

Mobile Dispatch

Setup

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Introduction

This manual describes how to setup the Mobile Dispatch computer.

Mobile Switch Requirements

The switch acts as the conduit between the database and the mobile clients. The switch communicates with the database server via ODBC/ADO data connections and communicates with the mobile clients via XML. The following items are requirements for the mobile switch.

1. While connected via an air card or GPRS, you must be able to ping the server using the IP address that the switch is running on. It supports both internal and external ip addresses.
2. A port number must be forwarded to the specific server. It is recommended that you use port 777. This is for TCP communications. This is done at the router level.
3. The switch server must have access to the RedNMX SQL Database.

Installing the RedNMXSwitch Service.

The switch must be running in or for the mobile clients to operate. Follow these steps to install and start the switch.

1. While it does not necessarily need to reside on the same computer hosting the database server, the switch does need to reside on the computer where it will be running. It is recommend the switch be located in a "MobileSwitch" folder within the \rednmX folder. (e.g. c:\rednmX\mobileswitch; f:\rednmX\mobileswitch). Place the RedNMXSwitch.exe and RedNMXSwitch.ini file in this directory. See section for ini settings.
2. Go to a command prompt and navigate to the switch directory. Type the following:

```
RedNMXSwitch.exe -install
```
3. At this point the service should be successfully installed. Go to Control Panel->Administrative Tools->Services and verify RedNMX Mobile Switch is there. Ensure the Startup is "Automatic". Assuming ini file settings are set, go ahead and start the service.
4. Often a dependency needs to be made no the database service. Essentially this tells the computer to ensure the database is started before attempting to start the switch service. If it is the case the switch is not automatically starting on system reboot, a dependency needs to be made. Mark can assist with this.

RedNMX Switch .INI Settings.

The following table lists all of the .INI settings found in the RedNMXSwitch.Ini file. Enter your settings in the Your Setting column for future mobile installations.

Variable	Description	Example	Your Setting
FDID	Agency Identification Number	12345	
TABLETYPE	Table Type: 2 - Oracle 3 - SqlServer 4 - MySql		
SERVERIP	IP/Hostname of database server.	firserver1	
DATABASENAME	Database Instance Name.	REDNMX	
PORT	Port service will listen on for mobile client XML requests.	770	
USERNAME	Database username.	ALPINE	
PASSWORD	Enrypted password. Alpine to supply.		

Directory Structure

The following table lists the directory structure for the mobile dispatch application:

Type	Location or Name	Description
Application Directory	c:\rednmx	Location of all application files.
Application	Mobile.Exe	Application that executes mobile. Found in the c:\rednmx directory.
.INI setting file	Mobile.Ini	Setting file that holds all parameters for mobile application.
<Directory>	Mapping directory that holds shape files for you district.	This is determined by Alpine tech personnel. Enter your shape file location here: _____

Creating a Mobile.exe Deployment Shortcut.

If you would like to create a shortcut which will enable the user to get a new mobile.exe when connected to the LAN, follow these steps:

1. Copy the file RedNMXProgramLauncher.exe to the c:\rednmx folder
2. Create a shortcut to RedNMXProgramLauncher.exe with the following parameters:
 1. \\DirectoryHoldingMobileonServer\mobile.exe
 2. c:\rednmx\mobile.exe

Mobile Client .INI Settings

The following table lists all of the .INI settings found in the Mobile.Ini file. Enter your settings in the Your Setting column for future mobile installations.

Variable	Description	Example	Your Setting
FDID	Agency Identification Number	12345	
SWITCHIP	Switch IP Address	123.11.221.123	
TABLETYPE	Table Type: 2 - Oracle 3 - SqlServer 4 - MySql		
PORT	Port Number Switch listens to.	777	
UNITNUM	Unit number the mobile computer is assigned to.	E1	
GISCODE	GIS Mapping Code.	UNION	
GPSPORT	GPS Port Number. This represents the COM port number to receive GPS NMEA Data Sentences. Set this port to the proper port number.	2	
DISPLOCID	Initial location variable utilized prior to acquiring a latitude and longitude from the GPS Unit.	1	
WAVEFILE	Wave file name that plays at the start of a call.	SQAD51.WAV	
WINDOWBORDER	Flat to allow Mobile application to contain border allowing you to Minimize/Maximize/Resize	T - Use Border F - No Border, applicatino will be maximized	
The following four settings are only used if you GPS receiver sends \$GPRMC records that deviate from the default settings.			
LATSTART	Latitude Start	Default: 17	
LATLENGTH	Latitude Length	Default: 10	
LONGSTART	Longitude Start	Default: 30	
LONGLENGTH	Longitude Length	Default: 11	

