Installation, administration
& user guide
For Exchange 2000/2003

- No client software required
- No schema changes in active directory
- Security managed via AD security groups
- Message controls via Exchange Server
- Scaleable from Microsoft Small Business Server to the largest enterprise networks in the world.

Software version msXmms 1.5
15 April 2005
Documentation version 1.5c

with commitment comes success
Installation, administration and user Guide

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With Commitment comes Success
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Figure 1: High level diagram showing that msXmms can be implemented on a Windows 2000/2003 computer in the same Active Directory domain as your Exchange 2000/2003 server 10
Foreword

BNS Group would like to thank the following people and organizations for making msXmms a world class product:

- To all our staff and their families for working tirelessly to deliver undoubtedly the best value for money product available for Microsoft Exchange 2000/2003 & Exchange 5.5
- To Steve Taylor Director, Mobile Messenger and Shaun Collopy Director, Solmobile for working with BNS to provide customers with first class SMS and MMS delivery capabilities.
- To Kerstin Baxter Director Microsoft Partner Group and her staff for delivering the best partner programme helping ISV’s deliver great solutions for customers.
- To Alistair Cloke the initiatives of Channel Builder in Australia have helped build a channel for BNS technology.

Thank You.
1 Introduction

This guide is designed to provide administrators and technical staff with a comprehensive set of instructions to install, deploy and manage msXmms within an enterprise network or even on a single LAN installation using say Microsoft Small Business Server.

Technology: BNS Group has made significant investments in upgrading its technology to take advantage of Microsoft’s new platform.

<table>
<thead>
<tr>
<th>Integration</th>
<th>Technology used</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Directory</td>
<td>ADSI, LDAP &amp; ADO</td>
<td>msXmms does not extend the schema which makes it attractive to enterprises both large and small.</td>
</tr>
</tbody>
</table>
| Exchange 2000/2003 | SMTP & POP3 | msXmms uses a standard Microsoft SMTP Connector which is configured by you.  
It is so easy. Administrators appreciate this approach because no 3rd party Exchange components have to run on your Exchange server.  
In terms of Exchange 2000/2003, your system can remain a 100% pure Microsoft Exchange environment.  
Customers with Microsoft Small Business Server (SBS) can installed msXmms on their SBS computer. |

1.1 Architecture

An understanding of the architecture of any product will help you understand the fundamental benefits to be gained from such a product.
1.1.1 **High Level diagram: corporate & government customer implementations**

As can be seen in Figure 1, msXmms can be installed on a Windows 2000/2003 member server or domain controller.

![Diagram of high level diagram showing that msXmms can be implemented on a Windows 2000/2003 computer in the same Active Directory domain as your Exchange 2000/2003 server](image)

msXmms can be installed on: Windows Server 2003, Windows 2000 Server, Windows 2000 Advanced Server. Windows servers can be Domain Controllers or member servers.
1.1.2 **High Level diagram: implementation on Microsoft Small Business Server**

msXmms requires only a small amount of memory to service requests to send SMS and MMS messages. Implementation on SBS is very simple.

---

**Figure 2:** High level diagram showing that msXmms can be implemented on Microsoft Small Business Server (2000 or 2003)
1.1.3 **Software components**

msXmms uses the latest Microsoft recommended technologies to integrate and interact with key Microsoft services: Active Directory Services and Microsoft Exchange 2000/2003 server using Industry standard protocols for message transmission with Exchange Server.

ADSI interacts with Active Directory Domain Controllers, SMTP & POP3 interacts with the Exchange server. In many instances, the Exchange server is also a Domain Controller/Global Catalogue Server (for more information on Domain Controllers and Global Catalog servers, refer to Microsoft’s Exchange 2000/2003 server and Windows 2000/2003 Active Directory resource and planning guides).
1.2 Quick Start Guide for the technical gurus

1.2.1 Can I receive SMS replies to my mobile phone

Yes, the mobile phone number field in AD is used to specify which mobile phone number will be used as the sender’s mobile phone for the SMS message.

Note: The mobile number must be in the international format as shown above.

msXmms can use the existing mobile phone number field in AD as the sender mobile phone for this user when they send an SMS or MMS message.

For large enterprise customers with many thousands of users, deployment time is a critical factor. Many large customers will generally have replies going directly to the mobile phone number of the user rather than paying additional fees for virtual mobile phone numbers. See next section.

1.2.2 Can I receive SMS replies in my inbox

Some users such as sales managers, personal assistants and other key staff who must have replies coming back to their Outlook Inbox can have a virtual mobile number assigned in their mobile phone field in AD.
The only guaranteed way to provide a reply path back to a user’s Outlook Inbox is to subscribe to a mobile number for that user which is held with a service provider such as Mobile Messenger. The mobile number is entered in the Active Directory (AD) mobile field after their normal mobile phone number. msXmms looks for a colon “:” and expects to see an internationally formatted phone number with a + symbol immediately following the colon. Do not use brackets, spaces or dashes in the mobile number which follows the colon.

Vendors who claim to offer SMS replies to Outlook without implementing a one for one numbering mechanism can’t guarantee to you that replies will go to the intended party.

As a matter of interest, the Fax number field is used by msXfax XP for Exchange to route incoming faxes from ISDN/T1 and types of incoming fax services supported by msXfax XP.

1.2.3 **Can I receive MMS replies in my inbox**

MMS protocols are richer and provide more options for replies.

BNS and Mobile Messenger will deliver 2 way MMS in a future release of msXmms. MMS is not available in release 1.5

1.2.4 **Can my Outlook Web Access users send SMS messages?**

Yes.

OWA users can send to Outlook contacts and GAL Contacts and SMS recipients contained within Distribution Groups/Lists. One off addressing (msXmms domain
One off addressing is simply typing the email address `number@gateway.sms` in the TO or CC field in Outlook/OWA.

- OWA users can define a contact’s SMS message address just like a regular email address. The addressing format is known as msXmms domain addressing. A second email address is built into OWA contacts which can be used for a SMS message address.

- The above example shows how OWA Contacts can be defined with a regular email address and a SMS message address.
Selecting Bill Smith’s SMS address is just another email address.

### 1.2.5 Can all my users send a SMS message?

YES. msXmms by default allows all users to send SMS messages.

### 1.2.6 Can I use a Security Group to control access to a SMS message server?

YES. msXmms allows a network administrator to define a security group in an OU in a Domain to control access to send SMS messages.

### 1.2.7 Does msXmms Security Group access controls support nested security groups?

YES, however, **Nested Groups from other Domains are NOT Supported**. To allow users from other domains in the same forest to send SMS messages directly to your msXmms server in your domain; you have to specifically add the user to the SMS Enabled Universal Security Group in your domain.

### 1.2.8 I want all users to be able to send SMS messages, should I use the SMS Enabled Security Group?

NO. Just take the defaults which allow all users to send a SMS message. Messages are still authenticated via an email address lookup to AD. We assume

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone</th>
<th>E-mail</th>
<th>Office</th>
<th>Job title</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith, Bill</td>
<td><a href="mailto:b.smith@test.com">b.smith@test.com</a></td>
<td>Director BNS Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smith, Bill</td>
<td><a href="mailto:6141.2365931@gateway.sms">6141.2365931@gateway.sms</a></td>
<td>Director BNS Group</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---
your firewall prevents spoofing. msXmms always checks the sender’s email address against AD to ensure that the sender’s email address is an AD user object.

1.2.9 Is msXmms affected by anti-virus software products?

msXmms is fully tested with Norton Anti-Virus Corporate edition during BNS Group quality assurance tests. ETrust from Computer Associates is known to be intrusive on files created by msXmms causing msXmms to fail. Customers using ETrust should take appropriate action to prevent msXmms files and processes from being impacted by ETrust.

1.2.10 Does msXmms run on Windows Server 2003?

YES. msXmms has been tested on Windows Server 2003.

1.2.11 Does msXmms support Exchange 2003 Server?


1.2.12 My company does not use Active Directory DNS Server. Will msXmms work?

Good question. This depends on how well the DNS system you’re using provides all the necessary SRV records and other records required for an Active Directory environment. msXmms can use a local database for sending.

