

TMAS™

Center Manager Version 2.26 User Manual

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1.0 Introduction

Center Manager is a device and connectivity management software for TMAS GPRS gateway, TMN-51T. Its functionality is as follows:

- Configuration tools for TMN-51T (settings and firmware update)
- Emulating virtual wire via Virtual Serial Port (VSP)
- Connection manager supporting Multiple Virtual Serial Port (MVSP)
- Interface with third party software via API
- SMS Server for IP address reporting

The default user name & password for Center Manager is:

User Name: admin

Password : admin

Please key in the default user name & password at login window as shown in Figure 1.



Figure 1: Login Window

1.1 Center Manager Window Layout

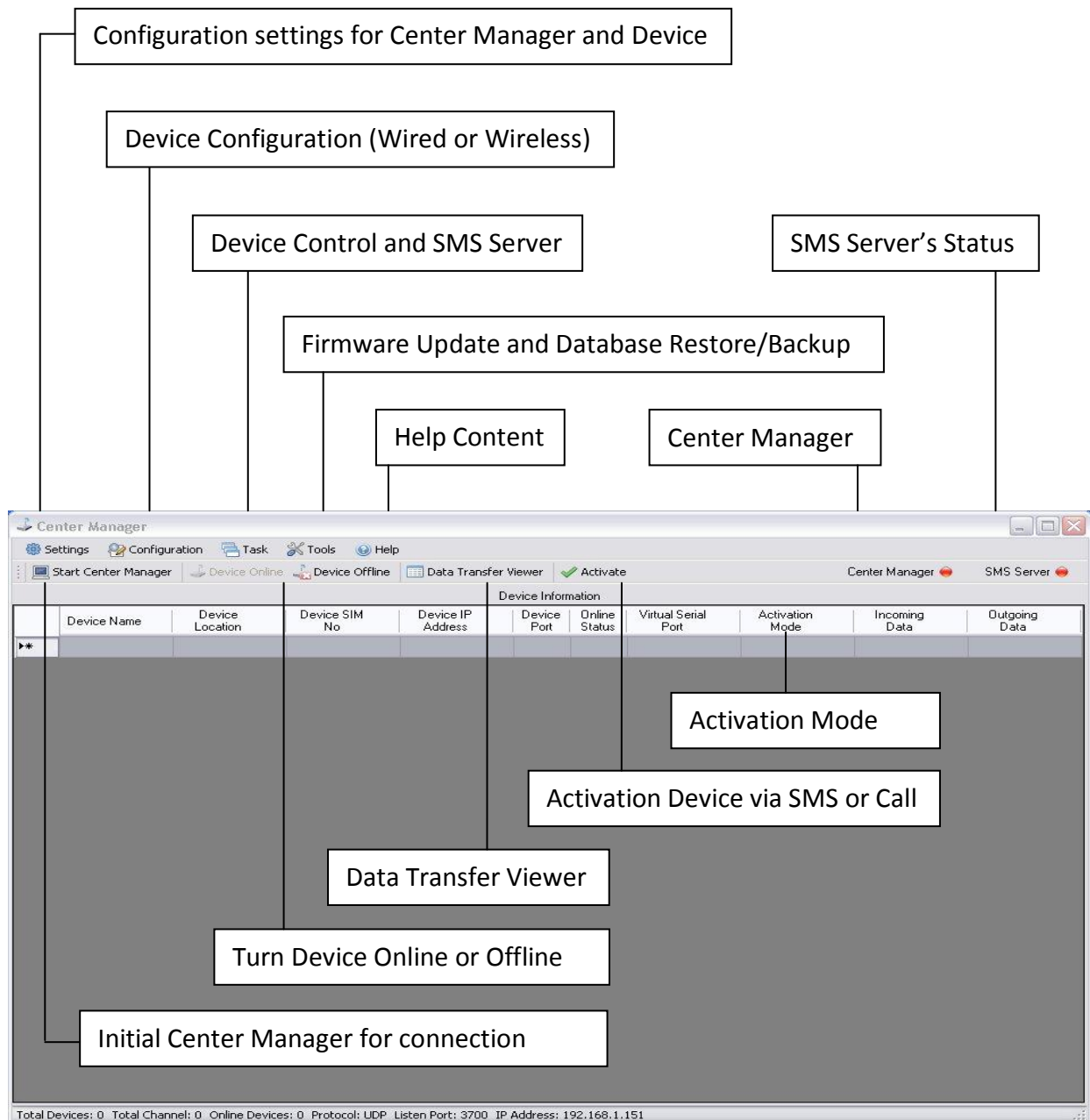


Figure 2: Center Manager Window Layout

2.0 Mode of Operation

Before proceeding into Center Manager configuration, please determine the mode of operation for Center Manager. Below is a brief description of the modes supported by Center Manager. Please refer to Center Manager application notes for more information.

2.1 Center Manager as Server

In this mode, Center Manager will always wait for devices to connect to it. In such situation, all the devices that wanted to connect to the Center Manager will have to know Center Manager's IP address. Current Center Manager supports two types of IP address:

- Public Static IP Address
- Public Dynamic IP Address

2.1.1 Center Manager as Server with Public Static IP

In this situation, every device will have the static IP address configured in it and will connect to the Center Manager once the GPRS connection is available as shown in Figure 3.



Figure 3: Center Manager as Server with Public Static IP

2.1.2 Center Manager as Server with Public Dynamic IP

In the situation of dynamic IP, Center Manager needs to update the device regarding its current IP address. To do so, Center Manager will send a SMS containing the IP address to the device. Once the device received the SMS, it will connect to Center Manager using the received IP address as shown in Figure 4.

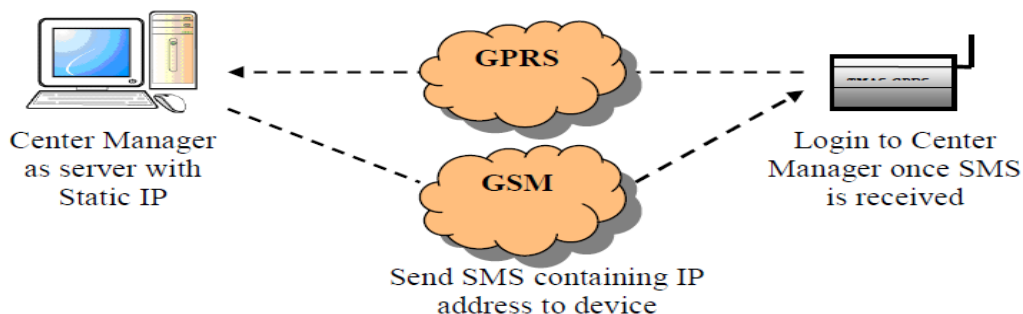


Figure 4: Center Manager as Server with Public Dynamic IP

2.2 Center Manager as Client

In this mode, Center Manager will initiate the connection with the device. Therefore Center Manager needs to know the IP address of the device it wants to connect to. Similar to server mode, Center Manager supports the following IP address type:

- Public Static IP Address
- Public Dynamic IP Address

2.2.1 Center Manager as Client, Device with Public Static IP Address

If device is using public static IP address, Center Manager will connects to the device when requested by the user as shown in Figure 5.

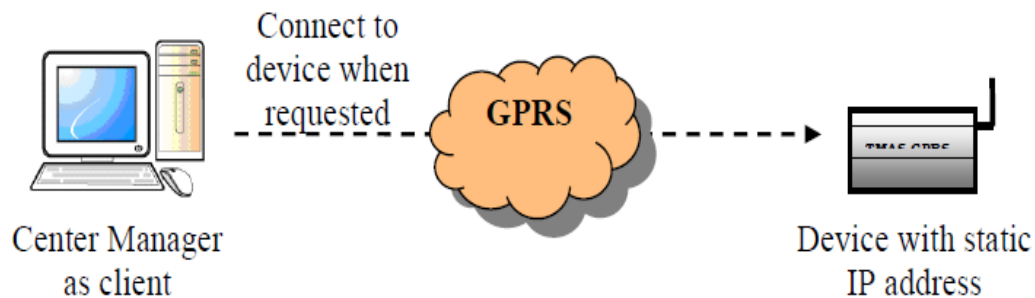


Figure 5: Center Manager as Client, Device with Public Static IP Address

2.2.2 Center Manager as Client, Device with Public Dynamic IP Address

If device is using public dynamic IP address, when the device obtained an IP address, it will SMS the IP address to Center Manager and upon receiving the SMS, Center Manager will initiate the connection with the device as shown in Figure 6.

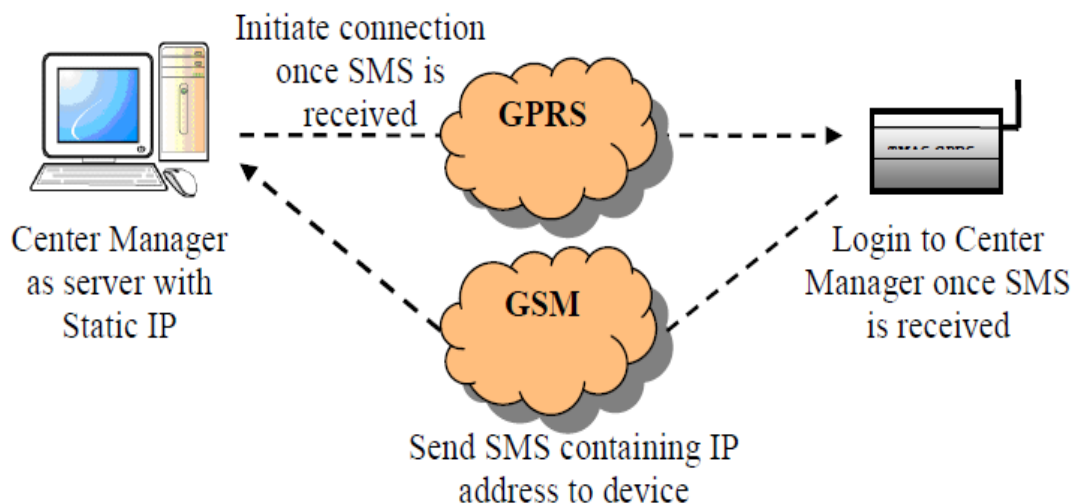


Figure 6: Center Manager as Client, Device with Public Dynamic IP Address

2.3 Direct TCP/UDP Connection to User Application

The device can be configured to communicate directly with user's application. In this configuration, Center Manager will only serve as a configuration tool as shown in Figure 7.

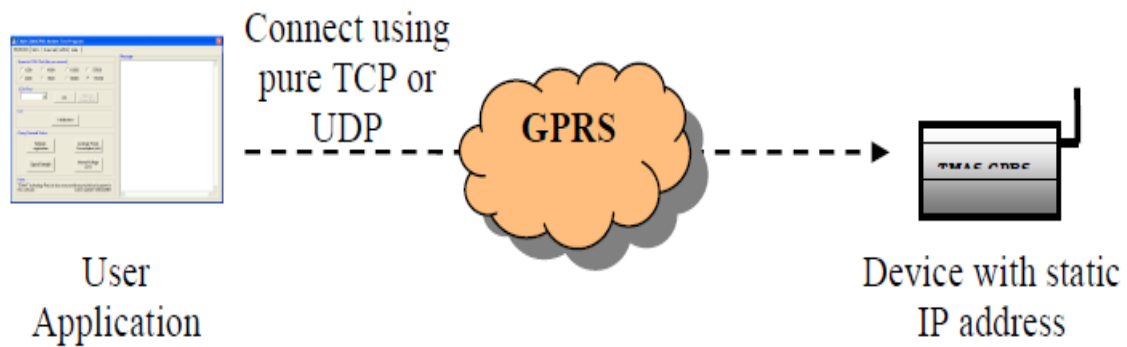


Figure 7: Direct TCP/UDP Connection to User Application

3.0 Center Manager Installation

Described as follow is the installation process:

Step 1:

To get started, please install Center Manager. On the first few installation pages as shown in Figure 8 & Figure 9, click Next to proceed.



Figure 8: Welcome Center Manager

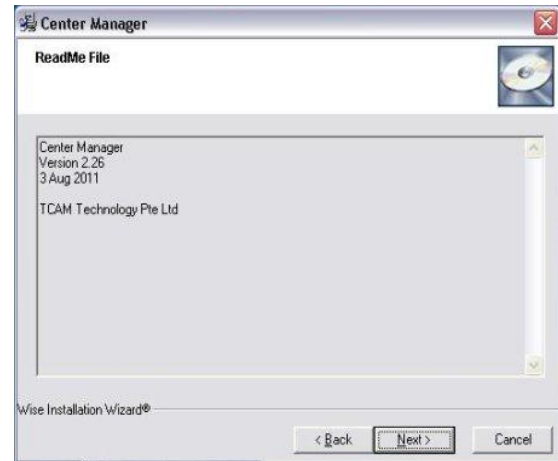


Figure 9: ReadMe File

Step 2:

During the installation, on the Installation Setup page as shown on Figure 10, select the required settings.



Figure 10: Installation Setup

Enable Auto Start : Allow Center Manager to automatically run when PC is turned on.

Reuse Old Database: Old database will not be overwritten. For first time installation of Center Manager, please **Do Not** select this option.

Disable Login Page : Disable login window when open Center Manager.

Step 3:

Click Next button to proceed start installation as shown in Figure 11.



Figure 11: Start Installation

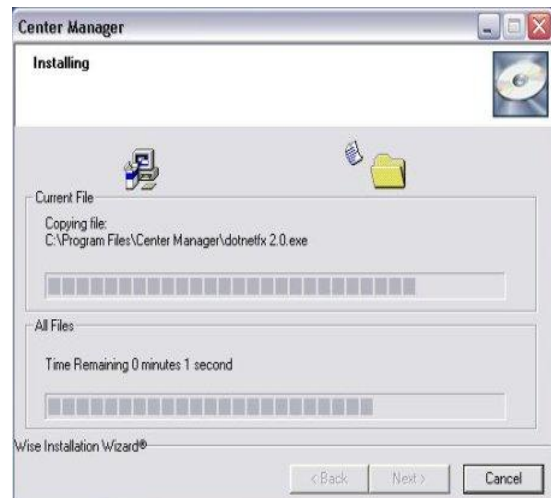


Figure 12: Installing

Step 4:

If Center Manager is installed previously, user may select the backup option as shown in Figure 13. Selecting this option will create a Backup folder containing the files that were overwritten during the installation process.



