```
From mboxrd@z Thu Jan 1 00:00:00 1970
Return-Path: <users-return-57589-archive-asf-public=cust-asf.ponee.io@activemq.apache.o
X-Original-To: archive-asf-public@cust-asf.ponee.io
Delivered-To: archive-asf-public@cust-asf.ponee.io
Received: from mxout1-ec2-va.apache.org (mxout1-ec2-va.apache.org [3.227.148.255])
        by mx-eu-03.ponee.io (Postfix) with ESMTPS id 1CD2E3E680
        for <archive-asf-public@cust-asf.ponee.io>; Mon, 28 Oct 2024 07:54:11 +0000 (UT
Received: from mail.apache.org (mailgw-he-de.apache.org [116.203.246.181])
        (using TLSv1.3 with cipher TLS_AES_256_GCM_SHA384 (256/256 bits))
        (No client certificate requested)
        by mxout1-ec2-va.apache.org (ASF Mail Server at mxout1-ec2-va.apache.org) with
ESMTPS id 4D7FF42E3F
        for <archive-asf-public@cust-asf.ponee.io>; Mon, 28 Oct 2024 07:53:59 +0000 (UT
C)
Received: (qmail 576863 invoked by uid 998); 28 Oct 2024 07:53:57 -0000
Mailing-List: contact users-help@activemg.apache.org; run by ezmlm
Precedence: bulk
List-Help: <mailto:users-help@activemq.apache.org>
List-Unsubscribe: <mailto:users-unsubscribe@activemq.apache.org>
List-Post: <mailto:users@activemq.apache.org>
List-Id: <users.activemq.apache.org>
Reply-To: users@activemq.apache.org
Delivered-To: mailing list users@activemq.apache.org
Received: (qmail 576832 invoked by uid 116); 28 Oct 2024 07:53:56 -0000
Received: from spamproc1-he-fi.apache.org (HELO spamproc1-he-fi.apache.org) (95.217.134
by apache.org (qpsmtpd/0.94) with ESMTP; Mon, 28 Oct 2024 07:53:56 +0000
Authentication-Results: apache.org; auth=none
Received: from localhost (localhost [127.0.0.1])
        by spamproc1-he-fi.apache.org (ASF Mail Server at spamproc1-he-fi.apache.org) w
ith ESMTP id 5445BC2344
        for <users@activemq.apache.org>; Mon, 28 Oct 2024 07:53:56 +0000 (UTC)
X-Virus-Scanned: Debian amavisd-new at spamproc1-he-fi.apache.org
X-Spam-Flag: NO
X-Spam-Score: 0.201
X-Spam-Level:
X-Spam-Status: No, score=0.201 tagged_above=-999 required=6.31
        tests=[HTML_MESSAGE=0.2, RCVD_IN_VALIDITY_RPBL_BLOCKED=0.001,
        RCVD_IN_VALIDITY_SAFE_BLOCKED=0.001, SPF_PASS=-0.001]
        autolearn=disabled
Received: from mx1-ec2-va.apache.org ([116.203.227.195])
        by localhost (spamproc1-he-fi.apache.org [95.217.134.168]) (amavisd-new, port 1
0024)
        with ESMTP id WlcGwwZCKJOf for <users@activemq.apache.org>;
        Mon, 28 Oct 2024 07:53:55 +0000 (UTC)
Received-SPF: Pass (mailfrom) identity=mailfrom; client-ip=136.144.238.65; helo=jambo4.
jambo-mobile.com; envelope-from=bisil@idfix.nl; receiver=<UNKNOWN>
Received: from jambo4.jambo-mobile.com (jambo4.jambo-mobile.com [136.144.238.65])
        by mx1-ec2-va.apache.org (ASF Mail Server at mx1-ec2-va.apache.org) with ESMTPS
 id B16F9BFDF3
        for <users@activemq.apache.org>; Mon, 28 Oct 2024 07:53:53 +0000 (UTC)
Received: from [192.168.1.106] (86-95-102-82.fixed.kpn.net [86.95.102.82])
        (using TLSv1.3 with cipher TLS_AES_128_GCM_SHA256 (128/128 bits)
        key-exchange X25519 server-signature RSA-PSS (2048 bits) server-digest SHA256)
        (No client certificate requested)
        by jambo4.jambo-mobile.com (Postfix) with ESMTPSA id 2BA456C0AFC
        for <users@activemq.apache.org>; Mon, 28 Oct 2024 08:53:47 +0100 (CET)
Content-Type: multipart/alternative;
boundary="-----WR5bcGL0i2NJJkSkJtTZRt63"
Message-ID: <08acc429-acaf-4e0d-943e-aed1e7effc01@idfix.nl>
Date: Mon, 28 Oct 2024 08:53:46 +0100
```

MIME-Version: 1.0

User-Agent: Mozilla Thunderbird

Subject: Re: Question regarding problems with JDBC persistence

To: users@activemq.apache.org

References: <5a6c796c-3717-4ef8-b850-f82f661d8da8@idfix.nl>

<CAF+kE=RVFV2p1qBq-tfMJU7_g5dZ+by9GeGVs1C7QTkOtU86Ag@mail.gmail.com>

Content-Language: en-US
From: Bisil <bisil@idfix.nl>

In-Reply-To: <CAF+kE=RVFV2p1qBq-tfMJU7_q5dZ+by9GeGVs1C7QTkOtU86Aq@mail.qmail.com>

-----WR5bcGL0i2NJJkSkJtTZRt63

Content-Type: text/plain; charset=UTF-8; format=flowed

Content-Transfer-Encoding: 8bit

Thanks for the reply Justin.

After restoring the database in its original state I ran counts on recordType/userRecordType and got this:

recordType userRecordType Â Â Â Â count(*)

11Â Â Â Â Â Â Â Â 36 376143458

11Â Â Â Â Â Â Â Â 34 290102

13Â Â Â Â Â Â Â 45 63893

14Â Â Â Â Â Â Â 32 63893

18Â Â Â Â Â Â Â 255 22941

17Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â 228

14Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â 2

The messages are posted through JMS from inside the same Wildfly instance that runs ActiveMQ. Message handling is done by MDBs that run inside the same JVM. We do have some clustered Wildfly setups although most are standalone.

We know we are running an old version. Upgrading Wildfly is on our roadmap but that may take quite some time. We investigated upgrading ActiveMQ separately but ran into too many issues and gave up on that idea.

