



# **iManager U2000 Unified Network Management System**

**V100R002C01**

## **Single-Server System Software Installation Guide (Windows)**

**Issue 05**

**Date 2010-11-19**



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# About This Document

## Related Version

The following table lists the product version related to this document.

Product Name	Version
iManager U2000	V100R002C01

## Intended Audience




This document describes how to install the U2000 and obtain the reference information required during the installation.



This document is intended for:

- Technical support engineers
- Maintenance engineers
- Installation and commissioning engineers

## Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
 <b>DANGER</b>	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.
 <b>WARNING</b>	Indicates a hazard with a medium or low level of risk, which if not avoided, could result in minor or moderate injury.
 <b>CAUTION</b>	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.

Symbol	Description
 <b>TIP</b>	Indicates a tip that may help you solve a problem or save time.
 <b>NOTE</b>	Provides additional information to emphasize or supplement important points of the main text.

## Command Conventions

The command conventions that may be found in this document are defined as follows.

Convention	Description
<b>Boldface</b>	The keywords of a command line are in <b>boldface</b> .
<i>Italic</i>	Command arguments are in <i>italics</i> .
[ ]	Items (keywords or arguments) in brackets [ ] are optional.
{ x   y   ... }	Optional items are grouped in braces and separated by vertical bars. One item is selected.
[ x   y   ... ]	Optional items are grouped in brackets and separated by vertical bars. One item is selected or no item is selected.
{ x   y   ... }*	Optional items are grouped in braces and separated by vertical bars. A minimum of one item or a maximum of all items can be selected.
[ x   y   ... ]*	Optional items are grouped in brackets and separated by vertical bars. Several items or no item can be selected.

## GUI Conventions

The GUI conventions that may be found in this document are defined as follows.

Convention	Description
<b>Boldface</b>	Buttons, menus, parameters, tabs, window, and dialog titles are in <b>boldface</b> . For example, click <b>OK</b> .
>	Multi-level menus are in <b>boldface</b> and separated by the ">" signs. For example, choose <b>File &gt; Create &gt; Folder</b> .

## Change History

Updates between document issues are cumulative. Therefore, the latest document issue contains all updates made in previous issues.

### Changes in Issue 05 (2010-11-19)

The fifth commercial release has the following updates:

Fixed some bugs.

### Changes in Issue 04 (2010-09-24)

The fourth commercial release has the following updates:

Fixed some bugs.

### Changes in Issue 03 (2010-08-16)

The third commercial release has the following updates:

Fixed some bugs.

### Changes in Issue 02 (2010-07-16)

The second commercial release has the following updates:

Fixed some bugs.

### Changes in Issue 01 (2010-05-18)

Initial release.





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# Contents

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<b>About This Document</b> .....	<b>iii</b>
<b>1 Installation Process</b> .....	<b>1-1</b>
<b>2 Preparations</b> .....	<b>2-1</b>
2.1 Configuration Requirements.....	2-2
2.2 Networking Structure.....	2-2
2.3 Installation Environment Requirements.....	2-3
2.4 Collecting Installation Information.....	2-4
2.5 Checking Required Software.....	2-6
2.6 Checking Hardware Connections.....	2-9
2.7 Applying for a U2000 License.....	2-11
<b>3 Powering On a Server</b> .....	<b>3-1</b>
<b>4 Installing the U2000 Server</b> .....	<b>4-1</b>
4.1 Obtaining Installation Software.....	4-2
4.2 Pre-installation Check.....	4-2
4.3 Starting the U2000 Installation Program.....	4-4
4.4 (Optional) Loading a U2000 License.....	4-10
4.5 Verifying the U2000 Server Installation.....	4-12
4.5.1 Starting a Single-Server System (Windows).....	4-12
4.5.2 Checking Environment Variables.....	4-14
4.5.3 Checking the U2000 Version.....	4-15
4.6 Handling the Failure to Install the U2000 Server Software.....	4-15
<b>A FAQs</b> .....	<b>A-1</b>
A.1 Windows OS.....	A-2
A.1.1 How to Add a Static Route.....	A-2
A.1.2 How to Convert the File System Type to NTFS.....	A-3
A.1.3 How to Change the Password of the OS Administrator?.....	A-3
A.1.4 How to Verify That the Video Driver Is Correctly Installed.....	A-4
A.1.5 How to Configure the Remote Login to the Windows OS.....	A-4
A.1.6 How to Forcibly End a Process.....	A-4
A.1.7 How to Configure the FTP, SFTP, or TFTP Service on Windows OS.....	A-5
A.1.8 How to Set the Virtual Memory to the System Managed Size.....	A-6

A.2 SQL Server Database.....	A-6
A.2.1 How to Check Whether the SQL Server Database Has Been Installed.....	A-7
A.2.2 How to Shut Down the SQL Server Database.....	A-7
A.2.3 How to Start the SQL Server Database.....	A-8
A.2.4 How to Solve the Problem That the Password of User sa Is Forgotten.....	A-8
A.2.5 How to Solve the Problem That the Application Is Suspended During the Installation of the SQL Server.....	A-8
A.2.6 How to Check Whether the SQL Server Database Can Be Sorted in Binary Mode.....	A-9
A.2.7 How to Change the Database Sorting Mode to Binary.....	A-9
A.2.8 How to Manually Uninstall the SQL Server Database.....	A-10
A.2.9 How to Check the Name of the SQL Server Database.....	A-11
A.3 U2000 System.....	A-11
A.3.1 How to Verify That the U2000 Is Installed.....	A-12
A.3.2 How to Verify That the Processes of the U2000 Single-Server System Are Running on Windows.....	A-12
A.3.3 How to Start the Processes of the U2000 Single-Server System on Windows.....	A-12
A.3.4 How to End the Processes of the U2000 Single-Server System on Windows.....	A-13
A.3.5 How to Resolve the Problem Wherein the Icon of the U2000 Client Is Inconsistent with Other Icons.....	A-13
A.3.6 How to Resolve the Problem Wherein the Message "PATH environment's length is too long" Is Displayed During Installation.....	A-14
A.3.7 How to Determine Which Types of Software Are Preinstalled.....	A-14
A.3.8 Which Installation Packages Are Required for U2000 Installation.....	A-15
A.3.9 How to Process the Message Displayed During Installation of the U2000, Indicating That a Suspended File Has Been Created.....	A-17
A.3.10 How to Process the Message Displayed During Installation of the U2000, Indicating That ISQL Connection Check Fails.....	A-17
A.3.11 How to Handle the Problem Wherein the System Displays a Message Indicating That the Client Installation Packages and Basic Packages Cannot Exist at the Same Time During Decompression.....	A-18
A.3.12 How to Check Downloaded Software Packages by Using MD5 Software.....	A-18
A.3.13 How to Set the Communication Mode on the U2000 server for the Single-Server System (Windows).....	A-19
<b>B Uninstalling the U2000 Server.....</b>	<b>B-1</b>
B.1 Uninstall Preparations.....	B-2
B.2 Uninstall Procedure.....	B-2
B.3 Verifying the U2000 Server Uninstall.....	B-3
<b>C Powering Off the System.....</b>	<b>C-1</b>
<b>D Acronyms and Abbreviations.....</b>	<b>D-1</b>

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## Figures

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<b>Figure 1-1</b> Process of installing the U2000 server software.....	1-2
<b>Figure 2-1</b> Networking diagram for a Windows single-server system.....	2-3
<b>Figure 2-2</b> Hardware connection between the DL380 server.....	2-10
<b>Figure 2-3</b> Hardware connection between the DL580 server.....	2-11
<b>Figure 3-1</b> Position of the power button of the DL580G5 server.....	3-1



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# Tables

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<b>Table 1-1</b> Installation process of U2000 according to the installation scheme.....	1-3
<b>Table 2-1</b> Configuration requirements on the hardware for the U2000 server.....	2-2
<b>Table 2-2</b> Configuration requirements on the software for the U2000 server.....	2-2
<b>Table 2-3</b> Installation environment requirements.....	2-3
<b>Table 2-4</b> Host name list.....	2-4
<b>Table 2-5</b> System IP address list.....	2-4
<b>Table 2-6</b> Time zone and time list.....	2-5
<b>Table 2-7</b> User and password list.....	2-5
<b>Table 2-8</b> Server disk partition list (146 GB disk).....	2-5
<b>Table 2-9</b> Server disk partition list (80 GB disk).....	2-5
<b>Table 2-10</b> Installation path list.....	2-6
<b>Table 2-11</b> Quantity list of configured components and instances.....	2-6
<b>Table 2-12</b> DVD list.....	2-7
<b>Table 2-13</b> Software package list.....	2-8
<b>Table 4-1</b> Environment variables used for installing the U2000 server and client.....	4-14
<b>Table A-1</b> DVD list.....	A-15
<b>Table A-2</b> Software package list.....	A-15



# 1 Installation Process

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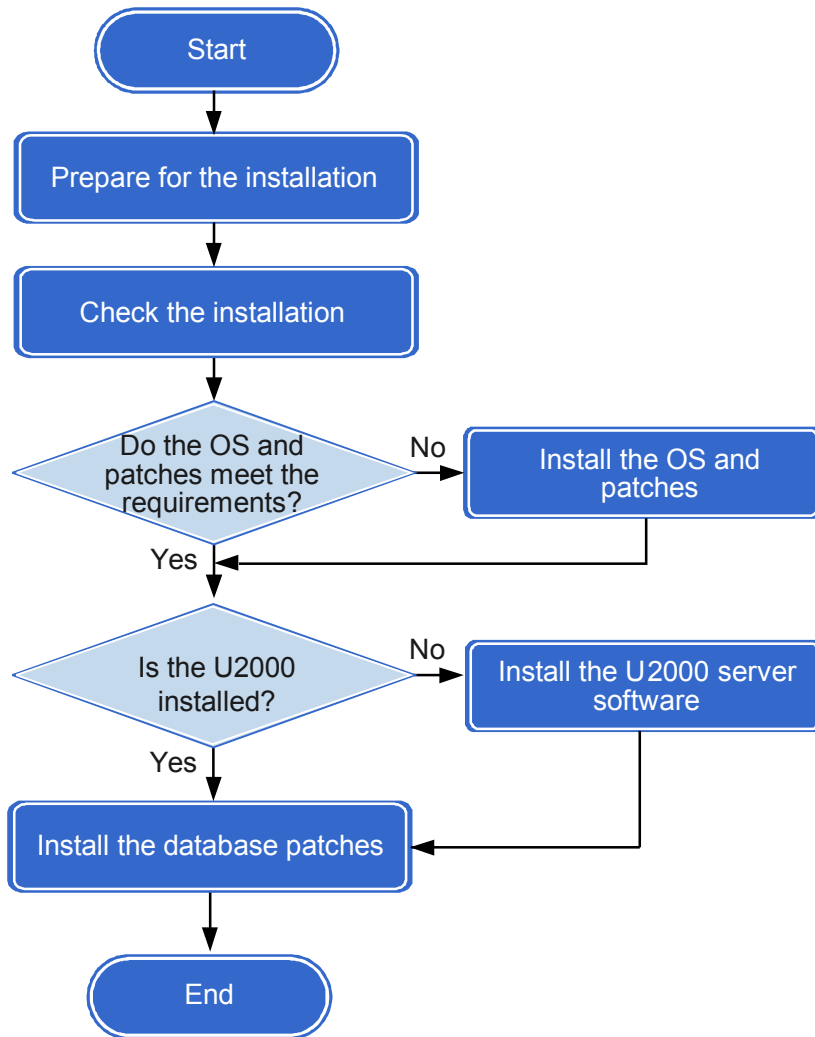
This topic describes the process of installing the U2000 server software.

The SQL Server 2000 database software, U2000 server software, and client software need to be installed. The following installation schemes are available:

- Preinstallation scheme: The operating system (OS), patches, and U2000 software are preinstalled on servers delivered by Huawei. Commission the servers directly.
- Installation scheme: If servers are purchased from other suppliers, install the U2000 server software according to a U2000 deployment plan. For details, see the **Software Installation Guide**.

The following figure shows the process of installing U2000 server software according to the installation scheme.

**Figure 1-1** Process of installing the U2000 server software



**NOTE**

Database software will be installed with the U2000 installation. If a database has been installed, verify that the database meets U2000 installation requirements, and determine whether to reuse the database or install another database.

The following table shows the chapters for reference and the time required for each installation stage.



**Table 1-1** Installation process of U2000 according to the installation scheme

Stage	Description	Reference	Duration (Minutes)
1	Prepare for installation.	<b>2 Preparations</b>	40
2	Check installation.	<b>4.2 Pre-installation Check</b>	20
3	Install an OS and patches.	If an OS or patch is not installed, insert a system software DVD to complete the installation.	-
4	Install U2000 server software.	<b>4.3 Starting the U2000 Installation Program</b>	About 120 minutes (depending on the server configuration and the quantity of components to be installed)



# 2 Preparations

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## About This Chapter

This topic describes the preparations that need to be completed on software, hardware, and environment before installing U2000 servers.

### [2.1 Configuration Requirements](#)

This topic describes the configuration requirements on the hardware and software of the server before installing the U2000.

### [2.2 Networking Structure](#)

This topic describes the networking structure for a single-server system. Before installing a Windows single-server system, you must get familiar with the networking structure for the single-server system.

### [2.3 Installation Environment Requirements](#)

This topic describes the environment conditions, such as the telecommunications room environment, cable condition, and networking condition of the telecommunications room, that you must get familiar with before you install a U2000.

### [2.4 Collecting Installation Information](#)

This topic describes how to collect installation information. Before installation, collect required information, including the host name, IP address, time zone and time, user password, components and instance number, and installation path.

