AZ-104 : Backup & Disaster Recovery Implementation

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Cloud Platform: Microsoft Azure

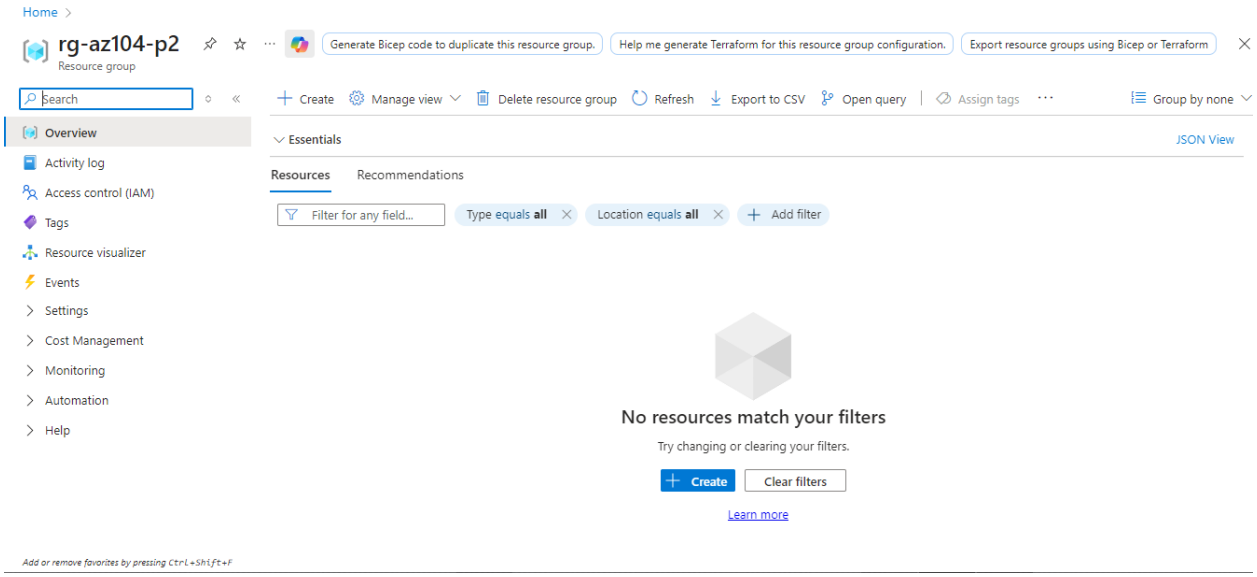
Overview

This Project demonstrates a complete Azure Backup and Disaster Recovery implementation, aligning with the AZ-104 Administrator certification objectives. It simulates a real-world scenario where an organization must protect virtual machines and ensure business continuity in case of failure or accidental data loss.

