

Test Results for Data import in the Integration Environment at Shanghai Library

(上图集成测试环境Dataimport测试结果-2020/08/10)

1. Environment (测试环境):

Device#(设备编号): shlib-Virtual-Machine

Hardware (硬件环境):

CPU: 12 Intel(R) Xeon(R) CPU E5-2609 v4 @ 1.70GHz

Memory (内存):

	total	used	free	shared	buff/cache	available
Mem:	47149	27902	11327	595	7919	17584
Swap:	0	0	0			

Versions of folio modules (相关Folio模块版本):

- 1) mod-pubsub: 1.2.0
- 2) mod-source-record-manager-2.2.0
- 3) mod-source-record-storage-3.2.0
- 4) mod-inventory-14.2.0

2. Test Data(测试数据): 17076 USMARC records tested

(bib#-4100000~4300000_usmarc_17076条.iso, 共17076条USMARC)

3. Testing process (测试过程)

- 3:26 uploaded task file and created task. Task configuration was set to create Instance. No MatchProfile. The Mapping rules just added few additional rules to the default ones. (3:26 上传任务文件, 构建任务, 任务配置为最简单的创建Instance, 没有MatchProfile, Mapping规则也只是在默认rules上增加了少许规则。)
- SRM started to parse the file and inserted SRS. The mod-pubsub used more resources, VIRT 19.4G, RES 12.1G, CPU 500%. (SRM开始解析文件, 并插入SRS, 此时mod-pubsub 占用较大资源, VIRT 19.4G, RES 12.1G, CPU 500%)

Linux 4.15.0-107-generic (shlib-Virtual-Machine) 2020/08/10 _x86_64_ (12 CPU)
hour/minute/second

15时37分08秒	CPU	%user	%nice	%system	%iowait	%steal	%idle
15时37分09秒	all	53.61	0.00	11.43	0.08	0.00	34.87
15时37分10秒	all	45.47	0.00	9.82	0.00	0.00	44.71
15时37分11秒	all	46.39	0.00	3.19	0.00	0.00	50.42
15时37分12秒	all	46.37	0.00	1.84	0.00	0.00	51.80
15时37分13秒	all	45.16	0.00	3.20	0.00	0.00	51.64
15时37分14秒	all	43.67	0.00	3.72	0.34	0.00	52.28
15时37分15秒	all	45.46	0.00	1.43	0.08	0.00	53.03
15时37分16秒	all	46.77	0.00	2.69	0.08	0.00	50.46
15时37分17秒	all	75.90	0.00	1.93	0.00	0.00	22.17
15时37分18秒	all	45.64	0.00	2.94	0.00	0.00	51.43
15时37分19秒	all	43.22	0.00	1.42	0.00	0.00	55.36

15时37分20秒	all	47.85	0.00	2.86	0.00	0.00	49.28
15时37分21秒	all	46.48	0.00	2.94	0.00	0.00	50.59

- After running for 10 minutes, SRM called mod-pubsub. Exception was received. (运行10分钟后，SRM 调用 pubsub模块异常)

15:43:26.656 [vert.x-eventloop-thread-0] ERROR PubSubClientUtils [1729858834eqId]
org.folio.util.pubsub.exceptions.EventSendingException: Error during
publishing Event Message in PubSub. Status code: 500 . Status message: Internal
Server Error

```
15:43:26.774 [vert.x-eventloop-thread-0] ERROR rocessingServiceImpl  
[1729858952eqId] Error during event sending:  
org.folio.rest.jaxrs.model.Event@2d5aa7f2[id=13d1e38f-39b3-447b-8545-35f6a8b125e5,  
eventType=DI_SRS_MARC_BIB_RECORD_CREATED,eventMetadata=org.folio.rest.jaxr  
s.model.EventMetadata@2fc268]  
1
```

org.folio.util.pubsub.exceptions.EventSendingException: Error during publishing Event Message in PubSub. Status code: 500 . Status message: Internal Server Error

a t
org.folio.util.pubsub.PubSubClientUtils.lambda\$sendEventMessage\$0(PubSubClientUtils.java:61) ~[mod-shl-disc-source-record-manager-server-fat.jar:]

a io.vertx.core.http.impl.HttpClientRequestImpl.handleResponse(HttpClientRequestImpl.java:200) [vertx-bridge-impl-1.0.0-SNAPSHOT.jar!/:?]

```
a:390) ~[mod-shl-disc-source-record-manager-server-fat.jar:?:]  
      a  
io.vertx.core.http.impl.HttpClientRequestBase.checkHandleResponse(HttpClientRequest  
Base.java:158) ~[mod-shl-disc-source-record-manager-server-fat.jar:?:]
```

a io.vertx.core.http.impl.HttpClientRequestBase.handleResponse(HttpClientRequestBase.java:120) [mod:ehl-disc-source-record-manager-server fatjar:2]

```
a t  
io.vertx.core.http.impl.Http1xClientConnection.handleResponseBegin(Http1xClientConne  
ction.java:608) ~[mod-shl-disc-source-record-manager-server-fat.jar:2]
```

io.vertx.core.http.impl.Http1xClientConnection.handleHttpMessage(Http1xClientConnection.java:576) ~[mod-shl-disc-source-record-manager-server-fat.jar:2]

io.vertx.core.http.impl.Http1xClientConnection.handleMessage(Http1xClientConnection.java:566) ~[mod-shl-disc-source-record-manager-server-fat.jar:2]

at io.vertx.core.impl.ContextImpl.executeTask(ContextImpl.java:369) [mod-shl-disc-source-record-manager-server-fat.jar:??]

