CMSServer Centrol Management

Server Installation Manual

Ver: 6.11.0.5

Notes

The contents described in this manual may be different from the version you are currently using. If you are unable to resolve a problem using the manual please contact the company's technical support department or supplier. The contents of this manual will be updated from time to time, the Company reserves the right not to give notification of any changes.

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Directory

1. Product Introduction

1.1. Product Functions

CMSServer Central Management Server is a Wireless Network for centralized management and monitoring of all types of mobile assets. It is a high-quality, high-efficiency centralized and distributed network management architecture that provides network transmission of video, audio, data and other multimedia information for users to perform real-time remote video monitoring, GPS maps positioning, video storage, vehicle scheduling, recorded vehicle data playback and tracking, voice intercom and alarm warning security work. Other features include remote data download and storage, alarm triggering and remote alerts, remote vehicle management, etc.

1.2 Features Introduction

- The CMS Server Network can support up to 100,000 vehicles monitoring

- Vehicle information management system

- Quickly locate and track vehicles quickly via GPS information, displays real-time vehicle status display online and statistical interpretation of data collected

- Alarms and Alerts information statistical functions

- Send SMS Alerts

- Real-time remote audio and video surveillance

- Real-time vehicle front end image capture function

- Two-way voice intercom, vehicles broadcast function

- Pan Tilt Zoom (PTZ) remote control function

- Vehicle's historical tracking playback function

- Remote video search, download and playback capabilities

- Depending on the configuration program, the storage server automatically snap pictures, automatic recording, occur after alarm linkage, automatic SMS and mail to notify the user Alarm Linkage (Emergency button alarm, Video

signal alarm, Unauthorized unlock alarm, Hard disk-error alarm, Over speed alarm, Motion detection alarm, Long idling time alarm, Temperature alarm, GPS signal lost alarm, IO alarm (custom), Electronic map lock alarm.

- Assets Report Description

- iPHONE and ANDROID mobile smart phone Client Support

1.3   System Architecture
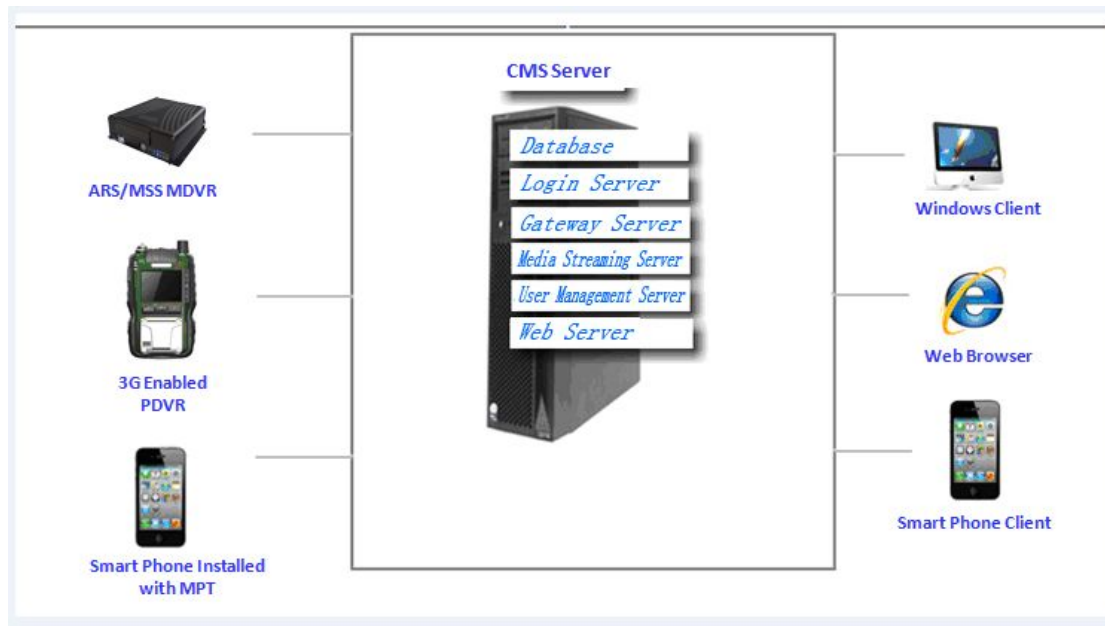
Diag.1.1 CMS Server Architecture

The CMS consists of 8 Functional Servers, namely the :

1. Login Server

2. Gateway Server

3. Media Streaming Server

4. User Management Server

5. Storage Server

6. WIFI Auto Download Server

7. Web server

8. Remote Client Monitoring Server

Users have the option of deploying 1 or 2 of the 7 Functional Servers stated above such as, Login Servers, Multiple Gateways Servers, Media Streaming Servers, Multiple Users Management Servers to provide Mobile DVR and Remote Client Services and features as GPS Location, Video and Alarms.

Description of Functional Servers

Database Server: Used mainly as Storage Server, Configuration information and Alarm events.

The database server application used is MySQL-5.5.12 - Win32.

Login Server: For registration of various servers and to coordinate and manage registered servers, Assign User Clients, Configure End Management Server, Allocation of Gateway Server for MDVR devices, User Management, Gateway Servers, Server Load Balancing.

Gateway Server: Provide vehicle access. Vehicle Gateway Server is used to establish a communication link between the MDVR device and the server, sending vehicle location and status information via this link.

Streaming Media Server: Provides media data forwarding function. Including Audio and Video, Intercom, Remote Monitoring, Remote Capture, Configuration parameters, Search and forwarding Download data.

User Management Server: Provides Remote Client Access

Storage Server: For storing pictures, video capture and reduce costs

WIFI Auto Download Server: When within the assigned access point range, the WIFI enabled MDVR will automatically upload the video files onto the server.

Web Server: Provides GIS electronic map information, and provide links to the CMS Backroom Control center, Front End management system login.

Remote Client Application: Provides real-time video preview, GPS positioning, electronic map display, vehicle status monitoring, image capture, video search, video download and playback, vehicle tracking playback, real-time alarm information monitoring, alarm statistics, vehicle configuration parameters and other functions. The Remote Client is available as Web Client, PC Windows Client, IOS and Android Version Clients, allowing users different ways to login and manage their vehicle.

2. CMSServer Deployment

2.1 CMSServer Minimum Requirements

|	
OS	Microsoft Windows Server 2003 or Higher
CPU	Intel quad-core Xeon, Frequency of not less than 2.33GHz
Network	2 Gigabit Ethernet
RAM	4G or more
Hard Disk	1TB or more
CD Player	DVR-ROM
Others	Support VGA Display Supports normal keyboard, recommended to use USB Keyboard LED Indicator lights for Computer, HDD and other Activities Status

2.2 Media Streaming Server

Performance Specifications	
	Each Streaming Server, distributed, can support up to 256 concurrent Incoming Channels with a bandwidth of 128Mbps.
	Each Video Channel supports up to 6 Clients viewing. Each Channel maximum data rate output is 512Mbps.
	Gigabit Ethernet ports, 20Mbps output stream rate average forwarding delay is less than 5 ms Gigabit Ethernet ports, 100Mbps output stream rate average forwarding delay is less than 40ms. Gigabit Ethernet ports, 512Mbps output stream rate average forwarding delay is less than 200ms.
Video Bandwidth	
	Using CIF video format per Channel video data rate is 320Kbit/second, 256 video channels therefore requires 320 X 256 = 81,920 Kbit bandwidth.

	NOTE: As the MDVR device in a 3G network environment has network bandwidth limitations. The maximum upload is using CIF resolution video format.

2.3 Examples of System Deployment

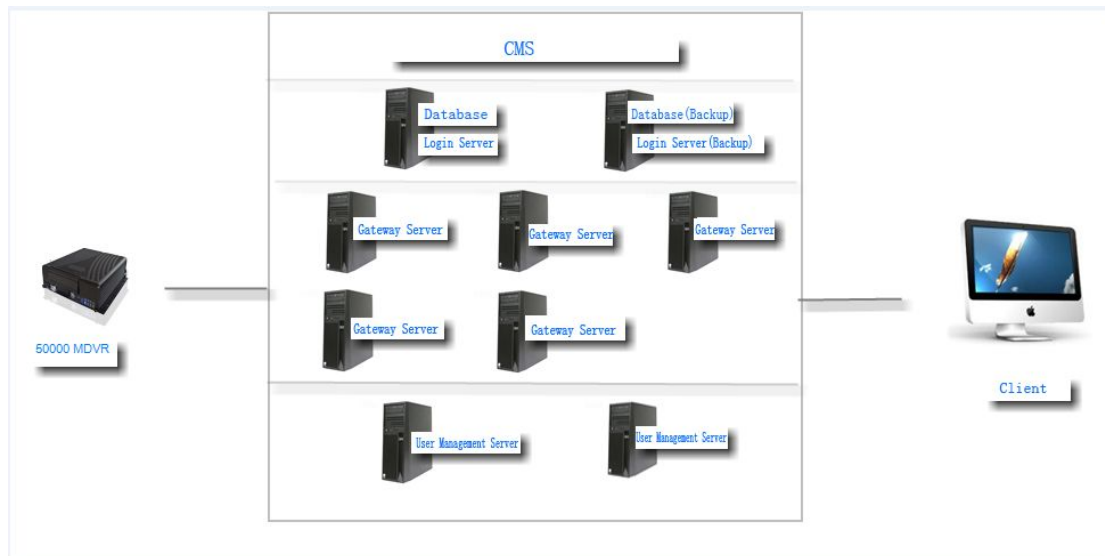This examples are for reference only, using user's hardware, network and CMS, MDVR installation environment.

2.3.1   200 Vehicles/Devices
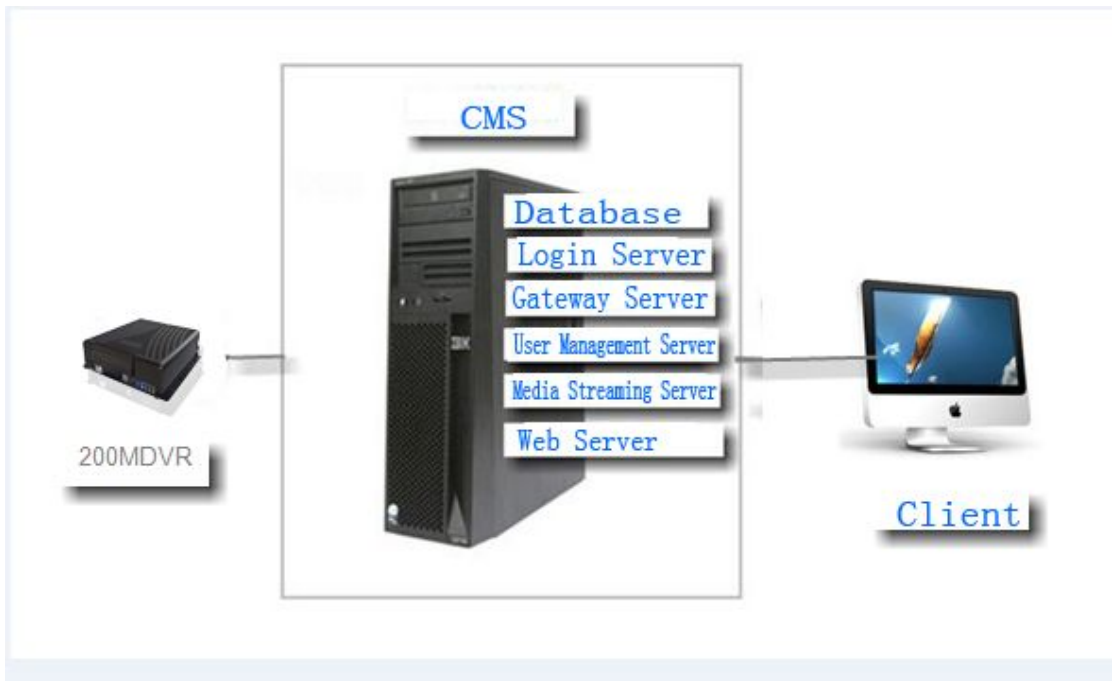
2.3.2   5000 Vehicles/Devices

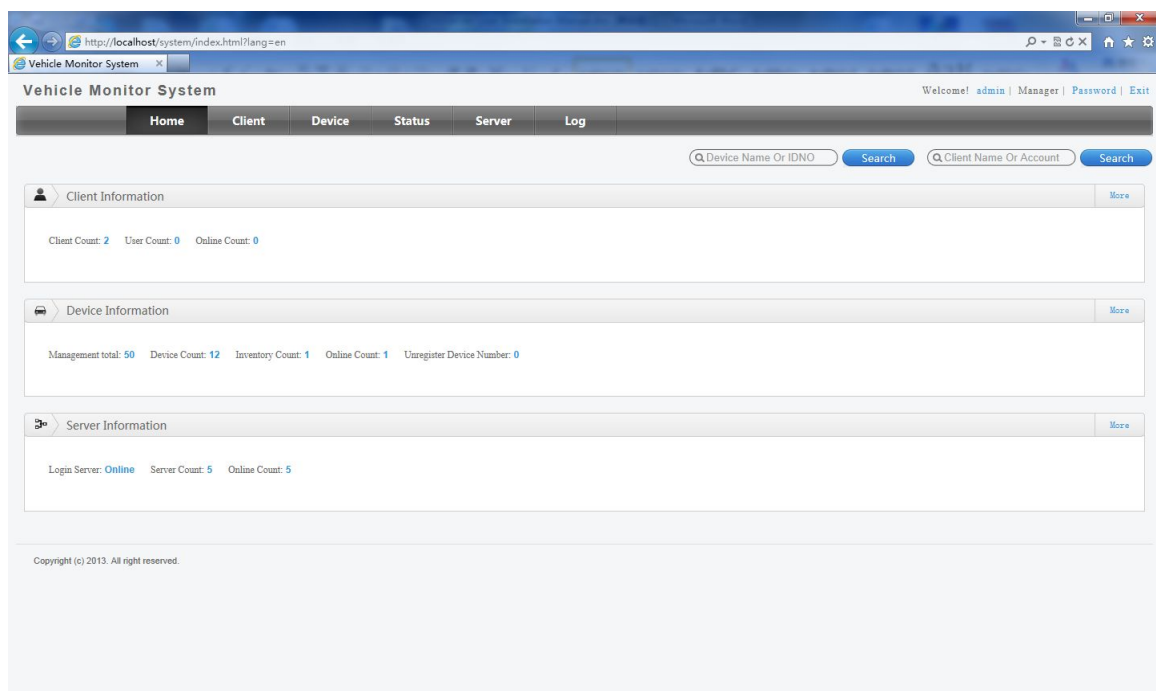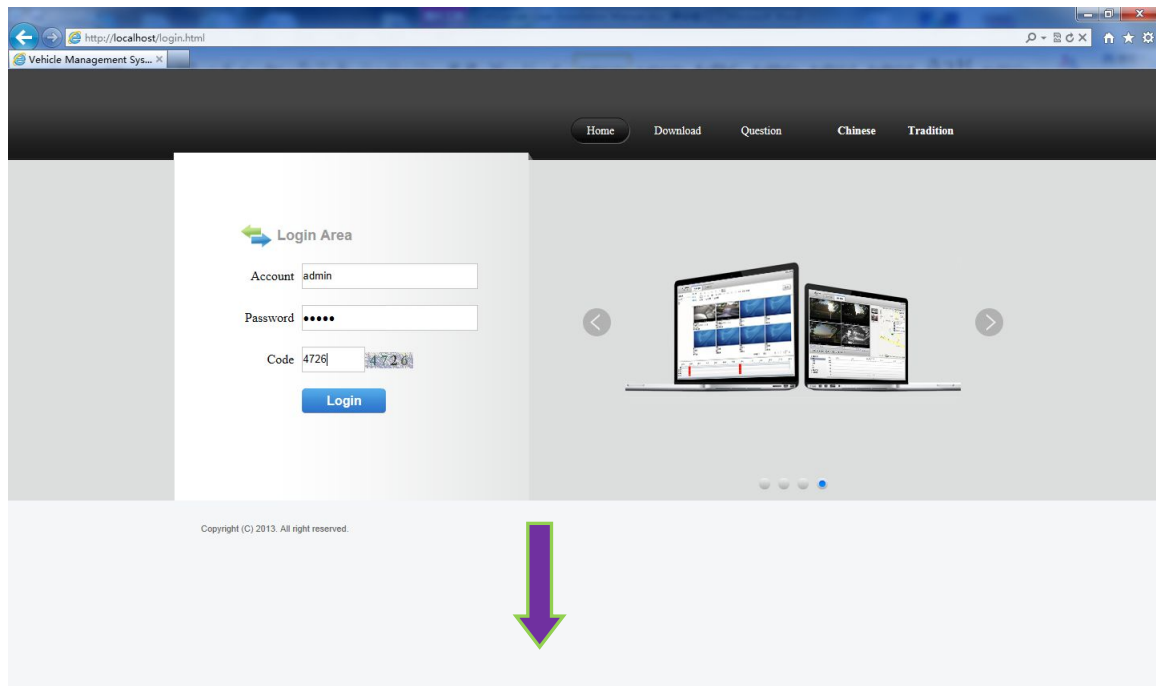
2.3.3   50000 Vehicles/Devices

