

FileShare Blueprint SOP -BPAZR010

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Overview

Platform:	Azure
Owner of this SOP:	Fully Managed POD A
Cloud Services:	File share Provisioning

Problem

When requesters are asking for creating Azure File share with Private Endpoint and Storage account.

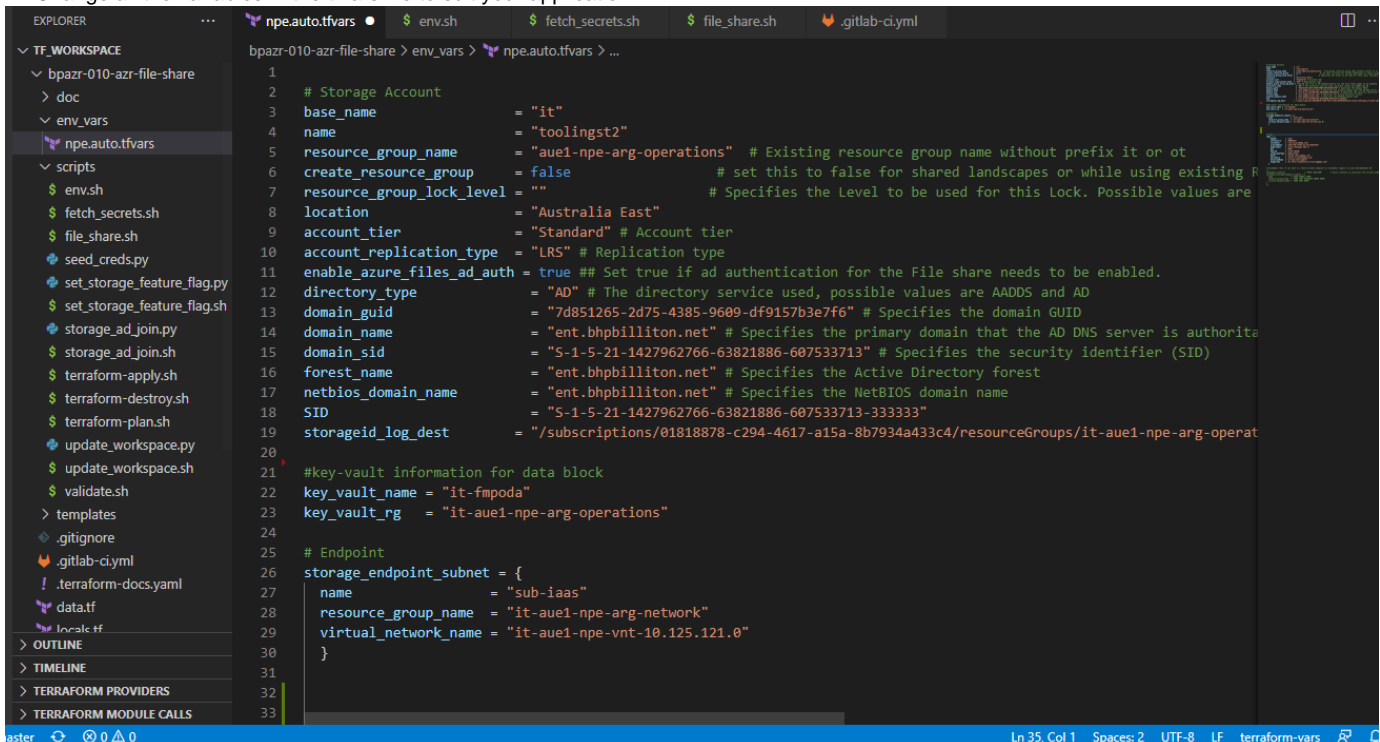
tester	Reviewer
@ Rajesh Chouhan	

Prerequisites

1. Install VS Code
