



GpsGate SMS Proxy

Installation and Administration Guide

Version: 2.2

Rev: 1

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1 Introduction

Welcome to the GpsGate SMS Proxy Installation and Administration Guide!

GpsGate SMS Proxy adds SMS support to a GpsGate Server installation. It is installed on a computer managed by you. For a successful GpsGate Proxy installation you need the following components:

- a computer with an internet connection
- a mobile phone connected to the computer that supports SMS AT-commands
- a GpsGate Server installation, your own or hosted

GpsGate SMS Proxy can be used both for your own GpsGate Server installation and a GpsGate Server Subscription hosted by GpsGate. One GpsGate SMS Proxy can be connected to one GpsGate Server installation at a time. Please read the document carefully before you get started.

Please feel free to post any additional questions in our technical forum at the following link:

<http://franson.com/forum>

Thank you for using GpsGate solutions!

The GpsGate Team

2 Technical Requirements

GpsGate SMS Proxy requires a computer with Internet access and a mobile phone that can be used as a data modem with support for AT-commands.

2.1 *Supported Operating Systems*

GpsGate SMS Proxy runs on the following operating systems:

- Windows VISTA
- Windows XP Professional SP2/SP3
- Windows Server 2003 SP1/SP2
- Windows 2000 SP4

2.2 *Supported Phones*

GpsGate SMS Proxy communicates with standard AT-commands to send and receive SMS:s through a mobile phone. We have mainly tested SonyEricsson, Nokia and Motorola phones, but many phones have support for AT-commands so you can test any phone you have.

For a list of tested phones, please have a look at the following link:

http://franson.com/forum/topic.asp?TOPIC_ID=7829

3 Installation

The instructions in this section help you install GpsGate SMS Proxy on your computer.

3.1 *Software installation*

To prepare your installation you need the **GpsGate SMS Proxy** package. Download the GpsGate SMS Proxy package from

<http://www.franson.com/gpsgateserver/download.asp>

and unzip it to a directory of your choice on your computer.

Run the Setup.bat file.

3.2 *Phone installation*

Follow the installation guide for your mobile phone to install it as a data modem on your computer.

It is recommended that you connect the phone using a USB cable. This improves connection stability and also charges the phone (applicable for most phone models). You can also connect the phone over Bluetooth.

4 Configuration

To configure and connect your SMS Proxy to your GpsGate Server installation you follow the steps below.

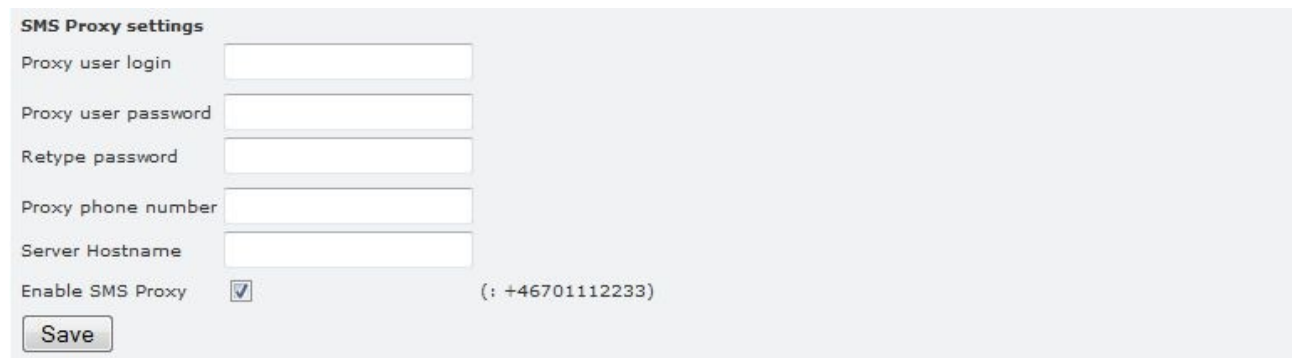
4.1 Server Side Configuration

Note: This configuration is done on your **GpsGate Server** installation!