1.2.13 How does msXmms handle failures in Exchange 2003 Server?

Good question. Most other SMS message products crash when the Exchange Server services fail or are stopped. This is because most other SMS message products use Extended MAPI based gateways (Connectors). msXmms is not affected by Exchange being stopped or any individual services being stopped. Of course, no SMS messages will flow in or out of Exchange in all situations.
1.2.14  **How does msXmms handle failures in Global Catalog Servers?**

Another Good question. other SMS message products which are Active Directory aware typically require an LDAP/global catalog server to be hard coded in the configuration.

msXmms dynamically binds to the next available Global Catalog Server in the AD Site or another GC which responds to ADSI queries.

msXmms is therefore not affected by a GC failure if other GC’s are available in the site or enterprise.

msXmms uses Microsoft Active Directory Services Interface (ADSI) to establish which GC it should query against. A failure in a GC therefore should not impact on msXmms if the customer has designed their AD correctly. At least 2 GC’s should be available in a site. Architects should also provision at least 1 GC per domain per site.

**Note:** msXmms also allows a network administrator to manually define which GC will be used.

1.2.15  **Can I install msXmms in a pure Exchange 5.5 environment?**

YES. However, msXmms must be installed on a Windows 2000 Server or Windows 2003 server which is not an Exchange 5.5 server.

1.2.16  **Can I install msXmms on an Exchange 2000/2003 (or SBS 2000 server running Windows 2000 server operating system)?**

If you are using Windows 2000 Server family of products including SBS 2000 you must disable socket pooling. See Microsoft knowledge base article Q310155.

1.2.17  **How is msXmms licensed?**

msXmms is licensed based on expected maximum throughput per day. The license is therefore scaled from small business through to enterprise customers. Annual license includes technical support and software downloads from [www.bnsigroup.com.au](http://www.bnsigroup.com.au).

1.2.18  **Can I install msXmms on SBS 2003 server?**

YES. msXmms can be installed on SBS2003.
1.2.19 Can I install msXmms on a Domain Controller?

Yes.

1.2.20 Can I install msXmms on a server which is configured with msXfax XP?

YES. msXmms can run on the same server along side msXfax XP. A secondary IP address is assigned to the network card.

For example:
- A member server for msXfax and msXmms would have 2 IP addresses assigned to a network card. One IP address is assigned to msXfax and the other to msXmms.
- An Exchange/SBS server with msXfax and msXmms would have 3 IP addresses assigned to a network card. One IP address is assigned to Exchange SMTP virtual server, one assigned to msXfax and the other to msXmms.

1.2.21 Does msXmms require any specific add-in hardware?

NO.

1.2.22 What Exchange Service packs and registry considerations are there?

- Exchange 2000 SP2 or better is required.
- Exchange 2003 Server is supported.
- Exchange 2003 Server SP1 and above is supported.

1.2.23 What permissions do I need to install msXmms?

To install software on a Windows member server you will need Administrator rights to the local server. Typically, we would expect you to logon as a Domain Administrator account to install msXmms.

You or your Exchange Administrator will need to login to your Exchange server with sufficient permissions to: Configure various Exchange options, add an SMTP connector and create an Active Directory user for use by msXmms.

1.2.24 What permissions does the msXmms administrator need?

This is fully documented in this guide. If your administrator is in fact a member of the Domain Admins or Administrators local group (of the Windows member server), they have sufficient permissions to administer msXmms. If you
organization uses delegated administration through Active Directory and set up ‘pseudo administrators’ (delegated rights in AD, Server Operator and Backup Operator for example) **they will not have sufficient rights to administer msXmms.**

For pseudo administrators you could add one of their Global Security Groups or their individual account to be a member of the local Administrators Group on the Windows computer. Full control permissions are essentially required on the registry keys Local Machine\...\. BNS Applications for your pseudo administrator to successfully use msXmms’s console. Alternatively, you could apply specific permissions to the registry key via REGEDT32. Different customers have their own ways of implementing security. Whichever way you decide to implement your security, the above should help you control access to msXmms management console functions.

1.2.25  **Does msXmms service need to logon with account permissions?**

All msXmms service accounts run in the context of local system.

1.2.26  **What end user security considerations are there?**

For any user to send a SMS message they must be explicitly allowed though Active Directory or via any facilities presented in msXmms configuration properties. This avoids external users being able to send SMS messages if they happen to guess or know the name of the msXmms mailbox in Exchange 2000/2003. For a user to send a SMS message they must be in Active Directory. The only exception to this rule is limited support in Exchange 5.5 customer sites.

1.2.27  **Is msXmms suitable for hosted Exchange environments?**

BNS Group designed msXmms and msXfax to be used in managed Exchange environments. BNS Group products allow hosted Exchange service providers to offer value added services to customers without affecting their Microsoft core platform.

1.2.28  **What do I install on my users’ PC?**

- Outlook 2000 or Outlook 2002 (Office XP), Office 2003 or better is required.
1.2.29  What do I need to know about Active Directory?

**Good news!** The news that Exchange Administrators want to hear. msXmms does not extend or modify the schema in any way.

You will be pleased to know that msXmms does not extend or modify the schema. Therefore, you can install msXmms without Schema Admin rights. Domain Administrator rights or local Administrator rights for Windows member servers will be sufficient to install msXmms together with your Exchange Administrator (Full) account capable of creating an SMTP Connector and configuring other options in Exchange System Manager.

1.2.30  Can I run msXmms and msXfax on the same server?

Yes. msXfax uses 1 IP address on a network card whilst msXmms uses another IP address.

1.2.31  Can I run msXmms and msXfax on an Exchange Server?

Yes. 3 IP addresses should be assigned on a network card. One for Exchange Server, one for msXfax and one for msXmms. **Note: you must use Exchange System Manager to specify that the SMTP Virtual Server in Exchange uses 1 of the assigned IP addresses.**

1.2.32  Where do I get help?

- BNS Group has implemented a customer self help service and technical support tracking system. To use the system for pre sales questions or post sales support (to track and manage your support requests) use the link [http://mycusthelp.com/bnsgroup/](http://mycusthelp.com/bnsgroup/) or simply select Support from the BNS Group web site [http://www.bnsgroup.com.au](http://www.bnsgroup.com.au)

- ALL customers must use the above support system.

- BNS monitors its web based support systems approximately 18 hours per day.
2 Installation pre-requisites & considerations

This guide is designed to provide administrators and technical staff with a comprehensive set of instructions to install, deploy and manage msXmms within an enterprise.

2.1 Pre-requisites of your SBS or Exchange 2000/2003 Server

Your SBS or Exchange 2000/2003 mode of operation can be either Mixed mode or Native mode Exchange.

2.1.1 Domain considerations

msXmms can be in any domain or child domain.

Unless you are using SBS Server, it is recommended that the Windows 2000 or Windows 2003 msXmms server computer be a member server in the same domain as your Exchange server.

Using Security Groups to control access to msXmms servers should be done at domain level. Consideration of nesting security groups across domains to form part of a universal security group is also possible. **msXmms will ONLY authenticate security groups against the domain to which it is a member of.** To allow users from another domain access to this SMS message server, those users need to be a member of a group eg: “SMS Enabled” security group in the domain to which msXmms is a member of. Nesting Groups to a Universal Group is also supported which could help provide controls across an enterprise with many domains.

2.1.2 Schema

- MsXmms does not extend the schema.
- Installer permissions do not require Schema Administration rights. Domain Admin rights is sufficient for most installations. Installation on Windows
member servers only requires local administrators group permissions to install msXmms.

