

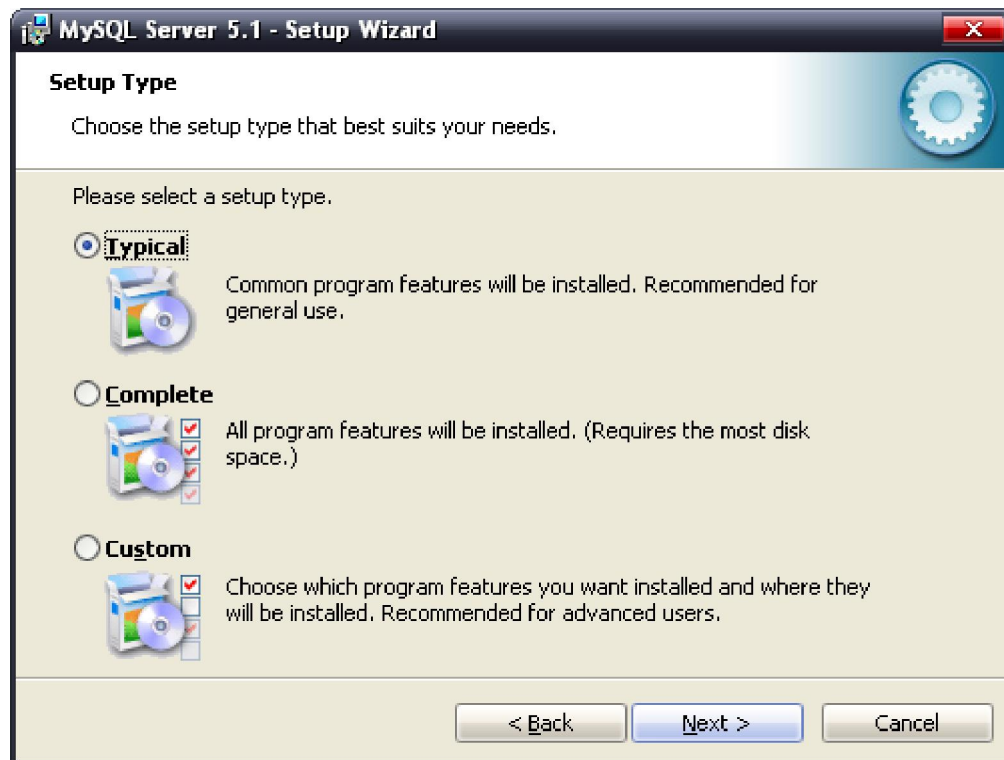
## Installation Manual

- Please follow the steps shown as below to install database MySQL:

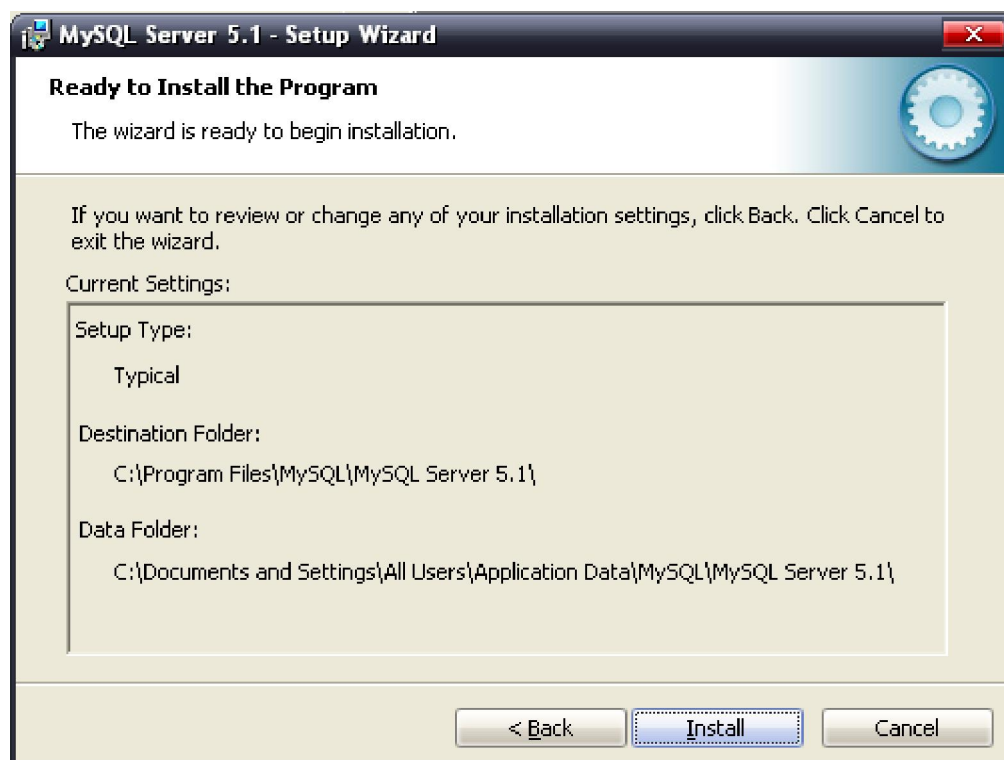
Double click the installation procedure icon to start:



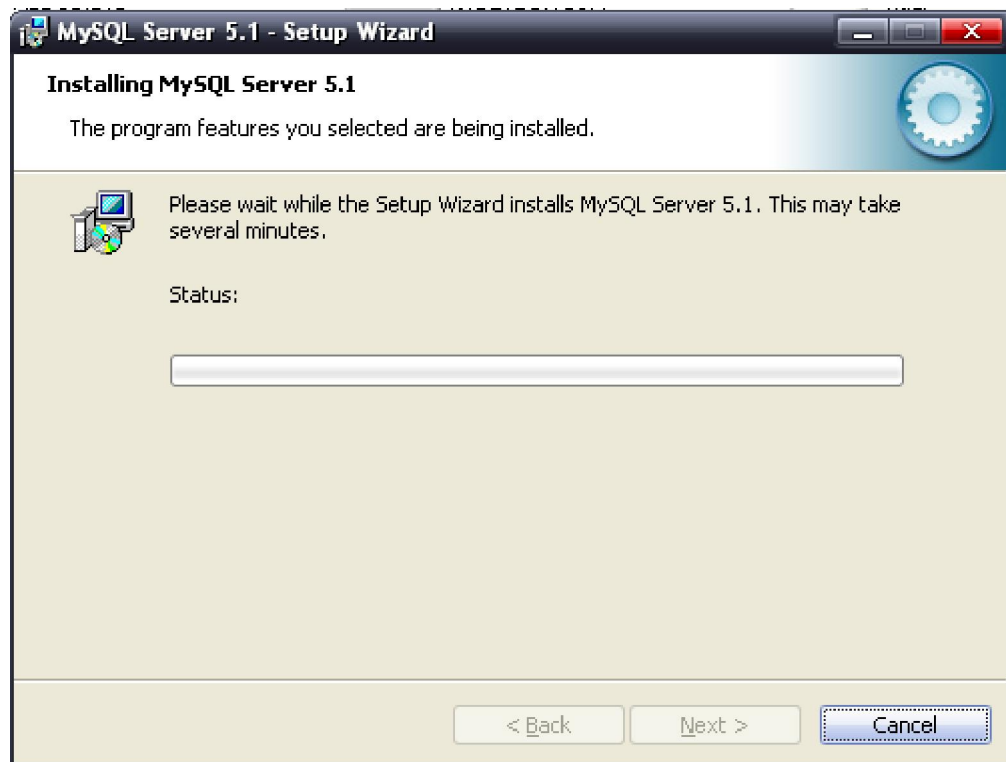
Click Next to continue :



