

## Re: Re: A problem with rapid growth of the transaction log

**Source:**

<http://www.tech-archive.net/Archive/Exchange/microsoft.public.exchange2000.misc/2004-03/0226.html>

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**From:** Goran Kimovski ([goran.kimovski\\_at\\_no.spam.please.atseavus.com](mailto:goran.kimovski_at_no.spam.please.atseavus.com))

**Date:** 03/26/04

Date: Fri, 26 Mar 2004 12:40:48 +0100

Hello Matthew,

you understand correct, we only get the Messages collection from the Calendar folder (after applying the date filter), go through the appointments and their attributes (subject, start/end date, busy status) and that's it ...

The reason why I asked you if the article I found could be connected to our case is that the symptoms described there (not only transaction logs, but also the public folder store exposes excessive growth) are fully matching the symptoms reported by the customers.

Anyway, we've tested the scenario you described in your first reply (on an Exchange 2000 with SP3, i.e. no post-SP3 rollup) and I can confirm that the transaction log is increasing only when changing the date on the machine (we manually changed the date in order to speed up the tests). If you leave the service to synchronize the calendar for several times without changing the date nothing is written in the log, but once the date is changed, the first attempt to read the calendar on the new date makes the log increase a bit ... btw, the public folder store was not touched (didn't change its size or modified date) during the whole time we run the tests ...

What is puzzling is that at the two customer sites in question, the transaction logs constantly increase while our service is running (stopping the service, stops the log size increase) ... if the temporary search tables would've been the cause for this, then that would mean that something causes Exchange/CDO not to cache the search tables, i.e. they're recreated all the time.

We're completely clueless at this point :-(

/Kima

"Matthew Byrd [MSFT]" <[matbyrd@online.microsoft.com](mailto:matbyrd@online.microsoft.com)> wrote in message news:%23UaOx4nEEHA.3064@tk2msftngp13.phx.gbl...

microsoft.public.exchange2000.misc: Re: Re: A problem with rapid growth of the transaction log

> *Hi Goran,*  
>  
> *My understanding of your tool is that it is hitting the calendar of the user*  
> *and not the users Free/Busy information? If that is the case then you are*  
> *not touching the public folder store in any significant way as long as*  
> *your*  
> *are not making modifications to the calendar itself.*  
>  
> *Hope this Helps,*  
>  
> --  
> *Matthew Byrd*  
> *Microsoft PSS*  
>  
> *When responding to posts, please "Reply to Group" via your newsreader so*  
> *that others may learn and benefit from your issue.*  
>  
> *This posting is provided "AS IS" with no warranties, and confers no*  
> *rights.*  
>  
>  
> *"Goran Kimovski" <goran.kimovski@no.spam.please.atseavus.com> wrote in*  
> *message news:uyqOWjZEEHA.3716@TK2MSFTNGP10.phx.gbl...*  
> *> Me again :-)*  
>  
> *> I just found this article: 815769 XADM: Many Transaction Logs Are*  
> *Created*  
> *> When Clients Search for Free/Busy Calendaring Information*  
> *> (<http://support.microsoft.com/default.aspx?scid=kb;en-us:815769>) where*  
> *it*  
> *> basically says that the views are not cached if searching for free/busy*  
> *> information and the locales between the client and the server differ ...*  
> *>*  
> *> Could this be the cause of our headaches?*  
> *>*  
> *> /Kima*  
> *>*  
> *> "Goran Kimovski" <goran.kimovski@no.spam.please.atseavus.com> wrote in*  
> *> message news:uIWzwKYEEHA.1092@TK2MSFTNGP12.phx.gbl...*  
> *> > Hello Matthew,*  
> *> >*  
> *> > the situation with the transaction logs is becoming more and more*  
> *> alarming*  
> *> > ... now we have a new customer with the same problem, where it's been*  
> *> > verified that the problem is not caused by a virus scanning or so by*  
> *> > hiding*  
> *> > the M drive and even stopping the anti-virus software entirely ...*  
> *> >*  
> *> > We also got some new information that may bring some new light in*  
> *> > understanding the whole problem ... the Exchange administrator reports*

