

Explaining the usage of System Mailboxes in Exchange 2003

Written by Marc Grote - <mailto:grotem@it-training-grote.de>

Abstract

In this article I will show you the function of system mailboxes in Exchange Server 2003 and how to open these system mailboxes to view the content.

Let's begin

In Exchange Server 2003 there are three different types of system mailboxes which are used by different components of the Exchange subsystems.

The three different system mailboxes are:

- SystemMailbox{GUID}
- System Attendant Mailbox
- SMTP <Servername--{GUID}> Mailbox

SystemMailbox{GUID}

Every private information store in Exchange Server 2003 has one SystemMailbox. The SystemMailbox will be created during the creation process of the private information store and will be deleted when the information store will be deleted.

A SystemMailbox consist of two parts:

The mailbox with its content in the corresponding information store

An associated directory object in the Microsoft Exchange System Objects – sometimes called MESO.

The next figure shows the three different types of system mailboxes.



Figure 1: Different types of system mailboxes

Active Directory Users and Computers

You can see the Microsoft Exchange System objects (MESO) in advanced view of the Microsoft Active Directory Users and Computers tool.

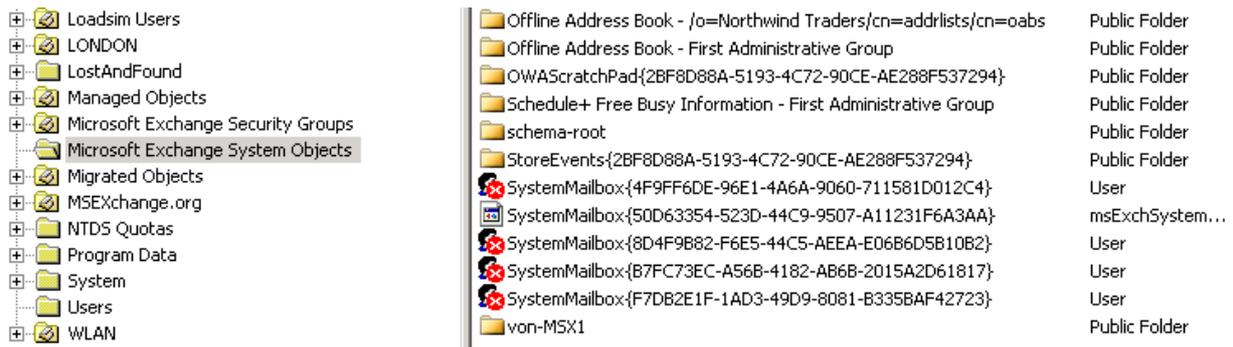


Figure 2: MESO objects in ADUC

ADSI Edit

You can use ADSI Edit from the Windows Server 2003 support tools to see the system mailboxes that are associated to the private information store.

