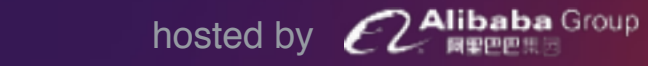
hosted by 

HBase Practics at Meituan

Gehua New Century Hotel Beijing，China

August 17,2018

Content

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03 Large Query Isolation

01 Multi-Tenancy

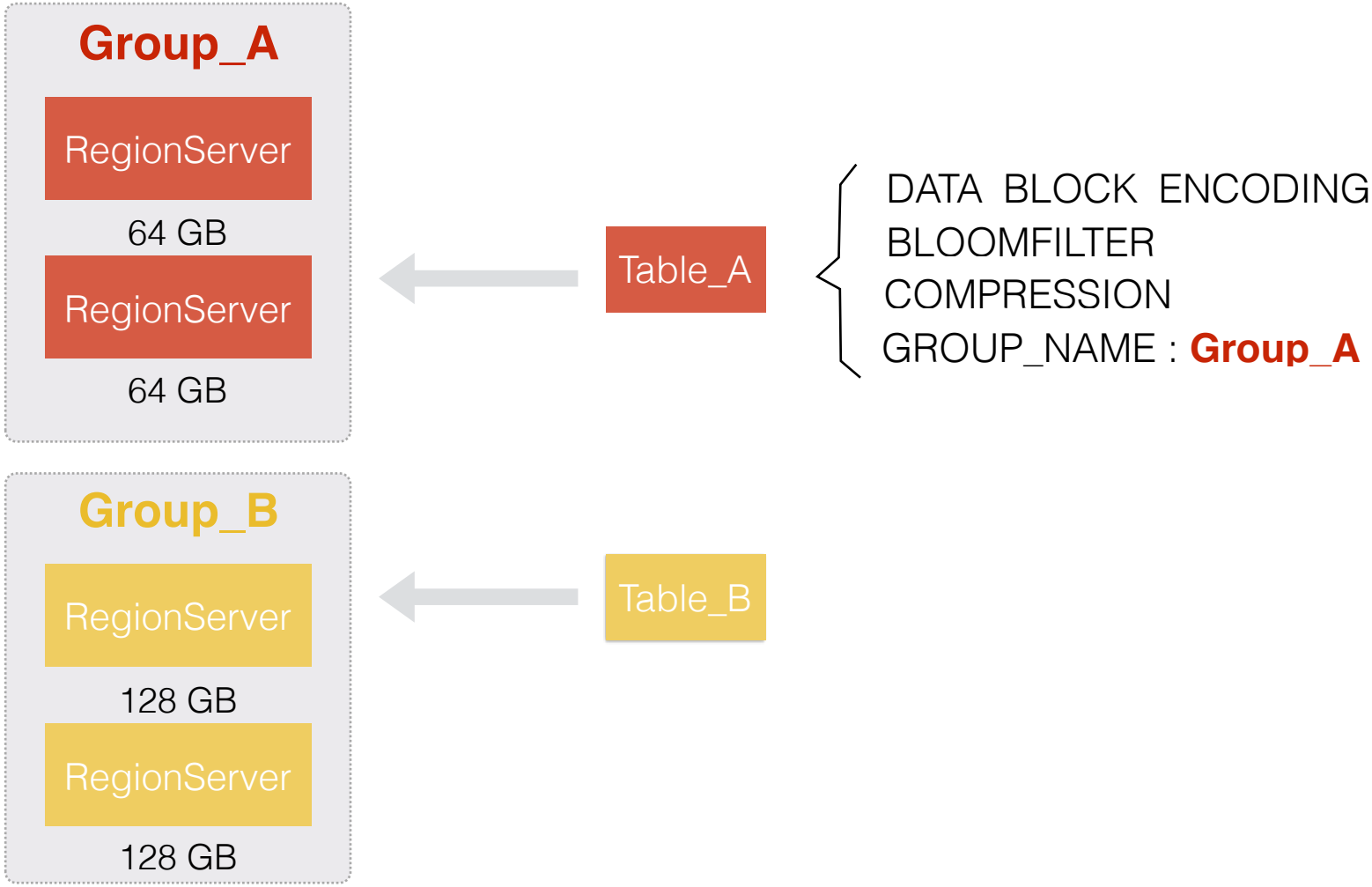