2.4 CMSServer Operating Processes

Steps：

   1) Install CMSServer CMS

   2) Create Users in BackOffice

   3) Create Devices/Vehicles ID in BackOffice

   4) Assign User/Company Groups

   5) User Login Using FrontEnd Management System to Manage Vehicles/Devices

Specific operation as shown in the following:

2.4.1   Login to System

Login to the management system (address: http://localhost IP), Local host CMSServer is where the server resides, PC's IP address; CMSServer BackOffice management system default login name and password are: admin

2.4.2　Adding Users

2.4.3　Adding Terminals/Devices/Vehicles ID

Select "Terminal Management" Tab

2.4.3.1　Adding a Single Terminal

Select "ADD", a Add Terminal Window will pop up. Enter the terminal/device information as required in the window and SAVE.
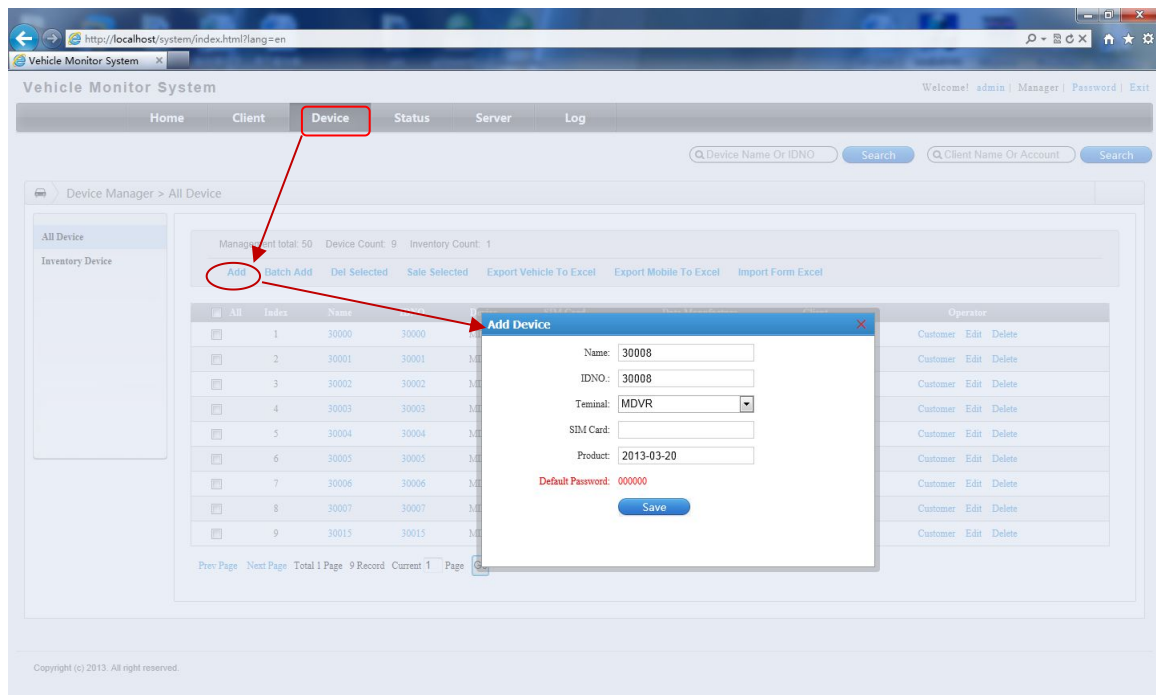
After successfully Saving the device information you will notice a line with your asset information added into the page.
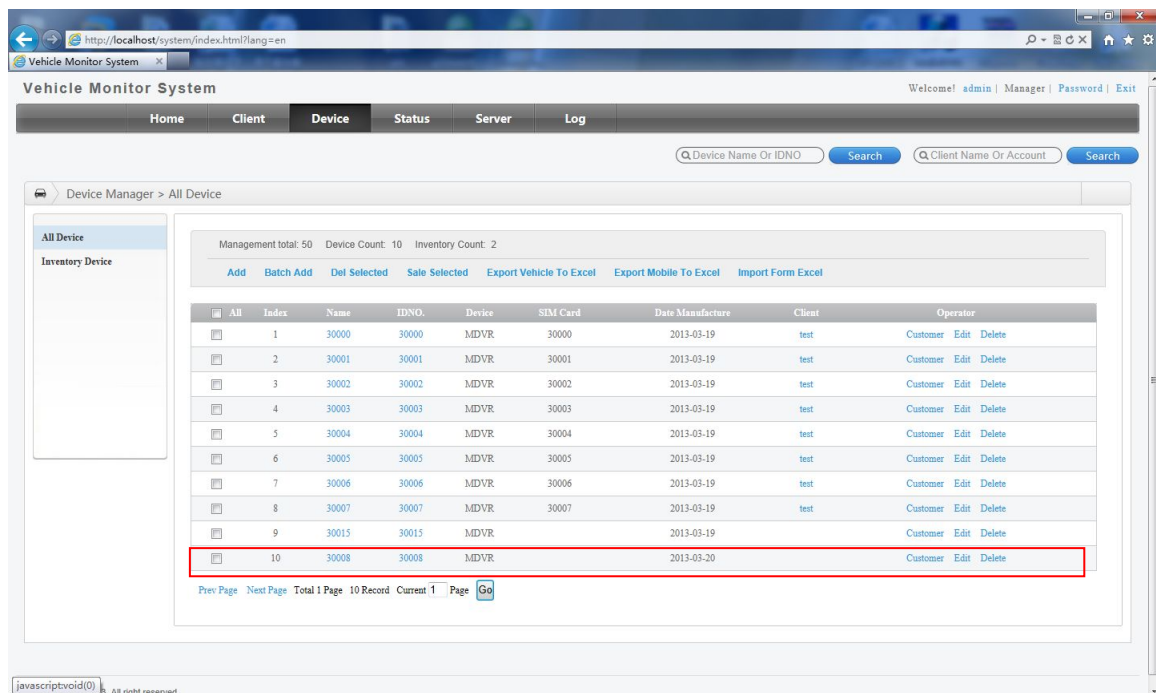
2.4.3.2　Adding Multiple Terminals/Devices in Batch

Select "ADD Batch", a "Add Batch" Terminal window will pop up.Note: Adding Multiple Terminals in Batch requires adding morse than 1 but less than 10 Vehicles/Devices.
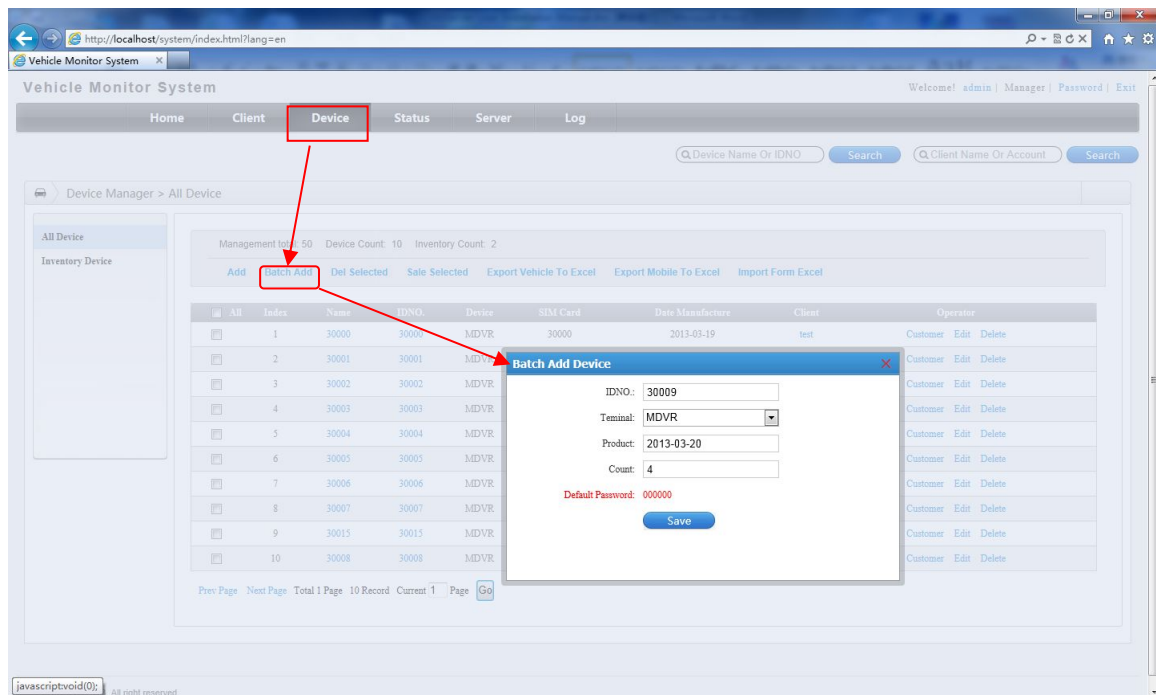
The example above and the result below shows the successful addition of 4 new vehicles/devices.
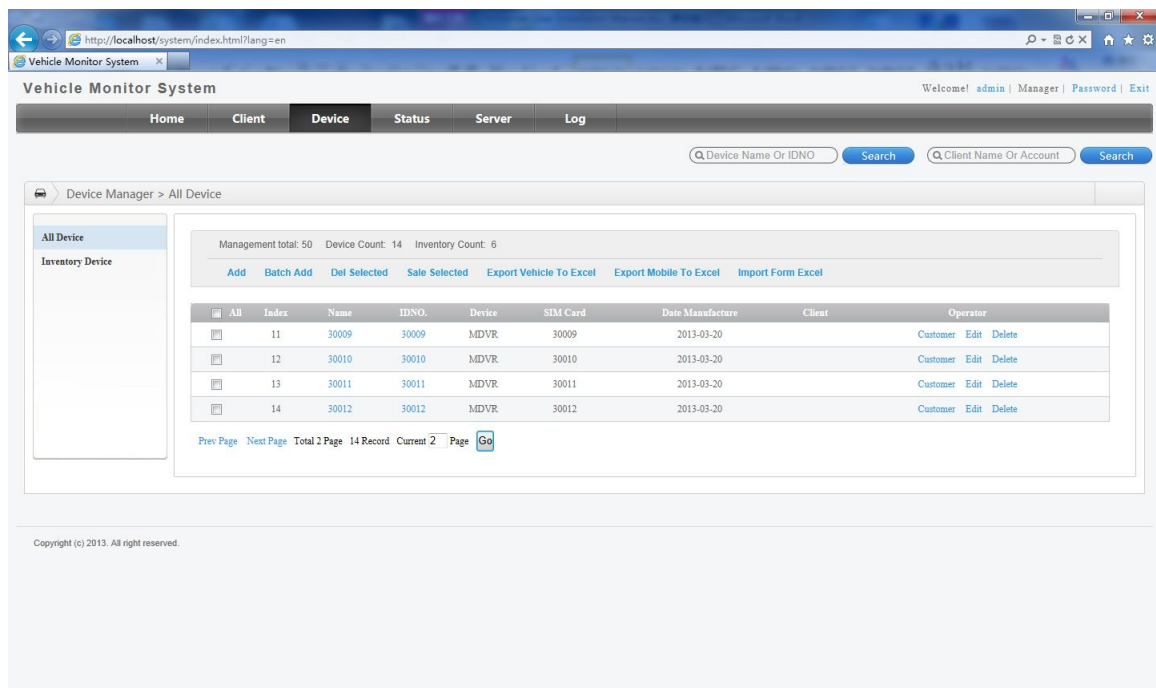
2.4.4   Assigning Groups/Owners

2.4.4.1   Single Terminal/Device Assignment

Select Assign Terminal/Device, Click on Assign, the Assign Terminal Window will pop up.
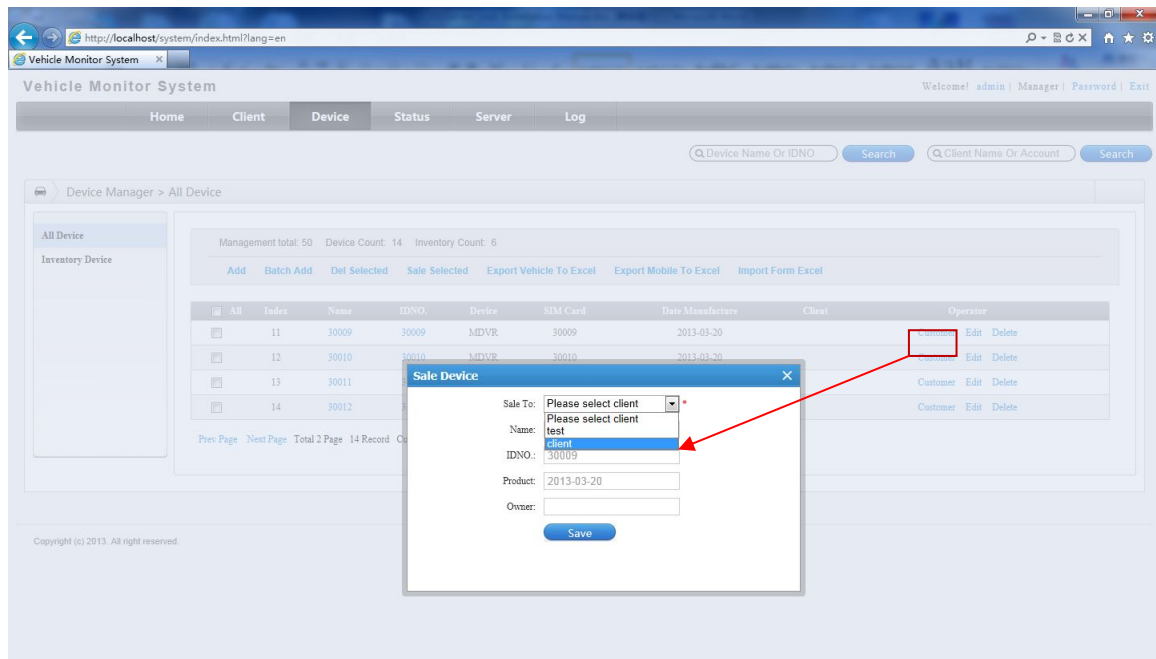
Select the Group/Owner to Assign to, SAVE, After successful Save, the
terminal/device will be associated with the assigned Group/Owner name.
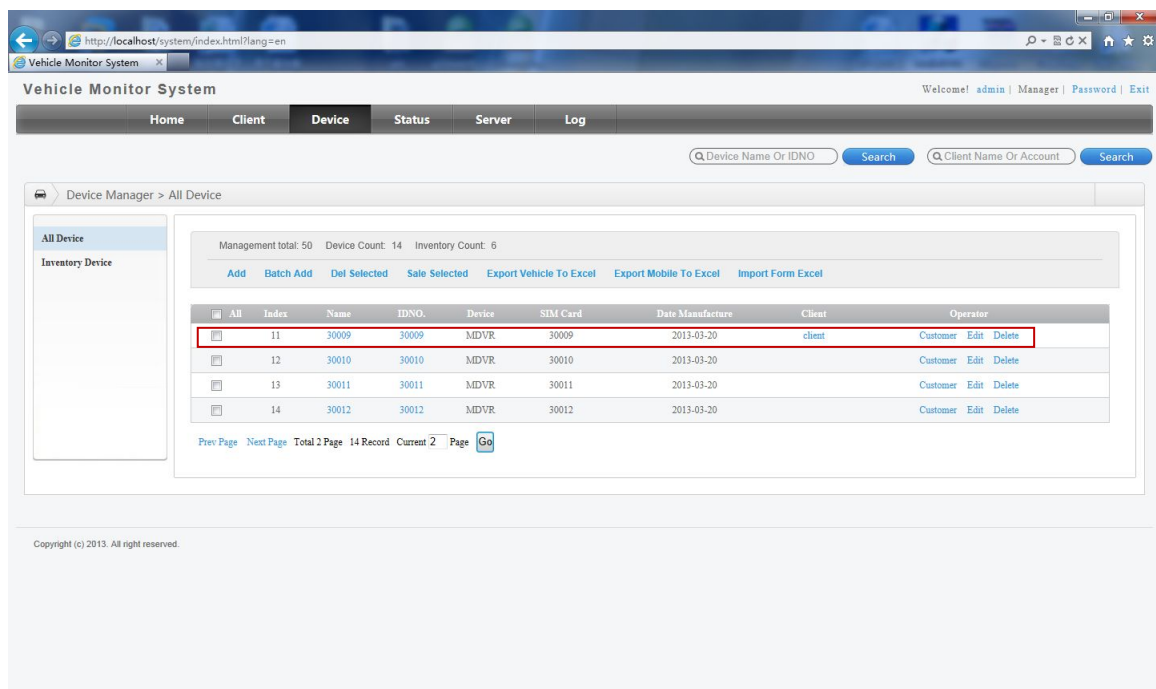
2.4.4.2   Assigning in Batch