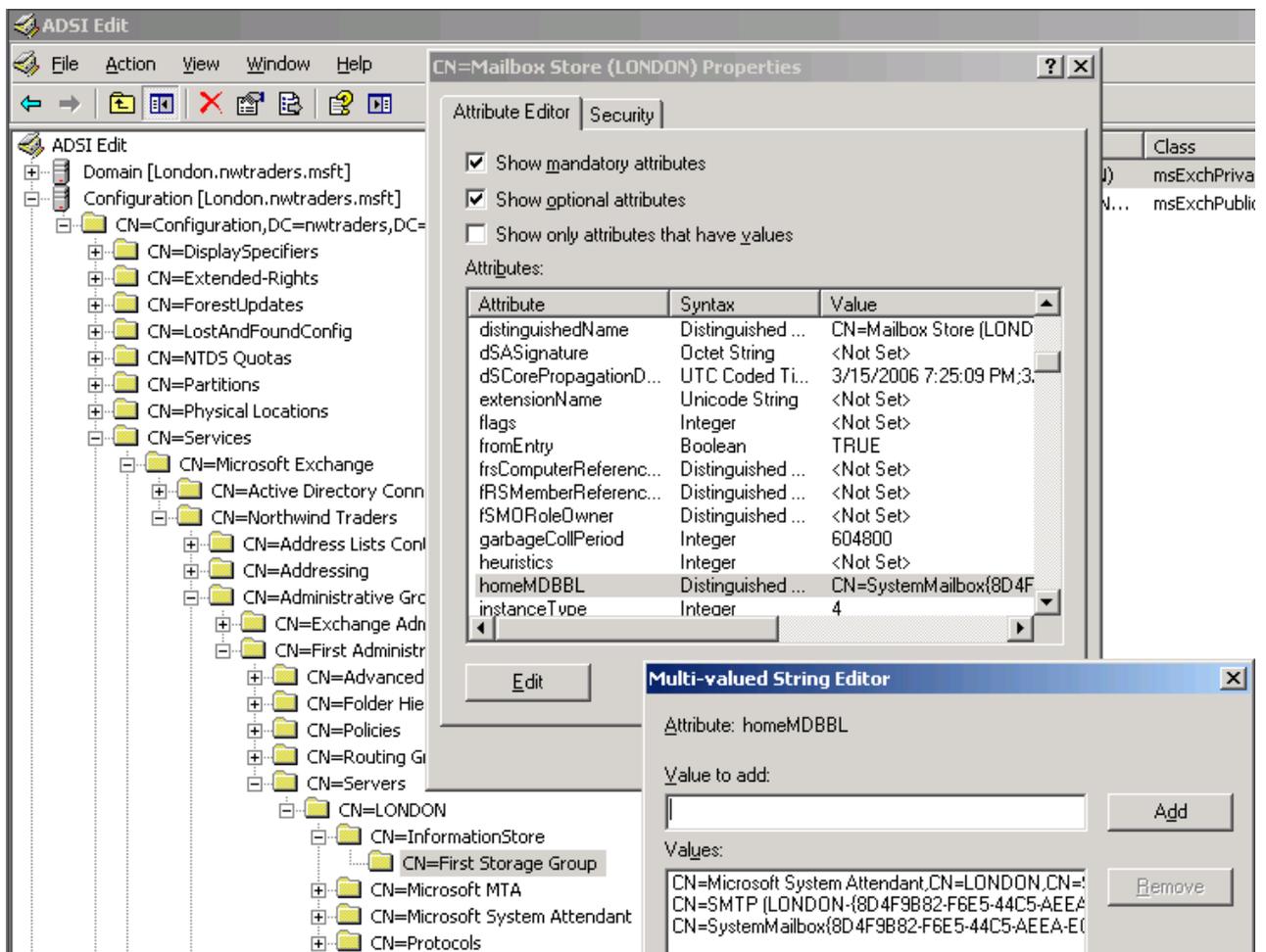


Figure 2: ADSI Edit

How to see the content of the SystemMailbox

Have you ever asked you what content the SystemMailbox has? Have you tried to open the SystemMailbox but without luck? If so, here is the answer. I will show you how to open the SystemMailbox.

There are different tools that allow access to the SystemMailbox and low level access to the store in general. One of the tools is the MAPI Editor, formerly MFCMAPI. Using the MAP Editor is free.

You will find the download link at the end of this article. But there are some steps before we can use the MAPI Editor.

Enable System Mailbox in ADUC

First, we have to enable the SystemMailbox in Active Directory Users and Computers. This is required because we need a configured MAPI profile to access the mailbox later via MAPI Editor.

Disable Hide from address book

The next step is to disable the Hide from Exchange address lists setting in Active Directory Users and Computers. This is required because without disabling this setting we cannot see the mailbox in the MAPI profile.

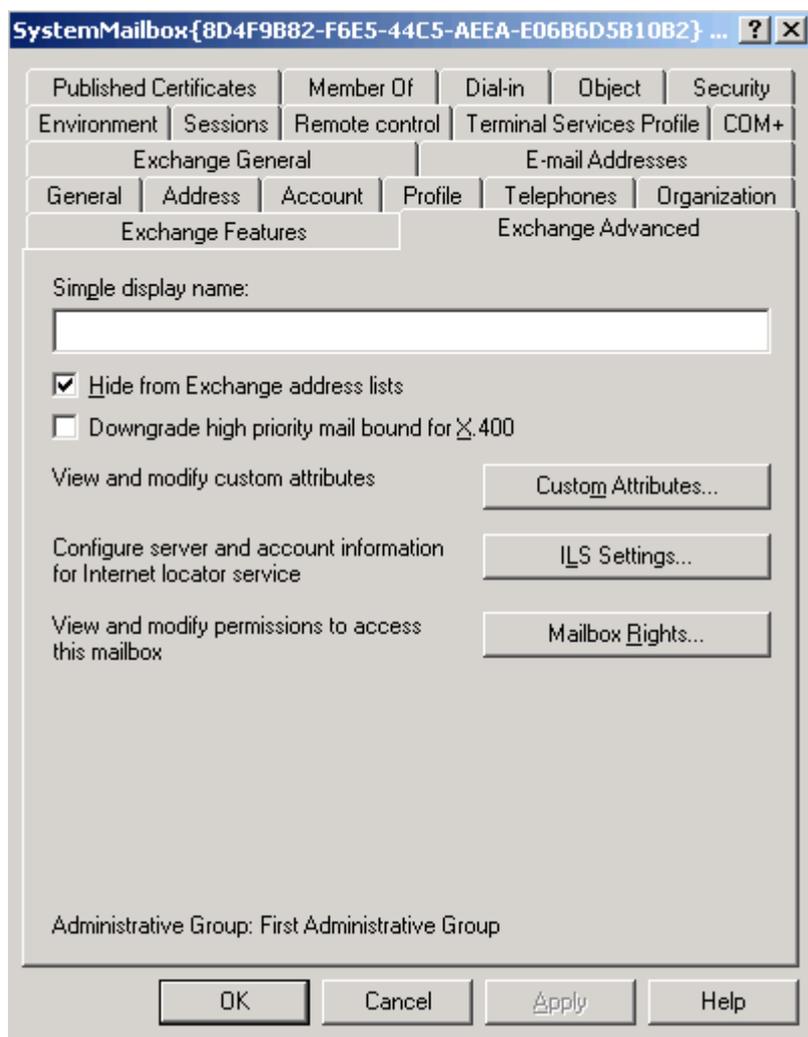


Figure 3: Disable Hide from address lists

Grant Full Mailbox Access (Send AS / Receive AS)

The account which will open the SystemMailbox requires full mailbox access, so you have to set the required permissions in ADUC (Active Directory Users and Computers).

Copy the Pre Windows 2000 logon name to clipboard

Because we need to create a MAPI profile for the SystemsMailbox you have to note the Pre Windows 2000 logon name. The easiest way is to copy the name to the clipboard.