Silvio

```
On 23-10-2024 22:27, Justin Bertram wrote:

> This sounds similar to an issue involving duplicate IDs proliferating in

> the journal. I can't find the specific Jira at the moment, but the issue

> was something like a huge build-up of duplicate ID records. Can you inspect

> the "userRecordType" for the offending rows?

> Also, how are you sending your message exactly? Do you need duplicate

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> Lastly, 2.16.0 is quite old at this point. There's been improvements to

> JDBC since then which you'd almost certainly benefit from (not to mention

> all the other bug-fixes and features). Are you open to upgrading?
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```
> Justin
> On Wed, Oct 23, 2024 at 4:32â\200 AM Bisil<br/>bisil@idfix.nl> wrote:
>> Hello,
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>> some production environments we have moderate-to-high message volumes
>> and since processing can be relatively slow temporary message pileup is
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>> fraction of its peak. Using the JBoss CLI to inspect the queues then
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>> record types 13 (ADD_RECORD_TX) and 14 (UPDATE_RECORD_TX) roughly
>> equivalent to the 60K message count. All remaining records are type 11
>> (ADD_RECORD).
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>> When we removed all type 11 records restart was fast with limited memory
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>> In the past we have observed similar numbers and startup problems in
>> other environments which lead us to truncate the AMQ persistence tables
>> to be able to restart the server without an OutOfMemoryException. But we
>> are looking for a way to prevent this situation from happening.
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>> So my questions are:
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>> - Is the large record count in the message table expected behavior?
>> - Is there anything we can/should do to limit the number of records in
>> the message table?
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>> - Is removing all type 11 records a valid workaround? If no, what would
>> be the side-effect?
>> Thanks for your help!
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>> Silvio
>>
  -----WR5bcGL0i2NJJkSkJtTZRt63--
From mboxrd@z Thu Jan 1 00:00:00 1970
Return-Path: <users-return-57591-archive-asf-public=cust-asf.ponee.io@activemq.apache.o
rg>
X-Original-To: archive-asf-public@cust-asf.ponee.io
Delivered-To: archive-asf-public@cust-asf.ponee.io
Received: from mxout1-ec2-va.apache.org (mxout1-ec2-va.apache.org [3.227.148.255])
        by mx-eu-03.ponee.io (Postfix) with ESMTPS id B46DC3E6E9
        for <archive-asf-public@cust-asf.ponee.io>; Mon, 28 Oct 2024 14:05:47 +0000 (UT
C)
Received: from mail.apache.org (mailgw-he-de.apache.org [116.203.246.181])
        (using TLSv1.3 with cipher TLS_AES_256_GCM_SHA384 (256/256 bits))
        (No client certificate requested)
```

- Acknowledge reference (33) 2

- Prepare (17): 228

by mxout1-ec2-va.apache.org (ASF Mail Server at mxout1-ec2-va.apache.org) with ESMTPS id 6187843261 for <archive-asf-public@cust-asf.ponee.io>; Mon, 28 Oct 2024 14:05:25 +0000 (UT C) Received: (qmail 1493724 invoked by uid 998); 28 Oct 2024 14:05:23 -0000 Mailing-List: contact users-help@activemq.apache.org; run by ezmlm Precedence: bulk List-Help: <mailto:users-help@activemq.apache.org> List-Unsubscribe: <mailto:users-unsubscribe@activemq.apache.org> List-Post: <mailto:users@activemq.apache.org> List-Id: <users.activemq.apache.org> Reply-To: users@activemq.apache.org Delivered-To: mailing list users@activemq.apache.org Received: (qmail 1493702 invoked by uid 116); 28 Oct 2024 14:05:23 -0000 Received: from ec2-52-204-25-47.compute-1.amazonaws.com (HELO mailrelay1-ec2-va.apache. org) (52.204.25.47) by apache.org (qpsmtpd/0.94) with ESMTP; Mon, 28 Oct 2024 14:05:23 +0000 Authentication-Results: apache.org; auth=none Received: from mail-ej1-f51.google.com (mail-ej1-f51.google.com [209.85.218.51]) by mailrelay1-ec2-va.apache.org (ASF Mail Server at mailrelay1-ec2-va.apache.or g) with ESMTPSA id BE3C03F1C0 for <users@activemq.apache.org>; Mon, 28 Oct 2024 14:05:22 +0000 (UTC) Received: by mail-ej1-f51.google.com with SMTP id a640c23a62f3a-a9932aa108cso650891566b for <users@activemq.apache.org>; Mon, 28 Oct 2024 07:05:22 -0700 (PDT) X-Gm-Message-State: AOJu0YxStzIIme3L15mgZbuHc+oA5mD5CZxBfJ04ZUPJ2SncZaGB0LMi Fand6ZqJ23z6KL6CBEn8KUFOXfeEP3t3NYOxMpXpqL5RsF4UmniaSnpq7rBksTi/YiM5lkakqiz MnEQW77JsjF7LnER+NKfGSlbdwm9frVWr7WPH5A== X-Google-Smtp-Source: AGHT+IF+NiSI4zvi9lj6svV/wUvyIkmaVqAK6Z/oRbW8MacV2jyUadfyR8mSqfsll SPw9cOJk0wI2yd5qH08p4C7mAs= X-Received: by 2002:a17:907:1c12:b0:a99:7177:3f6a with SMTP id a640c23a62f3a-a9de62f4b79mr831783766b.63.1730124321813; Mon, 28 Oct 2024 07:05:21 -0700 (PDT) MIME-Version: 1.0 References: <5a6c796c-3717-4ef8-b850-f82f661d8da8@idfix.nl> <CAF+kE=RVFV2p1qBq-tfMJU7_q5dZ+by9GeGVs1C7QTkOtU86Aq@mail.gmail.com> <08acc429-acaf-4e Od-943e-aed1e7effc01@idfix.nl> In-Reply-To: <08acc429-acaf-4e0d-943e-aed1e7effc01@idfix.nl> From: Justin Bertram < jbertram@apache.org> Date: Mon, 28 Oct 2024 09:04:55 -0500 X-Gmail-Original-Message-ID: <CAF+kE=QM5u=icW7+diJOK9=8J1f0EOJXWZMEdboZu30TL-sFjg@mail. gmail.com> Message-ID: <CAF+kE=QM5u=icW7+diJOK9=8J1f0EOJXWZMEdboZu30TL-sFjg@mail.gmail.com> Subject: Re: Question regarding problems with JDBC persistence To: users@activemq.apache.org Content-Type: multipart/alternative; boundary="0000000000009eaa8e062589f563" --00000000000009eaa8e062589f563 Content-Type: text/plain; charset="UTF-8" Content-Transfer-Encoding: quoted-printable Based on the information you provided I can say that the problem isn't what I originally expected. Here's how the data breaks down per record type: - Add (11) - Set scheduled delivery time (36): 376,143,458 - Update delivery count (34): 290,102 - Add Transactional (13) - Add message (45): 63,893 - Update Transactional (14) - Add reference (32) 63,893

