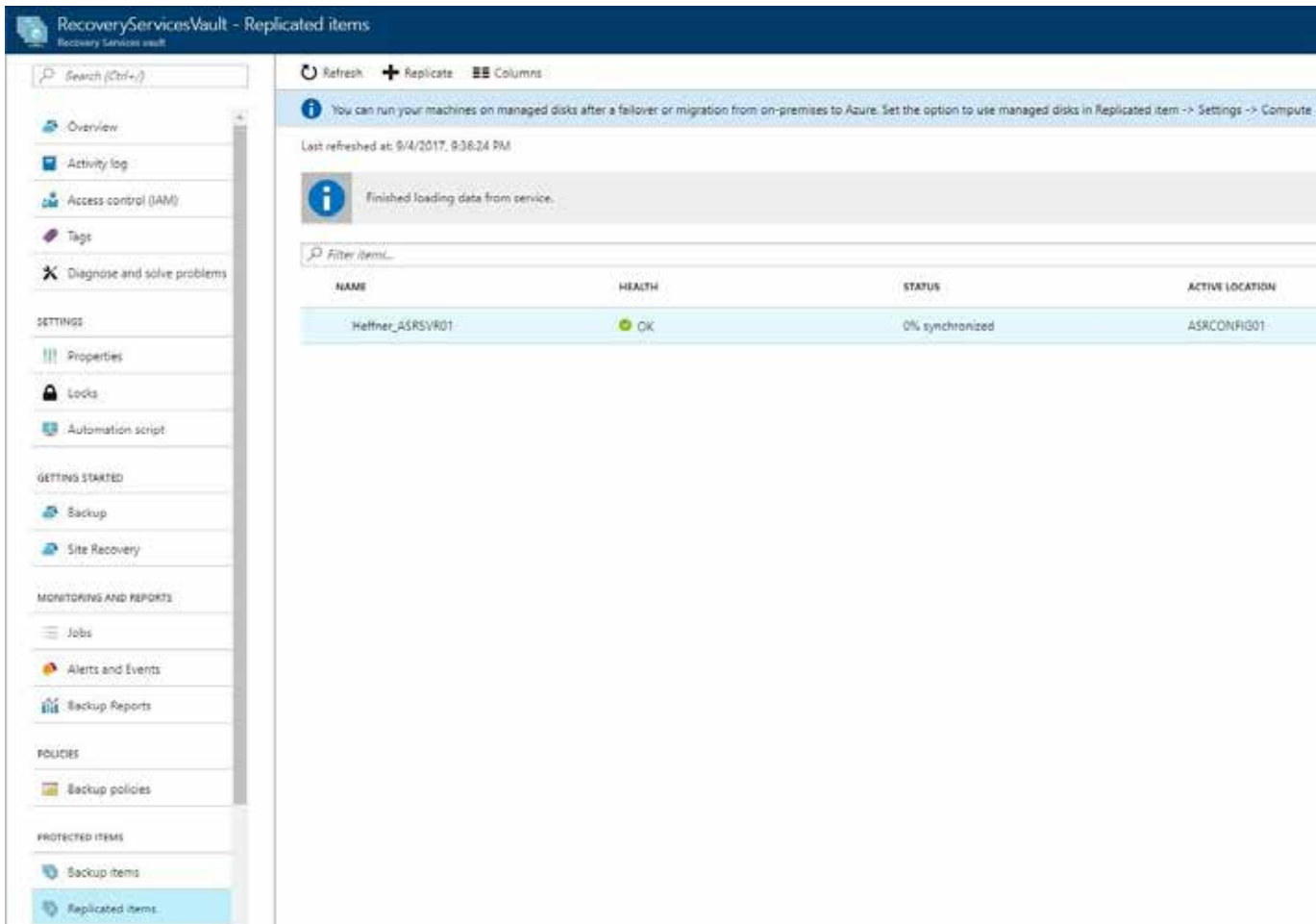


On step 5, you can choose the Replication Policy that you'd like to use, which we created in a previous step.

