

Terraform Errors - FM Supported Subscriptions

- [Overview](#)
- [Problem](#)
- [Solution](#)
 - [Tituscs](#)
 - [Titusilluminate](#)
 - [NGI](#)

Overview

Platform:	Azure
Owner of this Document:	CF FM POD A
Cloud Services:	Azure

CreatedBy	Team
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Problem

Sometimes Terraform workspace issues give us tough time to understand,work, resolve issues and we end up spending alot of time on the issues which might also have faced by our team members. Therefore this guide comes to help us to work quickly on known error and getting that resolved in no time.

I have listed down all the errors I have faced during the TF workspace tags updates for the FM owned subscriptions.

Solution

Tituscs

❌ Issue 1 : Error keyvault.BaseClient#updatedsecret Message="Property has invalid value \r\n"

Terraform error doesn't allow multiple tags therefore throws invalid value.

❌ Error: keyvault.BaseClient#UpdateSecret: Failure responding to request: StatusCode=400 -- Original Error: autorest/azure: Service returned an error. Status=400 Code="BadParameter" Message="Property has invalid value\r\n" with module.storage_access_key.azure_key_vault_secret.this[0] on .terraform/modules/storage_access_key/key-vault-secret.tf line 1, in resource "azure_key_vault_secret" "this":

```
resource "azure_key_vault_secret" "this" {
```

~ module.azr_private_endpoint.azure_rm_private_endpoint.this ✓ Updated id=/subscriptions/a6514870-fecd-438a-...

~ module.load_balancer.azure_rm_lb.this ✓ Updated id=/subscriptions/a6514870-fecd-438a-...

~ module.log_analytics["create"].azure_rm_log_analytics_solution.logging[0] ✓ Updated id=/subscriptions/a6514870-fecd-438a-...

~ module.log_analytics["create"].azure_rm_log_analytics_workspace.log_analytics ✓ Updated id=/subscriptions/a6514870-fecd-438a-...

~ module.storage_access_key.azure_key_vault_secret.this[0]

✓ Update Failed id=https://it-npetituscs1.vault.azure.net/secrets/storage-key-primary-qa/3be185572e014fccb8e28fab8d3b370c 1s

~ module.storage_account.azure_rm_monitor_diaagnostic_setting.storage

```
module.storage_access_key.azure_key_vault_secret.this[0]

id : "https://it-npтитусcs1.vault.azure.net/secrets/storage-key-primary-qa/3be185572e014fccb8e28fab8d3b370c"
name : "storage-key-primary-qa"
tags : {
  ~ AppEnv : "qa" → "Quality Assurance"
  - BlueprintId : "BPAZR005"
  + BlueprintName : "Windows SOE VM"
  + ComponentVersion : "v1.0.0"
  + CostOwner : "Jeremy Pursley"
  + Department : "EUC - Endpoint Security - Accenture"
  + GearID : "ICT0-1660"
  + LandscapeMaint : "Managed by CF Terraform"
  + LandscapeType : "Dedicated"
  + LandscapeVersion : "TBD"
  ~ Owner : "nick.hadfield@bhp.com" → "derek.sherin@bhp.com"
  + RPO : "4 Hrs"
  + RTO : "4 Hrs"
  ~ Secondary : "mayur.gadhia@bhp.com" → "ayush.tripathi@bhp.com"
  + SupportDL : "dl-tech-eg-cloudfactory-fma@bhp.com"
  + SupportModel : "FullyManagedA"
  + TTOResult : "TTOR0002018"
  + WorkloadType : "internal"
  ... 11 unchanged attributes hidden
}
```

Solution:

Remove/comment out the tags on the secrets being created within the TF code for example line 38 below.

```
30 module "storage_access_key" {
31   source = "git@gitlab.com:bhp-cloudfactory/azure-components/terraform-azurerm-kv-secret?ref=v1.0.1"
32
33   Bogosl, Irene, 5 months ago | 2 authors (Bogosl, Irene and others)
34   vault_secrets = {
35     "storage-account-name" = module.storage_account.storage_account_name
36     "storage-key-primary1" = module.storage_account.primary_access_key
37   }
38   key_vault_id = data.azure_key_vault.key_vault.id
39   #tags         = local.tags
40 }
```

Issue 2 : Getting 'titusqashare' error in the tituscs npe workspace

Repo : <https://gitlab.com/bhp-cloudfactory/azure-apps/tituscs/tituscs-webservers-app>

TF WS : [a_azr_tituscs_npe_webserversqa_a6514870-fecd-438a-a7e9-90e312be7ca7](#)

Env : NPE

```
Error: retrieving Share "titusqashare" (Account "itusscqtituscs" / Resource Group "it-ussc-qa-arg-tituscs"): shares.Client#GetProperties: Failure responding to request:
StatusCode=403 -- Original Error: autorest/azure: Service returned an error. Status=403 Code="AuthorizationFailure" Message="This request is not authorized to
perform this operation.\nRequestId:0374ac71-901a-002c-022a-77b5b3000000\nTime:2022-06-03T09:14:27.5069466Z"
with data.azure_key_vault_secret.titus
on data.tf line 39, in data "azure_key_vault_secret" "titus":
data "azure_key_vault_secret" "titus" {
```

Solution:

In order to disabled the storage account:

- Login to Azure portal and goto to **it-npe-tituscs** subscription
- Click on '**Resources**' and Filter out the '**Storage account**' and click on it.
- Click on '**Networking**' then '**Enabled from all networks**' then **SAVE**.

