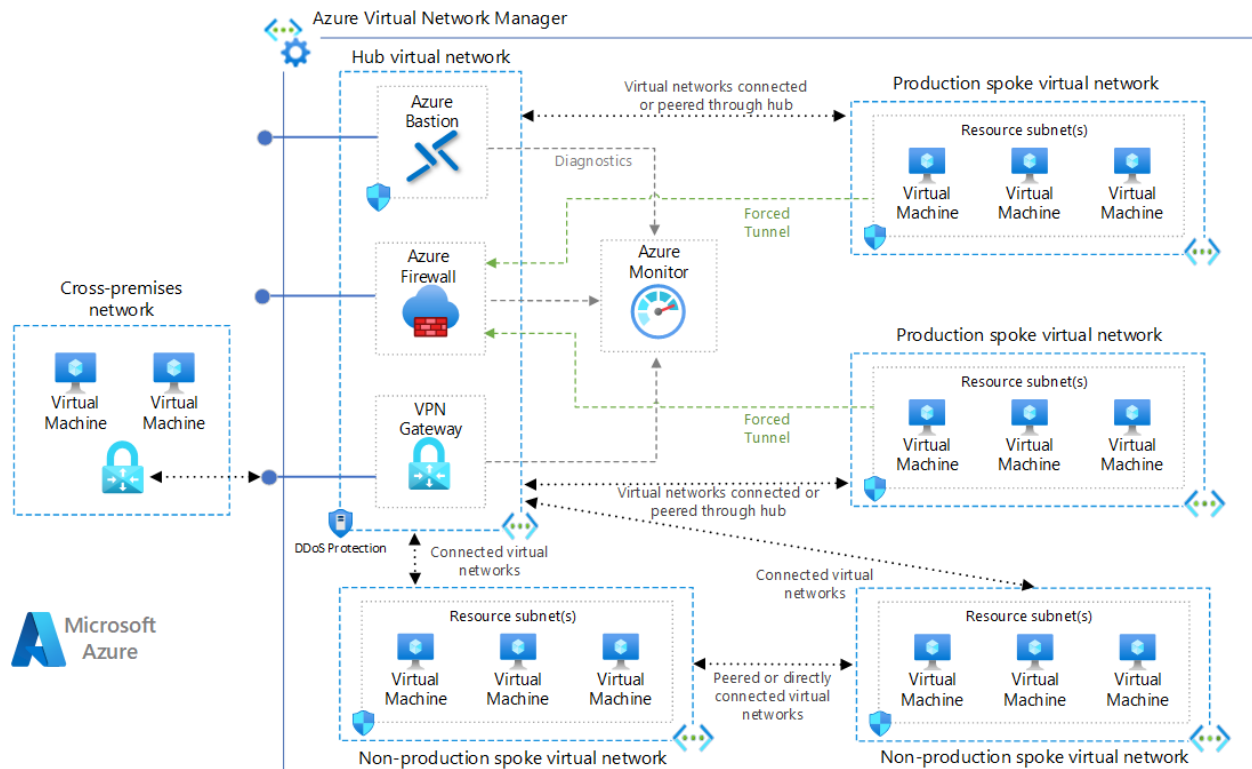


Deploy Connectivity Resources With Custom Settings. (Hub & Spoke Level 300)

By:
Sarfaraz Momin
(Cloud Engineer)

What is Traditional Azure networking topology (hub and spoke).

A hub and spoke topology is a way to isolate workloads while sharing common services. These services include identity and security. The hub is a virtual network (VNet) that acts as a central connection point to an on-premises network. The spokes are VNets that peer with the hub.



This reference architecture implements a hub-spoke network pattern with customer-managed hub infrastructure components.

Strategy

We take the base Deploy Connectivity Resources (Hub and Spoke) configuration and make the following changes:

- Add input variable on the root module for enabling/disabling connectivity resources
 - Add a local variable for `configure_connectivity_resources` and set custom values for the following:
 - Deploy a shared DDoS Network Protection plan in the northeurope region
 - Deploy hub virtual networks to northeurope and westeurope
 - Deploy an ExpressRoute gateway and Azure Firewall to the hub virtual network in northeurope
 - Deploy a VPN gateway to the hub virtual network in westeurope
 - Remove the `AzureFirewallSubnet` subnet from the hub virtual network in westeurope
 - Link the hub virtual network in northeurope and westeurope to the central DDoS Network Protection plan
 - Ensure private DNS zones for private endpoints are enabled for northeurope and westeurope regions 1
 - Set a different default location for connectivity resources (controlled through an input variable on the root module)
 - Add custom resource tags for connectivity resources (controlled through an input variable on the root module)
-

The module allows for further customization of the connectivity resources through the advanced setting, however this is out-of-scope for this example.

