

Pulsar 2.6.1 版本发布前瞻

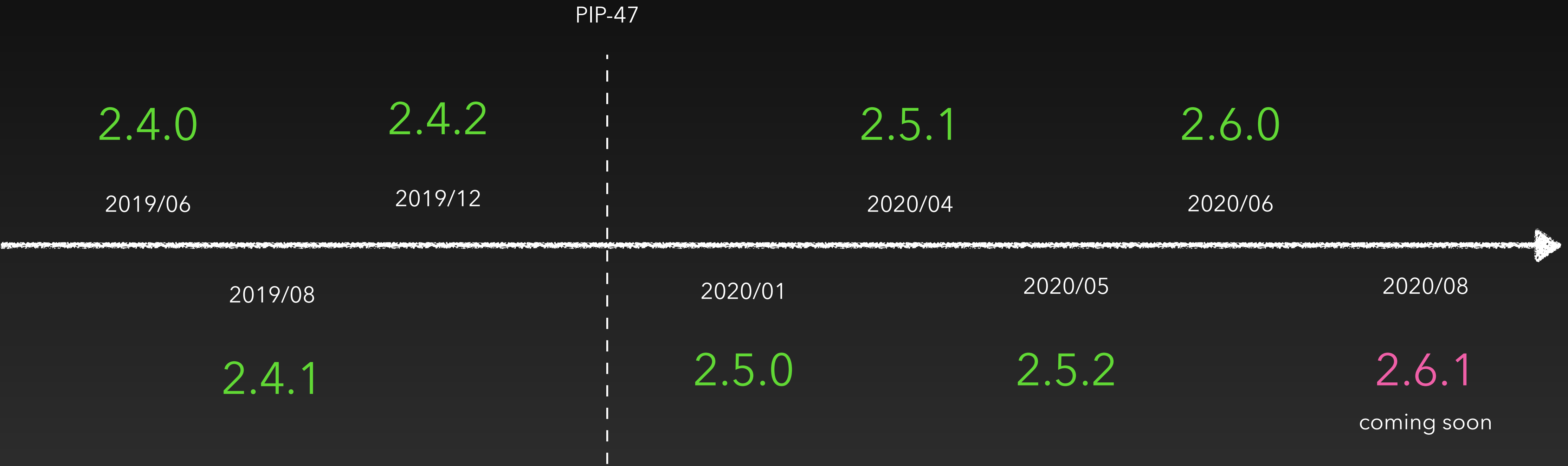
TGIP-CN: 21

Who am I

- 开源项目爱好者, Go 语言爱好者
- TiDB -> BitMain -> StreamNative
- Apache Pulsar committer
 - Go Functions
 - pulsar-client-go
 - pulsarctl
 - ...
- <https://github.com/wolfstudy>



PIP-47: Time Based Release Plan



PIP-47: Time Based Release Plan



优点:

- 反馈周期快
- 用户可预测
- 透明度（确定的发布日期）
- 高质量（更多的测试）

缺点:

- 错过版本发布的时间
- 发布次数
- 用户可能会频繁的进行升级
- 频繁发布引入更多的版本维护

PIP-47: Time Based Release Plan

xiaolong ran

[DISCUSS] Apache Pulsar 2.6.1 release

收件人: dev@pulsar.apache.org

Hi all:

I hope you've all been doing well. Since the last 2.6.0 release, almost a month and a half have passed. According to ****PIP 47: Time Based Release Plan****, I will start to release 2.6.1 this week.

You can find the whole change list of the 2.6.0 release from:

<https://github.com/apache/pulsar/pulls?q=is%3Aopen+is%3Apr+label%3Arelease%2F2.6.1>

If I missed some features, please let me know. And if some PRs can't complete in a few days, the owner can help check if we should include them in 2.6.1 or push to the next release version.

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Thanks
Xiaolong Ran

xiaolong ran

回复: [DISCUSS] Apache Pulsar 2.6.1 release

收件人: dev@pulsar.apache.org

Hello everyone:

I will cut 2.6.1 release, the following link is a pull request that is still open. If it is an error related to Action CI itself, I will track them and make sure they can pass. But there are still some pull requests with some comments that need to be further resolved. If you are the owner of this pull request, please help deal with it. Or we can consider moving it to 2.6.2 for processing.

<https://github.com/apache/pulsar/pulls?q=is%3Aopen+is%3Apr+label%3Arelease%2F2.6.1>

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Thanks
Xiaolong Ran

PIP-47: Time Based Release Plan

xiaolong ran

已发

[VOTE] Pulsar Release 2.6.1 Candidate 1

收件人: dev@pulsar.apache.org

This is the first release candidate for Apache Pulsar, version 2.6.1.

It fixes the following issues:

<https://github.com/apache/pulsar/labels/release%2F2.6.1>

*** Please download, test and vote on this release. This vote will stay open for at least 72 hours ***

Note that we are voting upon the source (tag), binaries are provided for convenience.

