



# Selective Assignment of a GSLB Service to DNS Virtual Services

Avi Technical Reference (v17.2)

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Starting with release 17.2.3, the Avi CLI supports GSLB configurations that need to selectively assign DNS request-handling on a sub-domain basis to particular Avi DNS virtual services. With 17.2.5, support for this feature is extended to the Avi UI.

## Use Case

Consider an environment with \* DNS responsibility pushed to all DNS virtual services in the GSLB setup, \* global services in multiple subdomains, and \* application VIPs residing in separate routing domains.

The health checking Avi DNS SEs perform would necessarily require crossing routing-domain boundaries, which may be unacceptable.

The Avi Vantage alternative is to: \* configure several GSLB DNS virtual services, \* probably one per routing domain, and \* selectively assign DNS request-handling on a sub-domain basis to the various Avi DNS VSs, \* such that the VIP-serving SEs can reside in the same routing domain as the DNS VS that serves up their virtual IPs.

## Avi CLI Configuration

Step 1. Using an ID having administrative privileges, login into the Avi shell of the GSLB leader's Controller. Step 2. Invoke the `configure gslb` command, specifying the name of the configuration. For example: `configure gslb Default`  
Step 3. In response to the `gslb` prompt, keying in two tabs reveals the subcommands available to you:

```
[admin:topol-controller]: gslb>
cancel          Exit the current submode without saving
clear_on_max_retries  Max retries after which the remote site is treated as a fresh start. In fresh start all the conf
client_ip_addr_group (submode)
description     Help string not found for argument
dns_configs     (submode)
do              Execute a show command
is_federated    This field indicates that this object is replicated across GSLB federation.
leader_cluster_uuid  Mark this Site as leader of GSLB configuration. This site is the one among the Avi sites.
maintenance_mode This field disables the configuration operations on the leader for all federated objects. CUD c
name            Name for the GSLB object.
new             (Editor Mode) Create new object in editor mode
no             Remove field
save           Save and exit the current submode
send_interval   Frequency with which group members communicate.
show_schema    show object schema
sites          (submode)
tenant_ref     Help string not found for argument
third_party_sites (submode)
view_id        The view-id is used in change-leader mode to differentiate partitioned groups while they have th
watch          Watch a given show command
where          Display the in-progress object
```

Step 4. The `sites` sub-command gets invoked three times, once per DNS to be assigned:

```
[admin:nmandeyam-topol-controller]: gslb> sites index 1
[admin:nmandeyam-topol-controller]: gslb:sites> dns_vses index 1
[admin:nmandeyam-topol-controller]: gslb:sites:dns_vses>
cancel          Exit the current submode without saving
dns_vs_uuid    This field identifies the DNS VS name for this site.
do             Execute a show command
domain_names   This field identifies the subdomains that are hosted on the DNS VS. Gs
no            Remove field
save          Save and exit the current submode
show_schema   show object schema
watch        Watch a given show command
where        Display the in-progress object
[admin:nmandeyam-topol-controller]: gslb:sites:dns_vses> domain_names com
[admin:nmandeyam-topol-controller]: gslb:sites:dns_vses> save
[admin:nmandeyam-topol-controller]: gslb:sites> where
Tenant: admin
+-----+-----+
| Field          | Value                                     |
+-----+-----+
| cluster_uuid  | cluster-544c06d2-9e5e-45a6-ab92-56658dcdca2f |
| name          | SiteA                                    |
| ip_addresses[1] | 10.10.24.126                             |
| port          | 443                                       |
| username      | admin                                     |
| password      | <sensitive>                               |
| member_type   | GSLB_ACTIVE_MEMBER                       |
| enabled       | True                                      |
| dns_vses[1]   |                                           |
|   dns_vs_uuid | virtualservice-d5e163f9-alc2-46e6-9088-de6c7b5eb141 |
|   domain_names[1] | com                                       |
| dns_vses[2]   |                                           |
|   dns_vs_uuid | virtualservice-a500e091-94a9-4f3c-a4d0-2ac688f3618b |
| dns_vses[3]   |                                           |
|   dns_vs_uuid | virtualservice-a131680f-9739-4d2e-b0fc-7007e0aa2eff |
+-----+-----+
```

Figure 1. Assigning DNS vs-1 to subdomain com.

```
[admin:nmandeyam-topol-controller]: gslb:sites> dns_vses index 2
[admin:nmandeyam-topol-controller]: gslb:sites:dns_vses> domain_names edu
[admin:nmandeyam-topol-controller]: gslb:sites:dns_vses> save
[admin:nmandeyam-topol-controller]: gslb:sites> where
Tenant: admin
```