Select the terminals/devices to be assigned, Select the Group/Owner to be assigned
to.
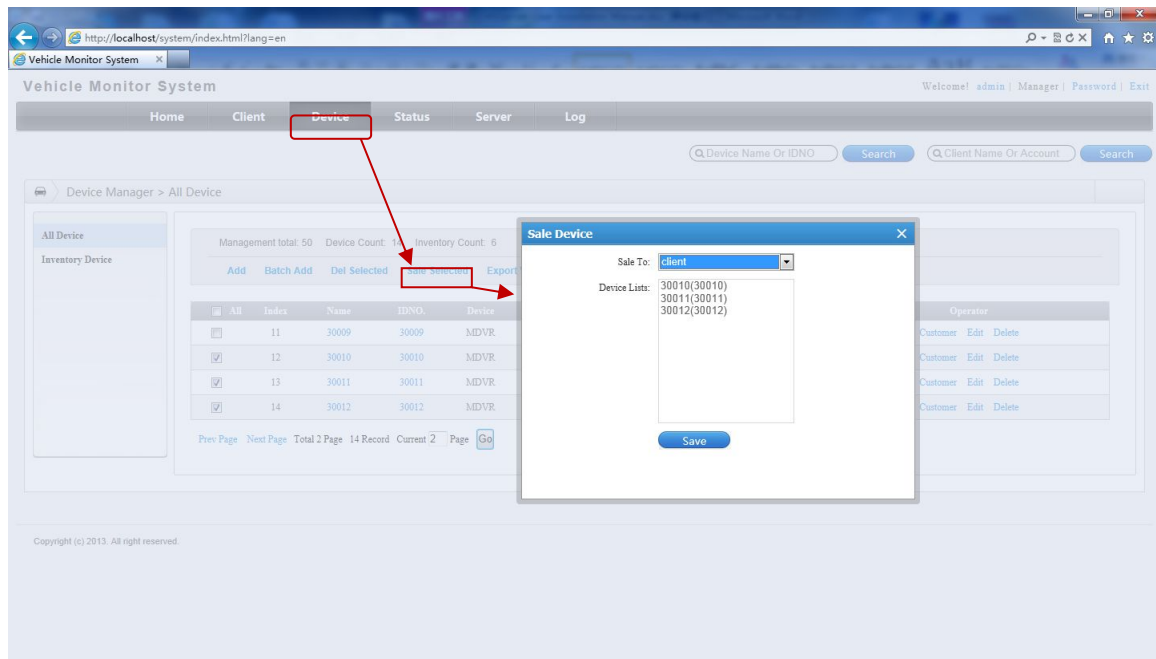
After successful SAVE, the assigned terminals/devices will be associated with the Group/Owner's name.
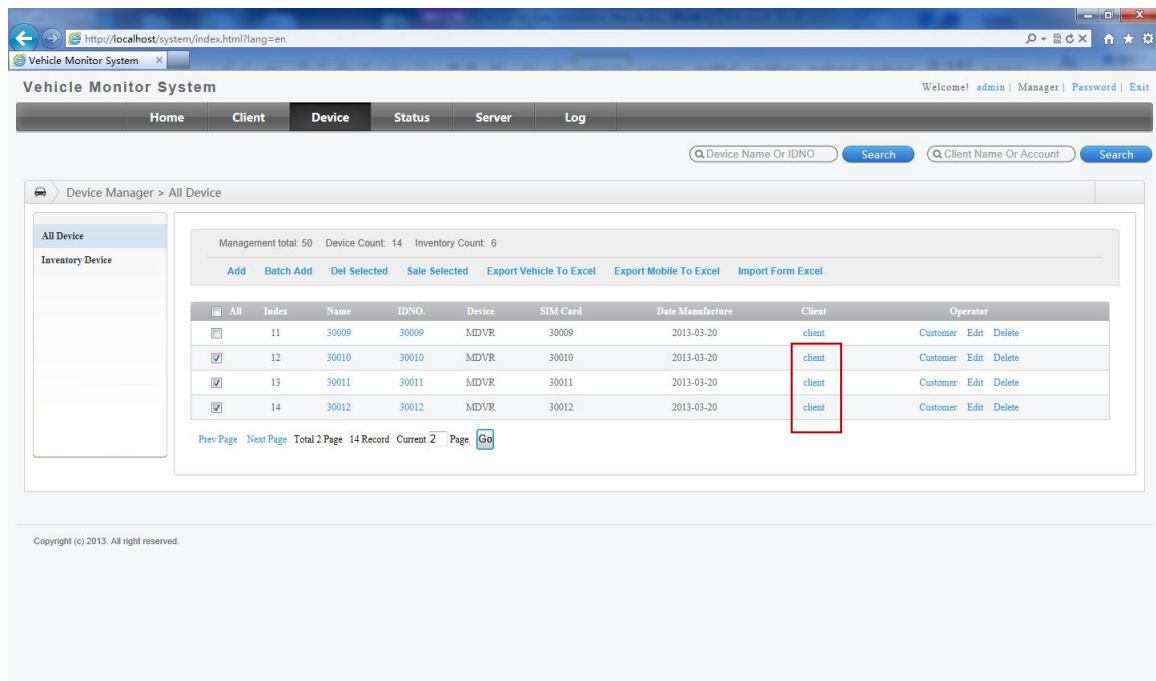
3. Server Installation

Requirements:

Existing CMSServer installation can directly install the new version of the CMSServer.

1. Double Click to run CMSServer installation

2. After double-click , enter installation dialogue box：
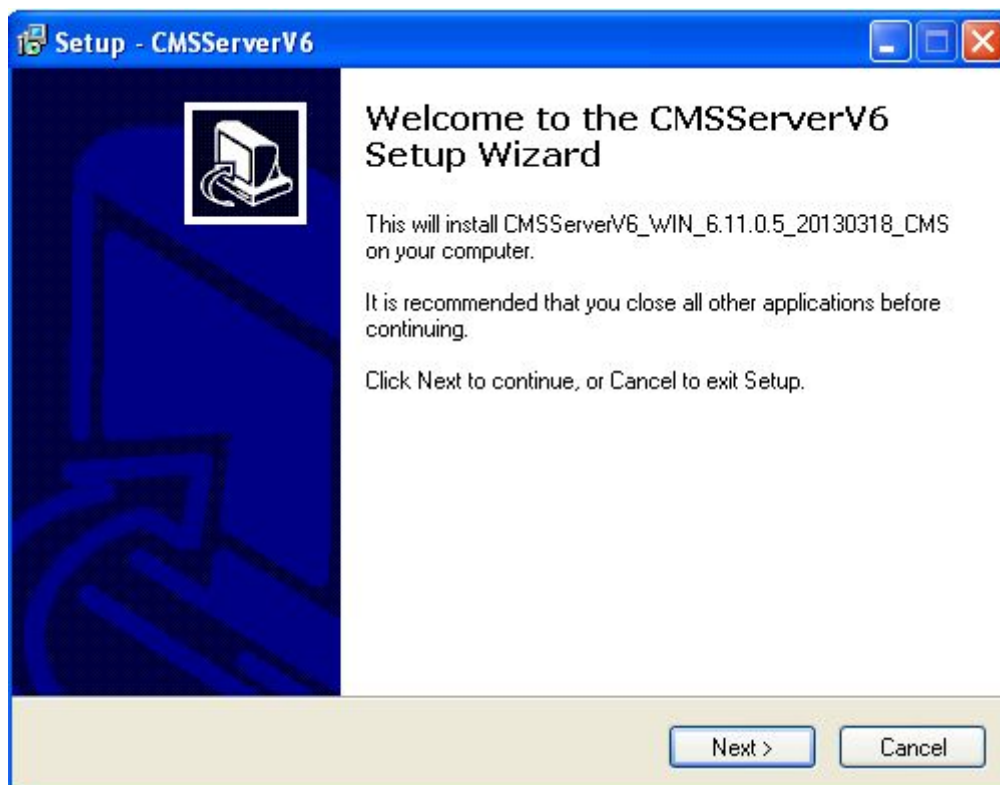
Pic 3.1 Installation Dialogue Box

3. Click "Next"，enter into the Installation Dialogue Box, as shown below:
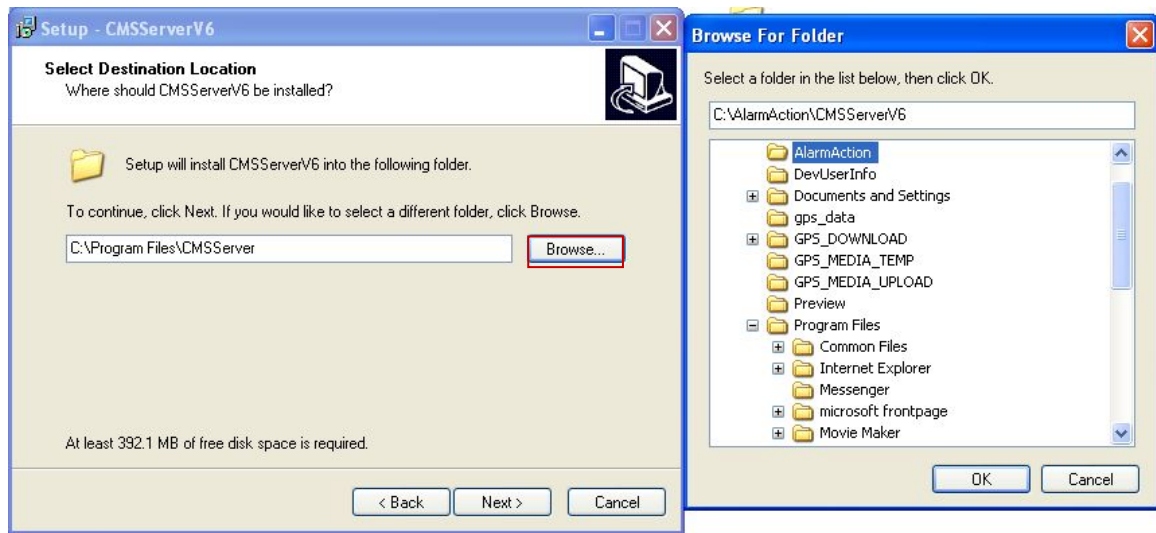
Pic 3.2 Select Installation Path

4. Specify the target installation path, click "Next" to continue.
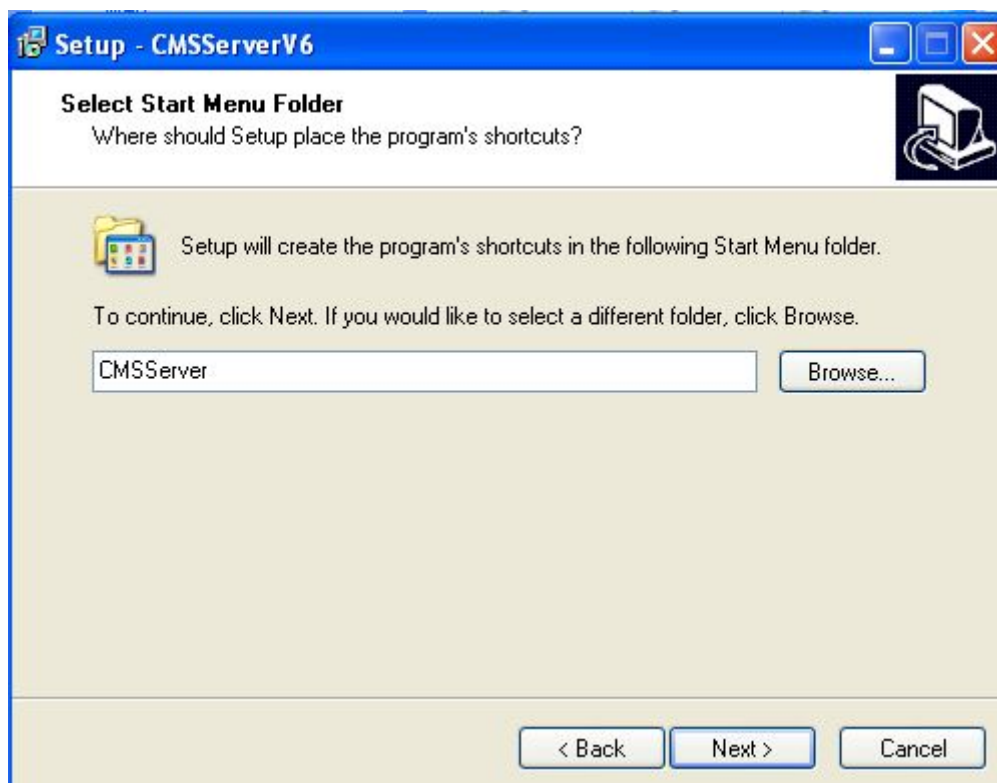
Pic 3.3 Select the Program location

