

RIIL IT Business Management

Ver. 6.2.0

Installation Guide

Ruijie Networks Co., Ltd.

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1 Foreword

Thank you for using RIIL IT Business Management (hereinafter referred to as RIIL) from Ruijie Networks. To familiarize you with operations quickly, we prepare a detailed installation guide and attach electronic documents to the installation CD-ROM.

The user manual features complete contents and easy understanding, allowing you to know the installation environment, basic operations, software usage, and precautions. It also guides you through how to use software functions to meet your requirements.

Before you install and use the software for the first time, read all the materials attached to the installation CD-ROM carefully so that you will use RIIL more effectively.

To make the RG-RIIL-BMC software better meet your requirements, we may make some software modifications on an irregular basis, which may result in difference between the actual software functions and the functions described in the installation guide. Ruijie Networks shall not take responsibility for the difference and we are sorry for the inconvenience. We will update any software modification on the website of Ruijie Networks in a timely manner. Please visit our website or call our customer service hotline to obtain the latest software information.

Your feedback on this installation guide is much appreciated.

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2 Preparing for Installation

Before installing RIIL on your server, make sure the server meets the system requirements outlined below.

2.1 Required Hardware/Software

Required Hardware	
CPU	2 x Intel Xeon E5606
Memory	8 GB
Hard Disk Space	500 GB
Required Software	
Operating System	Windows Server 2008 R2 or Windows 2003 Server with Service Pack 2 64-bit
Client	Internet Explorer 8
Flash Player	Flash Player 11.2 or later
Network Bandwidth	100 Mbit/s or higher

2.2 Required Server Environment

1. Ensure that MySQL is not installed on the server. Uninstall it if so.
2. Ensure that the Java Development Kit (JDK) or Java Runtime Environment (JRE) is not installed on the server. Uninstall it if so. Remove the JAVA_HOME environment variable if it exists. After you complete the preceding operations, restart your computer and then install RIIL.
3. Ensure that Internet Explorer 7.0 or later is installed on the server. Upgrade the Internet Explorer version if it is earlier than 7.0.
4. Install Flash Player 11.2 or later for IE before you install RIIL. Ruijie recommends you download Adobe Flash Player from <http://www.adobe.com/>.
5. Ruijie recommends you install RIIL in any partition other than the system partition. Ensure that the installation path does not contain any space, Chinese character, or special character. Create an installation directory before installation. For example, you can create a directory named **Ruijie** in the root directory of local disk D. The following describes how to install RIIL in **D:\Ruijie\RIIL**.

3 Installing RIIL IT Business Management

Quick installation tip: The installation procedure is optimized in the installation program. You can click **Next** in each step after accepting the Software License Agreement until the installation is completed.

3.1 Running Installation Program

The installation program requires setup of Windows services. When you run the installation program in a system enabled with User Account Control (UAC), right-click **RIIL_Enterprise_Setup.exe**, choose **Run as administrator**, and click **Yes** in the **UAC(User Account Control)** dialog box displayed.

It is recommended that you close all other applications before you start installation.

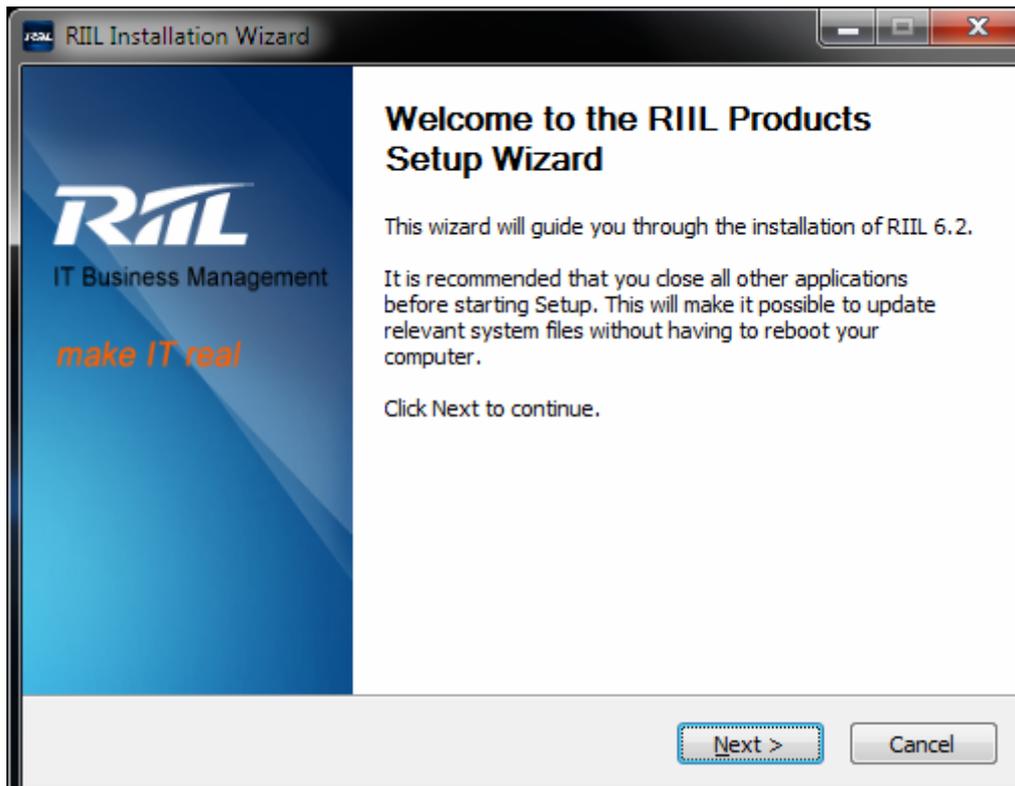


Figure 3-1

3.2 Accepting License Agreement

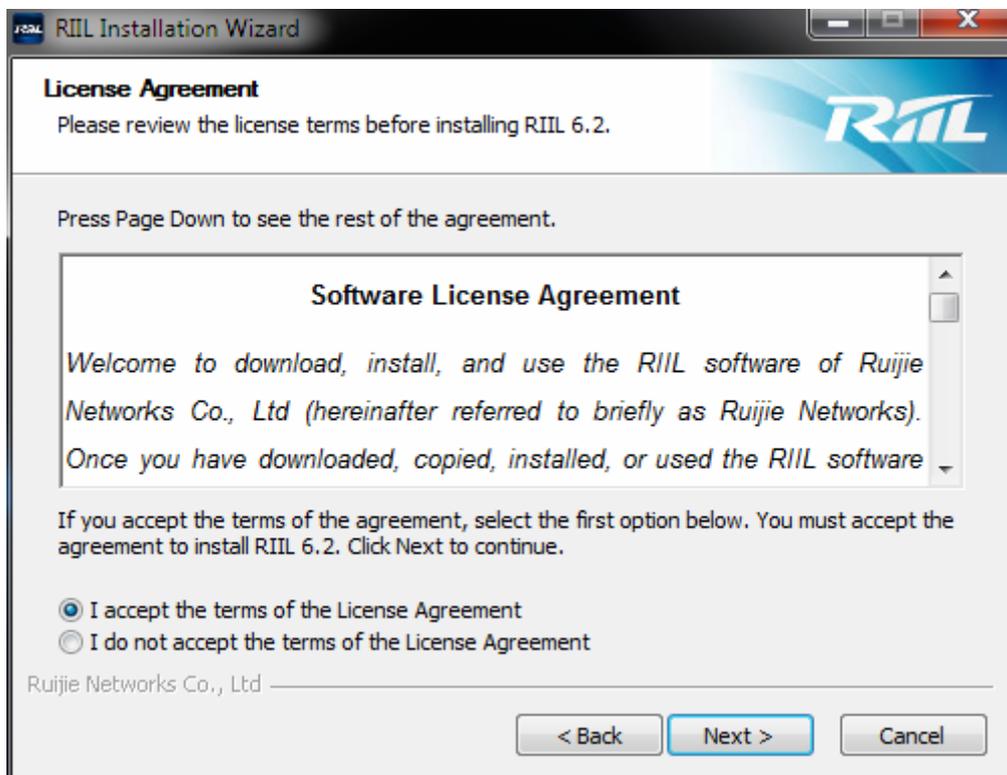


Figure 3-2

Click  **Accept the terms of the License Agreement** and **Next** in the **License Agreement** dialog box to continue.

3.3 Choosing Installation Components



Figure 3-3

By default, all components in the **typical** installation of the RIIL Enterprise Edition are selected to ensure that RIIL runs with optimal functions. Click **Next** in the **Choose Components** dialog box to continue.

Types of installation:

Typical: Install all functions of RIIL.

RIIL Product DB: Install MySQL only.

RIIL Portal Server: Install Portal, CCS, RCS, and Discovery Server.

RIIL DCS: Install DCS and RCS.

RIIL NTA Server: Install NTA Server.

RIIL Logger Server: Install Logger Server.

Custom: You can choose the components you want to install.

3.4 Choosing Installation Path

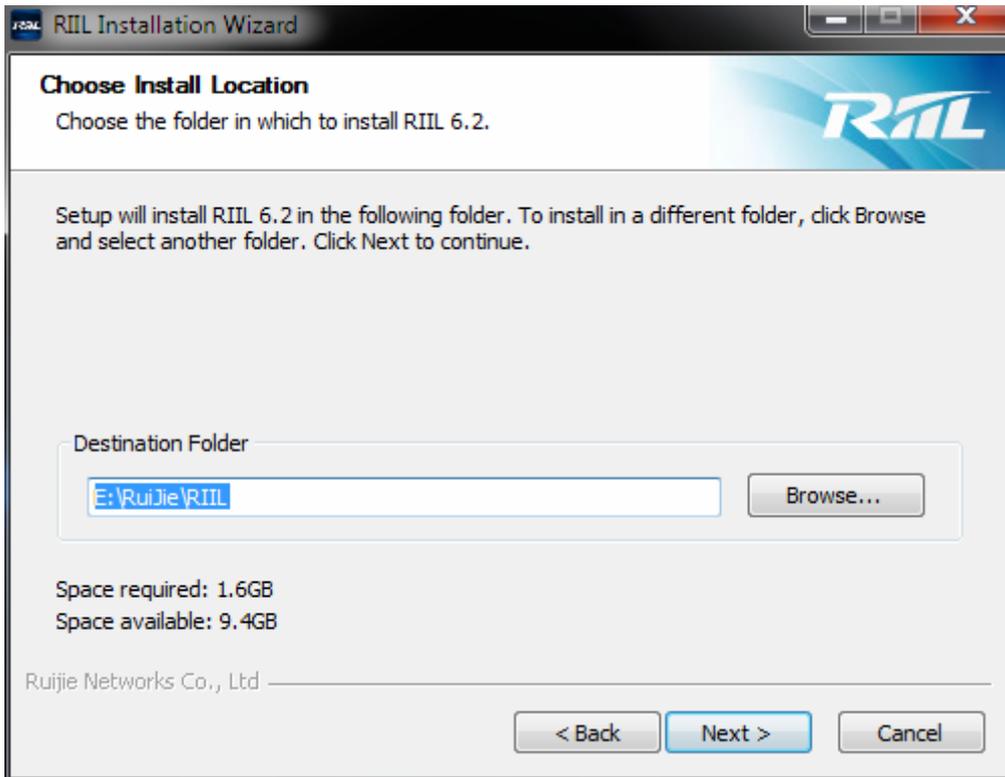


Figure 3-4

Install RIIL in a disk with large free space (more than 40 GB) and ensure that the installation path does not contain spaces. The installation program automatically selects the disk with the largest free space and uses the default installation path as the optimal working directory structure. You are advised not to modify these default settings.

Note: Ruijie recommends you not install RIIL in the root directory of a disk, which may bring inconvenience to your maintenance of directory structure.

3.5 Creating Start Menu



Figure 3-5

To facilitate the administrator in starting and stopping the RIIL program, you are advised to create shortcuts in the Start Menu based on the default setting.

3.6 Configuring Account Information of Local Computer

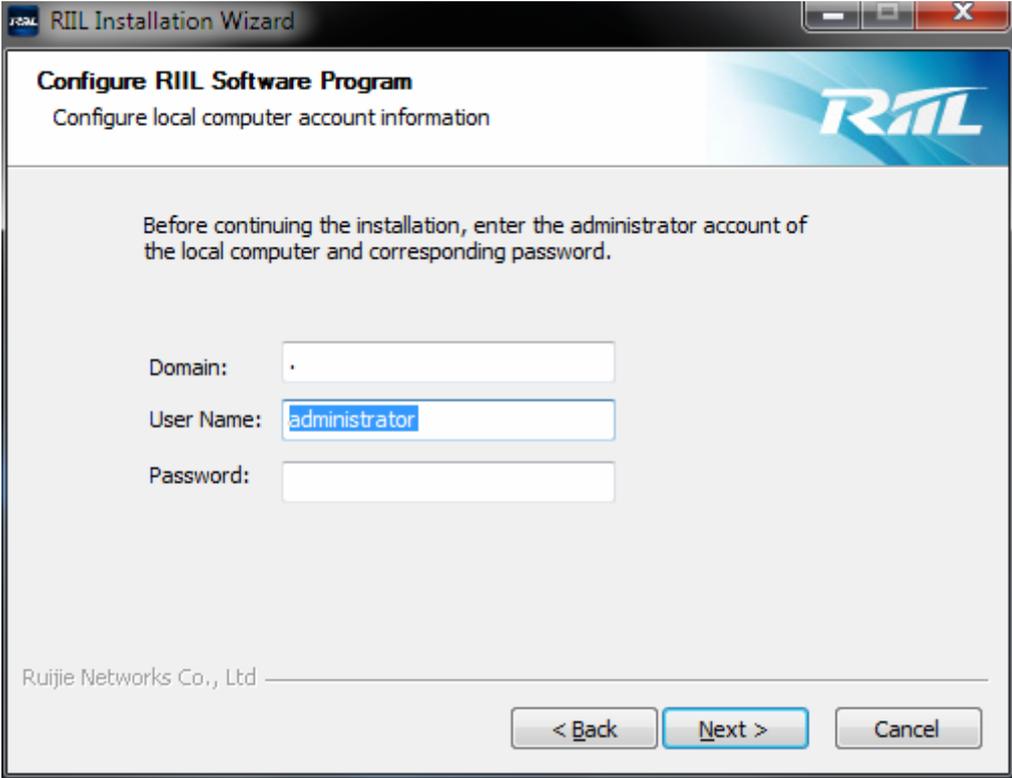


Figure 3-6

Enter the administrator account and password of the server on which RIIIL will run in the **User Name** and **Password** text boxes of the **Configure RIIIL Software Program** window because Windows services require user **administrator** to enable some RIIIL functions.

Enter "." in the **Domain** text box if the local computer is not added to any domain.

3.7 Configuring Database

RIIL Installation Wizard

RIIL Database Configuration
Configure database connection information

Database Server: MySQL

IP Address of the Database Server: 172.16.13.49

Database Port: 3306

Database Name: riil_product

Database User Name: riil

Database Password:

Checked to initialize the database

Checked to install MySQL

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< Back Next > Cancel

Figure 3-7

The installation program uses the default IP address of your server as the IP address of the server on which the database will be installed.

The database port uses the default port specified by the installation program and does not need to be changed in normal conditions. Click **Next** to continue.

The database is initialized only if you check the **Checked to initialize the database** check box.

MySQL is installed only if you check the **Checked to install MySQL** check box. You need to specify information in the **Database Server** drop-down list, **IP Address of the Database Server** text box, **Database User Name** text box, and **Database Password** text box. Database connection is tested when you click **Next**.

Note: When you click **Next**, the installation program automatically detects the status of port 3306 if you choose to install the Product DB component. If the following message is displayed, it is likely that MySQL has been installed on your computer or port 3306 cannot provide services for RIIL.

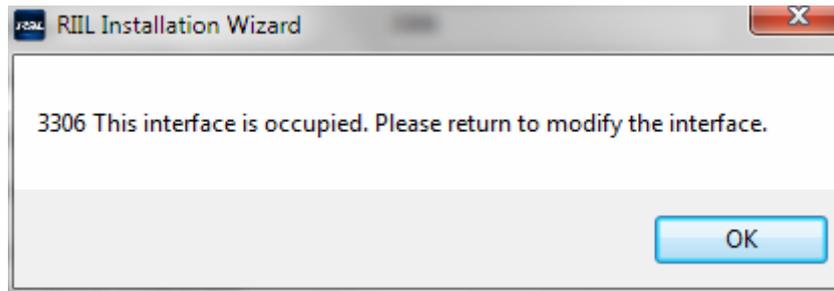


Figure 3-8

To continue installation, change the default port number of the database or remove MySQL from your computer.

3.8 Configuring NTA Server

The **RIIL NTA database Configuration** dialog box is displayed only if you select **RIIL NTA Server** in the **Choose Components** dialog box.