If you've already deployed the Connectivity resources using default settings, you will be able to see the changes made when moving to this configuration.

If the `configure_connectivity_resources.location` value is not specified, the resources will default to the same location set by the `default_location` input variable.

Root module:

To make the code easier to maintain when extending your configuration, we recommend splitting the root module into multiple files. For the purpose of this example, we use the following:

- `terraform.tf`
- `variables.tf`
- `main.tf`
- `settings.connectivity.tf`

▪ terraform.tf

```
# Configure Terraform to set the required AzureRM provider
# version and features{} block.

terraform {
  required_providers {
    azurerm = {
      source  = "hashicorp/azurerm"
      version = ">= 3.54.0"
    }
  }
}

provider "azurerm" {
  features {}
}
```

▪ variables.tf

```
# Use variables to customize the deployment

variable "root_id" {
  type    = string
  default = "myorg"
}

variable "root_name" {
  type    = string
  default = "My Organization"
}

variable "deploy_connectivity_resources" {
  type    = bool
  default = true
}

variable "connectivity_resources_location" {
  type    = string
  default = "uksouth"
}

variable "connectivity_resources_tags" {
  type = map(string)
  default = {
    demo_type = "deploy_connectivity_resources_custom"
  }
}
```

▪ main.tf

```
# Get the current client configuration from the AzureRM provider.
# This is used to populate the root_parent_id variable with the
# current Tenant ID used as the ID for the "Tenant Root Group"
# Management Group.

data "azurerm_client_config" "core" {}

# Declare the Azure landing zones Terraform module
# and provide a base configuration.

module "enterprise_scale" {
  source = "Azure/caf-enterprise-scale/azurerm"
  version = "4.0.1" # change this to your desired version, https://www.terraform.io/language/expressions/version-constraints
}
```

```
default_location = var.connectivity_resources_location.default

providers = {
  azurearm      = azurearm
  azurearm.connectivity = azurearm
  azurearm.management  = azurearm
}

root_parent_id = data.azurearm_client_config.core.tenant_id
root_id        = var.root_id
root_name      = var.root_name

deploy_connectivity_resources = var.deploy_connectivity_resources
subscription_id_connectivity = data.azurearm_client_config.core.subscription_id
configure_connectivity_resources = local.configure_connectivity_resources
}
```

Please edit `version = "<VERSION>"` & `default_location = "YOUR_LOCATION"`

▪ settings.connectivity.tf

```
# Configure the connectivity resources settings.
locals {
  configure_connectivity_resources = {
    settings = {
      hub_networks = [
        {
          enabled = true
          config = {
            address_space      = ["10.100.0.0/16", ]
            location           = "northeurope"
            link_to_ddos_protection_plan = true
            dns_servers        = []
            bgp_community       = ""
            subnets            = []
            virtual_network_gateway = {
              enabled = true
              config = {
                address_prefix      = "10.100.1.0/24"
                gateway_sku_expressroute = "ErGw2AZ"
                gateway_sku_vpn       = ""
                advanced_vpn_settings = {
                  enable_bgp          = null
                  active_active       = null
                  private_ip_address_allocation = ""
                  default_local_network_gateway_id = ""
                  vpn_client_configuration = []
                  bgp_settings        = []
                  custom_route        = []
                }
              }
            }
          }
        }
      ]
    }
  }
  azure_firewall = {
    enabled = true
    config = {
      address_prefix      = "10.100.0.0/24"
      enable_dns_proxy    = true
      dns_servers         = []
      sku_tier             = ""
      base_policy_id      = ""
      private_ip_ranges   = []
      threat_intelligence_mode = ""
      threat_intelligence_allowlist = []
      availability_zones = {
        zone_1 = true
        zone_2 = true
      }
    }
  }
}
```

```

        zone_3 = true
    }
}
}
spoke_virtual_network_resource_ids = []
enable_outbound_virtual_network_peering = true
enable_hub_network_mesh_peering = false
}
},
{
    enabled = true
    config = {
        address_space = ["10.101.0.0/16", ]
        location = "westeurope"
        link_to_ddos_protection_plan = true
        dns_servers = []
        bgp_community = ""
        subnets = []
        virtual_network_gateway = {
            enabled = true
            config = {
                address_prefix = "10.101.1.0/24"
                gateway_sku_expressroute = ""
                gateway_sku_vpn = "VpnGw2AZ"
                advanced_vpn_settings = {
                    enable_bgp = null
                    active_active = null
                    private_ip_address_allocation = ""
                    default_local_network_gateway_id = ""
                    vpn_client_configuration = []
                    bgp_settings = []
                    custom_route = []
                }
            }
        }
    }
    azure_firewall = {
        enabled = false
        config = {
            address_prefix = ""
            enable_dns_proxy = true
            dns_servers = []
            sku_tier = ""
            base_policy_id = ""
            private_ip_ranges = []
            threat_intelligence_mode = ""
            threat_intelligence_allowlist = []
            availability_zones = {
                zone_1 = true
                zone_2 = true
                zone_3 = true
            }
        }
    }
    spoke_virtual_network_resource_ids = []
    enable_outbound_virtual_network_peering = true
    enable_hub_network_mesh_peering = false
}
},
]
vwan_hub_networks = []
ddos_protection_plan = {
    enabled = true
    config = {
        location = "northeurope"
    }
}
dns = {
    enabled = true
    config = {
        location = null
    }
}