Source and binary files:

<https://dist.apache.org/repos/dist/dev/pulsar/pulsar-2.6.1-candidate-1/>

SHA-512 checksums:

dd089d526a22d688bd547b4729416fcebfebd09940b80402da188108d9ca425a78c057c2808f7e11557c2fd0f325b3c332343c1bbcbfbf7cd4084e981bfaac10 ./apache-pulsar-2.6.1-bin.tar.gz
0b09891b0af5cff4856564acaab6d93fdbd5425315b3eb27bc8ff4a519c1e18601f2d93ccc9f0e313ae76d61685422bcc6bea37a47e463e3270f9bba51cc7434 ./apache-pulsar-2.6.1-src.tar.gz

Maven staging repo:

<https://repository.apache.org/content/repositories/orgapachepulsar-1070/>

The tag to be voted upon:

v2.6.1-candidate-1 (3c8fbf7154c9f69ca7033438c12ec0987aadfcb7)

<https://github.com/apache/pulsar/releases/tag/v2.6.1-candidate-1>

Pulsar's KEYS file containing GPG keys we use to sign the release:

<https://dist.apache.org/repos/dist/dev/pulsar/KEYS>

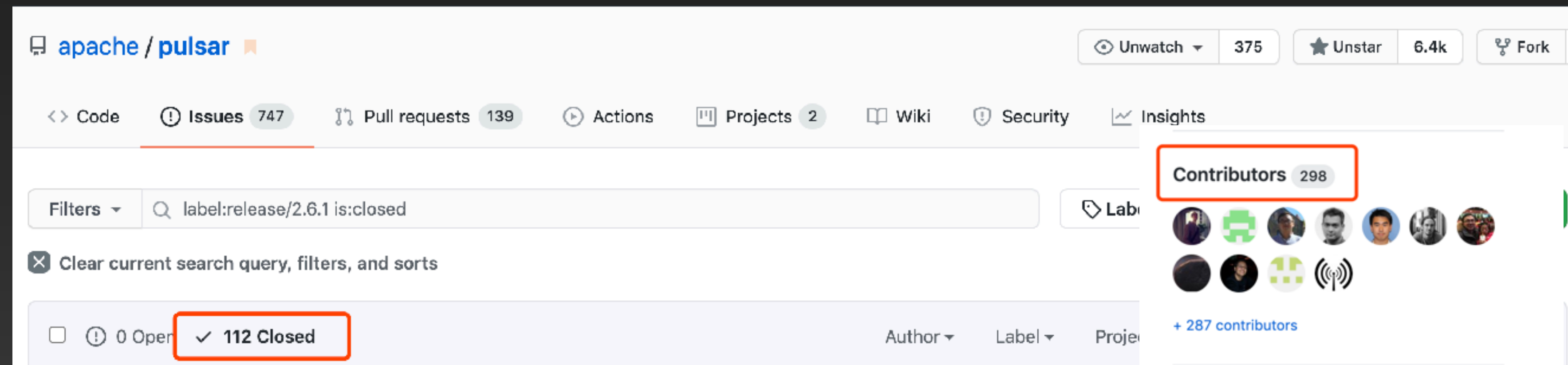
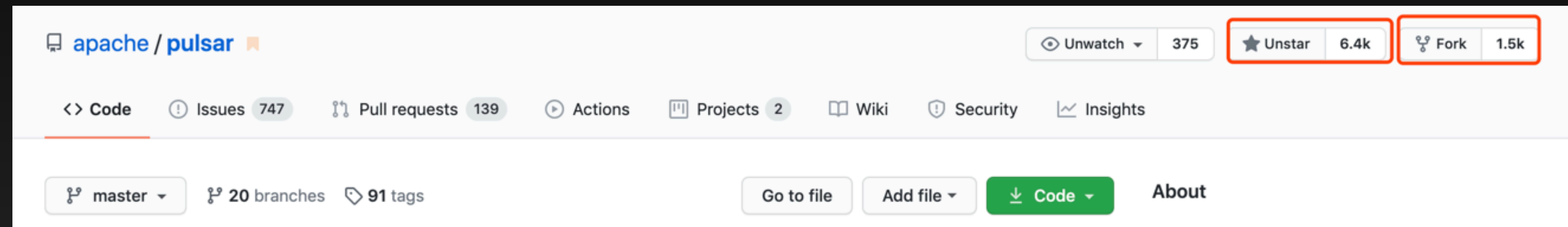
Please download the the source package, and follow the README to build and run the Pulsar standalone service.

PIP-69: Schema design for Go client

- Mailing list: <https://lists.apache.org/thread/r0ecc6211d1d18dd2a9305504c12747e9c8d83e341c5d1fbec788469c%40%3Cdev.pulsar.apache.org%3E>
- Impl
 - Producer
 - Consumer
 - Reader

