



## Azure Backup

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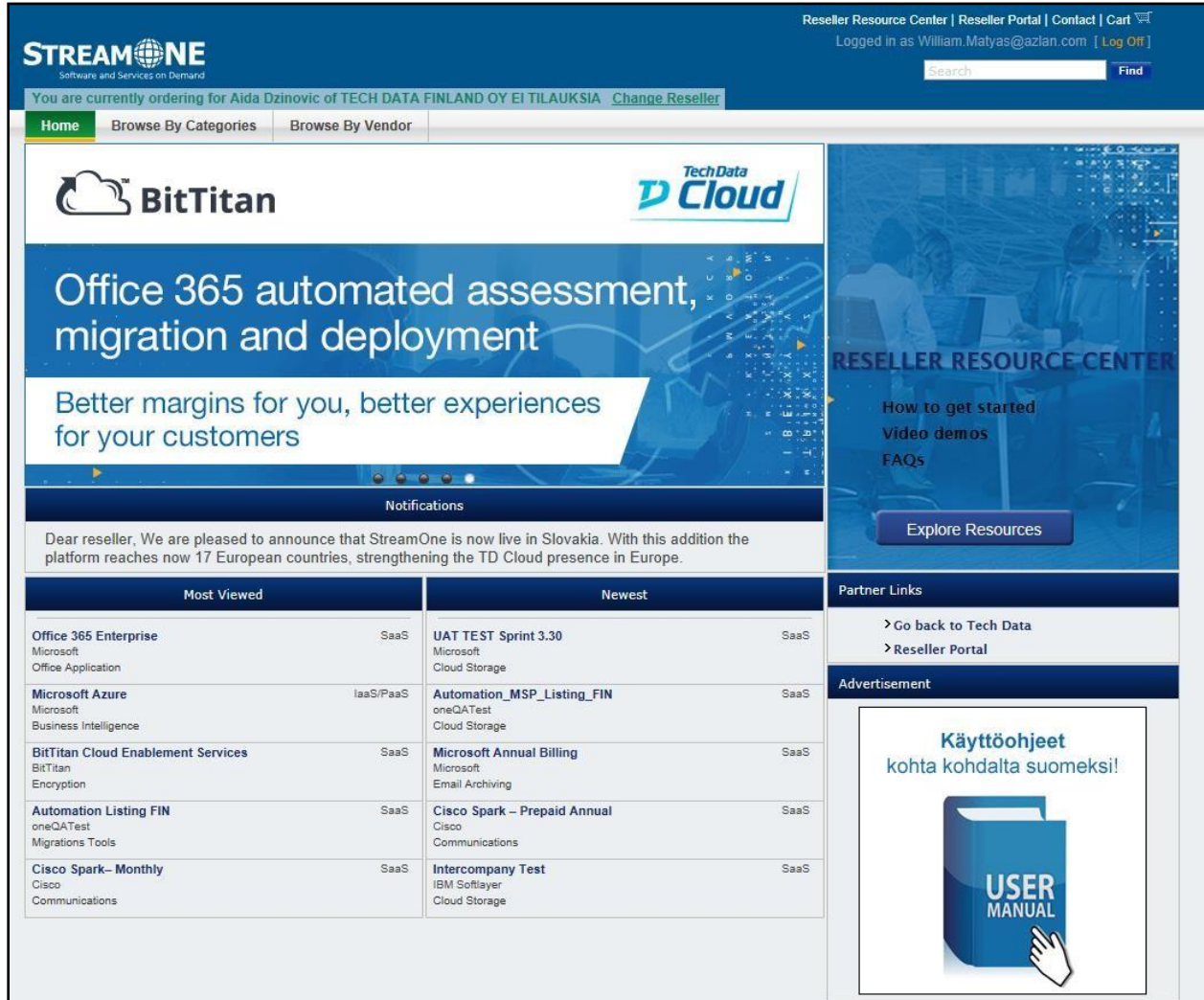
## 1. Tech Data Azure Backup Step by Step

### 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 Backup Bundle in an Azure CSP subscription that was purchased through the StreamOne Portal.  
In depth training on Azure is outside of this guide.
- **Accessing the Azure Backup 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](#)

[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	
<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

**RESELLER RESOURCE CENTER**

How to get started  
Video demos  
FAQs

[Explore Resources](#)

**Partner Links**

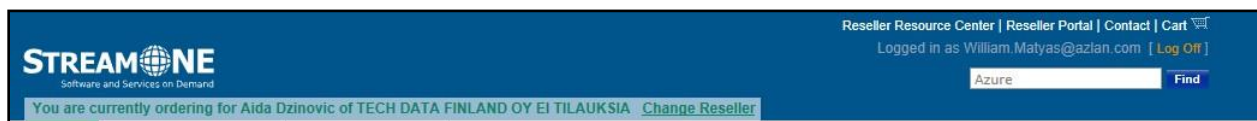
[Go back to Tech Data](#)  
[Reseller Portal](#)

**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:



**STREAMONE**  
Software and Services on Demand

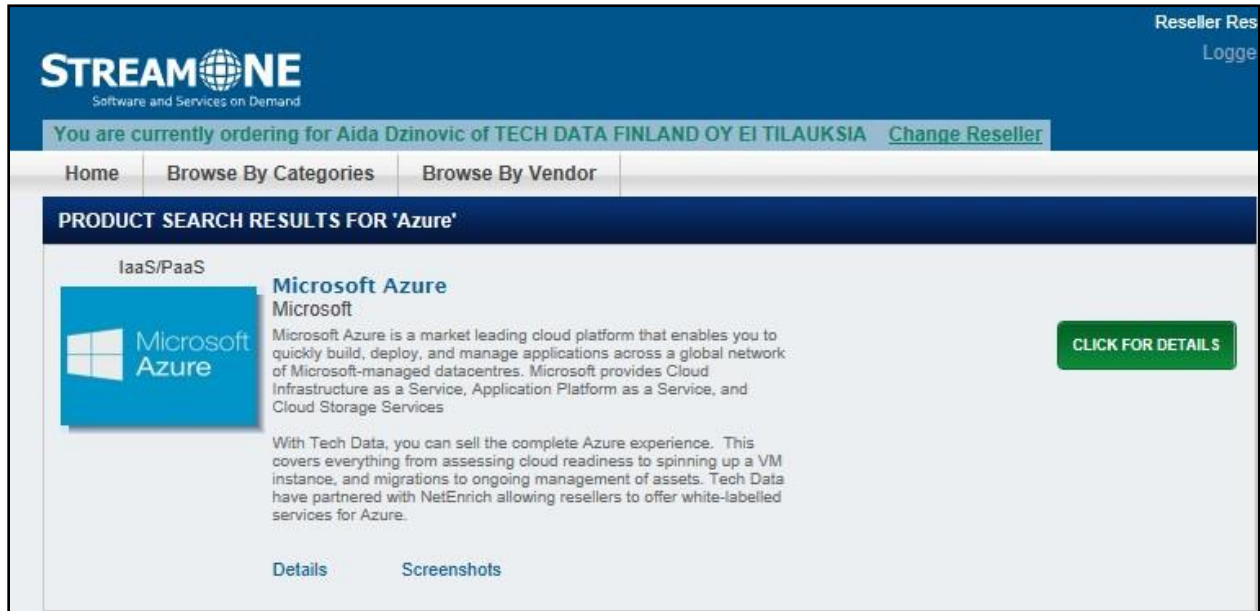
Reseller Resource Center | Reseller Portal | Contact | Cart  
Logged in as William.Matyas@azlan.com [ Log Off ]

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

[Home](#) [Browse By Categories](#) [Browse By Vendor](#)

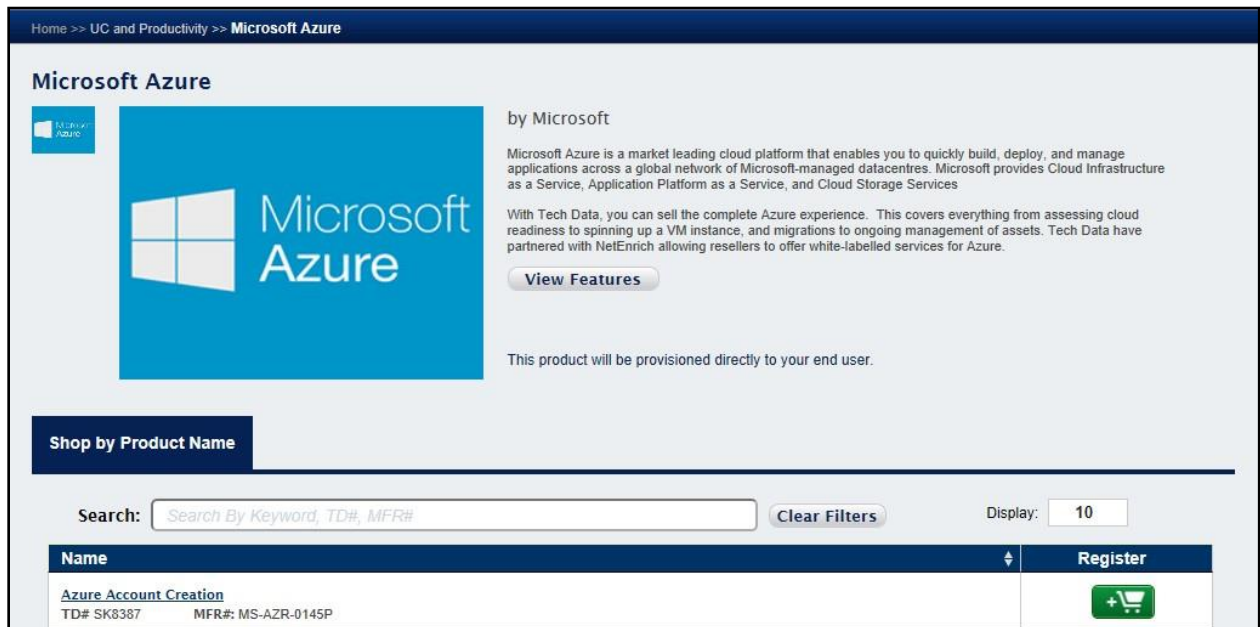
**Search** **Find**

Click on Microsoft Azure:




The screenshot shows the StreamOne website interface. At the top, there's a navigation bar with the StreamOne logo and a user session indicator for 'Aida Dzinovic of TECH DATA FINLAND OY EI TILAUKSIA'. Below the navigation bar, there's a search results section titled 'PRODUCT SEARCH RESULTS FOR 'Azure''. The results show 'Microsoft Azure' as a product category under 'IaaS/PaaS'. A description of Microsoft Azure is provided, along with a 'CLICK FOR DETAILS' button. At the bottom of the product card, there are links for 'Details' and 'Screenshots'.

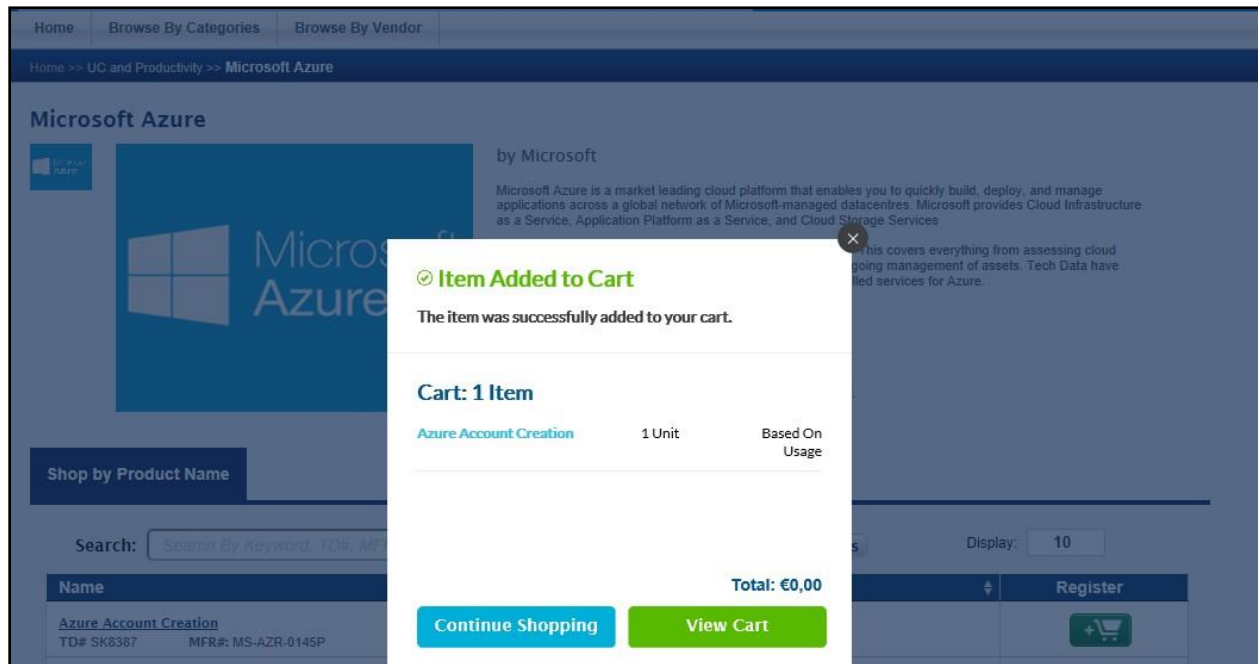
Click on "ADD TO CART" button of registration SKU:



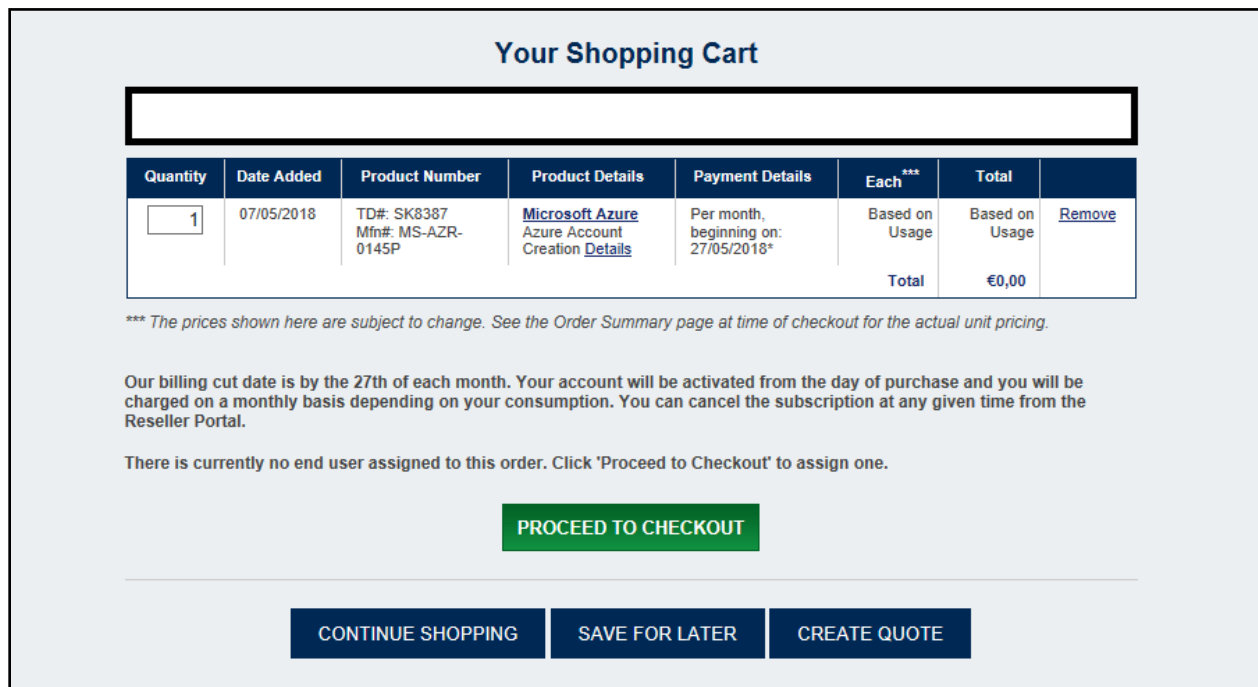
The screenshot shows the Microsoft Azure product page. The page features the Microsoft Azure logo and a detailed description of the service. A 'View Features' button is visible. Below the product description, there's a 'Shop by Product Name' section. A search bar is present with the text 'Search: Search By Keyword, TD#, MFR#'. Below the search bar, there's a table with two columns: 'Name' and 'Register'. The table contains one row for 'Azure Account Creation' with TD# SK8387 and MFR# MS-AZR-0145P. A green 'ADD TO CART' button is located next to the product name.

Name	Register
Azure Account Creation TD# SK8387 MFR# MS-AZR-0145P	

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

[Continue to Configuration](#)

\*indicates a required field

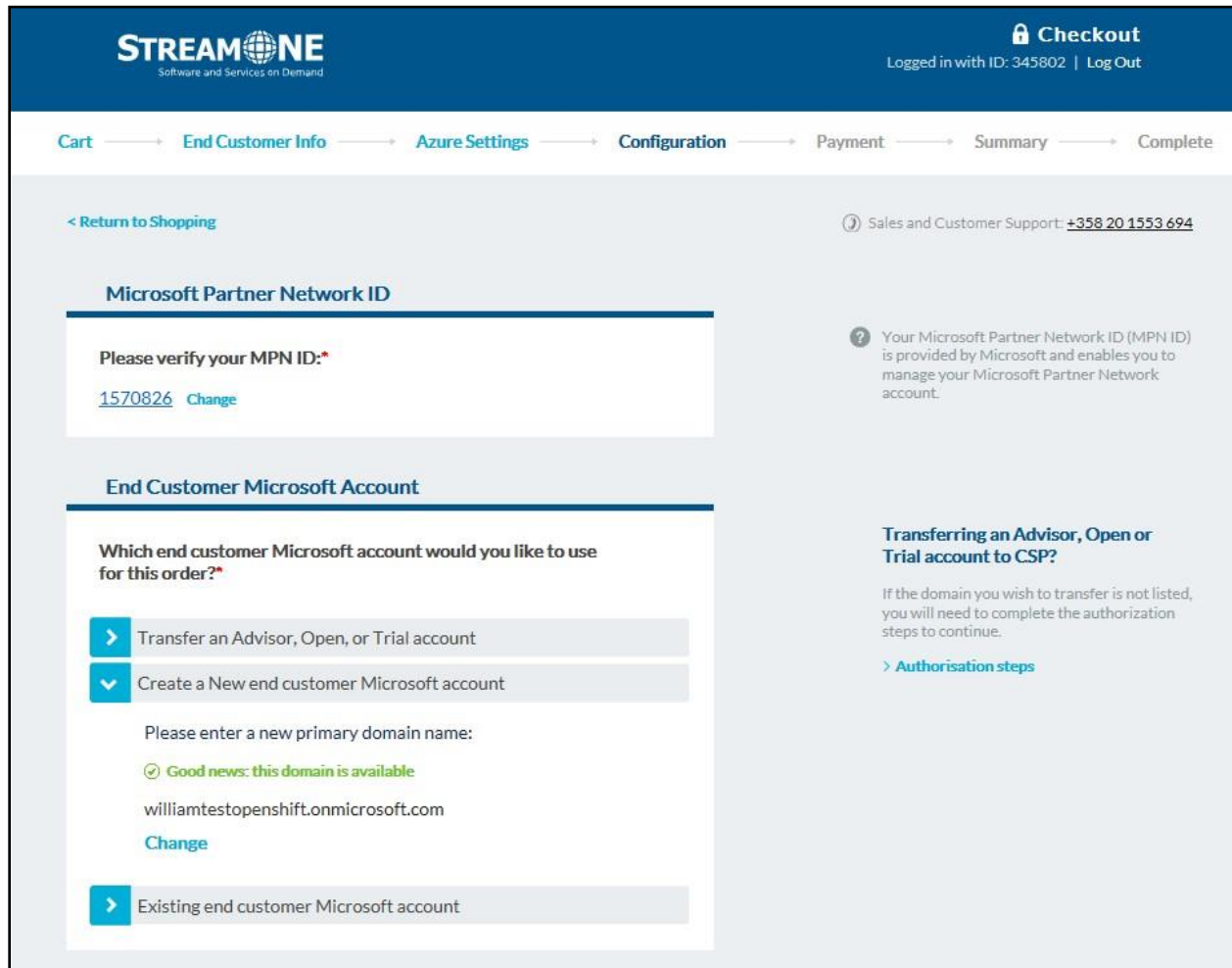
② This email address MUST be associated with the end customer domain to set up the account properly. If you do not wish to send communication directly to this email you will have the option to specify a different email address during the next step in the Account Administration section.