### [2.5 Checking Required Software](#)

This topic describes the software required to be checked. Ensure that the required software is on-hand and meets the installation requirements before installing the U2000.

### [2.6 Checking Hardware Connections](#)

This topic describes how to check that hardware is installed and connected properly.

### [2.7 Applying for a U2000 License](#)

This topic describes how to apply for a U2000 license.

## 2.1 Configuration Requirements

This topic describes the configuration requirements on the hardware and software of the server before installing the U2000.

### Hardware Configuration

The following table shows the configuration requirements on the hardware of the U2000 server.

**Table 2-1** Configuration requirements on the hardware for the U2000 server

Server Name	Server Description
HP DL380G6	2 x Xeon quadri-core E5504 2.0 GHz or above, 8 GB(4 x 2 GB), 5 x 146 GB(2.5SAS 10K)(RAID10+Hotspare), No FDD, DVD, 4 x Integrated 1000M Multifunc NIC, Integrated P410i(256M) Raidcard
HP DL580G5	4 x Xeon quadri-core 7430 2.13 GHz or above, 16 GB, 4 x 146 GB SFF SAS, No FDD, DVD, 2 x Integrated 1000M NIC, Integrated P400i ArrayCard

### Software Configuration

The following table shows the configuration requirements on the software of the U2000 server.

**Table 2-2** Configuration requirements on the software for the U2000 server

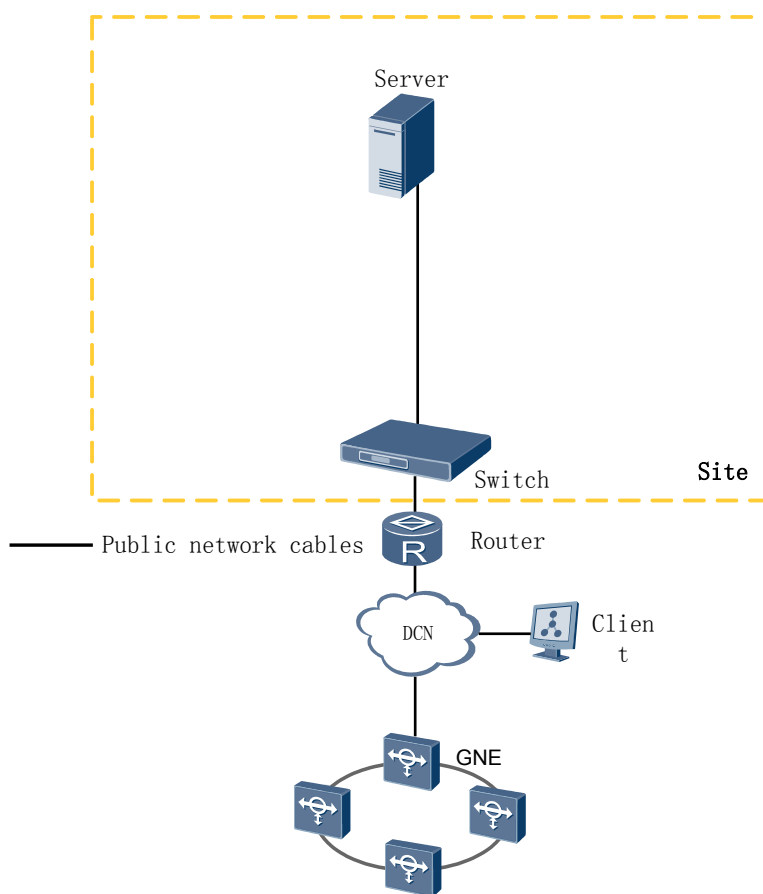
Configuration Item	Typical Configuration
OS	Windows Server 2003 R2 Enterprise with SP2 <b>CAUTION</b> Only a single OS can be installed, and the OS can be installed only on disk C.
Database	MS SQL Server 2000 Standard with SP4 + SQL2000-KB916287-v8.00.2187
NMS software	U2000 software <b>NOTE</b> The U2000 software can be installed on the OS with the simplified Chinese version or English version.

## 2.2 Networking Structure

This topic describes the networking structure for a single-server system. Before installing a Windows single-server system, you must get familiar with the networking structure for the single-server system.

The following figure shows the networking structure for a Windows single-server system.

**Figure 2-1** Networking diagram for a Windows single-server system



The U2000 client and U2000 MSuite communicate with the server using a data communication network (DCN).

NEs and the upper-layer NMS (OSS) communicate with the server using a DCN.

## 2.3 Installation Environment Requirements

This topic describes the environment conditions, such as the telecommunications room environment, cable condition, and networking condition of the telecommunications room, that you must get familiar with before you install a U2000.

Before installing a U2000, check the environment according to the following table.

**Table 2-3** Installation environment requirements

Check Item	Requirement
Temperature	The required temperature range is from 15°C to 30°C in long-term working conditions and from 0°C to 45°C in short-term working conditions.

Check Item	Requirement
Humidity	The required humidity range is from 40% to 65% in long-term working conditions and from 20% to 90% in short-term working conditions.
Dust	The density of the dust whose diameter is larger than 5 $\mu\text{m}$ is less than or equal to $3 \times 10^4/\text{m}^3$ .
Floor	The floor is anti-static movable and must be grounded.
Space	The telecommunication room must have good ventilation and enough space for operation and maintenance.
Power supply	The power supply should be an independent external power supply system that can offer stable electricity. The uninterrupted power supply (UPS) is recommended.
Cable	The network where the server is located is normal and can be accessed successfully.
Network	The routers connecting each server are configured. For the installation of routers, see the installation manual delivered with routers or contact router suppliers. The networks of routers in every telecommunication room are connected, including routers and the DCNs.

## 2.4 Collecting Installation Information

This topic describes how to collect installation information. Before installation, collect required information, including the host name, IP address, time zone and time, user password, components and instance number, and installation path.

Complete planning for the information listed in the following tables according to the *iManager U2000 Planning Guide*. Collect and record the installation information in the tables.

 **TIP**

Print the following tables and fill in the blanks with the site-specific planning information.

Examples provided in the tables are the default values of servers that come pre-installed with software from Huawei.

**Table 2-4** Host name list

Item	Example	Plan
Server	NMSserver	

**Table 2-5** System IP address list

Item	Example	Plan
System IP address	129.9.1.1/255.255.255.0/129.9.1.254	

 **NOTE**

The IP address is in the format of **IP address/subnet mask/gateway**.

**Table 2-6** Time zone and time list

Item	Example	Plan
Time zone	GMT+08:00	
Time	14:00	

**Table 2-7** User and password list

User	Example	Plan
OS super user <b>administrator</b>	admin123	
Database super user <b>sa</b>	changeme	
Database user <b>NMSuser</b>	NMSuser	
U2000 user <b>admin</b>	admin123	
network management system maintenance suite user <b>admin</b>	admin	

**Table 2-8** Server disk partition list (146 GB disk)

Partition	Size (GB)	Description
Disk C	40	It is used to install the OS and database software.
Disk D	100	It is used to install the U2000 software and store the database data.
Disk E	Size of the remaining space	It is used to store the backup data for the U2000.

**Table 2-9** Server disk partition list (80 GB disk)

Partition	Size (GB)	Description
Disk C	80	It is used to install the OS, database and U2000 software.

 **NOTE**

You must specify the principles and scheme for disk partitioning before installing the U2000 server. For details about how to set the Windows virtual memory to the system managed size, see [A.1.8 How to Set the Virtual Memory to the System Managed Size](#).

The basic principles for disk partitioning are as follows:

- Disk C, as the system disk, is used to install the OS and database software.
- Disk D is used to install the U2000 software and store the database data.
- The remaining space is allocated for free use. It can be used for NMS data backup.

**Table 2-10** Installation path list

Software	Installation Path
Windows OS	C:\
SQL Server database software	C:\MSSQL2000
U2000 software	D:\U2000

 **NOTE**

An installation path name consists of the installation package path name and U2000 installation path name. It can contain only the letter, digit, and underscore (\_). It cannot contain the space or brackets; otherwise, the installation fails.

**Table 2-11** Quantity list of configured components and instances

Example	Plan
<ul style="list-style-type: none"> <li>● One instance for SDH NE management</li> <li>● One instance for PTN NE management</li> <li>● One instance for router NE management</li> <li>● ...</li> </ul>	

## 2.5 Checking Required Software

This topic describes the software required to be checked. Ensure that the required software is on-hand and meets the installation requirements before installing the U2000.

Installation engineers can install the U2000 in either of the following ways:

- Using software packages: Required software packages must be on-hand.
- Using DVDs: Required DVDs must be on-hand.

### Using DVDs

Ensure that the following DVDs are on-hand before installing the U2000 by using DVDs.



**Table 2-12** DVD list

Software	DVD Name
Windows OS software	Windows OS installation DVD: Windows Server 2003 R2 Enterprise with SP2 <b>NOTE</b> There are five Windows OS DVDs available, among which DVDs A, B, and C are used to install Windows Server 2003 R2 Enterprise with SP1, and DVDs D and E are used to install Windows Server 2003 R2 Enterprise with SP2. Only DVDs D and E must be used. OS patch installation DVD: Windows OS patch: U2000 <code>version</code> _server_ospatch_win32_x86_dvd1
Database software	Installation DVD: SQL Server standard edition (installing the database in the Windows Server 2003 OS): U2000 <code>version</code> _server_dbstd_win32_x86_dvd2
U2000 server software	Installation DVD: U2000 software: U2000 <code>version</code> _server_nms_win32_x86_dvd3

## Using Software Packages

Ensure that the Windows OS installation DVD and software packages are on-hand before installing the U2000.

### Perform the following operations:

 **TIP**

Read the **Read Me** file before downloading the software packages. The **Read Me** file is stored in the same path as software packages.

1. Access <http://support.huawei.com> and choose **Software Center > Version Software > Network OSS&Service > iManager U2000 > iManager U2000 > iManager U2000 > iManager U2000 V100R002**.
2. Select the version to be installed.
3. Download required software packages listed in [Table 2-13](#). It is recommended that you use the download tool (for example, Flashget). If you use Windows Internet Explorer, some software packages may be renamed automatically after being downloaded to the local computer. In this case, you must manually change the software package names to the same as those on the <http://support.huawei.com>.
4. Use the MD5 to verify correctness of the software packages. For details, see [A.3.12 How to Check Downloaded Software Packages by Using MD5 Software](#).

 **NOTE**

- The Windows OS can be installed only by using DVDs. Therefore, if you install the U2000 by using software packages, ensure that the Windows OS installation DVD is available.
- In an installation DVD or installation package, *Version* indicates the detailed version number of the U2000. For example, V100R002C01SPCxxx.

**Table 2-13** Software package list

Software	Medium Name	Description
Windows OS software	Windows OS installation DVD: Windows Server 2003 R2 Enterprise with SP2 OS patch installation software package: Windows OS patch: U2000 <i>version</i> _server_ospatch_en_win32_x86.zip	It is used to install the Windows OS. <b>It must be available.</b>
Database software	Installation software package: SQL Server standard edition (installing the database in the Windows Server 2003 OS): U2000 <i>version</i> _server_dbstd_en_win32_x86.zip <b>NOTE</b> The database software package <b>U2000<i>version</i>_server_dbper_en_win32_x86.zip</b> must be on-hand for installation engineers to install the U2000 on Windows XP.	<b>It must be available.</b> It is used to install the database.
U2000 server software	Basic components: U2000 <i>version</i> _server_nmsbase_win32_x86.zip	<b>It must be available.</b> It is used to install the U2000.
	Core components: U2000 <i>version</i> _server_nmscore_win32_x86.zip	<b>It must be available.</b> It is used to install the U2000.
	Transport domain component (optional). Prepare this component if managing transport or PTN equipment: U2000 <i>version</i> _server_nmstrans_win32_x86.zip	<b>It is required only if the U2000 needs to manage Huawei transport equipment.</b> Huawei transport equipment includes: <ul style="list-style-type: none"> <li>● MSTP equipment</li> <li>● WDM equipment</li> <li>● NA WDM equipment</li> <li>● Submarine equipment</li> <li>● RTN equipment</li> <li>● PTN equipment</li> </ul>

Software	Medium Name	Description
	IP domain components (optional). Prepare these components if managing routers, switches, or security equipment: U2000 <code>version_</code> server_nmsip_win32_x86.zip	<b>It is required only if the U2000 needs to manage Huawei IP equipment.</b> Huawei IP equipment includes: <ul style="list-style-type: none"> <li>● Routers</li> <li>● Switches</li> <li>● Metro service equipment</li> <li>● Broadband access equipment</li> <li>● VoIP gateways</li> <li>● Firewalls</li> <li>● Service inspection gateway</li> <li>● SVN equipment</li> </ul>
	Access domain components (optional). Prepare this component if managing access equipment: U2000 <code>version_</code> server_nmsaccess_win32_x86.zip	<b>It is required only if the U2000 needs to manage Huawei access equipment.</b> Huawei access equipment includes: <ul style="list-style-type: none"> <li>● FTTx equipment</li> <li>● MSAN equipment</li> <li>● DSLAM equipment</li> </ul>

## 2.6 Checking Hardware Connections

This topic describes how to check that hardware is installed and connected properly.