```

```
enable_private_link_by_service = {
  azure_api_management           = true
  azure_app_configuration_stores = true
  azure_arc                     = true
  azure_automation_dscandhybridworker = true
  azure_automation_webhook      = true
  azure_backup                  = true
  azure_batch_account           = true
  azure_bot_service_bot         = true
  azure_bot_service_token       = true
  azure_cache_for_redis         = true
  azure_cache_for_redis_enterprise = true
  azure_container_registry      = true
  azure_cosmos_db_cassandra     = true
  azure_cosmos_db_gremlin       = true
  azure_cosmos_db_mongodb       = true
  azure_cosmos_db_sql           = true
  azure_cosmos_db_table         = true
  azure_data_explorer           = true
  azure_data_factory            = true
  azure_data_factory_portal     = true
  azure_data_health_data_services = true
  azure_data_lake_file_system_gen2 = true
  azure_database_for_mariadb_server = true
  azure_database_for_mysql_server = true
  azure_database_for_postgresql_server = true
  azure_digital_twins           = true
  azure_event_grid_domain       = true
  azure_event_grid_topic        = true
  azure_event_hubs_namespace    = true
  azure_file_sync               = true
  azure_hdinsights              = true
  azure_iot_dps                 = true
  azure_iot_hub                 = true
  azure_key_vault               = true
  azure_key_vault_managed_hsm   = true
  azure_kubernetes_service_management = true
  azure_machine_learning_workspace = true
  azure_managed_disks           = true
  azure_media_services          = true
  azure_migrate                 = true
  azure_monitor                 = true
  azure_purview_account         = true
  azure_purview_studio          = true
  azure_relay_namespace         = true
  azure_search_service          = true
  azure_service_bus_namespace   = true
  azure_site_recovery           = true
  azure_sql_database_sqlserver   = true
  azure_synapse_analytics_dev    = true
  azure_synapse_analytics_sql    = true
  azure_synapse_studio          = true
  azure_web_apps_sites          = true
  azure_web_apps_static_sites   = true
  cognitive_services_account    = true
  microsoft_power_bi            = true
  signalr                       = true
  signalr_webpubsub             = true
  storage_account_blob          = true
  storage_account_file          = true
  storage_account_queue         = true
  storage_account_table         = true
  storage_account_web           = true
}
private_link_locations = [
  "northeurope",
  "westeurope",
]
public_dns_zones = []
private_dns_zones = []
```

```

enable_private_dns_zone_virtual_network_link_on_hubs    = true
enable_private_dns_zone_virtual_network_link_on_spokes = true
virtual_network_resource_ids_to_link                  = []
    }
  }
}

location = var.connectivity_resources_location
tags     = var.connectivity_resources_tags
advanced = null
}
}

```

Number of Policies In This Deployment.