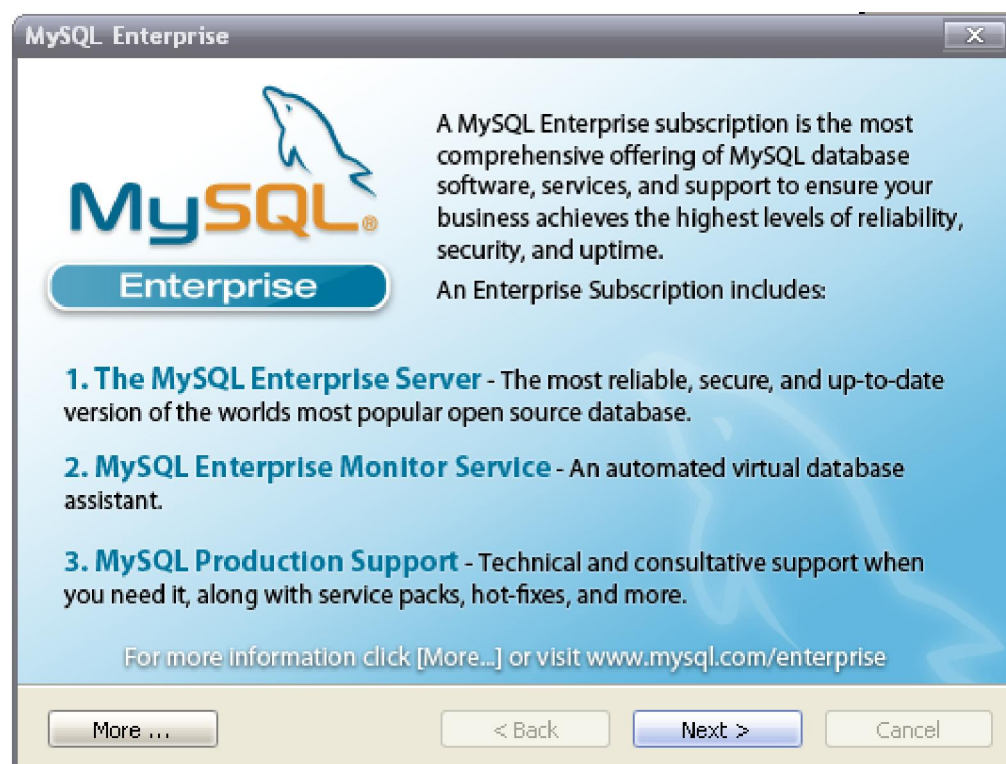
Select Typical first and then click Next:



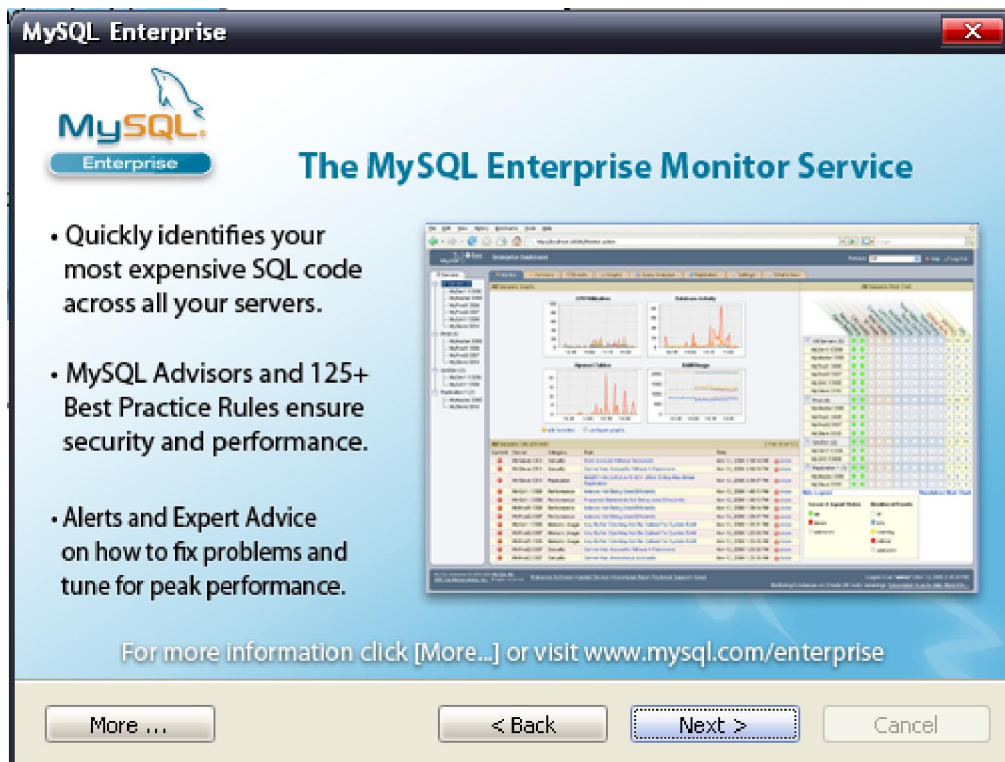
Click Install to start installation.



Please wait for minutes for the installation is in process.



After finishing of the installation, the dialogue box as above will show. Click Next to continue.



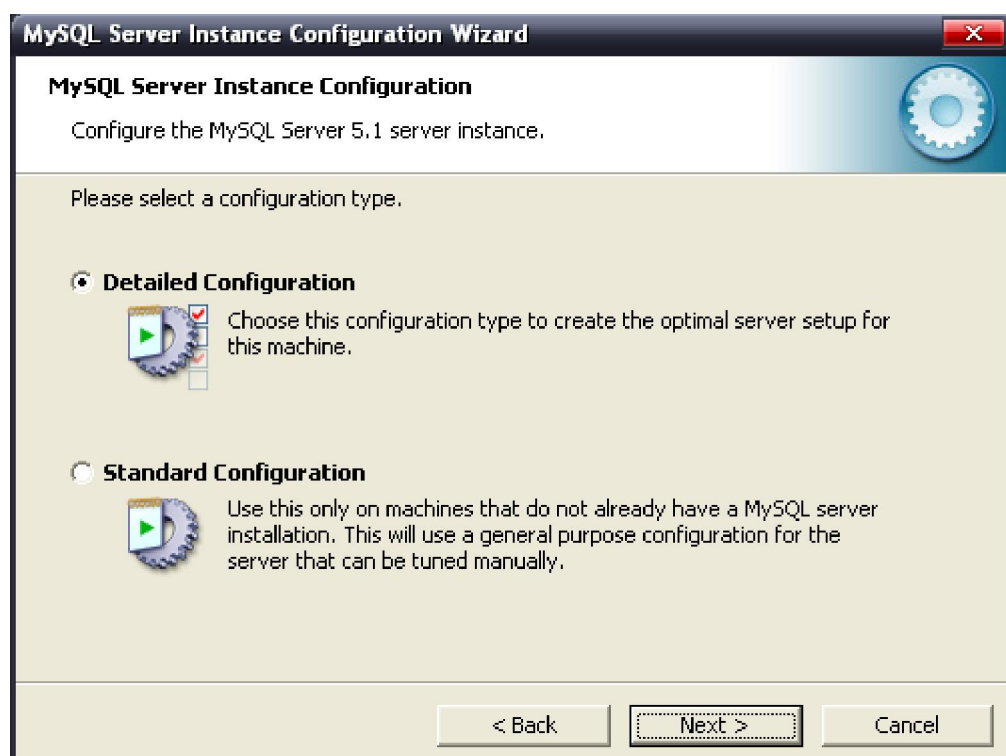
Click Next to go on:



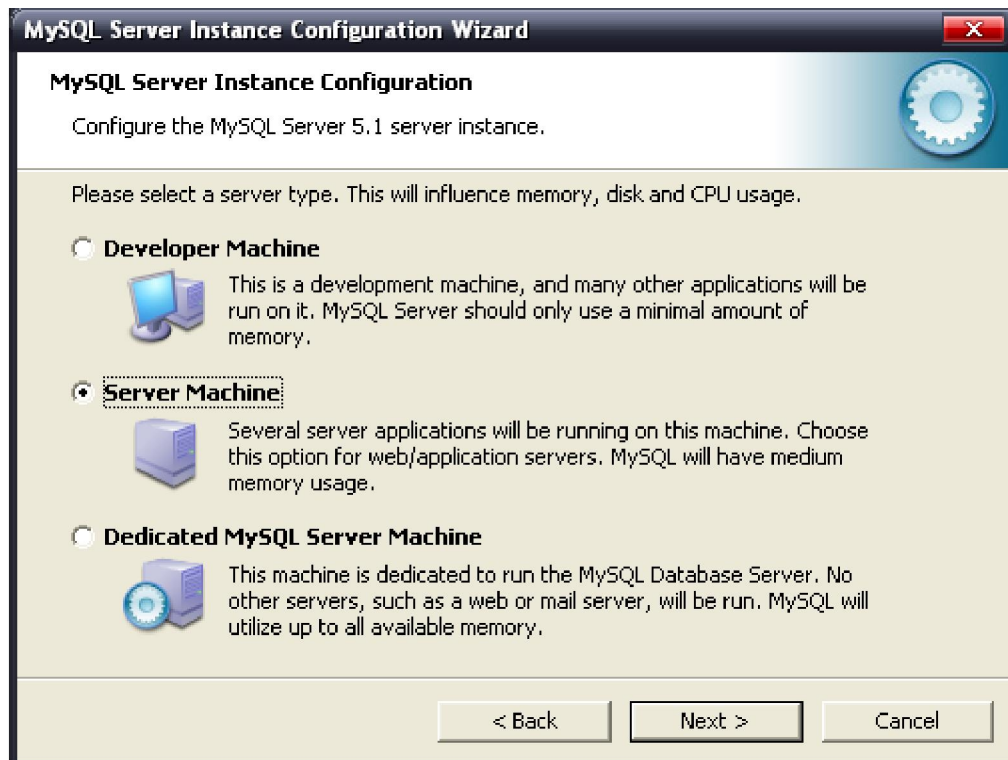
Select **Configure the MySQL Server now**, and then click Finish to configure database.



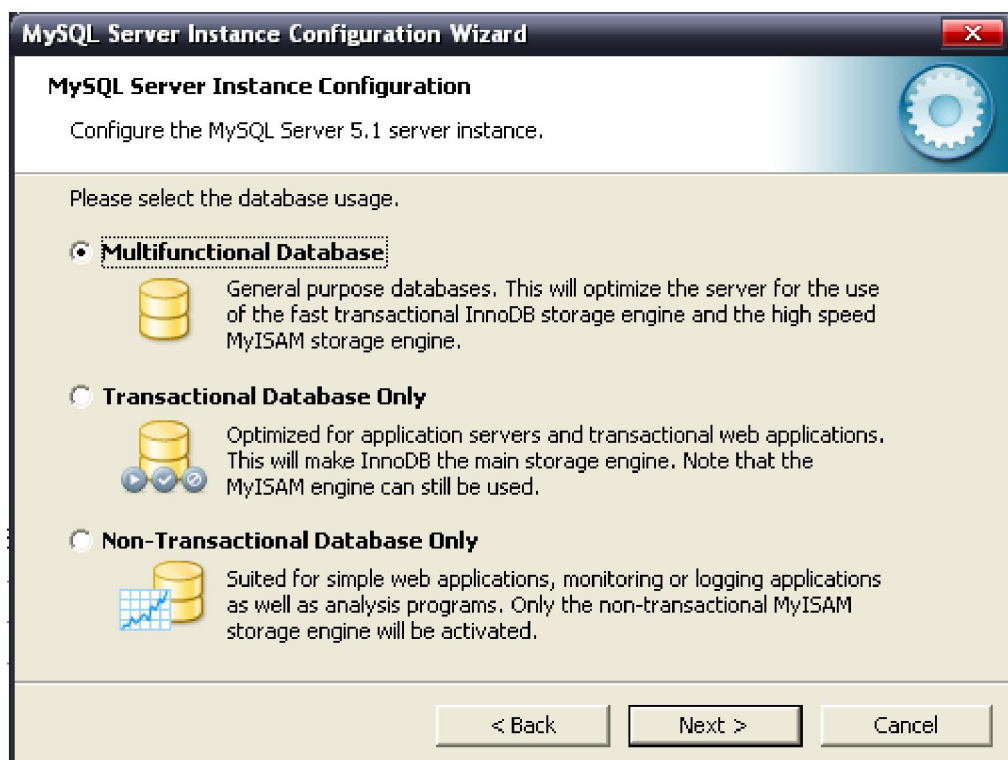
Click Next to go on:



Select **Detailed Configuration** and then click Next to go on:

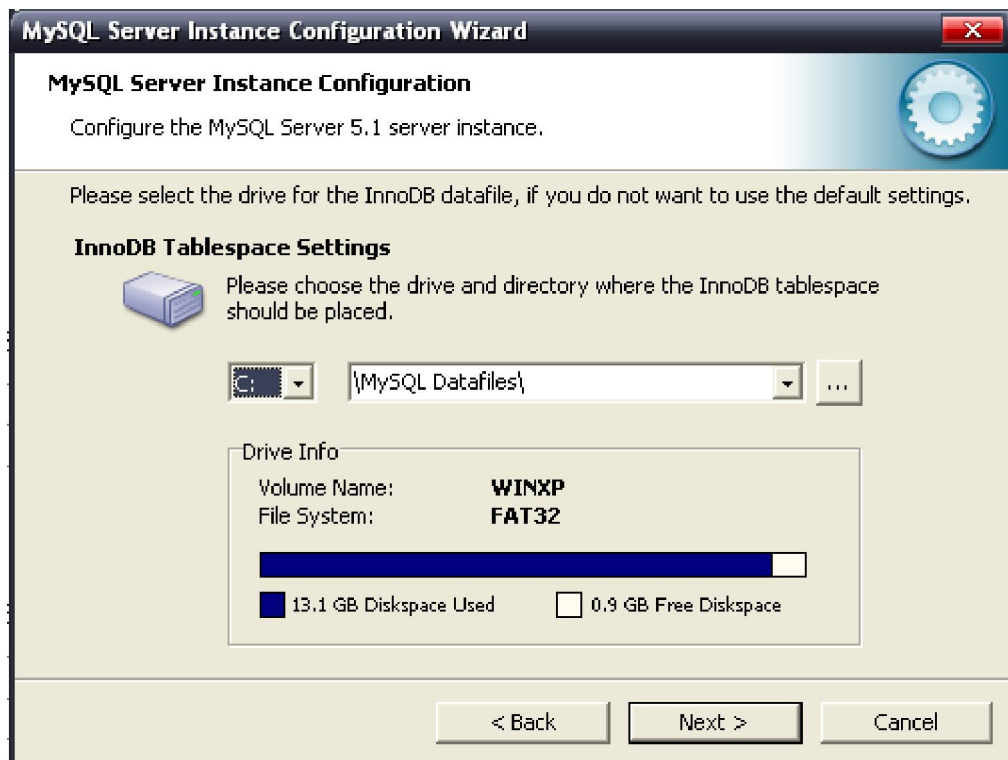


Select **Server Machine** and then click Next to go on:

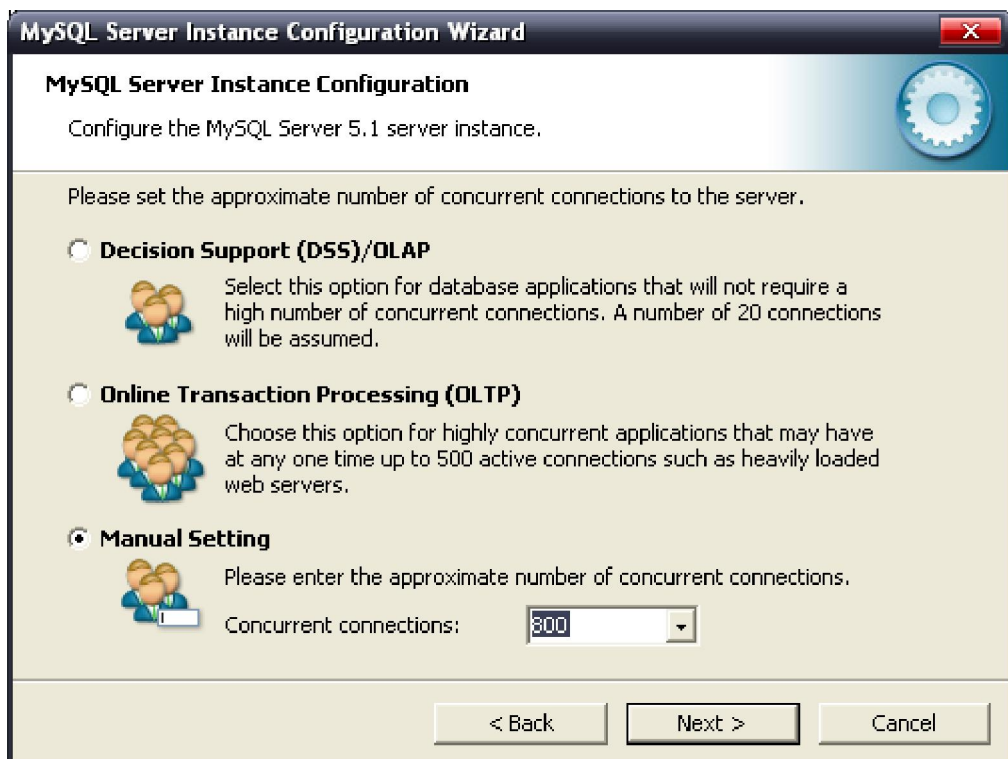


Select **Multifunctional Database** and then click Next to go on:

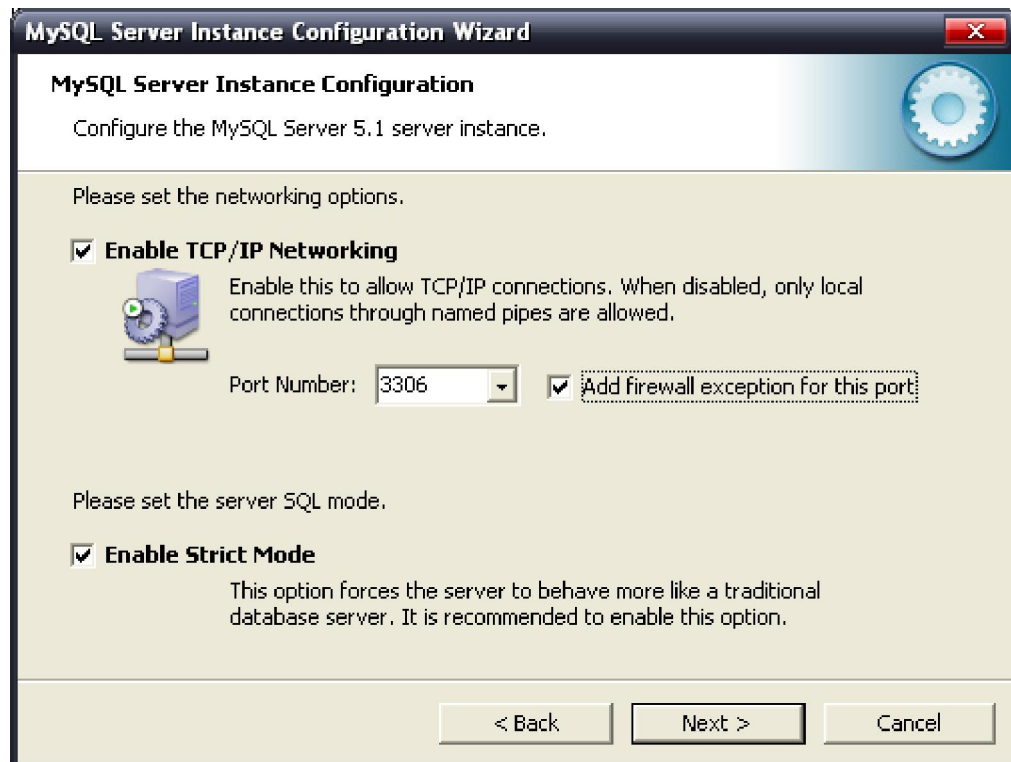




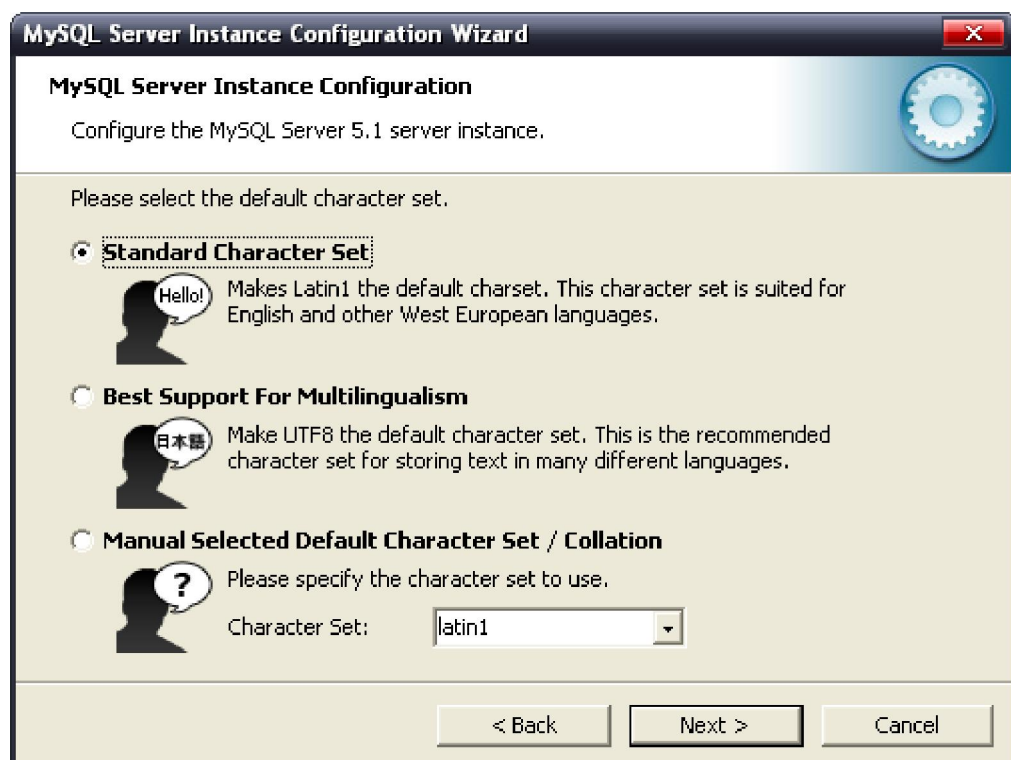
Click Next to continue:



Select **Manual Setting** and choose 800 in the pull-down menu of Concurrent connections then click Next to go on:



Select as the picture shown above and then click Next to go on:



Select as the picture shown above and then click Next to go on:





**MySQL Server Instance Configuration Wizard**

Configure the MySQL Server 5.1 server instance.

Please set the Windows options.

☒ **Install As Windows Service**

 This is the recommended way to run the MySQL server on Windows.

Service Name:

☒ Launch the MySQL Server automatically

☐ **Include Bin Directory in Windows PATH**

 Check this option to include the directory containing the server / client executables in the Windows PATH variable so they can be called from the command line.

< Back    Next >    Cancel

Select as the picture shown above and then click Next to go on:



**MySQL Server Instance Configuration Wizard**

Configure the MySQL Server 5.1 server instance.

