



White Paper

Version Details [v1.4]

SIMS.Net, Serco CMIS, Phoenix Gold, RM Integris Classic



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Background

Xporter is an LA wide solution to automatically and securely collect data from schools. The system allows the customer to define what data is collected and how frequently. Xporter runs in each school to extract the required information from the MIS system and transfer it securely and in a uniform format to the customer.

Data files can be produced in CSV format, generic XML and to particular XML schemas. These can be made up of full datasets (e.g. all students on roll) or Delta files (e.g. changes that have occurred since the last data extract).

Any number of reports can collect data at different frequencies to automate data collection.

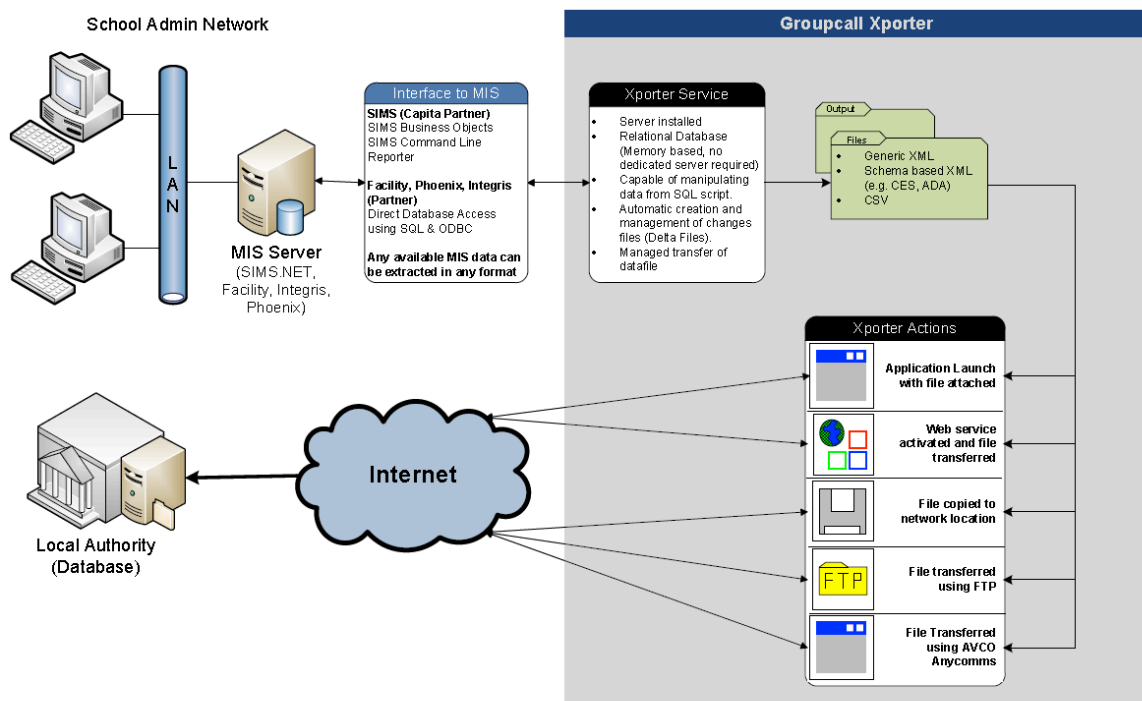
The Xporter can be used for various functions including:-

- 1) Collecting MIS data for onward transmission to centralised pupil databases used at local authorities (e.g. Capita ONE, Arete Impulse, RM Centris, Tribal Idear).
- 2) Collecting MIS data (student, staff & parents) for initial provisioning of Learning platforms and subsequent updates to that data as changes occur in the schools.
- 3) Collecting MIS data for maintaining local applications (e.g. library systems) where current pupils or attendance is required on a daily basis.
- 4) Collecting data from one or more databases including the capability to manipulate and adjust the data before onward transmission.

System Architecture Diagram

The following diagram is a typical LA example. There are a number of other possible destinations for the data (e.g. a learning platform).

Xporter System Architecture





What is a GCX file

A GCX file contains the instructions for a data extraction, called a job. A GCX file can contain one or many jobs. Each job can run independently with its own schedule at varying time intervals from one another. For example, it is possible to have one job running weekly, another running daily and another running on a specific date, once a year.

Within each job, there are various fields and parameters which can be defined using the Definition Editor (see **Appendix C Xporter Definition Editor** for more details). This is a separate application which comes as part of the Xporter installation routine that is **not** installed by default. (See also **Appendix B – Editing GCX Files**).