### 2.1.3 Exchange Server Service pack considerations

msXmms will operate in conjunction with an Exchange server(s) which has the following:

<table>
<thead>
<tr>
<th>Exchange release</th>
<th>Service Pack</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>Service Pack 2 or better</td>
<td>Or better</td>
</tr>
<tr>
<td>2003</td>
<td>SP0, SP1</td>
<td>Or better</td>
</tr>
</tbody>
</table>

### 2.2 Pre-requisites of your msXmms server

msXmms can be installed on a SBS or Exchange Server or any other member Windows 2000/2003 server.

msXmms can be installed on an existing msXfax server. An additional IP address is required for msXmms.

msXmms does not use much memory or disk space for normal operations. Disk space is used for auditing of messages.

Therefore, it is important to carefully plan archiving of audit messages.

### 2.3 Inter-operability with other applications

#### 2.3.1 File pickup option

The next release of msXmms will have a built-in file pickup option.

Any application can create files in a pickup directory for transmission to mobile phones. Refer to the section of this manual which describes how the files are formatted.
2.3.2 Finance One from Technology One

Finance One can send SMTP email with msXfax (FAX=phone number) and msXmms freeform addressing (SMS=phone number) in the memo body. Finance One runs from a user’s workstation sending the SMS message over the MAPI session of the user to Microsoft Exchange.

Technology One can be reached via [www.technologyonecorp.com](http://www.technologyonecorp.com)

2.3.3 SAP Connectivity Exchange 2003

At the time of writing this documentation, SAP did not have an Exchange 2003 compliant Connector.

However, SAP version 6.1 and higher has SMTP support is integrated into the SAP system. Therefore there is no requirement for an Exchange Connector.

2.3.4 SAP Connectivity Exchange 2000

The following information is provided for your convenience and is available from [http://www.sapgenie.com/interfaces/exchange.htm](http://www.sapgenie.com/interfaces/exchange.htm)

The new version of the SAP Exchange Connector (version 2.0) connects the Microsoft Exchange 2000 Server to the SAP system. This enables SAP applications and SAP users to send SMS messages.

Note that SAP Exchange Connector 2.0 is compatible only with Microsoft Exchange 2000 Server, and not with any earlier versions. (Both native mode and mixed mode are possible for the interaction between Windows and Exchange.)

Recommendations SXC version 2.01 with Patch level 2.04

The SXC need Outlook 2000 or Outlook XP with Sp2 on the E2K server where the connector will be installed.

The SAP Exchange Connector controls message receipt, message conversion and message transport between Exchange and SAPconnect, the SAP system’s communications interface. This mean that connectors installed on the Exchange server (gateways) can also be used from the SAP system. Examples include:

- SMTP Connector
- TCP X.400 Connector
- X25 X.400 Connector
- Third-party SMS message connectors for Exchange
msXmms uses Microsoft’s SMTP Connector. Therefore, as Microsoft implement newer versions of Exchange server, msXmms Connectivity with Exchange server will be automatically provided by virtue of msXmms architecture supporting SMTP.

The SAP Exchange Connector exchanges messages with the SAP communications component SAPconnect by SAP Remote Function Call (RFC). The RFC used here is based on the transport protocol TCP/IP.

The communication between the SAP Exchange Connector and Exchange takes place using RPC mechanisms. The RPCs can be transported locally or using the LAN protocols TCP/IP, NetBEUI, IPX/SPX, or Banyan Vines.

The SAP Exchange Connector is made up of three Microsoft Windows 2000 system services. These services can be installed either on an Exchange server or, to distribute the load, on a separate Microsoft Windows 2000 computer.

The RFC Out service takes messages from the SAP system and transfers them via a queue to the Gateway service, which then forwards them to the Exchange MTA. Incoming messages flow via the Gateway service and the RFC In service, which then forwards messages to the SAP system.
2.3.4.1 Which field to use in SAP?

Field number 2 (Email Internet address) is the field you should use with msXmms Domain addressing.

For example:

61412860510@gateway.sms

gateway.sms message is address space assigned to the SMTP Connector in Exchange Server which routes messages to msXmms’s in-built smart host called msXmms Routing Engine.
3 Tasks for preparing to install on SBS or on the Exchange server

**msXmms does not have to install Exchange Servers. Some customers do not have more than 1 server. Therefore, msXmms can be configured to install on Exchange Server if required.**

The following documentation is provided to assist technical staff install msXmms on Exchange Servers. To successfully install msXmms on your Exchange 2000/SBS server your certified technical staff must perform some tasks which are governed by Microsoft and assign an additional IP address on the Internal network card of your Exchange Server.

### 3.1 SBS 2000 pre-requisites and considerations

- For Windows 2000 Servers, SP2 as a minimum must be installed
- For Exchange 2000 server, SP2 as a minimum must be installed.
- Make sure that you backup your complete server before making any changes.

**Certified staff:** We assume that the person reading this documentation has a very good understanding of the SBS environment.

- Backup your entire server.
- We recommend that you ghost your SBS 2000 server using Symantec Ghost software or similar product.
- Contact your local Microsoft Certified Partner if in any doubt.
3.2 Assigning an additional IP address

**Note:** These instructions apply to ALL SBS and regular Exchange servers if you intend to install msXmms on the SBS/Exchange server itself.

In order for msXmms to listen on port 25 (SMTP) and for Exchange 2000+ server (including SBS 2000+) to listen for regular SMTP traffic; it will be necessary to add another IP address to the internal network card of the Exchange/SBS server.

- Select Start
- Select Control Panel
- Select Network Connections
- If you have SBS with a dual Ethernet connection configuration make sure that you pick the Internal network card (typically this is 192.168.16.nn). The example below shows a different range but this is only an example.

- Select the Server local area connection
- Select Properties
- Select "Internet Protocol (TCP/IP)
- Select Advanced

![Internet Protocol (TCP/IP) Properties](image)

![Advanced TCP/IP Settings](image)

- Add another IP address eg: 192.168.100.4
- Reboot your Exchange / SBS server
3.3 Disable SMTP Socket Pooling on SBS2000/Windows 2000

Note: instructions in this section only apply to SBS 2000 and Windows 2000 Server family BUT only where you are installing msXmms software on the Exchange / SBS computer.

Exchange 2003 If you have SBS 2003 or Windows 2003 Server – skip this section and proceed to the next section “Change SMTP Virtual Server”.

MDUTIL.EXE is a Microsoft tool. MDUTIL-01.BAT is a batch file prepared by BNS Group in accordance with Microsoft Knowledge base article Q310155 to disable SMTP socket pooling. This essentially allows Exchange servers to be configured to listen on a specific IP address and allow msXmms and any other smart hosts to listen on other IP addresses. MDUTIL and MDUTIL-01.BAT can be downloaded from BNS Group’s knowledge base at www.bnsgroup.com.au

Our assumption is that your Exchange /SBS Server has been configured with only 1 SMTP Virtual Server. If your server has been configured with multiple SMTP virtual servers you’ll need to follow the knowledge base article above to apply the same to other SMTP virtual servers. There may be other considerations if you’re using SBS, if that is the case, please discuss this with your Microsoft Certified Partner.

- To prove this is correct please do the following:
- Select Start, Run a program, type CMD
- Type NETSTAT -NA > A.TXT
- Type Notepad A.TXT
- You should see a list of addresses as shown below

Active Connections

<table>
<thead>
<tr>
<th>Proto</th>
<th>Local Address</th>
<th>Foreign Address</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCP</td>
<td>0.0.0.0:42</td>
<td>0.0.0.0:0</td>
<td>LISTENING</td>
</tr>
<tr>
<td>TCP</td>
<td>0.0.0.0:53</td>
<td>0.0.0.0:0</td>
<td>LISTENING</td>
</tr>
<tr>
<td>TCP</td>
<td>0.0.0.0:80</td>
<td>0.0.0.0:0</td>
<td>LISTENING</td>
</tr>
</tbody>
</table>

It is important to verify that you DO NOT see

TCP 0.0.0.0:25  0.0.0.0:0  LISTENING
If you do not see the above, repeat the procedure above or call your Microsoft Certified Partner or speak to Microsoft. This aspect of configuration is Microsoft software configuration in accordance with their published knowledge base article

- Check the operation of your Exchange Server before proceeding any further.