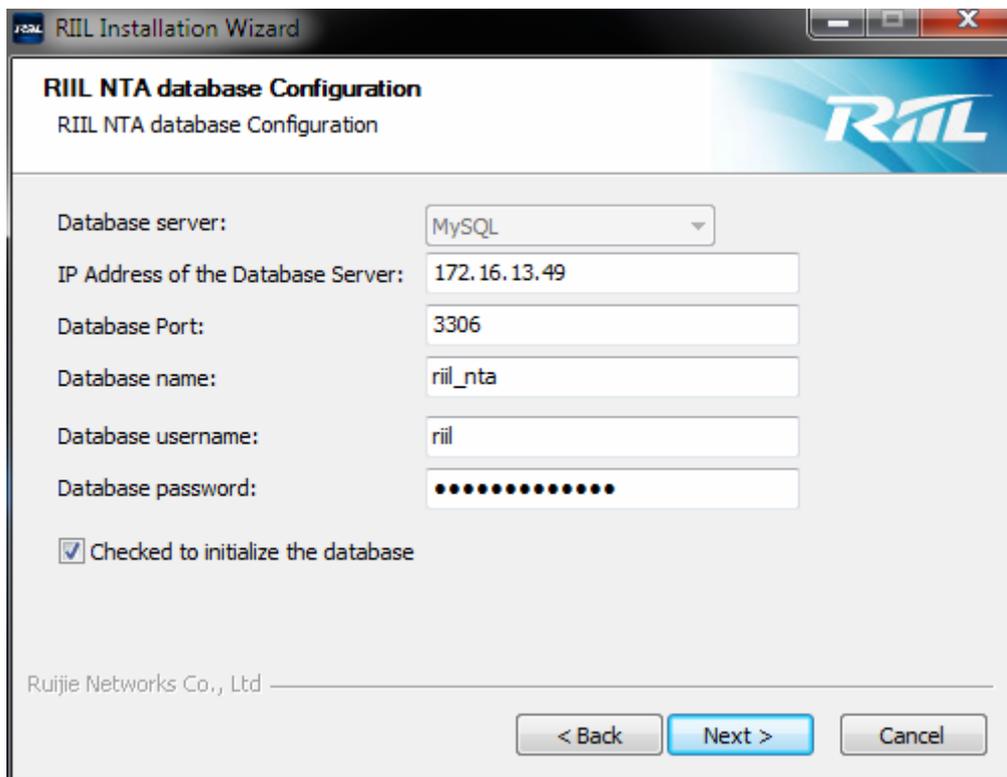


Figure 3-9

3.9 Configuring RIIL Server

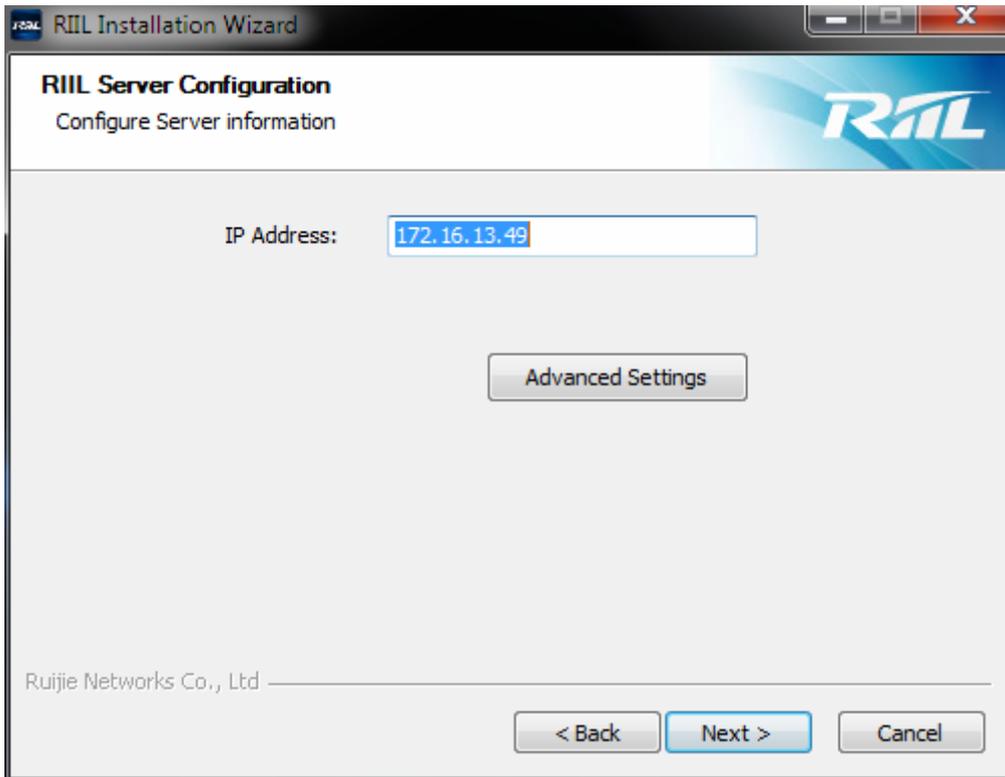


Figure 3-10

The **RIIL Server Configuration** dialog box displays the configuration items that are most likely to be modified by users, for example, IP address of the server (which may need to be changed if two network interface cards are installed). Click **Next** if you do not need to change the IP address of the server.

Note: Default access ports must be configured for components to allow RIIL to run normally. If a message indicating port conflict is displayed, the installation program guides you to the corresponding advanced setting, in which you can change the port number.

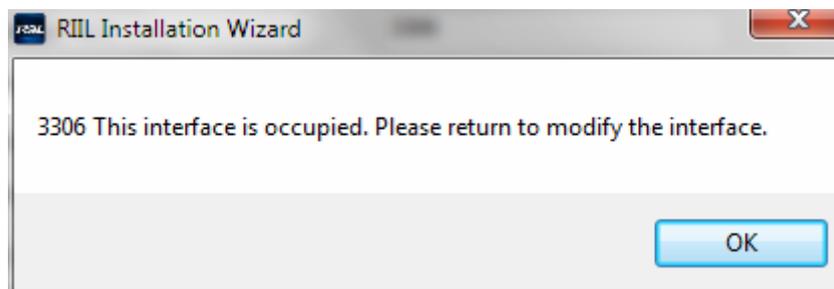


Figure 3-11

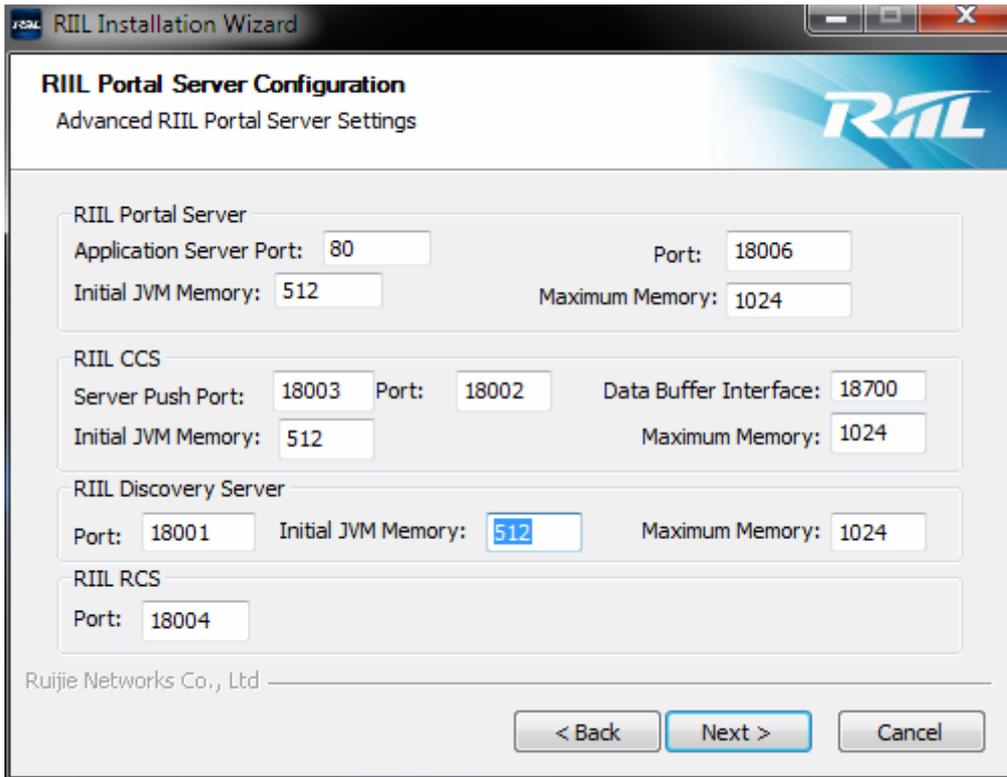
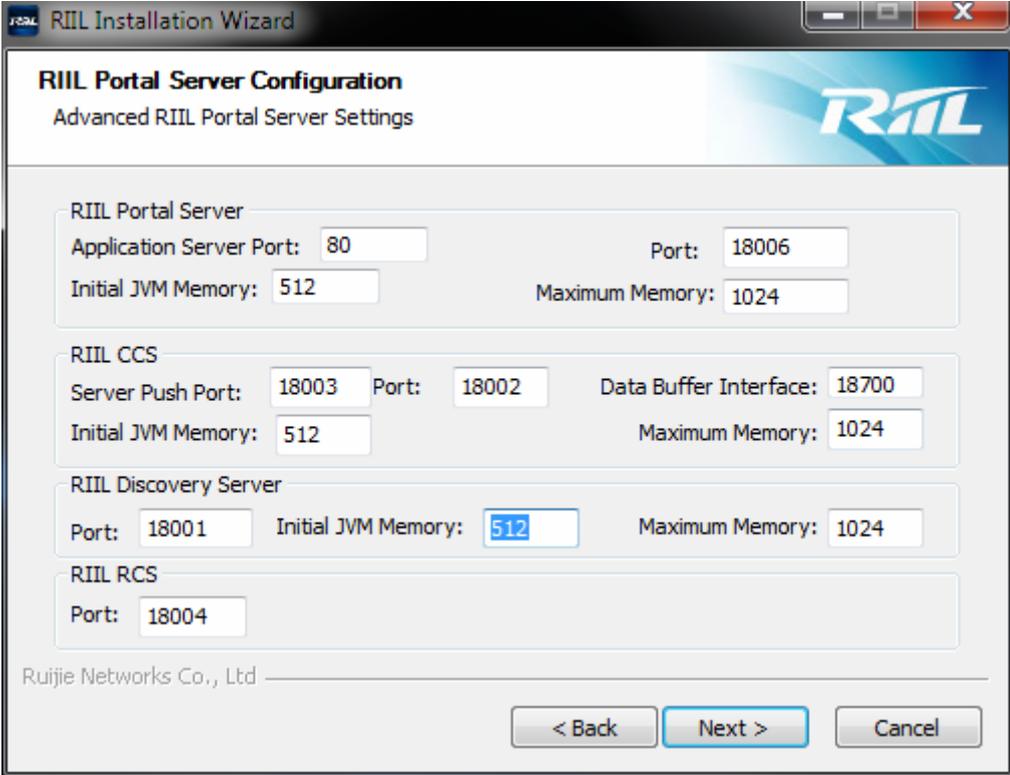


Figure 3-12

Note: You are advised to set the application server port number of the RIIL Portal Server to 80 to allow the client to access RIIL.

3.10 Advanced Server Settings

3.10.1 Configuring RIIL Portal Server



The screenshot displays the 'RIIL Installation Wizard' window, specifically the 'RIIL Portal Server Configuration' step. The window title is 'RIIL Installation Wizard' and it features the RIIL logo in the top right corner. The main heading is 'RIIL Portal Server Configuration' with the subtitle 'Advanced RIIL Portal Server Settings'. The configuration is organized into four sections, each with input fields for various parameters:

- RIIL Portal Server:**
 - Application Server Port: 80
 - Port: 18006
 - Initial JVM Memory: 512
 - Maximum Memory: 1024
- RIIL CCS:**
 - Server Push Port: 18003
 - Port: 18002
 - Data Buffer Interface: 18700
 - Initial JVM Memory: 512
 - Maximum Memory: 1024
- RIIL Discovery Server:**
 - Port: 18001
 - Initial JVM Memory: 512
 - Maximum Memory: 1024
- RIIL RCS:**
 - Port: 18004

At the bottom of the window, the text 'Ruijie Networks Co., Ltd' is visible. Three navigation buttons are located at the bottom right: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a blue border.

Figure 3-13

3.10.2 Configuring RIIL DCS

RIIL Installation Wizard

RIIL DCS Configuration
Advanced RIIL DCS Settings

RIIL CCS
IP Address: 172.16.13.49 Port: 18002 Data Buffer Port: 18700

RIIL DCS
RIIL DCS ID: DCS_172.16.13.49_39 Displayed Name: DCS_172.16.13.4
Database Port: 18306 Port: 18008
Initial JVM Memory: 512 Maximum Memory: 1024

RIIL RCS
Port: 18004

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< Back Next > Cancel

Figure 3-14

3.10.3 Configuring RIIL Logger Server

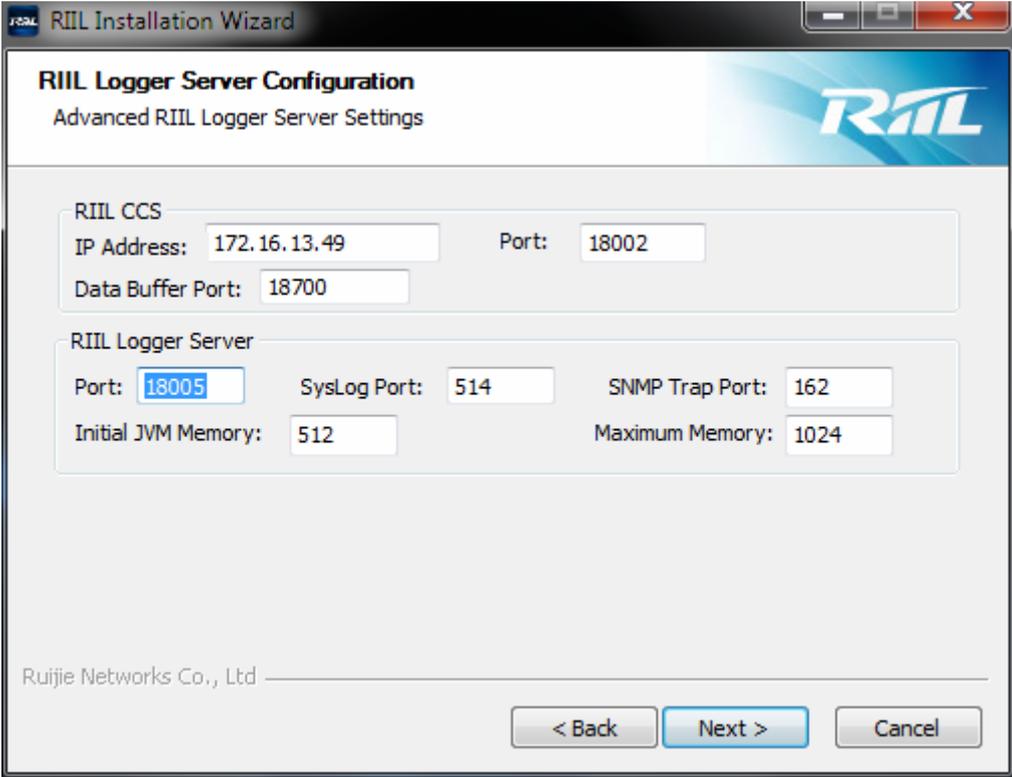


Figure 3-15

3.10.4 Configuring RIIL NTA Server

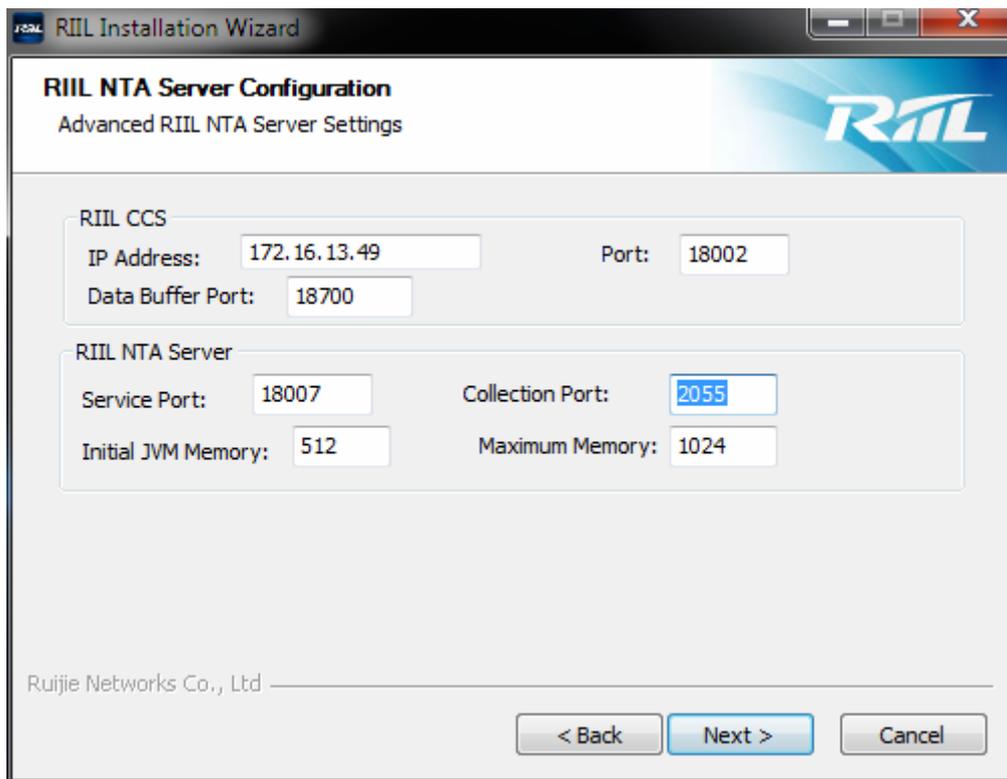


Figure 3-16

3.11 Starting Installation

Before installing RIIL, the installation program lists the components you have selected and the corresponding configurations in the **Start to Install the RIIL** dialog box. You can check whether the installation contents are correct and click **Install** to start installing RIIL or **Back** to modify installation configurations.

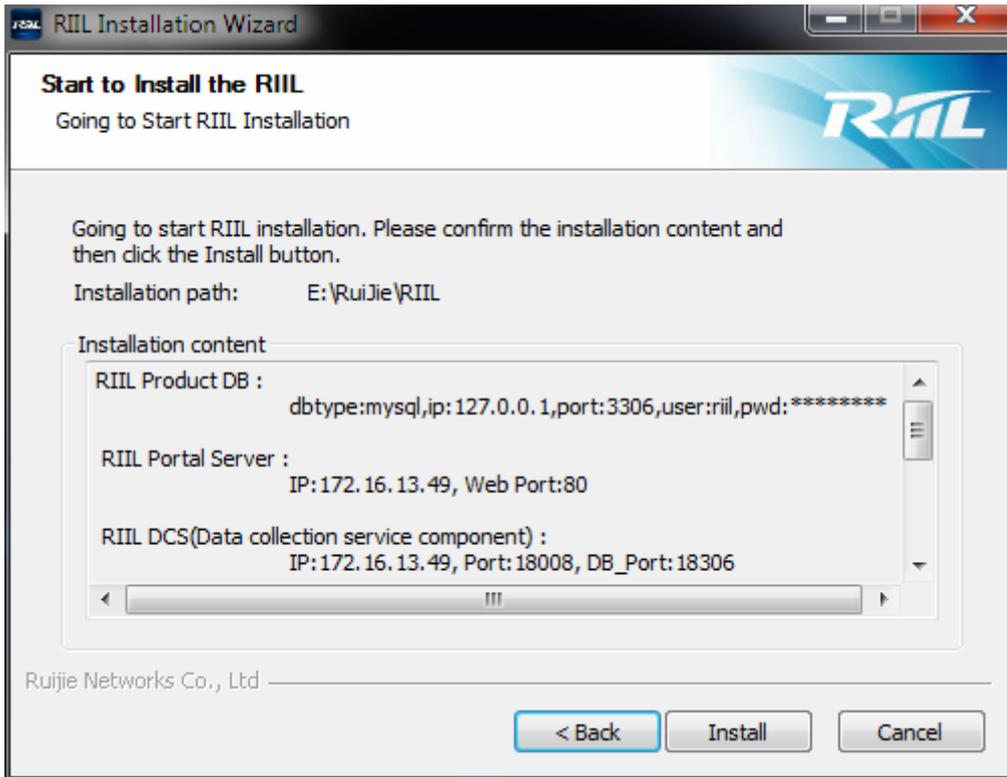


Figure 3-17

3.12 Installation Procedure

Click **Install** and wait for the installation to finish.