RSGroup - Computing Resource Isolation

DNGroup - Storage Isolation

Replication Isolation

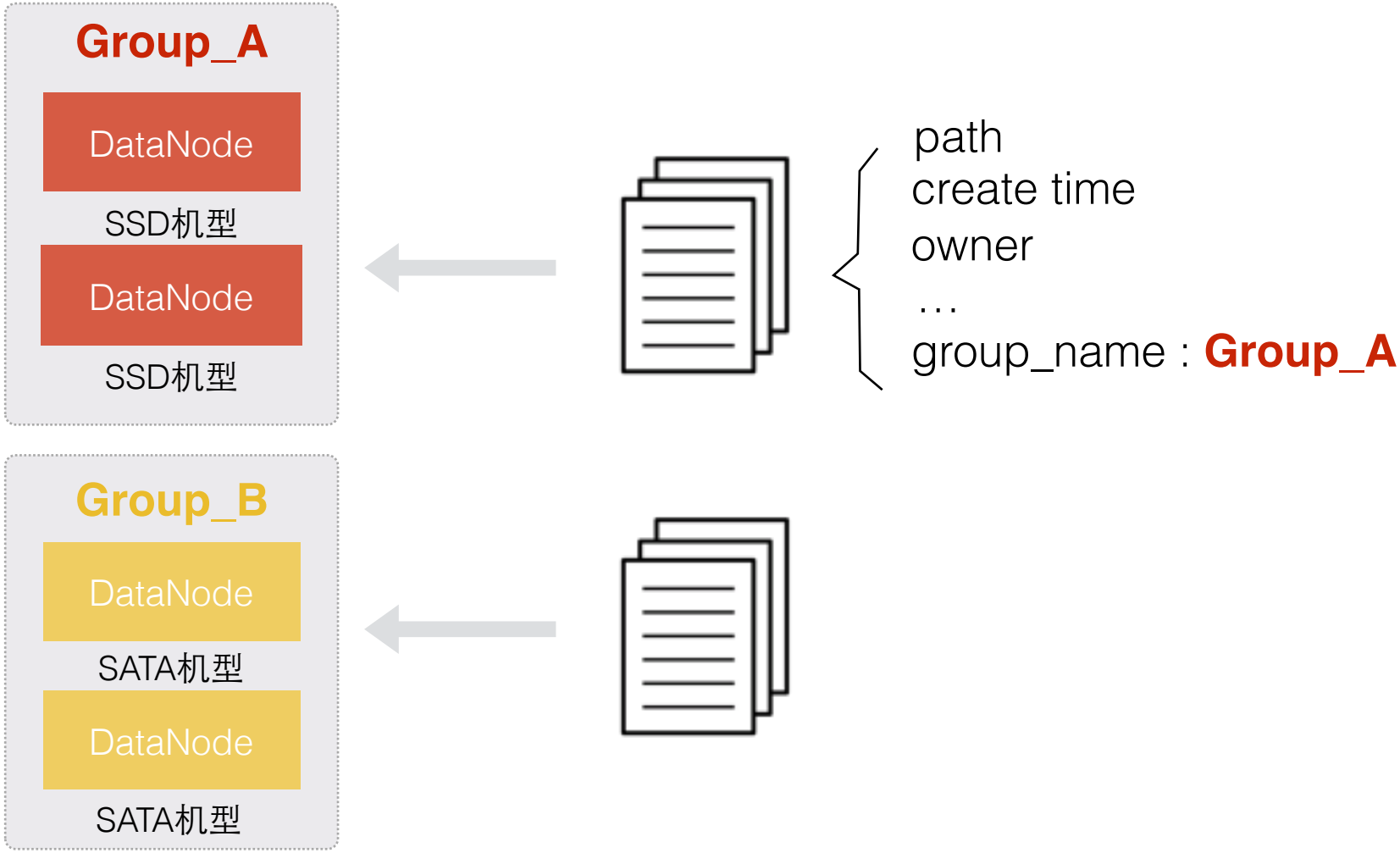
Multi-Tenancy

RSGroup - Compute Resource Isolation



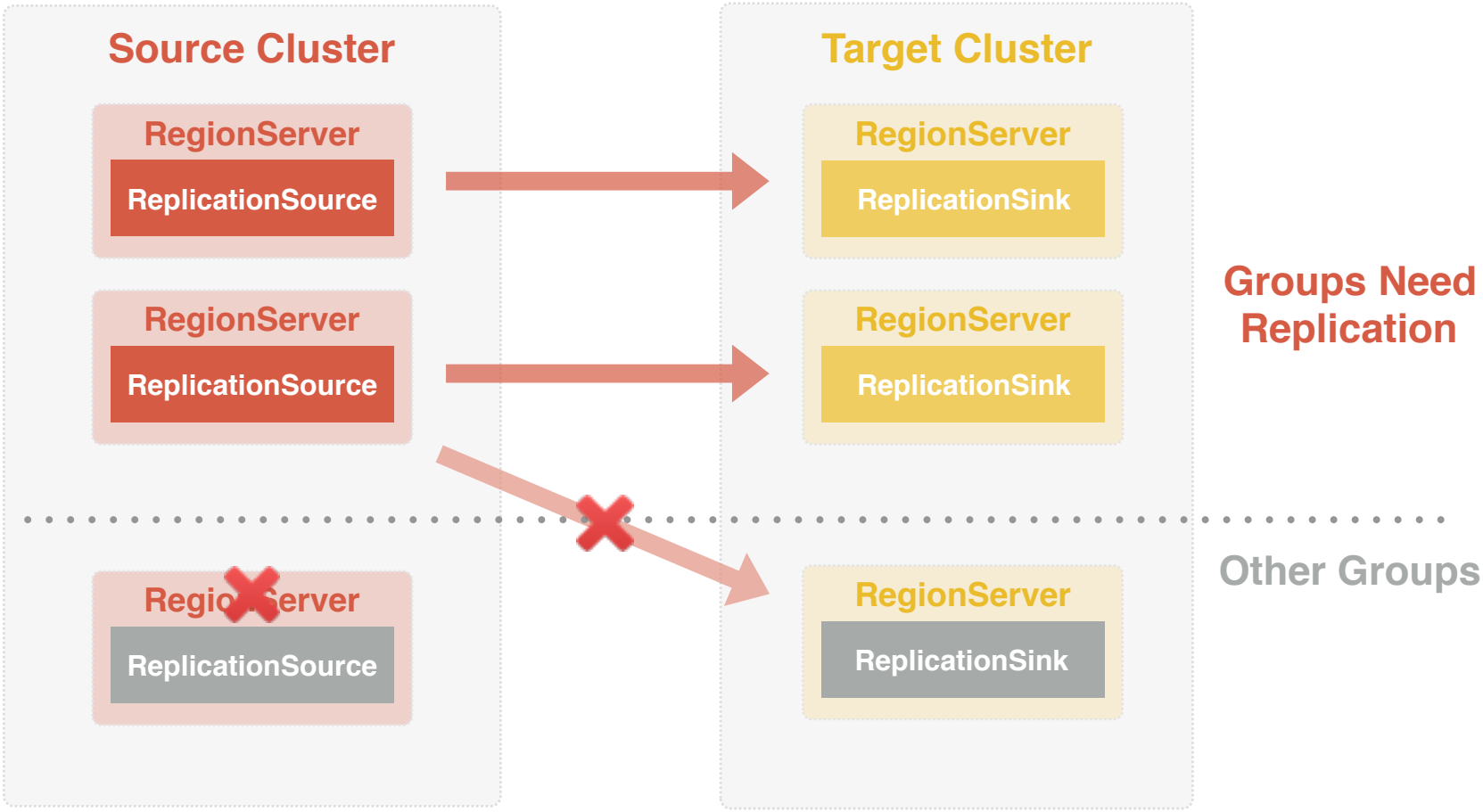
Multi-Tenancy

