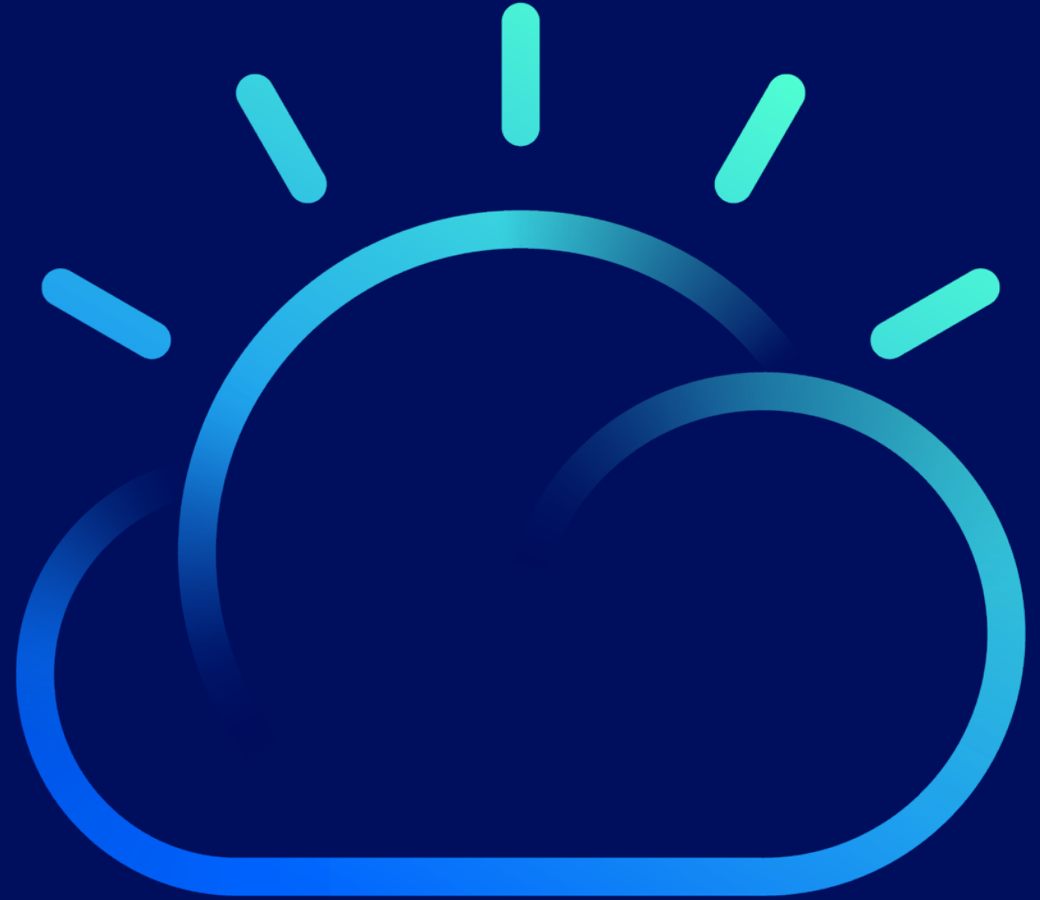


Supported Hypervisors



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](#)

Make this globally accessible

Off ☒ On

* Connection Name: ⓘ

Team2_VMWare

* Connection Description:

team2_VMWare cloud connection

Connection Parameters

* vCenter User ⓘ

administrator@vsphere.local

* vCenter Password ⓘ

* vCenter Server ⓘ

10.0.0.210

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/>

5. Configure Connection

How to configure an AWS cloud

* Access Key ID ⓘ

Enter Access Key ID

* Secret Access Key ⓘ

Enter Secret Access Key

STS Session Token ⓘ

Enter STS Session Token

* AWS Region ⓘ

US East (Northern Virginia)

```
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

5. Configure Connection

How to configure an IBM cloud

Provide the IBM Cloud API Key to provision and manage resources.

IBM Cloud API Key ⓘ

Enter IBM Cloud API Key

Provide the SoftLayer User Name and API Key to provision SoftLayer resources.

SoftLayer User Name ⓘ

Enter SoftLayer User Name

SoftLayer API Key ⓘ

Enter SoftLayer API Key

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)

5. Configure Connection

How to configure an OpenStack cloud

• Authentication URL ⓘ

Enter Authentication URL

• User Name ⓘ

Enter User Name

• Password ⓘ

Enter Password

Domain Name ⓘ

Default

Region ⓘ

RegionOne

Project Name ⓘ

Enter Project Name

Custom Terraform Providers

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