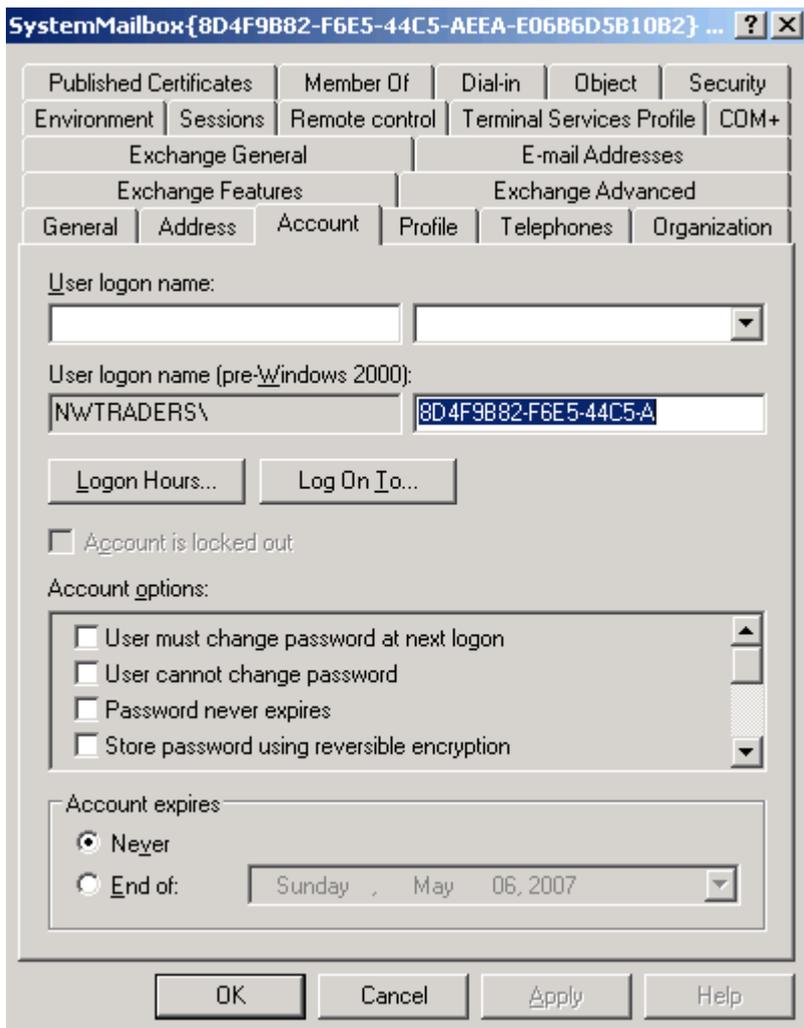


Figure 4: Pre Windows 2000 logon name

Create an Outlook Profile

As a next step you must create an Outlook profile for the SystemsMailbox. Use the pre Windows 2000 logon name shown in the following screenshot.

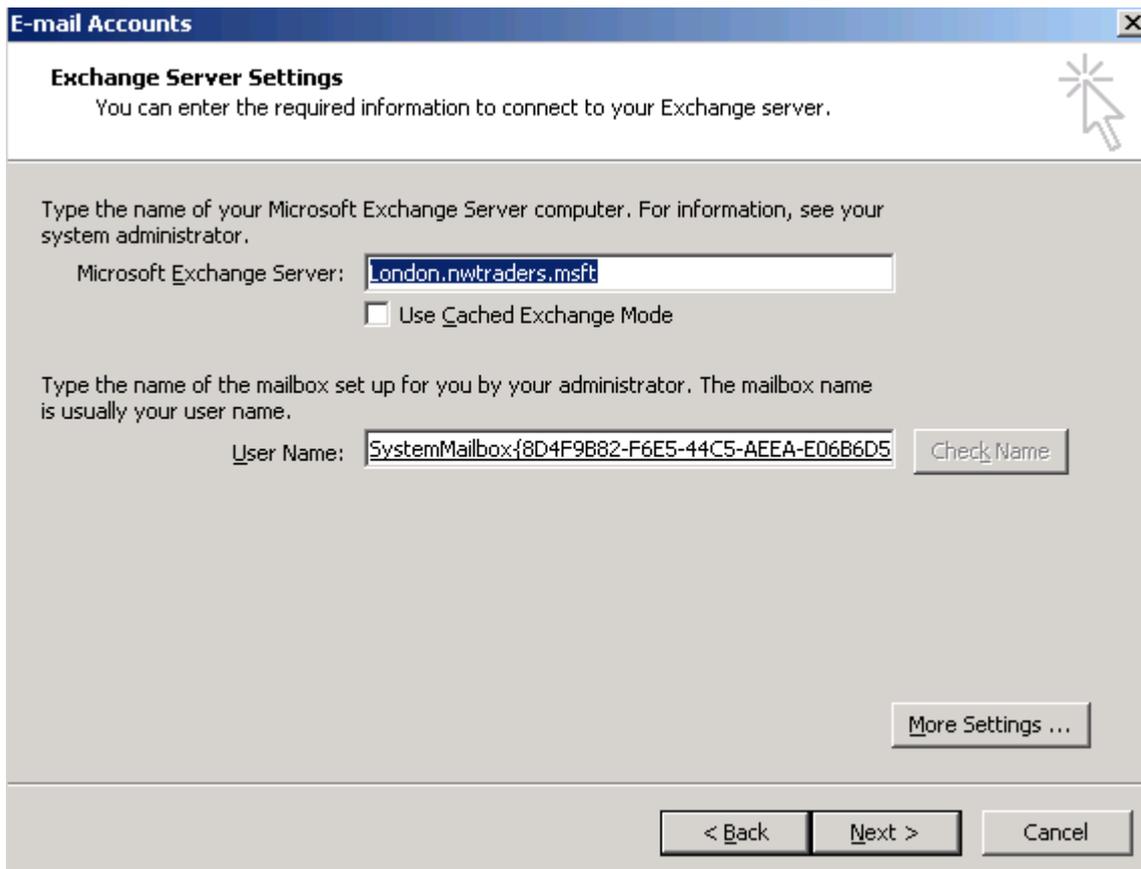


Figure 5: Create a MAPI profile for the SystemsMailbox

MAPI Editor

Now it is time to use the MAPI Editor to grant access to the content of the SystemsMailbox. After downloading and extracting the MAPI Editor files you can start the MAPI Editor.

