

# **Installation Manual for Desktop Management System 6.0**

**Centerm Information Co., Ltd.**

**Centerm**<sup>TM</sup>

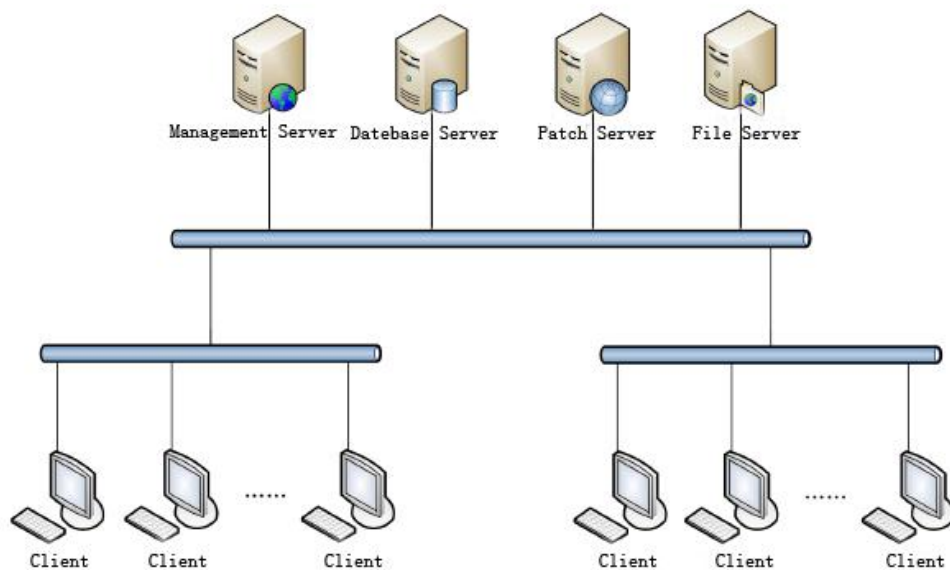
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## 1. System Structure

### 1.1 System composition

The following figure is the simplest composition mode of Cinfin desktop management system.



Functions of all components are as follows:

- **Management server**

The management server is the necessary component and is the core server of Cinfin desktop management system to process the interactive services with administrator and execute the service logic initiated by the system.

- **Database server**

The database server is the necessary component and is the server installed with database and database management software to store and process the data.

- **Patch server**

The patch server is the optional component and shall be installed only if the vulnerability fixing function of management server is used.

- **File server**

The file server is the necessary component to store file resources of the system and is related to many business modules. The system supports setup of many file servers. User can increase the number of file servers according to the scale of managed clients.

- **Client**

The client is the necessary component. It is installed in the managed client to execute all commands sent by management server and configure the client.

### 1.2 Networking schemes and configuration requirements

Different networking modes are recommended for different scales of clients managed by an enterprise to improve the operation performance and achieve the optimal management state of Cinfin desktop management system, save the deployment costs and reduce the unnecessary waste of resources.

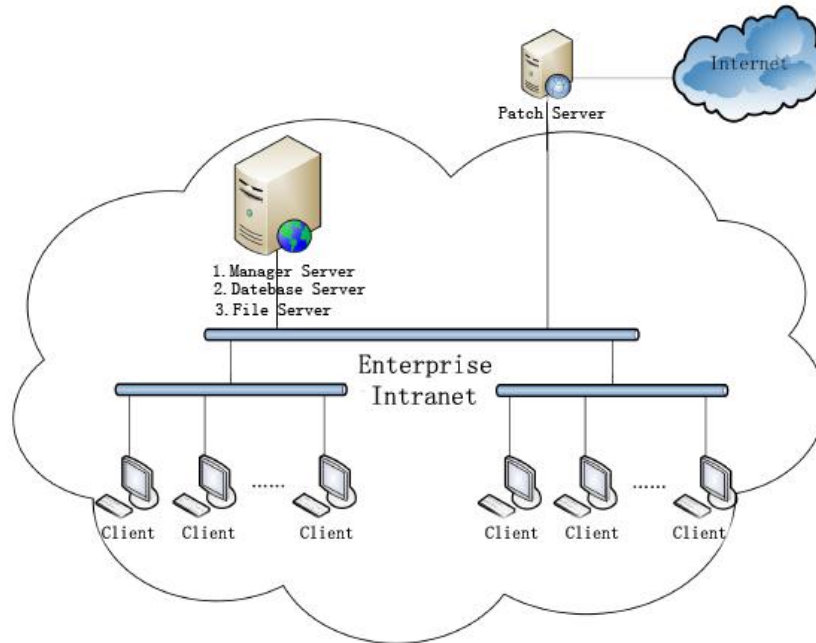
The patch server shall be connected with Extranet of the enterprise to synchronize Microsoft patches and Centerm patches and also provides the patch upgrade service for Intranet clients. Therefore, the network environment of patch server shall communicate with both Intranet and Extranet of the

enterprise. Thus, it shall be separately installed in one special server.

## 1.2.1 Management scale<1000 clients

If the management scale is smaller than 1000 clients, the database server, management server, and file server can be installed in one host and the patch server shall be separately installed.

The networking scheme is as follows:



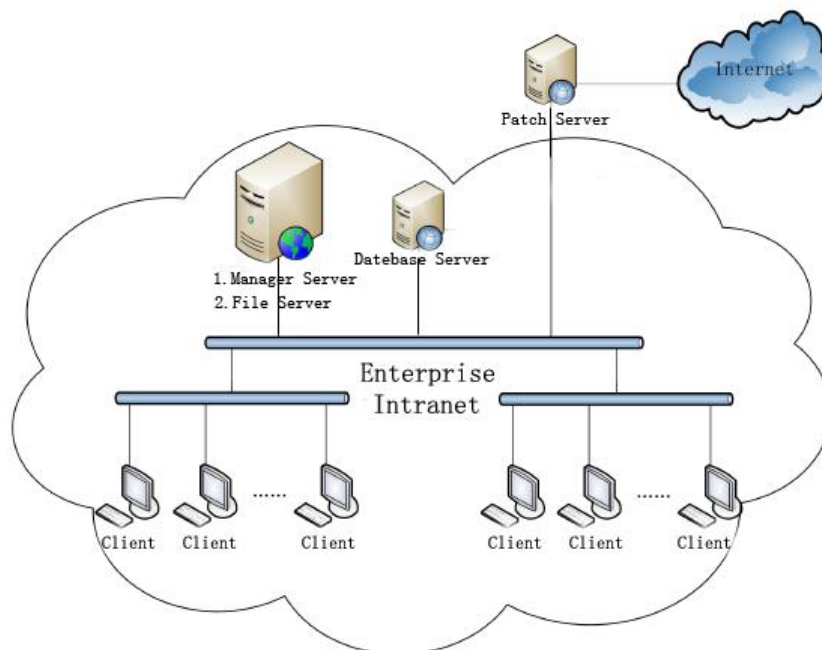
The configuration requirements are as follows:

Server	Recommended configuration		Operation system
Database server	CPU	Intel Xeon dual-core 32bit or 64bit	Windows Server 2003 and
+management server +file server	Memory	More than 8G	Windows Server 2008
	Hard disk	15K RPM+, available space more than 100G	
Patch server	CPU	Intel Xeon dual-core 32bit or 64bit	Windows Server 2003 and Windows Server 2008
	Memory	More than 2G	
	Hard disk	15K RPM+, available space more than 30G	

## 1.2.2 Management scale 1000-3000 clients

If the management scale is from 1000 clients to 3000 clients, the management server and file server can be installed in one host and the database server and patch server shall be separately installed.

The networking scheme is as follows:



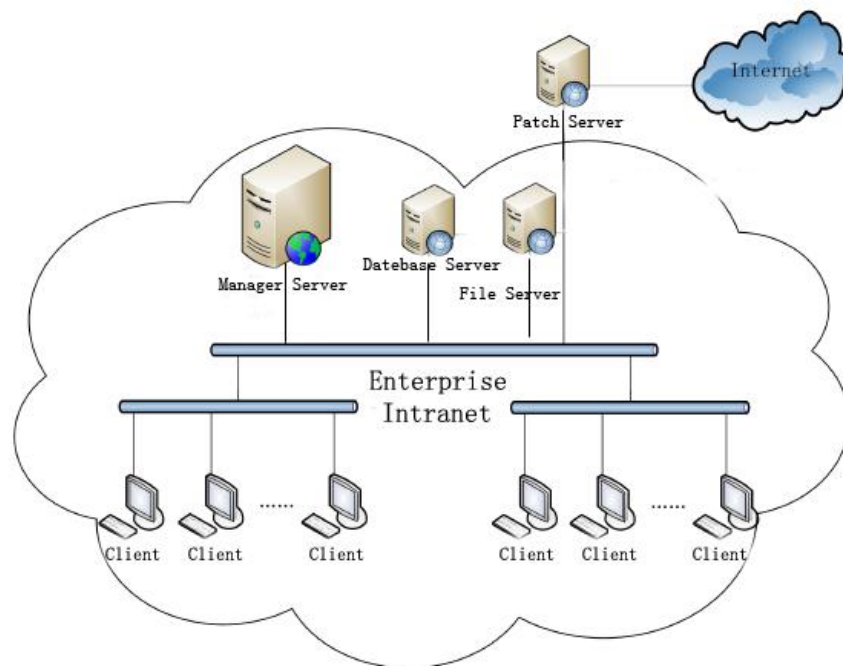
The configuration requirements are as follows:

Server	Recommended configuration		Operation system
Database server	CPU	Intel Xeon dual-core 32bit or 64bit	Windows Server 2003 and Windows Server 2008
	Memory	More than 4G	
	Hard disk	15K RPM+, available space more than 100G	
Management server +file server	CPU	Intel Xeon dual-core 32bit or 64bit	Windows Server 2003 and Windows Server 2008
	Memory	More than 8G	
	Hard disk	15K RPM+, available space more than 100G	
Patch server	CPU	Intel Xeon dual-core 32bit or 64bit	Windows Server 2003 and Windows Server 2008
	Memory	More than 2G	
	Hard disk	15K RPM+, available space more than 30G	

### 1.2.3 Management scale 3000-8000 clients

If the management scale is from 3000 clients to 8000 clients, the database server, management server, file server and patch server shall be separately installed in independent host.

The networking scheme is as follows:



The configuration requirements are as follows:

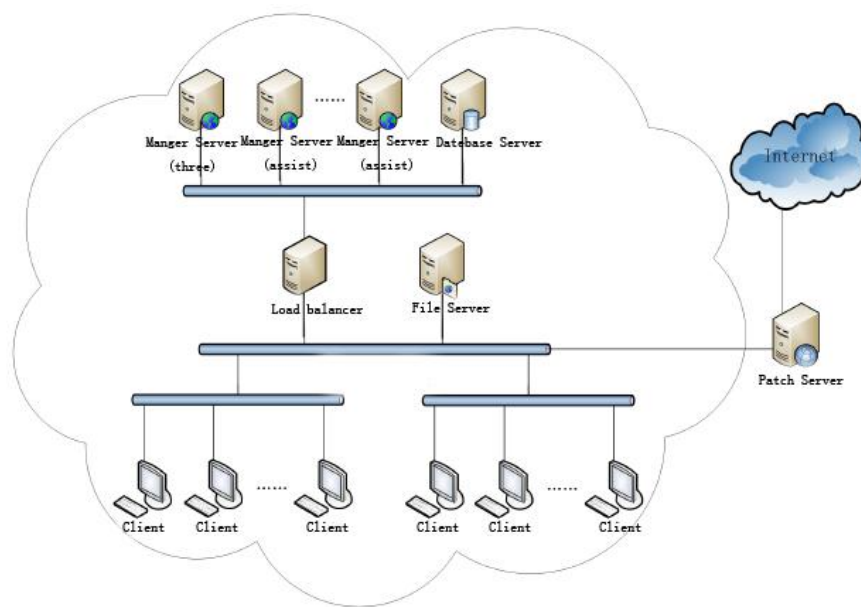
Server	Recommended configuration		Operation system
Database server	CPU	Intel Xeon quad-core 64bit	Windows Server 2003 and Windows Server 2008
	Memory	More than 8G	
	Hard disk	15K RPM+, available space more than 100G	
Management server	CPU	Intel Xeon quad-core 64bit	Windows Server 2003 and Windows Server 2008
	Memory	More than 8G	
	Hard disk	15K RPM+, available space more than 100G	
File server	CPU	Intel Xeon dual-core 32bit or 64bit	Windows Server 2003 and Windows Server 2008
	Memory	More than 2G	
	Hard disk	15K RPM+, available space more than 100G	
Patch server	CPU	Intel Xeon dual-core 32bit or 64bit	Windows Server 2003 and Windows Server 2008
	Memory	More than 2G	
	Hard disk	15K RPM+, available space more than 30G	

## 1.2.4 Management scale>8000 clients

If the management scale is more than 8000 clients, the single management server networking mode cannot meet the requirement of large-scale management. Therefore, many management servers shall be set up to bear the large scale communication data. All servers shall be installed in the independent host. One load balancer shall be added to distribute the client data to all management servers.

Please refer to *Deployment Manual for Multiple Management Servers of Desktop Management System* for setting up the multiple management servers.

The networking schematic diagram is as follows:



The configuration requirements of all servers are as follows:

Server	Recommended configuration		Operation system
Database server	CPU	Intel Xeon quad-core 64bit	Windows Server 2003 and Windows Server 2008
	Memory	More than 8G	
	Hard disk	15K RPM+, available space more than 100G	
Management server	CPU	Intel Xeon quad-core 64bit	Windows Server 2003 and Windows Server 2008
	Memory	More than 8G	
	Hard disk	15K RPM+, available space more than 100G	
Load balancer	CPU	Intel Xeon quad-core 64bit	Ubuntu and Suse
	Memory	More than 8G	
	Hard disk	15K RPM+	

File server	CPU	Intel Xeon dual-core 32bit or 64bit	Windows Server 2003 and Windows Server 2008
	Memory	More than 2G	
	Hard disk	15K RPM+, available space more than 100G	
Patch server	CPU	Intel Xeon dual-core 32bit or 64bit	Windows Server 2003 and Windows Server 2008
	Memory	More than 2G	
	Hard disk	15K RPM+, available space more than 30G	

## 2. Installation Instructions

### 2.1 Install MySQL database

#### 2.1.1 Installation preparation

- Open the port for MySQL

Port	Protocol type	Remark
3306	TCP	Default port of database

- The host has been installed with Windows Server 2003 or Windows Server 2008 and supports 32bit and 64bit OS.
- Download MySQL installation package (5.1.52 version recommended) from the official website:
- <http://www.mysql.com/downloads/>
- If MySQL software has been installed, it may not be installed again; however, the database shall be configured again. The configuration method is as follows:

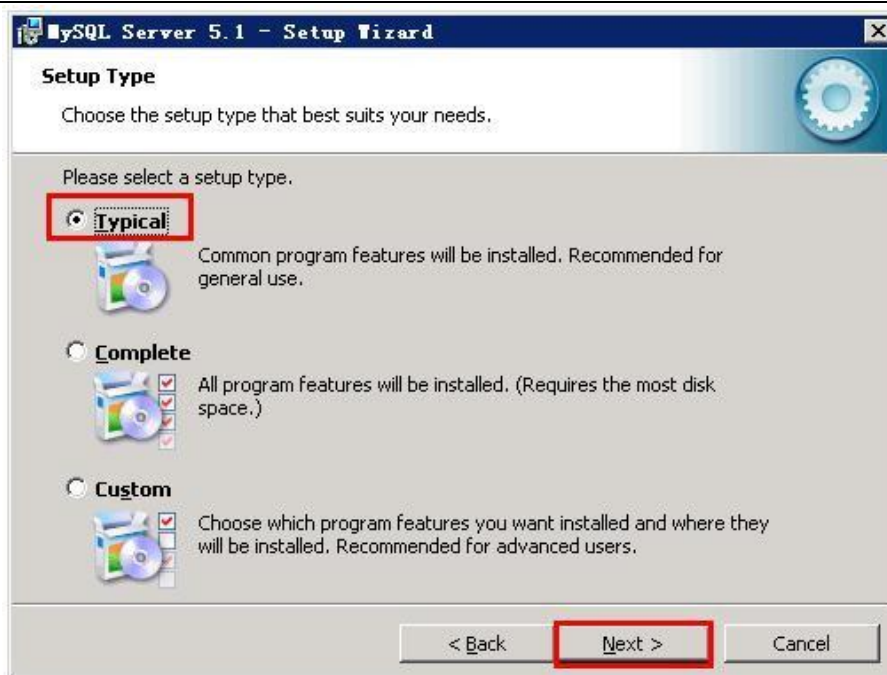
#### 2.1.2 Install MySQL software

Run MySQL installation package (Take version 5.1.52 as an example. Installation methods of other versions are similar.).