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.



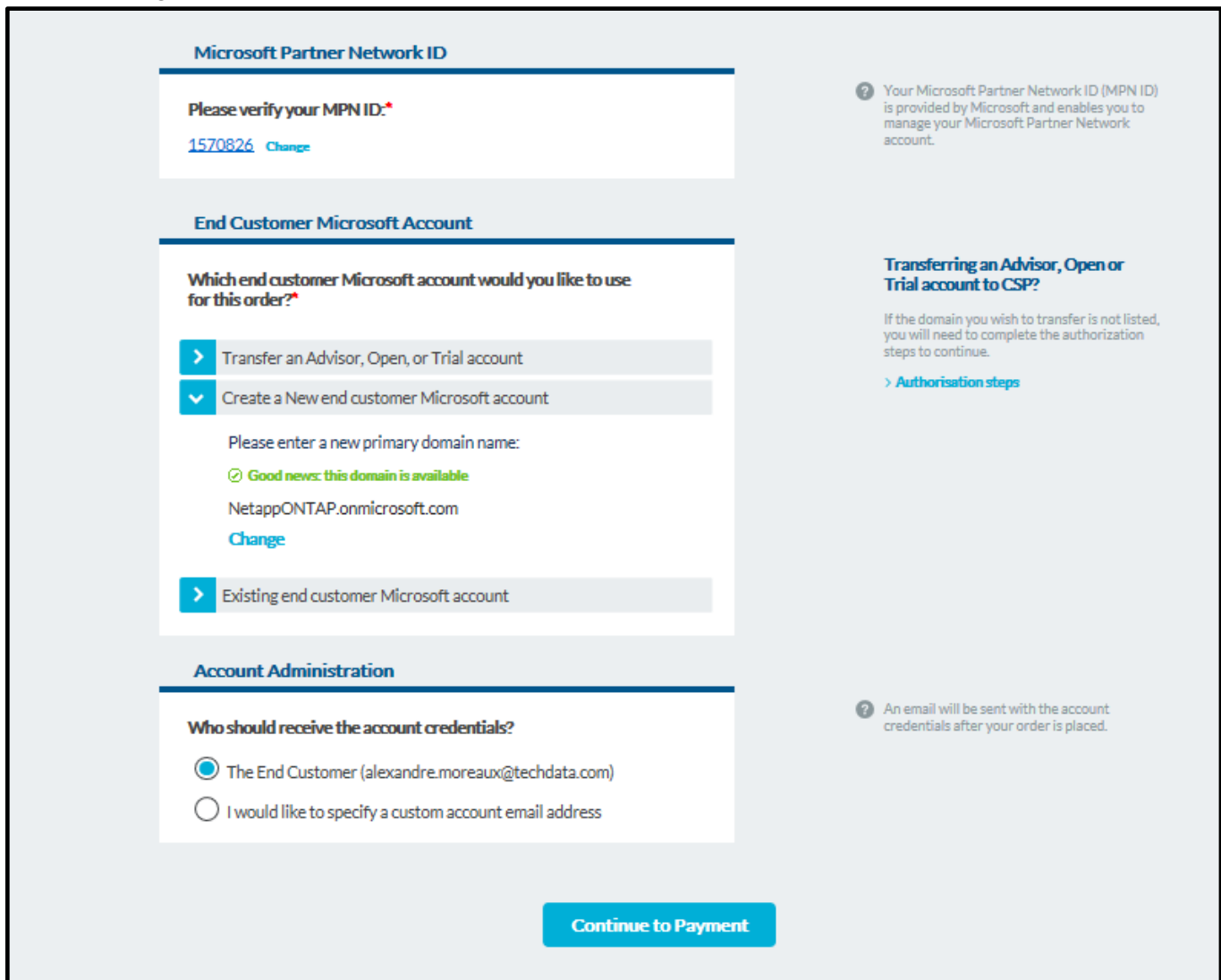
The screenshot shows the StreamOne Configuration page. The top navigation bar includes the StreamOne logo, a Checkout button, and the user's login ID (345802) with a Log Out link. The main navigation bar shows the current step is Configuration, with other steps like Cart, End Customer Info, Azure Settings, Payment, Summary, and Complete. The Configuration page has a left sidebar with a Return to Shopping link and a contact number for Sales and Customer Support. The main content area is divided into two sections: Microsoft Partner Network ID and End Customer Microsoft Account. The Microsoft Partner Network ID section prompts the user to verify their MPN ID, showing the current ID (1570826) and a Change link. The End Customer Microsoft Account section asks the user to select an account type: Transfer an Advisor, Open, or Trial account, or Create a New end customer Microsoft account. The Create a New end customer Microsoft account option is selected, and a form is shown for entering a new primary domain name. The domain name entered is williamtestopenshift.onmicrosoft.com, and a message indicates that the domain is available. There is also a Change link for the domain name. The Existing end customer Microsoft account option is also visible. On the right side of the configuration page, there is a help section for the Microsoft Partner Network ID and a section for transferring an advisor, open, or trial account to a CSP, which includes a link to the authorization 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.



**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

[Continue to Payment](#)

? 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.

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](#)

☒ **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)

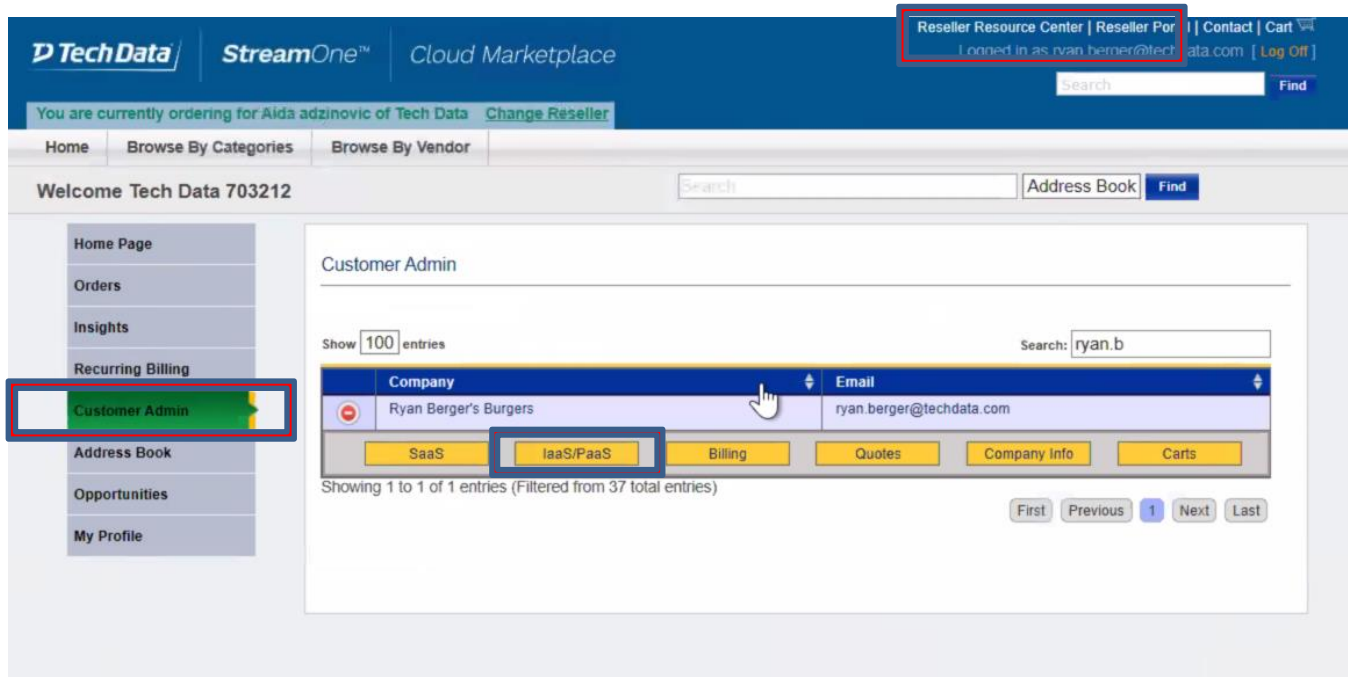
**Password:** [X3]Nu(3



**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 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 <b>Sandbox</b>	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	<a href="#">Support</a> <a href="#">Modify</a>
--------------------------	------------------------------	-----------	-----------	--------------	--------	------------	--	---	---

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 suspended / active	Created On	Modified On
S000260371 <b>Sandbox</b>	Microsoft	Azure Registration Base Subscription	<a href="#">Delegate</a>	<a href="#">Manage</a>		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

West Europe

Resource Group Name

TestAzureBackup

Advanced Bundle Settings

File Backup and Cloud Configuration Settings

Name of Recovery Services Vault

AzureBackup

Storage Replication for Recovery Services Vault

☐ Locally Redundant Storage (LRS)

☒ Geo-Redundant Storage (GRS)

☒ Yes

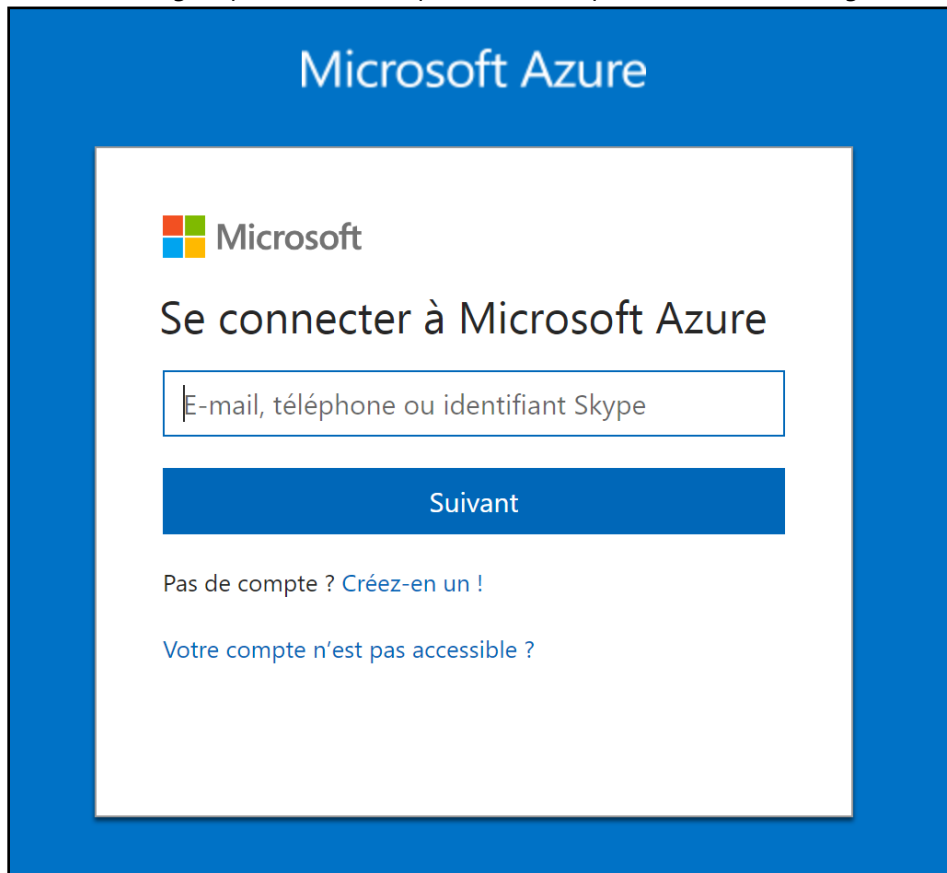
☐ No

Deploy Now

## 1.2 How to connect

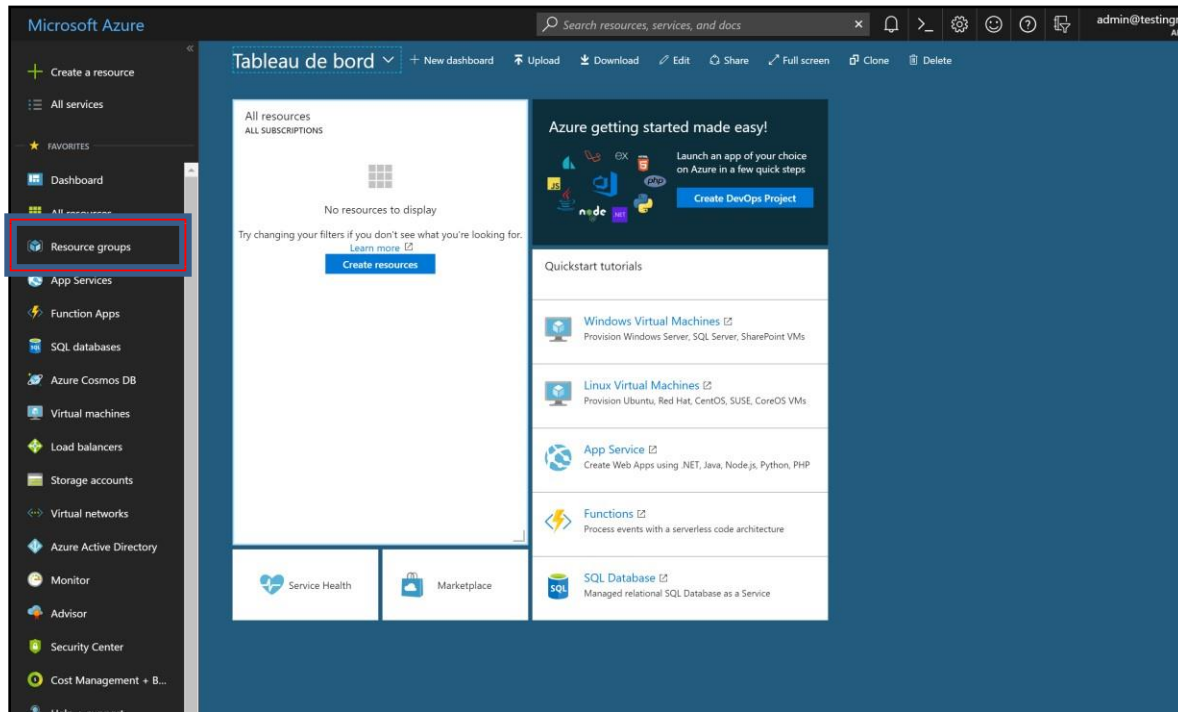
Connect to the Azure Portal with your credentials.

- 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.

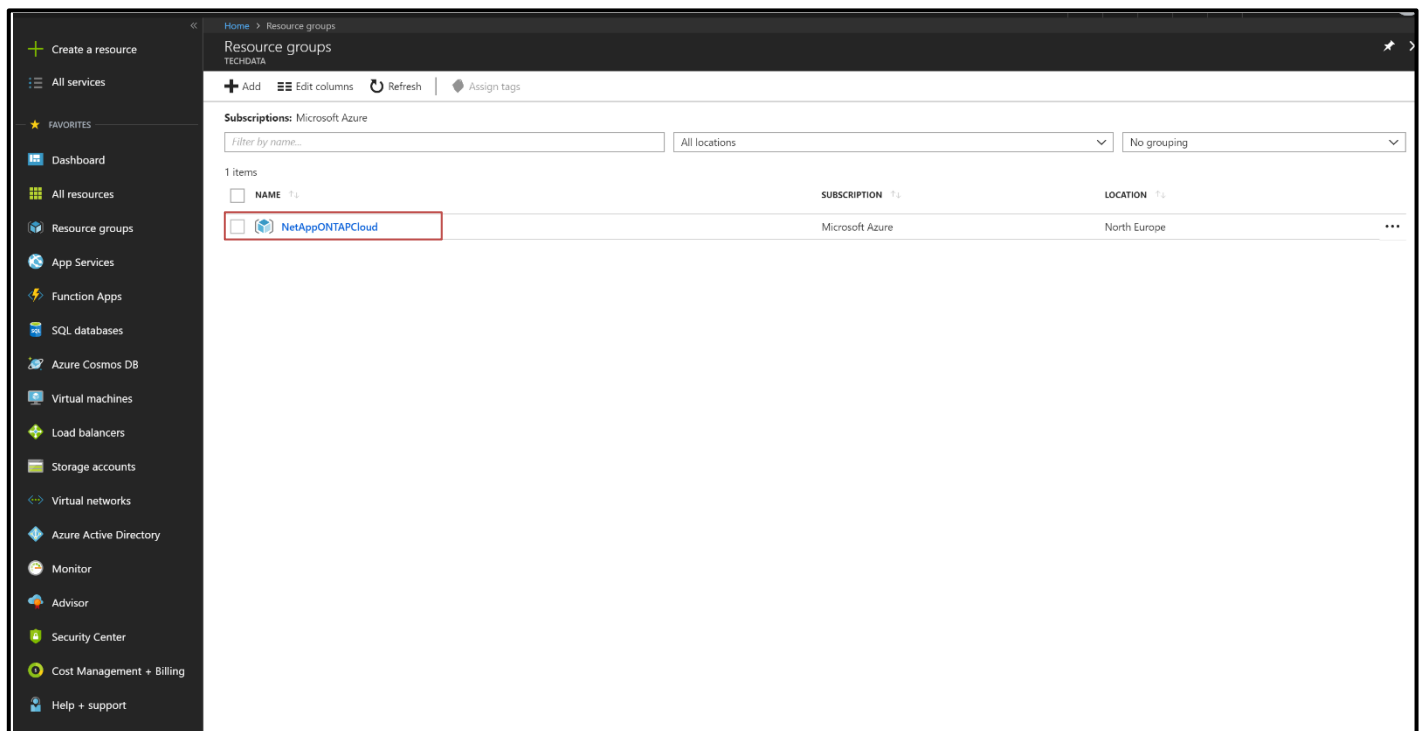


The screenshot shows the Microsoft Azure login interface. At the top, it says "Microsoft Azure". Below that is the Microsoft logo and the text "Se connecter à Microsoft Azure". There is a text input field with the placeholder "E-mail, téléphone ou identifiant Skype". Below the input field is a blue button labeled "Suivant". At the bottom, there are two links: "Pas de compte ? Créez-en un !" and "Votre compte n'est pas accessible ?".

You will then be connected to the Azure Portal. Go to Resource groups.



You will find the Resource Group into which your resources have been deployed.



## Post Deployment

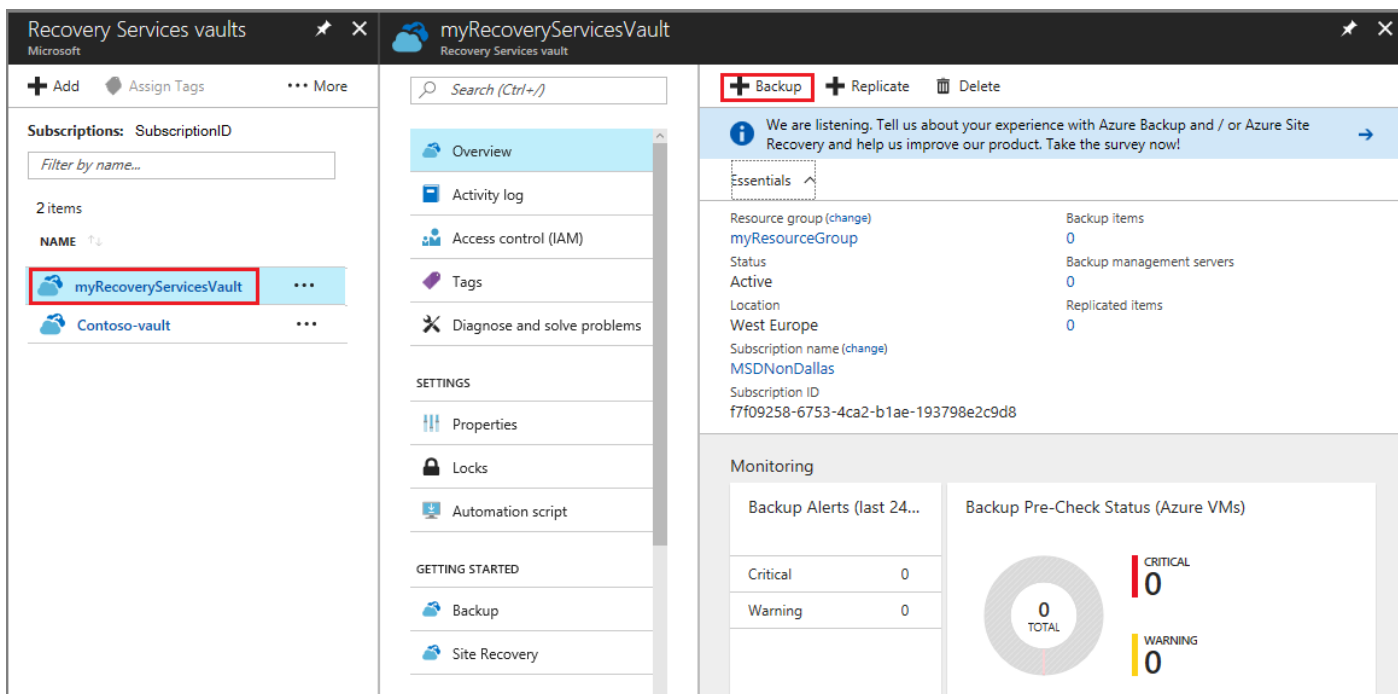
### Azure Backup Post Deployment for Azure Use Case

#### Set backup policy to protect VMs

The Backup policy is the schedule for how often and when recovery points are taken. Policy also includes the retention range for the recovery points.. The following steps show how to create a backup policy.