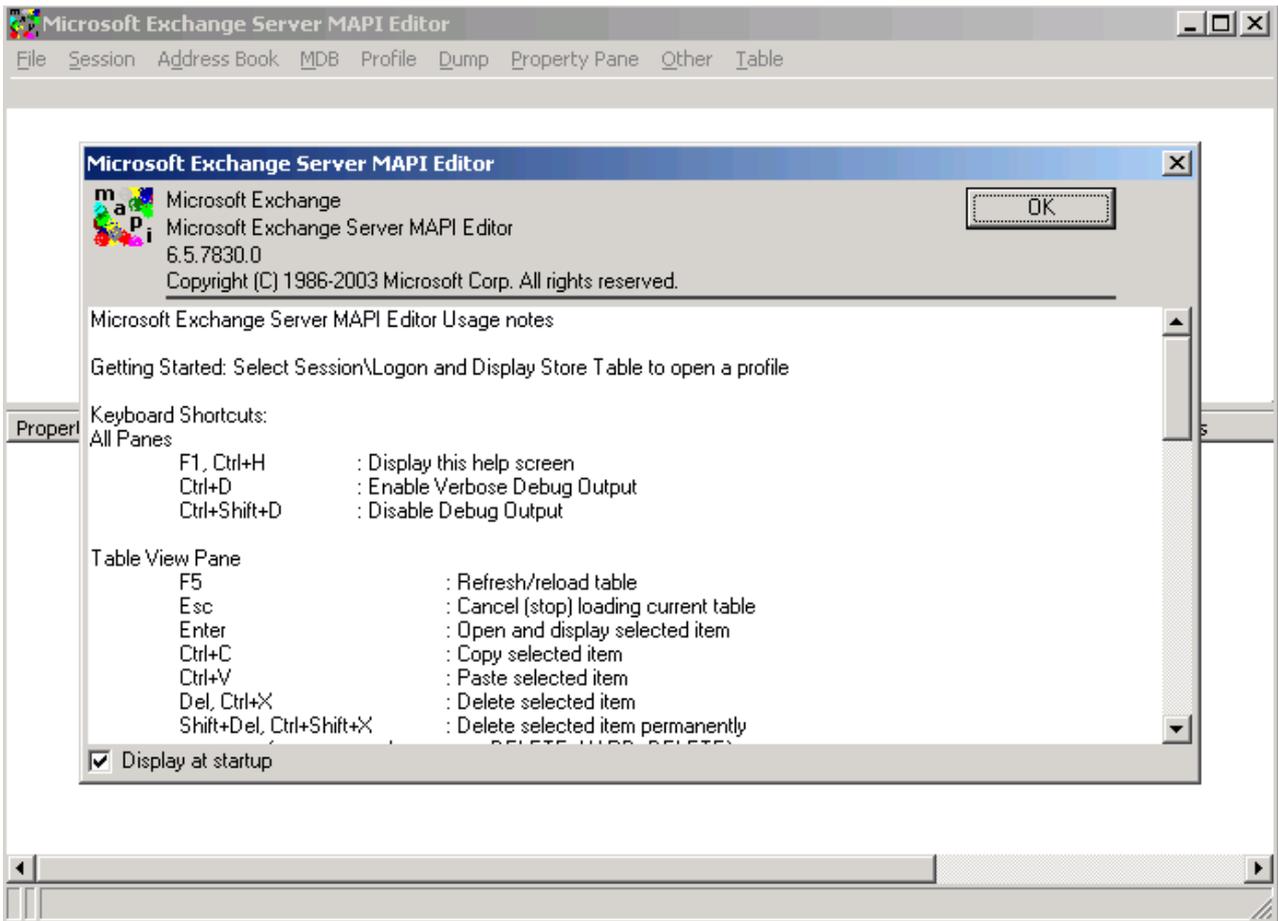


Figure 6: Microsoft Exchange Server MAPI Editor

To logon to the SystemsMailbox click – Sessions – Logon and Display Store Table – and select the previously created MAPI profile and logon to these profile. You will need permissions to access the mailbox. You can read more about how to grant permissions to a mailbox in the link at the end of this article.