Please set the security options.

☒ **Modify Security Settings**

 New root password:  Enter the root password.

Confirm:  Retype the password.

☒ **Enable root access from remote machines**

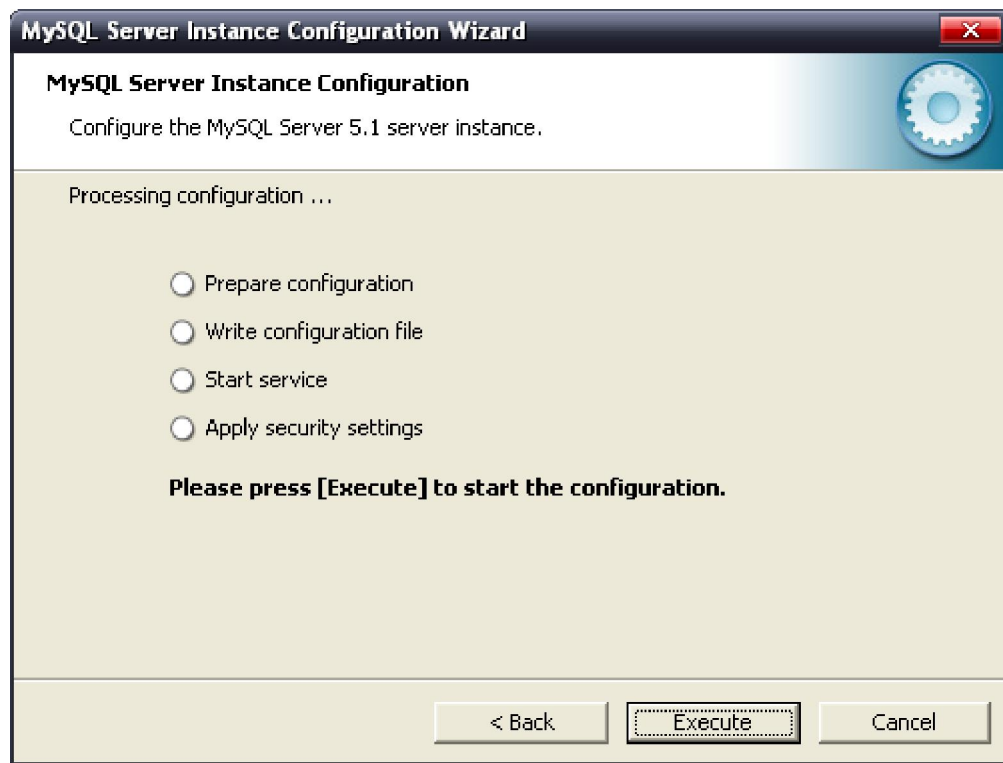
☐ **Create An Anonymous Account**

 This option will create an anonymous account on this server. Please note that this can lead to an insecure system.

< Back    Next >    Cancel

Select as the picture shown above and then click Next to go on:

**Attention:** The New root password is customized, which must be the same as the database password in installing NVMS server. Its default value is 11111. Make sure that the selection highlighted in Red wireframe is selected.



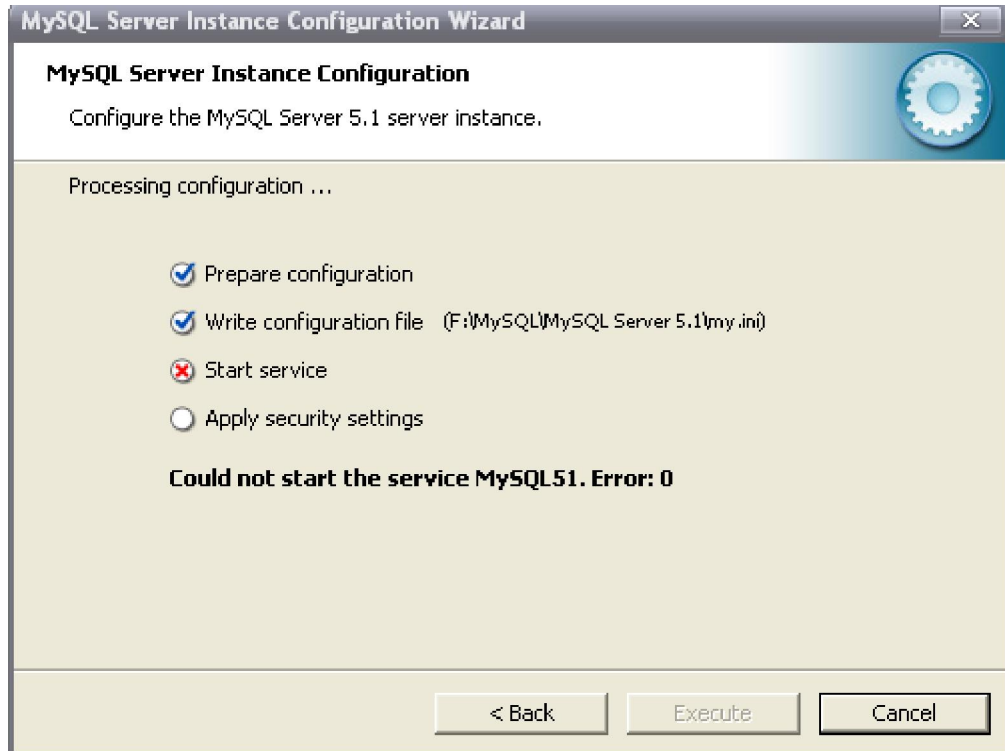
Click Execute to execute the corresponding configurations.

If the execution is failure, the figure shown as below will appear:

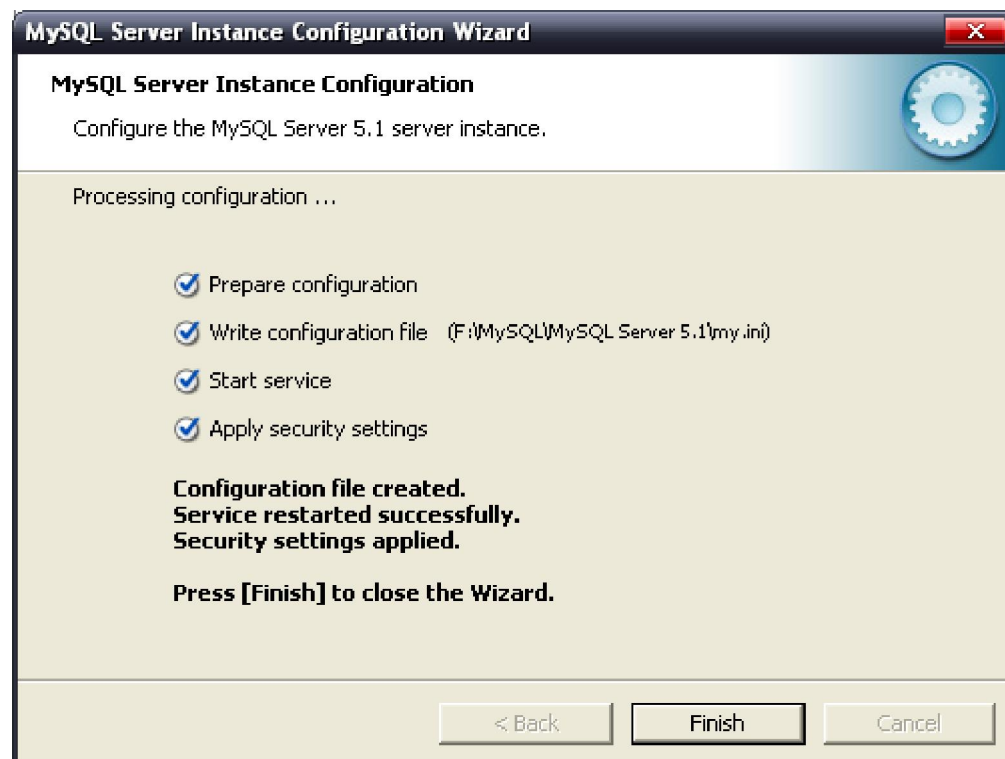
The reason for failure may be that the uninstallation of previous MySQL database is not complete.

