

## » **vcd\_\_dnat**

Provides a vCloud Director DNAT resource. This can be used to create, modify, and delete destination NATs to map an external IP/port to an internal IP/port.

### » **Example Usage**

```
resource "vcd_dnat" "web" {  
  edge_gateway = "Edge Gateway Name"  
  external_ip  = "78.101.10.20"  
  port        = 80  
  internal_ip  = "10.10.0.5"  
  translated_port = 8080  
}
```

### » **Argument Reference**

The following arguments are supported:

- **edge\_gateway** - (Required) The name of the edge gateway on which to apply the DNAT
- **external\_ip** - (Required) One of the external IPs available on your Edge Gateway
- **port** - (Required) The port number to map
- **internal\_ip** - (Required) The IP of the VM to map to

## » **vcd\_\_firewall\_\_rules**

Provides a vCloud Director Firewall resource. This can be used to create, modify, and delete firewall settings and rules.

### » **Example Usage**

```
resource "vcd_firewall_rules" "fw" {  
  edge_gateway = "Edge Gateway Name"  
  default_action = "deny"  
  
  rule {  
    description = "deny-ftp-out"  
    policy      = "deny"  
    protocol    = "tcp"  
    destination_port = "21"  
  }  
}
```

```

        destination_ip = "any"
        source_port     = "any"
        source_ip       = "10.10.0.0/24"
    }

    rule {
        description      = "allow-outbound"
        policy           = "allow"
        protocol         = "any"
        destination_port = "any"
        destination_ip   = "any"
        source_port      = "any"
        source_ip        = "10.10.0.0/24"
    }
}

resource "vcd_vapp" "web" {
    # ...
}

resource "vcd_firewall_rules" "fw-web" {
    edge_gateway = "Edge Gateway Name"
    default_action = "drop"

    rule {
        description      = "allow-web"
        policy           = "allow"
        protocol         = "tcp"
        destination_port = "80"
        destination_ip   = "${vcd_vapp.web.ip}"
        source_port      = "any"
        source_ip        = "any"
    }
}

```

## » Argument Reference

The following arguments are supported:

- **edge\_gateway** - (Required) The name of the edge gateway on which to apply the Firewall Rules
- **default\_action** - (Required) Either "allow" or "deny". Specifies what to do should none of the rules match
- **rule** - (Optional) Configures a firewall rule; see Rules below for details.

## » Rules

Each firewall rule supports the following attributes:

- **description** - (Required) Description of the firewall rule
- **policy** - (Required) Specifies what to do when this rule is matched. Either "allow" or "deny"
- **protocol** - (Required) The protocol to match. One of "tcp", "udp", "icmp" or "any"
- **destination\_port** - (Required) The destination port to match. Either a port number or "any"
- **destination\_ip** - (Required) The destination IP to match. Either an IP address, IP range or "any"
- **source\_port** - (Required) The source port to match. Either a port number or "any"
- **source\_ip** - (Required) The source IP to match. Either an IP address, IP range or "any"

## » vcd\_\_network

Provides a vCloud Director VDC Network. This can be used to create, modify, and delete internal networks for vApps to connect.

## » Example Usage

```
resource "vcd_network" "net" {
  name           = "my-net"
  edge_gateway   = "Edge Gateway Name"
  gateway        = "10.10.0.1"

  dhcp_pool {
    start_address = "10.10.0.2"
    end_address   = "10.10.0.100"
  }

  static_ip_pool {
    start_address = "10.10.0.152"
    end_address   = "10.10.0.254"
  }
}
```

## » Argument Reference

The following arguments are supported:

- **name** - (Required) A unique name for the network
- **edge\_gateway** - (Required) The name of the edge gateway
- **netmask** - (Optional) The netmask for the new network. Defaults to 255.255.255.0
- **gateway** (Required) The gateway for this network
- **dns1** - (Optional) First DNS server to use. Defaults to 8.8.8.8
- **dns2** - (Optional) Second DNS server to use. Defaults to 8.8.4.4
- **dns\_suffix** - (Optional) A FQDN for the virtual machines on this network
- **dhcp\_pool** - (Optional) A range of IPs to issue to virtual machines that don't have a static IP; see IP Pools below for details.
- **static\_ip\_pool** - (Optional) A range of IPs permitted to be used as static IPs for virtual machines; see IP Pools below for details.

