Create a subnet

ONTAP 9

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You create a subnet to allocate, or reserve, specific blocks of IPv4 or IPv6 addresses for ONTAP network configuration. This enables you to create interfaces more easily by specifying a subnet name instead of having to specify the IP address and network mask values for each new interface.

Before you begin

The broadcast domain and IPspace where you plan to add the subnet must already exist.

About this task

- All subnet names must be unique within an IPspace.
- When adding IP address ranges to a subnet, you must ensure that there are no overlapping IP addresses in the network so that different subnets, or hosts, do not attempt to use the same IP address.
- If you specify a gateway when defining a subnet, a default route to that gateway is added automatically to the SVM when a LIF is created using that subnet. If you do not use subnets, or if you do not specify a gateway when defining a subnet, then you will need to use the `route create` command to add a route to the SVM manually.

Step

Create a subnet:

```
network subnet create -subnet-name subnet_name -broadcast-domain
<broadcast_domain_name> [- ipspace <ipspace_name>] -subnet
<subnet_address> [-gateway <gateway_address>] [-ip-ranges
<ip_address_list>] [-force-update-lif-associations <true>]
```

- `subnet_name` is the name of the layer 3 subnet you want to create.

  The name can be a text string like "Mgmt" or it can be a specific subnet IP value like 192.0.2.0/24.

- `broadcast_domain_name` is the name of the broadcast domain where the subnet will reside.
- `ipspace_name` is the name of the IPspace that the broadcast domain is part of.

  The "Default" IPspace is used unless you specify a value for this option.

- `subnet_address` is the IP address and mask of the subnet; for example, 192.0.2.0/24.
- `gateway_address` is the gateway for the default route of the subnet; for example, 192.0.2.1.
- `ip_address_list` is the list, or range, of IP addresses that will be allocated to the subnet.

  The IP addresses can be individual addresses, a range of IP addresses, or a combination in a comma-separated list.

- The value `true` can be set for the `-force-update-lif-associations` option.

  This command fails if any service processor or network interfaces are currently using the IP addresses in the specified range. Setting this value to true associates any manually addressed interfaces with the

current subnet, and allows the command to succeed.

The following command creates subnet sub1 in broadcast domain Default-1 in the Default IPspace. It adds an IPv4 subnet IP address and mask, the gateway, and a range of IP addresses:

```
network subnet create -subnet-name sub1 -broadcast-domain Default-1
-subnet 192.0.2.0/24 - gateway 192.0.2.1 -ip-ranges 192.0.2.1-192.0.2.100,
192.0.2.122
```

The following command creates subnet sub2 in broadcast domain Default in the "Default" IPspace. It adds a range of IPv6 addresses:

```
network subnet create -subnet-name sub2 -broadcast-domain Default -subnet
3FFE::/64 - gateway 3FFE::1 -ip-ranges "3FFE::10-3FFE::20"
```

After you finish

You can assign SVMs and interfaces to an IPspace using the addresses in the subnet.

If you need to change the name of an existing subnet, use the `network subnet rename` command.

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