Then rerun the pipeline , it should work fine.

Note: Once the error is gone from TF workspace Please come back to the portal and selected the '**Enabled from selected virtual networks and IP addresses**' and save.

The screenshot displays the Microsoft Azure portal interface. On the left, the 'Subscriptions' list shows 'it-npe-tituscs' selected. The main pane shows the 'Resources' page for this subscription. A filter for 'Type' is applied, showing 'Storage account' resources. A table lists several storage accounts, including 'ituscsqtituscs' and 'ituscsqtituscsdb1td'. A blue arrow points to the 'ituscsqtituscs' resource. Below the table, the 'Networking' section is expanded, showing 'Public network access' set to 'Enabled from all networks'. A blue arrow points to this option. The 'Save' button is also highlighted with a blue circle.

Name	Type	Resource group	Location	Subscription
ituscsqtituscs	Storage account	it-ussc-qa-arg-tituscs	South Central US	it-npe-tituscs
ituscsqtituscs	Storage account	it-ussc-dev-arg-tituscs	South Central US	it-npe-tituscs
ituscsqtituscsdb1td	Storage account	it-ussc-qa-arg-tituscs	South Central US	it-npe-tituscs
ituscsqtituscsdb1daq	Storage account	it-ussc-dev-arg-tituscs	South Central US	it-npe-tituscs
itititititit	Storage account	it-ussc-npe-arg-opera	South Central US	it-npe-tituscs

Public network access

☒ Enabled from all networks

☐ Enabled from selected virtual networks and IP addresses

☐ Disabled

All networks, including the internet, can access this storage account. [Learn more](#)

Network Routing

Determine how you would like to route your traffic as it travels from its source to an Azure endpoint. Microsoft routing is recommended for most customers.

Routing preference

☒ Microsoft network routing ☐ Internet routing

The current combination of storage account kind, performance, replication, and location does not support network routing.

Select the below option and save once the error is gone from TF workspace.

Home > itusscqtituscs

itusscqtituscs | Networking

Storage account

Search (Ctrl+F)

- Data migration
- Events
- Storage browser (preview)

Data storage

- Containers
- File shares
- Queues
- Tables

Security + networking

- Networking
- Azure CDN
- Access keys
- Shared access signature
- Encryption
- Security

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	Subs
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 (163.116.103.158)

- **PROD SUBSCRIPTION (it-prd-tituscs)**

Please check with the team before making any changes to the prod env. It would throw some security alerts if you selected the 'Enable from all networks' option.

Microsoft Azure Search resources, services, and docs (Ctrl+F)

Home > Subscriptions > it-prd-tituscs

Subscriptions

it-prd-tituscs (it-prd-tituscs)

+ Add Manage Policies

Subscriptions == global filter

My role == all

Status == all

Add filter

Showing 1 to 2 of 2

Subscription name	Type
it-prd-tituscs	...
it-prd-tituscs	...

it-prd-tituscs

it-prd-tituscs | Resources

Subscription

Search (Ctrl+F)

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

Filter for any field...

Resource group == all Type == Storage account Location == all Add filter

3 Unsecure resources

List view

Name	Type	Resource group	Location	Subscription
it-tituscs1eva	Storage account	it-ussc-prd-arg-operat-	South Central US	it-prd-tituscs
it-tituscsdb1jvb	Storage account	it-ussc-prd-arg-tituscs	South Central US	it-prd-tituscs
itusscqtituscs	Storage account	it-ussc-prd-arg-tituscs	South Central US	it-prd-tituscs

it-prd-tituscs

Issue 3: Can not modify the NIC attached to the pvt end point, can't be modified by the user

All the tags should be in sync with portal tags otherwise it wont work.

✖ Error: updating Network Interface: (Name "itusscqtituscs-file-pvt-endpoint.nic.5ae5bbb1-842a-421e-814d-4a6e4128be01" / Resource Group "it-ussc-qa-arg-tituscs"); network.InterfacesClient#CreateOrUpdate: Failure sending request: StatusCode=400 -- Original Error: Code="CannotModifyNicAttachedToPrivateEndpoint" Message="Network interface /subscriptions/a6514870-fecd-438a-a7e9-90e312be7ca7/resourceGroups/it-ussc-qa-arg-tituscs/providers/Microsoft.Network/networkInterfaces/itusscqtituscs-file-pvt-endpoint.nic.5ae5bbb1-842a-421e-814d-4a6e4128be01 is linked to a private endpoint /subscriptions/a6514870-fecd-438a-a7e9-90e312be7ca7/resourceGroups/it-ussc-qa-arg-tituscs/providers/Microsoft.Network/privateEndpoints/itusscqtituscs-file-pvt-endpoint. It can not be modified by user." Details=[]
with azure_rm_network_interface.Tituscs_dev_nic
on network-interface.tf line 1, in resource "azure_rm_network_interface" "Tituscs_dev_nic":

resource "azure_rm_network_interface" "Tituscs_dev_nic" {

Solution:

Once the tags are updated to the prd.auto.tfvars, we also need to update the tags in `network-interface.tf` file of **webserver repo** to avoid the error.

