

AZURE BACKUP: NOTES FROM THE FIELD VLADIMIR STEFANOVIC #ntk19

Always Take Backup of Backup



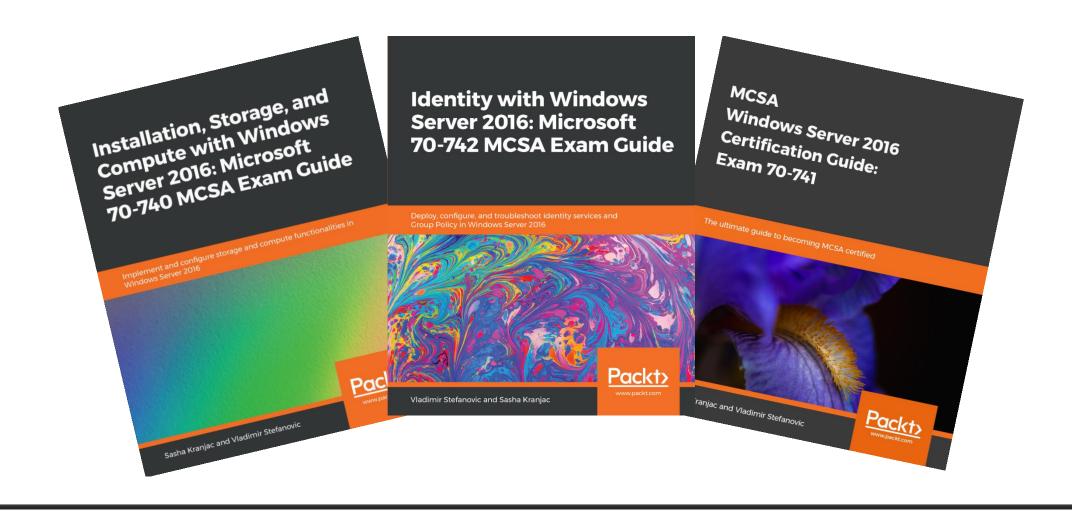


WHO AM I

- Vladimir Stefanović
- Lead System Engineer @ SUPERADMINS
- 10+ years of experience
- MCT, MCSE, Office365, Azure Architect, and more certificates
- Book author, conference speaker, technical trainer and Azure UG Leader
- www.tech-trainer.info
- @wladinho31



MY BOOKS – MCSA 2016 EXAM GUIDE



AGENDA

- Azure Backup features
- Azure Backup components
- Backup Azure workload Azure VM and Azure File Share
- On-premise backup with Azure Backup
- Demo Azure workload
- Demo On-premise workload

AZURE BACKUP FEATURES

- Microsoft implementation of cloud backup solution
- Azure Backup features
 - There is no cost for using on-premises storage *
 - There are no maintanance or monitoring. Azure Backup is PaaS *
 - Multiple storage options are supported (LRS, GRS)
 - Azure Backup doesn't limit or charge for the amount of data you transfer, except if you use the Import/Export service to import large amounts of data
 - Data encryption securely transmit and store your data in the public cloud
 - Application-consistent backup guarantee you that a recovery point has all required data to restore the backup copy
 - Azure Backup has a limit of 9999 recovery points per protected instance

AZURE BACKUP COMPONENTS (1)

- Azure Backup (MARS) agent
 - Backup files, folders and System State on Windows OS
 - Max 3x per day
 - No Linux support, no application-aware support
- System Center DPM
 - Application-aware backup and granular restore
 - Back up and restore VMware VMs using DPM 2012 R2
 - Linux support on Hyper-V and VMware VMs
 - Cannot backup Oracle databases

AZURE BACKUP COMPONENTS (2)

- Azure Backup Server (System Center DPM with limited features)
 - Application-aware backup and granular restore
 - Back up and restore VMware VMs
 - Linux support on Hyper-V and VMware VMs
 - Doesn't require a System Center license, but requires live Azure subscription
 - No support for tape backup, no support for Oracle databases
- Azure IaaS VM backup
 - Application-aware backup
 - Native backups for Windows/Linux
 - No agent installation required, no backup infrastructure needed

BACKUP AZURE WORKLOAD – AZURE VM

- What you need before start
 - Azure virtual machines
 - Recovery services vault
- What can be backed up
 - Azure VMs, Windows and Linux
 - Azure SQL VM (preview)
- What can be restored
 - Complete virtual machine
 - Virtual machine disk(s)
 - Files from virtual machine

BACKUP AZURE WORKLOAD – AZURE FILES

- RA-GRS Azure file shares cannot be protected
- Azure file shares that have Virtual Networks or Firewall enabled cannot be protected
- Scheduled backups is limited to 1x per day, on-demand 4x per day
- Do not delete snapshots created by Azure Backup. Deleting snapshots can result in loss of recovery points
- Do not delete file shares that are protected by Azure Backup. The current solution will delete all snapshots taken by Azure Backup once the file share is deleted and hence lose all restore points