You use the SiteAdmin application on your GpsGate Server installation to configure the server side SMS Proxy settings.

Login as SiteAdmin to your SiteAdmin application and select the “**Settings**” tab in your GpsGate Server installation.

Define the following SMS Proxy Settings on your server installation:



Proxy User Login	Create a unique user name for your Proxy User
Proxy User Password	Set a Proxy User password
Retype Password	Re-type password for confirmation
Proxy Phone Number	Set the proxy phone number in international format (e.g. +...)
Server Hostname	Enter the hostname of your server (example: yourserver.gpsgate.com)
Enable SMS Proxy	Tick the box to activate SMS functionality

This completes the server side configuration.

4.2 SMS Proxy Settings

Note: This configuration is done on your **GpsGate SMS Proxy** installation!

Start the SMS Proxy user interface application by double-clicking the file Configure.bat.

Select the “**Settings**” tab and fill in the required information for the GpsGate Server you want to connect your SMS Proxy to. The server information has to match the information you entered on the server side in the section above.

Then select the port you have connected your phone to.

The screenshot shows the GpsGate Server web interface. The title bar indicates 'No server configured, Remoting: http://localhost:8992/GpsGate.SmsProxyRemotable.rem'. The interface has four tabs: Status, Settings (selected), Log, and AT Console. The main content area is divided into three sections:

- Proxy settings:** Contains fields for 'GpsGate Server account', 'Server address', 'Port' (set to 30175), 'User name', and 'Password'. A 'Test server connection' button is at the bottom.
- Phone settings:** Contains a 'Port' dropdown menu (selected: 'Sony Ericsson Device 0017 USB WMC Data Modem (COM4)'), a 'Baud rate' dropdown menu (set to 19200), a 'Refresh' button, a 'SIM pin' field, and a 'Port timeout (ms)' field (set to 15000). A 'Test phone connection' button is at the bottom.
- Target remoting service:** Contains a 'Target URL' field (set to 'http://localhost:8992/GpsGate.SmsProxyRemotable.rem'), a 'Refresh' button, and a 'Change target' button.

At the bottom, there is a footer: '© Franson Technology AB, Sweden, 2009. v2.2.0.1743 <http://gpsgate.com>'.

GpsGate Server account:

Server address	The hostname of your server (example: yourserver.gpsgate.com)
Port	The port number for the NMEA service on your server (Default: 30175)
User name	The Proxy user name you created in the GpsGate Server
Password	The Proxy user password

Press “**Test server connection**” to verify that your SMS Proxy can connect to the GpsGate Server.

Phone settings:

Port	Select the port in the list where your mobile phone is a data modem
SIM Pin	We recommend you to leave this blank and deactivate the Pin code check on your phone. However, if you have a PIN code on the phone SIM card, enter it here.
Port timeout	This is the number of milliseconds before aborting a read from the port. (Default: 15000)