Count : 114

```

policy_definition_es_append_appservice_httponly
policy_definition_es_append_appservice_latesttls
policy_definition_es_append_kv_softdelete
policy_definition_es_append_redis_disablenonsslport
policy_definition_es_append_redis_sslenforcement
policy_definition_es_audit_disks_unusedresourcescostoptimization
policy_definition_es_audit_machinelearning_privateendpointid
policy_definition_es_audit_privatelinkdnszones
policy_definition_es_audit_publicipaddresses_unusedresourcescostoptimization
policy_definition_es_audit_serverfarms_unusedresourcescostoptimization
policy_definition_es_deny_aa_child_resources
policy_definition_es_deny_appgw_without_waf
policy_definition_es_deny_appserviceapiapp_http
policy_definition_es_deny_appservicefunctionapp_http
policy_definition_es_deny_appservicewebapp_http
policy_definition_es_deny_databricks_nopublicip
policy_definition_es_deny_databricks_sku
policy_definition_es_deny_databricks_virtualnetwork
policy_definition_es_deny_machinelearning_aks
policy_definition_es_deny_machinelearning_compute_subnetid
policy_definition_es_deny_machinelearning_compute_vm_size
policy_definition_es_deny_machinelearning_computecluster_remoteloginportpublicaccess
policy_definition_es_deny_machinelearning_computecluster_scale
policy_definition_es_deny_machinelearning_hbiworkspace
policy_definition_es_deny_machinelearning_publicaccesswhenbehindvnet
policy_definition_es_deny_machinelearning_publicnetworkaccess
policy_definition_es_deny_mgmtports_from_internet
policy_definition_es_deny_mysql_http
policy_definition_es_deny_postgresql_http

```


policy_definition_es_deny_private_dns_zones
policy_definition_es_deny_publicendpoint_mariadb
policy_definition_es_deny_publicip
policy_definition_es_deny_rdp_from_internet
policy_definition_es_deny_redis_http
policy_definition_es_deny_sql_mintls
policy_definition_es_deny_sqlmi_mintls
policy_definition_es_deny_storage_mintls
policy_definition_es_deny_subnet_without_nsg
policy_definition_es_deny_subnet_without_udr
policy_definition_es_deny_vnet_peer_cross_sub
policy_definition_es_deny_vnet_peering
policy_definition_es_deny_vnet_peering_to_non_approved_vnets
policy_definition_es_deploy_asc_securitycontacts
policy_definition_es_deploy_budget
policy_definition_es_deploy_custom_route_table
policy_definition_es_deploy_ddosprotection
policy_definition_es_deploy_diagnostics_aa
policy_definition_es_deploy_diagnostics_aci
policy_definition_es_deploy_diagnostics_acr
policy_definition_es_deploy_diagnostics_analysisservice
policy_definition_es_deploy_diagnostics_apiforfhir
policy_definition_es_deploy_diagnostics_apimgmt
policy_definition_es_deploy_diagnostics_applicationgateway
policy_definition_es_deploy_diagnostics_avdscalingplans
policy_definition_es_deploy_diagnostics_bastion
policy_definition_es_deploy_diagnostics_cdnendpoints
policy_definition_es_deploy_diagnostics_cognitiveservices
policy_definition_es_deploy_diagnostics_cosmosdb
policy_definition_es_deploy_diagnostics_databricks
policy_definition_es_deploy_diagnostics_dataexplorercluster
policy_definition_es_deploy_diagnostics_datafactory
policy_definition_es_deploy_diagnostics_dlanalytics
policy_definition_es_deploy_diagnostics_eventgridsub
policy_definition_es_deploy_diagnostics_eventgridsystemtopic
policy_definition_es_deploy_diagnostics_eventgridtopic
policy_definition_es_deploy_diagnostics_expressroute
policy_definition_es_deploy_diagnostics_firewall
policy_definition_es_deploy_diagnostics_frontdoor

policy_definition_es_deploy_diagnostics_function
policy_definition_es_deploy_diagnostics_hdinsight
policy_definition_es_deploy_diagnostics_iothub
policy_definition_es_deploy_diagnostics_loadbalancer
policy_definition_es_deploy_diagnostics_loganalytics
policy_definition_es_deploy_diagnostics_logicappsise
policy_definition_es_deploy_diagnostics_mariadb
policy_definition_es_deploy_diagnostics_mediaservice
policy_definition_es_deploy_diagnostics_mlworkspace
policy_definition_es_deploy_diagnostics_mysql
policy_definition_es_deploy_diagnostics_networksecuritygroups
policy_definition_es_deploy_diagnostics_nic
policy_definition_es_deploy_diagnostics_postgresql
policy_definition_es_deploy_diagnostics_powerbiembedded
policy_definition_es_deploy_diagnostics_redisache
policy_definition_es_deploy_diagnostics_relay
policy_definition_es_deploy_diagnostics_signalr
policy_definition_es_deploy_diagnostics_sqlelasticpools
policy_definition_es_deploy_diagnostics_sqlmi
policy_definition_es_deploy_diagnostics_timeseriesinsights
policy_definition_es_deploy_diagnostics_trafficmanager
policy_definition_es_deploy_diagnostics_virtualnetwork
policy_definition_es_deploy_diagnostics_vm
policy_definition_es_deploy_diagnostics_vmss
policy_definition_es_deploy_diagnostics_vnetgw
policy_definition_es_deploy_diagnostics_vwans2svpngw
policy_definition_es_deploy_diagnostics_webserverfarm
policy_definition_es_deploy_diagnostics_website
policy_definition_es_deploy_diagnostics_wvdappgroup
policy_definition_es_deploy_diagnostics_wvdhostpools
policy_definition_es_deploy_diagnostics_wvdworkspace
policy_definition_es_deploy_firewallpolicy
policy_definition_es_deploy_mysql_sslenforcement
policy_definition_es_deploy_nsg_flowlogs
policy_definition_es_deploy_nsg_flowlogs_to_la
policy_definition_es_deploy_postgresql_sslenforcement
policy_definition_es_deploy_sql_auditingsettings
policy_definition_es_deploy_sql_mintls
policy_definition_es_deploy_sql_securityalertpolicies

```
policy_definition_es_deploy_sql_tde
policy_definition_es_deploy_sql_vulnerabilityassessments
policy_definition_es_deploy_sqlmi_mintls
policy_definition_es_deploy_storage_sslenforcement
policy_definition_es_deploy_vm_autoshutdown
policy_definition_es_deploy_vnet_hubspeoke
policy_definition_es_deploy_windows_domainjoin
```