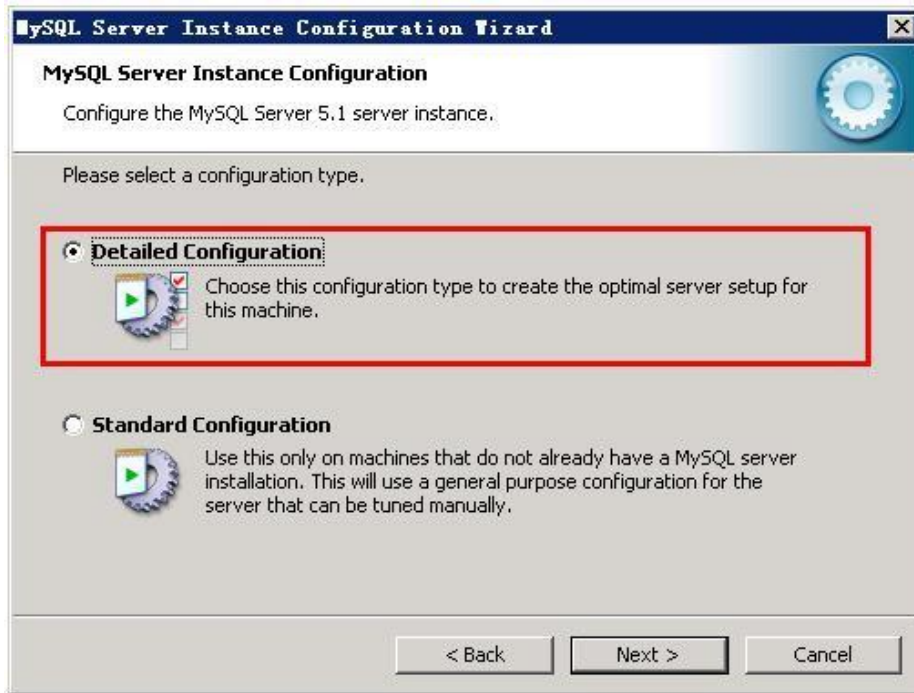
1. Select the Typical mode to install MySQL





2. After installation, configure MySQL and select the “Detailed Configuration”, as shown in following figure:





3. Steps of “Detailed Configuration” are as follows:

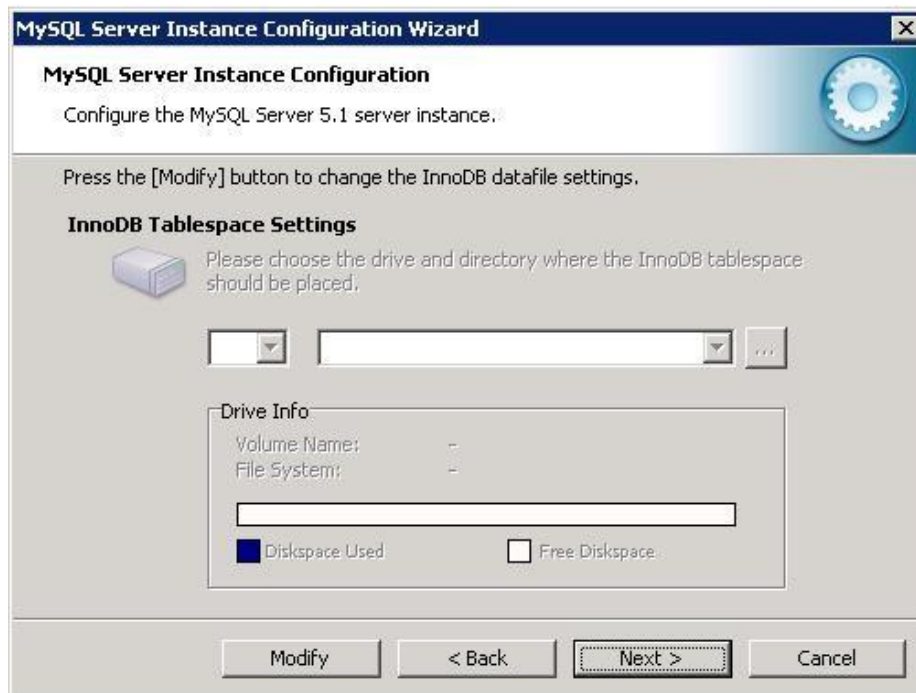
- Select the option in following figure.



- Select the “Multifunctional Database”.



- Don't configure on this page. Click "Next".

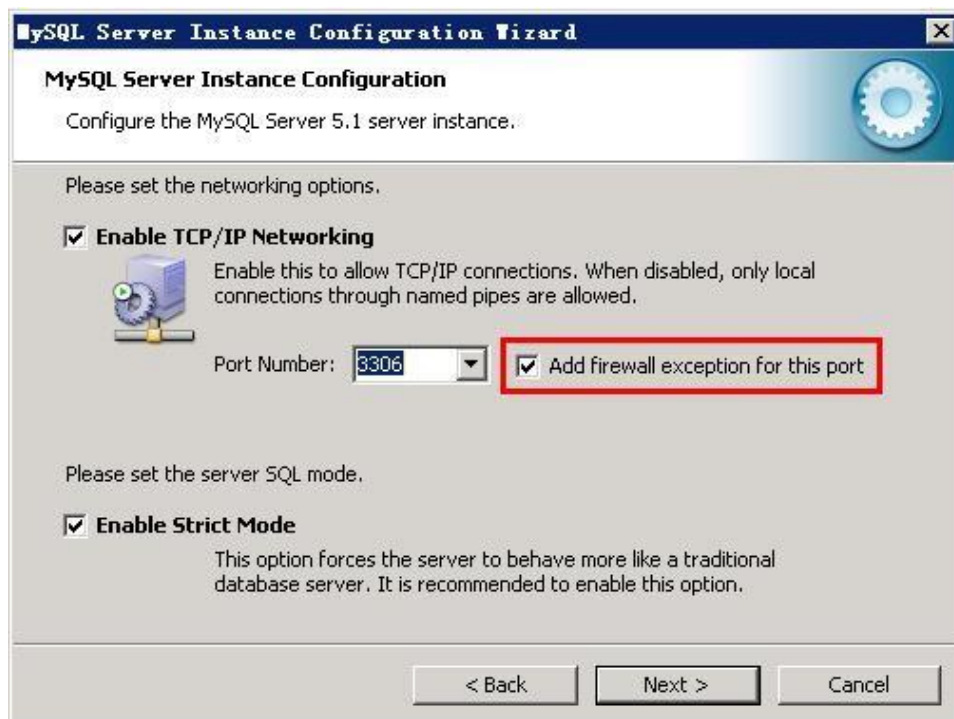


- Select the option in following figure and set the "Concurrent Connections" of database as 500.



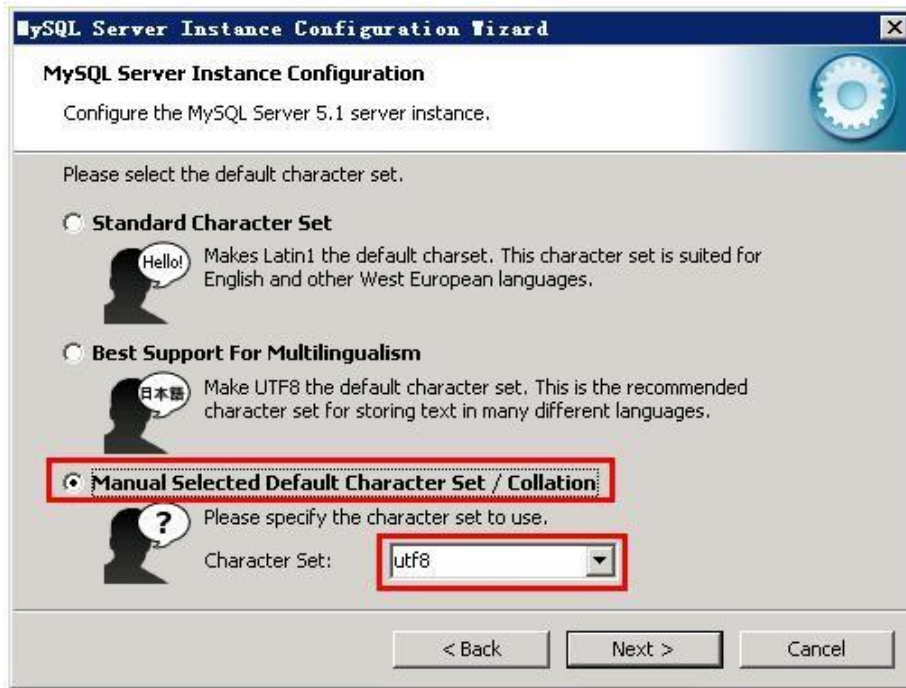
- Set the “Port Number” of database and select the red box to add this port in firewall exception list.

Notice: the port information is very important, because it shall be inputted during import of data and installation of management server.



- The “Manual Selected Character Set” is utf8



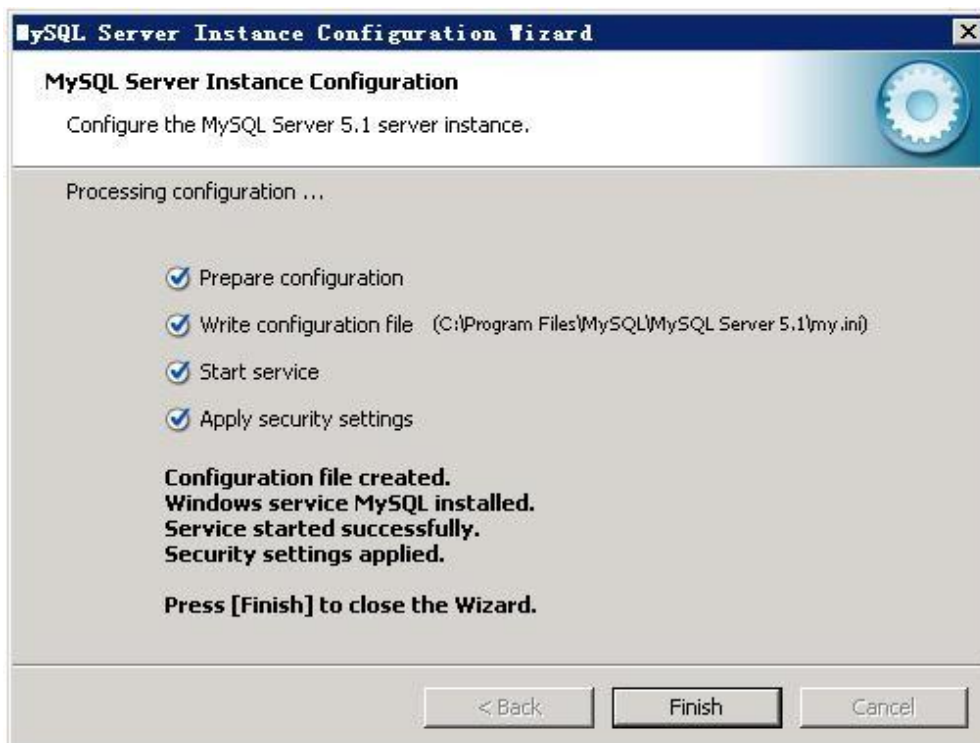


- It is suggested setting the database connection password and allowing the root user access from remote machines (if the management server and database are installed in different hosts, this option shall be selected.)

**Notice:** the username and password herein are very important. Please remember. The username and password shall be inputted during import of data or installation of management server.



4. Execute and save all MySQL settings to ensure correct configuration of all items (select with √). The configuration is finished.

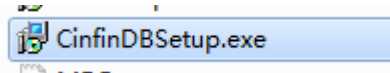


Notice: in order to improve the disk reading and writing performance of database, after installing the database, manually change the value of `innodb_flush_log_at_trx_commit` field of database configuration file `my.ini` as 2. Path of `my.ini` file in MySQL5.1.52: `C:\Program Files\MySQL\MySQL Server 5.1\my.ini`

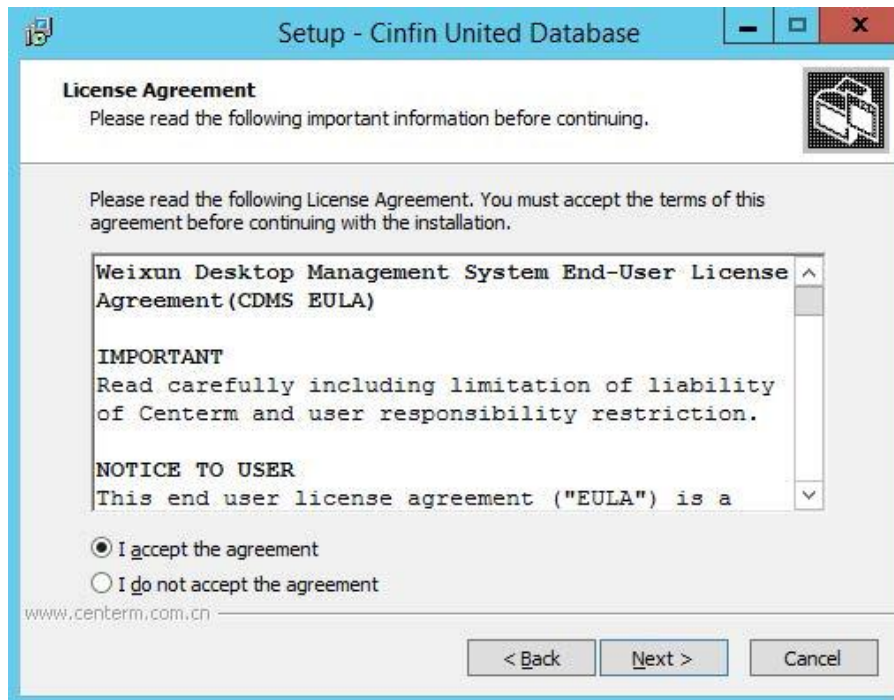
### 2.1.3 Import management system data

After installing MySQL database, the data of Cinfin management system shall be imported in the

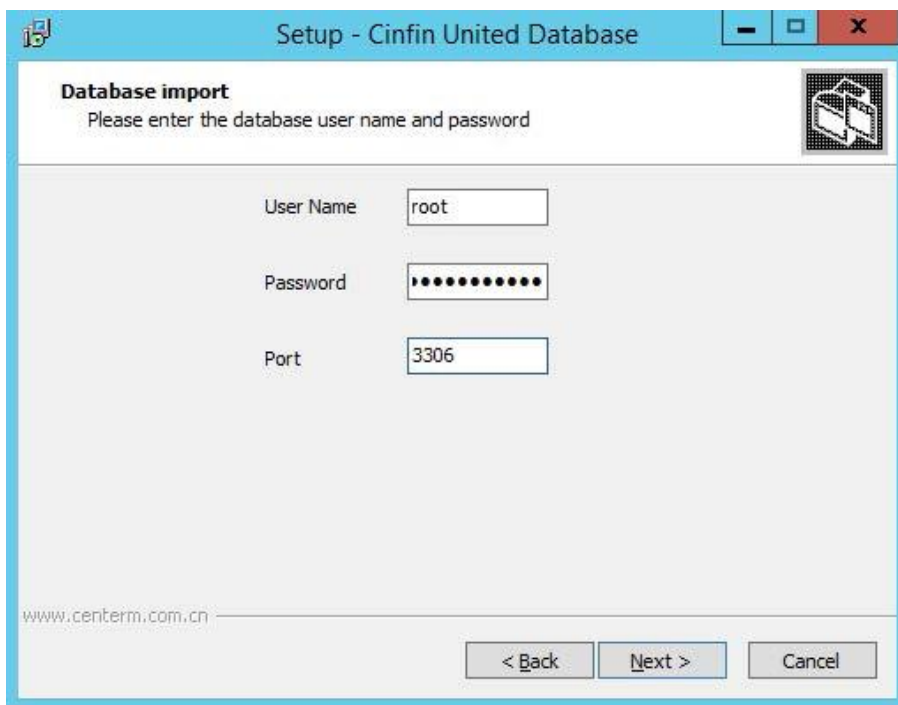
database. Directly run the database import installation package CinfimDBSetup.exe:



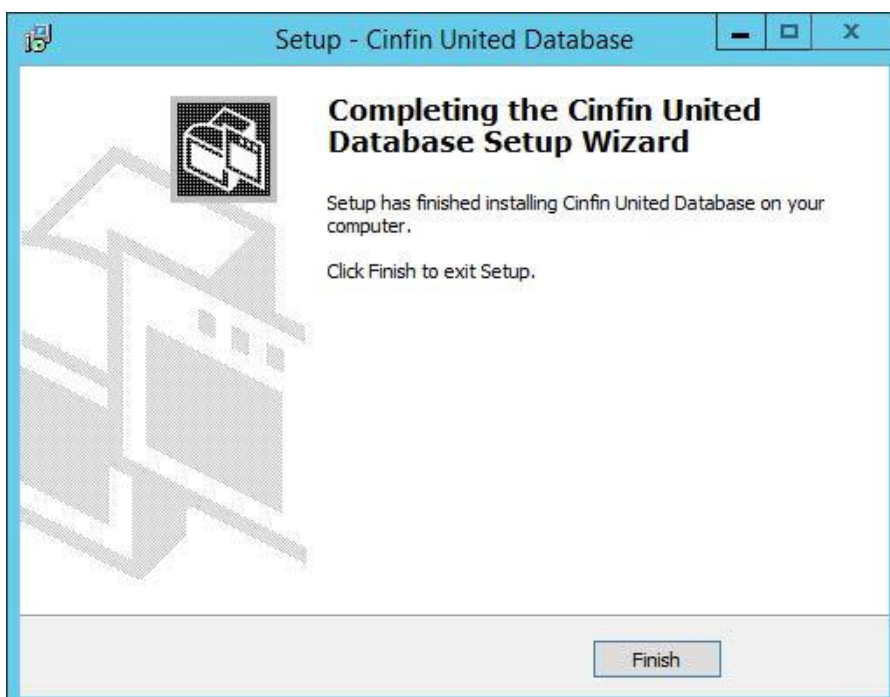
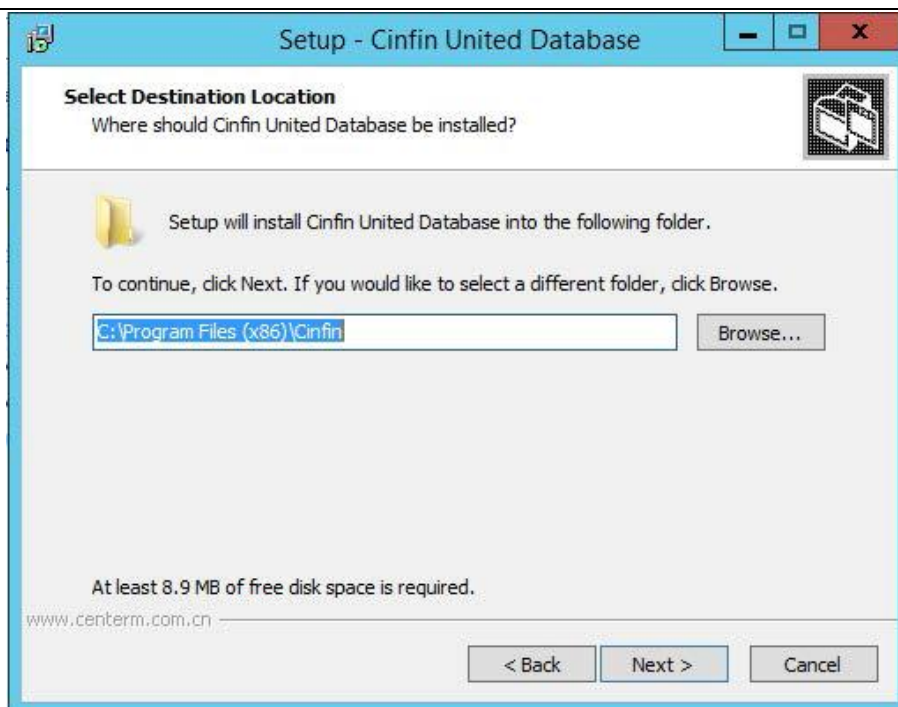
1. Start to install and accept the installation protocol.