2. Access to Terraform workspace and azure portal

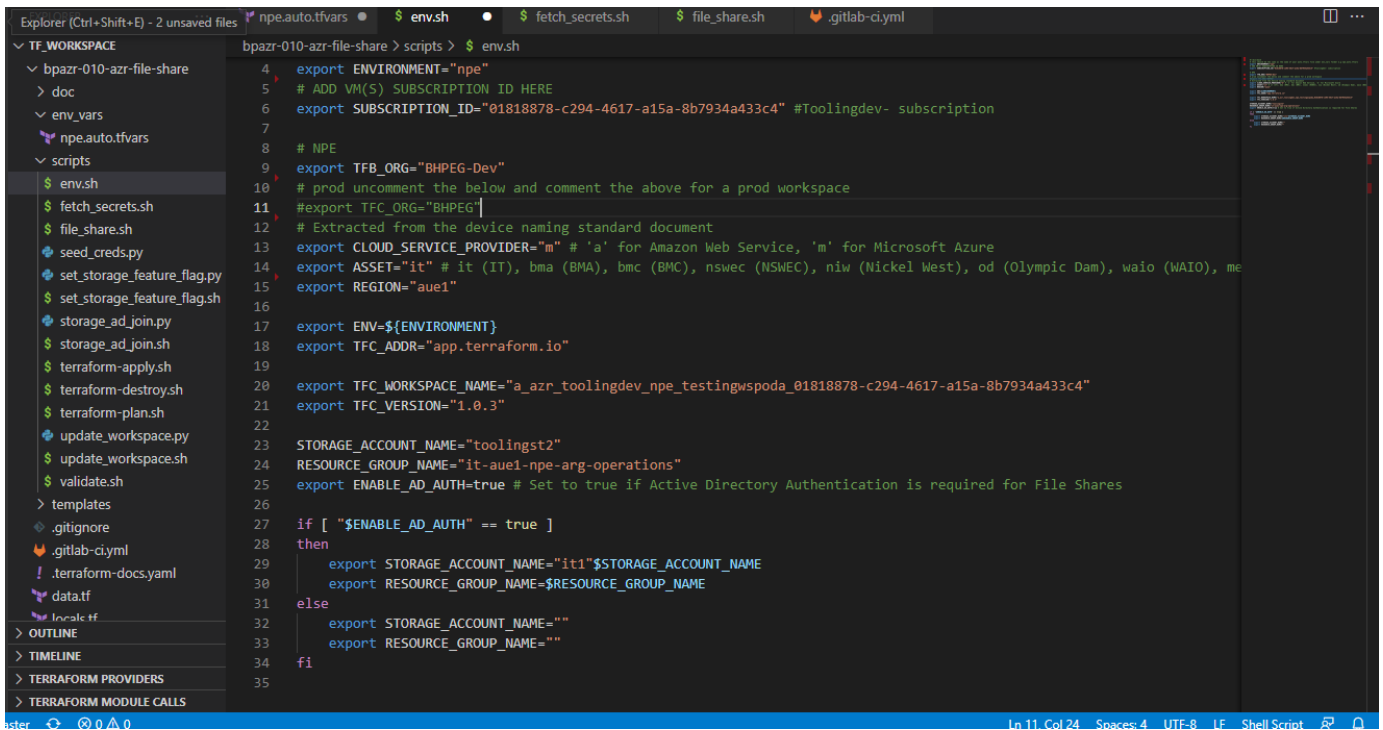
Solution

- Clone the Blue Print 10 repo "<https://gitlab.com/bhp-cloudfactory/azure-blueprints/azr-file-share> " into a your repository under new project e.g. <https://gitlab.com/bhp-cloudfactory/tooling-foundations/fm-sops/newcomp/bpazr-010-azr-file-share>
- Change all the variables in the tfvars file to suit your application