When you deploy the bundle through StreamOne a default backup policy is applied we recommend to change to get the policy that is needed for your business

From the list of Recovery Services vaults, select **your recovery vault** to open its dashboard.



On the vault dashboard menu, click **Backup** to open the Backup menu.

On the Backup Goal menu, in the Where is your workload running drop-down menu, choose Azure. From the What do you want to backup drop-down, choose Virtual machine, and click Backup.

These actions prepare the Recovery Services vault for interacting with a virtual machine.

Backup Goal

Where is your workload running?  
Azure

What do you want to backup?  
Virtual machine

Step: Configure Backup

Backup

To create a new policy, on the Backup policy menu, from the **Choose backup policy** drop-down menu, select *Create New*.

Backup policy

Choose backup policy ⓘ

DefaultPolicy

Create New

DefaultPolicy

Daily at 1:00 AM

**RETENTION RANGE**

**Retention of daily backup point**

Retain backup taken every day at 1:00 AM for 30 Day(s)

OK

In the **Backup policy** menu, for **Policy Name** type *Finance*. Enter the following changes for the Backup policy:

For **Backup frequency** set the time zone for the one you want. choose the backup frequency set to Daily at your time preference when that will not impact yours workloads.

For **Retention of daily backup point**, set the period to the retention wanted the limit is 99 years old.

For **Retention of weekly backup point**, (Example use the *Monday* restore point and retain it for 52 weeks.)

For **Retention of monthly backup point**, (Example) use the restore point from First Sunday of the month, and retain it for 36 months.

**Retention of yearly backup point** option Click **OK** to create the backup policy. To keep data on a year point retention

Backup policy

Choose backup policy ⓘ

Create New

\* Policy name ⓘ

Finance

Backup frequency

Daily

3:30 AM

(UTC-06:00) Central Time (US & Canada)

Retention range

☒ Retention of daily backup point.

\* At

3:30 AM

For

90

Day(s)

☒ Retention of weekly backup point.

\* On

Monday

\* At

3:30 AM

For

52

Week(s)

☒ Retention of monthly backup point.

Week Based

Day Based

\* On

First

\* Day

Sunday

\* At

3:30 AM

For

36

Month(s)

☐ Retention of yearly backup point.

Not Configured

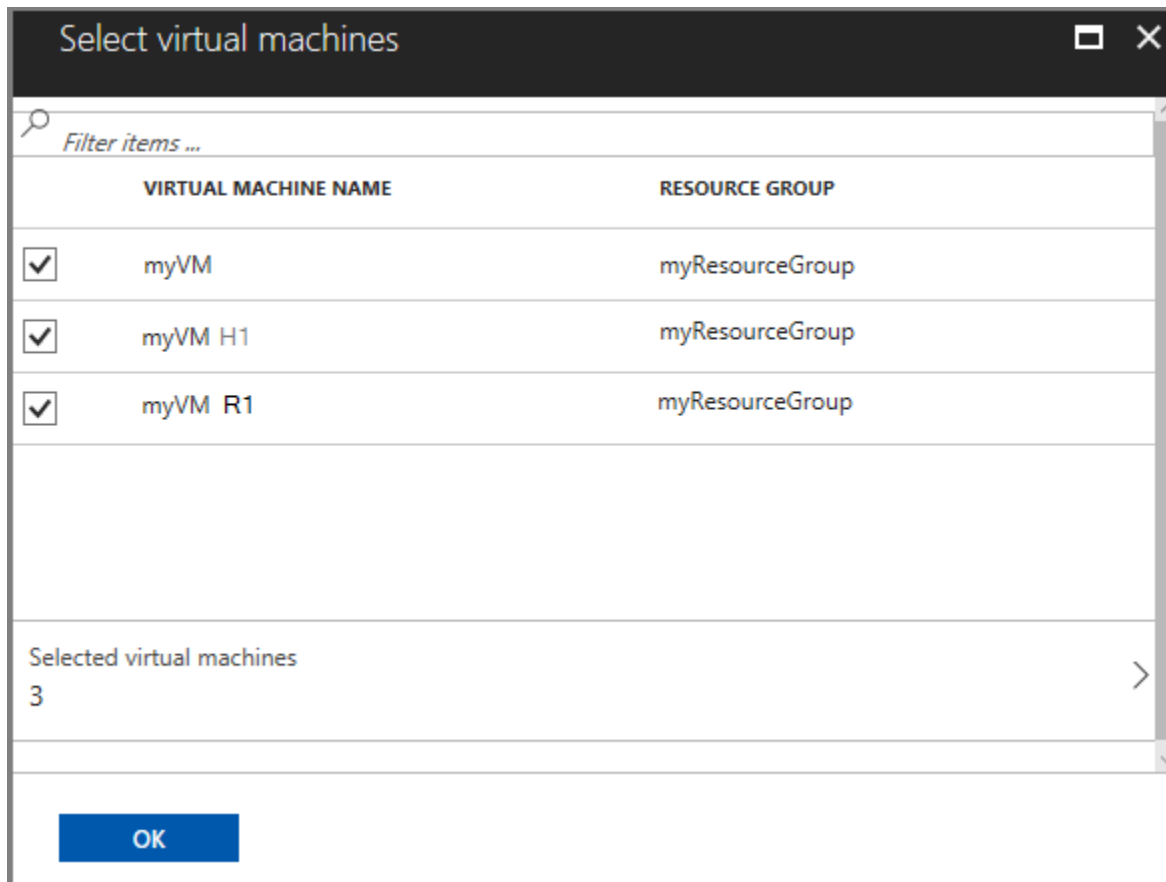
OK

After creating the backup policy, associate the policy with the virtual machines.

In the **Select virtual machines** dialog select *myVM* and click **OK** to deploy the backup policy to the virtual machines.



All virtual machines that are in the same location, and are not already associated with a backup policy, appear. myVMH1 and myVMR1 are selected to be associated with the New policy.



When the deployment completes, you receive a notification that deployment successfully completed.

## Start a backup job

This first backup job creates a full recovery point. Each backup job after this initial backup creates incremental recovery points. Incremental recovery points are storage and time-efficient, as they only transfer changes made since the last backup.

myVM - Backup  
Virtual machine

Search (Ctrl+/)

Overview  
Activity log  
Access control (IAM)  
Tags  
Diagnose and solve problems

SETTINGS

Networking  
Disks  
Size  
Availability set  
Configuration  
**Backup**  
Extensions

Settings **Backup now** Restore VM File Recovery Stop backup

Essentials

Recovery services vault	myRecoveryServicesVault	Last backup time	-
Subscription name	Visual Studio Enterprise	Latest restore point	-
Subscription ID		Oldest restore point	-
Item type	Azure virtual machine	Backup policy	DailyPolicy
Last backup status	Warning(Initial backup pending)	Backup Pre-Check	Passed

Restore points

Restore points	
Last 30 days	0
Last 7 days	0

## Restore with Azure Backup

In the vault dashboard, on the **Backup Items** select **Azure Virtual Machine**.

Gegrestorevault - Backup items  
Recovery Services vault

Search (Ctrl+/) Refresh

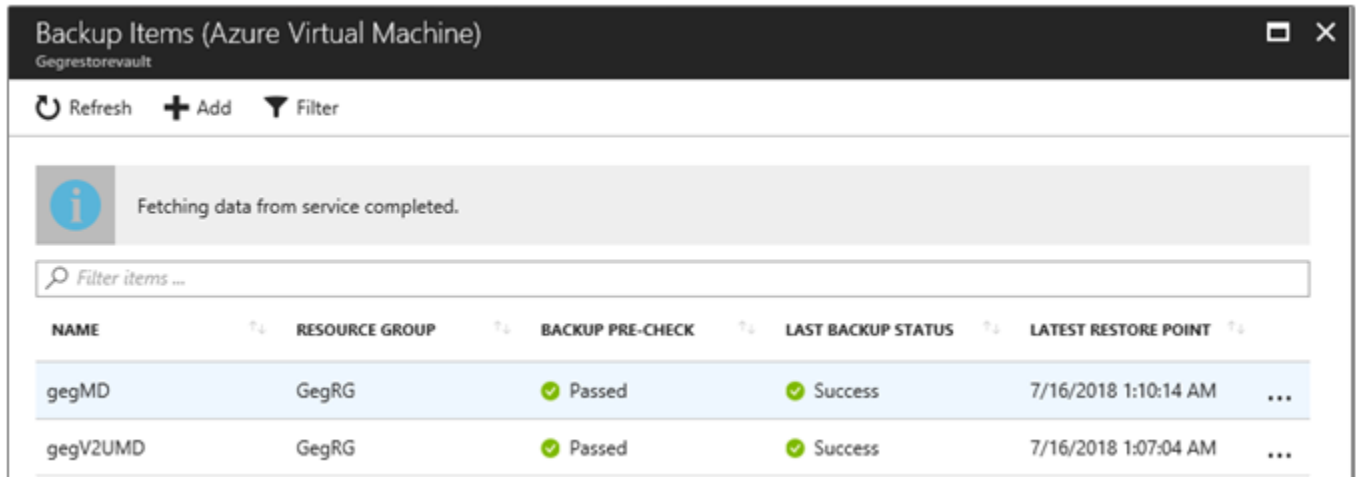
BACKUP MANAGEMENT TYPE	BACKUP ITEM COUNT
<b>Azure Virtual Machine</b>	<b>2</b>
SAP HANA in Azure VM	0
SQL in Azure VM	0
Azure Storage (Azure Files)	0
DPM	0
Azure Backup Server	0
Azure Backup Agent	0

Overview  
Activity log  
Access control (IAM)  
Tags  
Diagnose and solve problems

SETTINGS

Properties  
Locks  
Automation script

The **Backup Items** with the different VM are backup into is vault appear.



NAME	RESOURCE GROUP	BACKUP PRE-CHECK	LAST BACKUP STATUS	LATEST RESTORE POINT
gegMD	GegRG	Passed	Success	7/16/2018 1:10:14 AM
gegV2UMD	GegRG	Passed	Success	7/16/2018 1:07:04 AM

From the list, select a VM to open the dashboard. The VM dashboard opens to the monitoring area, which contains the **Recovery points**.

All VM level operations like **Backup now**, **File recovery**, **Stop backup** can be performed from this blade. Restore can be performed in many ways from this blade.

Note that this blade lists only the last 30 days recovery points.

To restore using a restore point from the last 30 days, right-click the VM > **Restore VM**.

To restore using a restore point older than 30 days, click the link under **Restore Points**.

To list and filter VMs with customized dates, click **Restore VM** in the menu. Use the filter to modify the time range for the displayed restore points. You can also filter on different types of data consistency.

Review the restore point settings:

Data consistency shows the type of consistency in the recovery point.

The **Recovery Type** shows where the point is stored (in a storage account, in the vault, or both. Learn more about instant recovery points.

[Backup now](#)
[Restore VM](#)
[File Recovery](#)
[Stop backup](#)
[Resume backup](#)
[Delete backup data](#)

### Alerts and Jobs

[View all Alerts](#) (last 24 hours)

[View all Jobs](#) (last 24 hours)

### Backup status

Backup Pre-Check ✓ Passed

Last backup status ✓ Success 7/16/2018, 1:10:11 AM

### Summary

Recovery services vault [Gegrestorevault](#)

Backup policy [DefaultPolicy](#)

Oldest restore point 7/3/2018, 1:09:37 AM (13 day(s) ago)

### Restore points (15)

This list is filtered for last 30 days of restore points. To recover from restore point older than 30 days, [click here](#).

CRASH CONSISTENT  
0

APPLICATION CONSISTENT  
15

FILE-SYSTEM CONSISTENT  
0

TIME	CONSISTENCY	RECOVERY TYPE
7/16/2018 1:10:14 AM	Application Consistent	Snapshot and Vault
7/15/2018 1:10:40 AM	Application Consistent	Snapshot and Vault
7/14/2018 1:10:01 AM	Application Consistent	Snapshot and Vault
7/13/2018 1:02:33 AM	Application Consistent	Snapshot and Vault
7/12/2018 1:10:08 AM	Application Consistent	Snapshot and Vault
7/11/2018 1:02:14 AM	Application Consistent	Snapshot and Vault
7/10/2018 1:10:09 AM	Application Consistent	Snapshot and Vault
7/9/2018 3:44:00 PM	Application Consistent	Snapshot and Vault
7/9/2018 1:07:58 AM	Application Consistent	Vault
7/8/2018 1:01:29 AM	Application Consistent	Vault

Select a restore point.

Select **Restore configuration**.

Choose a VM restore configuration

After you select the restore point, choose a VM restore configuration. To configure the restored VM, you can use the Azure portal or PowerShell.

## Restore options

Option	Details
<b>Create new-create VM</b>	<p>Equivalent to quick create of a VM. Gets a basic VM up and running from a restore point.</p> <p>The VM settings can be modified as part of the restore process.</p>
<b>Create new-restore disk</b>	<p>Creates a VM that you can customize as part of the restore process.</p> <p>This option copies VHDs to the storage account you specify.</p> <ul style="list-style-type: none"> <li>- The storage account should be in the same location as the vault.</li> </ul> <p>If you don't have an appropriate storage account you need to create one.</p> <p>The storage account replication type is shown in parentheses. Zone redundant storage (ZRS) isn't supported.</p> <p>From the storage account you can either attach the restored disks to an existing VM, or create a new VM from the restored disks using PowerShell.</p>
<b>Replace existing</b>	<p>With this option you don't need to create a VM.</p> <p>The current VM must exist. If it's been deleted this option can't be used.</p> <p>Azure Backup takes a snapshot of the existing VM and stores it in the staging location specified. The existing disks connected to the VM are then replaced with the selected restore point. The snapshot created previously is copied to the vault and stored as a recovery point in accordance with your backup retention policy.</p> <p>Replace existing is supported for unencrypted managed VMs. It's not supported for unmanaged disks, generalized VMs, or for VMs created using custom images.</p> <p>If the restore point has more or less disks than the current VM, then the number of disks in the restore point will only reflect the VM.</p>

Specify the restore setting as follows:

In **Restore**, select a restore point > **Restore configuration**.

In **Restore configuration**, select how you want to restore the VM in accordance with the settings summarized in the table above.

Create new-Create a VM

In **Restore configuration** > **Create new** > **Restore Type**, select **Create a virtual machine**.

In **Virtual machine name**, specify a VM which doesn't exist in the subscription.

In **Resource group**, select an existing resource group for the new VM, or create a new one with a globally unique name. If you assign a name that already existing, Azure assigns the group the same name as the VM.

In **Virtual network**, select the VNet in which the VM will be placed. All VNets associated with the subscription are displayed. Select the subnet. The first subnet is selected by default.

In **Storage Location**, specify the storage type used for the VM.



## Restore

1

Restore point  
10/29/2018 1:02:42 AM

✓

2

Restore configuration  
Configure

>

## Restore configuration

Create new

Replace existing

i

To create an alternate configurati...  
when restoring your VM (from the  
following menus), use PowerShell  
cmdlets.

Restore Type

Create virtual machine

\* Virtual machine name

Gegrestore

✓

\* Resource group

GegRG

\* Virtual network

GegRG-vnet (GegRG)

\* Subnet

default

\* Storage Account

trinadhkgnitediag824 (StandardLRS)

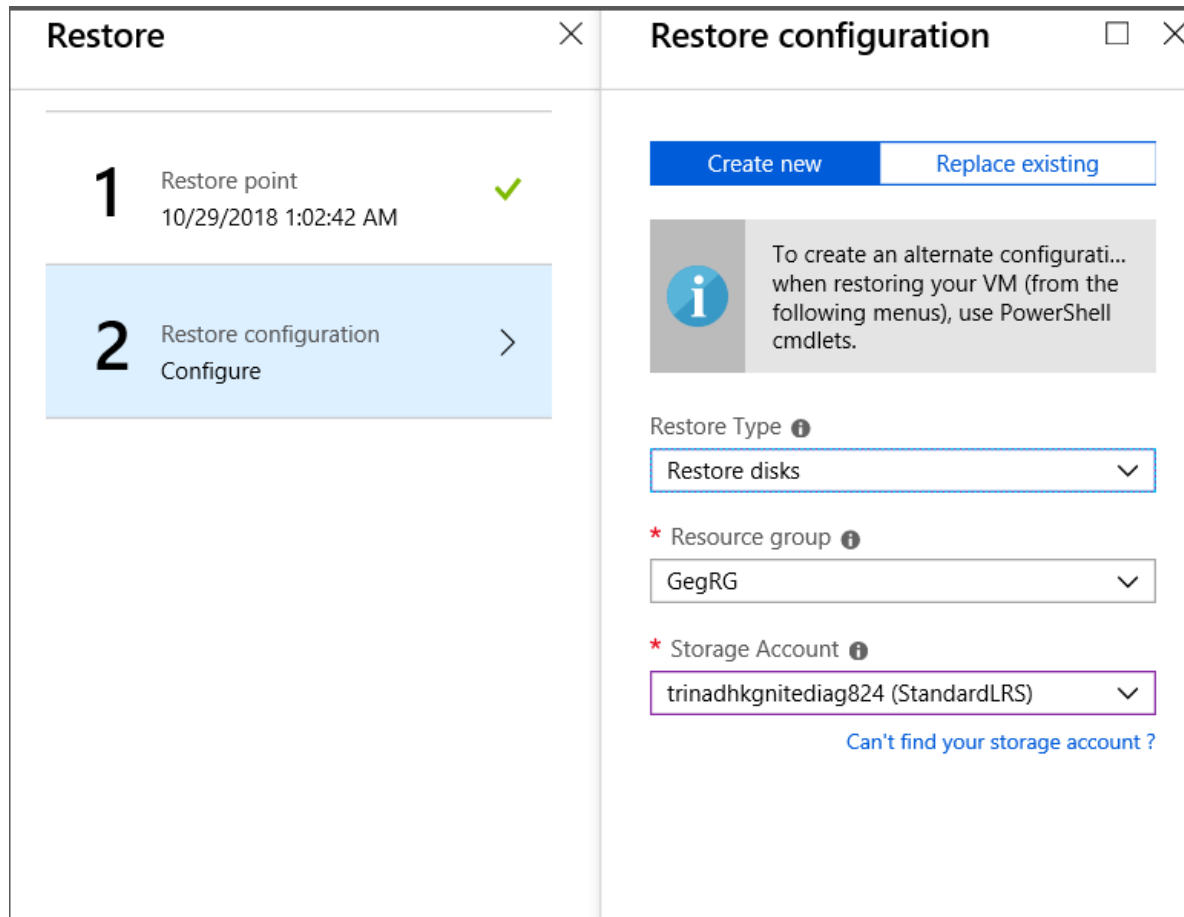
[Can't find your storage account ?](#)

In **Restore configuration**, select **OK**. In **Restore**, click **Restore** to trigger the restore operation.  
Create new-Restore disks

In **Restore configuration** > **Create new** > **Restore Type**, select **Restore disks**.

In **Resource group**, select an existing resource group for the restored disks, or create a new one with a globally unique name.

In **Storage account**, specify the account to which to copy the VHDs. Make sure the account is in the same region as the vault.



In **Restore configuration**, select **OK**. In **Restore**, click **Restore** to trigger the restore operation.

After the disk is restored, you can do any of the following to complete the VM restore operation.

Use the template that was generated as part of the restore operation to customize settings, and trigger VM deployment. You edit the default template settings and submit the template for VM deployment.

You can attach the restored disks to an existing VM.

You can create a new VM from the restored disks using PowerShell.

Replace existing disks

Use this option to replace existing disks in the current VM with the selected restore point.

In **Restore configuration**, click **Replace existing**.

In **Restore Type**, select **Replace disk/s** (the restore point that will replace the existing VM disk or disks).

In **Staging Location**, specify where snapshots of the current managed disks should be saved.