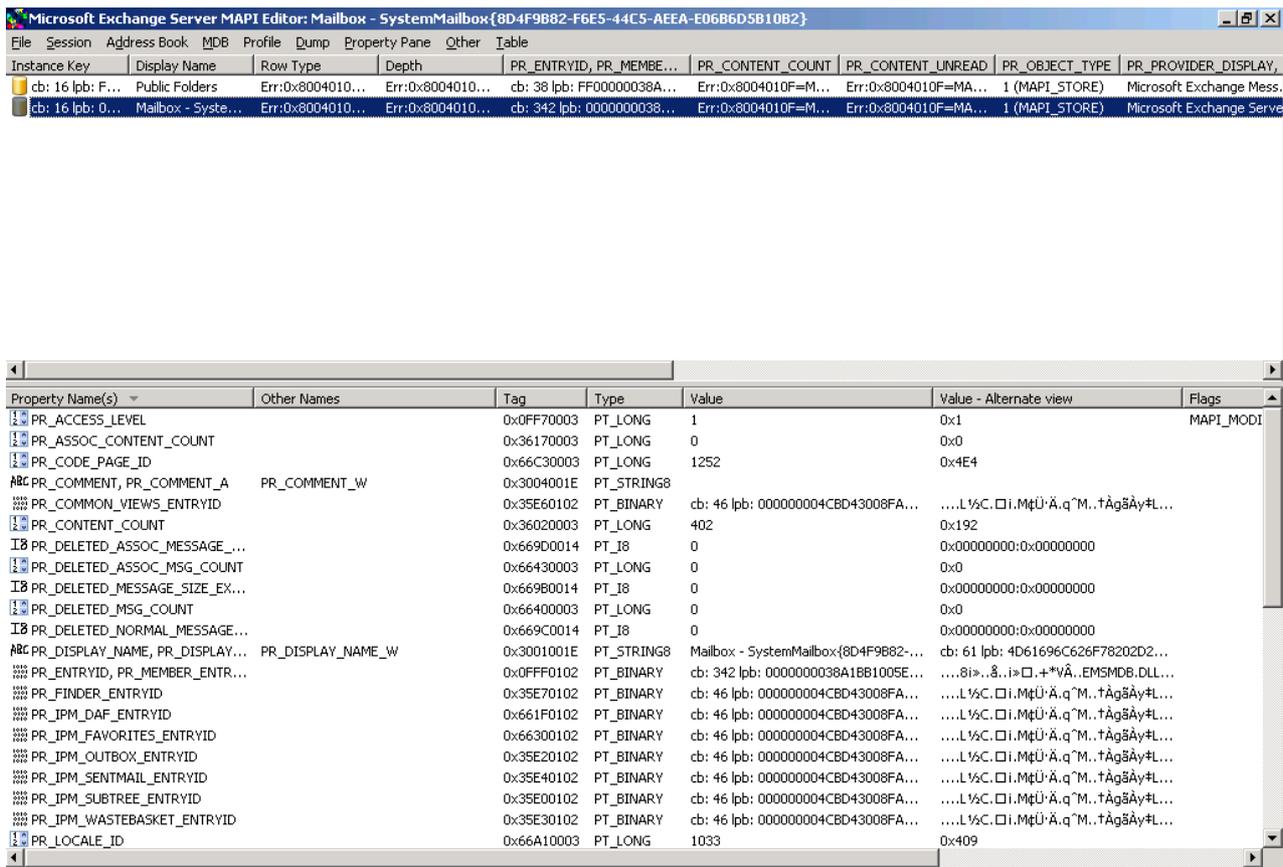


Figure 7: General SystemsMailbox overview

Doubleclick the SystemsMailbox and navigate through the Root Container to the “Top of the Information Store”. Here you will find the Inbox and other relevant mailbox properties.