- Commit (18): 22,941

> >

```
So it looks like you're using a lot of scheduled messages, either directly
or indirectly (e.g. via redelivery delay), and the records related to the
delivery schedule are accumulating. If you stop the broker and run the
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Out of curiosity, is there a specific reason you're using JDBC vs. the
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           45 63893
> 14
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>
> 18
            255 22941
>
> 17
            255
                      228
> 14
            33
                      2
>
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> >>
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> >>
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> >>
```

>

```
--00000000000009eaa8e062589f563--
From mboxrd@z Thu Jan 1 00:00:00 1970
Return-Path: <users-return-57593-archive-asf-public=cust-asf.ponee.io@activemq.apache.o
rq>
X-Original-To: archive-asf-public@cust-asf.ponee.io
Delivered-To: archive-asf-public@cust-asf.ponee.io
Received: from mxout1-he-de.apache.org (mxout1-he-de.apache.org [95.216.194.37])
        by mx-eu-03.ponee.io (Postfix) with ESMTPS id 704AA3E6B5
        for <archive-asf-public@cust-asf.ponee.io>; Tue, 29 Oct 2024 13:06:02 +0000 (UT
C)
Received: from mail.apache.org (mailgw-he-de.apache.org [IPv6:2a01:4f8:c2c:d4aa::1])
        (using TLSv1.3 with cipher TLS_AES_256_GCM_SHA384 (256/256 bits)
         key-exchange X25519 server-signature RSA-PSS (4096 bits) server-digest SHA256)
        (No client certificate requested)
        by mxout1-he-de.apache.org (ASF Mail Server at mxout1-he-de.apache.org) with ES
MTPS id A44A365000
        for <archive-asf-public@cust-asf.ponee.io>; Tue, 29 Oct 2024 13:04:42 +0000 (UT
C)
Received: (qmail 4188348 invoked by uid 998); 29 Oct 2024 13:04:41 -0000
Mailing-List: contact users-help@activemq.apache.org; run by ezmlm
Precedence: bulk
List-Help: <mailto:users-help@activemq.apache.org>
List-Unsubscribe: <mailto:users-unsubscribe@activemq.apache.org>
List-Post: <mailto:users@activemq.apache.org>
List-Id: <users.activemq.apache.org>
Reply-To: users@activemq.apache.org
Delivered-To: mailing list users@activemq.apache.org
Received: (qmail 4188316 invoked by uid 116); 29 Oct 2024 13:04:39 -0000
Received: from spamproc1-he-de.apache.org (HELO spamproc1-he-de.apache.org) (116.203.19
6.100)
by apache.org (gpsmtpd/0.94) with ESMTP; Tue, 29 Oct 2024 13:04:39 +0000
Authentication-Results: apache.org; auth=none
Received: from localhost (localhost [127.0.0.1])
        by spamproc1-he-de.apache.org (ASF Mail Server at spamproc1-he-de.apache.org) w
ith ESMTP id 8597E20022A
        for <users@activemq.apache.org>; Tue, 29 Oct 2024 13:04:39 +0000 (UTC)
X-Virus-Scanned: Debian amavisd-new at spamproc1-he-de.apache.org
X-Spam-Flag: NO
X-Spam-Score: 0.202
X-Spam-Level:
X-Spam-Status: No, score=0.202 tagged_above=-999 required=6.31
        tests=[HTML_MESSAGE=0.2, RCVD_IN_DNSWL_BLOCKED=0.001,
        RCVD_IN_VALIDITY_RPBL_BLOCKED=0.001,
        RCVD_IN_VALIDITY_SAFE_BLOCKED=0.001, SPF_PASS=-0.001]
        autolearn=disabled
Received: from mx1-ec2-va.apache.org ([116.203.227.195])
        by localhost (spamproc1-he-de.apache.org [116.203.196.100]) (amavisd-new, port
10024)
        with ESMTP id PIud_9ASpw8f for <users@activemq.apache.org>;
        Tue, 29 Oct 2024 13:04:38 +0000 (UTC)
Received-SPF: Pass (mailfrom) identity=mailfrom; client-ip=136.144.238.65; helo=jambo4.
jambo-mobile.com; envelope-from=bisil@idfix.nl; receiver=<UNKNOWN>
Received: from jambo4.jambo-mobile.com (jambo4.jambo-mobile.com [136.144.238.65])
        by mx1-ec2-va.apache.org (ASF Mail Server at mx1-ec2-va.apache.org) with ESMTPS
 id 87F98BFB46
        for <users@activemq.apache.org>; Tue, 29 Oct 2024 13:04:37 +0000 (UTC)
Received: from [192.168.1.106] (86-95-102-82.fixed.kpn.net [86.95.102.82])
        (using TLSv1.3 with cipher TLS_AES_128_GCM_SHA256 (128/128 bits)
         key-exchange X25519 server-signature RSA-PSS (2048 bits) server-digest SHA256)
        (No client certificate requested)
        by jambo4.jambo-mobile.com (Postfix) with ESMTPSA id D0BA36C0685
        for <users@activemq.apache.org>; Tue, 29 Oct 2024 14:04:30 +0100 (CET)
Content-Type: multipart/alternative;
```