## Restore

1 Restore point  
10/14/2018 1:05:07 AM

2 Restore configuration  
Configure

## Restore configuration

Create new

Replace existing

The disk(s) from the selected restore point will replace the disk(s) in your existing VM. [Learn more about In-Place Restore](#).

Restore Type

Replace Disk(s)

★ Staging Location

trinadhkafs (StandardLRS)

Can't find your storage account ?

Have a question? Need Advice? Find more.

Track the restore operation

After you trigger the restore operation, the backup service creates a job for tracking the restore operation.

The backup service also creates and temporarily displays the notification in the **Notifications** area of the portal. If you don't see the notification, select the **Notifications** symbol to view your notifications.

Backup now

Restore VM

File Recovery

Stop backup

Resume backup

Delete backup data

Alerts and Jobs

Backup status

Summary

View all Alerts (last 24 hours)

View all Jobs (last 24 hours)

Backup Pre-Check

Last backup status

Recovery services vault

Backup policy

Oldest restore point

Restore points (9)

CRASH CONSISTENT

APPLICATION CONSISTENT

FILE SYSTEM CONSISTENT

TIME	CONSISTENCY	RECOVERY TYPE
7/10/2018 1:00:09 AM	Application Consistent	Snapshot and Vault
7/9/2018 3:44:00 PM	Application Consistent	Snapshot and Vault
7/9/2018 1:07:58 AM	Application Consistent	Snapshot and Vault

Dismiss

Informational

Completed

All

Triggering restore for gegmd

3:42 PM

Restore triggered successfully. Please monitor progress in backup jobs page.

Click on the hyperlink of the notifications to go to **BackupJobs** list. All the details of the operations for a given job is available in the **BackupJobs** lists.

You can go to **BackupJobs** from the vault dashboard by clicking the Backup Jobs tile, select **Azure virtual machine** to display the jobs associated with the vault.

The **Backup jobs** blade opens and displays the list of jobs.

WORKLOAD NAME	OPERATION	STATUS	TYPE	START TIME	DURATION	
gegmd	Restore	Completed	Azure virtual machine	9/10/2018 4:06:24 PM	00:10:49	...
gegmd	Restore	Completed	Azure virtual machine	9/10/2018 3:23:03 PM	00:18:42	...

**Progress bar** is now available in the **Restore Details** blade.

The **Restore Details** blade can be opened by clicking any restore job which has status **in-progress**. The **Progress bar** is available in all variants of restores like **Create New**, **Restore Disk** and **Replace existing**. The details carried by Restore Progress bar are **estimated time of restore**, **percentage of restore** and **number of bytes transferred**.

Restore Progress bar details are given below:

**Estimated time of restore** initially provides the time taken to complete the restore operation. As the operation progresses, the time taken reduces and reaches 0 once the restore operation completes.

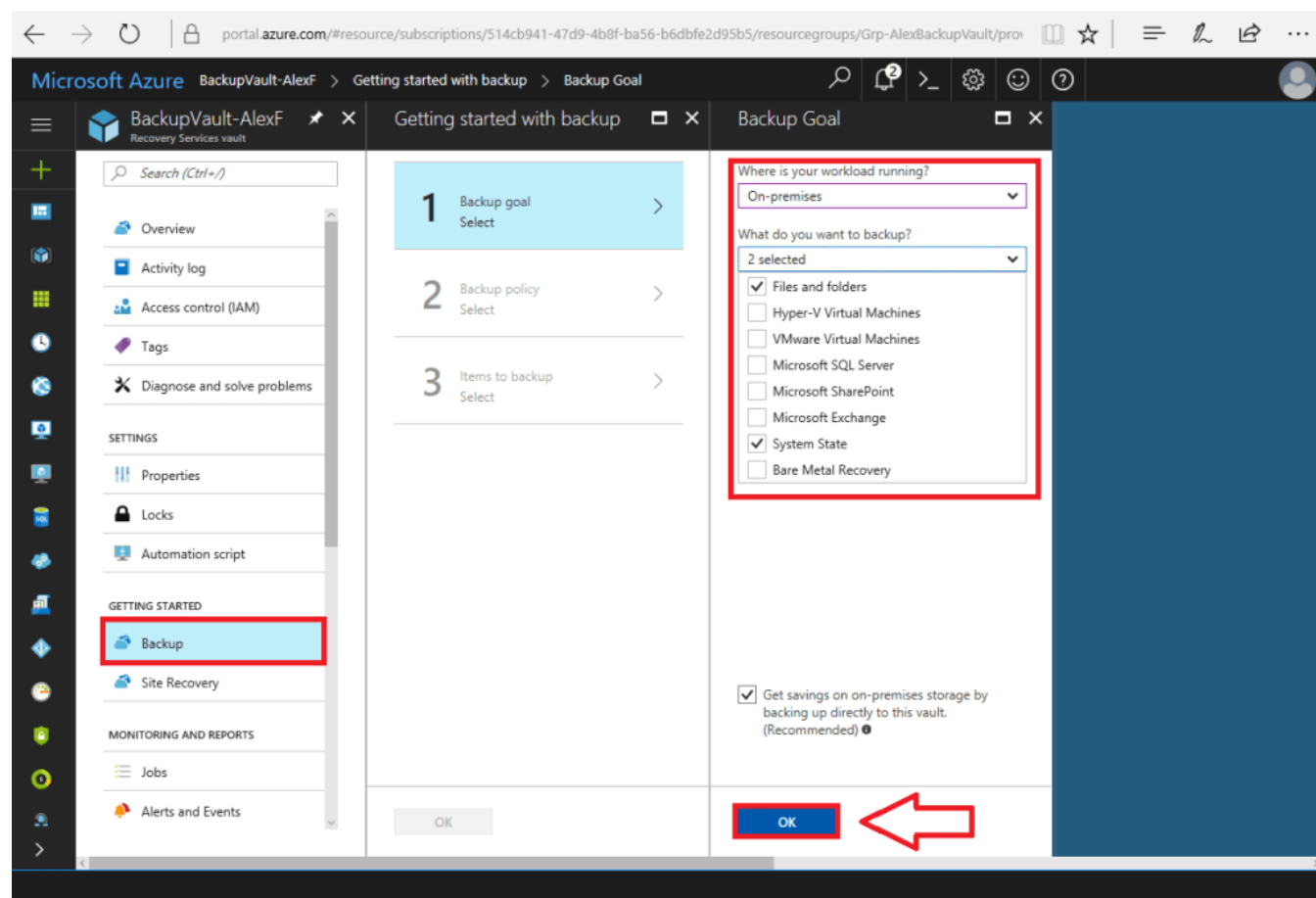
**Percentage of restore** provides the data how much percentage of restore operation is completed.

**Number of bytes transferred** is available in the sub task when restore happens through Create New VM. This provides the details of how many numbers of bytes were transferred against the total number of bytes to be transferred.

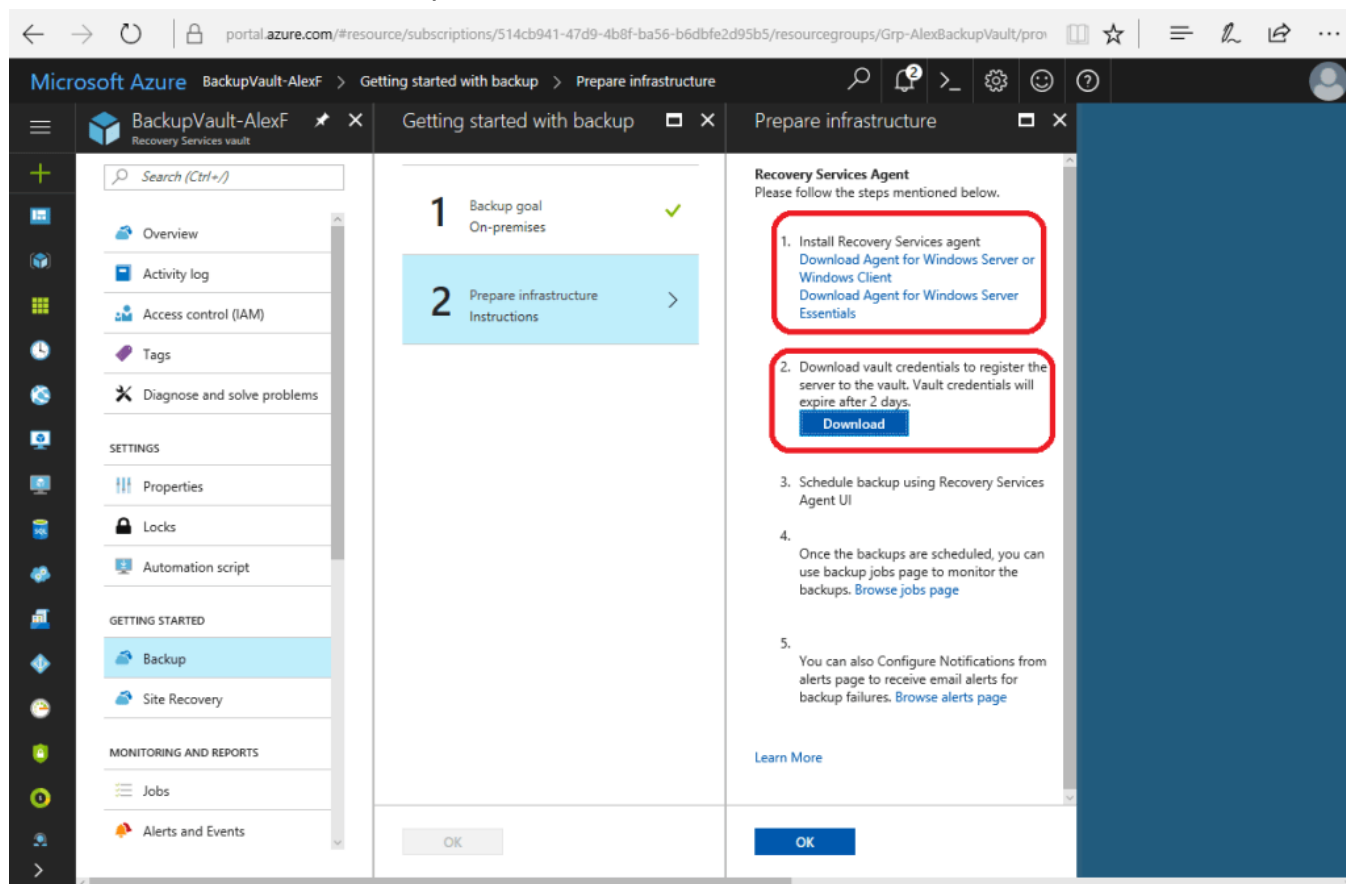
## Azure Backup Post Deployment OnPrem Use Case

The final two deployment options for Azure Backup are System Center Data Protection Manager (DPM) and Microsoft Azure Backup Server (MABS). Since both are very similar this article will review how to deploy MABS. Except for the small monthly Azure costs, MABS is completely free. Customers do not need any System Center or SQL Server licenses, just a license for the Windows Operating System.

Once Azure is finished provisioning your resources, you can click through to your vault, and go to Backupunder Getting Started. Based on the selections you make here, it will recommend one of the various Azure Backup solutions. Choose On-premises, and then Files and folders and/or System State. Click OK.



The big downside to this process is, there isn't really an "automatic way" to deploy this solution. It's a manual install per machine, and you'll need both of these downloads to complete the setup. Use the links for Download Agent for Windows Server or Windows Client, as well as the Download button for vault credentials.



Select all the files and click **Next**. Download all the files coming in from the Microsoft Azure Backup download page, and place all the files in the same folder.



Choose the download you want

<input checked="" type="checkbox"/> File Name	Size
<input checked="" type="checkbox"/> MicrosoftAzureBackupInstaller.exe	484 KB
<input checked="" type="checkbox"/> MicrosoftAzureBackupInstaller-1.bin	701.4 MB
<input checked="" type="checkbox"/> MicrosoftAzureBackupInstaller-2.bin	701.9 MB
<input checked="" type="checkbox"/> MicrosoftAzureBackupInstaller-3.bin	701.9 MB
<input checked="" type="checkbox"/> MicrosoftAzureBackupInstaller-4.bin	701.9 MB
<input checked="" type="checkbox"/> MicrosoftAzureBackupInstaller-5.bin	446.1 MB

Download Summary:

1. MicrosoftAzureBackupInstaller.exe
2. MicrosoftAzureBackupInstaller-1.bin
3. MicrosoftAzureBackupInstaller-2.bin
4. MicrosoftAzureBackupInstaller-3.bin
5. MicrosoftAzureBackupInstaller-4.bin
6. MicrosoftAzureBackupInstaller-5.bin

Total Size: 3.2 GB

Next

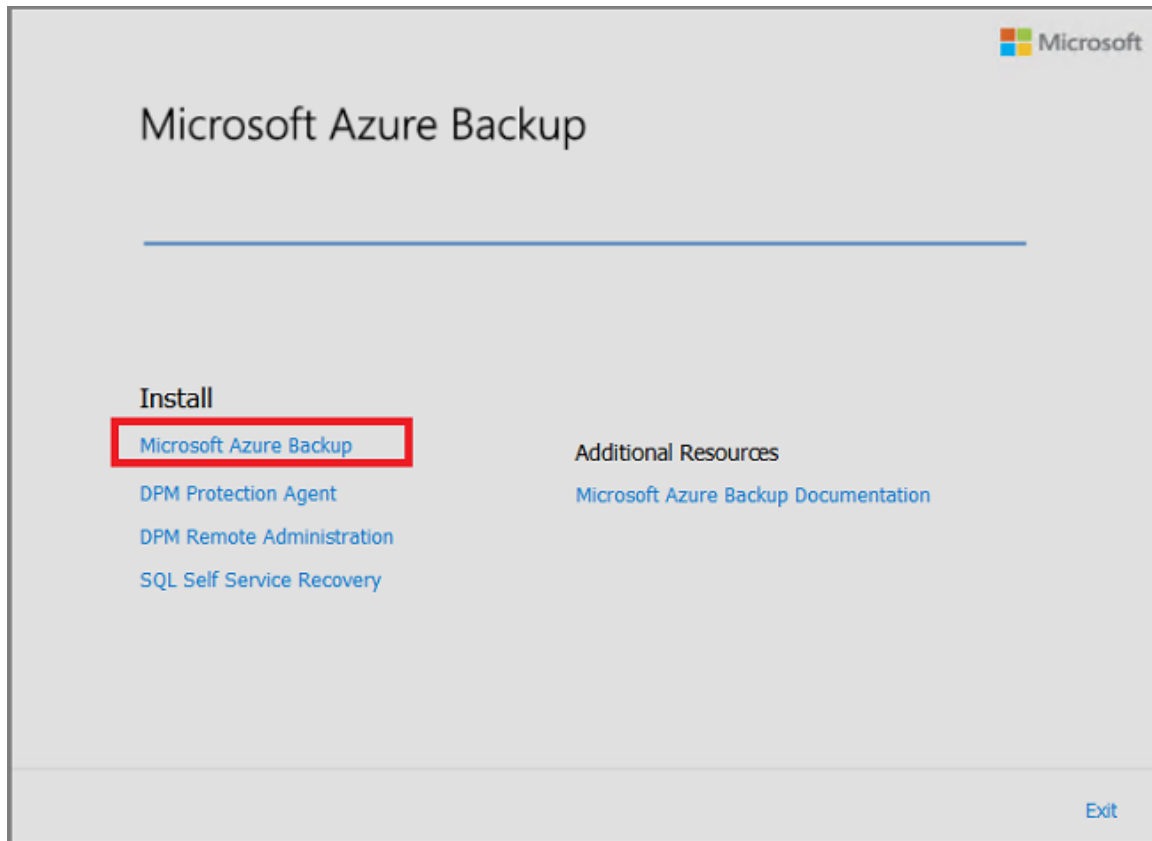
Since the download size of all the files together is > 3G, on a 10Mbps download link it may take up to 60 minutes for the download to complete.

### MABS Prerequisites

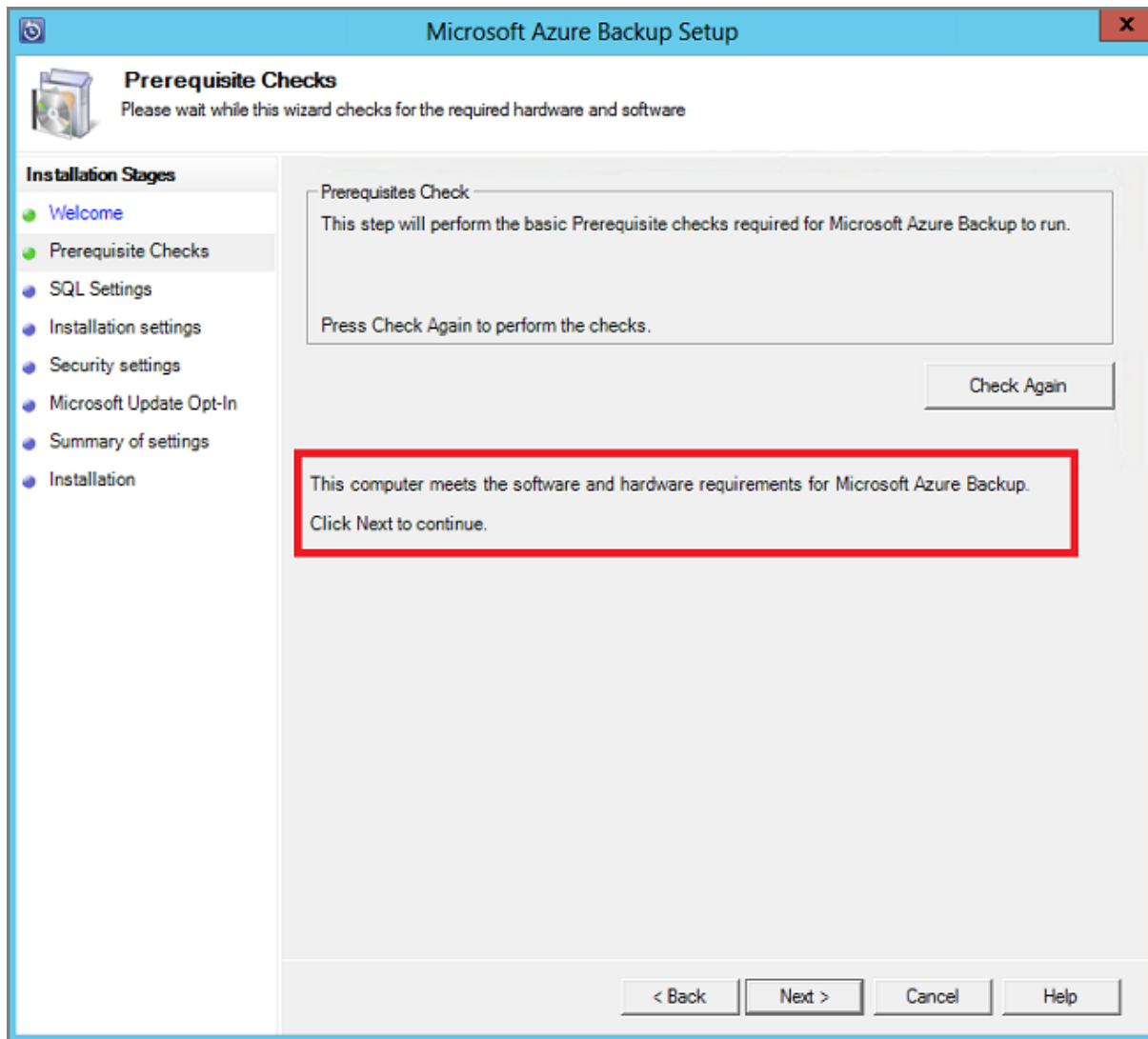
- Can be installed on any of the following 64-bit Operating systems with the latest Service Packs:
- Windows Server 2016 (recommended)
- Installing on Windows Server 2016 allows you to use Modern Backup Storage which provides more efficient storage, faster backups, and workload-aware storage.
- Windows Server 2012 R2 (including Storage server)
- Windows Server 2012 (including Storage server)
- Cannot be collocated on any other server role
- Must be domain-joined
- Internet Connectivity
- Can be installed on-premises or in Azure IaaS
- If deployed in Azure, recommend using A2 Standard sizing or higher
- If deployed on-premises, recommend using Dual core and 4GB RAM or higher
- Local storage equal to the size of the total amount being backed up
- Recommend Local storage pool to be created 1.5 times size of data being backed up.
- Scratch location of at least 5% of data being backed up to Azure
- Software requirements
- .Net Framework 4.6
- Hyper-V Server Role w/PowerShell
- SQL Server 2014 SP1 or above
- Installer comes with SQL 2016 SP1

