Consul Provider

Consul (https://www.consul.io) is a tool for service discovery, configuration and orchestration. The Consul provider exposes resources used to interact with a Consul cluster. Configuration of the provider is optional, as it provides defaults for all arguments.

Use the navigation to the left to read about the available resources.

NOTE: The Consul provider should not be confused with the Consul remote state backend (/docs/backends/types/consul.html), which is one of many backends that can be used to store Terraform state. The Consul provider is instead used to manage resources within Consul itself, such as adding external services or working with the key/value store.

Example Usage

```
# Configure the Consul provider
provider "consul" {
  address = "demo.consul.io:80"
  datacenter = "nyc1"
# Access a key in Consul
resource "consul_keys" "app" {
 key {
         = "ami"
   path
         = "service/app/launch_ami"
   default = "ami-1234"
  }
}
# Use our variable from Consul
resource "aws instance" "app" {
  ami = "${consul keys.app.var.ami}"
```

Argument Reference

The following arguments are supported:

- address (Optional) The HTTP(S) API address of the agent to use. Defaults to "127.0.0.1:8500".
- scheme (Optional) The URL scheme of the agent to use ("http" or "https"). Defaults to "http".
- http_auth (Optional) HTTP Basic Authentication credentials to be used when communicating with Consul, in the format of either user or user:pass. This may also be specified using the CONSUL_HTTP_AUTH environment variable.
- datacenter (Optional) The datacenter to use. Defaults to that of the agent.
- token (Optional) The ACL token to use by default when making requests to the agent. Can also be specified with CONSUL_HTTP_TOKEN or CONSUL_TOKEN as an environment variable.

- ca_file (Optional) A path to a PEM-encoded certificate authority used to verify the remote agent's certificate.
- cert_file (Optional) A path to a PEM-encoded certificate provided to the remote agent; requires use of key_file.
- key_file-(Optional) A path to a PEM-encoded private key, required if cert_file is specified.
- insecure_https- (Optional) Boolean value to disable SSL certificate verification; setting this value to true is not recommended for production use. Only use this with scheme set to "https".

Environment Variables

All environment variables prefixed with CONSUL_HTTP listed in the Consul environment variables (https://www.consul.io/docs/commands/index.html#environment-variables) documentation are supported by the Terraform provider.

consul_agent_config

Note: The consul_agent_config resource differs from consul_agent_self (/docs/providers/consul/d/agent_self.html), providing less information but utilizing stable APIs. consul_agent_self will be deprecated in a future release.

The consul_agent_config data source returns configuration data (https://www.consul.io/api/agent.html#read-configuration) from the agent specified in the provider.

Example Usage

```
data "consul_agent_config" "remote_agent" {}

output "info" {
   consul_version = "${data.consul_agent_config.version}"
}
```

Attributes Reference

- datacenter The datacenter the agent is running in
- node_id The ID of the node the agent is running on
- node_name The name of the node the agent is running on
- server Boolean if the agent is a server or not
- revision The first 9 characters of the VCS revision of the build of Consul that is running
- version The version of the build of Consul that is running

consul_agent_self

Warning: The consul_agent_self resource has been deprecated and will be removed from a future release of the provider. Read the upgrade instructions (/docs/providers/consul/upgrading.html#deprecation-of-consul_agent_self) for more information.

The consul_agent_self data source returns configuration and status data (https://www.consul.io/docs/agent/http/agent.html#agent_self) from the agent specified in the provider.

Example Usage

```
data "consul_agent_self" "read-dc1-agent" {
    query_options {
        # Optional parameter: implicitly uses the current datacenter of the agent
        datacenter = "dc1"
    }
}

# Set the description to a whitespace delimited list of the services
resource "example_resource" "app" {
    description = "Consul datacenter ${data.consul_agent_self.read-dc1-agent.datacenter}"

    # ...
}
```

Attributes Reference

- acl_datacenter (https://www.consul.io/docs/agent/options.html#acl_datacenter)
- acl_default_policy (https://www.consul.io/docs/agent/options.html#acl_default_policy)
- acl_disabled_ttl
- acl_down_policy (https://www.consul.io/docs/agent/options.html#acl_down_policy)
- acl_enforce_0_8_semantics (https://www.consul.io/docs/agent/options.html#acl_enforce_version_8)
- acl_ttl (https://www.consul.io/docs/agent/options.html#acl_ttl)
- addresses (https://www.consul.io/docs/agent/options.html#addresses)
- advertise_addr (https://www.consul.io/docs/agent/options.html#_advertise)
- advertise_addr_wan (https://www.consul.io/docs/agent/options.html#_advertise-wan)
- advertise_addrs (https://www.consul.io/docs/agent/options.html#advertise_addrs)
- atlas_join (https://www.consul.io/docs/agent/options.html#_atlas_join)
- bind_addr (https://www.consul.io/docs/agent/options.html#_bind)