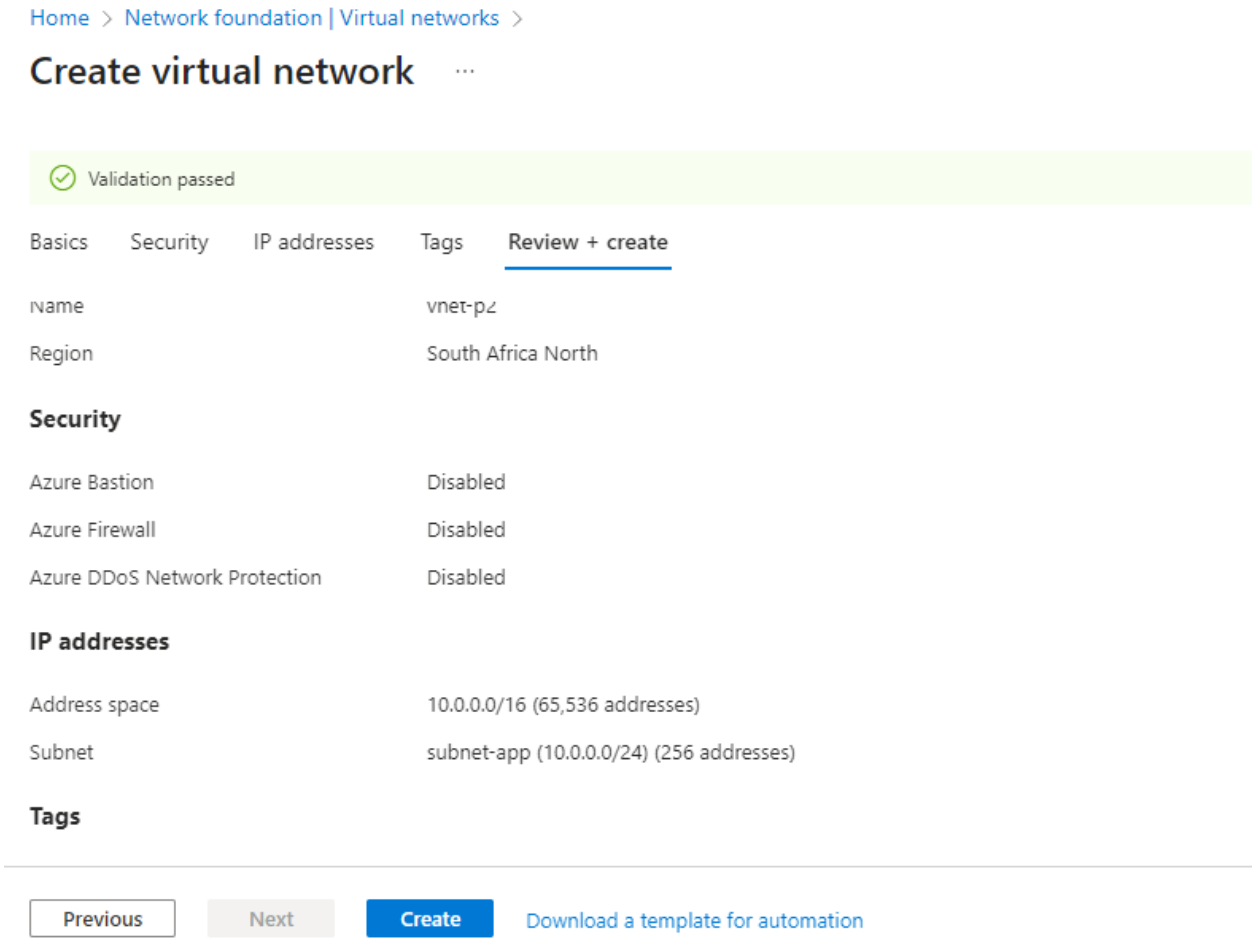
Problem Statement

Organizations face the risk of data loss and service downtime due to accidental deletion, corruption, or regional failures. The challenge is to design and implement a resilient Azure backup and recovery strategy that protects workloads and allows rapid restoration with minimal data loss (RPO) and downtime (RTO). This project addresses those needs using Azure Recovery Service Vault, Backup Policies, and Restore operations.

Step 1: Create a Resource Group
To group all related resources



Step 2: Create Virtual Network & Subnet
Set up a Vnet and subnet for network isolation



Step 3: Create Virtual Machine
To simulate production workloads.

Home > Compute infrastructure | Virtual machines >

Create a virtual machine

Help me choose the right VM size for my workload | Help me create a VM optimized for high availability | Help m

Validation passed

Help me create a low cost VM | Help me create a VM optimized for high availability | Help me choose the right VM size for my workload