You can follow the steps below to solve the problem:

- ( 1 ) uninstall the MySQL database completely at first.
- ( 2 ) delete all files under the directory of C:\Documents and Settings\All Users\Application Data\MySQL
- ( 3 ) re-install the MySQL database.



If the execution is successful, the figure shown as below will appear:



**After installing the MySQL database, please then install NVMS program.**

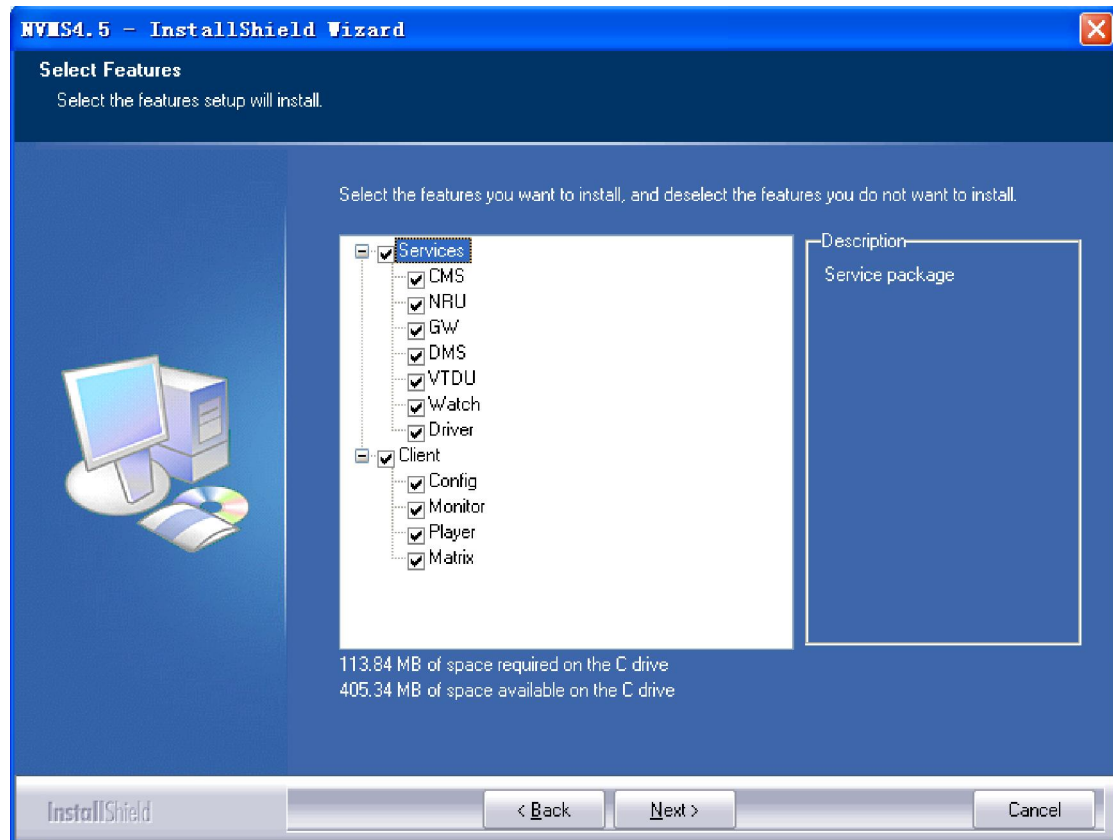
There are three types of installation for choosing:

- I Min it is designed for small network structure. CMS, CU, NRU and server inspection program (Watch) will be installed automatically in the process of installation. All of the

configurations are defaulted. After installation finished, the server will be started up automatically. Simplified installation supports preview and playback of a few terminal devices, which use NRU to store data of record and playback together.

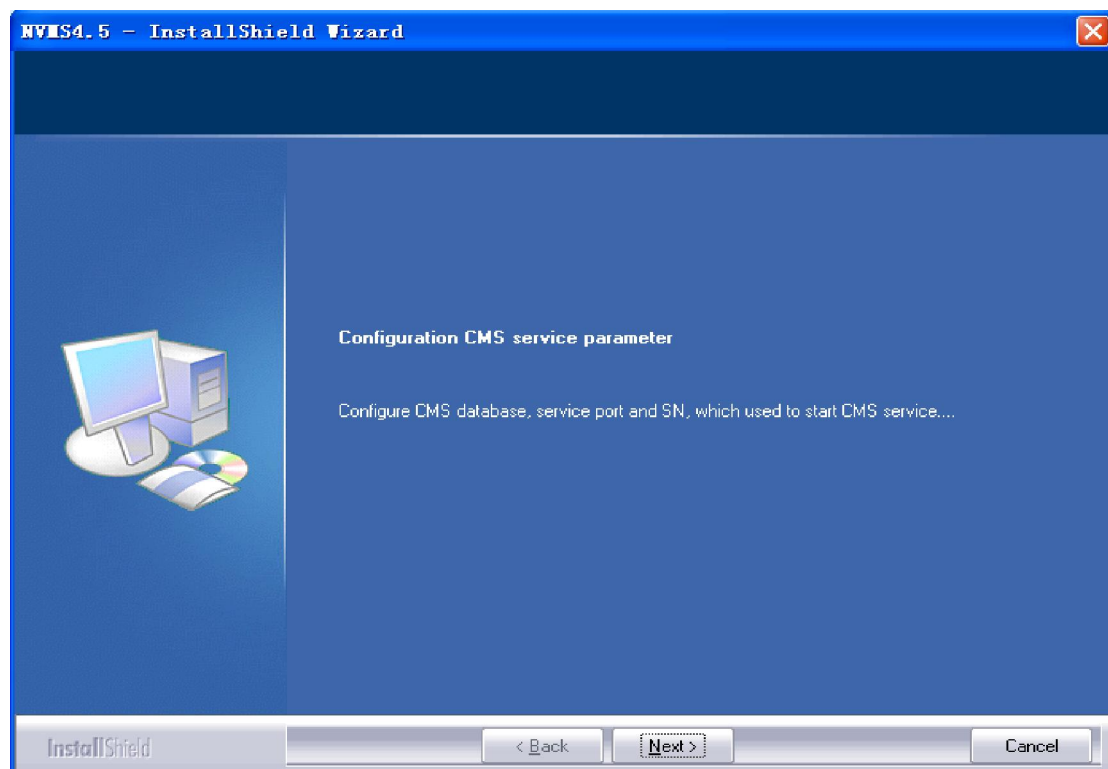
- | Custom users can select the server and clients that they need to install.
- | Complete it is to install all of the server and clients.