- bootstrap_expect (https://www.consul.io/docs/agent/options.html#_bootstrap_expect)
- bootstrap_mode (https://www.consul.io/docs/agent/options.html#_bootstrap)
- check_deregister_interval_min
- check_reap_interval
- check_update_interval (https://www.consul.io/docs/agent/options.html#check_update_interval)
- client_addr (https://www.consul.io/docs/agent/options.html#_client)
- dns A map of DNS configuration attributes. See below for details on the contents of the dns attribute.
- dns_recursors (https://www.consul.io/docs/agent/options.html#recursors) A list of all DNS recursors.
- data_dir (https://www.consul.io/docs/agent/options.html#_data_dir)
- datacenter (https://www.consul.io/docs/agent/options.html#_datacenter)
- dev_mode (https://www.consul.io/docs/agent/options.html#_dev)
- domain (https://www.consul.io/docs/agent/options.html#_domain)
- enable_anonymous_signature (https://www.consul.io/docs/agent/options.html#disable_anonymous_signature)
- enable_coordinates
- enable_debug (https://www.consul.io/docs/agent/options.html#enable_debug)
- enable_remote_exec (https://www.consul.io/docs/agent/options.html#disable_remote_exec)
- enable_syslog (https://www.consul.io/docs/agent/options.html#_syslog)
- enable_ui (https://www.consul.io/docs/agent/options.html#_ui)
- enable_update_check (https://www.consul.io/docs/agent/options.html#disable_update_check)
- id (https://www.consul.io/docs/agent/options.html#_node_id)
- leave_on_int (https://www.consul.io/docs/agent/options.html#skip_leave_on_interrupt)
- leave_on_term (https://www.consul.io/docs/agent/options.html#leave_on_terminate)
- log_level (https://www.consul.io/docs/agent/options.html#_log_level)
- name (https://www.consul.io/docs/agent/options.html#_node)
- performance (https://www.consul.io/docs/agent/options.html#performance)
- pid_file (https://www.consul.io/docs/agent/options.html#_pid_file)
- ports (https://www.consul.io/docs/agent/options.html#ports)
- protocol_version (https://www.consul.io/docs/agent/options.html#_protocol)
- reconnect_timeout_lan (https://www.consul.io/docs/agent/options.html#reconnect_timeout)
- reconnect_timeout_wan (https://www.consul.io/docs/agent/options.html#reconnect_timeout_wan)
- rejoin_after_leave (https://www.consul.io/docs/agent/options.html#_rejoin)

- retry_join (https://www.consul.io/docs/agent/options.html#retry_join)
- retry_join_ec2 (https://www.consul.io/docs/agent/options.html#retry_join_ec2) A map of EC2 retry attributes. See below for details on the available information.
- retry_join_gce (https://www.consul.io/docs/agent/options.html#retry_join_gce) A map of GCE retry attributes. See below for details on the available information.
- retry_join_wan (https://www.consul.io/docs/agent/options.html#_retry_join_wan)
- retry_max_attempts (https://www.consul.io/docs/agent/options.html#_retry_max)
- retry_max_attempts_wan (https://www.consul.io/docs/agent/options.html#_retry_max_wan)
- serf_lan_bind_addr (https://www.consul.io/docs/agent/options.html#_serf_lan_bind)
- serf_wan_bind_addr (https://www.consul.io/docs/agent/options.html#_serf_wan_bind)
- server_mode (https://www.consul.io/docs/agent/options.html#_server)
- server_name (https://www.consul.io/docs/agent/options.html#server_name)
- session_ttl_min (https://www.consul.io/docs/agent/options.html#session_ttl_min)
- start_join (https://www.consul.io/docs/agent/options.html#start_join)
- start_join_wan (https://www.consul.io/docs/agent/options.html#start_join_wan)
- syslog_facility (https://www.consul.io/docs/agent/options.html#syslog_facility)
- tls_ca_file (https://www.consul.io/docs/agent/options.html#ca_file)
- tls_cert_file (https://www.consul.io/docs/agent/options.html#cert_file)
- tls_key_file (https://www.consul.io/docs/agent/options.html#key_file)
- tls_min_version (https://www.consul.io/docs/agent/options.html#tls_min_version)
- tls_verify_incoming (https://www.consul.io/docs/agent/options.html#verify_incoming)
- tls_verify_outgoing (https://www.consul.io/docs/agent/options.html#verify_outgoing)
- tls_verify_server_hostname(https://www.consul.io/docs/agent/options.html#verify_server_hostname)
- tagged_addresses (https://www.consul.io/docs/agent/options.html#translate_wan_addrs)
- telemetry (https://www.consul.io/docs/agent/options.html#telemetry) A map of telemetry configuration.
- translate_wan_addrs (https://www.consul.io/docs/agent/options.html#translate_wan_addrs)
- ui_dir (https://www.consul.io/docs/agent/options.html#ui_dir)
- unix_sockets (https://www.consul.io/docs/agent/options.html#unix_sockets)
- version The version of the Consul agent.
- version_prerelease
- version_revision

DNS Attributes

- allow_stale (https://www.consul.io/docs/agent/options.html#allow_stale)
- enable_compression (https://www.consul.io/docs/agent/options.html#disable_compression)
- enable_truncate (https://www.consul.io/docs/agent/options.html#enable_truncate)
- max_stale (https://www.consul.io/docs/agent/options.html#max_stale)
- node_ttl (https://www.consul.io/docs/agent/options.html#node_ttl)
- only_passing (https://www.consul.io/docs/agent/options.html#only_passing)
- recursor_timeout (https://www.consul.io/docs/agent/options.html#recursor_timeout)
- service_ttl (https://www.consul.io/docs/agent/options.html#service_ttl)
- udp_answer_limit (https://www.consul.io/docs/agent/options.html#udp_answer_limit)