The instructions as defined in the definition file (GCX) specify one or many queries on the MIS database to build an output file. These queries can extract any visible data field from all supported management systems (currently SIMS.NET, CMIS, Phoenix Gold and RM Integrus). Typically the Xporter will collect pupil data, in either a full extract or a changes file (sometimes called a “Delta”).

The method of accessing data differs from system to system, however in general terms, SQL Select statements are used to query CMIS, Phoenix Gold and RM Integrus. Accessing SIMS.NET is done differently. See the following example:-

CMIS

“Select * from Pupils”

For CMIS, RM Integrus and Phoenix Gold, this would select all fields from the table called Pupils which would have to exist in the MIS database.



SIMS.NET

“Select * from Pupils”

In Sims.NET, Pupils is an exported report definition from SIMS.NET, called Pupils.repdef which must exist in same directory as the GCX file. Repdef files are created using the SIMS.NET report creator function. In essence, report files created in SIMS.NET can be used as a data source for the Xporter. Any repdef files called within the Xporter instructions must be shipped with the GCX file. The Xporter will automatically install any required repdef files into the school installation of SIMS.NET. For further information on this, see **Automatic Updating – GCX**.

GCX Instructions

These are a set of instructions that will select and manipulate data. There are a number of extensions that provide additional functionality. Whilst a detailed explanation of the instructions is beyond the scope of this document, one fundamental instruction is detailed below:-

FILENAME '<filenameformat>'

where

<filenameformat> = any valid filename chars and the following tokens

<jobname>, <leacode>, <dfesnumber>, <rowcount>, <jobseq>, <dt <dateformat>>

<dateformat> = valid delphi FormatDateTime format

Examples:

FILENAME 'C<LEACode><DFESNumber>.<JobSeq:3>'

This will produce a file called “C1119999.001

FILENAME '<leacode><dfesnumber>_CES_<leacode>LLLL_<jobseq:3>'

This would produce a file called 1119999_CES_111LLLL_001



Multiple GCX files

The Xporter supports multiple GCX files. As explained above, each GCX file contains the information required to extract data for multiple jobs, to be delivered to one location. The benefit of a second (and subsequent) GCX file/s is that data can be delivered to a different location. An example maybe as follows:-

- LA GCX file – Data to be delivered to central pupil database.
- Learning Platform GCX – Data to be delivered to a learning platform.

Each GCX file can be independently managed by the different stakeholders and can have its own update location (See the section **Automatic Updating – GCX** which follows).

Automatic Updating - Application

An Xporter installation at a school is made up of two elements, the application itself and the definition file (GCX). For more on GCX updating, see the section on **Automatic Updating – GCX**.

When the application is installed, it can monitor a dedicated location for program updates and when they occur, it will download the update and install it either automatically or with user involvement. These options are set in the Xporter setting file using the following fields:-

Check for program Updates (Hourly)

This will trigger the Xporter to check for program updates every hour in the location specified in the URL field.



Auto Install

This setting will install any application updates without user involvement. The application will download the update, stop the Xporter service, install the update and restart the service using the newly downloaded version of the application.

URL

This is the location where the Xporter application will look for updates. Each authority can have their own dedicated location on the Groupcall website. The default location is www.groupcall.com/clients/lea/NNN/exporter (where NNN is the LA number). This provides a controlled environment for updating schools within each authority, so that schools will only be updated when the LA has tested and approved the program update (if required).

The alternative to using the Groupcall website is for the LA to dedicate a mlocation on its own WAN, corporate intranet or website for its schools. This would require a directory, updatable by LA staff, where the Xporter application would look for program updates.

See **Appendix A – Files relating to Automatic Program Updates** for detailed information on how the program update is setup.

Proxy Servers

This is completed automatically by the Xporter application installer to use the same settings as Internet Explorer (See IE, Tools, Internet Options, Connections, LAN Settings).

Proxy Bypass

This is completed automatically by the Xporter application installer to use the same settings as Internet Explorer (See IE, Tools, Internet Options, Connections, LAN Settings).



Automatic Updating - GCX

A GCX file contains the data extraction instructions for the Xporter application. The default GCX file is called "gcxporter.gcx". Each GCX file can contain a number of data extraction jobs, each with its own schedule and instructions. GCX files can be updated using a similar method to the application updates. For more information on editing GCX file, see **Appendix B - Editing GCX files**.