Select the installation type as you need, and click Next to continue. Let's take Customized installation for example; the figure shown as below will appear:

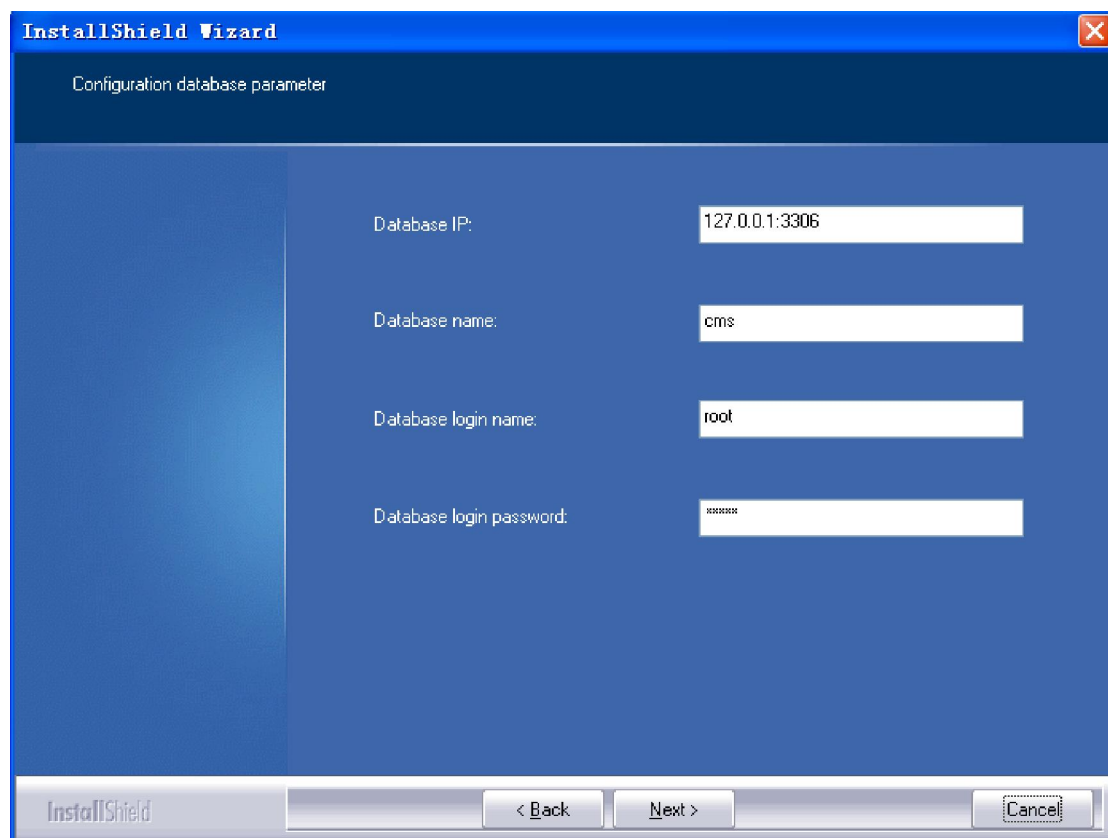


Select the functions you need and click Next to start copy of files.

The parameters configuration of every server will be started up after copy finished.



Click Next to set parameters of CMS server as the figure below.



**NOTES:**

Make sure that the MySQL database Password here is accordance with the New root password that has already set before.

If multiple systems share the same database, you'd better name database in different names to distinguish them conveniently.

If the default port 3306 is being occupied, you have to modify the port of MySQL database and fill it into the corresponding column with IP address together in the format as shown in the figure above, for example 172.1.14.97:3386.

Pay attention to whether the other server's connection port is modified. If modified, you also have to fill the new port number into the corresponding column with IP address together in the format above

After finishing database setting, please click Next to configure necessary port of CMS server in the figure shown as below:

See the following table for description of CMS ports:

Listen in middleware service port	It is the port for platform devices such as GW, VTDU, NRU, and DMS registering to CMS, the default port is 8002.
Message port	It is the necessary port for CU log in CMS, the default port is 8000.
Listen device port	It is the port for DVR/DVS registering to CMS, the default port is 8003.
Maintenance port	It is the port of CMS maintenance, the default port is 8001.

#### NOTES:

To check the list of ports occupied by PC before configuration is recommended so as to avoid conflict between the ports settings and the ports running. Please follow these steps to check the list:



run CMD before installation at first; type “netstat -na” into command line. The list will appear as shown in the red wireframe in the figure below. If the port set above is already occupied, please choose another unoccupied port.

```
C:\WINDOWS\system32\cmd.exe

UDP    172.1.14.87:1900    *:*

C:\Documents and Settings\Administrator>netstat -na

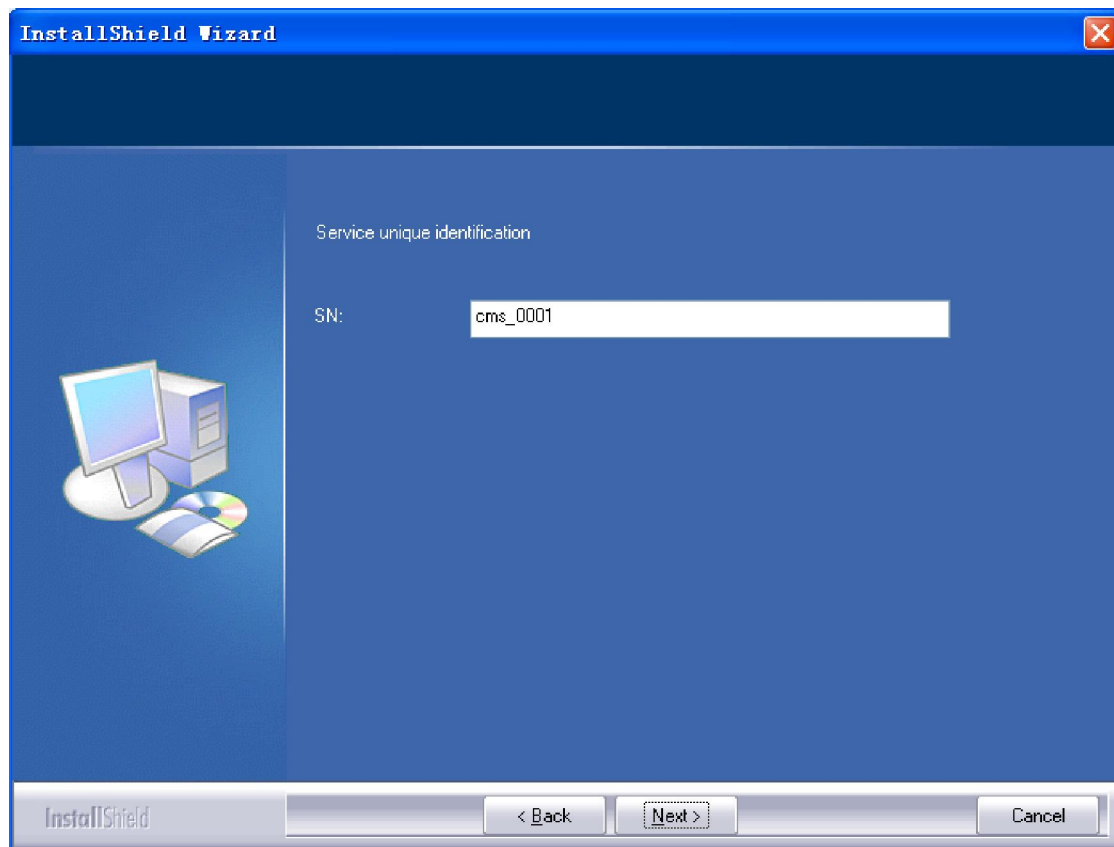
Active Connections

Proto Local Address          Foreign Address        State
TCP    0.0.0.0:135            0.0.0.0:0              LISTENING
TCP    0.0.0.0:445            0.0.0.0:0              LISTENING
TCP    0.0.0.0:1024           0.0.0.0:0              LISTENING
TCP    0.0.0.0:2967           0.0.0.0:0              LISTENING
TCP    0.0.0.0:3335           0.0.0.0:0              LISTENING
TCP    0.0.0.0:3386           0.0.0.0:0              LISTENING
TCP    0.0.0.0:3389           0.0.0.0:0              LISTENING
TCP    0.0.0.0:8000           0.0.0.0:0              LISTENING
TCP    0.0.0.0:8001           0.0.0.0:0              LISTENING
TCP    0.0.0.0:8002           0.0.0.0:0              LISTENING
TCP    0.0.0.0:8003           0.0.0.0:0              LISTENING
TCP    0.0.0.0:9000           0.0.0.0:0              LISTENING
TCP    0.0.0.0:9001           0.0.0.0:0              LISTENING
TCP    0.0.0.0:9002           0.0.0.0:0              LISTENING
TCP    0.0.0.0:9003           0.0.0.0:0              LISTENING
TCP    0.0.0.0:10000          0.0.0.0:0              LISTENING
TCP    0.0.0.0:10001          0.0.0.0:0              LISTENING
TCP    0.0.0.0:10002          0.0.0.0:0              LISTENING
TCP    127.0.0.1:1051         0.0.0.0:0              LISTENING
TCP    127.0.0.1:1060         0.0.0.0:0              LISTENING
TCP    172.1.14.87:139       0.0.0.0:0              LISTENING
TCP    172.1.14.87:1250      172.1.10.2:8000        ESTABLISHED
TCP    172.1.14.87:1256      172.1.14.93:7002       ESTABLISHED
TCP    172.1.14.87:1257      172.1.14.93:7002       ESTABLISHED
```

Click Next to configure the unique sign (SN) of CMS server after finishing configuring ports. The SN must be different from the other platform devices, such as cms\_0001 shown as in the figure.