### 3.4 Change SMTP Virtual Server

To successfully run msXmms on an Exchange / SBS server, you have to set Exchange to listen on IP address 1 port 25 and allow msXmms to sit on IP address 2 port 25. Therefore:

- Run Exchange System Manager to check how many SMTP Virtual Servers you have on your Exchange Server.

![Exchange System Manager screenshot](image)

Example above shows a single SMTP virtual server called “Default SMTP Virtual Server”.

- Navigate to your Default SMTP Virtual Server
- Right click on the Default SMTP Virtual Server
- Select Properties
- The IP Address should currently state “All Unassigned”.
- Select the drop down to select the first IP address eg: .102.
- Right click on the Default SMTP Virtual Server
- Select Stop
- Right click again and select Start
- Exit Exchange System Manager

By virtue of adding a second IP address to the NIC and disabling socket pooling (for Windows 2000 servers with Exchange Server) this allows the Exchange configuration option to listen on specific IP addresses to come into play.
4 Configuring Exchange

4.1 Exchange versions

- If your organization has Exchange 5.5 you must have minimum service pack 3.
- If your organization has Exchange 2000 you must apply Service Pack 2 or greater.
- Exchange 2003 Server is supported.
- Exchange 2003 SP1 is supported.

4.2 Exchange 2000/2003 Settings

- Login as a full Exchange Administrator.
- Expand Global Settings
- Right click on Default Message Format
- Select Properties

- Select the Advanced tab.
- Select the “Never use” radio button.
A note about the “Never use” option: for msXmms to operate correctly, this global setting must be set to never use. Exchange Rich Text (also known as Outlook Rich Text format) is a Microsoft standard which was widely used prior to HTML becoming the main standard for delivery of rich email messages between organizations and individuals over the Internet.

Outlook Rich Text is the default setting for Outlook 2000 whereas HTML is the default setting in Outlook 2002 (Office XP).

To accommodate backward compatibility for a ‘standard installation’ of Exchange 2000, Microsoft made the default Internet Message Format – Advanced tab setting = “Determined by individual user settings”. Clearly, this would allow organizations with Outlook 2000 on the desktop to implement Exchange 2000 server without any direct impact on existing desktops.

Organizations that also rolled out Outlook 2002 at the same time as their Exchange 2000 implementation would equally be satisfied with a standard installation allowing both Outlook 2000 and Outlook 2002 user settings to be different but not affected by a global default on Exchange 2000 server. Most organizations today do not use Exchange/Outlook Rich Text because Internet based recipients often complain of WINMAIL.DAT (Outlook/Exchange Rich Text Files) appearing as attachments in their emails.

BNS has tested the NEVER USE global setting when used in an organization which still uses Rich Text formatted emails.

BNS tested Outlook users sending Rich Text Messages to one another within the Microsoft Exchange 2003 network across Routing Group Connectors to ensure that the Never Use setting did not impact on their message formats for internal communications. It did not affect rich text message formats.

BNS requested Microsoft to add clear and precise information into its KB article to allow customers to make the above changes with confidence.

Microsoft changed their KB article as a result of BNS Group requesting Microsoft to make it clear to customers that Rich Text should be set to never use anyway.

Thank you Microsoft.

http://support.microsoft.com/default.aspx?scid=kb;en-us;821750#11
4.3 Configure Exchange SMTP Connector

In this section you’ll configure an SMTP Connector for use with msXmms. The address space associated with this connector is “SMS” & “MMS” address space. MMS is not available in release 1.5, however, it is a good idea to add the MMS address space in preparation for an update from BNS Group.

SMS Connector: A standard Microsoft SMTP Connector is required

An SMTP Connector needs to be set up for the SMS/MMS message Address Space on your Exchange Server. Open Exchange System Manager to begin.

This SMTP connector communicates with the msXmms Smart Host.

4.3.1 Enterprise customer configuration

- The IP Address of your msXmms Windows msXmms member server is required for the configuration of the Exchange SMTP Connector. (The IP Address was set up when you installed and configured Windows server to be used as your msXmms Server. In our examples it is 10.1.1.3) If you have installed msXmms on your SBS or Exchange Server then you simply add a second IP address to your internal network interface card.

```
Exchange Server (or Exchange cluster) 10.1.1.1

Windows 2000/2003 server msXmms 10.1.1.3

Outlook users

LAN firewall Internet

SMS & MMS networks
```
4.3.2 SBS customer configuration

As discussed earlier, a second IP address must be added to the internal network interface card on your SBS server. msXmms listens on port 25 of the 2nd IP address (10.1.1.3 in this example). Exchange SMTP Virtual Server 1 must be set to listen on port 25 of IP address 10.1.1.1 in this example).

---

4.3.3 Create the Connector

To view a demo showing the creation of the SMTP connector select this URL: [http://www.bnsgroup.com.au/bns/demos/create_msxmms_connector.html](http://www.bnsgroup.com.au/bns/demos/create_msxmms_connector.html)

- Right Click the Connectors folder and choose New Connector, SMTP Connector
On the General properties page, Configure the connector to forward all mail to the Smart Host which is the IP address of your msXmms Windows Server computer. Shown above as [10.1.1.3].
Note: for large Exchange 2000/2003 networks that require msXmms server redundancy:

Additional msXmms servers can be set up on different IP addresses all serviced from the one SMTP connector. The value in the smart host field of your Exchange SMTP Connector would be for example:

\[10.1.1.3];[10.1.1.4]\]

Exchange 2003 will load balance to the msXmms servers.

- Add a local Bridgehead Server by clicking the Add button on the Bridgehead Server section, use the local Exchange Server

![Add Bridgehead](image)

- The General Properties should look as follows:
Click on the Address Space property tab.
Select Add.

Select SMTP

Supply the address space relevant to your site/organization
You can choose any naming convention here but it must end in .SMS

Examples: Microsoft.sms, Dell.sms, my.sms etc

Our example is called “Gateway.sms” which is only valid within your Exchange network thereby providing added security for your enterprise SMS message network. By limiting the msXmms SMTP Connector scope to a routing group, effectively segments your design. This allows the local msXmms server to process ALL messages within the routing group.
Add another address space for .MMS. Our example is called “gateway.mms”.

- Click OK.

### 4.4 Adding an account in Active Directory for msXmms


- Select View, choose Advanced View. This will allow you to select the options required in this section.
- Create a user for msXmms and create an Exchange Mailbox for this account on your Exchange Server.
Large Customers with more than one msXmms server should configure the account name with the site name/location included. For example: “msXmms USA” and “msXmms Australia”.

- Select Next.

- Set password option to never expires.
Select the check box to Create an Exchange mailbox. Next...

Select Finish
Complete other details as required.

Permissions for this user account are the same as a normal Exchange user. Eg: membership of built-in security group "Domain users"

Set POP3 protocol for the msXmms account should be set as follows:
### msXmms Gateway Properties

<table>
<thead>
<tr>
<th>Features</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mobile Services</strong></td>
<td></td>
</tr>
<tr>
<td>Outlook Mobile Access</td>
<td>Enabled</td>
</tr>
<tr>
<td>User Initiates Synchronization</td>
<td>Enabled</td>
</tr>
<tr>
<td>Up-to-date Notifications</td>
<td>Enabled</td>
</tr>
<tr>
<td><strong>Protocol</strong></td>
<td></td>
</tr>
<tr>
<td>Outlook Web Access</td>
<td>Enabled, using protocol defaults.</td>
</tr>
<tr>
<td>POP3</td>
<td>Enabled, using protocol defaults.</td>
</tr>
<tr>
<td>IMAP4</td>
<td>Enabled, using protocol defaults.</td>
</tr>
</tbody>
</table>

**Description:**
Allows the user to access the mailbox with a POP3 e-mail client.
- Uncheck “Use protocol defaults”
- Select “Provide message body as plain text”
- Click OK to save the settings.
4.5 **Exchange POP3 Service**

msXmms uses POP3 protocol to access its mailbox. New installations of Exchange 2003 Server, sets the service to **disabled**. Upgrades of Exchange 2000 to Exchange 2003 server preserves the POP3 service settings. Please check to see if your service is running.