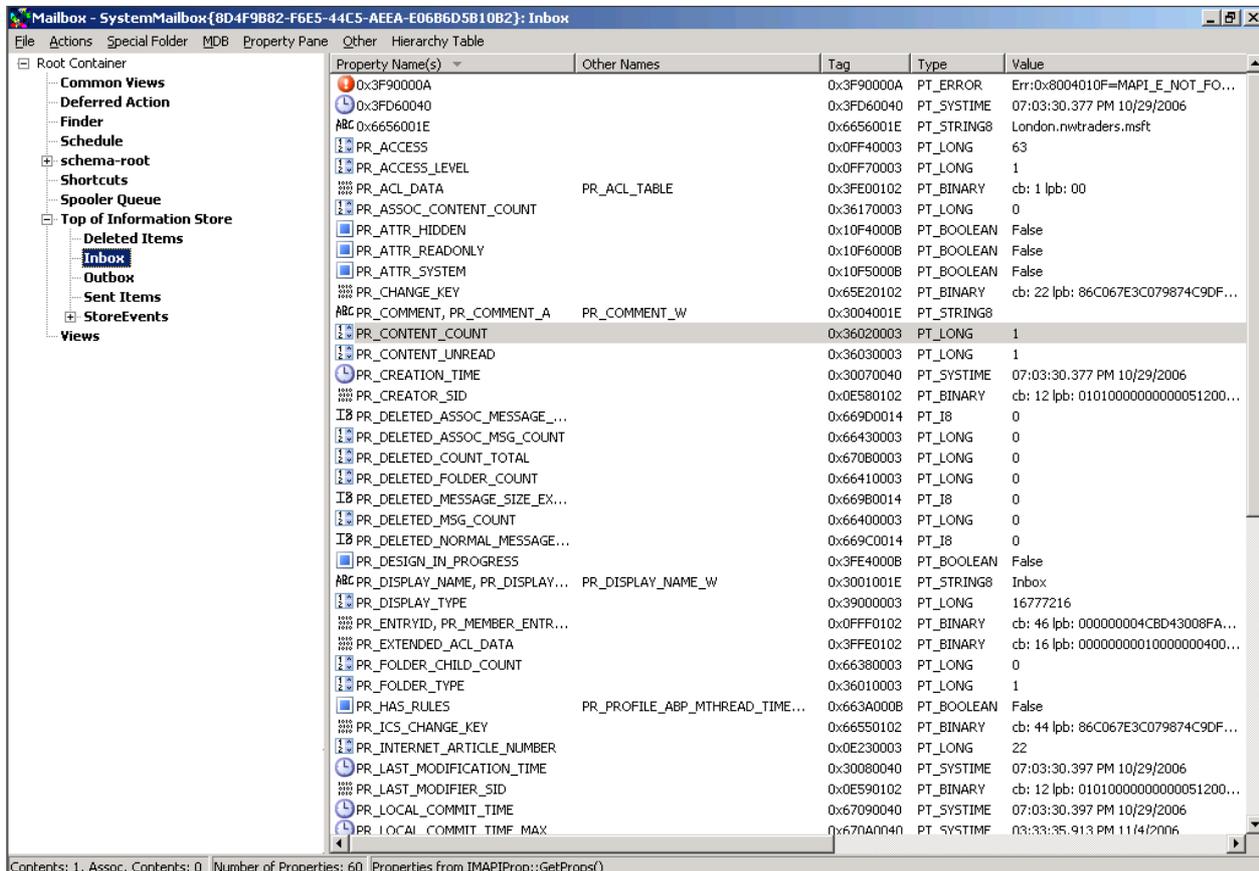


Figure 8: SystemsMailbox Inbox

To see the emails in the SystemsMailbox Inbox click Special Folder – Inbox as shown in the following screenshot.

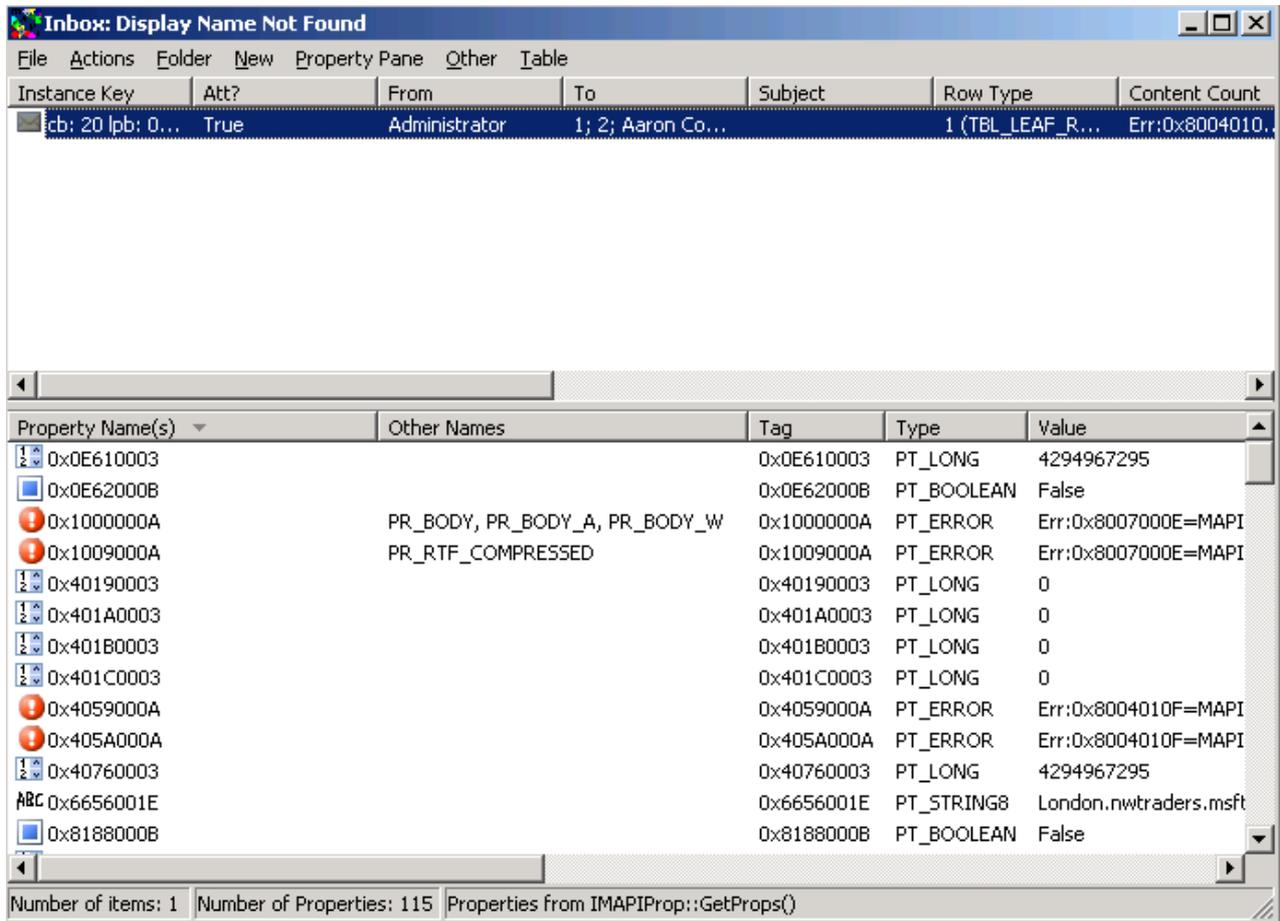


Figure 9: General SystemsMailbox overview

System Attendant Mailbox

Every Exchange Server has a System Attendant (SA) mailbox. The System Attendant mailbox will be created when the System Attendant service will be created during the Exchange installation process.