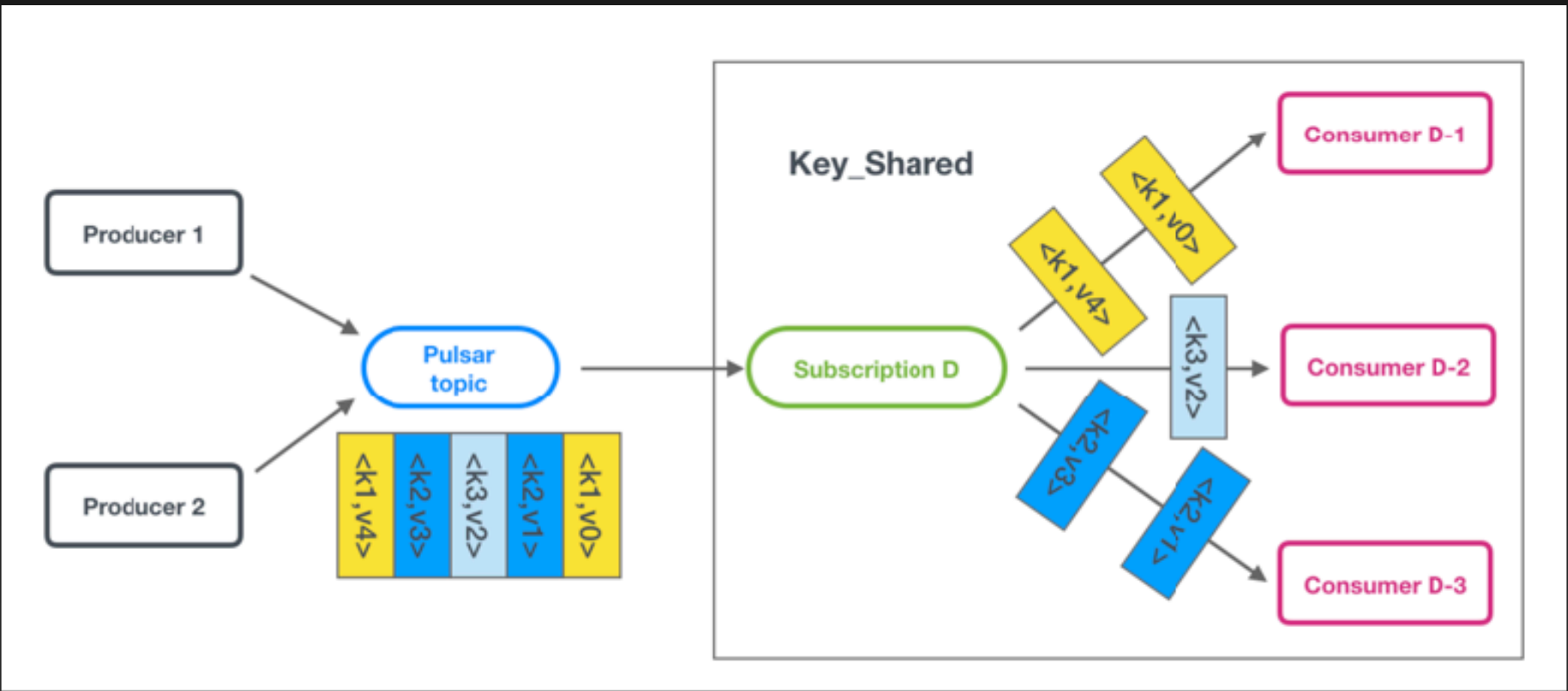
Release 2.6.1

- 112 次 commits
 - Broker
 - Pulsar Functions
 - Go Function
 - Pulsar SQL
 - Schema
 - Java/CPP Client
- Star: 6400+
- Fork: 1500+
- Contributors: 298



PR-7231: 修复 Key_Shared 中 stick hash range 冲突的问题

Key_Shared:



Error demo:

```
client.newConsumer(Schema.STRING)
....
.subscriptionType(SubscriptionType.Key_Shared)
.keySharedPolicy(KeySharedPolicy.stickyHashRange().ranges(Range.of(100,399)))
.subscribe();

client.newConsumer(Schema.STRING)
....
.subscriptionType(SubscriptionType.Key_Shared)
.keySharedPolicy(KeySharedPolicy.stickyHashRange().ranges(Range.of(0,99), Range.of(400, 65535)))
.subscribe();
```

