Functional Reqs

1. Tag Management
(Create, delete,
update)
2. Attach tags
(content agnostic)
3. Top tags

Extended req:
1. Efficient search

Non-Functional Reqs

1. Availabiltiy
2. Performant
3. Scale (large)

API contracts

Public:

createTag(dev_key,
tagName, createeed_at)

deleteTag(dev_key,
tagName)

updateTag(dev_key,
tagName, newTagData)

attachingTags(dev_key,
tagName, rscData:
List)

getTopTags()

private:

getTagsForRsc(rsdData)

getRscsForTag(tagName)

Data Model (Cassandra)

tag_table

tag_name text
created_by text
created_at timestamp

tags_by_rsc

rsc_id bit_int K
tag_name C
tagget_at timestamp
tagged_by text

rscs_by_tag

tag_name text K
rsc_id big_int C
metadata...

Client

DNS

Internal Services

LB/reverse-proxy

Read APIs

Write APIs

In-Memory Cache
(Redis)

TopTagsService
(Collect Events)

Datastore
(NoSQL, Cassandra)

Kafka Queue

Event Partitioner

Hadoop MapReduce