Number of Resources in This Deployment.

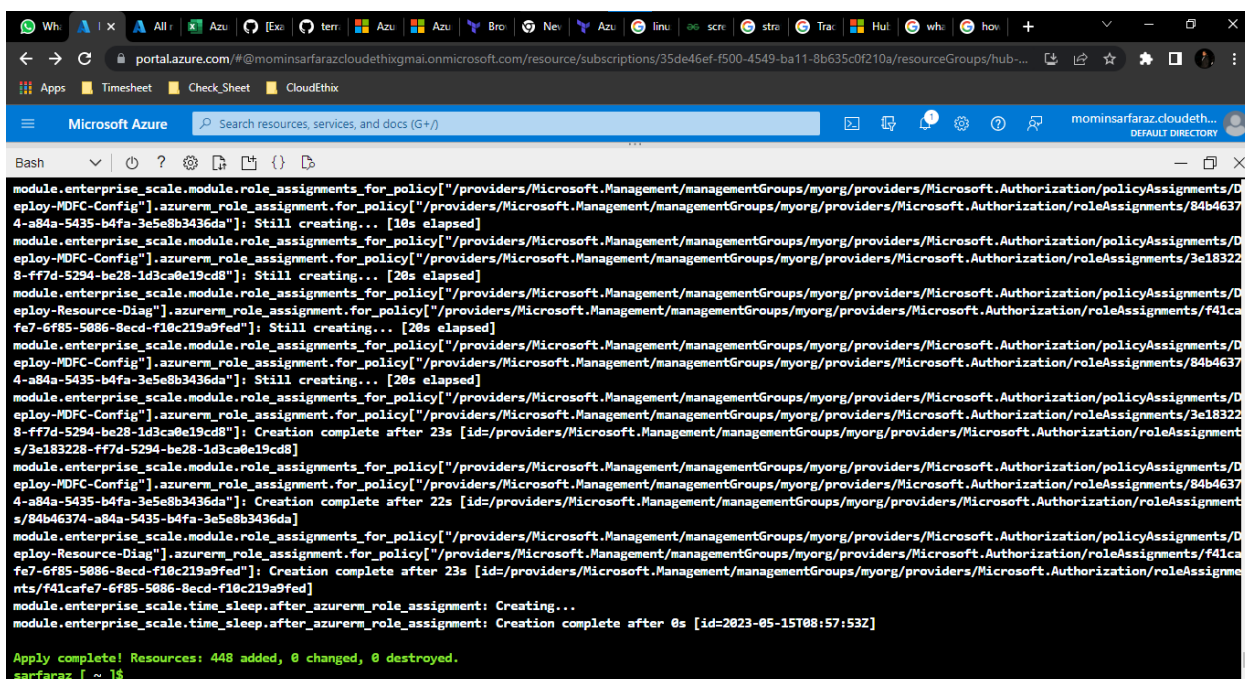
Count: 85

```
csg100320029fbb3943
hub-and-spoke-vault-new
myorg-ddos-northeurope
myorg-ergw-northeurope
myorg-ergw-northeurope-pip
myorg-fw-northeurope
myorg-fw-northeurope-pip
myorg-fw-northeurope-policy
myorg-hub-northeurope
myorg-hub-west europe
myorg-vpngw-west europe
myorg-vpngw-west europe-pip
NetworkWatcher_northeurope
NetworkWatcher_west europe
privatelink.adf.azure.com
privatelink.afs.azure.net
privatelink.agentsvc.azure-automation.net
privatelink.analysis.windows.net
privatelink.api.azureml.ms
privatelink.azconfig.io
privatelink.azure-api.net
privatelink.azure-automation.net
privatelink.azure-devices-provisioning.net
privatelink.azure-devices.net
privatelink.azurecr.io
privatelink.azurehdinsight.net
privatelink.azurehealthcareapis.com
privatelink.azurestaticapps.net
privatelink.azuresynapse.net
privatelink.azurewebsites.net
privatelink.batch.azure.com
```