ON-PREMISE BACKUP WITH AZURE BACKUP

- Azure backup can be used for on-premise backup
 - Hyper-V environment
 - Vmware environment
 - Single physical or virtual machine using agent
- For virtualized environment (Hyper-V and Vmware), you need:
 - Valid Azure subscription and Recovery Services vault
 - Domain environment
 - System Center DPM or Azure Backup Server (DPM with limited features)
 - Enough storage for backup on local disks (1.5x of data size)

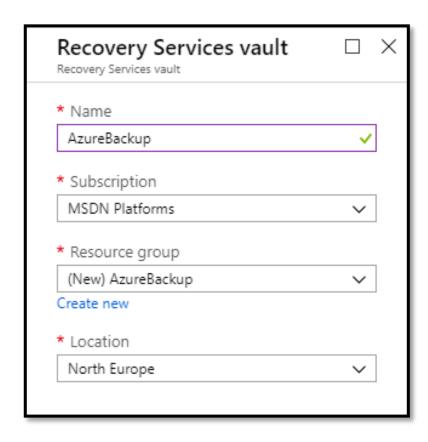
AZURE BACKUP SERVER V3

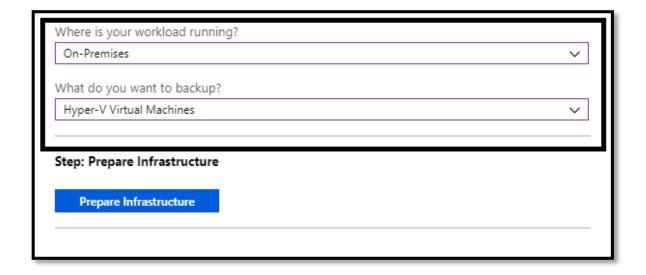
- Prerequisites
 - **Supported OS**: Windows Server 2016 or Windows Server 2019
 - **Processor**: Minimum: 1 GHz, Recommended: 2.33 GHz
 - RAM: Minimum: 8GB, Recommended: 10GB
 - Hard Drive Space: Minimum 5GB, Recommended 10GB
 - Local disk for backup: 1.5 times size of data to be protected
 - Hyper-V PowerShell need to be installed
 - **MABS** must be domain joined machine