Figure 13: Backup Files

Step 5:

The Center Manager required dot net framework 2.0 for running. If the PC does not have the dot net framework 2.0, please click the Get dot net 2.0 button to be installed. If the PC already installed the dot net framework 2.0, please click Next button to proceed as shown if Figure 14.

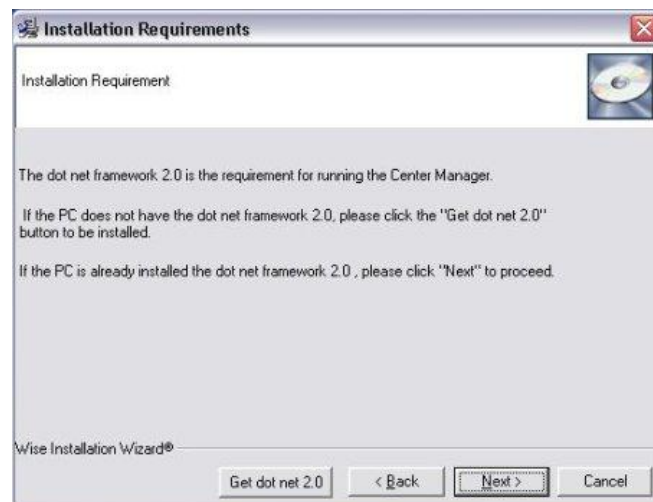


Figure 14: Installation Requirement

Step 6:

Click Finish to complete the installation as shown in Figure 15.



Figure 15: Complete Installation

4.0 Center Manager Setting

Once the mode of operation is decided, configure Center Manager accordingly. The following sub section describes all the settings available on the Center Manager Settings. Figure 16 shows the step to open up the Center Manager Settings. Click on Settings -> Center Manager

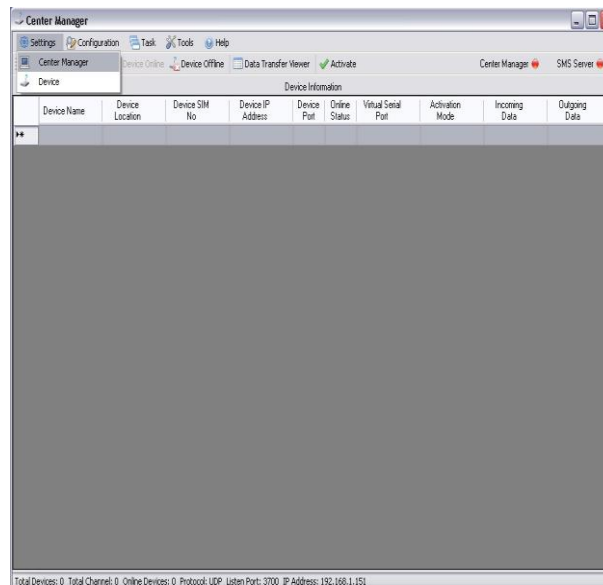


Figure 16: Center Manager Settings

4.1 Center Manager Operation

On the Center Manager Settings page, under Center Manager tab as shown in Figure 17, It contains settings for the operation mode.

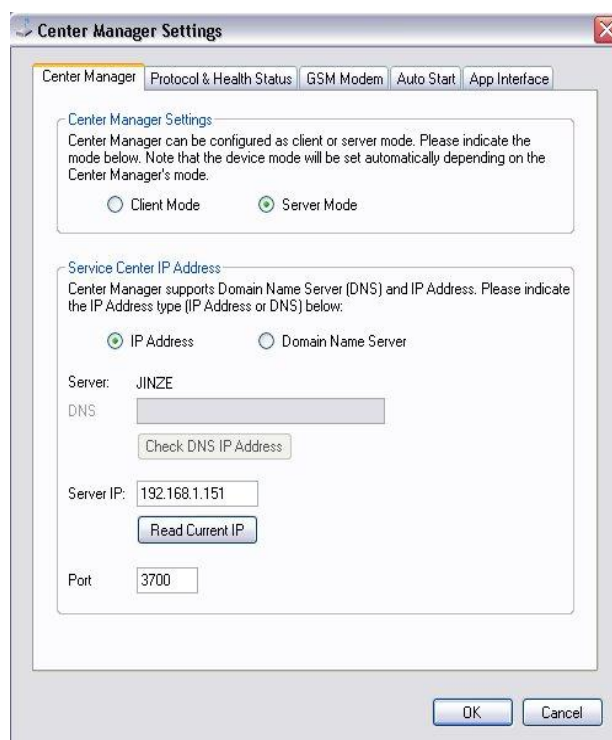


Figure 17: Server Mode

If server mode is selected as shown in Figure 17, Please fill in the followings:

- IP Address type: Center Manager supports both IP address and Domain Name Server (DNS)
- DNS : Use Check DNS IP Address to check the IP address of the DNS
- Server IP : Use Read Current IP to obtain the current IP of the PC.
- Port : The port number that is opened for connection

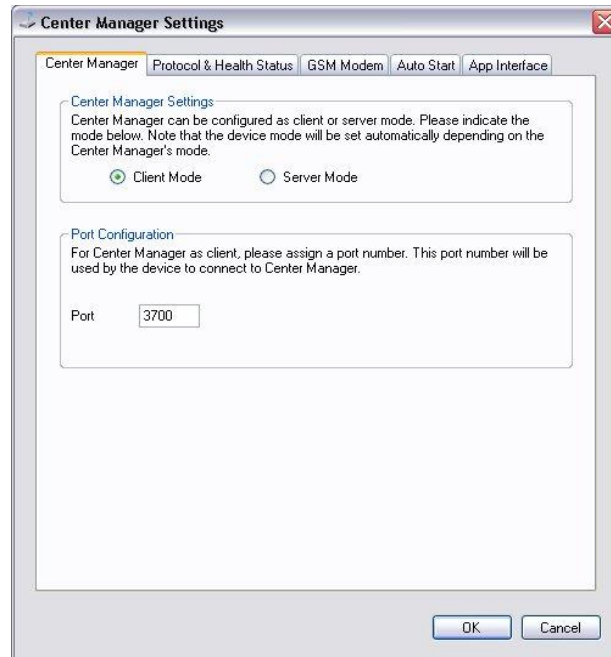


Figure 18: Client Mode

If Client mode is selected as shown in Figure 18, fill in the Port number under Port Configuration. Every device will use this port number to communicate with Center Manager.

4.2 Protocol and Health Status Check

On the Protocol & Health Status tab as shown in Figure 19, select the following:

- Protocol : Select UDP for bulky data transfer or TCP for secured data transfer
- Health Status Check : If a device is not active (no heartbeat or data transfer) within the Health Status Checking Interval, the device will be labeled as Inactive on the Center Manager.

Remember to reconfigure the device whenever a change is made to the protocol.

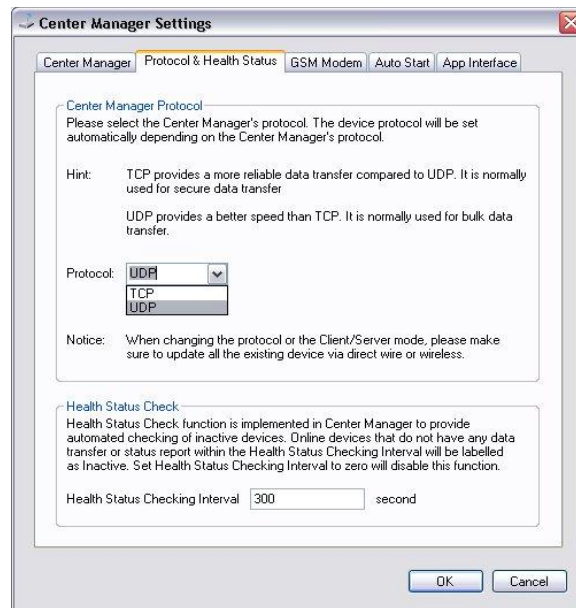


Figure 19: Protocol & Health Status

4.3 GSM Modern

On the GSM modem tab as shown in Figure 20, the settings are optional and are required only if Center Manager requires a GSM modem to operate, mainly for receiving and sending IP address from and to the device. Additional function of this GSM modem is to activate the device via SMS or call.

- Modem Comport: The port in which the modem is attached to.
- Baud rate : The baud rate of the modem
- SIM Card Pin : Enable if the SIM card in the modem requires a pin
- SIM Card Pin No : Enter the pin number of the SIM card

Check Modem function is provided in this tab to test if the modem is connected to Center Manager. Please run the SMS Server before testing the modem.

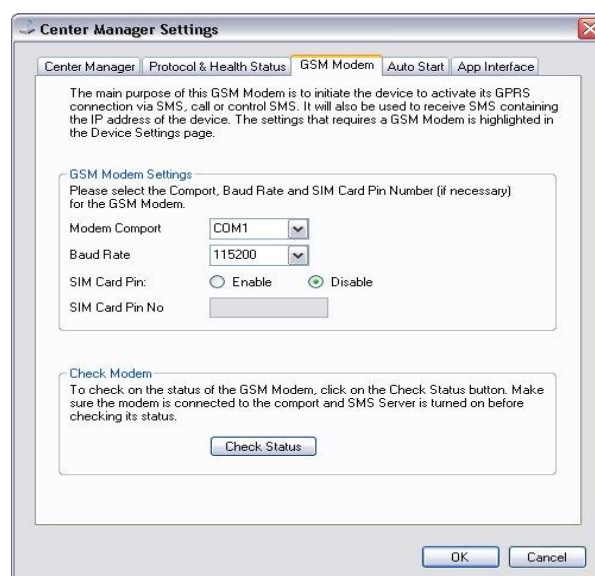


Figure 20: GSM Mode

4.4 Auto Start

The Auto Start tab as shown in Figure 21 provides option for Center Manager to automatically start the connection and/or SMS Server. Enable the respective auto start function if necessary.

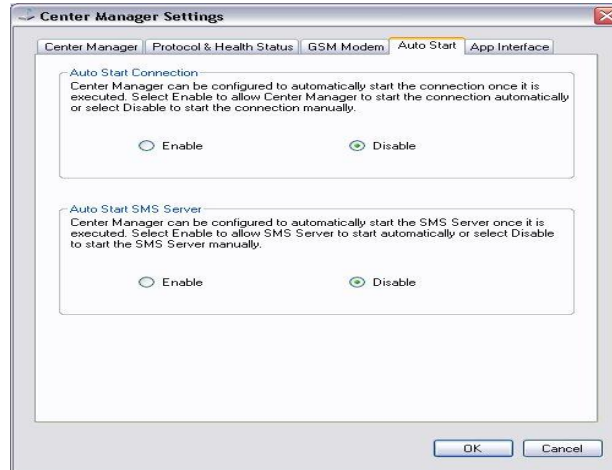


Figure 21: Auto Start

4.5 Application Interface for Third Party Software

Center Manager supports the following interface:

- Virtual Serial Port (VSP) - For every device, a virtual serial port will be created. The third party software will use the serial port to receive and transmit data.
- API and TCP Port - Third party software will need to receive and transmit data through TCP port. An API is provided for third party software to interface with Center Manager for the data transfer. Please refer to TMN-51T Center Manager API documentation for more details.
- Direct TCP/UDP Connection - The device will connect to the PC directly via TCP or UDP port and Center Manager will only serve as configuration tool. At any point of time, Center Manager can be used to perform a configuration or firmware update on the device.

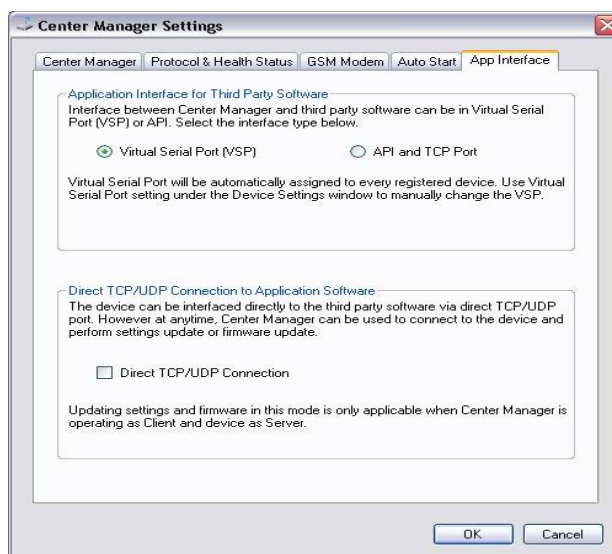


Figure 22: Application Interface

5.0 Registering Device

Connect the device to the PC where Center Manager is installed. On the Center Manager window, click on Configuration -> Direct Wire Configuration as shown in Figure 23.

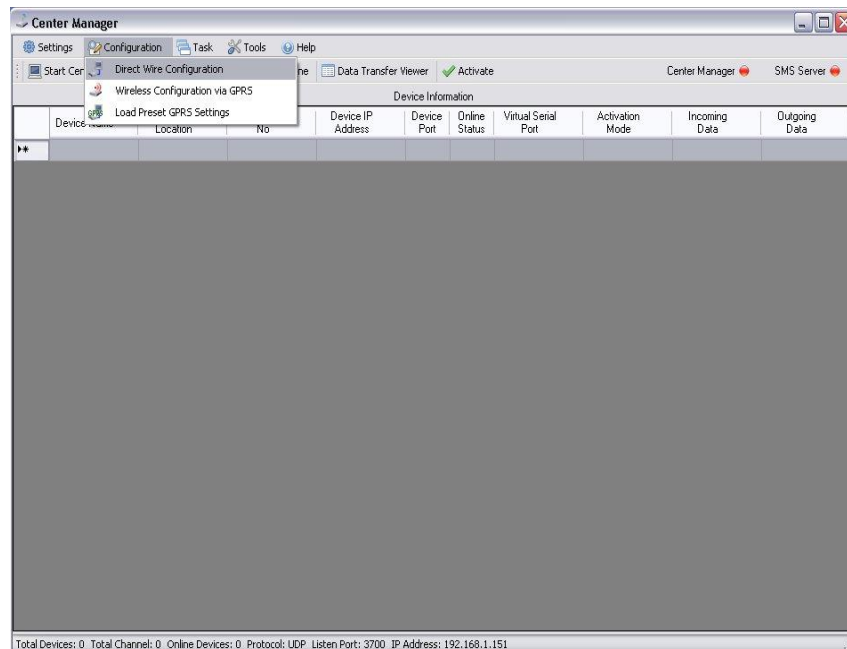


Figure 23: Direct Wire Configuration

The Direct Wire Configuration window as shown in Figure 24 will appear. After that, select comport that the device is connected to and click on Connect button. The device information will be displayed under the Device Information box.