- Set the POP3 service to be automatic by:
- Select Start, select run, type SERVICES.MSC
- Scroll down until you see Microsoft Exchange POP3.
- Right click, Select Properties
- Select Startup type = Automatic.
- Run Exchange System Manager
- Expand Servers, expand the Exchange Server where the msXmms mailbox is located, expand protocols, expand POP3, Start the Default POP3 virtual server.

4.6 **Reboot your Exchange Server / SBS Server**

Schedule a suitable time to restart your Exchange Servers which are acting as bridgehead servers for msXmms.

- Reboot your Exchange Server(s).
Initial Installation Files

5.1 Preparing your msXmms server

Now that you have fully prepared your Exchange environment, it is now time to install msXmms.

If you are evaluating msXmms you can trial the software by sending 10 free SMS messages.

msXmms can be installed on Microsoft Small Business Server or can be installed on a separate Windows (member or DC) Server in your network.

msXmms is licensed on an annual subscription basis. After you have evaluated msXmms the next step is to purchase your first annual license from your Distributor/Reseller or BNS Group web site.

5.2 Installing msXmms on an existing msXfax server

If you intend to install msXmms on an existing msXfax server, you simply need to assign an additional IP address to the network card for msXmms.

In order for msXmms to listen on port 25 (SMTP) and for msXfax to listen on port 25, they are assigned their own IP address.

- Select Start
- Select Control Panel
- Select Network Connections
- Select the Server local area connection
- Select Properties
- Select “Internet Protocol (TCP/IP)
- Select Advanced
Add another IP address eg: 192.168.100.4

Reboot your msXfax server

5.3 Installing the installation files

- Downloading msXmms software allows you to trial the software and turn it into a fully licensed product after purchasing a subscription license.
- By downloading the software a file called “INSTALL_MSXMMS.EXE” is downloaded from BNS Group’s Internet web site.
- Copy the file INSTALL_MSXMMS.EXE to your msXmms server’s local hard drive.
- Run INSTALL_MSXMMS.EXE
- Follow the wizard and select a local hard drive to install the SETUP files and associated documentation.

Program INSTALL_MSXMMS.EXE simply installs the SETUP files.
6 Installing msXmms

6.1.1 Login to the Domain & Permissions

- If your msXmms server is a Windows member server you may login as a user of the local administrators group or as a domain admin.
- If your msXmms server is a Windows domain controller you should login as a Domain Administrator.
- If your msXmms server is SBS you should login as a Domain Administrator.

It is recommended that your msXmms server computer account be in the same domain as your Exchange server.

msXmms uses POP3 protocol to access its Exchange mailbox using credentials supplied in the setup/configuration of msXmms. Therefore, msXmms requires no special permissions to access your Exchange server over and above the POP3 credentials to access the msXmms mailbox.

Active Directory services interfaces built into Windows Server provide the transport for msXmms to access directory resources.

6.1.2 Run the Setup program

The initial installation setup program installs: documentation and msXmms Setup software.

If you’re upgrading you should have already installed the msXmms installation files (see previous chapter). The procedure is the same to upgrade as it is to install a fresh copy. In most instances, msXmms setup software will examine existing software settings and preserve them during the upgrade.

In previous sections you configured Exchange 2000/2003 in preparation for installation of msXmms on your Windows server.

Now it is time to install msXmms on your nominated server.
- Navigate to Program Files\BNS Applications\msXmms Installation Files\msXmms Software

- Run the msXmms Installation Program, setup_msXmms.exe
- Accept or Reject the license agreement, click Next
- Choose a local hard disk location for installation of msXmms and click Next

![msXmms Installation Welcome Screen]

- Press next
Accept or Reject the license agreement.
Review update history screen.
Exchange Site code should be set to 'global'. It is not used in version 1.5

Supply the IP address (or DNS host name) of your Exchange Server.
Special Note: Customers who have deployed their first Exchange 2000 or Exchange 2003 server should leave both of these options checked and click next.

Customers deploying in a network where Active Directory has been deployed but the first Exchange 2000 or Exchange 2003 server is yet to be deployed must UNCHECK the 1st option above “Do you want the msXmms to integrate with Active Directory....”

NOTE: You should always have the 2nd option CHECKED.
The POP3 Host IP address: is the IP address of the Exchange server where you created the msXmms mailbox. POP3 Host Port Number is usually port 110.

- POP3 Mailbox ID is the Account login name for the msXmms mailbox.
- POP3 password is the password you set in Active Directory for the msXmms mailbox.
- Messenger Email Address is the SMTP email address of the msXmms mailbox.

This is the SMTP address of the msXmms mailbox you created. Refer to the Email
addresses property sheet and the general property sheet of the msXmms mailbox. Refer to the following example.
When a message box appears saying you have successfully installed msXmms. Click Finish to complete the installation.

A message stating that your system needs to be rebooted to complete installation, click OK.

Your system will reboot and msXmms will be successfully installed.
7 msXmms console security considerations

7.1 Permissions & Security

msXmms uses the underlying services provided by ADSI/LDAP. Enterprise customers running global networks generally delegate control of AD to selected site administrators many of whom are NOT members of the Domain Administrators Group.

msXmms has been designed to consider enterprise global security permissions allowing selected operations to be conducted at a local computer level (ie: Login as user who had been granted local Administrator rights to the member server as opposed to a Domain Administrator login).

7.1.1 msXmms management at a local server level

Enterprise customers typically want to restrict access to AD using the tools available in Microsoft’s snap-ins. However, at an operational level, a local administrator will need local access to the member server and login as a local user account (Refer to: Start, Programs, Administrative Tools, Computer Management, Local Users & Groups).

A local msXmms administrator must be a member of the Local Administrators Group in order to access configuration settings and other features provided by msXmms’s console.
msXmms Configuration

8.1 msXmms Console

- msXmms console icon is placed on the desktop
- Run msXmms Console

msXmms console can also be loaded via - Start, Programs, BNS Applications, msXmms, msXmms Console.

The first time msXmms is started you are allowed 30 days to evaluate the software.

Mobile Messenger offers 10 free SMS messages to prospective customers to trial msXmms and the Mobile Messenger Service.

At any time you can activate the software from evaluation mode to production. Once it is activated, the expiration date of your license is displayed on the main msXmms console.

Customers pay for the license of msXmms which includes support and maintenance. A prepaid or monthly account is set up with Mobile Messenger. The links to the appropriate forms are available from the msXmms console.
8.2 Obtain 10 free SMS messages to evaluate msXmms

Firstly select Update License from the msXmms console.

Write the System ID on a piece of paper.

On the main msXmms console there is a link to obtain a test account free of charge. The link will direct you to http://www.bnsgroup.com.au/bns/msxmmstial.asp

The form looks similar to this example.
Request 10 free SMS messages for use with msXmms & Mobile Messenger

Request 10 evaluation SMS messages

Your System ID can be found in the msXmms console in the licensing section.

Better Network Services Group Pty Ltd.
PO Box 671
Woden ACT
AUSTRALIA
BNS Group msXmms customer service

Your Name:

Your Email Address:

Your System ID (msXmms console, licensing):

Your Company name, contact phone and how did you hear about msXmms:

- Your System ID is a unique value which is based on your hardware configuration.
- Supply your contact details and submit to BNS Group.
- Please allow 24 hours for your test account to be set up.
- 10 free SMS messages can be sent to fully evaluate msXmms in your environment.
8.3 Enter the trial release code

- BNS Group customer service will provide you with a Release Code via email.
- Enter this release code in the Update License screen as shown above.
- Select the ‘Activate Licence” button.
- Your system is now licensed to send 10 free SMS messages.

8.4 Configure Mobile Messenger Transport

- Expand the Gateway folder
- Double click on Connections folder.
Double click Settings

Check that your Country code is entered and is correct. This is important for local use in a single country where users do not specify the full International mobile phone number. Multi national countries with a single msXmms gateway should always use mobile phone numbers which are completely defined inclusive of country code. Eg: a phone number in Australia (0412) 123456 is internationally represented as 61412123456.

