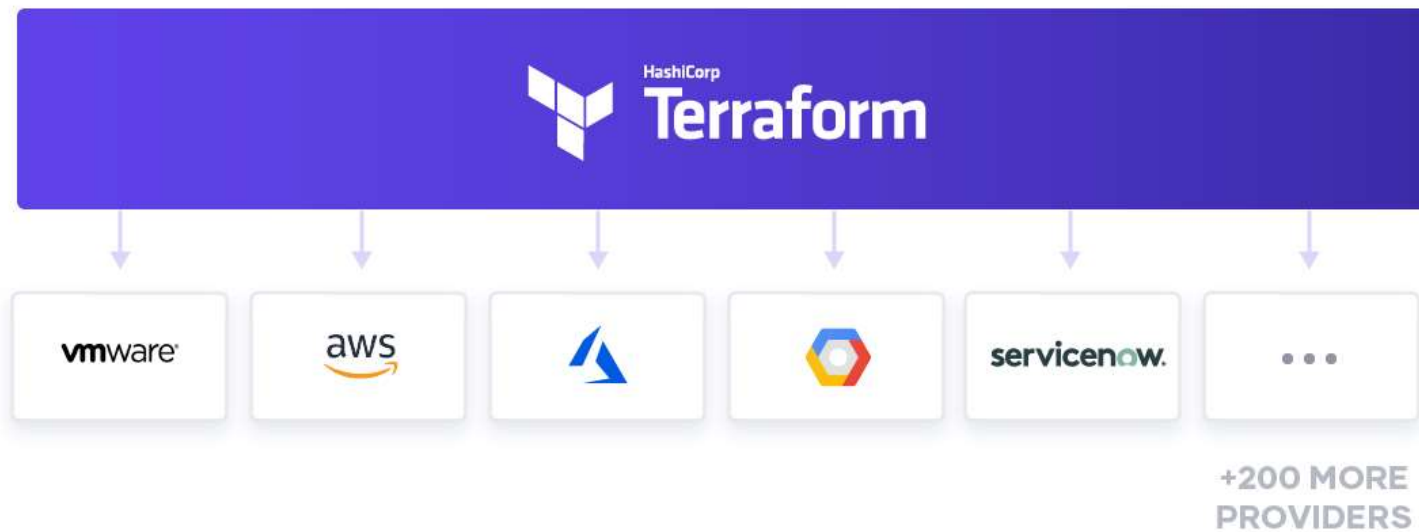


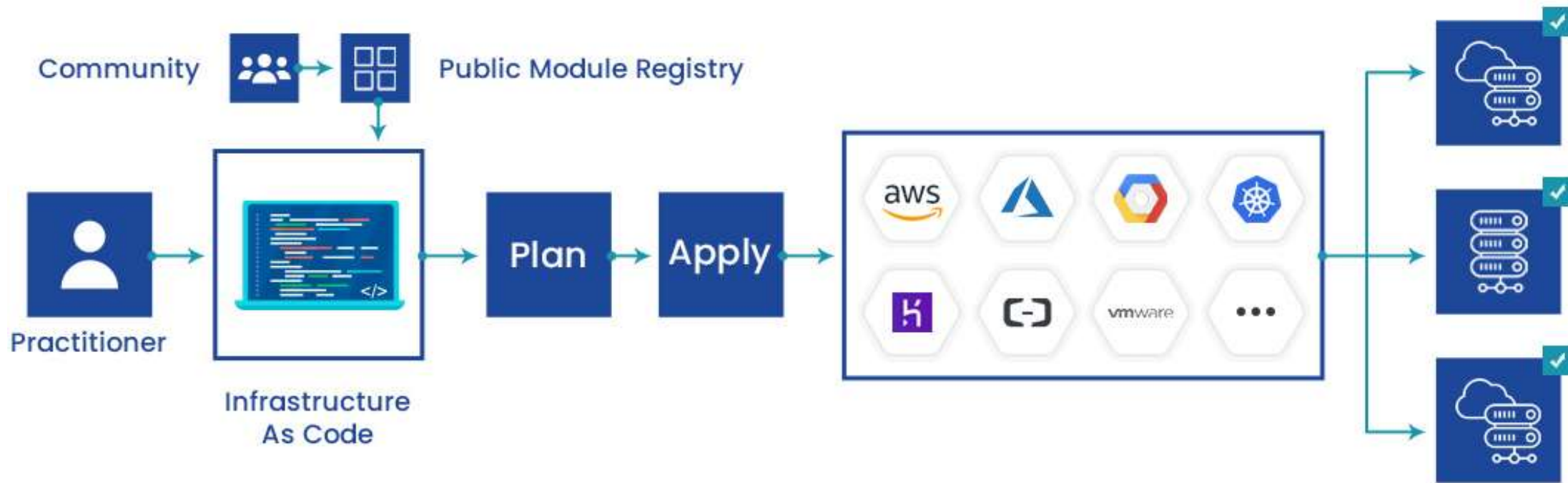
HashiCorp

Terraform

Introduction

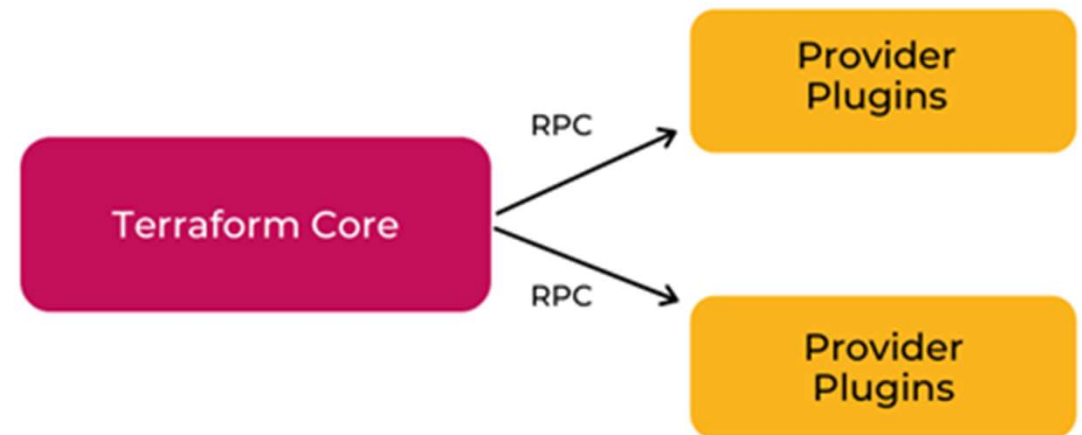


Introduction



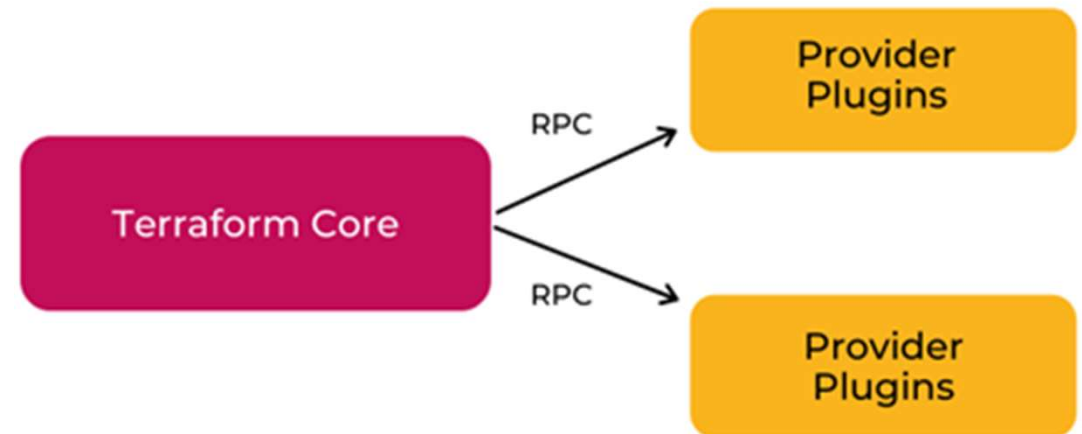
Terraform Core

- Written in the Go programming language
- The entry-point for anyone using Terraform
- Primary responsibilities
 - Reading configuration files
 - Resource state management
 - Construction of the Resource Graph
 - Plan execution
 - Communication with plugins



Terraform Plugins

- Each plugin exposes an implementation for a specific service
 - such as AWS, Azure
- Plugin Locations
 - `~/.terraform.d/plugins`



Install Terraform

- `curl -fsSL https://apt.releases.hashicorp.com/gpg | sudo apt-key add -`
- `sudo apt-add-repository "deb [arch=amd64] https://apt.releases.hashicorp.com $(lsb_release -cs) main"`
- `sudo apt-get update && sudo apt-get install terraform`
- `terraform -help`
- `terraform -install-autocomplete`
- Refer: 0-Install-Terraform.md

```
aws_vpc.main: Creating...
arn: "" => "<computed>"
assign_generated_ipv6_cidr_block: "" => "false"
cidr_block: "" => "10.11.0.0/16"
default_network_acl_id: "" => "<computed>"
default_route_table_id: "" => "<computed>"
default_security_group_id: "" => "<computed>"
dhcp_options_id: "" => "<computed>"
enable_classiclink: "" => "<computed>"
enable_classiclink_dns_support: "" => "<computed>"