at io.vertx.core.impl.EventLoopContext.execute(EventLoopContext.java:43) [mod-shl-disc-source-record-manager-server-fat.jar:?]

at io.vertx.core.impl.ContextImpl.executeFromIO(ContextImpl.java:232) [mod-shl-disc-source-record-manager-server-fat.jar:?]

at io.vertx.core.net.impl.VertxHandler.channelRead(VertxHandler.java:173) [mod-shl-disc-source-record-manager-server-fat.jar:?:?]

io.netty.channel.AbstractChannelHandlerContext.invokeChannelRead(AbstractChannelHandlerContext.java:374) [mod-shl-disc-source-record-manager-server-fat.jar:?]

io.netty.channel.AbstractChannelHandlerContext.invokeChannelRead(AbstractChannelHandlerContext.java:360) [mod-shl-disc-source-record-manager-server-fat.jar:?]

io.netty.channel.AbstractChannelHandlerContext.fireChannelRead(AbstractChannelHand

lerContext.java:352) [mod-shl-disc-source-record-manager-server-fat.jar:?] a t

```
io.netty.channel.CombinedChannelDuplexHandler$DelegatingChannelHandlerContext.fireChannelRead(CombinedChannelDuplexHandler.java:438) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
    a  
    t  
    io.netty.handler.codec.ByteToMessageDecoder.fireChannelRead(ByteToMessageDecoder.java:328) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
        a  
        t  
        io.netty.handler.codec.ByteToMessageDecoder.fireChannelRead(ByteToMessageDecoder.java:315) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
            a  
            t  
            io.netty.handler.codec.ByteToMessageDecoder.callDecode(ByteToMessageDecoder.java:429) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
                a  
                t  
                io.netty.handler.codec.ByteToMessageDecoder.channelRead(ByteToMessageDecoder.java:283) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
                    a  
                    t  
                    io.netty.channel.CombinedChannelDuplexHandler.channelRead(CombinedChannelDuplexHandler.java:253) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
                        a  
                        t  
                        io.netty.channel.AbstractChannelHandlerContext.invokeChannelRead(AbstractChannelHandlerContext.java:374) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
                            a  
                            t  
                            io.netty.channel.AbstractChannelHandlerContext.invokeChannelRead(AbstractChannelHandlerContext.java:360) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
                                a  
                                t  
                                io.netty.channel.AbstractChannelHandlerContext.fireChannelRead(AbstractChannelHandlerContext.java:352) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
                                    at io.netty.handler.logging.LoggingHandler.channelRead(LoggingHandler.java:241)  
[mod-shl-disc-source-record-manager-server-fat.jar:?:]  
    a  
    t  
    io.netty.channel.AbstractChannelHandlerContext.invokeChannelRead(AbstractChannelHandlerContext.java:374) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
        a  
        t  
        io.netty.channel.AbstractChannelHandlerContext.invokeChannelRead(AbstractChannelHandlerContext.java:360) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
            a  
            t  
            io.netty.channel.AbstractChannelHandlerContext.fireChannelRead(AbstractChannelHandlerContext.java:352) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
                at io.netty.handler.timeout.IdleStateHandler.channelRead(IdleStateHandler.java:287)  
[mod-shl-disc-source-record-manager-server-fat.jar:?:]  
    a  
    t  
    io.netty.channel.AbstractChannelHandlerContext.invokeChannelRead(AbstractChannelHandlerContext.java:374) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
        a  
        t  
        io.netty.channel.AbstractChannelHandlerContext.invokeChannelRead(AbstractChannelHandlerContext.java:360) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
            a  
            t  
            io.netty.channel.AbstractChannelHandlerContext.fireChannelRead(AbstractChannelHandlerContext.java:352) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
                a  
                t  
                io.netty.channel.DefaultChannelPipeline$HeadContext.channelRead(DefaultChannelPipeline.java:1422) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
                    a  
                    t  
                    io.netty.channel.AbstractChannelHandlerContext.invokeChannelRead(AbstractChannelHandlerContext.java:374) [mod-shl-disc-source-record-manager-server-fat.jar:?:]  
                        a  
                        t  
                        io.netty.channel.AbstractChannelHandlerContext.invokeChannelRead(AbstractChannelHandlerContext.java:360) [mod-shl-disc-source-record-manager-server-fat.jar:?:]
```

