TencentDB

How to help financial customers use Tencent Cloud MariaDB

For MariaDB 2020 Fest

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TencentDB

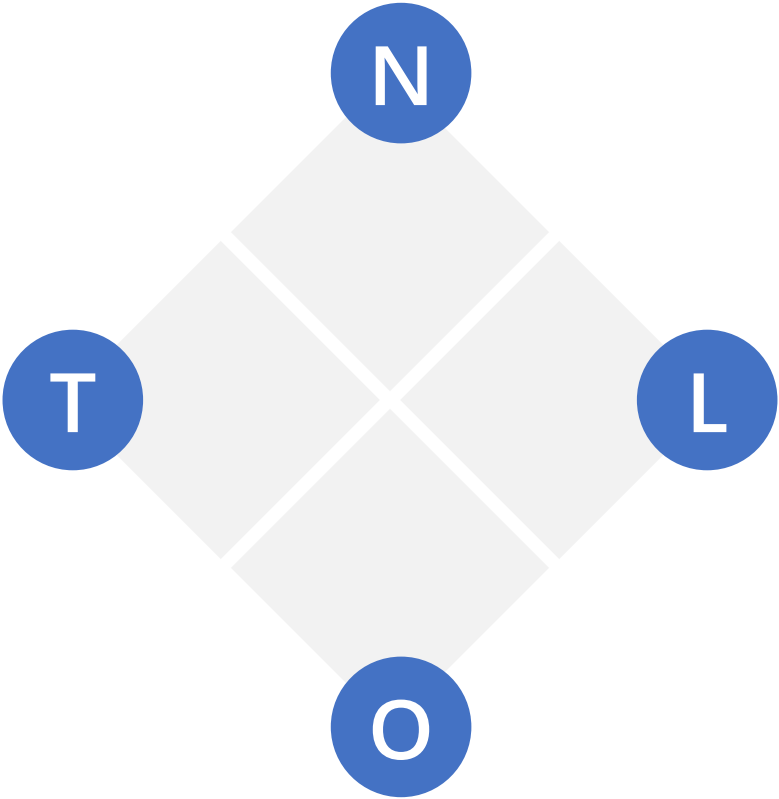# Why we choose MariaDB

New Features

Threads pool ,
DDL WAIT and NOWAIT ,CETS, S3 ...

More Engines

MyRocks
ColumnStore

N

T

L

O

license

LGPL, potential risk

Open

decisions can be reviewed and debated
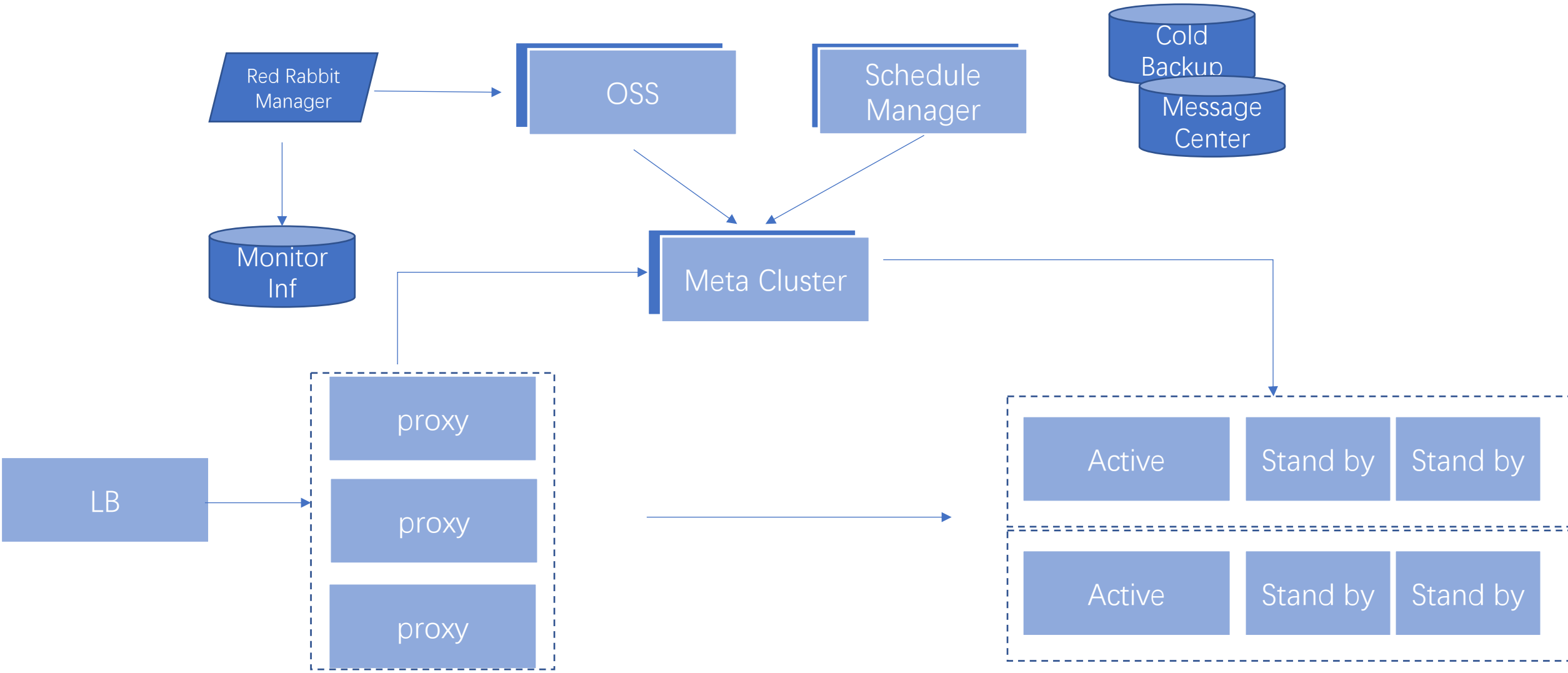
User's Requirement