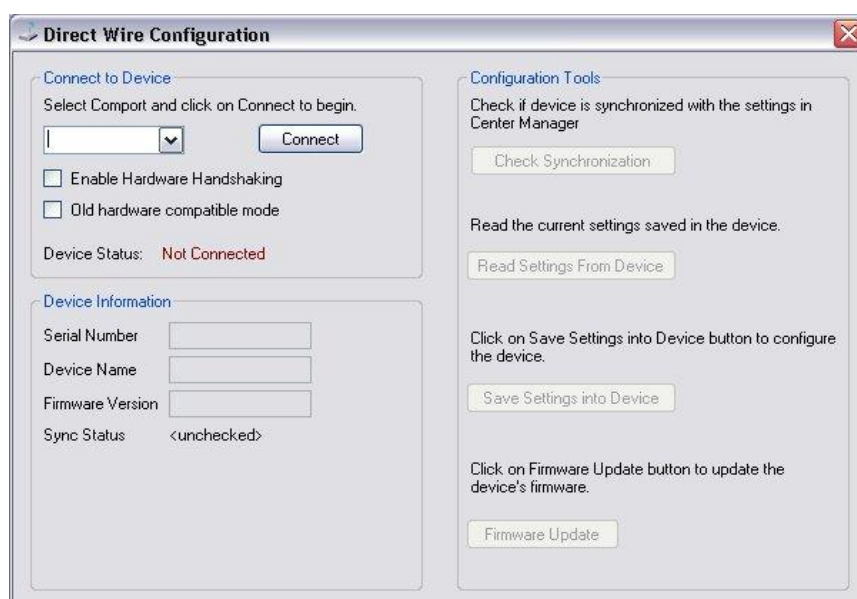


Figure 24: Direct Wire Configuration Window

5.1 Registering New Device

If the device is not registered in the Center Manager, a message will be displayed in the Device Information box as shown in Figure 25.

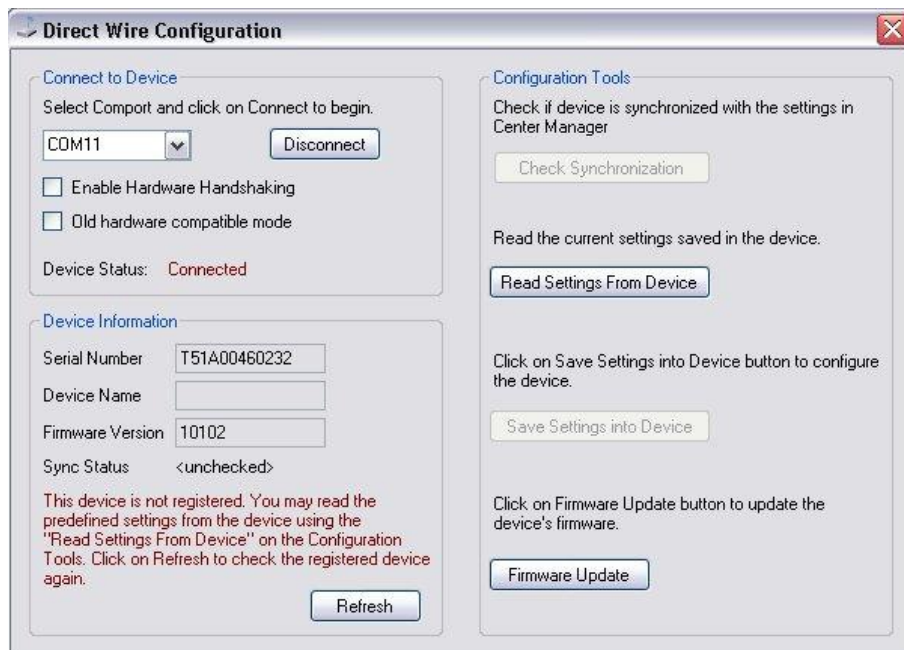


Figure 25: Register New Device

Follow the steps to register the device:

Step 1:

Click on Read Settings From Device button. The Device Settings page containing all the default settings of the device will be displayed as shown in Figure 26.

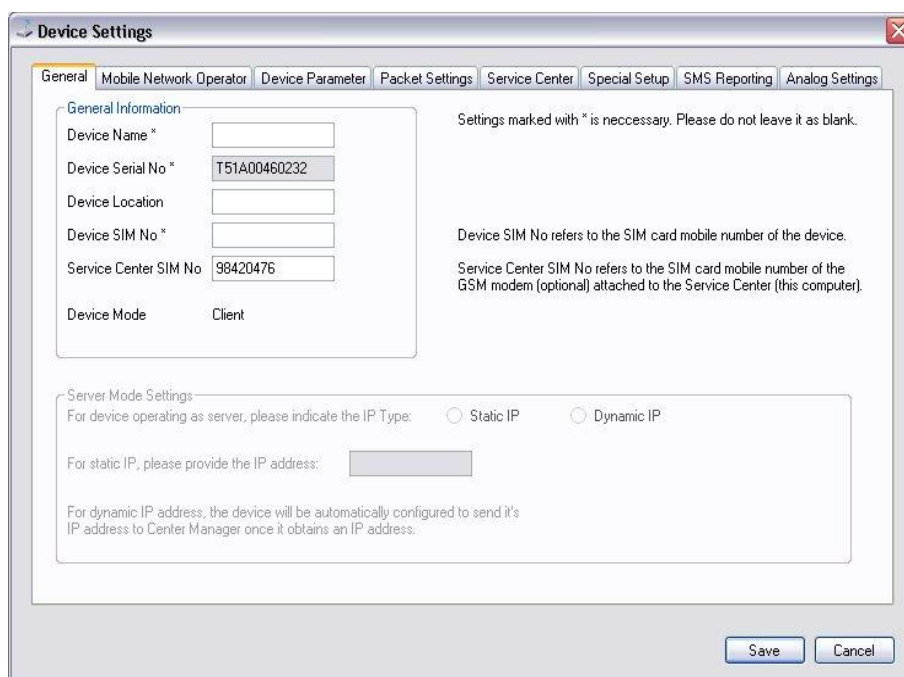


Figure 26: Device Settings

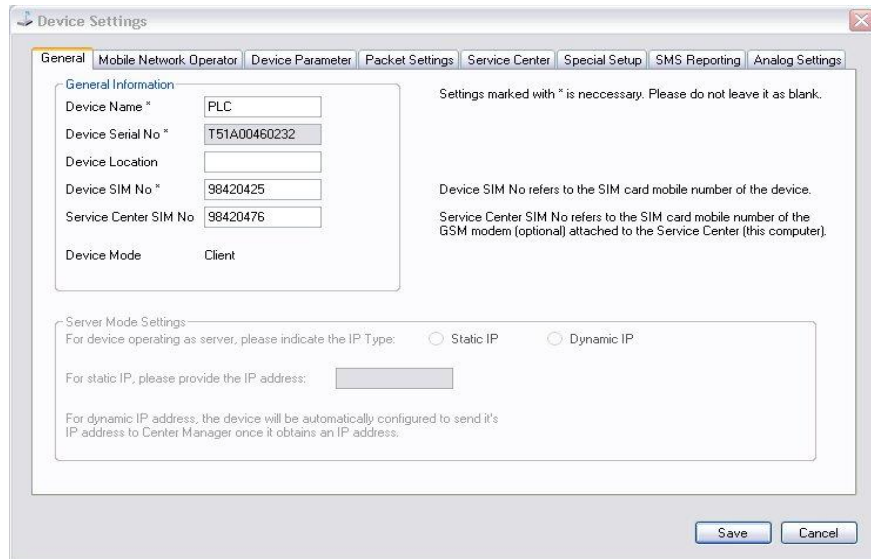
Step 2:

In the Device Settings window, fill in the Device Name and Device SIM No. Adjust the other settings accordingly. Please refer to the application notes for more information.

Example shows in Figure 27:

Device Name : PLC

Device SIM No: 9842 0425



The image shows the 'Device Settings' window with the 'General' tab selected. The 'General Information' section contains the following fields:

- Device Name *: PLC
- Device Serial No *: T51A00460232
- Device Location: (empty)
- Device SIM No *: 98420425
- Service Center SIM No: 98420476
- Device Mode: Client

Below the 'General Information' section is the 'Server Mode Settings' section, which includes radio buttons for 'Static IP' and 'Dynamic IP'. The 'Static IP' option is selected. Below the radio buttons is a text box for the IP address.

At the bottom right of the window are 'Save' and 'Cancel' buttons.

Figure 27: Device Settings Window

Step 3:

Click 'Save' button to save the settings. A pop up window as shown in Figure 28 will appear. Click OK to create a Virtual Serial Port (VSP). To manually assign a VSP, please refer to section 8.0 Changing Virtual Serial Port.



Figure 28: Installation of Virtual Serial Port

Once OK button is clicked, the device will be registered in Center Manager. A pop up will appear indicating that the device is saved. The installation of VSP will begin.

5.2 Installation of Virtual Serial Port

A pair of Virtual port will be installed. Therefore, repeat the same steps twice. During installation, a command window will pop out as shown in Figure 29. Kindly wait for it to initialize the Found New Hardware Wizard.

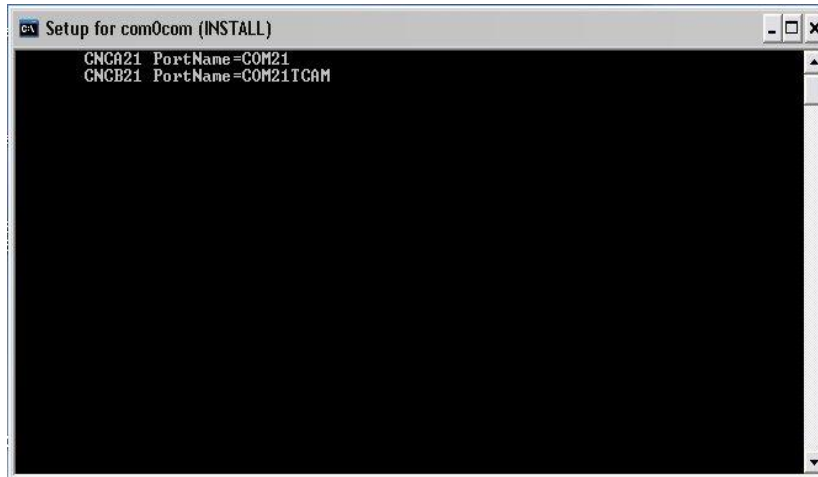


Figure 29: Initiate Installation of VSP

Click on Next button to begin the installation as shown in Figure 30.



Figure 30: Found New Hardware

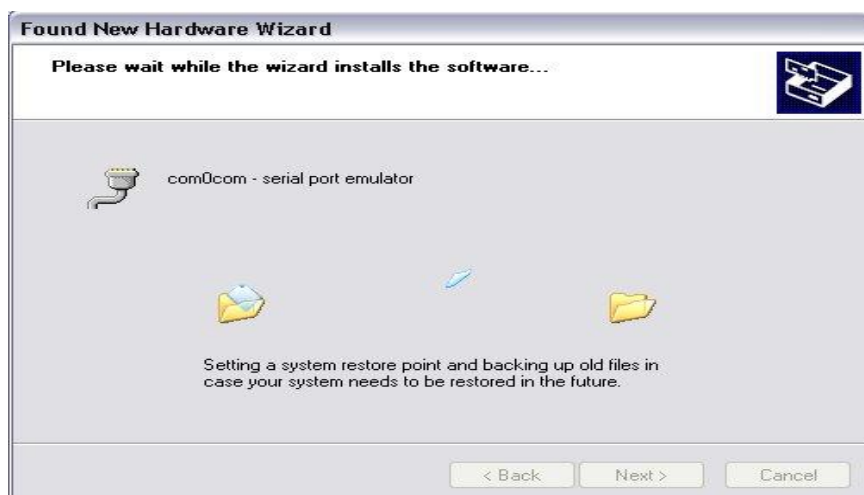


Figure 31: Installing

Click on Finish to complete the installation.



Figure 32: Complete Installed

Finished: Once the VSP is installed, the registration and setup of a new device is completed. Proceed to configure the registered device as shown in section 6.0 Configuring Registered Device (Direct Wire Configuration).

6.0 Configuring Registered Device

6.1 For Newly Registered Device

Step 1:

Click on Refresh button as shown in Figure 33 to check if the device is registered.

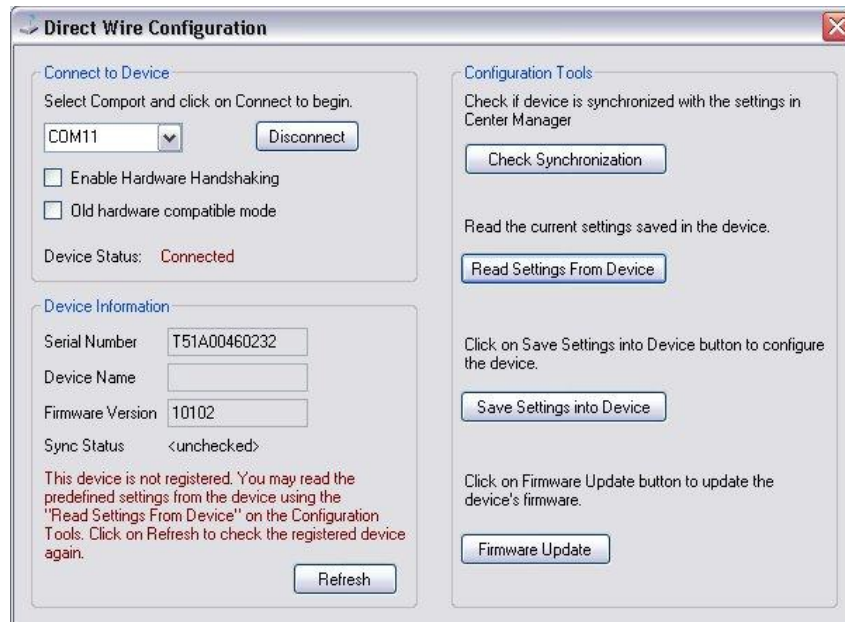


Figure 33: Refresh Device Information

If the device is already registered, the Device Name will show and there will be an indication that the device is already registered as shown in Figure 34.