In the Xporter application settings screen, there is a field named *Config URL*. This is the location where the Xporter will check for updates to the default GCX file. The GCX update location can be different to the application update location. Some customers prefer to have program updates on the Groupcall website, but have GCX updates on their own WAN, Corporate Intranet or website. This provides a flexible approach to GCX updating as well as a high level of control over the updating process.

In situations where there are multiple GCX files, the Config URL and other related settings for that GCX file are held in the gcxporter.ini file. An example of these settings is as follows:-

```
[GCX]
RM=RM\Kaleidos_CMIS_SQL.gcx
```

```
[AutoUpdate]
RM_ConfigURL=http://www.rm.com/Kaleidos/
```

Note: For additional GCX files, all job names and INI settings are prefixed with the name set in the GCX setting, in this case RM.

This will add a second GCX file to the Xporter installation and make it monitor a separate location for GCX updates (which is different to the default location in the settings screen).



The Xporter will check for GCX updates every hour at the same time that it checks for application updates.

To update a GCX in a school, a number of steps are required:-

1. Prepare an updated GCX file.
2. Zip up the file (including any required .repdef files for SIMS.NET). The file will need to be suffixed as a GCU file and named based on the MIS system (i.e. SIMSNET.gcu).
3. Store the file in the Config URL location as referred to above.
4. Edit the GCX_Update.inf file at the Config URL location and enter the following settings:-
[Update]
SIMSNET_ID = n (where n is the GCX version number).
The GCX version number is compared to the version running in the school. If the version number in the GCX_Update.inf file is higher, the update is triggered and the files will be downloaded and installed automatically by the Xporter application in the school.
5. Repeat this process for each MIS.

Setting default setting in the Xporter automatically

Standard settings can be applied for a new Xporter installation or for an update. The Xporter will check for the existence of a file called *DefGCExporter.ini*. If this file has been updated in any way, the contents of this will be applied to the GCExporter.ini file replacing any matching settings.

This mechanism can be used to pre-load various setting in the Xporter such as automatic update location, LA number and other automatic update settings.



For example, to automatically pre-load the installation with your LA number set the following in the DefGCExporter.ini:-

```
[Settings]
LEACode=nnn (where nnn is the LA number)
```

The Xporter will check for changes to the DefGCExporter.ini once a minute.

The Flow of Events

This provides more detail on the flow of events that take place during normal operation of the application.

1. Xporter service starts (typically when Windows starts)
2. GCExporter.ini file read (Xporter settings file)
3. DefGCXporter.ini file read (Updates to Xporter settings file are applied)
4. Check for updates (updates to program and GCX are applied if required and the “Flow of Events” will start again at 1).
5. GCX file(s) read
6. Xporter will display an icon in the system tray and will run dormant until the required date/time of a data extraction (job).

The Xporter will typically check for an application or GCX update at pre-defined locations every hour. If it finds an update, the “Flow of Events” will start at point 4.



Local Settings in each School

When the application is installed, you will be prompted to populate school specific settings. These options are set in the Exporter setting file using the following fields:-

LEA Code

Local Authority code (can be automatically configured by Groupcall)

DfES Number

Will uniquely identify your school

School Name

Will uniquely identify your school

SMTP Server

Will typically be an IP address or DNS name, if left blank, Exporter will act as its own mail server

SMTP From

Will identify the originator of the mail message sent by Exporter, if left blank, the message will be sent from 'support@groupcall.co.uk'

Run Jobs As

You may specify additional user credentials (local or domain) to allow access to a particular database/datafile which is not located on the same PC/server as the Xporter service is running, that may be required to manipulate data

Job Start Time

This can be modified to an appropriate time, if the default (0100) conflicts with scheduled daily backup routines

***Confirm before Run***

Allows manual interaction with the application, if required. The application will not continue until the user has confirmed that they are happy for the scheduled job to proceed

Start Warnings

This will countdown daily and present the user with information regarding the next scheduled job start time

Should you wish to modify any of the above information, simply select the **Setup, Application** option from the File menu within the Xporter main application

For Auto Update configurable options, please refer to '**Automatic Updating – Application**' section (page 6)

Appendix A – Files relating to Automatic Program Updates

There are two files which are required to perform an automatic application update for the Xporter. These files will be provided by Groupcall.

1) GCX_SvcApp.inf

This file holds the software version and installation instructions. The Xporter application in the school will compare its own version to the version number stored in this file. If this version number is newer, the update routine will be triggered. This file also contains a version history of the Xporter application.

2) GCX_SvcApp_Setup_n.n.n.nnn.exe (where n.n.n.nnn represents the version number).