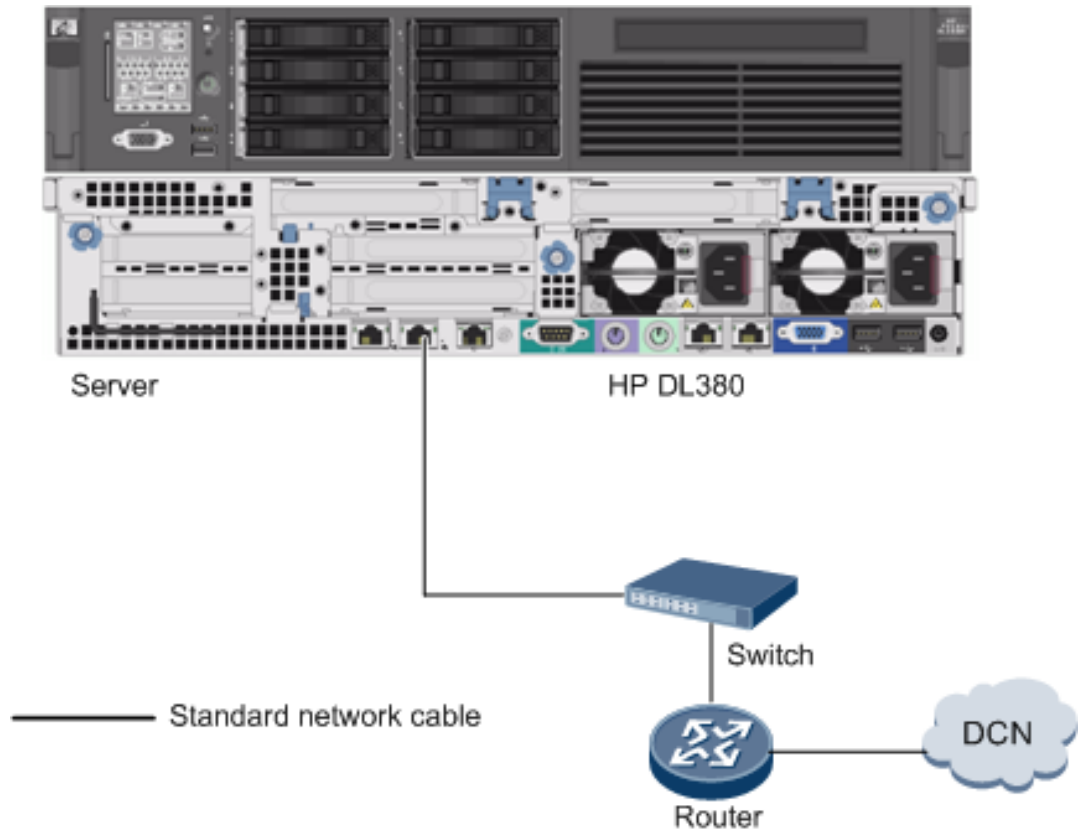
### Prerequisite

The server hardware must have been installed and equipment cables must have been connected.

### Procedure

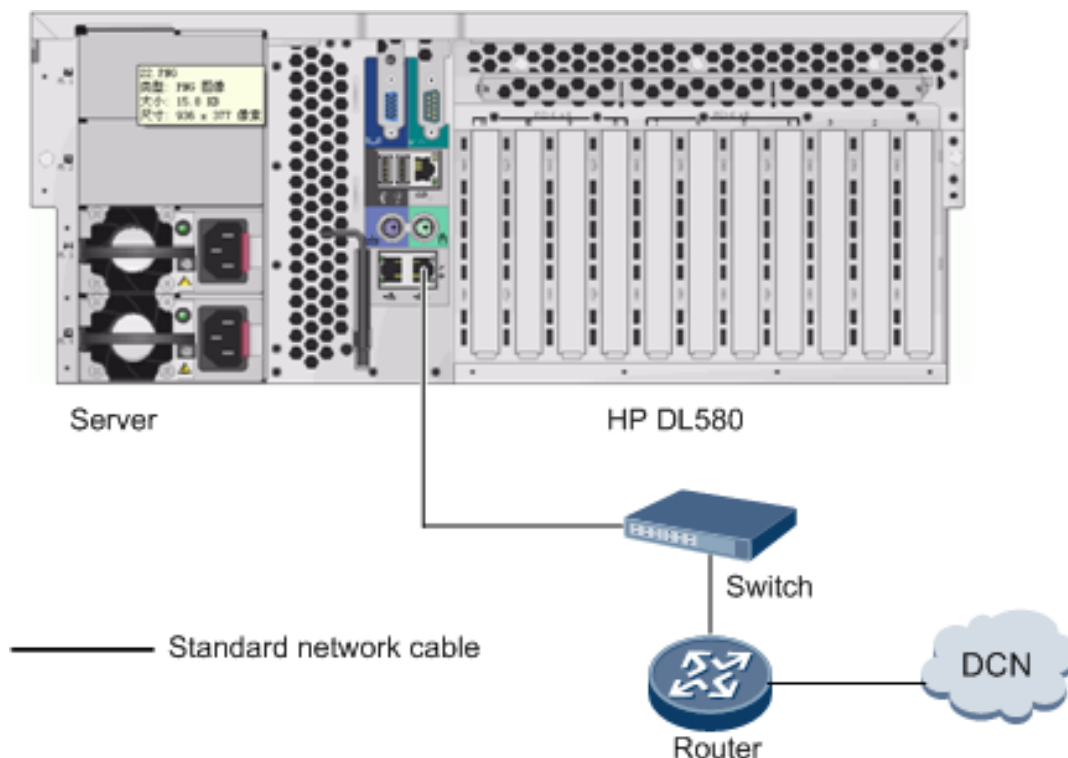
- 1 Ensure that the power cables and ground wires for all components are tightly connected and in good contact and that the polarities are properly placed.
- 2 Ensure that all cables are bundled and free of visible damage.
- 3 Check hardware connections and network cables according to the hardware connection diagram.
  - The following figures show hardware connections for the DL380 server.

**Figure 2-2** Hardware connection between the DL380 server



- The following figures show hardware connections for the DL580 server.

Figure 2-3 Hardware connection between the DL580 server



- 4 Check the plugs and sockets.
  1. Ensure that the latches of cable plugs are locked fast and the plugs of coaxial cables are secured tightly.
  2. Ensure that the pins in each socket are complete and in good order. Curved pins may cause short circuits.
- 5 Ensure that all debris (cable straps, stubs, or moisture-absorbent packets) are picked up.
- 6 Remove unnecessary items from the telecommunications room. The workbench must be neat and the movable floor must be level and clean.

----End

## 2.7 Applying for a U2000 License

This topic describes how to apply for a U2000 license.

### Context

- The license file is not delivered to customers along with a U2000 installation DVD. Contact Huawei engineers to apply for a license according to the contract number and the equipment serial number (ESN) of the U2000 server.
- An ESN is a string consisting of 40-digit numerals or letters obtained through encrypted calculation on the MAC addresses of the U2000 server network interface. The number of ESNs is the same as the number of network interfaces on the U2000 server.

The U2000 license is valid as long as it is bound to any of the server ESNs. To avoid applying for a new license due to replacing certain network interface cards (NICs), save all the ESNs to ensure proper use of the U2000 license.

- A license needs to be bound to an ESN of the server.

## Procedure

- 1 Obtain the contract number.
- 2 Before installing a U2000, obtain the ESN tool from <http://support.huawei.com> to generate ESNs. The ESN tool is named U2000`version`\_ESN\_win32\_x86.zip.

Decompress the ESN tool package, and then double-click the **esn.exe** file to view ESNs.

A message similar to the following will be displayed:

```
ESN0:EBB74B99612CEDC82AD0A59886EC5018CE44DDD4  
ESN1:BDA706C825FE0543DC028209778AA66396545412  
ESN2:E1B00EEF6947DD95687AA5C608B72ACC532AB2BD  
ESN3:F72F9EC08AEE78AA05A42EFD7BFD89F5E03139C4  
.....
```

- 3 Send the contract number and the ESNs of the server to Huawei engineers or a Huawei local office.

### NOTE

Huawei engineers access the <http://license.huawei.com> Web site according to the information you provide to apply for a license file. For details about how to apply for a license file, see the *iManager U2000 V100R002C01 License Instructions* archived at <http://support.huawei.com>.

- 4 Huawei engineers send the license file to you after obtaining it.

The license file delivered along with the U2000 is in .dat format.

----End

# 3 Powering On a Server

---

This topic describes how to power on a server.

1. Press the power buttons of the peripherals connected to a server and the monitor to power on the peripherals and monitor.
2. Press the power button on the chassis of the server to power on the server. Take the HP DL580G5 server as an example. In the following figure, the power button is marked in a red frame.

**Figure 3-1** Position of the power button of the DL580G5 server







# 4 Installing the U2000 Server

---

## About This Chapter

This topic describes how to install the U2000 server, involving the U2000 server installation, installation checks, and installation failure handling.

### [4.1 Obtaining Installation Software](#)

This topic describes how to obtain installation software. Ensure that the installation DVD or software package for the U2000 server and database is on-hand.

### [4.2 Pre-installation Check](#)

This topic describes the checks that need to be performed before you install the U2000 on Windows OS.

### [4.3 Starting the U2000 Installation Program](#)

This topic describes how to install U2000 server software.

### [4.4 \(Optional\) Loading a U2000 License](#)

This topic describes how to load a U2000 license. If **Installation by license** is not selected during installation of the U2000 software, you must upload a U2000 license.

### [4.5 Verifying the U2000 Server Installation](#)

This topic describes how to verify the U2000 server installation.

### [4.6 Handling the Failure to Install the U2000 Server Software](#)

This topic describes how to handle the failure to install the U2000 server software.

## 4.1 Obtaining Installation Software

This topic describes how to obtain installation software. Ensure that the installation DVD or software package for the U2000 server and database is on-hand.

### Context

The U2000 can be installed by using software packages or installation DVDs. To install the U2000 by using software packages, perform the following operations to upload software packages to the server and then decompress them.

### Installation DVD

- Windows OS patch: U2000`version`\_server\_ospatch\_win32\_x86\_dvd1
- SQL Server standard edition (installing the database in the Windows Server 2003 OS): U2000`version`\_server\_dbstd\_win32\_x86\_dvd2
- U2000 software: U2000`version`\_server\_nms\_win32\_x86\_dvd3

### Installation Package

To install the U2000 using software packages, visit <http://support.huawei.com> to download the required software packages.

Perform the following operations: Visit <http://support.huawei.com> and choose **Software Center > Version Software > Network OSS&Service > iManager U2000 > iManager U2000 > iManager U2000 > iManager U2000 V100R002 > iManager U2000 V100R002C01**.

- Windows OS patch: U2000`version`\_server\_ospatch\_en\_win32\_x86.zip
- SQL Server standard edition (installing the database in the Windows Server 2003 OS): U2000`version`\_server\_dbstd\_en\_win32\_x86.zip

#### NOTE

The database software package U2000`version`\_server\_dbper\_en\_win32\_x86.zip must be on-hand for installation engineers to install the U2000 on Windows XP.

- Basic components: U2000`version`\_server\_nmsbase\_win32\_x86.zip
- Core components: U2000`version`\_server\_nmscore\_win32\_x86.zip
- Transport domain component (optional). Prepare this component if managing transport or PTN equipment: U2000`version`\_server\_nmstrans\_win32\_x86.zip
- IP domain components (optional). Prepare these components if managing routers, switches, or security equipment: U2000`version`\_server\_nmsip\_win32\_x86.zip
- Access domain components (optional). Prepare this component if managing access equipment: U2000`version`\_server\_nmsaccess\_win32\_x86.zip

## 4.2 Pre-installation Check

This topic describes the checks that need to be performed before you install the U2000 on Windows OS.

## Prerequisite

The U2000 server is powered on.

## Procedure

- 1 Perform the following operations to check the OS version and patches:
  1. On the desktop, right-click **My Computer** and choose **Properties** from the shortcut menu.
  2. On the **General** tab page, verify that the OS version and patches are **Windows Server 2003 R2 Enterprise with SP2**.

### NOTE

If the OS version and patches are incorrect, install a Windows OS with the DVD provided with the server.

- 2 Check disk partitions. For disk partition requirements, see [2.4 Collecting Installation Information](#).
- 3 Check whether the database has been installed. If the SQL Server database has not been installed, the server software automatically installs the SQL Server database.
  1. Choose **start > Programs**.
  2. Check whether the **Microsoft SQL Server** program exists. If the program exists, the database has been installed.

If the SQL Server database has been installed, check whether the database is installed in binary mode. For details, see [A.2.6 How to Check Whether the SQL Server Database Can Be Sorted in Binary Mode](#).

If the database is not installed in binary mode, the U2000 fails to install. In this case, uninstall the database. For details, see [A.2.8 How to Manually Uninstall the SQL Server Database](#).

3. Ensure that the current database version meets U2000 installation requirements. For details, see [2.1 Configuration Requirements](#).
4. Run the following command to check whether the **isql** command can be executed:

```
C:\> isql -Usa -Psa password -Sdatabase name
1>
```

If **1>** is displayed, the database can be accessed. Then, run the **quit** command.

5. Run the following commands to check whether the **bcp** command can be executed:

```
C:\> bcp master..sysdatabases out -Usa -Psa password -Sdatabase name -oD:\test.txt -c
```

Verify that the **test.txt** file is generated in disk D and check contents in the file. If replication data is displayed, the **bcp** command can be executed.

If the preceding requirements are met, ensure that the database is running. During U2000 installation, a message is displayed asking you whether to reuse the database. In this case, reuse the database. If the SQL Server database has not been installed, the U2000 server software automatically installs the SQL Server database.

- 4 Check whether the current server uses terminal server components.



## CAUTION

If the current server uses terminal server components, the U2000 installation will fail.

---

1. Open the **Control Panel**. In **Control Panel**, double-click **Add or Remove Programs**.
2. In the **Add or Remove Programs** dialog box, click **Add/Remove Windows Components** in the left pane.
3. In the **Windows Components Wizard** dialog box, confirm that the **Terminal Server** check box is not selected.