2. Fill in the user name (root user as example), password and port of MySQL database.



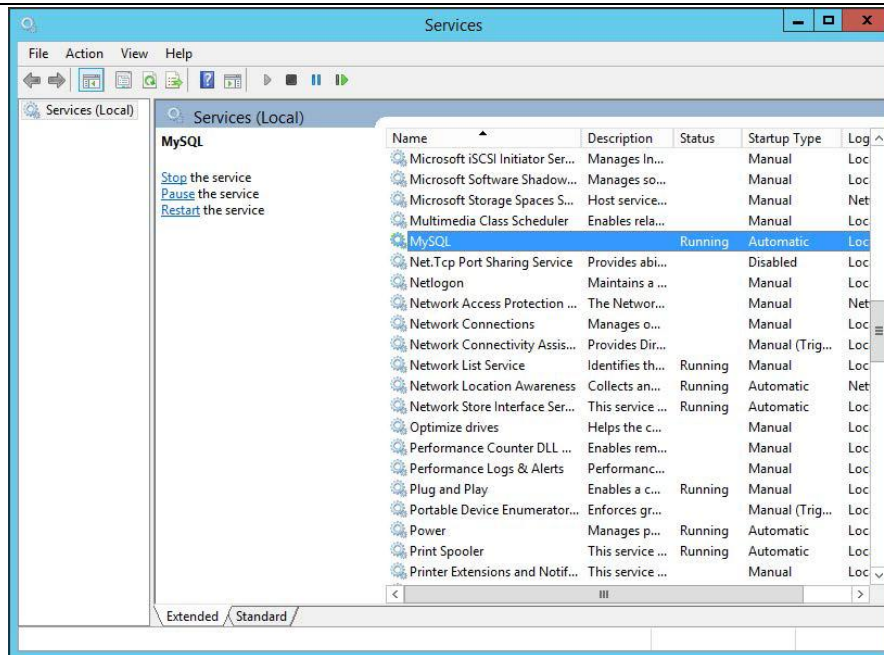
3. Select the installation path to finish the installation.



## 2.1.4 Check correctness of installation

1. Select "start > run".
2. Display "run" dialog box.
3. Input services.msc. In service list, MySQL service is in "enabled" state.





## 2.2 Install management server

### 2.2.1 Installation preparation

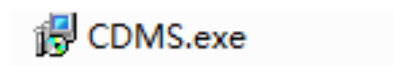
- Open the ports for management server.

Port	Protocol type	Remark
443	TCP	WEB port
8081	TCP	Communication port

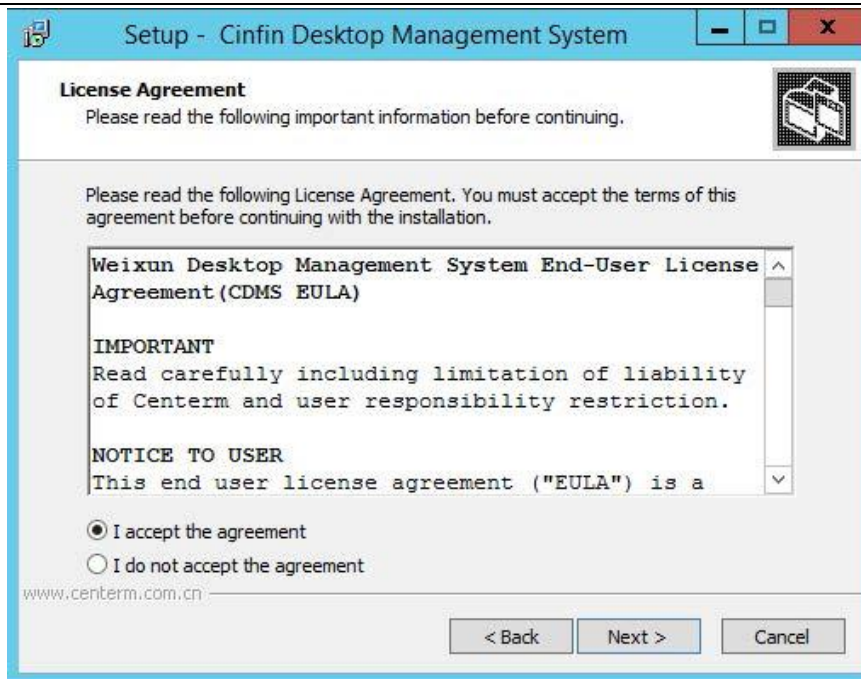
- The host has been installed with Windows Server 2003 or Windows Server 2008 and supports 32bit and 64bit OS.
- Be familiar with IP address of host.
- Confirm that the database has been installed and acquire the IP address of database host, username, password and port information of database.
- The virtual memory of the host is larger than physical memory (twice of physical memory is recommended).

### 2.2.2 Installation steps

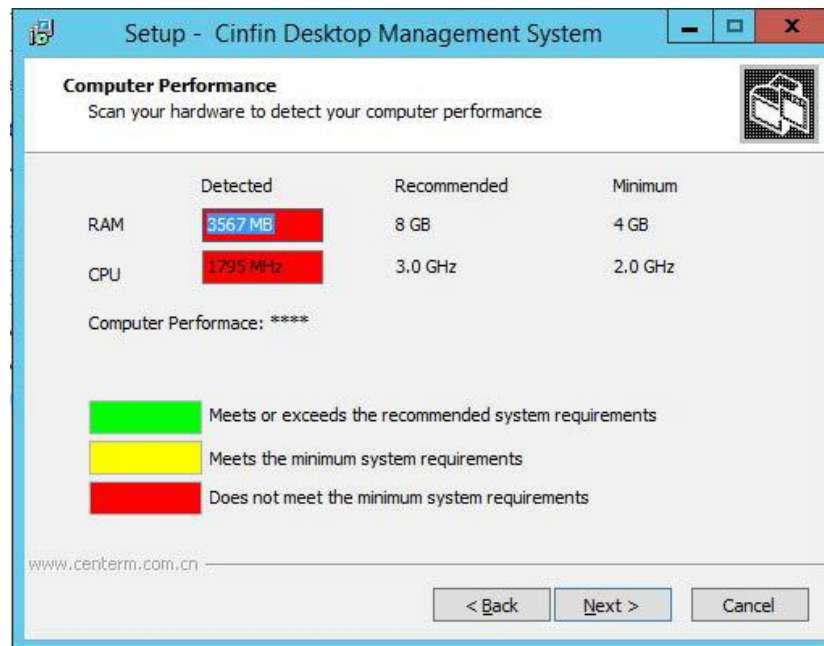
Run the Cinfin desktop management system installation program CDMS.exe:



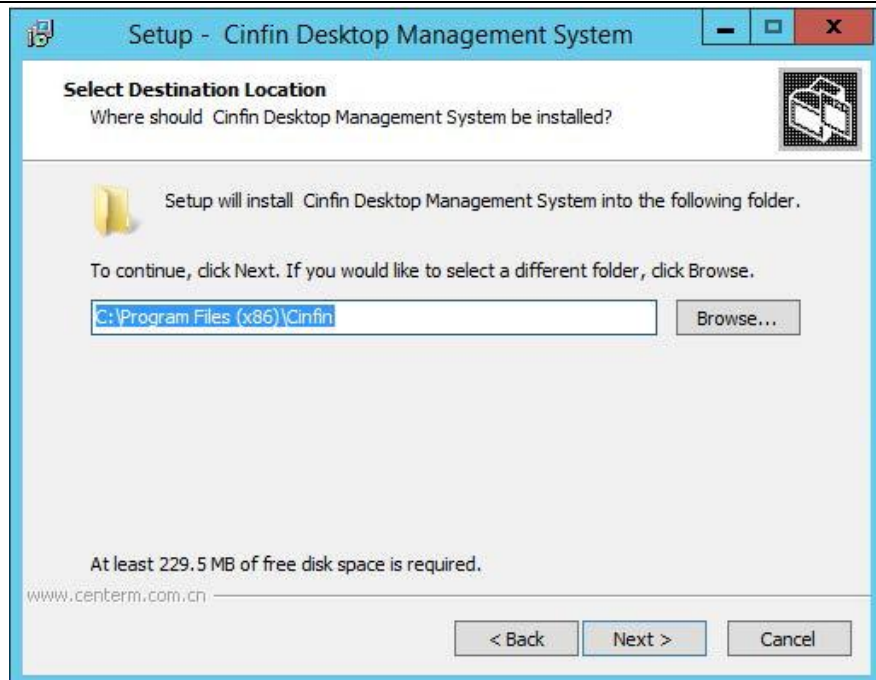
1. Start to install and enter the installation wizard interface.
2. Enter the license authorization interface and select "Accept", as shown in following figure:



3. Detect the system environment and display the expected running conditions of system.

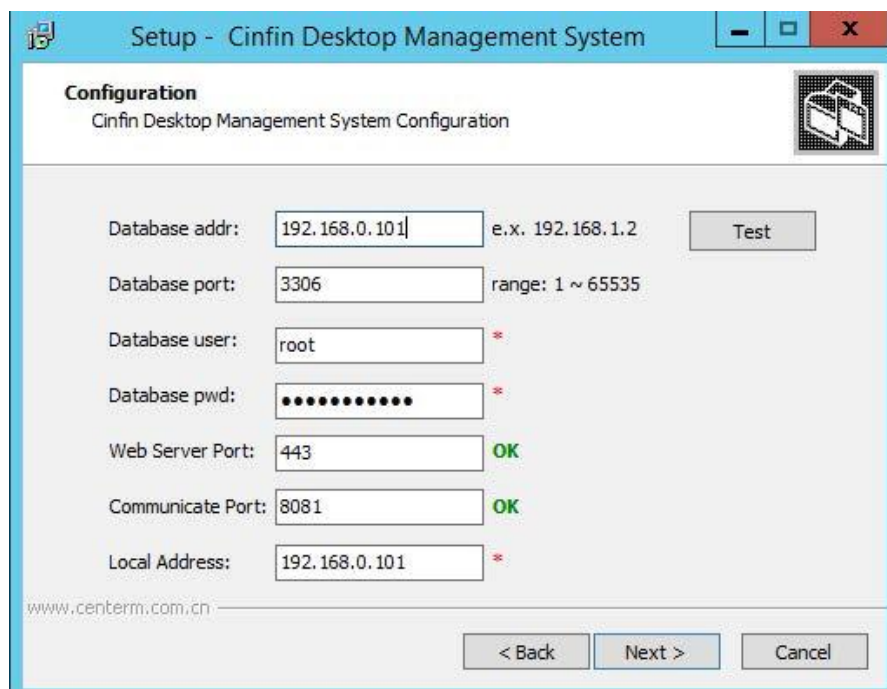


4. Confirm the installation path of desktop management system.

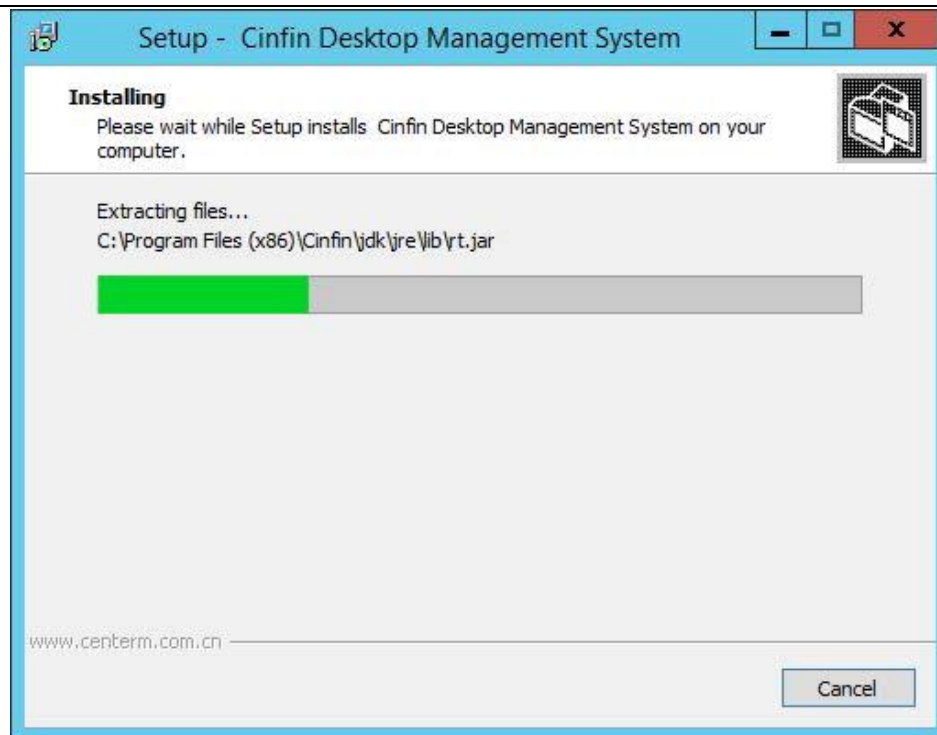


## 5. Configure the server information.

- Address, port, username and password of database shall be same with that of the installed database. Otherwise, the management server cannot be correctly installed.
- Default settings of Web port and communication port can be adopted. If the user wants to change, open the corresponding port in host.
- The local address shall be Intranet IP of host instead of 127.0.0.1 or localhost.

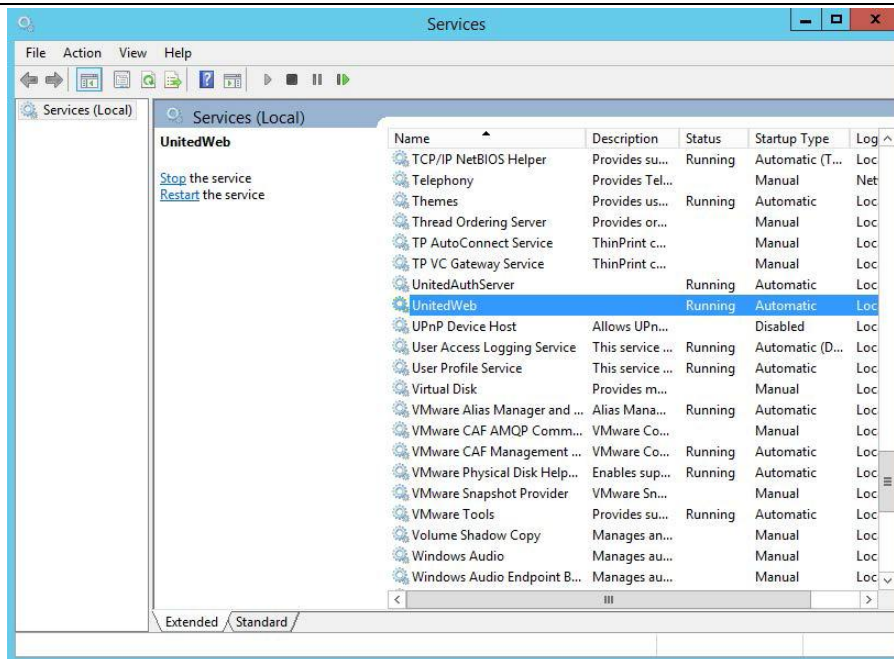


## 6. After filling in the configuration information, the installation is finished.



### 2.2.3 Check correctness of installation

1. Select "start > run".
2. Display "run" dialog box.
3. Input services.msc. In service list, UnitedWeb service is in "enabled" state.