Re: Re: A problem with rapid growth of the transaction log

microsoft.public.exchange2000.misc: Re: Re: A problem with rapid growth of the transaction log

> > *that*  
> > > *the Public Folder store is growing rapidly too (even though it's not*  
> *used*  
> > *by*  
> > > *the users) and crashes or hangs the Exchange Server after a while ...*  
Is  
> > *CDO*  
> > > *using this store for the temporary search table for the view based on*  
> *the*  
> > > *filter?*  
> > >  
> > > *What is also different at this site is that we're talking about a*  
*single*  
> > > *Exchange Server with only 40 mailboxes ...*  
> > >  
> > > *Is there maybe a problem in the way we create the filter on the*  
Messages  
> > > *collection in CDO, which makes the CDO to e.g. re-create the search*  
> *table*  
> > *or*  
> > > *at least re-populate it again every time we run the synchronization*  
> *cycle*  
> > *in*  
> > > *our service?*  
> > >  
> > > *Any kind of help is highly appreciated at this point ...*  
> > >  
> > > *Thanks in advance ...*  
> > >  
> > > */Kima*  
> > >  
> > > *"Goran Kimovski" <goran.kimovski@no.spam.please.atseavus.com> wrote in*  
> > > *message news:eGOooJfDEHA.3692@tk2msftngp13.phx.gbl...*  
> > > > *Hello Matthew,*  
> > > >  
> > > > *thanks for the e-mail ... it may bring an entirely new light on our*  
> *case*  
> > > ...  
> > > > *unfortunately, testing at the customer site is real hard to convey*  
...  
> > *the*  
> > > > *customer is rather angry and the hosting company not exactly willing*  
> *to*  
> > > > *cooperate ... I'll have to see if something can be done to persuade*  
> *them*  
> > > *to*  
> > > > *verify your finding ...*  
> > > >  
> > > > *Meanwhile, we'll try out your suggestion in our own lab ... I would,*  
> > > *though,*  
> > > > *like to ask you few more things regarding the problem ...*

Re: Re: A problem with rapid growth of the transaction log

microsoft.public.exchange2000.misc: Re: Re: A problem with rapid growth of the transaction log

> > > >  
> > > > *You say that you create search tables within the database, using the*  
> > > *filter*  
> > > > *we set in CDO and if the filter doesn't change (as we're using a*  
*date*  
> > > > *filter, it doesn't change during the day), than the same search*  
*table*  
> > > *is*  
> > > > *reused upon the subsequent accesses to the same view. In that case,*  
*I*  
> > > *would*  
> > > > *expect that the log files will be created only at the start-up of*  
*our*  
> > > > *service or in the first synchronization cycle after midnight (the*  
> > *service*  
> > > *is*  
> > > > *configured to synchronize the calendar every 10 minutes ... or*  
*rather,*  
> > *to*  
> > > > *read the appointments matching the 7 day filter and than sleep for*  
*10*  
> > > > *minutes till the next cycle).*  
> > > >  
> > > > *Unfortunately, at this particular customer site, the transaction*  
*logs*  
> > *are*  
> > > > *created constantly while the service synchronizes the appointments*  
*(1*  
> > *or*  
> > > *2*  
> > > > *files per minute) and than they stop piling up during the idle time*  
*of*  
> > *the*  
> > > > *service ... also, if you simply stop the service, than the creation*  
*of*  
> > > > *transaction logs stops too and immediately after you start it, the*  
> > *logs*  
> > > > *start coming up immediately ... actually, this is the reason why the*  
> > > *hosting*  
> > > > *company is unwilling to cooperate as they claim they have their*  
> > > > *configuration according to the MS recommendations for the virus*  
> *scanning*  
> > > *and*  
> > > > *backup and they believe our service misbehaves for some reason ...*  
> > > >  
> > > > *The code synchronizing the calendar in our service is rather simple*  
> ...  
> > > *I've*  
> > > > *taken out the important part (without any error checking and other*  
> > *non-CDO*  
> > > > *code) to show you how it looks like:*

