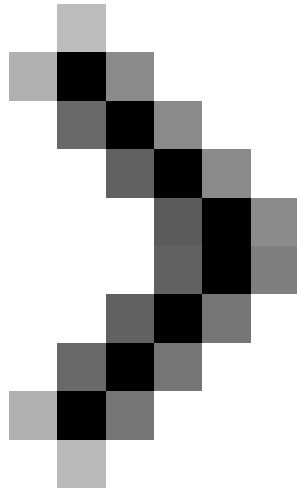


GroupWise to Exchange 2007 - Interoperability and transformation (Part 5)

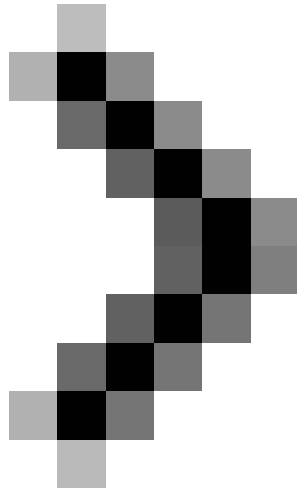
Next we will set up our system to be able to check the flow of information between Exchange and GroupWise



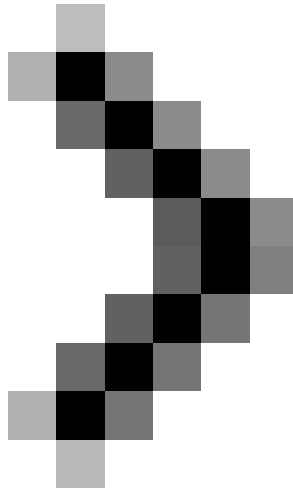
GroupWise to Exchange 2007 - Interoperability and transition (Part 1)



GroupWise to Exchange 2007 - Interoperability and transition (Part 2)



GroupWise to Exchange 2007 - Interoperability and transition (Part 3)



GroupWise to Exchange 2007 - Interoperability and transformation (Part 4)

Nathan Winters

Part 5 of this series will introduce:

- How free / busy information is required and passed between GroupWise and Exchange 2003
- How to check if the information being transferred is correct
- How does Exchange 2007 complicate matters?

Microsoft support statement

Microsoft does not support GroupWise 7 collaboration with Exchange Server.

Microsoft has made it clear that:

- Microsoft Exchange Server 5.5, Microsoft Exchange 2000 Server and Microsoft Exchange Server 2003 support Novell GroupWise versions 4.1x, 5.0, 5.1, 5.2x, and 5.5x.
- Exchange Server 2003 Service Pack 2 supports Novell GroupWise versions 4.1x, 5.0, 5.1, 5.2x, 5.5x, 6.x and 6.5x.
- Novell GroupWise 7 versions are not tested with Exchange components listed in this section. Therefore Novell GroupWise version 7 is not supported.
- There will be no support for Novell GroupWise versions with the Connector or Migration Tools from other Microsoft Exchange Server versions.

The final note is the most important note. There is no need to support GroupWise's collaboration capabilities within Exchange 2007 or any later version of Exchange.

As far as we know about this statement is irreversible and:

- There will be no GroupWise connector for Exchange 2007.
- Exchange 2003 is not supported outside GroupWise 6.5.

That statement implies that if you want to switch from GroupWise to Exchange Server 2007 you need to use an Exchange 2003 Server and in a GroupWise 7 environment you need to install an additional GroupWise 6.5 Post Office to manage the GroupWise API.

Logs that allow a clear distinction of collaboration capabilities between 2003 Service Pack 2 and GroupWise 7 still work, although it is not officially supported and uses an unsupported transition to include out anticipated risks in conversion projects.

With the content of this series we will use

- Exchange 2003 Service Pack 2
- GroupWise 7 on Netware 6.5

Here we have not made any changes to the basic Exchange 2003 installation.

Before going into the issue, we have to show a small adjustment. In the second part of this series, we configured the API gateway and both External Foreign Domain with the same name. We called both **Exchange** .

We still call the External Foreign Domain as Exchange because it is related to Exchange's recipient policy. To distinguish the difference between the DNS objects we selected and call Gateway **GW2MEX** .

GroupWise and Exchange 2003

In Part 4 of this series, we configured the Calendar Connector to work with the Microsoft Connector for Novell GroupWise. We initialize the API and all Microsoft Exchange services, and also know what can be guaranteed that both the API and these services are properly initialized.

Next we will set up our system to be able to check information flows between Exchange and GroupWise to see what happens when performing a free / busy search between systems.

In Part 4 we created the register DWRY etry with the name *Archive* and the value is 1 in *HKLMSYSTEMCurrentControlSetServicesLME-GWISEParameters* on the Exchange Server running the connector. This creates a copy that stores all rotation messages between GroupWise and Exchange through the **Program FilesExchsrvrconndatagwrouter** directory structure .

We have also followed the instructions on how to write Exchange's Connectivity Controller Connector to increase logging. For the purposes of this article, we will change the diagnostic diagnostic levels for MExchangeCalCon to Maximum for all items as shown in Figure 1.