privatelink.blob.core.windows.net
privatelink.cassandra.cosmos.azure.com
privatelink.cognitiveservices.azure.com
privatelink.database.windows.net
privatelink.datafactory.azure.net
privatelink.dev.azure.synapse.net
privatelink.developer.azure-api.net
privatelink.dfs.core.windows.net
privatelink.dicom.azurehealthcareapis.com
privatelink.digitaltwins.azure.net
privatelink.directline.botframework.com
privatelink.documents.azure.com
privatelink.eventgrid.azure.net
privatelink.file.core.windows.net
privatelink.gremlin.cosmos.azure.com
privatelink.guestconfiguration.azure.com
privatelink.his.arc.azure.com
privatelink.kubernetesconfiguration.azure.com
privatelink.managedhsm.azure.net
privatelink.mariadb.database.azure.com
privatelink.media.azure.net
privatelink.mongo.cosmos.azure.com
privatelink.monitor.azure.com
privatelink.mysql.database.azure.com
privatelink.ne.backup.windowsazure.com
privatelink.northeurope.azmk8s.io
privatelink.northeurope.kusto.windows.net
privatelink.notebooks.azure.net
privatelink.ods.opinsights.azure.com
privatelink.oms.opinsights.azure.com
privatelink.pbidedicated.windows.net
privatelink.postgres.database.azure.com
privatelink.prod.migration.windowsazure.com
privatelink.purview.azure.com
privatelink.purviewstudio.azure.com
privatelink.queue.core.windows.net
privatelink.redis.cache.windows.net
privatelink.redisenterprise.cache.azure.net
privatelink.search.windows.net
privatelink.service.signalr.net
privatelink.servicebus.windows.net
privatelink.siterecovery.windowsazure.com
privatelink.sql.azure.synapse.net
privatelink.table.core.windows.net
privatelink.table.cosmos.azure.com

privatelink.tip1.powerquery.microsoft.com
privatelink.token.botframework.com
privatelink.vaultcore.azure.net
privatelink.we.backup.windowsazure.com
privatelink.web.core.windows.net
privatelink.webpubsub.azure.com
privatelink.westeurope.azmk8s.io
privatelink.westeurope.kusto.windows.net
terraform1683886051

Terraform Apply:



The screenshot shows a web browser window with the Microsoft Azure portal interface. The address bar shows a URL related to a resource group. Below the browser window, a terminal window is open, displaying the output of a Terraform apply command. The output shows the creation of various Azure resources, including role assignments and policy assignments, with timestamps and status updates.

```

module.enterprise_scale.module.role_assignments_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/policyAssignments/Deploy-MDFC-Config"].azurerole_assignment_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/roleAssignments/84b46374-a84a-5435-b4fa-3e5e8b3436da"]: Still creating... [10s elapsed]
module.enterprise_scale.module.role_assignments_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/policyAssignments/Deploy-MDFC-Config"].azurerole_assignment_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/roleAssignments/3e183228-ff7d-5294-be28-1d3ca8e19cd8"]: Still creating... [20s elapsed]
module.enterprise_scale.module.role_assignments_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/policyAssignments/Deploy-MDFC-Config"].azurerole_assignment_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/roleAssignments/f41cafe7-6f85-5086-8ecd-f10c219a9fed"]: Still creating... [20s elapsed]
module.enterprise_scale.module.role_assignments_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/policyAssignments/Deploy-MDFC-Config"].azurerole_assignment_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/roleAssignments/84b46374-a84a-5435-b4fa-3e5e8b3436da"]: Still creating... [20s elapsed]
module.enterprise_scale.module.role_assignments_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/policyAssignments/Deploy-MDFC-Config"].azurerole_assignment_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/roleAssignments/3e183228-ff7d-5294-be28-1d3ca8e19cd8"]: Creation complete after 23s [id=/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/roleAssignments/3e183228-ff7d-5294-be28-1d3ca8e19cd8]
module.enterprise_scale.module.role_assignments_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/policyAssignments/Deploy-MDFC-Config"].azurerole_assignment_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/roleAssignments/84b46374-a84a-5435-b4fa-3e5e8b3436da"]: Creation complete after 22s [id=/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/roleAssignments/84b46374-a84a-5435-b4fa-3e5e8b3436da]
module.enterprise_scale.module.role_assignments_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/policyAssignments/Deploy-Resource-Diag"].azurerole_assignment_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/roleAssignments/f41cafe7-6f85-5086-8ecd-f10c219a9fed"]: Creation complete after 23s [id=/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/roleAssignments/f41cafe7-6f85-5086-8ecd-f10c219a9fed]
module.enterprise_scale.time_sleep.after_azurerole_assignment: Creating...
module.enterprise_scale.time_sleep.after_azurerole_assignment: Creation complete after 0s [id=2023-05-15T08:57:53Z]

Apply complete! Resources: 448 added, 0 changed, 0 destroyed.
sarfaraz [ ~ ]$
  