Retry Join EC2 Attributes

- region (https://www.consul.io/docs/agent/options.html#region)
- tag_key (https://www.consul.io/docs/agent/options.html#tag_key)
- tag_value (https://www.consul.io/docs/agent/options.html#tag_value)

Retry Join GCE Attributes

- credentials_file (https://www.consul.io/docs/agent/options.html#credentials_file)
- project_name (https://www.consul.io/docs/agent/options.html#project_name)
- tag_value (https://www.consul.io/docs/agent/options.html#tag_value)
- zone_pattern (https://www.consul.io/docs/agent/options.html#zone_pattern)

Telemetry Attributes

- circonus_api_app (https://www.consul.io/docs/agent/options.html#telemetry-circonus_api_app)
- $\bullet \ \ circonus_api_token \ (https://www.consul.io/docs/agent/options.html\#telemetry-circonus_api_token)$
- circonus_api_url (https://www.consul.io/docs/agent/options.html#telemetry-circonus_api_url)
- circonus_broker_id (https://www.consul.io/docs/agent/options.html#telemetry-circonus_broker_id)
- circonus_check_id (https://www.consul.io/docs/agent/options.html#telemetry-circonus_check_id)
- $\bullet \ \ circonus_check_tags \ (https://www.consul.io/docs/agent/options.html \# telemetry-circonus_check_tags)$
- circonus_display_name (https://www.consul.io/docs/agent/options.html#telemetry-circonus_check_display_name)
- $\bullet \ \ circonus_force_metric_activation\ (https://www.consul.io/docs/agent/options.html\#telemetry-theory$

circonus_check_force_metric_activation)

- circonus_instance_id (https://www.consul.io/docs/agent/options.html#telemetry-circonus_check_instance_id)
- circonus_search_tag (https://www.consul.io/docs/agent/options.html#telemetry-circonus_check_search_tag)
- circonus_select_tag (https://www.consul.io/docs/agent/options.html#telemetry-circonus_broker_select_tag)
- circonus_submission_interval (https://www.consul.io/docs/agent/options.html#telemetry-circonus_submission_interval)
- circonus_submission_url (https://www.consul.io/docs/agent/options.html#telemetry-circonus_submission_url)
- dogstatsd_addr (https://www.consul.io/docs/agent/options.html#telemetry-dogstatsd_addr)
- dogstatsd_tags (https://www.consul.io/docs/agent/options.html#telemetry-dogstatsd_tags)
- enable_hostname (https://www.consul.io/docs/agent/options.html#telemetry-disable_hostname)
- statsd_addr (https://www.consul.io/docs/agent/options.html#telemetry-statsd_address)
- statsite_addr (https://www.consul.io/docs/agent/options.html#telemetry-statsite_address)
- statsite_prefix (https://www.consul.io/docs/agent/options.html#telemetry-statsite_prefix)

consul_key_prefix

Allows Terraform to read values from a "namespace" of Consul keys that share a common name prefix.

Example Usage

```
data "consul_key_prefix" "app" {
  datacenter = "nyc1"
           = "abcd"
 # Prefix to add to prepend to all of the subkey names below.
 path_prefix = "myapp/config/"
 # Read the ami subkey
 subkey {
           = "ami"
          = "app/launch_ami"
   path
   default = "ami-1234"
  }
}
# Start our instance with the dynamic ami value
resource "aws_instance" "app" {
 ami = "${data.consul_key_prefix.app.var.ami}"
}
```

```
data "consul_key_prefix" "web" {
  datacenter = "nyc1"
  token = "efgh"

# Prefix to add to prepend to all of the subkey names below.
  path_prefix = "myapp/config/"
}

# Start our instance with the dynamic ami value
resource "aws_instance" "web" {
  ami = "${data.consul_key_prefix.web.subkeys["app/launch_ami"]}"

# ...
}
```

Argument Reference

The following arguments are supported:

- datacenter (Optional) The datacenter to use. This overrides the datacenter in the provider setup and the agent's default datacenter.
- token (Optional) The ACL token to use. This overrides the token that the agent provides by default.

- path_prefix (Required) Specifies the common prefix shared by all keys that will be read by this data source instance. In most cases, this will end with a slash to read a "folder" of subkeys.
- subkey (Optional) Specifies a subkey in Consul to be read. Supported values documented below. Multiple blocks supported.

The subkey block supports the following:

- name (Required) This is the name of the key. This value of the key is exposed as var.<name>. This is not the path of the subkey in Consul.
- path (Required) This is the subkey path in Consul (which will be appended to the given path_prefix) to construct the full key that will be used to read the value.
- default (Optional) This is the default value to set for var. < name > if the key does not exist in Consul. Defaults to an empty string.

Attributes Reference

- datacenter The datacenter the keys are being read from.
- path_prefix the common prefix shared by all keys being read.
- var.<name> For each name given, the corresponding attribute has the value of the key.
- subkeys A map of the subkeys and values is set if no subkey block is provided.

consul_keys

The consul_keys resource reads values from the Consul key/value store. This is a powerful way dynamically set values in templates.

