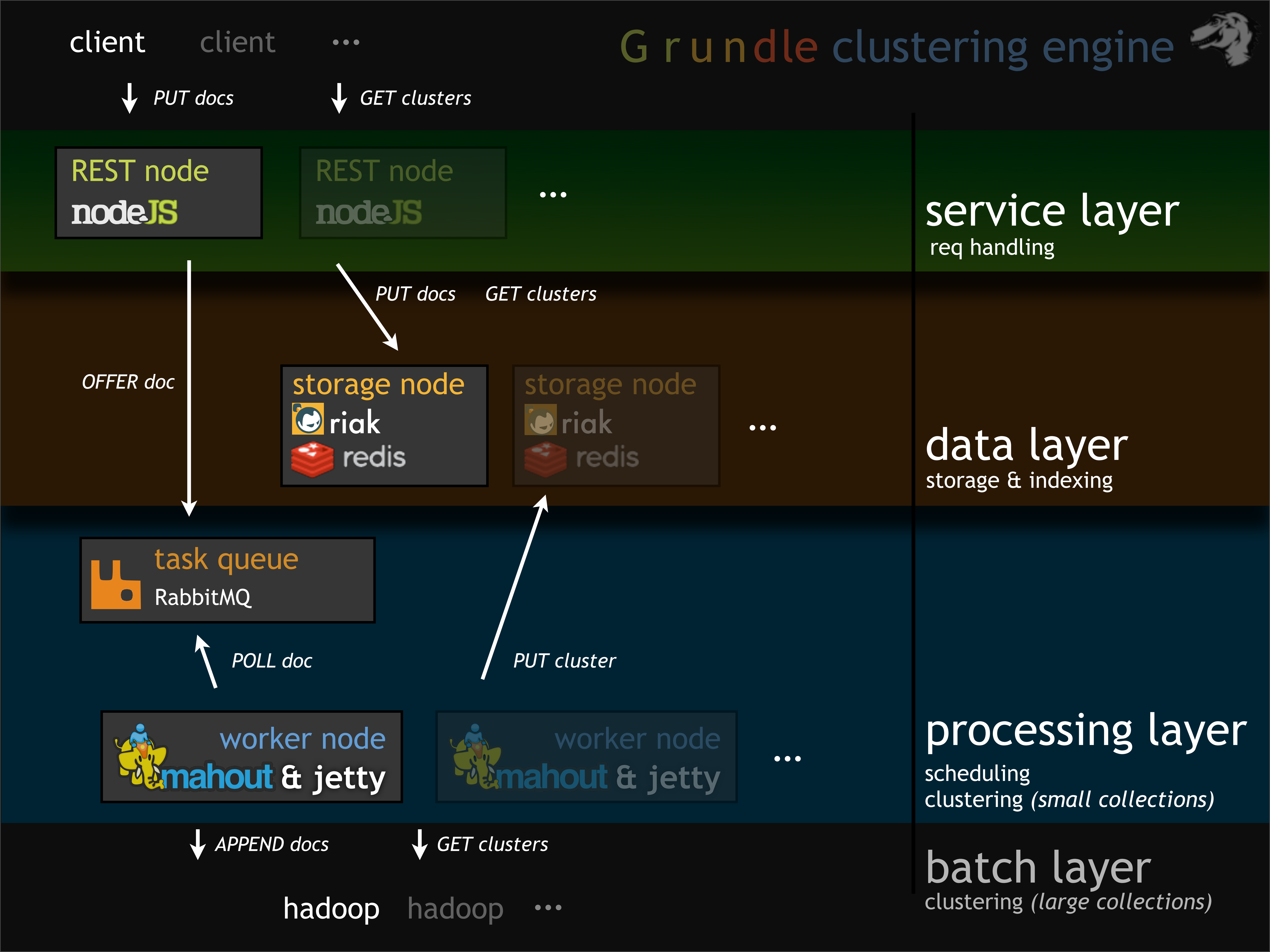
here be grouperfish

Grundle

clustering engine

Grundle clustering engine



client client ...

PUT docs

GET clusters

REST node nodeJS

REST node nodeJS

...

service layer

req handling

PUT docs GET clusters

OFFER doc

storage node riak redis

storage node riak redis

...

data layer

storage & indexing

task queue RabbitMQ

POLL doc

PUT cluster

worker node mahout & jetty

worker node mahout & jetty

...

processing layer

scheduling

clustering *(small collections)*

APPEND docs

GET clusters

hadoop hadoop ...

batch layer

clustering *(large collections)*

Riak contents

```
{
  "some-ns/docs/some-doc-id": {
     text: "I am a document 2 be clustrd.",
     clusters: {
        "collection-key-x": "label-in-x",
        "collection-key-y": "label-in-y",
        …
     }
  },
```

for updates & reconstruction of Redis

```
  "some-ns/dictionary/some-collection-key":
    /* binary dictionary file for Mahout */,

  "some-ns/vectors/some-collection-key":
    /* binary vectors for Mahout */

  "some-ns/centroids/some-collection-key":
    /* binary previous cluster centroids for Mahout */
```

for Mahout. Might want to just use HDFS instead

```
  …
}
```

Redis contents

GET requests

```
{
  "clusters/some-ns/some-collection-key":
     ["label-1", "label-2", …, "label-k"],

  "cluster/some-ns/some-collection-key/label-1":
     ["doc-id-1", "doc-id-2", …, "doc-id-n"],


  "size/some-ns/some-collection-key":
     7185,

  "lock/some-ns/some-collection-key":
     "pwn3d",

  "new/some-ns/some-collection-key":
     ["doc-id-1", "doc-id-2", …]
}
```

scheduling & updates