Security

Scale out / update

Fully replication

High Availability 99.99%>

Window function, Multi source sync , CETS
...

Architecture

TencentDB

```
Red Rabbit Manager  →  OSS          Schedule Manager        Cold Backup
       │                  │                │                 Message Center
       ↓                  └──────┐   ┌─────┘
   Monitor Inf                   ↓   ↓
                              Meta Cluster ──────────────────┐
                                   │                          │
          ┌────────────────────────┘                          ↓
          ↓                                          ┌──────────────────────────────┐
   ┌──────────────┐                                  │ Active │ Stand by │ Stand by │
   │    proxy     │                                  ├──────────────────────────────┤
   ├──────────────┤        ─────────────────────→    │ Active │ Stand by │ Stand by │
LB→│    proxy     │                                  └──────────────────────────────┘
   ├──────────────┤
   │    proxy     │
   └──────────────┘
```

Security

Before

- Transmission encryption data authentication
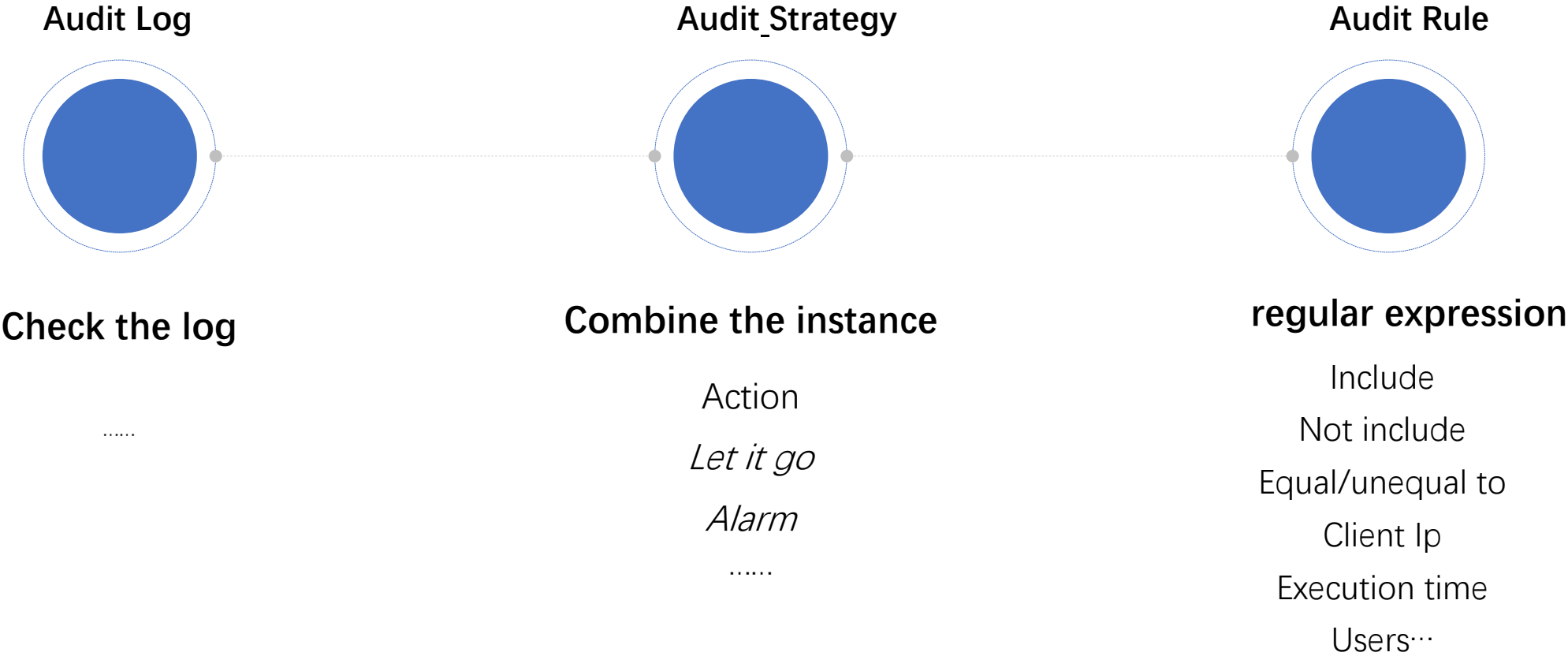
......