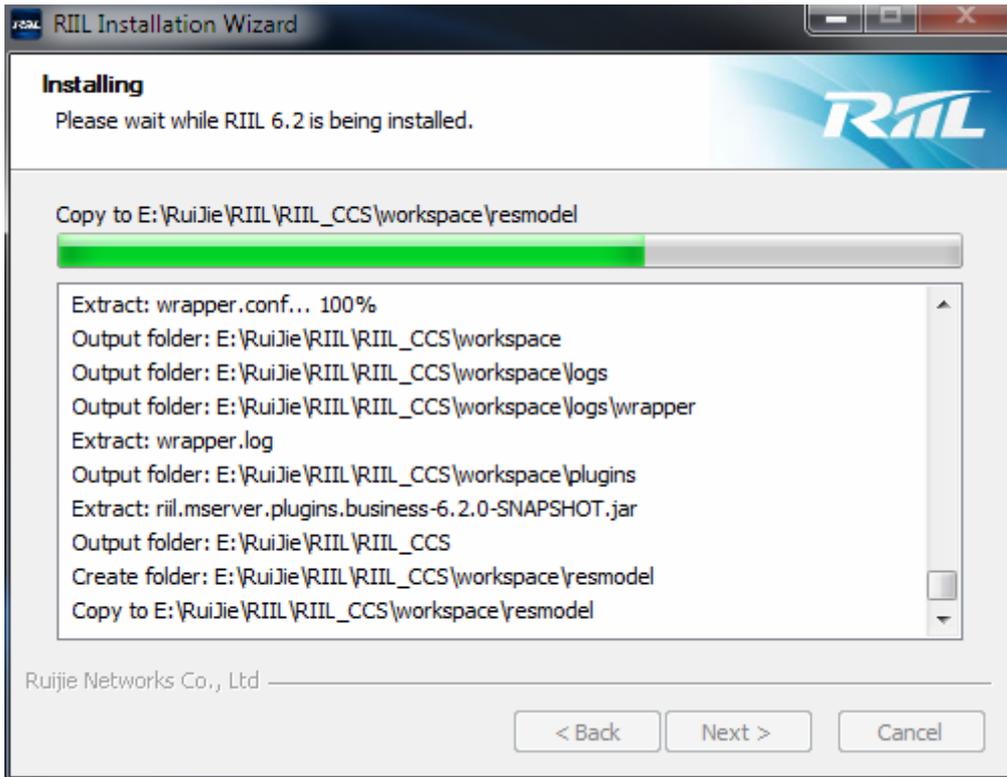


Figure 3-18

3.13 Completing Installation

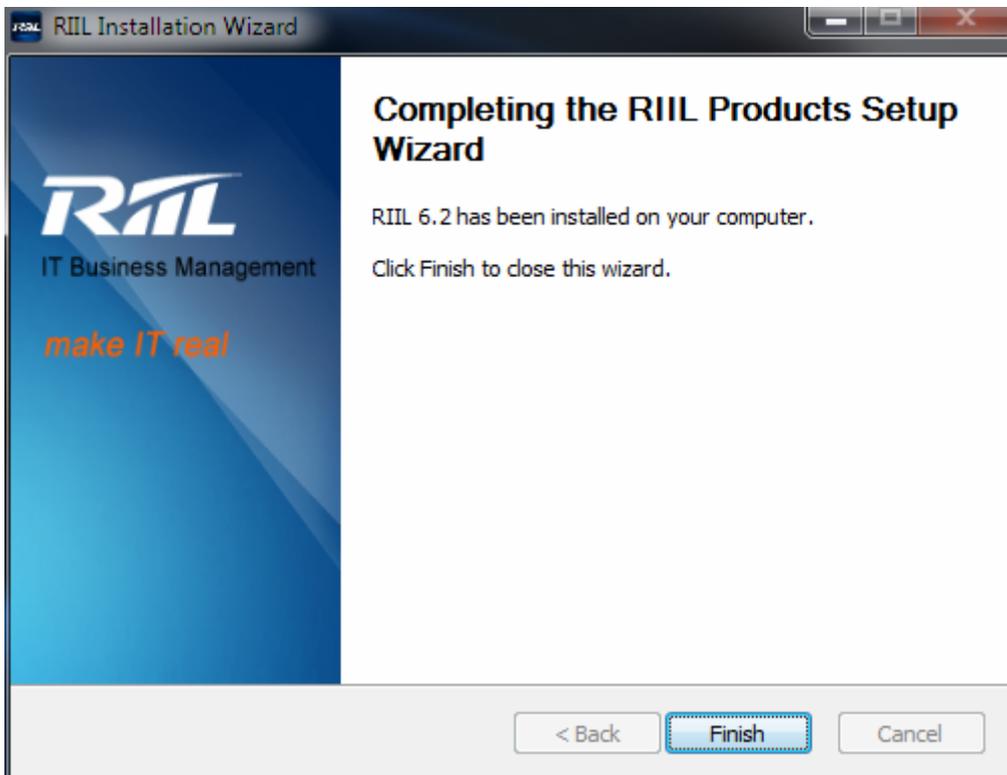


Figure 3-19

This dialog box is displayed when the installation is completed. Click **Finish** to exit the RIIL Installation Wizard.

3.14 Generating Machine Code

Go to **Start -> All Programs -> RIIL -> RIIL_Tools**.

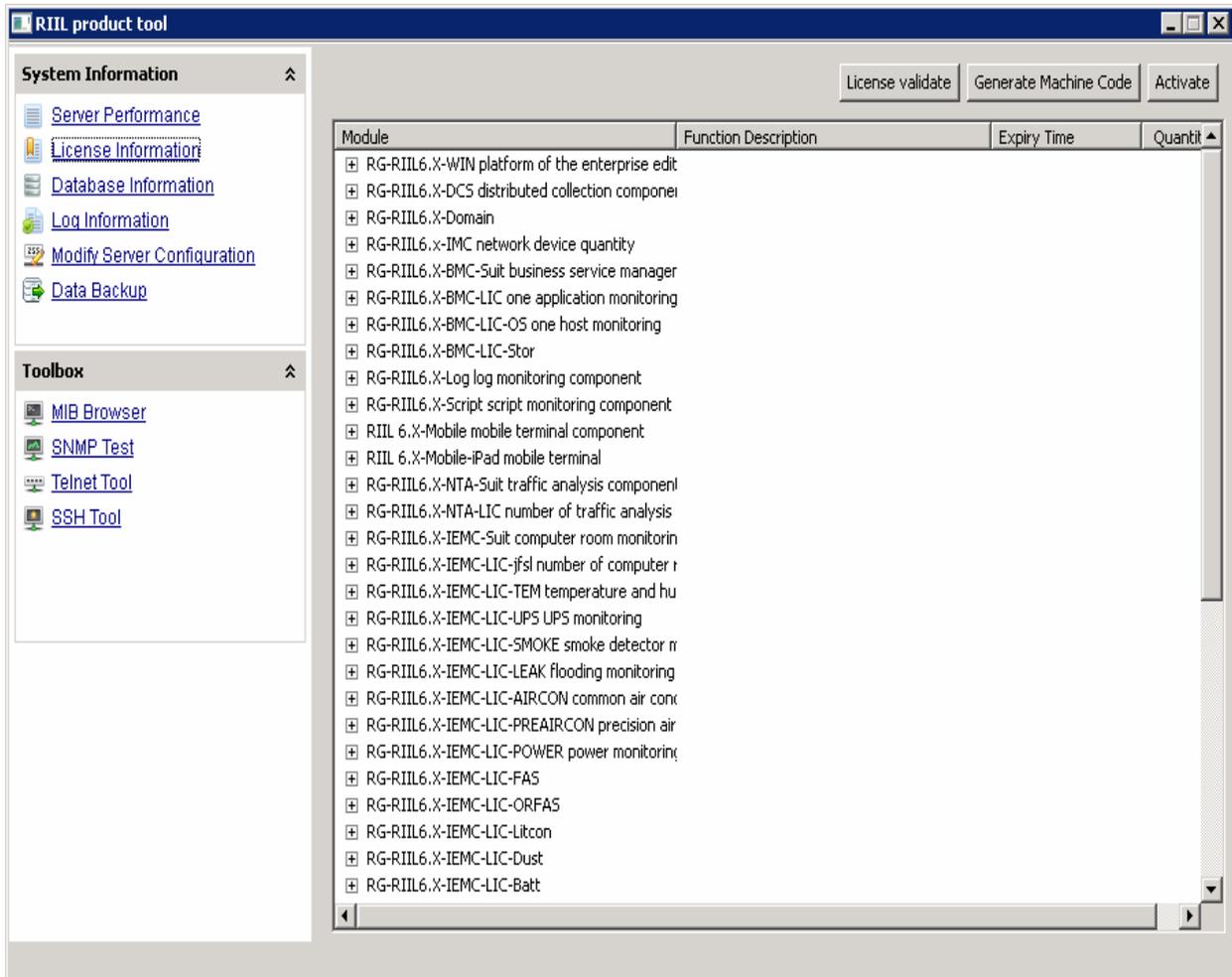


Figure 3-20

Click **Generate Machine Code**.

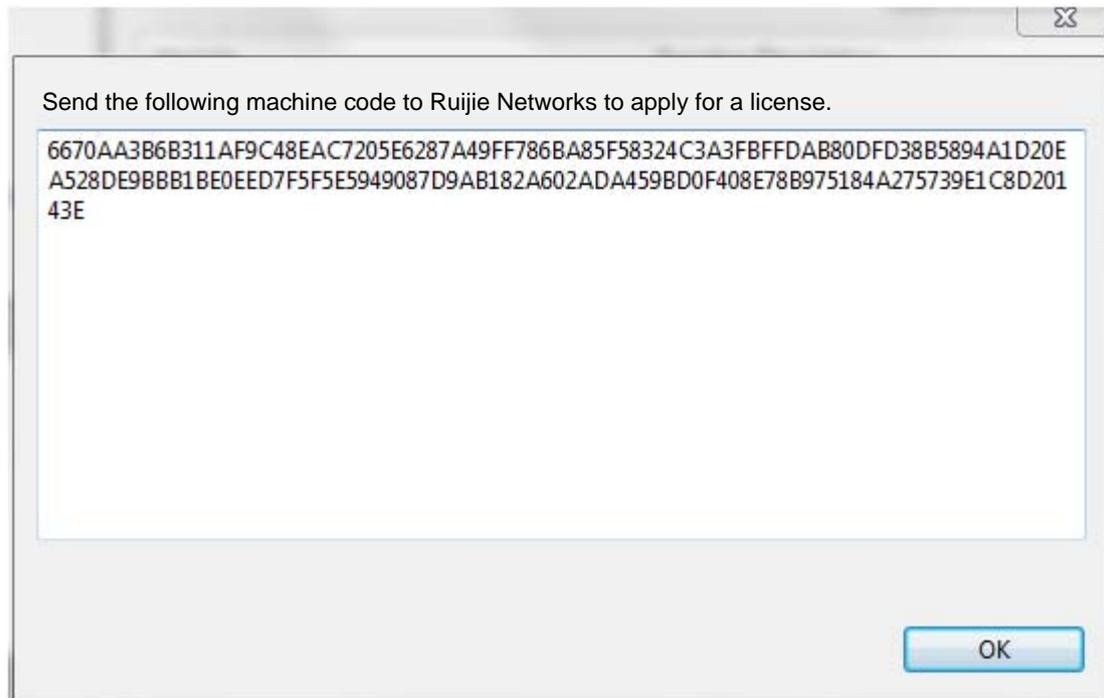


Figure 3-21

Send the generated machine code to Ruijie Networks.

3.15 Replacing License

Method 1:

Go to **Start -> All Programs -> RIIL -> RIIL_Tools**.

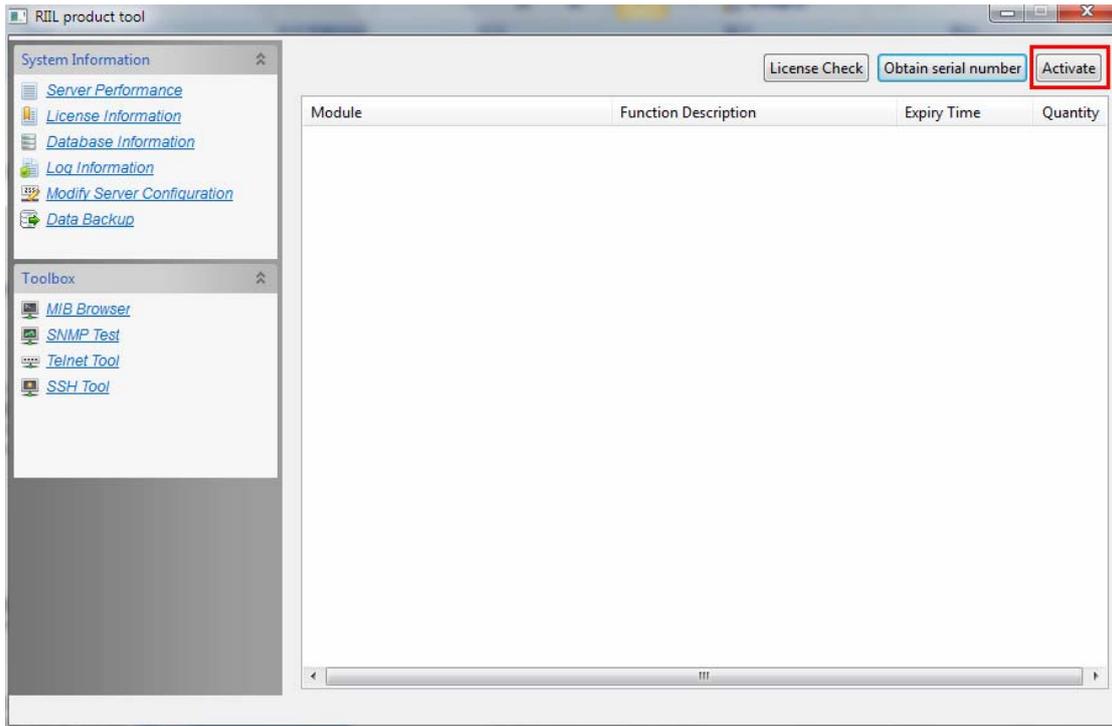


Figure 3-22

Click **Activate**. In the displayed dialog box, click **Select** to select the **License.lc** file.

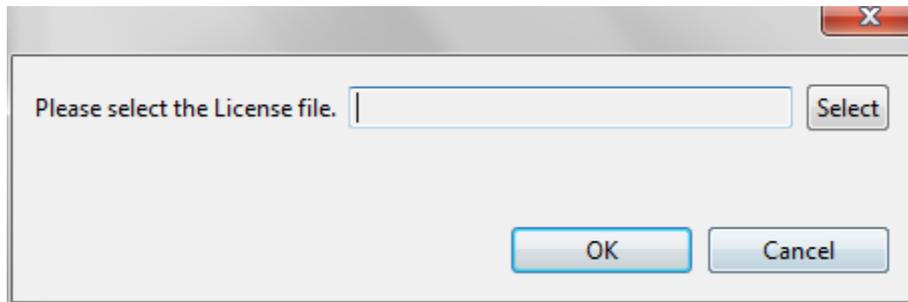


Figure 3-23

Click **OK** to activate RIIL.

When RIIL is activated successfully, the following information is displayed.

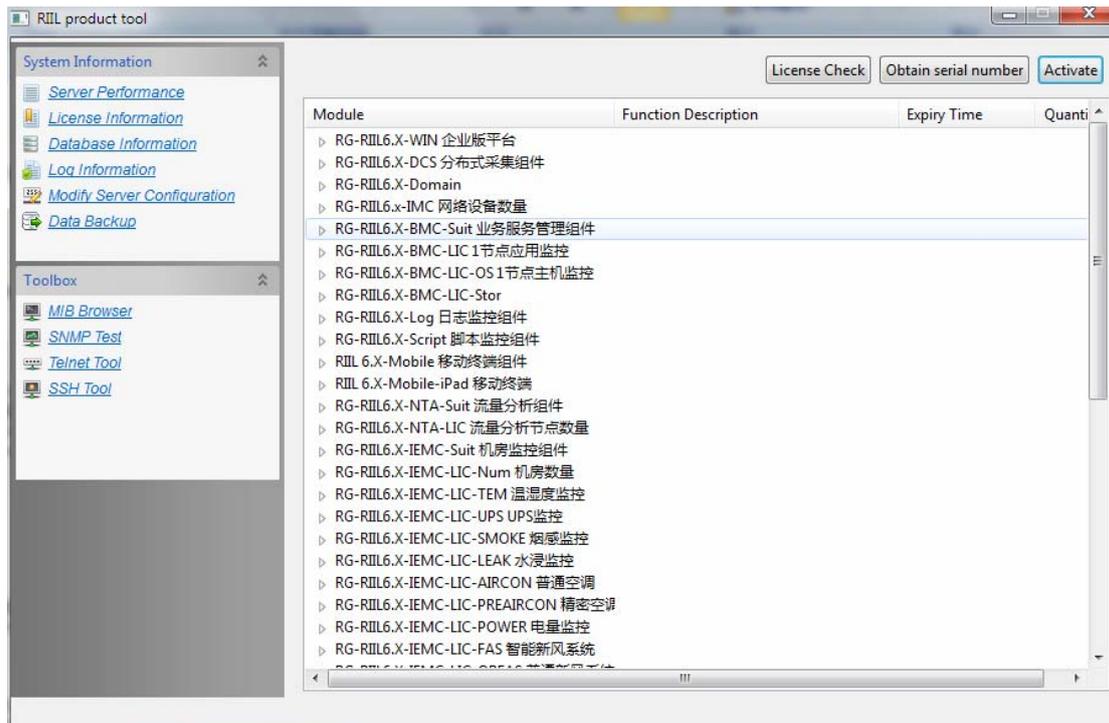


Figure 3-24

Method 2:

Replace the license.lc file for the existing files in the following directories:

RIIL installation directory\RIIL_Discovery_Server\conf\license.lc

RIIL installation directory\RIIL_Log_Server\conf\license.lc

RIIL installation directory\RIIL_CCS\conf\license.lc

RIIL installation directory\RIIL_DCS\conf\license.lc

RIIL installation directory\RIIL_NTA_Server\conf\license.lc

RIIL installation directory\RIIL_Portal_Server\conf\license.lc

4 Distributed Deployment Solution 1

Requirements

Server 1: The database installation program comes with the MySQL database.

Server 2: PORTAL+CCS+Discovery+RCS

Server 3: DCS+RCS

Server 4: NTA+LOG

Implementation

Installation type of server 1: RIIL Product DB

In the **Choose Components** dialog box, select **RIIL Product DB** from the **Select the type of install** drop-down list and click **Next**.