Field	Value
cluster_uuid	cluster-544c06d2-9e5e-45a6-ab92-56658dcdca2f
name	SiteA
ip_addresses[1]	10.10.24.126
port	443
username	admin
password	<sensitive>
member_type	GSLB_ACTIVE_MEMBER
enabled	True
dns_vses[1]	
dns_vs_uuid	virtualservice-d5e163f9-a1c2-46e6-9088-de6c7b5eb141
domain_names[1]	com
dns_vses[2]	
dns_vs_uuid	virtualservice-a500e091-94a9-4f3c-a4d0-2ac688f3618b
domain_names[1]	edu
dns_vses[3]	
dns_vs_uuid	virtualservice-a131680f-9739-4d2e-b0fc-7007e0aa2eff

Figure 2. Assigning DNS vs-2 to subdomain edu.

```
[admin:nmandeyam-topol-controller]: gslb:sites> dns_vses index 3
[admin:nmandeyam-topol-controller]: gslb:sites:dns_vses> domain_names net
[admin:nmandeyam-topol-controller]: gslb:sites:dns_vses> save
[admin:nmandeyam-topol-controller]: gslb:sites> where
Tenant: admin
```

Field	Value
cluster_uuid	cluster-544c06d2-9e5e-45a6-ab92-56658dcdca2f
name	SiteA
ip_addresses[1]	10.10.24.126
port	443
username	admin
password	<sensitive>
member_type	GSLB_ACTIVE_MEMBER
enabled	True
dns_vses[1]	
dns_vs_uuid	virtualservice-d5e163f9-a1c2-46e6-9088-de6c7b5eb141
domain_names[1]	com
dns_vses[2]	
dns_vs_uuid	virtualservice-a500e091-94a9-4f3c-a4d0-2ac688f3618b
domain_names[1]	edu
dns_vses[3]	
dns_vs_uuid	virtualservice-a131680f-9739-4d2e-b0fc-7007e0aa2eff
domain_names[1]	net

Figure 3. Assigning DNS vs-3 to subdomain net.

Step 5. Save the configuration:

```
[admin:nmandeyam-topol-controller]: gslb:sites> save
[admin:nmandeyam-topol-controller]: gslb> where
Tenant: admin
+-----+-----+
| Field | Value |
+-----+-----+
| uuid | gslb-e28132d6-0fae-41a5-aca0-63e23fa7952f |
| name | Default |
| dns_configs[1] | |
|   domain_name | com |
| dns_configs[2] | |
|   domain_name | net |
| dns_configs[3] | |
|   domain_name | edu |
| sites[1] | |
|   cluster_uuid | cluster-544c06d2-9e5e-45a6-ab92-56658dcdca2f |
|   name | SiteA |
|   ip_addresses[1] | 10.10.24.126 |
|   port | 443 |
|   username | admin |
|   password | <sensitive> |
|   member_type | GSLB_ACTIVE_MEMBER |
|   enabled | True |
|   dns_vses[1] | |
|     dns_vs_uuid | virtualservice-d5e163f9-alc2-46e6-9088-de6c7b5eb141 |
|     domain_names[1] | com |
|   dns_vses[2] | |
|     dns_vs_uuid | virtualservice-a500e091-94a9-4f3c-a4d0-2ac688f3618b |
|     domain_names[1] | edu |
|   dns_vses[3] | |
|     dns_vs_uuid | virtualservice-a131680f-9739-4d2e-b0fc-7007e0aa2eff |
|     domain_names[1] | net |
|   leader_cluster_uuid | cluster-544c06d2-9e5e-45a6-ab92-56658dcdca2f |
|   send_interval | 15 sec |
|   clear_on_max_retries | 20 |
|   view_id | 0 |
|   maintenance_mode | False |
|   is_federated | True |
|   tenant_ref | admin |
+-----+-----+
```

Figure 4. GSLB save the site

## Avi UI Configuration

Navigate to Infrastructure > GSLB > Site Configuration to view and/or set the settings related to the selective assignment of a GSLB service to DNS virtual services.