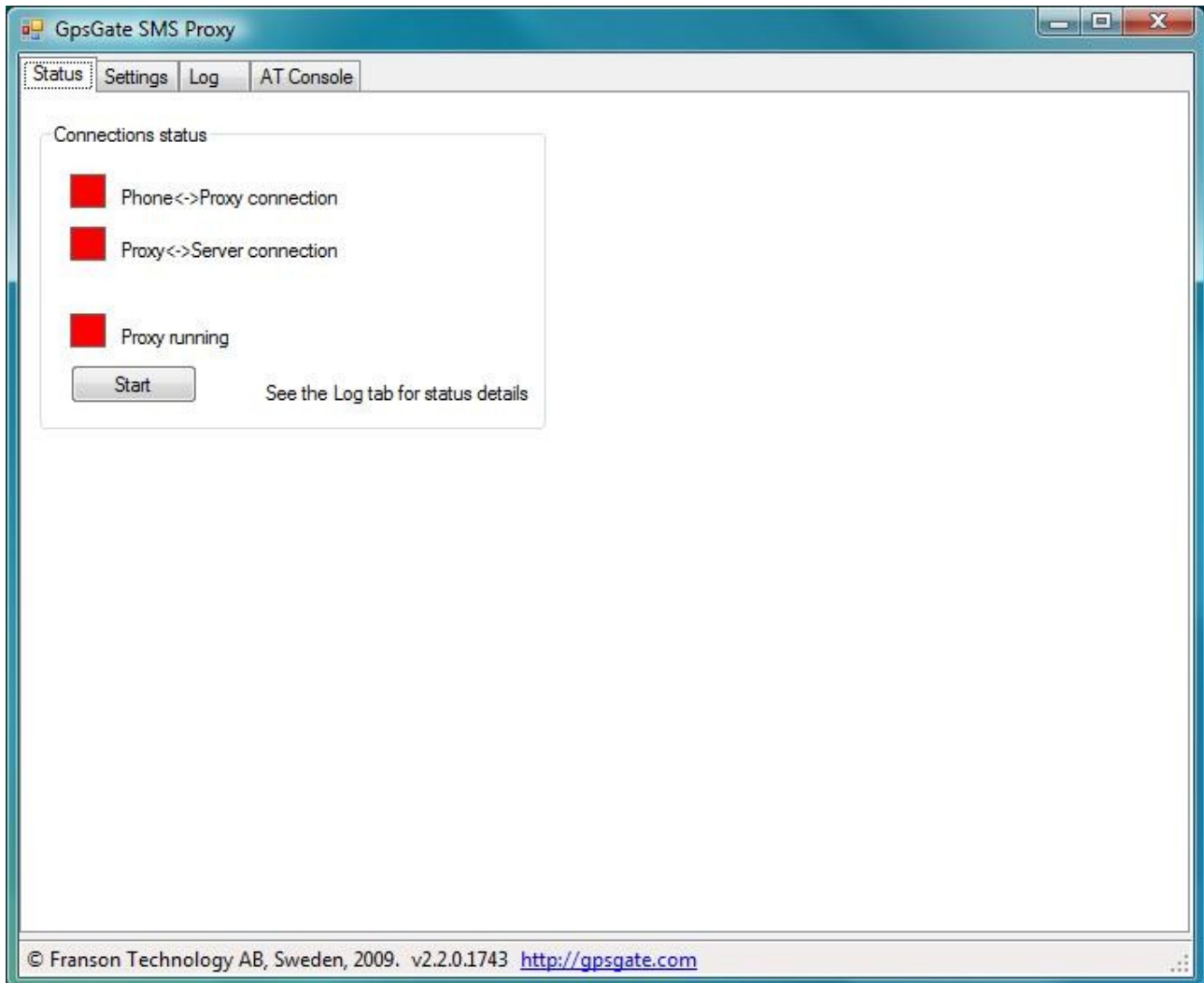
Press “**Test phone connection**” to verify that your phone is connected correctly.

Target remoting service:

Target URL	The target that the user interface communicates with. (Default: http://localhost:8992/GpsGate.SmsProxyRemotable.rem)
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4.3 Starting the SMS Proxy

To connect your GpsGate SMS Proxy to your GpsGate Server you press “**Start**” on the “**Status**” tab.

