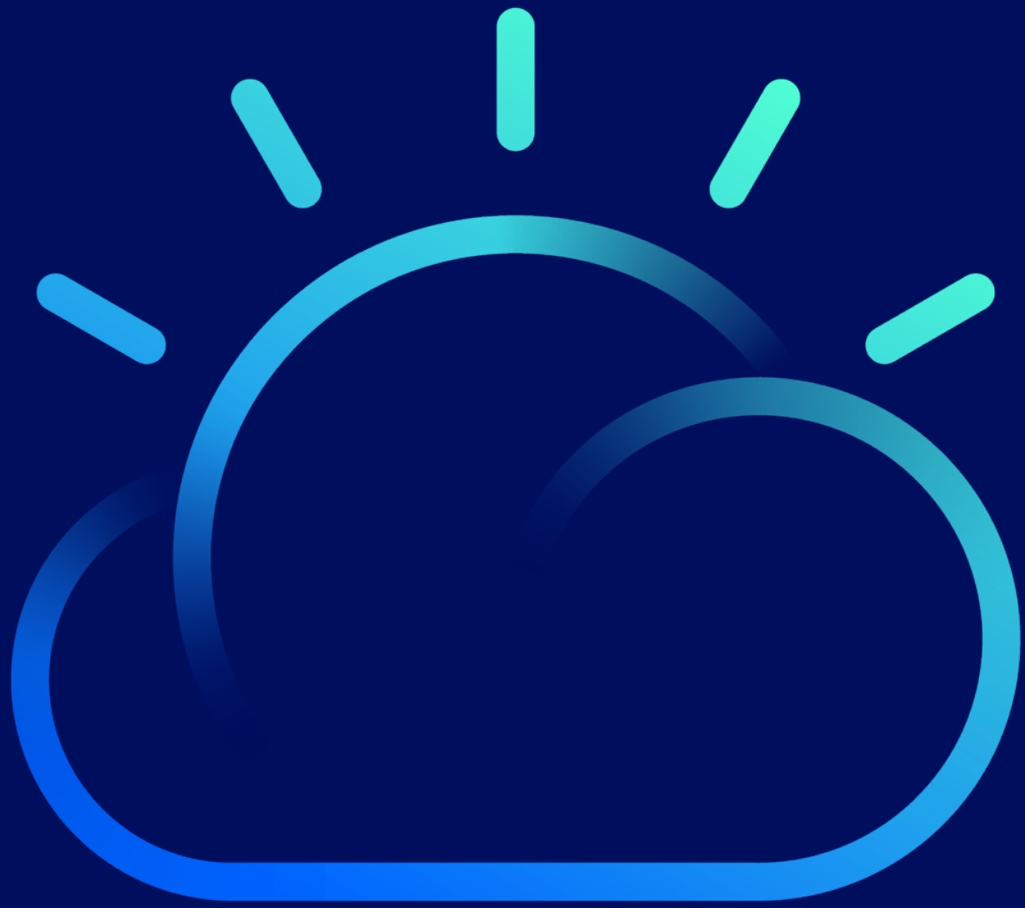
IBM Cloud Automation Manager Bootcamp



Supported Hypervisors

IBM Cloud

CAM Connections

- Used to securely store credentials for each hypervisor
- Used by Terraform to connect to the hypervisor defined in the Template
- Connections are namespaced for security
- CAM connections can be created for each of the supported Hypervisors
- 3rd Party providers may be used however connections to hypervisors will have to be defined in the CAM template

Supported Connections

https://www.ibm.com/support/knowledgecenter/en/SS2L37_3.1.2.1/cam_managing_connections.html

- VMware vSphere
- OpenStack
- Amazon EC2
- IBM Cloud
- IBM Cloud Kubernetes
- IBM Cloud Public
- IBM PureApp
- Huawei Cloud
- Azure
- Google Cloud
- Nutanix
- VMware NSX-T
- NSXv

Considerations

- Cloud connections are closely coupled with Terraform providers
- Terraform providers are not all created equally some are more mature than others
- Don’t assume you can perform the same tasks on all hypervisors
- Network connectivity to Hypervisors must be available

Vmware vSphere

https://github.com/IBM-tfproviders/terraform-provider-vsphere/wiki/VMware-vSphere-Provider-and-Resource-Documentation