The System Attendant Mailbox also consists as two parts:

- A mailbox object in the first private information store
- A configuration object in the configuration partition of Active Directory

The System Attendant Mailbox has the following functions:

The System Attendant Mailbox contains the folder SpecialPrivateFolderForFreeBusyStorage, for Free/Busy information for Microsoft Outlook and CDO Applications (Collaboration Data Objects) which will be temporarily stored in MExchangeFBPublish.

The System Attendant Mailbox will also be used to send and receive Exchange monitoring messages for the Link Monitoring Service. You can find this function in the Exchange System Manager under Tools – Monitoring and Status.

Open the System Attendant Mailbox

The System Attendant Mailbox has no deactivated user account like the SystemMailbox so it is not so easy to open the mailbox. You must use MFCMAPI (Microsoft Foundation Classes API) to open the System Attendant mailbox.

SMTP <Servername--{GUID}> Mailbox

Every private mailbox store contains a SMTP mailbox to store temporary message. The SMTP mailbox will be generated when the private information store will be created and mounted. Every SMTP mailbox consists of two parts:

- SMTP mailbox in the corresponding private information store
- Active Directory object of class Mailgateway under –MailOrganization name – Connections.

The following screenshot shows the SMTP mailbox of the first private mailbox store.

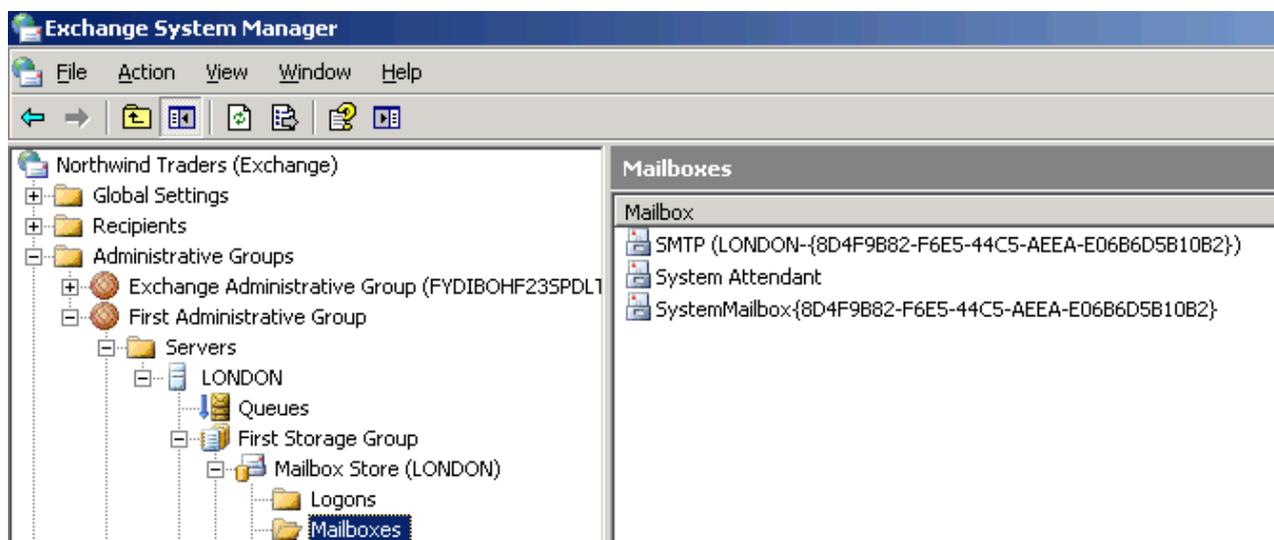


Figure 10: SMTP Mailbox

Open the SMTP Mailbox

You can also use the MAPI Editor to open the SMTP mailbox.

Instance Key (PR_INSTAN...)	Display Name (PR_DISPLAY_NAME::0...	E-mail Address (PR_EMAIL...	Locale (PR_LOCALE_ID::0...	Size
cb: 4 lpb: 07000000	SystemMailbox{79F03319-1355-4C8F...	/O=MAIL/OU=ERSTE AD...	1033	3691
cb: 4 lpb: 06000000	SMTP (EXS2003-{79F03319-1355-4C8...	/O=MAIL/OU=ERSTE AD...	0	0
cb: 4 lpb: 05000000		/O=MAIL/OU=ERSTE AD...	1033	9151
cb: 4 lpb: 04000000		/O=MAIL/OU=ERSTE AD...	0	137:
cb: 4 lpb: 03000000	SystemMailbox{124B56D8-BFC5-495F...	/O=MAIL/OU=ERSTE AD...	1031	3691
cb: 4 lpb: 02000000		/O=MAIL/OU=ERSTE AD...	1033	119:
cb: 4 lpb: 01000000	SMTP (EXS2003-{124B56D8-BFC5-495...	/O=MAIL/OU=ERSTE AD...	0	0
cb: 4 lpb: 00000000	Systemaufsicht	/O=MAIL/OU=ERSTE AD...	1033	0