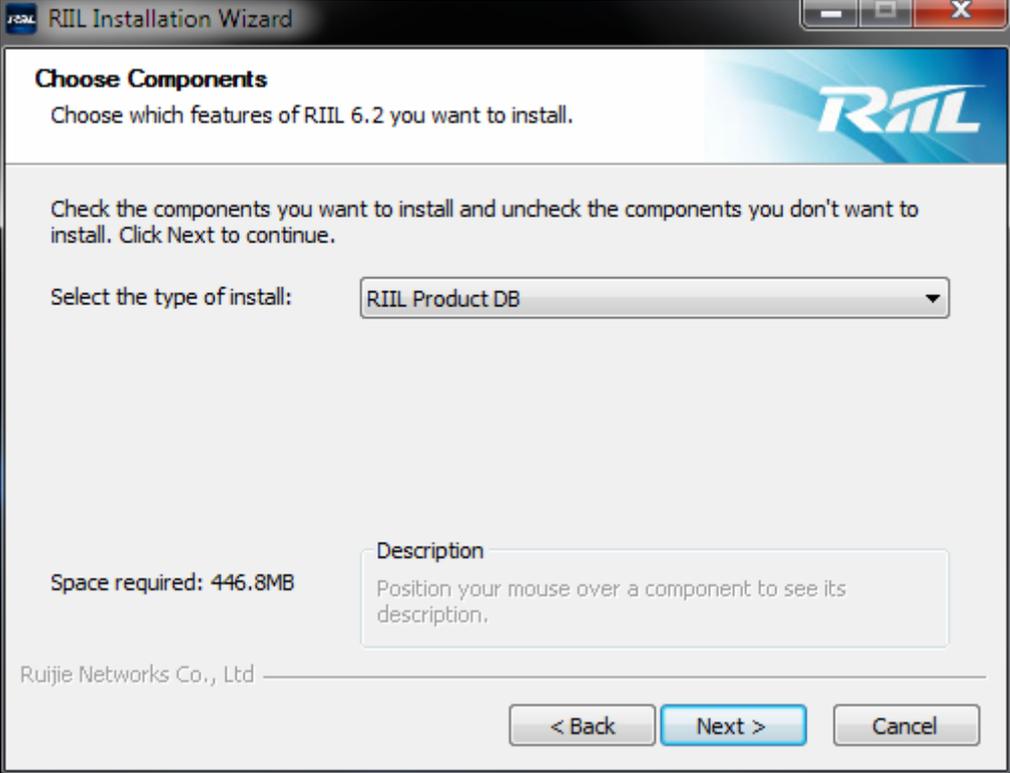


Figure 4-1

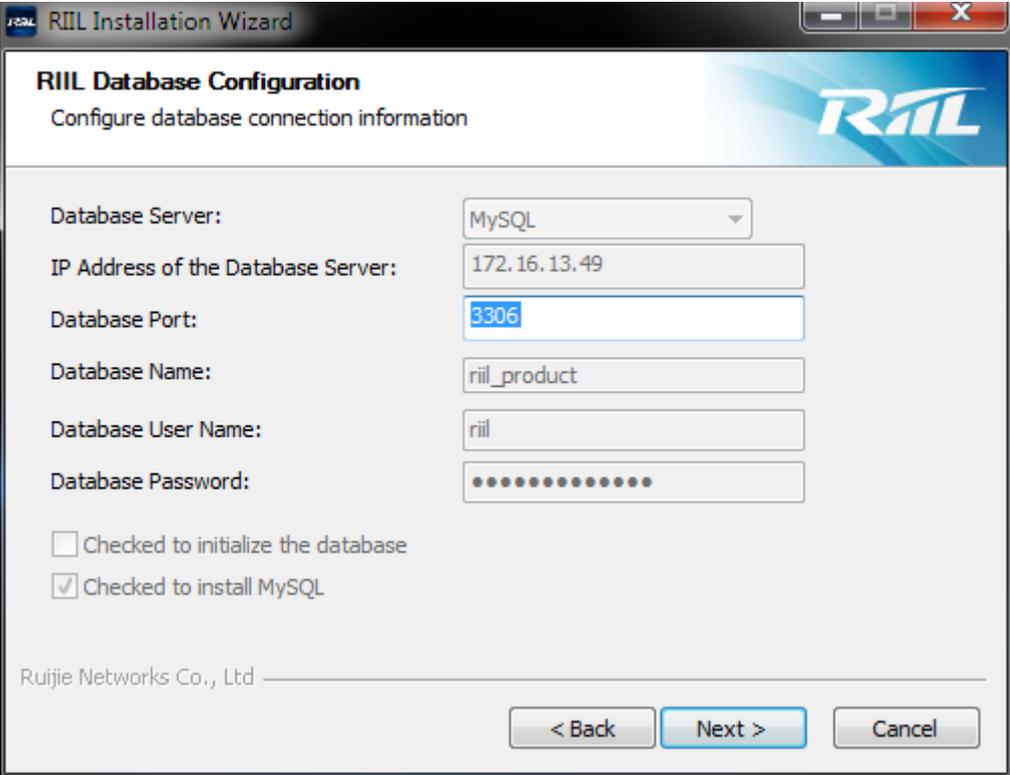


Figure 4-2

You do not need to change the settings in the **RIIL Database Configuration** dialog box and **RIIL Server Configuration** dialog box. Click **Next** until the **Start to Install the RIIL** dialog box is displayed and click **Install**.

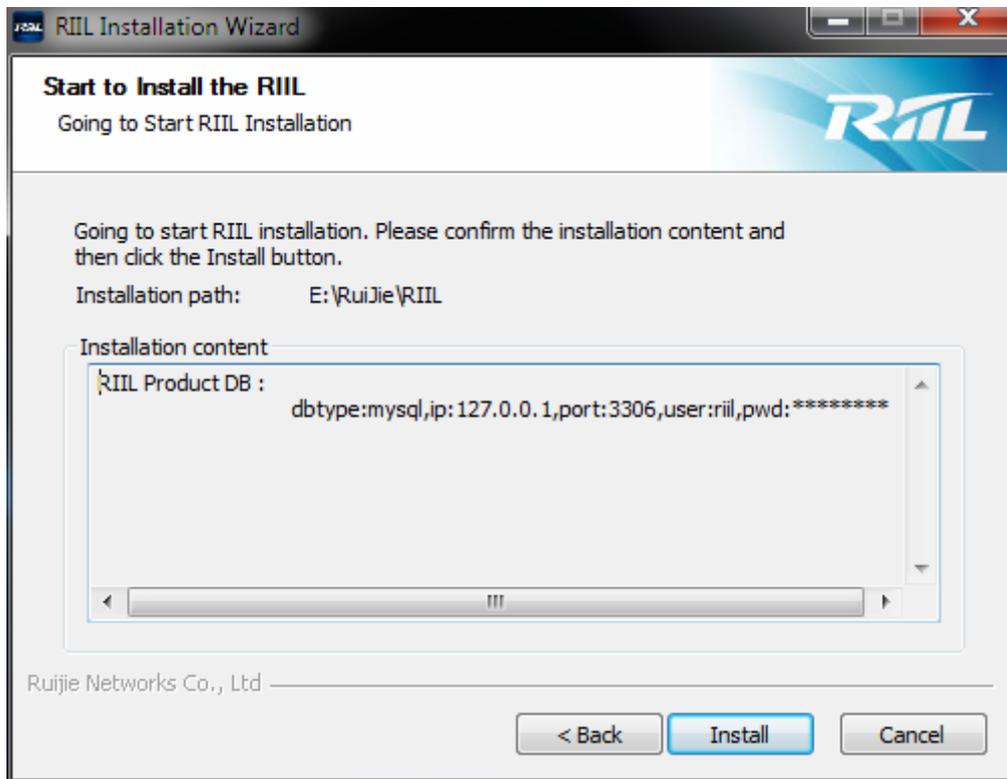


Figure 4-3

Installation type of server 2: RIIL Portal Server

Select **RIIL Portal Server** from the **Select the type of install** drop-down list of the **Choose Components** dialog box (the Portal, CCS, DIS, and RCS will be installed automatically).

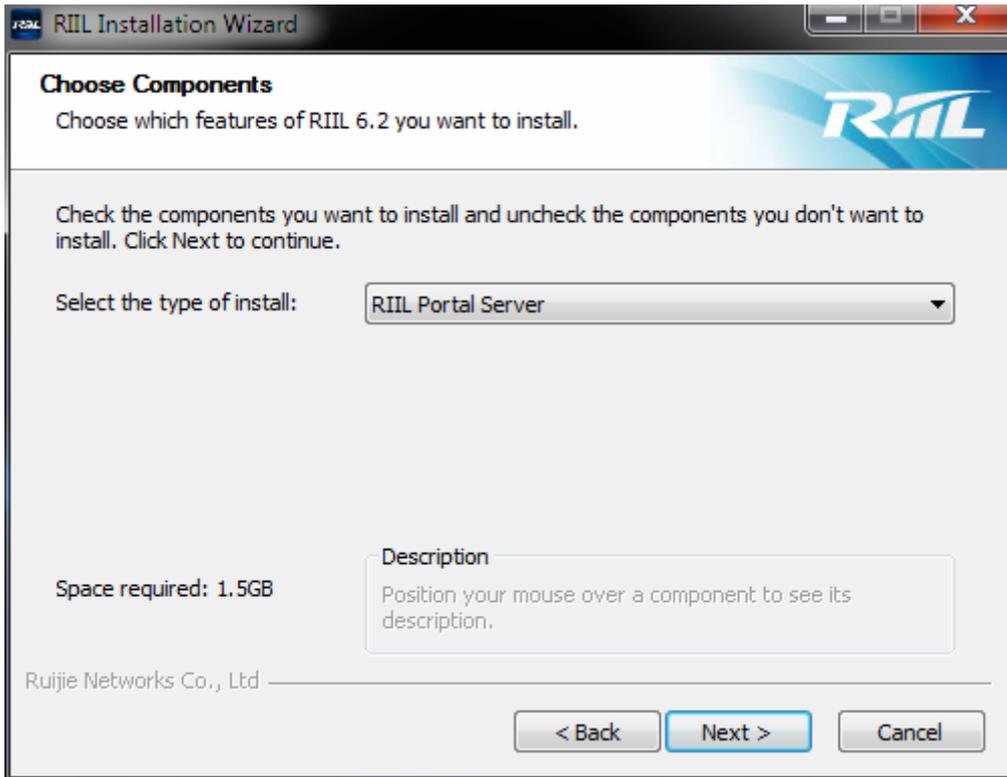


Figure 4-4

Click **Next** until the **RIIL Database Configuration** dialog box is displayed.

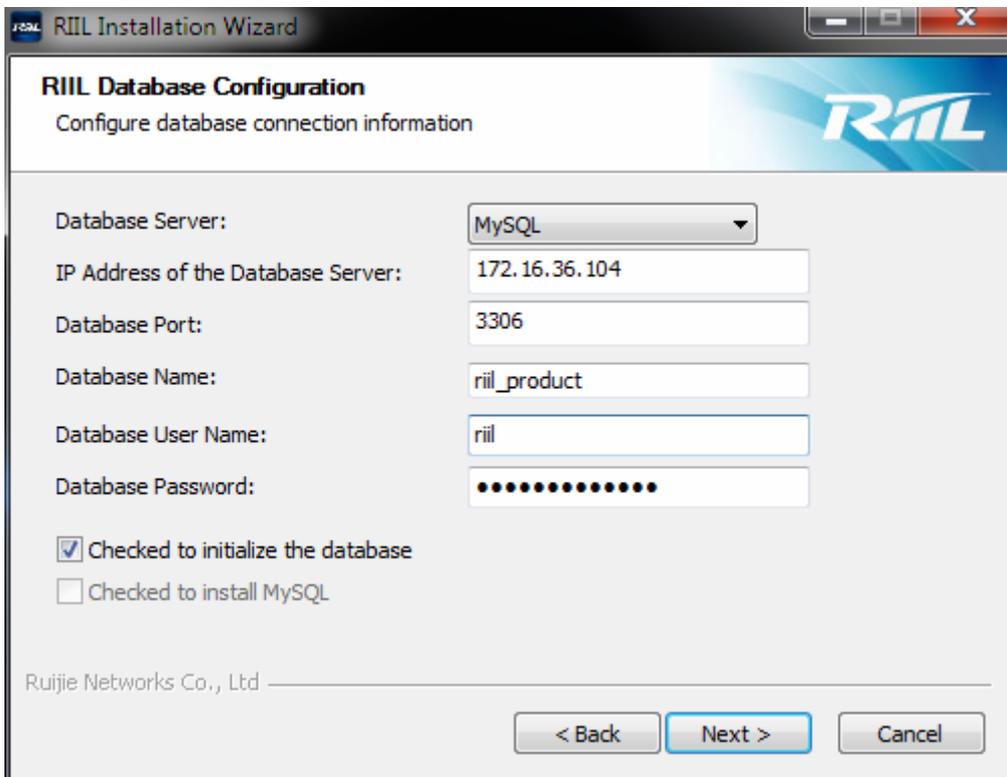


Figure 4-5

In the **RIL Database Configuration** dialog box, enter the IP address of server 1 in the **IP Address of the Database Server** text box and click **Next** (the installation program will test the database connection). The **RIL Server Configuration** dialog box is displayed when the database connection passes the test.

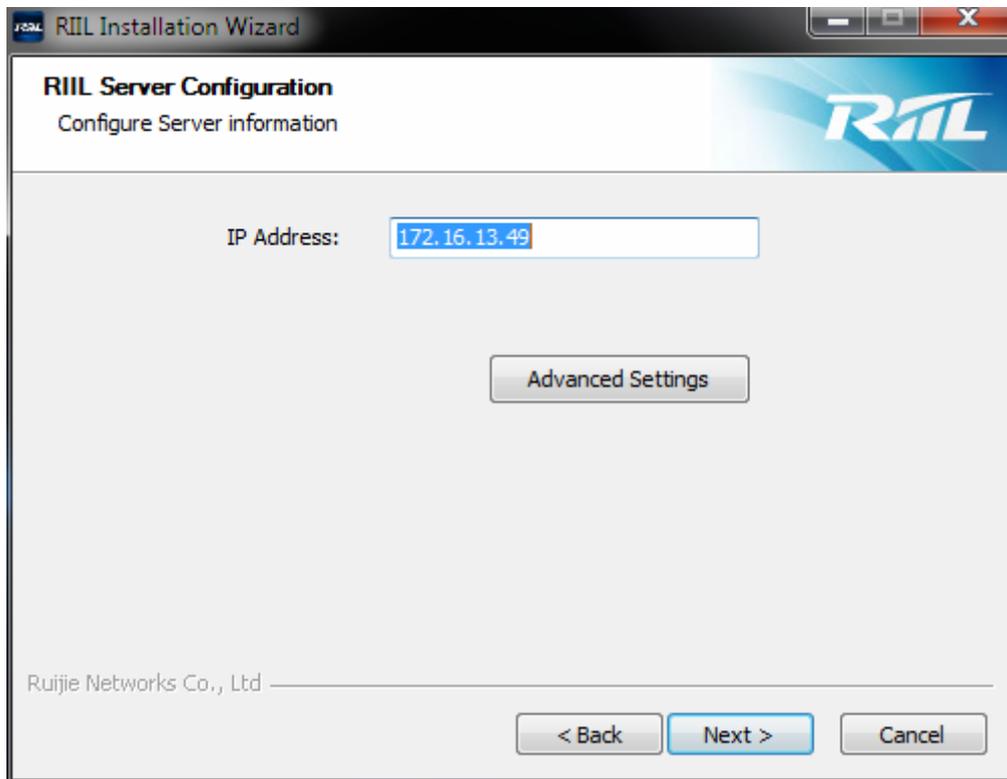


Figure 4-6

Click **Next**.

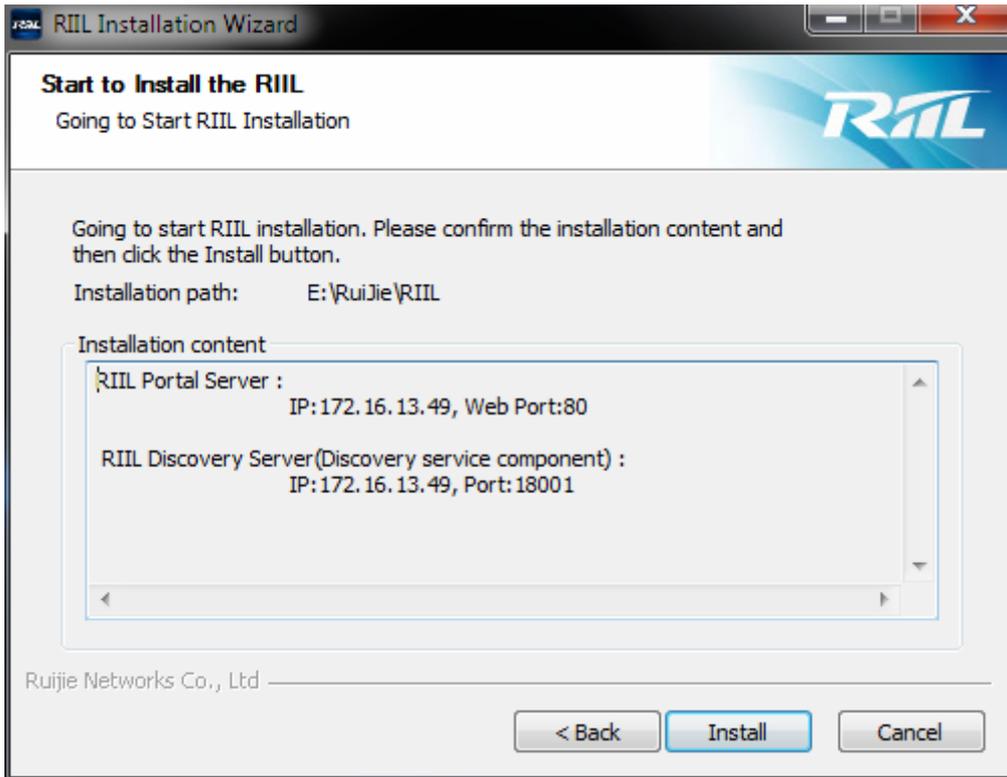


Figure 4-7

Installation type of server 3: DCS

Select **RIIL DCS** from the **Select the type of install** drop-down list of the **Choose Components** dialog box (the DCS and RCS will be installed by default).

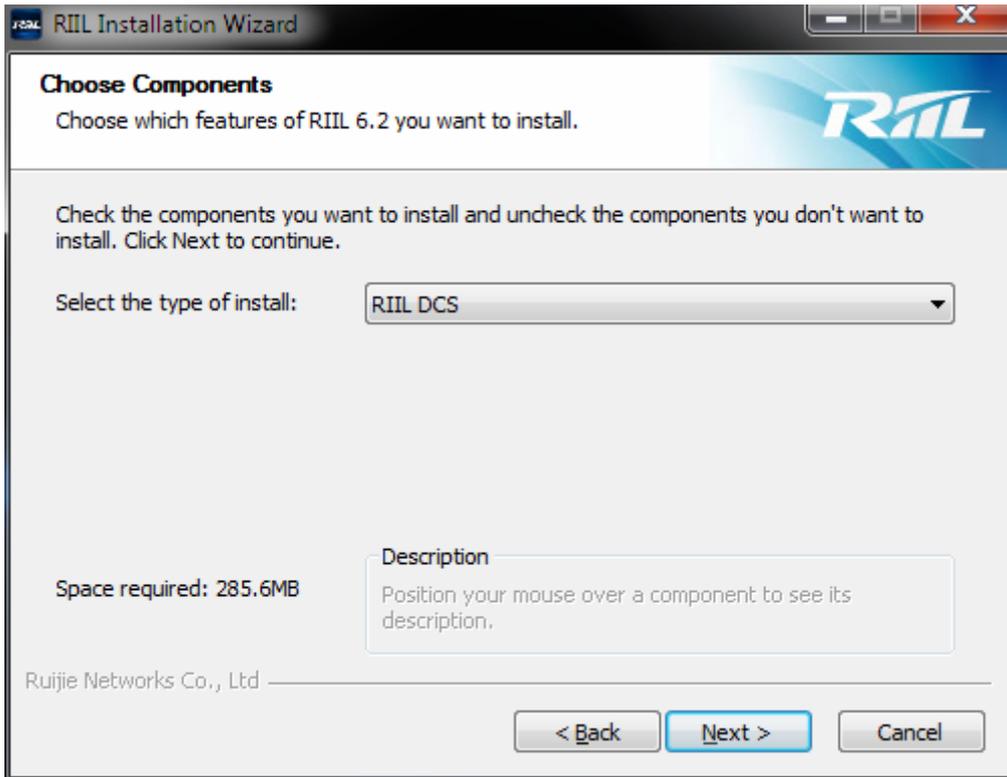


Figure 4-8

Click **Next** until the **RIIL Server Configuration** dialog box is displayed.