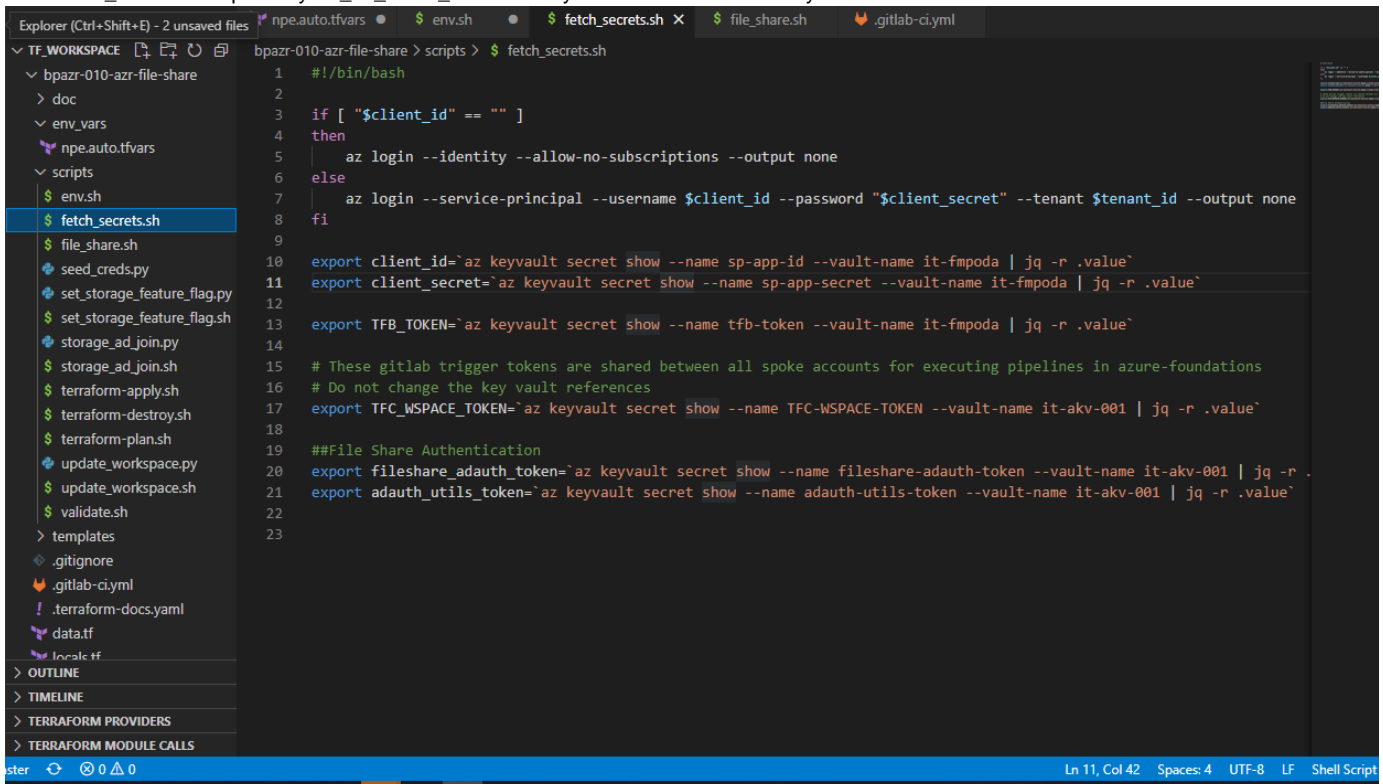
```
1  # Storage Account
2  base_name      = "it"
3  name           = "toolingst2"
4  resource_group_name = "aue1-npe-arg-operations" # Existing resource group name without prefix it or ot
5  create_resource_group = false # set this to false for shared landscapes or while using existing R
6  resource_group_lock_level = "" # Specifies the Level to be used for this Lock. Possible values are
7  location       = "Australia East"
8  account_tier   = "Standard" # Account tier
9  account_replication_type = "LRS" # Replication type
10 enable_azure_files_ad_auth = true ## Set true if ad authentication for the File share needs to be enabled.
11 directory_type = "AD" # The directory service used, possible values are AADDS and AD
12 domain_guid    = "7d851265-2d75-4385-9609-df9157b3e7f6" # Specifies the domain GUID
13 domain_name    = "ent.bhpbilliton.net" # Specifies the primary domain that the AD DNS server is authorita
14 domain_sid     = "S-1-5-21-1427962766-63821886-607533713" # Specifies the security identifier (SID)
15 forest_name    = "ent.bhpbilliton.net" # Specifies the Active Directory forest
16 netbios_domain_name = "ent.bhpbilliton.net" # Specifies the NetBIOS domain name
17 SID            = "S-1-5-21-1427962766-63821886-607533713-3333333"
18 storageid_log_dest = "/subscriptions/01818878-c294-4617-a15a-8b7934a433c4/resourceGroups/it-aue1-npe-arg-operat
19
20 #key-vault information for data block
21 key_vault_name = "it-fmpoda"
22 key_vault_rg   = "it-aue1-npe-arg-operations"
23
24 # Endpoint
25 storage_endpoint_subnet = {
26   name           = "sub-iaas"
27   resource_group_name = "it-aue1-npe-arg-network"
28   virtual_network_name = "it-aue1-npe-vnt-10.125.121.0"
29 }
30
31
32
33
```