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    a
    io.netty.channel.DefaultChannelPipeline.fireChannelRead(DefaultChannelPipeline.java:9
31) [mod-shl-disc-source-record-manager-server-fat.jar:?]
        a
        t
        io.netty.channel.nio.AbstractNioByteChannel$NioByteUnsafe.read(AbstractNioByteChan
nel.java:163) [mod-shl-disc-source-record-manager-server-fat.jar:?]
            at io.netty.channel.nio.NioEventLoop.processSelectedKey(NioEventLoop.java:700)
[mod-shl-disc-source-record-manager-server-fat.jar:?]
                a
                t
                io.netty.channel.nio.NioEventLoop.processSelectedKeysOptimized(NioEventLoop.java:6
35) [mod-shl-disc-source-record-manager-server-fat.jar:?]
                    at io.netty.channel.nio.NioEventLoop.processSelectedKeys(NioEventLoop.java:552)
[mod-shl-disc-source-record-manager-server-fat.jar:?]
                    at io.netty.channel.nio.NioEventLoop.run(NioEventLoop.java:514) [mod-shl-disc-
source-record-manager-server-fat.jar:?]
                        a
                        t
                        io.netty.util.concurrent.SingleThreadEventExecutor$6.run(SingleThreadEventExecutor.ja
va:1044) [mod-shl-disc-source-record-manager-server-fat.jar:?]
                            at io.netty.util.internal.ThreadExecutorMap$2.run(ThreadExecutorMap.java:74)
[mod-shl-disc-source-record-manager-server-fat.jar:?]
                                a
                                t
                                io.netty.util.concurrent.FastThreadLocalRunnable.run(FastThreadLocalRunnable.java:30)
[mod-shl-disc-source-record-manager-server-fat.jar:?]
                                    at java.lang.Thread.run(Thread.java:748) [?:1.8.0_252]

```

- PUBSUB used too much memory until OOM (out-of-memory) occurred. (PUBSUB模块占用内存过量，直至出现OOM):

16:02:31.127 [vert.x-kafka-consumer-thread-1] WARN ConsumerCoordinator [1731003828eqId] [Consumer clientId=consumer-2, groupId=folio.pub-sub.shlibrary.DI_INVENTORY_INSTANCE_MATCHED] Synchronous auto-commit of offsets {folio.pub-sub.shlibrary.DI_INVENTORY_INSTANCE_MATCHED-0=OffsetAndMetadata{offset=0, leaderEpoch=null, metadata=""}} failed: Commit cannot be completed since the group has already rebalanced and assigned the partitions to another member. This means that the time between subsequent calls to poll() was longer than the configured max.poll.interval.ms, which typically implies that the poll loop is spending too much time message processing. You can address this either by increasing max.poll.interval.ms or by reducing the maximum size of batches returned in poll() with max.poll.records.

16:01:38.902 [vert.x-eventloop-thread-0] ERROR ContextImpl	[1730951603eqId]
Unhandled exception	
java.lang.OutOfMemoryError: Java heap space	
16:01:41.492 [vert.x-eventloop-thread-0] ERROR ContextImpl	[1730954193eqId]
Unhandled exception	
java.lang.OutOfMemoryError: Java heap space	
16:01:43.876 [vert.x-eventloop-thread-0] ERROR ContextImpl	[1730956577eqId]
Unhandled exception	
java.lang.OutOfMemoryError: Java heap space	
16:01:45.440 [vert.x-eventloop-thread-0] ERROR ContextImpl	[1730958141eqId]
Unhandled exception	
java.lang.OutOfMemoryError: Java heap space	
16:01:47.367 [vert.x-eventloop-thread-0] ERROR ContextImpl	[1730960068eqId]
Unhandled exception	
java.lang.OutOfMemoryError: GC overhead limit exceeded	
16:01:48.645 [vert.x-eventloop-thread-0] ERROR ContextImpl	[1730961346eqId]

```
Unhandled exception
java.lang.OutOfMemoryError: GC overhead limit exceeded
16:01:51.287 [vert.x-eventloop-thread-0] ERROR ContextImpl      [1730963988eqId]
Unhandled exception
java.lang.OutOfMemoryError: GC overhead limit exceeded
16:01:52.305 [vert.x-eventloop-thread-0] ERROR ContextImpl      [1730965006eqId]
Unhandled exception
java.lang.OutOfMemoryError: GC overhead limit exceeded
16:01:53.687 [vert.x-eventloop-thread-0] ERROR ContextImpl      [1730966388eqId]
Unhandled exception
java.lang.OutOfMemoryError: GC overhead limit exceeded
```

- This means mod-pubsub was invalid. Import failed. Terminated the pubsub process and ended the testing. (此时代表mod-pubsub模块已经失效，导入失败，终止pubsub进程，结束测试)
- Final database status (最终数据库状态):

```
shlibrary_mod_source_record_storage.records : added 10700 records (增加10700条),
15:33:02 - 15:47:07
shlibrary_mod_source_record_storage.marc_records: added 10700 records (增加10700
条) 15:33:02 - 15:47:08
shlibrary_mod_pubsub.audit_message: added 123 messages (新增123条), 15:33:07.957
- 16:08:01
    DI_COMPLETED 60
    DI_SRS_MARC_BIB_RECORD_CREATED 63
```