Example Usage

```
data "consul_keys" "app" {
  datacenter = "nyc1"
  token = "abcd"

# Read the launch AMI from Consul
  key {
    name = "ami"
    path = "service/app/launch_ami"
    default = "ami-1234"
  }
}

# Start our instance with the dynamic ami value
resource "aws_instance" "app" {
  ami = "${data.consul_keys.app.var.ami}"

# ...
}
```

Argument Reference

The following arguments are supported:

- datacenter (Optional) The datacenter to use. This overrides the datacenter in the provider setup and the agent's default datacenter.
- token (Optional) The ACL token to use. This overrides the token that the agent provides by default.
- key (Required) Specifies a key in Consul to be read. Supported values documented below. Multiple blocks supported.

The key block supports the following:

- name (Required) This is the name of the key. This value of the key is exposed as var.<name>. This is not the path of the key in Consul.
- path (Required) This is the path in Consul that should be read or written to.
- default (Optional) This is the default value to set for var. < name > if the key does not exist in Consul. Defaults to an empty string.

Attributes Reference

- $\bullet\,$ datacenter The datacenter the keys are being read from.
- var.<name> For each name given, the corresponding attribute has the value of the key.

consul_nodes

The consul_nodes data source returns a list of Consul nodes that have been registered with the Consul cluster in a given datacenter. By specifying a different datacenter in the query_options it is possible to retrieve a list of nodes from a different WAN-attached Consul datacenter.

Example Usage

```
data "consul_nodes" "read-dc1-nodes" {
    query_options {
        # Optional parameter: implicitly uses the current datacenter of the agent
        datacenter = "dc1"
    }
}

# Set the description to a whitespace delimited list of the node names
resource "example_resource" "app" {
    description = "${join(" ", formatlist("%s", data.consul_nodes.node_names))}"

# ...
}
```

Argument Reference

The following arguments are supported:

- datacenter (Optional) The Consul datacenter to query. Defaults to the same value found in query_options
 parameter specified below, or if that is empty, the datacenter value found in the Consul agent that this provider is
 configured to talk to.
- query_options (Optional) See below.

The query_options block supports the following:

- allow_stale (Optional) When true, the default, allow responses from Consul servers that are followers.
- require_consistent (Optional) When true force the client to perform a read on at least quorum servers and verify the result is the same. Defaults to false.
- token (Optional) Specify the Consul ACL token to use when performing the request. This defaults to the same API token configured by the consul provider but may be overriden if necessary.
- wait_index (Optional) Index number used to enable blocking quereis.
- wait_time (Optional) Max time the client should wait for a blocking query to return.

Attributes Reference

- datacenter The datacenter the keys are being read from to.
- node_ids A list of the Consul node IDs.
- node_names A list of the Consul node names.
- nodes A list of nodes and details about each Consul agent. The list of per-node attributes is detailed below.

The following is a list of the per-node attributes contained within the nodes map:

- id The Node ID of the Consul agent.
- meta (https://www.consul.io/docs/agent/http/catalog.html#Meta) Node meta data tag information, if any.
- name (https://www.consul.io/docs/agent/http/catalog.html#Node) The name of the Consul node.
- address (https://www.consul.io/docs/agent/http/catalog.html#Address) The IP address the node is advertising to the Consul cluster.
- tagged_addresses (https://www.consul.io/docs/agent/http/catalog.html#TaggedAddresses) List of explicit LAN and WAN IP addresses for the agent.

consul_service

consul_service provides details about a specific Consul service in a given datacenter. The results include a list of nodes advertising the specified service, the node's IP address, port number, node ID, etc. By specifying a different datacenter in the query_options it is possible to retrieve a list of services from a different WAN-attached Consul datacenter.

This data source is different from the consul_services (plural) data source, which provides a summary of the current Consul services.

Example Usage

```
data "consul_service" "read-consul-dc1" {
    query_options {
        # Optional parameter: implicitly uses the current datacenter of the agent
        datacenter = "dc1"
    }
    name = "consul"
}

# Set the description to a whitespace delimited list of the node names
resource "example_resource" "app" {
    description = "${join(" ", data.consul_service.nodes)}"

# ...
}
```

Argument Reference

The following arguments are supported:

- datacenter (Optional) The Consul datacenter to query. Defaults to the same value found in query_options parameter specified below, or if that is empty, the datacenter value found in the Consul agent that this provider is configured to talk to.
- name (Required) The service name to select.
- query_options (Optional) See below.
- tag (Optional) A single tag that can be used to filter the list of nodes to return based on a single matching tag..

The query_options block supports the following:

- allow_stale (Optional) When true, the default, allow responses from Consul servers that are followers.
- require_consistent (Optional) When true force the client to perform a read on at least quorum servers and verify
 the result is the same. Defaults to false.
- token (Optional) Specify the Consul ACL token to use when performing the request. This defaults to the same API token configured by the consul provider but may be overriden if necessary.
- wait_index (Optional) Index number used to enable blocking quereis.

wait_time - (Optional) Max time the client should wait for a blocking query to return.