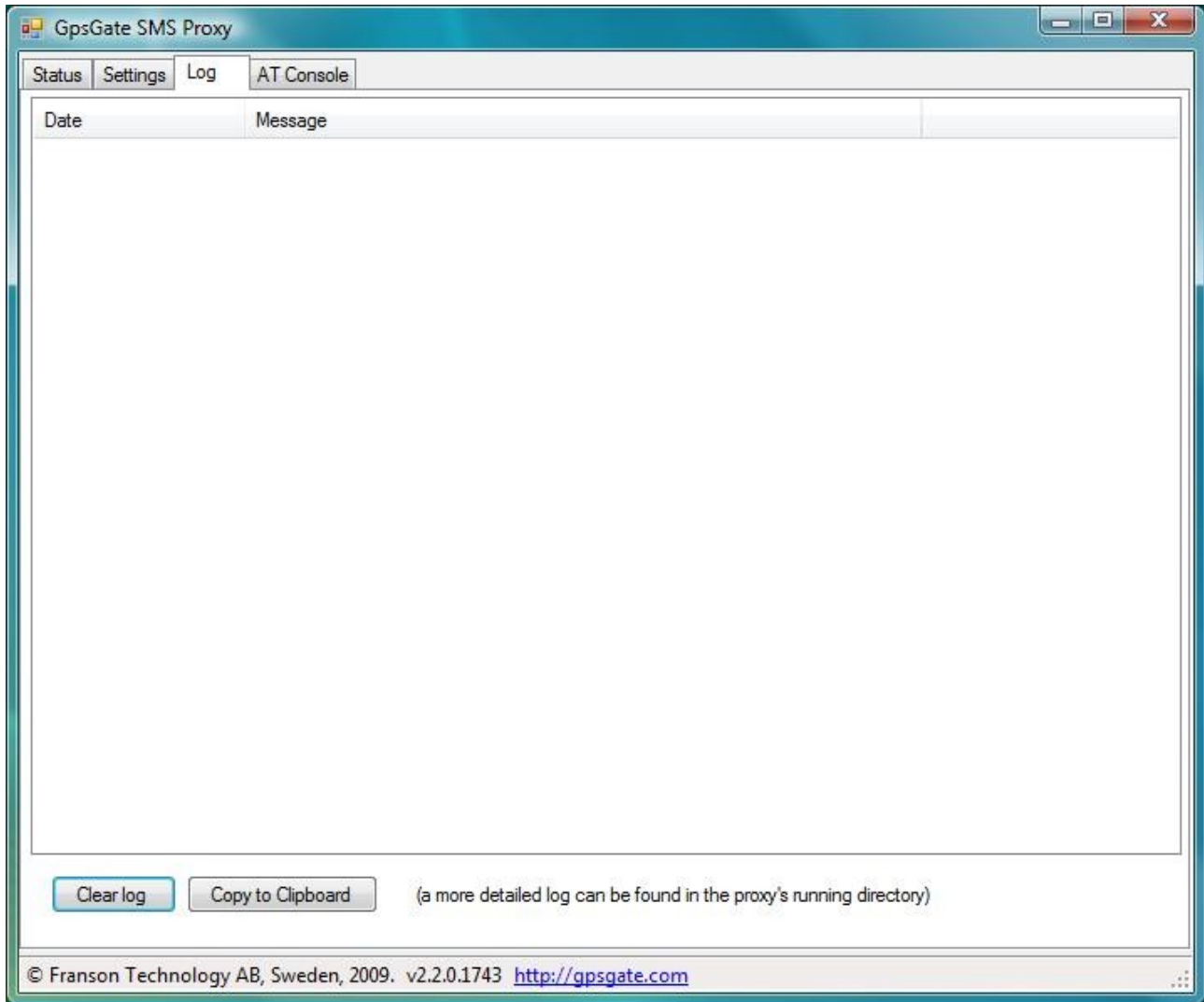


All icons turn green when connections have been established both to your phone and your server.
To stop a running SMS Proxy you press “**Stop**” on the “**Status**” tab.

5 Logging

There are two places for log information in GpsGate SMS Proxy.

The “**Log**” tab in the user interface shows recent events and both in- and outgoing SMS traffic. The log is cleared every time the user interface is re-started.