5. Select additional tasks (whether to create a desktop shortcut), and then click "Next" to continue
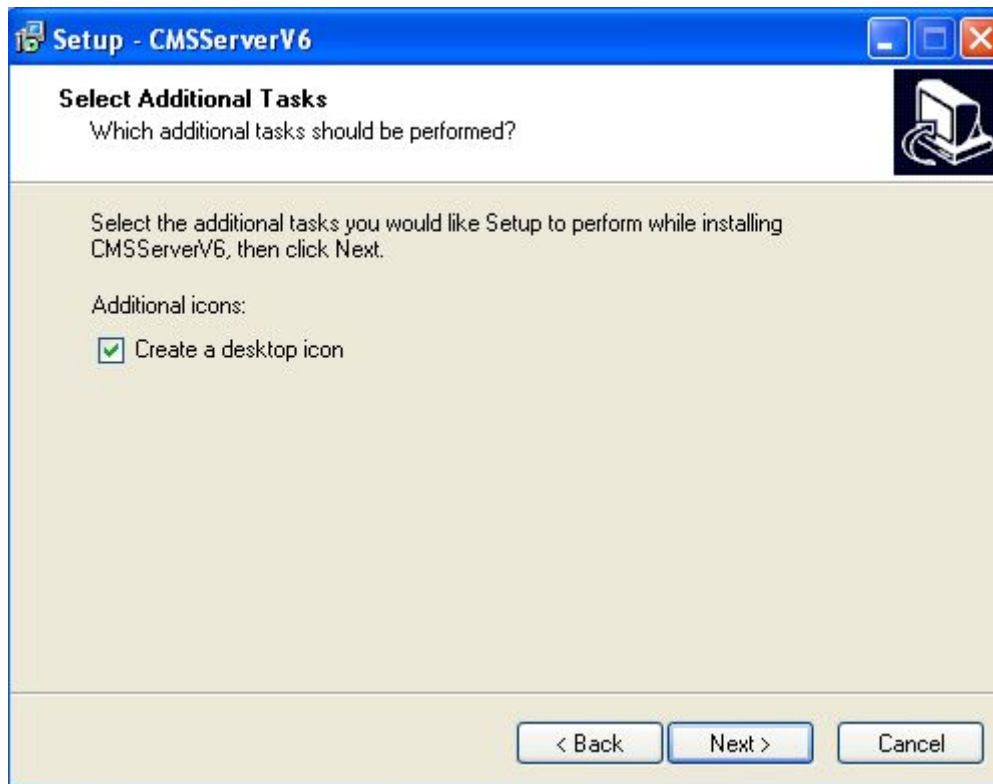
Pic 3.4 Choose whether to create a desktop shortcut

6. Click on "Install" to complete the Installation.
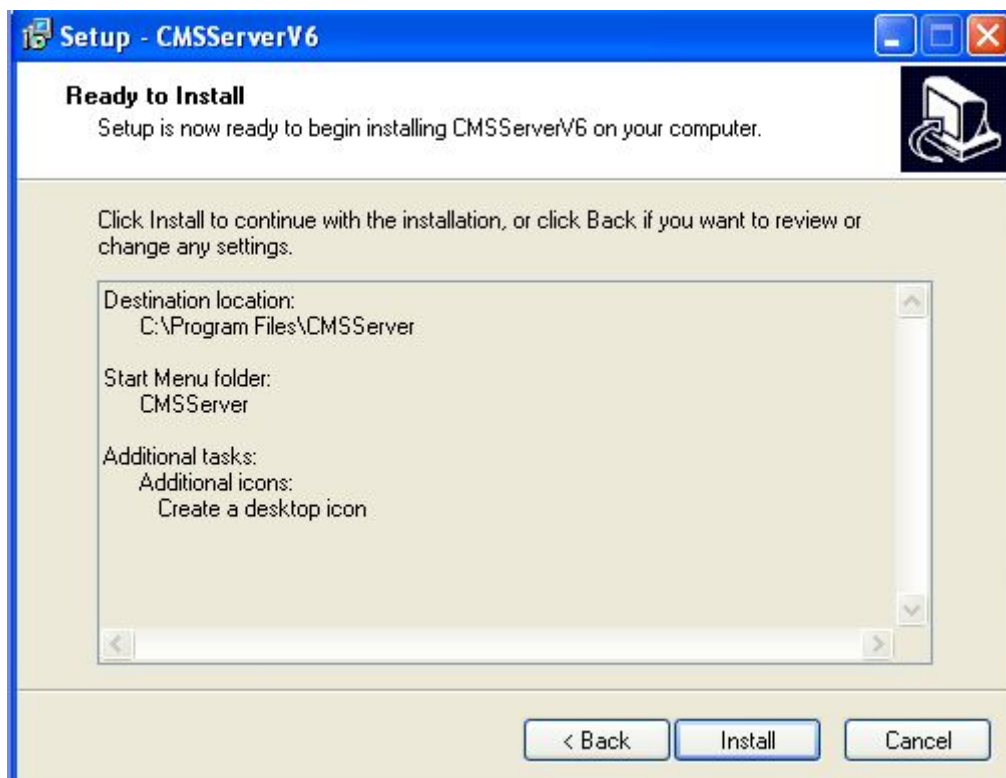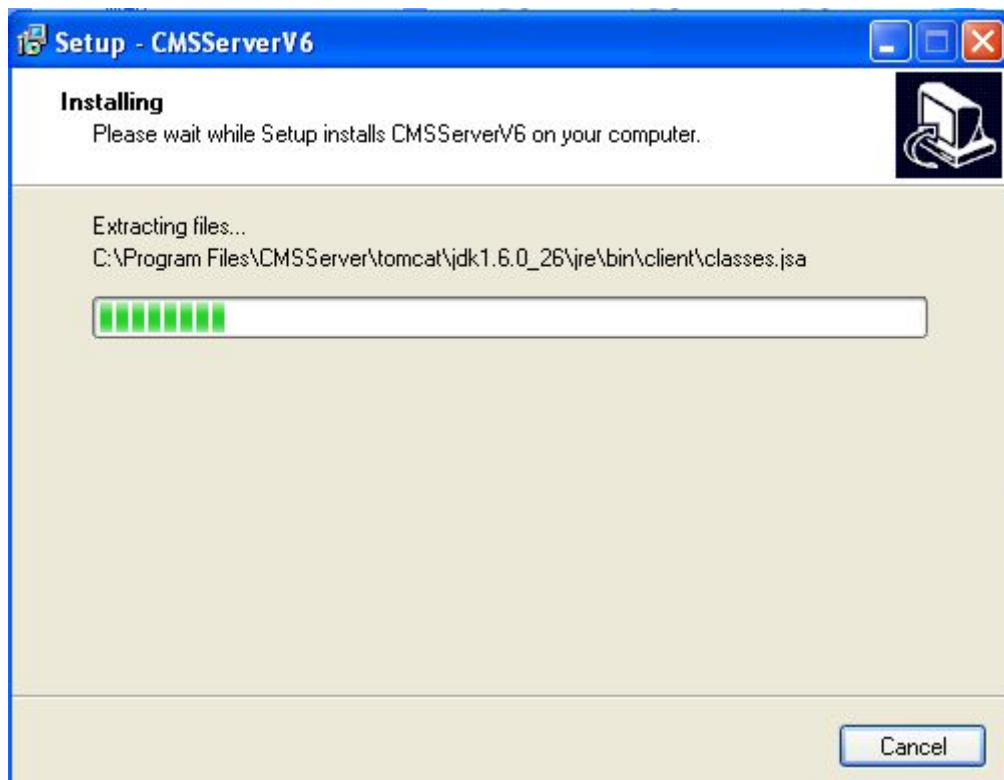
Pic 3.5 Installation Process

7.Click the "Finish" button, Data Configuration begins after this.
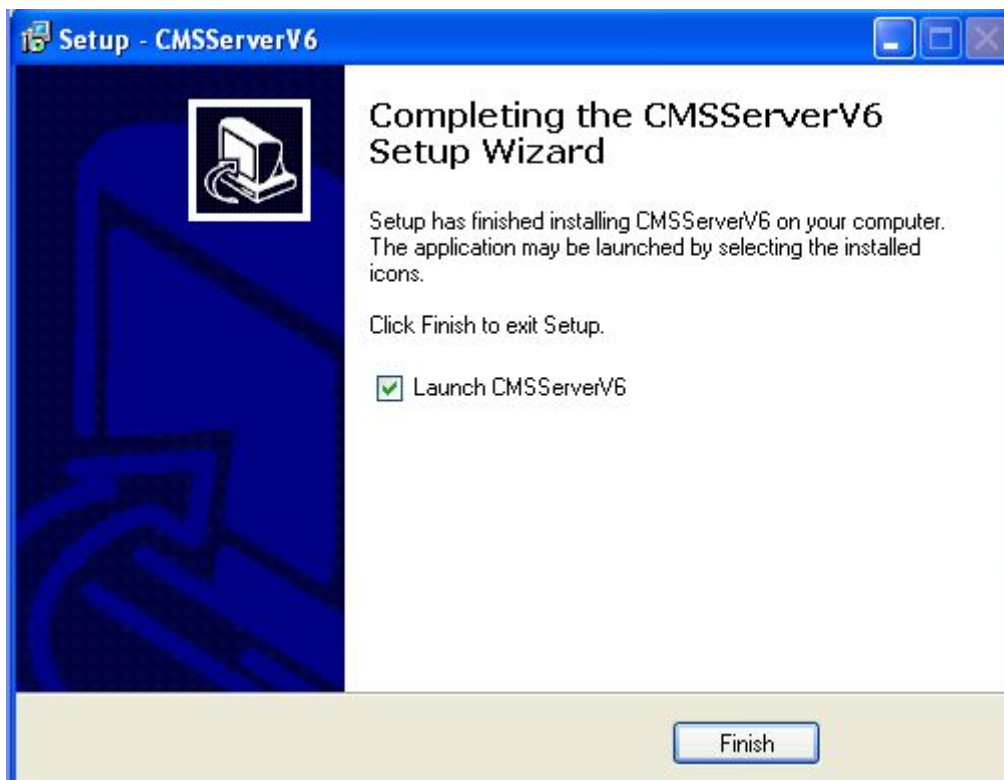
Pic 3.6 Database Configuration Parameters

8.Click on "Next" to begin Network Address Configuration

Pic 3.7 Web Server Parameter Configuration

9. Click on "Next" to start Web Server Configuration Parameters
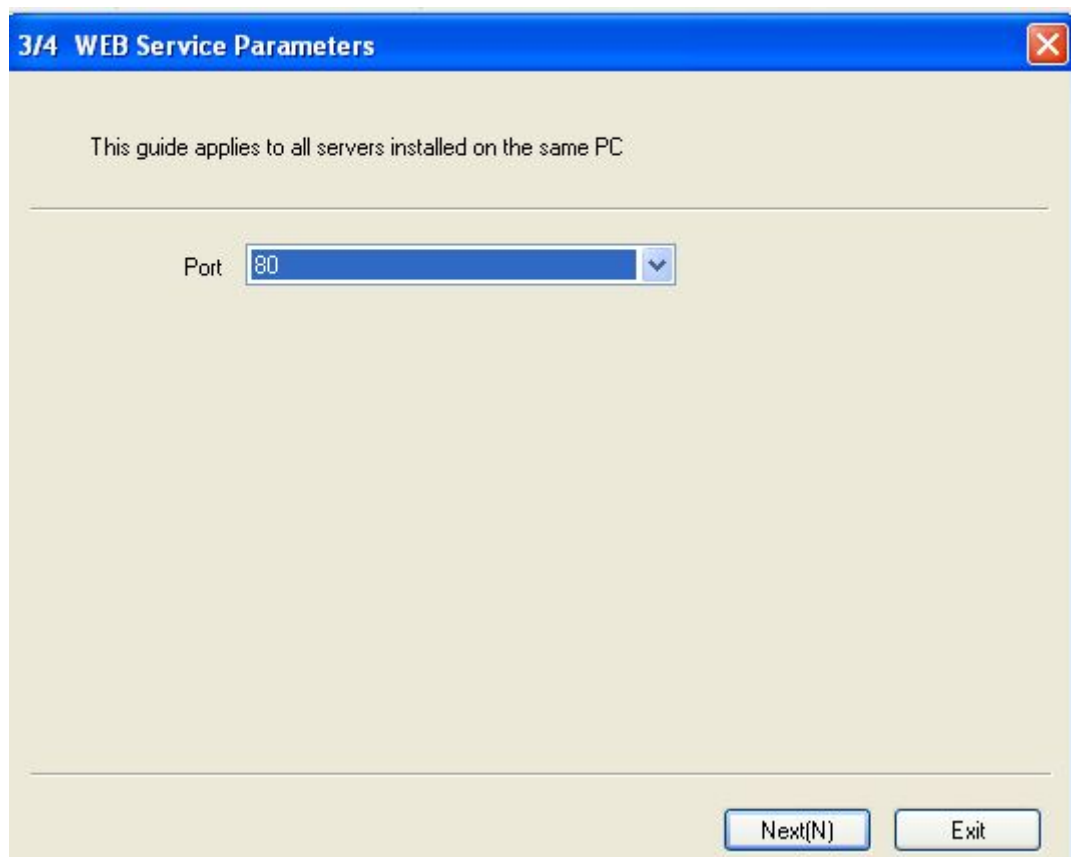
Pic 3.8 Web Server Port Configuration