Tue Nov 12 15:15:12 2024 boundary="----CBmZ30XvHIWNb9KIPKUJkrXO" Message-ID: <9565d5b5-5d75-4d30-a0f1-908fef0fd026@idfix.nl> Date: Tue, 29 Oct 2024 14:04:30 +0100 MIME-Version: 1.0 User-Agent: Mozilla Thunderbird Subject: Re: Question regarding problems with JDBC persistence To: users@activemq.apache.org References: <5a6c796c-3717-4ef8-b850-f82f661d8da8@idfix.nl> $< CAF+kE=RVFV2p1qBq-tfMJU7_g5dZ+by9GeGVs1C7QTkOtU86Ag@mail.gmail.com>$ <08acc429-acaf-4e0d-943e-aed1e7effc01@idfix.nl> <CAF+kE=QM5u=icW7+diJOK9=8J1f0EOJXWZMEdboZu30TL-sFjq@mail.gmail.com> Content-Language: en-US From: Bisil <bisil@idfix.nl> In-Reply-To: <CAF+kE=QM5u=icW7+diJOK9=8J1f0EOJXWZMEdboZu30TL-sFjq@mail.gmail.com> -----CBmZ30XvHIWNb9KIPKUJkrXO Content-Type: text/plain; charset=UTF-8; format=flowed Content-Transfer-Encoding: 7bit Hi Justin, Thanks again for your valuable insights. We do use indirect scheduled messages intensively since we have

We do use indirect scheduled messages intensively since we have redelivery-delay=1000, redelivery-multiplier=2, redelivery-attempts=9 settings for the majority of queues. We also use message-counter-history-day-limit=10 for all queues if that is at all significant.

We have not tried explicit compacting the journal yet and since the AMQ-related tables on production environments that ran into this situation were truncated to get things back up we can not do this right now. I was under the impression that Artemis also compacts the journal during startup. If that is true could we not simply try restarting the Wildfly server if we see large journal volumes to check if that makes a difference, or is that not the same? If so, could you elaborate a bit since I know how to stop/start the broker from the JBoss CLI but have no knowledge about an explicit journal compaction command.

We use JDBC persistence for a couple of reasons. Having the journal inside the database makes it easier for us to keep things in sync with backups/restores which we also use heavily for trouble shooting. In addition to that using file based persistence comes with additional costs in our cloud environments.

Silvio

```
On 28-10-2024 15:04, Justin Bertram wrote:
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>
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> - Prepare (17): 228
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From mboxrd@z Thu Jan 1 00:00:00 1970
Return-Path: <users-return-57594-archive-asf-public=cust-asf.ponee.io@activemq.apache.o
rq>
X-Original-To: archive-asf-public@cust-asf.ponee.io
Delivered-To: archive-asf-public@cust-asf.ponee.io
Received: from mxout1-ec2-va.apache.org (mxout1-ec2-va.apache.org [3.227.148.255])
        by mx-eu-03.ponee.io (Postfix) with ESMTPS id F0E063E6A3
        for <archive-asf-public@cust-asf.ponee.io>; Tue, 29 Oct 2024 15:55:35 +0000 (UT
C)
Received: from mail.apache.org (mailgw-he-de.apache.org [116.203.246.181])
        (using TLSv1.3 with cipher TLS_AES_256_GCM_SHA384 (256/256 bits))
        (No client certificate requested)
        by mxout1-ec2-va.apache.org (ASF Mail Server at mxout1-ec2-va.apache.org) with
ESMTPS id B599545FDF
        for <archive-asf-public@cust-asf.ponee.io>; Tue, 29 Oct 2024 15:54:26 +0000 (UT
C)
Received: (qmail 538013 invoked by uid 998); 29 Oct 2024 15:54:24 -0000
Mailing-List: contact users-help@activemq.apache.org; run by ezmlm
Precedence: bulk
List-Help: <mailto:users-help@activemq.apache.org>
List-Unsubscribe: <mailto:users-unsubscribe@activemg.apache.org>
List-Post: <mailto:users@activemq.apache.org>
List-Id: <users.activemq.apache.org>
Reply-To: users@activemq.apache.org
Delivered-To: mailing list users@activemq.apache.org
Received: (qmail 537996 invoked by uid 116); 29 Oct 2024 15:54:24 -0000
Received: from ec2-52-204-25-47.compute-1.amazonaws.com (HELO mailrelay1-ec2-va.apache.
org) (52.204.25.47)
by apache.org (qpsmtpd/0.94) with ESMTP; Tue, 29 Oct 2024 15:54:24 +0000
Authentication-Results: apache.org; auth=none
Received: from mail-ed1-f44.google.com (mail-ed1-f44.google.com [209.85.208.44])
        by mailrelay1-ec2-va.apache.org (ASF Mail Server at mailrelay1-ec2-va.apache.or
g) with ESMTPSA id 39246402DA
        for <users@activemq.apache.org>; Tue, 29 Oct 2024 15:54:24 +0000 (UTC)
Received: by mail-ed1-f44.google.com with SMTP id 4fb4d7f45d1cf-5c984352742so6289663a12
        for <users@activemq.apache.org>; Tue, 29 Oct 2024 08:54:24 -0700 (PDT)
X-Gm-Message-State: AOJu0YwzHFxfeXxO6HxuZNmR2FRbbwRXMwvF638VddJpi0HbblAqUTXh
        piJnzKk6kkErjHpMKXKJHfAnHixeGe4Jre6Rt2/431rkyQ9UWFEHJbSqtV+Wq1F+AHkU/OZLGrT
        kg8xCZpkZNfThGF/S1D386NvIYRTaI1CLf2ECFA==
X-Google-Smtp-Source: AGHT+IH5YqnmJaRqnPr1y8DQ/c4AsDaZTsGx1taeEXXFviVrORiPSqN1S3cLIGeXS
HScArt3isuQt4DrZxZHXS64oTk=
X-Received: by 2002:a05:6402:42c4:b0:5c5:cd4b:5c4d with SMTP id
 4fb4d7f45d1cf-5cbbf891a4emr11622241a12.8.1730217263280; Tue, 29 Oct 2024
 08:54:23 -0700 (PDT)
MIME-Version: 1.0
References: <5a6c796c-3717-4ef8-b850-f82f661d8da8@idfix.nl>
 <CAF+kE=RVFV2p1qBq-tfMJU7_g5dZ+by9GeGVs1C7QTkOtU86Ag@mail.gmail.com>
 <08acc429-acaf-4e0d-943e-aed1e7effc01@idfix.nl> <CAF+kE=QM5u=icW7+diJOK9=8J1f0EOJXWZME</pre>
dboZu30TL-sFjg@mail.gmail.com>
```