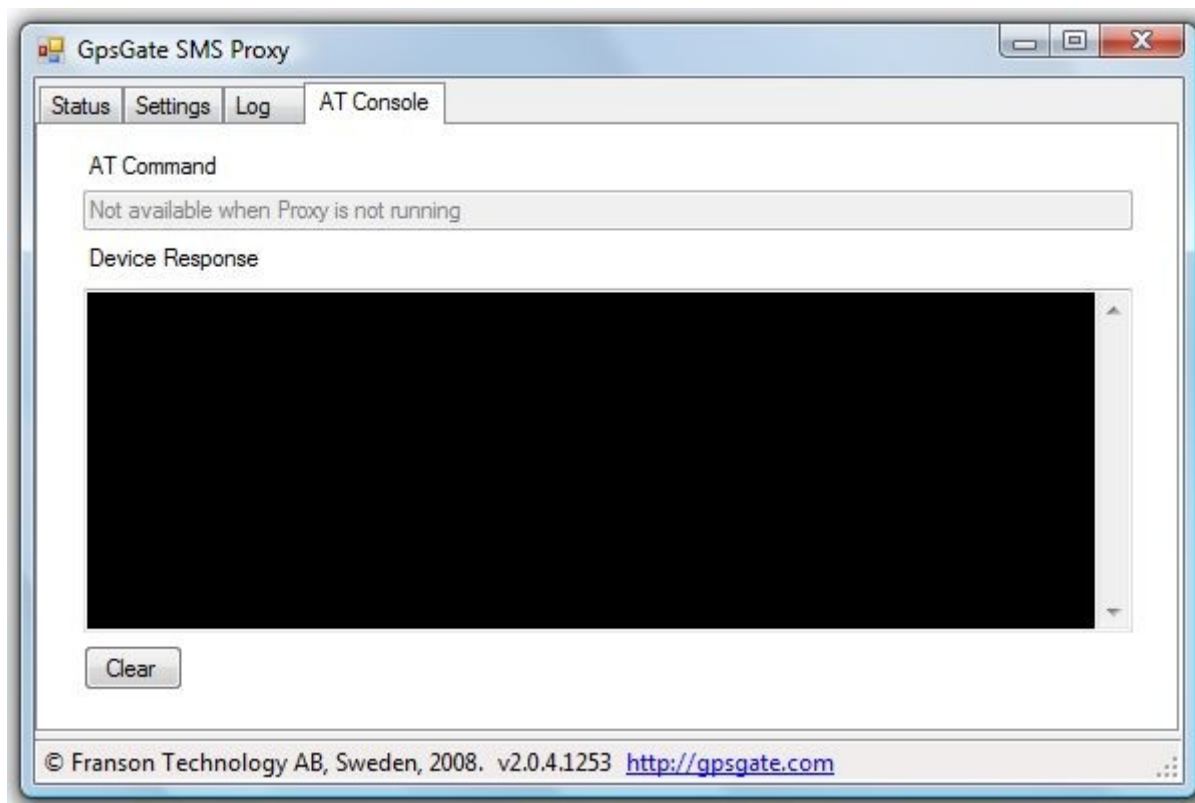
The log can also be cleared by pressing the “**Clear log**” button.

The log can be copied to the Clipboard (and then for example be pasted into a text document) by pressing the “**Copy to Clipboard**” button.

SMS Proxy is also logging events in log files placed in the SMS Proxy windows service installation directory. By default a new log file is created every day.

6 AT Console

SMS Proxy includes an AT console where you can write AT commands to your phone. The console can be used to manually send AT commands to the phone to check phone compatibility.



7 Additional Information

The technical forum for GpsGate solutions covers additional aspects of GpsGate SMS Proxy installation and usage. The forum is reached by the following link:

<http://franson.com/forum>

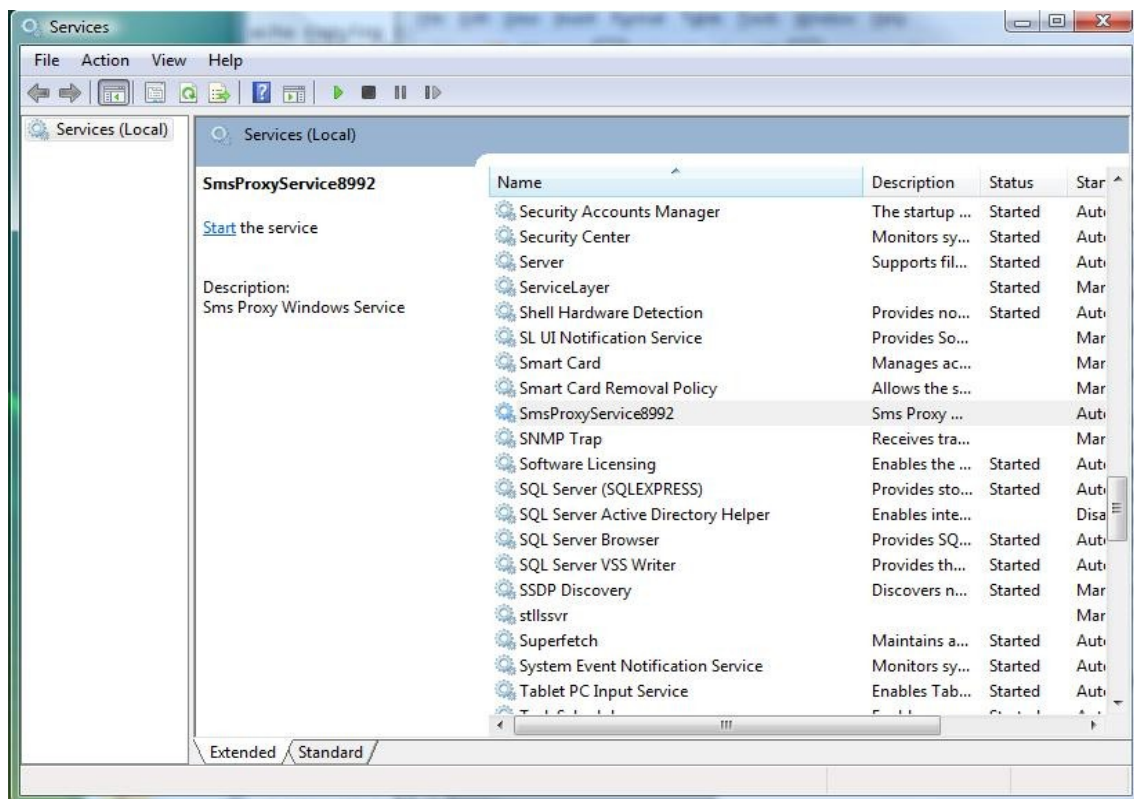
Appendix A

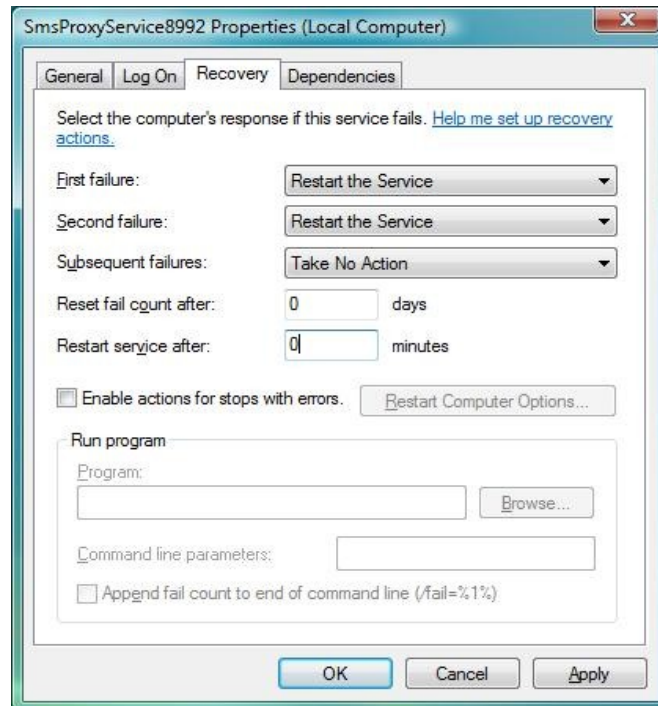
This appendix describes in more detail the installation procedure. The installation consists of a windows service that runs the SMS Proxy, and a user interface application to configure the SMS Proxy. The windows service and the user interface communicate using .NET Remoting.

