
gslb-specs Documentation

Release

OpenStack Foundation

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1	API	3
1.1	Example JSON Snippets	3
1.2	Endpoints	6
1.3	Implementation	7
2	The title of your blueprint	9
2.1	Problem description	9
2.2	Proposed change	9
2.3	Implementation	10
2.4	Dependencies	11
3	Indices and tables	13

Liberty approved specs:

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<https://blueprints.launchpad.net/gslb/+spec/api>

We need an API, so defining it is a good start.

Example JSON Snippets

Load Balancer JSON Snippet

```
{
  "id": "f9fc6210-8efa-4492-9b4f-d87ba98f35b8",
  "name": "Main Website",
  "fqdn": "www.gslb.example.com.",
  "domain_name": "example.com.",
  "flavor": "example_1",
  "status": "ACTIVE",
  "links": {
    "self": "http://example.gslb.openstack.org/v0.1/gslbs/f9fc6210-8efa-4492-9b4f-d87ba98f35b8",
    "pools": "http://example.gslb.openstack.org/v0.1/gslbs/f9fc6210-8efa-4492-9b4f-d87ba98f35b8/",
    "status": "http://example.gslb.openstack.org/v0.1/gslbs/f9fc6210-8efa-4492-9b4f-d87ba98f35b8"
  }
}
```

Pool JSON Snippet

```
{
  "id": "f9fc6210-8efa-4492-9b4f-d87ba98f35b8",
  "name": "Main Website Pool",
  "flavor": "example_1",
  "status": "ACTIVE",
  "members": ["SEE MEMBER SNIPPETS BELOW"],
  "links": {
    "self": "http://example.gslb.openstack.org/v0.1/pools/f9fc6210-8efa-4492-9b4f-d87ba98f35b8",
    "pool_members": "http://example.gslb.openstack.org/v0.1/pools/f9fc6210-8efa-4492-9b4f-d87ba98f35b8/members",
    "status": "http://example.gslb.openstack.org/v0.1/pools/f9fc6210-8efa-4492-9b4f-d87ba98f35b8"
  }
}
```

Pool Member JSON Snippet - Neutron LBaaS

```
{
  "id": "f9fc6210-8efa-4492-9b4f-d87ba98f35b8",
  "name": "Main Website",
  "type": "neutron_lbaas_v2",
  "region": "RegionTwo",
  "neutron_id": "df40954c-982a-4778-a1b2-32b93cf75af9",
  "status": "ACTIVE",
  "endpoints": [
    "10.10.0.1"
  ]
}
```

Pool Member JSON Snippet - Neutron Port

```
{
  "id": "f9fc6210-8efa-4492-9b4f-d87ba98f35b8",
  "name": "Main Website",
  "type": "neutron_port",
  "region": "RegionTwo",
  "neutron_id": "78fa9c7f-f200-49df-912b-ae4679fd21e9",
  "status": "ACTIVE",
  "endpoints": [
    "10.10.0.1"
  ]
}
```

Pool Member JSON Snippet - IP

```
{
  "id": "f9fc6210-8efa-4492-9b4f-d87ba98f35b8",
  "name": "Main Website",
  "type": "IP",
  "status": "ACTIVE",
  "endpoints": [
    "10.10.0.1"
  ]
}
```

Monitor JSON Snippet - TCP Basic

```
{
  "id" : "f9fc6210-8efa-4492-9b4f-d87ba98f35b8",
  "type" : "TCP",
  "delay" : 20,
  "timeout": 10,
  "max_retries": 3,
  "port" : 22,
  "name": "ssh_generic"
}
```


Monitor JSON Snippet - Ping Basic

```
{
  "id" : "f9fc6210-8efa-4492-9b4f-d87ba98f35b8",
  "type" : "PING",
  "delay" : 20,
  "timeout": 10,
  "max_retries": 3,
  "name": "ping_generic"
}
```

Monitor JSON Snippet - HTTP

```
{
  "id" : "f9fc6210-8efa-4492-9b4f-d87ba98f35b8",
  "delay": 20,
  "timeout": 10,
  "max_retries": 3,
  "type": "HTTP",
  "http_method": "GET",
  "url_path": "/healthchecks",
  "receive_string": "SUCCESS",
  "expected_codes": [
    200,
    202
  ],
  "name": "http-generic",
  "port" : 80
}
```