DNGroup - Storage Isolation



Multi-Tenancy

Replication Isolation



Multi-Tenancy

Constraint PeerId naming specification

- [GROUP]SOURCE_TARGET_INDEX

  (1) [GROUP] is a keyword

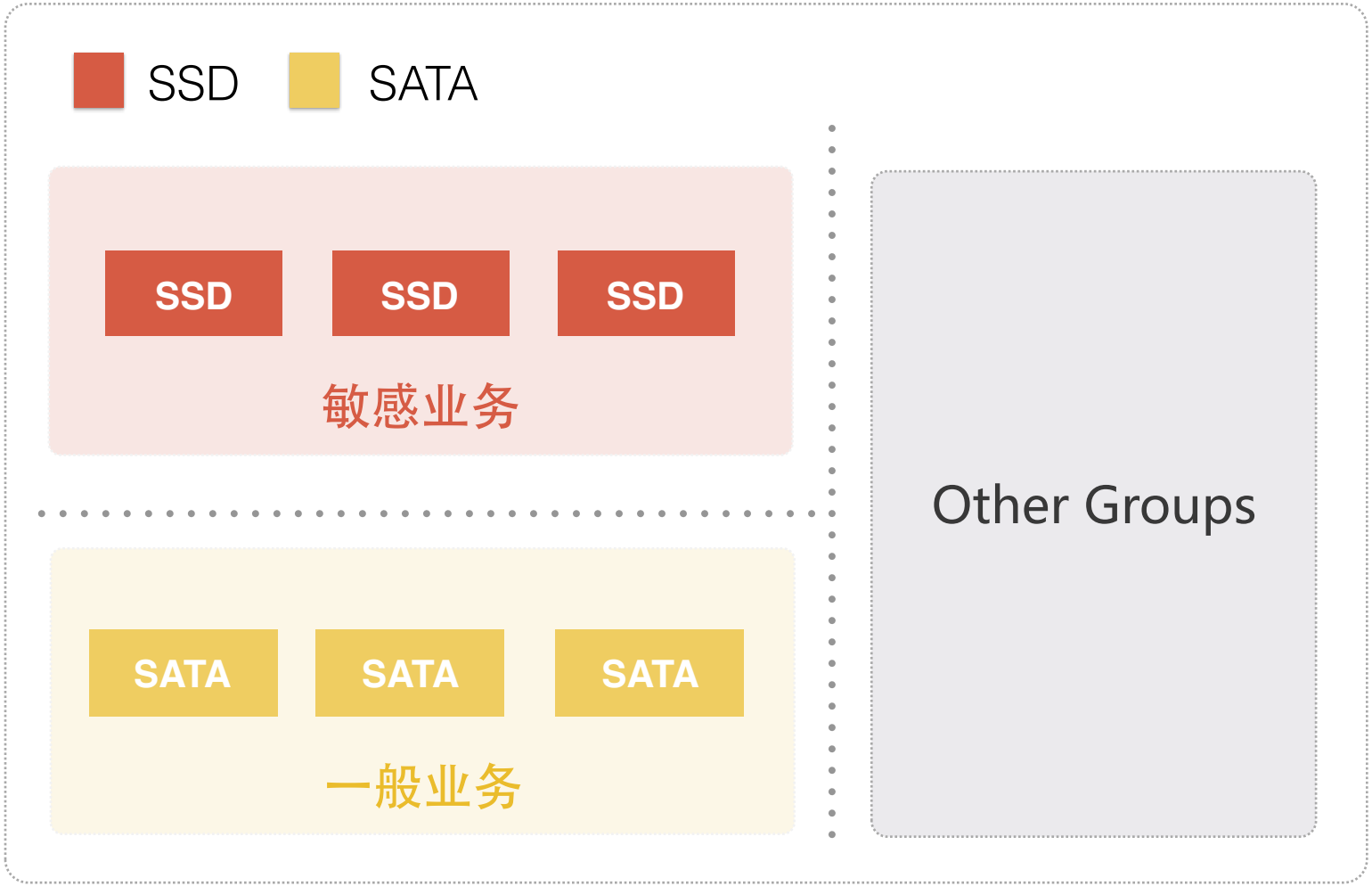
  (2) SOURCE is the group of source cluster

