

# **ENOM Installation and Prerequisite Guide**

**GAS MANAGEMENT SERVICES LIMITED**



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## Expected Use

It is expected that ENOM will be accessed by multiple users, each with their own desktop PC. All ENOM clients will need to access the same ENOM database.

There is an executable which installs the client, system files and utilities; this must be run on each computer that will run the client.

## Prerequisites

The ENOM client requires one of the following operating systems:

- Windows Server 2003, Windows XP (SP3), Windows Vista, Windows 7, Windows Server 2008 R2

The ENOM database must be on one of the following platforms:

- MS Access
- Oracle 10.2g
- Oracle 11.2g
- SQL Server 2008 R2
- SQL Server 2012 (supported from ENOM v6.00.48)

MS Access is not recommended if you are using ENOM+.

GMSL recommend at least the following machine specification to run the ENOM client:

- Processor 1 GHz
- Memory 512MB of RAM

If you are using Oracle or SQL Server as the target database, then the following separate specification is recommended to run the database:

- Processor Min 2.6GHz
- Memory Min 1GB of RAM

ENOM databases that are run on Oracle or SQL Server will need to have their statistics updated regularly in order to allow for efficient performance.

If you are using Oracle as the target database, then please ensure that the Oracle client and all key components are installed on all computers running the ENOM client, including the Microsoft OLEDB Provider for Oracle (MSDAORA) 32 bit.

If you are using SQL Server as the target database, then please ensure that the SQL Server native client is also installed on all computers running the ENOM client, including one of the following:

- SQLNCLI10.1 (for SQL Server 2008 R2)
- SQLNCLI11.1 (for SQL Server 2012)

If you are using MS Access as the target database, then please ensure that the database file is held on a shared network drive in order that all ENOM clients can access it.

*N.B.* MS Access is not required to be installed on the clients PCs.

## **.NET Framework**

ENOM v5.14.13 and subsequent versions require the .NET framework v4 (Client Profile) to be installed.

If this is not already installed:

- ENOM v6.00.48: The ENOM client installation will inform you if it is not already installed. You would then need to download it from the Microsoft website and install it.
- ENOM v5.14.13 to v5.19.17: The ENOM client installation will offer to download and install it for you.

ENOM versions v5.08.06 to v5.13.21 require the .NET Framework v3.5 SP1. If this is not already installed the ENOM client installation will offer to download and install it for you.

Versions of ENOM earlier than v5.08.06 do not require the .NET Framework.

## **Network**

ENOM utilises a variety of TCP ports for the various tasks it needs to perform, such as connecting to its database.

The ports used are:

- Local > 1024 Remote 1521 (Oracle listener)
- Local > 1024 Remote 1433 (MS SQL Server)
- Local > 1024 Remote 445 (SMB on Win2K, Win2k3)
- Local > 1024 Remote 135 (SMB on non Win2k, Win2k3)

## **FTP Configuration**

### File Transfer Protocol (FTP)

ENOM supports FTP for the sending and receiving of messages for both active and passive FTP modes.

Active FTP mode is the default FTP mode and which requires both the client and the server to initiate connections. Below is the process in which this takes place and also includes the port numbers:

- FTP server's port 21 from anywhere (Client initiates the connection)
- FTP server's port 21 to ports > 1023 (Server responds to the client's control port)
- FTP server's port 20 to ports > 1023 (Server initiates the data connection to the client's data port)
- FTP server's port 20 from ports > 1023 (Client sends ACKs to the server's data port)

As Active FTP mode requires the server to initiate a connection to the client, ENOM also supports Passive FTP mode. This mode eliminates the server initiating a connection to the client, therefore reducing the risk to network firewalls by not having to allow external machines connecting to company networks.

Below is an example of the process of Passive FTP mode and the ports required:

- FTP server's port 21 from anywhere (Client initiates connection)
- FTP server's port 21 to ports > 1023 (Server responds to the client's control port)
- FTP server's ports > 1023 from anywhere (Client initiates data connection to random port specified by server)
- FTP server's ports > 1023 to remote ports > 1023 (Server sends ACKs (and data) to the client's data port)

### Secure File Transfer Protocol (SFTP)

To allow for encrypted FTP transfers, ENOM supports SFTP (FTP over SSH).

This transfer mode permits ENOM to transfer messages via FTP across a single channel (port) thus allowing network firewalls to remain secure. The port that is used for SFTP is port 22.

## **Proxy Server / Gateway**

To permit ENOM working in various network configurations, ENOM supports the use of a proxy server. This allows ENOM to send messages via another machine/server. The proxy server IP and port is configurable via ENOM's GUI.

## **Installing the ENOM Client on Individual Desktops**

1. Close down all applications, re-boot the PC and log on as a user that has local administrator rights.
2. Locate the ENOM installation file and run it. The installation program will install the ENOM application to C:\Program Files\ENOM on 32bit machines or C:\Program Files (x86)\ENOM on 64bit machines.
3. Create a shortcut to the ENOM executable on the desktop. This can be done by navigating to the ENOM.exe in the installation folder, right-clicking and selecting: 'Send To → 'Desktop (create shortcut)'

## **The ENOM Database**

The content of the ENOM database will initially be configured by GMSL. This will be provided in the form of a .mdb file (MS Access), dump file (Oracle) or backup file (SQL Server). The dump file or backup file can then be imported into the appropriate location.

The ENOM clients connect to the ENOM database by means of a database connection string. The connection string is configured in every shortcut to the ENOM client.

## Configuring the Shortcut

### MS Access

The location of the MS Access database can be on a local machine or on a multi-user environment, which would normally reside on a shared network drive.

#### **Checking MS Access database path**

Locate the MS Access database you want to connect to. If it is on your local machine it may reside in the ENOM application folder (C:\Program Files\ENOM\MyDatabase.mdb or C:\Program Files (x86)\ENOM\MyDatabase.mdb). If the database is on a shared network drive the path can be a UNC path (\\ServerName\ShareName\Folder\MyDatabase.mdb) or a specific drive path (F:\ShareName\Folder\MyDatabase.mdb). In all cases it is important to check that the user can navigate to the folder. Test this by pasting the path into Windows Explorer. If Windows Explorer cannot navigate to the path, then ENOM will not be able to locate it either. Check the spelling of the path and the name of the MS Access database.

#### **Folder permissions**

This mainly applies when the MS Access database is on a shared network drive. MS Access creates a lock file (.ldb) in the folder in which the ENOM database is located when a user opens the database. It is important that the user has read/write permissions to both the folder in which the ENOM database is located and the database itself.

The connection string for an MS Access database is its filepath.

See separate section for how to enter the connection string into the shortcut.

### Oracle or SQL Server Database

The connection string for an Oracle or a SQL Server database contains the Provider name (Provider), Server Address or TNS Alias (Data Source), Database name (Initial Catalog, SQL Server only), User or Schema name (User ID) and Password (Password), each followed by semicolons:

#### **Oracle connection string example**

Provider=MSDAORA; Data Source=TNSAlias; User ID=enom; Password=edigas;

#### **SQL Server connection string example**

Provider=SQLNCLI; Data Source=ServerAddress; Initial Catalog=ENOMDataBase;  
User ID=enom; Password=edigas;

See separate section for how to enter the connection string into the shortcut.

### Entering the Connection String into the Shortcut

Right-click the desktop shortcut icon and select 'Properties'. On the 'Shortcut' tab, the 'Target' field displays the path to the executable. After this path, enter a space and then the database connection string will follow the path to the executable. Please see below for an MS Access example. Oracle and SQL Server connection strings are entered in the same way.

