

## » stackpath\_\_compute\_\_workload

A computing application deployed to StackPath's edge network.

### » Example Usage

```
resource "stackpath_compute_workload" "my-compute-workload" {
  name = "my-compute-workload"
  slug = "my-compute-workload"

  annotations = {
    # request an anycast IP
    "anycast.platform.stackpath.net" = "true"
  }

  network_interface {
    network = "default"
  }

  container {
    # Name that should be given to the container
    name = "app"

    # Nginx image to use for the container
    image = "nginx:latest"

    # Override the command that's used to execute the container. If this option
    # is not provided the default entrypoint and command defined by the docker
    # image will be used.
    # command = []
    resources {
      requests = {
        "cpu"    = "1"
        "memory" = "2Gi"
      }
    }
  }

  env {
    key   = "VARIABLE_NAME"
    value = "VALUE"
  }
}

target {
```

```

name          = "us"
min_replicas  = 1
max_replicas  = 2
scale_settings {
  metrics {
    metric = "cpu"
    # Scale up when CPU averages 50%.
    average_utilization = 50
  }
}
# Deploy these 1 to 2 instances in Dallas, TX, USA and Amsterdam, NL.
deployment_scope = "cityCode"
selector {
  key      = "cityCode"
  operator = "in"
  values   = [
    "DFW", "AMS"
  ]
}
}
}

```

## » Argument Reference

- **name** - (Required) A human readable name.
- **slug** - (Required) A programmatic name for the workload. Workload slugs are used to build the workload's instance names and cannot be changed after creation.
- **labels** - (Optional) Key/value pairs of arbitrary label names and values that can be referenced as selectors by network policies.
- **annotations** - (Optional) Key/value pairs that define StackPath-specific workload configuration.
- **network\_interface** - (Required) Networks to place the compute instance on. See Network Interfaces below for details.
- **image\_pull\_credentials** - (Optional) Credentials to pull container images with. See Image Pull Credentials below for details.
- **virtual\_machine** - (Optional) Virtual machine configuration. StackPath supports a single virtual machine specification in a workload. At least one of **virtual\_machine** or **container** must be provided. See Virtual Machines below for details.
- **container** - (Optional) Container configuration. At least one of **virtual\_machine** or **container** must be provided. See Containers below for details.
- **volume\_claim** - (Optional) Storage that is mounted to a compute workload's instances. See Volume Claims below for details.

- **target** - (Required) How the compute workload should be deployed across the StackPath edge platform. See Deployment Targets below for details.

## » Network Interfaces

`network_interfaces` supports the following arguments:

- **network** - (Required) A name that can be referenced by a selector by network policies. Currently, only the value "default" is supported.

## » Image Pull Credentials

`image_pull_credentials` supports the following arguments:

- **docker\_registry** - (Required) Authentication configuration needed to pull images from a Docker registry. See Docker Registry Credentials below for details.

## » Docker Registry Credentials

`docker_registry` supports the following arguments:

- **server** - (Optional) The address of a Docker registry server. Defaults to "hub.docker.com".
- **username** - (Required) A username to connect the Docker registry.
- **password** - (Required) A password to connect to the Docker registry.
- **email** - (Optional) An email address to use with the Docker registry account.

## » Virtual Machines

`virtual_machine` supports the following arguments:

- **name** - (Required) A virtual machine's name.
- **image** - (Required) The location of a Docker image to run as a virtual machine.
- **port** - (Optional) Network ports to expose from the virtual machine. See Network Ports below for details.
- **liveness\_probe** - (Optional) Criteria to determine if the compute workload is online. See Probes below for details.
- **readiness\_probe** - (Optional) Criteria to determine if the compute workload is ready to serve requests. See Probes below for details.
- **resources** - (Required) Hardware resources required by the virtual machine. See Resources below for details.

- `volume_mount` - (Optional) Storage volumes to mount in the virtual machine. See Volume Mounts below for details.
- `user_data` - (Optional) Base64-encoded cloud-init user data.

