GSM (Novell) 32-bit beta-test

1. Introduction

This document describes how to install and configure the beta-test 32-bit version of GSM (Novell).

The current released version of GSM (Novell) is based on the essentially 16-bit version of GSM (DOS). This leads to a number of restrictions:

- The 16-bit GSM (Novell) client will not run on any "modern" version of Windows (i.e. it will not operate on Windows NT, Windows 2000, Windows ME or Windows XP);
- The 16-bit GSM (Novell) client does not support 32-bit applications (e.g. Global 3000 V5.0 and Global 3000 Payroll);
- The 16-bit GSM (Novell) client cannot be upgraded by the GSM service Pack mechanism.

The 32-bit GSM (Novell) client, when used in conjunction with the V2.00, or later, GSM.NLM, overcomes all these restrictions.

2. Pre-Requisites

This beta-test software requires an existing GSM (Novell) configuration (i.e. configuration code 5611 or 5613).

The version of Novell NetWare must be V3.12, or higher. The critical Novell component is TCPIP.NLM which **MUST** be running on the Novell server.

The person installing this beta-test software should be familiar with GSM (Novell). The 32-bit client software in this beta-test is essentially the GSM (Windows) client. Consequently, the person installing this beta-test software should also be familiar with GSM (Windows).

3. Server software

The beta-test software includes the V2.00 version of GSM.NLM. This version of GSM.NLM listens on both SPX, for existing 16-bit GSM (Novell) clients, and also TCP/IP for 32-bit clients.

Copy the new V2.00 GSM.NLM to the Novell server replacing the existing version of GSM.NLM. A copy of the existing GSM.NLM should be made in case it is necessary to remove the beta-test software.

3.1 Configuring the Server software (GSM.NLM)

GSM.NLM must be configured to "listen" for TCP/IP connections. This is achieved by editing the NLMGSM.INI file (see section 10.2.3 of the GSM (Novell) Manual) and adding the following line:

TCP-CONTROLLER PORT 3200

In this example, the Port Number is 3200. We have found that this number is available on most Novell Netware networks but may have to be changed if it is used by any other software.

The Port number (i.e. 3200) configured for the NLM must agree with the Port number configured for GLOBAL.EXE (see section 4.3).

4. Client software

The "client" software consists of a GSM (Windows) client. To fully install the client software the following steps are required:

- Run SETUP.EXE to install the first stage of the client software (see section 4.1);
- Run GLINSCLI.BAT to complete the client software installation (see section 4.2);
- Configure the 32-bit to access the GSM.NLM (see section 4.3);
- Apply the existing site serialisation information and User Count to the 32-bit client (see section 4.4).

4.1 32-bit Global Client Installation phase-1

Familiarity with GSM (Windows) installation is required for this phase of the installation.

IMPORTANT NOTE: This installation assumes a fresh installation of the GSM 32-bit client. If GSM (Windows) has been installed on the PC, it must be removed by using REGEDIT.EXE to **CAREFULLY** delete the "global" keys from:

HKEY_CURRENT_USER\Software

and:

HKEY_LOCAL_MACHINE\Software

Run SETUP.EXE as for a normal GSM (Windows) installation. You will be prompted for the following parameters:

Client node-id	**The node-id of the 32-bit client must NOT clash with the node-id of any installed 16-bit GSM (Novell) clients (see section 4.1.1 for more details of the Global Client Node-id)**;

Operator-id	Set this to the default operator-id or leave <blank> to be prompted for the operator-id;
Colour customisation	Select Global 2000 style or Global 3000 style, according to taste;
Installation directory	Select an appropriate directory;
Select DDF directory	Select an appropriate directory. Normally, this should be GSM200 in the Installation Directory;
Server Node-id	This should be the node-id of GSM.NLM (i.e. invariably "A");
Network address	**This setting MUST be the network address of the Novell server. THE NETWORK ADDRESS MUST BE DOTTED DECIMAL IP ADDRESS OF THE NOVELL FILE SERVER (i.e. rather than the Novell hexadecimal Internetwork Address). See section 4.1.2 for more details of the Network Address;**
Endpoint	Specify the Port Number that will be used by GSM.NLM that was established in section 3.1.

Once this first stage of the Global Client Installation has completed go to section 4.2 to completed the client installation.

4.1.1 Global Client Node-id

The node-id of a 16-bit GSM (Novell) client is **normally** set in the GSM.INI file. 16-bit GSM (Novell) clients can function as file-servers so that alphabetic "server" node-id's (i.e. "B" to "Z") can be used for 16-bit clients all well as non-alphabetic "non-server" node-id's 0x1b (27) to 0xff (255). The only exceptions are the illegal 0xc0; and "A", which is invariably the node-id of GSM.NLM running on the Novell file-server.