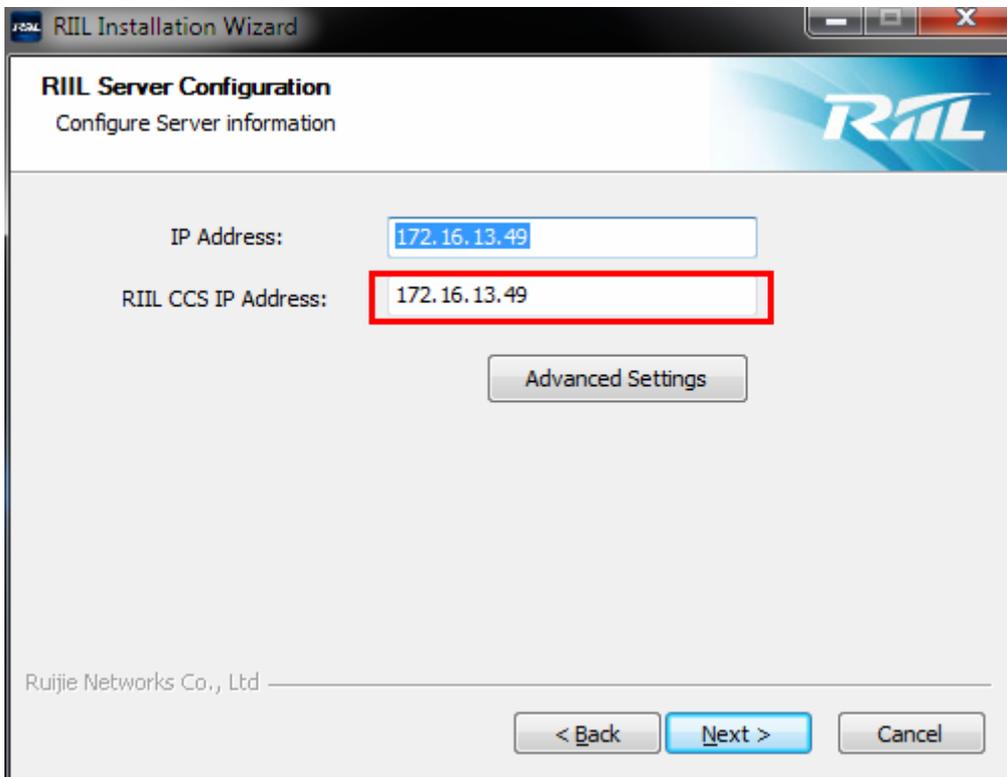


Figure 4-9

Enter the IP address of server 2 in the **RIIL CCS IP Address** text box of the **RIIL Server Configuration** dialog box. (If the port number of server 2 is changed when server 2 is installed, click **Advanced Settings**

and change the value in the **Port** text box enclosed by a red rectangle in the **RIIL DCS Configuration** dialog box.)

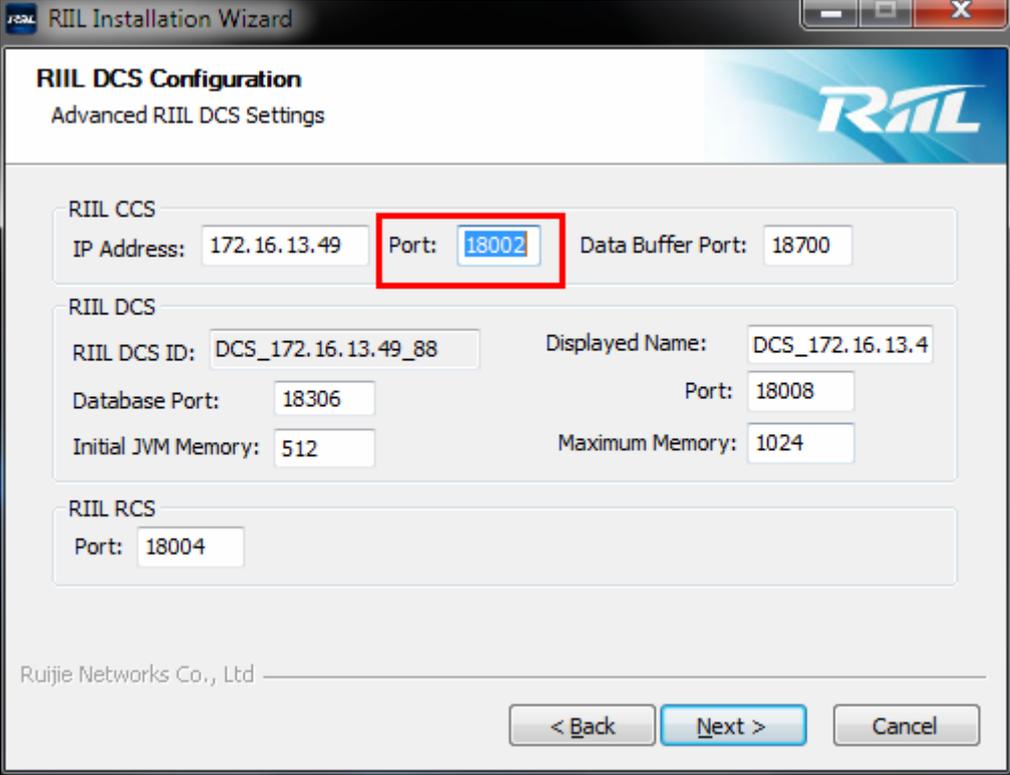


Figure 4-10

Click **Next**. The **Start to Install the RIIL** dialog box is displayed.

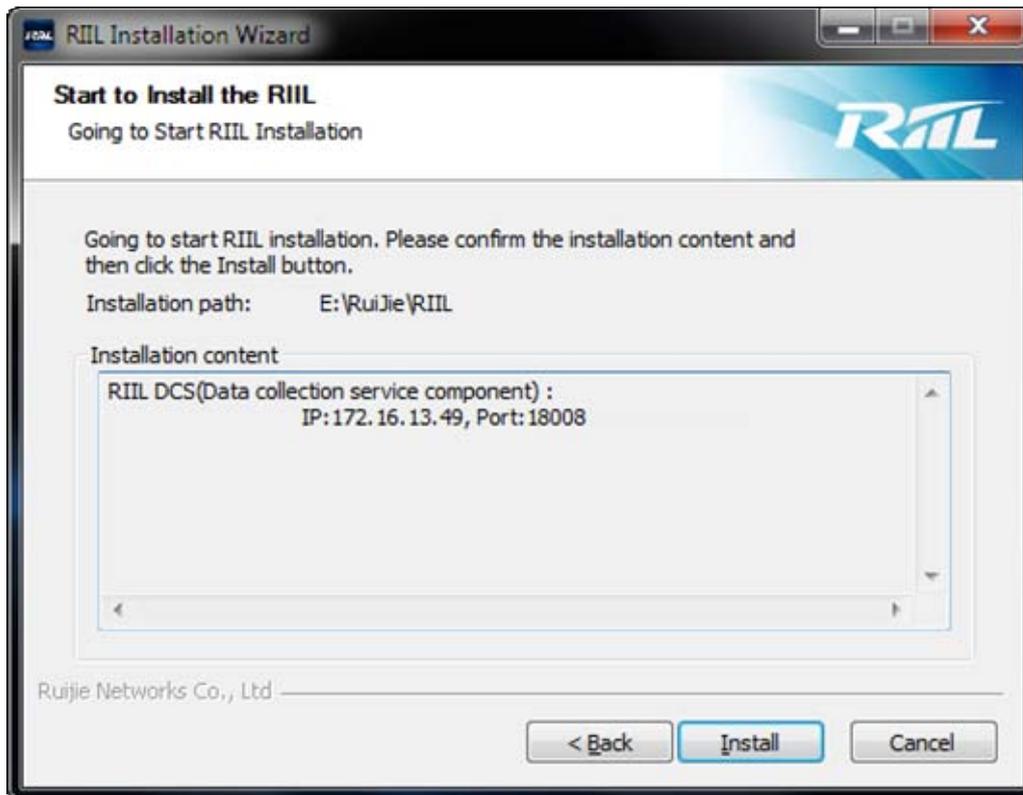


Figure 4-11

Installation type of server 4: Custom

In the **Choose Components** dialog box, select **Custom** from the **Select the type of install** drop-down list and select **RIIL Logger Server(Log analysis component)** and **RIIL NTA Server(Traffic analysis component)**.

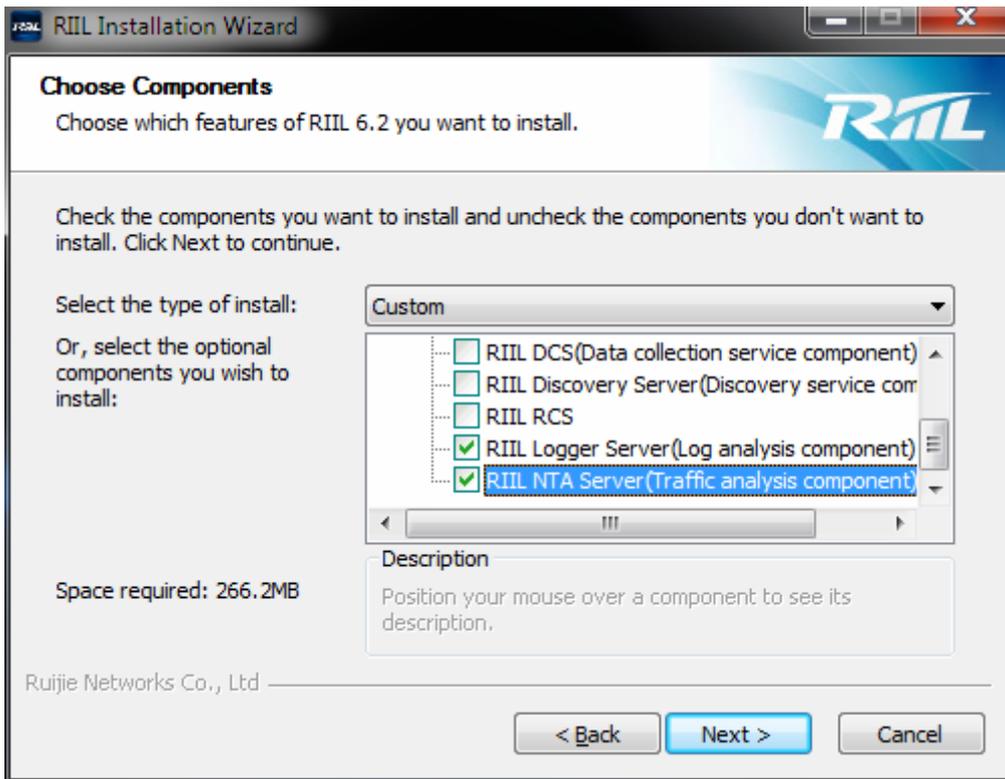


Figure 4-12

Click **Next** until the **RIIL Database Configuration** dialog box is displayed.

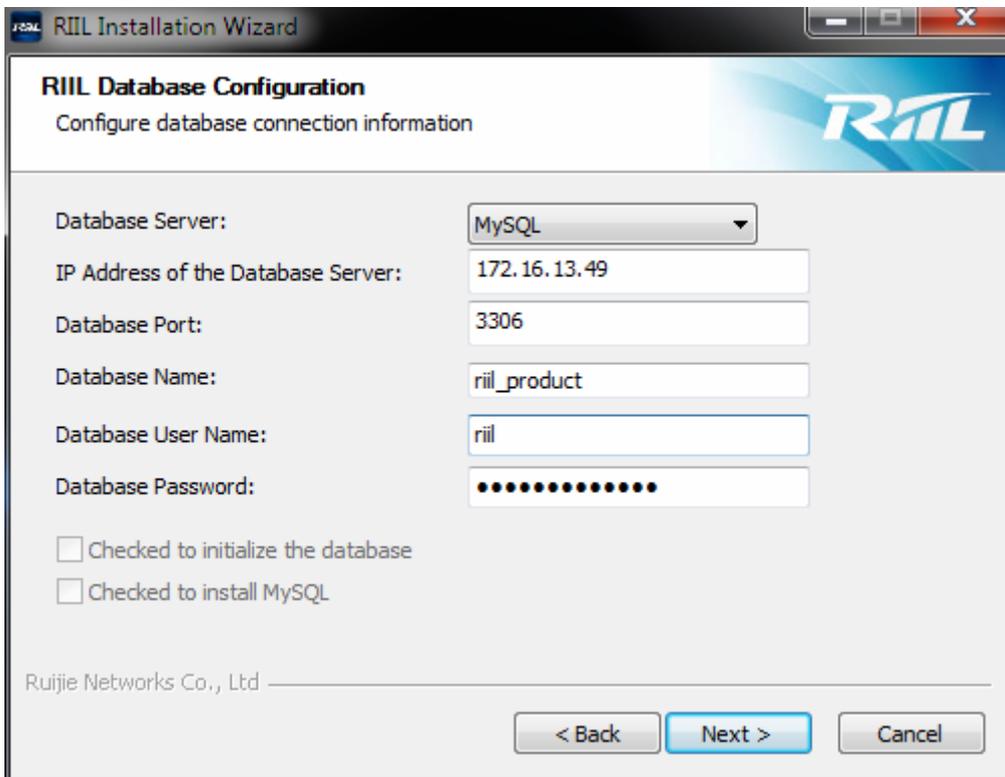


Figure 4-13

In the **RIIL Database Configuration** dialog box, enter the IP address of server 1 in the **IP Address of the Database Server** text box and click **Next** (the installation program will test the database connection). The **RIIL NTA database Configuration** dialog box is displayed when the database connection passes the test.

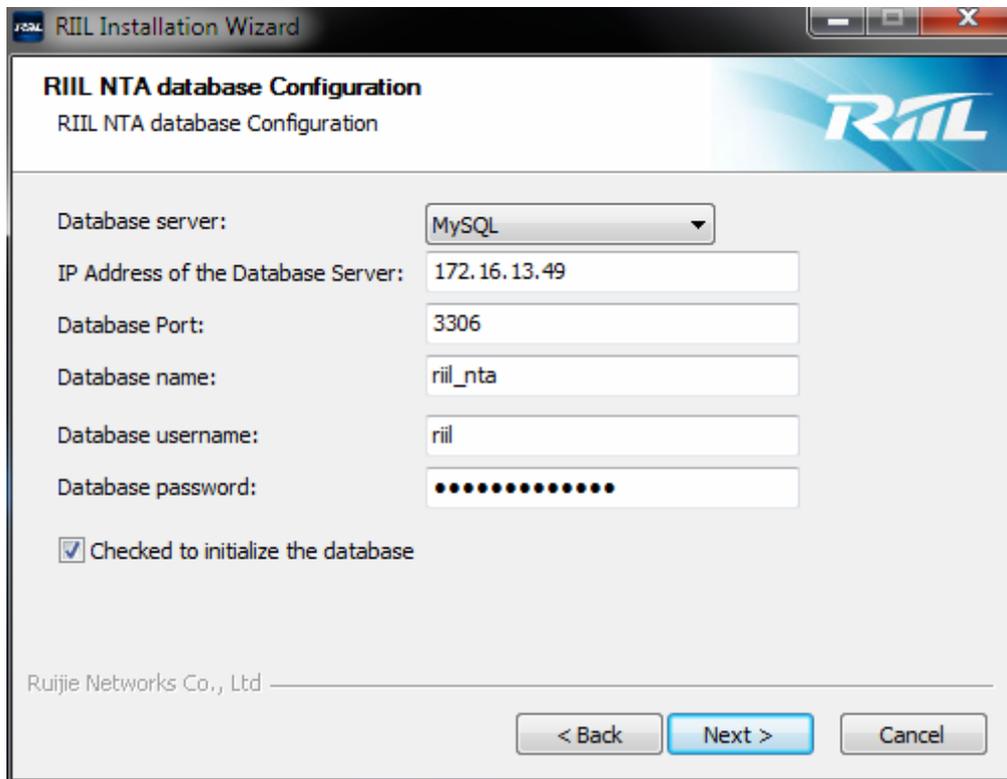


Figure 4-14

Check the **Checked to initialize the database** check box. The installation program will automatically initialize the NTA database.

Note: Click **Next** if server 1 uses the database provided by the installation program. If server 1 does not use the database provided by the installation program, perform necessary database configuration. For example, create the riil_nta database and user **riil**.

After the configuration is completed, click **Next** until the **RIIL Server Configuration** dialog box is displayed.

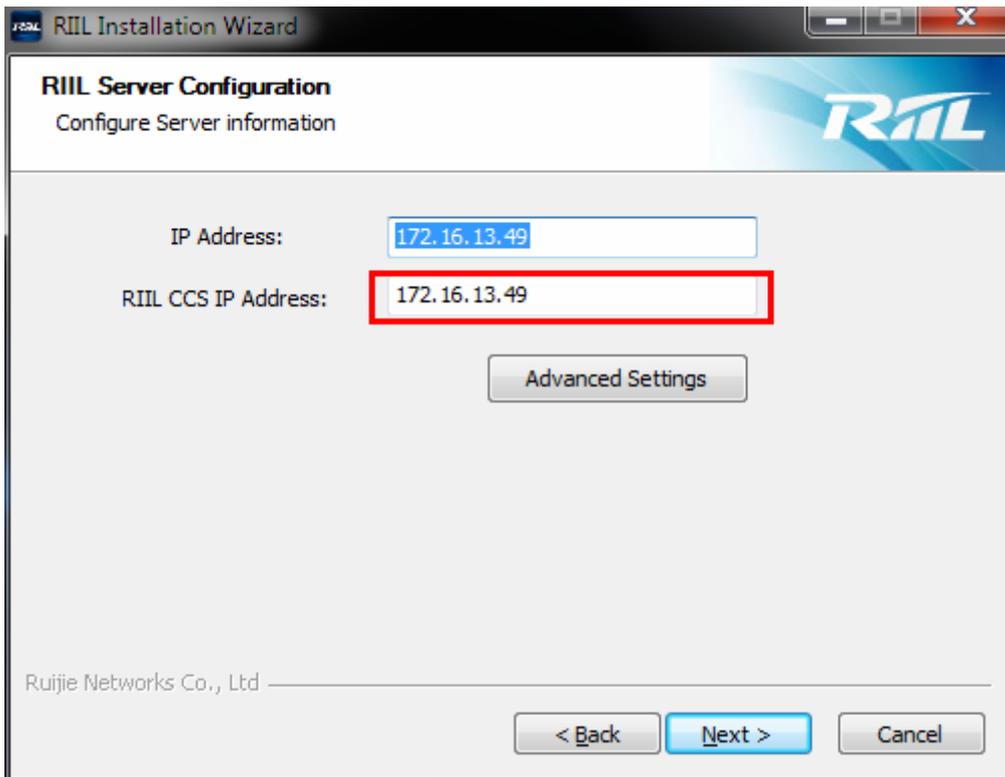


Figure 4-15

Enter the IP address of server 2 in the **RIIL CCS IP Address** text box of the **RIIL Server Configuration** dialog box. (If the port number of server 2 is changed when server 2 is installed, change the corresponding port numbers by clicking **Advanced Settings**, as shown in the following figures.)