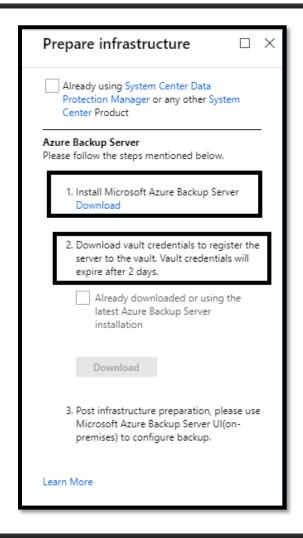


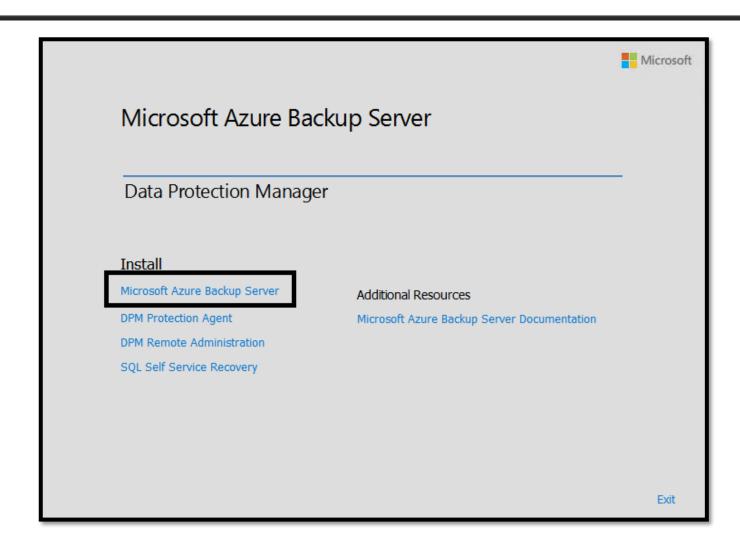


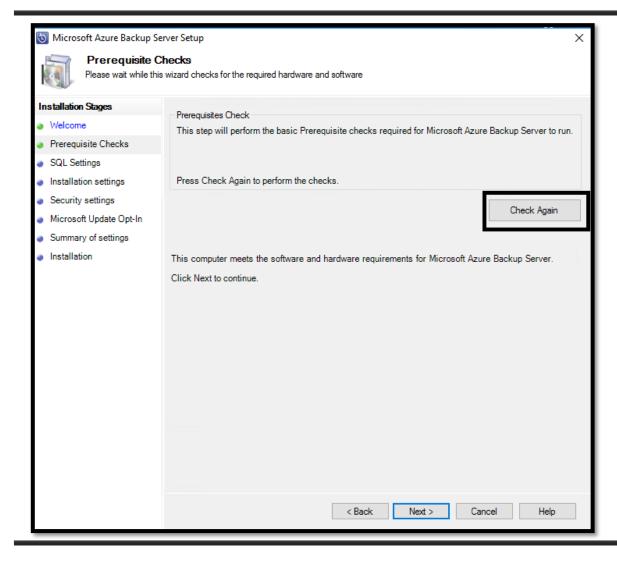
PREPARING AZURE ENVIROMENT

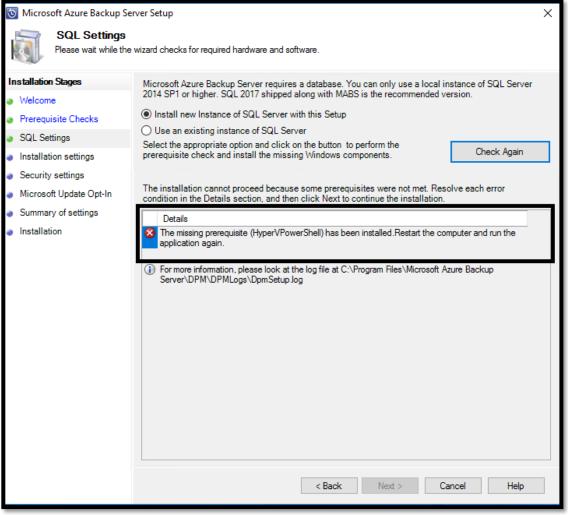


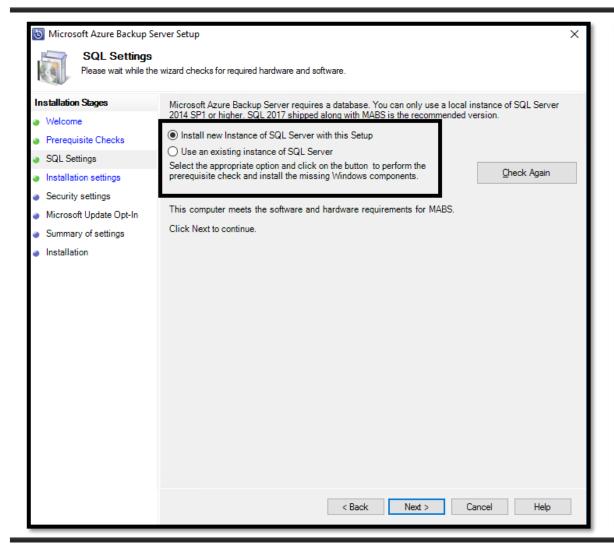


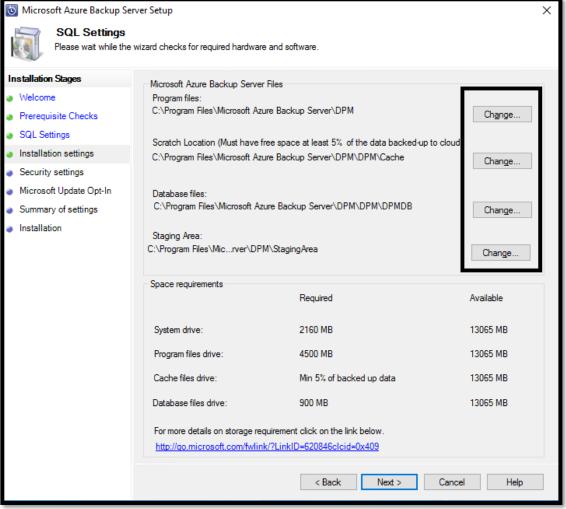


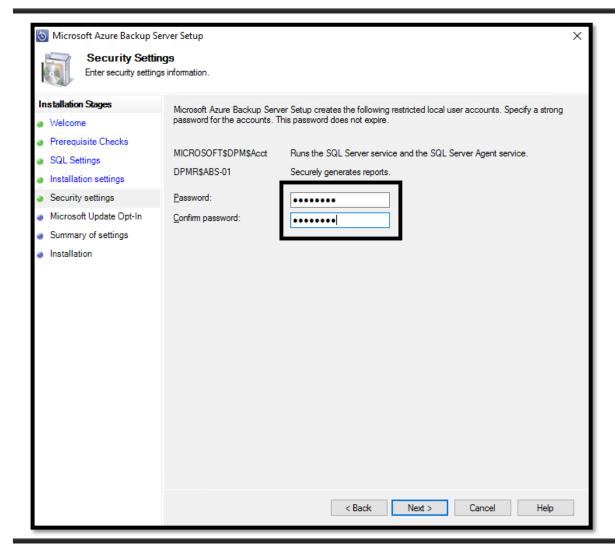


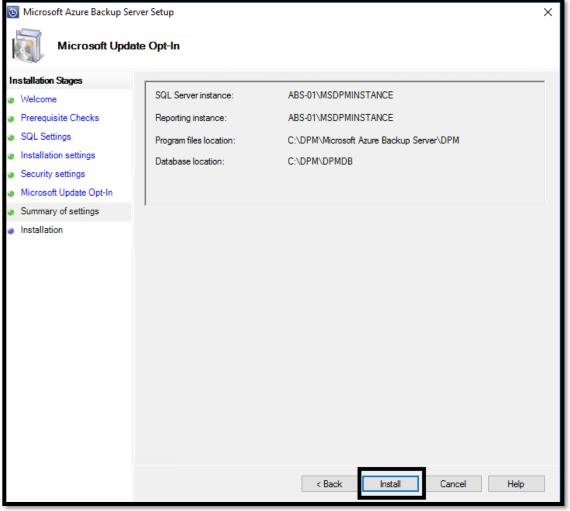