PR-7416: 在 Key_Shared 中对 payload 进行解压缩

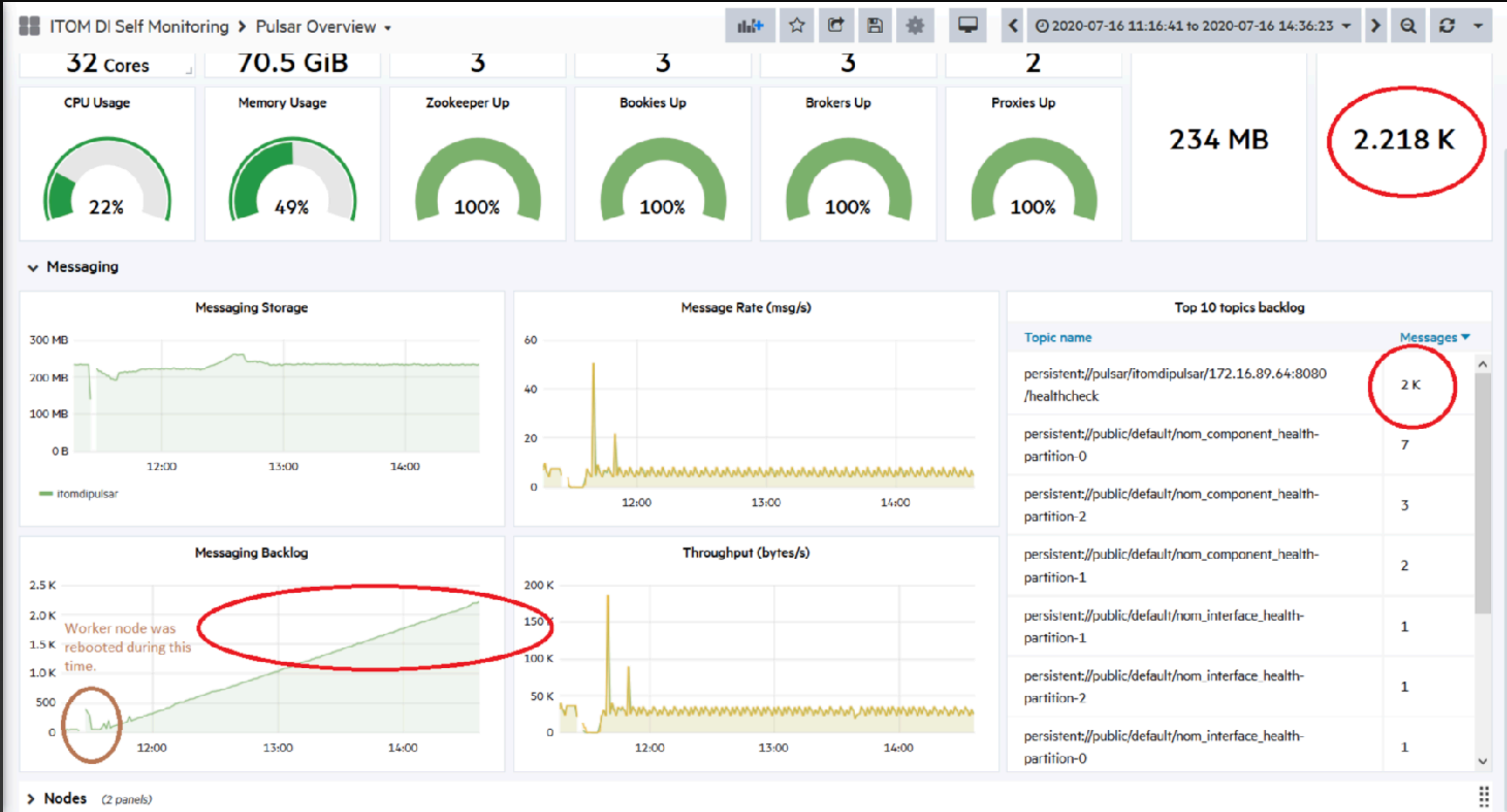
Code Example:

```
PulsarClient client = PulsarClient.builder().serviceUrl("pulsar://localhost:6650").build();
Producer<byte[]> producer =
    client
        .newProducer()
        .topic("persistent://my-tenant/my-namespace/my-topic")
        .compressionType(CompressionType.LZ4) // or SNAPPY
        .messageRoutingMode(MessageRoutingMode.SinglePartition)
        .batcherBuilder(BatcherBuilder.KEY_BASED)
        .hashingScheme(HashingScheme.Murmur3_32Hash)
        .create();
producer.newMessage().key("hello").value("world".getBytes()).send();
```