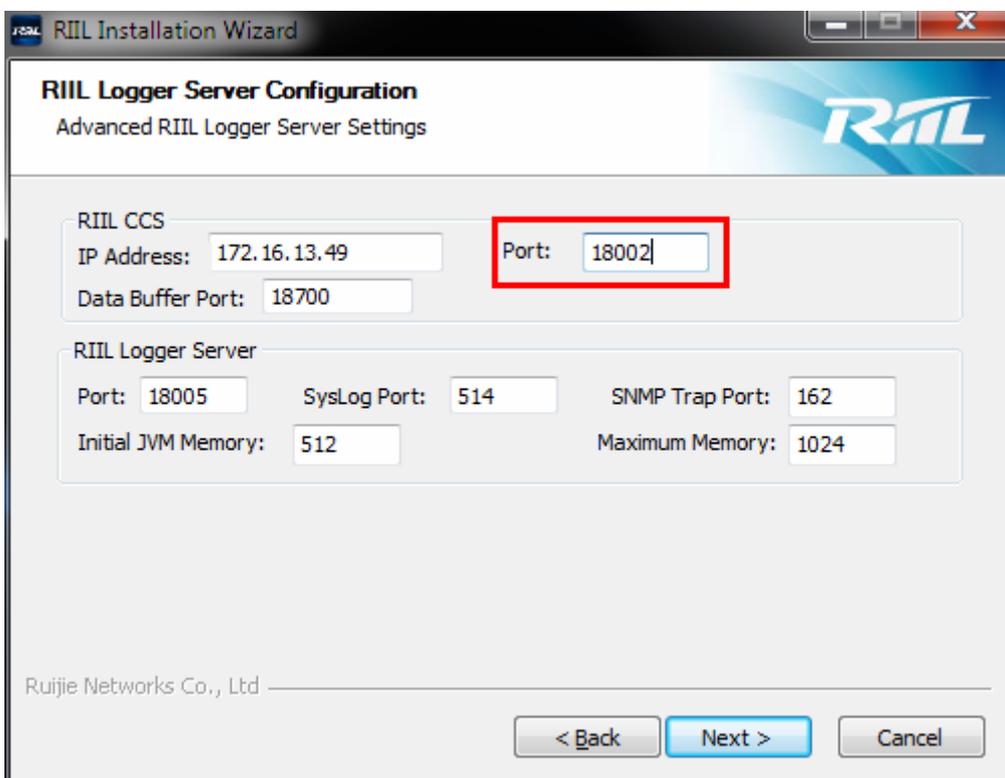


Figure 4-16

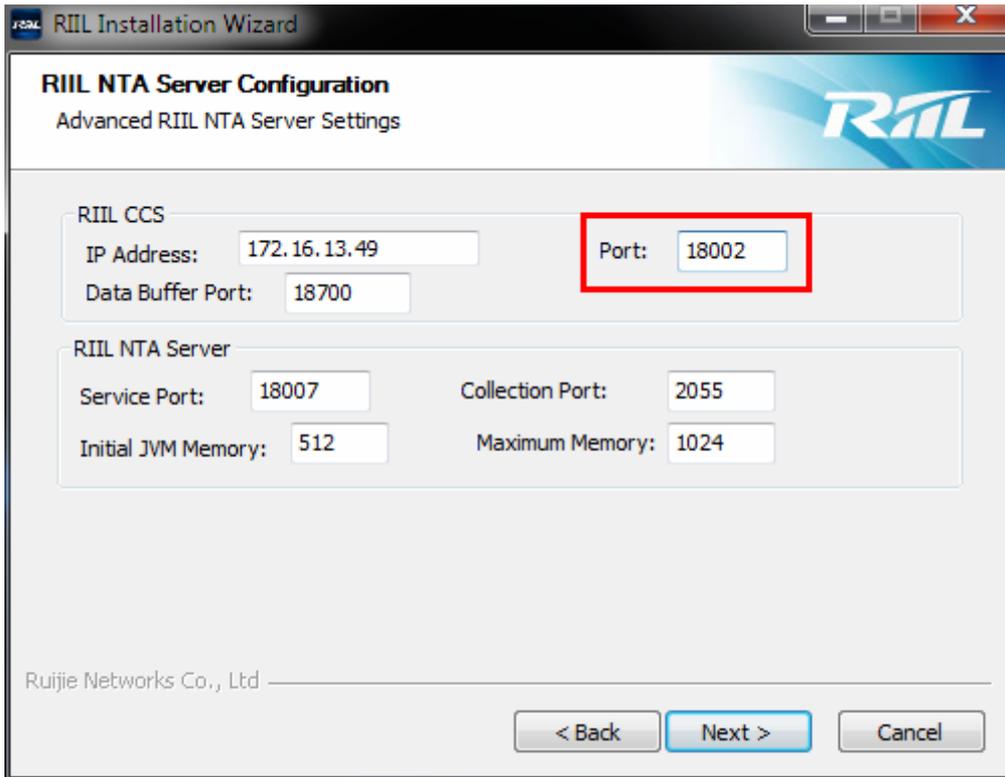


Figure 4-17

Click **Next**. The **Start to Install the RIIL** dialog box is displayed.

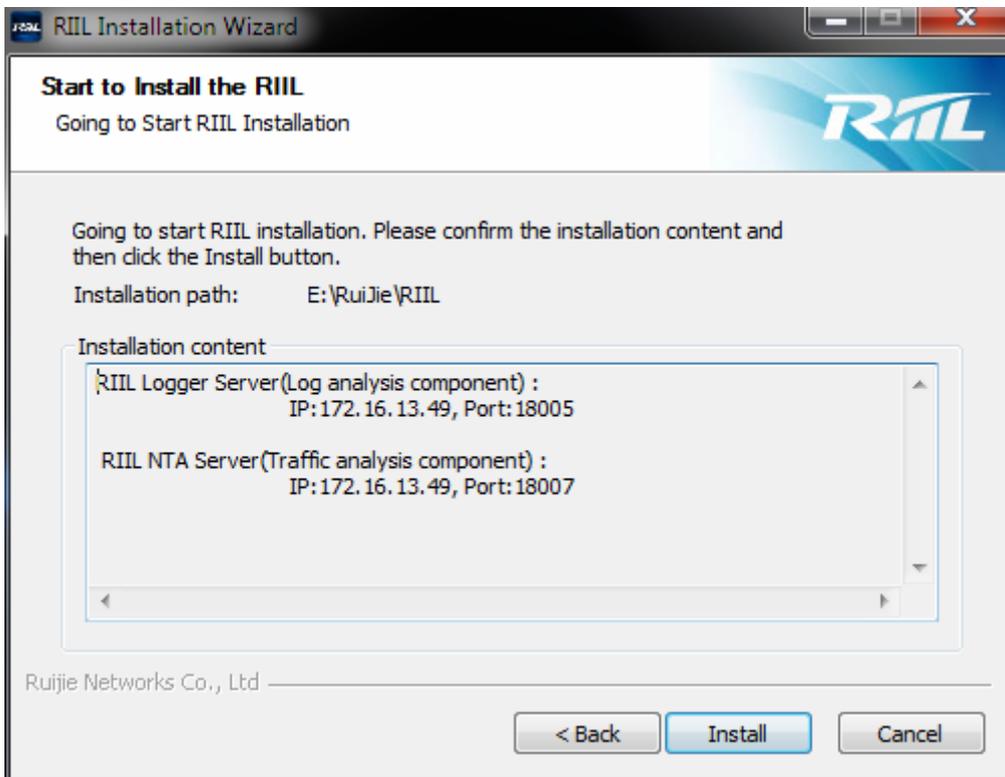


Figure 4-18

After you confirm the installation contents, click **Install** to install RIIL.

5 Distributed Deployment Solution 2

Requirements

Server 1: Oracle database

The RIIL Portal service corresponding to user **riil_product** is used.

The NTA service corresponding to user **riil_nta** is used.

Server 2: PORTAL+CCS+Discovery+RCS

Server 3: DCS+RCS

Server 4: NTA+LOG

Implementation

Server 1: Oracle database

Oracle installation precautions:

- The database instance must be installed using UTF-8.
- The red parts of the following database creation statement are determined by the installation path of the Oracle database. You can obtain details from the database administrator.
- The following database creation statement and user creation statement are only for your reference. The actual usage is based on project requirements and onsite cooperation with the database administrator.

-- User **riil_product**

```
create temporary tablespace riil_product_temp
tempfile 'D:\oracle\product\10.2.0\oradata\orcl\riil_product_temp01.dbf'
size 200m
autoextend on
next 50m maxsize unlimited
extent management local;

create tablespace riil_product01
datafile 'D:\oracle\product\10.2.0\oradata\orcl\riil_product01.dbf'
size 1000M
autoextend on
next 1000M
maxsize unlimited
extent management local;
```

```
create user riil_product identified by r4rfde32wsaq1
default tablespace riil_product01
temporary tablespace riil_product_temp;
grant connect, resource, dba to riil_product;
```

```
-- User riil_NTA
```

```
create temporary tablespace riil_nta_temp
tempfile 'D:\oracle\product\10.2.0\oradata\orcl\riil_nta_temp01.dbf'
size 200m
autoextend on
next 50m maxsize unlimited
extent management local;
```

```
create tablespace riil_nta01
datafile 'D:\oracle\product\10.2.0\oradata\orcl\riil_nta01.dbf'
size 1000M
autoextend on
next 1000M
maxsize unlimited
extent management local;
```

```
create user riil_nta identified by r4rfde32wsaq1
default tablespace riil_nta01
temporary tablespace riil_nta_temp;
grant connect, resource, dba to riil_nta;
```

Installation type of server 2: RIIL Portal Server

Select **RIIL Portal Server** from the **Select the type of install** drop-down list of the **Choose Components** dialog box (the Portal, CCS, DIS, and RCS will be installed automatically).

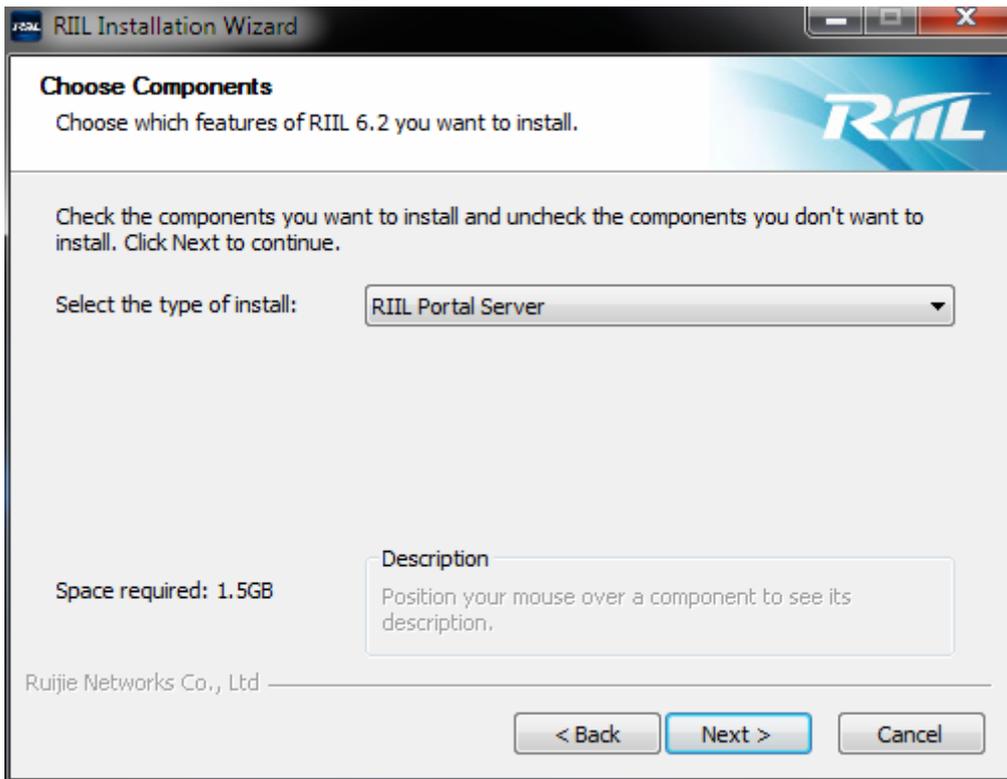


Figure 5-1

Click **Next** until the **RIIL Database Configuration** dialog box is displayed.

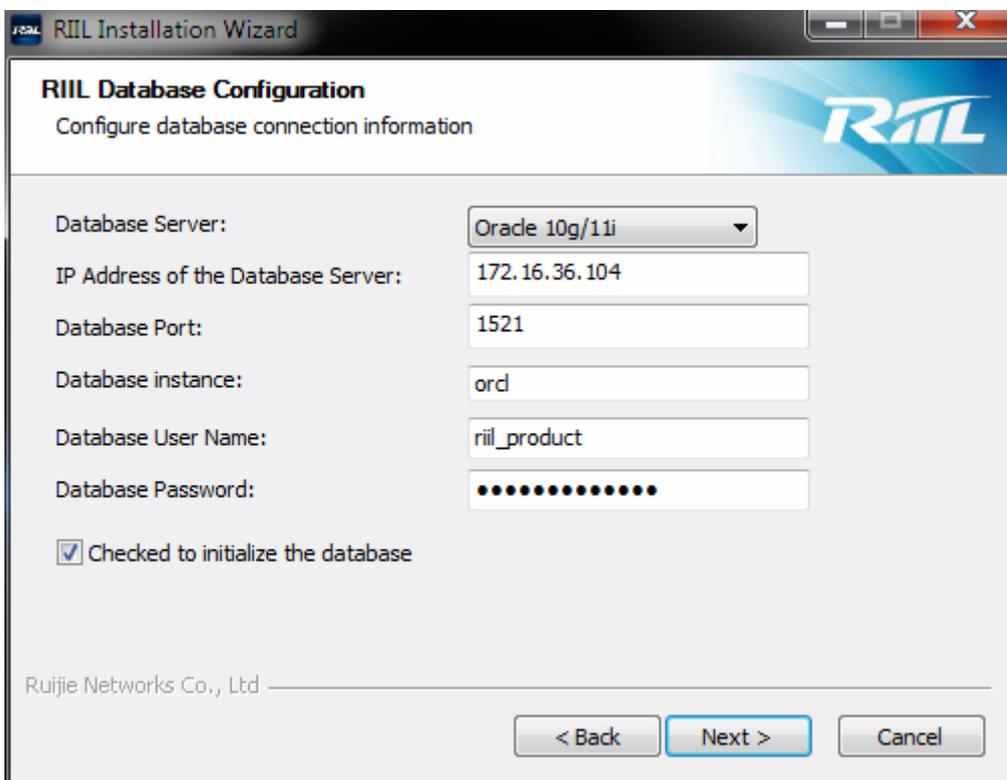


Figure 5-2

In the **RIL Database Configuration** dialog box, enter the IP address of server 1 in the **IP Address of the Database Server** text box and click **Next** (the installation program will test the database connection). The **RIL Server Configuration** dialog box is displayed when the database connection passes the test.

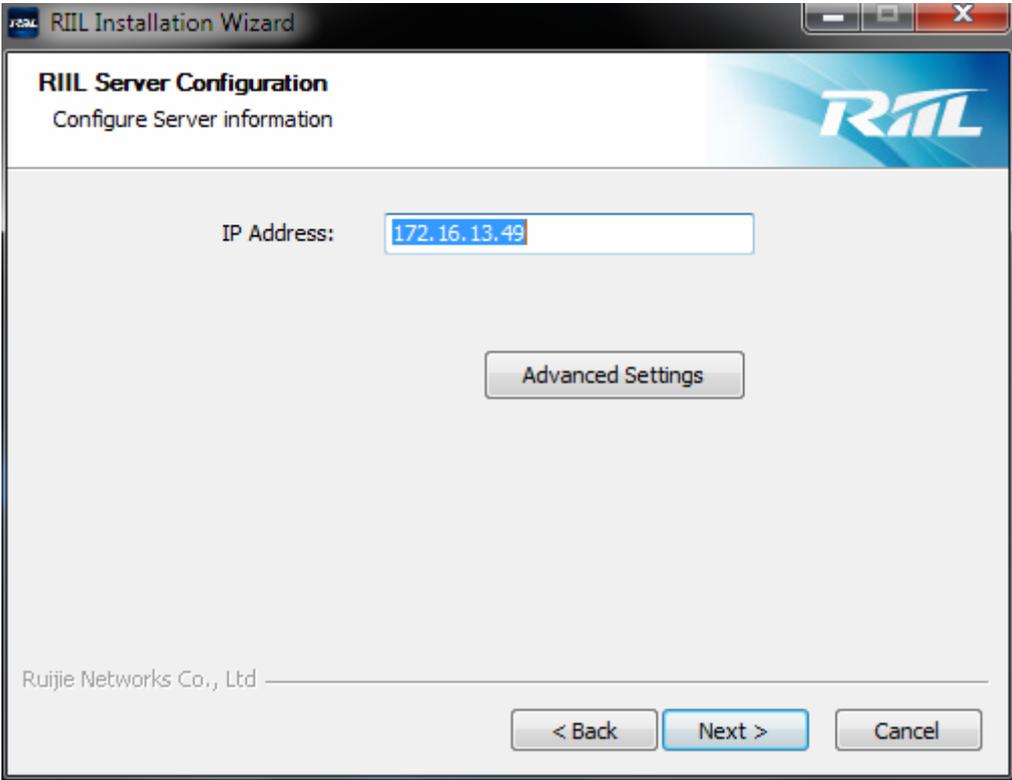


Figure 5-3

Click **Next**.