10. Click on "Finish" to activate CMSServer Server Controller.
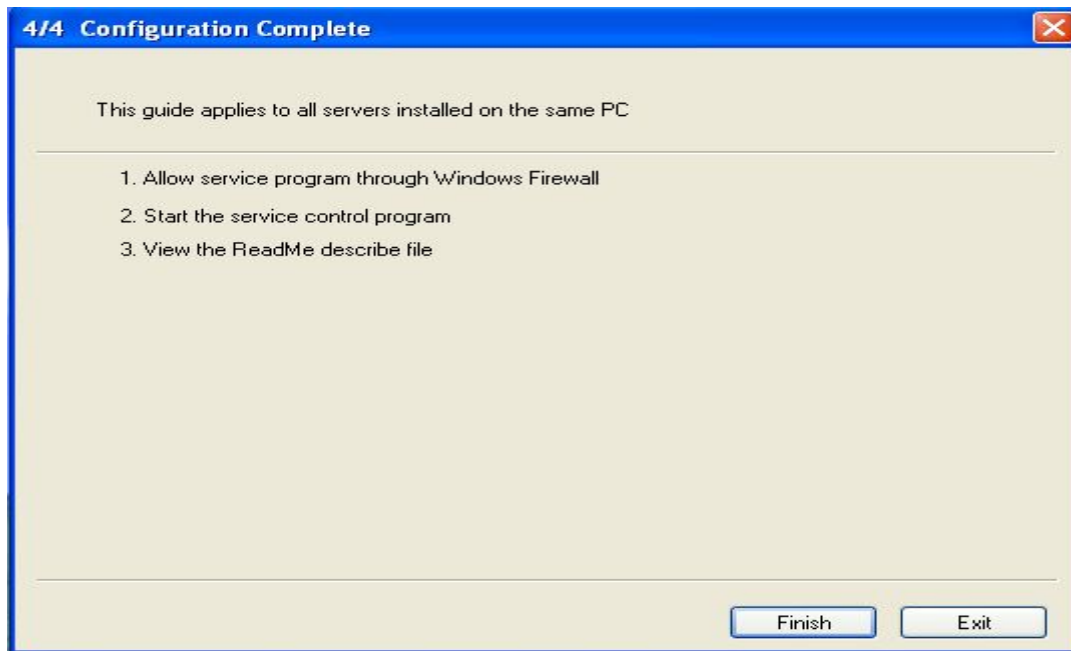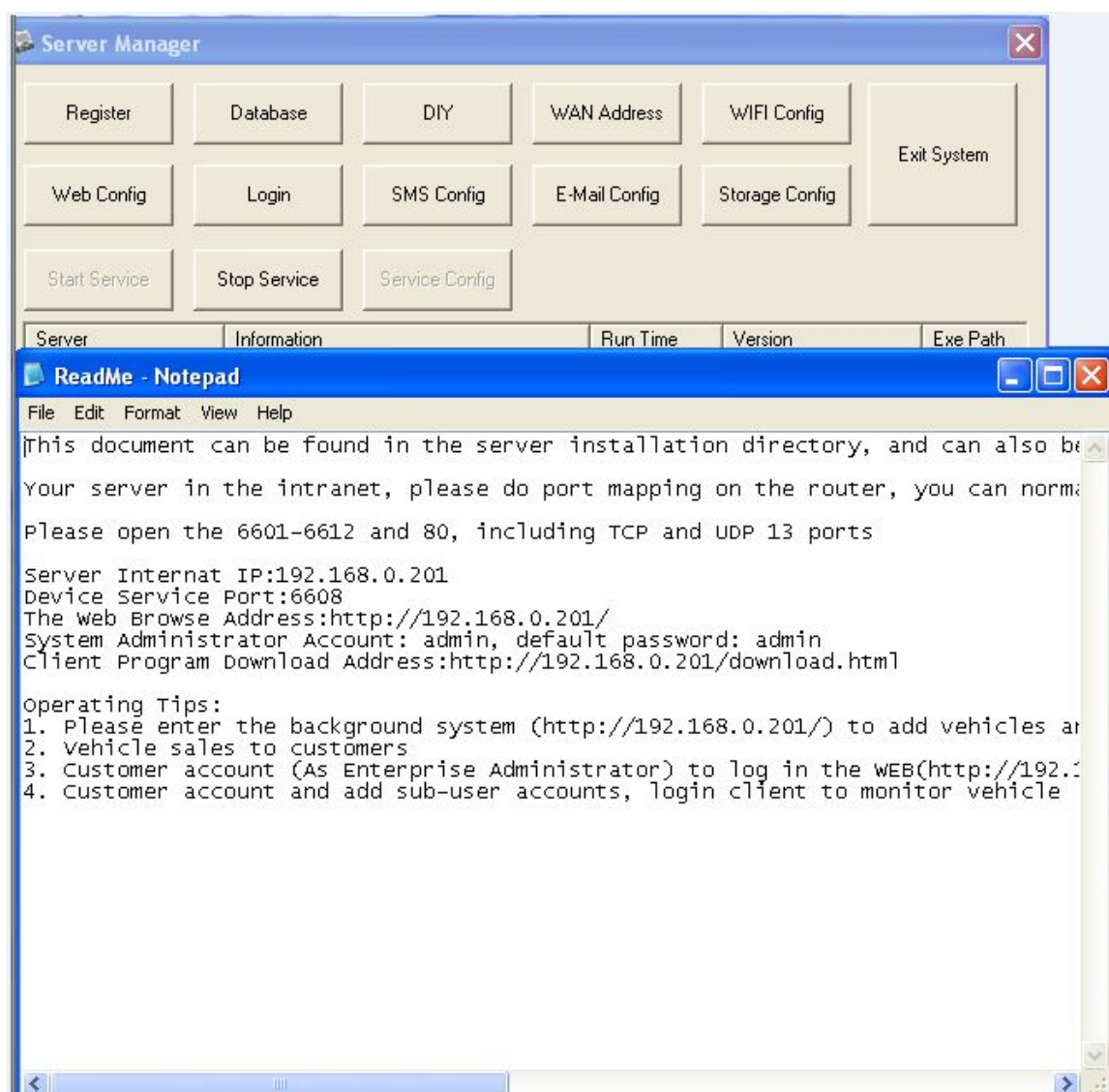
Pic 3.9 Configuration Complete

4. Server Configuration

4.1   CMSServer Server Port Description

CMSServer Server default port are as follows for Mobile DVR and Client services. If the Server is behind a firewall, please ensure the following ports are opened in order for the appropriate services are made available for the Mobile DVR and Client Users.

Server Name	Server Port	Description	Remarks

Login Server	6605, 6606	6606 Device Service Port 6605 Client Service Port	6606 – UDP and TCP 6605 – TCP and UDP
Gateway Server	6607, 6608	6608 Device Service Port 6607 Client Service Port	6608 – UDP and TCP 6607 – TCP and UDP
Media Streaming Server	6602, 6601	6602 Device Service Port 6601 Client Service Port	6602 – TCP 6601 – TCP and UDP
User Management Server	6603	6603 Client Service Port	6603 – TCP and UDP
WIFI Download Server	6609 6610	6610 Device Service Port 6609 Client Service Port	6610 – TCP 6609 – TCP and UDP
Storage Server	6611 6612	6612 Device Service Port 6611 Client Service Port	6612 – TCP 6611 – TCP and UDP
WEB Server	80	80 Client Service Port	80 – TCP

4.2 CMSServer System Configuration

4.2.1 Database view and configure

Note: The database configuration, installation package has already been configured for this version of CMSServer.
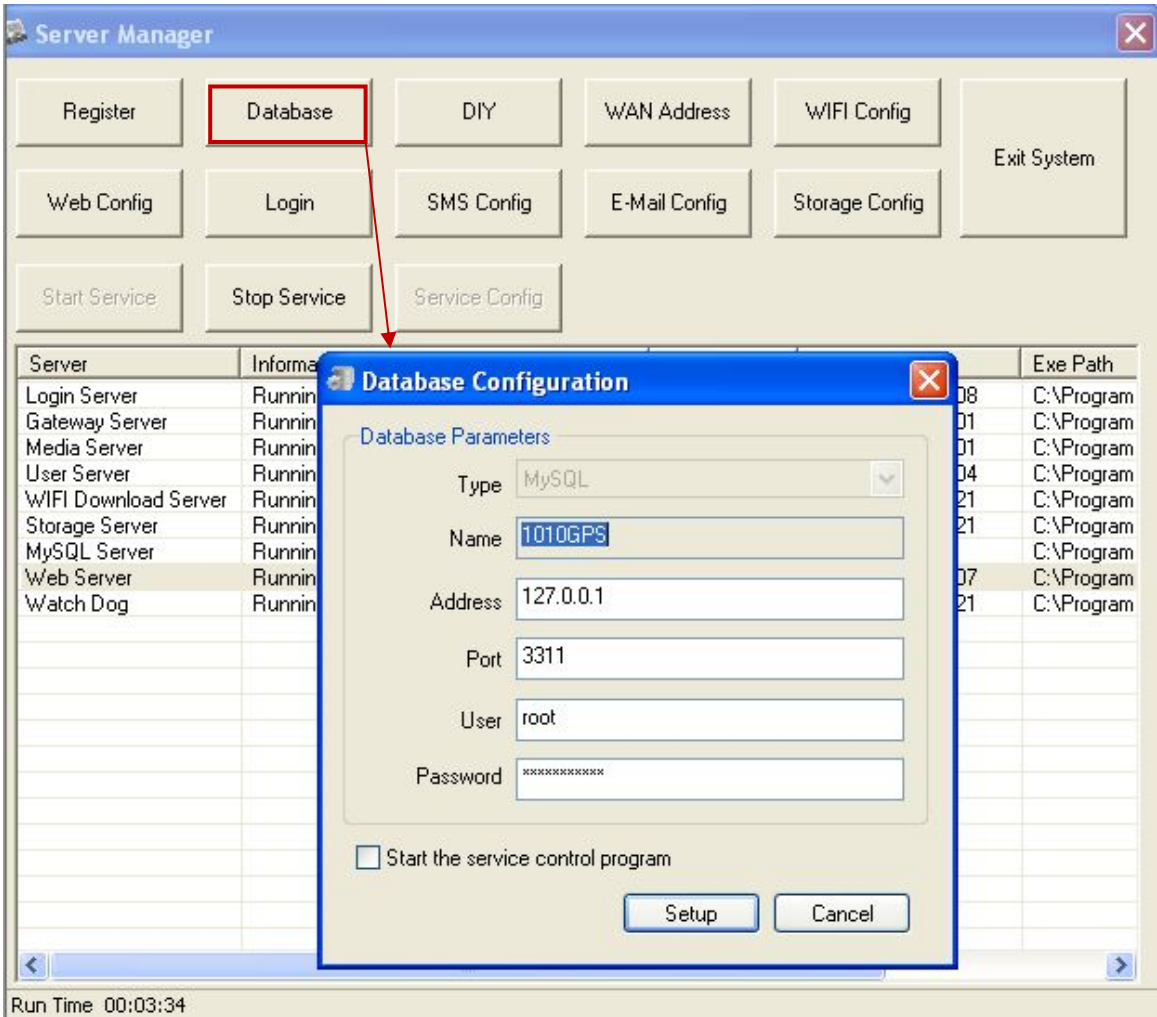
Pic 4.2.1 Database Configuration Information

4.2.2 DIY: logo and title customization
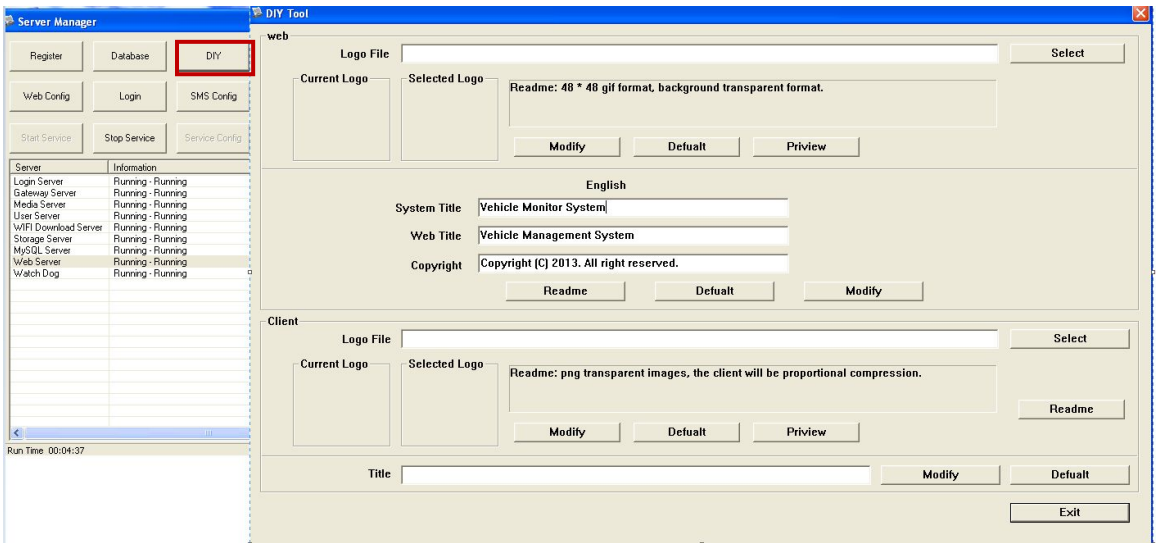
Pic 4.2.2 DIY configure

4.2.3 CMSServer server modify network IP address

1. Installation configuration LAN, and now would like to replace the public network, directly at the following figure can be modified, and vice versa.
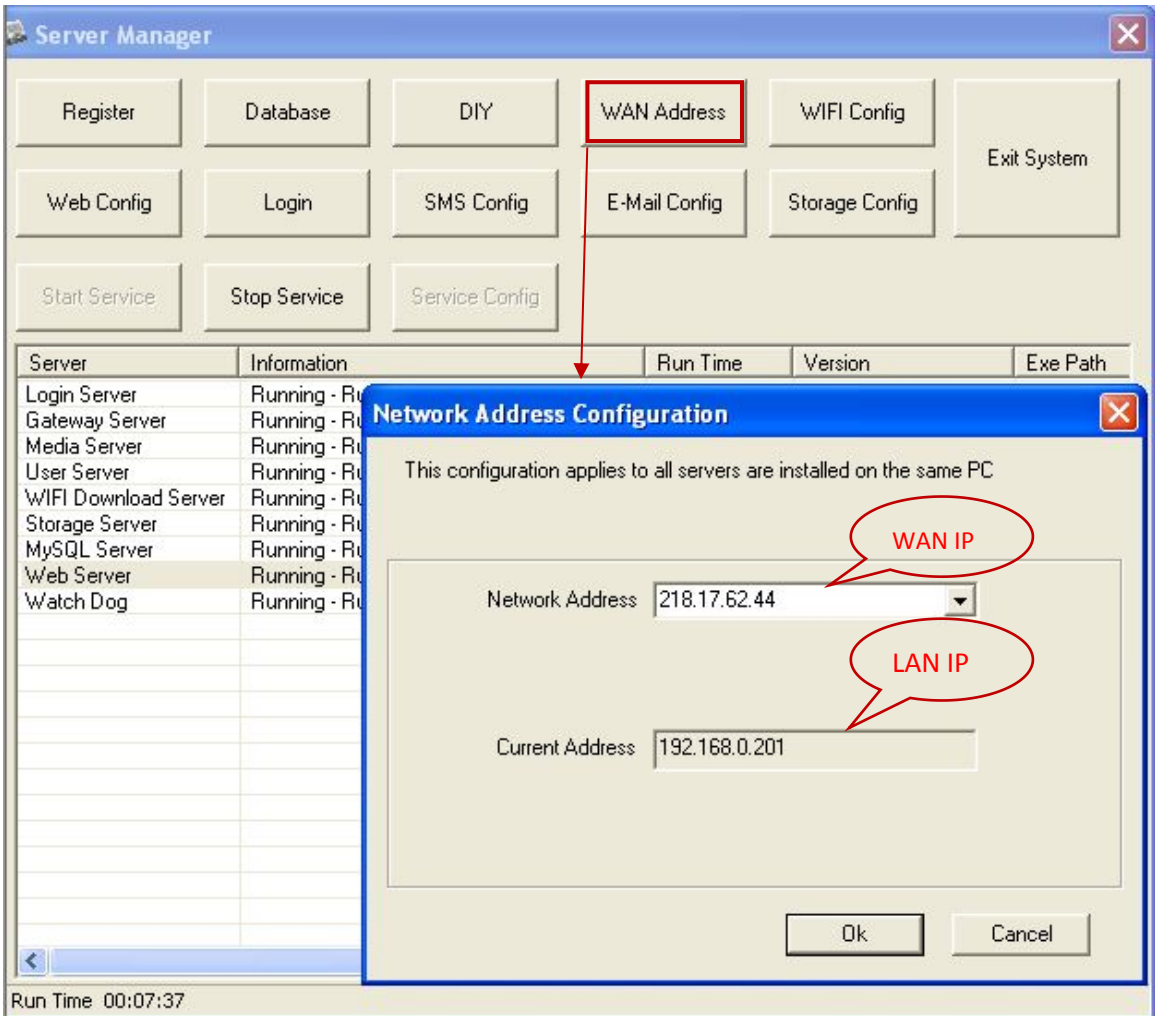
Pic 4.2.3 modify network ip address