Attributes Reference

The following attributes are exported:

- datacenter The datacenter the keys are being read from to.
- name The name of the service
- tag The name of the tag used to filter the list of nodes in service.
- service A list of nodes and details about each endpoint advertising a service. Each element in the list is a map of attributes that correspond to each individual node. The list of per-node attributes is detailed below.

The following is a list of the per-node service attributes:

- create_index (https://www.consul.io/docs/agent/http/catalog.html#CreateIndex) The index entry at which point this entry was added to the catalog.
- modify_index (https://www.consul.io/docs/agent/http/catalog.html#ModifyIndex) The index entry at which point this entry was modified in the catalog.
- node_address (https://www.consul.io/docs/agent/http/catalog.html#Address) The address of the Consul node advertising the service.
- node_id The Node ID of the Consul agent advertising the service.
- node_meta (https://www.consul.io/docs/agent/http/catalog.html#Meta) Node meta data tag information, if any.
- node_name (https://www.consul.io/docs/agent/http/catalog.html#Node) The name of the Consul node.
- address (https://www.consul.io/docs/agent/http/catalog.html#ServiceAddress) The IP address of the service. If the ServiceAddress in the Consul catalog is empty, this value is automatically populated with the node_address (the Address in the Consul Catalog).
- enable_tag_override (https://www.consul.io/docs/agent/http/catalog.html#ServiceEnableTagOverride) Whether service tags can be overridden on this service.
- id (https://www.consul.io/docs/agent/http/catalog.html#ServiceID) A unique service instance identifier.
- name (https://www.consul.io/docs/agent/http/catalog.html#ServiceName) The name of the service.
- port (https://www.consul.io/docs/agent/http/catalog.html#ServicePort) Port number of the service.
- tagged_addresses (https://www.consul.io/docs/agent/http/catalog.html#TaggedAddresses) List of explicit LAN and WAN IP addresses for the agent.
- tags (https://www.consul.io/docs/agent/http/catalog.html#ServiceTags) List of tags for the service.

consul_services

The consul_services data source returns a list of Consul services that have been registered with the Consul cluster in a given datacenter. By specifying a different datacenter in the query_options it is possible to retrieve a list of services from a different WAN-attached Consul datacenter.

This data source is different from the consul_service (singular) data source, which provides a detailed response about a specific Consul service.

Example Usage

```
data "consul_services" "read-dc1" {
    query_options {
        # Optional parameter: implicitly uses the current datacenter of the agent
        datacenter = "dc1"
    }
}

# Set the description to a whitespace delimited list of the services
resource "example_resource" "app" {
    description = "${join(" ", data.consul_services.names)}"

# ...
}
```

Argument Reference

The following arguments are supported:

- datacenter (Optional) The Consul datacenter to query. Defaults to the same value found in query_options parameter specified below, or if that is empty, the datacenter value found in the Consul agent that this provider is configured to talk to.
- query_options (Optional) See below.

The query options block supports the following:

- allow_stale (Optional) When true, the default, allow responses from Consul servers that are followers.
- require_consistent (Optional) When true force the client to perform a read on at least quorum servers and verify the result is the same. Defaults to false.
- token (Optional) Specify the Consul ACL token to use when performing the request. This defaults to the same API token configured by the consul provider but may be overriden if necessary.
- wait_index (Optional) Index number used to enable blocking quereis.
- wait_time (Optional) Max time the client should wait for a blocking query to return.

Attributes Reference

- datacenter The datacenter the keys are being read from to.
- names A list of the Consul services found. This will always contain the list of services found.
- services.<service> For each name given, the corresponding attribute is a Terraform map of services and their tags. The value is an alphanumerically sorted, whitespace delimited set of tags associated with the service.
- tags A map of the tags found for each service. If more than one service shares the same tag, unique service names will be joined by whitespace (this is the inverse of services and can be used to lookup the services that match a single tag).

consul_agent_service

The consul_agent_service resource has been deprecated in version 2.0.0 of the provider and will be removed in a future release. Please read the upgrade guide (/docs/providers/consul/upgrading.html#deprecation-of-consul_agent_service) for more information.

Provides access to the agent service data in Consul. This can be used to define a service associated with a particular agent. Currently, defining health checks for an agent service is not supported.

Example Usage

```
resource "consul_agent_service" "app" {
  address = "www.google.com"
  name = "google"
  port = 80
  tags = ["tag0", "tag1"]
}
```

Argument Reference

The following arguments are supported:

- address (Optional) The address of the service. Defaults to the address of the agent.
- name (Required) The name of the service.
- port (Optional) The port of the service.
- tags (Optional) A list of values that are opaque to Consul, but can be used to distinguish between services or nodes.

Attributes Reference

- address The address of the service.
- id The ID of the service, defaults to the value of name.
- name The name of the service.
- port The port of the service.
- tags The tags of the service.

consul_catalog_entry

The consul_catalog_entry resource has been deprecated in version 2.0.0 of the provider and will be removed in a future release. Please read the upgrade guide (/docs/providers/consul/upgrading.html#deprecation-of-consul_catalog_entry) for more information.

Registers a node or service with the Consul Catalog (https://www.consul.io/docs/agent/http/catalog.html#catalog_register). Currently, defining health checks is not supported.