#####





Titusilluminate

✖ Issue 1: Error: Code="VMExtensionProvisioningError" Message="VM has reported a failure when processing extension 'DatadogWindowsAgent'. Error message: '\The Datadog agent failed to restart

- Repo : <https://gitlab.com/bhp-cloudfactory/azure-apps/titusilluminate/titusilluminate-filesharescanner-app>
- TF WS : a_azr_titusilluminate_prd_fileshare_f88fc009-65b4-456d-8477-eb29b2d893f8
- Env : PRD

✖ Error: Code="VMExtensionProvisioningError" Message="VM has reported a failure when processing extension 'DatadogWindowsAgent'. Error message: '\The Datadog agent failed to restart.\r\n\r\nMore information on troubleshooting is available at https://aka.ms/vmextensionwindowstroubleshoot " with module.virtual_machine["vm1"].azure_rm_virtual_machine_extension.datadogagent[0] on .terraform/modules/virtual_machine/datadog-agent.tf line 1, in resource "azure_rm_virtual_machine_extension" "datadogagent":

resource "azure_rm_virtual_machine_extension" "datadogagent" {

> ~  module.virtual_machine["vm1"].azure_rm_network_interface.vm  Updated id=/subscriptions/f88fc009-65b4-456d-...
v ~  module.virtual_machine["vm1"].azure_rm_virtual_machine_extension.datadogagent[0] 

909-65b4-456d-8477-eb29b2d893f8/resourceGroups/it-ussc-prd-arg-titusilluminate/providers/microsoft.compute/virtualmachines/mussc0ptil003/extensions/datadogwindowsagent  11 mins

Solution:-

We get datadog agent failed to restart error in a particular virtual machine, as we dont have access to virtual machines so we need to request to hosting team to restart the datadog agent for us and run the pipeline again, it would work.

✖ Issue: Not an issue, but observation and info to all our team members. when making any changes in it-npe-titusilluminate.

ℹ When you make changes in qa branch, it would make changes to dev resource group 'it-ussc-dev-arg-titusilluminate' but nothing to worry, during the development application team mistakenly updated the qa resources inside dev resource group and at later point of time when they tried to updt the TF code, it doesn't allow them to updated and destroy the resource group, therefore app team kept it like this, however when you make changes to qa branch, it would only make changes to qa machine which has 'q' init.

mussc0qtil003

- Repo : <https://gitlab.com/bhp-cloudfactory/azure-apps/titusilluminate/titusilluminate-filesharescanner-app>
- TF WS : a_azr_titusilluminate_npe_fileshareqa_501cb358-c78b-4450-8e63-d72bcd0fe75
- Env : NPE

v ~  module.virtual_machine["vm1"].module.network_security_group.azure_rm_network_security_group.this[0] 

id : "/subscriptions/501cb358-c78b-4450-8e63-d72bcd0fe75/resourceGroups/it-ussc-dev-arg-titusilluminate/providers/Microsoft.Network/networkSecurityGroups/it-ussc-qa-nsg-MUSSC0QTI003"
name : "it-ussc-qa-nsg-MUSSC0QTI003"
~ tags : {

Solution:-

You need to update the qa changes in qa.auto.tfvars file to reflect the changes in all the qa related VMs.

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You need to update the qa changes in qa.auto.tfvars file to reflect the changes in all the qa related VMs.

#####

NGI

✖ **Issue :** An argument name 'zones' is not expected here, did you mean 'zone' ?

Getting the error when we run manual plan to check the existing error in the workspace

- **Repo :** [bhp-cloudfactory / azure-apps / ngiuswest2 / goanywhere-mft - GitLab](#)
- **TF WS :** `a_azr_ngiuswest2_npe_npemft_a62b223f-63e2-4b40-b8fc-42ed139a4d20`
- **Env :** NPE

Error: Unsupported argument
on .terraform/modules/virtual_machine/data-disk.tf line 9, in resource "azurerm_managed_disk" "this":

```
zones                = lookup(each.value, "zones", [])
```

An argument named "zones" is not expected here. Did you mean "zone"?

Solution:-

Change the provider version in [meta.tf](#) file as below.

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Change the provider version in [meta.tf](#) file as below.

```
terraform {
  required_version = ">=1.0.0"
  required_providers {
    azurerm = {
      source      = "hashicorp/azurerm"
      version     = ">= 2.74.0,<2.99.0"  -----> Add this
      #version    = ">= 2.73.0"          -----> Remove this
    }
  }
}
```

[illegible]