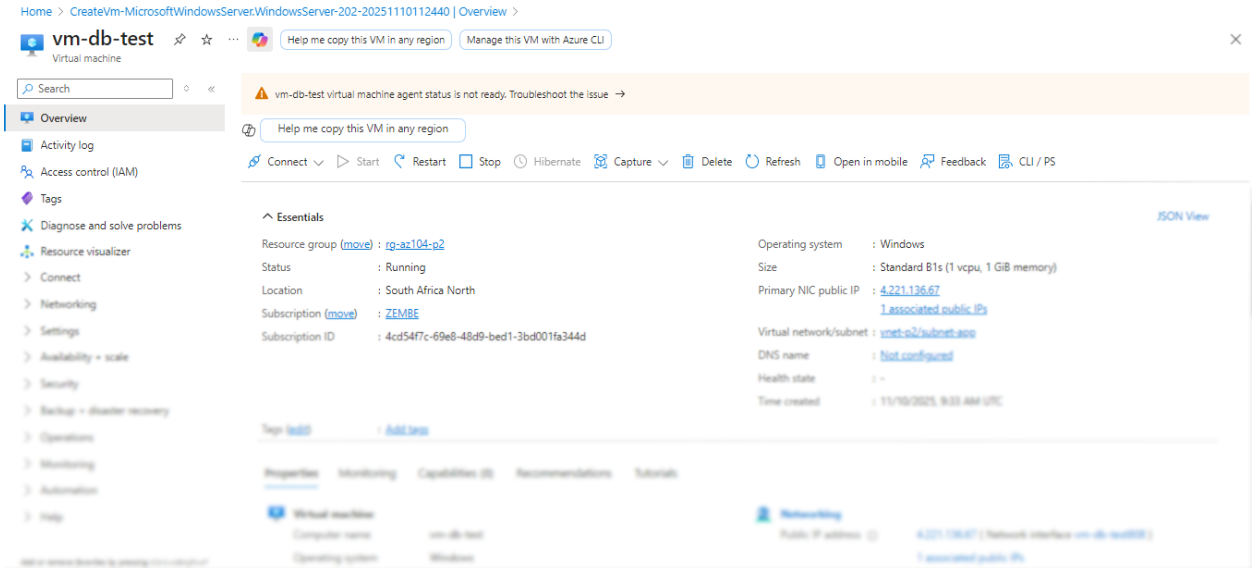
Basics

Subscription	ZEMBE
Resource group	rg-az104-p2
Virtual machine name	vm-db-test
Region	South Africa North
Availability options	No infrastructure redundancy required
Zone options	Self-selected zone
Security type	Trusted launch virtual machines
Enable secure boot	Yes
Enable vTPM	Yes
Integrity monitoring	No
Image	Windows Server 2025 Datacenter - Gen2
VM architecture	x64
Size	Standard B1s (1 vcpu, 1 GiB memory)
Enable Hibernation	No
Username	zembe
Public inbound ports	RDP
Already have a Windows license?	No
Azure Spot	No