----End

## 4.3 Starting the U2000 Installation Program

This topic describes how to install U2000 server software.

### Prerequisite

- The installation software is on-hand. For details about how to obtain the installation software, see [4.1 Obtaining Installation Software](#).
- Pre-installation checks have been completed. For details about how to perform pre-installation checks, see [4.2 Pre-installation Check](#).
- If a U2000 has been installed before, ensure that the U2000 database file has been deleted from the current database. For details, see Step 4 in [4.6 Handling the Failure to Install the U2000 Server Software](#).

### Context

- Ensure that the server system time is correctly set. Stability of the server system time is critical to the U2000. Do not modify the system time while the system is running.
- In the installation process, the installation program needs to start certain services of a network adapter. Thus, the network adapter must be connected to the network; otherwise, the U2000 server cannot be installed.
- After the U2000 has been installed, to prevent the database from being suspended, install the SQL2000-KB916287-v8.00.2187 patch. For details, see [15](#).
- If the U2000 software has been installed, the client is also installed on the server.

### Procedure

- 1 Log in to Windows OS as an OS user with administrator rights.



## CAUTION

The name of the directory where the installation packages are stored can contain only letters, digits, and underscores (\_). The directory name cannot contain spaces, brackets, or Chinese characters; otherwise, the installation fails.

---

2 Run the **install.bat** file to start U2000 installation, as follows:

- Mode 1: Installation with a DVD

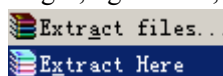
 **NOTE**

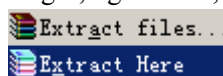
If no database has been installed on the OS, insert a database installation DVD and copy the contents on the DVD to a path, such as **D:\SQLServer**, on the local hard disk. During installation, a message will be displayed prompting you for the path for installing the database.

1. Insert a U2000 installation DVD into the DVD-ROM. Double-click the **install.bat** file in the root directory of the installation disk.
2. The dialog box for installing the U2000 MSuite is displayed. Wait 5 to 10 minutes. The **Copyright Notice** dialog box will be displayed.

- Mode 2: Installation with a software package:

1. Decompress all installation packages into the same directory. Use the WinRAR software for an example. Select all the packages, right-click, and then choose **Extract Here** from



the shortcut menu, as shown in .



**CAUTION**

Do not obtain or decompress client installation packages. Otherwise, a message will be displayed indicating that the U2000 server software fails to be installed.

If the U2000 is to be installed on Windows XP OS, the database package to be decompressed is **U2000version\_server\_dbper\_en\_win32\_x86.zip**.

There is no requirement on the decompression sequence of software packages. It is required that the installation software be decompressed to an NT file system (NTFS) partition. If the corresponding partition does not use the NTFS, convert it to an NTFS partition before decompressing the installation package. For details, see [A.1.2 How to Convert the File System Type to NTFS](#).

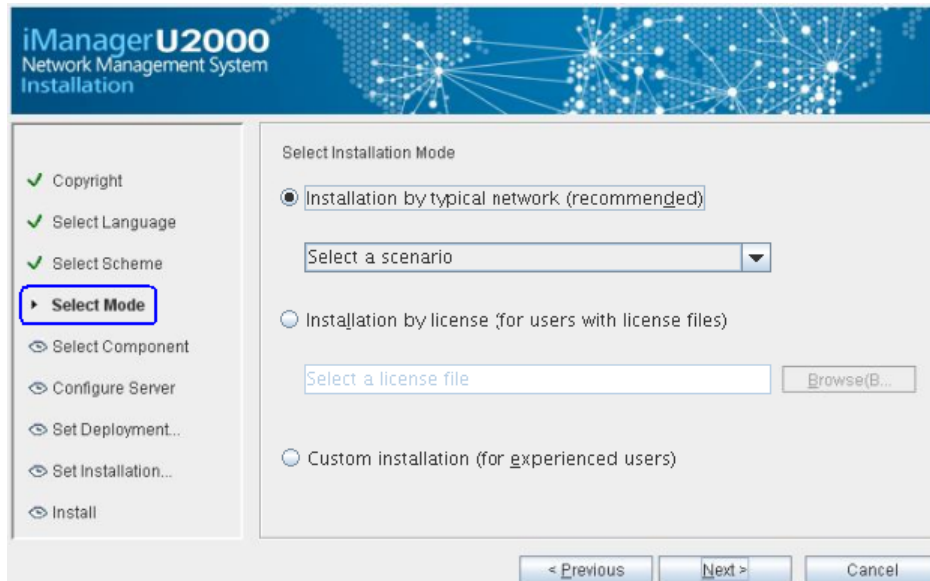
The installation path, including the installation package path and the U2000 installation path, can contain only letters, digits, and underscores (\_). The installation path cannot contain spaces or brackets; otherwise, the installation fails.

- 
2. Double-click the **install.bat** file in the directory of the software package.
  3. The dialog box for installing the MSuite is displayed. Wait 5 to 10 minutes. The **Copyright Notice** dialog box will be displayed.

 **NOTE**

Read the installation license agreement carefully. If you accept the agreement, click the **I accept these terms** option button.

- 3 Click **Accept these terms**, and click **Next** to continue. The **Select Language** dialog box will be displayed.
- 4 Select a language, such as **English**, and click **Next**. The **Select Scheme** dialog will be displayed.
- 5 Select **Single-server system**, and click **Next**. The **Select Installation Mode** dialog box will be displayed.



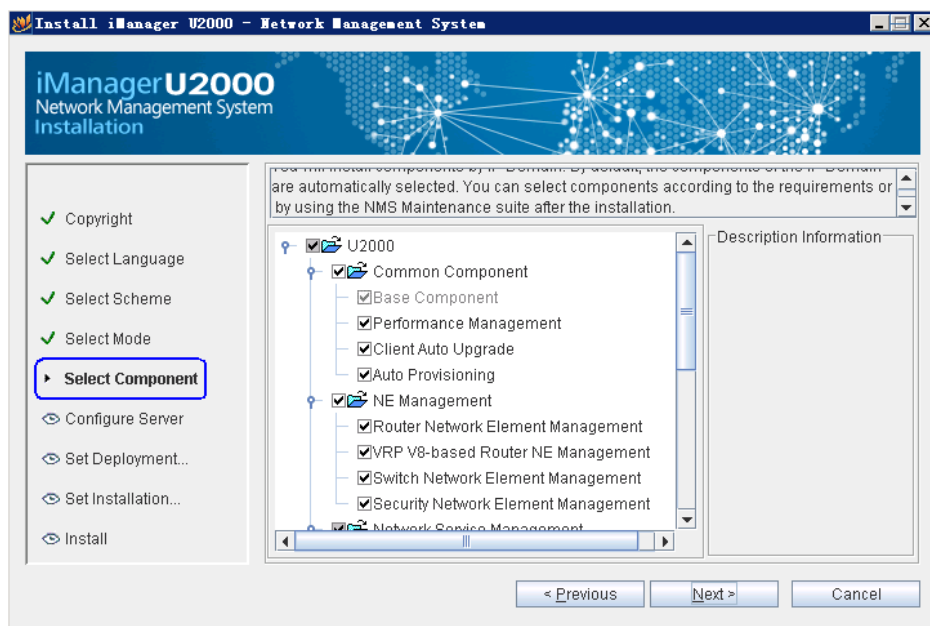
- Select **Installation by typical network**. Then, select a scenario from the drop-down list according to the type of the equipment to be managed.
- Select **Installation by license**. Then, click **Browse** to select the license file that has already been applied for and issued.
- Select **Custom installation**.

**NOTE**

Any of the following methods can be used to install the U2000:

- **Installation by typical network:** Choose the desired scenario according to the type of the equipment to be managed. The U2000 software provides common scenarios. This method is recommended in situations where the license file is not on-hand.
- **Installation by license:** This method is recommended if the license is on-hand.
- **Custom installation:** This method is applicable to advanced users familiar with managing the network and U2000. This method is also recommended in the event that the license file is on-hand and the common scenarios provided by the U2000 software are insufficient.

6 Click **Next**. The **Component** dialog box will be displayed.



- If you select **Installation by typical network**, the software selects the components to be installed according to the conditions at your site.
- If you select **Installation by license**, the software selects the components to be installed according to the license file.
- If you select **Custom installation**, the software selects the components to be installed according to the type of the equipment to be managed.

7 Click **Next**. The **Configure Server** dialog box will be displayed.

Set the installation path. For example, **d:\U2000**.

 **NOTE**

To modify the server, select the server and click **Modify**. Then, modify server parameters in the dialog box that is displayed.

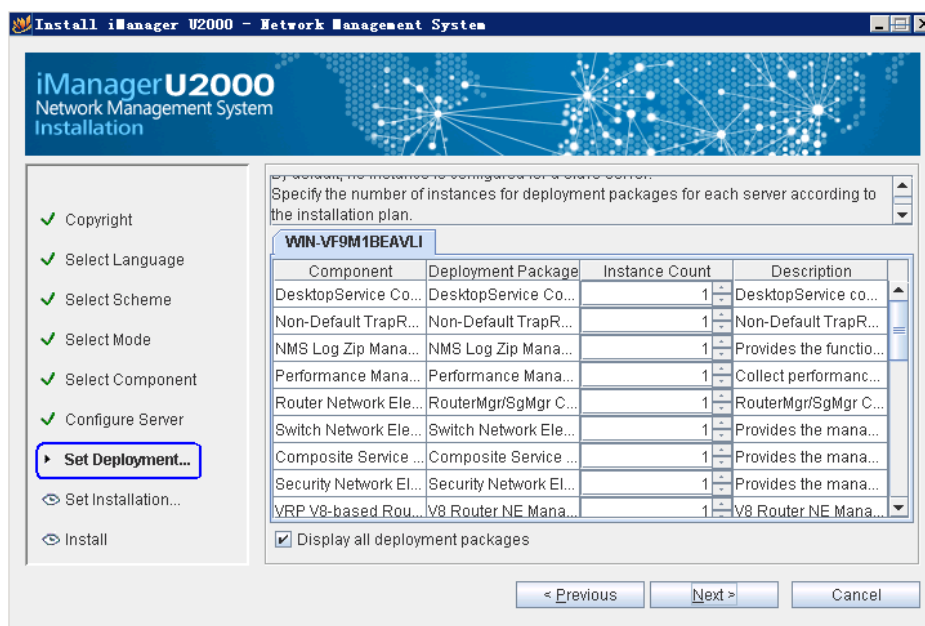
If there are multiple IP addresses existing on the server, the system cannot automatically obtain IP addresses. In this case, modify the server parameters. Specifically, set IP addresses to that for external communication.

The installation path, including the installation package path and the U2000 installation path, can contain only letters, digits, and underscores (\_). The installation path cannot contain spaces or brackets; otherwise, the installation fails.

8 Click **Next**. The **Deployment Parameters** dialog box will be displayed.

 **NOTE**

If the **d:\U2000** path does not exist, the **Confirm** dialog box will be displayed. Click **Yes** to create the **d:\U2000** path.



- You can modify the number of instances only for components with **single-server multi-instance**.
- Limited by the port quantity, a maximum number of 25 instances can be deployed for the transport domain in the single-server multi-instance deployment mode.
- To use the CORBA northbound interface (NBI), XML NBI, SNMP NBI, and text NBI, instances must be added by using the Network Management System Maintenance Suite after installing the desired NBIs.
- If the size of the server memory is 16 GB, set the instance quantity of **DeskTop Service Component** to **2**.

9 Click **Next**. The **Version Style** dialog box will be displayed.

 **NOTE**

The following is an example of the differences between the two styles:

- For the default style, alarms are displayed in the following descending order of severity: **Critical, Major, Minor** and **Warning**.
- For the North America style, alarms are displayed in the following five levels in descending order of severity: **Critical, Major, Minor, Not Alarmed** and **Not Reported**.

10 Select a style, such as **Default Style**, and click **Next**. The **Configure Parameter** dialog box will be displayed.

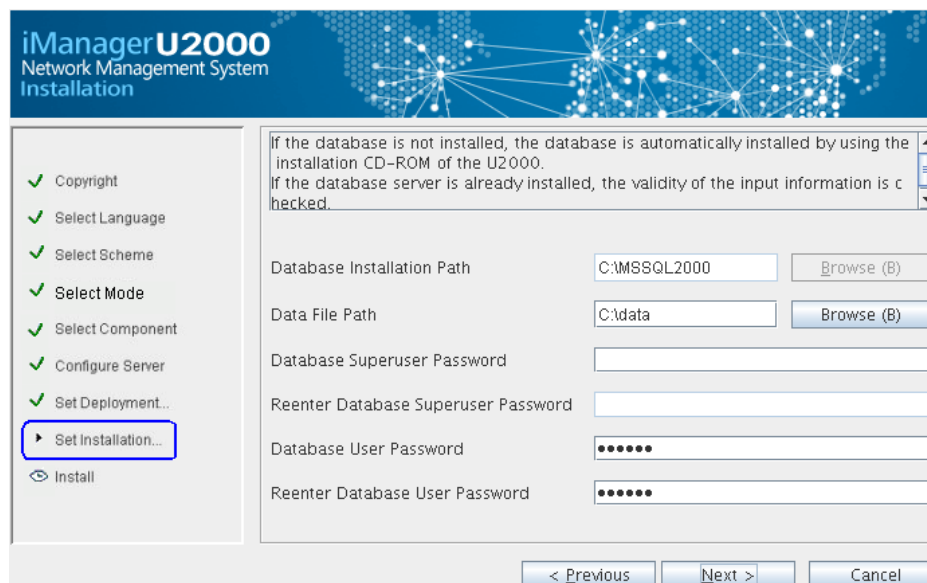
 **NOTE**

The following provides an example of differences between the two styles:

- For default styles, alarms are generated in the following descending order of severity: **Critical, Major, Minor** and **Warning**.
- For the North America style, alarms are generated in the following descending order of severity: **Critical, Major, Minor, Not Alarmed** and **Not Reported**.