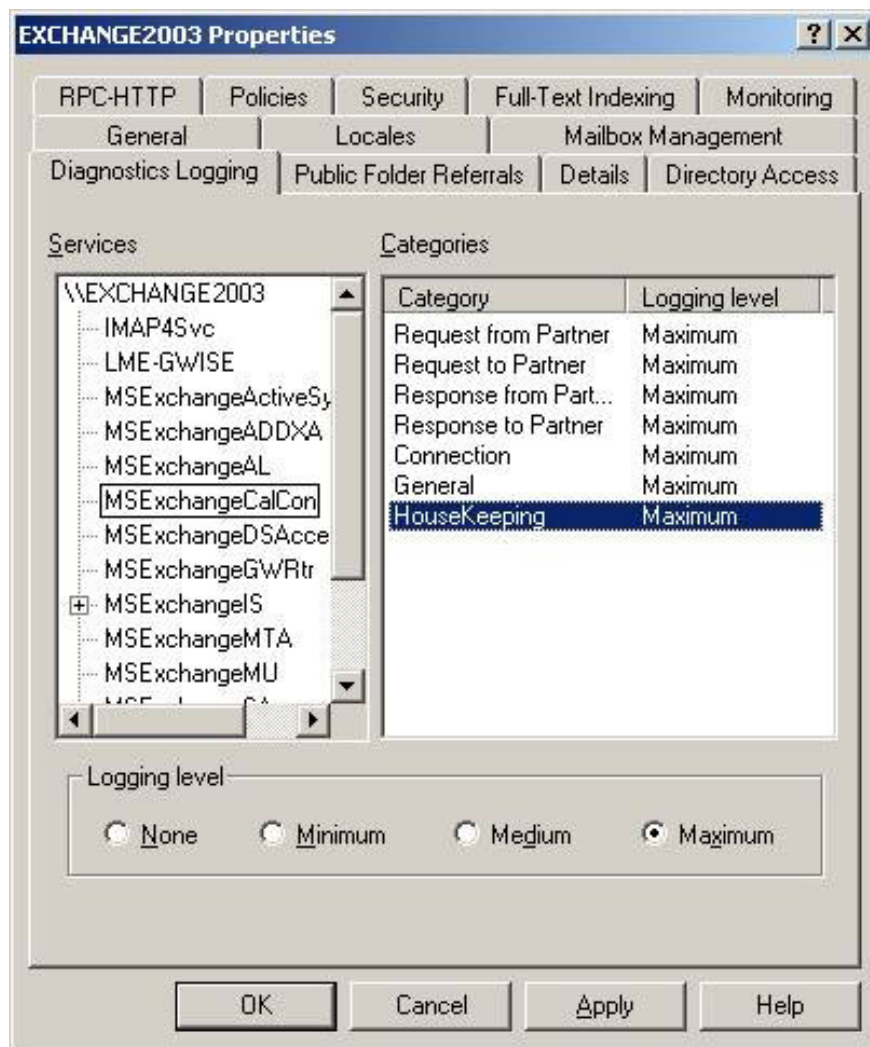


Figure 1: Set logging level for MExchangeCalCon objects

Without the need to simulate a lot of troubleshooting issues that are available a lot, we'll show you what happens when you request free / busy information between Exchange and GroupWise.

There are two directories on the Exchange server within the **conndatagwrouter** that have been used to handle free / busy requests and responses. The directories are **togwise** and **freebusy**.

Within the GroupWise API, there are also two directories used, **wpgateAPIAPI_IN** and **wpgateAPIAPI_OUT**

Finally within GroupWise itself, there are also **WPCSIN** and **WPCSOUT** folders .

The message flow between Exchange and GroupWise is sent through all these 6 directories, as shown in diagram 1 for requests and free / busy responses.

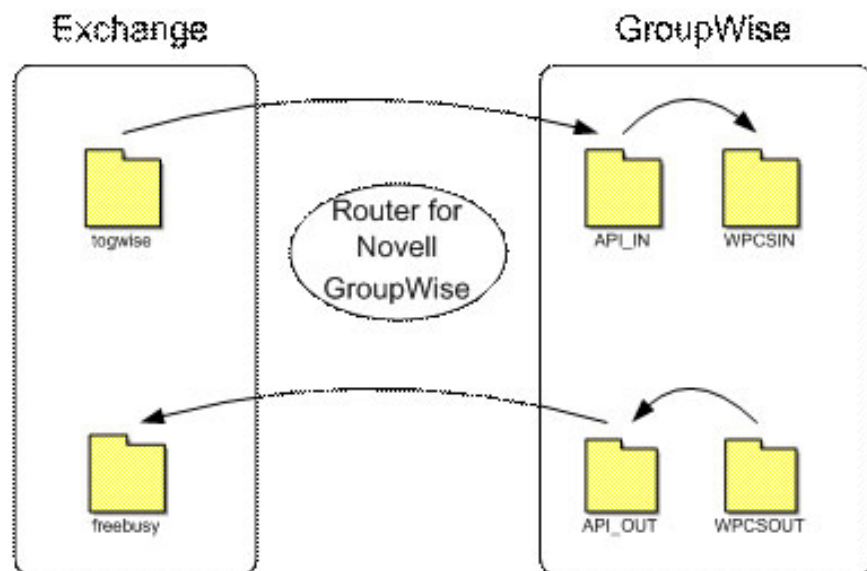


Diagram 1: Six directories are used to handle Free / Busy requests

Free / Busy requests from Exchange to GroupWise are placed in the **togwise** folder , and the Router for Novell GroupWise passes those messages to the **API_IN** folder **within** the API directory structure. From here, the new API gateway handles the message and passes it to **WPCSIN** , where it is selected and processed by GroupWise MTA.