  (3) TARGET is the group of target cluster

  (4) INDEX used to determine the unique identification

Multi-Tenancy

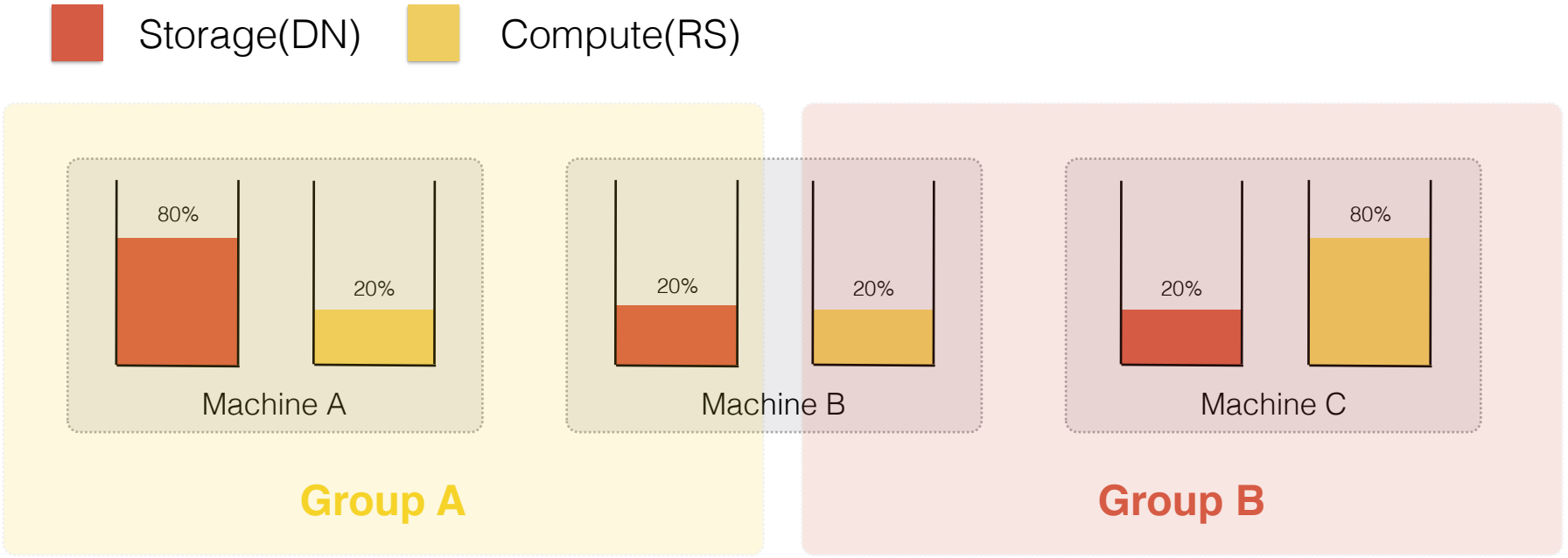
Support Heterogeneous Storage



Multi-Tenancy

Comparison with multi cluster deployment

Resource can be used flexibly between groups



Multi-Tenancy

Some BUGFIX About RSGroup

- HBASE-18272 Fix issue about RSGroupBasedLoadBalancer #roundRobinAssignment where BOGUS_SERVER_NAME is involved in two groups
- HBASE-20791 RSGroupBasedLoadBalancer#setClusterMetrics should pass ClusterMetrics to its internalBalancer