<9565d5b5-5d75-4d30-a0f1-908fef0fd026@idfix.nl>

In-Reply-To: <9565d5b5-5d75-4d30-a0f1-908fef0fd026@idfix.nl>

From: Justin Bertram < jbertram@apache.org>

Date: Tue, 29 Oct 2024 10:53:56 -0500

 $\textbf{X-Gmail-Original-Message-ID: } < \textbf{CAF+kE=TqKdq_qk5f=Ltww6VOiK71JOA26Nsu3CMhgb_z7jYdgw@mail.} \\$

gmail.com>

Message-ID: <CAF+kE=TqKdq_qk5f=Ltww6VOiK71JOA26Nsu3CMhgb_z7jYdgw@mail.gmail.com>

Subject: Re: Question regarding problems with JDBC persistence

To: users@activemq.apache.org

Content-Type: multipart/alternative; boundary="000000000005cdac706259f9917"

--0000000000005cdac706259f9917

Content-Type: text/plain; charset="UTF-8" Content-Transfer-Encoding: quoted-printable

> We do use indirect scheduled messages intensively since we have redelivery-delay=3D1000, redelivery-multiplier=3D2, redelivery-attempts=3D9 settings for the majority of queues.

I assume you're referring to redelivery-delay-multiplier and max-delivery-attempts here.

> We also use message-counter-history-day-limit=3D10 for all queues if that is at all significant.

I don't think that is relevant here.

> We have not tried explicit compacting the journal yet...

I had a look through the JDBC code and I see now that compaction is a red herring. The normal file-based journal is append-only which is why it requires occasional compaction. However, JDBC is not append-only. Records are removed during normal processing, including the set-scheduled-delivery-time records that are accumulating in your database. I tested this with both 2.16.0 and 2.38.0 (i.e. the latest) and I didn't see any accumulation. As soon as the message associated with the set-scheduled-delivery-time records was acknowledged all those records were cleaned up.

In any case, I don't believe that WildFly even supports the "data compact" command so it would almost certainly be a head-ache to execute it.

To be clear, I typically only recommend folks use the embedded broker in WildFly for the most trivial use-cases. As soon as complexity increases it's usually good to have a standalone broker which can be managed (e.g. upgraded, restarted, etc.) separately.

> I was under the impression that Artemis also compacts the journal during startup.

Despite the fact that compaction doesn't appear to be related here I just wanted to say that I don't believe the broker always compacts the journal at startup. What gave you that impression?

Ultimately I'm not sure what's going on here. I'd need to be able to reproduce the problem myself for further investigation. Do you have a way to reproduce this problem?

Justin

On Tue, Oct 29, 2024 at 8:05=E2=80=AFAM Bisil

Sisil@idfix.nl> wrote:

```
> Hi Justin,
> Thanks again for your valuable insights.
> We do use indirect scheduled messages intensively since we have
> redelivery-delay=3D1000, redelivery-multiplier=3D2, redelivery-attempts=
=3D9
> settings for the majority of queues. We also use
> message-counter-history-day-limit=3D10 for all queues if that is at all
> significant.
> We have not tried explicit compacting the journal yet and since the
> AMQ-related tables on production environments that ran into this
> situation were truncated to get things back up we can not do this right
> now.
> I was under the impression that Artemis also compacts the journal during
> startup. If that is true could we not simply try restarting the Wildfly
> server if we see large journal volumes to check if that makes a
> difference, or is that not the same? If so, could you elaborate a bit
> since I know how to stop/start the broker from the JBoss CLI but have no
> knowledge about an explicit journal compaction command.
> We use JDBC persistence for a couple of reasons. Having the journal
> inside the database makes it easier for us to keep things in sync with
> backups/restores which we also use heavily for trouble shooting. In
> addition to that using file based persistence comes with additional
> costs in our cloud environments.
> Silvio
> On 28-10-2024 15:04, Justin Bertram wrote:
> > Based on the information you provided I can say that the problem isn't
> what
> > I originally expected. Here's how the data breaks down per record type:
> >
> > - Add (11)
      - Set scheduled delivery time (36): 376,143,458
> >
      - Update delivery count (34): 290,102
> > - Add Transactional (13)
      - Add message (45): 63,893
> >
> > - Update Transactional (14)
> >
      - Add reference (32) 63,893
       - Acknowledge reference (33) 2
> >
>> - Prepare (17): 228
>> - Commit (18): 22,941
> >
> > So it looks like you're using a lot of scheduled messages, either
> directly
> > or indirectly (e.g. via redelivery delay), and the records related to t=
he
> > delivery schedule are accumulating. If you stop the broker and run the
> > "journal compact" command does the number of records in the database
> drop?
> >
> > Out of curiosity, is there a specific reason you're using JDBC vs. the
> > traditional file-based journal on local disk?
> >
> >
> > Justin
> >
> >
```

```
--00000000000005cdac706259f9917--
From mboxrd@z Thu Jan 1 00:00:00 1970
Return-Path: <users-return-57595-archive-asf-public=cust-asf.ponee.io@activemq.apache.o
X-Original-To: archive-asf-public@cust-asf.ponee.io
Delivered-To: archive-asf-public@cust-asf.ponee.io
Received: from mxout1-he-de.apache.org (mxout1-he-de.apache.org [95.216.194.37])
        by mx-eu-03.ponee.io (Postfix) with ESMTPS id 93D5D3F486
        for <archive-asf-public@cust-asf.ponee.io>; Thu, 31 Oct 2024 10:00:59 +0000 (UT
C)
Received: from mail.apache.org (mailgw-he-de.apache.org [IPv6:2a01:4f8:c2c:d4aa::1])
        (using TLSv1.3 with cipher TLS_AES_256_GCM_SHA384 (256/256 bits)
         key-exchange X25519 server-signature RSA-PSS (4096 bits) server-digest SHA256)
        (No client certificate requested)
        by mxout1-he-de.apache.org (ASF Mail Server at mxout1-he-de.apache.org) with ES
MTPS id 5B075665E3
        for <archive-asf-public@cust-asf.ponee.io>; Thu, 31 Oct 2024 09:59:53 +0000 (UT
C)
Received: (qmail 1168215 invoked by uid 998); 31 Oct 2024 09:59:52 -0000
Mailing-List: contact users-help@activemq.apache.org; run by ezmlm
Precedence: bulk
List-Help: <mailto:users-help@activemq.apache.org>
List-Unsubscribe: <mailto:users-unsubscribe@activemq.apache.org>
List-Post: <mailto:users@activemq.apache.org>
List-Id: <users.activemq.apache.org>
Reply-To: users@activemq.apache.org
Delivered-To: mailing list users@activemq.apache.org
Received: (qmail 1168190 invoked by uid 116); 31 Oct 2024 09:59:51 -0000
Received: from spamproc1-he-fi.apache.org (HELO spamproc1-he-fi.apache.org) (95.217.134
.168)
by apache.org (qpsmtpd/0.94) with ESMTP; Thu, 31 Oct 2024 09:59:51 +0000
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        by spamproc1-he-fi.apache.org (ASF Mail Server at spamproc1-he-fi.apache.org) w
ith ESMTP id 3F155C2389
        for <users@activemq.apache.org>; Thu, 31 Oct 2024 09:59:51 +0000 (UTC)
X-Virus-Scanned: Debian amavisd-new at spamproc1-he-fi.apache.org
X-Spam-Flag: NO
X-Spam-Score: -0.905
X-Spam-Level:
X-Spam-Status: No, score=-0.905 tagged_above=-999 required=6.31
        tests=[DKIM_SIGNED=0.1, DKIM_VALID=-0.1, DKIM_VALID_AU=-0.1,
        DKIM_VALID_EF=-0.1, HTML_MESSAGE=0.2, RCVD_IN_MSPIKE_H2=-0.906,
        RCVD_IN_VALIDITY_RPBL_BLOCKED=0.001,
        RCVD_IN_VALIDITY_SAFE_BLOCKED=0.001, SPF_PASS=-0.001]
        autolearn=disabled
Authentication-Results: spamproc1-he-fi.apache.org (amavisd-new);
        dkim=pass (2048-bit key) header.d=gmail.com
Received: from mx1-ec2-va.apache.org ([116.203.227.195])
        by localhost (spamproc1-he-fi.apache.org [95.217.134.168]) (amavisd-new, port 1
0024)
        with ESMTP id jRgJlYpQupso for <users@activemq.apache.org>;
        Thu, 31 Oct 2024 09:59:50 +0000 (UTC)
Received-SPF: Pass (mailfrom) identity=mailfrom; client-ip=209.85.208.52; helo=mail-ed1
-f52.google.com; envelope-from=clebert.suconic@gmail.com; receiver=<UNKNOWN>
Received: from mail-ed1-f52.google.com (mail-ed1-f52.google.com [209.85.208.52])
        by mx1-ec2-va.apache.org (ASF Mail Server at mx1-ec2-va.apache.org) with ESMTPS
 id C1A6EBFE03
        for <users@activemq.apache.org>; Thu, 31 Oct 2024 09:59:49 +0000 (UTC)
Received: by mail-ed1-f52.google.com with SMTP id 4fb4d7f45d1cf-5c937b5169cso1208268a12
        for <users@activemq.apache.org>; Thu, 31 Oct 2024 02:59:49 -0700 (PDT)
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On Wed, Oct 23, 2024 at 4:28=E2=80=AFPM Justin Bertram <jbertram@apache.org= > wrote:

> This sounds similar to an issue involving duplicate IDs proliferating in

Clebert Suconic