## » Containers

`container` supports the following arguments:

- `name` - (Required) A container's name.
- `image` - (Required) A container's image location.
- `command` - (Optional) The command to execute a container.
- `env` - (Optional) Environment variables to set in the container instance. See Environment Variables below for details.
- `port` - (Optional) Networking ports to expose from the container. See Network Ports below for details.
- `liveness_probe` - (Optional) Criteria to determine if the compute workload is online. See Probes below for details.
- `readiness_probe` - (Optional) Criteria to determine if the compute workload is ready to serve requests. See Probes below for details.
- `resources` - (Required) Hardware resources required by the container. See Resources below for details.
- `volume_mount` - (Optional) Storage volumes to mount in the container. See Volume Mounts below for details.

## » Environment Variables

`env` supports the following arguments:

- `key` - (Required) The environment variable name.
- `value` - (Optional) The environment variable value. One of `value` or `secret_value` must be provided.
- `secret_value` - (Optional) A sensitive environment variable value. This value cannot be read after it is set. One of `value` or `secret_value` must be provided.

## » Network Ports

`port` supports the following arguments:

- `name` - (Required) The network port's name.
- `port` - (Required) The network port's number.
- `protocol` - (Optional) The network port's protocol, either "tcp" or "udp". Defaults to "tcp".

## » Volume Claims

`volume_claim` supports the following arguments:

- **name** - (Required) A human readable name.
- **slug** - (Optional) A programmatic slug. Reference this slug when mounting the claim into a workload's instances.
- **resources** - (Required) Hardware resources to allocate to the volume claim. See Resources below for details.

## » Probes

`liveness_probe` and `readiness_probe` take the following arguments:

- **http\_get** - (Optional) HTTP request information. One of `http_get` or `tcp_socket` must be provided. See HTTP probes below for details
- **tcp\_socket** - (Optional) TCP socket information. One of `http_get` or `tcp_socket` must be provided. See TCP probes below for details
- **initial\_delay\_seconds** - (Optional) The initial delay before the probe starts. Defaults to 0.
- **timeout\_seconds** - (Optional) The number of seconds before the probe times out and is considered a failure. Defaults to 10.
- **period** - (Optional) The frequency of the probe. Defaults to 60.
- **success\_threshold** - (Required) The minimum consecutive successes required before a probe is considered successful after a failure. This must be 1 for liveness probes.
- **failure\_threshold** - (Required) The amount of failures seen before the probe is considered a failure.

## » HTTP Probes

`http_get` takes the following arguments:

- **path** - (Optional) The URL path to request from the application. Defaults to `"/"`.
- **port** - (Required) The TCP port the HTTP service listens on.
- **scheme** - (Optional) The URL scheme to query the application with. Defaults to `"http"`.
- **http\_headers** - (Optional) HTTP header names and values to send to the HTTP service.

## » TCP probes

`tcp_socket` takes the following arguments:

- **port** - (Required) The TCP port number to connect to.

## » Resources

`resources` takes the following arguments:

- `requests` - (Required) Key/value pairs of hardware resource types and values.

## » Volume Mounts

`volume-mount` takes the following arguments:

- `slug` - (Required) The slug of the volume claim to mount into the workload's instances.
- `mount_path` - (Required) The path the volume is mounted to in a workload's instances.

## » Deployment Targets

`target` takes the following arguments:

- `name` - (Required) A human readable name.
- `min_replicas` - (Required) The minimum number of instances that should be deployed to a target.
- `max_replicas` - (Optional) The maximum number of instances that should be deployed to a target.
- `scale_settings` - (Optional) How to auto-scale the number of instances in the deployment target. See Scaling Settings below for details.
- `deployment_scope` - (Optional) Criteria that defines a deployment target. Defaults to "cityCode".
- `selector` - (Required) The value of the deployment scope to deploy to. See Selectors below for details.

## » Scaling Settings

`scale_settings` takes the following arguments:

- `metrics` - (Required) Scaling metrics. See Scaling Metrics below for details.

## » Scaling Metrics

`metrics` takes the following arguments:

- `metric` - (Required) A hardware metric to use as a scaling basis. Currently, only the "cpu" metric is supported.