02 Object Storage

MOB Solution

BUGFIX

Object Storage

YARN LOG Storage

- Background

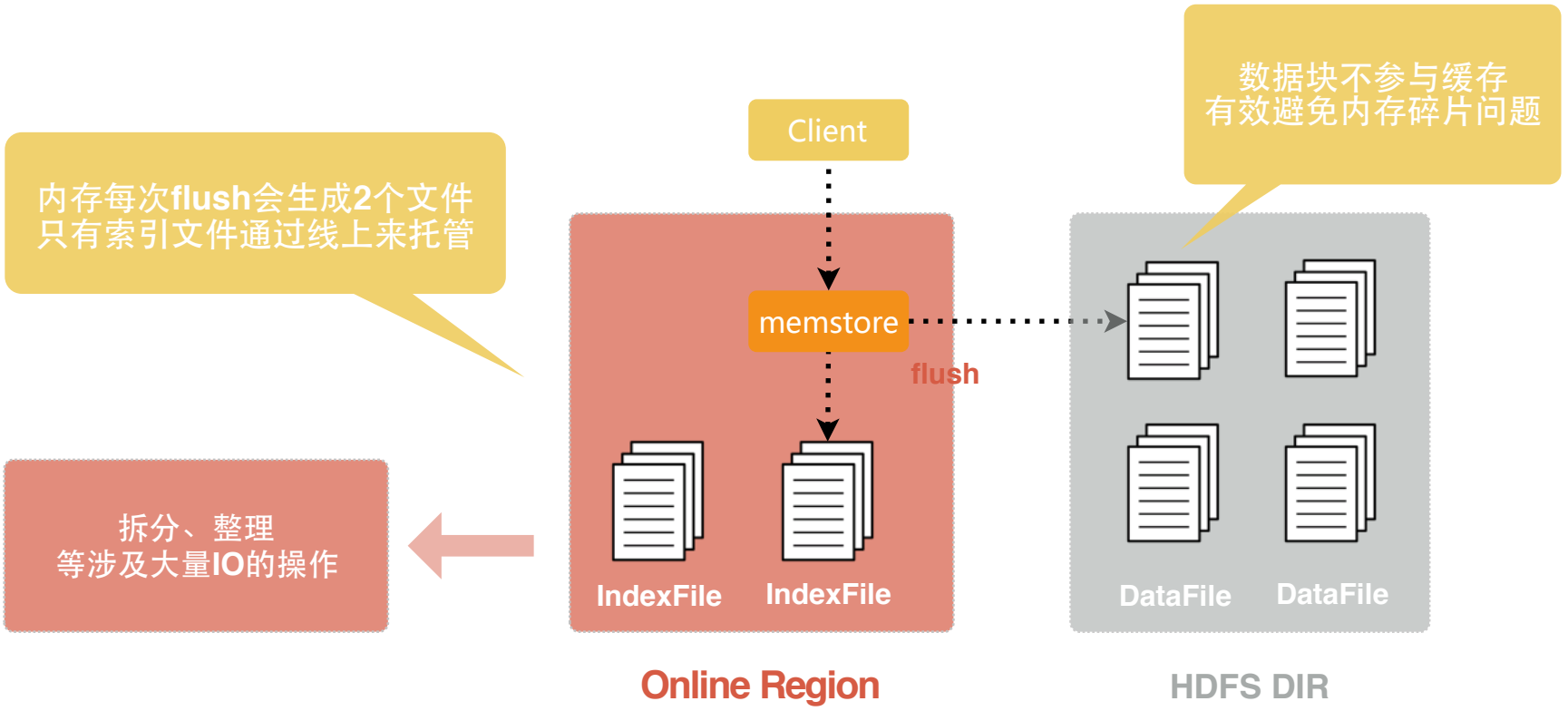
  400k applications per day

  200 million log files need to upload to HDFS and bring great pressure to NN

  So consider transferring these log files to HBase storage

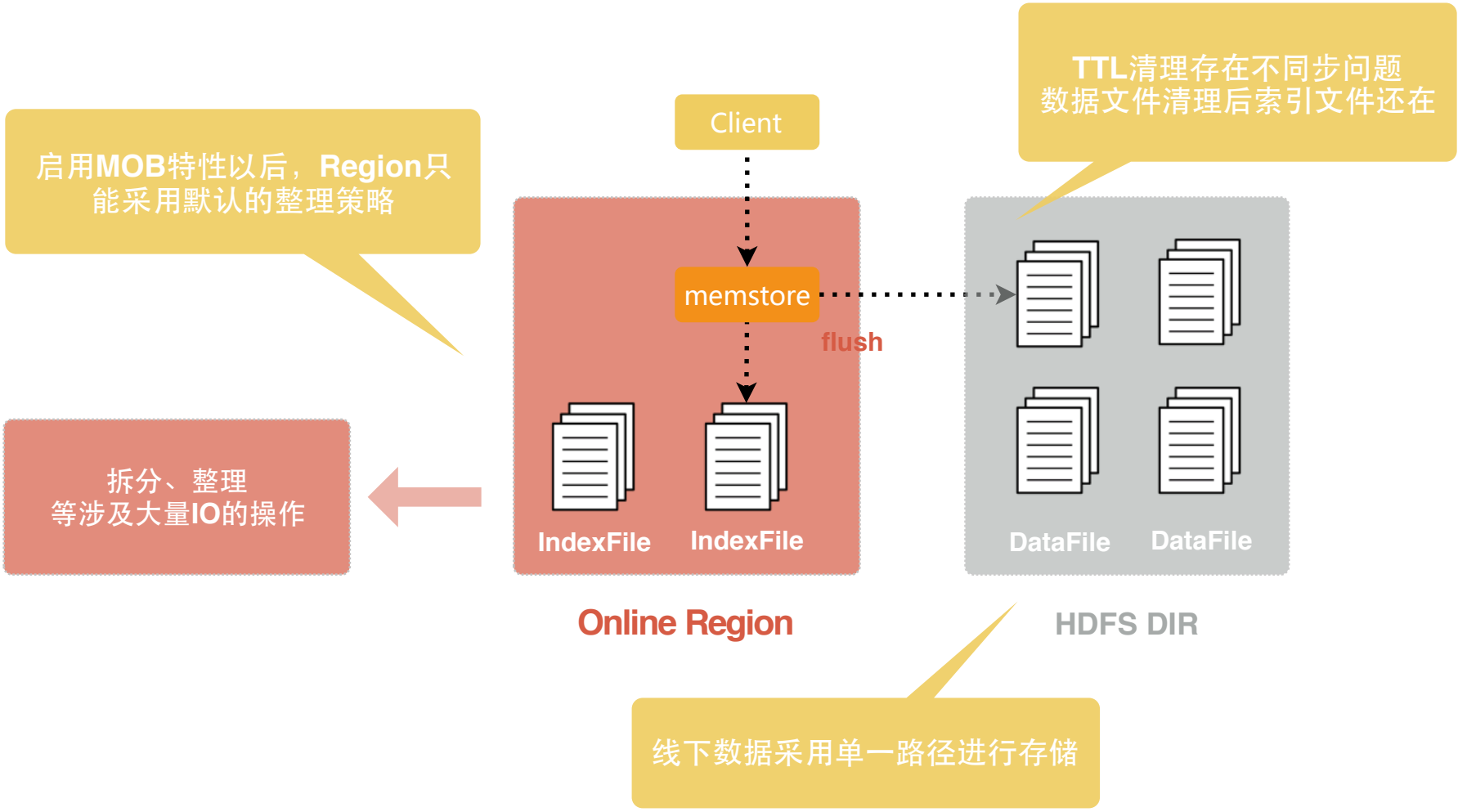