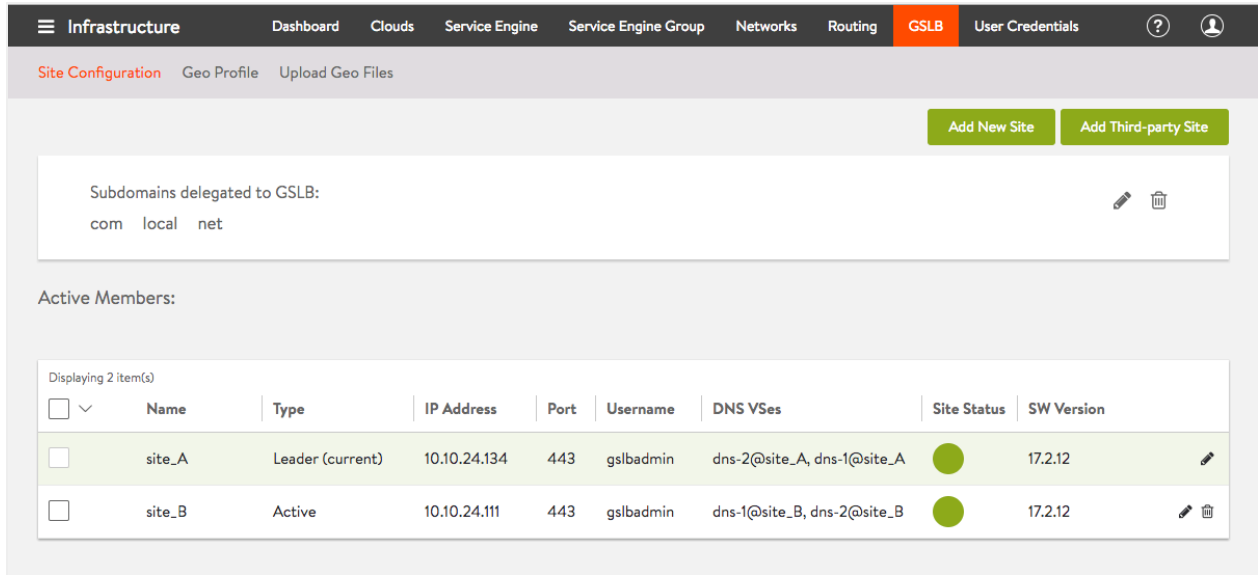


Figure 5. GSLB Site Configuration.