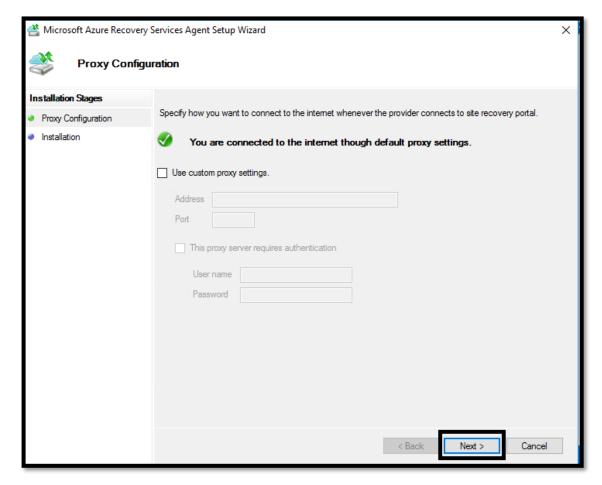


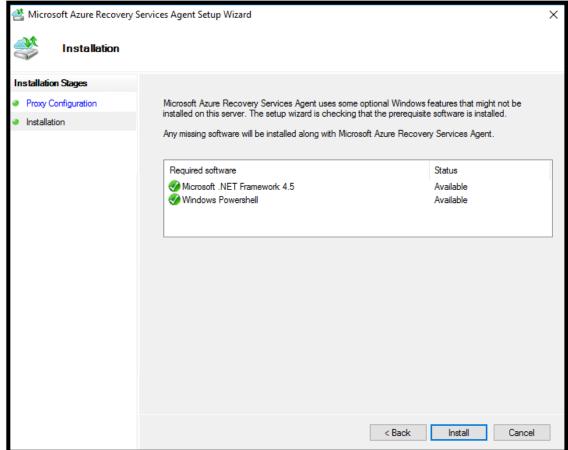


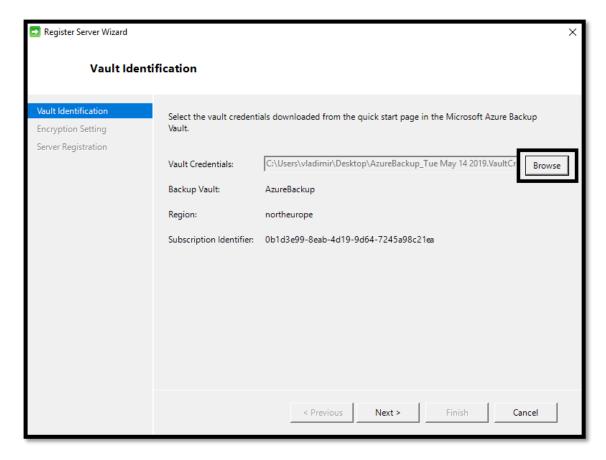


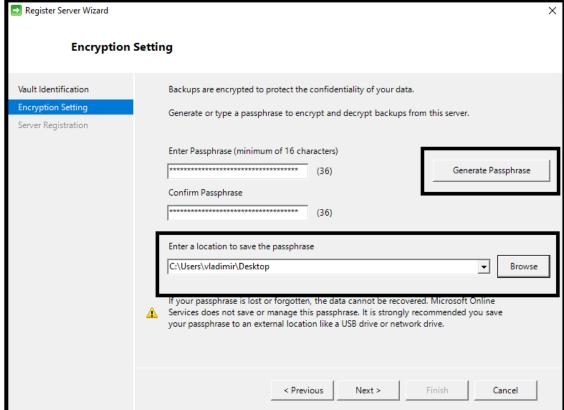


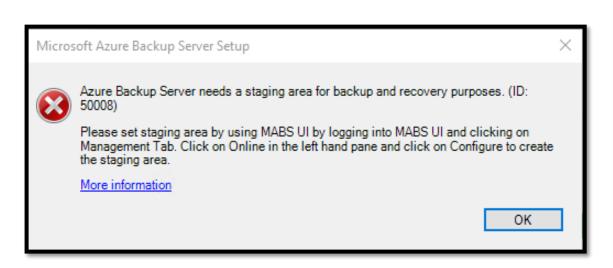


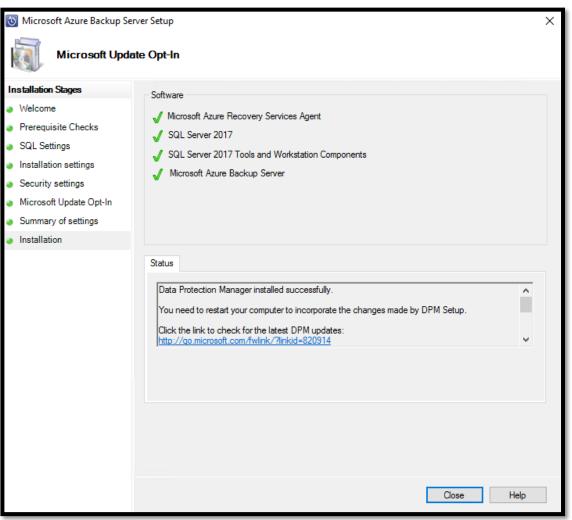




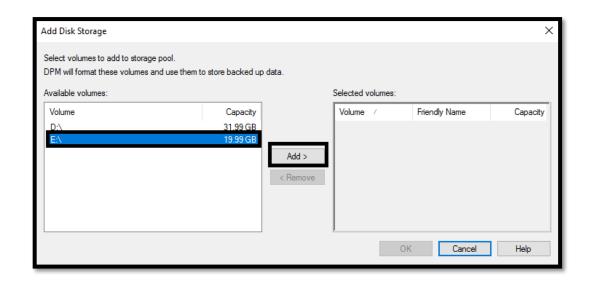








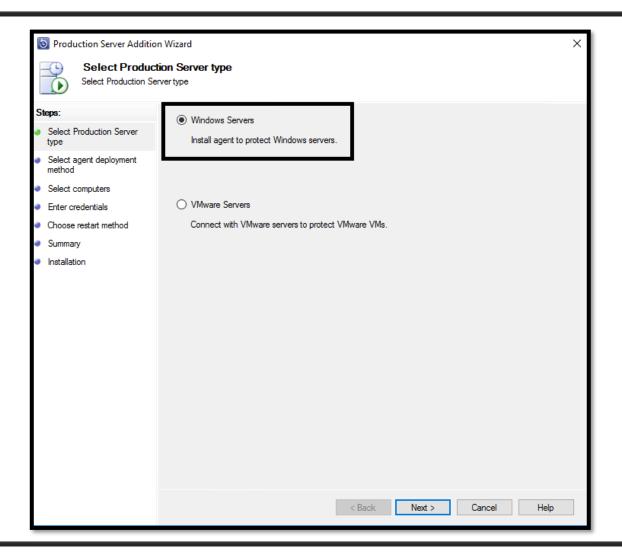