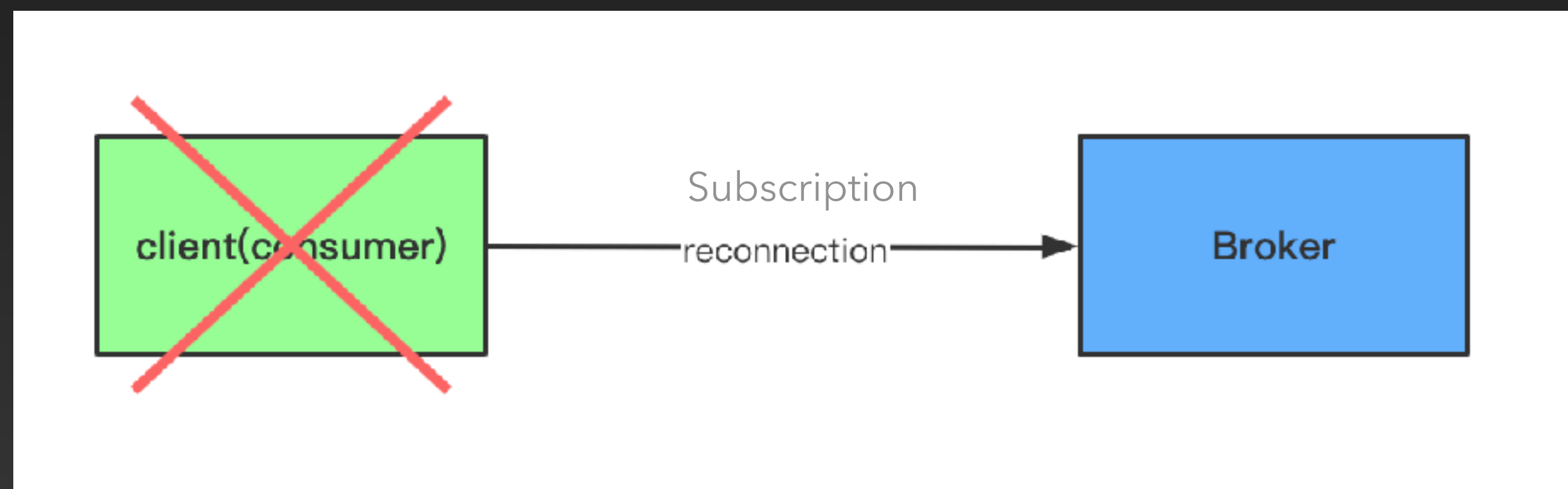
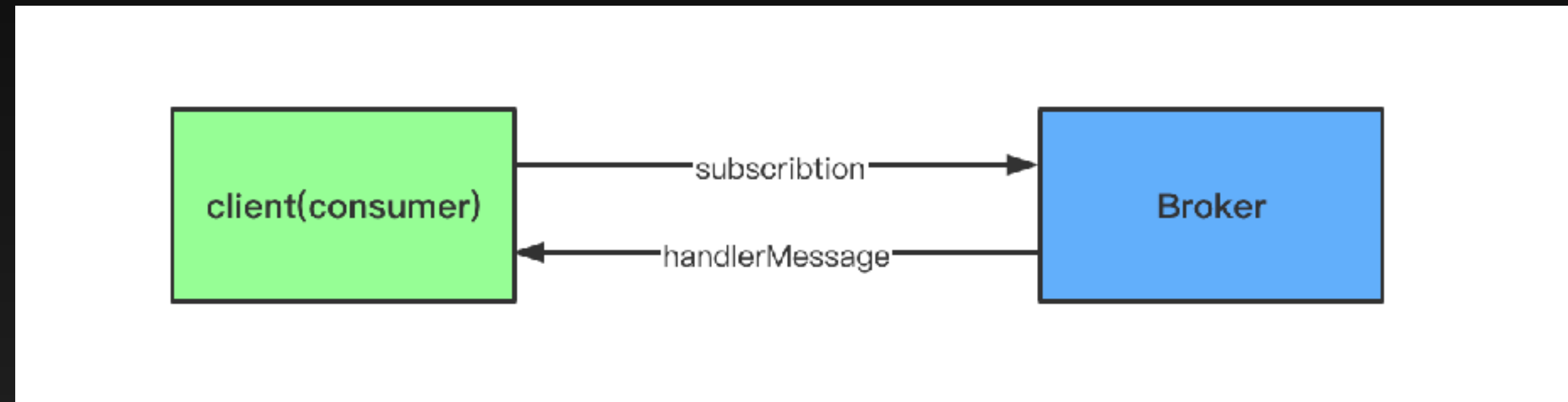
Broker Exception:

```
20:49:01.542 [bookkeeper-ml-workers-OrderedExecutor-0-0] ERROR org.apache.bookkeeper.common.util.SafeRunnable - Unexpected throwable
java.lang.IndexOutOfBoundsException: readerIndex: 71, writerIndex: 374603847 (expected: 0 <= readerIndex <= writerIndex <= capacity(1
    at io.netty.buffer.AbstractByteBuf.checkIndexBounds(AbstractByteBuf.java:112) ~[io.netty-netty-buffer-4.1.48.Final.jar:4.1.48
    at io.netty.buffer.AbstractByteBuf.writerIndex(AbstractByteBuf.java:135) ~[io.netty-netty-buffer-4.1.48.Final.jar:4.1.48.Fina
    at org.apache.pulsar.common.protocol.Commands.deSerializeSingleMessageInBatch(Commands.java:1707) ~[org.apache.pulsar-pulsar-
    at org.apache.pulsar.broker.service.AbstractBaseDispatcher.peekStickyKey(AbstractBaseDispatcher.java:161) ~[org.apache.pulsar-
    at org.apache.pulsar.broker.service.persistent.PersistentStickyKeyDispatcherMultipleConsumers.sendMessageToConsumers(Persist
    at org.apache.pulsar.broker.service.persistent.PersistentDispatcherMultipleConsumers.readEntriesComplete(PersistentDispatcher
    at org.apache.bookkeeper.mledger.impl.OpReadEntry.lambda$checkReadCompletion$2(OpReadEntry.java:152) ~[org.apache.pulsar-manag
    at org.apache.bookkeeper.mledger.util.SafeRun$1.safeRun(SafeRun.java:32) ~[org.apache.pulsar-managed-ledger-2.6.0.jar:2.6.0]
    at org.apache.bookkeeper.common.util.SafeRunnable.run(SafeRunnable.java:36) [org.apache.bookkeeper-bookkeeper-common-4.10.0.j
    at org.apache.bookkeeper.common.util.OrderedExecutor$TimedRunnable.run(OrderedExecutor.java:203) [org.apache.bookkeeper-bookk
```

PR-7589: 修复在关闭 consumer 时的竞态条件



PR-7589: 修复在关闭 consumer 时的竞态条件



PR-7360: 使用标准主机名作为 worker 的默认值

Example:

```
import java.net.InetAddress;
public class test{
    public static void main(String[] args) throws Exception {
        System.out.println("Hostname: " + InetAddress.getLocalHost().getHostName());
        System.out.println("Canonical Hostname: " + InetAddress.getLocalHost().getCanonicalHostName());
    }
}
```

Test Result:

```
# Java 8
$ java test
Hostname: broker-0.broker.pulsar.svc.cluster.local
Canonical Hostname: broker-0.broker.pulsar.svc.cluster.local
```

```
# Java 11
$ java test
Hostname: broker-0
Canonical Hostname: broker-0.broker.pulsar.svc.cluster.local
```