**Notes:**

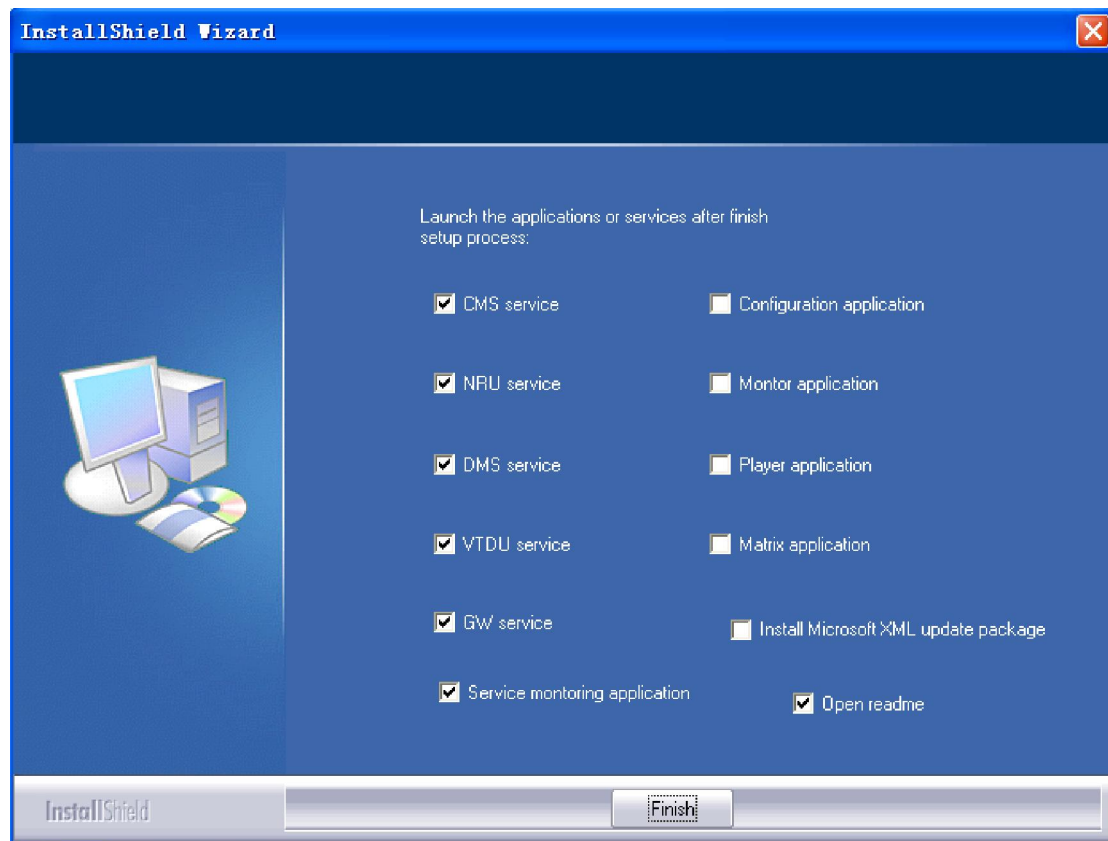
Please make sure that the sign of CMS server is unique.



Click Next to configure cms server after finishing configuring CMS SN. The configuration information of CMS will be stored in the file of cms.cfg under the defaulted directory: C:\Program Files\NVMS\NVMS4.5\Services\bin.

The configurations of other servers are similar with the CMS server. Please take CMS server configuration method for example. Multiple servers in LAN can connect to the same MySQL database.

Users can choose to run the programs automatically immediately after finishing installation shown as the figure below:



Click OK to complete installation. The servers chosen above will be started up automatically. And there will be corresponding icons running on the right-down corner of task bar. When mouse move on the icon, the Tooltips with corresponding server name will appear shown as the figure below:



Right click the icon to stop or start the corresponding server. And click Exit to exit.

## 1.1. Configuration Info. Description

### 1. Database Connection Info.

Database IP & Port	It is the IP and port connected to database. If server and MySQL database is connected to the same PC, IP can be set as 127.0.0.1. Port defaults as 3306.
Database Name	It is the database name generated after MySQL startup. Database name can not duplicated especially when multiple server connecting to the same one MySQL. The name of SN is recommended.
Database UserName	Default is root.
Database Password	Default is 1111, must be the same as the database password in installing Mysql.

### 2. CMS ports and SN description

Automatic register port	It is the port for platform devices such as GW, VTU, NRU, and DMS registering to CMS, the default port is 8002.
Message Port	It is the necessary port for CU log in CMS, the default port is 8000.
Listen in device port	It is the port for DVR/DVS registering to CMS, the default port is 8003.
Maintenance port	It is the port of CMS maintenance, the default port is 8001.
SN	The SN must be different from the other platform devices, such as cms_0001. <b>Please make sure that the sign of CMS server is unique.</b>

**Notes:**

Please reference to the above instructions to check the list of ports occupied by PC before

3. VTU Port and SN Description

Message Port	It is the port necessary for CMS connecting to VTU. It will be used in creating VTU device. It is default as 7000.
Data Stream Port	It is the port for VTU to transfer stream data. It is default as 7002.
Maintenance Port	It is the maintenance port for Telnet to maintain VTU after connecting to VTU. It is default as 7001.
Listen in Port	It should be configured in using negative GW mode, such as 4455.
SN	It is default as vtu_0001, which can be modified. While the SN must be unique. And it should be typed in when creating VTU device.

4. NRU Port and SN Description

Message Port	It is the port necessary for CMS connecting to NRU. It will be used in creating NRU devices. It is default as 10000.
Data Stream Port	It is the port for NRU to transfer stream data. It is default as 10002.
Maintenance Port	It is default as 10001
SN	It is default as nru_0001, which can be modified. While the SN must be unique. And it should be typed in when creating NRU device.

5. GW port and SN description

Automatic Register Port	It is the port for lower level CMS automatic registering to GW when CMS cascade connection through GW. It is default as 9002.
Message Port	It is the port necessary for CMS connecting to GW. It will be used in creating GW devices. It is default as 9000.
Data Stream Port	It is the port for GW to transfer stream data. It is default as 9003.
Listen in Device Port	It is the port for DVRs registering to GW. It is default as 3335.
Maintenance Port	It is default as 9001
SN	It is default as gw_0001, which can be modified. While the SN must be

	unique. And it should be typed in when creating GW device.
Negative Connection Configuration	It should be configured when GW does not have public network address or it cannot be visited from outside. The message connection port of CMS server is default as 8000. The platform devices automatic registration port of CMS server is default as 8002.

#### 6. DMS Port and SN description

Message Port	It is the port necessary for CMS connecting to DMS. It will be used in creating DMS devices. It is default as 6000.
Maintenance Port	It is default as 6001.
SN	It is default as dms_0001, which can be modified. While the SN must be unique. And it should be typed in when creating DMS device.