Object Storage

MOB Solution



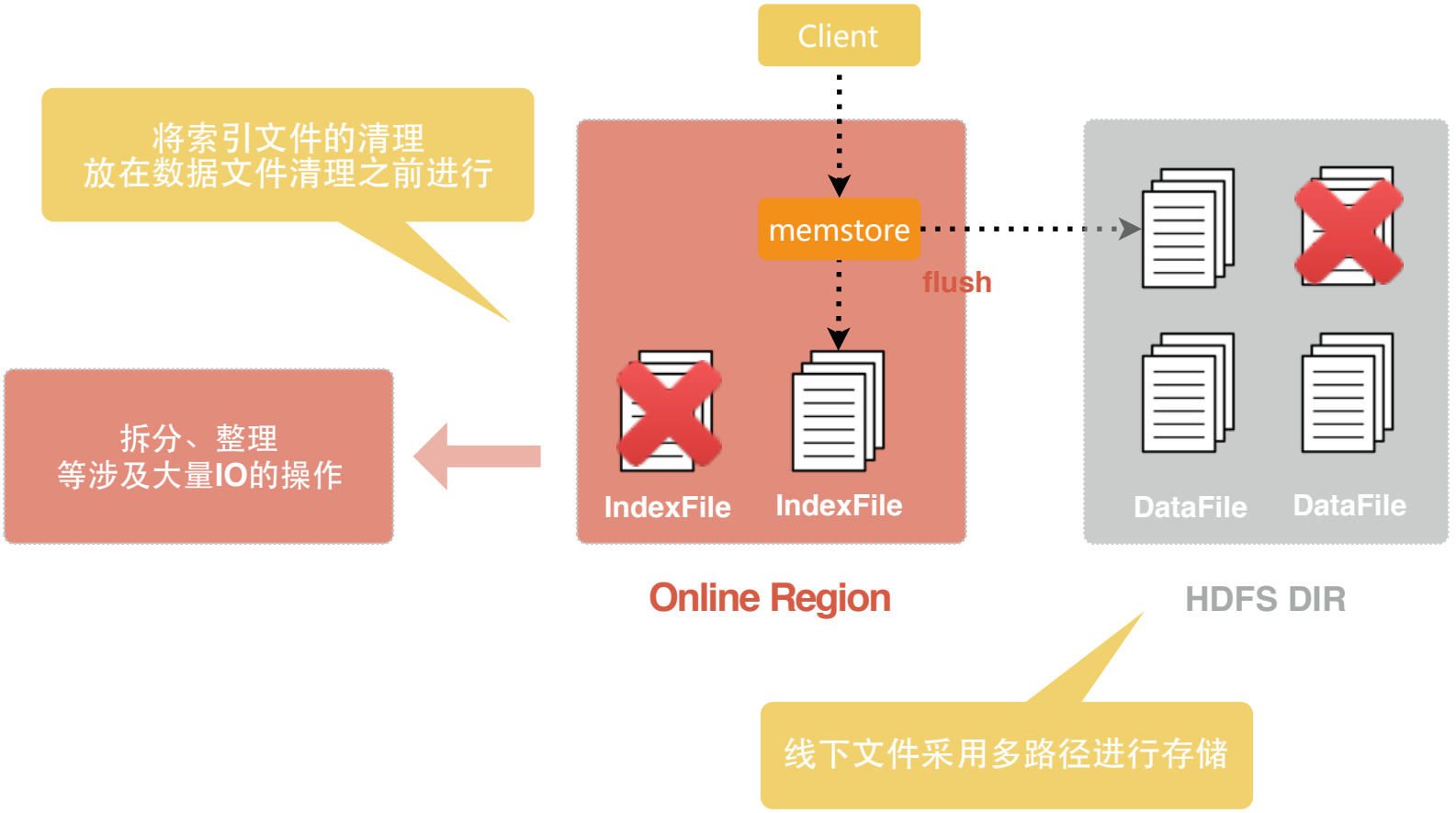
Object Storage

Some Problems About MOB



Object Storage

MOB - BUGFIX



Object Storage

MOB - BUGFIX

- HBASE-19650 ExpiredMobFileCleaner has wrong logic about TTL check
- HBASE-19664 MOB should compatible with other types of Compactor in addition to DefaultCompactor