4. Open IE browser (IE7, 8 and 9 of 32bit is supported). Input <https://server IP:Web port/Terminal/logon.do> in address bar, such as: <https://192.168.13.114:443/Terminal/logon.do>; the login interface of management system will be displayed; input the username and password (admin for both by default); press the Enter key to enter the system.





## 2.3 Install file server

### 2.3.1 Installation preparation

- Open the ports for file server.

Port	Protocol type	Remark
11021	TCP	FTP port
444	HTTPS	HTTPS port ( HTTPS by default)

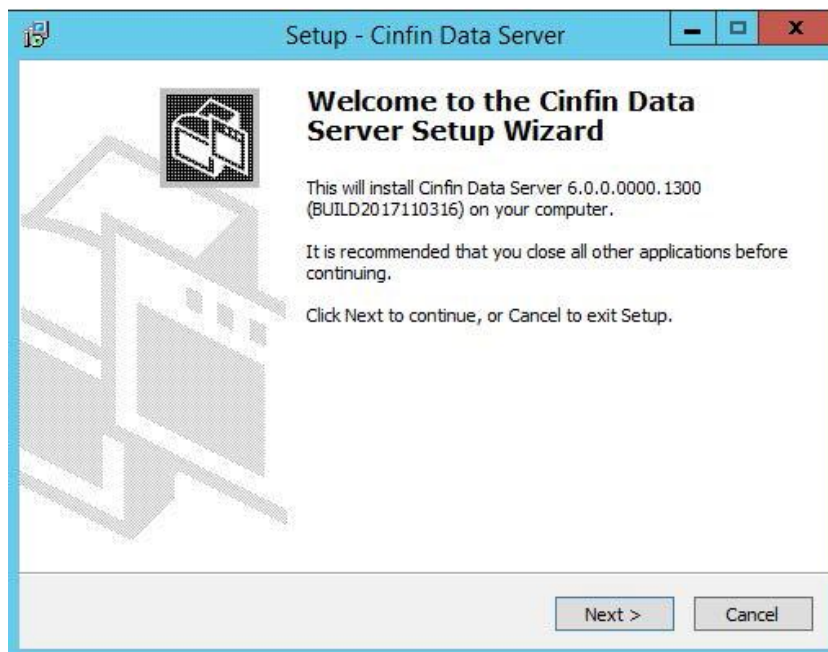
- The host has been installed with Windows Server 2003 or Windows Server 2008 and supports 32bit and 64bit OS.

### 2.3.2 Installation steps

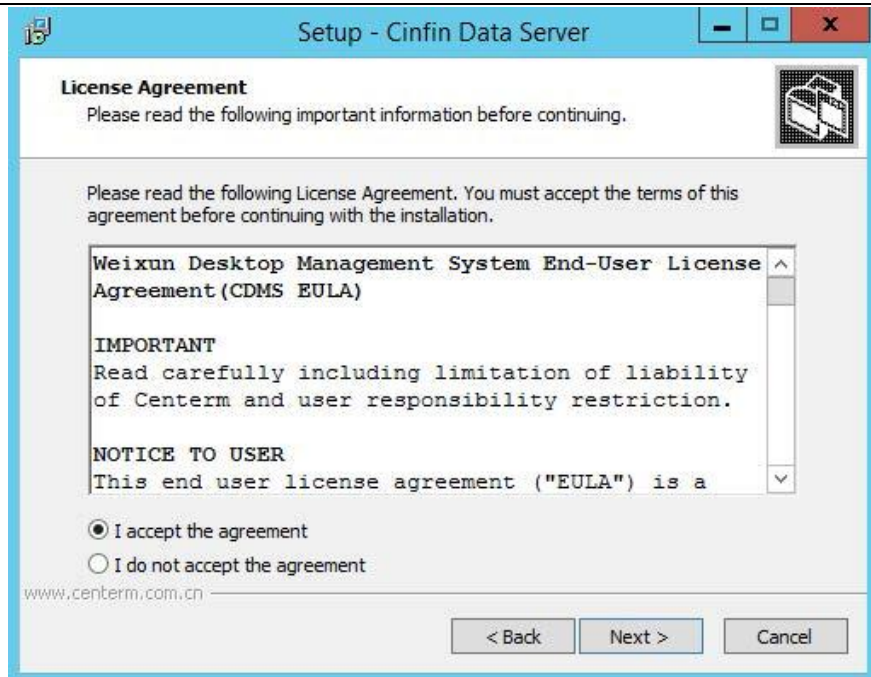
Run the file server installation program, as shown in following figure:



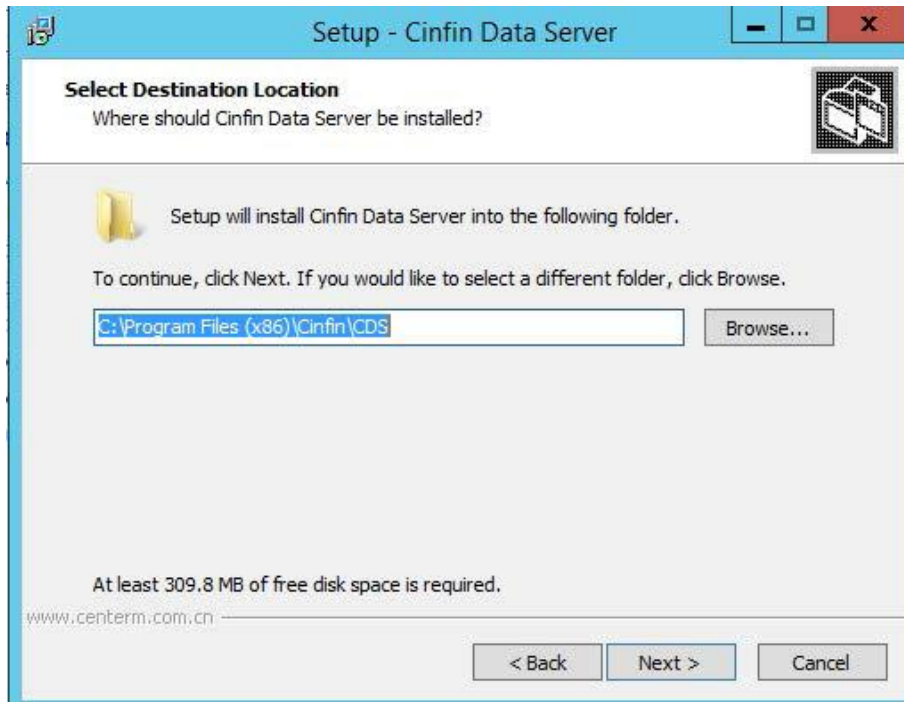
1. Start installation and enter the welcome interface.



2. Accept the license agreement and click "Next".



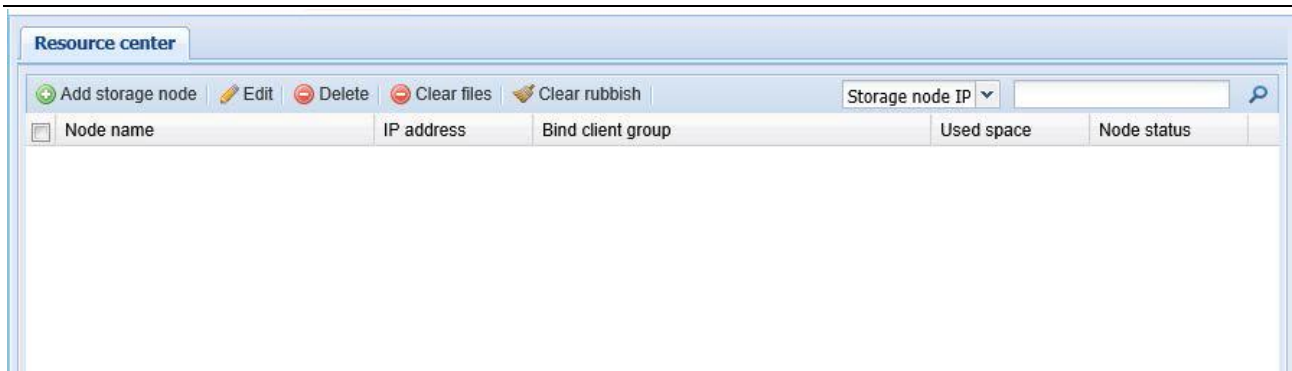
3. Select the installation path to finish installation.



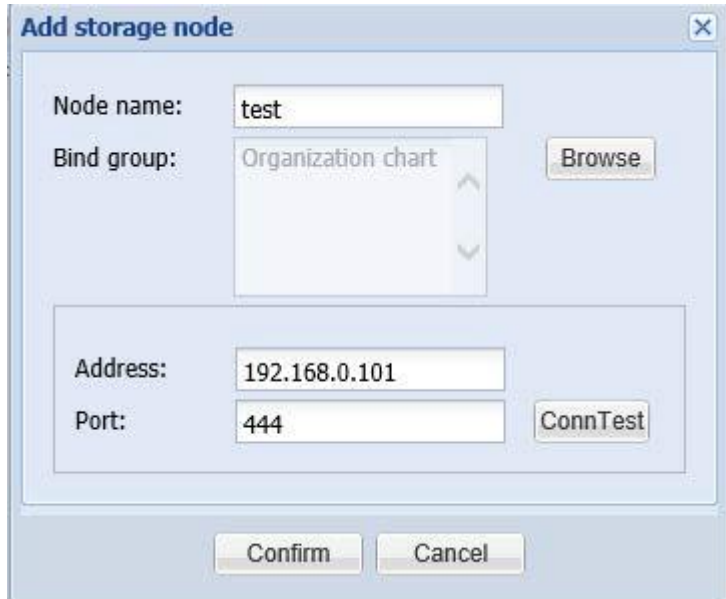
4. After successful installation, hfs service will be executed and is in “enabled” state.

### 2.3.3 Check correctness of installation

1. Select “start > run”.
2. Display “run” dialog box.
3. Input services.msc. In service list, hfs service is in “enabled” state.
4. Log in the management server in browser and enter 【system setting—>resource center】.
5. Select “add storage node”, as shown in following figure:



6. Fill in the file server information, as shown in following figure:



7. Then, the interface displays that the file server is successfully added in the system.



## 2.4 Install client

### 2.4.1 Installation preparation

- Open the ports for client.

Port	Protocol type	Remark
8000	TCP	Uniframe port
8000	UDP	Searching port
8001	TCP	Upgrade port



8001	UDP	State query port
8002	TCP	File extraction port
5800,5900	TCP	VNC port

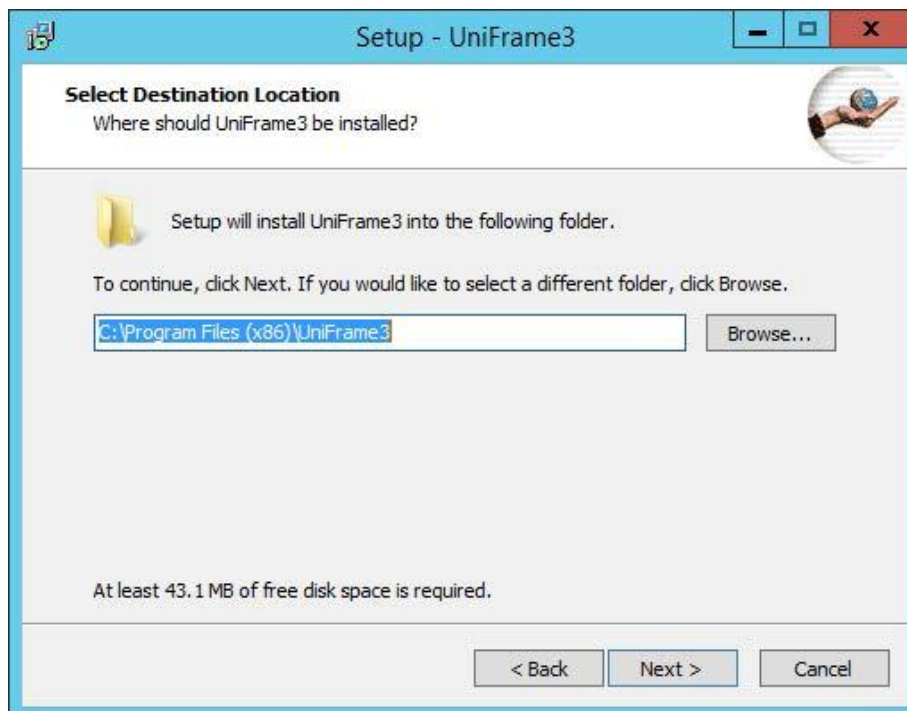
- If the client has been installed with the anti-virus software, during installation of client software, temporarily disable the anti-virus software or directly allow the run of client software.
- Confirm that the available hard disk space of client is more than 150M. The memory protection client shall have available memory more than 150M.

## 2.4.2 Installation steps

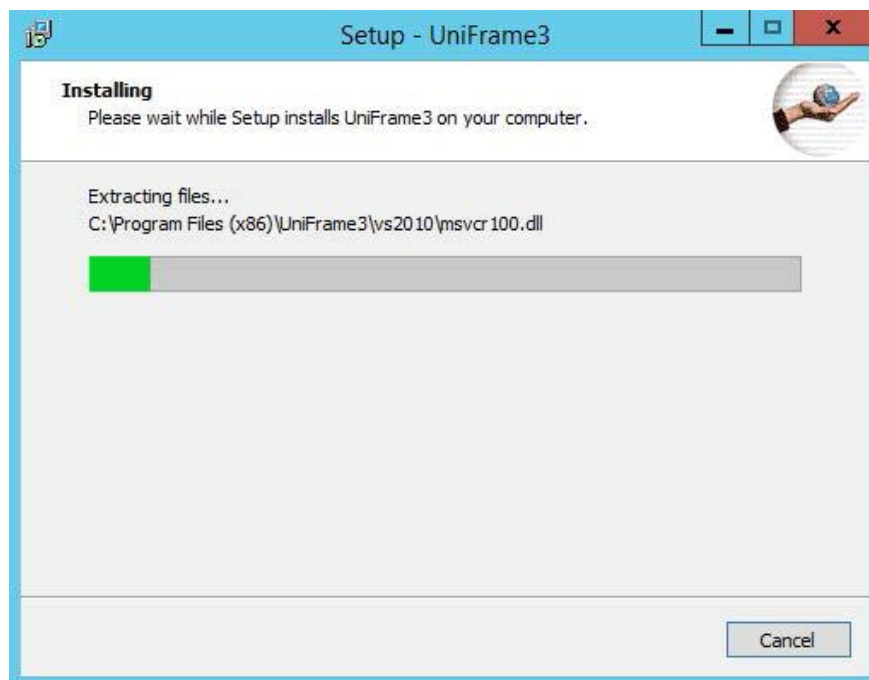
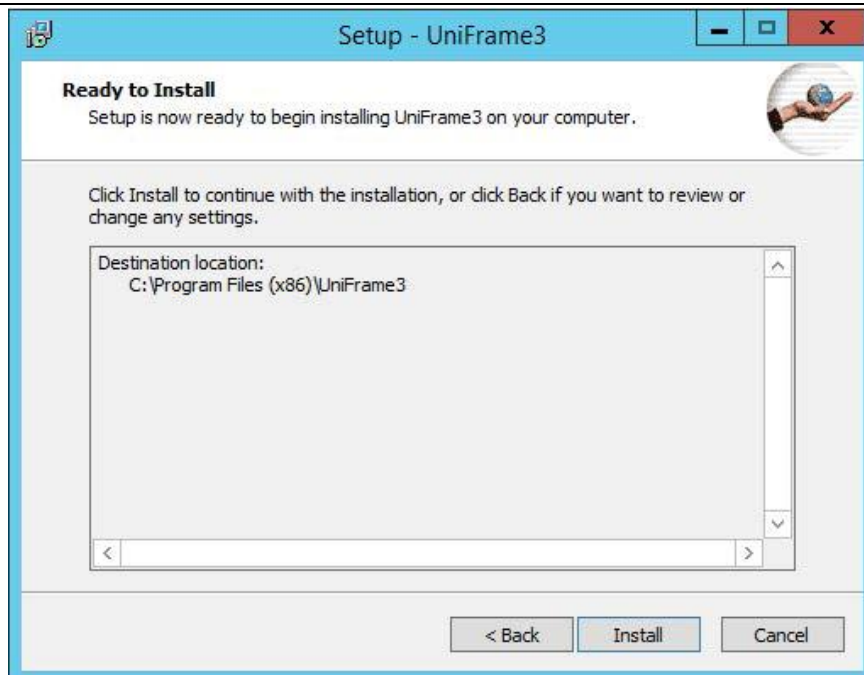
Run the client of compact disc wizard or directly run the installation program UnionClient.exe, as shown in following figure:



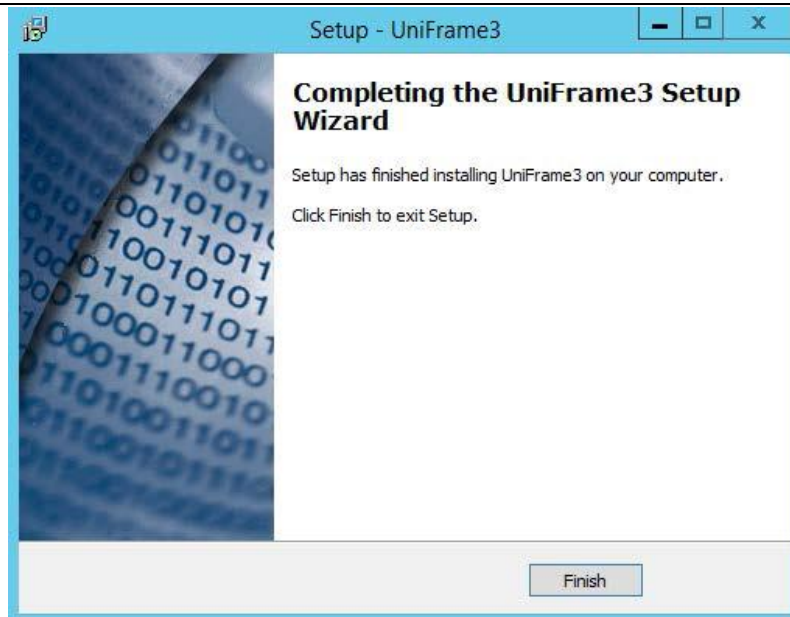
1. Start installation and enter the welcome interface.
2. Select the installation path:



3. Click "install" to execute the installation of client software.



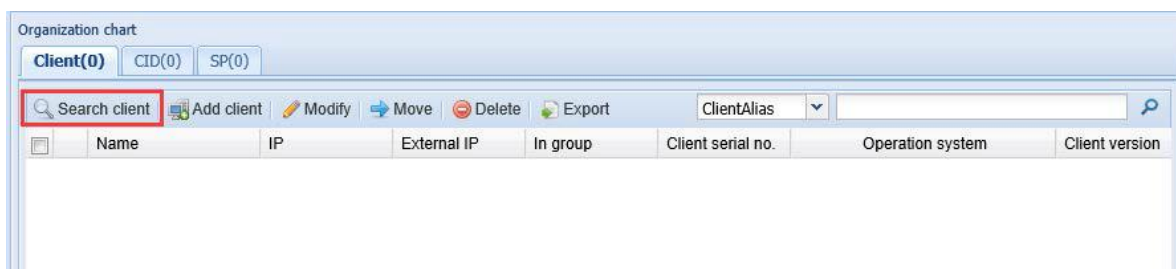
4. Finally, restart the computer to finish installation.



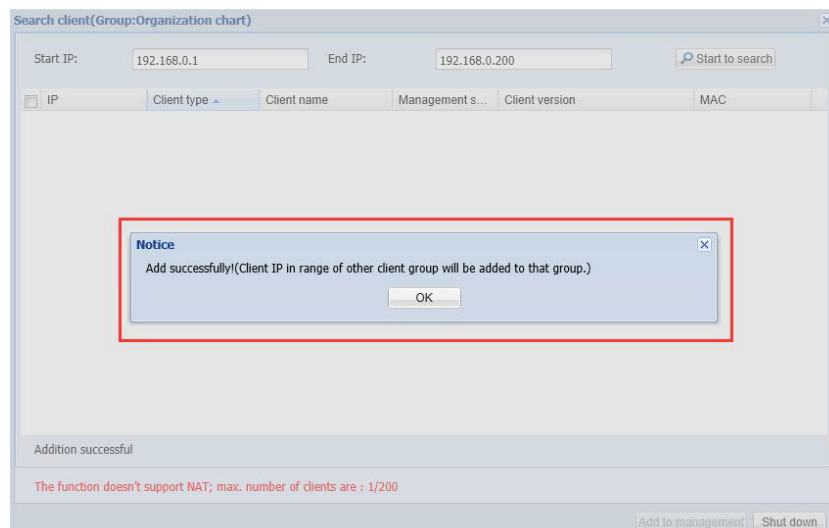
Notice: after installation of memory protection client, shut down the client normally rather than press the power key for a long time or directly cut down power, otherwise, OS files may loss.

### 2.4.3 Check correctness of installation

1. Log in the management server in browser, enter “system setting-device management” and click “search client”.



2. Input the client IP in the popup IP range. If the client can be found and managed, it represents that the client software is successfully installed.



## 2.5 Install patch server

### 2.5.1 Installation preparation

- Open the ports for patch server.

Port	Protocol type	Remark
80	TCP	WSUS port
5432	TCP	Centerm patch tool port

- The host has been installed with Windows Server 2003 or Windows Server 2008 and supports 32bit and 64bit OS.
- Ensure that the server can connect with Extranet. If the agent shall be installed for network, please manually configure the agent server in Internet option.
- Download the installation package of .net framework 3.5 from the official website : <http://www.microsoft.com/zh-cn/download/details.aspx?id=25150>
- Download the installation package of WSUS from the official website: <http://www.microsoft.com/en-us/download/details.aspx?id=5216>

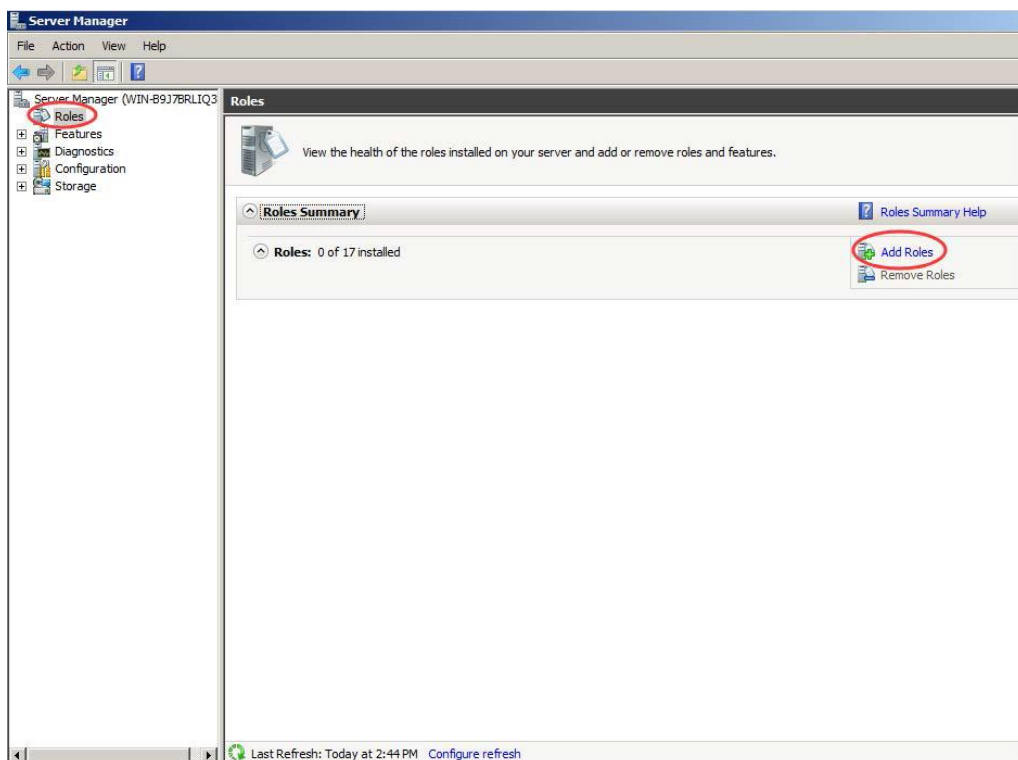
### 2.5.2 Installation steps

In the patch server, user shall install IIS, .net framework 3.5 and WSUS in order. If the user wants enjoying the Centerm patch service, the user shall install the Centerm patch tool.

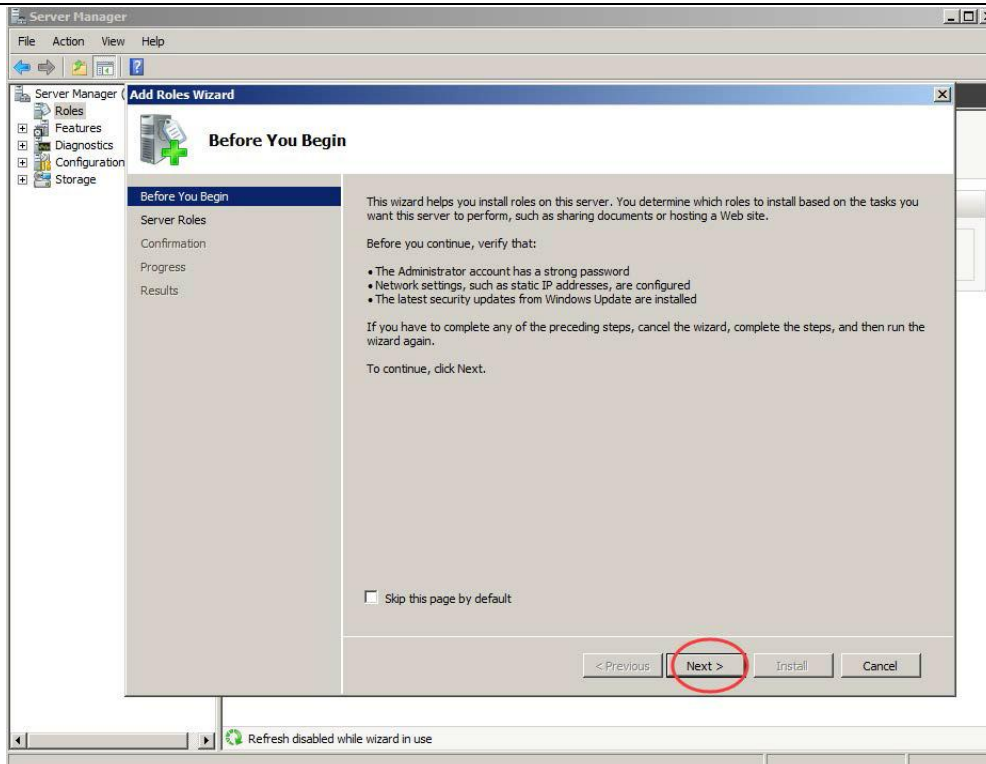
#### 2.5.2.1 Install IIS

##### Install in Windows Server 2008

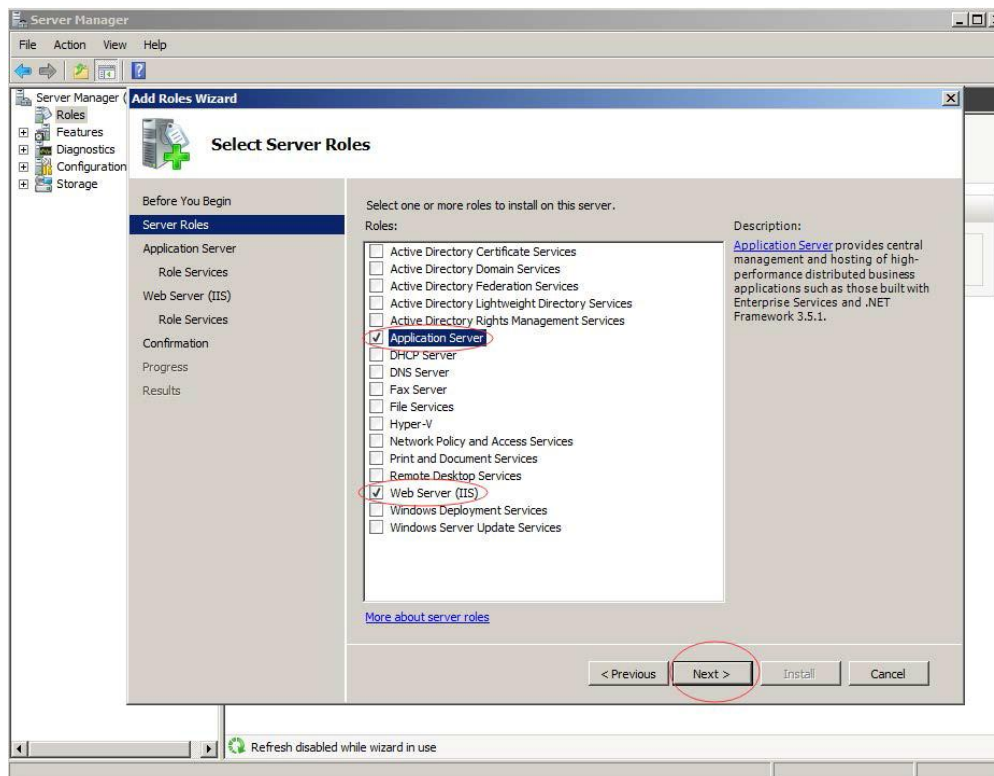
1. Select “server manager”, click “role” and click “add role” on the right panel.



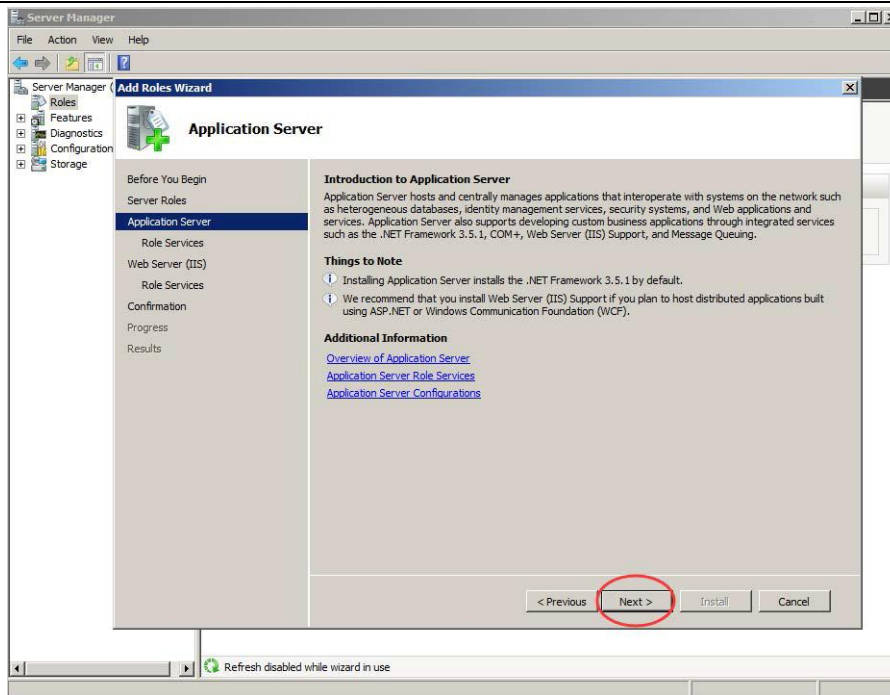
2. Click “next”



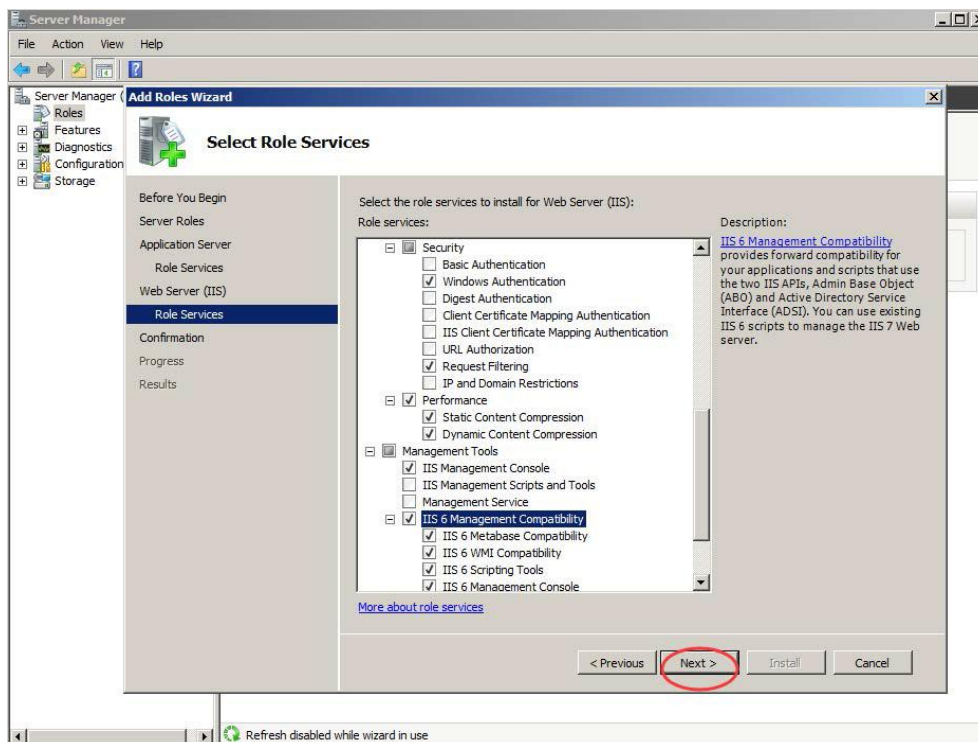
3. Select “application server” and “Web server (IIS)” and click “next”.