## » IP Pools

Network interfaces support the following attributes:

- **start\_address** - (Required) The first address in the IP Range
- **end\_address** - (Required) The final address in the IP Range

## » vcd\_\_snat

Provides a vCloud Director SNAT resource. This can be used to create, modify, and delete source NATs to allow vApps to send external traffic.

## » Example Usage

```
resource "vcd__snat" "outbound" {  
  edge_gateway = "Edge Gateway Name"  
  external_ip   = "78.101.10.20"  
  internal_ip   = "10.10.0.0/24"  
}
```

## » Argument Reference

The following arguments are supported:

- **edge\_gateway** - (Required) The name of the edge gateway on which to apply the SNAT

- **external\_ip** - (Required) One of the external IPs available on your Edge Gateway
- **internal\_ip** - (Required) The IP or IP Range of the VM(s) to map from

## » **vcd\_\_edgegateway\_\_vpn**

Provides a vCloud Director IPsec VPN. This can be used to create, modify, and delete VPN settings and rules.

### » **Example Usage**

```
resource "vcd_edgegateway_vpn" "vpn" {
  edge_gateway      = "Internet_01(nti0000bi2_123-456-2)"
  name              = "west-to-east"
  description        = "Description"
  encryption_protocol = "AES256"
  mtu                = 1400
  peer_id            = "64.121.123.11"
  peer_ip_address    = "64.121.123.11"
  local_id           = "64.121.123.10"
  local_ip_address    = "64.121.123.10"
  shared_secret      = "*****"

  peer_subnets {
    peer_subnet_name = "DMZ_WEST"
    peer_subnet_gateway = "10.0.10.1"
    peer_subnet_mask = "255.255.255.0"
  }

  peer_subnets {
    peer_subnet_name = "WEB_WEST"
    peer_subnet_gateway = "10.0.20.1"
    peer_subnet_mask = "255.255.255.0"
  }

  local_subnets {
    local_subnet_name = "DMZ_EAST"
    local_subnet_gateway = "10.0.1.1"
    local_subnet_mask = "255.255.255.0"
  }

  local_subnets {
    local_subnet_name = "WEB_EAST"
  }
}
```

```

        local_subnet_gateway = "10.0.22.1"
        local_subnet_mask = "255.255.255.0"
    }
}

```

## » Argument Reference

The following arguments are supported:

- **edge\_gateway** - (Required) The name of the edge gateway on which to apply the Firewall Rules
- **name** - (Required) The name of the VPN
- **description** - (Required) A description for the VPN
- **encryption\_protocol** - (Required) - E.g. **AES256**
- **local\_ip\_address** - (Required) - Local IP Address
- **local\_id** - (Required) - Local ID
- **mtu** - (Required) - The MTU setting
- **peer\_ip\_address** - (Required) - Peer IP Address
- **peer\_id** - (Required) - Peer ID
- **shared\_secret** - (Required) - Shared Secret
- **local\_subnets** - (Required) - List of Local Subnets see Local Subnets below for details.
- **peer\_subnets** - (Required) - List of Peer Subnets see Peer Subnets below for details.

## » Local Subnets

Each Local Subnet supports the following attributes:

- **local\_subnet\_name** - (Required) Name of the local subnet
- **local\_subnet\_gateway** - (Required) Gateway of the local subnet
- **local\_subnet\_mask** - (Required) Subnet mask of the local subnet

## » Peer Subnets

Each Peer Subnet supports the following attributes:

- **peer\_subnet\_name** - (Required) Name of the peer subnet
- **peer\_subnet\_gateway** - (Required) Gateway of the peer subnet
- **peer\_subnet\_mask** - (Required) Subnet mask of the peer subnet

## » vcd\_\_vapp

Provides a vCloud Director vApp resource. This can be used to create, modify, and delete vApps.