If the components include **SDH Network Element Management** or **SDH Service Management**, the **Select Slot Mode** dialog box will be displayed. Select a slot mode, such as **Interleaving mode**. Then, click **Next**.

The **Sequence mode** is the international standard mode and is recommended.



The following table lists parameters for the database U2000 user and the database server.

Parameter	Settings
Database Installation Path	The default installation path of the database is <b>C:\MSSQL2000</b> .
Data File Path	Specifies the path for storing data files. The default installation path is <b>C:\data</b> . You are recommended to click <b>Browse</b> to change the installation path.



Parameter	Settings
DB Super Password	<p>Specifies the superuser password of the database. This password can be left blank (not recommended). The password must consist of 6 to 30 characters that can be letters, digits, and underscores (_). For example, it can be <b>changeme</b>.</p> <p><b>CAUTION</b> If the database has been installed, enter the password for user <b>sa</b> that is set during database installation.</p> <p>If you forget the password or the password for user <b>sa</b> does not meet the requirements, change the password. For details, see <a href="#">A.2.4 How to Solve the Problem That the Password of User sa Is Forgotten</a>.</p>
Confirm DB Super Password	<p>Confirms the password for user <b>sa</b>. If the database has been installed, you do not need to enter the password again.</p>
DB User Password	<p>Specifies it to the password of a specific user, with a minimum of six characters. The default value is <b>NMSuser</b>.</p>
Confirm DB User Password	<p>Confirms the password. The default value is <b>NMSuser</b>.</p>

- 11 Set the installation parameters and click **Next**. A dialog box will be displayed showing the installation information.

 **NOTE**

If a message is displayed asking you whether to use the original database software, a database has been installed on the server. If you decide to reuse the database, the installation program will skip database installation. If you do not want to reuse the database, you need to manually uninstall the database and then install it.

- 12 Verify that the installation information is correct and click **Next**. A progress bar will be displayed. The time required for the installation depends on the number of components to be installed and the server configuration. The entire process takes about 120 minutes. Wait patiently.

 **NOTE**

- The U2000 defines the initial size, increment threshold, increment step length, and auto increment threshold for the database to be installed. During U2000 installation, the system displays a message showing the available disk space and the space required for installing a database. If the available database space is smaller than the increment threshold, auto increment of the database is automatically triggered. The size of auto increment is determined by the increment step length. When the available database space reaches the auto increment threshold, auto increment stops.
- The Microsoft Visual C++2005 window is displayed during U2000 installation. Wait about three minutes. Then the window is automatically closed and no operation is required.
- When the progress bar reaches 99%, the system may wait about half an hour until U2000 installation is complete. This is normal.
- If an existing database is used, a message is displayed during U2000 installation, indicating that the current database version is too early. Manually uninstall the database and then reinstall it.
- If a message indicating an installation failure or interruption is displayed during installation, perform the following operations to clear the installation environment, and then install the U2000.
  1. In the **Windows Task Manager**, click the **Processes** tab and stop the apache and tomcat processes.
  2. Navigate to the **C:\HWENGR\engineering\tool** path and run the **FailedNMSInstallationClear.bat** script to clean up the installation environment.
  3. After the installation environment is cleaned up, double-click the **install.bat** file in the **C:\HWENGR** path to start the installation.

**13** After the preceding settings, click **Finish** to complete U2000 installation. The **Restart the operating system** dialog box will be displayed.

**14** Click **No** if you do not want to restart the OS immediately.

**15** Install the SQL2000-KB916287-v8.00.2187 patch. Double-click **SQL2000-KB916287-v8.00.2187-x86x64-ENU.exe** in the Windows OS patch disk or the **HWENGR\patch\sql2000** path of the Windows OS patch installation packages.

 **NOTE**

To prevent the database from being suspended, install the SQL2000-KB916287-v8.00.2187 patch.

**16** The installation items in the software update wizard are selected by default. In the **Authentication Mode** dialog box, click the **Windows Authentication** option button. Click **Next** to continue until the installation is complete.

**17** Restart the OS.

Choose **start > Shut Down**. The **Shut Down Windows** dialog box will be displayed. Select **Restart** from the **What do you want the computer to do** drop-down list. Enter information in the **Comment** column to make **OK** available. Then, click **OK**.

 **NOTE**

After the installation, restart the OS and ensure that the services start successfully.

----End

## 4.4 (Optional) Loading a U2000 License

This topic describes how to load a U2000 license. If **Installation by license** is not selected during installation of the U2000 software, you must upload a U2000 license.

## Prerequisite

- The OS and database must run properly.  
If the database has not been started, choose **Start > Programs > Microsoft SQL Server > Service Manager**, and then click **Start/Continue** to start the database.
- The processes of the U2000 must be properly started.  
If U2000 services have not been started, run the **startnms.bat** file in the U2000 installation path **\server\bin** to start U2000 services manually.

## Context

If you have selected the license installation method during installation, the installation script automatically copies the license file of a U2000 to the **license** folder in the U2000 installation path. Manual operation is not required.

## Procedure

- **Method one: Use commands to load the license.**
  1. Copy the authorized license file to the U2000 server. Directly copying and pasting the license file to the **D:\U2000\server\etc\conf\license** path is prohibited.

 **NOTE**

- Do not modify the contents in the license file.
- Check whether a temporary license file exists in the **D:\U2000\server\etc\conf\license** folder. If the file exists, create a backup folder and then copy and paste the temporary license file to it.

2. Update the U2000 license.
  - (1) Log in to the OS of the server.
  - (2) Run the following command to update the U2000 license file:

```
> updateLicense -file License_file_name
```

 **NOTE**

In the command, *License\_file\_name* indicates a file name or the combination of an absolute path and a file name.

Information similar to the following is displayed:

state	product	feature	item	name
old value	new value			
no change:	U2000	COMMON	LSW1CAPA01	Client
500	500			
no change:	U2000	COMMON	LSW1CAPA01	Client
1	1			
no change:	U2000	COMMON	LSW1FMCLT01	Alarm
Export	1	1		
no change:	U2000	COMMON	LSW1REN0T101	Client
1	1			

```
Are you sure to update the license?(Y/N)
```

- (3) Enter **Y**, and then press **Enter**.

 **NOTE**

After the preceding operations are performed, the license file is automatically loaded to the **D:\U2000\server\etc\conf\license** path and renamed.

- **Method two: Load the license in the GUI.**

1. Copy and paste the authorized license to the server where the U2000 client is installed. If the U2000 and server are on the same computer, directly copying and pasting the license file to the **D:\U2000\server\etc\conf\license** path is prohibited.

 **NOTE**

- Do not modify the contents in the license file.
  - Check whether a temporary license file exists in the **D:\U2000\server\etc\conf\license** folder. If the file exists, create a backup folder and then copy and paste the temporary license file to it.
2. Update the U2000 license.
    - (1) On the OS desktop, double-click the **U2000 Client** shortcut icon. The **Login** dialog box is displayed.
    - (2) In the **Server** drop-down list, select the server to be logged in to. Then, set **User Name** and **Password** to the valid values, and click **Login**. Click **Login**. If you have logged in to the System Monitor before, enter the password for logging in to the System Monitor. If you have never logged in to the System Monitor before and this is the first time that you log in to the U2000 client, the password is empty and you must change the password.

 **NOTE**

- If a message indicating that no license is available when you log in to the U2000 client, select the license to be updated as prompted.
- If **Installation by license** or an access domain component is selected during installation, choose **Help > License Management > License Information** from the main menu of the U2000 client.
- In the **License Information** dialog box, click **Update License**.
- In the **Open** dialog box that is displayed, select the new license file and click **Open**.

---End

## 4.5 Verifying the U2000 Server Installation

This topic describes how to verify the U2000 server installation.

### [4.5.1 Starting a Single-Server System \(Windows\)](#)

This topic describes how to start a Windows single-server system. After the U2000 server is started, you must start the U2000. Then, log in to the U2000 to manage networks.

### [4.5.2 Checking Environment Variables](#)

This topic describes how to check environment variables after the U2000 server software has been installed.

### [4.5.3 Checking the U2000 Version](#)

This topic describes how to check the U2000 version.

## 4.5.1 Starting a Single-Server System (Windows)

This topic describes how to start a Windows single-server system. After the U2000 server is started, you must start the U2000. Then, log in to the U2000 to manage networks.

## Context

- U2000 services run as background processes. Maintain the U2000 services using a System Monitor client.
- The client is installed at the same time as the U2000 software. The client described in this topic is the one installed on the server.
- During installation of the U2000 software, only one default U2000 user, that is, the **admin** user, is provided. The **admin** user is the administrator of a U2000 and has the highest rights of the U2000.

## Procedure

- 1 Log in to the OS as a user with **administrator** rights. The system automatically starts the database and U2000 service.

 **NOTE**

If the database has not been started, choose **Start > Programs > Microsoft SQL Server > Service Manager**, and then click **Start/Continue** to start the database. If the database has been started, the manual operation is not required.

If U2000 services have not been started, run the **startnms.bat** file in the U2000 installation path **\server\bin** to start U2000 services manually. If the U2000 has been started, the manual operation is not required.

- 2 Check the shortcut icons.



### CAUTION

If you cannot log in to the server through the GUI, skip this step.

---

The following shortcut icons are displayed on the desktop:

- **U2000 Client**
- **U2000 System Monitor**
- **U2000 Server**
- **U2000 NMS Maintenance Suite**
- **NE Software Management**

- 3 Choose **Start > Programs > Network Management System > U2000 System Monitor** or double-click the associated shortcut icon on the desktop to start the System Monitor.
- 4 In the **Login** dialog box, enter a user name and password to access the System Monitor window. The user name is **admin** and the initial password is blank by default. When you log in to the System Monitor for the first time, you must change the initial password.
- 5 Check whether U2000 processes can be properly started. The processes whose startup mode is **manual** must be started manually.
- 6 Start a U2000 client.
  1. On the desktop, double-click the **U2000 Client** shortcut icon.
  2. In the dialog box that is displayed, enter a U2000 user name and password. If you have changed the password for the **admin** user when logging in to the System Monitor, enter the new password.

 **NOTE**

There are two data transmission modes, namely, **Common** and **Security(SSL)**. You can query data transmission modes on the server. The default data transmission mode is **Common**. For details, see [A.3.13 How to Set the Communication Mode on the U2000 server for the Single-Server System \(Windows\)](#).

---End

## 4.5.2 Checking Environment Variables

This topic describes how to check environment variables after the U2000 server software has been installed.

### Procedure

- 1 Right-click **My Computer** on the desktop and choose **Properties** from the shortcut menu.
- 2 Click the **Advanced** tab.
- 3 Click **Environment Variables**. In the dialog box that is displayed, the environment variables shown in the following table must exist in the system environment variable area.

**Table 4-1** Environment variables used for installing the U2000 server and client

Environment Variable	Value
IMAP	D:\U2000\server\conf
IMAP_CONFIG_PATH	D:\U2000\server\etc\conf
SSL_CERT_FILE	D:\U2000\server\conf\certificate\ca_cert.cer
IMAPROOT	D:\U2000
IMAP_ROOT	D:\U2000\server
NMSROOT	D:\U2000
OSS_ROOT	D:\U2000
HWENGRROOT	C:\HWENGR
Path	d:\U2000\server\3rdTools\lib;d:\U2000\server\3rdTools\python\bin;d:\U2000\server\3rdTools\python\lib;d:\U2000\server\3rdTools\bin;d:\U2000\server\bin;d:\U2000\server\lbin;d:\U2000\server\lib;d:\U2000\server\cbb\frame\lib;d:\U2000\client;C:\HWNMSJRE\jre_win\bin;%SystemRoot%\system32;%SystemRoot%;%SystemRoot%\System32\Wbem;C:\Program Files\Microsoft SQL Server\80\Tools\BINN;

 **NOTE**

- Use the installation of a U2000 in the **D:\U2000** path as an example. If the U2000 server is installed in another path, the **D:\U2000** path values are different.
- If the actual environment variables are different from the preceding variables, uninstall the U2000 and then reinstall it.

---End

## 4.5.3 Checking the U2000 Version

This topic describes how to check the U2000 version.

### Procedure

- 1 Log in to a client.
  1. On the desktop, double-click the U2000 client shortcut icon.
  2. In the dialog box that is displayed, enter a user name and password.
- 2 Choose **Help > About** from the main menu. In the **About** dialog box, check the U2000 version.


---End

## 4.6 Handling the Failure to Install the U2000 Server Software

This topic describes how to handle the failure to install the U2000 server software.

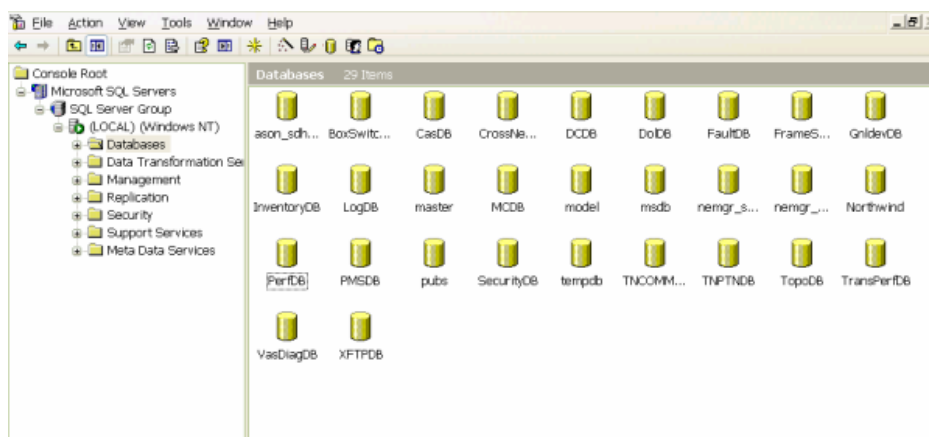
### Procedure

- 1 Delete the U2000 database model.