Name	Tag	Type	Value	Value - Alternate view
PR_ASSOC_CONTENT_COUNT	0x36170003	PT_LONG	0	0x0
PR_CONTENT_COUNT	0x36020003	PT_LONG	0	0x0
PR_DISPLAY_NAME	0x3001001E	PT_STRING8	SMTP (EXS2003-{124B56D8-BFC5-4...	
PR_EMAIL_ADDRESS	0x3003001E	PT_STRING8	/O=MAIL/OU=ERSTE ADMINISTRAT...	
PR_INSTANCE_KEY	0x0FF60102	PT_BINARY	cb: 4 lpb: 01000000	□...
PR_LAST_LOGOFF_TIME	0x66A300...	PT_ERROR	Err:0x8004010F=MAPI_E_NOT_FO...	
PR_LAST_LOGON_TIME	0x66A20040	PT_SYSTIME	04:19:47PM 03/21/2006	Low: 0x456EE36C High: 0x...
PR_LOCALE_ID	0x66A10003	PT_LONG	0	0x0
PR_MESSAGE_SIZE	0x0E080003	PT_LONG	0	0x0
PR_MESSAGE_SIZE	0x0E080014	PT_I8	0	0x00000000:0x00000000
PR_NT_USER_NAME	0x66A0001E	PT_STRING8	?NT-AUTORITÄT\SYSTEM	
PR_STORAGE_LIMIT_INFORMATION	0x66A40003	PT_LONG	8	0x8

Number of items: 8 | Number of Properties: 12 | Properties from the row in the table

Figure 11: SMTP Mailbox properties

The following screenshot shows the TempTable space of the SMTP mailbox and the MTS-IN and MTS-OUT queue.

Name	Tag	Type	Value
0x3F90000A	0x3F90000A	PT_ERROR	Err:0x8004010F=MAPI_E_NOT_F...
0x3FD60040	0x3FD60040	PT_SYSTIME	00:03:53AM 04/03/2005
PR_ACCESS	0x0FF40003	PT_LONG	63
PR_ACCESS_LEVEL	0x0FF70003	PT_LONG	1
PR_ACL_TABLE	0x3FE00102	PT_BINARY	cb: 1 lpb: 00
PR_ASSOC_CONTENT_COUNT	0x36170003	PT_LONG	0
PR_ATTR_HIDDEN	0x10F4000B	PT_BOOLEAN	F
PR_ATTR_READONLY	0x10F6000B	PT_BOOLEAN	F
PR_ATTR_SYSTEM	0x10F5000B	PT_BOOLEAN	F
PR_CHANGE_KEY	0x65E2000A	PT_ERROR	Err:0x8004010F=MAPI_E_NOT_F...
PR_COMMENT	0x3004001E	PT_STRING8	<NULL String>
PR_CONTENT_COUNT	0x36020003	PT_LONG	0
PR_CONTENT_UNREAD	0x36030003	PT_LONG	0
PR_CREATION_TIME	0x30070040	PT_SYSTIME	00:03:53AM 04/03/2005
PR_CREATOR_SID	0x0E580102	PT_BINARY	cb: 12 lpb: 010100000000000512
PR_DELETED_ASSOC_MESSAGE_SIZ...	0x669D0014	PT_I8	0
PR_DELETED_ASSOC_MSG_COUNT	0x66430003	PT_LONG	0
PR_DELETED_COUNT_TOTAL	0x670B0003	PT_LONG	0
PR_DELETED_FOLDER_COUNT	0x66410003	PT_LONG	0
PR_DELETED_MESSAGE_SIZE_EXTEN...	0x66980014	PT_I8	0
PR_DELETED_MSG_COUNT	0x66400003	PT_LONG	0
PR_DELETED_NORMAL_MESSAGE_SI...	0x669C0014	PT_I8	0
PR_DESIGN_IN_PROGRESS	0x3FE4000B	PT_BOOLEAN	F
PR_DISPLAY_NAME	0x3001001E	PT_STRING8	<NULL String>
PR_DISPLAY_TYPE	0x39000003	PT_LONG	16777216
PR_ENTRYID	0x0FFF0102	PT_BINARY	cb: 46 lpb: 0000000058C4A96A1A...
PR_EXTENDED_ACL_DATA	0x3FFE0102	PT_BINARY	cb: 16 lpb: 000000000100000004...
PR_FOLDER_CHILD_COUNT	0x66380003	PT_LONG	5
PR_FOLDER_TYPE	0x36010003	PT_LONG	0
PR_HAS_RULES	0x663A000B	PT_BOOLEAN	F

Contents: 0, Assoc. Contents: 0 | Number of Properties: 59 | Properties from IMAPIProp::GetProps()

Figure 12: SMTP Mailbox TempTable properties

The folders MTS-IN and MTS-OUT are used by Exchange Deployment Kit (EDK) connectors to transfer messages between the MTA (Microsoft Exchange Transport Agent) and the information store (store.exe) of Exchange. They are also used for X400 connectors, Exchange site connectors, and connectors for fax.

Conclusion

I hope you now have a better understanding about the different type of system mailboxes in Exchange Server 2003 and you will now know how to open the content of these mailboxes with tools like MAPI Editor. The MAPI Editor is a very powerful tool and I can recommend to you that you should spend some time learning the powerful features of the MAPI Editor.

Related Links

MAPI Editor Download

<http://www.microsoft.com/downloads/details.aspx?FamilyID=55fdffd7-1878-4637-9808-1e21abb3ae37&DisplayLang=en>

More information about the MAPI Editor

http://blogs.msdn.com/stephen_griffin/archive/2006/06/07/621138.aspx

Exchange Server 2003 Mailbox Management

<http://www.msexchange.org/tutorials/Mailbox-Management.html>

How to grant Full Mailbox Access to an Exchange Server 2003 mailbox

http://www.petri.co.il/grant_full_mailbox_rights_on_exchange_2000_2003.htm