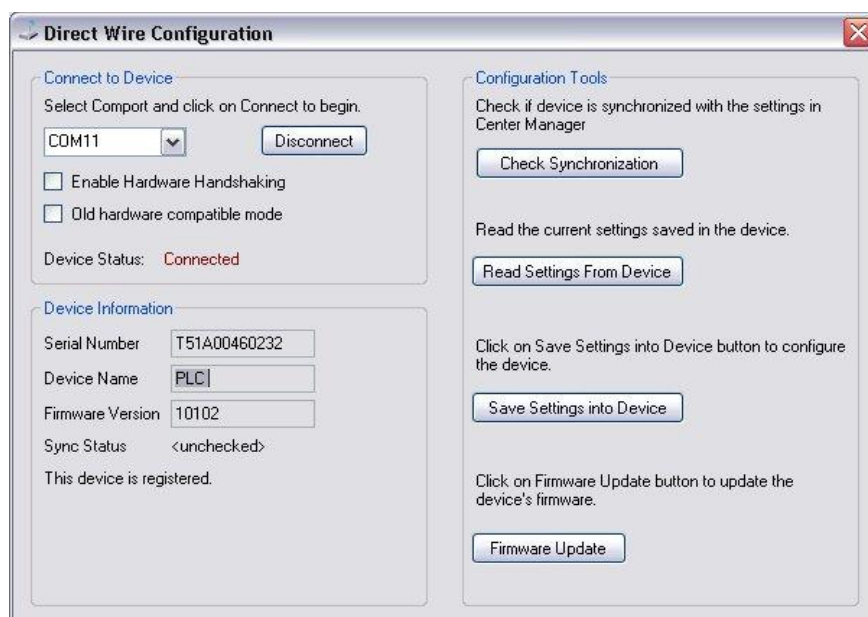


Figure 34: Display Register Device

Step 2:

Click on Check Synchronization button. It will allow Center Manager to check if the device settings are synchronized with the Center Manager's settings. It will return the following messages:

1. Device is synchronized.



Figure 35: Synchronized

2. Device is not synchronized.



Figure 36: Device Not Synchronized

If device is not synchronized, click OK button to synchronize and Cancel to ignore.

6.2 For Registered Device

For registered device, when Connect button is clicked, once the device is detected and identified as a registered device, Center Manager will automatically perform a synchronization check on the device. The message shown in Figure 35 (synchronized) and Figure 36 (not synchronize) will appear accordingly.

7.0 Accessing Devices Settings

The device settings can be accessed via 3 methods:

- Double click on respective device on Center Manager's Device Information
- Double click on respective device on Device Manager's Device List
- Clicking on Edit on Device Manager

On Center Manager

To check the device settings of a particular device, double click on the respective device row as shown in Figure 37.

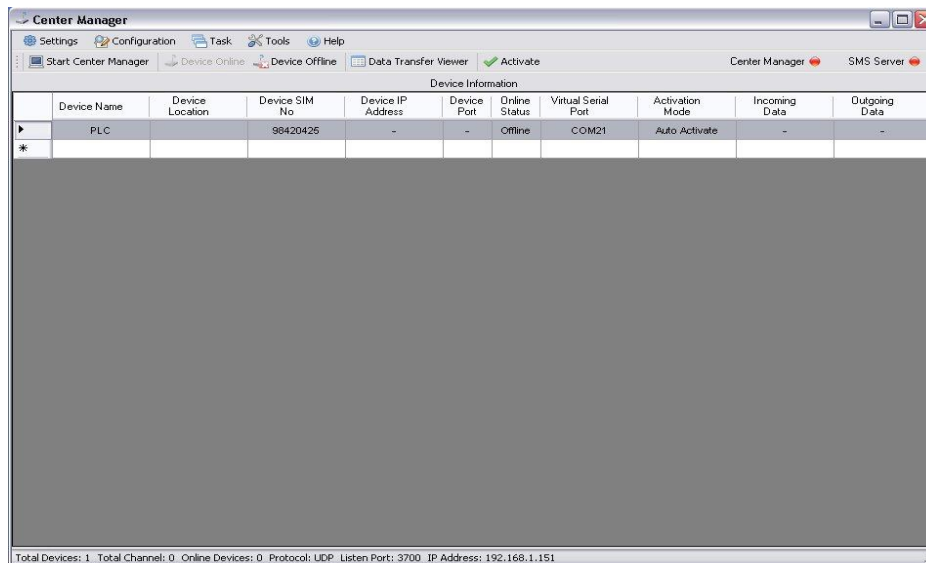


Figure 37: On Center Manager

On Device Manager

To check the device settings of a particular device, double click on the respective device row or highlight the row and click on Edit button.



Figure 38: On Device Manager

8.0 Changing Virtual Serial Port (VSP)

During device registration, a Virtual Serial Port will be assigned automatically for each device. However Center Manager allows user to change the VSP. Follow the following instruction to assign a new VSP to a device.

Step 1:

Open up the Device Settings of the device that will be assigned a new VSP.

Step 2:

Go to Device Parameter tab and click on Advance button (under Virtual Serial Port Setting)

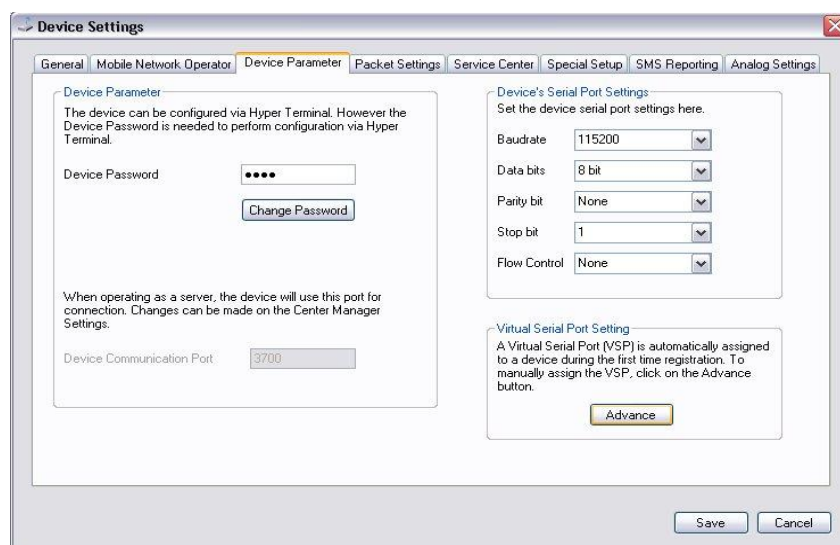


Figure 39: Device Parameter

Step 3:

Select a new comport and click on Change. Follow the steps in section 5.2 for VSP installation.

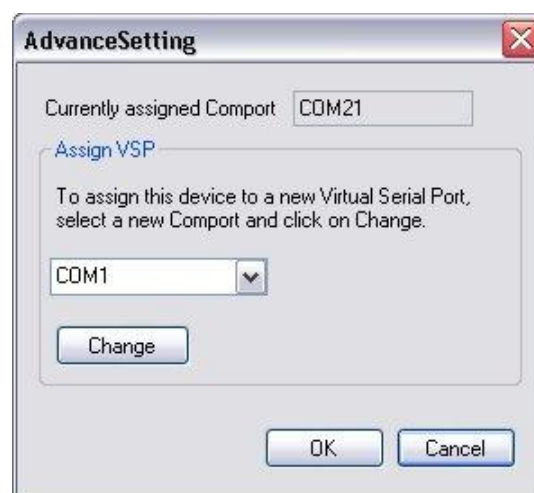


Figure 40: Advance Setting

9.0 Starting Center Manager

Starting the Center Manager refers to initiating Center Manager to establish connection with all the devices. In server mode, Center Manager will start waiting for devices to connect. In client mode, Center Manager will try to connect to the devices.

Click on start Center Manager button as shown in Figure 41.

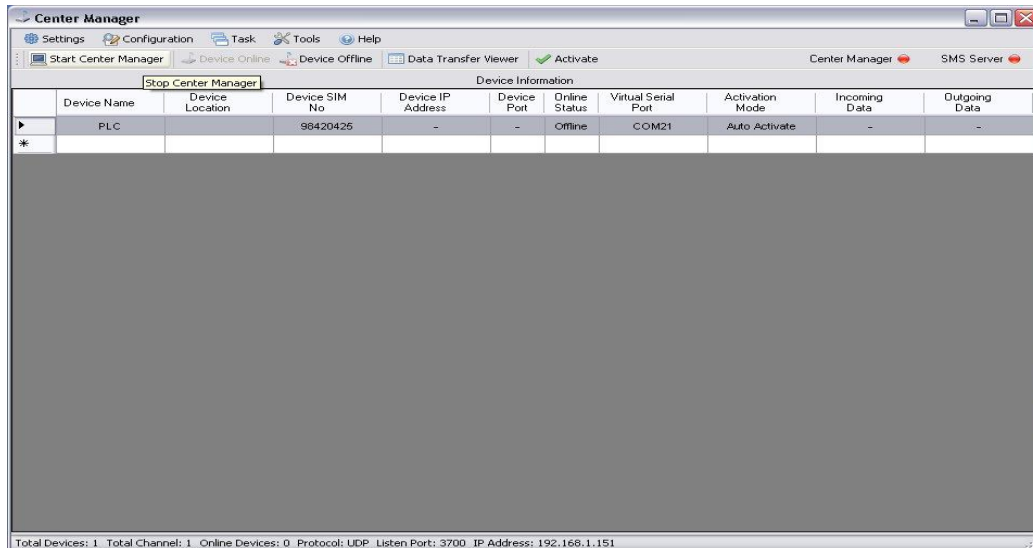


Figure 41: Start Center Manager

Once the Center Manager starts, the red round icon shown in Figure 42 will turn into green indicating that Center Manager is running.

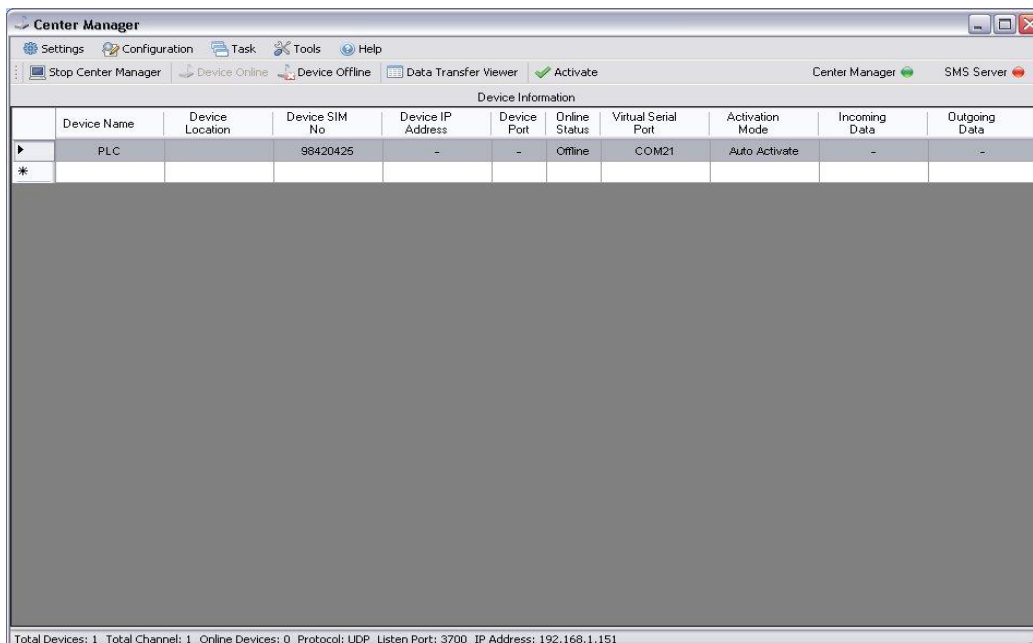


Figure 42: Center Manager Running

10.0 Starting SMS Server

SMS Server is optional depending on the settings of the device. It is used for the following purpose:

- Sending SMS or calling a device to activate it for connection
- Sending and receiving IP address (used for dynamic IP address)

Before starting the SMS Server, make sure a modem is connected to the PC. After, click on Task -> Start SMS Server

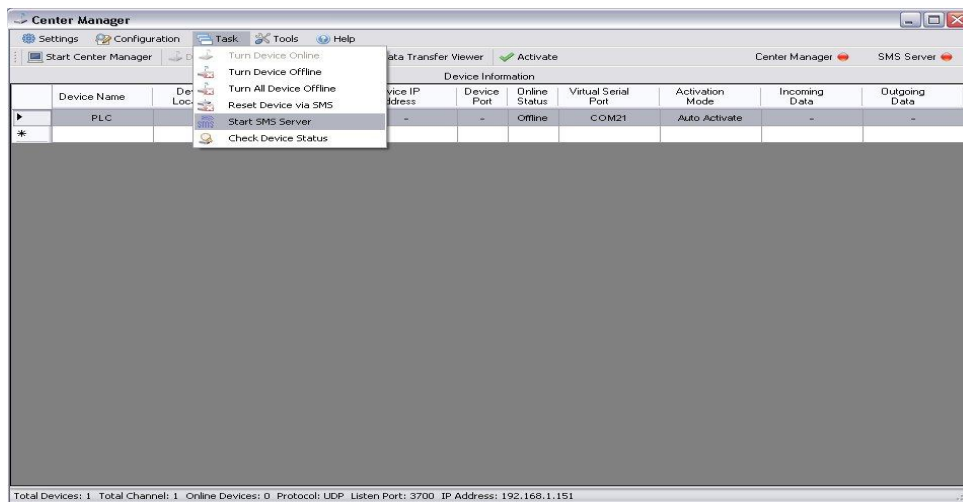


Figure 43: Start SMS Server

Once SMS Server starts, the red round icon shown in Figure 28 will turn green indicating that the SMS Server is running.