Choose the Select button to choose the Mobile Messenger Transport
After you select the Mobile Messenger – SMS Service, select apply.

2 property sheets will now be available on the Mobile Messenger – SMS Service transport.

Select the Mobile Messenger – SMS property tab
msXmms uses HTTPS Secure Socket Layer (SSL) when posting SMS messages to the Mobile Messenger SMS Service.

- The Service URL should be set up automatically. Do not change the URL.
- BNS Customer Service will send you your Mobile Messenger account and password.
- Enter the account and password.
- Leave the virtual cell no field set to msXmms.
- Select the OK button.

Your msXmms console should reflect that you have a license for 10 trial messages.
Send a test message from the console

1. Select Send a Test Message
2. Enter your mobile phone number in the international format.
3. Press send.
4. Close the Send a test message window.
5. You may notice on the console that 1 message is in the Dispatcher queue (OutQ:1)
When the message has been sent the entry in the queue will be removed.

The last message activity is displayed on the console as shown below.

During the trial you can see how many messages remain.
9 Testing from Outlook

- Before we test from Outlook we need to make sure that the msXmms mailbox in Exchange can be read.

![msXmms Console](image)

- If your console states that POP3 mailbox msXmms has been accessed with a date and time then your POP3 protocol and mailbox logon and password have been set up correctly.

- From Outlook Web Access or Outlook rich client prepare a message as follows:

![Outlook Message](image)

msXmms transmits the Subject line and the text of the message as an SMS message if the email domain address ends with .SMS

Up to 3 SMS messages can be generated. This is configurable via the console.

- Press the send button
- Go to the msXmms console and check to see that Exchange has passed the message to msXmms’s Routing Engine
If the SMTP Connector has been configured correctly and Exchange routing is working correctly then you should see last contact by <Exchange Server name> followed by the date and time.

### 9.1 Outlook confirmation messages for your test

- msXmms provides information feedback to users. These information messages can be turned off later. This is to show you what is possible.
- The message MMS Sent is a positive confirmation that the message has been delivered to the network carrier and deposited in the SMS Message Center. IE: it has been successfully delivered to the mobile SMS network.
9.2 Now let's fine tune your responses

- Go to the console
- Expand Global Settings
- Double click on Global Server Permissions and Settings
- Uncheck options 2 and 3
- Change the field “From (Display Name)” to msXmms Gateway
- Change the email address to “Donotreply@yourdomainname”
- Save the changes
9.3 Send another test message from Outlook

Notice the senders display name has now changed to msXmms Gateway. Only 1 information message is now created.

9.4 Now let's create an Outlook contact to test with

Notice the senders display name has now changed to msXmms Gateway. Only 1 information message is now created.
- Create a test user with a regular email address.
- Now add a second email address formatted with your own mobile phone number

Note: some customers may wish to add another address space name to the msXmms SMTP connector in Exchange so it reflects their company name. For example: if Microsoft were to install msXmms then the Administrator at Microsoft could create an address space called Microsoft.sms on the connector.

Users would then format their SMS contacts as number@Microsoft.sms.

The domain name can be anything you wish on the condition that it ends with .SMS.
9.5 Send a message to your Outlook Contact

- Create a new message in Outlook
- Select To… Button.
- Select the Contacts address book
- Using the find functions as shown above select the user in the address book.
- By virtue of adding a second email address you can now send an SMS message to their phone.

If you are familiar with Active Directory (AD) Contacts, you can also set up AD Contacts so that SMS and MMS users appear in the global address list. AD Contacts for SMS and MMS are simply SMTP Email addresses.
SMS and MMS Contacts can therefore appear in Distribution Lists and Distribution Groups.

10 msXmms General Configuration

10.1 How to purchase a license for msXmms

To purchase msXmms licences please contact your reseller.


msXmms is licensed based on the expected maximum throughput in any one day.

msXmms transport provider costs are not part of the msXmms license fee.

10.2 Request a release code for msXmms

After you have purchased an annual license you can request the trial version to be converted into a fully licensed production version. You do not have to re-download any further software!

- The request a release code link is found in the licensing section of the msXmms console. See below
- Select the link “Request Release Code”
- A web page will be launched to [http://www.bnsgroup.com/bns/license.asp](http://www.bnsgroup.com/bns/license.asp)
- Complete the details including your System ID.
- Please allow 24 hours for verification and processing of your request.
Step 2 - Registration Details

To register your product and obtain any applicable release code, complete the form below and press submit. Products requiring a security release code will receive the release code via e-mail. Any applicable release code will be sent to you when payment verifications have been completed.

* Denotes compulsory fields (Products such as msXfax XP, MAAD Tool and BNS Merge Wizard require you to provide us with a field called SYSTEM ID), this field must be completed.

<table>
<thead>
<tr>
<th>Customer Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Organization Name:</td>
</tr>
<tr>
<td>Customer Address Line 1:</td>
</tr>
<tr>
<td>Customer Address Line 2:</td>
</tr>
<tr>
<td>Customer City:</td>
</tr>
</tbody>
</table>
10.3 Complete initial application for Mobile Messenger

- The next step is to select the link ‘Setup a Prepaid Account for SMS Messages’.
- Download and print the PDF form.
- Complete the form and fax to the number on the form.
- At any time you can check your account balance by pressing the ‘Check’ button.
10.4 Entering the Release Code

The Notes field can be used to record additional information such as: who you purchased the software from, your purchase order number and other relevant details. This will be very useful in the future.

If you purchased msXmms from a reseller, you should advise your reseller of your System ID and allow your reseller to request an activation code on your behalf. Activation codes are not issued until payment has been received in full by BNS Group.

Serial No# field is only required if provided through a special promotion or via packaged product.

ESD Order No# and ESD Order Date fields are optional if your product was procured via other Electronic Distribution Sources and you need to record the details here.

Please note: Release codes are sent to the registered customer via email only after payment has been received in full.

Upon receipt of the Release code, enter it into the field called Release code and click on the Activate Licence button.
10.5 msXmms Configuration in more detail

msXmms’s setup program requests as much information as possible to pre-
configure the required elements of your SMS message server and its interaction with
Exchange/Active Directory.

10.5.1 msXmms System Attendant

The msXmms system attendant is responsible for overseeing and managing various
services. If the system attendant detects a service not running, it will automatically
start the service.

msXmms’s console allows you to manage different aspects of each service or
function.

- Double click Properties
- The properties of the System Attendant shows basic configuration elements.
- The default maximum alerts should be set to 10.
msXmms Routing Engine

msXmms Routing Engine is a powerful SMTP smart host included with the msXmms package, which acts specifically as a router for SMS & MMS messaging and other eligible address space items from Exchange. Configure the Routing Engine properties as follows:

Do not change alert settings.

<table>
<thead>
<tr>
<th>Queue Depth</th>
<th>Send/Alert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awaiting a Free Transport</td>
<td>20</td>
</tr>
<tr>
<td>Transmitting</td>
<td>30</td>
</tr>
<tr>
<td>Received awaiting Messenger</td>
<td>10</td>
</tr>
<tr>
<td>Processed awaiting Messenger</td>
<td>20</td>
</tr>
<tr>
<td>Conversion</td>
<td>20</td>
</tr>
</tbody>
</table>

10.5.2 msXmms Routing Engine
These values were configured automatically based on the values you supplied during msXmms’s setup program.

- Make sure that “Allow Detail Logging” is turned on.