The filename corresponds to the version number in the GCX_SvcApp.inf file and this is the updated Xporter application file to be downloaded.



The auto update routine supports for these files to have an additional suffix (such as .jpg). This can be used to bypass file type filtering where some firewalls stop executable applications being downloaded. To enable this feature, simply rename the files with a .jpg (or other allowed suffix) and make sure the *Dummy Extn* setting is set the suffix (eg. .jpg). See also the section **Setting default Settings in the Xporter**.

Appendix B – Editing GCX Files

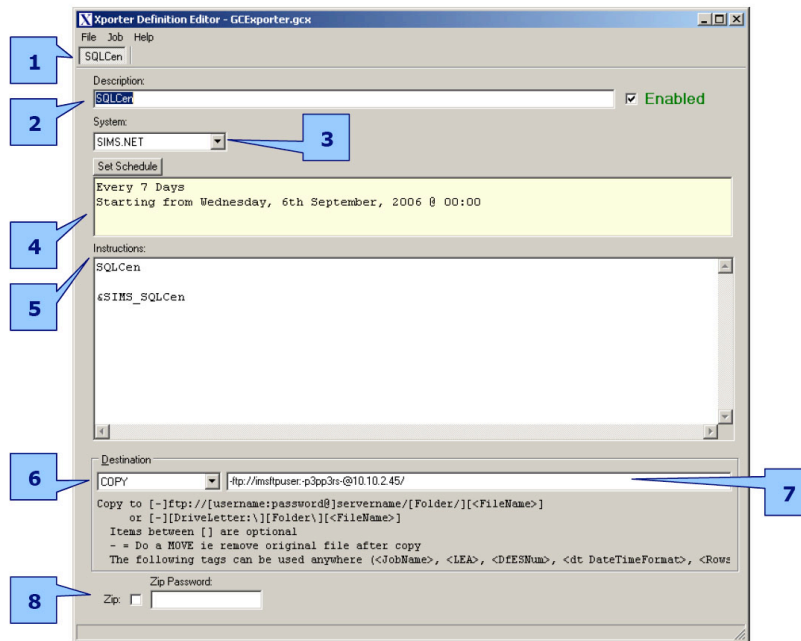
To edit GCX files, the Xporter definition editor needs to be installed. The editor can be installed using any standard Xporter installer with the `/maker=YES` parameter set as follows:-

`GCX_SvcApp_Setup_2.7.0.753.exe /maker=YES`

When using this parameter, the Xporter will be installed, but not as a service (as it would be in a school). Once installed, to run the Definition Editor, either select Start, All Programs, Groupcall, Exporter and select Exporter Definition Editor or simply double click on any existing GCX file to open the editor.

Appendix C - Xporter Definition Editor

The following information details the mode of operation of the Xporter application:



1. The name of the job, this will appear in the Xporter window.
2. A more descriptive name for the job.
3. Specify the MIS database (i.e. SIMS.NET, Phoenix etc).
4. Select Set Schedule to specify when jobs are run. This can be once, daily weekly, monthly, etc. at specified intervals and times of your choice.
5. The list of SQL commands which selects and manipulates the data into the required file format.
6. Destination specifies what happens with the file when it is produced.
7. Parameters for file transfer.
8. Specifies if the file is to be compressed and with what password.



Main job functions will always be created by Groupcall, however, once you are familiar with the structure of the statements it is possible for you to create and maintain your own '.gcx' or job functions.

Appendix D – Post Installation Troubleshooting

Symptom

Data is not arriving at the LA or Learning Platform.

Possible Solutions

1. Check the Xporter is running at the school

The Xporter icon should be present in the system tray. If it is not, it is not running and no data will be sent. Select Start, All Programs, Startup and Select Groupcall Xporter. The application will now start and any scheduled jobs will run automatically.

2. Check the next scheduled transmission

Restore the Xporter application by double-clicking on the Xporter icon in the system tray. In the top section of the screen, identify the required job and check that the next run date is as expected. If the date is correct, obtain the log file from the Xporter application (See Actions: Obtaining the Log File) and send it to Groupcall support on support@groupcall.co.uk. Include a brief explanation of the problem.

3. Manually Start a data transmission to check the transfer

A data transmission can be started manually to check the complete process of extraction and data transfer.

Restore the Xporter application by double-clicking on the Xporter icon in the system tray. In the top section of the screen, identify the required job and double click anywhere on the selected job. Select OK at the dialog which asks for the Last Run Date.