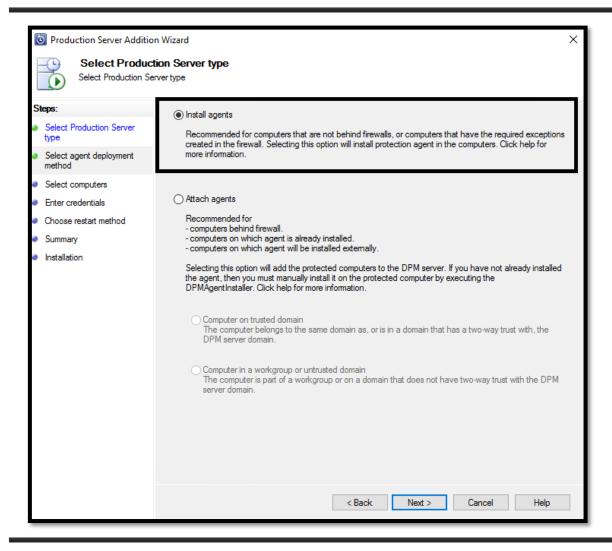


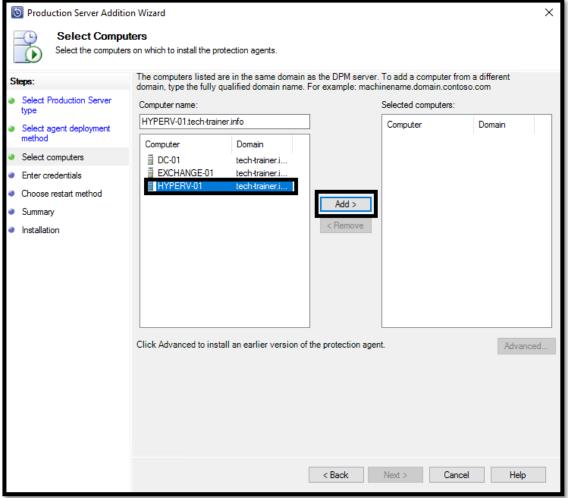


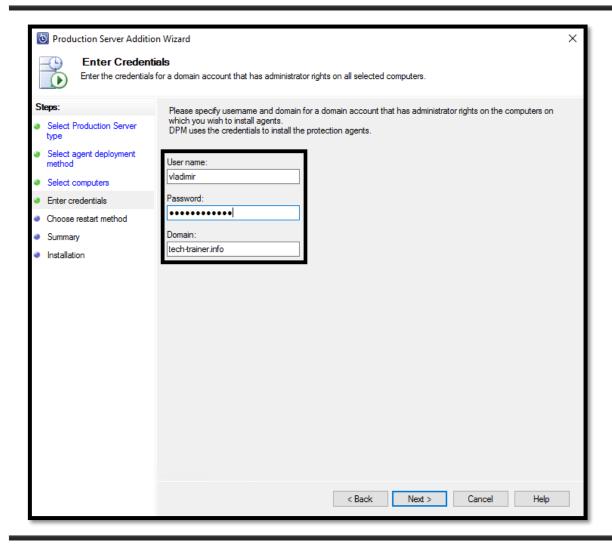


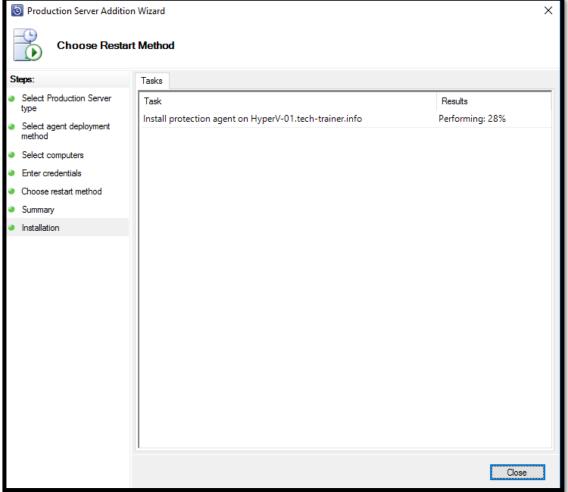


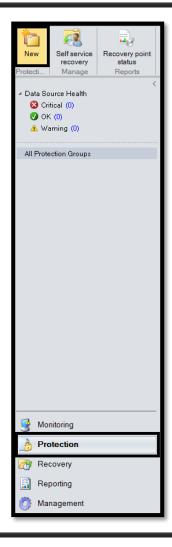


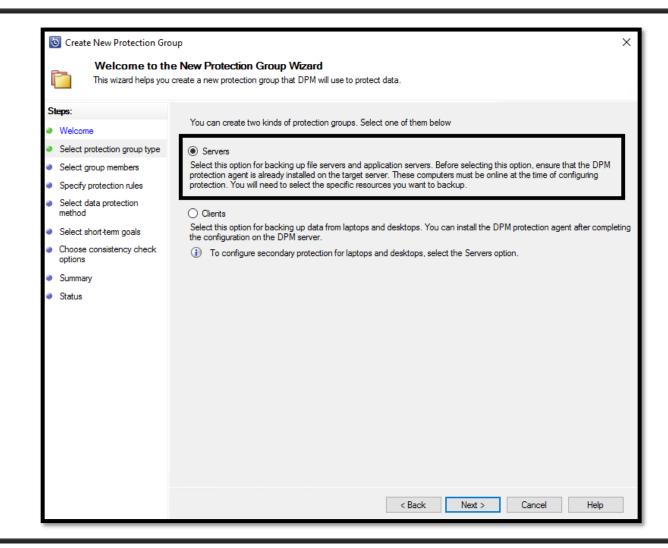


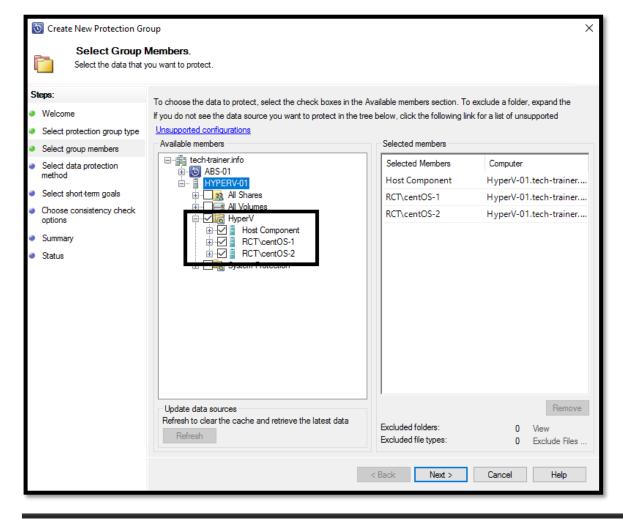


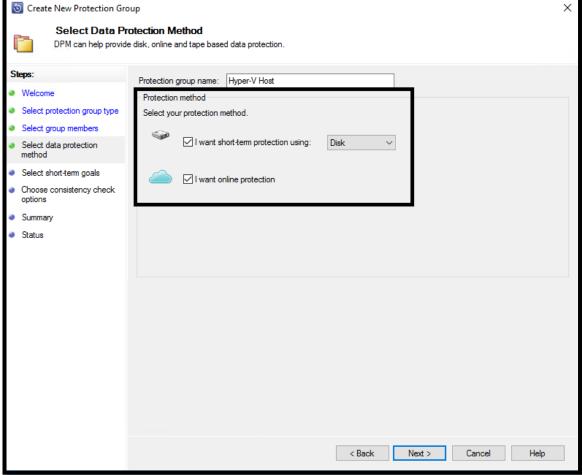