In the opposite direction, messages from GroupWise to Exchange started in **WPCSOUT** , which is where they are chosen by the API gateway and are passed to **API_OUT** and then transmitted by the Router to Novell GroupWise to the **freebusy** directory.

This is a fairly simple process. Both free / busy requests and responses from Exchange to GroupWise use the same path, as does the reverse process.

With the stored registry editing done in part 4, we can keep a record of all notifications from **togwise** and **freebusy directories** , besides that we will be able to check the requests and the reply.

Check Outlook

We found the simplest way to test free / busy from GroupWise into Exchange is how to use the Group Schedule. We will run Outlook 2003 on Windows XP SP2.

In Outlook 2003 we created a group schedule called GroupWise, as shown in Figure 2, and added all GroupWise users as shown in the Exchange global address list.

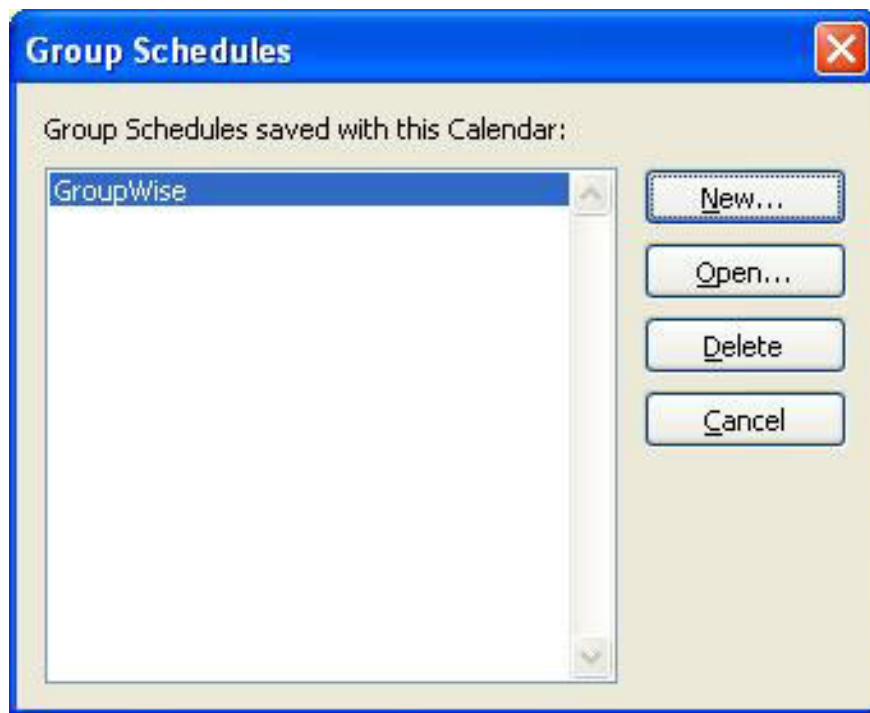


Figure 2: Name of Group Schedule in Outlook

When opening the Group Schedule for GroupWise, the following problems will appear.

For each GroupWise user in the Group Schedule, Outlook will query the Public + free / busy public folder to retrieve free / busy information.

Depending on the properties configured on the **General** tab of the Calendar Connector as shown in Figure 3, Exchange will provide direct free / busy information to Outlook if it is stored and is less than 15 minutes or if information is available. is not displayed in the free / busy public folder or it has sent the request more than 15 minutes since it started with GroupWise.