Installing the software package

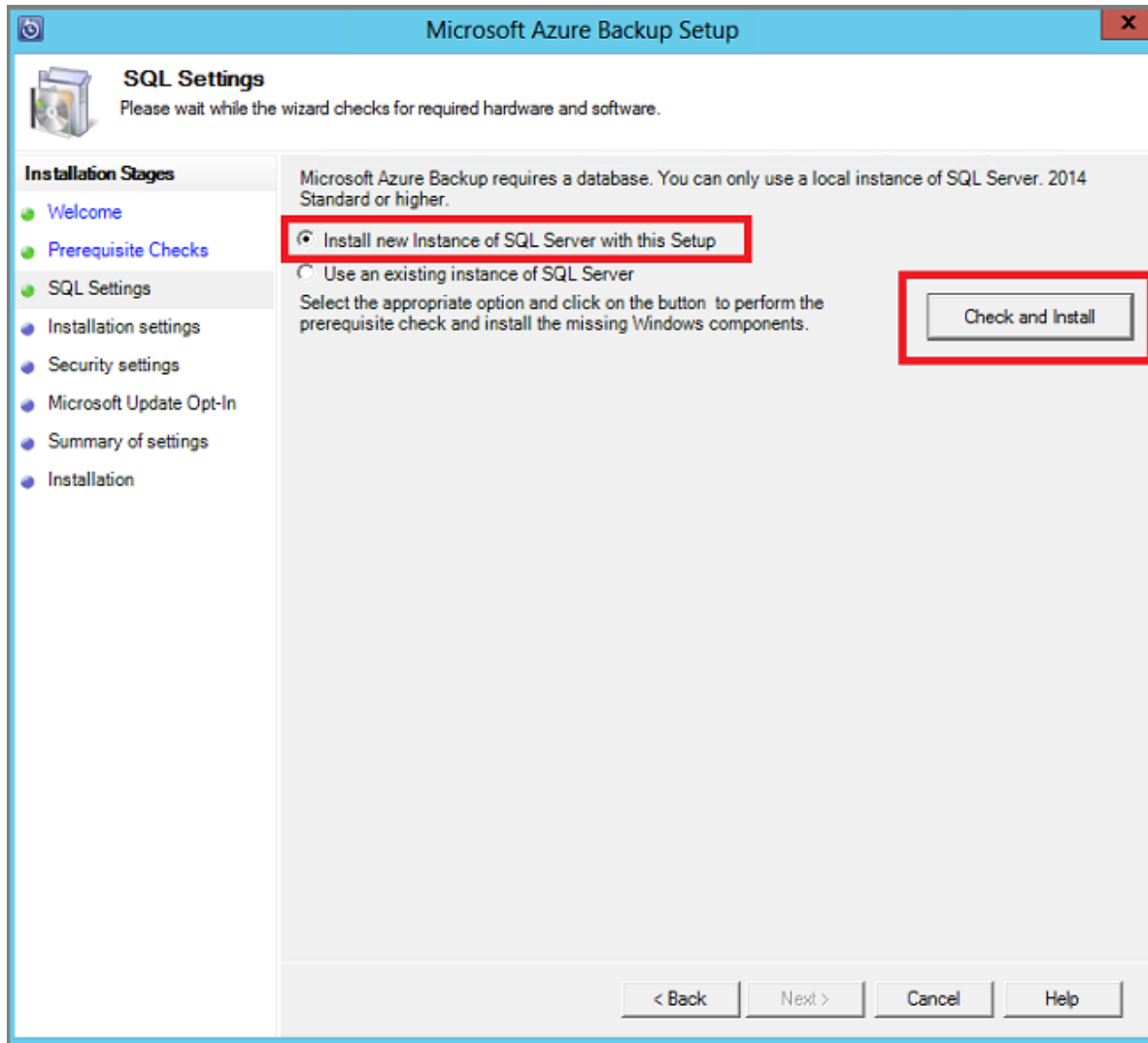
Click **Microsoft Azure Backup** to launch the setup wizard.



On the Welcome screen click the **Next** button. This takes you to the *Prerequisite Checks* section. On this screen, click **Check** to determine if the hardware and software prerequisites for Azure Backup Server have been met. If all prerequisites are met successfully, you will see a message indicating that the machine meets the requirements. Click on the **Next** button.



Microsoft Azure Backup Server requires SQL Server Enterprise. Further, the Azure Backup Server installation package comes bundled with the appropriate SQL Server binaries needed if you do not wish to use your own SQL. When starting with a new Azure Backup Server installation, you should pick the option **Install new Instance of SQL Server with this Setup** and click the **Check and Install** button. Once the prerequisites are successfully installed, click **Next**.



If a failure occurs with a recommendation to restart the machine, do so and click **Check Again**. In case of any SQL configuration issues, reconfigure SQL as per the SQL guidelines and retry to install/upgrade MABS using the existing instance of SQL.

[!NOTE] Azure Backup Server will not work with a remote SQL Server instance. The instance being used by Azure Backup Server needs to be local. In case you are using an existing SQL server for MABS, MABS setup only supports the use of *named instances* of SQL server.

## Manual configuration

When you use your own instance of SQL, make sure you add builtin\Administrators to sysadmin role to master DB.

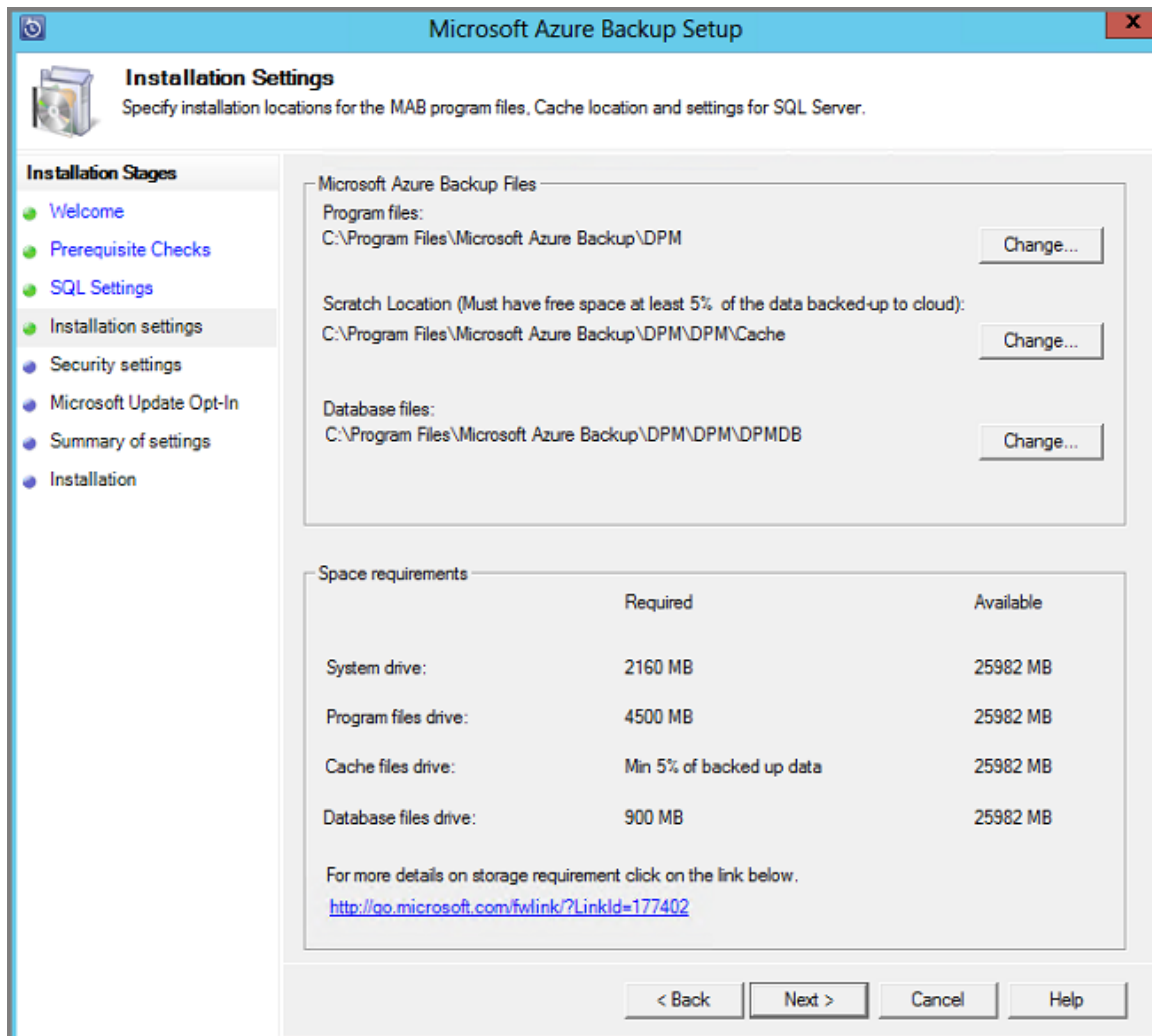
## SSRS Configuration with SQL 2017

When you are using own instance of SQL 2017, you need to manually configure SSRS. After SSRS configuration, ensure that *IsInitialized* property of SSRS is set to *True*. When this is set to True, MABS assumes that SSRS is already configured and will skip the SSRS configuration.

Use the following values for SSRS configuration:

- Service Account: 'Use built-in account' should be Network Service
- Web Service URL: 'Virtual Directory' should be ReportServer\_<SQLInstanceName>
- Database: DatabaseName should be ReportServer\$<SQLInstanceName>
- Web Portal URL: 'Virtual Directory' should be Reports\_<SQLInstanceName>

Provide a location for the installation of Microsoft Azure Backup server files and click **Next**.



The screenshot shows the 'Microsoft Azure Backup Setup' window, specifically the 'Installation Settings' tab. The window title is 'Microsoft Azure Backup Setup'. The subtitle is 'Specify installation locations for the MAB program files, Cache location and settings for SQL Server.' The left sidebar shows 'Installation Stages' with 'Installation settings' selected. The main area is divided into two sections: 'Microsoft Azure Backup Files' and 'Space requirements'.

**Microsoft Azure Backup Files**

- Program files: C:\Program Files\Microsoft Azure Backup\DPM (Change... button)
- Scratch Location (Must have free space at least 5% of the data backed-up to cloud): C:\Program Files\Microsoft Azure Backup\DPM\DPM\Cache (Change... button)
- Database files: C:\Program Files\Microsoft Azure Backup\DPM\DPM\DPMDDB (Change... button)

**Space requirements**

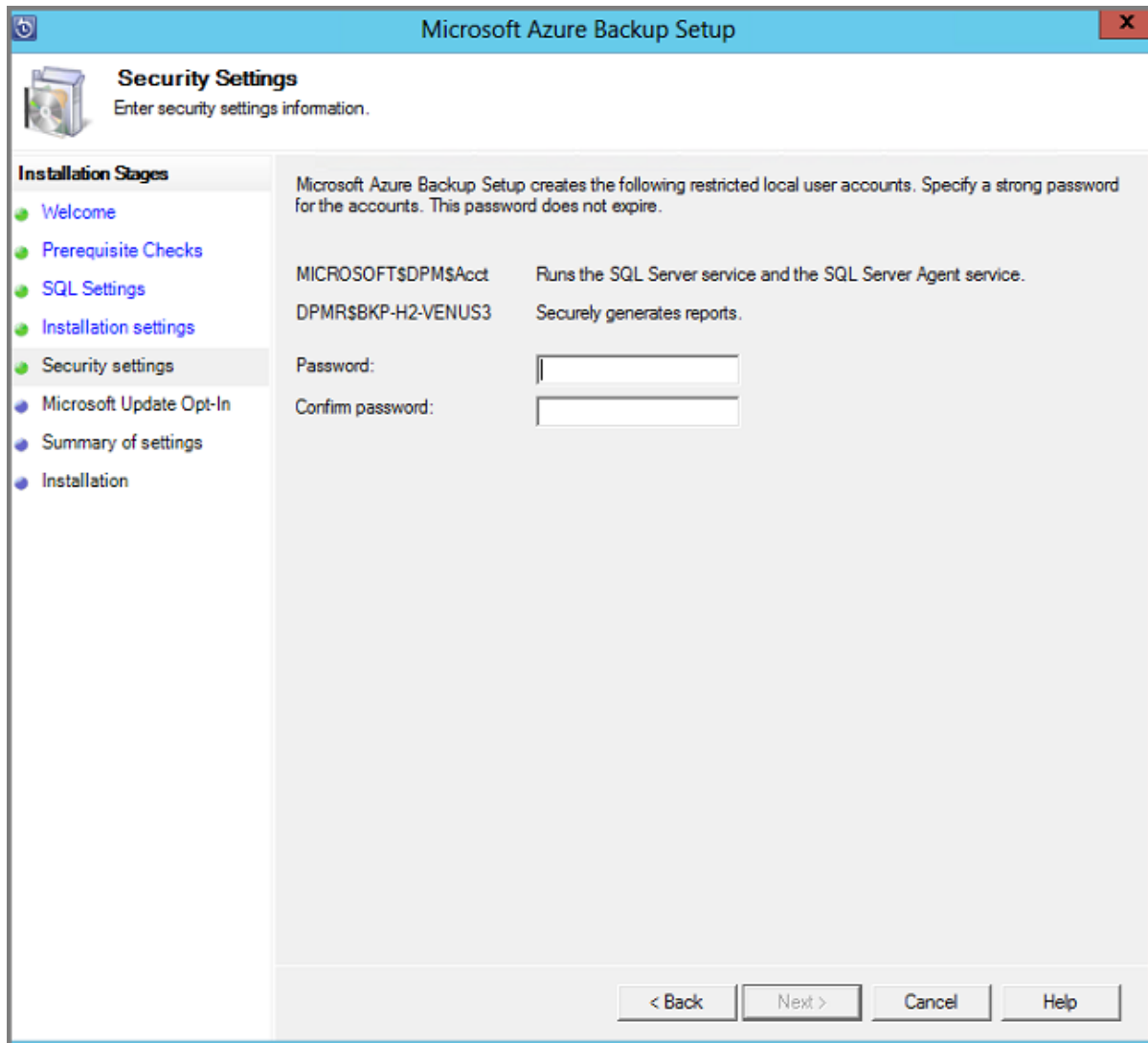
	Required	Available
System drive:	2160 MB	25982 MB
Program files drive:	4500 MB	25982 MB
Cache files drive:	Min 5% of backed up data	25982 MB
Database files drive:	900 MB	25982 MB

For more details on storage requirement click on the link below.  
<http://go.microsoft.com/fwlink?LinkId=177402>

At the bottom, there are buttons for '< Back', 'Next >', 'Cancel', and 'Help'.

The scratch location is a requirement for back up to Azure. Ensure the scratch location is at least 5% of the data planned to be backed up to the cloud. For disk protection, separate disks need to be configured once the installation completes.

Provide a strong password for restricted local user accounts and click **Next**.



**Microsoft Azure Backup Setup**

**Security Settings**  
Enter security settings information.

**Installation Stages**

- Welcome
- Prerequisite Checks
- SQL Settings
- Installation settings
- Security settings**
- Microsoft Update Opt-In
- Summary of settings
- Installation

Microsoft Azure Backup Setup creates the following restricted local user accounts. Specify a strong password for the accounts. This password does not expire.

MICROSOFT\$DPMSAcct	Runs the SQL Server service and the SQL Server Agent service.
DPMR\$BKP-H2-VENUS3	Securely generates reports.

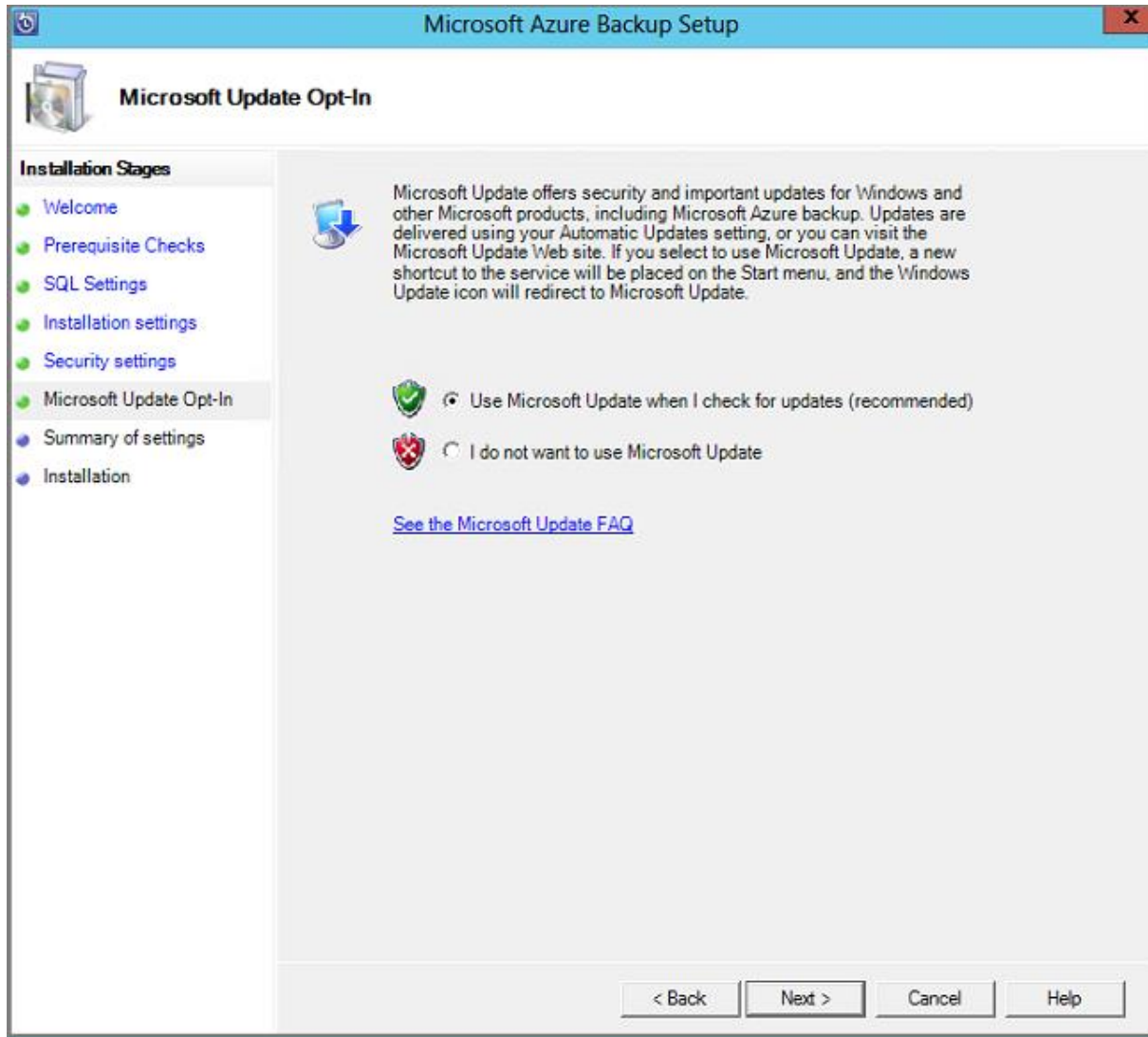
Password:

Confirm password:

< Back   Next >   Cancel   Help

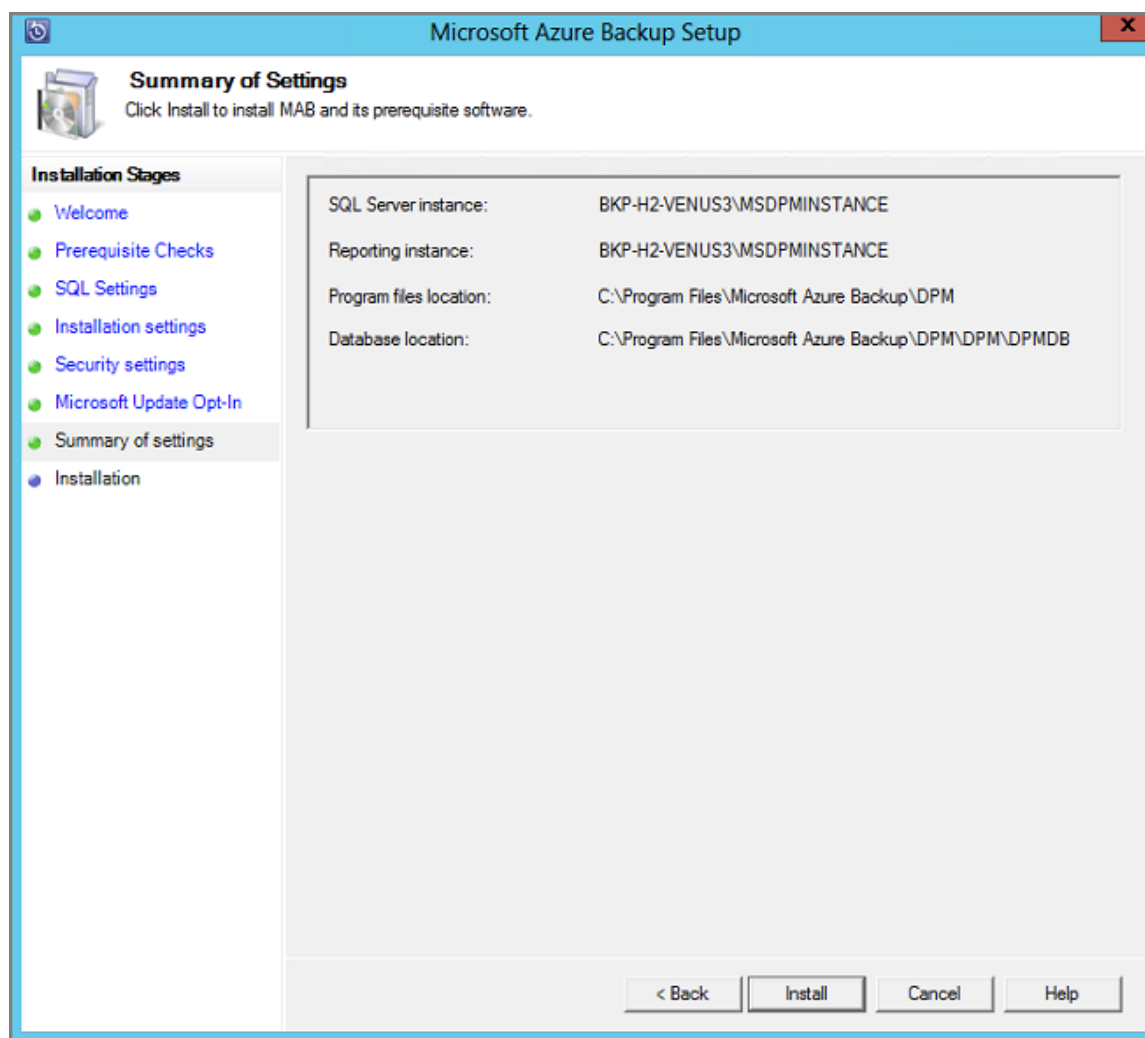
Select whether you want to use *Microsoft Update* to check for updates and click **Next**.