Re: Re: A problem with rapid growth of the transaction log

microsoft.public.exchange2000.misc: Re: Re: A problem with rapid growth of the transaction log

```
>>>>
>>>> startDate = Date
>>>> endDate = DateAdd("d", 7, startDate)
>>>>
>>>> Set mapiSession = New MAPI.Session
>>>> mapiSession.Logon , , False, True, 0, True, server & vbLf & user
>>>>
>>>> Set calendarFolder =
>>>> mapiSession.GetDefaultFolder(CdoDefaultFolderCalendar)
>>>> Set appointmentList = calendarFolder.Messages
>>>>
>>>> Set calendarFilter = appointmentList.Filter
>>>> Set appointmentStart = calendarFilter.Fields.Add(CdoPR_START_DATE,
>>>> endDate)
>>>> Set appointmentEnd = calendarFilter.Fields.Add(CdoPR_END_DATE,
>>>> startDate)
>>>>
>>>> For Each appointment In appointmentList
>>>> ' read the appointment attributes like:
>>>> ' StartTime, EndTime, BusyStatus, AllDayEvent, Sensitivity,
>>>> Location,
>>>> Subject, Text
>>>> Next appointment
>>>>
>>>> The code above is run for all the users found in the selected
address
>>>> list
>>>> (at the particular customer in question, that is the
>>>> GlobalAddressList).
>>>> As
>>>> you can see, even if search tables are created in the Exchange
>>>> database
>>>> when
>>>> using the filter for the first time, all subsequent cycles will
simply
>>>> reuse
>>>> the search table ...
>>>>
>>>> Do you think something can cause the search tables to be always
>>>> recreated?
>>>> If yes, that could explain the constant increase of the transaction
>>>> logs
>>>> throughout the day ...
>>>>
>>>> The only things that come to my mind as being different than the
rest
>>>> of
>>>> the
>>>> customers which are successfully using our service without this
>>>> problem
>>>> are:
```

Re: Re: A problem with rapid growth of the transaction log

microsoft.public.exchange2000.misc: Re: Re: A problem with rapid growth of the transaction log

> > > > – *The server we use in the MAPI Logon is always the same, but the  
> > > mailboxes  
> > > are actually stored on 11 different servers (the GlobalAddressList  
is  
> > > replicated among all 12 servers)  
> > > > – Our service runs on a separate machine and the CDO installed on  
that  
> > > > machine was coming from an Exchange 5.5 CD (installed by installing  
> the  
> > > > Exchange 5.5 Administrator and also patched with Exchange 5.5. SP4,  
> > > post-SP4  
> > > > CDO patch and Exchange 5.5 CDO Patch 2657.55) ... I don't know why  
5.5  
> > was  
> > > > used, I guess the reseller installing the software had 5.5 CD close  
at  
> > > hand  
> > > > and didn't bother to get a 2000 CD :-)* ... however, I don't believe  
> that  
> > > > using CDO 5.5.xxxx or CDO 6.0.xxx would make any difference (guess  
you  
> > can  
> > > > tell me if I'm wrong or not)  
> > > >  
> > > > *The situation is getting rather critical as the customer feels that  
> > we're  
> > > > responsible for the problems they're experiencing with their  
Exchange  
> > > > Servers, so any help is highly appreciated ...  
> > > >  
> > > > /Kima  
> > > >  
> > > > "Matthew Byrd [MSFT]" <matbyrd@online.microsoft.com> wrote in  
message  
> > > > news:Oeg18QcDEHA.2804@tk2msftngp13.phx.gbl...  
> > > > > Goran Kimovski,  
> > > > >  
> > > > > *Here is what I think you have happening with CDO and transaction  
log  
> > > file  
> > > > generation. In Exchange anytime we access content with a specific  
> > view  
> > > we  
> > > > have to create a search table within the database so that this  
> > > information  
> > > > can be presented to the client. This is done so that subsequent  
> > view  
> > of  
> > > > the  
> > > > > folder with that given view are just simple accesses of the search  
> > > table.**

