redis  memcached                              redis
memcached

1.mc               rd       k/v              ;
2.rd             rd           aof        rd                    ;
3.rd
      mc

redis                    redis                redis   key

                                              mysql


-
-
    Twemproxy
    codis
-
    Redis-cluster                        Redis Cluster

redis-cluster        Cluster        16384      (     )              0-16383
    Master                          key              Master
      Master         key                  Master
                          Master                Master
          16384/8            Master      bit
          1     Master                    0              1
                              D,              A   B
C           D

      redis                          zk

redis:
1.    A setnx(          ,              t1)          true
2.    B    get      t1,                ,              false,            3   ;
3.                t2,    getset        t3(                        ),
t1==t3            t1!=t3
4.

zk:
1.                      zk
            node1;
2.                                      node1

3.        node1

4.                                                    node1
     :zk

     redis

RDB(Redis   DataBase:                          redis                                      ):
                                                    (fork+io      )
AOF(Append  Only  File     redis                                           redis
                     ):

bgsave                        aof                          bgsave
                                              aof                  redis
    aof                               aof                  rdb                Redis
aof           aof                  Redis4.0                                  bgsave
    aof                                                                       bgsave
        fork    cow, fork     redis                              bgsave        cow        copy on
write


redis                        LRU                             java


            :
            (    key             )                         key             key

LRU:new LinkedHashMap<K, V>(capacity, DEFAULT_LOAD_FACTORY, true);
//                 true        linkedlist                        LRU                false
                         FIFO
LRU              1.                                                 2.
                                    3.

LinkedHashMap   HashMap                           LinkedHashMap   HashMap
    LinkedHashMap






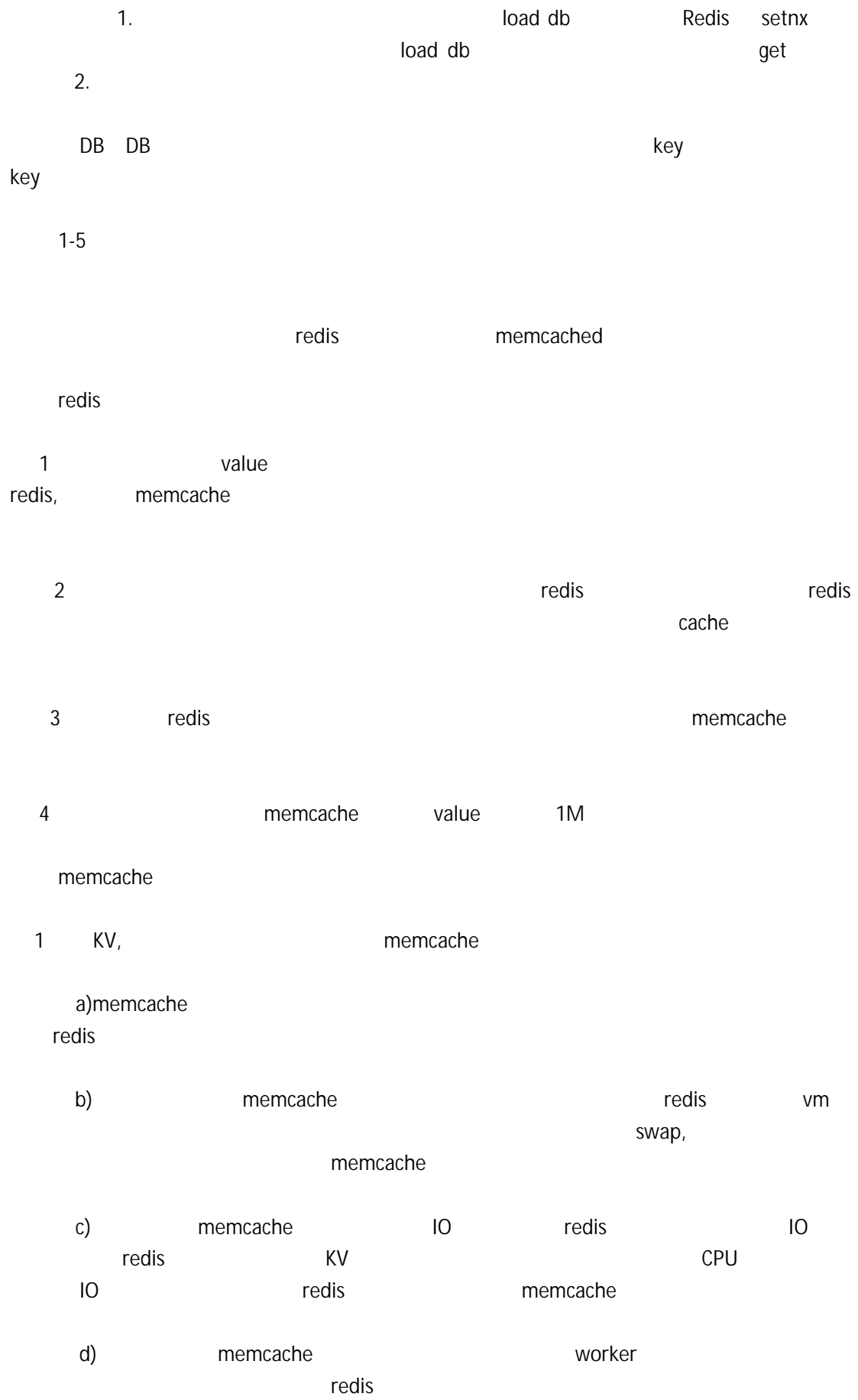                                    DB                        DB
            1.                                                                              2.
                                        bitmap
        bitmap                      DB
                            key
    Key                                                                   DB
                                    DB

1.                           load db        Redis   setnx

load db                    get

2.

DB  DB                                       key

key

1-5

redis             memcached

redis

1                value
redis,      memcache

2                               redis               redis
cache

3        redis                              memcache

4               memcache     value    1M

memcache

1    KV,                 memcache

a)memcache
redis

b)          memcache                   redis     vm
swap,
memcache

c)        memcache          IO      redis            IO
redis        KV              CPU
IO            redis         memcache

d)        memcache           worker
redis

A

B

1

2

3

key,

Redis

1　master　　　　　　　　　　　　　　RDB　　　　　　　AOF

2　　　　　　　　　　　　slave　　AOF

3　　　　　　　　　　　　　　master　Slave

4

5　　　　　　　　　　　　　　　　　　Master<--Slave1<----Slave2 ....

Redis

voltile-lru

voltile-ttl

voltile-random

allkeys-lru

allkeys-random

no-eviction

Redis

String    Hash    List    Set    SortedSet
Redis    HyperLogLog
Geo    Pub/Sub

Redis    1    key    10w    key

keys    key

redis    keys

redis    redis    keys
scan
scan    key
keys

Redis

list    rpush    lpop    lpop
sleep    sleep    blpop,
redis    pub/sub

Redis

sortedset    score,    key,    zadd
zrangbyscore    n