```
> the journal. I can't find the specific Jira at the moment, but the issue
> was something like a huge build-up of duplicate ID records. Can you inspe=
ct
> the "userRecordType" for the offending rows?
> Also, how are you sending your message exactly? Do you need duplicate
> detection?
> Lastly, 2.16.0 is quite old at this point. There's been improvements to
> JDBC since then which you'd almost certainly benefit from (not to mention
> all the other bug-fixes and features). Are you open to upgrading?
> Justin
> On Wed, Oct 23, 2024 at 4:32=E2=80=AFAM Bisil <br/>bisil@idfix.nl> wrote:
>
> > Hello,
> >
>> Inside Wildfly 23.0.0 we are running ActiveMQ Artemis Message Broker
> > 2.16.0 with JDBC persistence on SQLServer for ~25 message queues. In
> > some production environments we have moderate-to-high message volumes
> > and since processing can be relatively slow temporary message pileup is
> > not uncommon.
> >
>> In one particular environment we are experiencing OutOfMemory issues
> > during startup. There are about 60K messages in 2 of the queues while
> > the message table contains over 350M records causing memory exhaustion
> > during startup. Running in a controlled environment with ~60G heap
>> startup succeeds and through JProfiler we observe that all message tabl=
>> records are selected and appear to be collected in memory. After that
> they are processed and discarded dropping memory usage down to a
> > fraction of its peak. Using the JBoss CLI to inspect the queues then
> > shows we have indeed 60K messages in 2 queues.
> >
> > Inspecting the contents of the message table we see limited counts of
> record types 13 (ADD_RECORD_TX) and 14 (UPDATE_RECORD_TX) roughly
> > equivalent to the 60K message count. All remaining records are type 11
> > (ADD_RECORD).
> >
> > When we removed all type 11 records restart was fast with limited memor=
У
> > load and we still see 60K messages in the 2 queues.
> >
>> In the past we have observed similar numbers and startup problems in
> > other environments which lead us to truncate the AMQ persistence tables
> > to be able to restart the server without an OutOfMemoryException. But w=
> > are looking for a way to prevent this situation from happening.
> >
> > So my questions are:
> >
> - Is the large record count in the message table expected behavior?
> >
> > - Is there anything we can/should do to limit the number of records in
> > the message table?
> >
> - Is removing all type 11 records a valid workaround? If no, what would
> > be the side-effect?
> > Thanks for your help!
```

> >