Installing and Configuring the windows service

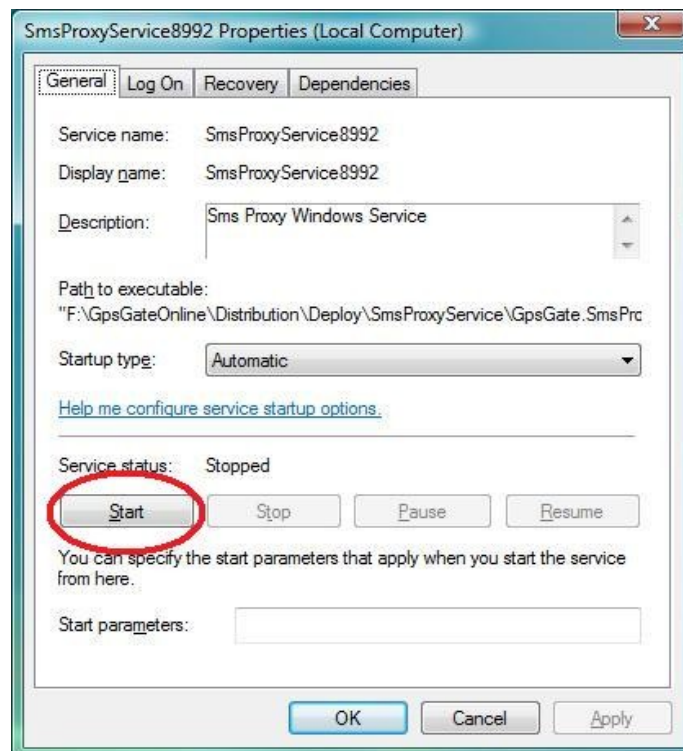
The installation of the SMS proxy windows service is done by executing the Setup.bat file located in the root directory of the unzipped GpsGate SMS Proxy package. The bat-file uses the .NET InstallUtil.exe application and also starts up the windows service after the installation. A windows service named “SmsProxyService8992” is installed with default values for .NET Remoting (Port 8992, using HTTP).

After installing the windows service you need to configure it. Because of a known issue in .NET, the windows service will fail if the phone should run out of battery or is suddenly unplugged when service is running. It is therefore necessary to configure the service to automatically restart on failure. From the Windows *Control Panel*, go to *Administrative Tools* and then *Services*.





A service named SmsProxyService8992 should be visible in the list of services. Right click it and choose *Properties*. Click on the *Recovery* tab. From the drop down lists choose *First failure: Restart the Service*, *Second failure: Restart Service*. Set *Restart service after 0 minutes*. Click *Apply* and then go to the *General* tab and click the *Start* button if the service is not already started.



The SMS Proxy is now ready for configuration from the user interface application.

Uninstalling the windows service

To uninstall the windows service, run Uninstall.bat.

Installation under Vista

When installing under Windows Vista it may be necessary to run the installation and unistallation files (Setup.bat and Uninstall.bat) from a command prompt started with administrative rights (Run as administrator).

Appendix B

This section explains how to make custom changes to the .NET Remoting configuration, such as changing port number and renaming the windows service. A thorough explanation of .NET Remoting configuration can be found on the MSDN web site (see [http://msdn.microsoft.com/en-us/library/b8tysty8\(VS.80\).aspx](http://msdn.microsoft.com/en-us/library/b8tysty8(VS.80).aspx)).

The communication between the SMS Proxy windows service and the user interface application uses .NET Remoting. A change in the remoting configuration must be reflected in both the windows service and the user interface application. The configuration specifies, among others, which port and underlying protocol (e.g. HTTP) to use for the communication.

The remoting configuration for the SMS Proxy windows service is contained in the file **GpsGate.SmsProxyService.exe.config** in the windows service installation directory. It contains the following xml:

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
  <appSettings>
    <add key="ServiceName" value="SmsProxyService8992"/>
    <add key="RetrySmsProxyStartOnStart" value="true"/>
    <add key="RetrySmsProxyStartInterval" value="30000"/>
  </appSettings>
  <system.runtime.remoting>
    <application>
      <service>
        <wellknown
          mode="Singleton"
          type="GpsGate.SmsProxyRemotable.SmsProxyRemotable,
GpsGate.SmsProxyRemotable"
          objectUri="GpsGate.SmsProxyRemotable.rem"
        />
      </service>
      <channels>
        <channel ref="http" port="8992">
          <serverProviders>
            <provider ref="wsdl" />
            <formatter ref="soap" typeFilterLevel="Full"
/>
            <formatter ref="binary"
typeFilterLevel="Full" />
          </serverProviders>
          <clientProviders>
            <formatter ref="binary" />
          </clientProviders>
        </channel>
      </channels>
    </application>
  </system.runtime.remoting>
</configuration>
```