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



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.



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.

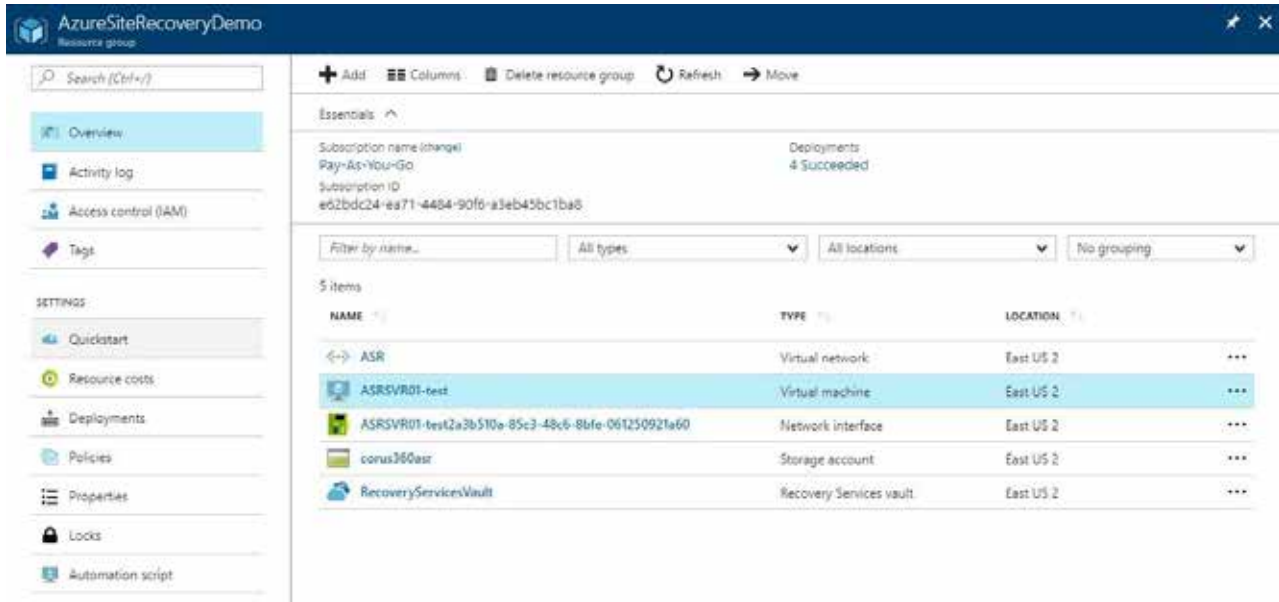
The screenshot displays the Azure portal interface for a replicated VM named 'Heffner_ASRSVR01'. The 'Test Failover' button is highlighted with a red box. The 'Settings' pane on the right is also visible.

Essentials	Source location
Recovery Services vault RecoveryServicesVault	ASRCONFIG01
Replication policy DefaultReplicationPolicy	VM ID 66349c7e-91e3-11e7-b232-005056a2daa1
Target storage account corus360asr	Target size Standard_A5
Operating system Windows	Protected disks 1
Target network -	

Health	Events
Replication health ✔ OK	0
Status 0% synchronized	

Latest Recovery Points	
Crash-consistent	Not available
App-consistent	Not available

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”.



Search (Ctrl+F)

Overview
Activity log
Access control (IAM)
Tags

SETTINGS

Quickstart
Resource costs
Deployments
Policies
Properties
Locks
Automation script

Essentials

Subscription name (change)
Play-As-You-Go
Subscription ID
e62bd24-ea71-4484-90f0-a3eb45bc1ba8

Deployments
4 Succeeded

Filter by name... All types All locations No grouping

NAME	TYPE	LOCATION	
<-> ASR	Virtual network	East US 2	...
ASRSVR01-test	Virtual machine	East US 2	...
ASRSVR01-test2a2b510a-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.