4.2.4 WIFI download configuration parameters and status View
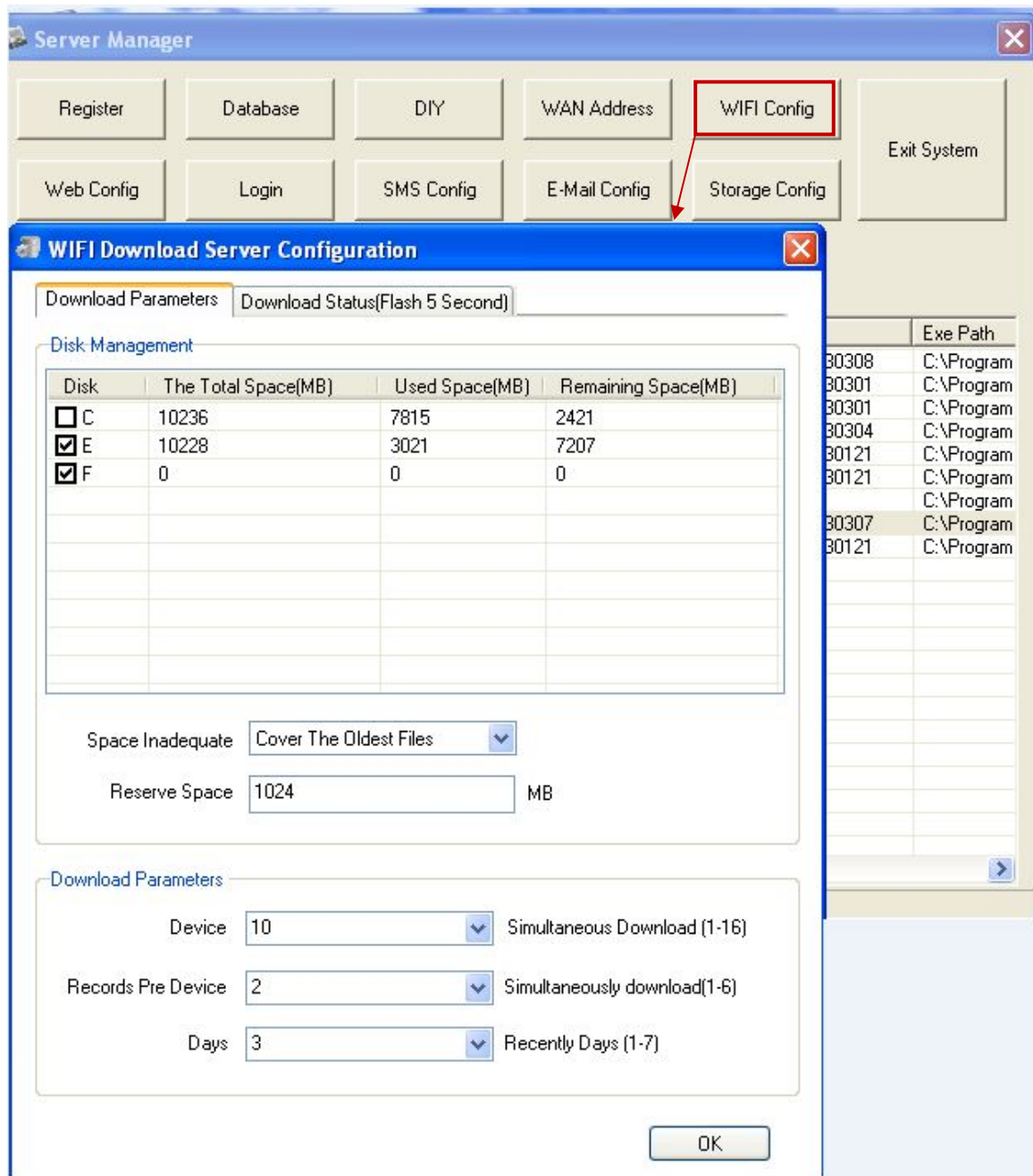
Pic 4.2.4 wifi download configuration parameters and status View

4.2.5 Modified CMSServer server web access port

Here you can modify the web service port configuration 80 port has been occupied,as shown below:
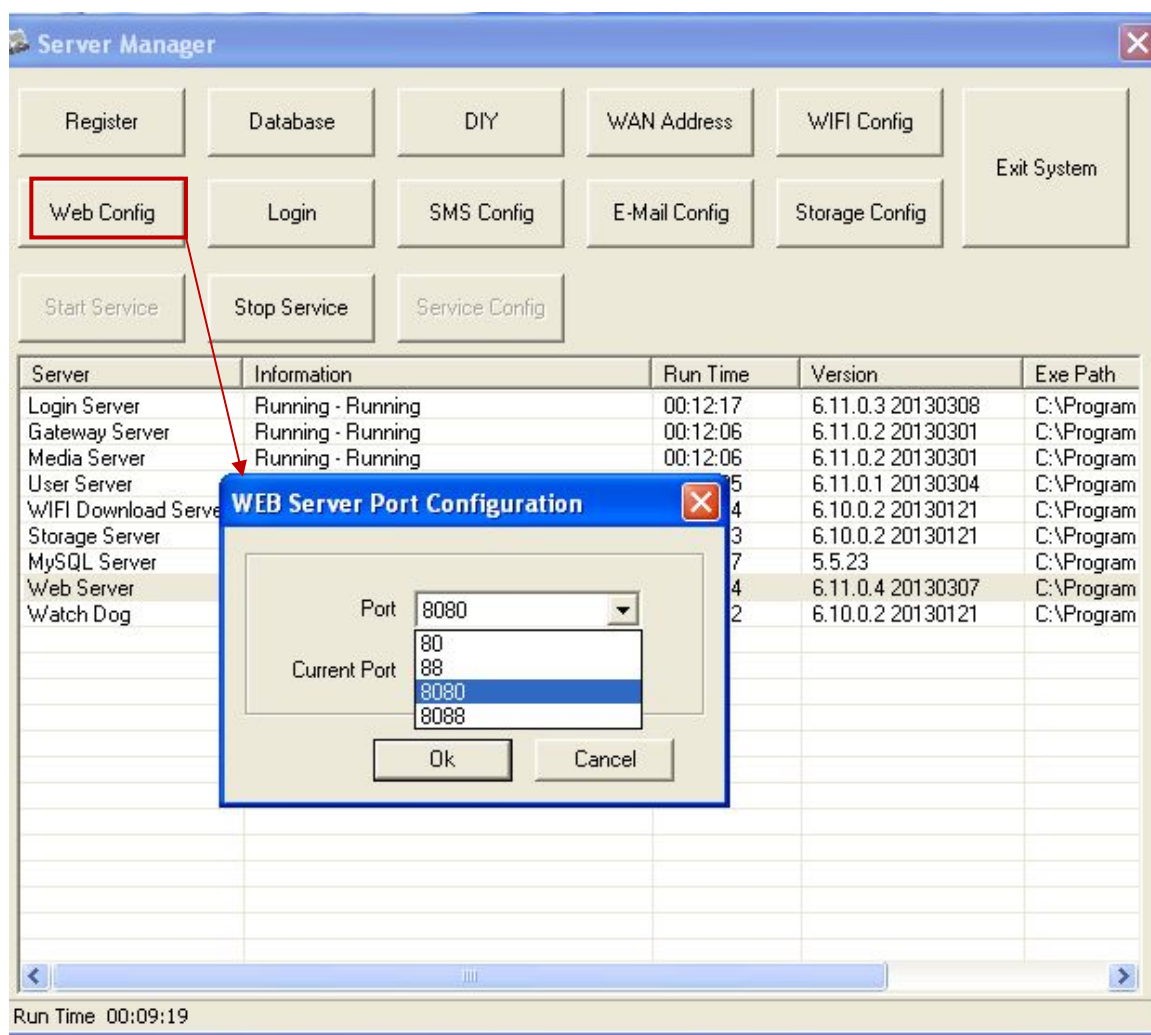
Pic 4.2.5 modify web access port