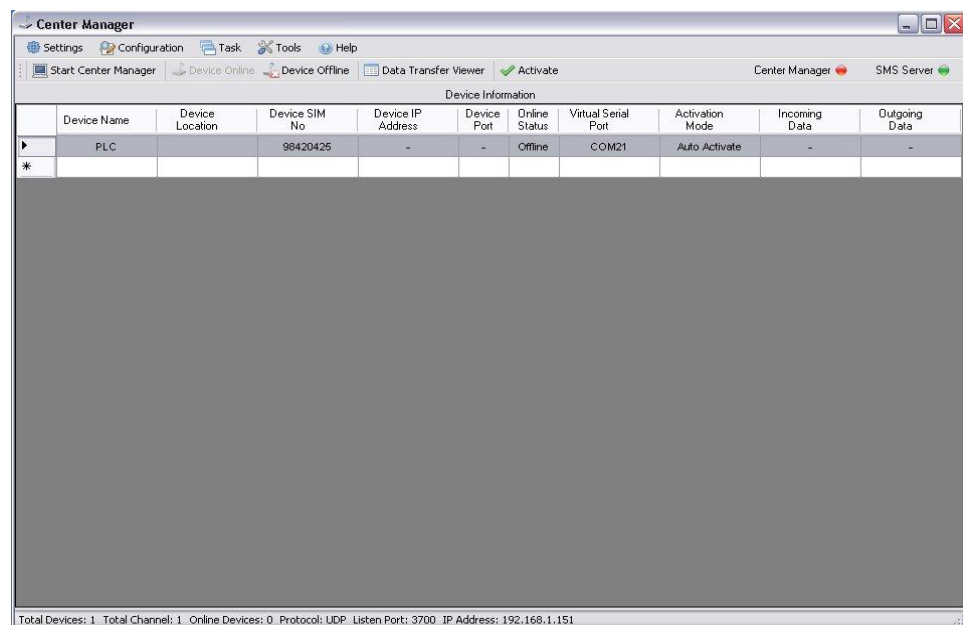


Figure 44: SMS Server Running

11.0 Device Control

Center Manager provides the following control function:

- Turning device online (for Center Manager as client mode only)
- Turning device offline
- Checking device status
- Activating a device (via SMS or call)
- Configure device settings wirelessly

11.1 Turning Device Online

This function is available only when Center Manager is operating as a client. To turn on a device, follow the steps below:

Step 1:

Select a device to turn on by clicking on the respective row on the Device Information table.

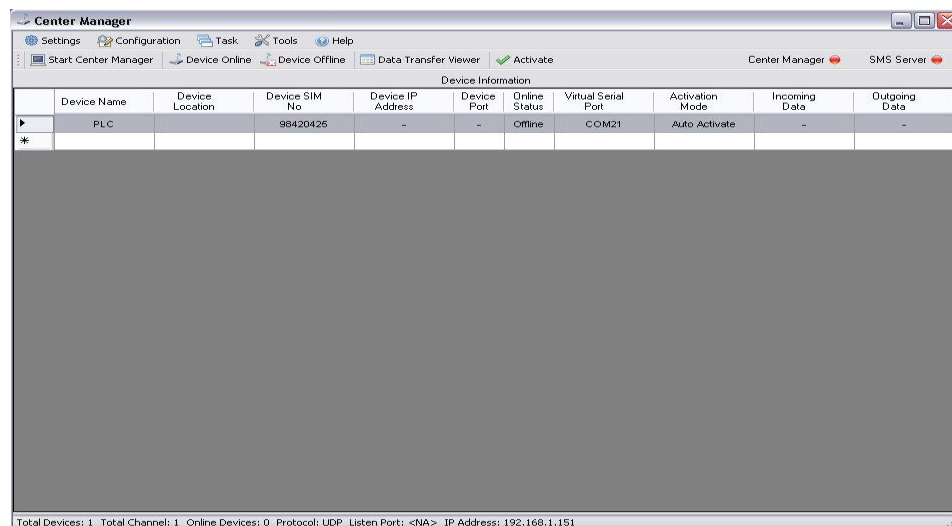
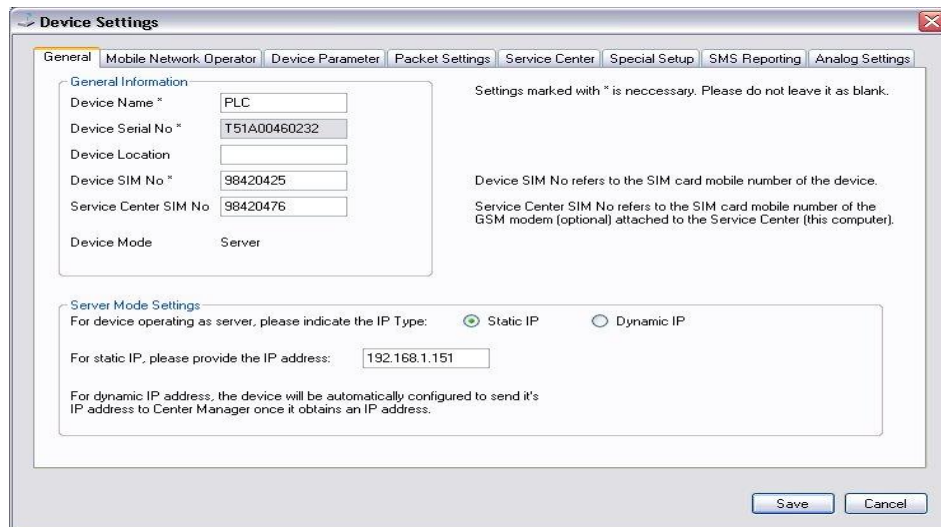


Figure 45: Highlight Device

*To turn on a device, the device must have a valid IP address. The IP address can be obtained using the following method:

1. For Static IP

In the Device Settings window as shown in Figure 45, check the Static IP and enter the device's static IP address.



Device Settings

General | Mobile Network Operator | Device Parameter | Packet Settings | Service Center | Special Setup | SMS Reporting | Analog Settings

General Information

Device Name *

Device Serial No *

Device Location

Device SIM No *

Service Center SIM No

Device Mode

Settings marked with * is necessary. Please do not leave it as blank.

Device SIM No refers to the SIM card mobile number of the device.

Service Center SIM No refers to the SIM card mobile number of the GSM modem (optional) attached to the Service Center (this computer).

Server Mode Settings

For device operating as server, please indicate the IP Type: ☒ Static IP ☐ Dynamic IP

For static IP, please provide the IP address:

For dynamic IP address, the device will be automatically configured to send it's IP address to Center Manager once it obtains an IP address.

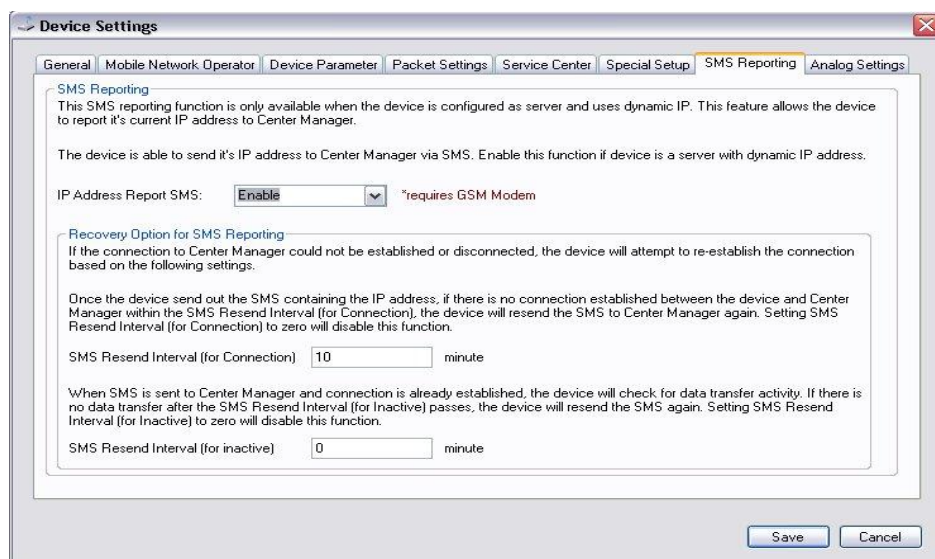
Figure 46: Static IP Address

2. For Dynamic IP

In the Device Settings window, check Dynamic IP. Once it is checked, under the SMS Reporting tab, the IP Address Report SMS is automatically enabled.

Under this setting, when the device obtained an IP address, it will send an SMS to Center Manager. Center Manager will take the following action depending on Center Manager's status:

- Center Manager already started
 - Center Manager will automatically connect to the device.
- Center Manager is not started
 - Center Manager will not connect to the device. The device's IP address will appear on the Device Information page. User may start Center Manager and connects to the device using the received IP address as shown in the following step.



Device Settings

General | Mobile Network Operator | Device Parameter | Packet Settings | Service Center | Special Setup | SMS Reporting | Analog Settings

SMS Reporting

This SMS reporting function is only available when the device is configured as server and uses dynamic IP. This feature allows the device to report it's current IP address to Center Manager.

The device is able to send it's IP address to Center Manager via SMS. Enable this function if device is a server with dynamic IP address.

IP Address Report SMS: *requires GSM Modem

Recovery Option for SMS Reporting

If the connection to Center Manager could not be established or disconnected, the device will attempt to re-establish the connection based on the following settings.

Once the device send out the SMS containing the IP address, if there is no connection established between the device and Center Manager within the SMS Resend Interval (for Connection), the device will resend the SMS to Center Manager again. Setting SMS Resend Interval (for Connection) to zero will disable this function.

SMS Resend Interval (for Connection) minute

When SMS is sent to Center Manager and connection is already established, the device will check for data transfer activity. If there is no data transfer after the SMS Resend Interval (for Inactive) passes, the device will resend the SMS again. Setting SMS Resend Interval (for Inactive) to zero will disable this function.

SMS Resend Interval (for inactive) minute

Figure 47: SMS Reporting

Step 2:

Click on either Task -> Turn Device Online as shown in Figure 48 or click on Device Online button as shown in Figure 49.

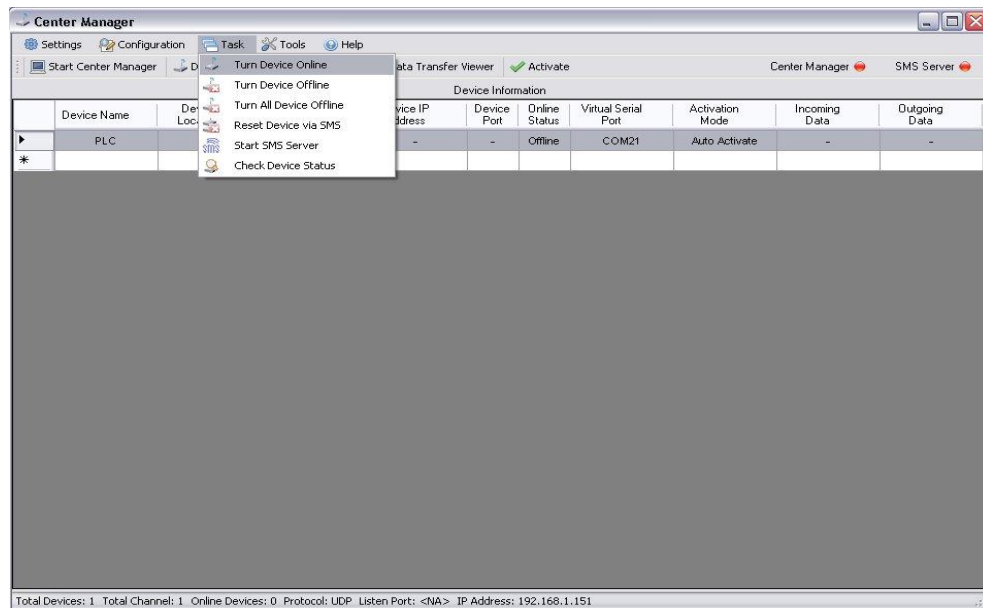


Figure 48: Turn Device Online

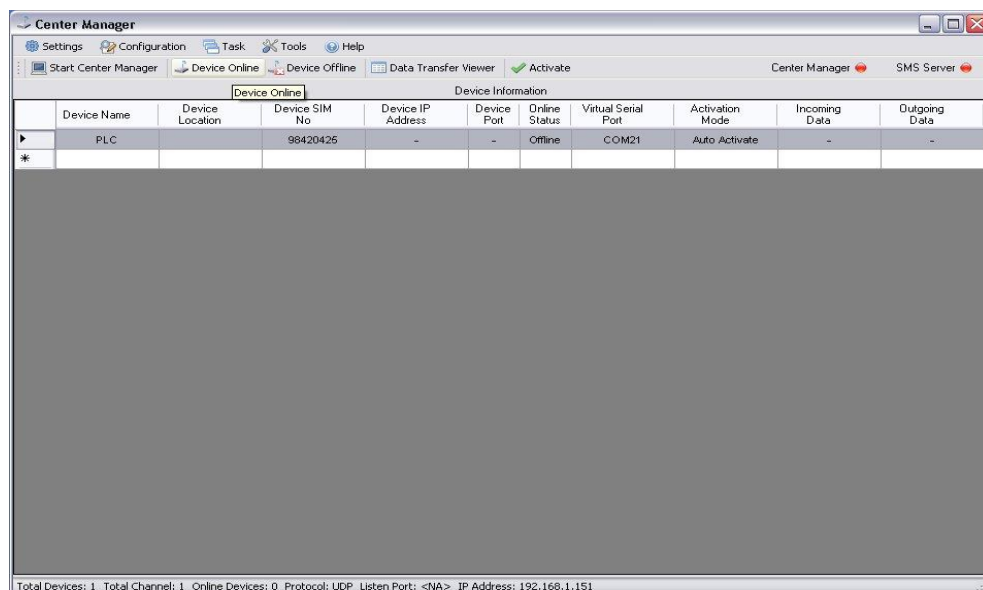


Figure 49: Device Online

11.2 Turning Device Offline

When a device is turned offline, it will send a command to the device causing it to reboot. To turn a device offline, follow the following steps:

Step 1:

Select a device to turn on by clicking on the respective row on the Device Information table as shown in Figure 50.