[!NOTE] We recommend having Windows Update redirect to Microsoft Update, which offers security and important updates for Windows and other products like Microsoft Azure Backup Server.



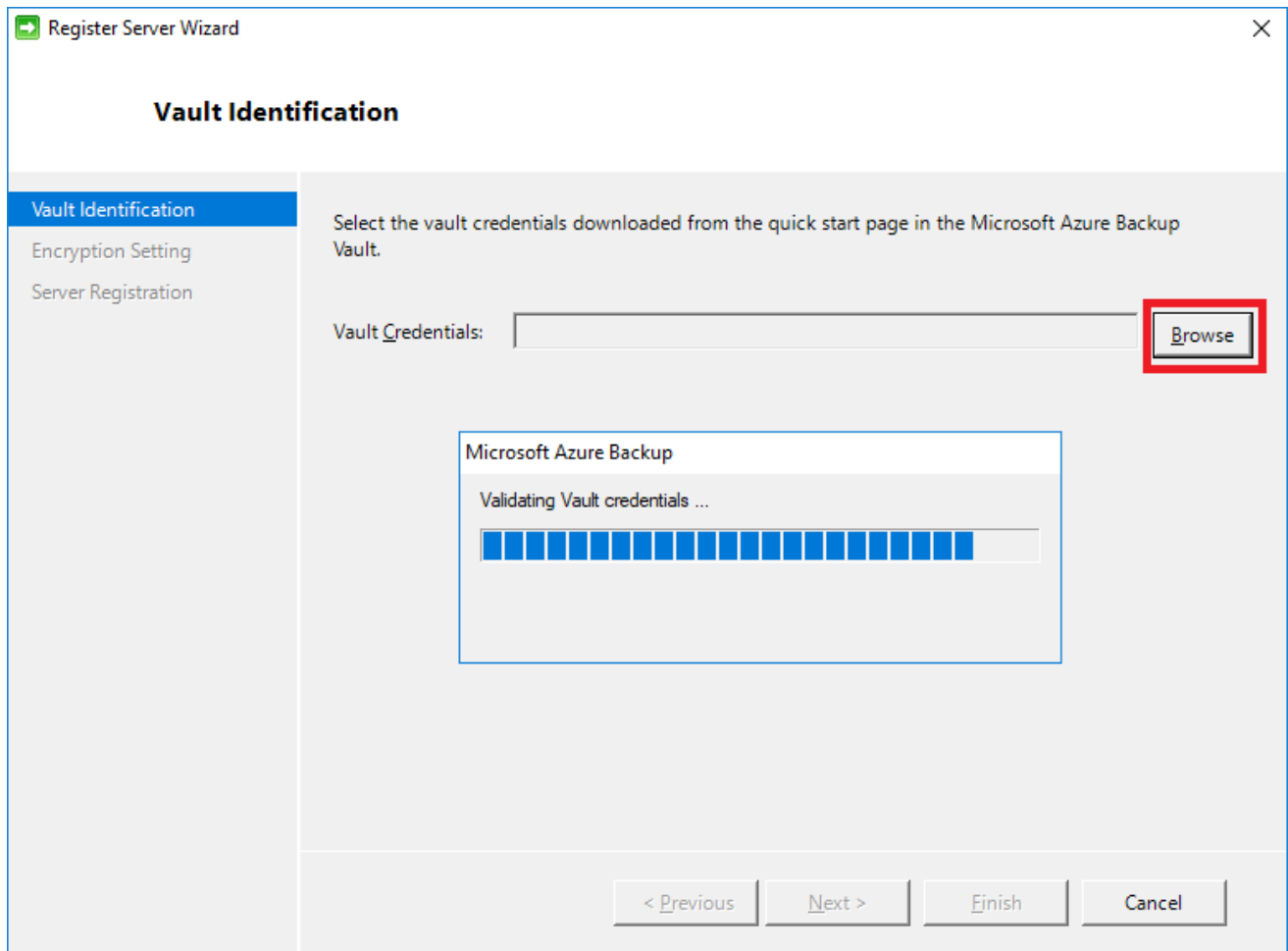
Review the *Summary of Settings* and click **Install**.





The installation happens in phases. In the first phase the Microsoft Azure Recovery Services Agent is installed on the server. The wizard also checks for Internet connectivity. If Internet connectivity is available you can proceed with installation, if not, you need to provide proxy details to connect to the Internet.

The next step is to configure the Microsoft Azure Recovery Services Agent. As a part of the configuration, you will have to provide your vault credentials to register the machine to the recovery services vault. You will also provide a passphrase to encrypt/decrypt the data sent between Azure and your premises. You can automatically generate a passphrase or provide your own minimum 16-character passphrase. Continue with the wizard until the agent has been configured.



**Register Server Wizard**

### Vault Identification

Select the vault credentials downloaded from the quick start page in the Microsoft Azure Backup Vault.

Vault Credentials:  **Browse**

Microsoft Azure Backup

Validating Vault credentials ...

< Previous   Next >   Finish   Cancel

Note: if you just downloaded your credentials but the wizard rejects them, suggesting that you should download them again and use within two days, check your system clock—and be sure you are syncing to a proper time authority.

After your credentials are validated, you will choose or generate an encryption passphrase, and save it to a file (store this somewhere safe for your customers, not on the local machine).

Register Server Wizard

Vault Identification

Encryption Setting

Server Registration

Encryption Setting

Backups are encrypted to protect the confidentiality of your data.

Generate or type a passphrase to encrypt and decrypt backups from this server.

Enter Passphrase (minimum of 16 characters)

(36)


Generate Passphrase

Confirm Passphrase

(36)

Enter a location to save the passphrase

Browse

 If your passphrase is lost or forgotten, the data cannot be recovered. Microsoft Online Services does not save or manage this passphrase. It is strongly recommended you save your passphrase to an external location like a USB drive or network drive.

< Previous

Next >

Finish

Cancel

43

Microsoft Azure Backup- Step-by-Step

Tech Data Corp. All Rights Reserved.

**Register Server Wizard**

**Vault Identification**

Select the vault credentials downloaded from the quick start page in the Microsoft Azure Backup Vault.

Vault Credentials:

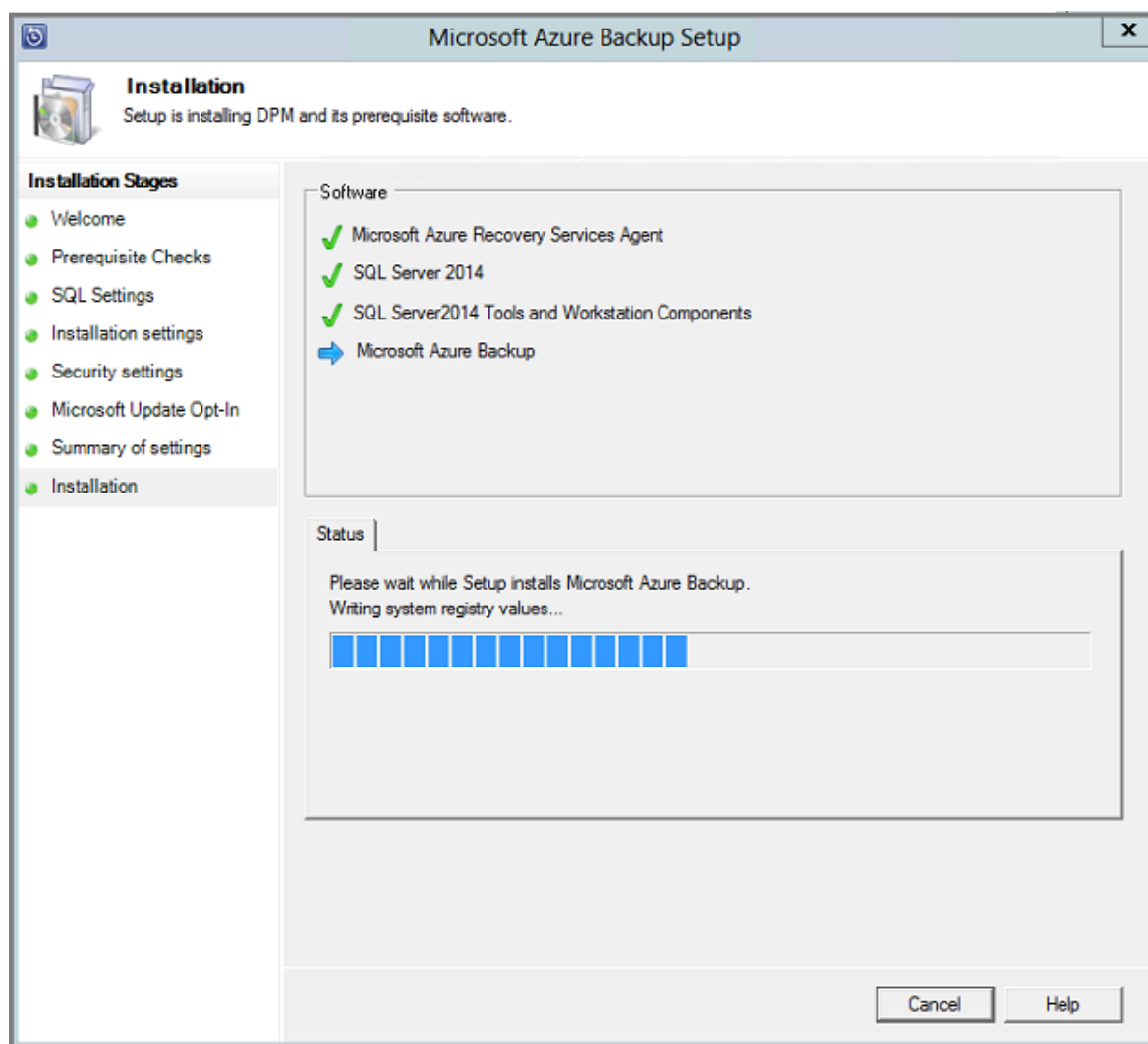
Backup Vault: TestVenusResource635775539810073165

Region: US

Subscription Identifier: 70dad21d-dece-49fa-8d9a-257706099b43

< Previous   Next >   Finish   Cancel

Once registration of the Microsoft Azure Backup server successfully completes, the overall setup wizard proceeds to the installation and configuration of SQL Server and the Azure Backup Server components. Once the SQL Server component installation completes, the Azure Backup Server components are installed.

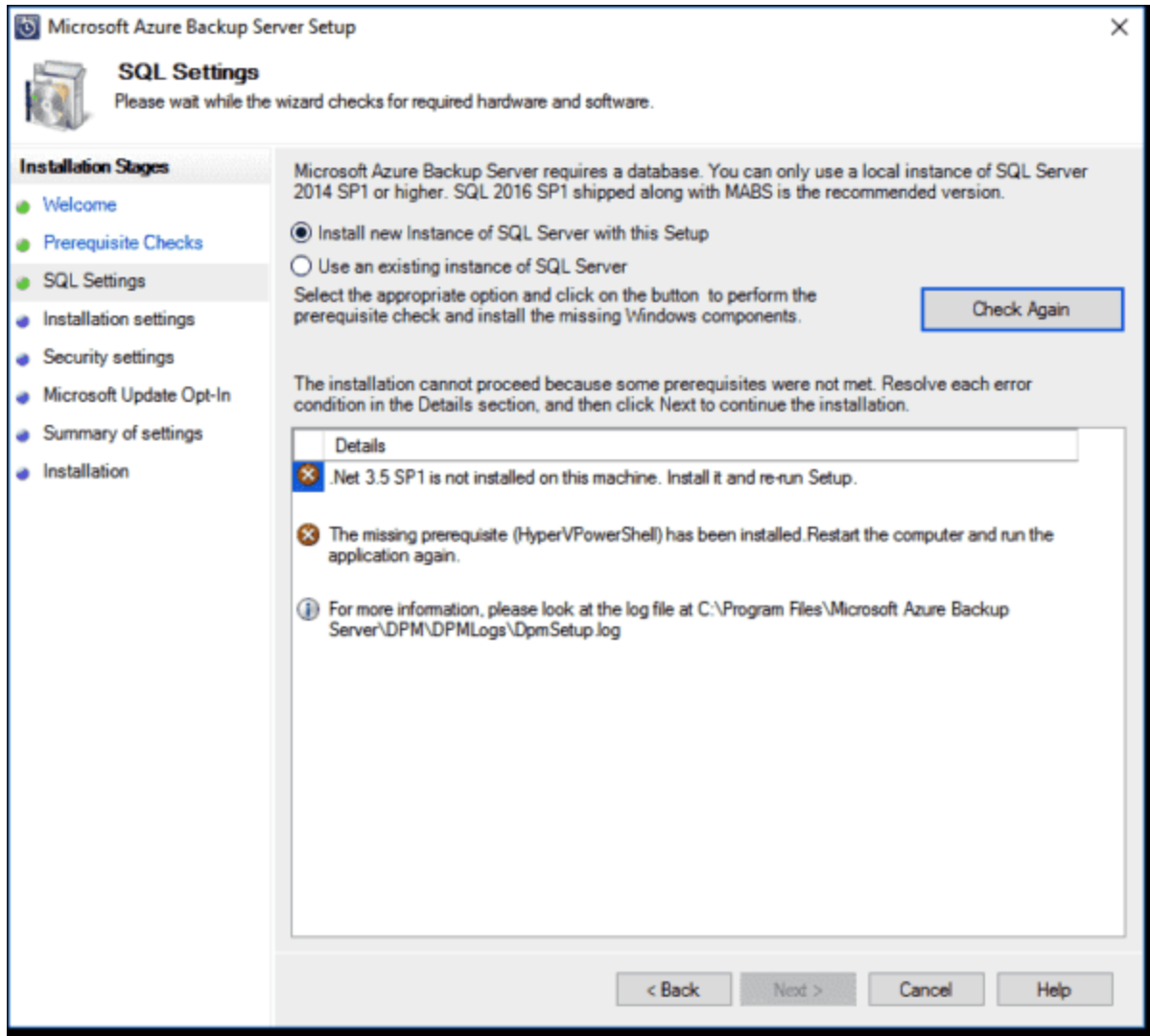


When the installation step has completed, the product's desktop icons will have been created as well. Just double-click the icon to launch the product.

The installation of MABS is now complete and ready to be configured for backup operations to Azure. As previously mentions, MABS and DPM are very similar to deploy, but there are differences. DPM is designed for the enterprise customer that already has System Center deployed. MABS was designed for the smaller customers that do not already have System Center. Our final article in the Azure Backup series will review the configuration process of MABS for backup and recovery operations.

### Troubleshooting tips

When checking the prerequisites in the SQL Settings steps, you might encounter the error ".Net 3.5 SP1 is not installed on this machine" and "The missing prerequisite (Hyper-V PowerShell) has been installed" if you didn't meet the prerequisites mentioned at the beginning of the article.



## Missing prerequisites

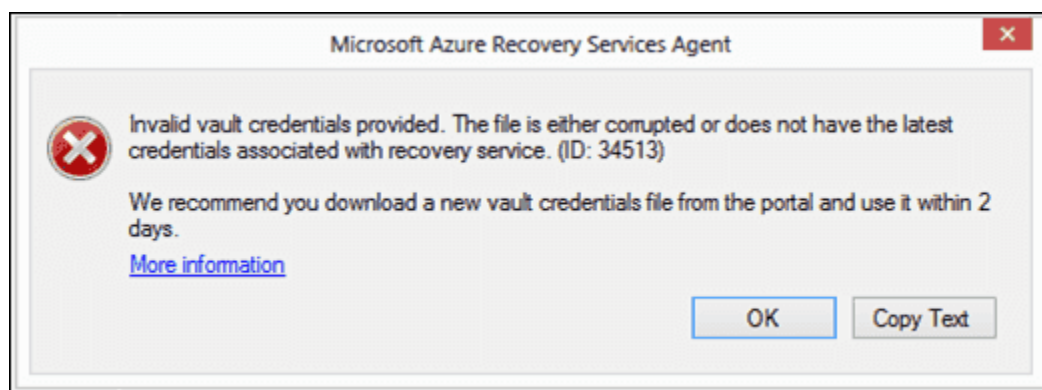
During the server registration to the Recovery Services vault, you might encounter the following error: "Invalid vault credentials provided. The file is either corrupted or does not have the latest credentials associated with recovery service." This error may occur for one of the following reasons:

You might have downloaded the vault credentials from more than two days ago. In this case, you need to redownload the vault credentials and use the new downloaded file.

The vault credentials file is located at a network location. You need to change it to a local path.

The folder C:\Windows\Temp contains more than 60,000 files. You then have to delete some of the unneeded files to free up space for the Azure agent.

The date and time of your server are incorrect.



Invalid vault credentials error

During the installation, you might face some of the following issues:

Setup could not update the registry metadata. This update failure could lead to overuse of storage consumption. To avoid this, update the Resilient File System (ReFS) trimming registry entry:

Set the **SYSTEM\CurrentControlSet\Control\FileSystem\RefsEnableInlineTrim** dword value to 1.