### » Example Usage

```
resource "vcd_network" "net" {
  # ...
}

resource "vcd_vapp" "web" {
  name           = "web"
  catalog_name   = "Boxes"
  template_name  = "lampstack-1.10.1-ubuntu-10.04"
  memory         = 2048
  cpus           = 1

  network_name = "${vcd_network.net.name}"
  network_href = "${vcd_network.net.href}"
  ip           = "10.10.104.160"

  metadata {
    role    = "web"
    env     = "staging"
    version = "v1"
  }

  ovf {
    hostname = "web"
  }
}
```

### » Example RAW vApp with No VMS

```
resource "vcd_network" "net" {
  # ...
}

resource "vcd_vapp" "web" {
  name = "web"
}
```

## » Argument Reference

The following arguments are supported:

- **name** - (Required) A unique name for the vApp
- **catalog\_name** - (Optional) The catalog name in which to find the given vApp Template
- **template\_name** - (Optional) The name of the vApp Template to use
- **memory** - (Optional) The amount of RAM (in MB) to allocate to the vApp
- **cpus** - (Optional) The number of virtual CPUs to allocate to the vApp
- **initscript** (Optional) A script to be run only on initial boot
- **network\_name** - (Optional) Name of the network this vApp should join
- **network\_href** - (Deprecated) The vCloud Director generated href of the network this vApp should join. If empty it will use the network name and query vCloud Director to discover this
- **ip** - (Optional) The IP to assign to this vApp. Must be an IP address or one of dhcp, allocated or none. If given the address must be within the **static\_ip\_pool** set for the network. If left blank, and the network has **dhcp\_pool** set with at least one available IP then this will be set with DHCP.
- **metadata** - (Optional) Key value map of metadata to assign to this vApp
- **ovf** - (Optional) Key value map of ovf parameters to assign to VM product section
- **power\_on** - (Optional) A boolean value stating if this vApp should be powered on. Default to **true**

## » vcd\_vapp\_vm

Provides a vCloud Director VM resource. This can be used to create, modify, and delete VMs within a vApp.

**Note:** There is known bug with this implementation, that to use the `vcd_vapp_vm` resource, you must set the `parallelism` parameter to 1. We are working on this.

## » Example Usage

```
resource "vcd_network" "net" {  
  # ...  
}  
  
resource "vcd_vapp" "web" {  
  name          = "web"  
}
```



```

resource "vcd_vapp_vm" "web2" {
  vapp_name      = "${vcd_vapp.web.name}"
  name           = "web2"
  catalog_name   = "Boxes"
  template_name  = "lampstack-1.10.1-ubuntu-10.04"
  memory         = 2048
  cpus           = 1

  ip             = "10.10.104.161"
}

resource "vcd_vapp_vm" "web3" {
  vapp_name      = "${vcd_vapp.web.name}"
  name           = "web3"
  catalog_name   = "Boxes"
  template_name  = "lampstack-1.10.1-ubuntu-10.04"
  memory         = 2048
  cpus           = 1

  ip             = "10.10.104.162"
}

```

## » Argument Reference

The following arguments are supported:

- **vapp\_name** - (Required) The vApp this VM should belong to.
- **name** - (Required) A unique name for the vApp
- **catalog\_name** - (Required) The catalog name in which to find the given vApp Template
- **template\_name** - (Required) The name of the vApp Template to use
- **memory** - (Optional) The amount of RAM (in MB) to allocate to the vApp
- **cpus** - (Optional) The number of virtual CPUs to allocate to the vApp
- **initscript** (Optional) A script to be run only on initial boot
- **ip** - (Optional) The IP to assign to this vApp. Must be an IP address or one of dhcp, allocated or none. If given the address must be within the **static\_ip\_pool** set for the network. If left blank, and the network has **dhcp\_pool** set with at least one available IP then this will be set with DHCP.
- **power\_on** - (Optional) A boolean value stating if this vApp should be powered on. Default to **true**