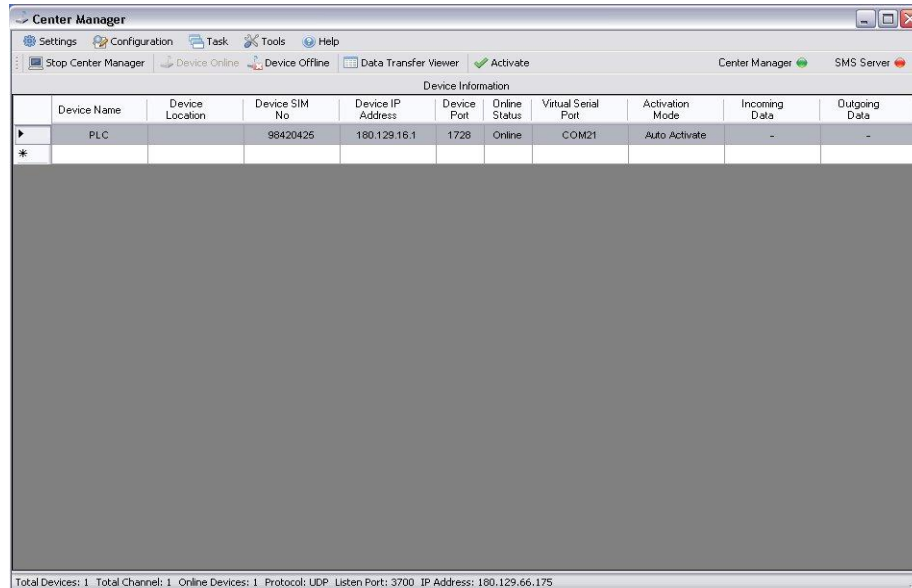


Figure 50: Click On Respective Online Device

Step 2:

Click on either Task -> Turn Device Offline as shown in Figure 51 or click on Device Offline button as shown in Figure 52.

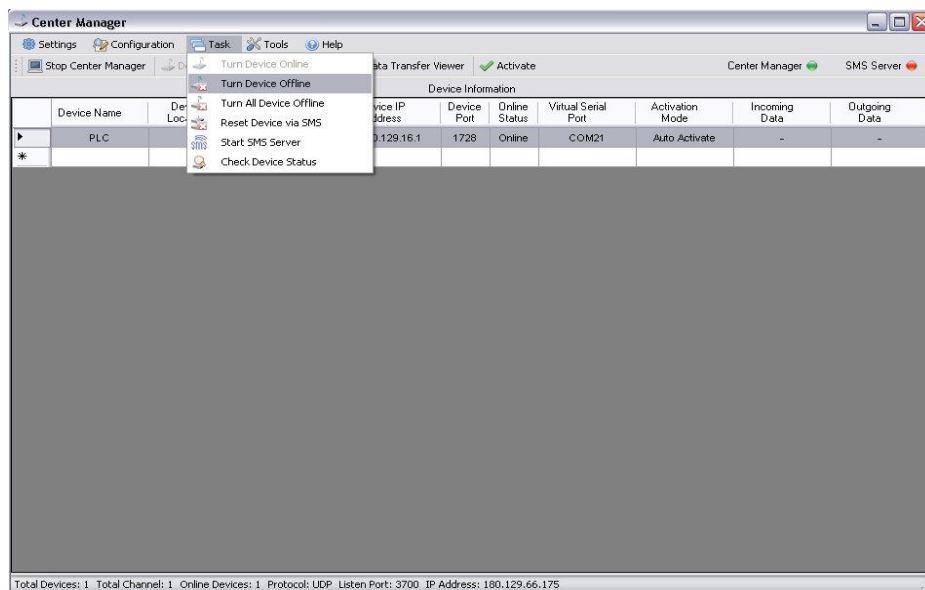


Figure 51: Turn Device Offline

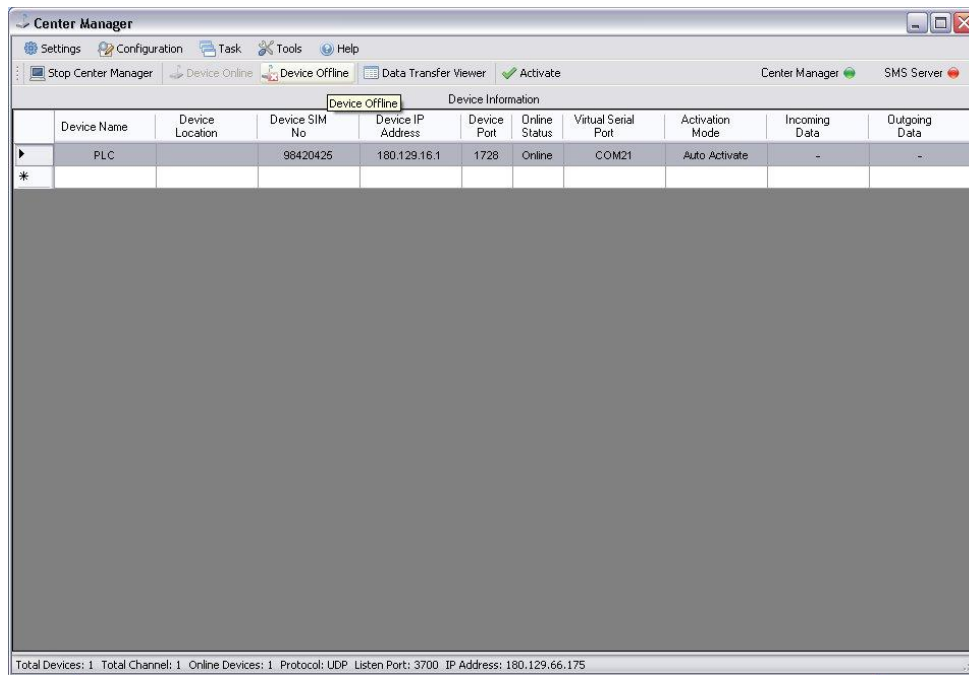


Figure 52: Device Offline

11.3 Checking Device Status

Center Manager provides a function to check if the device marked as 'Online' or 'Inactive' is still connected to Center Manager. To check the status of the device, follow the steps below:

Step 1:

Select an 'Online' or 'Inactive' device as shown in Figure 53.

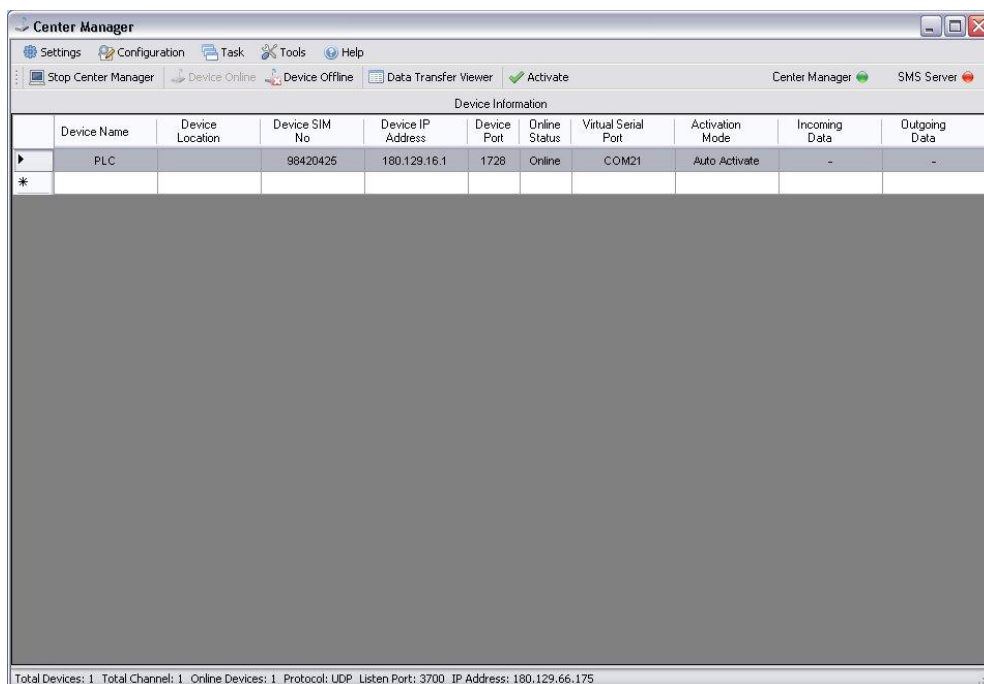


Figure 53: Select an 'Online' or 'Inactive' Device

Step 2:

Click on Task -> Check Device Status

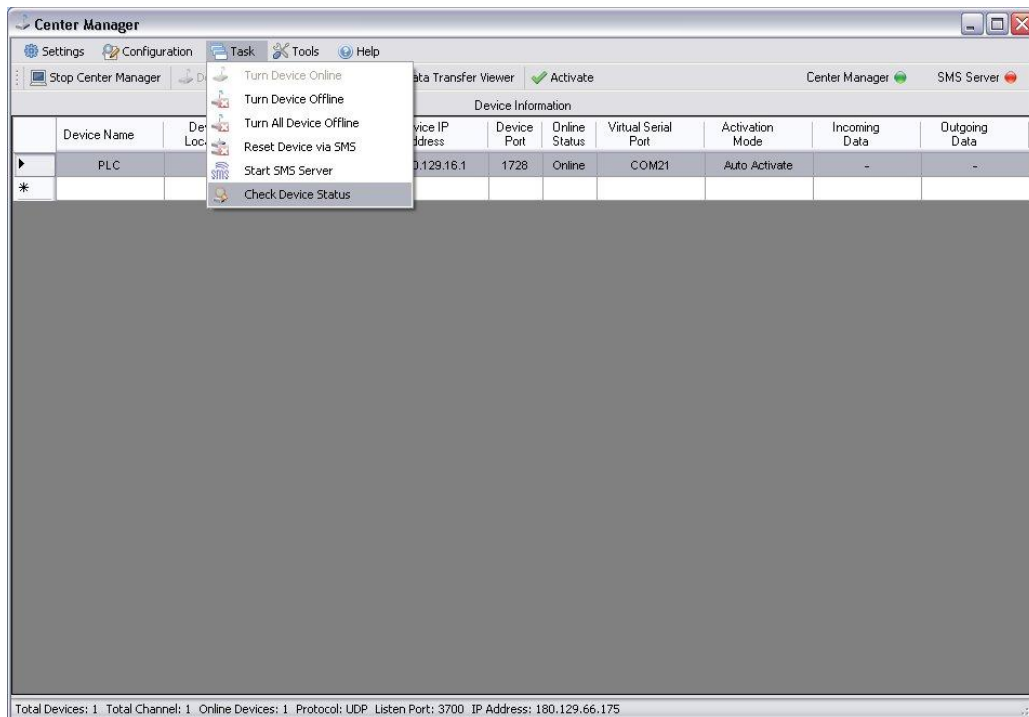


Figure 54: Check Device Status

Step 3:

Wait for the response from the device. A pop up message as shown in Figure 55 will appear, indicating the status of the device. If the device failed to respond after a period of time, a timeout message will pop out as shown in Figure 56.



Figure 55: Device Online Message



Figure 56: Timeout Message

11.4 Reset the Device via SMS

Center Manager is able to send a command SMS to the device and force it to reset. Follow the steps below to reset the device. This function can only be used to reset offline devices. To reset online devices, use the Device Offline function as describe in Section 11.2.

Step 1:

Click on Task ->Reset Device via SMS

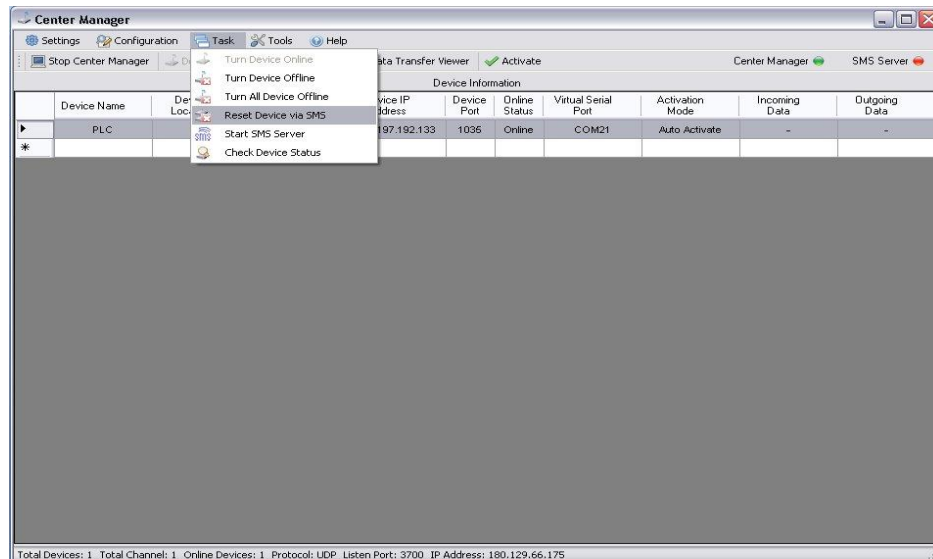


Figure 57: Reset Device Via SMS

A pop up message will appear indicating that the SMS is being sent out.

11.5 Activating a Device (Via SMS or Call)

In the Device Settings page, under Special Setup -> Special Setup Settings ->GPRS Activation Option as shown in Figure 58, there are 4 options to choose from:

- Upon power-up
 - The device will start connecting to Center Manager via GPRS once it is powered up
- Upon receiving SMS
 - Once powered on, the device will not connect to GPRS and remain idle until Center Manager (Service Center) send a SMS to the device. Once the SMS is received by the device, it will start connecting to Center Manager via GPRS
- Upon receiving call
 - Once powered on, the device will not connect to GPRS and remain idle until Center Manager (Service Center) initiate a call to the device. Once the device detected the call, it will hung up and start connecting to Center Manager via GPRS (device will not pick up the call)
- Upon receiving Control SMS
 - Once powered on, the device will not connect to GPRS and remain idle until Center Manager (Service Center) send a control SMS to the device. In this configuration, the control SMS contains the Center Manager's IP

address and the device will connect to this IP address. (Please refer to application note for Center Manager with dynamic IP for further information)

All configurations EXCEPT Upon power-up require a modem.