PR-7528: 修复 2.6.0 引入的向后兼容问题

- 向后兼容性
- Function Worker 与 Broker 分开部署

```
java.lang.NullPointerException: null\n\tat java.net.URI$Parser.parse(URI.java:3104) ~[?:?]\n\tat java.net.URI.  
<init>(URI.java:600) ~[?:?]\n\tat java.net.URI.create(URI.java:881) ~[?:?]\n\tat  
org.apache.pulsar.functions.worker.WorkerUtils.initializeLogNamespace(WorkerUtils.java:160) ~  
[org.apache.pulsar-pulsar-functions-worker-2.7.0-SNAPSHOT.jar:2.7.0-SNAPSHOT]\n\tat  
org.apache.pulsar.functions.worker.Worker.initialize(Worker.java:155) ~[org.apache.pulsar-pulsar-functions-  
worker-2.7.0-SNAPSHOT.jar:2.7.0-SNAPSHOT]\n\tat org.apache.pulsar.functions.worker.Worker.start(Worker.java:69)  
~[org.apache.pulsar-pulsar-functions-worker-2.7.0-SNAPSHOT.jar:2.7.0-SNAPSHOT]\n\tat  
org.apache.pulsar.functions.worker.FunctionWorkerStarter.main(FunctionWorkerStarter.java:67) [org.apache.pulsar-  
pulsar-functions-worker-2.7.0-SNAPSHOT.jar:2.7.0-SNAPSHOT]\n
```

```
InternalConfigurationData{zookeeperServers=zookeeper-dev-0.zookeeper-dev:2181,zookeeper-dev-1.zookeeper-  
dev:2181,zookeeper-dev-2.zookeeper-dev:2181, configurationStoreServers=zookeeper-dev-0.zookeeper-  
dev:2181,zookeeper-dev-1.zookeeper-dev:2181,zookeeper-dev-2.zookeeper-dev:2181, ledgersRootPath=/ledgers,  
bookkeeperMetadataServiceUri=null, stateStorageServiceUrl=null}
```

PR-7578: 优化 Pulsar Function 的加密配置

Enable TLS transport encryption

```
useTLS: true
pulsarServiceUrl: pulsar+ssl://localhost:6651/
pulsarWebServiceUrl: https://localhost:8443

tlsEnabled: true
tlsCertificateFilePath: /path/to/functions-worker.cert.pem
tlsKeyFilePath: /path/to/functions-worker.key-pk8.pem
tlsTrustCertsFilePath: /path/to/ca.cert.pem

// The path to trusted certificates used by the Pulsar client
brokerClientTrustCertsFilePath: /path/to/ca.cert.pem
```

Enable Authentication Provider:

```
brokerClientAuthenticationPlugin: org.apache.pulsar.client.impl.auth.AuthenticationTls
brokerClientAuthenticationParameters: tlsCertFile:/path/to/admin.cert.pem,tlsKeyFile:/path/to/a

authenticationEnabled: true
authenticationProviders: ['org.apache.pulsar.broker.authentication.AuthenticationProviderTls']
```

Enable Authorization Provider:

```
authorizationEnabled: true
authorizationProvider: org.apache.pulsar.broker.authorization.PulsarAuthorizationProvider
configurationStoreServers: <configuration-store-servers>
```

```
superUserRoles:
- role1
- role2
- role3
```

PR-7300: 在 pulsar-perf 中支持 `tlsAllowInsecureConnection`

- Producer
- Consumer
- Reader

```
--tls-allow-insecure
    Allow insecure TLS connection
--trust-cert-file
    Path for the trusted TLS certificate file
    Default: <empty string>
--warmup-time
    Warm-up time in seconds (Default: 1 sec)
    Default: 1.0
```

```
(+ ... ) ~/IdeaProjects/pulsar branch-2.6 ./bin/pulsar-perf produce |
```


PR-7355: 处理在非持久性 cursor 时的错误

NPE Exception:

```
try {
    cursor = ledger.newNonDurableCursor(startPosition, subscriptionName);
} catch (ManagedLedgerException e) {
    subscriptionFuture.completeExceptionally(e);
}

return new PersistentSubscription(this, subscriptionName, cursor, false);
```



```
2020-06-20 00:00:23.872000+00:00 [WARN ] [he.pulsar.broker.service.ServerCnx] [/127.0.0.1:47412][persistent://Ti
java.util.concurrent.CompletionException: java.lang.NullPointerException
    at java.util.concurrent.CompletableFuture.encodeThrowable(CompletableFuture.java:314) [?:?]
    at java.util.concurrent.CompletableFuture.uniComposeStage(CompletableFuture.java:1113) [?:?]
    at java.util.concurrent.CompletableFuture.thenCompose(CompletableFuture.java:2235) [?:?]
    at org.apache.pulsar.broker.service.ServerCnx.lambda$null$14(ServerCnx.java:802) [org.apache.pulsar-puls:
    at java.util.concurrent.CompletableFuture$UniApply.tryFire(CompletableFuture.java:642) [?:?]
    at java.util.concurrent.CompletableFuture.postComplete(CompletableFuture.java:506) [?:?]
    at java.util.concurrent.CompletableFuture.postFire(CompletableFuture.java:610) [?:?]
    at java.util.concurrent.CompletableFuture$UniCompose.tryFire(CompletableFuture.java:1005) [?:?]
    at java.util.concurrent.CompletableFuture$Completion.run(CompletableFuture.java:478) [?:?]
    at java.lang.Thread.run(Thread.java:834) [?:?]
Caused by: java.lang.NullPointerException
    at org.apache.pulsar.broker.service.persistent.PersistentMessageExpiryMonitor.<init>(PersistentMessageEx
    at org.apache.pulsar.broker.service.persistent.PersistentSubscription.<init>(PersistentSubscription.java
    at org.apache.pulsar.broker.service.persistent.PersistentTopic.lambda$getNonDurableSubscription$13(Pers1:
    at org.apache.pulsar.common.util.collections.ConcurrentOpenHashMap$Section.put(ConcurrentOpenHashMap.java:
    at org.apache.pulsar.common.util.collections.ConcurrentOpenHashMap.computeIfAbsent(ConcurrentOpenHashMap
    at org.apache.pulsar.broker.service.persistent.PersistentTopic.getNonDurableSubscription(PersistentTopic
    at org.apache.pulsar.broker.service.persistent.PersistentTopic.subscribe(PersistentTopic.java:581) ~[org
    at org.apache.pulsar.broker.service.ServerCnx.lambda$null$11(ServerCnx.java:817) [org.apache.pulsar-puls:
    at java.util.concurrent.CompletableFuture.uniComposeStage(CompletableFuture.java:1105) ~[?:?]
    ... 8 more
```