Delete the **datamodelDB** folder and the files in this folder from the installation software path, that is, **C:\HWENGR\engineering\conf**.
- 2 Restart the database server.
  1. Double-click the  icon to the right of the Windows taskbar. The **SQL Server Service Manager** dialog box is displayed.
  2. Click **Stop** to stop the database server. Then, click **Start/Continue** to start the database server to ensure that the database to be uninstalled is connected properly.
- 3 Choose **Start > All Programs > Administrative Tools > Services**. Check whether the iMapService has been started. If it has been started, stop it. Then, delete the installation path, such as **D:\U2000**.
- 4 Delete U2000 database files.
  1. Choose **Start > Programs > Microsoft SQL Server > Enterprise Manager**. The **SQL Server Enterprise Manager** window is displayed.
  2. Choose **Databases** for the local server from the navigation tree. Then, select all the databases, except **master**, **model**, **msdb**, **pubs**, **tempdb**, and **Northwind**. Right-click the selected databases and choose **Delete** from the shortcut menu, as shown in the following figure.

 **NOTE**

Backing up important databases in advance. For details about how to back up the databases, see the *iManager U2000 Unified Network Management System Administrator Guide*.



3. Choose **Security** > **Login** for the local server from the navigation tree. Then, select **NMSuser**, right-click, and choose **Delete** from the shortcut menu.
- 5 Restart the OS. Log in to the OS as the **administrator** user. Then, double-click the **install.bat** file in the **C:\HWENGR** path to reinstall U2000 server software.

----**End**



# A FAQs

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This topic provides answers to the most frequent questions concerning the installation.

## [A.1 Windows OS](#)

This topic provides answers to FAQs about clients installed on Windows OS.

## [A.2 SQL Server Database](#)

This topic describes the FAQs about the SQL server database.

## [A.3 U2000 System](#)

This topic covers FAQs about the U2000 system.

## A.1 Windows OS

This topic provides answers to FAQs about clients installed on Windows OS.

[A.1.1 How to Add a Static Route](#)

[A.1.2 How to Convert the File System Type to NTFS](#)

[A.1.3 How to Change the Password of the OS Administrator?](#)

[A.1.4 How to Verify That the Video Driver Is Correctly Installed](#)

[A.1.5 How to Configure the Remote Login to the Windows OS](#)

[A.1.6 How to Forcibly End a Process](#)

[A.1.7 How to Configure the FTP, SFTP, or TFTP Service on Windows OS](#)

[A.1.8 How to Set the Virtual Memory to the System Managed Size](#)

### A.1.1 How to Add a Static Route

#### Question

If the network connection is unstable, intermittently disconnected, or unreachable, the static route may be not added. How do I add a static route?



#### CAUTION

If there are multiple network interfaces and their IP addresses are within different network segments, the default gateway can be configured on only one of these network interfaces. To prevent the failure of one network interface from causing the disconnection of the entire network, the static route needs to be added on other network interfaces.

---

#### Answer

- 1 Run the following command on the command prompt window to view the existing routes:

```
C:\> route print
```

- 2 Run the following command to add a route:

```
C:\> route -p add network_IP_address mask netmask gateway_IP_address
```

#### NOTE

To delete a route, run the following command:

```
C:\> route delete network_IP_address mask netmask gateway_IP_address
```

----End

## A.1.2 How to Convert the File System Type to NTFS

### Question

How do I convert the file system type to NTFS?

### Answer

- 1 Choose **start > Run**. The **Run** window will be displayed.
- 2 Enter **cmd** and click **OK**.
- 3 Enter **convert Drive letter where the installation package is decompressed: /FS:NTFS**. For example, enter **convert F: /FS:NTFS** if you need to decompress the installation package into disk F. Enter the corresponding information at the prompt.
- 4 Restart the OS.

----End

## A.1.3 How to Change the Password of the OS Administrator?

### Question

How to change the password of the OS administrator?

### Answer

- 1 Log in to the OS as the **administrator** user.
- 2 Ensure that the SQL server database is started.

#### **NOTE**

If the database is not started, manually start it. Otherwise, login to the database fails after the password is changed.

If the password of the administrator is changed when the SQL server database is not started, login to the database fails. In this case, you need to change the password to the original one, start the SQL server database, and then change the password of the administrator.

- 3 Press **Ctrl+Alt+Delete** to lock the current interface.
- 4 In the dialog box that is displayed, click **Change Password**.
- 5 In the dialog box that is displayed, enter the old password and the new password, and confirm the new password.
- 6 Click **OK**.
- 7 Right-click the database server node of the enterprise manager and choose **Properties** from the shortcut menu. In the dialog box that is displayed, click the **Security** tab, and then change the administrator password in the **Enable Service Account** area.

----End

## A.1.4 How to Verify That the Video Driver Is Correctly Installed

### Question

How do I verify that the video driver is correctly installed?

### Answer

- 1 Right-click **My Computer** on the desktop and choose **Properties** from the shortcut menu.
- 2 In the **System Properties** dialog box, click the **Hardware** tab.
- 3 On the **Hardware** tab page, click **Device Manager**.

In the **Device Manager** dialog box, expand **Display adapters** and check whether the video driver is correctly installed. If a question mask (?) or red cross (X) is displayed, the video driver is not correctly installed. Check and reinstall the video driver.

----End

## A.1.5 How to Configure the Remote Login to the Windows OS

### Question

How to configure the remote login to the Windows OS?

### Answer

- 1 Log in to the OS as the administrator.
- 2 Right-click **My Computer** and choose **Properties** from the shortcut menu.
- 3 In the **System Properties** dialog box, click the **Remote** tab.
- 4 Select the **Enable Remote Desktop on this computer** check box and click **OK**.

----End

## A.1.6 How to Forcibly End a Process

### Question

How do I forcibly end a process?

### Answer

- 1 Press **Ctrl+Shift+Esc**. The **Windows Task Manager** dialog box is displayed.
- 2 Click the **Processes** tab. Right-click the process needs to be ended, and choose **End Process**.

----End

## A.1.7 How to Configure the FTP, SFTP, or TFTP Service on Windows OS

### Question

How do I configure the FTP, SFTP, or TFTP service on Windows OS?

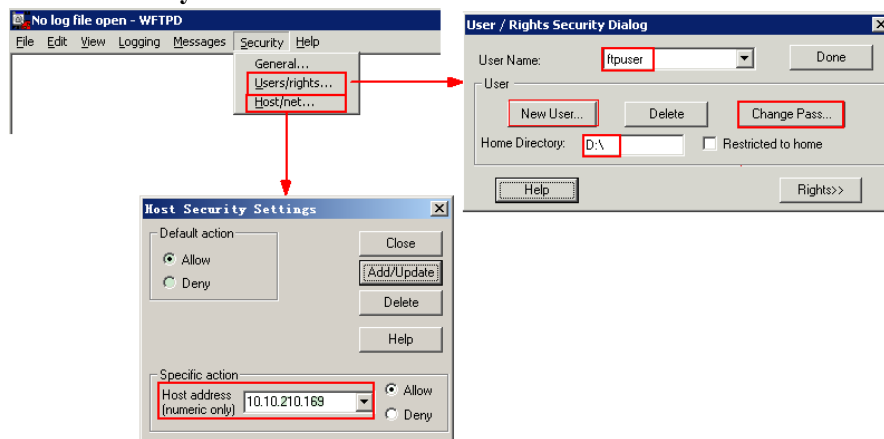
 **NOTE**

The third-party tool must be started after the FTP, SFTP, or TFTP server is configured.

### Answer

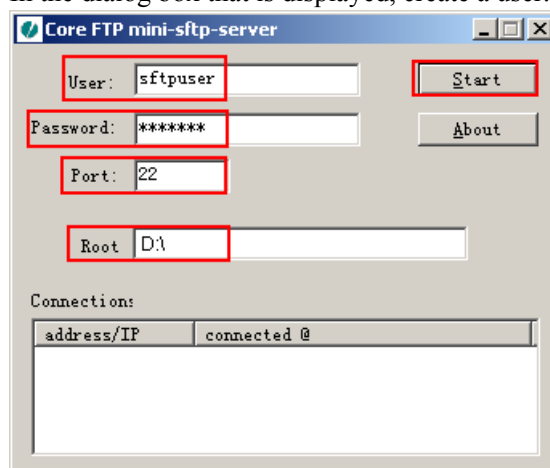
- **Configuring the FTP server using the third-party tool wftpd32.exe**

1. Copy the **wftpd32.exe** file to the U2000 server and double-click the file.
2. In the dialog box that is displayed, choose **Security > Users/rights** and create a user; choose **Security > Host/net** and enter the IP address of the FTP server.



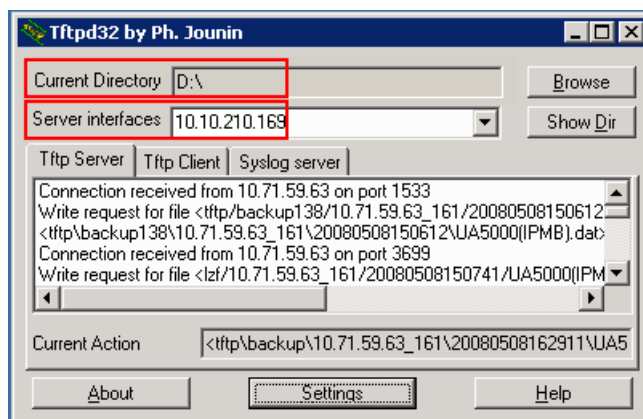
- **Configuring the SFTP server using the third-party tool msftpsrvr.exe**

1. Copy the **msftpsrvr.exe** file to the U2000 server and double-click the file.
2. In the dialog box that is displayed, create a user.



- **Configuring the TFTP server by using the third-party tool tftpd32.exe**

1. Copy the **tftpd32.exe** file to the U2000 server and double-click the file.
2. In the dialog box that is displayed, set the root directory and the IP address of the TFTP server.



----End

## A.1.8 How to Set the Virtual Memory to the System Managed Size

### Question

How to set the virtual memory to the system managed size?

### Answer

- 1 Right-click **My Computer** and choose **Properties** from the shortcut menu.
- 2 In the **System Properties** dialog box, click the **Advanced** tab.
- 3 In the **Performance** area, click **Settings**.
- 4 In the **Performance Options** dialog box, click the **Advanced** tab.
- 5 In the **Virtual memory** area, click **Change**.
- 6 In the **Virtual Memory** dialog box, click the **System managed size** option button.
- 7 Click **Set**.
- 8 Click **OK**.

----End

## A.2 SQL Server Database

This topic describes the FAQs about the SQL server database.

[A.2.1 How to Check Whether the SQL Server Database Has Been Installed](#)

[A.2.2 How to Shut Down the SQL Server Database](#)

[A.2.3 How to Start the SQL Server Database](#)

[A.2.4 How to Solve the Problem That the Password of User sa Is Forgotten](#)

[A.2.5 How to Solve the Problem That the Application Is Suspended During the Installation of the SQL Server](#)

[A.2.6 How to Check Whether the SQL Server Database Can Be Sorted in Binary Mode](#)

[A.2.7 How to Change the Database Sorting Mode to Binary](#)

[A.2.8 How to Manually Uninstall the SQL Server Database](#)

[A.2.9 How to Check the Name of the SQL Server Database](#)

## A.2.1 How to Check Whether the SQL Server Database Has Been Installed

### Question

How do I check whether the SQL Server database has been installed?

### Answer

 **NOTE**

- If the SQL Server database has not been installed, when you install the U2000, the SQL Server database is automatically installed with the U2000.
- If the SQL Server database has been installed, when you install the U2000, a dialog box is displayed asking you whether to reuse the SQL Server database. If you choose to reuse it, you do not need to reinstall the SQL Server database and thus can save time; if you choose not to reuse it, you need to reinstall the SQL Server database. Generally, you are not recommended to reuse the SQL Server database.
- Consult the computer's administrator to learn whether the SQL Server database has been installed.
- Check whether the installation directory and file of the SQL Server database exist. A sample directory is **C:\MSSQL2000**.
- Manually start the SQL Server database. For details, see [A.2.3 How to Start the SQL Server Database](#).
- Check whether the database is installed in binary mode. For details, see [A.2.6 How to Check Whether the SQL Server Database Can Be Sorted in Binary Mode](#).

---End

## A.2.2 How to Shut Down the SQL Server Database

### Question

How do I shut down the SQL server database?

### Answer

- 1 In the single-server system, choose **Start > Programs > Microsoft SQL Server > Service Manager**.  
The **SQL Server Service Manager** dialog box is displayed.
- 2 Click **Stop**.
- 3 Click **Yes**.

---End

## A.2.3 How to Start the SQL Server Database

### Question

How do I start the SQL server database?

### Answer

- 1 In the single-server system, choose **Start > Programs > Microsoft SQL Server > Service Manager**.

The **SQL Server Service Manager** dialog box is displayed.

- 2 Click **Start/Continue**.