4.2.6 SMS configuration
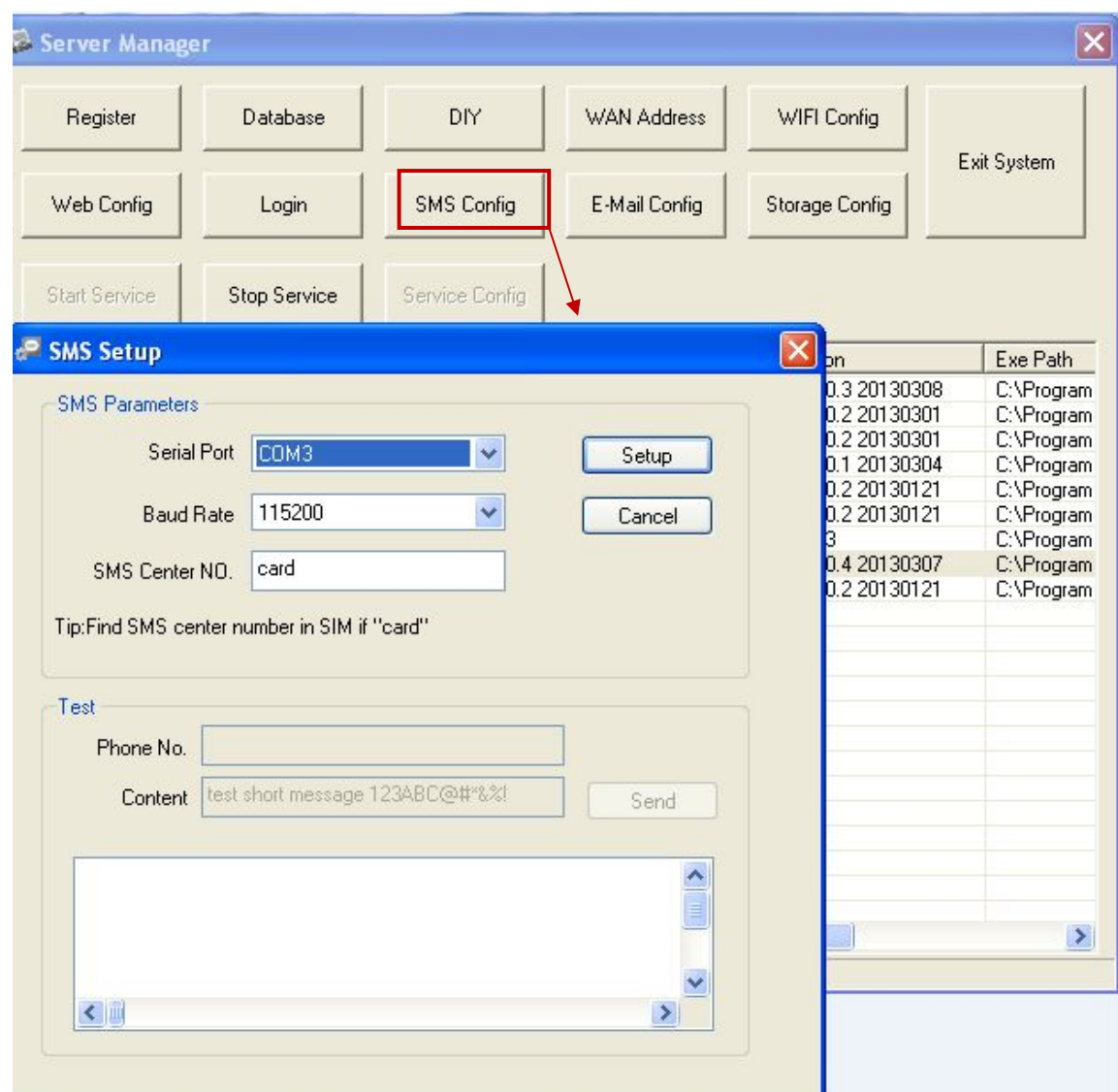
Pic 4.2.6 sms configuration

4.2.7 Email configuration
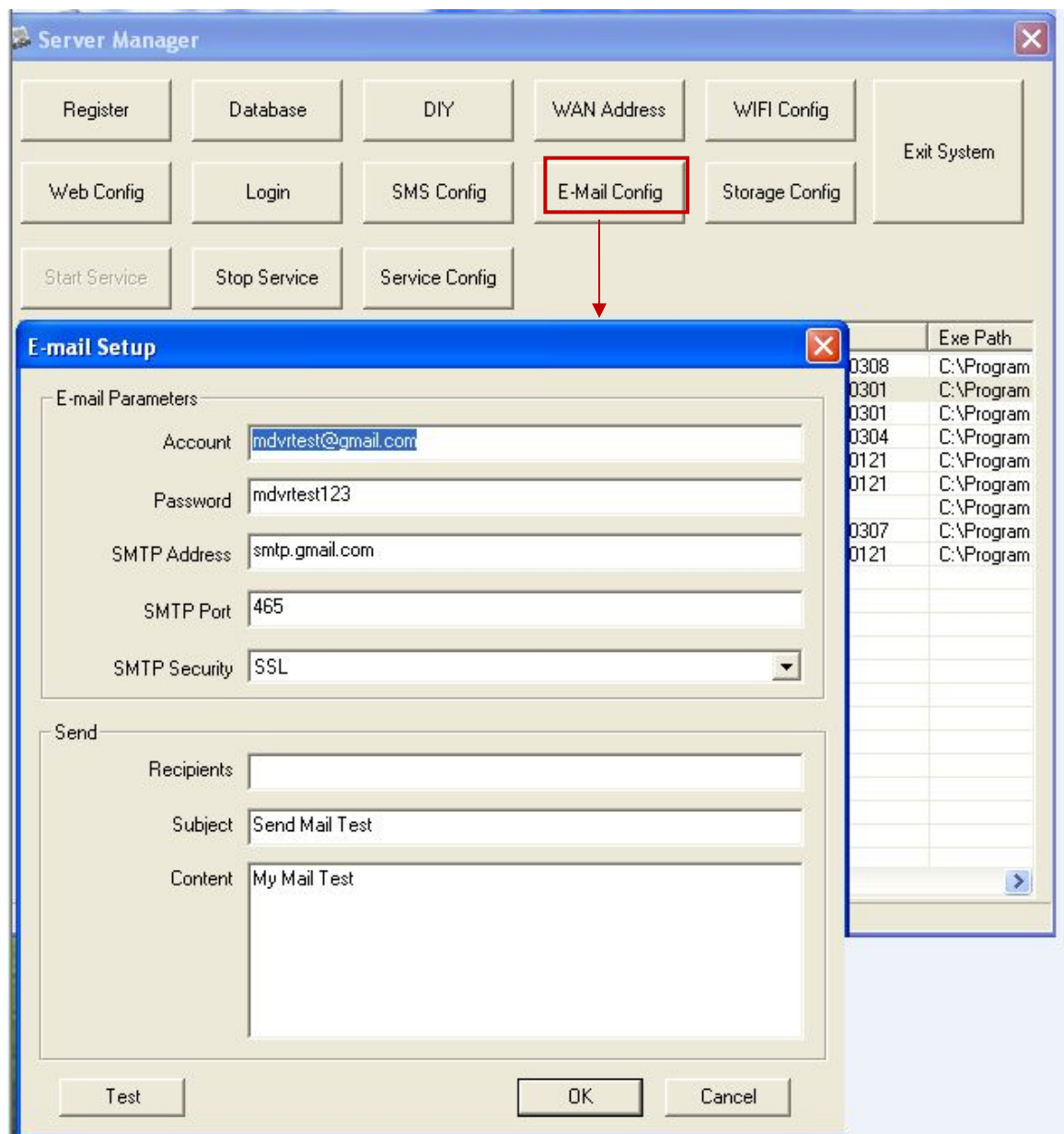
Pic 4.2.7 email configuration

4.2.8 Storage configuration
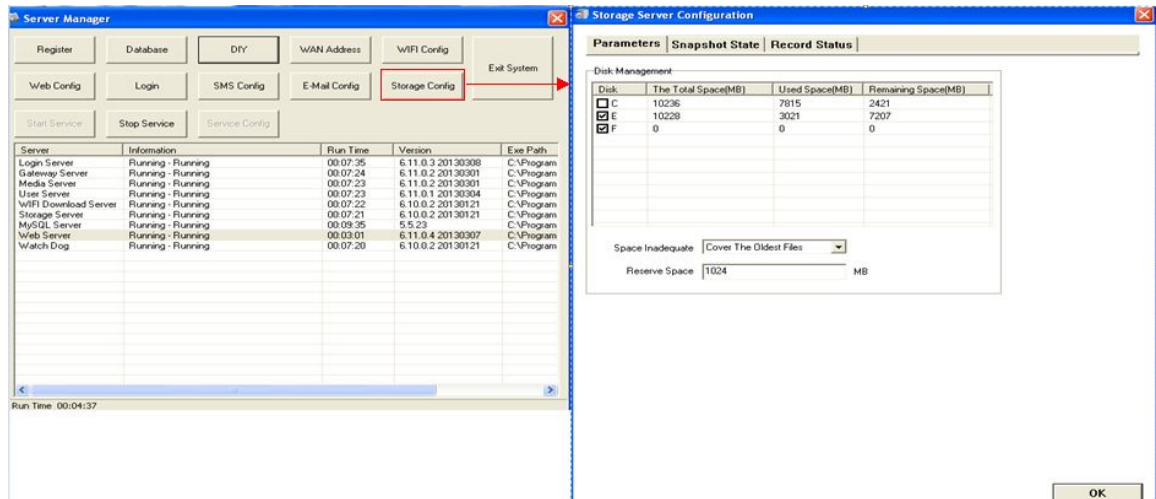
Pic 4.2.8 storage configuration

4.3 CMSServer Introduction

4.3.1 Login Server

1. From the main CMSServer Server window, select "Login Server", "Service Configuration" button and then click on the top of the interface, log on to the server can be configured in the form of pop-up network parameters, as shown below:
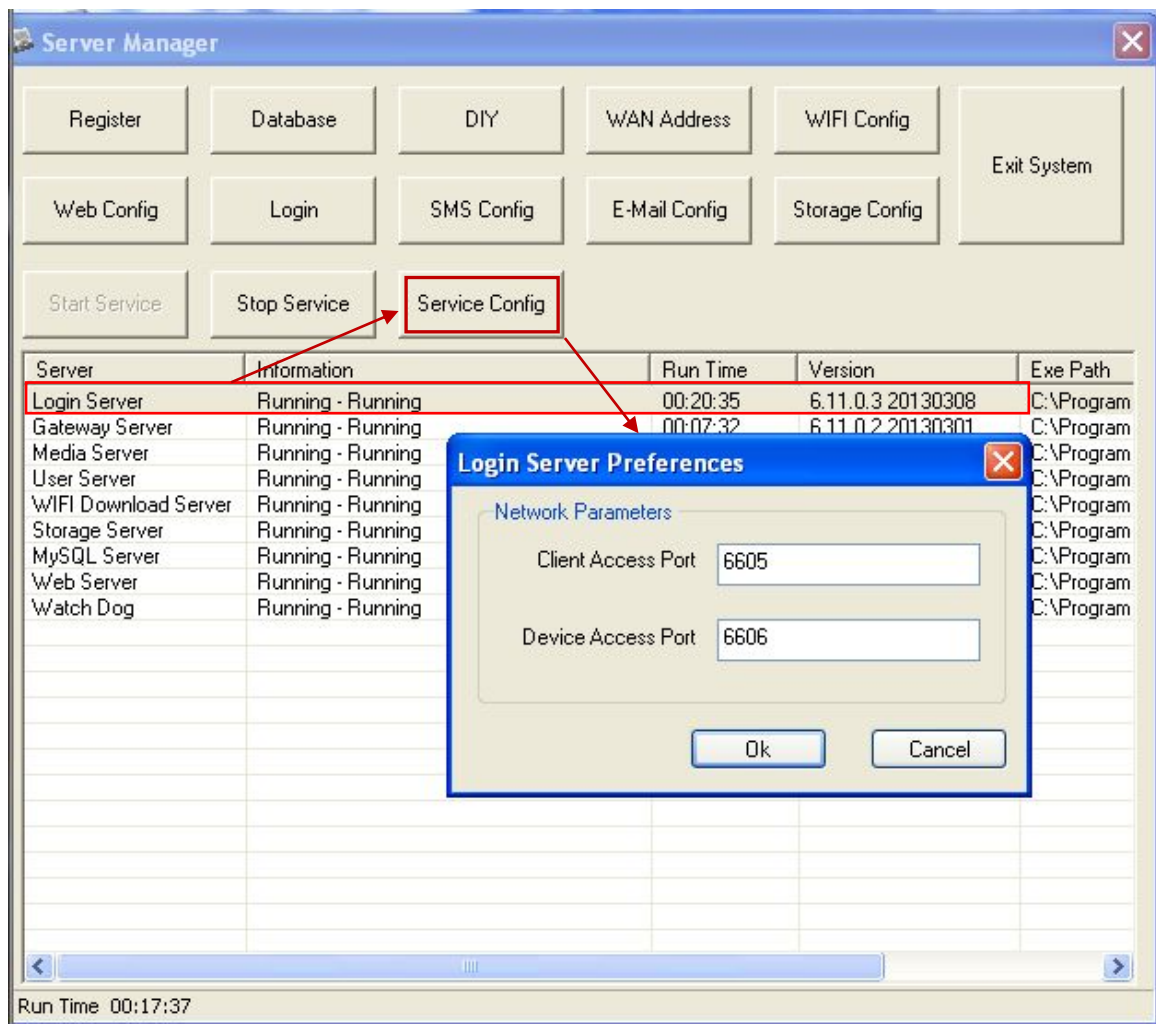
Pic 4.3.1 Login Server Parameter Configuration

Client Access Port ：Registered Client Users connect to the server through this port. Default is 6605, it is recommended not to modify;

Device Access Port：Registered devices/vehicles connects to the gateway server through this port. Defaults to 6606, it is recommended not to modify.

One or 2 servers can be deployed on the CMSServer system and log on to the server, one of them as the primary server, another as Login (Backup) server. When the Login server fails, the Login server by switching to a virtual IP, will not affect the normal use of the device and the client.

4.3.2 Gateway Server

1.From the main CMSServer Server window, select "Gateway Server", Click "Service Configuration" button which on the top of the interface, then you can config your gateway parameter , as shown below:

Pic 4.3.2 Gateway Server Configuration Parameters

Login Server Address: Login Server uses the PC's Server IP address. If the Gateway server and Login Server are on the same PC, you can enter 127.0.0.1, where the Gateway and Login Server resides on the same LAN, the IP configuration should be the LAN IP Address. If the enter log on to the server where the LAN IP address, and vice versa enter log on to the server where the PC's public IP address, and enter the Windows service to modify the properties on the gateway server login tab); 127.0.0.1 advice address is not valid in a particular case must input CMSServer server where PC's IP;

Server port: Client Access the Login Server service port, default 6605, does not propose to modify.

Server ID： Each Gateway Server has a unique number. The system can deploy one or more Gateway Servers, Login Server uses the unique number to distinguish between different gateway server, the unique number must be the same as the ID of the gateway server, and server management information defined in CMSServer BackOffice Management System;

Client Access Port: Through this port to provide service for the Client and Media，default is 6607 , does not propose to modify;

Device Access Port： Through this port to provide instruction registration service for car DVR. default is 6608 , does not propose to modify;

4.3.3 Media Server

1. From the main CMSServer Server window, select "Login Server", "Service Configuration" button and then click on the top of the interface, media server can be configured in the form of pop-up network parameters, as shown below
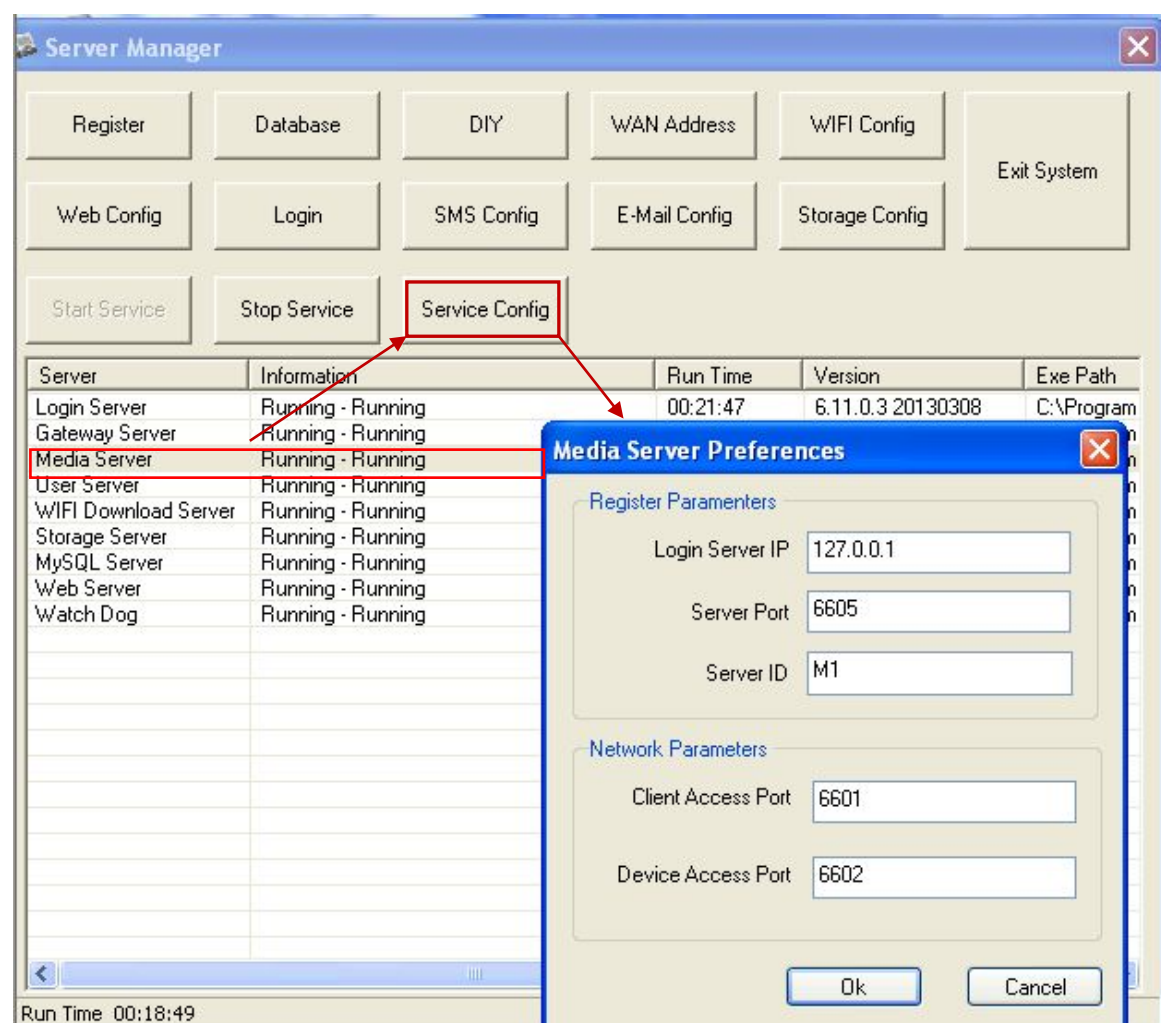
Pic 4.5 Media Server Configuration Parameter

Login Server Address: Login Server uses the PC's Server IP address. If the Media server and Login Server are on the same PC, you can enter 127.0.0.1, where the Media and Login Server resides on the same LAN, the IP configuration should be the LAN IP Address. If the enter log on to the server where the LAN IP address, and vice versa enter log on to the server where the PC's public IP address, and enter the Windows service to modify the properties on the media server login tab); 127.0.0.1 address is not valid in a particular case must input CMSServer server where PC's IP;

Server port: Client Access the Login Server service port, default 6605, not advised to change.

Server ID: Each Media Server has a unique number. The system can deploy one or more Media Servers, Login Server uses the unique number to distinguish between different Media server, the unique number must be the same as the ID of the Media Server, and server management information defined in CMSServer BackOffice Management System;

Client Access Port: Through this port to provide Media forwarding service，default is 6601 , does not propose to modify;

4.3.4   User Server

1. From the main CMSServer Server window, select "Login Server", "Service Configuration" button and then click on the top of the interface, user server can be configured in the form of pop-up network parameters, as shown below:
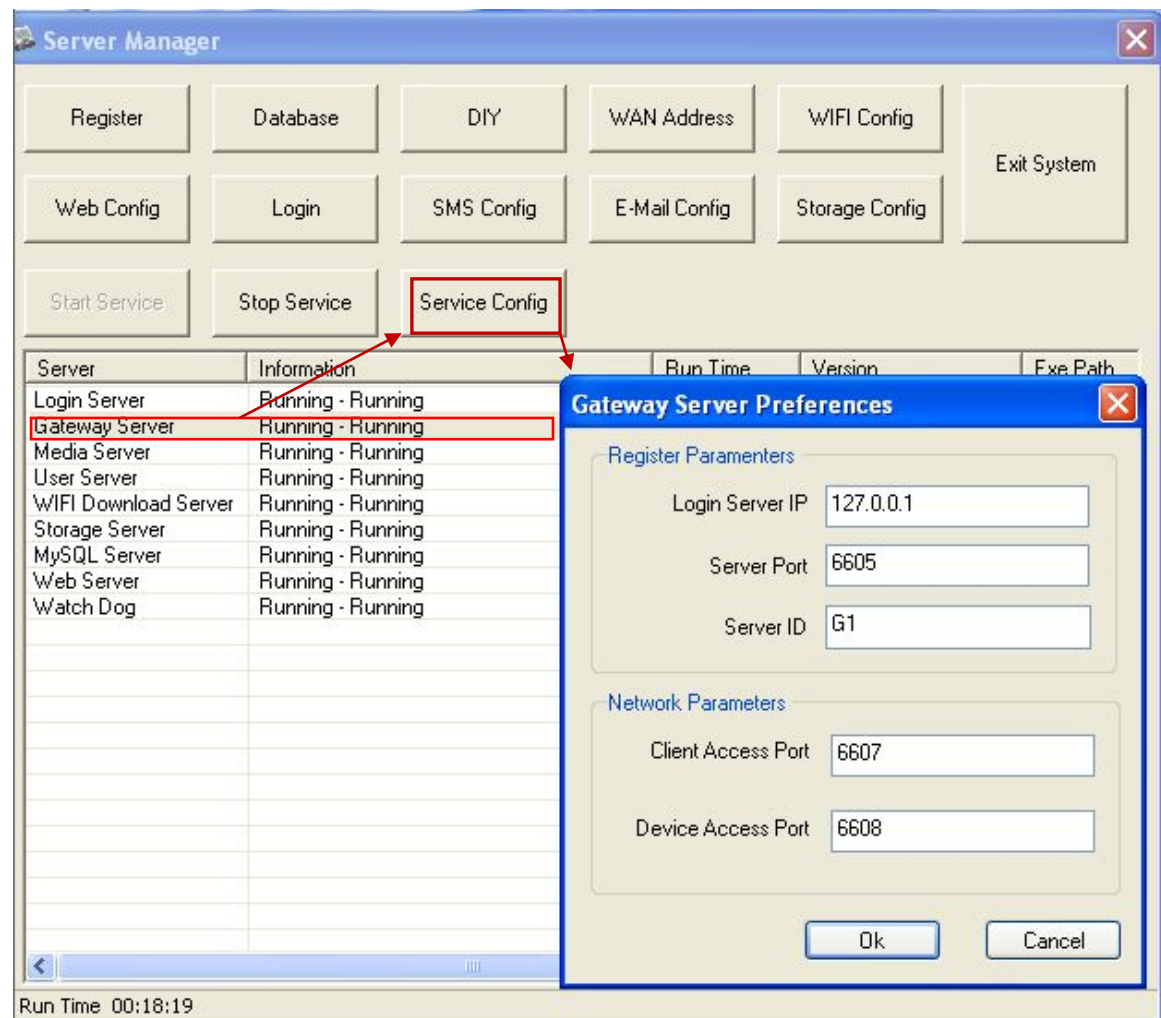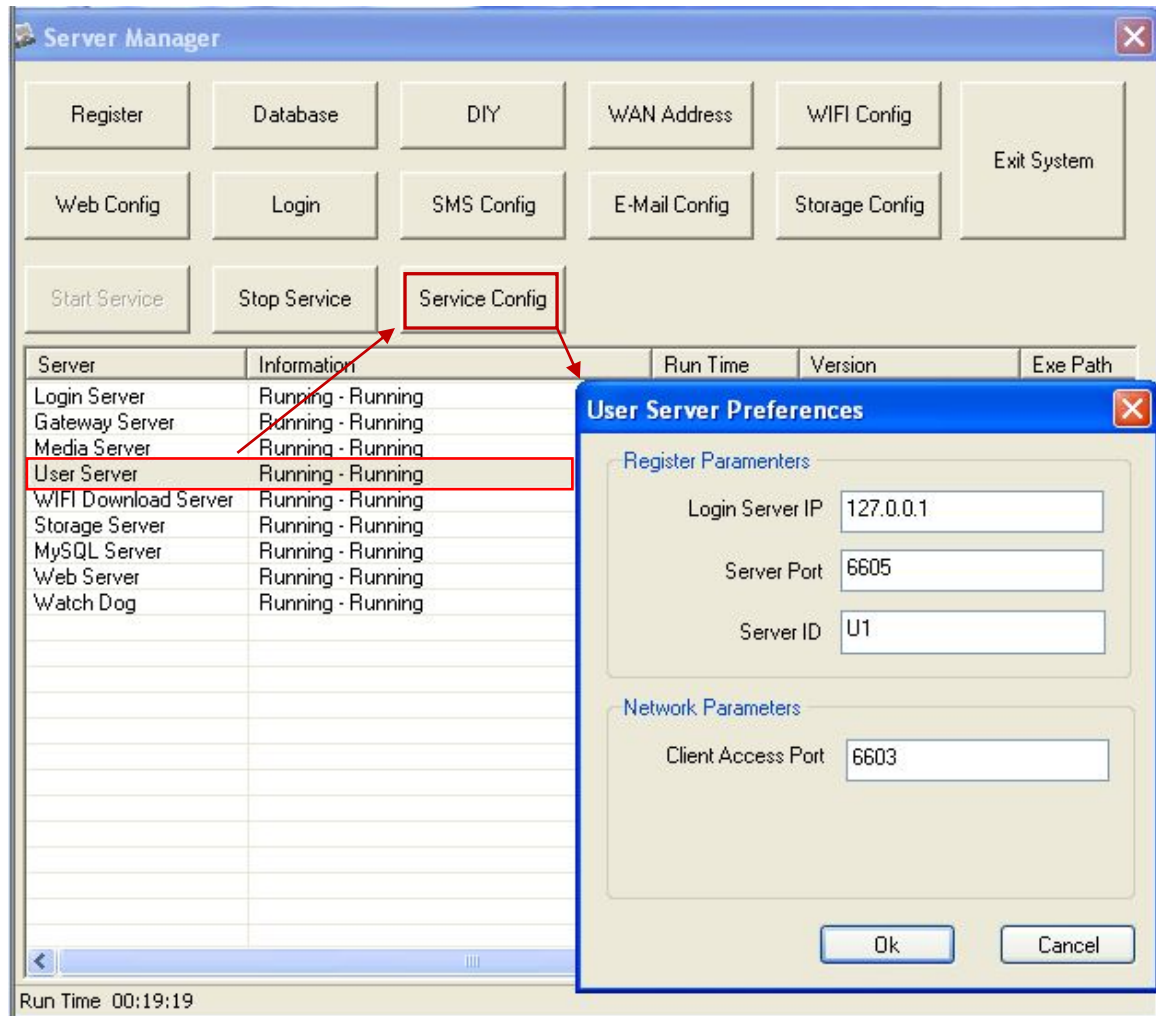
Pic 4.6 Media Server Configuration Parameters