Supported Version: vCenter version 6.0

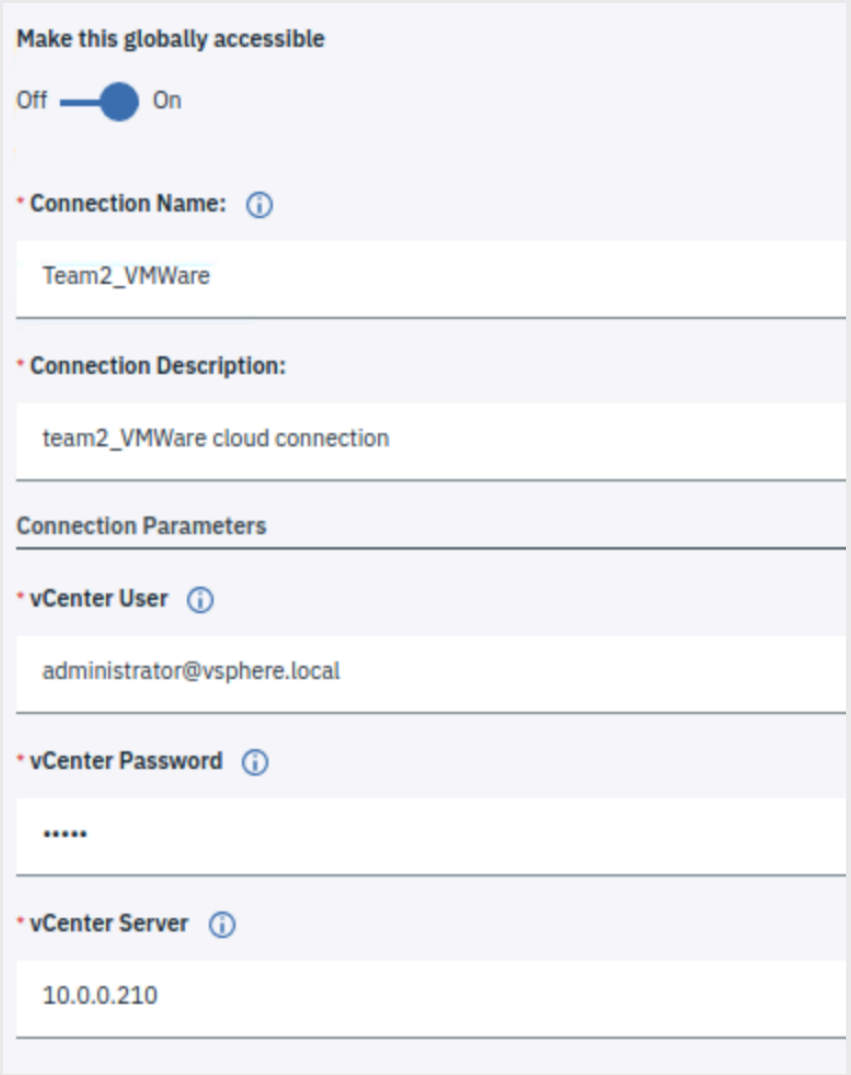
VMware vSphere Provider

The VMware vSphere provider is same as Hashicorp's Vmware vSphere provider.

This wiki captures additional resources (or attributes to existing resources) which are added to the vSphere Provider.

Resources

Port Group to vSphere Distributed Switch
User permission
Virtual App



Amazon EC2

In order for Cloud Automation Manager to access your Amazon Web Services (AWS) account, an access key and the secret access key to your account are required.

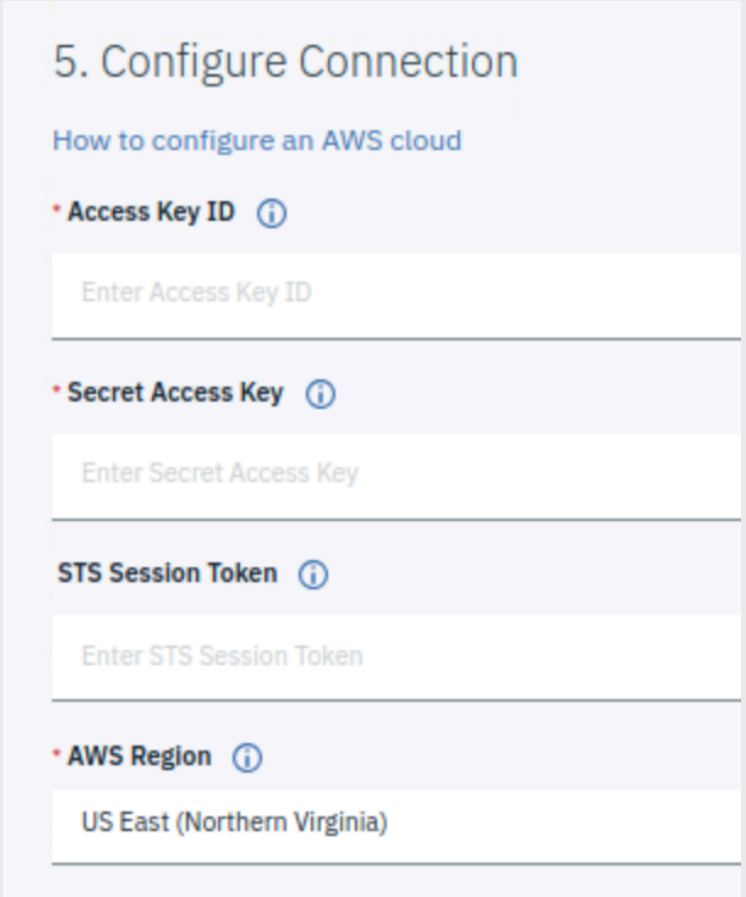
The access key and the secret access key are not your AWS user name and password, but they are special tokens that allow Cloud Automation Manager to communicate with your AWS account via secure API calls.