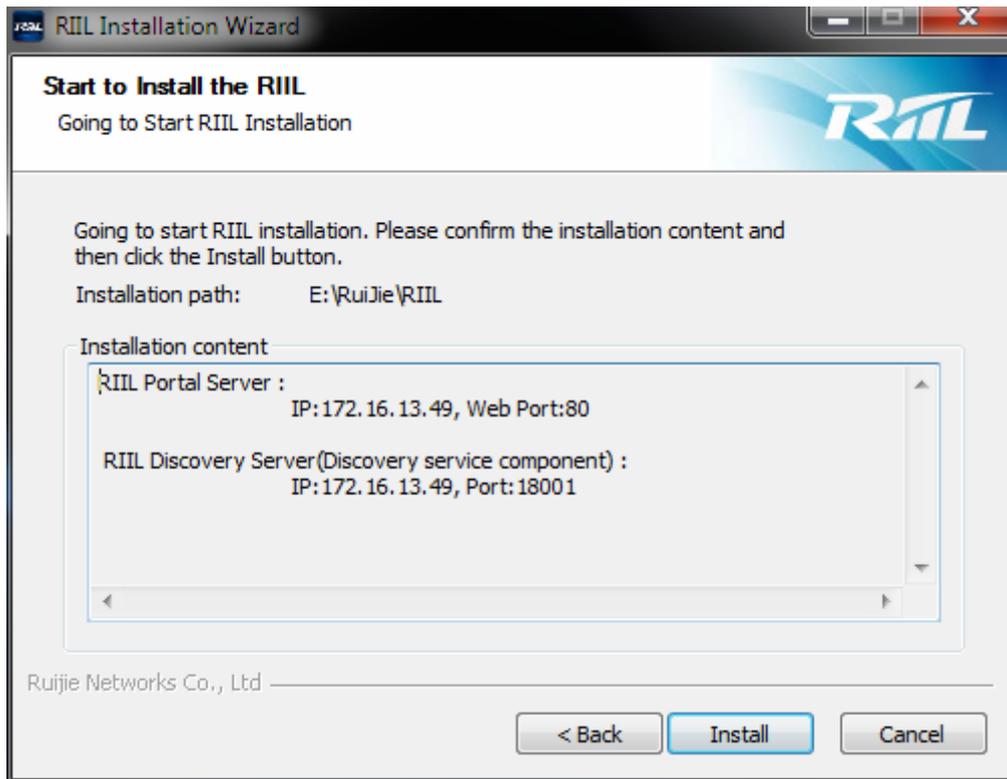


Figure 5-4

Installation type of server 3: DCS

Select **RIIL DCS** from the **Select the type of install** drop-down list of the **Choose Components** dialog box (the DCS and RCS will be installed by default).

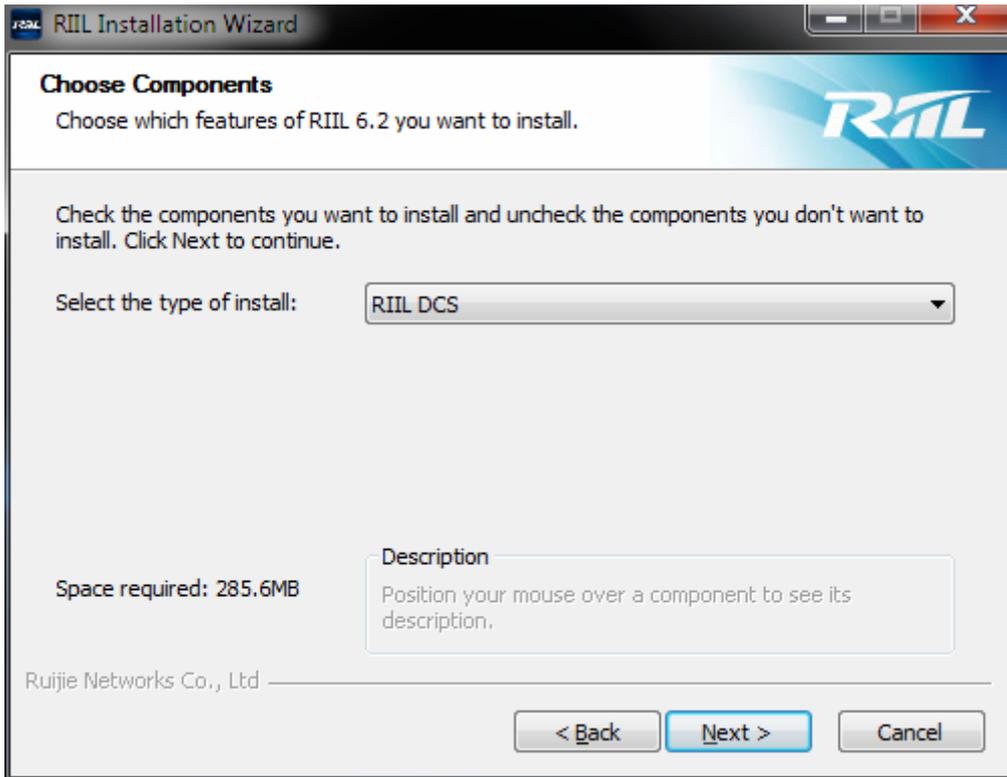


Figure 5-5

Click **Next** until the **RIIL Server Configuration** dialog box is displayed.

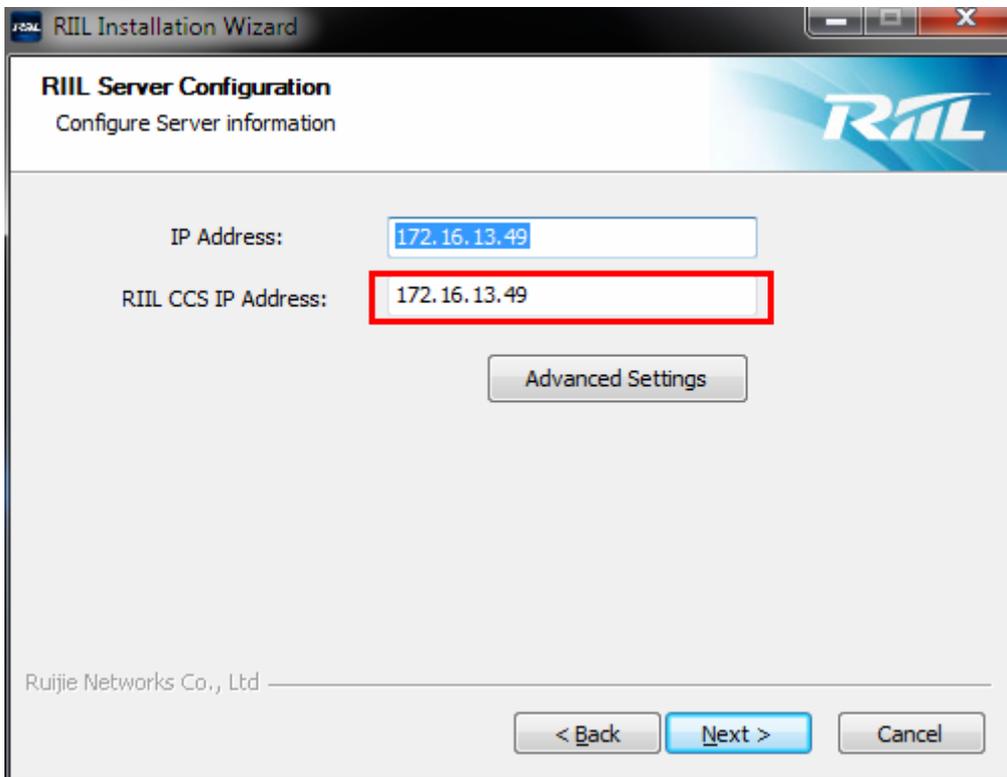


Figure 5-6

Enter the IP address of server 2 in the **RIIL CCS IP Address** text box of the **RIIL Server Configuration** dialog box. (If the port number of server 2 is changed when server 2 is installed, click **Advanced Settings**

and change the value in the **Port** text box enclosed by a red rectangle in the **RIIL DCS Configuration** dialog box.)

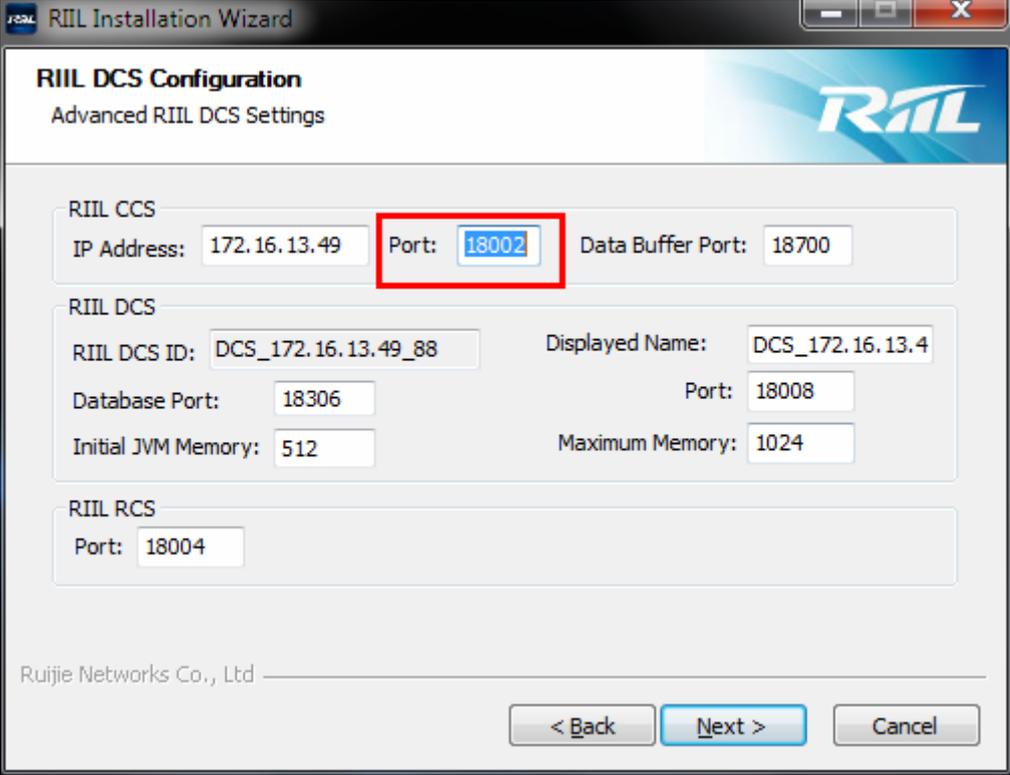


Figure 5-7

Click **Next**. The **Start to Install the RIIL** dialog box is displayed.

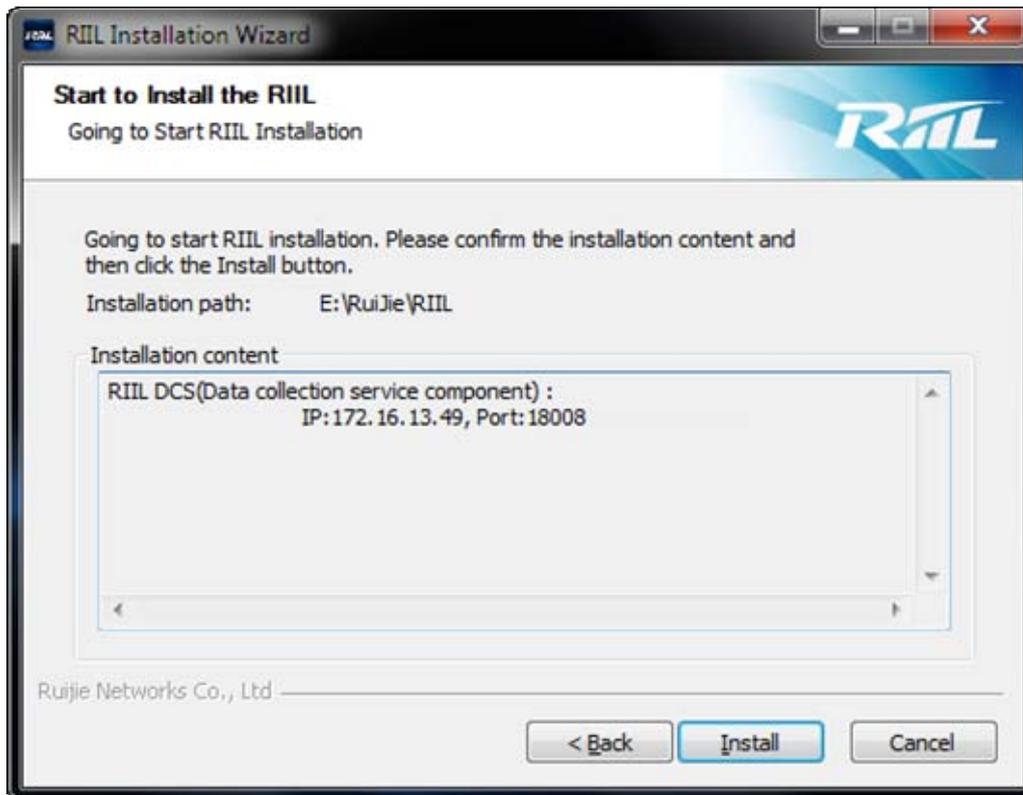


Figure 5-8

Installation type of server 4: Custom

In the **Choose Components** dialog box, select **Custom** from the **Select the type of install** drop-down list and select **RIIL Logger Server(Log analysis component)** and **RIIL NTA Server(Traffic analysis component)**.

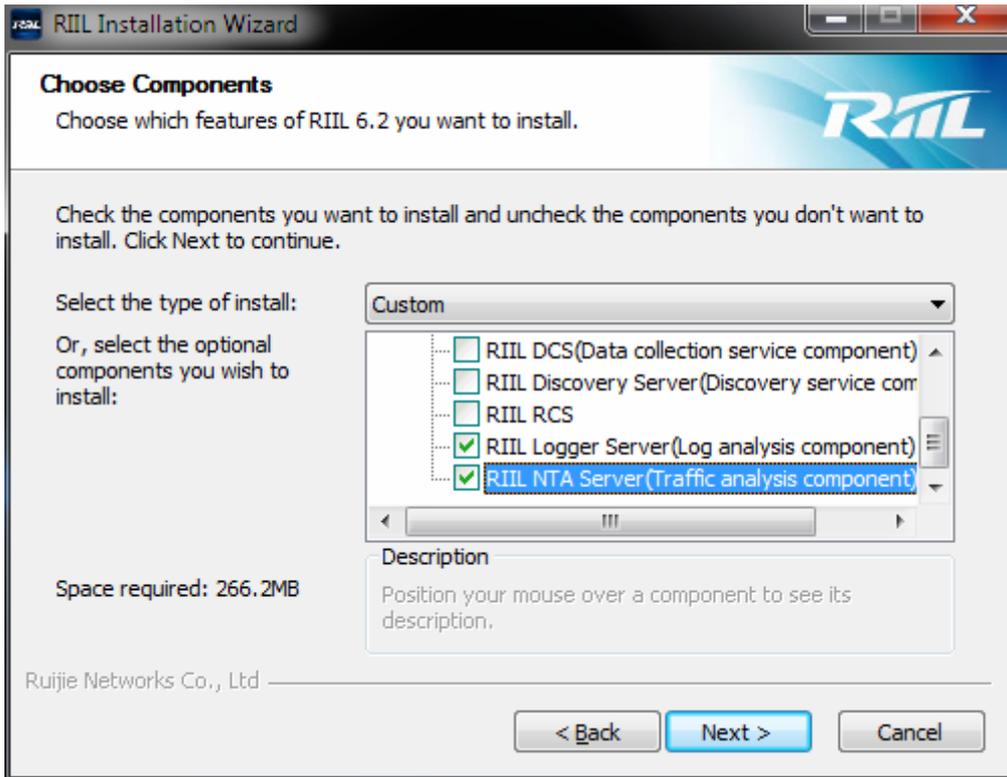


Figure 5-9

Click **Next** until the **RIIL Database Configuration** dialog box is displayed.

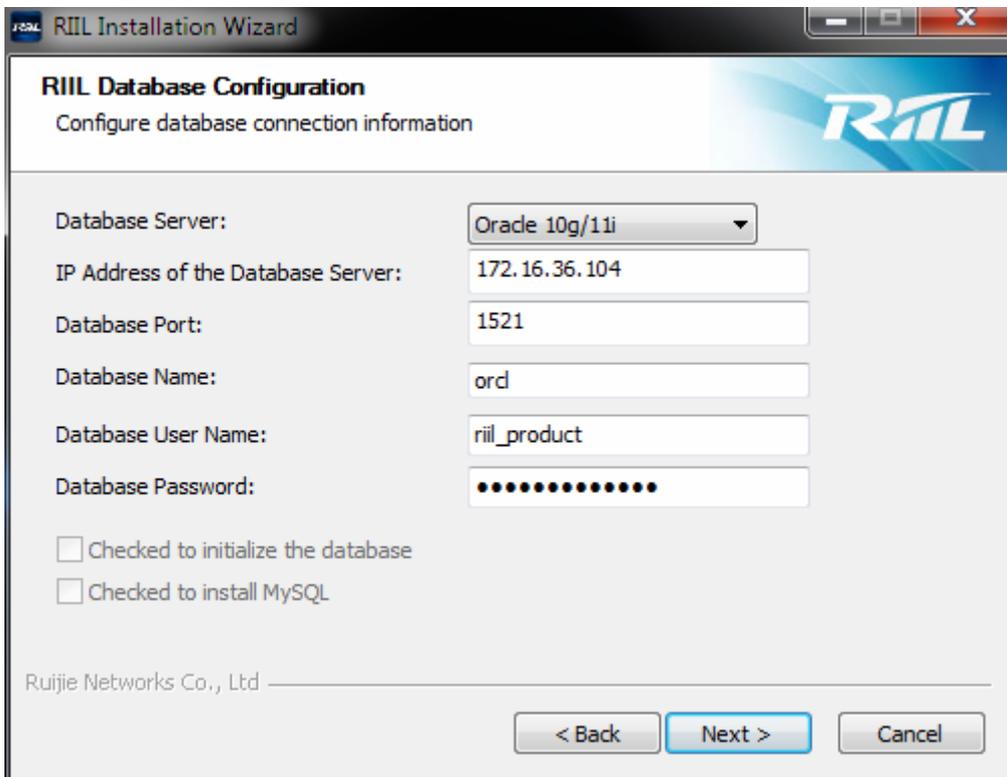


Figure 5-10

In the **RIIL Database Configuration** dialog box, enter the IP address of server 1 in the **IP Address of the Database Server** text box and click **Next** (the installation program will test the database connection). The **RIIL NTA database Configuration** dialog box is displayed when the database connection passes the test.