```
> > Silvio
> >
--00000000000008d944f0625c2e0cb--
From mboxrd@z Thu Jan 1 00:00:00 1970
Return-Path: <users-return-57570-archive-asf-public=cust-asf.ponee.io@activemq.apache.o
rg>
X-Original-To: archive-asf-public@cust-asf.ponee.io
Delivered-To: archive-asf-public@cust-asf.ponee.io
Received: from mxout1-he-de.apache.org (mxout1-he-de.apache.org [95.216.194.37])
        by mx-eu-03.ponee.io (Postfix) with ESMTPS id 960803E724
        for <archive-asf-public@cust-asf.ponee.io>; Wed, 23 Oct 2024 20:28:20 +0000 (UT
C)
Received: from mail.apache.org (mailgw-he-de.apache.org [IPv6:2a01:4f8:c2c:d4aa::1])
        (using TLSv1.3 with cipher TLS_AES_256_GCM_SHA384 (256/256 bits)
         key-exchange X25519 server-signature RSA-PSS (4096 bits) server-digest SHA256)
        (No client certificate requested)
        by mxout1-he-de.apache.org (ASF Mail Server at mxout1-he-de.apache.org) with ES
MTPS id 7A3B8661A5
        for <archive-asf-public@cust-asf.ponee.io>; Wed, 23 Oct 2024 20:28:20 +0000 (UT
C)
Received: (qmail 3817918 invoked by uid 998); 23 Oct 2024 20:28:19 -0000
Mailing-List: contact users-help@activemq.apache.org; run by ezmlm
Precedence: bulk
List-Help: <mailto:users-help@activemq.apache.org>
List-Unsubscribe: <mailto:users-unsubscribe@activemq.apache.org>
List-Post: <mailto:users@activemq.apache.org>
List-Id: <users.activemq.apache.org>
Reply-To: users@activemq.apache.org
Delivered-To: mailing list users@activemq.apache.org
Received: (qmail 3817901 invoked by uid 116); 23 Oct 2024 20:28:19 -0000
Received: from ec2-52-204-25-47.compute-1.amazonaws.com (HELO mailrelay1-ec2-va.apache.
org) (52.204.25.47)
by apache.org (qpsmtpd/0.94) with ESMTP; Wed, 23 Oct 2024 20:28:19 +0000
Authentication-Results: apache.org; auth=none
Received: from mail-ed1-f51.google.com (mail-ed1-f51.google.com [209.85.208.51])
        by mailrelay1-ec2-va.apache.org (ASF Mail Server at mailrelay1-ec2-va.apache.or
g) with ESMTPSA id AF0253F1F9
        for <users@activemq.apache.org>; Wed, 23 Oct 2024 20:28:18 +0000 (UTC)
Received: by mail-ed1-f51.google.com with SMTP id 4fb4d7f45d1cf-5c937b5169cso338143a12.
1
        for <users@activemq.apache.org>; Wed, 23 Oct 2024 13:28:18 -0700 (PDT)
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        7ENG1Er8Q/ofkR3CCGUwXBVF3xcFQ1TKNT5bD1FHiyJ99RNTo71vkYi4OyxD4GItcuvEjTKSrrE
        2RdfYnB1MKX3VwcqVDZ/foWleoCo5AaYlqI6cVA==
X-Google-Smtp-Source: AGHT+IEm/szwFxz4XLQUmkzxdELvdDafT7qNTjBj06XPaKYKvmNSd11qjqNMEYmGo
k34rjvZxY4zJwmcgeS2m8FEXMU=
X-Received: by 2002:a05:6402:3489:b0:5cb:7388:816a with SMTP id
 4fb4d7f45d1cf-5cb8b4e295amr4138326a12.1.1729715297823; Wed, 23 Oct 2024
 13:28:17 -0700 (PDT)
MIME-Version: 1.0
References: <5a6c796c-3717-4ef8-b850-f82f661d8da8@idfix.nl>
In-Reply-To: <5a6c796c-3717-4ef8-b850-f82f661d8da8@idfix.nl>
From: Justin Bertram < jbertram@apache.org>
Date: Wed, 23 Oct 2024 15:27:51 -0500
X-Gmail-Original-Message-ID: <CAF+kE=RVFV2p1qBq-tfMJU7_q5dZ+by9GeGVs1C7QTkOtU86Aq@mail.
qmail.com>
Message-ID: <CAF+kE=RVFV2p1qBq-tfMJU7_q5dZ+by9GeGVs1C7QTkOtU86Aq@mail.qmail.com>
Subject: Re: Question regarding problems with JDBC persistence
To: users@activemq.apache.org
Content-Type: multipart/alternative; boundary="000000000000e3cff706252ab9f7"
```

--0000000000000e3cff706252ab9f7 Content-Type: text/plain; charset="UTF-8" Content-Transfer-Encoding: quoted-printable This sounds similar to an issue involving duplicate IDs proliferating in the journal. I can't find the specific Jira at the moment, but the issue was something like a huge build-up of duplicate ID records. Can you inspect the "userRecordType" for the offending rows? Also, how are you sending your message exactly? Do you need duplicate detection? Lastly, 2.16.0 is quite old at this point. There's been improvements to JDBC since then which you'd almost certainly benefit from (not to mention all the other bug-fixes and features). Are you open to upgrading? Justin On Wed, Oct 23, 2024 at 4:32=E2=80=AFAM Bisil

disil@idfix.nl> wrote: > Hello, > Inside Wildfly 23.0.0 we are running ActiveMQ Artemis Message Broker > 2.16.0 with JDBC persistence on SQLServer for ~25 message queues. In > some production environments we have moderate-to-high message volumes > and since processing can be relatively slow temporary message pileup is > not uncommon. > In one particular environment we are experiencing OutOfMemory issues > during startup. There are about 60K messages in 2 of the queues while > the message table contains over 350M records causing memory exhaustion > during startup. Running in a controlled environment with ~60G heap > startup succeeds and through JProfiler we observe that all message table > records are selected and appear to be collected in memory. After that > they are processed and discarded dropping memory usage down to a > fraction of its peak. Using the JBoss CLI to inspect the queues then > shows we have indeed 60K messages in 2 queues. > Inspecting the contents of the message table we see limited counts of > record types 13 (ADD_RECORD_TX) and 14 (UPDATE_RECORD_TX) roughly > equivalent to the 60K message count. All remaining records are type 11 > (ADD_RECORD). > When we removed all type 11 records restart was fast with limited memory > load and we still see 60K messages in the 2 queues. > In the past we have observed similar numbers and startup problems in > other environments which lead us to truncate the AMQ persistence tables > to be able to restart the server without an OutOfMemoryException. But we > are looking for a way to prevent this situation from happening. > So my questions are: > - Is the large record count in the message table expected behavior? > - Is there anything we can/should do to limit the number of records in > the message table? > - Is removing all type 11 records a valid workaround? If no, what would > be the side-effect?

> Thanks for your help!