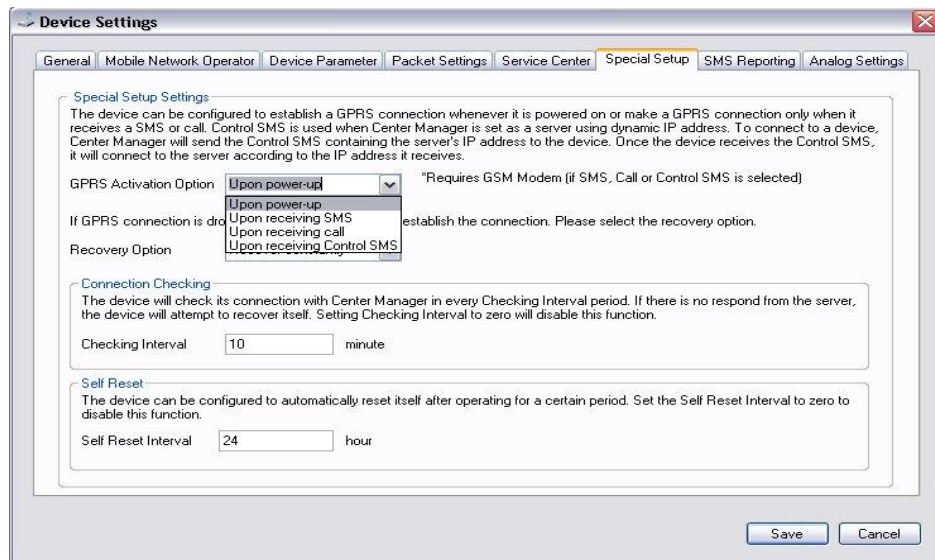


Figure 58: Special Setup Settings

To activate a device, make sure the SMS Server is turned on. Select the device to activate as shown in Figure 59. After, Click on Activation button to activate the selected device.

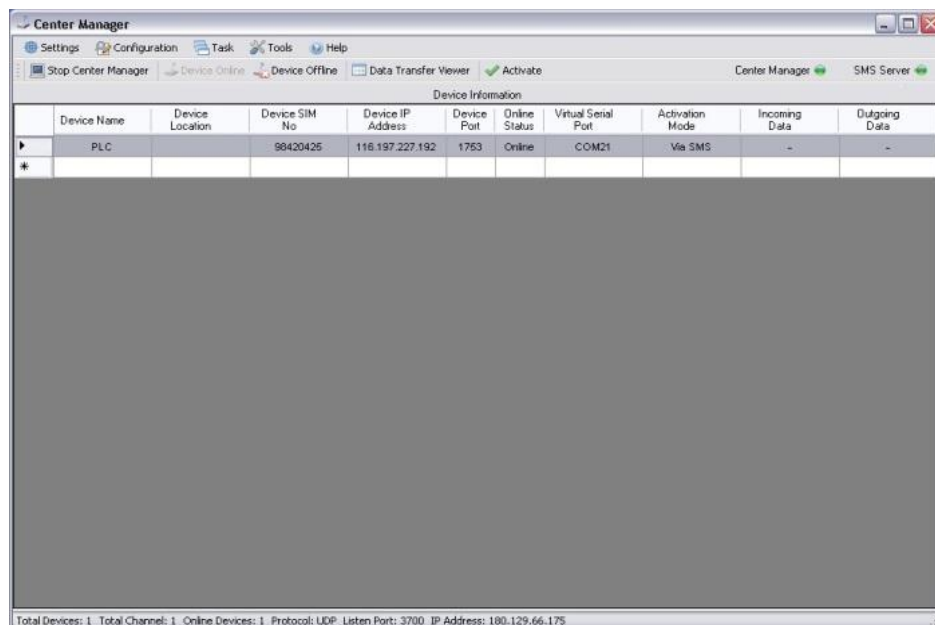


Figure 59: Activate Device

11.6 Configure Device Settings Wirelessly

To perform a wireless configuration of the device settings,
Click on Configuration -> Wireless Configuration via GPRS as shown in Figure 60.

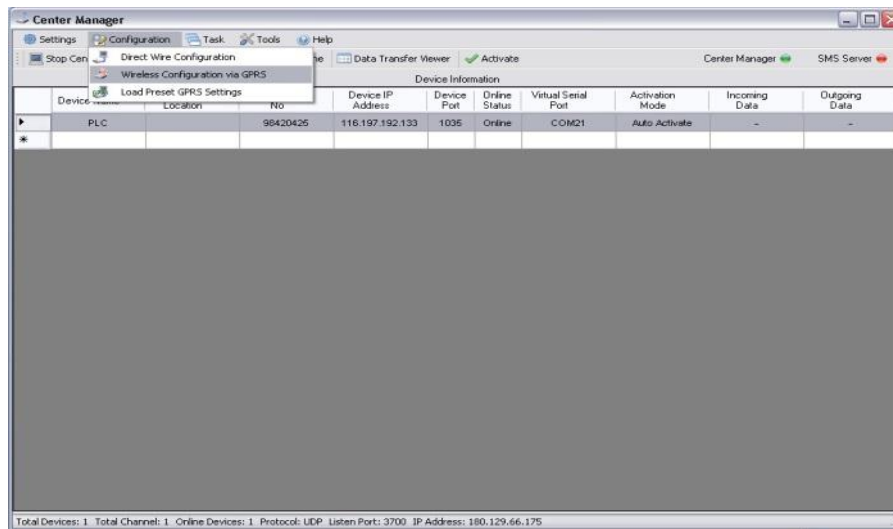


Figure 60: Wireless Configuration

The Device Manager window will appear and on this page, select the device to configure.

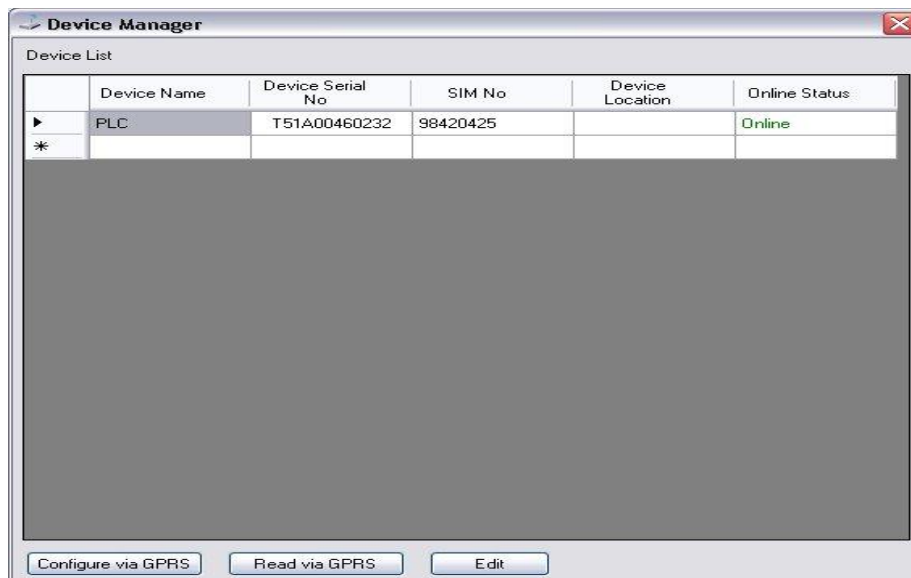


Figure 61: Device Manager for Wireless Configuration

Under the Device Manager window, click on the Configure via GPRS button to configure the device and Read via GPRS button to get the device settings wirelessly.

12.0 Firmware Update

Center Manager is able to perform a firmware update for the device via direct wire and wireless (through GPRS). The following sections will describe the firmware updating process.

12.1 Update Firmware via Direct Wire

To update the firmware wirelessly, click on Tool -> Firmware Update -> Direct Wire

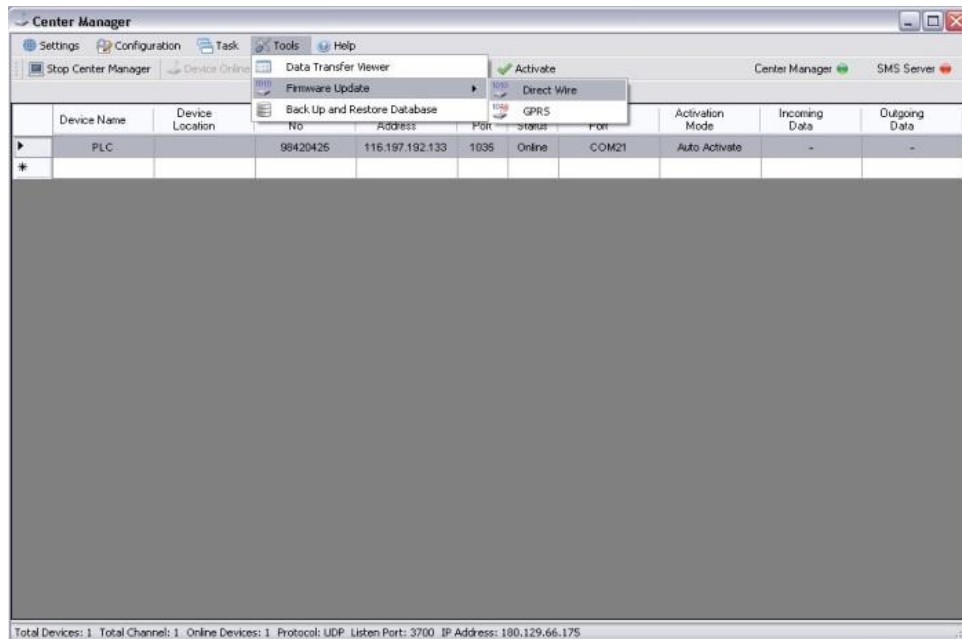


Figure 62: Firmware Update via Direct Wire

The Direct Wire Configuration window will appear. Select comport and click on connect button. Once the device is connected, the button Firmware Update as shown in Figure 63 will be available. Click on this button to continue.



Figure 63: Direct Wire Configuration for Firmware Update

Once Firmware Update button is clicked, the Firmware Update window will appear as shown in Figure 64.



Figure 64: Firmware Update

On the Firmware Update window, click on Browse to locate the firmware update file (main.bin). Click on Update Firmware to start the updating. The progress bar will show the updating progress.

12.2 Update Firmware Wirelessly

To update the firmware wirelessly, click on Tools -> Firmware Update -> GPRS

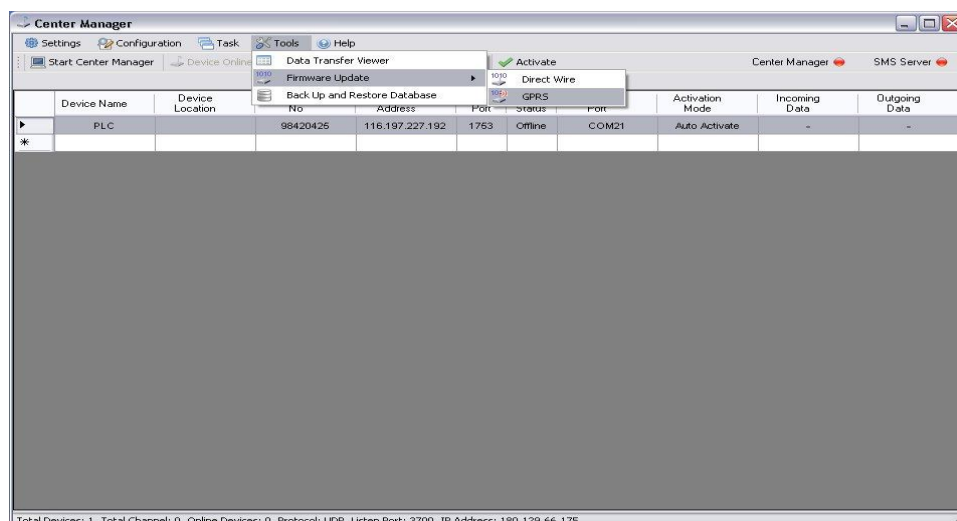


Figure 65: Firmware Update via GPRS

The Device Manager window for Firmware Update will appear as shown in Figure 66.

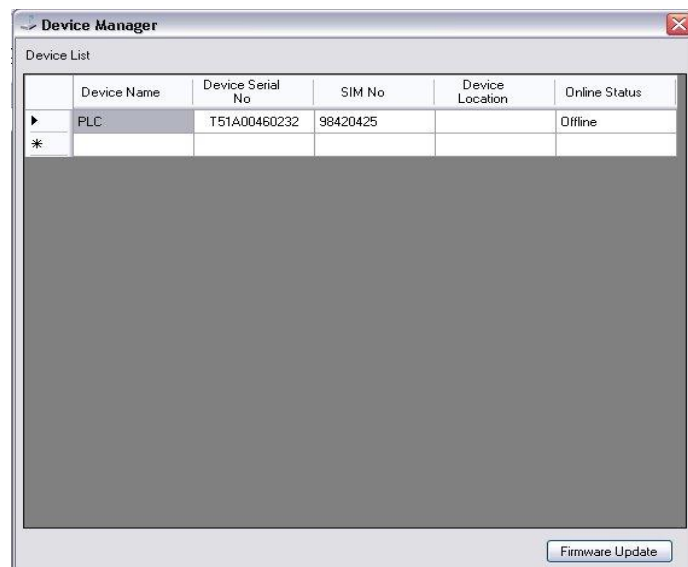


Figure 66: Device Manager for Firmware Update

Click on Firmware Update button.



Figure 67: Wireless Firmware Update

On the Wireless Firmware Update window, click on Browse to select the firmware update file (main.bin) and click on Update Firmware. The taskbar will show the updating progress. Wireless Firmware Update only applies to online devices.

13.0 Data Transfer

Center Manager provides user with tools to monitor the data transfer between device and the PC. The data transfer can be observed using the following tools:

- Data Transfer Viewer
- Center Manager main window, under Incoming Data and Outgoing Data Column

13.1 Data Transfer Viewer

To open up the Data Transfer Viewer, got to Tools -> Data Transfer Viewer as shown in Figure 68.

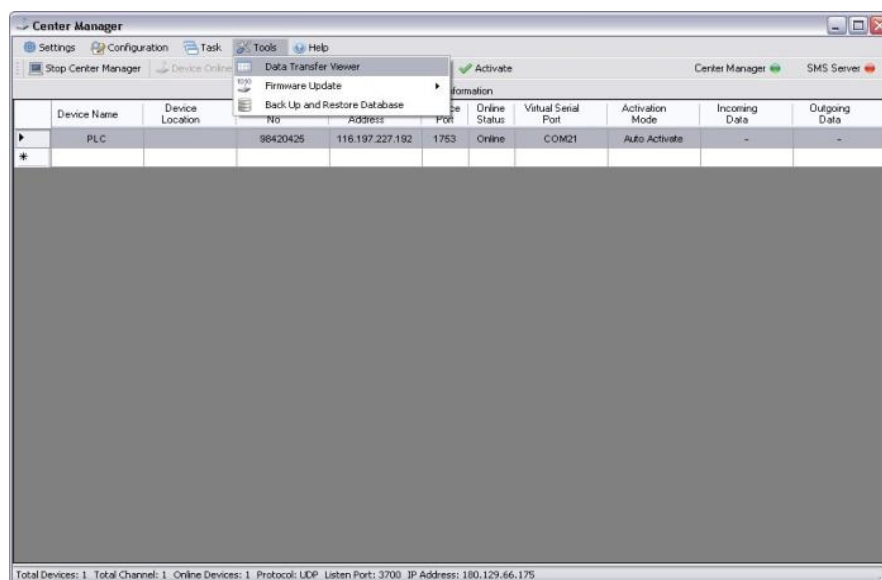


Figure 68: Data Transfer Viewer

The Data Transfer Viewer will appear as shown in Figure 69.