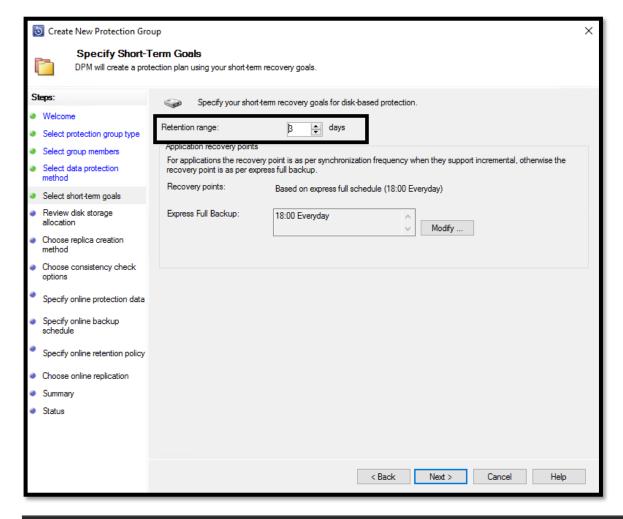


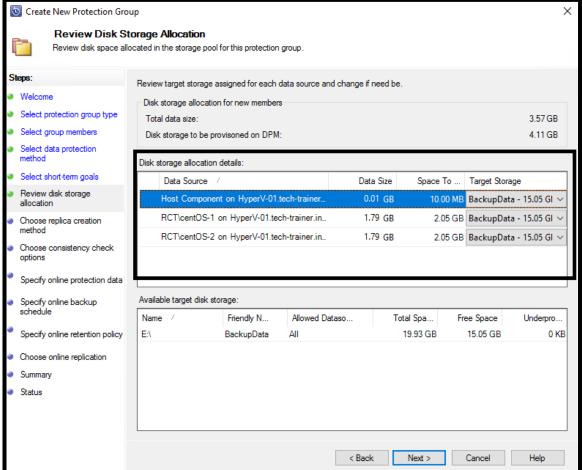


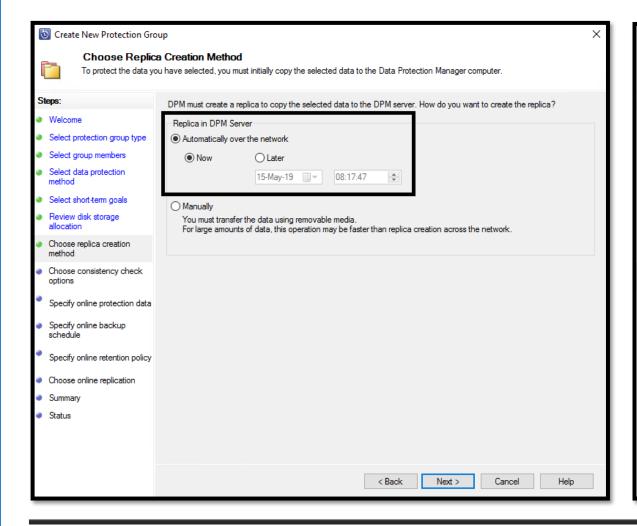


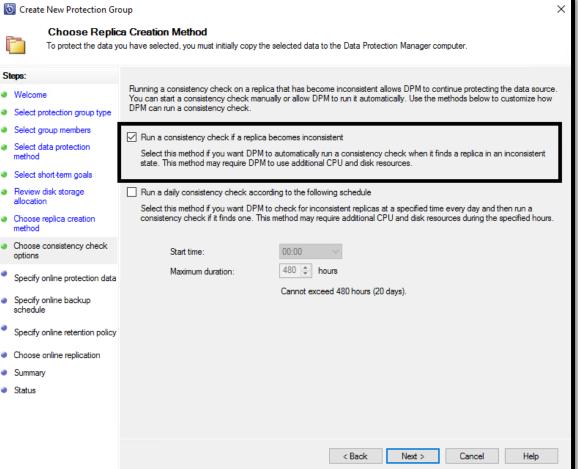


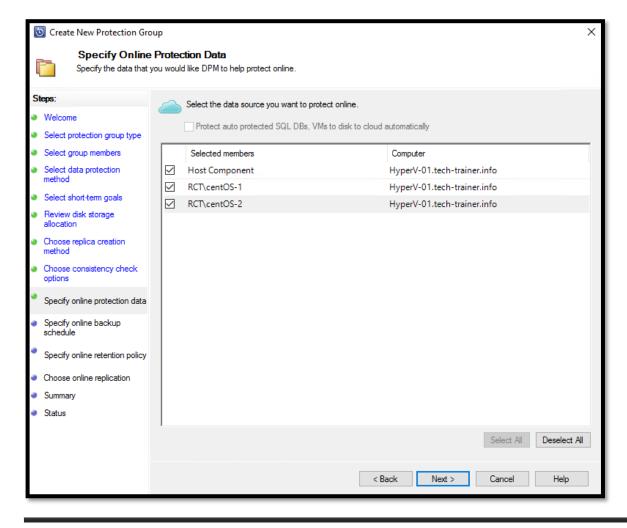


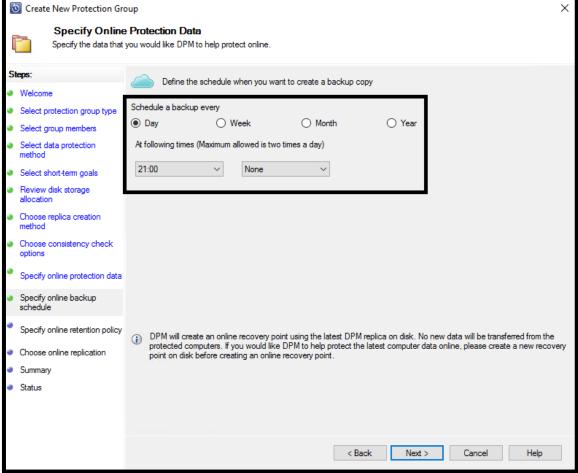


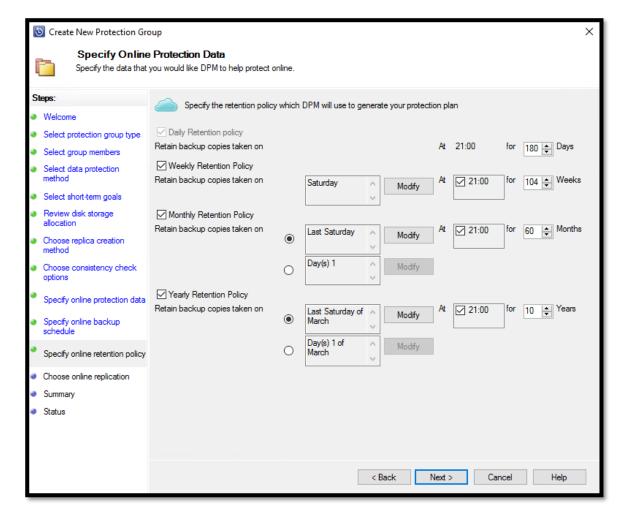


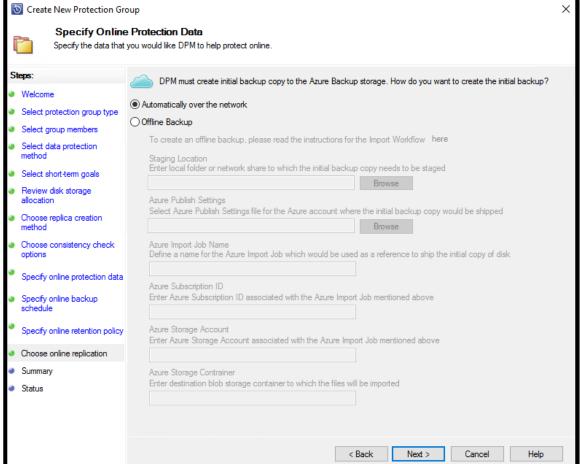