03 Large Query Isolation

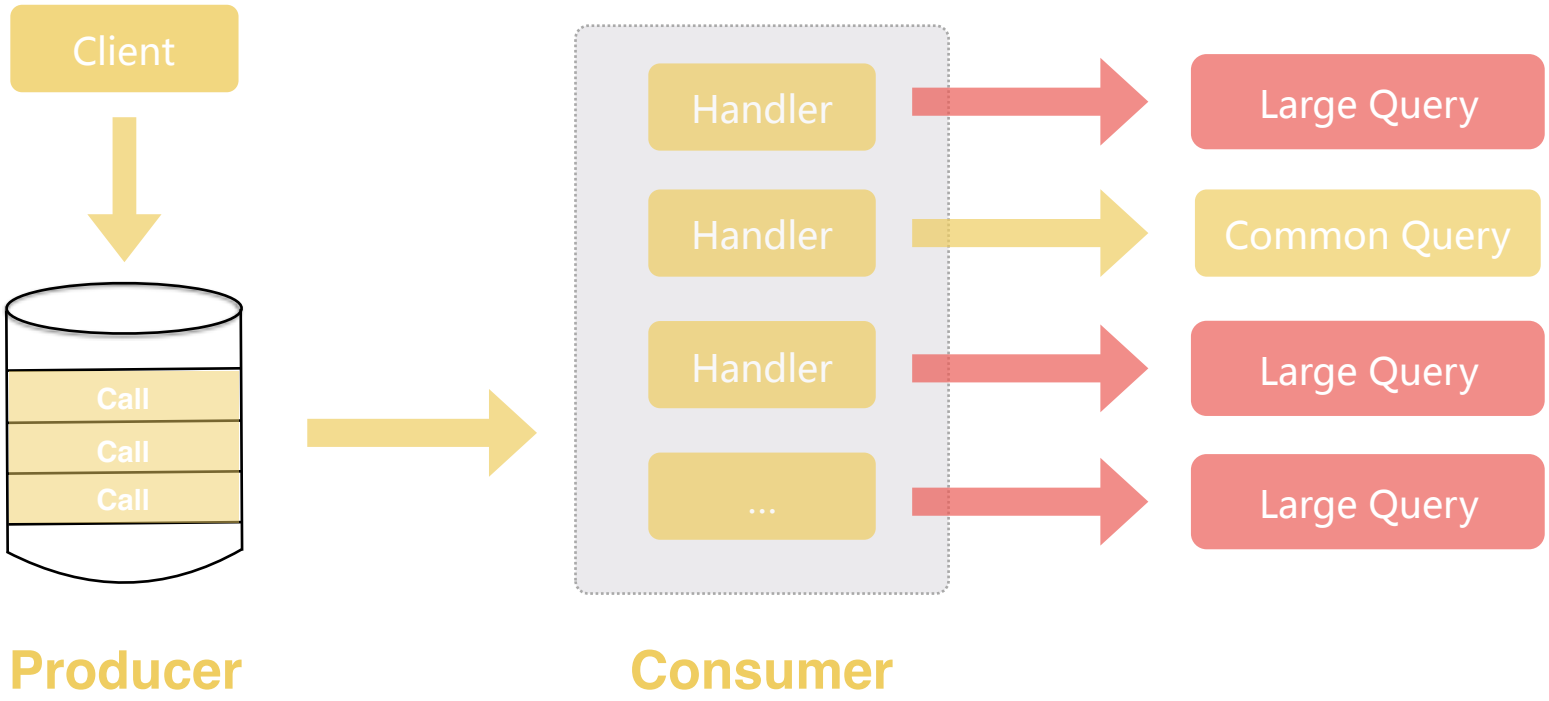
Large Query Isolation

Large Query Concepts

- Characteristic of Large Query
  - (1) Time delay requirements are not very sensitive
  - (2) may occupying Handler thread for a long time
- Large Query Types
  - (1) Scan has no startkey or endkey (sucn as full table scan)
  - (2) Client call ResultScanner.next() more than a certain threshold
  - (3) Client call custom coprocessor which involves large queries