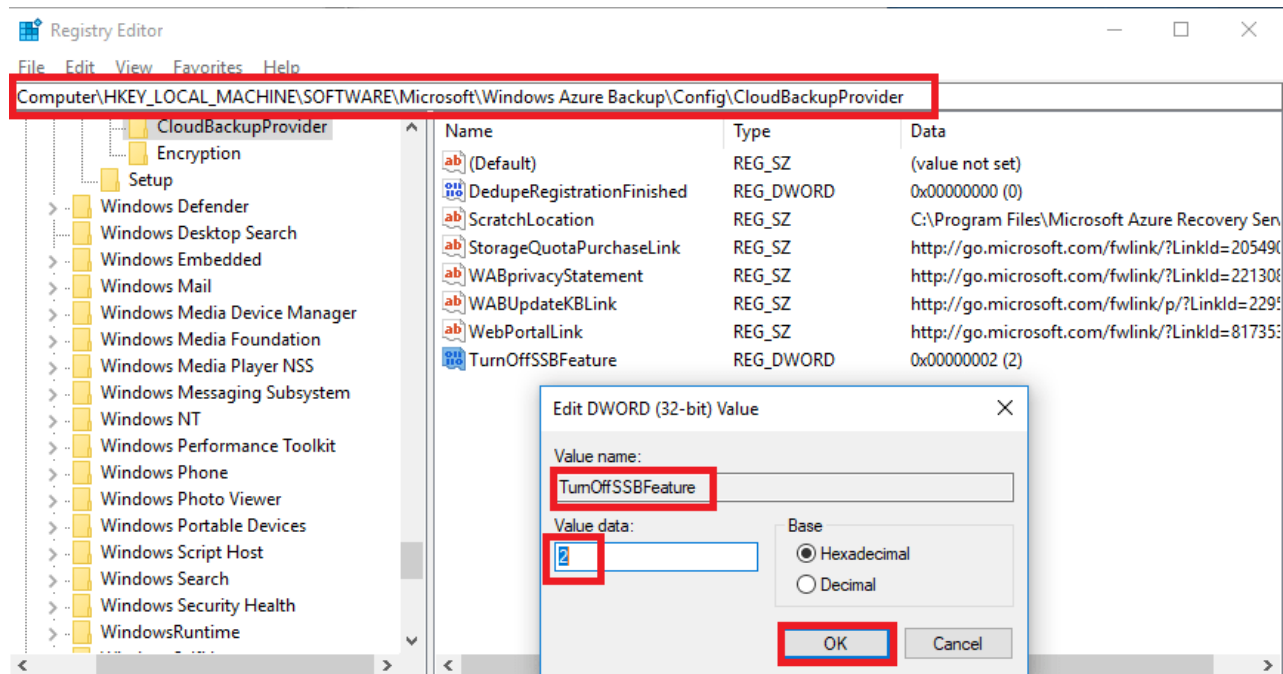
With the above issue, you also have to create the registry key **SOFTWARE\Microsoft Data Protection Manager\Configuration\VolSnapOptimization\WriteId** with an empty string value.

Enable System State Backup (recommended)

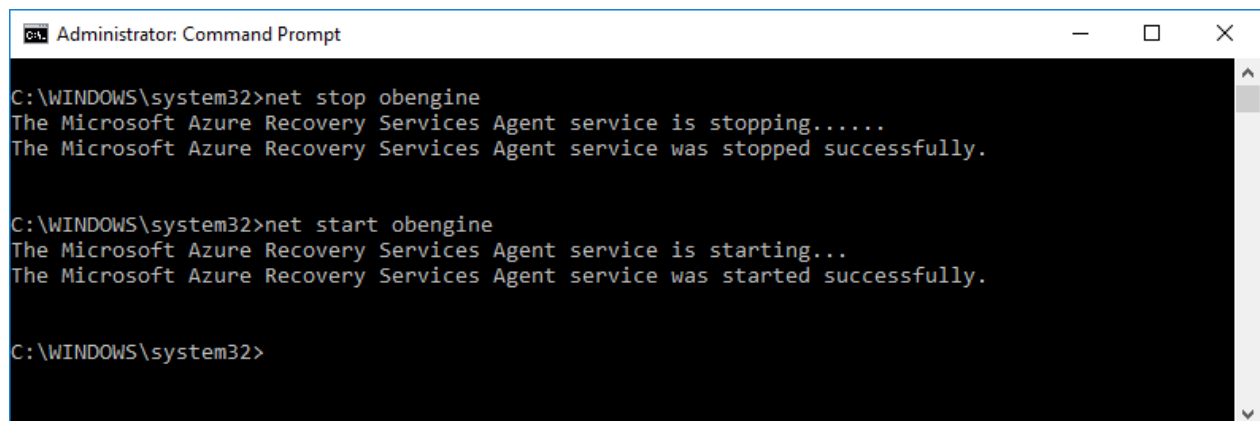
NOTE: If you want to include the System State (critical for Domain Controllers), then at the time of this writing you will need to create a new registry key as follows:

Create a new **REG\_DWORD** value

called **TurnOffSSBFeature** in **HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows Azure Backup\Config\CloudBackupProvider** and set the value to 2.



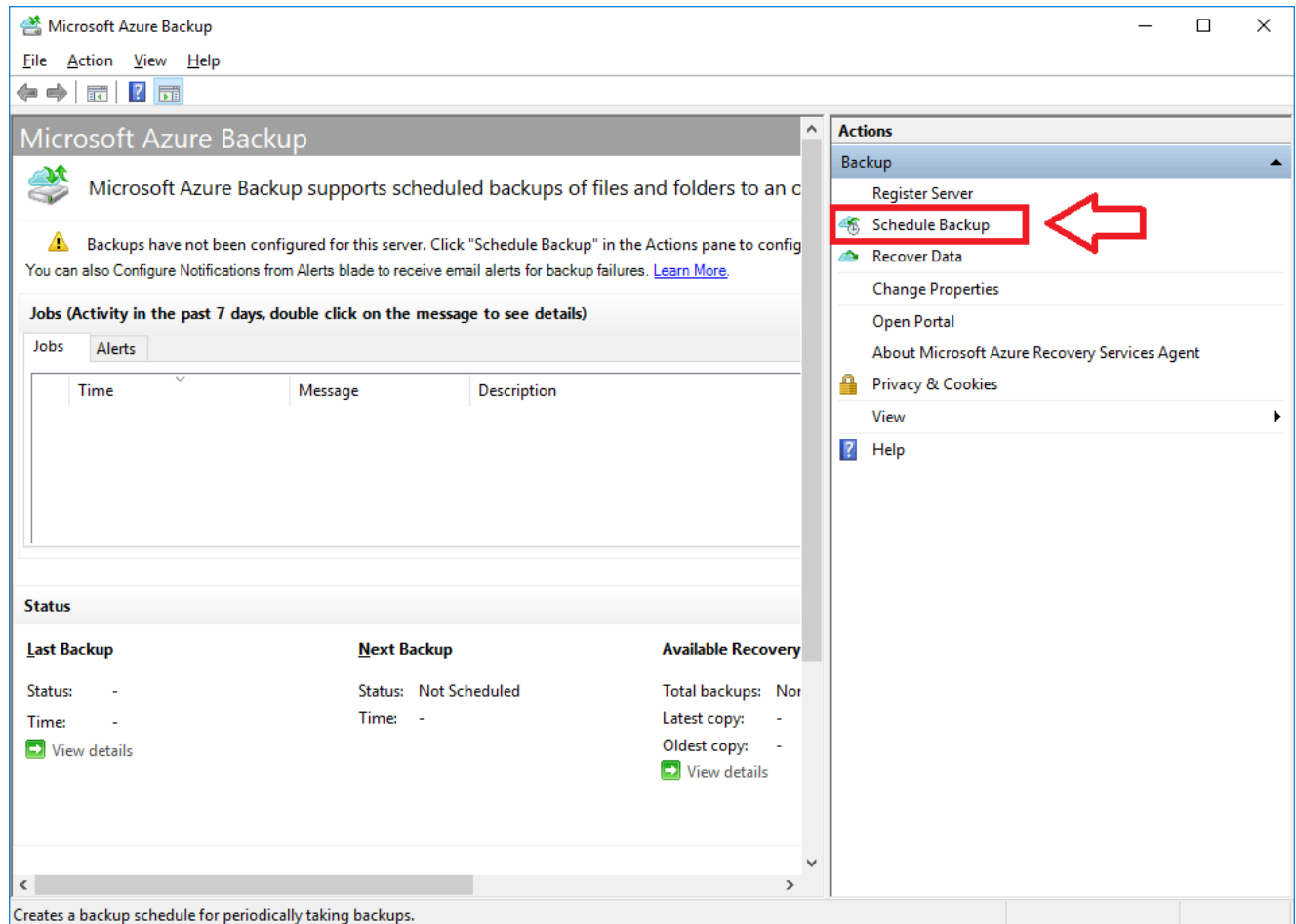
Be sure to restart the Microsoft Azure Recovery Services Agent (obengine) service before configuring your backup.



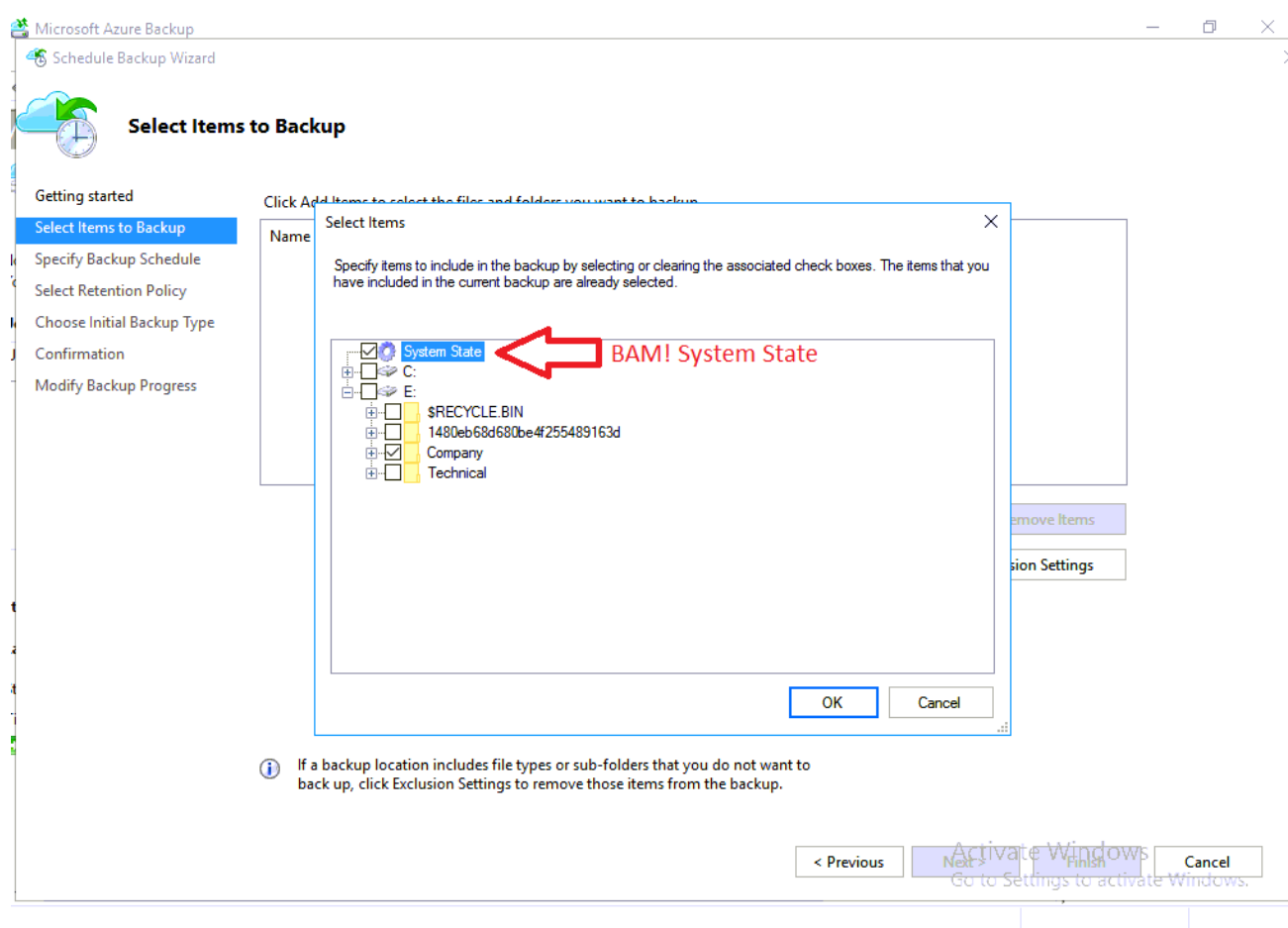
Configure the MARS Agent Backup Schedule

The Microsoft Azure Backup console will look very familiar to most Windows Admins (it has an uncanny resemblance to Windows Server Backup). Click **Schedule Backup** to begin.

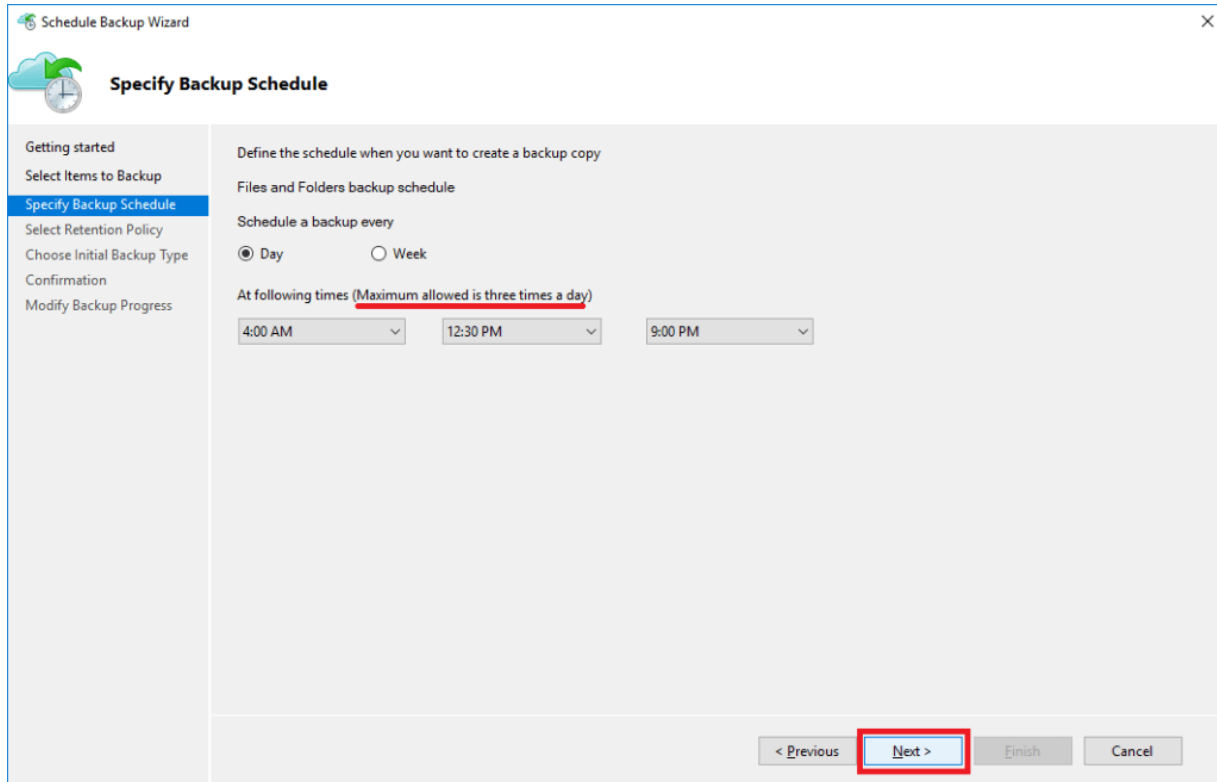




Step through the wizard adding the items you need to protect. You will notice that there is an option for System State now!



Although many small businesses will be okay with one backup per day, it is always a good idea to go through a downtime tolerance exercise with your clients, to ensure that you are on the same page about RPO and RTO when designing a backup & disaster recovery solution. We can configure a maximum of three backups per day here. Click **Next**.



As I mentioned, retention options have grown substantially and is one of the reasons we are seeing more adoption of this service in the SMB / SME space. Modify the default values as needed, then click **Next**.

**Schedule Backup Wizard**

**Select Retention Policy**

Getting started  
Select Items to Backup  
Specify Backup Schedule  
**Select Retention Policy**  
Choose Initial Backup Type  
Confirmation  
Modify Backup Progress

Specify the retention policy for backup of files and folders

☒ **Daily Retention Policy**  
Retain backup copies taken At 4:00 AM 12:30 PM 9:00 PM for 180 Days

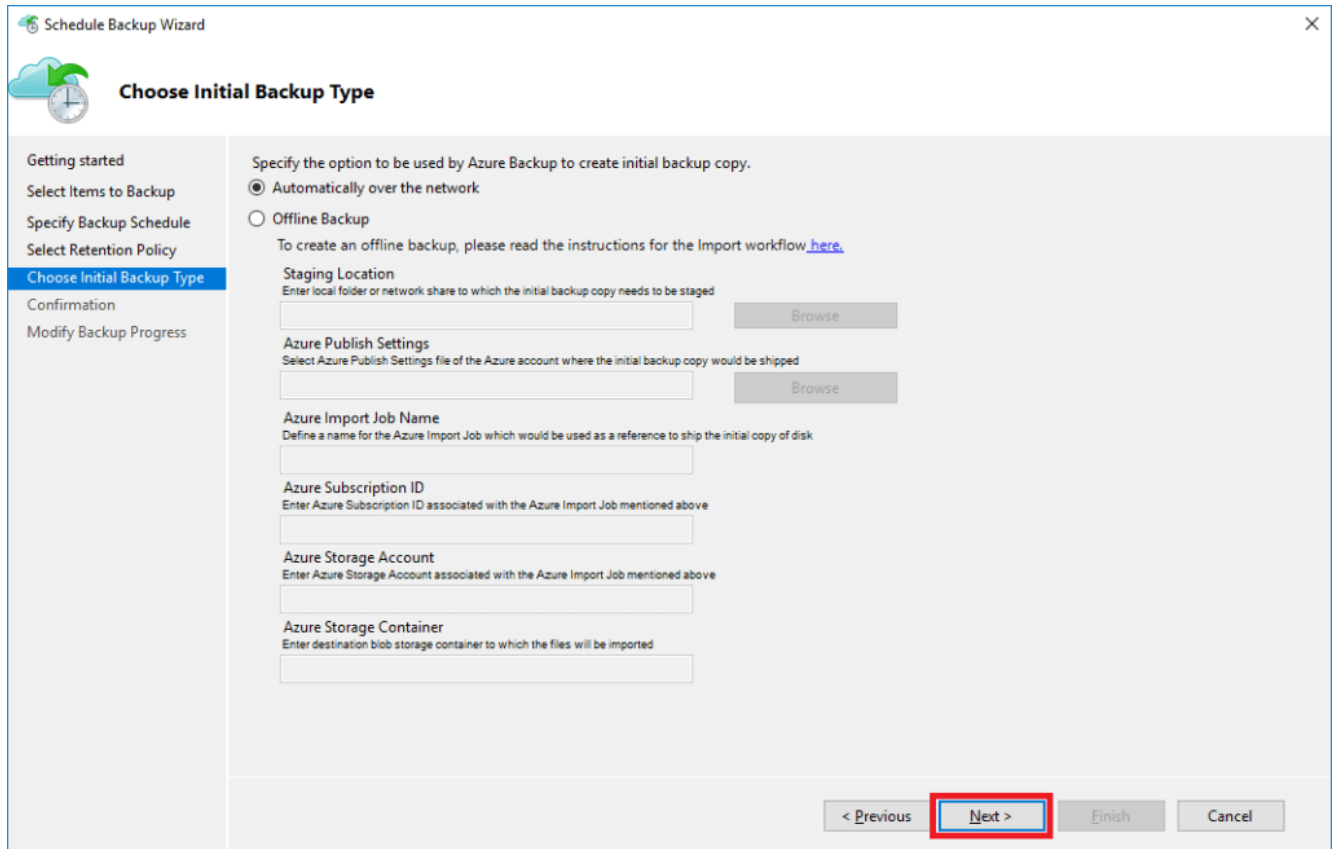
☒ **Weekly Retention Policy**  
Retain backup copies taken on Saturday Modify At ☒ 4:00 AM ☐ 12:30 PM for 104 Weeks

☒ **Monthly Retention Policy**  
Retain backup copies taken on ☒ Saturday of Last Week Modify At ☒ 4:00 AM ☐ 12:30 PM for 60 Months  
☐ On day(s) 1 Modify

☒ **Yearly Retention Policy**  
Retain backup copies taken on ☒ Saturday of Last Week of March Modify At ☒ 4:00 AM ☐ 12:30 PM for 10 Years  
☐ March 1 Modify

< Previous **Next >** Finish Cancel

Most of us will just choose to upload the backup directly from the server into the Azure cloud, however, some folks may choose to pre-seed the data in Azure by sending physical media (so that you only have to upload incremental changes over the wire). There is an offline option here with a link to further instructions, but otherwise just accept the default: **Automatically over the network. Next.**



**Schedule Backup Wizard**

**Choose Initial Backup Type**

Getting started  
Select Items to Backup  
Specify Backup Schedule  
Select Retention Policy  
**Choose Initial Backup Type**  
Confirmation  
Modify Backup Progress

Specify the option to be used by Azure Backup to create initial backup copy.

☒ Automatically over the network

☐ Offline Backup

To create an offline backup, please read the instructions for the Import workflow [here](#).