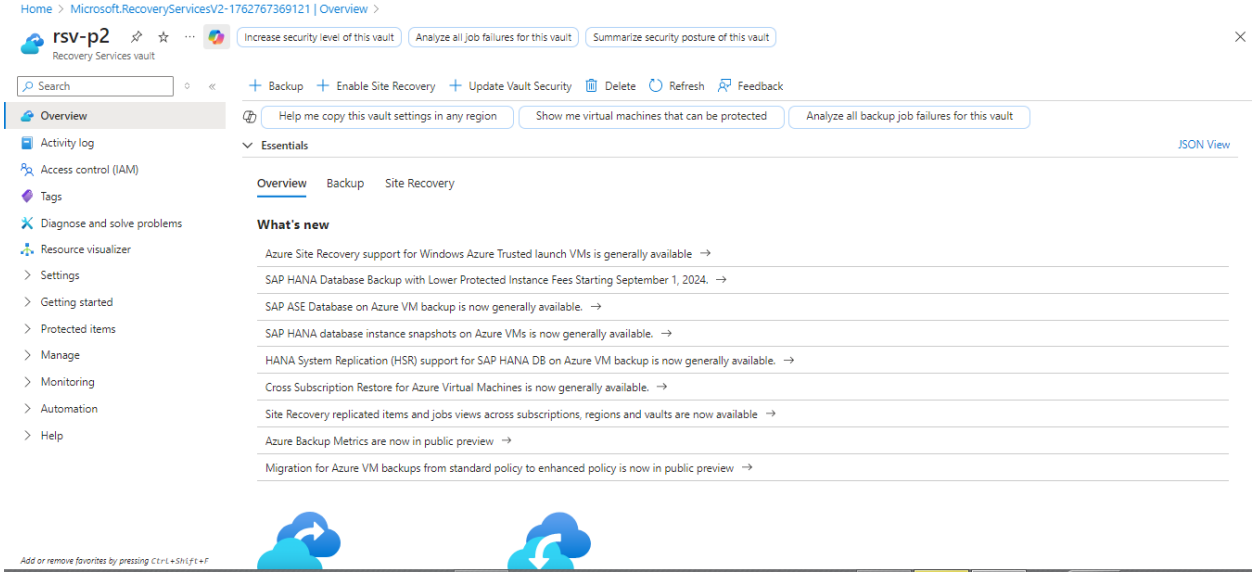
< Previous | Next > | Create

Networking

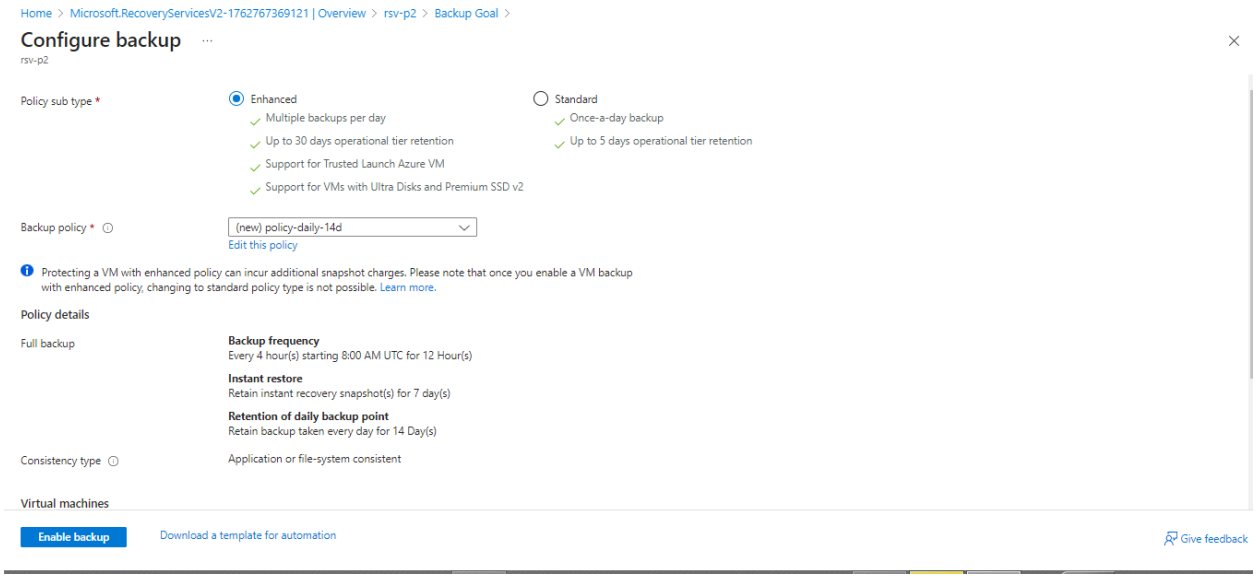
Virtual network	vnet-p2
Subnet	subnet-app
Public IP	(new) vm-db-test-ip
Accelerated networking	Off
Place this virtual machine behind an existing load balancing solution?	No
Delete public IP and NIC when VM is deleted	Disabled



Step 4: Create (RSV) Recovery Service Vault
To store and manage backups.