The extraction process will start and status information will be displayed in the bottom status window (including date and time information). If the extraction completes, the data will then be transferred using the preferred method. If the data extraction fails, obtain the log file from the Xporter application (See Actions: Obtaining the Log File) and send it to Groupcall support on support@groupcall.co.uk. Include a brief explanation of the problem.

4. Other problems (See Actions: Running the Xporter information Utility)

Actions

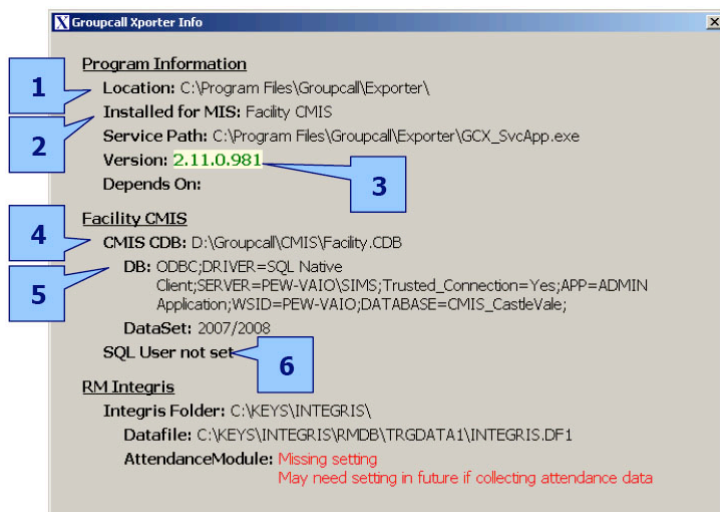
Running the Xporter Information Utility

Should you experience any difficulties during the installation process, or alternatively during normal operation of the Xporter application, there is an Information Utility that will report the configuration settings and help resolve any issues that may arise:

The Utility can be found at the following location:

www.groupcall.com/download/xporter/GCXporterInfo.exe

Running the application will show the following screen:



This will confirm that the configuration of Xporter has been specified correctly, showing each of the following details:

1. Location of the Groupcall Xporter application
2. MIS database type [CMIS, Integris, SIMS.net]
3. Current Version number (Green text identifies service is running, click here to stop, Red text identifies service not running, click here to start)
4. CMIS database location currently used by Groupcall Xporter application
5. Database connection information read by Groupcall Xporter (ServerName and DatabaseName variables identified)
6. SQL User credentials used by connection to database



Obtaining the Log File

A log file is automatically maintained of all historical actions of the Xporter. This enables Groupcall to assist in the diagnosis of any problem.

From your email client, send a message explaining the problem and attach the Xporter log file as follows:-

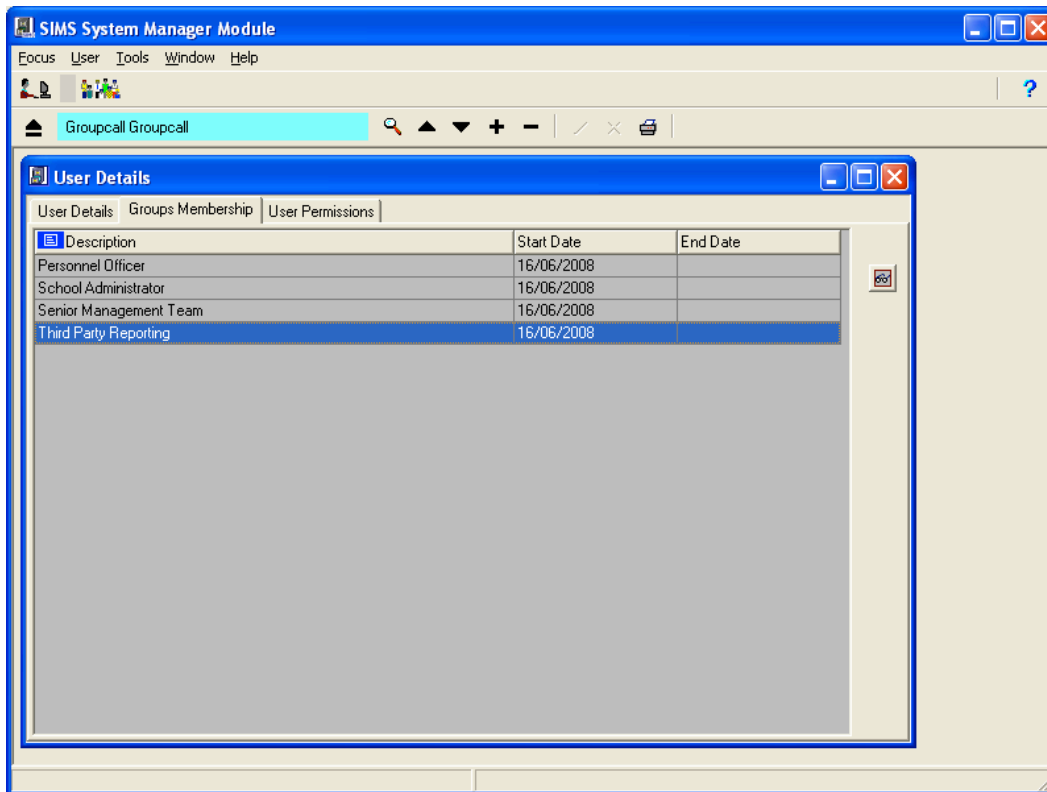
1. Select attach file from your email client.
 2. From My Computer, Select Program Files, Groupcall, Exporter and select the GCEXPORTER.LOG
 3. Send the email to support@groupcall.co.uk
- The issue will be prioritised based on the severity of the problem, mutually agreed based on the Support Level guidelines.