When

- Kernel-level security policy

- SQL firewall

- Mis-operation prevention

After

- Operation and maintenance audit

- Database audit

- Server audit

- Super access control

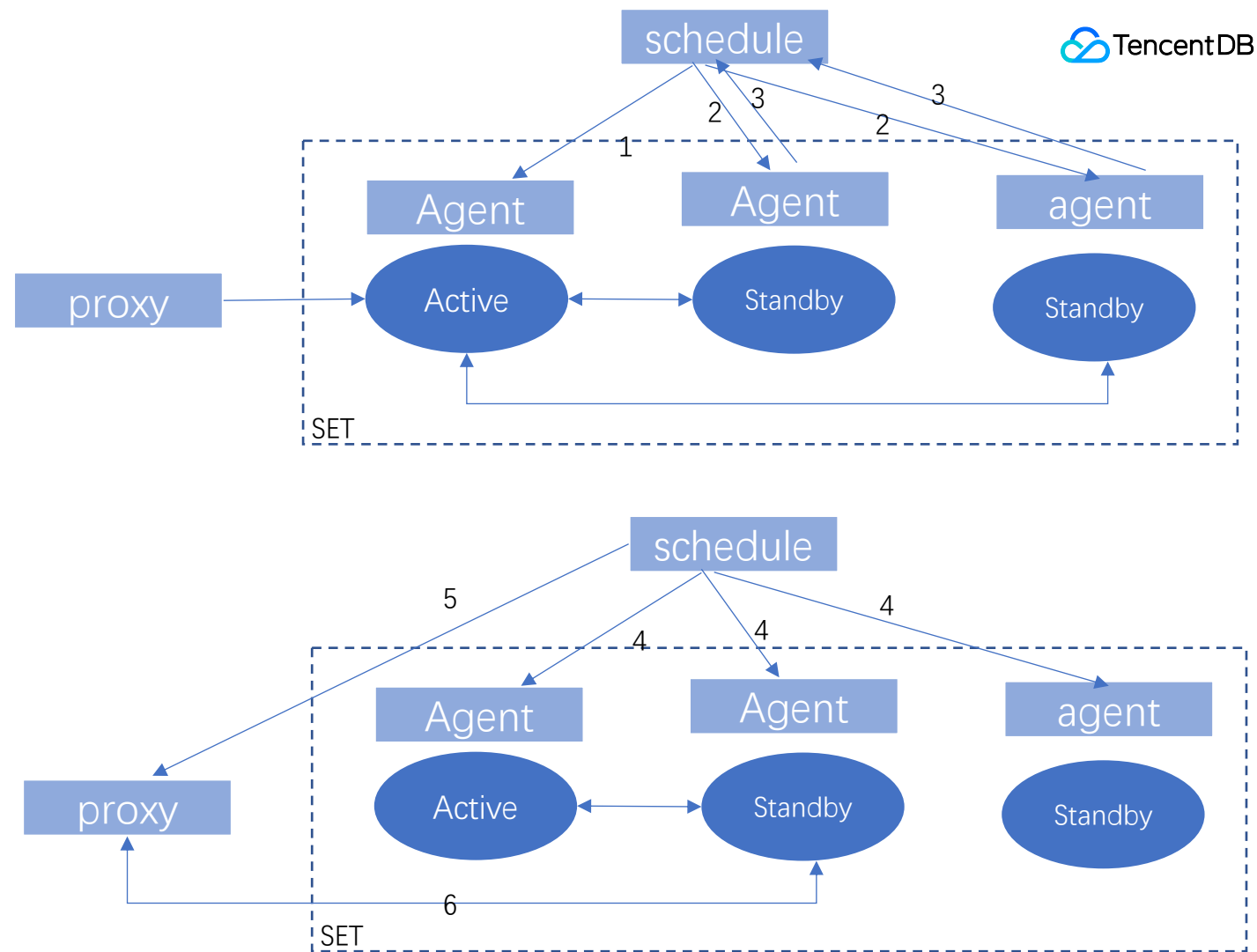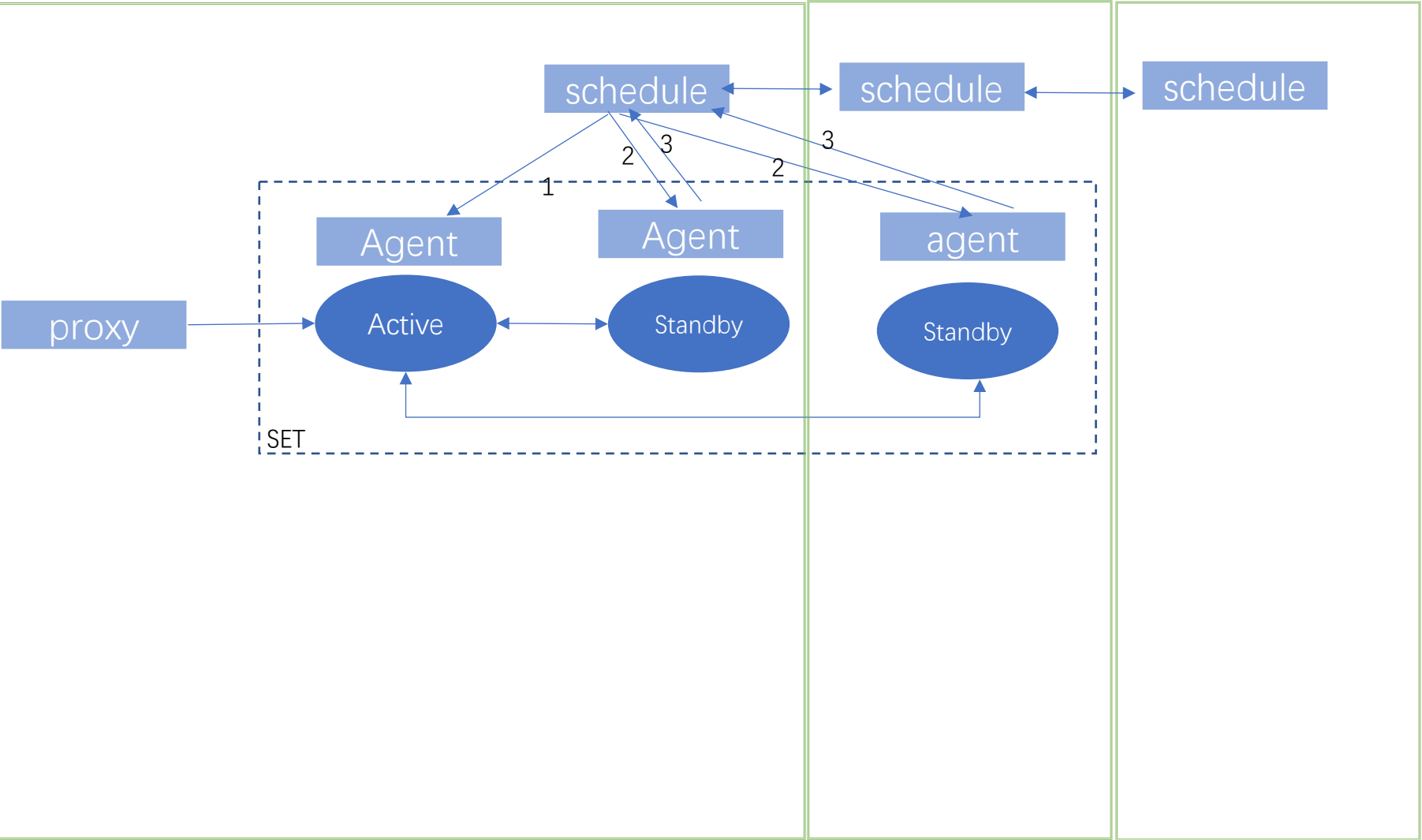National standard