Re: Re: A problem with rapid growth of the transaction log

> > > > >  
> > > > *Depending on the view used these search tables can either be*  
> *updated,*  
> > > > *unchanging, or recreated when accessed on a new day. Given your*  
> > > > *description*  
> > > > *of what is happening I am guessing that when the CDO app hits the*  
> > *store*  
> > > > *and*  
> > > > *requests the 7 day filter that we are creating a search table in*  
the  
> > > *store*  
> > > > *to support this view.*  
> > > > >  
> > > > *The act of creating this search table and or updating it will*  
cause  
> > > > > *transaction log files to be generated as these are modifications*  
to  
> > *the*  
> > > > > *database.*  
> > > > >  
> > > > > *If you want to test this out I recommend the following test*  
> *sequence.*  
> > > > >  
> > > > > *1. Wait until late at night when a minimum number of users are*  
> *logged*  
> > > *into*  
> > > > > *the system.*  
> > > > > *2. Make sure nothing is touching the M: drive (hitting the M drive*  
> *is*  
> > *a*  
> > > > *big*  
> > > > > *culprit for creating translogs) Using the following article will*  
> > *ensure*  
> > > > *that*  
> > > > > *nothing is inadvertently hitting the M: Drive.*  
> > > > >  
> > > > > *305145 HOW TO: Remove the IFS Mapping for Drive M in Exchange 2000*  
> > > *Server*  
> > > > > <http://support.microsoft.com/?id=305145>  
> > > > >  
> > > > > *3. Stop the SMTP virtual server thru the Exchange System manager.*  
> *This*  
> > > > *will*  
> > > > > *stop all mailflow.*  
> > > > > *4. Note the current number of transaction log files*  
> > > > > *5. Run the CDO application*  
> > > > > *6. After the application stops running determine the new number of*  
> > > > > *transaction log files.*  
> > > > > *7. Start the SMTP virtual server thru the Exchange System manager.*  
> > > > >  
> > > > > *This test sequence will minimize the number of things that will be*

> > > > *touching*  
> > > > > *store so that hopefully the only thing is now the CDO application.*  
> > > > >  
> > > > > *Hope this helps,*  
> > > > >  
> > > > > --  
> > > > > *Matthew Byrd*  
> > > > > *Microsoft PSS*  
> > > > >  
> > > > > *When responding to posts, please "Reply to Group" via your*  
> *newsreader*  
> > *so*  
> > > > > *that others may learn and benefit from your issue.*  
> > > > >  
> > > > > *This posting is provided "AS IS" with no warranties, and confers*  
no  
> > > > *rights.*  
> > > > >  
> > > > > *"Goran Kimovski" <goran.kimovski@no.spam.please.atseavus.com>*  
wrote  
> *in*  
> > > > > *message news:u%23fAmGSDEHA.2308@tk2msftngp13.phx.gbl...*  
> > > > > > <<<Forward as a new post in hope to draw higher attention from  
> *more*  
> > > > > *users>>>*  
> > > > > >  
> > > > > >  
> > > > > > *Forced to continue this thread as we still have problems ...*  
> > > > > >  
> > > > > > *I've sent the KB articles to the hosting company where the 12*  
> > *Exchange*  
> > > > > > *Servers are hosted and they removed all of the folders listed in*  
> *the*  
> > > *MS*  
> > > > > > *recommendation (some were indeed scanned by the anti-virus ...*  
> *btw,*  
> > > > > > *they're*  
> > > > > > *using GroupShield ... don't know what version). They also*  
checked  
> > *the*  
> > > > > > *backup*  
> > > > > > > *routines (they're using Computer Associates software for that)*  
and  
> > *say*  
> > > > > > *they*  
> > > > > > > *were set according to the recommendations already. However, they*  
> > > *report*  
> > > > > > *no*  
> > > > > > > *changes in the behavior of the transaction logs, i.e. they still*  
> > > *rapidly*  
> > > > > > > *grow when our service reads the appointments from the user's*