```

Deployed Connectivity resources

Microsoft Azure portal showing a list of resource groups. The table displays the following data:

Name	Subscription	Location
cloud-shell-storage-centralindia	Pay-As-You-Go	Central India
hub-and-spoke-vault-new	Pay-As-You-Go	France Central
myorg-connectivity-northeurope	Pay-As-You-Go	North Europe
myorg-connectivity-west europe	Pay-As-You-Go	West Europe
myorg-ddos	Pay-As-You-Go	North Europe
myorg-dns	Pay-As-You-Go	UK South
NetworkWatcherRG	Pay-As-You-Go	North Europe
terraform-backends	Pay-As-You-Go	France Central

Resource Group myorg-connectivity-northeurope

Azure portal showing the details of the resource group 'myorg-connectivity-northeurope'. The table displays the following data:

Name	Type	Location
myorg-ergw-northeurope	Virtual network gateway	North Europe
myorg-ergw-northeurope-pip	Public IP address	North Europe
myorg-fw-northeurope	Firewall	North Europe
myorg-fw-northeurope-pip	Public IP address	North Europe
myorg-fw-northeurope-policy	Firewall Policy	North Europe
myorg-hub-northeurope	Virtual network	North Europe

Resource Group myorg-connectivity-westeuropa

myorg-connectivity-westeuropa Resource group

Search

Create Manage view Delete resource group Refresh Export to CSV Open query

Overview

- Activity log
- Access control (IAM)
- Tags
- Resource visualizer
- Events

Settings

- Deployments
- Security
- Policies
- Properties
- Locks
- Cost Management

Essentials

Resources Recommendations

Filter for any field... Type equals all Location equals all Add filter

Showing 1 to 3 of 3 records. Show hidden types No grouping

List view

Name	Type	Location
myorg-hub-westeuropa	Virtual network	West Europe
myorg-vpngw-westeuropa	Virtual network gateway	West Europe
myorg-vpngw-westeuropa-pip	Public IP address	West Europe

Resource Group myorg-ddos

myorg-ddos Resource group

Search

Create Manage view Delete resource group Refresh Export to CSV Open query

Overview

- Activity log
- Access control (IAM)
- Tags
- Resource visualizer
- Events

Settings

- Deployments
- Security
- Policies
- Properties
- Locks
- Cost Management

Essentials

Resources Recommendations

Filter for any field... Type equals all Location equals all Add filter

Showing 1 to 1 of 1 records. Show hidden types No grouping

List view

Name	Type	Location
myorg-ddos-northeurope	DDoS protection plan	North Europe

Page 1 of 1

Resource Group myorg-dns

myorg-dns

Resource group

Search

Create

Manage view

Delete resource group

Refresh

Export to CSV

Open query

Overview

Activity log

Access control (IAM)

Tags

Resource visualizer

Events

Settings

Deployments

Security

Policies

Properties

Locks

Cost Management

Cost analysis

Essentials

Resources

Recommendations

Filter for any field...

Type equals all

Location equals all

Add filter

Showing 1 to 70 of 70 records.