Example Usage

```
resource "consul_catalog_entry" "app" {
   address = "192.168.10.10"
   node = "foobar"

service = {
   address = "127.0.0.1"
   id = "redis1"
   name = "redis"
   port = 8000
   tags = ["master", "v1"]
   }
}
```

Argument Reference

The following arguments are supported:

- address (Required) The address of the node being added to, or referenced in the catalog.
- node (Required) The name of the node being added to, or referenced in the catalog.
- service (Optional) A service to optionally associated with the node. Supported values are documented below.
- datacenter (Optional) The datacenter to use. This overrides the datacenter in the provider setup and the agent's default datacenter.
- token (Optional) ACL token.

The service block supports the following:

- address (Optional) The address of the service. Defaults to the node address.
- id (Optional) The ID of the service. Defaults to the name.
- name (Required) The name of the service
- port (Optional) The port of the service.
- tags (Optional) A list of values that are opaque to Consul, but can be used to distinguish between services or nodes.

Attributes Reference

- address The address of the service.
- node The ID of the service, defaults to the value of name.

consul_intention

Intentions (https://www.consul.io/docs/connect/intentions.html) are used to define rules for which services may connect to one another when using Consul Connect (https://www.consul.io/docs/connect/index.html).

It is appropriate to either reference existing services or specify non-existent services that will be created in the future when creating intentions. This resource can be used in conjunction with the consul_service datasource when referencing services registered on nodes that have a running Consul agent.

Example Usage

Create a simplest intention with static service names:

Referencing a known service via a datasource:

```
resource "consul_intention" "database" {
   source_name = "api"
   destination_name = "${consul_catalog_service.pg.name}"
   action = "allow"
}

data "consul_service" "pg" {
   name = "postgresql"
}
```

Argument Reference

The following arguments are supported:

- source_name (Required, string) The name of the source service for the intention. This service does not have to exist.
- destination_name (Required, string) The name of the destination service for the intention. This service does not have to exist.
- action (Required, string) The intention action. Must be one of allow or deny.
- meta (Optional, map) Key/value pairs that are opaque to Consul and are associated with the intention.
- description (Optional, string) Optional description that can be used by Consul tooling, but is not used internally.
- datacenter (Optional) The datacenter to use. This overrides the datacenter in the provider setup and the agent's default datacenter.

Attributes Reference

- id The ID of the intention.
- source_name The source for the intention.
- destination_name The destination for the intention.
- description A description of the intention.
- meta Key/value pairs associated with the intention.

consul_key_prefix

Allows Terraform to manage a "namespace" of Consul keys that share a common name prefix.

Like consul_keys, this resource can write values into the Consul key/value store, but *unlike* consul_keys this resource can detect and remove extra keys that have been added some other way, thus ensuring that rogue data added outside of Terraform will be removed on the next run.

This resource is thus useful in the case where Terraform is exclusively managing a set of related keys.

To avoid accidentally clobbering matching data that existed in Consul before a consul_key_prefix resource was created, creation of a key prefix instance will fail if any matching keys are already present in the key/value store. If any conflicting data is present, you must first delete it manually.

Warning After this resource is instantiated, Terraform takes control over *all* keys with the given path prefix, and will remove any matching keys that are not present in the configuration. It will also delete *all* keys under the given prefix when a consul_key_prefix resource is destroyed, even if those keys were created outside of Terraform.

Example Usage

```
resource "consul_key_prefix" "myapp_config" {
 datacenter = "nyc1"
        = "abcd"
  token
  # Prefix to add to prepend to all of the subkey names below.
  path_prefix = "myapp/config/"
  subkeys = {
   "elb_cname"
                     = "${aws_elb.app.dns_name}"
   "s3_bucket_name" = "${aws_s3_bucket.app.bucket}"
   "database/hostname" = "${aws_db_instance.app.address}"
   "database/port" = "${aws_db_instance.app.port}"
   "database/username" = "${aws_db_instance.app.username}"
   "database/password" = "${aws_db_instance.app.password}"
   "database/name" = "${aws_db_instance.app.name}"
  }
}
```

Argument Reference

The following arguments are supported:

- datacenter (Optional) The datacenter to use. This overrides the datacenter in the provider setup and the agent's default datacenter.
- token (Optional) The ACL token to use. This overrides the token that the agent provides by default.
- path_prefix (Required) Specifies the common prefix shared by all keys that will be managed by this resource instance. In most cases this will end with a slash, to manage a "folder" of keys.
- subkeys (Required) A mapping from subkey name (which will be appended to the given path_prefix) to the value

that should be stored at that key. Use slashes, as shown in the above example, to create "sub-folders" under the given path prefix.

Attributes Reference

The following attributes are exported:

• datacenter - The datacenter the keys are being read/written to.

consul_keys

The consul_keys resource writes sets of individual values into Consul. This is a powerful way to expose infrastructure details to clients.

This resource manages individual keys, and thus it can create, update and delete the keys explicitly given. However, it is not able to detect and remove additional keys that have been added by non-Terraform means. To manage *all* keys sharing a common prefix, and thus have Terraform remove errant keys not present in the configuration, consider using the consul_key_prefix resource instead.