**Staging Location**  
Enter local folder or network share to which the initial backup copy needs to be staged

**Azure Publish Settings**  
Select Azure Publish Settings file of the Azure account where the initial backup copy would be shipped

**Azure Import Job Name**  
Define a name for the Azure Import Job which would be used as a reference to ship the initial copy of disk

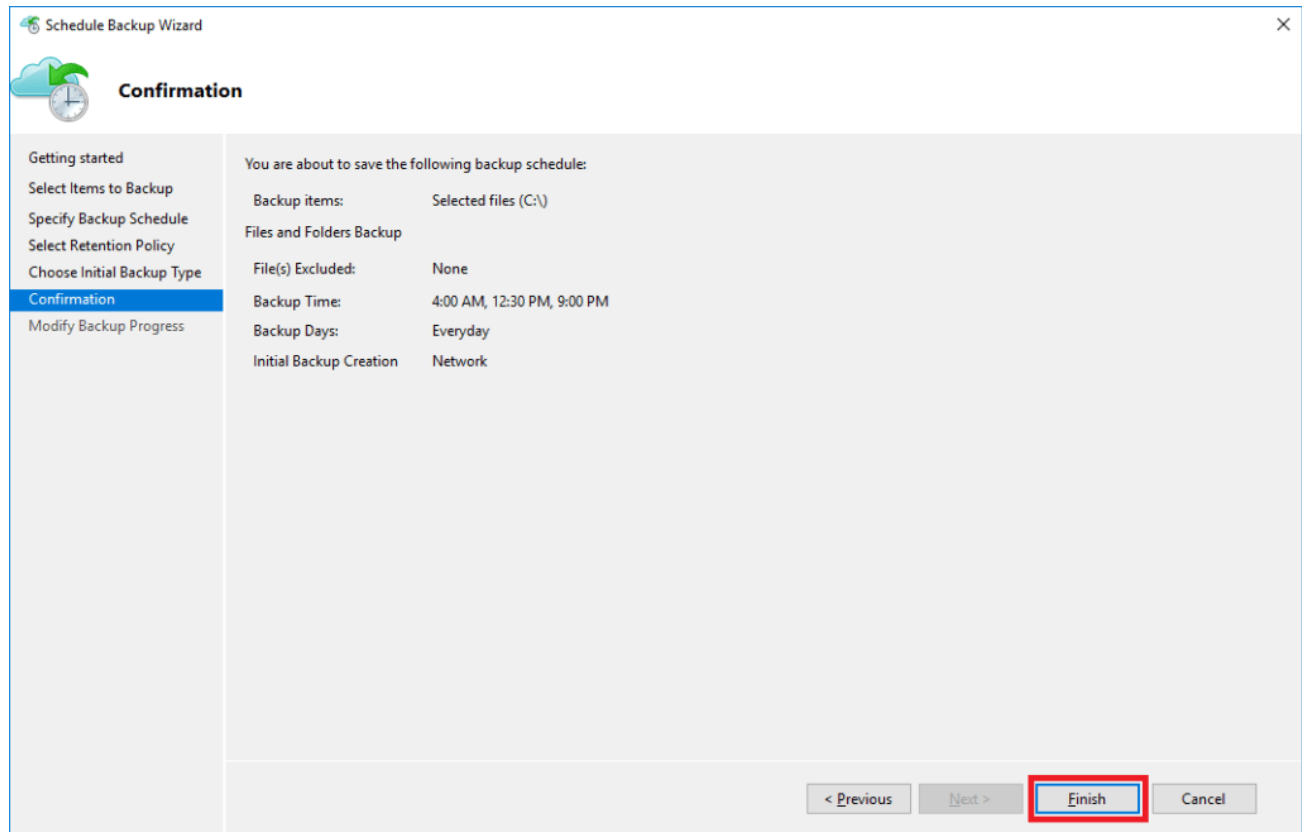
**Azure Subscription ID**  
Enter Azure Subscription ID associated with the Azure Import Job mentioned above

**Azure Storage Account**  
Enter Azure Storage Account associated with the Azure Import Job mentioned above

**Azure Storage Container**  
Enter destination blob storage container to which the files will be imported

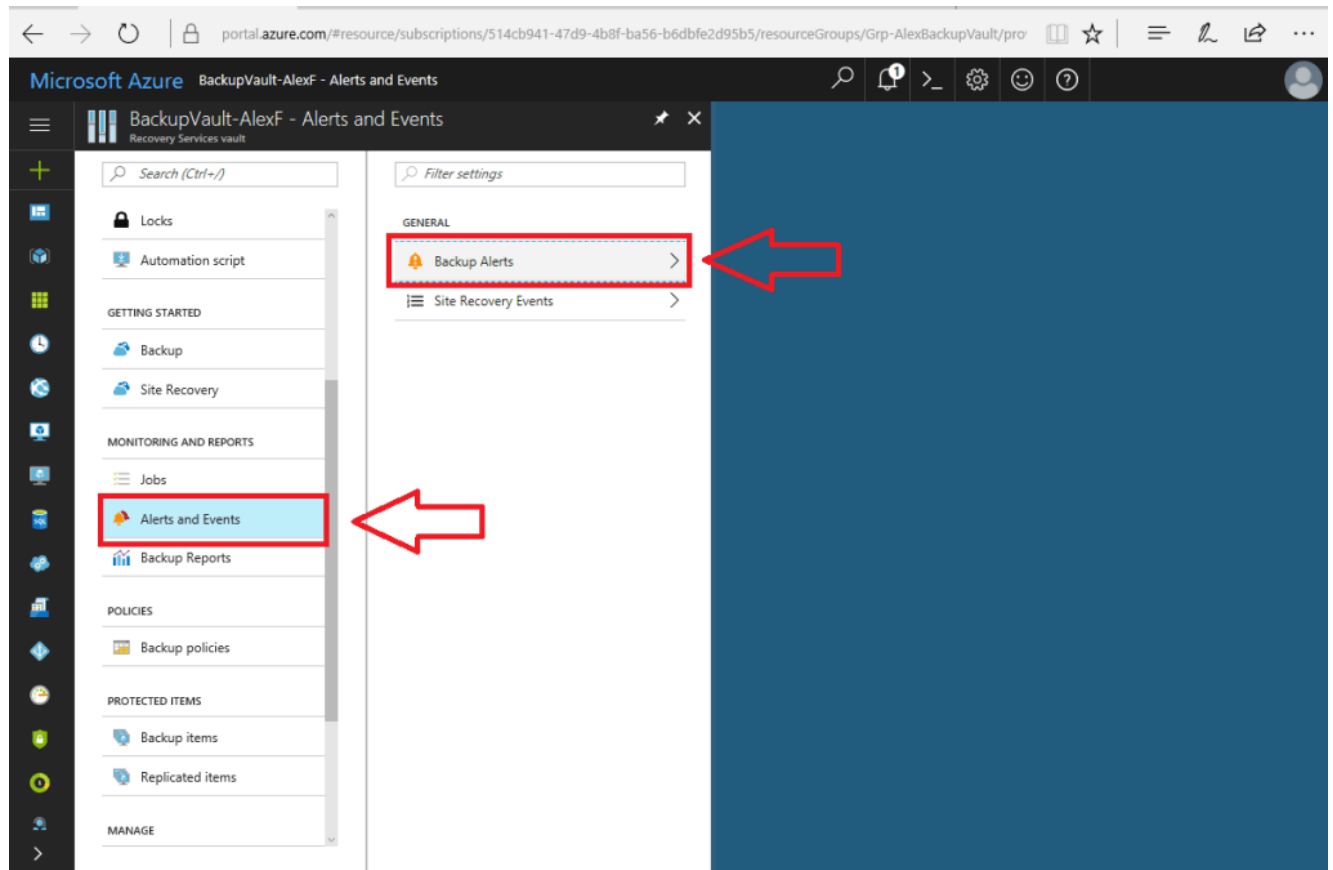
< Previous **Next >** Finish Cancel

And just like that, you're done. Review your selections and click Finish.

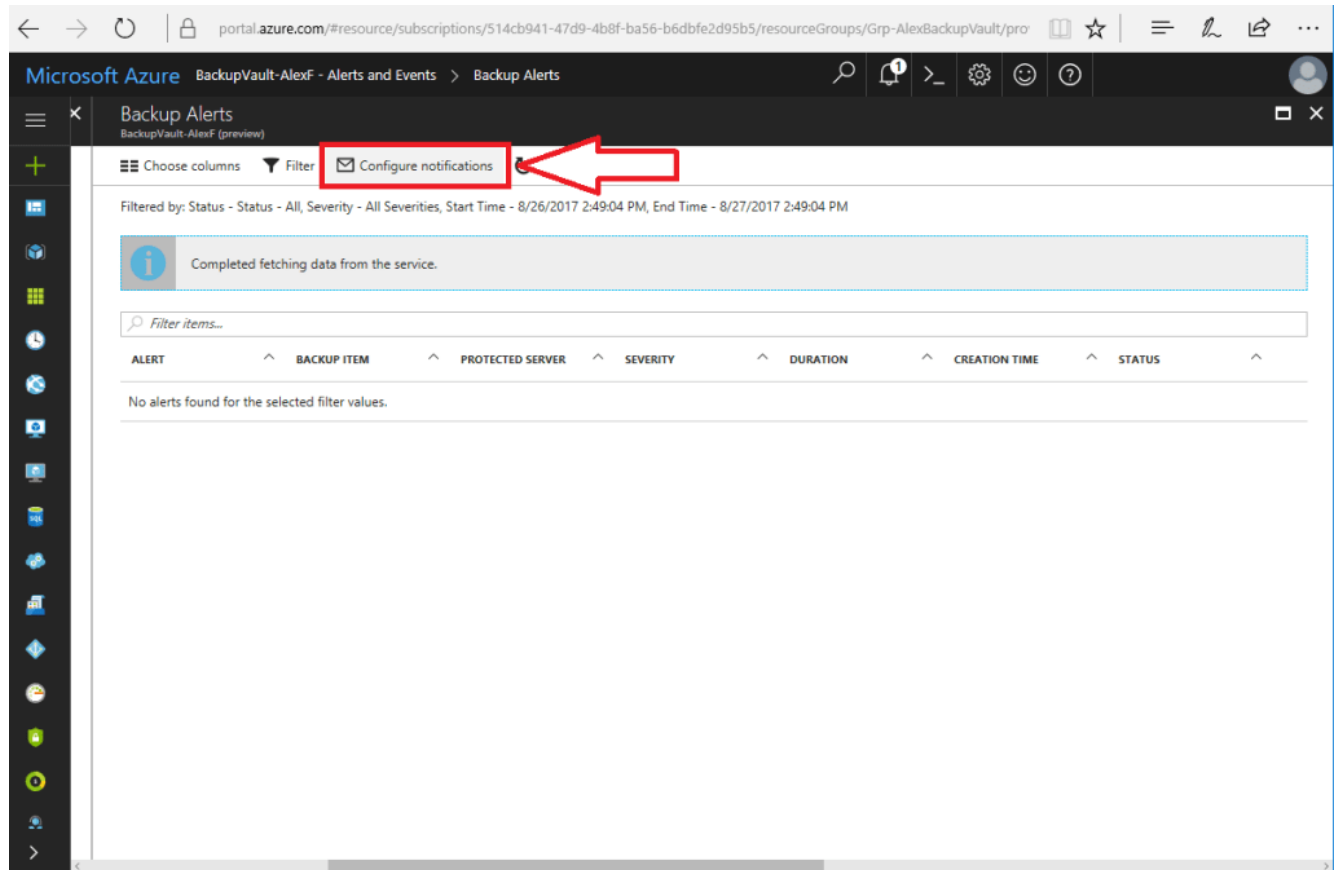


## Setup Notifications

You might want to setup notifications on your backup jobs. Return to your Azure Recovery Vault in the Azure Portal. Scroll down to find **Alerts and Events**. Then click on **Backup Alerts**.

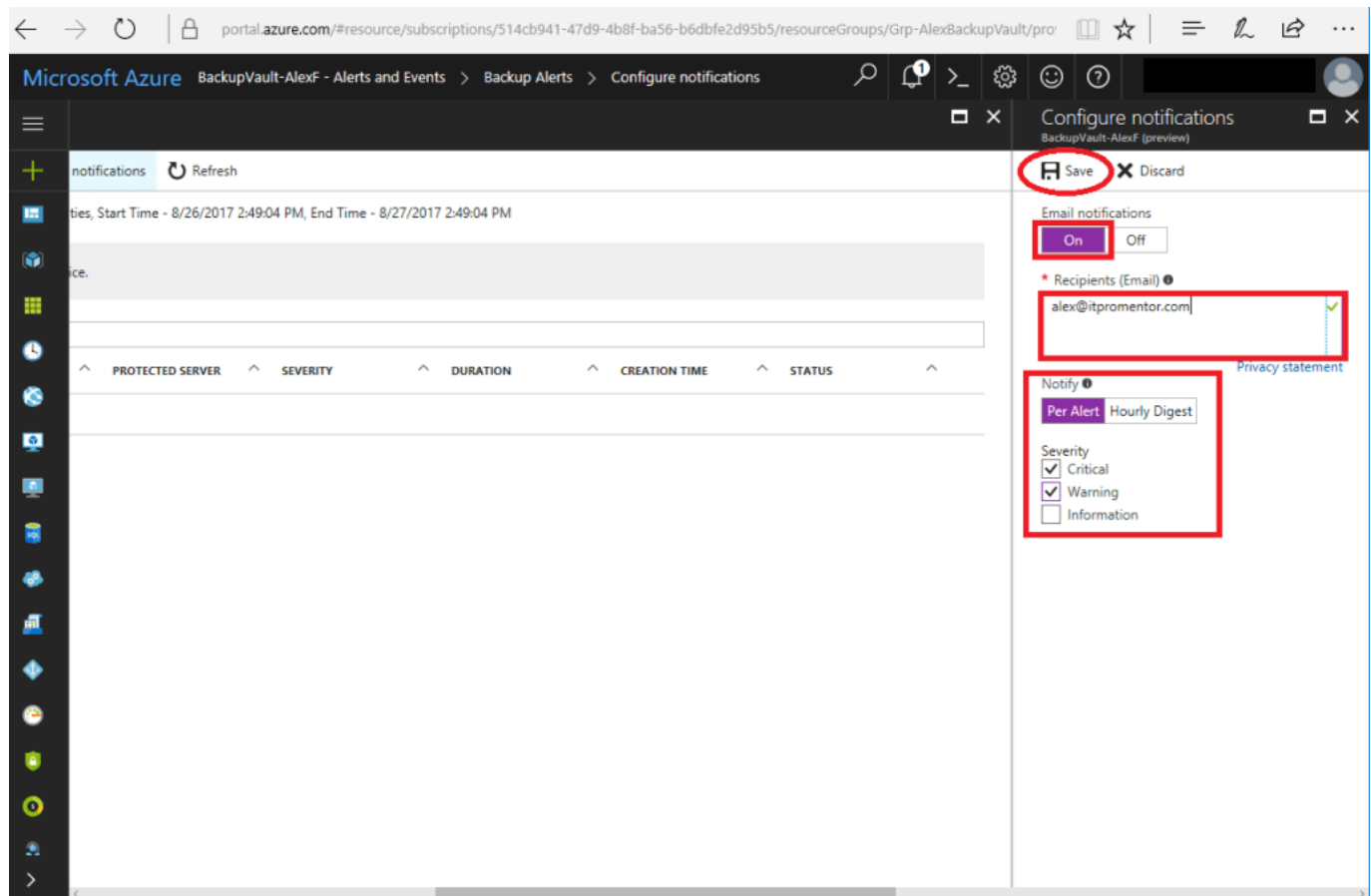


On this next page, just click **Configure Notifications**.

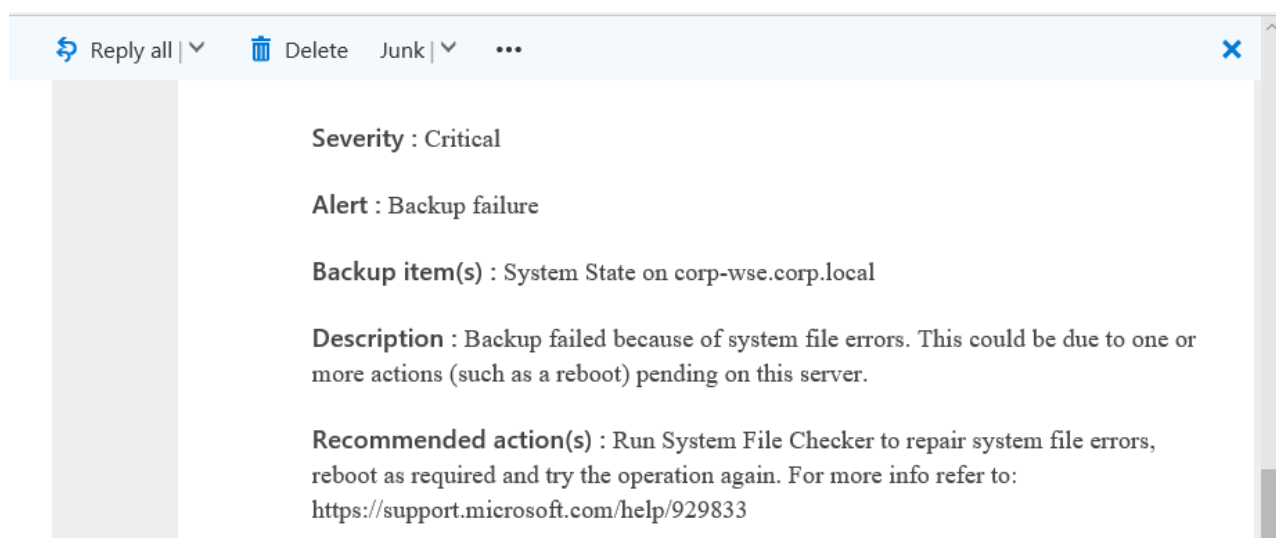


Now pick the settings appropriate to your need, and **Save** at the top.





All done. See below for an example of a notification alert which I have received on this backup agent.

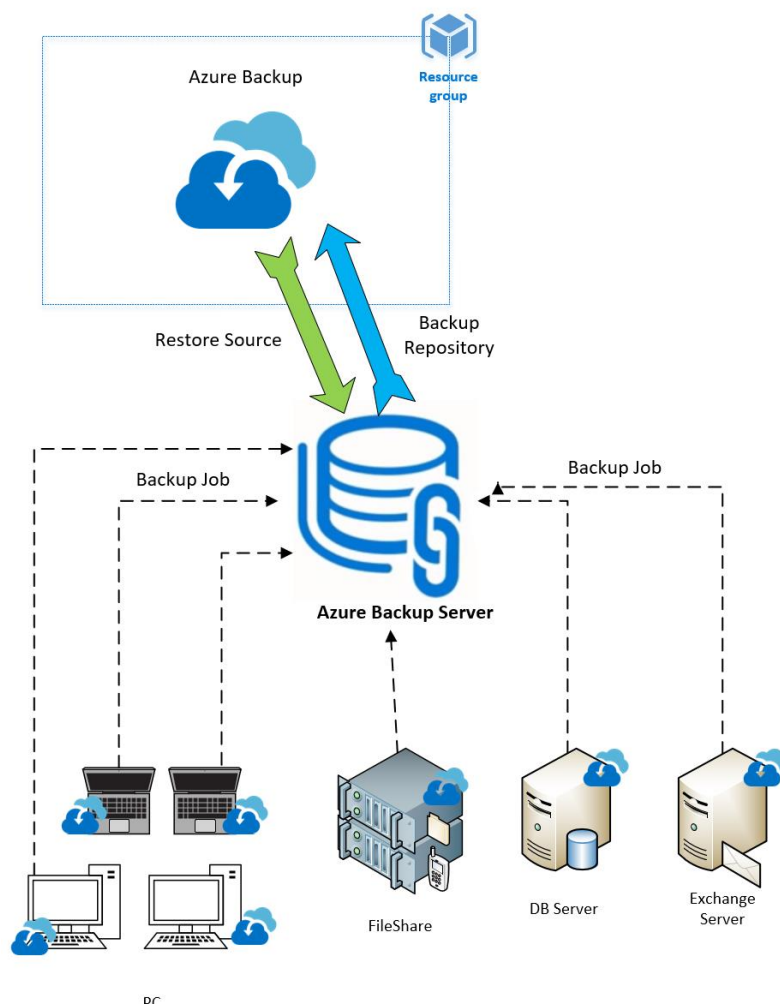


## 2. Azure Notions



### Infrastructure Design Overview of Azure Backup

#### Azure Backup OnPrem to Azure



## Azure Backup Azure