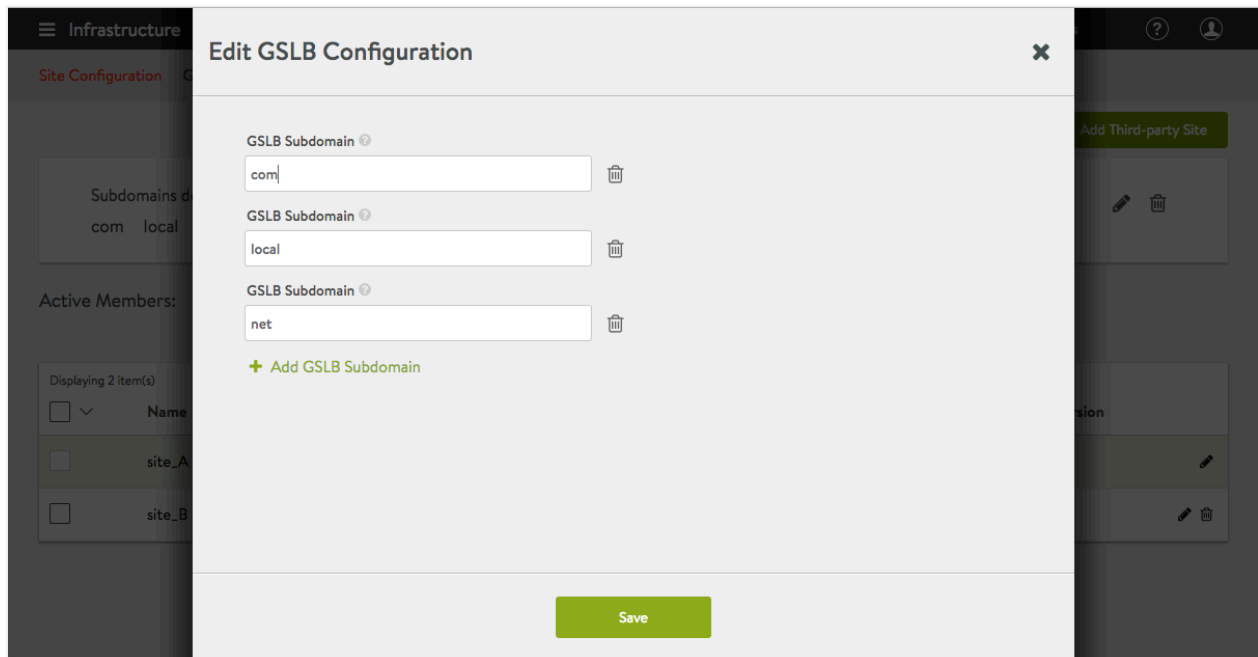


Figure 6. Defining GSLB subdomains

### Edit GSLB Site ✕

**Name\*** ⓘ   **Active Member** ⓘ

**Username\*** ⓘ  **Password** ⓘ

---

**IP Address\*** ⓘ  **Port\*** ⓘ

[+ Add IP Address](#)

---

#### Advanced Settings

**Client Group IP Address Type** ⓘ   **Health Monitor Proxy** ⓘ [+ Health Monitor Proxy](#)

[+ Add Group IP Address](#)