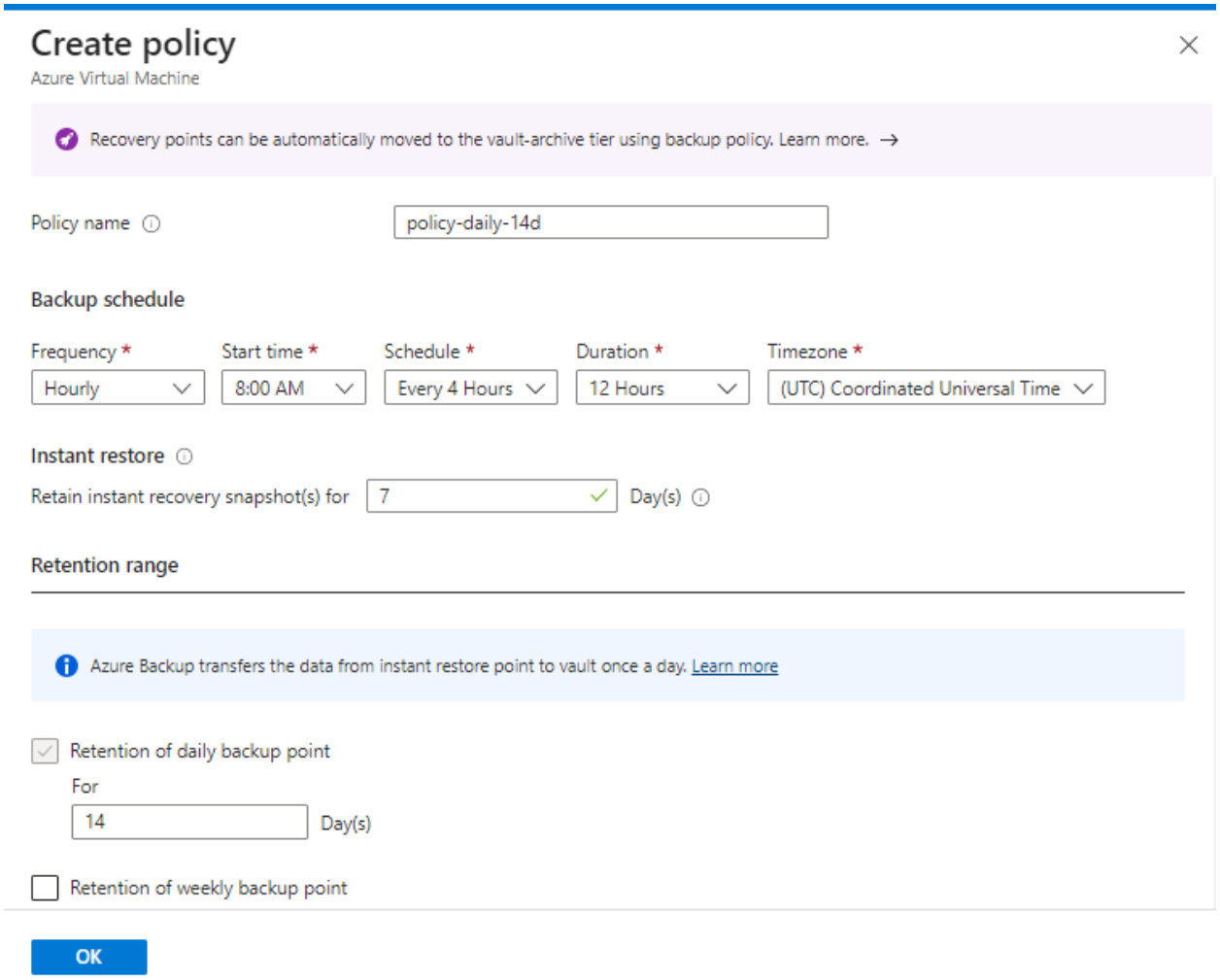


Step 5: Configure Backup Goal and Discovery VM
Set up backup goal for protection