Trouble Shooting Mobile Dispatch

This section covers issues that arise with the use of the mobile dispatch module.

- Program will not acquire a GPS signal. Check the port using Hyperterminal. See Append B.

Setup a Delay for the Service Startup

This Section Covers how to put a delay in the startup of the Mobile Switch Service.

- Open Registry Editor Start -> Run -> Regedit
- Navigate to HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\RedAlertSwitch
- From the Menu bar go to Edit -> New -> Multi-String Value Name it DependOnService
- Double Click on the new record you just created and type in MySQL

Append A: Sample Mobile.INI File

```
[settings]
FDID=60061
SERVERIP=66.12.32.1
SWITCHIP=66.12.32.1
PORT=777
SERVERDBNAME=REDNMX
USERNAME=ALPINE
PASSWORD=/UjX80D
UNITNUM=EN1
TABLETYPE=2
GISCODE=HAMBURG
GPSPOINT=2
DISPLOCID=23
LATSTART=21
LATLENGTH=9
LONGSTART=33
LONGLENGTH=10
WAVEFILE=SQUAD51.WAV
```

Append B: Checking GPS Port and saving a GPS Capture File

This section covers checking the GPS port with Hyperterminal, and then capturing the output from the GPS unit to a text file.

1. Start Hyperterminal by going to Start-> All Programs-> Accessories-> Communications -> HyperTerminal
2. Enter a name for this connection. This can be any name, but "testGPS" will be used in this document.
3. On the next screen you'll be asked what you want to connect to. We are interested in the Connect Using field at the bottom. This is where we will select our COM port. If you are testing a COM port, select the one you want to check now; Otherwise, select the COM port of your GPS Receiver.

NOTE: If you do not know your COM port, you can find it by repeating these steps until you see the GPS information coming across the screen. An example of this information will be shown below.

4. Next you need to select the COM port properties. Most GPS receivers use the default values, with the exception of the Bits per second, which is usually 4800. Please check your GPS receiver documentation if these default values do not work for you.
5. Now that you have the value, press Ok. You should not see Information scrolling across the screen. This will be the GPS data from the receiver. It should look like this:

```
$GPRMC,202746.088,V,,,,,,,,230107,,*2D
$GPGGA,202747.088,,,,,0,00,,,M,0.0,M,,0000*52
$GPGSA,A,1,,,,,,,,,,,,,*1E
$GPRMC,202747.088,V,,,,,,,,230107,,*2C
$GPGGA,202748.088,,,,,0,00,,,M,0.0,M,,0000*5D
$GPGSA,A,1,,,,,,,,,,,,,*1E
$GPRMC,202748.088,V,,,,,,,,230107,,*23
$GPGGA,202749.088,,,,,0,00,,,M,0.0,M,,0000*5C
```

6. Your Data should look like this. If not, then you should check to make sure you have the right port and your documentation to make sure the proper Connection settings are entered.

Next, we will show how to capture a text file of this data for review by Alpine Software.

1. First, You must have completed steps 1-6 from above.
2. Next, go to the Transfer menu at the top of the program and select Capture Text...
3. Select the location where the file should be saved. You should rename the file to GPS_CAPTURE.TXT. Press start to begin capturing the data to this text file.
4. After a couple minutes you should have enough data. Select the Transfer -> Capture Text... -> Stop to end the data capture.
5. You are now complete. You can disconnect from the GPS unit by going Call -> Disconnect. You can now exit the program. There is no need to save the connection when prompted to.