**Geo Location Source** ⓘ

Figure 7. Editing GSLB site\_A

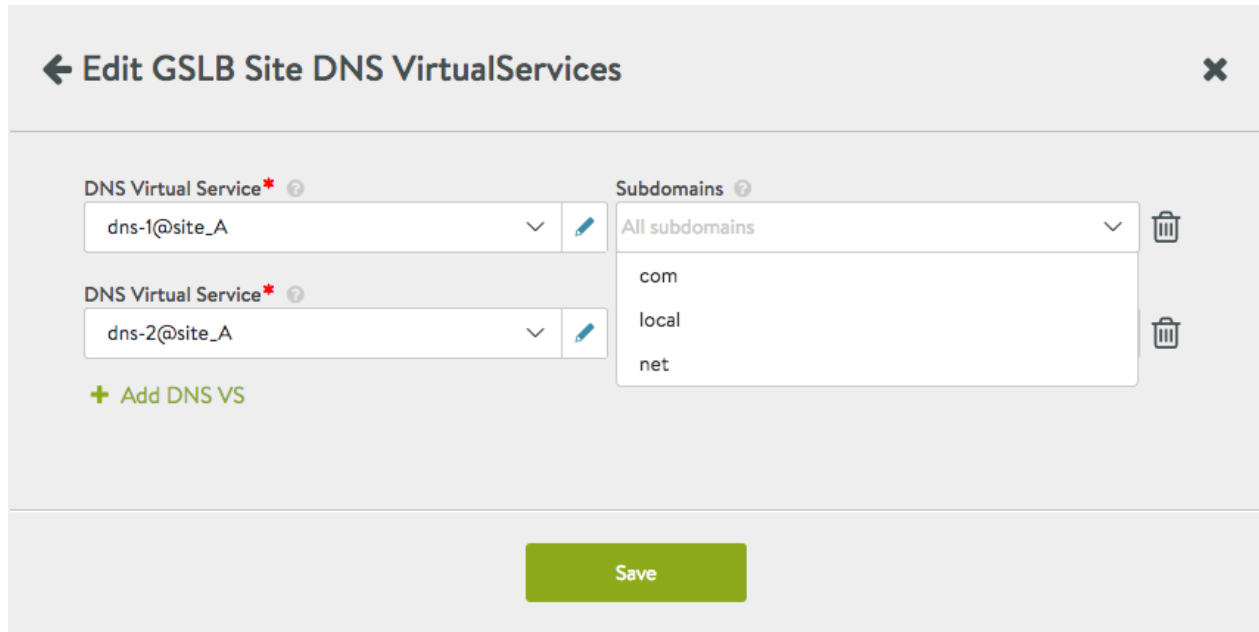


Figure 8. Subdomain selection pulldown

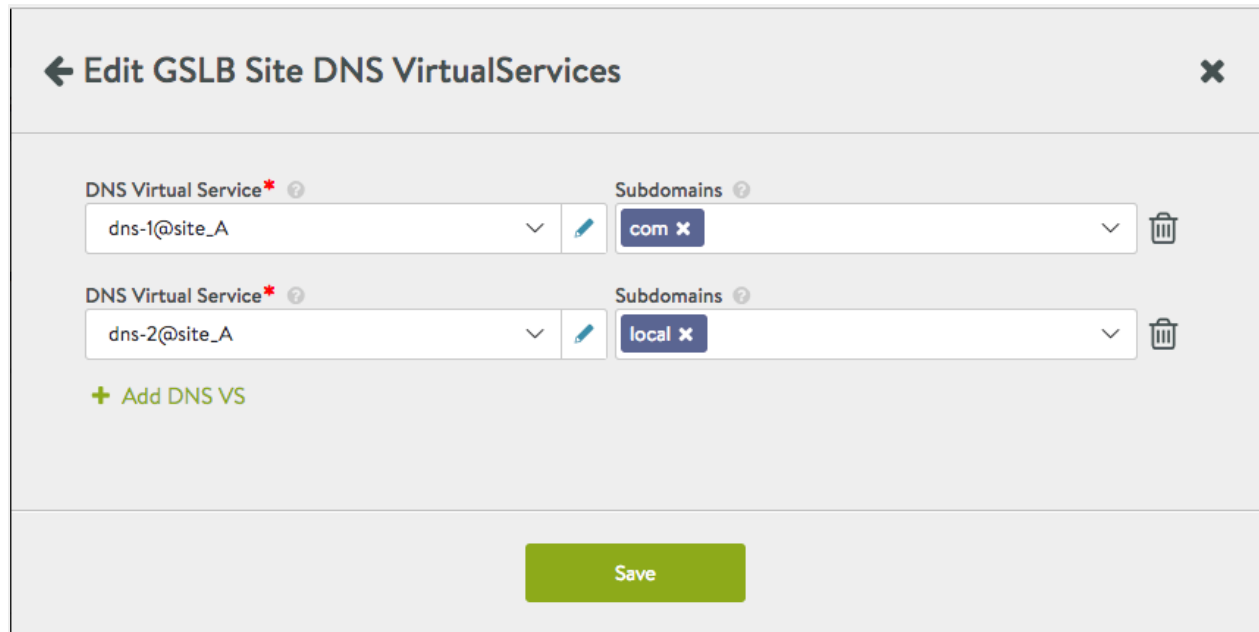


Figure 9. Assigning subdomains to the DNS virtual services



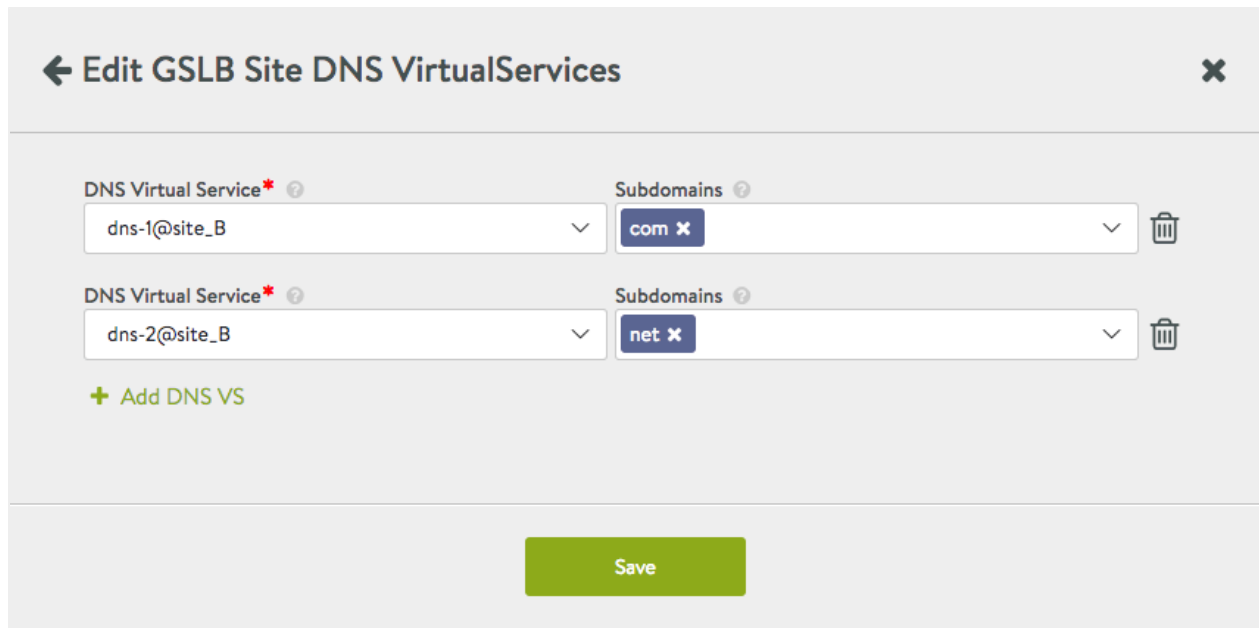


Figure 10. Assigning subdomains to site B's DNS virtual services