How to setup access keys?

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_credentials_access-keys.html#Using_CreateAccessKey

Terraform AWS Provider

https://www.terraform.io/docs/providers/aws/




```
provider "aws" {
 region = "${var.aws_region}"
 token  = "${var.aws_token}"
 access_key = "${var.aws_access_key}"
 secret_key = "${var.aws_secret_key}"
}
```

IBM Cloud

IBM Cloud API Key

- Used to provision IBM Cloud Resources

SoftLayer User Name & SoftLayer API Key

- Used to provision SoftLayer IaaS resources

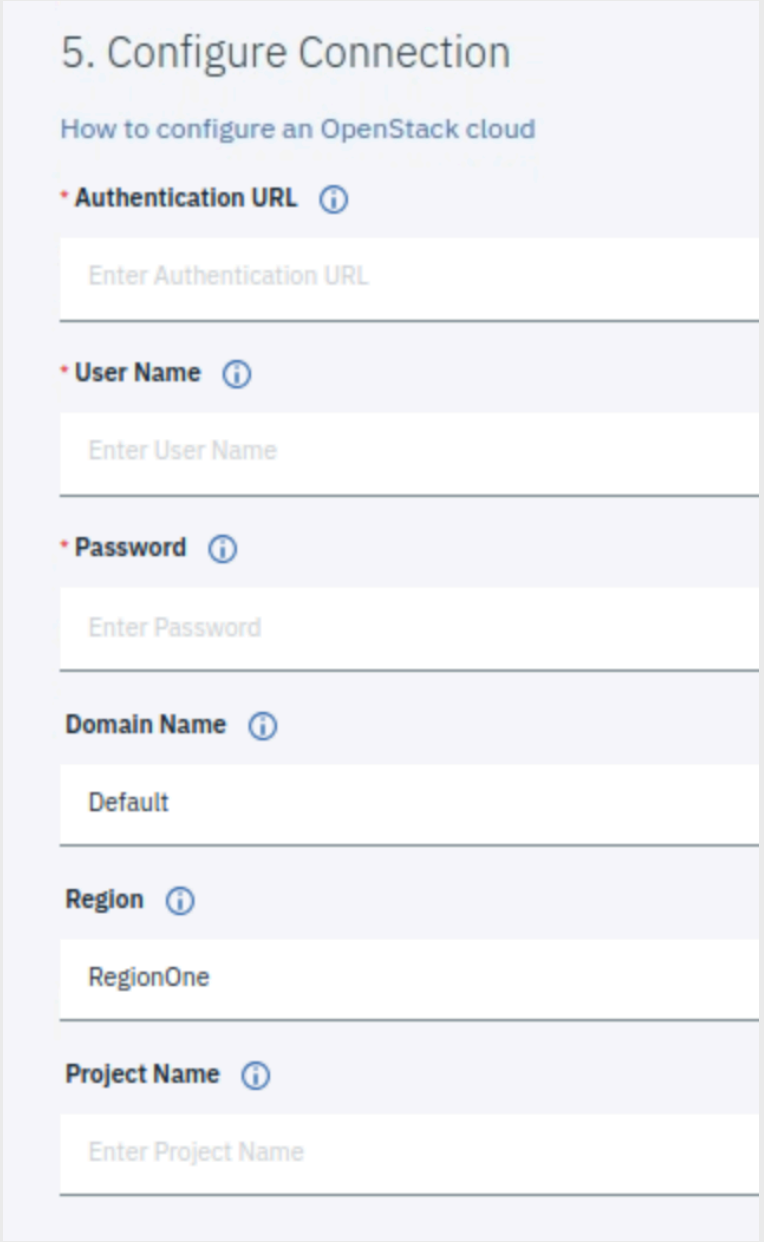
Maintained by IBM not available from Terraform

OpenStack

https://www.terraform.io/docs/providers/openstack/

IBM Cloud Automation manager supports OpenStack cloud connection, PowerVC on Openstack connection, and z/VM Cloud Manager Appliance on OpenStack connection.

- OpenStack connection
- PowerVC cloud on OpenStack (PowerVC cloud V1.3.3)
- z/VM Cloud Manager Appliance on OpenStack (see documentation)



Custom Terraform Providers

https://www.ibm.com/support/knowledgecenter/en/SS2L37_3.1.2.1/cam_using_BYO_terraform.html