4. Click “next”.

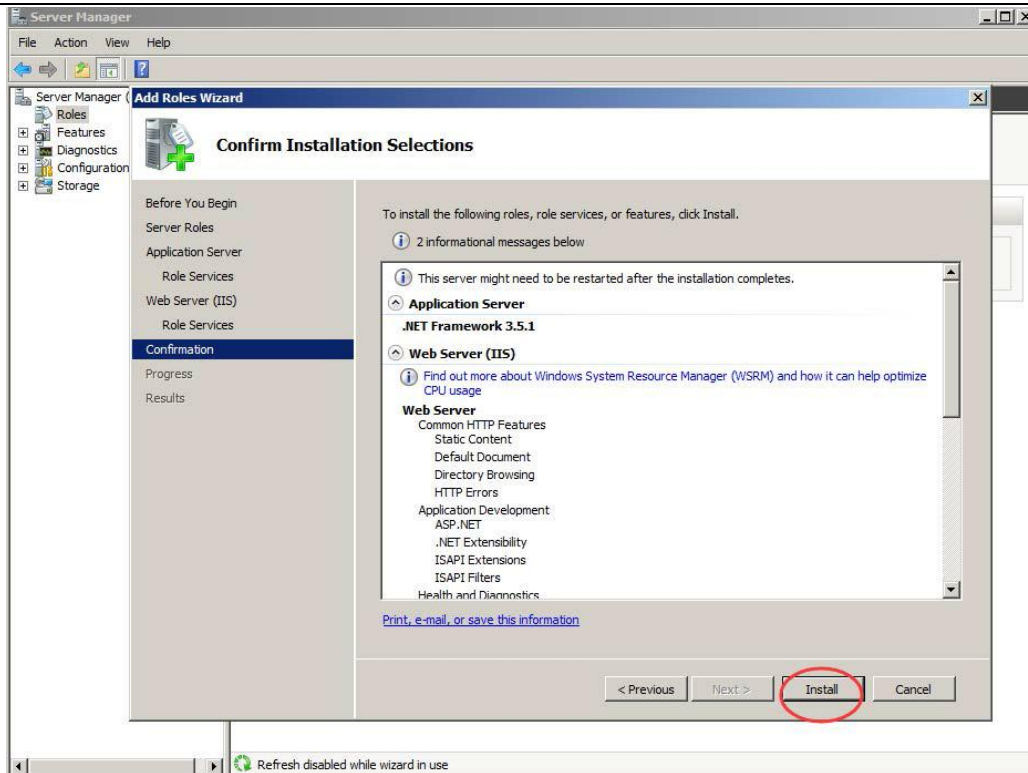


5. Besides the default options, ensure that “ASP.NET”, “Windows identity verification”, “dynamic content compression” and “IIS 6 management compatibility” are selected. Click “next”.

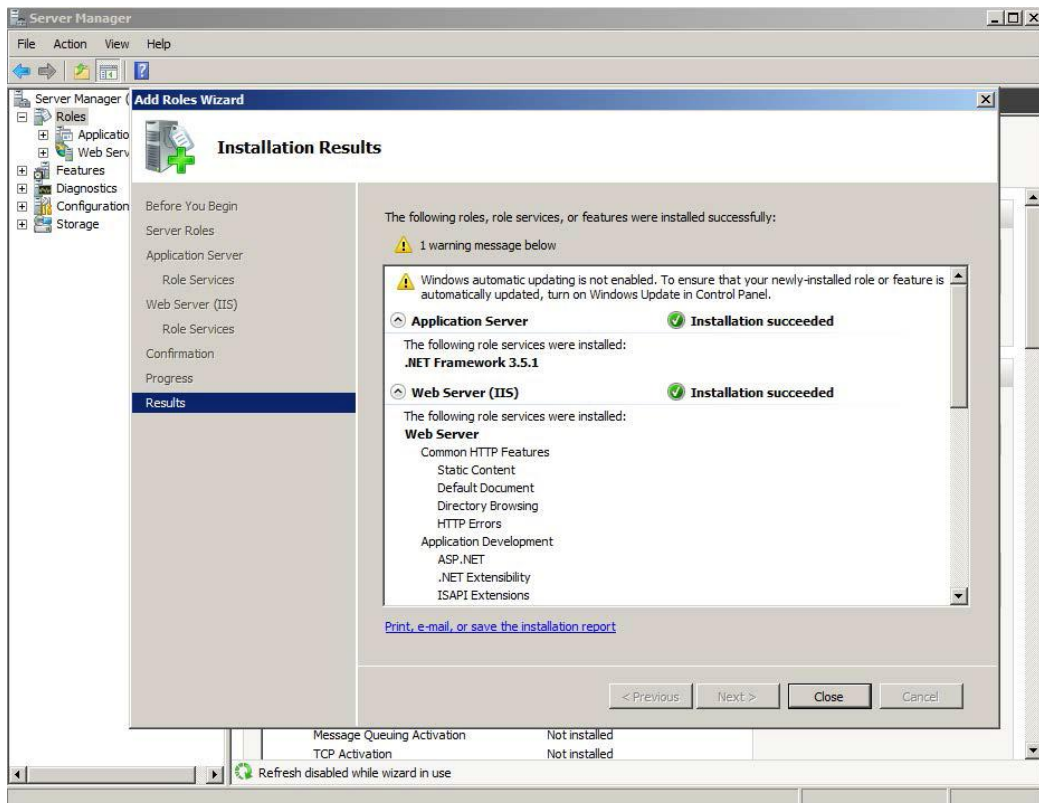


6. Click “install” to start installation.



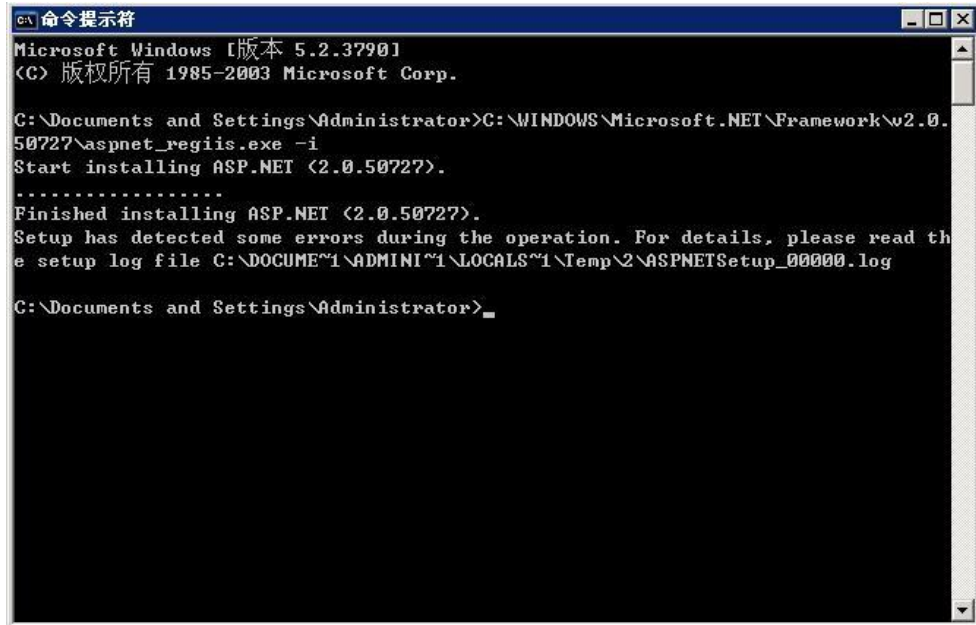


7. Click “close” to stop installation.



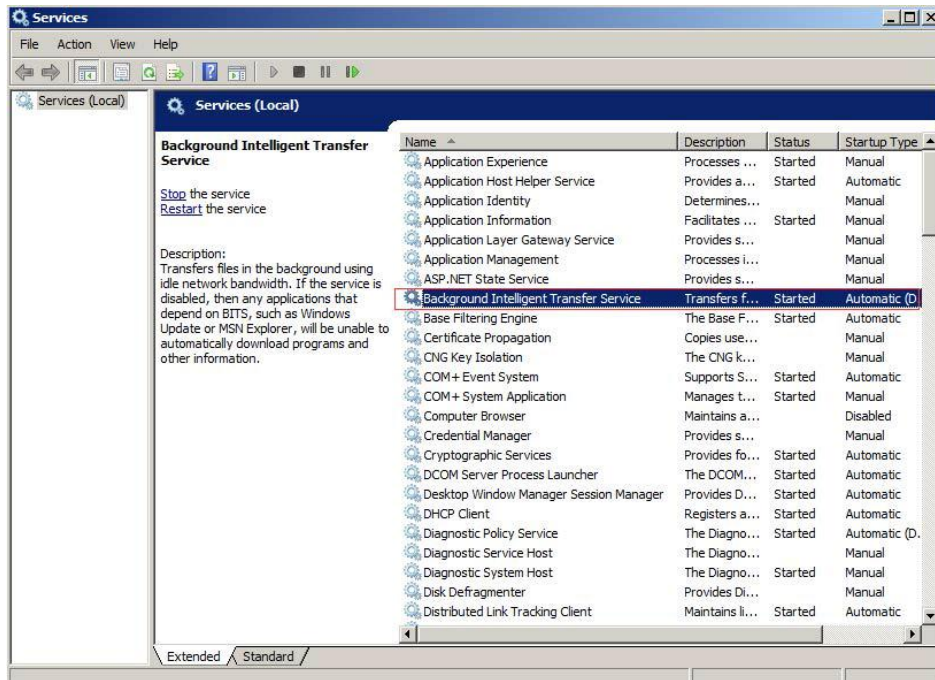
## 2.5.2.2 Install .net framework 3.5

1. Click installation package dotnetfx35.exe and install according to the prompt.
2. If .net framework 3.5 is installed earlier than IIS in windows server 2003, the program function may not run normally. Therefore, if the installation sequence is inversed, please input the command prompt: C:\WINDOWS\Microsoft.NET\Framework\v2.0.50727\aspnet\_regiis.exe -i



## 2.5.2.3 Install WSUS

1. Before installation, ensure that the Background Intelligent Transfer Service is enabled.



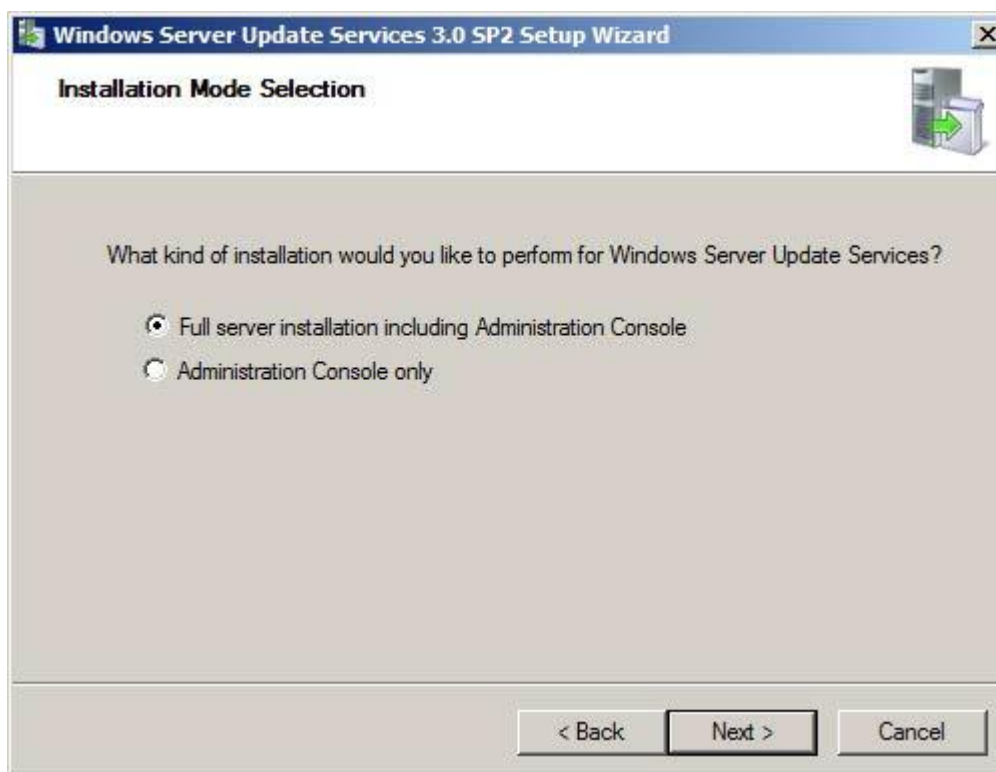
2. The installation packages are WSUS30-KB972455-x86.exe and WSUS30-KB972455-x64.exe. Select the 32bit or 64bit installation package according to the system and double click on the installation package.



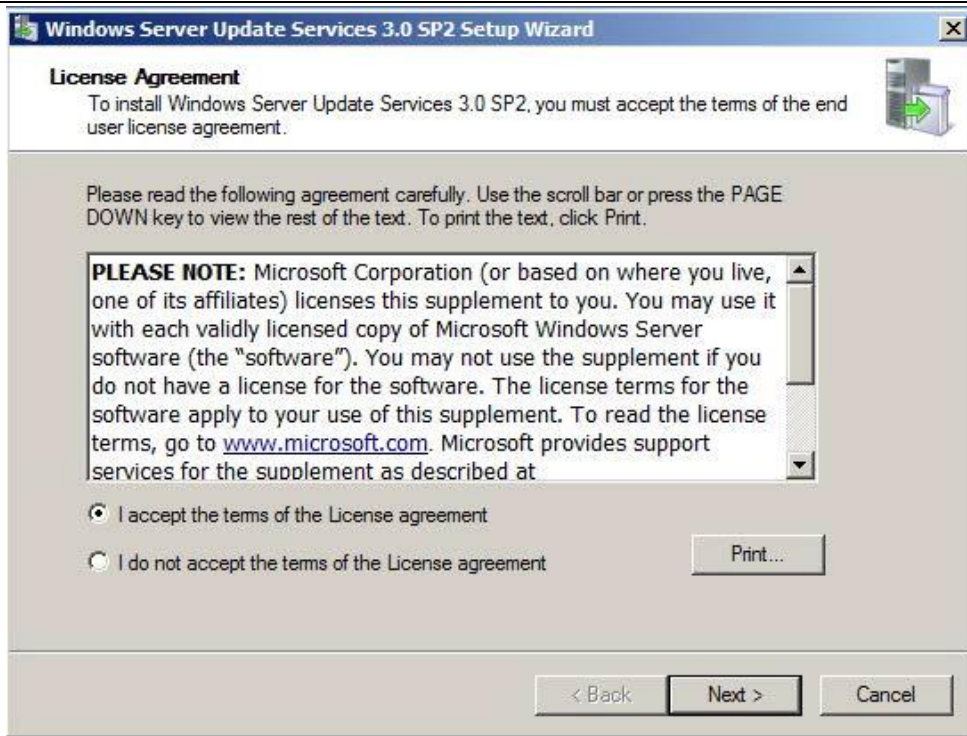
3. Click “next”.



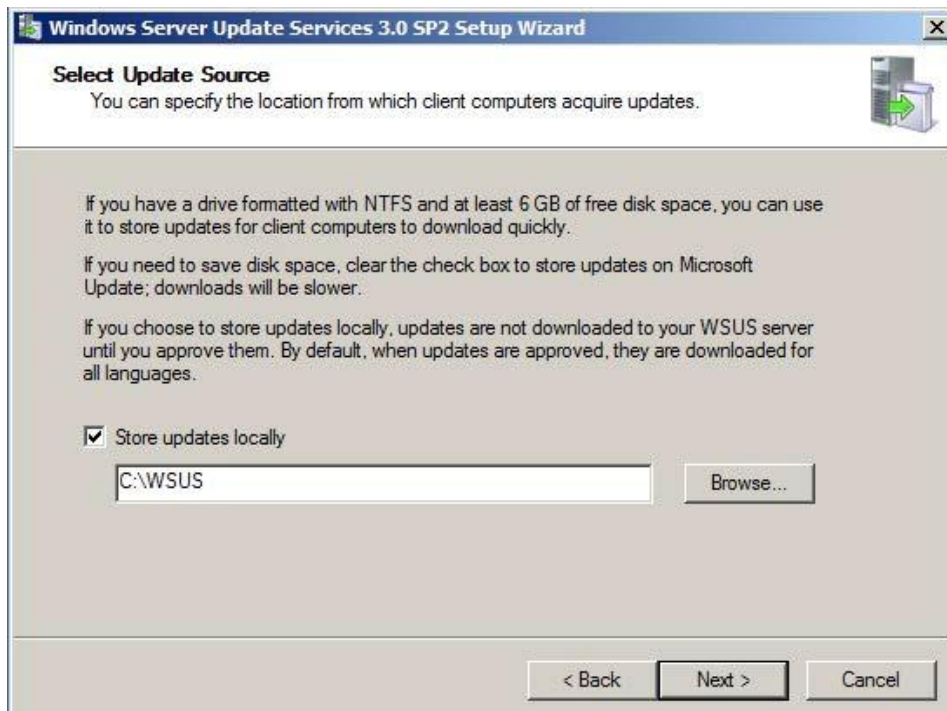
4. Select “complete server installation including management console” and click “next”.