Industry Certification

Audit

Audit Log

Audit_Strategy

Audit Rule

Check the log

……

Combine the instance

Action

Let it go

Alarm

……

regular expression

Include

Not include

Equal/unequal to

Client Ip

Execution time

Users…

TencentDB

Multi data center solve split-brain problem

schedule → schedule → schedule

Agent   Agent   agent

proxy → Active ↔ Standby   Standby

1   2   3   2   3

SET

Fully replication

Multi source synchronize

TencentDB

Multi-source synchronization component

DBBrain

TencentDB
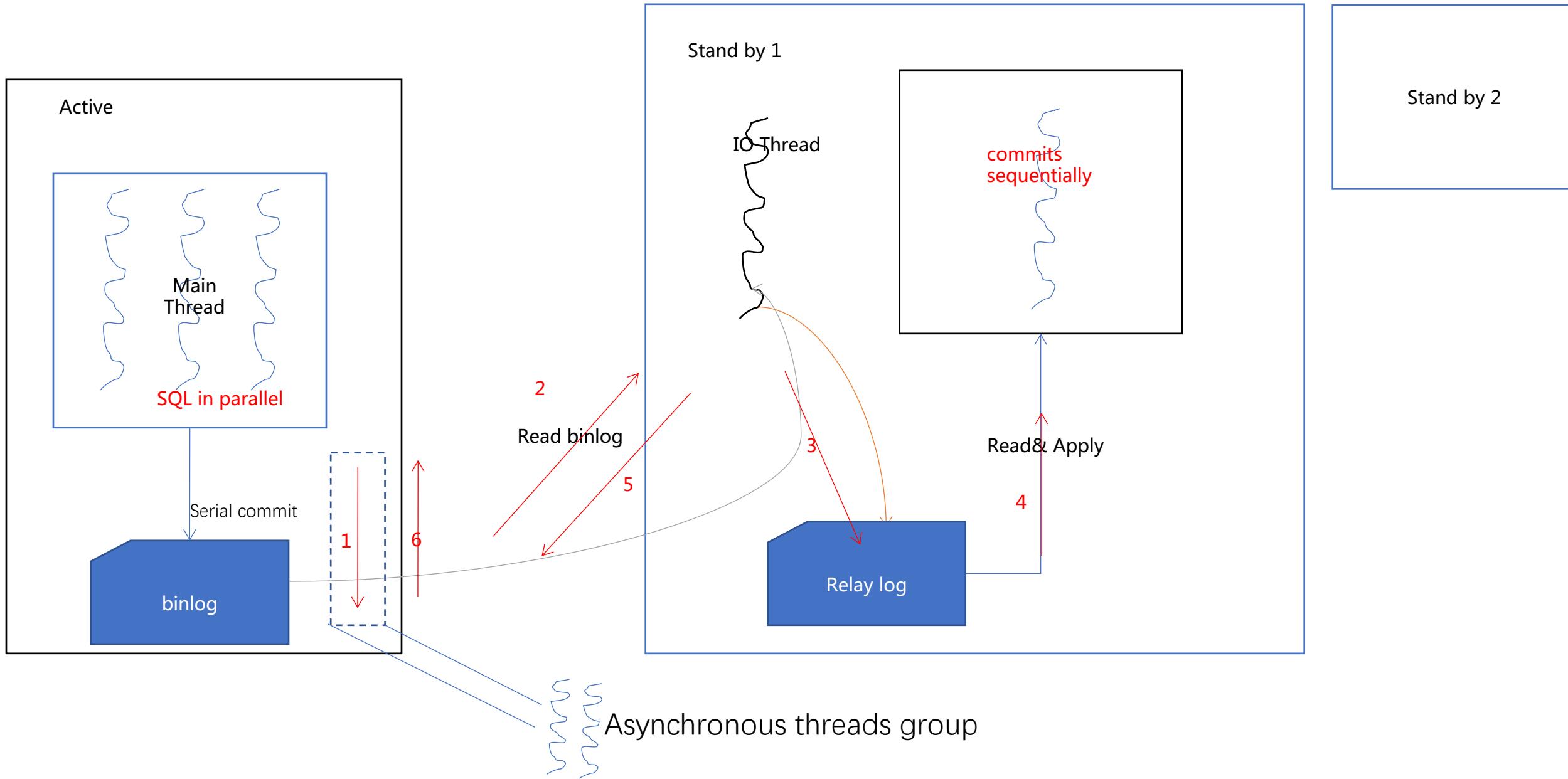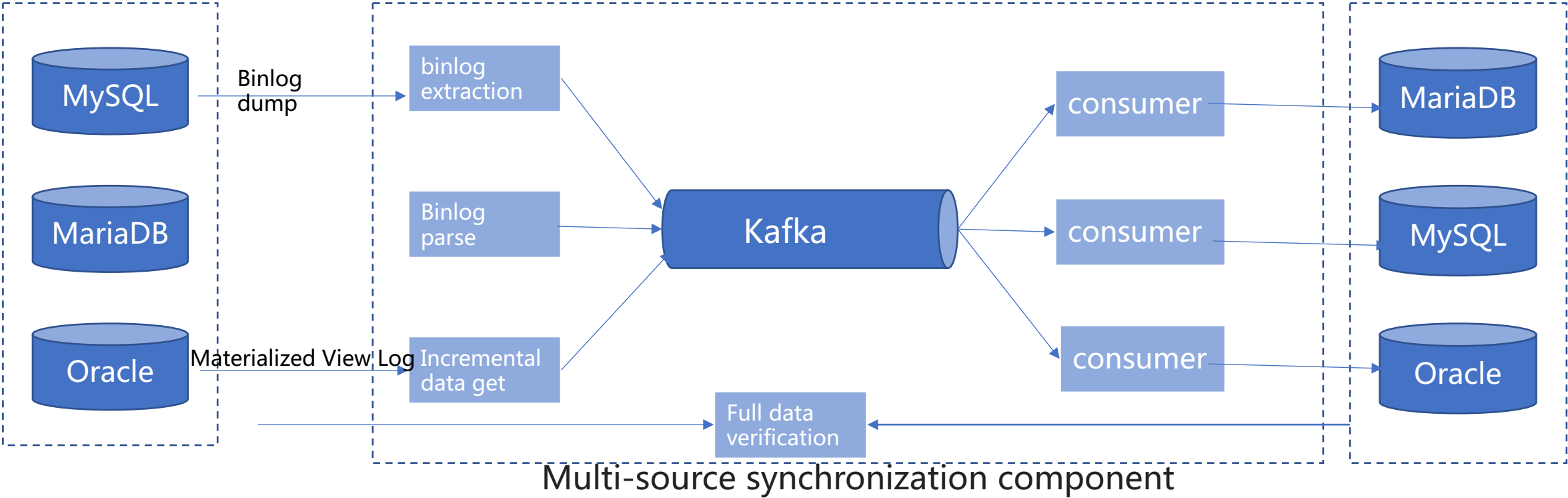
monitor	prevention	analysis	Alarm	Rapid positioning	Emergency response	optimization
☐ 70+ items ☐ Multi dimensional monitoring ☐ Fine-grained Monitor ☐ large screen	☐ SQL audit ☐ Execution plan and data review ☐ Health protection ☐ Regular inspection	☐ Performance bottleneck ☐ Performance trend ☐ Capacity prediction ☐ Security threat	☐ Availability status ☐ Performance baseline ☐ customize ☐ Other anomaly	☐ Abnormal diagnosis ☐ Real-time analysis and positioning ☐ One-click analysis ☐ Scene analysis	☐ Traffic restrictions ☐ Quick upgrade ☐ One-click kill	☐ One-click optimization ☐ Automatic tuning ☐ Expert advice

User cases , A bank