---End

## A.2.4 How to Solve the Problem That the Password of User sa Is Forgotten

### Question

How do I solve the problem that the password of user **sa** of the SQL server database is forgotten?

#### NOTE

This method is applicable to scenarios where the NMS is not installed. If the NMS is installed and you forget the password of user **sa**, contact Huawei technical support engineers.

### Answer

- 1 Choose **start > All Programs > Microsoft SQL Server > Enterprise Manager**.
- 2 In the **SQL Server Enterprise Manager** window, expand **Microsoft SQL Servers > SQL Server Group** in **Console Root** on the left, and choose **Security** on a server.
- 3 Click **Login**. Double-click the **sa** item in the right pane, and set the password in the **SQL Server Login Properties-sa** dialog box.

---End

## A.2.5 How to Solve the Problem That the Application Is Suspended During the Installation of the SQL Server

### Question

How do I solve the problem that the application is suspended during the installation of the SQL Server?

When the database is not installed for the first time or is reinstalled after the installation failure, the system displays the message "A previous program installation created pending file operations on the installation machine. You must restart the computer before running setup."



## Answer

- 1 Choose **Start > Run**. The **Run** dialog box is displayed.
- 2 Enter **regedit** and click **OK**.
- 3 In the **Registry Editor** tree, choose **My Computer > HKEY\_LOCAL\_MACHINE > SYSTEM > CurrentControlSet > Control > Session Manager**.
- 4 In the right pane, right-click **PendingFileRenameOperations** and choose **Delete** from the shortcut menu.
- 5 Restart the OS.
- 6 Reinstall the SQL Server database.

----End

## A.2.6 How to Check Whether the SQL Server Database Can Be Sorted in Binary Mode

### Question

When you install the SQL Server database, you need to select the binary mode as the sorting mode. How do I check whether the SQL Server database can be sorted in binary mode?

### Answer

- 1 Run the following commands at the command prompt:

```
C:\> isql -Usa -Psa password -Sdatabase name
1> sp_helpsort
2> go
```

If the displayed information includes *binary sort*, the database is sorted in binary mode. If the displayed information does not include *binary sort*, the database is not sorted in binary mode.

----End

## A.2.7 How to Change the Database Sorting Mode to Binary

### Question

How to change the database sorting mode to binary?

#### NOTE

This operation is applicable to SQL Server 2000 SP4.

### Answer

- 1 Choose **Start > Run**. Then, enter **cmd** to open a CLI.
- 2 To change the database sorting mode to binary, run the following commands:

```
C:\> cd C:\HWENGR\engineering\tool\ModifySort
```

```
C:\HWENGR\engineering\tool\ModifySort> ModifySort.bat database name sasa password
```

If information similar to the following is displayed, the database sorting mode is changed to binary.

```
Starting deal database sort,please wait.....  
End deal database sort  
Starting deal table sort,please wait.....  
deal DB-Library:'s Tables  
All Finish
```

----End

## A.2.8 How to Manually Uninstall the SQL Server Database

### Question

How do I manually uninstall the SQL server database?

### Answer

- 1 Ensure that the database is uninstalled correctly by performing the following steps:
  1. You need to stop the database server and exit the database service manager before uninstalling the Microsoft SQL Server 2000.
  2. Click **Start > Control Panel**. The **Control Panel** window is displayed.
  3. Double-click the **Add or Remove Programs** icon. The **Add or Remove Programs** window is displayed.
  4. Select **Microsoft SQL Server 2000**, and then click **Change/Remove**.
  5. Click **Yes**. A progress bar is displayed.
  6. Perform the remaining operations at system prompts.
  7. Delete the **MSSQL2000** folder in the installation directory of the database.
  8. Delete the **Microsoft SQL Server** folder in the **Program files** folder that is in the installation directory of the OS.
  9. Delete the **MSDesigners7** and **MSDesigners98** folders in the **Program Files\Common Files\Microsoft Shared** directory that is in the installation directory of the OS.
  10. Check whether the following registration table information has been deleted automatically. If the information exists, manually delete it.
    - a. HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server
    - b. HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\MSSQLServer
    - c. HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Updates\SQL Server 2000
    - d. HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLSERVER
    - e. HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\SQLSERVERAGENT
    - f. HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\MSSQLServerADHelper
- 2 After the preceding operations are performed, restart the OS.
- 3 Ensure that the registries do not contain the **PendingFileRenameOperations** key value .
  1. Click **Start > Run**. In the **Run** dialog box, enter **regedit** to open the registration table.

2. Choose **Edit > Find** from the main menu. Then, enter **PendingFileRenameOperations** and click **Find Next**.
3. Check that the search result does not include **PendingFileRenameOperations**. If **PendingFileRenameOperations** is included, right-click it and choose **Delete** from the shortcut menu.

---End

## A.2.9 How to Check the Name of the SQL Server Database

### Question

How to check the name of the SQL Server database?

### Answer

- 1 Choose **Start > All Programs > Microsoft SQL Server > Client Network Utility**. The **SQL Server Client Network Utility** dialog box is displayed.
- 2 Click the **Alias** tab page to check the database name.

---End

## A.3 U2000 System

This topic covers FAQs about the U2000 system.

[A.3.1 How to Verify That the U2000 Is Installed](#)

[A.3.2 How to Verify That the Processes of the U2000 Single-Server System Are Running on Windows](#)

[A.3.3 How to Start the Processes of the U2000 Single-Server System on Windows](#)

[A.3.4 How to End the Processes of the U2000 Single-Server System on Windows](#)

[A.3.5 How to Resolve the Problem Wherein the Icon of the U2000 Client Is Inconsistent with Other Icons](#)

[A.3.6 How to Resolve the Problem Wherein the Message "PATH environment's length is too long" Is Displayed During Installation](#)

[A.3.7 How to Determine Which Types of Software Are Preinstalled](#)

[A.3.8 Which Installation Packages Are Required for U2000 Installation](#)

[A.3.9 How to Process the Message Displayed During Installation of the U2000, Indicating That a Suspended File Has Been Created](#)

[A.3.10 How to Process the Message Displayed During Installation of the U2000, Indicating That ISQL Connection Check Fails](#)

[A.3.11 How to Handle the Problem Wherein the System Displays a Message Indicating That the Client Installation Packages and Basic Packages Cannot Exist at the Same Time During Decompression](#)

[A.3.12 How to Check Downloaded Software Packages by Using MD5 Software](#)

### [A.3.13 How to Set the Communication Mode on the U2000 server for the Single-Server System \(Windows\)](#)

## A.3.1 How to Verify That the U2000 Is Installed

### Question

How do I verify that the U2000 is installed?

### Answer

1. Log in to the OS as a user with administrator rights.
2. Check whether the icons of the U2000 client and U2000 System Monitor exist on the desktop. If they exist, it indicates that the U2000 has been installed.

 **NOTE**

Sometimes, the shortcut icons do not exist on the desktop because they are deleted by mistake. In this case, check whether the U2000 is installed by choosing **Start > All Programs**. If the U2000 item exists after you choose **Start > All Programs**, it indicates that the U2000 is installed.

## A.3.2 How to Verify That the Processes of the U2000 Single-Server System Are Running on Windows

### Question

How do I verify that the processes of the U2000 single-server system are running on Windows?

### Answer

- 1 Log in to the OS as a user with **administrator** rights. The system automatically starts the database and U2000 service.
- 2 Choose **Start > Programs > Network Management System > U2000 System Monitor** or double-click the associated shortcut icon on the desktop to start the System Monitor.
- 3 In the **Login** dialog box, enter a user name and password to access the System Monitor window. The user name is **admin** and the initial password is blank by default. When you log in to the System Monitor for the first time, you must change the initial password.
- 4 Check whether U2000 processes can be properly started. The processes whose startup mode is **manual** must be started manually.

----End

## A.3.3 How to Start the Processes of the U2000 Single-Server System on Windows

### Question

How do I start the processes of the U2000 single-server system (Windows)?

## Answer

- 1 Log in to the OS as a user with **administrator** rights. The system automatically starts the database and U2000 service.
- 2 If the database does not automatically start along with the OS, run the following command to manually start it.

Choose **Start > Programs > Microsoft SQL Server > Enterprise Manager**, and click **Start/Continue** to start the database. If the database has started, skip this step.

- 3 Manually start the U2000 processes.

You can run the **startnms.bat** file in the U2000 installation directory **\server\bin**.

----End

## A.3.4 How to End the Processes of the U2000 Single-Server System on Windows

### Question

How do I end the processes of the U2000 single-server system on Windows?



### CAUTION

You can stop all the services of the NMS, including the system monitoring process.

If you use the **Stop All NMS Services** function of the System Monitor, the system monitoring process is not ended. Do not use this method if perform operations for shutting down the NMS that are associated with the database.

---

### Answer

- 1 Exit all the U2000 clients.
- 2 End the NMS processes.

In the directory of the NMS software after the installation, for example, the **D:\U2000\server\bin** directory, run the **stopnms.bat** file to end the NMS processes.

----End

## A.3.5 How to Resolve the Problem Wherein the Icon of the U2000 Client Is Inconsistent with Other Icons

### Question

If the U2000 has been reinstalled, the icon of the U2000 client may be inconsistent with other icons. How do I resolve this problem?

## Answer

- 1 Right-click on the desktop and choose **Properties** from the shortcut menu.
- 2 On the **Appearance** tab page, click **Advanced** to access the **Advanced Appearance** dialog box.
- 3 Select **Icon** from the **Item** drop-down list.
- 4 Memorize the size of the current default icon. Then, modify the icon size.
- 5 Click **OK** twice. The icon size is changed.
- 6 Repeat the preceding steps to change the icon size back to the default one. The icon is then normally displayed.

----End

## A.3.6 How to Resolve the Problem Wherein the Message "PATH environment's length is too long" Is Displayed During Installation

### Question

When the U2000 is installed on Windows OS, the following message is displayed and the installation is paused. In this case, how do I resolve the problem?

PATH environment's length is too long. Please delete some useless fields and then perform the installation.

### Answer

- 1 Right-click **My Computer** on the desktop and choose **Properties** from the shortcut menu.
- 2 Click the **Advanced** tab.
- 3 Click **Environment Variables** to check whether the environment variable exceeds the maximum length. When you check the length of the PATH environment variable, you may find that **%PATH%** is added to the environment variable. As a result, environment variable exceeds the maximum length.

```
... C:\WINDOWS\system32;%PATH%; ...
```

In this case, delete **%PATH%** from the environment variable.

----End

## A.3.7 How to Determine Which Types of Software Are Preinstalled

### Question

Servers come preinstalled with software from Huawei. The U2000 servers come preinstalled to different extents according to the scheme and software purchased. How do I determine which types of software are preinstalled?

### Answer

In the single-server system: The U2000 is installed based on the bill of material (BOM).

- If the U2000 license BOM is available, the U2000 needs to be installed according to the license BOM. Technical support engineers should change the IP address, install the license on the U2000, and then use the U2000.
- If the U2000 license BOM is unavailable, only the OS needs to be installed.

## A.3.8 Which Installation Packages Are Required for U2000 Installation

### Question

Which installation packages are required for U2000 installation?

### Answer

Prepare installation packages according to the U2000 installation scheme.

**Table A-1** DVD list

Software	DVD Name
Windows OS software	Windows OS installation DVD: Windows Server 2003 R2 Enterprise with SP2  <b>NOTE</b> There are five Windows OS DVDs available, among which DVDs A, B, and C are used to install Windows Server 2003 R2 Enterprise with SP1, and DVDs D and E are used to install Windows Server 2003 R2 Enterprise with SP2. Only DVDs D and E must be used.  OS patch installation DVD: Windows OS patch: U2000 <code>version</code> _server_ospatch_win32_x86_dvd1
Database software	Installation DVD: SQL Server standard edition (installing the database in the Windows Server 2003 OS): U2000 <code>version</code> _server_dbstd_win32_x86_dvd2
U2000 server software	Installation DVD: U2000 software: U2000 <code>version</code> _server_nms_win32_x86_dvd3

**Table A-2** Software package list

Software	Medium Name	Description
Windows OS software	Windows OS installation DVD: Windows Server 2003 R2 Enterprise with SP2  OS patch installation software package: Windows OS patch: U2000 <code>version</code> _server_ospatch_en_win32_x86.zip	It is used to install the Windows OS. <b>It must be available.</b>

Software	Medium Name	Description
Database software	<p>Installation software package: SQL Server standard edition (installing the database in the Windows Server 2003 OS): U2000<code>version</code>_server_dbstd_en_win32_x86.zip</p> <p><b>NOTE</b> The database software package U2000<code>version</code>_server_dbper_en_win32_x86.zip must be on-hand for installation engineers to install the U2000 on Windows XP.</p>	<b>It must be available.</b> It is used to install the database.
U2000 server software	<p>Basic components: U2000<code>version</code>_server_nmsbase_win32_x86.zip</p>	<b>It must be available.</b> It is used to install the U2000.
	<p>Core components: U2000<code>version</code>_server_nmscore_win32_x86.zip</p>	<b>It must be available.</b> It is used to install the U2000.
	<p>Transport domain component (optional). Prepare this component if managing transport or PTN equipment: U2000<code>version</code>_server_nmstrans_win32_x86.zip</p>	<p><b>It is required only if the U2000 needs to manage Huawei transport equipment.</b> Huawei transport equipment includes:</p> <ul style="list-style-type: none"> <li>● MSTP equipment</li> <li>● WDM equipment</li> <li>● NA WDM equipment</li> <li>● Submarine equipment</li> <li>● RTN equipment</li> <li>● PTN equipment</li> </ul>
	<p>IP domain components (optional). Prepare these components if managing routers, switches, or security equipment: U2000<code>version</code>_server_nmsip_win32_x86.zip</p>	<p><b>It is required only if the U2000 needs to manage Huawei IP equipment.</b> Huawei IP equipment includes:</p> <ul style="list-style-type: none"> <li>● Routers</li> <li>● Switches</li> <li>● Metro service equipment</li> <li>● Broadband access equipment</li> <li>● VoIP gateways</li> <li>● Firewalls</li> <li>● Service inspection gateway</li> <li>● SVN equipment</li> </ul>



Software	Medium Name	Description
	Access domain components (optional). Prepare this component if managing access equipment: U2000 <code>version_</code> server_nmsaccess_win32_x86.zip	<b>It is required only if the U2000 needs to manage Huawei access equipment.</b> Huawei access equipment includes: <ul style="list-style-type: none"><li>● FTTx equipment</li><li>● MSAN equipment</li><li>● DSLAM equipment</li></ul>

### A.3.9 How to Process the Message Displayed During Installation of the U2000, Indicating That a Suspended File Has Been Created

#### Question

How do I process the message displayed during installation of the U2000, indicating that a suspended file has been generated?