> > > *mailboxes.*  
> > > > *It*  
> > > > > *is also noted that the store.exe process, which is usually using*  
> > *very*  
> > > > *low*  
> > > > > *CPU resources, now runs at 15–20% on average and has peaks as*  
**high**  
> > *as*  
> > > > > *90–100% ...*  
> > > > >  
> > > > > *Unfortunately I have too many communication layers to the*  
**hosting**  
> > > > *company,*  
> > > > > *plus they haven't been much trustworthy up to now (and they're*  
> *big,*  
> > *so*  
> > > > > *they*  
> > > > > *can easily convince the customer that they run everything*  
> *perfectly*  
> > > *and*  
> > > > *it*  
> > > > > *is our software that causes all the trouble), so I can't tell if*  
> *the*  
> > > > > *anti-virus and backup are really excluding the M drive and*  
> *Exchange*  
> > > > > *folders*  
> > > > > *on all Exchange servers.*  
> > > > >  
> > > > > *I would like to ask you, under the assumption that everything is*  
> > > *really*  
> > > > > *set*  
> > > > > *properly, if you can think of any other reason why we still have*  
> *the*  
> > > > *same*  
> > > > > > *problem ...*  
> > > > > > *We're using CDO to:*  
> > > > > > *– logon to the mailboxes,*  
> > > > > > *– open the calendar folder,*  
> > > > > > *– set a filter to read only 7 days and*  
> > > > > > *– retrieve the appointment entries*  
> > > > > > *... without any write/set operation whatsoever ...*  
> > > > >  
> > > > > > *As I said in my first post in this thread, the installation is*  
**set**  
> > *so*  
> > > > *that*  
> > > > > > *mailboxes are distributed over 11 Exchange servers and we access*  
> > *them*  
> > > *by*  
> > > > > *performing a logon to the 12th, central Exchange Server and then*  
> > *using*

>>>> CDO  
>>>>> to retrieve the calendar.  
>>>>>  
>>>>> Another thing worth noting may be that our service is run on a  
>>> separate  
>>>>> machine, i.e. not on the central Exchange Server and the CDO on  
> that  
>>>>> machine  
>>>>> is installed from an Exchange 5.5 CD, i.e. CDO.DLL is of version  
> 5.5  
>>>> (with  
>>>>> post-SP4 update). We plan to install a new CDO from Exchange  
2000  
> CD  
>>>>>> tomorrow just to rule out if this could be of any relation to  
the  
>>>>> original  
>>>>>> problem or not, but don't expect any change ...  
>>>>>>  
>>>>>> Any input from anyone who can say something to help us find a  
>> solution  
>>>>> to  
>>>>>> our problem is highly appreciated ...  
>>>>>>  
>>>>>> /Kima  
>>>>>>  
>>>>>> "Lanwench [MVP - Exchange]"  
>>>>>> <lanwench@heybuddy.donotsendme.unsolicitedmail.atyahoo.com>  
wrote  
> in  
>>>>> message  
>>>>>> news:uq0Gd2PDEHA.1452@TK2MSFTNGP09.phx.gbl...  
>>>>>>> You're most welcome! Yes, these articles are great.  
>>>>>>>  
>>>>>>>  
>>>>>>>> Goran Kimovski wrote:  
>>>>>>>>> Thanks Lanwench, you've been of great help ...  
>>>>>>>>>  
>>>>>>>>> I also found several articles in the MS KB related to virus  
>>> scanning  
>>>>>>>>> and Exchange ... I guess some of the readers of the  
newsgroup  
>>> could  
>>>> be  
>>>>>>>>> interested to read them (the company hosting the Exchange  
> Server  
>>>>>>>>> apparently didn't :- ) ), so I'll place them in this post:  
>>>>>>>>>  
>>>>>>>>>> 245822 XGEN: Recommendations for Troubleshooting an Exchange  
>>> Server  
>>>>>>>>>> Computer with Antivirus Installed

microsoft.public.exchange2000.misc: Re: Re: A problem with rapid growth of the transaction log

