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How to Set GSLB
Algorithms at Both
the GSLB Service and
GSLB Pool Levels -
Two-Level GSLB Pool
Member Service
Selection

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Background

In releases prior to Avi Vantage 17.2.3, exactly one of a GSLB service?s pools would be selected based on the value of its GslbPool.priority parameter, a value ranging from 1 to 100. Then, the value of the selected pool?s GslbPool.algorithm parameter would govern selection of a particular backing service within the pool.

The above-described two-level process (select a pool, then select a service) was embellished starting with release 17.2.3 via the incorporation of the `GslbService.pool_algorithm` parameter, which can take on one of two values:

- `GSLB_SERVICE_ALGORITHM_PRIORITY` ? a GSLB pool is selected based on its pool priority; this is the only behavior defined in releases prior to 17.2.3.
- `GSLB_SERVICE_ALGORITHM_GEO` ? a GSLB pool is selected based on its geolocation; this alternative is new with release 17.2.3.

Instructions

In the below example, pressing the TAB key prior to completing the first command reveals the two CLI options introduced with 17.2.3: `gslb_service_algorithm_geo` and `gslb_service_algorithm_priority`. Once the GSLB service object named `gs2` is created, definition of its GSLB pools begins with a single pool named `grp1/`, whose first member is located at IP address `1.2.3.4`. After the last `save` command, we see the fields that have been set for this bare-bones global service. Notice how the `grp1` GSLB pool group has been assigned the `GSLB_ALGORITHM_ROUND_ROBIN` algorithm and priority = 10 by default.

Avi CLI

```
[admin:john-ctlr-1]: > configure gslbservice gs2 algorithm gslb_service_algorithm_
gslb_service_algorithm_geo        Use the client (LDNS) source IP to choose the GSLB Pool closest by geographical locat
gslb_service_algorithm_priority   Pick the GSLB pool with the highest priority.
[admin:john-ctlr-1]: > configure gslbservice gs1 algorithm gslb_service_algorithm_geo domain_names 1.abc.com
New object being created
[admin:john-ctlr-1]: gslbservice> groups name grp1
New object being created
[admin:john-ctlr-1]: gslbservice:groups> members ip 1.2.3.4
New object being created
[admin:john-ctlr-1]: gslbservice:groups:members> save
[admin:john-ctlr-1]: gslbservice:groups> save
[admin:john-ctlr-1]: gslbservice> save
+--------------------------------+----------------------------------------------+
| Field                          | Value                                        |
+--------------------------------+----------------------------------------------+
| uuid                           | gslbservice-5030d012-c291-4717-8796-40d9cfc3ad1e |
| name                           | gs1                                          |
| domain_names[1]                | 1.abc.com                                    |
| groups[1]                      |                                              |
```

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```
|    name                        | grp1                                          |
|    priority                    | 10                                            |
|    algorithm                   | GSLB_ALGORITHM_ROUND_ROBIN                    |
|    members[1]                  |                                               |
|      ip                        | 1.2.3.4                                       |
|      ratio                     | 1                                             |
|      enabled                   | True                                          |
| controller_health_status_enabled | True                                       |
| health_monitor_scope           | GSLB_SERVICE_HEALTH_MONITOR_ALL_MEMBERS       |
| enabled                        | True                                          |
| use_edns_client_subnet         | True                                          |
| wildcard_match                 | False                                         |
| site_persistence_enabled       | False                                         |
| algorithm                      | GSLB_SERVICE_ALGORITHM_GEO                    |
| is_federated                   | True                                          |
| tenant_ref                     | admin                                         |
+--------------------------------+-----------------------------------------------+
[admin:john-ctlr-1]: >
```

Avi UI

In the GSLB service editor there are two fields via which to choose the algorithms that apply at the first (service) and second (pool) levels.

At the first (service) level one has two choices:

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New GSLB Service ✕

Name* ⊙

gs-with-two-level-algorithm

Application Name* ⊙

alpha.com

Subdomain* ⊙

.com ⌄

✛ Add Domain Name

Health Monitor ⊙

⌄

Health Monitor Scope ⊙

◯ Only Non Avi Members   ⦿ All Members

☑ Controller Health Status ⊙

Load balancing algorithm ⊙

Geo location-based ⌄

☐ Site Persistence ⊙

Geo location-based
Priority-based

Select Group Type

| Active Active | Active Standby |

LB Algorithm* ⊙

Round Robin ⌄

Pool Member

◯ IP Address   ⦿ Virtual Service

Site Cluster Controller* ⊙

Select Site ⌄

Public IP Address ⊙

Description

Add GSLB Pool Member

Save

At the second (pool) level one has three choices:

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Additional Information

- [Avi GSLB Architecture, Terminology, and Object Model](#)