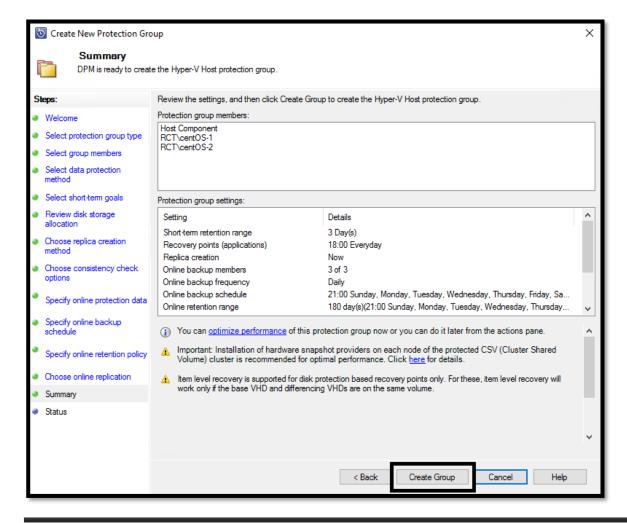


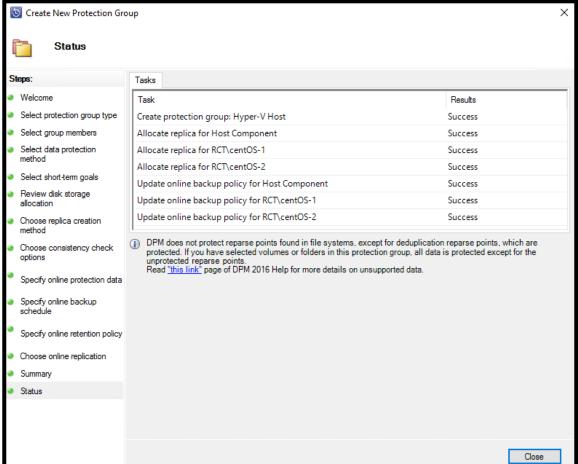












WHAT WE CAN DO IF ABS DIES?

- If Azure Backup Server is on Azure VM, you can use Azure Backup ©
- Azure Backup agent cannot be installed on Azure Backup Server
- 3rd party backup solution
- You need to perform magic:
 - Backup SQL databases
 - Remove "old" Azure Backup Server from portal
 - Re-install Azure Backup Server on new machine with same backup vault
 - Restore SQL databases

RECAP

- Azure Backup features
- Azure Backup components
- Backup Azure workload Azure VM and Azure File Share
- On-premise backup with Azure Backup
- Demo Azure workload
- Demo On-premise workload



OR YOU NEED A BREAK FROM ME ©