Example Usage

```
resource "consul_keys" "app" {
  datacenter = "nyc1"
  token = "abcd"

# Set the CNAME of our load balancer as a key
  key {
    path = "service/app/elb_address"
    value = "${aws_elb.app.dns_name}"
  }
}
```

Argument Reference

The following arguments are supported:

- datacenter (Optional) The datacenter to use. This overrides the datacenter in the provider setup and the agent's default datacenter.
- token (Optional) The ACL token to use. This overrides the token that the agent provides by default.
- key (Required) Specifies a key in Consul to be written. Supported values documented below.

The key block supports the following:

- path (Required) This is the path in Consul that should be written to.
- value (Required) The value to write to the given path.
- delete (Optional) If true, then the key will be deleted when either its configuration block is removed from the configuration or the entire resource is destroyed. Otherwise, it will be left in Consul. Defaults to false.

Deprecated key arguments

Prior to Terraform 0.7, this resource was used both to read *and* write the Consul key/value store. The read functionality has moved to the consul_keys *data source*, whose documentation can be found via the navigation.

The pre-0.7 interface for reading keys is still supported for backward compatibility, but will be removed in a future version of Terraform.

Attributes Reference

The following attributes are exported:

 $\bullet \;$ datacenter - The datacenter the keys are being written to.

consul_node

Provides access to Node data in Consul. This can be used to define a node. Currently, defining health checks is not supported.

Example Usage

```
resource "consul_node" "foobar" {
  address = "192.168.10.10"
  name = "foobar"
}
```

Argument Reference

The following arguments are supported:

- address (Required) The address of the node being added to, or referenced in the catalog.
- name (Required) The name of the node being added to, or referenced in the catalog.
- meta (Optional, map) Key/value pairs that are associated with the node.

Attributes Reference

- address The address of the service.
- name The name of the service.
- meta (Optional, map) Key/value pairs that are associated with the node.

consul_prepared_query

Allows Terraform to manage a Consul prepared query.

Managing prepared queries is done using Consul's REST API. This resource is useful to provide a consistent and declarative way of managing prepared queries in your Consul cluster using Terraform.

Example Usage

```
# Creates a prepared query myquery.query.consul that finds the nearest
# healthy myapp.service.consul instance that has the active tag and not
# the standby tag.
resource "consul_prepared_query" "myapp-query" {
         = "myquery"
 name
  datacenter = "us-central1"
 token = "abcd"
 stored_token = "wxyz"
 only_passing = true
            = "_agent"
 service = "myapp"
 tags = ["active", "!standby"]
 failover {
   nearest_n = 3
   datacenters = ["us-west1", "us-east-2", "asia-east1"]
  }
  dns {
   ttl = "30s"
  }
}
# Creates a Prepared Query Template that matches *-near-self.query.consul
# and finds the nearest service that matches the glob character (e.g.
# foo-near-self.query.consul will find the nearest healthy foo.service.consul).
resource "consul_prepared_query" "service-near-self" {
 datacenter = "nyc1"
 token
        = "abcd"
 stored_token = "wxyz"
       = ""
 only_passing = true
         = "_agent"
 template {
   type = "name_prefix_match"
   regexp = "^(.*)-near-self$"
 service = "$${match(1)}"
 failover {
   nearest_n = 3
   datacenters = ["dc2", "dc3", "dc4"]
  dns {
   ttl = "5m"
  }
}
```

Argument Reference

The following arguments are supported:

- datacenter (Optional) The datacenter to use. This overrides the datacenter in the provider setup and the agent's default datacenter.
- token (Optional) The ACL token to use when saving the prepared query. This overrides the token that the agent

provides by default.

- stored_token (Optional) The ACL token to store with the prepared query. This token will be used by default whenever the query is executed.
- name (Required) The name of the prepared query. Used to identify the prepared query during requests. Can be specified as an empty string to configure the query as a catch-all.
- service (Required) The name of the service to query.
- session (Optional) The name of the Consul session to tie this query's lifetime to. This is an advanced parameter that should not be used without a complete understanding of Consul sessions and the implications of their use (it is recommended to leave this blank in nearly all cases). If this parameter is omitted the query will not expire.
- tags (Optional) The list of required and/or disallowed tags. If a tag is in this list it must be present. If the tag is preceded with a "!" then it is disallowed.
- only_passing (Optional) When true, the prepared query will only return nodes with passing health checks in the result.
- near (Optional) Allows specifying the name of a node to sort results near using Consul's distance sorting and network coordinates. The magic _agent value can be used to always sort nearest the node servicing the request.
- failover (Optional) Options for controlling behavior when no healthy nodes are available in the local DC.
 - nearest_n (Optional) Return results from this many datacenters, sorted in ascending order of estimated RTT.
 - o datacenters (Optional) Remote datacenters to return results from.
- dns (Optional) Settings for controlling the DNS response details.
 - ttl (Optional) The TTL to send when returning DNS results.
- template (Optional) Query templating options. This is used to make a single prepared query respond to many different requests.
 - type (Required) The type of template matching to perform. Currently only name_prefix_match is supported.
 - regexp (Required) The regular expression to match with. When using name_prefix_match, this regex is applied against the query name.

Attributes Reference

The following attributes are exported:

• id - The ID of the prepared query, generated by Consul.

consul_service

A high-level resource for creating a Service in Consul in the Consul catalog. This is appropriate for registering external services (https://www.consul.io/docs/guides/external.html) and can be used to create services addressable by Consul that cannot be registered with a local agent (https://www.consul.io/docs/agent/basics.html).