Monitor JSON Snippet - HTTPS

```
{
  "id" : "f9fc6210-8efa-4492-9b4f-d87ba98f35b8",
  "delay": 20,
  "timeout": 10,
  "max_retries": 3,
  "type": "HTTPS",
  "insecure": false,
  "http_method": "POST",
  "payload": {
    "content_type" : "application/json",
    "content" '{"demo': 'JSON', 'Blob': 'of data'}"
  }
},
  "ca_cert": "<CA_CERT_BLOB>"
  "url_path": "/healthchecks",
  "receive_string" "SUCCESS",
  "expected_codes": [
    200,
    202
  ],
  "name": "https-generic",
  "port" : 443
}
```

Endpoints

All of these endpoints will have the usual CRUD methods available

/v0.1/gslbs

Returns a list of GLSBs

/v0.1/gslbs/<uuid>

Returns a GLSB

/v0.1/gslbs/<uuid>/pools

Returns GLSB's list of pools

/v0.1/gslbs/<uuid>/history

Returns GLSB's history (up/down/degraded etc)

Note: This may or may not make MVP. This should only be a limited history, and for MVP my just be a "last updated" field

/v0.1/pools

Returns a list of Pools

/v0.1/pools/<uuid>

Returns a pool

/v0.1/pools/<uuid>/monitors

Returns a pool's list of monitors

/v0.1/pools/<uuid>/pool_members

Returns a pool's list of members

/v0.1/pools/<uuid>/pool_members/<uuid>

Returns a pool member

/v0.1/pools/<uuid>/pool_members/<uuid>/status

Returns a pool members status (Up/Down etc)

/v0.1/pools/<uuid>/pool_members/<uuid>/monitors

Returns a members list of monitors

/v0.1/pools/<uuid>/status

Returns the status of a pool

/v0.1/monitors

Returns a list of health monitors

/v0.1/monitors/<uuid>

Returns a monitor

Implementation

Assignee(s)

Primary assignee: gslb-core

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The title of your blueprint

Include the URL of your launchpad blueprint:

<https://blueprints.launchpad.net/gslb/+spec/example>

Introduction paragraph – why are we doing anything?

Problem description

A detailed description of the problem.

Proposed change

Here is where you cover the change you propose to make in detail. How do you propose to solve this problem?

If this is one part of a larger effort make it clear where this piece ends. In other words, what's the scope of this effort?

Include where in the designate tree hierarchy this will reside.

API Changes

Include API Changes here. If you are adding endpoints / add major modifications please ensure you have examples for calls / results - eg:

POST /v2/doohickey

This creates a doohicky.

It returns an ID and the doohickey

```
POST /v2/doohickey HTTP/1.1
Accept: application/json
Content-Type: application/json
```

```
{
  "doohickey": {
    "foo": "bar"
  }
}
```

```
HTTP/1.1 201 Created
Content-Type: application/json; charset=UTF-8
Location: /v2/doohickey/cddda8f0-f558-11e3-a3ac-0800200c9a66
```

```
{
  "doohickey":{
    "id":"cddda8f0-f558-11e3-a3ac-0800200c9a66",
    "foo":"bar",
    "links":{
      "self" : "/v2/doohickey/cddda8f0-f558-11e3-a3ac-0800200c9a66"
    }
  }
}
```

It may be useful to add a table with the parameters, and a info about them

Parameter	Description	Required
foo	the foo value for the doohickey	Yes

Central Changes

Any changes to the central service

Storage Changes

Any changes to the DB. This should be a table (if creating a new table) eg:

New Table - DooHickey

Row	Type	Nullable?	Unique?
id	uuid	No	Yes
foo	VARCHAR	No	No

Other Changes

Any other changes to Designate, broken down by which sub system is being changed

Alternatives

This is an optional section, where it does apply we'd just like a demonstration that some thought has been put into why the proposed approach is the best one.

Implementation

Assignee(s)

Who is leading the writing of the code? Or is this a blueprint where you're throwing it out there to see who picks it up?

If more than one person is working on the implementation, please designate the primary author and contact.

Primary assignee: <launchpad-id or None>

Can optionally list additional ids if they intend on doing substantial implementation work on this blueprint.

Milestones

Target Milestone for completion: Juno-1

Work Items

Work items or tasks – break the feature up into the things that need to be done to implement it. Those parts might end up being done by different people, but we’re mostly trying to understand the timeline for implementation.

Dependencies

- Include specific references to specs and/or blueprints in designate, or in other projects, that this one either depends on or is related to.
- Does this feature require any new library dependencies or code otherwise not included in OpenStack? Or does it depend on a specific version of library?

Indices and tables

- *search*