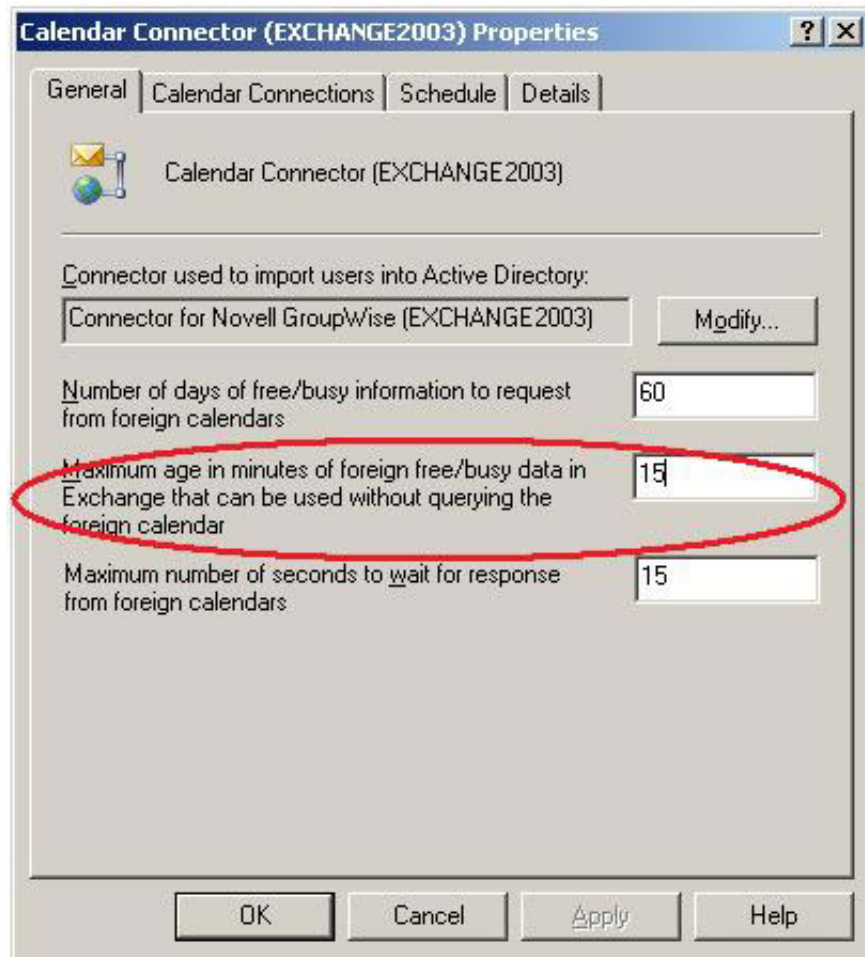


Figure 3: The General tab of the Calendar Connector shows the maximum Free / Busy storage time

These free / busy requests can be observed in the **Program Files\Exchsrvr\conndatagwrouter\archivetogwise** folder

For example, a simple free / busy query for **Ian West** will create a file called **EGW4C.api** in the **togwise** folder .

If we observe the API gateway on the GroupWise server by writing a diagnostic error set to **Verbose** , you can see **EGW4C.API** processed as a message being sent as shown in Figure 4.

We can see the correspondence sent after 15 minutes.

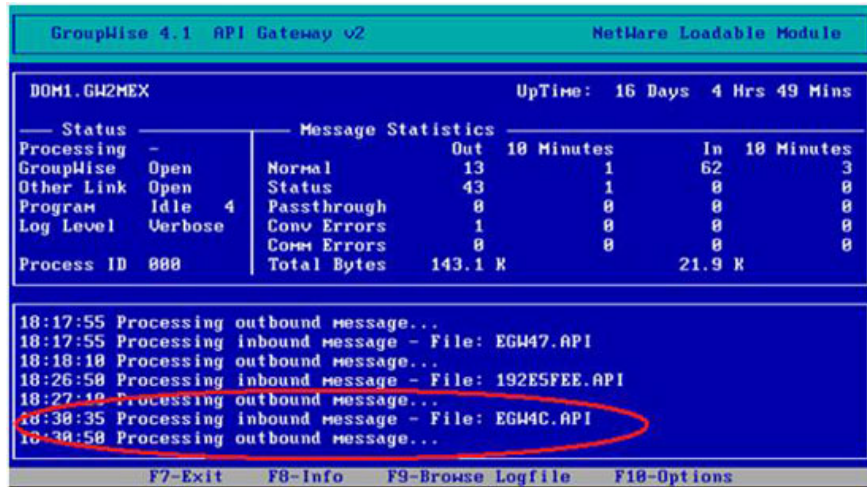


Figure 4: API is processing a Free / Busy request

If we select the Outlook option to **Refresh free / busy** within 15 minutes for this root communication session, no additional messages will be sent or received between the two systems, and free / busy information will be available. The presentation will be retrieved from the free / busy public folder.

When API diagnostic Logging is set to **Diag** (F10, then F2, F1), there will be additional information presented in the log files saved in the **wpgateAPI00.PRC** folder .

```
03-29-08 18:40:35 Processing inbound message - File: EGW4C.API
03-29-08 18:40:35 Msg-ID: AAKEIJEI: 2008.3.29.18.41: 2008.5.28.19.41: 2008.3.29.18.41.37;
.
03-29-08 18:40:45 Processing outbound messages .
.
03-29-08 18:40:45 Orig-Msg-ID = AAKEIJEI: 2008.3.29.18.41: 2008.5.28.19.41
: 2008.3.29.18.41.37;
```

Msg-ID: and Orig-Msg-ID = are equivalent and are in the saved **EGW4C.api** file.

```
WPC-API = 1.2;
MSG-TYPE = Search;
Msg-ID = AAKEIJEI: 2008.3.29.18.41: 2008.5.28.19.41: 2008.3.29.18.41.37 ;
From =
WPD = dom1;
WPPO = GW2MEX;
WPU = EXCHANGE2003-SA;
CDBA = dom1.GW2MEX.EXCHANGE2003-SA; ;
To =
WPD = DOM1;
WPPO = PO1;
WPU = Iain;
CDBA = DOM1.PO1.Iain; ;
Begin-Time = March 29, 2008 18:41;
End-Time = 28/5/2008 19:41;
```

-END-

The free / busy request contained in the **EGW4C.api** file is taken from the **gwrouterogwise** folder located in Exchange Server, and distributed to the **wpgateAPIAPI_IN** folder in GroupWise Server. The API then realizes that the notification type is a search.