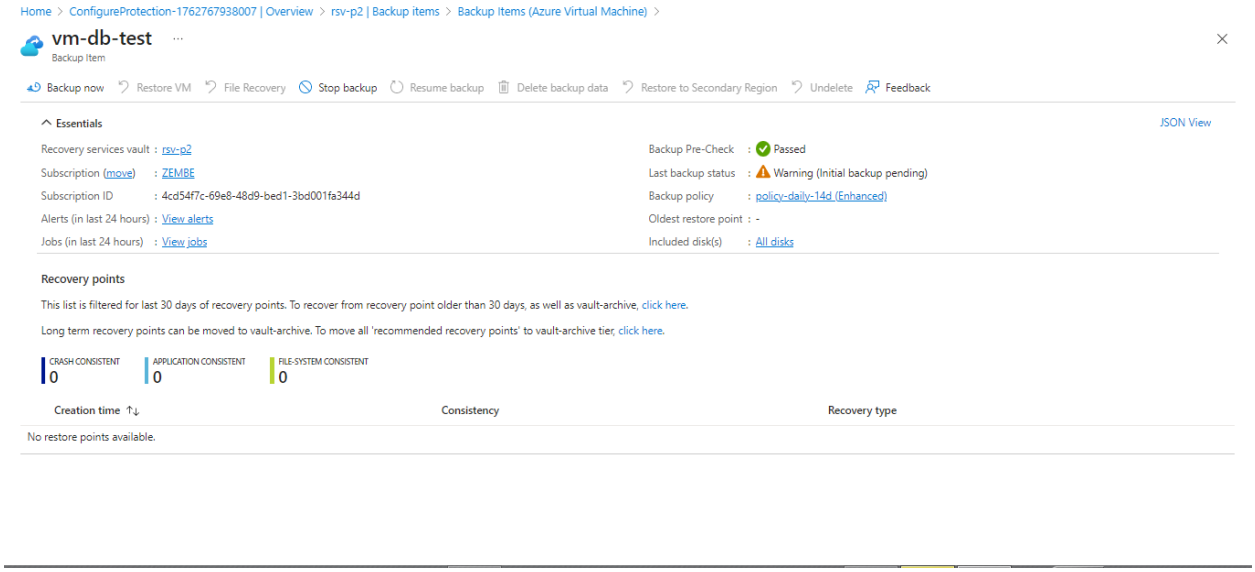


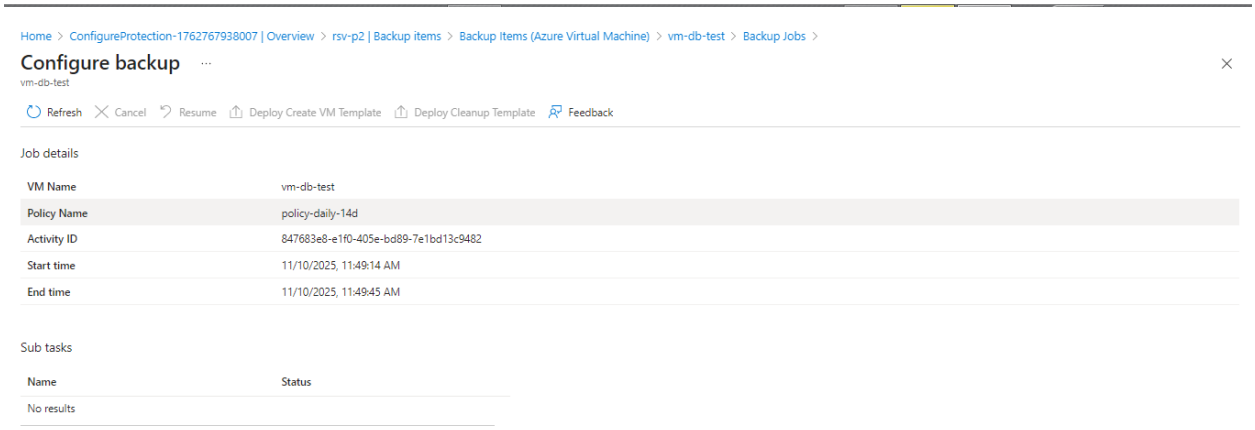
Step 6: Apply Backup Policy

Configure daily backup policy with 14-day retention.