- Change the variables in the env.sh file to match your environment



```
4 export ENVIRONMENT="npe"
5 # ADD VM(S) SUBSCRIPTION ID HERE
6 export SUBSCRIPTION_ID="01818878-c294-4617-a15a-8b7934a433c4" #Toolingdev- subscription
7
8 # NPE
9 export TFB_ORG="BHPEG-Dev"
10 # prod uncomment the below and comment the above for a prod workspace
11 #export TFC_ORG="BHPEG"
12 # Extracted from the device naming standard document
13 export CLOUD_SERVICE_PROVIDER="m" # 'a' for Amazon Web Service, 'm' for Microsoft Azure
14 export ASSET="it" # it (IT), bma (BMA), bmc (BMC), nswec (NSWEC), niw (Nickel West), od (Olympic Dam), waio (WAIIO), me
15 export REGION="aue1"
16
17 export ENV=${ENVIRONMENT}
18 export TFC_ADDR="app.terraform.io"
19
20 export TFC_WORKSPACE_NAME="a_azr_toolingdev_npe_testingwsoda_01818878-c294-4617-a15a-8b7934a433c4"
21 export TFC_VERSION="1.0.3"
22
23 STORAGE_ACCOUNT_NAME="toolingst2"
24 RESOURCE_GROUP_NAME="it-aue1-npe-arg-operations"
25 export ENABLE_AD_AUTH=true # Set to true if Active Directory Authentication is required for File Shares
26
27 if [ "$ENABLE_AD_AUTH" == true ]
28 then
29     export STORAGE_ACCOUNT_NAME="it1"$STORAGE_ACCOUNT_NAME
30     export RESOURCE_GROUP_NAME=$RESOURCE_GROUP_NAME
31 else
32     export STORAGE_ACCOUNT_NAME=""
33     export RESOURCE_GROUP_NAME=""
34 fi
35
```

- In fetch_secrets.sh update "your_tfc_token_name" to keyvault variable which has your token



```
1 #!/bin/bash
2
3 if [ "$client_id" == "" ]
4 then
5     az login --identity --allow-no-subscriptions --output none
6 else
7     az login --service-principal --username $client_id --password "$client_secret" --tenant $tenant_id --output none
8 fi
9
10 export client_id=`az keyvault secret show --name sp-app-id --vault-name it-fmpoda | jq -r .value`
11 export client_secret=`az keyvault secret show --name sp-app-secret --vault-name it-fmpoda | jq -r .value`
12
13 export TFB_TOKEN=`az keyvault secret show --name tfb-token --vault-name it-fmpoda | jq -r .value`
14
15 # These gitlab trigger tokens are shared between all spoke accounts for executing pipelines in azure-foundations
16 # Do not change the key vault references
17 export TFC_WSPACE_TOKEN=`az keyvault secret show --name TFC-WSPACE-TOKEN --vault-name it-akv-001 | jq -r .value`
18
19 ##File Share Authentication
20 export fileshare_adauth_token=`az keyvault secret show --name fileshare-adauth-token --vault-name it-akv-001 | jq -r .value`
21 export adauth_utils_token=`az keyvault secret show --name adauth-utils-token --vault-name it-akv-001 | jq -r .value`
22
23
```