MSG-TYPE = Search;

and distribute it to GroupWise for processing

GroupWise handles the message and the response is placed in the **API_OUT** directory , which is where it is picked up by the Microsoft Exchange Router for Novell GroupWise and transferred to the **gwrouterfreebusy** directory .

The response to the free / busy request is the same as what you see below.

WPC-API = 1.2;

Header-Char = T50;

Msg-Type = SEARCH;

Orig-Msg-ID = AAKEIJEI: 2008.3.29.18.41: 2008.5.28.19.41: 2008.3.29.18.41.37;

To =

CDBA = dom1.GW2MEX.EXCHANGE2003-SA;

;

Busy-For =

CDBA = DOM1.P01.Iain;

Busy-Report =

Start-Time = 29/3/08 0:00;

End-Time = March 31, 2008 8:00; ,

.

.

.

Start-Time = 5/28/08 17:00;

End-Time = 5/29/08 0:00;

;

Send-Options = None;

-END-

The 60-day period for the start and end time in this file, this is the default setting for the number of days for the required **free / busy** information coming from external calendars set on the **General** tab. of the Calendar Connector shown in Figure 3 and as extracted below Figure 5.

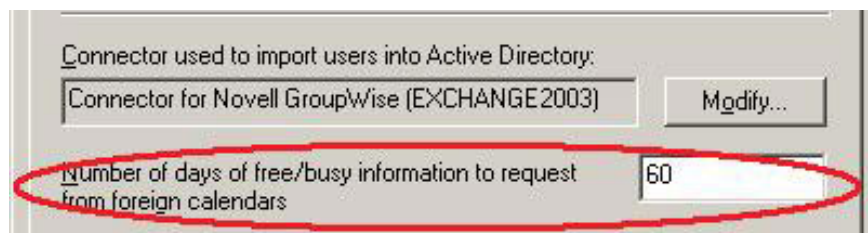


Figure 5: A citation from the Calendar connector's General tab shows the limit for a free / busy time limit of 60 days

As described in detail in PSS Article ID: 304726 '*XFOR: Exchange Calendar Connector Free-Bus-Searches and Busy Searches from 5:00 PM Through 8:00 AM*' This information marks busy GroupWise users from 17:00 to 08:00 by day and sometimes busy all week.

As a result, the free / busy information displayed in the Group Schedule for GroupWise users will be as shown in Figure 6.

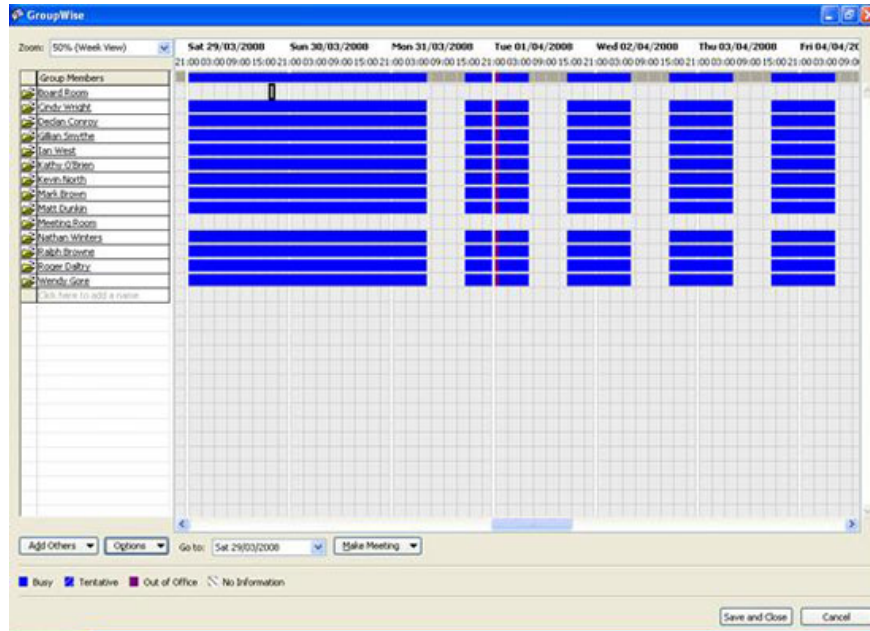


Figure 6: GroupWise user's Free / Busy information viewed in Outlook

This is a confirmation that free / busy from Outlook / Exchange to GroupWise is working.

Test in GroupWise

From within the GroupWise client, select **New Appt** as shown in Figure 7.

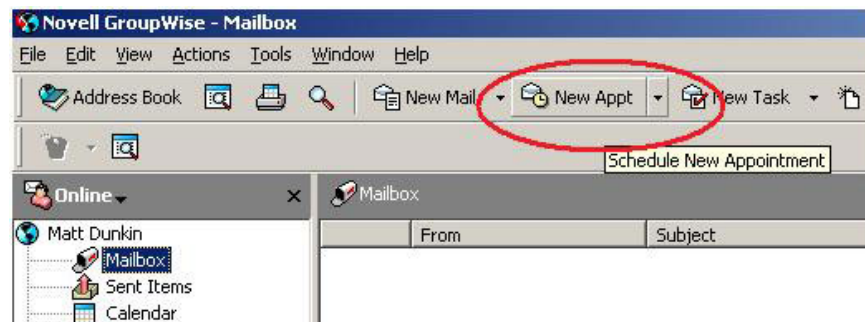


Figure 7: Create a new meeting in the GroupWise client

Then select **Busy Search** as shown in Figure 8.

