

Task 1 : Provision the lab environment

Microsoft Azure Search resources, services, and docs (G+/)

Home > Virtual machines >

Create a virtual machine

Validation passed
back to Basics tab.

Basics

Subscription	Azure subscription 1
Resource group	(new) az104-07-rg0
Virtual machine name	az104-07-vm0
Region	East US
Availability options	Availability zone
Availability zone	1
Security type	Standard
Image	Windows Server 2019 Datacenter - Gen2
VM architecture	x64
Size	Standard B1s (1 vcpu, 1 GiB memory)
Username	oguzhan
Public inbound ports	RDP
Already have a Windows license?	No
Azure Spot	No

Disks

Create < Previous Next > Download a template for automation Give feedback

Task 2: Create and configure Azure Storage accounts

created

Microsoft Azure Search resources, services, and docs (G+/)

Home >

Storage accounts

deop.ca (deop.ca)

+ Create Restore Manage view Refresh Export to CSV Open query Assign tags Delete

Filter for any field... Subscription equals all Resource group equals all Location equals all Add filter

No grouping List view

Name	Type	Kind	Resource group	Location	Subscription
storageaccountdemo00	Storage account	StorageV2	az104-07-rg1	East US	Azure subscription 1

configured

Home > Storage accounts >

» **storageaccountdemooo** ☆ ☆ ...

Storage account

» [Upload](#) [Open in Explorer](#) [Delete](#) → [Move](#) [Refresh](#) [Open in mobile](#) [Feedback](#)

^ **Essentials** JSON View

Resource group (move) : az104-07-rg1	Performance : Standard
Location : East US	Replication : Locally-redundant storage (LRS)
Subscription (move) : Azure subscription 1	Account kind : StorageV2 (general purpose v2)
Subscription ID : 67882e92-6412-4fc5-b9ca-1030aa09d729	Provisioning state : Succeeded
Disk state : Available	Created : 11/10/2022, 4:34:09 PM

Tags [\(edit\)](#) : [Click here to add tags](#)

Properties | Monitoring | Capabilities (7) | Recommendations (0) | Tutorials | Developer Tools

Blob service

Hierarchical namespace	Disabled
Default access tier	Cool
Blob public access	Enabled
Blob soft delete	Enabled (7 days)
Container soft delete	Enabled (7 days)
Versioning	Disabled
Change feed	Disabled
NFS v3	Disabled
Allow cross-tenant replication	Enabled

Security

Require secure transfer for REST API operations	Enabled
Storage account key access	Enabled
Minimum TLS version	Version 1.2
Infrastructure encryption	Disabled

Networking

Allow access from	All networks
Number of private endpoint connections	0
Network routing	Microsoft network routing

Task 3: Manage blob storage

Microsoft Azure | Search resources, services, and docs (G+/I)

Home > storageaccountdemooo | Containers >

az104-07-container ...

Container

Search

» [Upload](#) [Change access level](#) [Refresh](#) | [Delete](#) [Change tier](#) [Acquire lease](#) [Break lease](#) [View sn](#)

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Shared access tokens

Access policy

Properties

Metadata

Authentication method: Access key (Switch to Azure AD User Account)

Location: az104-07-container

Search blobs by prefix (case-sensitive)

[Add filter](#)

Name	Modified	Access tier	Archive status	Blob
No results				

Upload blob

az104-07-container/

Files

"azure active directory.docx"

☐ Overwrite if files already exist

Advanced

Authentication type

Azure AD user account | **Account key**

Blob type

Block blob

☒ Upload .vhd files as page blobs (recommended)

Block size

4 MB

Access tier

Hot

Upload to folder

licenses

Blob index tags

Key

Value

Encryption scope

☒ Use existing default container scope

Microsoft Azure | Search resources, services, and docs (G+J)

Home > storageaccountdemooo | Containers > az104-07-container

az104-07-container

Container

Search

Upload Change access level

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Shared access tokens

Access policy

Properties

Metadata

Authentication method: Access key (Switch to Azure AD User Account)

Location: az104-07-container / licenses

Search blobs by prefix (case-...)

Show deleted blobs

Add filter

Name

- [.]
- azure active directory.docx

licenses/azure active directory.docx

Blob

Save Discard Download Refresh Delete Change tier Acquire lease Break lease

Overview Versions Snapshots Edit Generate SAS

Properties

URL: <https://storageaccountdemooo.blob.core.windows.net/az104-07-container/licenses/azure%20active%20directory.docx>

LAST MODIFIED: 11/10/2022, 4:46:01 PM

CREATION TIME: 11/10/2022, 4:46:01 PM

VERSION ID: -

TYPE: Block blob

SIZE: 2.5 MiB

ACCESS TIER: Hot

ACCESS TIER LAST MODIFIED: 11/10/2022, 4:46:01 PM

ARCHIVE STATUS: -

REHYDRATE PRIORITY: -

SERVER ENCRYPTED: true

ETAG: 0x8DAC364F5E3072D

VERSION-LEVEL IMMUTABILITY POLICY: Disabled

CACHE-CONTROL:

CONTENT-TYPE: application/vnd.openxmlfor...