Appendix E – Capita SIMS .net - considerations

To ensure that the Xporter application will function correctly, we recommend that a dedicated SIMS user be created with appropriate rights specifically for the Xporter to interact with SIMS. This user can also be an existing SIMS user if required.

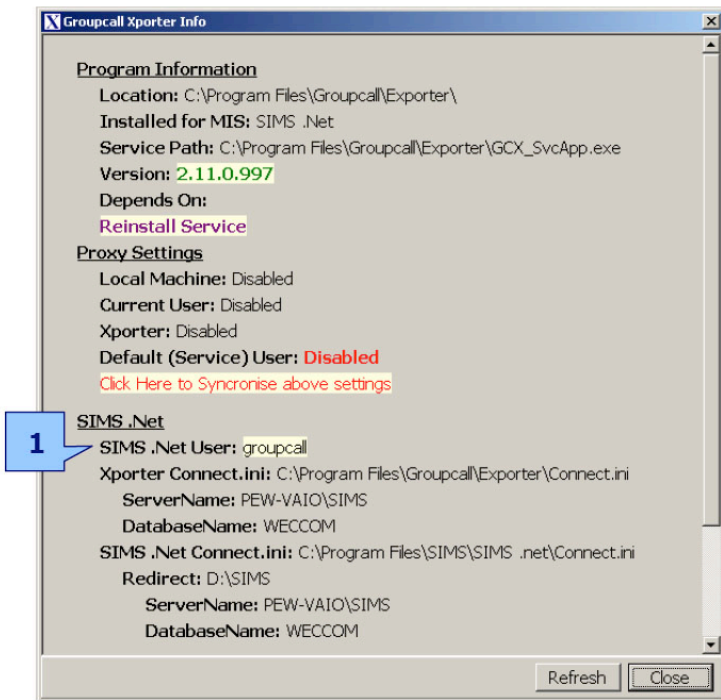
Please ensure that the user you decide to use is a member of the following SIMS groups:

- Personnel Officer
- School Administrator
- Senior Management Team
- Third Party Reporting



To confirm that the Xporter is using the correct credentials, please check the Xporter Information utility:

This can be downloaded from the following location:-
www.groupcall.com/download/xporter/GCXporterInfo.exe



The current SIMS user is identified as shown in point **1** above. If this needs to be changed or updated, there are various options:-

- a) If you have created a user manually with the appropriate rights, to ensure that the Xporter is using the relevant user credentials, from the Xporter application, select **Setup, System: SIMS.NET**, this will clear the current user credentials being used and prompt for new ones.
- b) Alternatively, click on "SIMS.Net User:" and you will be asked to confirm that Capita SIMS.Net patch 10935 has successfully been applied prior to continuing. This does not have to be done. The patch has to be run by a user logged onto the SIMS SQL Server with the SA password and requires a backup to be performed. This can take 30 minutes or more to perform. The patch actually creates a dedicated Xporter user with certain rights. The



alternative is to create this user manually in system manager with the rights documented above with the following user credentials:-

Username = Groupcall

Password = gr0upca11 [g r (zero) u p c a (one) (one)]

Simply create the user manually as above and accept that the patch has been run to continue. The Xporter will now reset to use these credentials.