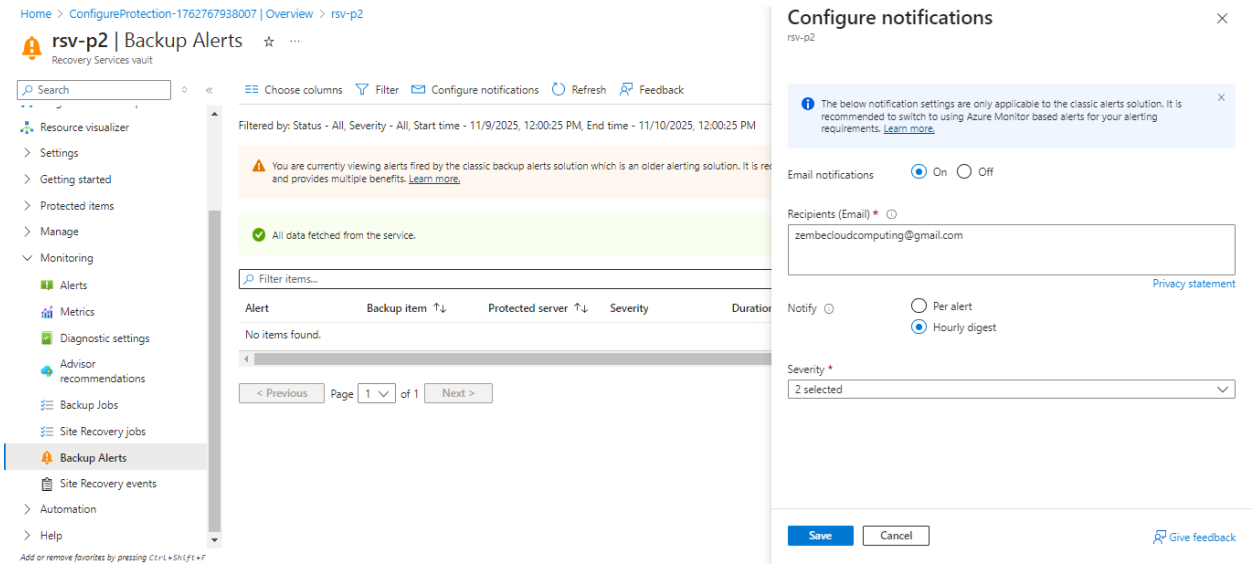


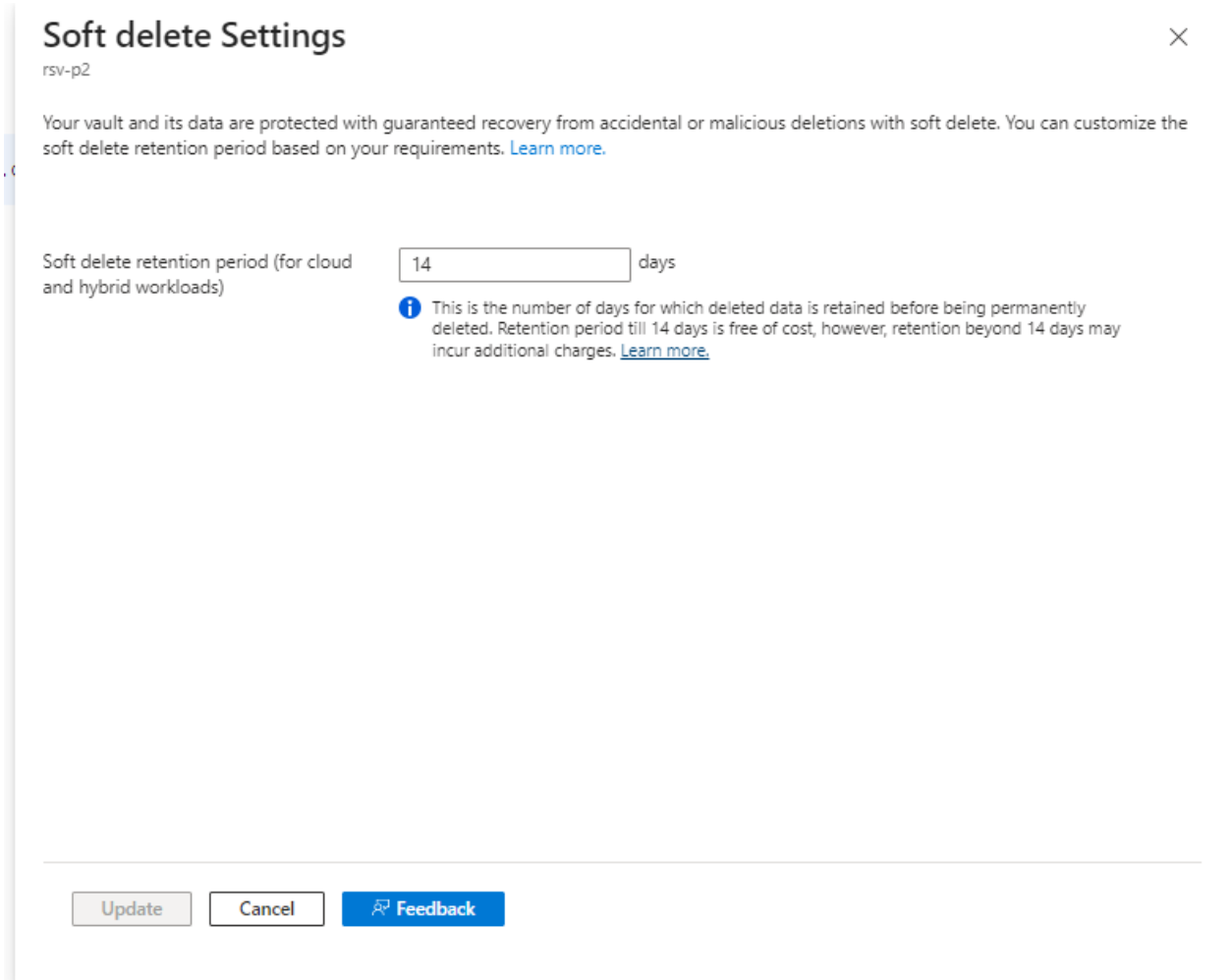
Step 7: Enable and run manual backup
Enable protection on vm-db-test