- Provide the new fileshare name and your key vault name in file_share.sh file

The screenshot shows a VS Code editor with a Terraform workspace. The left sidebar shows the Explorer view with the file tree. The main editor shows the file_share.sh script. The script is a bash script that sets up an Azure file share. It includes comments for replacing placeholders and instructions for creating a new file share and a snapshot. The script also includes a section for creating a Recovery Services Vault and exporting resource group and location information.

```

1  #!/bin/bash
2
3  # replace YOUR_KEY_VAULT with the actual key-vault name.
4  # replace YOUR_FILE_SHARE_NAME with the name of the file share to be provisioned.
5
6  export fileshare="fmpodafs"
7
8  az login --service-principal --username $client_id --password "$client_secret" --tenant $tenant_id --output none
9  az account set --subscription $SUBSCRIPTION_ID
10 az account show
11
12 #Creating new file share
13 storage_account_name="az keyvault secret show --name storage-account-name --vault-name it-fmpoda | jq -r .value"
14 secret="az keyvault secret show --name storage-key-primary1 --vault-name it-fmpoda | jq -r .value"
15 az storage share create --name $fileshare --account-key $secret --account-name $storage_account_name --quota 50
16
17 #Creating new Premium(kind - Filestorage) fileshare
18 #use --quota minimum 100 or greater for premium filestorage as premium Size must be between 100 and 102400 GiB.
19 # eg: az storage share create --name $fileshare --account-key $secret --account-name $storage_account_name --quota 100
20
21 #Snapshot
22 az storage share snapshot --name $fileshare --account-key $secret --account-name $storage_account_name --quota 50
23
24
25 # Recovery Services Vault   ### (Optional- if it doesn't exist in the subscription).Uncomment this to create a new on
26
27 # export resource_group_name="YOUR_RESOURCE_GROUP_NAME"
28 # export recovery_services_vault_name="RECOVERY_SERVICES_VAULT_NAME"
29 # export location="YOUR_LOCATION"
30 # az backup vault create --location $location --name $recovery_services_vault_name --resource-group $resource_group_name
31

```

- Commit and push your changes
- Verify that the pipeline executes as expected and that a terraform workspace is created and run
- Verify the terraform plan in your TF workspace
- If you are satisfied with the plan output, initiate the apply stage in pipeline

The screenshot shows the GitHub Actions interface. The top bar has tabs for Overview, Runs, States, Variables, and Settings. The Overview tab is selected. The interface shows a pipeline that is Unlocked and has an Actions dropdown menu.

The screenshot shows the GitHub Actions interface. The top bar has a green checkmark and the text "Queued from GitLab CI/CD Pipeline". The interface shows a pipeline that is CURRENT. The pipeline has five stages: Plan finished, Cost estimation finished, Policy check passed, and Apply finished. Each stage shows the time taken and the resources used.

- Manually start create_share stage in pipeline after successful creation of storage account.

The screenshot shows the GitHub Actions interface. The top bar has a green checkmark and the text "passed". The interface shows a pipeline that is passed. The pipeline has five stages: Plan finished, Cost estimation finished, Policy check passed, and Apply finished. Each stage shows the time taken and the resources used.

- Check and confirm whether the required fileshare is created as per requirement

Home > it-npe-toolingdev | Resource groups > it-aue1-npe-arg-operations > it1toolingst2

it1toolingst2 | File shares

Storage account

Search

File share Refresh

File share settings

Active Directory: [Configured](#) Default share-level permissions: [Disabled](#) Soft delete: [7 days](#) Maximum capacity: [5 TiB](#) Security: [Maximum compatibility](#)

Search file shares by prefix (case-sensitive) ☐ Show deleted shares

Name	Modified	Tier	Quota
fmpodafs	9/29/2022, 3:38:40 PM	Transaction optimized	50 GiB

Overview Activity log Tags Diagnose and solve problems Access Control (IAM) Data migration Events Storage browser Data storage Containers File shares Queues Tables

- Check below private endpoint created.

Home > it-aue1-npe-arg-operations >

it1toolingst2-file-pvt-endpoint

Private endpoint

Search Delete Refresh

Overview

Essentials

Resource group (move) : [it-aue1-npe-arg-operations](#) Virtual network/subnet : [it-aue1-npe-vnt-10.125.121.0/sub-1aag](#)

Location : Australia East Network interface : [it1toolingst2-file-pvt-endpoint.nic.c6e4c32a-3c17-48b5-...](#)

Subscription (move) : [it-npe-toolingdev](#) Private link resource : [it1toolingst2](#)

Subscription ID : 01818878-c294-4617-a15a-8b7934a433c4 Target sub-resource : file

Provisioning state : Succeeded Connection status : Approved

Request/Response : Auto-Approved

Tags (edit) : AppEnv : npe BlueprintName : Azure File Share BlueprintVersion : v1.3.0 ComponentVersion : 1.0.2 CostCentre : 9006023 [More \(10\)](#)

Settings

Application security groups DNS configuration Properties Locks

Monitoring

Insights Alerts

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