PR-7401：创建新 ledger 时引发 NPE 而导致生产者卡死的问题

问题：

- 解析网络地址失败
- 超时任务添加的时机

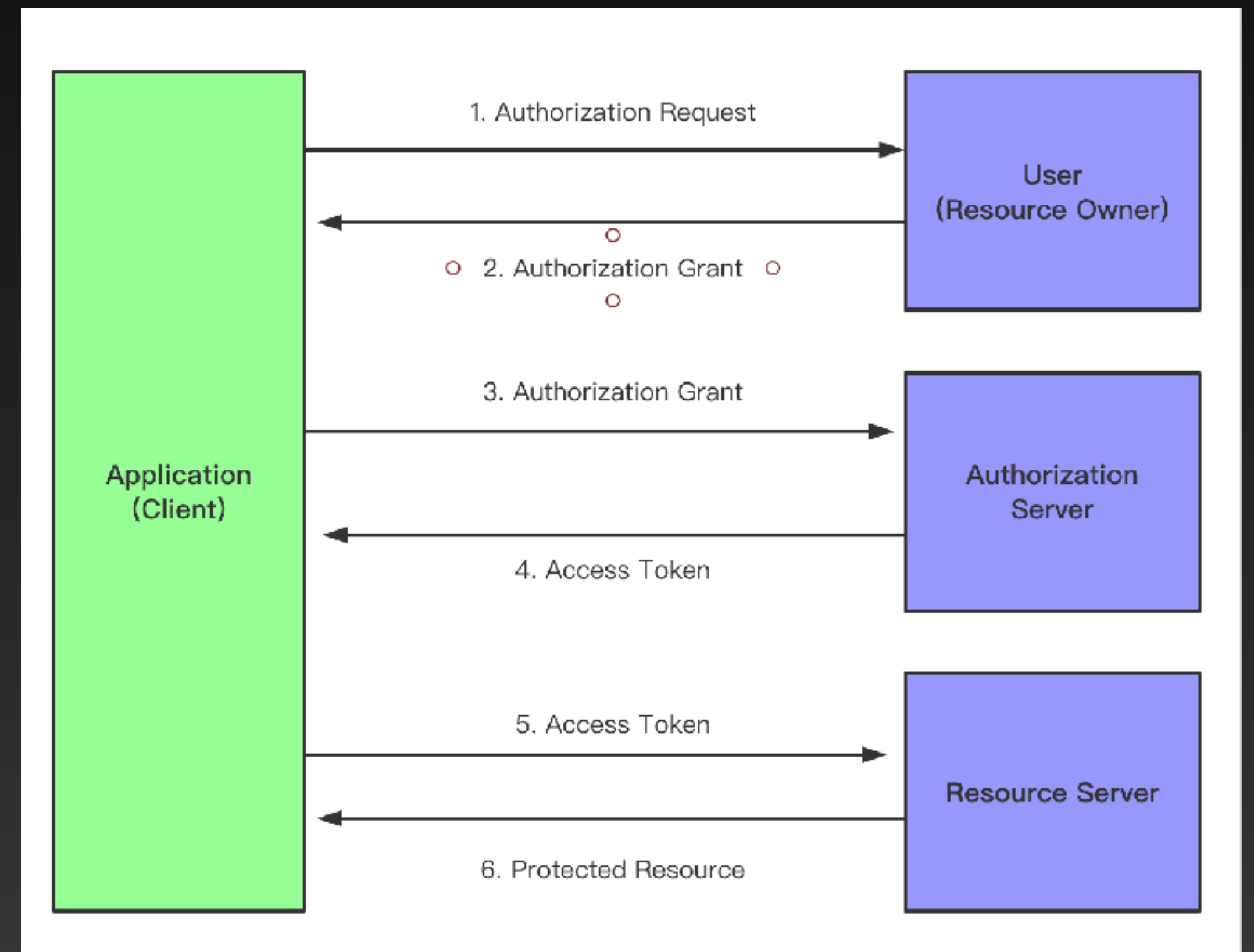
解决：

- 捕获 NPE Exception
- 触发超时任务时，执行回调
- 检测 CreationLedger 的状态

OAuth2

Authentication Providers:

- TLS Authentication
- Athenz
- Kerbos
- JSON Web Token Authentication



Support OAuth2 feature:

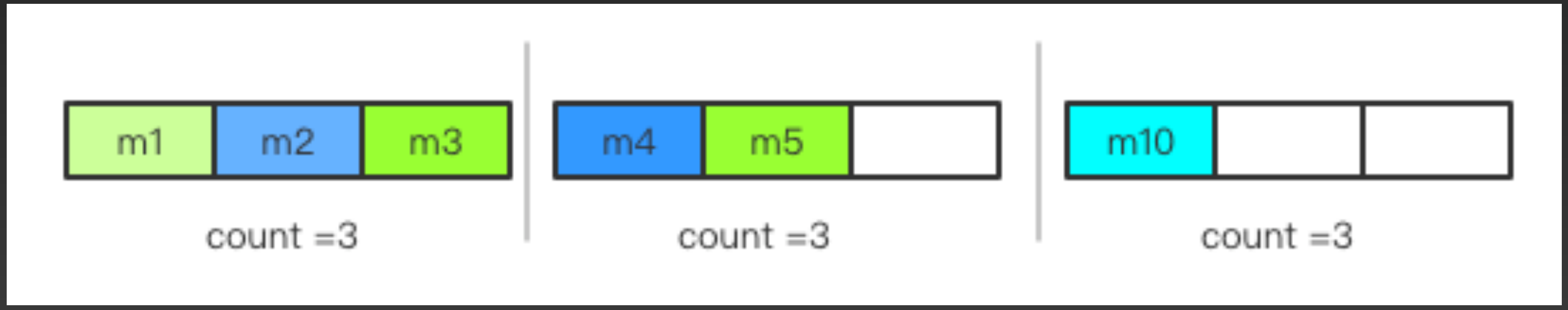
- Java Client(Client version: 2.6.1+)
- CPP Client
- Go Client
- pulsar-admin
- pulsar-perf
- pulsar-client
- pulsarctl(CLI && admin API)

PR-7401: 完善 Window Function 相关的文档

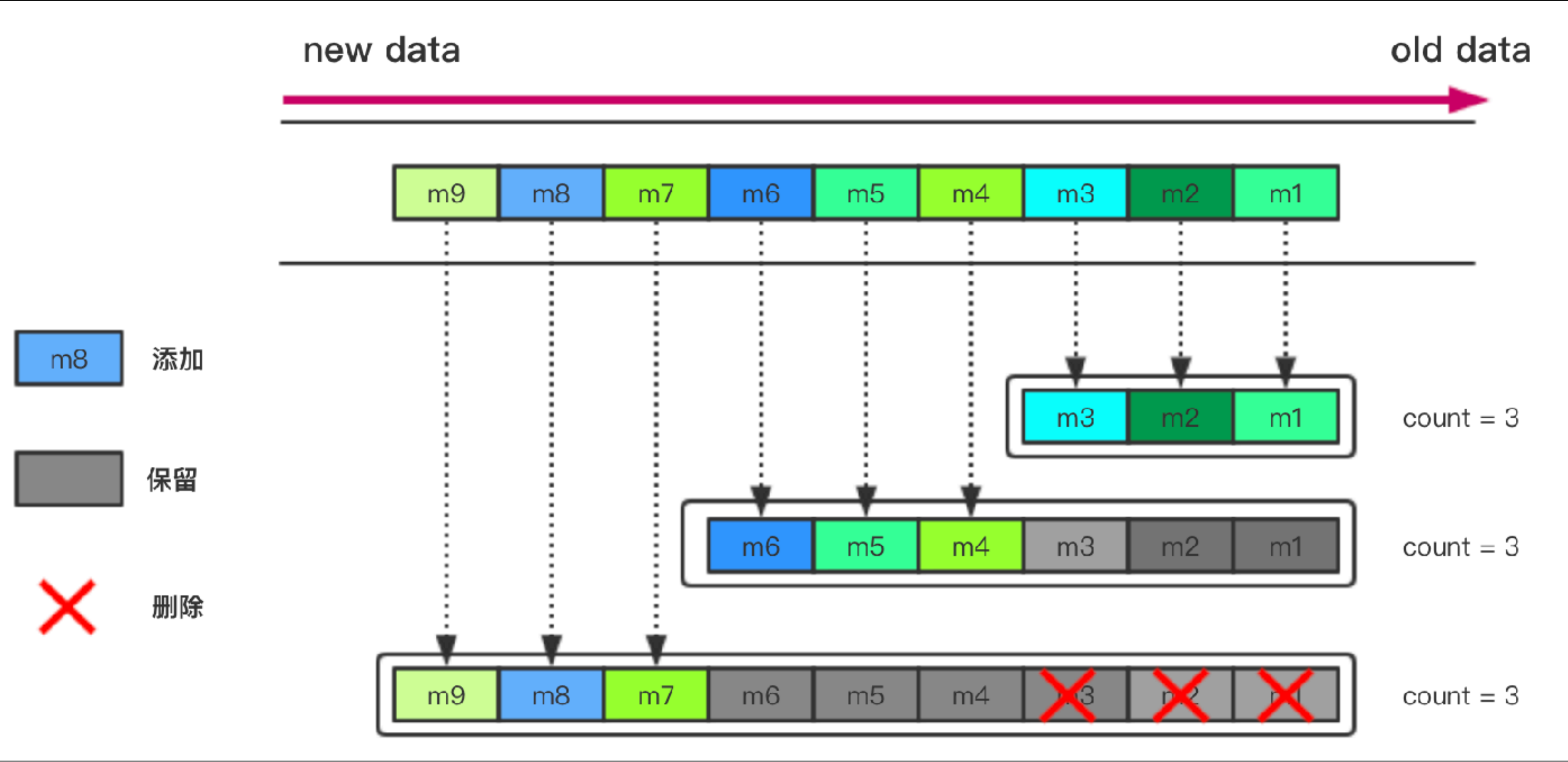
Time window



Count window



PR-7401：完善 Window Function 相关的文档



PR-7401：完善 Window Function 相关的文档

- Trigger
- Evictor
- Watermark

Q & A