The node-id of a 32-bit GSM (Novell) client is set in the NodeID setting of the registry. 32-bit GSM (Novell) clients **CANNOT** function as file-servers so that alphabetic "server" node-id's (i.e. "A" to "Z") are not normally allowed for 32-bit GSM (Novell) clients.

Although a specialised technique in GSM (Windows) can be used to set the node-id of a 32-bit client to "A" to "Z", this technique is NOT recommended for GSM (Novell). The technique is not recommended because it may give the misleading impression that a 32-bit GSM (Novell) client can function as a file server.

Important Note: The 16-bit Global clients and 32-bit Global clients all share the same central resources so that it is essential that there are no clashing node-id's. **DO NOT**

ATTEMPT TO SET THE NODE-ID OF A NEW 32-BIT GLOBAL CLIENT TO THE SAME NODE-ID OF AN EXISITNG 16-BIT GLOBAL CLIENT.

4.1.2 Novell NetWare Server IP Address

The Network Address of the Novell file server that is specified during the 32-bit Global Client installation MUST be the dotted decimal IP address of the server. To determine the IP address of a Novell server:

A. On the server, or via RCONSOLE, load the TCPCON NLM:

LOAD TCPCON

B. Select the "Protocol Information" menu option;

C. Select the "IP" menu option;

D. Select IP Addresses (Select to View) and look under the Host Name column. For example:

Host Name	Address Mask		Interface	Broadcast Maximum Size
192.168.2.100	255.255.255.0	2	1	37020

<End of Table>

In this example, the IP address is 192.168.2.100

4.2 32-bit Global Client Installation phase-2

Familiarity with GSM (Windows) installation is required for this phase of the installation.

Run GLINSCLI.BAT to complete the "local" 32-bit client SYSRES installation. Only the following prompts should appear:

A.12 Destroy Domain

The reply to this prompt must be Y to use, and re-initialise, the template GSM200 supplied.

A.14 System Unit On Master

The reply to this prompt must be the Master SYSRES on the Novell Server (i.e. normally A01).

A.20 Specify size of SYSRES (minimum of *xxxx*K)

The "local" SYSRES on the 32-bit client must be at least 30M.

A.24 The Spooler

It should not normally be necessary to install a spooler on the "local" 32-bit client.

Once the installation has completed run $BYE to exit.

4.3 Global Client Registry Settings For Connection to GSM.NLM

The 32-bit client installation will establish the following registry settings that allow the 32-bit Global client to connect to the "TCP/IP aware" GSM.NLM.

The following setting should be correctly established:

..\Global\Client\Servers\A\ProtocolSequence=gsmtcpip

The following setting should also be correctly established:

..\Global\Client\Servers\A\NetworkAddress=*novell_file_server*

where *novell_file_server* is the network address of the Novell server specified in section 4.1.

The following setting should also be correctly established:

..\Global\Client\Servers\A\EndPoint=*nnnn*

where *nnnn* is the Port Number (e.g. 3200) established in section 3.1.

4.4 Site Serialisation and User Count upgrade

Reload GSM.NLM and then reload the 32-bit Global client. **IT IS IMPORTANT THAT NO 16-BIT CLIENTS ARE CONNECTED TO GSM.NLM AT THIS STAGE.** If the connection to GSM.NLM on the Novell server is functioning correctly you should be able to complete the sign-on to the 32-bit client.

By default, the beta-test version of the 32-bit Global Client is only licenced for a single-user. The site-specific User Count must be applied to the 32-bit Global Client. This is performed by running the NOV32 utility.

Run $BBS to import NOV32.GSM to the Global program NOV32. It is normally most convenient to copy this program to the local SYSRES (i.e. 201).

Run this program to update the global.lic file that is used by the 32-bit GSM (Novell) client.

As soon as NOV32 completes, run $BYE to unload the Global client.

You can now load any combination of existing 16-bit GSM (Novell) and new 32-bit GSM (Novell) clients.

5. SPEEDBAS.NLM and 32-bit GSM (Novell) clients

The V1.91, and later, SPEEDBAS.NLM supports a TCP/IP connection from 32-bit GSM (Windows) clients. This option is fully described in section 3.2.2 of Technical Note IN265.

6. Known Restrictions with the Beta-Test Software

The GSM (Novell) 32-bit client beta-test includes the following known restrictions:

- The beta-test installation involves several non-standard stages (e.g. running NOV32);

- $STATUS/MES and $M status line messages are not supported by 32-bit GSM (Novell) clients i.e. a 32-bit client can neither send nor receive a status-line message to/from another GSM (Novell) client;

- Some of the features in the GSM.NLM control screen are not fully supported in the V2.00 GSM.NLM. In particular, the option to delete connections does not yet function correctly for 32-bit GSM (Novell) clients.