Logging items to the Windows Event log and detailed logging should be used for troubleshooting only.
10.5.2.1 msXmms Routing Engine Logs

Log files are useful for trouble shooting message routing problems or access control issues. The log files are text files which can be zipped and emailed to support staff should that be necessary.

```
R211204.txt - Notepad

File Edit Format View Help
2004/12/21 13:19:21.07 MMS Routering Engine Spooler Path : C:\PROGRA~1\BNSAPP~1\msXmms\log\spooler.log
2004/12/21 13:19:25.07 MMS Messenger SMTP Email Address : msXmms@bns.local
2004/12/21 13:19:25.07 Messenger SMTP User ID : msXmms
2004/12/21 13:19:25.07 Messenger SMTP Domain : bns.local
2004/12/21 13:19:25.07 Exchange IP : 10.1.1.1
2004/12/21 13:19:25.07 MMS Administrator SMTP Email Address : administrator@bns.local
2004/12/21 13:19:25.07 MMS Routing Log Path : C:\PROGRA~1\BNSAPP~1\msXmms\log\msxroute.log
2004/12/21 13:19:25.07 Days to Keep Logs: 7
2004/12/21 13:19:25.07 MMS Routing service started
2004/12/21 13:20:17.18 Connection made to MMS Smart Host
2004/12/21 13:20:17.29 Receiving Mail FROM: <Administrator@bns.local>
2004/12/21 13:20:17.29 MAIL FROM: <Administrator@bns.local>
2004/12/21 13:20:18.40 RCPT TO: <61412869531@ateway.sms>
2004/12/21 13:20:24.26 Closing Socket
2004/12/21 13:32:35.14 Connection made to MMS Smart Host
2004/12/21 13:32:35.25 Receiving Mail FROM: <Administrator@bns.local>
2004/12/21 13:32:35.25 MAIL FROM: <Administrator@bns.local>
2004/12/21 13:32:36.33 RCPT TO: <61412869531@ateway.sms>
2004/12/21 13:32:42.21 Closing Socket
2004/12/21 13:39:51.03 Connection made to MMS Smart Host
2004/12/21 13:39:51.14 Receiving Mail FROM: <Administrator@bns.local>
2004/12/21 13:39:51.14 MAIL FROM: <Administrator@bns.local>
2004/12/21 13:39:52.26 RCPT TO: <61412896531@ateway.sms>
2004/12/21 13:39:58.12 Closing Socket
2004/12/21 14:47:10.17 Connection made to MMS Smart Host
2004/12/21 14:47:10.28 Receiving Mail FROM: <Administrator@bns.local>
2004/12/21 14:47:10.28 MAIL FROM: <Administrator@bns.local>
2004/12/21 14:47:11.39 RCPT TO: <61412869531@ateway.sms>
2004/12/21 14:47:17.25 Closing Socket
```

- The above log file shows contact made from Exchange SMTP Connector to msXmms routing engine.

10.5.3 msXmms Messenger

The msXmms messenger handles core processing and management of SMS message messages.

- From the main msXmms Console, open the msXmms Messenger folder
- Various property sheets are displayed.
Most of these settings should not be altered once they are set up. We recommend that you leave these settings as they are until you examine the security recommendations later in this documentation.

Global Pass Code is optional for additional security when used with freeform addressing. If you set the Global Pass Code to "Microsoft", users will need to include PASSCODE#Microsoft in the memo of their Outlook SMS message message.

Enable Dialling rules and Least Cost Routing this turns on options in the Global Settings. **Customers with specific requirements for dialling rules should only use this option.** For example: customers in the USA can use dialling rules to define a number of local area codes and specific rules required.

The Host IP address should be the IP address or DNS name of your Exchange Server.
- The mailbox ID for Messenger is the Active Directory Account login name.
- Password is the Active Directory password for that account.
- Email address is the SMTP address of the account used by the msXmms Messenger.
- POP3 Host Port is the TCP/IP port number configured on your Exchange Server’s Default POP3 Virtual Server.

Note: If you want to log events to the Windows Event log, make sure that you have set the “overwrite events as needed” in the Event Viewer.

Diagnostic logging is useful if you want to fully understand all the activity that msXmms is performing.

Note: If you want to log events to the Windows Event log, make sure that you have set the “overwrite events as needed” in the Event Viewer.
msXmms can selectively filter messages. This is mandatory on high security networks which employ gateways such as X.400, SMTP, SMS and MMS. Defense networks for example may use a filter on the subject line to ensure that only unclassified correspondence can be transmitted by SMS message or via other gateways.

10.5.4 msXmms Dispatcher & SMS message Queues

The msXmms Dispatcher is responsible for SMS message Queue management, dispatching eligible SMS messages to lower layer device drivers for transmission. The Dispatcher plays a role in the management of inbound SMS messages. Access to SMS message queues via the msXmms console is achieved from the dispatcher folder.
- Open Dispatcher folder
- Double click on the message Queues.
- Double click on the queue you are interested in eg: “Awaiting a Free Line”.
- If you want to view a SMS message—double click on the entry in the queue.
- It is possible to expand this window to full size.
- Sorting on columns is achieved by clicking on the column heading. The only exception is POP3 which is a linear view of the mailbox.

Hints: If you are trouble shooting your msXmms server the following hints may help:
- Stop system attendant—this will prevent this process from re-starting other tasks
- Stop Routing engine – this will prevent additional messages being received from Exchange SMTP Connector while you are resolving any issues. Exchange will hold any further messages in its queues.

- Stop Messenger – this will prevent additional messages being received from Exchange POP3 mailbox while you are resolving any issues.

- Use the “Move all messages to the suspense queue” check box to highlight and move all the items to the suspense queue until you resolve the issues. This can be useful to avoid too many NDR’s in the case of an Internet issue or other temporary problem.
Send a test SMS message and some useful utilities

msXmms console provides a test facility to test the operation of the gateway independent of Exchange and Outlook. This is useful to network administrators to prove that various layers are operational in the messaging solution.

To test directly via the gateway/transport provider complete the following:

- In the console menu bar, there is an option to Send a Test Message.
- Select Send Test SMS message
- Enter the SMS message number you want to send to
- It is possible to generate many SMS messages by increasing the number from 1 using the up arrow.
- Enter the message to be sent.
- Click send.
11.1 msXmms Utilities

msXmms comes packed with 2 useful tools including an SMTP send utility and a POP3 client utility.

Both of these tools can be used from your msXmms server if there is a problem trying to send from msXmms to Exchange users or when attempting to read messages using POP3 protocol from the Exchange Mailbox reserved for msXmms’s Messenger service.

- Click on the setup option as shown above and set the values that correspond to your Exchange Server.
- The email address is the sender’s email address and the name is the name of the person sending the message.
- Click OK.

![SMTP Client Utility](image)

- Click on the envelope to send your message
- Go into your Outlook Email and verify that you got the message.

A similar utility exists should there be a need to verify that POP3 protocol is working to your Exchange server.

![Outlook Email](image)
12 Active Directory Integration

12.1 Introduction

msXmms uses existing fields in Active Directory (AD) to store specific information required for outbound and inbound SMS message controls and routing.

AD is the single source for all information relating to users in a Microsoft Exchange 2000/2003 network.

When reading this section, it is important to understand that after msXmms has been installed all users can send SMS messages.

To allow all users to send SMS messages without expressly setting their options in AD:
- Expand Global SMS message Settings
- Double click Global Server Permissions and Settings
By setting “Allow all Users to send mms/sms messages” (which is the default setting) allows users in an Active Directory environment or in msXmms’s local database to send a message.

If you wish to nominate which users are allowed to send SMS / MMS messages BNS recommends using “Specify which users are allowed to send using Security or Distribution Group”. BNS further recommends that Security Groups be used. Global or Universal Security Groups can be used.
12.2 Preparing to use Group Membership to control access to msXmms

12.2.1 Adding an OU to the local domain where msXmms server accesses Active Directory

To create the OU to control for msXmms perform the following:

- Run Active Users and Computers
- Right click on the Domain icon
- Select New, Organizational Unit.
BNS decided to promote this OU naming convention to allow other 3rd party vendors and in-house programming staff to use a common OU for this type of information. msXmms (BNS Group’s SMS and MMS server for Microsoft Exchange) is managed in another OU underneath Application Controls with security groups for SMS Enabled and MMS Enabled.

- Now create an OU underneath Application Controls called msXmms
Now create a Group to control access for msXmms servers in this domain.