Login Server Address: Login Server uses the PC's Server IP address. If the User server and Login Server are on the same PC, you can enter 127.0.0.1, where the User and Login Server resides on the same LAN, the IP configuration should be the LAN IP Address. If the enter log on to the server where the LAN IP address, and vice versa enter log on to the server where the PC's public IP address, and enter the Windows service to modify the properties on the User Server login tab); 127.0.0.1 address is not valid in a particular case must input CMSServer server where PC's IP;

**Server port:** Client Access the Login Server service port, default is 6605, not advised to change.

Server ID： Each User Server has a unique number. The system can deploy one or more User Servers, Login Server uses the unique number to distinguish between different User server, the unique number must be the same as the ID of the User server, and server management information defined in CMSServer BackOffice Management System;

Client Access Port: Through this port to provide registration and update data service，default is 6603 , does not propose to modify;

4.3.5　WIFI Download Server

Login Server Address: Login Server uses the PC's Server IP address. If the WIFI Download Server and Login Server are on the same PC, you can enter 127.0.0.1, where the WIFI Download Server and Login Server resides on the same LAN, the IP configuration should be the LAN IP Address. If the enter log on to the server where the LAN IP address, and vice versa enter log on to the server where the PC's public IP address, and enter the Windows service to modify the properties on the WIFI

Download Server login tab); 127.0.0.1 address is not valid in a particular case must input CMSServer server where PC's IP;

Server port: Client Access the Login Server service port, default 6605, not advised to change.

Server ID: Each WIFI Download Server has a unique number. The system can deploy one or more WIFI Download Servers, Login Server uses the unique number to distinguish between different WIFI Download Server, the unique number must be the same as the ID of the WIFI Download Server, and server management information defined in CMSServer BackOffice Management System;
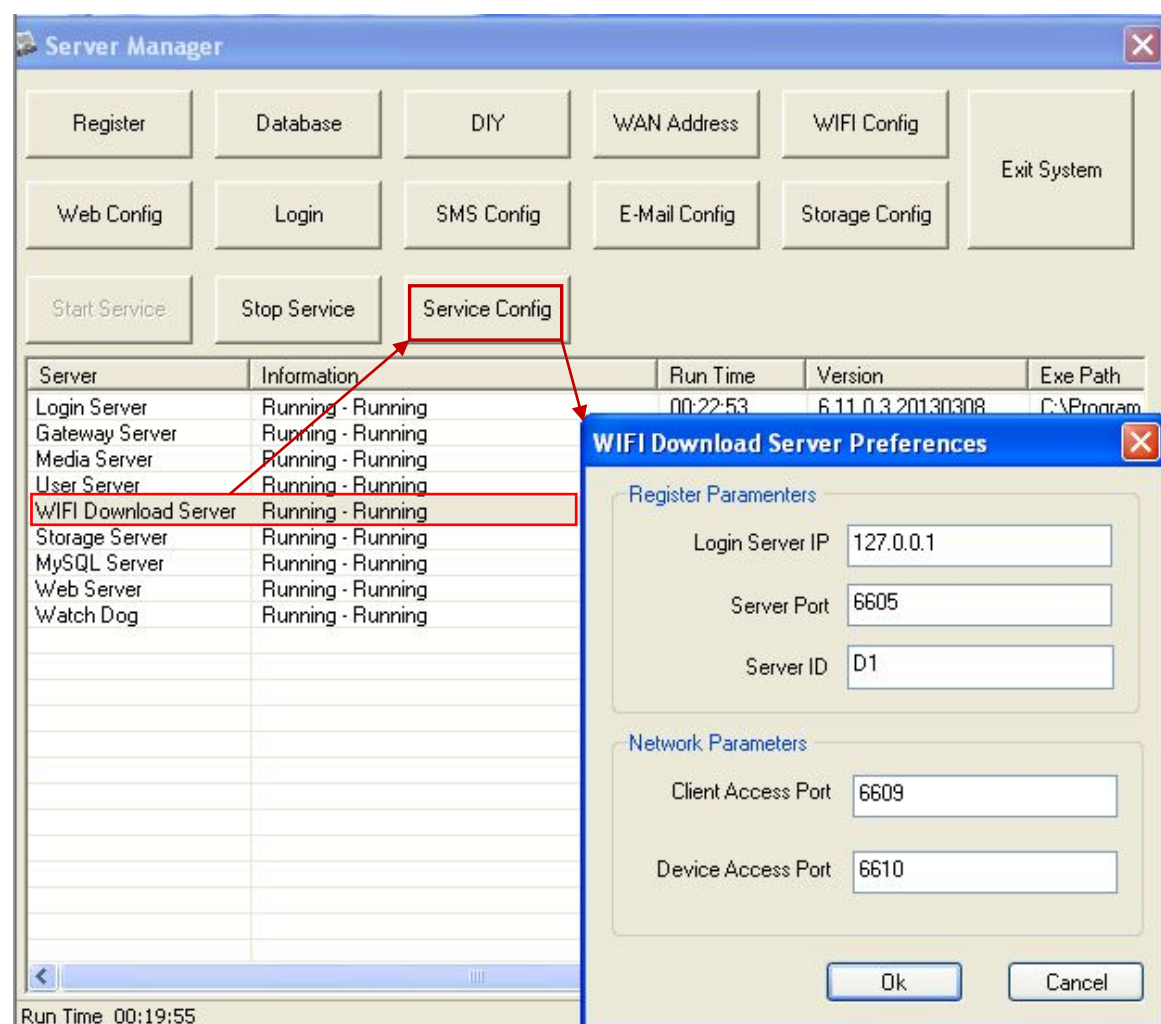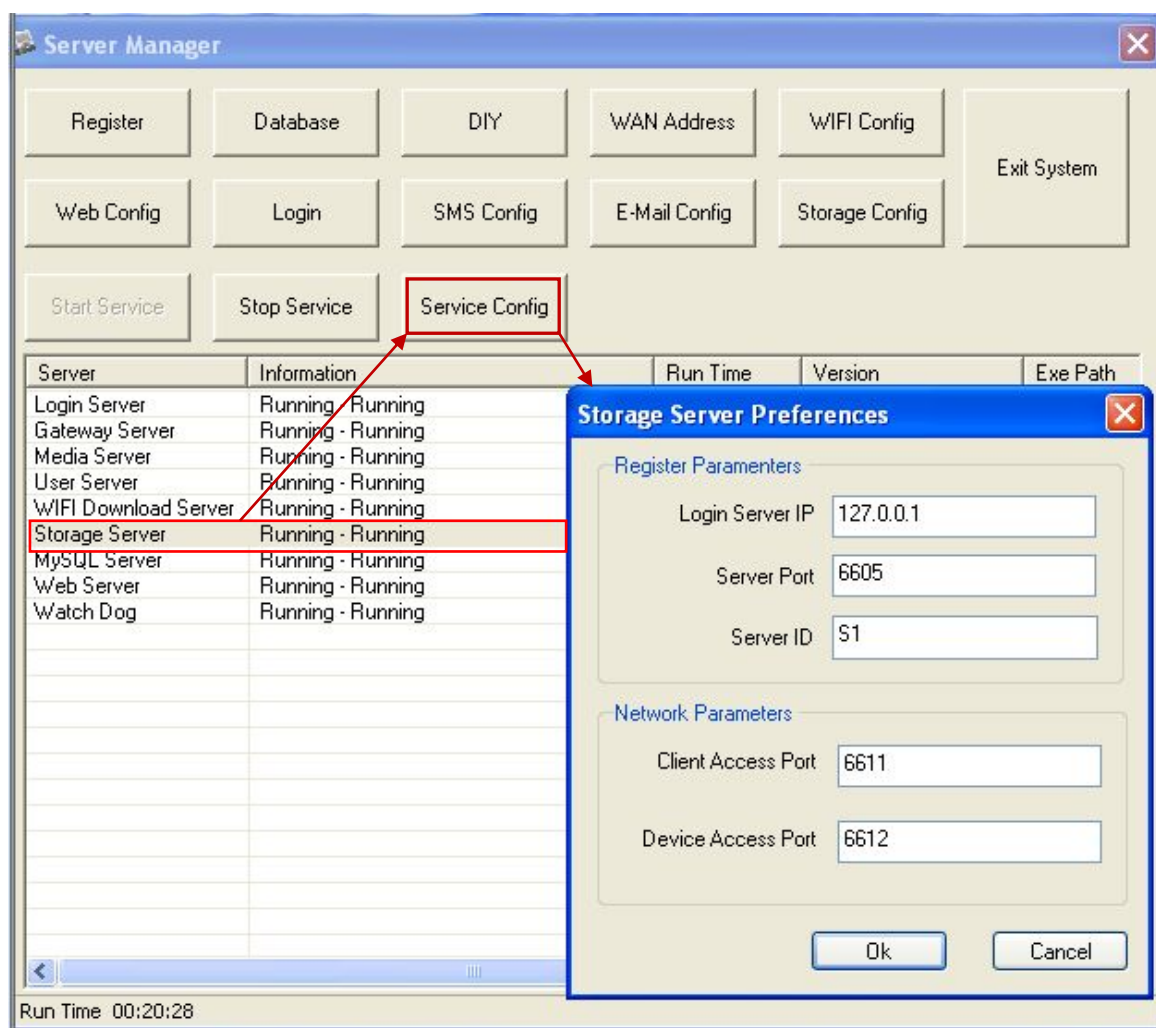
4.3.6 Storage Server

Login Server Address: Login Server uses the PC's Server IP address. If the Storage Server and Login Server are on the same PC, you can enter 127.0.0.1, where the Storage Server and Login Server resides on the same LAN, the IP configuration should be the LAN IP Address. If the enter log on to the server where the LAN IP address,

and vice versa enter log on to the server where the PC's public IP address, and enter the Windows service to modify the properties on the WIFI Download Server login tab); 127.0.0.1 address is not valid in a particular case must input CMSServer server where PC's IP;

Server port: Client Access the Login Server service port, default 6605, not advised to change.

Server ID: Each Storage Server has a unique number. The system can deploy one or more Storage Servers, Login Server uses the unique number to distinguish between different Storage Server, the unique number must be the same as the ID of the Storage Server, and server management information defined in CMSServer BackOffice Management System;

5. Server Registration

Free server version and the registered version only difference is to manage the number of vehicles. The free version can manage 10 vehicles. The registered version can manage the number of vehicles to be determined based on the serial number to developers.

5.1 Server registered version （free）

The free version of the CMSServer server without the server registration operation, data can be configured to use.

5.2 Server registered version

1. Click on the "Software Registration" menu item in the the CMSServer server control window.

2. The software registration interface at this time you can see the signature of this server, as shown above the red box shown

3. When mouse click "Copy to clipboard" signature copied to the clipboard, you can also directly select the signature copy available to developers, this signature to obtain the corresponding serial number (including the management of vehicles quantitative information).

4. Paste it into the corresponding serial number provided by the developers of the signature sequence number window, as shown below:

Software Registration

Status	Registered
Vehicles	50

☑ Fence ☑ SMS ☑ Auto Down ☑ 3g Flow

☑ Phone ☑ Playback ☑ Center Storage ☑ Tracker

Signature: 202020202057442D574D41595556383438383131

[Copy To Clipboard]

Help: Please submit the signatures and the number of vehicles to the developers, to get the software serial number.
Unregistered version only allows management of up to 10 vehicles.

Serial:
```
8D3FCB8BA464538E5103793E4226CEE02638E14E6C1C9387323CBBA6C5
61697OC5D03589F1D8D1DECOED9D6F611B1168E787DB704O413761A5F9
8500B1490F8207E8708F6A7E63CF98B30239A763C860894BD212226BFC
C29BA80EF3494BDCE49A7A4A4FC8E36B6959C505FAB28D382038D118E4
721A79FF5CBF36528DC591B3
```

[Anti Registered] [Paste From Clipboard] [Register Again]

5.Click "Register" button to complete the registration.If you want to see the Software Registration information，Click CMSServer server control interface "Software Registration" button will pop up the software registration information. This registration information has been saved to the registry service where PC users to replace the network card or hard drive, as well as software feature codes change, need to re-obtain the serial number.