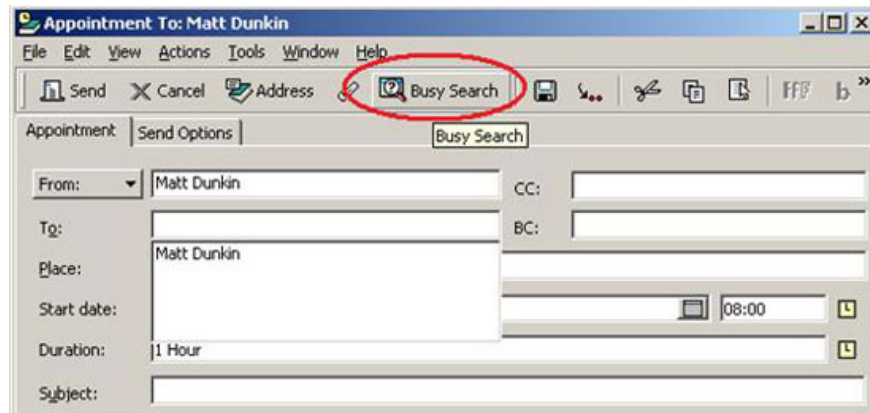


Figure 8: Creating a 'busy search' on a GroupWise client

Click **Invite to Meeting** . as shown in Figure 9.

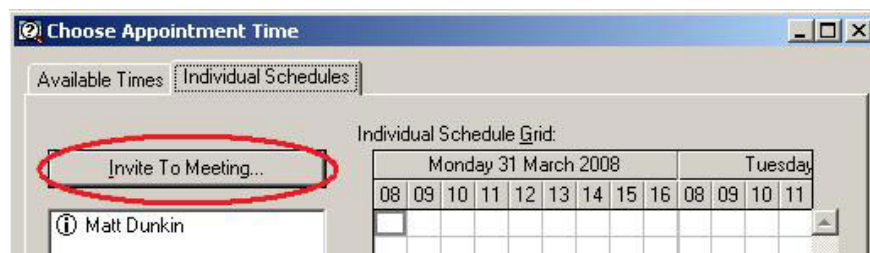


Figure 9: Invite another user to the meeting on the GroupWise client

Finally type the user's name as shown in Figure 10 and click OK.

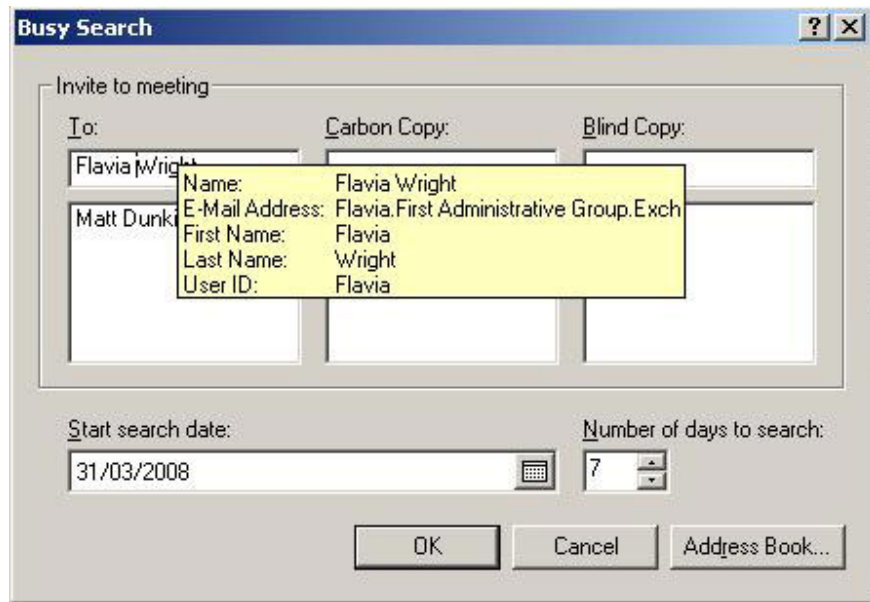


Figure 10: Enter the Exchange username to add to the meeting

On the GroupWise PO running the API you can see the outgoing message following the corresponding response after 5 seconds as shown in Figure 11.

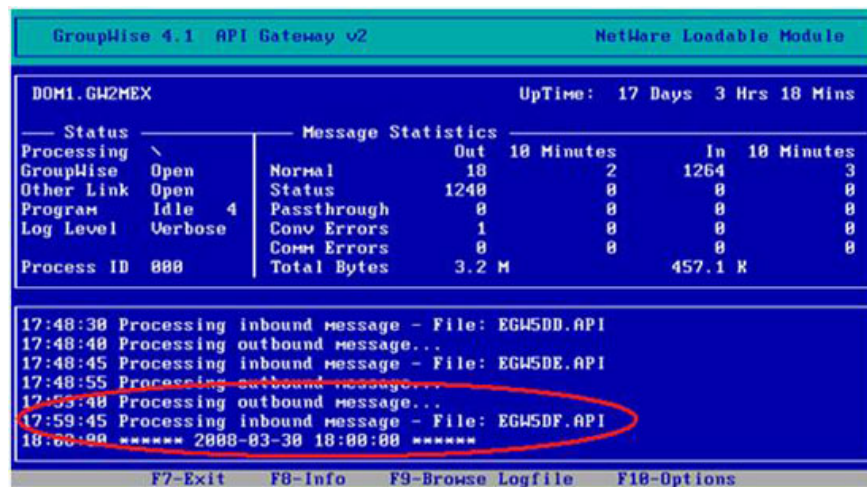


Figure 11: API is processing the Free / Busy request sent

Returning to the GroupWise client, the free / busy state changes from **Response Pending** as shown in Figure 12.