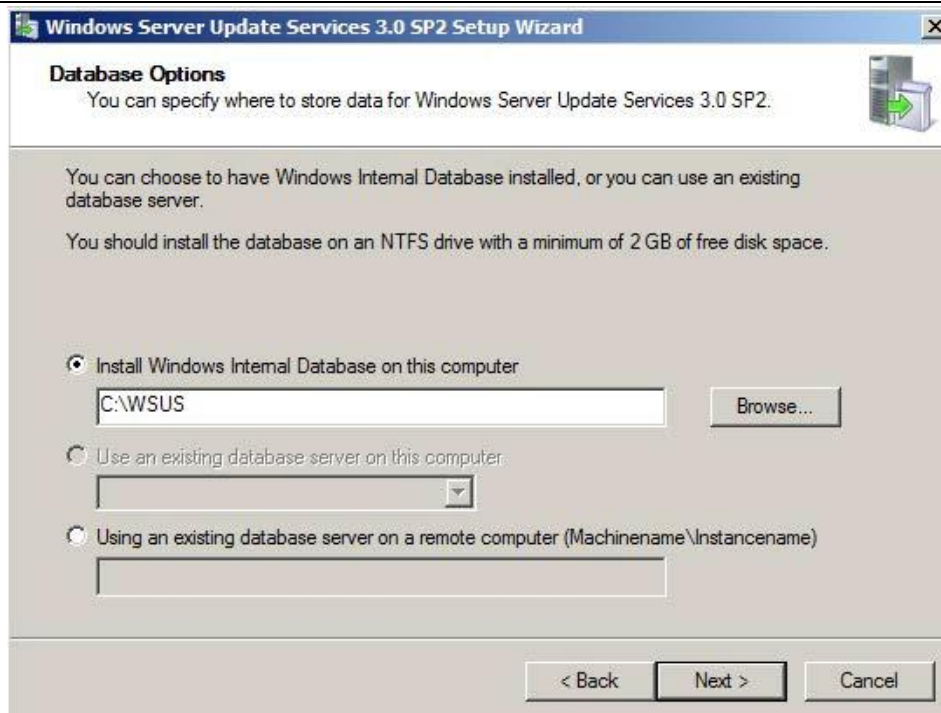
5. Select “I accept license agreement articles” and click “next”.



6. Click "next".



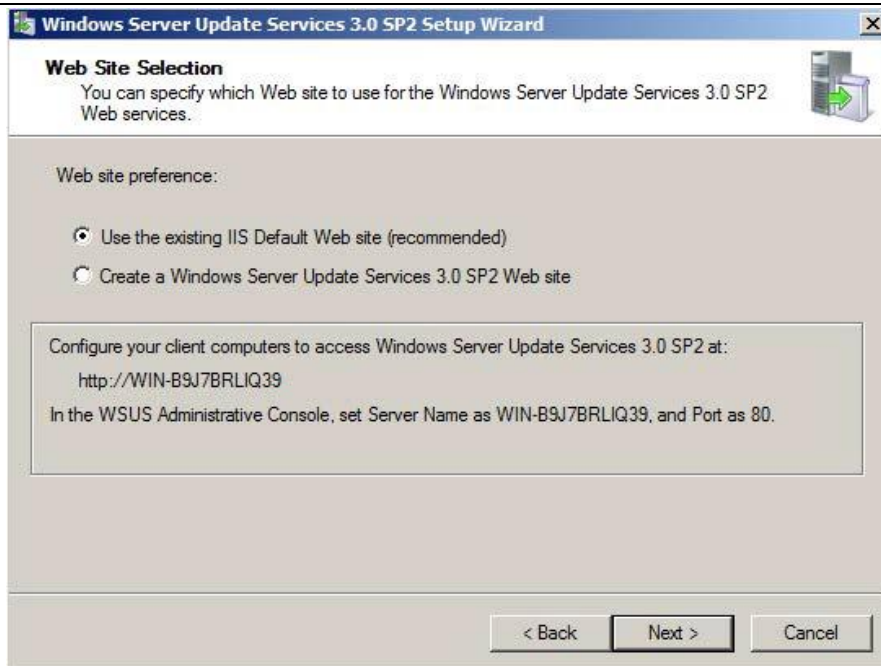
7. Click "next".



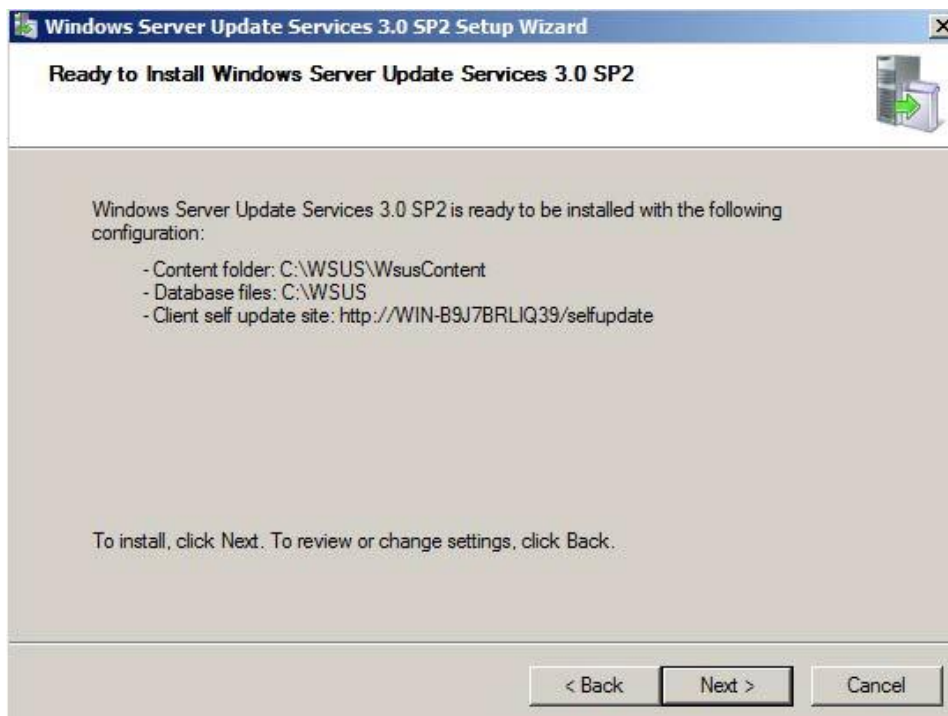
8. Click "next".



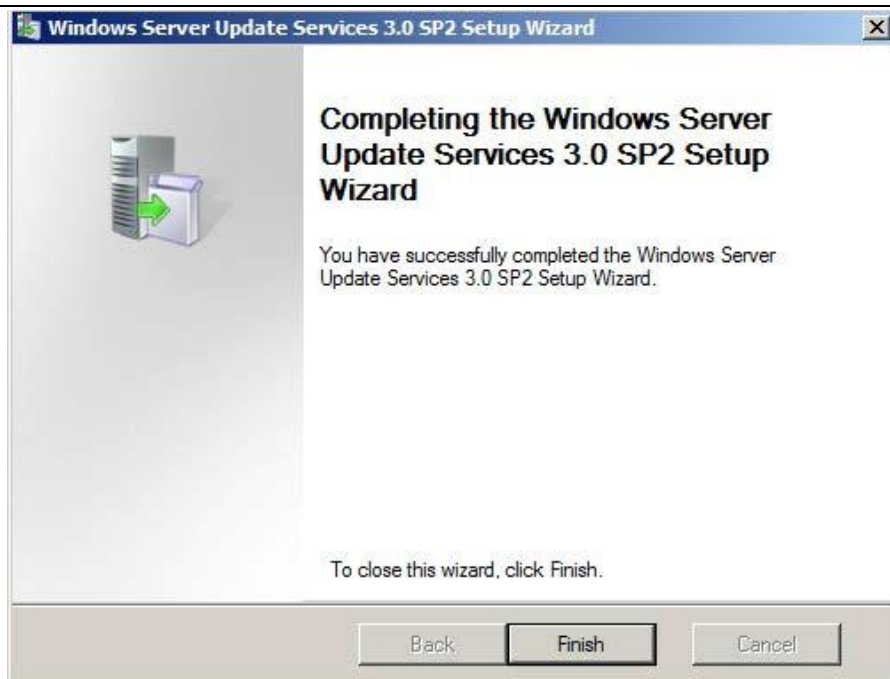
9. The option is selection of default IIS website or new WSUS website. Select the default website. Click "next".



10. Click “next” to install. The installation process takes a few minutes.

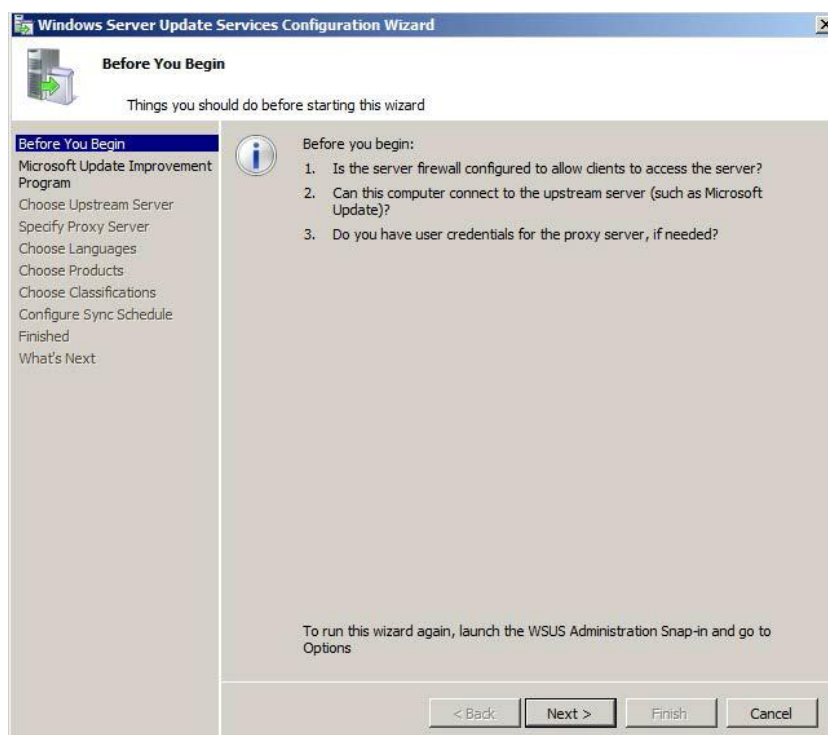


11. Click “finish”.



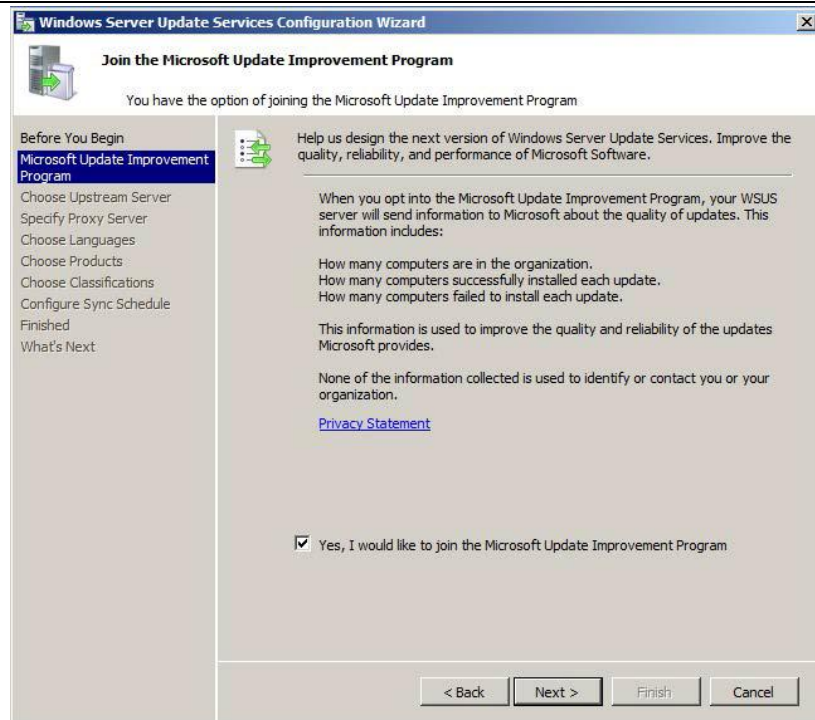
## 2.5.2.4 Configure WSUS

1. After installing WSUS, the configuration wizard will be popped up. Click “next”.

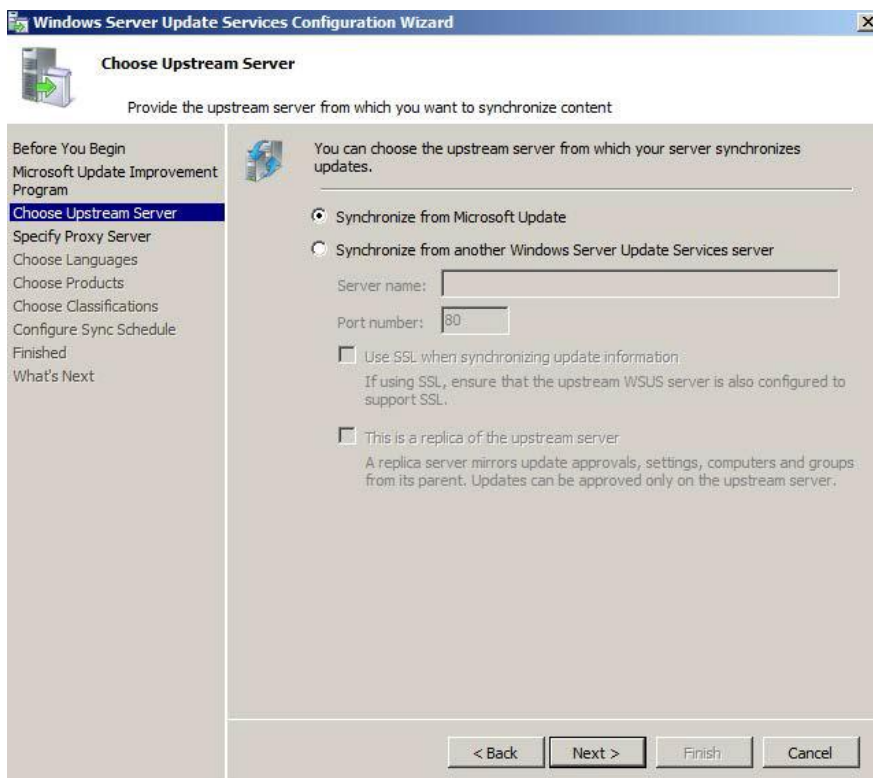


2. Click “next”.

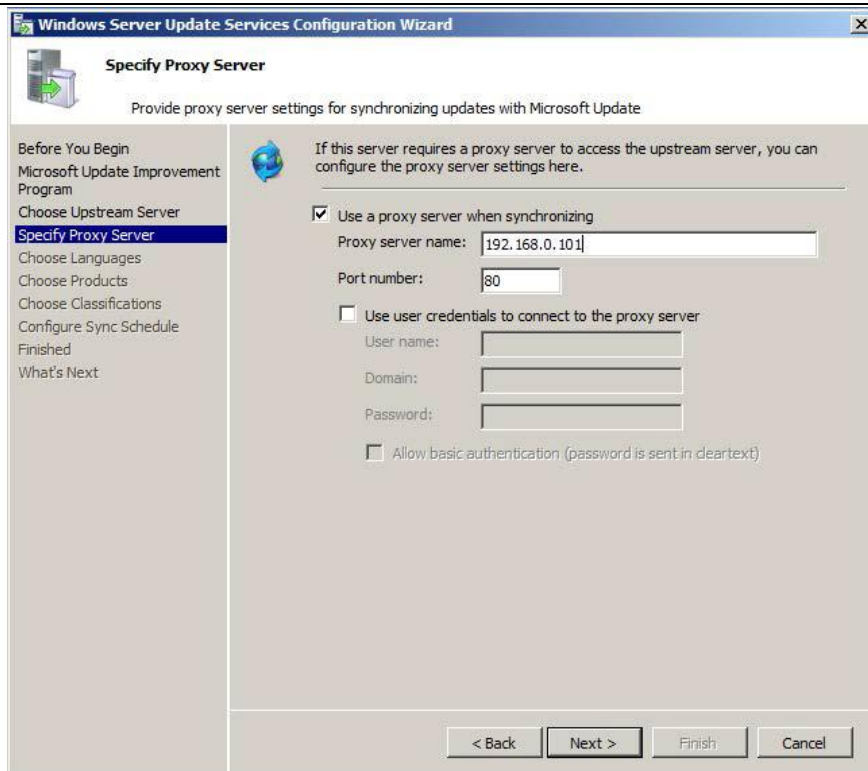




3. Select “synchronize with Microsoft Update” and click “next”.

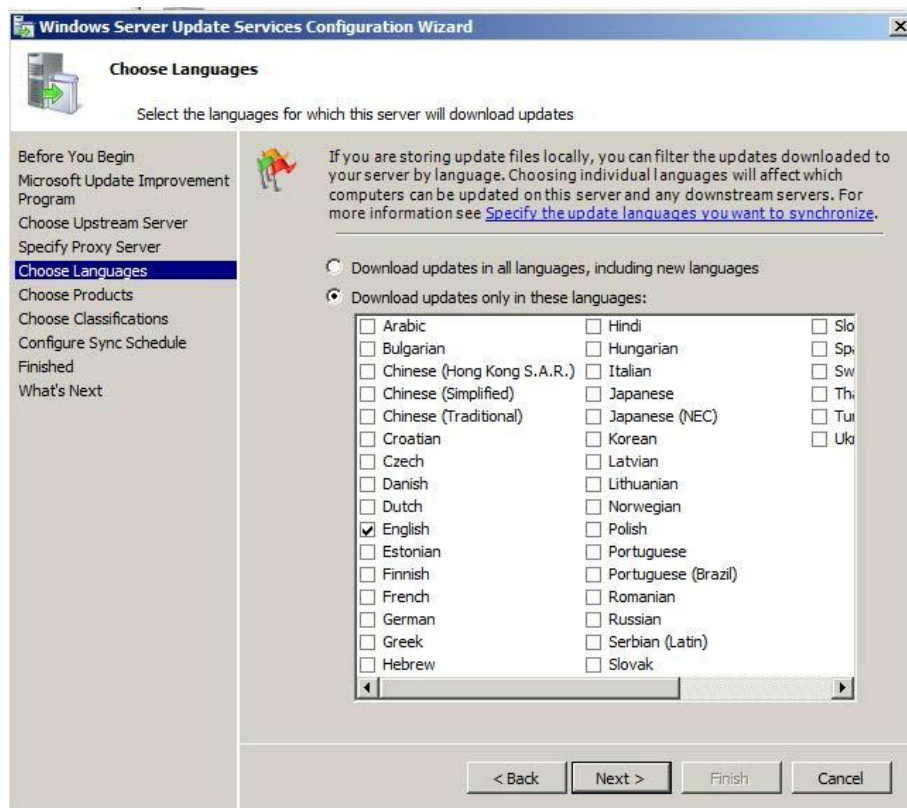


4. If the agent server is required by the current network, please select “use agent server in synchronization” and fill in the corresponding information. Click “next”.