Show hidden types

No grouping

List view

<input type="checkbox"/>	Name ↑↓	Type ↑↓	Location ↑↓
<input type="checkbox"/>	privatelink.adf.azure.com	Private DNS zone	Global
<input type="checkbox"/>	privatelink.afs.azure.net	Private DNS zone	Global
<input type="checkbox"/>	privatelink.agentsvc.azure-automation.net	Private DNS zone	Global
<input type="checkbox"/>	privatelink.analysis.windows.net	Private DNS zone	Global
<input type="checkbox"/>	privatelink.api.azureml.ms	Private DNS zone	Global
<input type="checkbox"/>	privatelink.azureconfig.io	Private DNS zone	Global

Terraform destroy:

```
sarfaraz [ ~ ]$ terraform destroy --auto-approve
module.enterprise_scale.random_id_telem[0]: Refreshing state... [id=TIUJ_Q]
module.enterprise_scale.azure_rm_resource_group.template_deployment_telemetry_core[0]: Refreshing state... [id=/subscriptions/35de46ef-f500-4549-ba11-8b635c0f218a/providers/Microsoft.Resources/deployments/pid-36dcde81-8c33-4da0-8dc3-265381502ccb_v4.0.0_0001_e453f25]
data.azure_rm_client_config.core: Reading...
data.azure_rm_client_config.core: Done! Complete after 10ms [id=Y2rpZnS0Q29uZmVncm9yYjB1bmR3ZD0uNGIwLzNSM0A2GRlLTQ2MEtYbnJlZS0uMy5SZTZfZjdldjV7b2JqZWNoSW9vY2I5OTdlZTczLnNkQWNC08ZTI2LThlYTE0TGkwMmYxMTFmGVB3O3N1NmYkdjlmIGVkbGlKPTM1ZGU0bWVnLWVMDAtNDU0OS1YTExLShXNjNlYy8mYjEwYTk0ZTU5bHR3ZD0eY2U2uMcRkOS1M0d1k1QzIQ3NeAtOTVhMC0uNGZkMC02EWVnMQwZTLU=]
module.enterprise_scale.azure_rm_resource_group.connectivity["/subscriptions/35de46ef-f500-4549-ba11-8b635c0f218a/resourceGroups/myorg-dns"]: Refreshing state... [id=/subscriptions/35de46ef-f500-4549-ba11-8b635c0f218a/resourceGroups/myorg-dns]
module.enterprise_scale.azure_rm_management_group.level_1["providers/Microsoft.Management/managementGroups/myorg"]: Refreshing state... [id=/providers/Microsoft.Management/managementGroups/myorg]
module.enterprise_scale.azure_rm_resource_group.connectivity["/subscriptions/35de46ef-f500-4549-ba11-8b635c0f218a/resourceGroups/myorg-dns"]: Refreshing state... [id=/subscriptions/35de46ef-f500-4549-ba11-8b635c0f218a/resourceGroups/myorg-dns]
module.enterprise_scale.azure_rm_resource_group.connectivity["/subscriptions/35de46ef-f500-4549-ba11-8b635c0f218a/resourceGroups/myorg-connectivity-northerope"]: Refre
```

```
# module.enterprise_scale.module.role_assignments_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/policyAssignments/Enforce-ACSB"].azurerm_role_assignment_for_policy["/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/roleAssignments/20b87dbc-9b70-5379-ad61-97a3ccec927"] will be destroyed
- resource "azurerm_role_assignment" "for_policy" {
  - id          = "/providers/Microsoft.Management/managementGroups/myorg/providers/Microsoft.Authorization/roleAssignments/20b87dbc-9b70-5379-ad61-97a3ccec927" -> null
  - name        = "20b87dbc-9b70-5379-ad61-97a3ccec927" -> null
  - principal_id = "f50de788-a07a-41cf-a220-92e4ad3dd445" -> null
  - principal_type = "ServicePrincipal" -> null
  - role_definition_id = "/providers/Microsoft.Authorization/roleDefinitions/b24988ac-6180-42a0-ab88-20f7382dd24c" -> null
  - role_definition_name = "Contributor" -> null
  - scope           = "/providers/Microsoft.Management/managementGroups/myorg" -> null
}

Plan: 0 to add, 0 to change, 376 to destroy.
module.enterprise_scale.azurerm_private_dns_zone_virtual_network_link.connectivity["/subscriptions/35de46ef-f500-4549-ba11-8b635c0f210a/resourceGroups/myorg-dns/providers/Microsoft.Network/privateDnsZones/privateLink.azure-devices.net/virtualNetworkLinks/35de46ef-f500-4549-ba11-8b635c0f210a-378eef3a-f205-5fd4-82a8-39e4f43d854b"]: Destroying...
```

Git : <https://github.com/sarfaraz6677/cdex/tree/sarfaraz6677-cdex>

Git Clone: <https://github.com/sarfaraz6677/cdex.git>