Figure 12: Free / Busy requests are in the standby phase on the GroupWise client

Available as shown in Figure 13.



Figure 13: Free / Busy request changed to Available on GroupWise client

At this point, we can see the information displayed in the **Individual Schedule Grid** as shown in Figure 14.

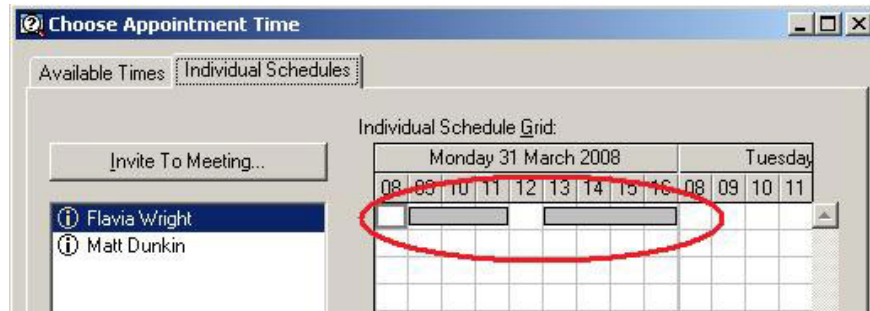


Figure 14: Free / Busy information displayed in Individual Schedule Grid on the GroupWise client

We can look at the **freebusy** directory on the Exchange server to find a free / busy request from GroupWise, and we can also find the response in the **togwise** directory .

Free / busy request sent from GroupWise:

```
WPC-API = 1.2;  
Header-Char = T50;  
Msg-Type = SEARCH;  
From-Text = Matt Dunkin;  
From =  
WPD = DOM1;  
WPPO = PO1;  
WPU = Matt;  
FN = Matt;  
LN = Dunkin;  
S = Dunkin;  
G = Matt; ;  
To =  
WPD = Exch;  
WPPO = First Administrative Group;  
WPU = Flavia;  
WPPONUM = 1;  
WPUNUM = 1;  
FN = Flavia;
```

LN = Wright;
UD5 = Microsoft Exchange Connector for Novell GroupWise;
S = Wright;
G = Flavia;
CDBA = 0001: 0001; ;
All-To =
WPD = Exch;
WPPO = First Administrative Group;
WPU = Flavia;
WPPONUM = 1;
WPUNUM = 1;
FN = Flavia;
LN = Wright;
UD5 = Microsoft Exchange Connector for Novell GroupWise;
S = Wright;
G = Flavia; ,
WPD = DOM1;
WPPO = PO1;
WPU = Matt;
WPPONUM = 2;
WPUNUM = 1;
FN = Matt;
LN = Dunkin;
S = Dunkin;
G = Matt; ;
Msg-Id = 47EFC6FC.B99A.04EB.000;
To-Text = Flavia.First Administrative Group.Exch, Matt.PO1.DOM1@demo.local ;
Subject = BUSY SEARCH: Flavia Wright, Matt Dunkin;
Date-Sent = 30/3/08 17:59;
Security = Normal;
Send-Options = None;
Status-Request = Opened;
Begin-Time = March 31, 2008 0:00;
End-Time = 7/4/08 0:00;
Msg-Priority = Normal;
-END-

And respond accordingly from Exchange:

WPC-API = 1.2;
MSG-TYPE = Search;
Orig-Msg-ID = 47EFC6FC.B99A.04EB.000;
To =
WPD = DOM1;
WPPO = PO1;
WPU = Matt; ;
Busy-For =
CDBA = 0001: 0001; ;

Busy-Report =
Start-Time = March 31, 2008 9: 0;
End-Time = March 31, 2008 12: 0 ;,
Start-Time = March 31, 2008 13: 0;
End-Time = March 31, 2008 17: 0 ;,
Start-Time = 1/4/2008 14: 0;
End-Time = 1/4/2008 16: 0;
;
-END-

There is some information contained in files that have been transferred between Exchange and GroupWise worth mentioning.

By default Exchange requires 60 days of free / busy.

Begin-Time = March 29, 2008 18:41;
End-Time = 28/5/2008 19:41;

In contrast, GroupWise only requires 7 days

Begin-Time = March 31, 2008 0:00;
End-Time = 7/4/08 0:00;

Also note that the free / busy request from Exchange is sent by the system attached.

WPU = EXCHANGE2003-SA;

This is quite important because the attached system requires GWISE proxy address or the process will not work. This is why we recommend you in Part 4 that you simply change the Default Recipient Policy in Exchange.