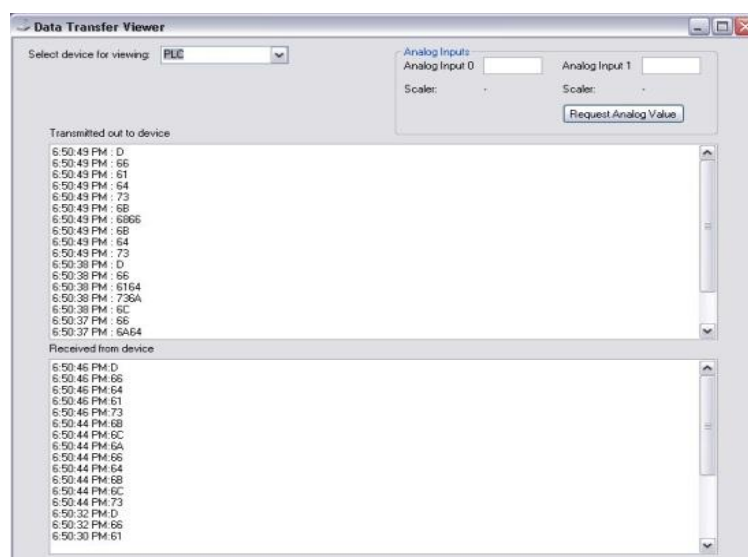


Figure 69: Details in Data Transfer Viewer

On the Data Transfer Viewer, select a device to view. The data transfer between the selected device and the PC will be shown in the 'Transmitted out to device' and 'Received from device' in the ASCII format.

13.2 Incoming Data and Outgoing Data Column

On the Center Manager main window, under the Device Information page, there are two columns named Incoming Data and Outgoing Data as shown in Figure 70.

Center Manager

Settings Configuration Task Tools Help

Stop Center Manager Device Online Device Offline Data Transfer Viewer Activate

Center Manager SMS Server

Device Information

	Device Name	Device Location	Device SIM No	Device IP Address	Device Port	Online Status	Virtual Serial Port	Activation Mode	Incoming Data	Outgoing Data
▶	PLC		98420425	116.197.227.192	1753	Online	COM21	Auto Activate	>>>	>>>>>>>>>>
*										

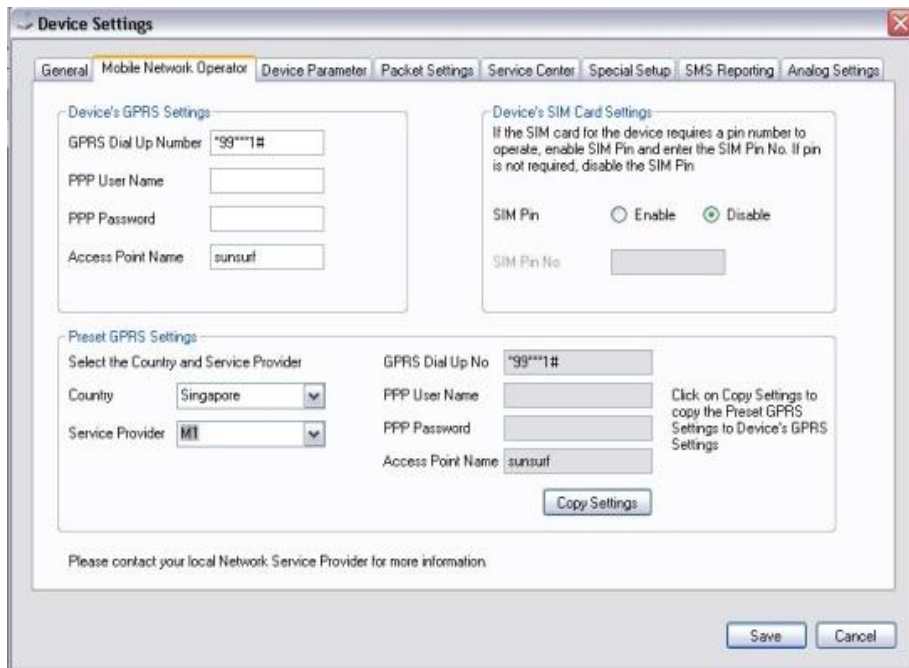
Total Devices: 1 Total Channel: 1 Online Devices: 1 Protocol: UDP Listen Port: 3700 IP Address: 180.129.66.175

Figure 70: Incoming and Outgoing Data

Every time the device receive or send a packet of data, a '>' will be added to the respective incoming or outgoing column.

14.0 Preset GPRS Settings

Center Manager contains a preset GPRS that allows the user to select a set of predefined GPRS dial up number, PPP username, PPP password and Access Point Name (APN). The preset GPRS settings is available on the Device Settings windows under Mobile Network Operator tab, Preset GPRS Settings group as shown in Figure 71.



The screenshot shows the 'Device Settings' window with the 'Mobile Network Operator' tab selected. The 'Preset GPRS Settings' group is active, displaying fields for 'GPRS Dial Up No' (set to *99***1#), 'PPP User Name', 'PPP Password', and 'Access Point Name' (set to sunsurf). Below these, there are dropdown menus for 'Country' (Singapore) and 'Service Provider' (M1). A 'Copy Settings' button is located at the bottom right of the preset settings group. To the right, the 'Device's SIM Card Settings' section shows 'SIM Pin' set to 'Disable' and a 'SIM Pin No' field. At the bottom of the window are 'Save' and 'Cancel' buttons.

Figure 71: Preset GPRS Settings

To choose a preset GPRS setting, select the country and service provider. The preset GPRS dial up number, PPP username, PPP password and Access Point Name (APN) will appear. Click on Copy Settings button to copy the settings into the Device's GPRS Settings.

14.1 Preset GPRS Settings for Deployment

Center Manager allow user to preset the device's GPRS settings without registering the device in the database. To do so, click on Configuration ->Load Preset GPRS Settings as shown in Figure 72.

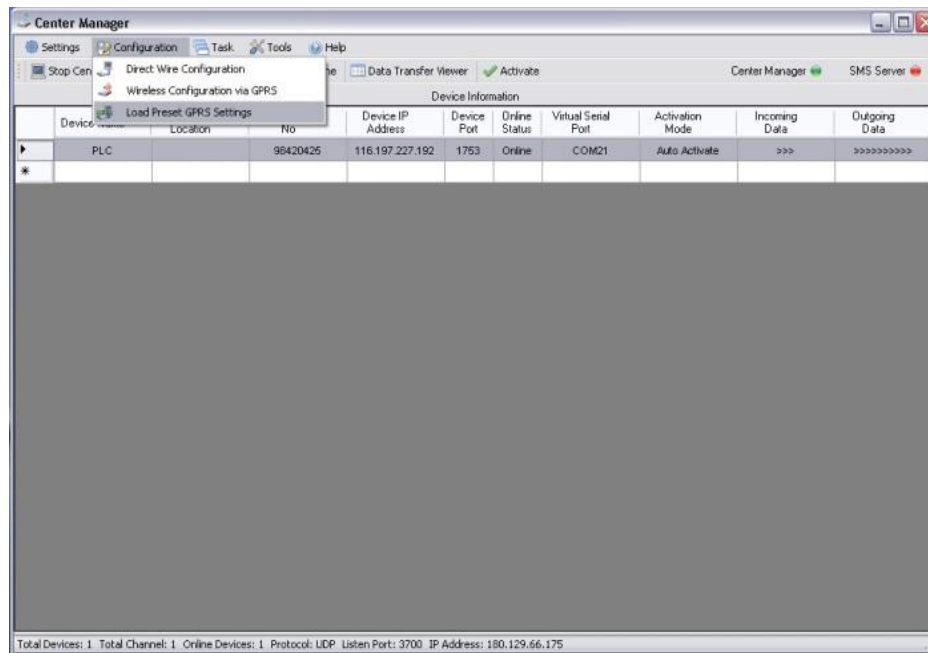


Figure 72: Load Preset GPRS Settings

The GPRS Settings window as shown in Figure 73 will appear. Follow the steps below to set the GPRS settings.



Figure 73: GPRS Settings

- Step 1: On the GPRS Settings window, select the Comport and click on Connect button.
- Step 2: Once connected, select the country and service provider and the GPRS settings shall appear.
- Step 3: Click on Save Settings into Device to preset the device with the selected GPRS settings.

15.0 Backup and Restore Database

Center Manager allows user to backup and restore the database, which contains the device and Center Manager's information. This database can be transferred to Center Manager installed in another PC. The steps to backup and restore the database are as follow:

Click on Tools -> Back Up and Restore Database as shown in Figure 74.

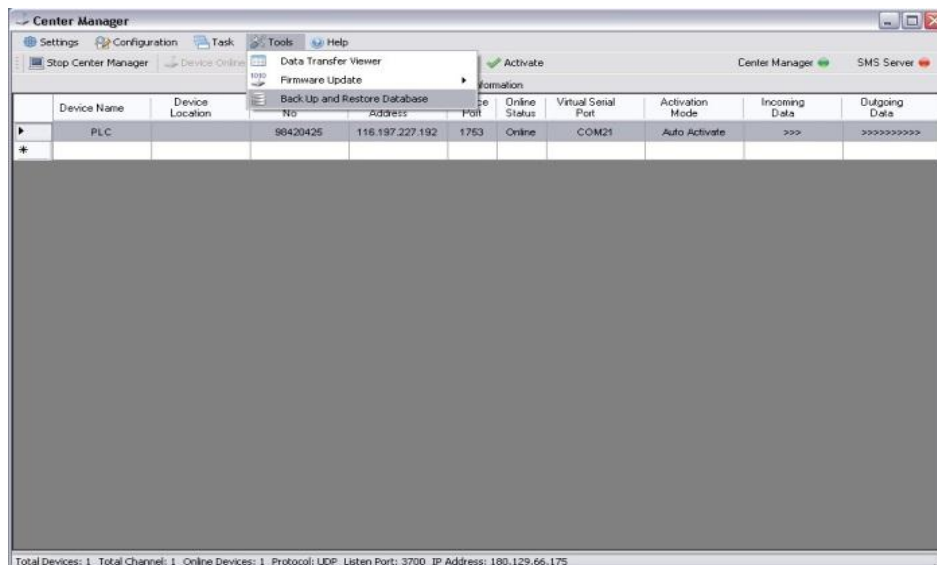


Figure 74: Back Up and Restore Database

The Database Back Up and Restore window will appear as shown in Figure 75.



Figure 75: Database Back Up and Restore

To backup the database, click on Back Up.

To replace the current database with another database, click on Restore.

To update the preset GPRS settings, click on update.

16.0 Device Parameter

This section provides description device parameters found in Device Setting Window.

Common Device Parameter	
Device Parameter	Description
Device Name	A user defined name for device identification
Device Serial No	Device serial no (available at the device's label) Center Manager will read this parameter from the device automatically during device registration.
Device Location	A user defined parameter
Device SIM No	SIM card number of the device
Service Center SIM No	SIM card number of the Service Center *Service Center refer to the PC that Center Manager is installed
GPRS Dial Up Number	These are GPRS settings obtainable from the service provider
PPP Username	
PPP Password	
Access Point Name	
SIM Pin No	SIM card pin number. If the SIM card does not have any pin number, ignore this setting
Device Password	Password used to access device's setting via Hyper Terminal
Baudrate	The port setting of the device
Data bits	
Parity bit	
Stop bit	
Flow Control	
Packet Size	Settings to determine how the data is being packet • Packet Size: If the data reaches the defined packet size, it will packet the data and send • Data Interval Time: If there is no incoming data after the Data Interval Time passes, it will packet the data and send • Packet's End Character: If the end character is detected, it will packet the data and send
Data Interval Time	
Packet's End Character	
Reliability Test Frequency	Define the frequency of the device to check if it is connected to the internet
Online Report Interval (Heart Beat)	Define the interval in which the device will send some data over the network to maintain its GPRS connection

GPRS Activation Option	Define how the device connects to GPRS • Upon power up: connects to GPRS once powered on • Upon receiving SMS: connects to GPRS if receives SMS from Service Center • Upon receiving call: connects to GPRS if receives call from Service Center • Upon receiving Control SMS: connects to GPRS using the IP address stored in the Control SMS send by Service Center
Recovery Option	Define the device recovery method if the GPRS connection is lost
Self Reset Interval	Define an interval to force the device to reset (can be disabled)
Device Parameter (Device As Client)	
Device Parameter	Description
Primary Service Center IP Address	Define the IP address or Domain Name Server (DNS) of the Service Center
Secondary Service Center IP Address	Define the IP address of the backup Service Center
DNS Server IP	Define the DNS Server IP if Primary Service Center is using DNS
Device Parameter (Device As Server)	
Device Parameter	Description
IP Address for Reliability Test	For device operating as a server, it will check this IP address to determine if it is connected to the internet
IP Address Report SMS	If this option is enabled, the device will send a SMS containing the device's current IP address to Service Center (used for device with dynamic IP address)
SMS Resend Interval (for Connection)	If device send out the Report SMS and there is no connection made between device and Service Center after the interval passes, the device will resend the Report SMS
SMS Resend Interval (for inactive)	If there is no data being transferred after the interval passes, the device will resend the Report SMS again
Device Parameter (Analog Settings)	
Device Parameter	Description
Analog Input Report Type	Enable or disable the analog input. Analog input can be set to reply by request or periodically
Analog Input Report Interval	Define the interval time for device to reply the analog input value if analog input is set to reply periodically
Analog Input Scale	Define a scale value to scale the analog input value



Support

For any sales and technical enquiries, please contact our local sales representatives directly or TCAM Technology Pte Ltd.

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