#### Answer

- 1 On Windows OS, the system displays a message indicating that a suspended file is already created during the reinstallation of the U2000. This is because the suspended file is generated during the previous installation.

Enter the following command in the address bar and then press **Enter**:

```
%tmp%
```

- 2 Query the **ClearInstallDiskDir.bat** file and delete it.

----End

### A.3.10 How to Process the Message Displayed During Installation of the U2000, Indicating That ISQL Connection Check Fails

#### Question

How do I process the message displayed during installation of the U2000, indicating that ISQL connection check fails?

#### Answer

- 1 Check whether the environment variable **path** contains the following path and ensure that the environment variables of other databases are not configured:

```
C:\Program Files\Microsoft SQL Server\80\Tools\BINN.
```

- 2 Choose **Start > Program > Microsoft SQL Server > Query Analyzer**. On the **Connect to SQL Server** page that is displayed, set the IP address of the local host as the service name, select

the **Start SQL Server if it is stopped** check box, enter the password of the **sa** user, and then click **OK**. Check whether the SQL Server can be normally connected.

---End

### A.3.11 How to Handle the Problem Wherein the System Displays a Message Indicating That the Client Installation Packages and Basic Packages Cannot Exist at the Same Time During Decompression

#### Question

In a scenario where the U2000 server software is installed by using software packages, software packages are decompressed, the system displays a message indicating that the client installation packages and basic packages cannot exist at the same time. How do I handle this problem?

#### Answer

This problem arises because both the server software packages and client software packages are copied and then decompressed at the same time. To resolve this problem, delete client software packages and then decompress them again.

### A.3.12 How to Check Downloaded Software Packages by Using MD5 Software

#### Question

How do I check downloaded software packages by using MD5 software?

#### Answer

- 1 Download the **MD5\_Code\_English** file from <http://support.huawei.com>. The **MD5\_Code\_English** file contains MD5 code information after all software and document packages are decompressed.



#### NOTE

Perform the following operations to obtain the **MD5\_Code\_English** file:

1. Access <http://support.huawei.com>.
  2. Choose **Software Center > Version Software > Network OSS&Service > iManager U2000 > iManager U2000 > iManager U2000 > iManager U2000 V100R002 > iManager U2000 V100R002C01SPC002**.
  3. Download the **MD5\_Code\_English** file in the **Release Document** column.
- 2 Navigate to <http://www.winmd5.com> and download the WinMD5.
  - 3 Double-click **WinMD5 1.2.exe** to run the WinMD5.
  - 4 Drag the downloaded software package to the window for running the WinMD5. The WinMD5 automatically generates MD5 code information about the downloaded software package and then compares the information with the counterpart in the **MD5\_Code\_English** file.
    - The downloaded software package is correct if the information about the software package is consistent with the counterpart in the **MD5\_Code\_English** file.

- The software package must be re-downloaded if the information about the software package is inconsistent with the counterpart in the **MD5\_Code\_English** file.

----End

## A.3.13 How to Set the Communication Mode on the U2000 server for the Single-Server System (Windows)

### Question

The U2000 server and client can communicate with each other in common or Security Socket Layer (SSL) mode. How to set the common or SSL mode?

### Answer

- 1 Log in to the OS on the U2000 server as an administrator and do as follows to query the communication mode in use:

Choose **Start > Run**. In the **Run** dialog box, enter **cmd** to open the command line interface (CLI). Enter **ssl\_adm -cmd query** to query the communication mode that the U2000 server is using.

- 2 Stop U2000 processes.

In the U2000 software installation path, for example, **D:\U2000\server\bin**, run the **stopnms.bat** file to stop U2000 processes.

- 3 Set the communication mode for the U2000 server and client.

Choose **Start > Run**. In the **Run** dialog box, enter **cmd** to open the CLI. Enter **ssl\_adm -cmd setmode mode parameter** and set the communication mode for the U2000 server and client.

#### NOTE

The available options for *mode parameter* are **normal**, **ssl**, and **both**.

- **normal**: indicates that the U2000 server and client can communicate with each other only in common mode.
- **ssl**: indicates that the U2000 server and client can communicate with each other only in SSL mode. In this mode, communication security is guaranteed between the U2000 server and client.
- **both**: indicates that the U2000 server and client can communicate with each other in either common or SSL mode.

- 4 Start U2000 processes.

In the U2000 software installation path, for example, **D:\U2000\server\bin**, run the **startnms.bat** file to start U2000 processes.

----End



# B Uninstalling the U2000 Server

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This topic describes how to uninstall the U2000 server.

## [B.1 Uninstall Preparations](#)

This topic describes the preparations for uninstalling the U2000 server.

## [B.2 Uninstall Procedure](#)

This topic describes how to uninstall the U2000 server in a Windows OS.

## [B.3 Verifying the U2000 Server Uninstall](#)

This topic describes how to verify the U2000 server uninstall.

## B.1 Uninstall Preparations

This topic describes the preparations for uninstalling the U2000 server.

### Procedure

- 1 Log out of all running U2000 clients.
- 2 Stop U2000 services and processes.
  1. Run the **stopserver.bat** file in the U2000 path, that is, **C:\HWENGR\engineering**, to end the U2000 MSuite processes.
  2. Run the **stopnms.bat** file in the U2000 path, for example, **D:\U2000\server\bin**, to end U2000 processes.
- 3 Ensure that U2000 processes have been ended.
  1. Press **Ctrl+Shift+Esc**. The **Windows Task Manager** dialog box will be displayed.
  2. Click the **Processes** tab. Ensure that the **imapmrb.exe**, **imapwatchdog.exe**, **imapsysd.exe**, **imapeventmgr.exe**, **imap\_sysmonitor.exe**, **ResourceMonitor.exe**, **imapsvcd.exe**, **EmfGnlDevDm.exe** and **imapPortTrunkSvc.exe** processes have been ended.
- 4 In the **Windows Task Manager** dialog box, click the **Processes** tab, and end the apache and tomcat processes.
- 5 Click **Stop** and **Start/Continue** in the SQL Server service manager to restart the SQL Server database to ensure that no external user accesses the SQL Server database.

#### NOTE

When uninstalling the U2000 server, ensure that the database works properly. If the database has been stopped, the uninstall may fail.

----End

## B.2 Uninstall Procedure

This topic describes how to uninstall the U2000 server in a Windows OS.

### Prerequisite

Preparations for uninstall have been completed.

### Context

- Do not uninstall databases when uninstalling the U2000. If the database needs to be uninstalled, uninstall the U2000 and then the database. Otherwise, some data files cannot be deleted.
- If the database and backup files need to be saved, manually back up the **D:\U2000\server\var\backup** directory to a non-installation directory of the U2000 before uninstalling the U2000. This directory is generated only after the backup is performed. If no backup has been performed, this directory does not exist.

## Procedure

- 1 Log in to a Windows OS as an OS user with administrator rights. Choose **start > Programs > Network Management System > Uninstall U2000**.
- 2 Click **Next**. The **Confirm** dialog box will be displayed.
- 3 Click **Yes**. The **Uninstalling** dialog box will be displayed.
- 4 After the uninstall is complete, the **Uninstallation Completed** dialog box will be displayed.
- 5 Click **Finish**. The **Restart the operating system** dialog box will be displayed.
- 6 Click **Yes** to restart the OS.
- 7 After the OS is restarted, double-click the **stopserver.bat** file in the **C:\HWENGR\engineering** path to shut down the U2000 MSuite server. Then, delete the **C:\HWENGR** and **C:\HWNMSJRE** paths.

----End

## B.3 Verifying the U2000 Server Uninstall

This topic describes how to verify the U2000 server uninstall.

### Procedure

- 1 Ensure that the following shortcut icons are deleted from the Windows desktop: **U2000 Client**, **U2000 Server**, **U2000 MSuite**, **NE Software Management**, and **U2000 System Monitor**. In addition, ensure that the U2000 menu item has been deleted from the **Start > Programs** menu.
- 2 Ensure that the installation path of the U2000 server, such as the **D:\U2000** path, is deleted.
- 3 Ensure that the environment variables of the U2000 have been deleted.
  1. Right-click **My Computer** on the desktop and choose **Properties** from the shortcut menu.
  2. Click the **Advanced** tab.
  3. Click **Environment Variables**. In the **Environment Variables** dialog box, verify that U2000 environment variables have been deleted. For details, see [4.5.2 Checking Environment Variables](#).
- 4 Ensure that U2000 database files have been deleted.
  1. Choose **start > Programs > Microsoft SQL Server > Enterprise Manager**. The **SQL Server Enterprise Manager** window will be displayed.
  2. Choose **Databases** for the local server from the navigation tree. Ensure that all databases have been deleted, except **master**, **model**, **msdb**, **pubs**, **tempdb**, and **Northwind**.

----End






# C Powering Off the System

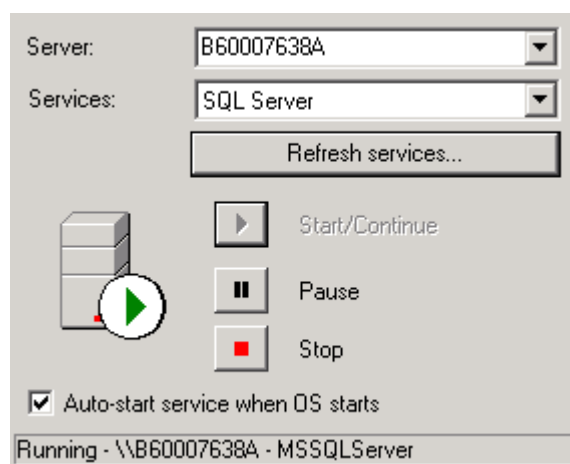
In any situation, you must follow the correct procedure for powering off the server as required, ensuring that the server is shut down in a secure manner.

## Context

Do not perform this operation when the U2000 is managing NEs normally. You need to shut down the U2000 only in special cases, such as power supply switching.

## Procedure

- 1 Exit all running U2000 clients.
- 2 Stop U2000 services and processes.
  1. Run the **stopserver.bat** file in the U2000 path, that is, **C:\HWENGR\engineering**, to end the U2000 MSuite processes.
  2. Run the **stopnms.bat** file in the U2000 path, for example, **D:\U2000\server\bin**, to end U2000 processes.
- 3 Stop the SQL Server database service.
  1. Choose **Start > Programs > Microsoft SQL Server > Service Manager**.
  2. In the dialog box shown in the following figure, click .



3. In the dialog box that is displayed, click **Yes**.
- 4 Shut down the Windows OS.

----**End**

# D Acronyms and Abbreviations

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## A

<b>ACL</b>	access control list
<b>ASCII</b>	American standard code for information interchange

## C

<b>CD-ROM</b>	compact disc-read only memory
<b>CPU</b>	central processing unit

## D

<b>DC</b>	data center
<b>DCN</b>	data communication network
<b>DHCP</b>	Dynamic Host Configuration Protocol

## E

<b>ESN</b>	equipment serial number
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## F

<b>Ftp</b>	File Transfer Protocol
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## I

<b>ID</b>	identity
<b>iMAP</b>	integrated management application platform
<b>IP</b>	Internet Protocol

<b>IPMP</b>	IP network multipathing
<b>L</b>	
<b>LCT</b>	local craft terminal
<b>LAN</b>	local area network
<b>M</b>	
<b>MML</b>	human-machine language (formerly man-machine language)
<b>MPLS</b>	multi-protocol label switching
<b>MA</b>	media service access
<b>MAC</b>	media access control
<b>MAN</b>	metropolitan area network
<b>MAU</b>	medium attachment unit
<b>N</b>	
<b>NBI</b>	northbound interface
<b>NE</b>	network element
<b>NIC</b>	network information center
<b>NMS</b>	network management system
<b>NTP</b>	Network Time Protocol
<b>O</b>	
<b>OEM</b>	original equipment manufacturer
<b>OS</b>	operating system
<b>OSS</b>	operations support system
<b>P</b>	
<b>PC</b>	personal computer
<b>PPP</b>	Peer-Peer Protocol
<b>PSTN</b>	public switched telephone network
<b>PVC</b>	permanent virtual circuit

**S**

<b>SCSI</b>	small computer systems interface
<b>SDH</b>	synchronous digital hierarchy
<b>SNMP</b>	Simple Network Management Protocol
<b>SQL</b>	structured query language
<b>SSH</b>	secure shell

**T**

<b>Tcp</b>	transport control protocol
<b>Tftp</b>	trivial file transfer protocol

**U**

<b>UDP</b>	User Datagram Protocol
<b>UPS</b>	uninterrupted power supply

**X**

<b>XML</b>	extensible markup language
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