Finally, if you've followed the instructions in the tutorial on how to enable Exchange's Connectivity Controller Connector and created a directory of **logs** in **conndata**, the log files in this directory will provide lots of information. believe for you to be able to study in depth and can assist in troubleshooting.

Run in Console mode

If you follow all of the above instructions, your system will work. However, a useful method can allow you to get a closer look at what's happening under the scene is to run the calendar connector in console mode on the Exchange server. This problem is done by running **Calcon.exe** from the **Exchsrvrbin** folder .

Some key information to keep in mind is given below

[00000D70]: The Calendar Connector will process calendar requests to "Schedule + Free Busy Information - first administrative group" folder system trêu theo sau máy ph?c v?: EXCHANGE2003

This information tells us which free / busy public directory the calendar connector is expecting to use. We need to make sure that the free / busy information for **the first administrative group** is copied to **EXCHANGE2003**.

[00000D70] (Debug): API_IN Directory is 'C: Program filesExchsrvrconndatagwrouteretogwise'
[00000D70] (Debug): API_OUT Directory is 'C: Program FilesExchsrvrconndatagwrouterfreebusy'

These two lines confirm the directory association between **togwise** and **API_IN**, between **freebusy** and **API_OUT** as shown in Figure 2.

[00000D70]: The Calendar Connector has been logged on "Schedule + Free Busy Information - first x? lý nhóm" th? m?c h? th?ng v?i EXCHANGE2003 ?? x? lý các th? m?c c?a c? s? d? li?u site tr??c tr??c nhóm.

[00000D70]: The Calendar Connector has logged on the "Schedule + Free Busy Information - first administrative group" system folder on EXCHANGE2003 to submit calendar query responses.

These two lines confirm that the Calendar Connector was successfully logged into the Schedule + Free Busy folder for the first administrative group, so submit and handle queries for free / busy information.

Exchange 2007

How to change with Exchange 2007? Absolutely, we installed Exchange 2007 into our Exchange 2003. Used a multi-role Exchange 2007 server, running mailbox, CAS and Hub Transport.

We moved the Exchange 2003 mailboxes using **Move Mailbox** options . from the Exchange Management Console.

Immediately, both notification threads are still active. The Free / busy lookup from GroupWise to Exchange also works, but initially, free / busy Exchange to GroupWise does not work.

We used the following PowerShell commands to add the Exchange 2007 server to the replication public folders. In the commands below, the Exchange 2003 server name is **EXCHANGE2003** and the public folder database on this server is *Public Folder Store (EXCHANGE2003)*

Set-PublicFolder -Identity 'NON_IPM_SUBTREESCHEDULE + FREE BUSYEX: / o = Company / ou = First Administrative Group' -Replicas 'EXCHANEG2003 Public Folder Store (EXCHANGE2003)'

Set-PublicFolder -Identity 'NON_IPM_SUBTREESCHEDULE + FREE BUSYEX: / o = Company / ou = Exchange Administrative Group (FYDIBOHF23SPDLT)' -Replicas' EXCHANEG2003 Public Folder Store (EXCHANGE2003) "

Free / busy lookup between GroupWise 7 and Exchange 2007 through the Exchange 2003 Calendar Connector does not work in either direction at this time!

So we have to do?

Each free / busy lookup request is sent separately. For example, have a Group Schedule with 14 GroupWise mailboxes. When refreshing free / busy information, 14 mailboxes will generate 28 messages between Exchange and GroupWise.

Depending on the API **Gateway** 's time settings explicitly the **Idle Sleep Duration**, as shown in Figure 15, (you can enter by right-clicking on the **GW2MEX** Gateway object in NetWare Administrator and selecting **Details** .) one of these free / busy conversations can take any 10 to 15 seconds. With 14 mailboxes, when refreshing free / busy information it will take up to 2 minutes.

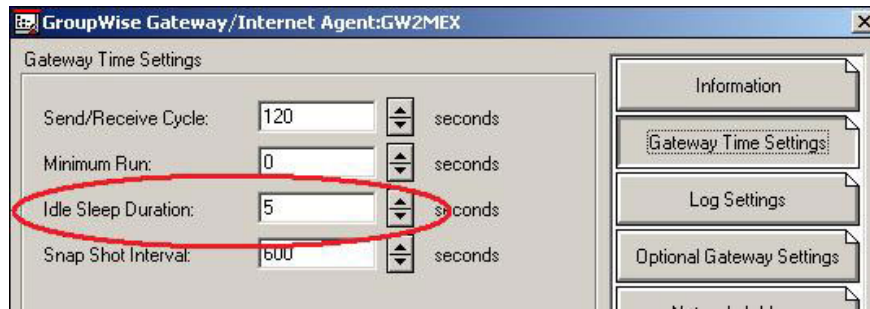


Figure 15: Setting Idle Sleep Duration of API Gateway

Conclude

In Part 5, we have demonstrated that it is possible to obtain Free / busy information when transferring between GroupWise and Exchange, we recommend that you use or rely on it only a little if any. can. This is a non-scalable and fair process that can also cause sudden stop problems, or something that may require restarting the connector for repair. However, collaboration groups have the ability to share free / busy information at the same time and keep the full ability to work as much as possible!

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