- **average\_utilization** - (Optional) The **metric**'s average utilization that should trigger scaling. One of **average\_utilization** or **average\_value** must be provided.
- **average\_value** - (Optional) The **metric**'s average value that should trigger scaling. One of **average\_utilization** or **average\_value** must be provided.

## » Selectors

**selector** takes the following arguments:

- **key** - (Required) The name of the data that a selector is based on.
- **operator** - (Required) A logical operator to apply to a selector like "=", "!=" , "in", or "notin".
- **values** - (Required) Data values to look for in a label selector.

## » Instances

A workload instance is a collection of containers or a virtual machine created based on the template provided in a workload. Instances are accessed via a **stackpath\_resource\_compute\_workload**'s computed **instances** field.

## » Example Usage

```
# Output a StackPath compute workload's instances' name, internal IP addresses,
# and status
output "my-compute-workload-instances" {
  value = {
    for instance in stackpath_compute_workload.my-compute-workload.instances :
    instance.name => {
      "ip_address" = instance.external_ip_address
      "phase"      = instance.phase
    }
  }
}
```

## » Instance Fields

- **name** - (Required) An instance's name. Names are generated from their corresponding workload's slug, followed by a unique hash.
- **metadata** - (Optional) Metadata associated with a running instance, including the workload's **labels** and annotations, both supplied by the user and generated by StackPath.

- **location** - (Optional) The instance's physical location. See Locations below for details.
- **external\_ip\_address** - (Optional) An IP address bound to the instance.
- **ip\_address** - (Optional) An instance's internal IP address.
- **network\_interface** - (Optional) A network interface bound to an instance. See Instance Network Interfaces below for details.
- **virtual\_machine** - (Optional) An instance's virtual machine specification. An instance has either a **virtual\_machine** or **container**.
- **container** - (Optional) An instance's container specification. An instance has either a **virtual\_machine** or **container**.
- **phase** - (Optional) An instance's current status, such as "STARTING", "RUNNING", "FAILED", or "STOPPED".
- **reason** - (Optional) A short reason why an instance is in its current phase.
- **message** - (Optional) A longer message with details why an instance is in its current phase.

## » Locations

**location** has the following fields:

- **name** - (Optional) A location's name.
- **city** - (Optional) A location's city.
- **city\_code** - (Optional) A city's IATA code.
- **subdivision** - (Optional) A location's subdivision.
- **subdivision\_code** - (Optional) A subdivision's ISO 3166-2 code.
- **country** - (Optional) A location's country.
- **country\_code** - (Optional) A country's ISO 3166-1 alpha-2 code.
- **region** - (Optional) A location's region.
- **region\_code** - (Optional) A region's GeoIP code.
- **continent** - (Optional) A location's continent.
- **continent\_code** - (Optional) A continent's GeoIP code.
- **latitude** - (Optional) A location's latitude coordinate.
- **longitude** - (Optional) A location's longitude coordinate.

## » Instance Network Interfaces

**network\_interface** has the following fields:

- **network** - (Required) The name of the workload network interface.
- **ip\_address** - (Required) A network interface's primary IP address.
- **ip\_address\_aliases** - (Optional) Additional IP addresses bound to a network interface.
- **gateway** - (Required) A network interface subnet's gateway IP address.



## » Import

StackPath compute workloads can be imported by their UUID v4 formatted id.  
e.g.

```
$ terraform import stackpath_compute_workload.terraform bdb77768-2938-4ad8-a736-be5290add801
```

## » stackpath\_\_compute\_\_network\_\_policy

Network ingress and egress control of StackPath computing workloads.

