Optimize shards placement database action requests

<table>
<thead>
<tr>
<th>Method</th>
<th>Path</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET</td>
<td>/v1/bdbs/{uid}/actions/optimize_shards_placement</td>
<td>Get optimized shards placement for a database</td>
</tr>
</tbody>
</table>

Get optimized shards placement

GET /v1/bdbs/{int: uid}/actions/optimize_shards_placement

Get optimized shards placement for the given database.

Required permissions

<table>
<thead>
<tr>
<th>Permission name</th>
</tr>
</thead>
<tbody>
<tr>
<td>view_bdb_info</td>
</tr>
</tbody>
</table>

Request

Example HTTP request

GET /bdbs/1/actions/optimize_shards_placement

Response

To rearrange the database shards, you can submit the blueprint returned in this response body as the shards_blueprint field in the PUT /bdbs/{uid} request.

Example JSON body
[{
  "nodes": [
    {
      "node_uid": "3",
      "role": "master"
    },
    {
      "node_uid": "1",
      "role": "slave"
    }
  ],
  "slot_range": "5461-10922"
},
{
  "nodes": [
    {
      "node_uid": "3",
      "role": "master"
    },
    {
      "node_uid": "1",
      "role": "slave"
    }
  ],
  "slot_range": "10923-16383"
},
{
  "nodes": [
    {
      "node_uid": "3",
      "role": "master"
    },
    {
      "node_uid": "1",
      "role": "slave"
    }
  ],
  "slot_range": "0-5460"
}]

Response headers

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content-Length</td>
<td>352</td>
<td>Length of the request body in octets</td>
</tr>
<tr>
<td>cluster-state-id</td>
<td>30</td>
<td>Cluster state ID</td>
</tr>
</tbody>
</table>

Status codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 OK</td>
<td>No error</td>
</tr>
<tr>
<td>404 Not Found</td>
<td>Database UID does not exist</td>
</tr>
</tbody>
</table>
Rearrange database shards

Use the blueprint returned by the GET /bdds/{uid}/actions/optimize_shards_placement request as the value of the shards_blueprint field to rearrange the database shards.

To ensure that the optimized shard placement is relevant for the current cluster state, pass the cluster-state-id, taken from the response header of the GET request, in the PUT /bdds/{uid} request headers.

The cluster will reject the update if its state was changed since the optimal shards placement was obtained.

Request

Example HTTP request

PUT /bdds/1

Example JSON body

```json
{
  "shards_blueprint": [
    {
      "nodes": [
        {
          "node_uid": "2",
          "role": "master"
        }
      ],
      "slot_range": "0-8191"
    },
    "...
  ]
}
```

⚠️ Warning - If you submit such an optimized blueprint, it may cause strain on the cluster and its resources. Use with caution.

Request headers

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host</td>
<td>cnm.cluster.fqdn</td>
<td>Domain name</td>
</tr>
<tr>
<td>Accept</td>
<td>application/json</td>
<td>Accepted media type</td>
</tr>
<tr>
<td>cluster-state-id</td>
<td>30</td>
<td>Cluster state ID</td>
</tr>
</tbody>
</table>

Updated: November 29, 2021