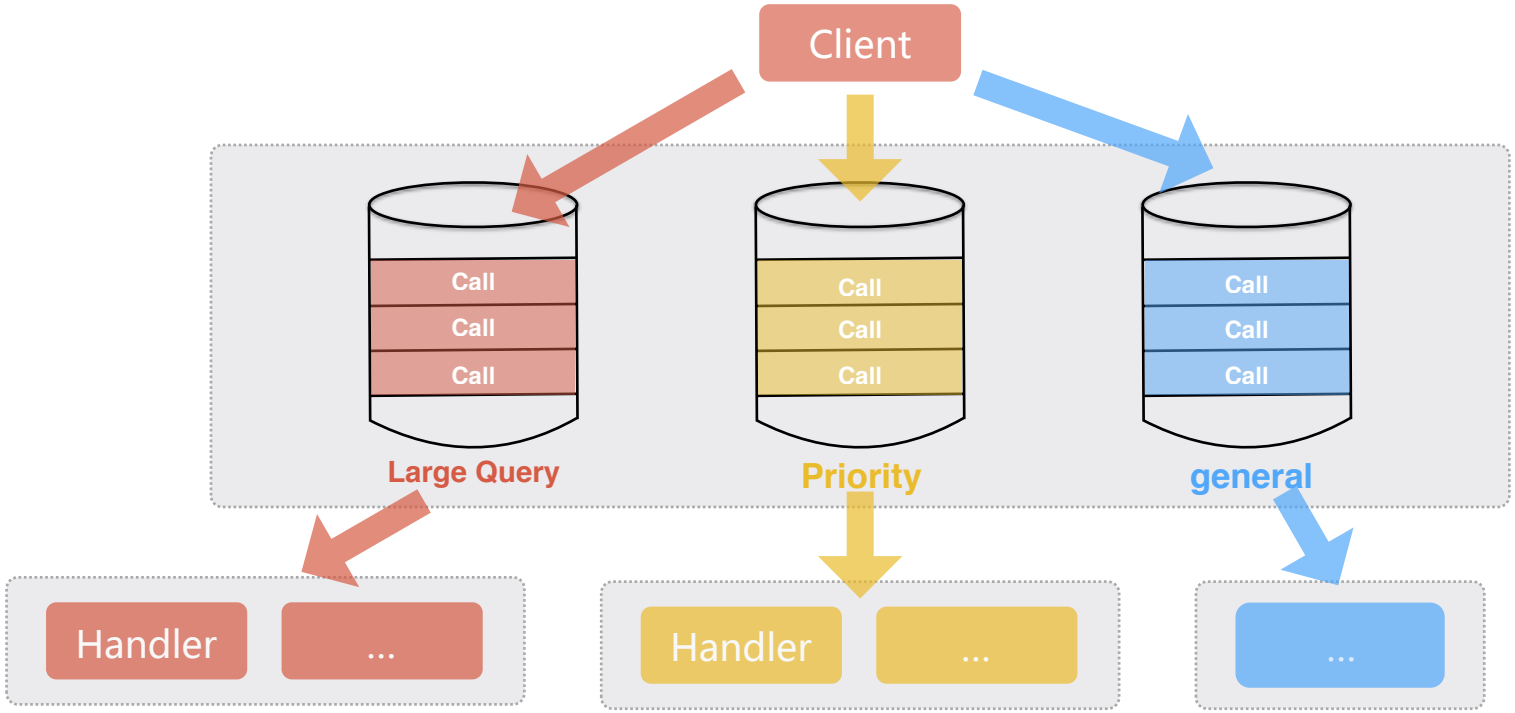
Large Query Isolation

Large Query Problems - resource may be run up



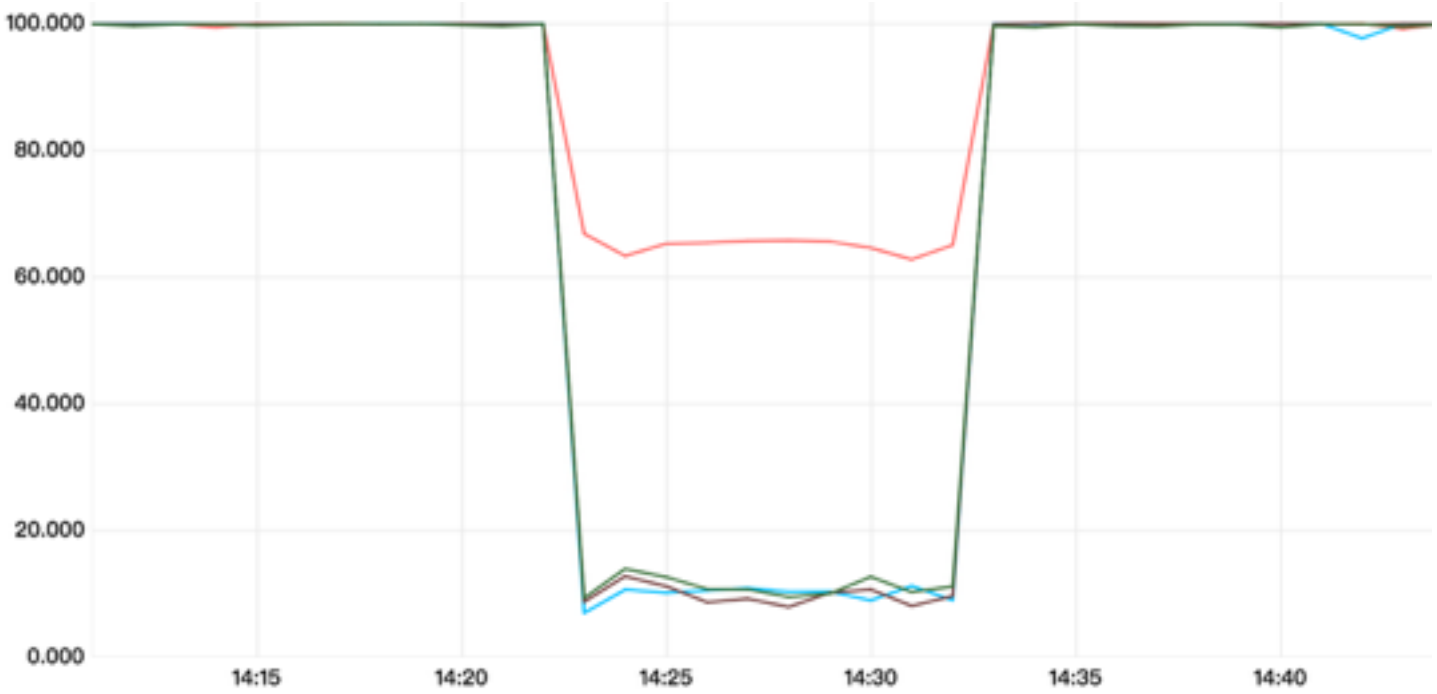
Large Query Isolation

Implementation Details



Large Query Isolation

Isolation Effect - Limit the situation of resources run up



	last	min	avg	max
hbase09.nh	99.752	62.683	93.813	99.969
hbase10.nh	99.907	6.868	84.323	99.969
hbase11.nh	99.876	7.823	84.314	100.000
hbase12.nh	99.782	9.243	84.389	99.907

hosted by Alibaba Group 阿里巴巴集团 APACHE HBASE

Thanks