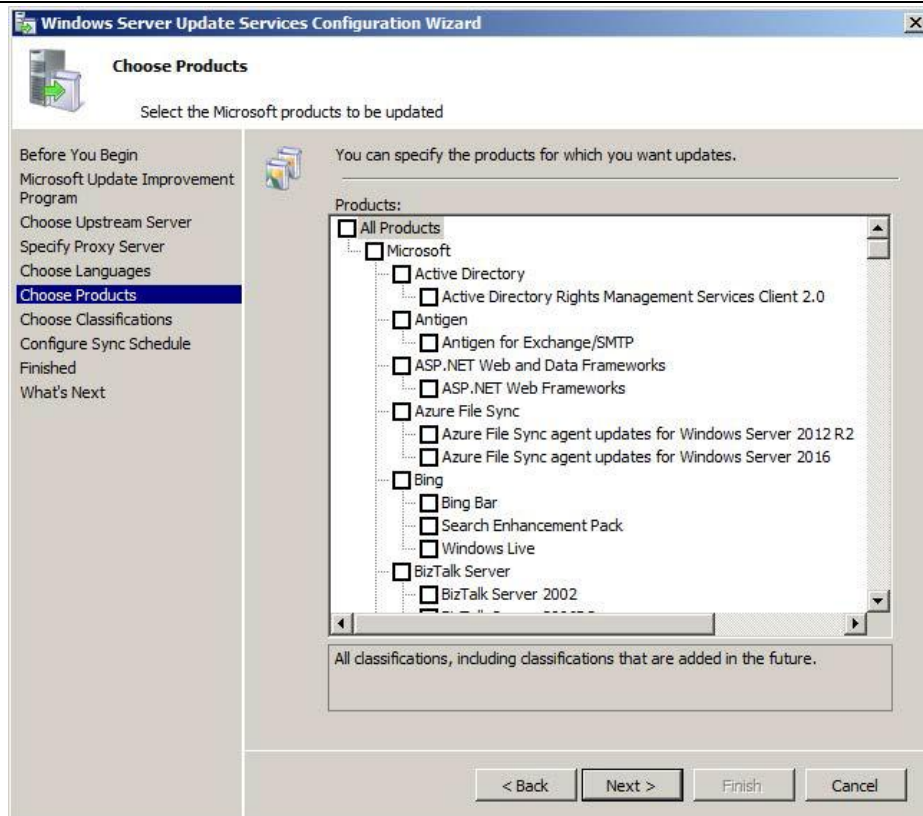


5. Click “start connection”. After successfully connecting, click “next”.

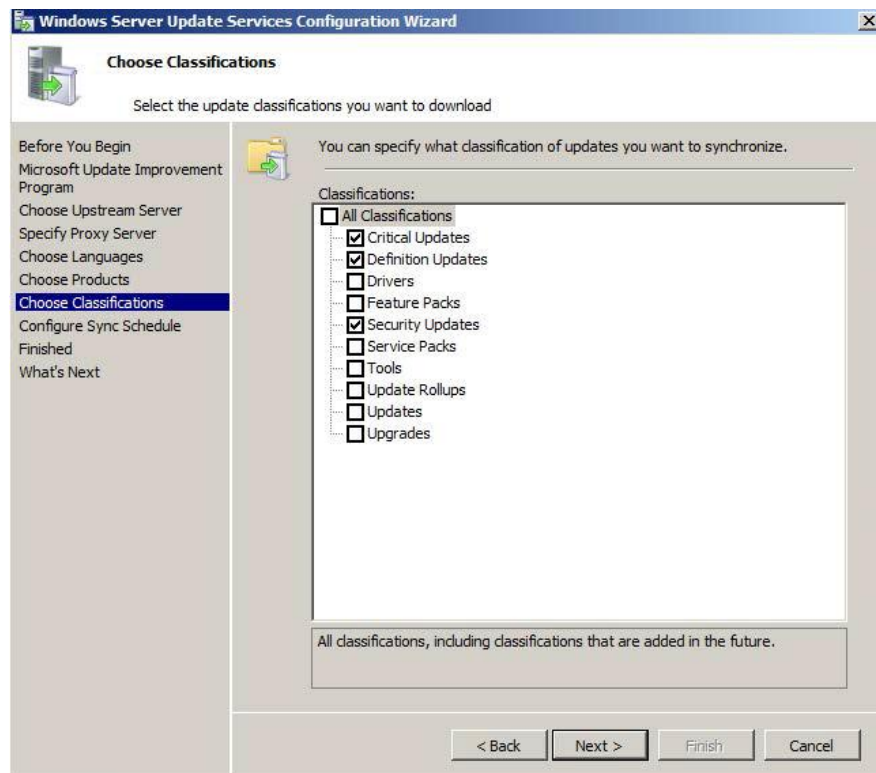
6. Select “Chinese (simplified)” and click “next”.



7. Select the patch which shall be synchronized with WSUS server. We suggest only selecting the patches related to the managed computer. Click “next”.

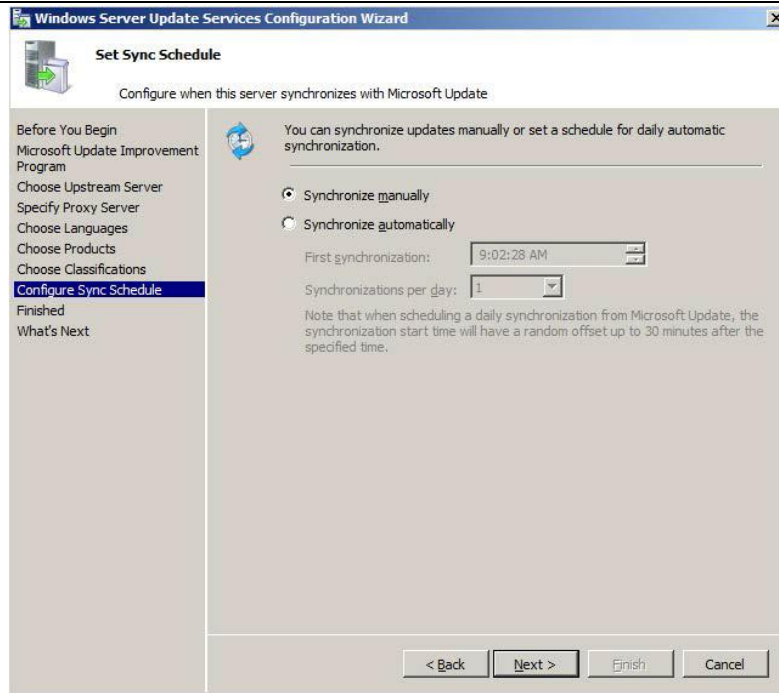


8. Select the type of patch which shall be synchronized. Click "next".

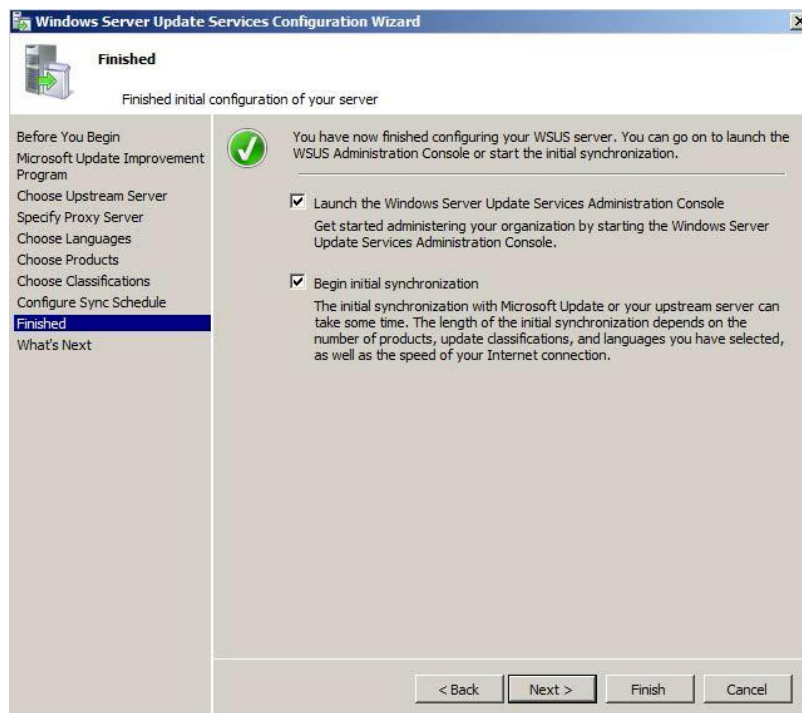


9. Select "manual synchronization". Click "next".





10. Click “finish” to finish configuration.



11. If the user wants to view the detailed information of patch and client by WSUS console, Microsoft Reporter Viewer Redistributable 2008 (installation package ReportViewer.exe) shall be installed.

12. Modify configuration file of WSUS webservice, default path C:\Program Files\Update Services\WebServices\apiremoting30\web.config

Replace

<webServices>

<protocols>

```
<remove name="Documentation"/>
```

```
</protocols>
```

```
</webServices>
```

by

```
<webServices>
```

```
<protocols>
```

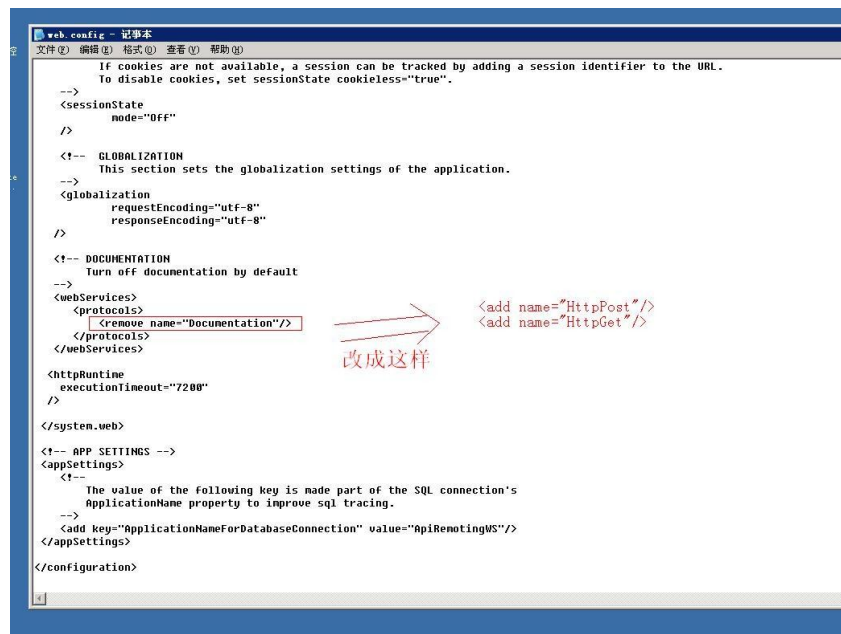
```
<add name="HttpPost"/>
```

```
<add name="HttpGet"/>
```

```
</protocols>
```

```
</webServices>
```

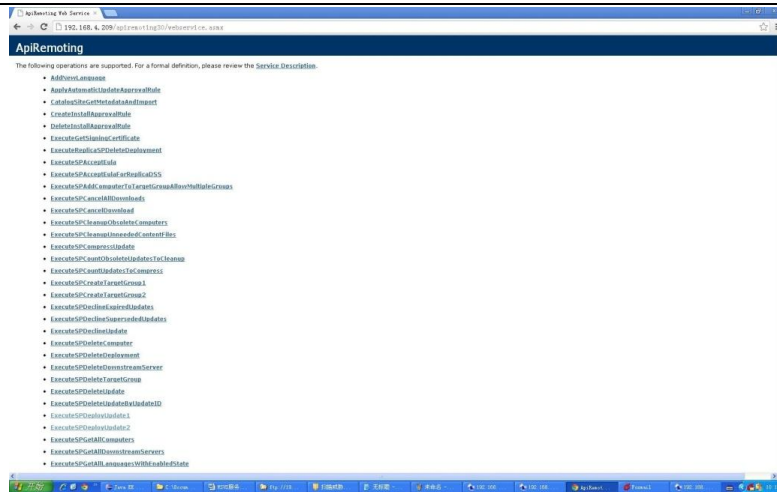
As shown in following figure:



13. Open the IIS console. Confirm that WSUS website (IIS default website, website with 80-port) is in "enabled" state. If the website isn't enabled, please manually enable.

14. Access the following website in browser of the WSUS server: <http://127.0.0.1:80/apiremoting30/webService.asmx>

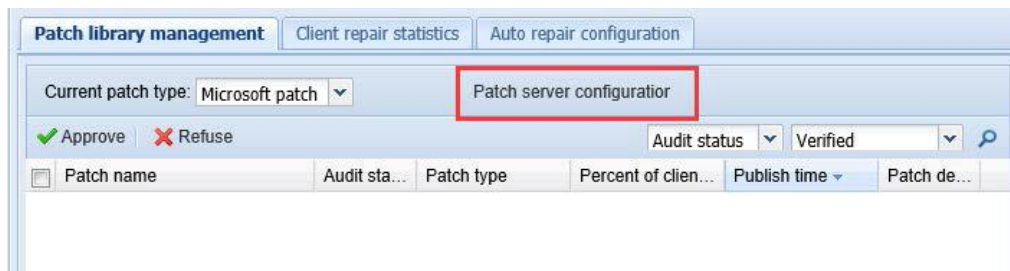
After popping up the identity verification box, input the username and password of WSUS server. If the following page is displayed, it represents that the WSUS configuration is successful.



15. If the WSUS server is set up in windows server 2008, please ensure that the virtual directory ApiRemoting30 has no DigestAuthenticationModule.

### 2.5.3 Check correctness of installation

1. Log in the management server in browser and enter 【security management—> vulnerability fix】
2. Select the patch server configuration.



3. In the popup dialog box, fill in the basic information of the patch server in following red box.



The image shows a 'Patch server configuration' dialog box with two main sections. The top section, 'WSUS server configuration', is highlighted with a red border and contains fields for 'Server address' (192.168.0.101), 'Port' (80), 'System username' (administrator), and 'System password' (masked with dots). A 'ConnTest' button is at the bottom right of this section. The bottom section, 'Run Centerm patch server', is unchecked and contains empty fields for 'Server address', 'Port', 'Username', and 'Password', with another 'ConnTest' button at its bottom right. At the very bottom of the dialog are 'Confirm' and 'Cancel' buttons.

4. Click “connection test” button. If the feedback is successful, it represents that the patch server is correctly set up.

## 2.6 Deployment of first level management node

### 2.6.1 Description of deployment of first level management node

The deployment process of first level management node is similar to that of the second level management node. Only the management server and MySQL database are required and the data shall be imported in database. It is unnecessary to install file server, load balancer and patch server.

### 2.6.2 Installation of MySQL software of first level management node

Please refer to “2.1.2 Install MySQL software” for installation of MySql database.

### 2.6.3 Installation of database of first level management node

Installation steps of first level management node are similar to that of second level management node. The installation package is CinfindbHeadOffice.exe. Please refer to “2.1.3 Import management system data”.

### 2.6.4 Installation of server of first level management node

Installation steps of first level management node are similar to that of second level management node. The installation package is CDMSHeadOffice6.0.exe. Please refer to “2.2 Install management server”.