```
> Silvio
--0000000000000e3cff706252ab9f7--
From mboxrd@z Thu Jan 1 00:00:00 1970
Return-Path: <users-return-57566-archive-asf-public=cust-asf.ponee.io@activemq.apache.o
X-Original-To: archive-asf-public@cust-asf.ponee.io
Delivered-To: archive-asf-public@cust-asf.ponee.io
Received: from mxout1-ec2-va.apache.org (mxout1-ec2-va.apache.org [3.227.148.255])
        by mx-eu-03.ponee.io (Postfix) with ESMTPS id B83013E680
        for <archive-asf-public@cust-asf.ponee.io>; Wed, 23 Oct 2024 09:32:10 +0000 (UT
C)
Received: from mail.apache.org (mailgw-he-de.apache.org [116.203.246.181])
        (using TLSv1.3 with cipher TLS_AES_256_GCM_SHA384 (256/256 bits))
        (No client certificate requested)
        by mxout1-ec2-va.apache.org (ASF Mail Server at mxout1-ec2-va.apache.org) with
ESMTPS id C565D4D131
        for <archive-asf-public@cust-asf.ponee.io>; Wed, 23 Oct 2024 09:32:09 +0000 (UT
Received: (qmail 2503298 invoked by uid 998); 23 Oct 2024 09:32:08 -0000
Mailing-List: contact users-help@activemq.apache.org; run by ezmlm
Precedence: bulk
List-Help: <mailto:users-help@activemq.apache.org>
List-Unsubscribe: <mailto:users-unsubscribe@activemq.apache.org>
List-Post: <mailto:users@activemq.apache.org>
List-Id: <users.activemq.apache.org>
Reply-To: users@activemq.apache.org
Delivered-To: mailing list users@activemq.apache.org
Received: (qmail 2503214 invoked by uid 116); 23 Oct 2024 09:32:06 -0000
Received: from spamproc1-he-fi.apache.org (HELO spamproc1-he-fi.apache.org) (95.217.134
.168)
by apache.org (gpsmtpd/0.94) with ESMTP; Wed, 23 Oct 2024 09:32:06 +0000
Authentication-Results: apache.org; auth=none
Received: from localhost (localhost [127.0.0.1])
       by spamprocl-he-fi.apache.org (ASF Mail Server at spamprocl-he-fi.apache.org) w
ith ESMTP id COCA9C22DC
        for <users@activemq.apache.org>; Wed, 23 Oct 2024 09:32:06 +0000 (UTC)
X-Virus-Scanned: Debian amavisd-new at spamproc1-he-fi.apache.org
X-Spam-Flag: NO
X-Spam-Score: 0.201
X-Spam-Level:
X-Spam-Status: No, score=0.201 tagged_above=-999 required=6.31
        tests=[HTML_MESSAGE=0.2, RCVD_IN_VALIDITY_RPBL_BLOCKED=0.001,
        RCVD_IN_VALIDITY_SAFE_BLOCKED=0.001, SPF_PASS=-0.001]
        autolearn=disabled
Received: from mx1-he-de.apache.org ([116.203.227.195])
        by localhost (spamproc1-he-fi.apache.org [95.217.134.168]) (amavisd-new, port 1
0024)
        with ESMTP id GXsZ79VwHanl for <users@activemq.apache.org>;
        Wed, 23 Oct 2024 09:32:05 +0000 (UTC)
Received-SPF: Pass (mailfrom) identity=mailfrom; client-ip=136.144.238.65; helo=jambo4.
jambo-mobile.com; envelope-from=bisil@idfix.nl; receiver=<UNKNOWN>
Received: from jambo4.jambo-mobile.com (jambo4.jambo-mobile.com [136.144.238.65])
        by mx1-he-de.apache.org (ASF Mail Server at mx1-he-de.apache.org) with ESMTPS i
d D01DF816C9
        for <users@activemq.apache.org>; Wed, 23 Oct 2024 09:32:05 +0000 (UTC)
Received: from [192.168.1.106] (86-95-102-82.fixed.kpn.net [86.95.102.82])
        (using TLSv1.3 with cipher TLS_AES_128_GCM_SHA256 (128/128 bits)
         key-exchange X25519 server-signature RSA-PSS (2048 bits) server-digest SHA256)
        (No client certificate requested)
        by jambo4.jambo-mobile.com (Postfix) with ESMTPSA id 260926C0152
```

for <users@activemq.apache.org>; Wed, 23 Oct 2024 11:32:05 +0200 (CEST)

Content-Type: multipart/alternative;

boundary="-----YzUlPTE15qNZ2DCWOwswCX0F"

Message-ID: <5a6c796c-3717-4ef8-b850-f82f661d8da8@idfix.nl>

Date: Wed, 23 Oct 2024 11:32:04 +0200

MIME-Version: 1.0

User-Agent: Mozilla Thunderbird

To: "users@activemq.apache.org" <users@activemq.apache.org>

Content-Language: en-US
From: Bisil <bisil@idfix.nl>

Subject: Question regarding problems with JDBC persistence

----YzUlPTE15gNZ2DCWOwswCX0F

Content-Type: text/plain; charset=UTF-8; format=flowed

Content-Transfer-Encoding: 7bit

Hello,

Inside Wildfly 23.0.0 we are running ActiveMQ Artemis Message Broker 2.16.0 with JDBC persistence on SQLServer for ~25 message queues. In some production environments we have moderate-to-high message volumes and since processing can be relatively slow temporary message pileup is not uncommon.

In one particular environment we are experiencing OutOfMemory issues during startup. There are about 60K messages in 2 of the queues while the message table contains over 350M records causing memory exhaustion during startup. Running in a controlled environment with ~60G heap startup succeeds and through JProfiler we observe that all message table records are selected and appear to be collected in memory. After that they are processed and discarded dropping memory usage down to a fraction of its peak. Using the JBoss CLI to inspect the queues then shows we have indeed 60K messages in 2 queues.

Inspecting the contents of the message table we see limited counts of record types 13 (ADD_RECORD_TX) and 14 (UPDATE_RECORD_TX) roughly equivalent to the 60K message count. All remaining records are type 11 (ADD_RECORD).

When we removed all type 11 records restart was fast with limited memory load and we still see $60 \, \mathrm{K}$ messages in the 2 queues.

In the past we have observed similar numbers and startup problems in other environments which lead us to truncate the AMQ persistence tables to be able to restart the server without an OutOfMemoryException. But we are looking for a way to prevent this situation from happening.

So my questions are:

- Is the large record count in the message table expected behavior?
- $\mbox{-}\mbox{ Is there anything we can/should}$ do to limit the number of records in the message table?
- Is removing all type 11 records a valid workaround? If no, what would be the side-effect?

Thanks for your help!

Silvio

----YzUlPTE15qNZ2DCWOwswCX0F--