CONTENT-MD5: 12dNgsll635yPH05dzDeiw=

CONTENT-ENCODING:

CONTENT-LANGUAGE:

Task 4: Manage authentication and authorization for Azure Storage

https://storageaccountdemooo.blob.core.windows.net/az104-07-container/licenses/azure%20active%20directory.docx

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<?xml version="1.0" encoding="utf-8" standalone="no" ?>
<Error>
  <Code>ResourceNotFound</Code>
  <Message>The specified resource does not exist. RequestId:075d3968-401e-0050-254e-f5a8ae000000 Time:2022-11-10T21:49:51.1315109Z</Message>
</Error>
```

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Home > storageaccountdemooo | Containers > az104-07-container

az104-07-container

Container

Search

Upload Change access level

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Shared access tokens

Access policy

Properties

Metadata

Authentication method: Access key (Switch to Azure AD User Account)

Location: az104-07-container / licenses

Search blobs by prefix (case-...)

Show deleted blobs

Add filter

Name

- [.]
- azure active directory.docx

licenses/azure active directory.docx

Blob

Save Discard Download Refresh Delete

Permissions *

Read

Start and expiry date/time

Start

11/10/2022 4:50:48 PM

(UTC-05:00) Eastern Time (US & Canada)

Expiry

11/11/2022 12:50:48 AM

(UTC-05:00) Eastern Time (US & Canada)

Allowed IP addresses

for example, 168.1.5.65 or 168.1.5.65-168.1.5.65

Allowed protocols

☒ HTTPS only ☐ HTTPS and HTTP

Generate SAS token and URL

Blob SAS token

sp=r&st=2022-11-10T21:50:48Z&se=2022-11-11T05:50:48Z&spr=https&sv=2021-06-08&sr=b&sig=mBY8Oo0H%2FdBRSgWfgrZ%2BGoJehS80tz...

Blob SAS URL

<https://storageaccountdemooo.blob.core.windows.net/az104-07-container/licenses/azure%20active%20directory.docx?sp=r&st=2022-11-10T21:50:48Z&se=2022-11-11T05:50:48Z&spr=https&sv=2021-06-08&sr=b&sig=mBY8Oo0H%2FdBRSgWfgrZ%2BGoJehS80tz...>

Copy to clipboard

Microsoft Azure Search resources, services, and docs (G+)

Home > storageaccountdemooo | Containers >

az104-07-container ...

Container

Search « Upload Change access level Refresh Delete Change tier Acquire lease Break lease View snapshots Create snapshot

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Shared access tokens

Access policy

Properties

Metadata

Authentication method: Access key (Switch to Azure AD User Account)

Location: az104-07-container

Search blobs by prefix (case-sensitive) Show deleted blobs

Add filter

Name	Modified	Access tier	Archive status	Blob type	Size	Lease state
licenses						

Task 5: Create and configure an Azure Files shares

Microsoft Azure Search resources, services, and docs (G+)

Home > Storage accounts > storageaccountdemooo | File shares >

az104-07-share ...

File share

Search « Connect Upload Add directory Refresh Delete share Change tier Edit quota

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Properties

Operations

Snapshots

Backup

Search files by prefix

Name Type

No files found.

Connect

az104-07-share

Connecting to a share using the storage account key is only appropriate for admin access. Mounting the Azure file share with the Active Directory identity of the user is preferred. [Learn more](#)

Hide Script

```
$connectTestResult = Test-NetConnection -ComputerName
storageaccountdemooo.file.core.windows.net -Port 445
if ($connectTestResult.TcpTestSucceeded) {
    # Save the password so the drive will persist on reboot
    cmd.exe /C "cmdkey /add:"storageaccountdemooo.file.core.windows.net"
/user:"localhost\storageaccountdemooo"
/pass:"rEE5xaqoWq2PrueCyCzW7g0x4gCS94ay1PnhpRSQgJw53DhdJwq8cX0fnoj
Q315ysw29EtkVV-ASt0hivA="
    # Mount the drive
    New-PSDrive -Name Z -PSProvider FileSystem -Root
"\storageaccountdemooo.file.core.windows.net\az104-07-share" -Persist
} else {
    Write-Error -Message "Unable to reach the Azure storage account via port 445.
Check to make sure your organization or ISP is not blocking port 445, however
you may use Azure Point-to-Site (P2S) VPN, Azure Site-to-Site (S2S) VPN, or ExpressRoute
to tunnel SMB traffic to your Azure file share over a different
port."
}
```

This script will check to see if this storage account is accessible via TCP port 445, which is the port SMB uses. If port 445 is available, your Azure file share will be persistently mounted. Your organization or internet service provider (ISP) may block port 445, however you may use Azure [Point-to-Site \(P2S\) VPN](#), Azure [Site-to-Site \(S2S\) VPN](#), or [ExpressRoute](#) to tunnel SMB traffic to your Azure file share over a different port.

Note: The script will only work on Windows Server 2012 and above.

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Home > Virtual machines > az104-07-vm0

az104-07-vm0 | Run command

Run Command uses the VM agent to let you run a script inside application maintenance. Select a command below to see details.

Run PowerShellScript

Script execution complete

Run

Output

```

CMDKEY: Credential added successfully.

Name      Used (GB)  Free (GB)  Provider  Root
-----
Name      Used (GB)  Free (GB)  Provider  Root
-----
Z         0.00      5120.00   FileSystem  \\storageaccountdemo00.file.core...

```

Task 6: Manage network access for Azure Storage

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Home > Storage accounts > storageaccountdemo00

storageaccountdemo00 | Networking

Firewalls and virtual networks | Private endpoint connections | Custom domain

Save | Discard | Refresh

Firewall settings restricting access to storage services will remain in effect for up to a minute after saving updated settings allowing access.

Public network access

☐ Enabled from all networks

☒ Enabled from selected virtual networks and IP addresses

☐ Disabled

Configure network security for your storage accounts. [Learn more](#)

Virtual networks

+ Add existing virtual network + Add new virtual network

Virtual Network	Subnet	Address range	Endpoint Status	Resource Group	Subscription
No network selected.					

Firewall

Add IP ranges to allow access from the internet or your on-premises networks. [Learn more.](#)

☐ Add your client IP address ('99.237.10.133')

Address range

IP address or CIDR