Create the group name SMS Enabled. Our example will use a space between SMS and Enabled in the group name.
- A universal group will provide more flexibility for inclusion of users or nested groups from other domains.
- Do not mail enable the security group unless you have a good reason to do so.
- Click Finish
- Now you can add users to this Group who are authorised to send a SMS message.
- From msXmms Console’s Global Settings, scroll along from the SMS message Server Access tab to the right until you see the Active Directory Tab.
Now select “Check against SMS Security Group”.

You should see the following message confirming that msXmms has successfully verified that the Group exists.

Click ok.

If you have added a user to the SMS Enabled security group and wish to validate that ADSI queries pass authentication, enter the user’s email address in the optional field and press “Check against SMS Security Group”.

Click Save these Defaults

That completes setting up msXmms server access using Security Groups. If you completed this section because you prefer to use Security Groups to control access to who can send SMS messages.
12.3 Enterprise security & controls

In well designed, secure Active Directory enterprises, designers and security control officers require local IT staff to conduct day to day management of services including:

- Management of users
- Management of printers
- Management of groups
- Management of exchange mailboxes

msXmms when installed on the Windows Server can only be administered by members of the local Administrators Group.

If your msXmms services are installed on a Windows Member Server, the simplest way to provide access to local IT staff (who are not domain admins) is to make them members of the local Administrators group on the msXmms Windows server.

- Administrative Tools
- Computer Management
- Local Users and Groups
- Select Administrators Group
- Select the user or domain global security group to be included in the local Administrators group.

Using the above approach will provide access to msXmms’s functions. However, some network security controllers do not allow local IT staff to have the capability to change settings such as TCP/IP properties.

The solution in that case would be to provide specific rights to the msXmms registry keys on the SMS message server as follows:

- Log on as an administrator
- Run regedit
- Navigate to local machine, software, Better Network Services Group
- Set the security permissions on this registry key to include full control to the person or global security group who will be responsible for the day to day management of msXmms.
13 Global Settings

13.1 Introduction

Global Settings provides global settings for this msXmms server:

13.1.1 User Feedback

To improve the feedback to end users of the system, msXmms provides administrators the ability to send messages back to Outlook users when:

1. their message has been accepted for processing
2. their message has been inserted into the SMS/MMS message queue for transmission
3. their message has commenced a delivery attempt to the Internet based service provider (eg: Mobile Messenger) or other transport provider.

Users will always receive a sent or failed message in their inbox.
13.1.2  Message Limits

Administrators can restrict message sizes and recipient limits.

For SMS messages, the default is set to 3 SMS messages derived from a single Outlook message.

MMS limitations when supported will include appropriate restriction controls.

13.1.3  Audit of sent and received messages

Administrators can specify directories to save the content of SMS messages successfully sent.

Customers are increasingly being forced to account for ALL correspondence in and out of their organization. msXmmms provides this functionality.
Version 1.5 does not support receiving of SMS messages into the organization. msXmms will provide this capability in a later release.

Outbound Audit File Name Convention: under review

Inbound Audit File Name Convention: to be defined.

### 13.1.4 Broadcasts

Broadcast SMS/MMS is provisioned for a future release. Version 1.5 does not support broadcasting. Users can set up Outlook/Exchange Distribution Groups

### 13.1.5 File pickup for any application to send SMS messages

This functionality will be added to the next release.
13.1.6 Compress or Rebuild local database

From time to time it is recommended that a compress of the database be performed. At least annually in most cases and perhaps every 6 months for busy systems.

Before you compress the database it is important to:
- Stop all msXmms services from the console.
- Close down (EXIT) msXmms console
- Run msXmms Console again.
- Then select Compress or Rebuild Local Database.

Click Apply.
Warning: Creating an empty database is reserved for rare situations where the MSGSTORE.MDB is corrupted and the customer has no backup.

Select Yes

Click OK when the database compress has been completed and all services restarted.

If the database can’t be compressed (open by another process), simply exit the msXmms Console, run the msXmms Console and retry the operation.

FAQ: can this operation can be run remotely via terminal Services? Answer=yes
13.1.7 Manage Confirmation Templates

BNS recommends that you copy the templates to a working directory then replace the templates in a controlled manner. The templates are located on the msXmms server as shown below.

Note: If you stop all services you can access the templates via the console as follows:

- Double click on Manage Confirmation Templates.
- Select the template to manage.
- Microsoft Word is launched allowing you to modify the HTML templates.

Mmsin.txt is not used in version 1.5. MMSFAIL and MMSSENT are common templates for SMS and MMS messages.
13.1.8 Reports

This option is available under Global Settings. A range of reports are available and are self explanatory.
13.1.9 Quick access to message server statistics

This option is available under Global Settings
Features:

- Ability to sort columns
- View sent/received messages or all SMS messages
- Export to CSV and launch Excel
Note: Statistics are retained in the MSGSTORE.MDB file. They are removed based on the number of days set in the Statistics property tab in the Gateway Configuration (Gateway, Connections).

<table>
<thead>
<tr>
<th>Gateway Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gateway</td>
</tr>
<tr>
<td>Settings</td>
</tr>
<tr>
<td>Connections</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Settings</td>
</tr>
<tr>
<td>Statistics</td>
</tr>
<tr>
<td>Archive Period</td>
</tr>
<tr>
<td>Archive Events Older than 365 Days</td>
</tr>
</tbody>
</table>

Note: Use the Statistics Option in Global Settings to perform the Archive.
14 Configuring Exchange/AD for other tasks

14.1 Creation of Active Directory SMS message Contacts

Administrators or users with delegated permissions can create SMS message users in Active Directory (AD). The following example shows how to create SMS message contacts in AD.

- From Users and Computers snap-in select an OU then Right click, create New Contact

![Image of New Object - Contact dialog box with the following details:]
- First name: Bill
- Last name: Brown
- Full name: Bill Brown (SMS)
- Display name: Bill Brown (SMS)
Click Modify
This user can now be selected from the global address list.

From Outlook, users can now select Bill Brown a SMS message recipient from the Global Address List. AD SMS & MMS & msXfax Contacts can be included in distribution groups.
15 How do my users use the system?

15.1 Outlook Web Access (OWA)

OWA and Outlook rich client can create contacts with an email address which follows the msXmms domain addressing format.

- OWA users can define a contact’s SMS message address just like a regular email address. The addressing format is known as msXmms domain addressing. A second email address is built into Outlook contacts which can be used for a SMS, MMS and Fax addressing.
The above example shows how OWA Contacts can be defined with a regular email address and a SMS message address.

Your users can select either Bill Smith’s normal email address of his SMS email address.

15.2 Addressing & Sending SMS messages

There are many other ways to send SMS messages which include:

- msXmms Free form addressing
- msXmms Domain addressing (number@gateway.sms)
We will discuss these additional ways to send a SMS message later in this chapter. Let’s look firstly at sending SMS messages to an Outlook Contact.

### 15.2.1 msXmms free form addressing using the memo

msXmms has a very useful form of addressing called “msXmms free form”. Free form addressing is mainly used for sending to a list of SMS message recipients which you store in a text file.

With msXmms free form addressing you can either:
- Paste the free form values into your memo or;
- Attach a text file (.ADR extension) with the free form values contained in the file.

Let’s look at an example to see how easy it is.

**NOTE:** The default freeform SMS message command is SMS=

The default value can be changed in the messenger properties.

The example above shows that freeform addressing is very simple and multiple recipients can be included.
msXmms free form addressing using a .ADR file

The .ADR file contains the same format of freeform addresses. Below is the opened text file containing the simple addressing with the country code followed by cell number as all one string.

```
ms=61412862531
ms=61411123456
```
16 Removing msXmms

- Login with Domain Admin rights or with local Administrators group permissions.
- Control Panel, Add/Remove programs
- Select the first msXmms entry which has approximately 20MB associated with it.
- Select Remove
- You can delete SMTP Connectors in Exchange via Exchange System Manager
- You should delete msXmms user account used for msXmms Messenger processing

This is the end of this documentation.