If the Consul agent is running on the node where this service is registered, it is not recommended to use this resource.

Example Usage

Creating a new node with the service:

```
resource "consul_service" "google" {
  name = "google"
  node = "${consul_node.compute.name}"
  port = 80
  tags = ["tag0"]
}

resource "consul_node" "compute" {
  name = "compute-google"
  address = "www.google.com"
}
```

Utilizing an existing known node:

```
resource "consul_service" "google" {
  name = "google"
  node = "google"
  port = 443
}
```

Argument Reference

The following arguments are supported:

- name (Required, string) The name of the service.
- node (Required, string) The name of the node the to register the service on.
- address (Optional, string) The address of the service. Defaults to the address of the node.
- service_id (Optional, string) If the service ID is not provided, it will be defaulted to the value of the name attribute.
- port (Optional, int) The port of the service.
- tags (Optional, set of strings) A list of values that are opaque to Consul, but can be used to distinguish between services or nodes.
- datacenter (Optional) The datacenter to use. This overrides the datacenter in the provider setup and the agent's default datacenter.

Attributes Reference

- service_id The ID of the service.
- address The address of the service.
- node The node the service is registered on.
- name The name of the service.
- port The port of the service.
- tags The tags of the service.

Upgrading the Consul Terraform Provider

This page includes details on our compatibility promise and guidelines to follow when upgrading between versions of the provider. Whenever possible, we recommend verifying upgrades in isolated test environments.

Upgrading to 2.0.0

There were several major deprecation notices introduced in 2.0.0. This reviews the details of each and provides migration instructions to the appropriate resources.

Deprecation of consul_agent_self

The consul_agent_self data source will be removed in the next major version of the provider. As a result, we recommend moving to the new consul_agent_config (/docs/providers/consul/d/agent_config.html) data source.

The consul_agent_config resource returns far less attributes, so as a result it may not provide all necessary functionality. Consul does still provide this data via API but promises no compatibility across versions (https://www.consul.io/docs/upgrade-specific.html#config-section-of-agent-self-endpoint-has-changed), therefore it is being removed from this provider.

Deprecation of consul_agent_service

The consul_agent_service resource will be removed in the next major version of the provider. As a result, we recommend moving to the consul_service (/docs/providers/consul/r/service.html) resource.

This resource has been updated to use the correct catalog APIs in place of service registration APIs. The consul_agent_service resource previously also used the service registration API designed for registration against an agent running on a local node. Because Terraform is intended to be run externally to the cluster, and for other internal reasons, this API was the incorrect one to use.

View migration instructions here (/docs/providers/consul/upgrading.html#migrating-to-consul_service-or-consul_node-resources).

Migrating to consul_service or consul_node resources

Migration to the consul_service resources are possible in two ways. Both require the configuration to be modified.

From consul_agent_service to consul_service:

- 1. Rename consul_agent_service resources to consul_service in the Terraform configuration files.
- 2. Add the node attribute where the service is currently registered, retrievable by querying the catalog (https://www.consul.io/api/catalog.html#list-nodes-for-service) or using the UI. This new attribute is required.
- 3. For a small number of resources, the first class state rm (https://www.terraform.io/docs/commands/state/rm.html) and import (https://www.terraform.io/docs/import/usage.html) commands can be used to first remove the old resource from the state, and then import it under the new resource name.

4. For a large number of resources, edit the state file directly to rename every resource at the same time (replace all instances of consul_agent_service with consul_service). This requires understanding the consequences and guidelines for editing state files (https://www.terraform.io/docs/backends/state.html#manual-state-pull-push), so please read those.

After following these steps, terraform plan should show no changes.

From consul_catalog_entry to consul_service or consul_node:

- 1. Copy the attributes from the service {} or node {} blocks into new consul_service or consul_node resources in the Terraform configuration files.
- 2. For a small number of resources, the first class state rm (https://www.terraform.io/docs/commands/state/rm.html) and import (https://www.terraform.io/docs/import/usage.html) commands can be used to first remove the old resource from the state, and then import it under the new resource name. The node attribute will need to be added to services.

Modifications to consul service

The consul_service resource has been modified to use catalog APIs in place of service registration APIs for creating services in the Consul catalog. This should be a functionally compatible change, and create or read services as prior. It now replaces consul_catalog_entry (the service {} block) and consul_agent_service. The node attribute is now required and the node must exist.

Deprecation of consul_catalog_entry

The consul_catalog_entry resource will be removed in the next major version of the provider. As a result, we recommend moving to the consul_service (/docs/providers/consul/r/service.html) or consul_node (/docs/providers/consul/r/node.html) resources.

These resources have been updated (or created) to use the correct catalog APIs as with consul_catalog_entry, but provide a first-class resource name.

View migration instructions here (/docs/providers/consul/upgrading.html#migrating-to-consul_service-or-consul_node-resources).

Renaming of Catalog Data Sources

consul_catalog_nodes, consul_catalog_services, and consul_catalog_service have been renamed to consul_nodes, consul_services, and consul_service respectively. The prior naming will continue to work, but in the long term it may be deprecated and removed. This is to present a more consistent and intuitive naming convention for the resources.