```

        </channel>
    </channels>
</application>
</system.runtime.remoting>
</configuration>

```

The remoting configuration for the user interface application is contained in the file **GpsGate.SmsProxyServiceUI.exe.config** in the user interface installation directory. It contains the following xml:

```

<?xml version="1.0" encoding="utf-8" ?>
<configuration>
    <system.runtime.remoting>
        <application>
            <channels>
                <channel ref="http" port="0">
                    <clientProviders>
                        <formatter ref="binary" />
                    </clientProviders>
                    <serverProviders>
                        <formatter ref="binary"
typeFilterLevel="Full" />
                    </serverProviders>
                </channel>
            </channels>
            <client>
                <wellknown
                    type="GpsGate.SmsProxyRemotable.SmsProxyRemotable,
GpsGate.SmsProxyRemotable"
url="http://localhost:8992/GpsGate.SmsProxyRemotable.rem"
                />
            </client>
        </application>
    </system.runtime.remoting>
</configuration>

```

Changing the windows service name

The tool for installing the windows service is the .NET InstallUtil.exe. InstallUtil.exe uses a config file named InstallUtil.config file to determine what the name of the windows service will be. InstallUtil.config contains the following xml:

```

<?xml version="1.0" encoding="utf-8" ?>
<configuration>
    <appSettings>
        <add key="ServiceName" value="SmsProxyService8992"/>
    </appSettings>
</configuration>

```

```
</appSettings>
```

```
</configuration>
```

If you want to change the default windows service name, change the value of the key “ServiceName” in the InstallUtil.config before running the InstallUtil tool:

```
<add key="ServiceName" value="MyOwnServiceName"/>
```

The running windows service will use the GpsGate.SmsProxyService.exe.config file, so to avoid confusion the “ServiceName” value should also be changed to the same value in the GpsGate.SmsProxyService.exe.config file.

Changing the .NET Remoting port

In a custom installation it is possible to change the port used by .NET Remoting.

To do this, in the windows service config file, change the port number attribute of the channel tag:

```
<channel ref="http" port="9003">
```

A corresponding change must be made in the user interface config file. Change the port number in the “url” attribute of the element “wellknown ” in the user interface config file.

```
url="http://localhost:9003/GpsGate.SmsProxyRemotable.rem"
```

Continuous SMS Proxy start retry when windows service started

When started, the windows service will by default continuously try to start the SMS Proxy if for example no phone is connected. This retry behavior can be disabled by specifying RetrySmsProxyStartOnStart false in the GpsGate.SmsProxyService.exe.config file:

```
<add key="RetrySmsProxyStartOnStart" value="false"/>
```

In the same file, the interval in milliseconds of which retries are made can be changed by changing the value for the key RetrySmsProxyStartInterval, for example:

```
<add key="RetrySmsProxyStartInterval" value="60000"/>
```

Installing multiple windows services on the same machine

It is possible to install multiple SMS Proxy windows services on the same machine, although a single GpsGate Server can communicate with only one SMS Proxy at a time. Installing multiple services involves running each windows service in its own folder and giving each a unique name and a unique .NET Remoting port number as explained in sections 7.1 and 7.2 above. Follow this procedure for each windows service installation.

1. Copy the SmsProxyService folder with all its contents to a new directory.
2. Change the service name in InstallConfig.config and GpsGate.SmsProxyService.exe.config.
3. Change remoting port for windows service and user interface.
4. Run Setup.bat

Other configuration parameters

The SMS Proxy service has been tested using HTTP for the remoting channel but should also be able to handle TCP since the communication is handled by the .NET Remoting infrastructure. See the MSDN site for further information.