>>>>>>>  
> (<http://support.microsoft.com/default.aspx?scid=kb;en-us;245822>)  
>>>>>>>  
>>>>>>> 299046 XADM: Calendar Items Disappear from User's Folders  
>>>>>>>  
> (<http://support.microsoft.com/default.aspx?scid=kb;EN-US;299046>)  
>>>>>>>  
>>>>>>> 298551 XADM: Large Number of Transaction Logs Created  
>>>>>>>  
> (<http://support.microsoft.com/default.aspx?scid=kb;EN-US;298551>)  
>>>>>>>  
>>>>>>> 298924 XADM: Do Not Back Up or Scan Exchange 2000 Drive M  
>>>>>>>  
> (<http://support.microsoft.com/default.aspx?scid=kb;EN-US;298924>)  
>>>>>>>  
>>>>>>> 328841 XADM: Exchange and Antivirus Software  
>>>>>>> (<http://support.microsoft.com/?id=328841>)  
>>>>>>>  
>>>>>>> /Kima  
>>>>>>>  
>>>>>>> "Lanwench [MVP - Exchange]"  
>>>>>>> <lanwench@heybuddy.donotsendme.unsolicitedmail.atyahoo.com>  
>> wrote  
>>> in  
>>>>>>> message news:ehkDCw3CEHA.3748@TK2MSFTNGP11.phx.gbl...  
>>>>>>>> Goran Kimovski wrote:  
>>>>>>>>> Hello Lanwench,  
>>>>>>>>>  
>>>>>>>>> unfortunately I can't answer your question as the servers  
> are  
>>>> hosted  
>>>>>>>>> by a third party service provider and the information  
about  
>>> the  
>>>>>>>>>> mailbox replication is something I've got through them ...  
>>>>>>>>>>  
>>>>>>>>>> However, it seems that the problem was actually related to  
> an  
>>>>>>>>>> anti-virus program scanning the M: partition ... we could  
>> easily  
>>>>>>>>>> reproduce the same behaviour on a simple installation of a  
>>> single  
>>>>>>>>>> Exchange 2000 Server with dozen of mailboxes ... by  
running  
>>> Norton  
>>>>>>>>>> Corporate Anti-virus on the M: partition and starting our  
>>> service,  
>>>>>>>>>> the transaction log files started to pile up ... this  
seems  
> to  
>>>> slow

Re: Re: A problem with rapid growth of the transaction log



> > *anything*  
> > > *in*  
> > > > > > > > > > *the mailboxes nor anywhere else ... Since it is purely*  
> > > *CDO-based,*  
> > > > > > > > > > *the only possible way that something is written is by*  
the  
> > *CDO*  
> > > > > > > > > > *itself, but I highly doubt that ...*  
> > > > > > > > > >  
> > > > > > > > > > *What made me suspect it could be so that some temporal*  
> > > *replication*  
> > > > > > > > > > *is performed is that we have another customer with 6*  
> > *Exchange*  
> > > > > > > > > > *Servers and total of 600 mailboxes on them, where the*  
> > *mailboxes*  
> > > > > > > > > > *are synchronised to the central server (don't aks me why*  
> > *:-) )*  
> > > > > > > > > > *and we're reading the appointments from the central*  
server  
> > > *using*  
> > > > > > > > > > *the same service, but we do not have any problems with*  
the  
> > > > > > > > > > *transaction log there ... As far as we can see, the only*  
> > > > > > > > > > *difference between the two customers is the fact that*  
the  
> > > > > > > > > > *mailboxes are replicated to the central server at one*  
> > > *customer,*  
> > > > > > > > > > *while not at the other ...*  
> > > > > > > > > >  
> > > > > > > > > > *How are mailboxes being replicated? Nothing native to*  
> > > *Exchange/AD*  
> > > > > > > > > > *does this.*  
> > > > > > > > > >  
> > > > > > > > > >  
> > > > > > > > > > */Kima*  
> > > > > > > > > >  
> > > > > > > > > > *"Mark Arnold [MVP]" <mark@myps.org> wrote in message*  
> > > > > > > > > > *news:b1fc01c40781\$6fd25f10\$a401280a@phx.gbl...*  
> > > > > > > > > > *Nothing is making Exchange replicate mailbox*  
information  
> > > > > > > > > > > > *anywhere. The creation of the log files is possibly due*  
> > > > > > > > > > > > *to your application extracting data from and writing to*  
> > > > > > > > > > > > *the mailboxes some form of data or flag etc. Would that*  
> > > > > > > > > > > > *make sense based on your knowledge of your application?*  
> > > > > > > > > > > > *If your app just read some data then it wouldn't create*  
> > > > > > > > > > > > *so many logs.*  
> > > > > > > > > >  
> > > > > > > > > >  
> > > > > > > > > > > > *-----Original Message-----*  
> > > > > > > > > > > > *Hello folks,*  
> > > > > > > > > >