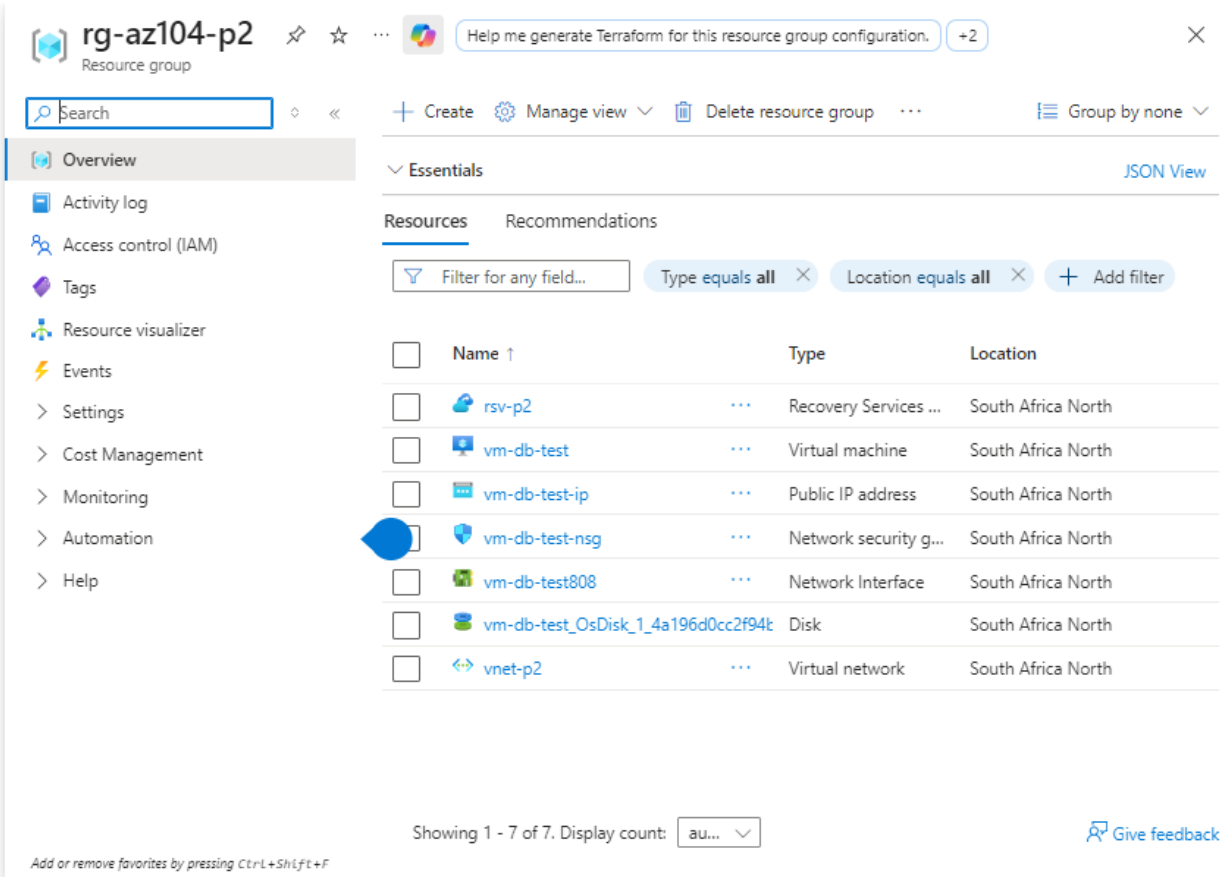


Step 8: Validate Recovery points
(NO SNAP TAKEN)
Step 9: Restore Virtual Machine
(NO SNAP TAKEN)
Step 10: Configure Alerts & Soft Delete
Enabled email alerts and soft delete to prevent accidental loss.

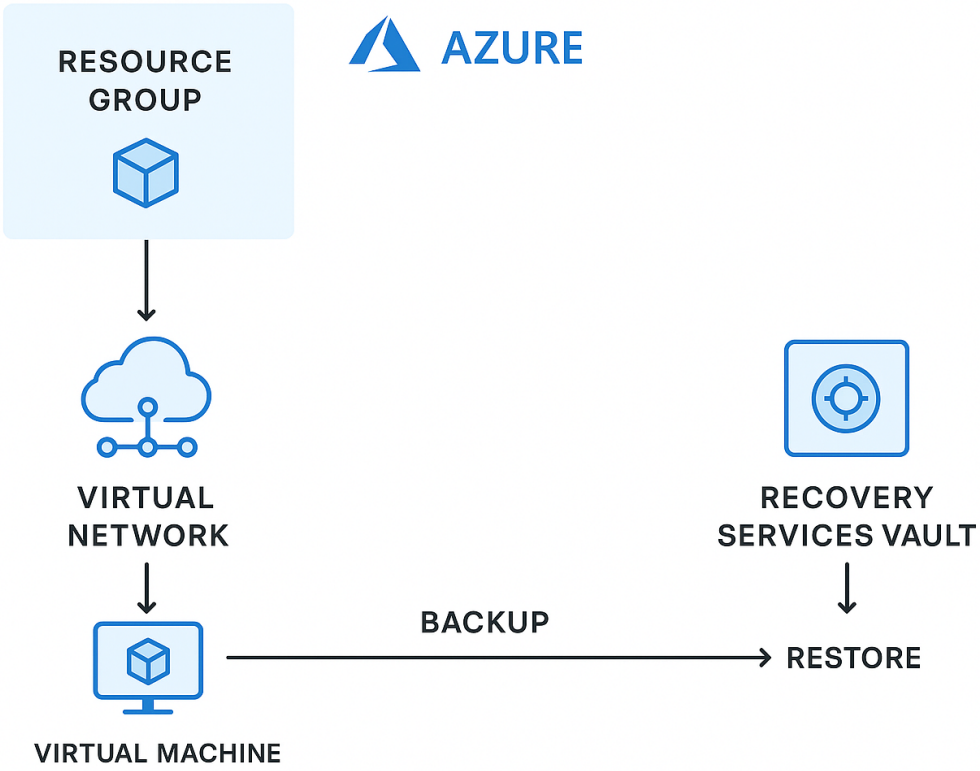




Step 11: Resources Group with all the content


rg-az104-p2
Resource group
Help me generate Terraform for this resource group configuration.
+2
Search
Create
Manage view
Delete resource group
Group by none
Overview
Activity log
Access control (IAM)
Tags
Resource visualizer
Events
Settings
Cost Management
Monitoring
Automation
Help
Essentials
JSON View
Resources
Recommendations
Filter for any field...
Type equals all
Location equals all
Add filter
Name
Type
Location
rsv-p2
Recovery Services ...
South Africa North
vm-db-test
Virtual machine
South Africa North
vm-db-test-ip
Public IP address
South Africa North
vm-db-test-nsg
Network security g...
South Africa North
vm-db-test808
Network Interface
South Africa North
vm-db-test_OsDisk_1_4a196d0cc2f94b
Disk
South Africa North
vnet-p2
Virtual network
South Africa North
Showing 1 - 7 of 7. Display count:
au...
Give feedback
Add or remove favorites by pressing Ctrl+Shift+F

DIAGRAM



Conclusion

This hands-on lab showcases proficiency implementing backup and disaster recovery solutions using Azure services. It highlights essential Azure Administrator skills - resource organization, security, automation, recovery strategy, and cost governance - proving readiness for real-world cloud infrastructure management.