## » Example Usage

```
resource "stackpath_compute_network_policy" "web-server" {
  name          = "Allow HTTP traffic to web servers"
  slug          = "web-servers-allow-http"
  description    = "A network policy that allows HTTP access to instances with the web server role"
  priority      = 20000

  instance_selector {
    key          = "role"
    operator     = "in"
    values       = ["web-server"]
  }

  policy_types = ["INGRESS"]

  ingress {
    action      = "ALLOW"
    description = "Allow port 80 traffic from all IPs"
    protocol {
      tcp {
        destination_ports = [80]
      }
    }
    from {
      ip_block {
        cidr = "0.0.0.0/0"
      }
    }
  }
}
```

## » Argument Reference

- **name** - (Required) A human readable name.
- **slug** - (Required) A programmatic name for the network policy.
- **description** - (Optional) A brief description.
- **labels** - (Optional) Key/value pairs of arbitrary label names and values that can be referenced as selectors.
- **annotations** - (Optional) Key/value pairs that define StackPath-specific network policy configuration.
- **instance\_selector** - (Optional) A compute workload instance that the network policy applies to. A network policy with no selectors applies to all networks and all instances in the stack. See Selectors below for details.
- **network\_selector** - (Optional) A network that the network policy applies to. A network policy with no selectors applies to all networks and all instances in the stack. See Selectors below for details.
- **policy\_types** - (Required) A list of network policy types, either "INGRESS" and/or "EGRESS".
- **priority** - (Required) A priority value between 1 and 65000. Higher priority network policies override lower priority policies, and priorities must be unique across the stack.
- **egress** - (Optional) Outbound networking information. See Egress below for details.
- **ingress** - (Optional) Inbound networking information. See Ingress below for details.

## » Egress

**egress** takes the following arguments:

- **action** - (Required) How a network policy treats outbound traffic, either "ALLOW" or "BLOCK".
- **description** - (Optional) A brief description.
- **protocol** - (Optional) Network protocol specific information. See Network Protocols below for details.
- **to** - (Optional) Allow or block outbound traffic to the specified targets. See Network Selectors below for details.

## » Ingress

**ingress** takes the following arguments:

- **action** - (Required) How a network policy treats outbound traffic, either "ALLOW" or "BLOCK".
- **description** - (Optional) A brief description.

- **protocol** - (Optional) Network protocol specific information. See Network Protocols below for details.
- **from** - (Optional) Allow or block inbound traffic from the specified targets. See Network Selectors below for details.

## » Network Protocols

**protocol** takes the following arguments:

- **ah** - (Optional) Allow or block the IPSec Authentication Header protocol. This argument block has no configuration.
- **esp** - (Optional) Allow or block the IPSec Encapsulating Security Payload protocol. This argument block has no configuration.
- **gre** - (Optional) Allow or block the Generic Routing Encapsulation protocol. This argument block has no configuration.
- **icmp** - (Optional) Allow or block the Internet Control Message Protocol. This argument block has no configuration.
- **tcp** - (Optional) Allow or block Transmission Control Protocol connections. See Network Ports below for details.
- **udp** - (Optional) Allow or block User Datagram Protocol connections. See Network Ports below for details.
- **tcp\_udp** - (Optional) Allow or block both TCP and UDP connections. See Network Ports below for details.

## » Network Ports

**tcp**, **udp**, and **tcp\_udp** take the following arguments:

- **source\_ports** - (Optional) A list of destination ports.
- **destination\_ports** - (Optional) A list of destination ports.

## » Network Selectors

**to** and **from** take the following arguments:

- **instance\_selector** - (Optional) Target the given compute workload instances. See Selectors below for details.
- **network\_selector** - (Optional) Target the given networks. See Selectors below for details.
- **ip\_block** - (Optional) Target the given IP address blocks. See IP Blocks below for details.

## » IP Blocks

**ip\_block** takes the following arguments:

- `cidr` - (Required) A CIDR formatted subnet.
- `except` - (Optional) A list of CIDR formatted subnets to exclude from the `cidr` subnet.

## » Selectors

`instance_selector` and `network_selector` take the following arguments:

- `key` - (Required) The name of the data that a selector is based on.
- `operator` - (Required) A logical operator to apply to a selector like "=", "!=" , "in", or "notin".
- `values` - (Required) Data values to look for in a label selector.

## » Import

StackPath compute network policies can be imported by their UUID v4 formatted id. e.g.

```
$ terraform import stackpath_compute_network_policy.terraform bdb77768-2938-4ad8-a736-be5290
```