Resource Group

Overview

Azure resource groups are containers used to manage related resources within the Microsoft Azure cloud. They allow users to organize and group resources such as storage accounts, virtual networks, databases, and more. Resource groups provide a convenient way to manage the entire lifecycle of resources, such as deployment, updating, access control, and billing. To create a resource group, you need to specify a region, name, and subscription. After that, you can add resources to it and manage them collectively.

Example

The following example code create `iac_resources` module to specify the required variables and pass to the "source" module that matches the given address.

> ℹ️ You can click this link to see the full content of the code.

```
module "iac_resources" {
   source = "git::ssh://git@ssh.dev.azure.com/v3/CeridianHosting
/Infrastructure%20Engineering/terraform-azurerm-
iac_resource_deployment//?ref=v1.0.2"



#------------------------------------------------------------------------
----------------------------
  # Locals and providers

#------------------------------------------------------------------------
----------------------------

  providers = { azurerm.ss101 = azurerm.ss101 }

  subscription                      = local.subscription
  location                          = local.location
  environment                       = local.environment
  purpose                           = local.purpose
  tags                              = local.tags
  azure_ad_group                    = local.azure_ad_group
  role_definition_name              = local.role_definition_name
  enable_spn                        = local.
enable_spn
  enable_kv_private_endpoints       = local.enable_kv_private_endpoints
  enable_sa_blob_private_endpoints  = local.
enable_sa_blob_private_endpoints
}
```

⌄ Variable description

Variable name	Description
subscription	The Azure subscription ID
location	The Azure region where the resources will be created

environment	The environment the resources will be created in
purpose	The purpose of the resources
tags	A map of tags to apply to the resources
azure_ad_group	The Azure AD group to assign the role to
role_definition_name	The name of the role definition to assign to the Azure AD group
enable_spn	Whether to enable the service principal
enable_kv_private_endpoints	Whether to enable private endpoints for the key vault
enable_sa_blob_private_endpoints	Whether to enable private endpoints for the storage account

terraform-azurerm-iac_resource_deployment

We import the module from the git repo called `terraform-azurerm-iac_resource_deployment` which is calling another git repo and deploy resource group because it is a "module". A module is a container for multiple resources that are used together and used to create reusable components, improve organization, and to treat pieces of infrastructure as a black box.

In this repo, it creates another resource group module and pass arguments what we want.

```
module "rg" {
  source              = "git::ssh://git@ssh.dev.azure.com/v3
  /CeridianHosting/Infrastructure%20Engineering/terraform-azurerm-
  resource_group//?ref=v1.0.4"
  resource_group_name  = join("-", [var.subscription, var.purpose, var.
  environment, var.location])
  location             = var.location
  azuread_groups       = var.azure_ad_group
  role_definition_name = var.role_definition_name
  tags                 = var.tags
}
```

Resource Group Naming Convention

All resources created on the Azure platform must follow this naming convention. It ensures that the names are unique and that they properly describe the type, application, and purpose. The convention we went with was:

`<subscription>-<purpose>-<SDLC environment>-<location>`

example of resource group name:

`app521-actstrg-np-eastus2`

Azure AD Groups

Azure AD Groups allow you to manage user access and permissions within an Azure Active Directory. It can be used to set up groups, assign users to groups, and define various roles and their associated permissions. We can use `azuread_groups` to add users to the group called "AdminRole-IT-InfraEng-cloud" for example.

Role definition name

Terraform role definition name is the name of the predefined or custom-defined role that you are configuring in Terraform. This helps to identify the role and its associated permissions when making changes to the resource definitions.
  ⌄ Azure built-in roles

Built-in role	Description	ID

Contributor	Grants full access to manage all resources, but does not allow you to assign roles in Azure RBAC, manage assignments in Azure Blueprints, or share image galleries.	b24988ac-6180-42a0-ab88-20f7382dd24c
Owner	Grants full access to manage all resources, including the ability to assign roles in Azure RBAC.	8e3af657-a8ff-443c-a75c-2fe8c4bcb635
Reader	View all resources, but does not allow you to make any changes.	acdd72a7-3385-48ef-bd42-f606fba81ae7
User Access Administrator	Lets you manage user access to Azure resources.	18d7d88d-d35e-4fb5-a5c3-7773c20a72d9