enable_dns_hostnames: "" => "true"
enable_dns_support: "" => "true"
instance_tenancy: "" => "default"
ipv6_association_id: "" => "<computed>"
ipv6_cidr_block: "" => "<computed>"
main_route_table_id: "" => "<computed>"
owner_id: "" => "<computed>"
tags.%: "" => "2"
tags.Environment: "" => "Test"
tags.Name: "" => "Test-VPCC"
aws_vpc.main: Still creating... (10s elapsed)
aws_vpc.main: Creation complete after 17s (ID: vpc-0e94a7d72c02dab2b)
aws_subnet.test: Creating...
arn: "" => "<computed>"
assign_ipv6_address_on_creation: "" => "false"
availability_zone: "" => "us-east-1a"
availability_zone_id: "" => "<computed>"
cidr_block: "" => "10.11.1.0/24"
ipv6_cidr_block: "" => "<computed>"
ipv6_cidr_block_association_id: "" => "<computed>"
map_public_ip_on_launch: "" => "false"
owner_id: "" => "<computed>"
tags.%: "" => "1"
tags.Name: "" => "Test_subnet1"
vpc_id: "" => "vpc-0e94a7d72c02dab2b"
aws_subnet.test: Creation complete after 6s (ID: subnet-0ad06c2e86542ddc1)
Apply complete! Resources: 2 added, 0 changed, 0 destroyed.
PS C:\Users\Administrator\projects\terraform>
```

An Introduction to Terraform Syntax

- Called HashiCorp Configuration Language (HCL)
- Human readable as well as machine-friendly

- `# An AMI`
- `variable "ami" {`
- `description = "the AMI to use"`
- `}`

- `resource "aws_instance" "web" {`
- `ami = "${var.ami}"`
- `count = 2`
- `connection {`
- `user = "root"`
- `}`
- `}`

Thanks