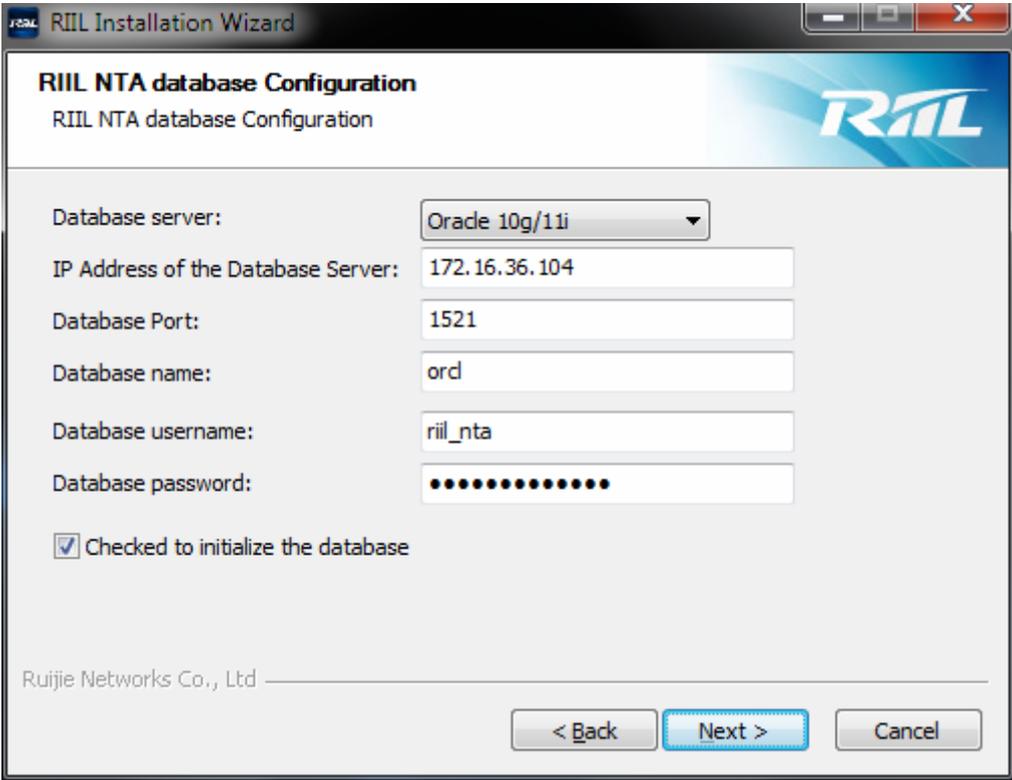


Figure 5-11

Check the **Checked to initialize the database** check box. The installation program will automatically initialize the NTA database.

Note: Click **Next** if server 1 uses the database provided by the installation program. If server 1 does not use the database provided by the installation program, perform necessary data configuration. For example, create the riil_nta database and user **riil**.

After the configuration is completed, click **Next** until the **RIIL Server Configuration** dialog box is displayed.

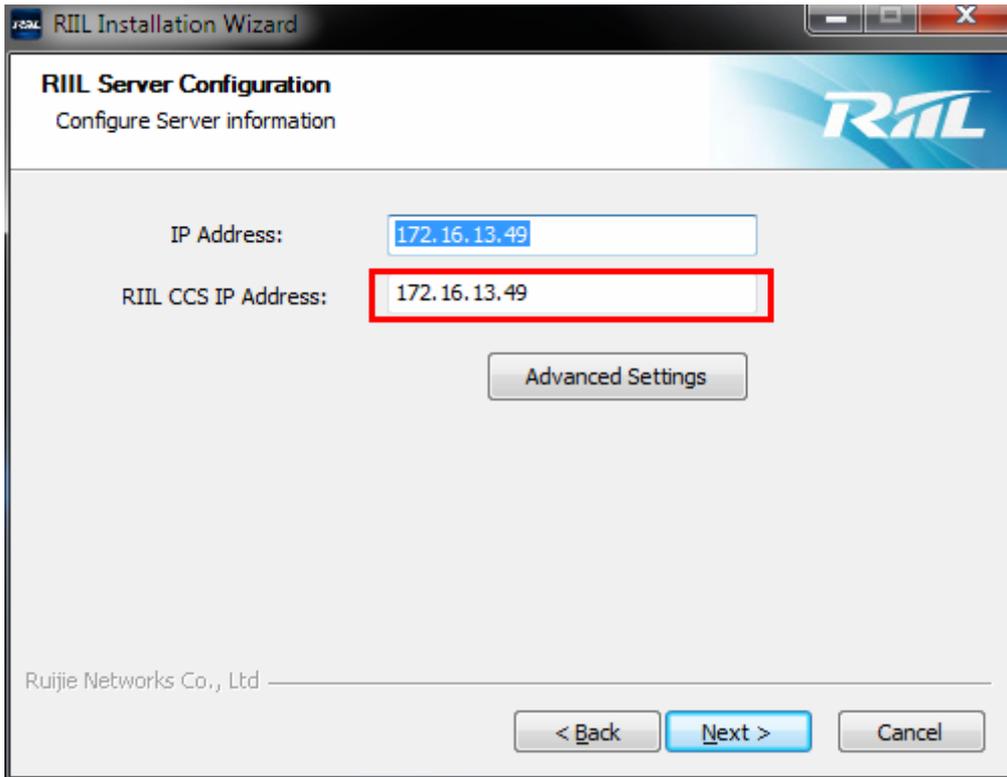


Figure 5-12

Enter the IP address of server 2 in the **RIIL CCS IP Address** text box of the **RIIL Server Configuration** dialog box. (If the port number of server 2 is changed when server 2 is installed, change the corresponding port numbers by clicking **Advanced Settings**, as shown in the following figures).

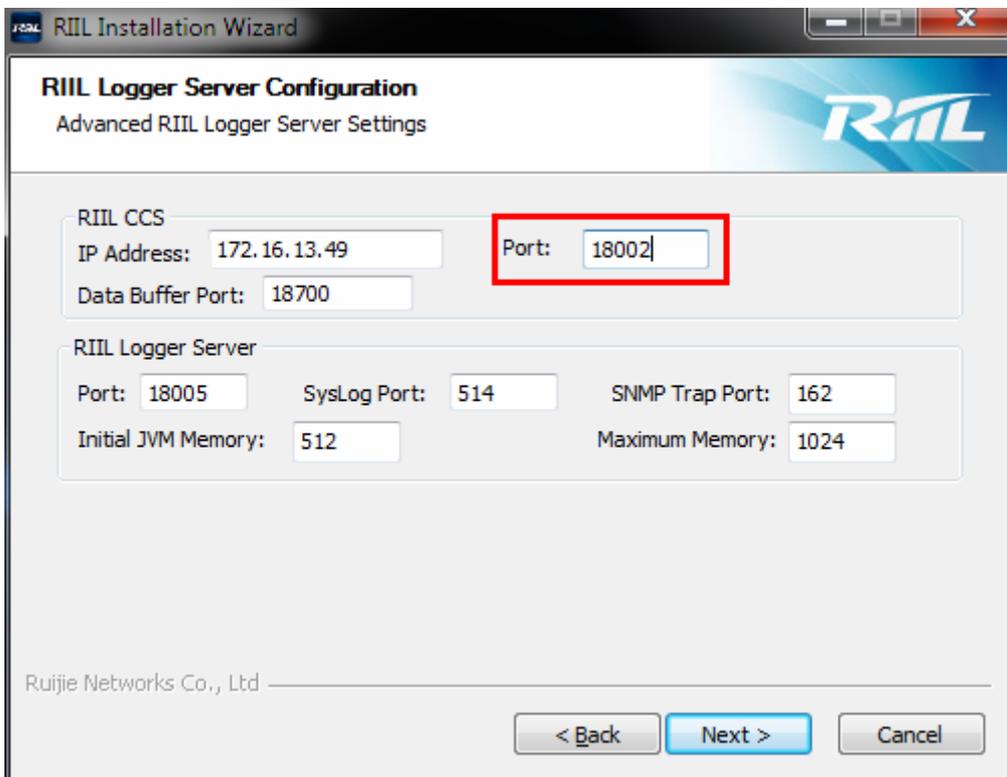


Figure 5-13

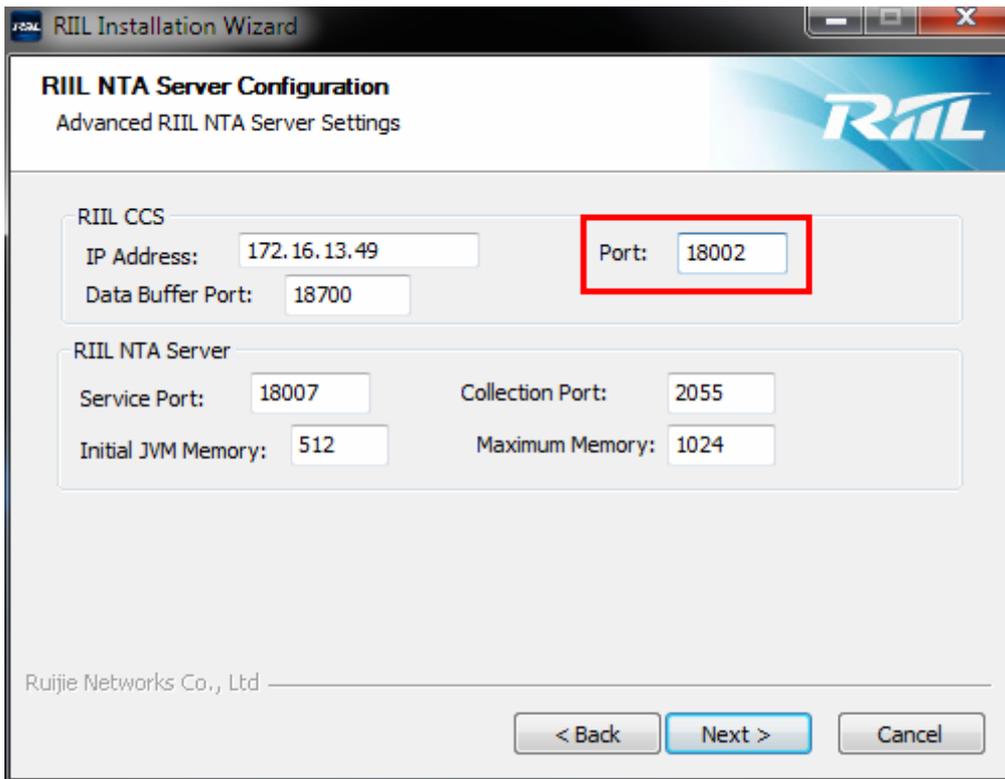


Figure 5-14

Click **Next**. The **Start to Install the RIIL** dialog box is displayed.

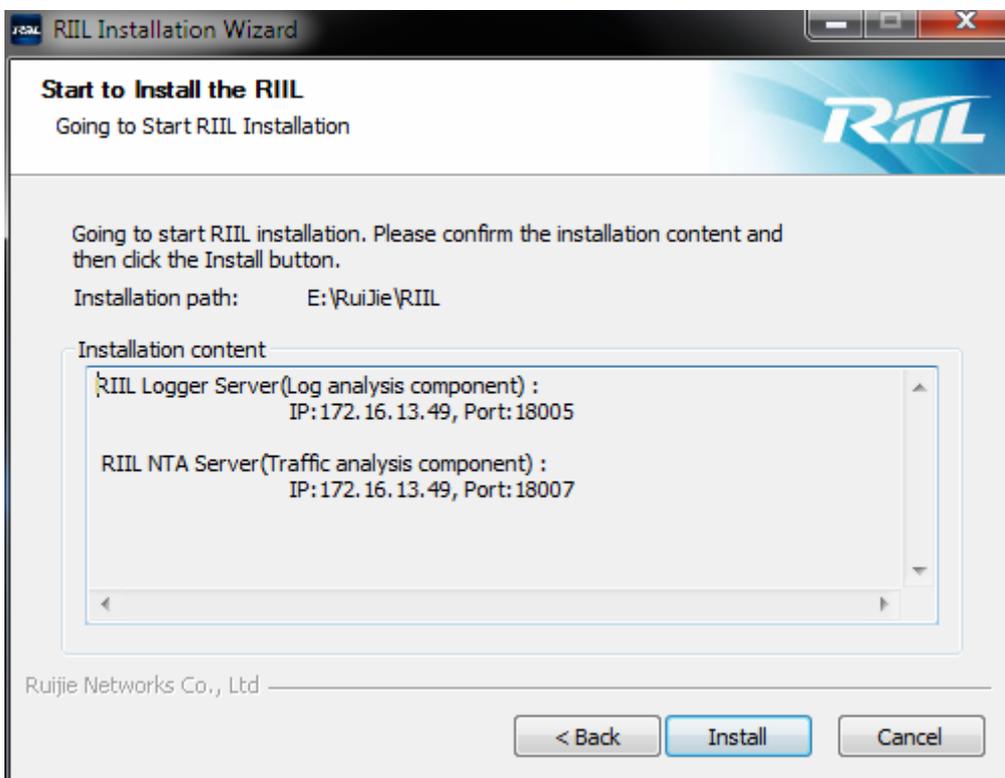


Figure 5-15

After you confirm the installation contents, click **Install** to install RIIL.

6 Starting RIIL Services

Run **starup.bat** as Administrator

Go to **Start -> All Programs -> RIIL -> RIIL 6.2 -> startup.bat** (right-click the **startup.bat** file and choose **Run as Administrator**).

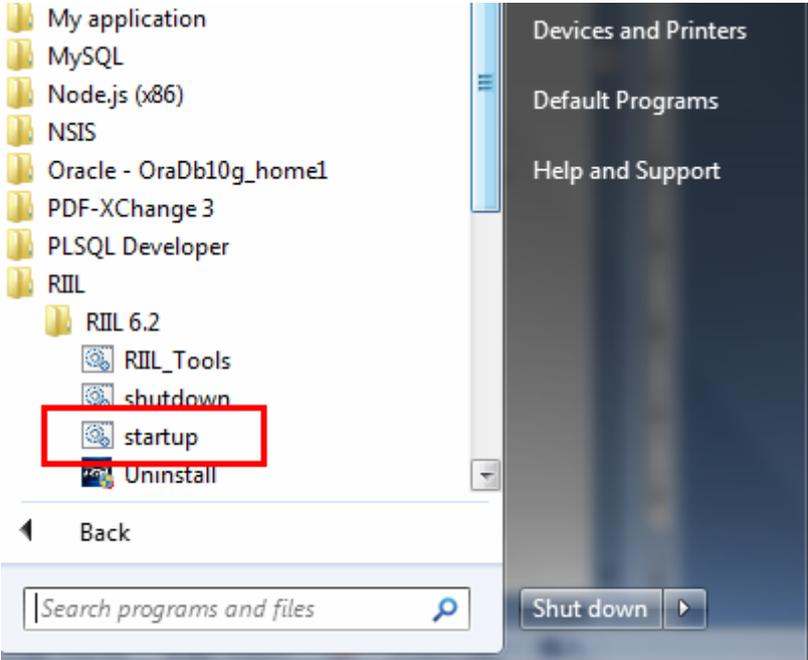


Figure 6-1

You can also go to **Menu -> Run** and input **services.msc** to manually start RIIL services.

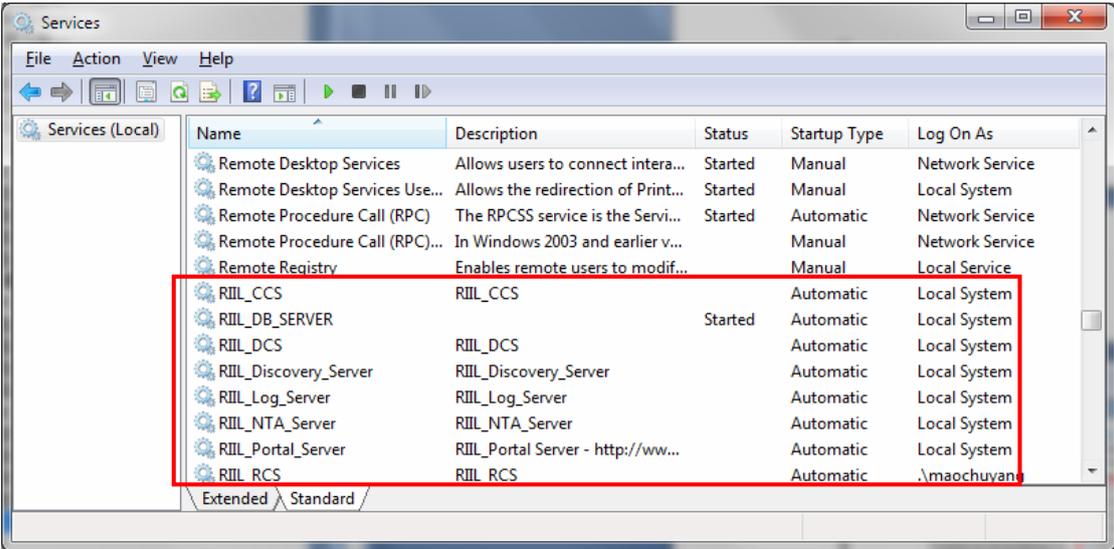


Figure 6-2

- RIIL_DB_SERVER
- RIIL_CCS
- RIIL_DCS

RIIL_Discovery_Server

RIIL_Portal_Server

RIIL_RCS

RIIL_Log_Server

RIIL_NTA_Server

7 Logging in to RIIL

Start the Internet Explorer and enter **http://[IP]:port/** ([IP] is the IP address of the server of RIIL and **port** is 80 by default, which can be left blank).

8 Stopping RIIL Services

Run **shutdown.bat** as Administrator

Go to **Start -> All Programs -> RIIL -> RIIL 6.2 -> shutdown.bat** (right-click the **shutdown.bat** file and choose **Run as Administrator**).

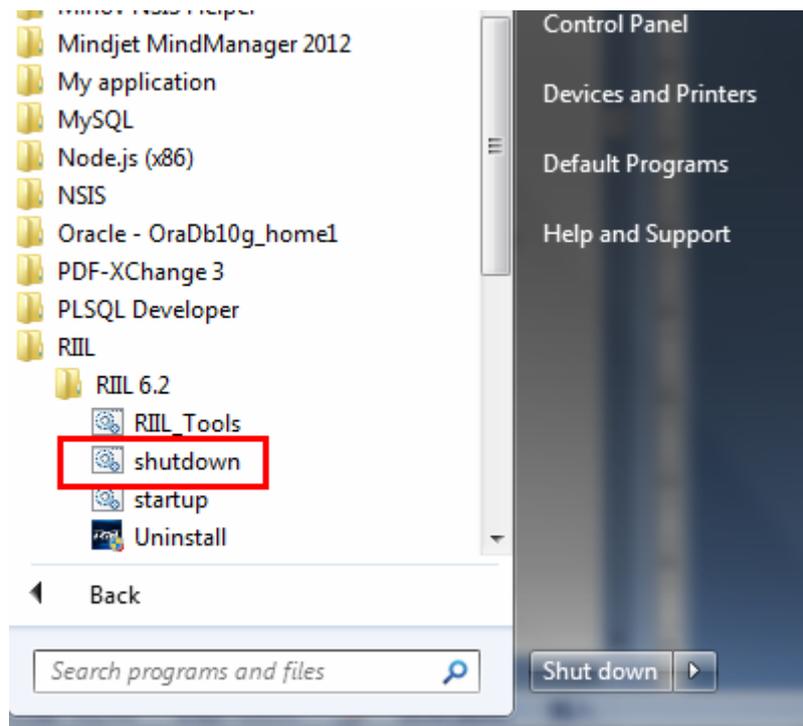


Figure 8-1

You can also manually stop RIIL services.

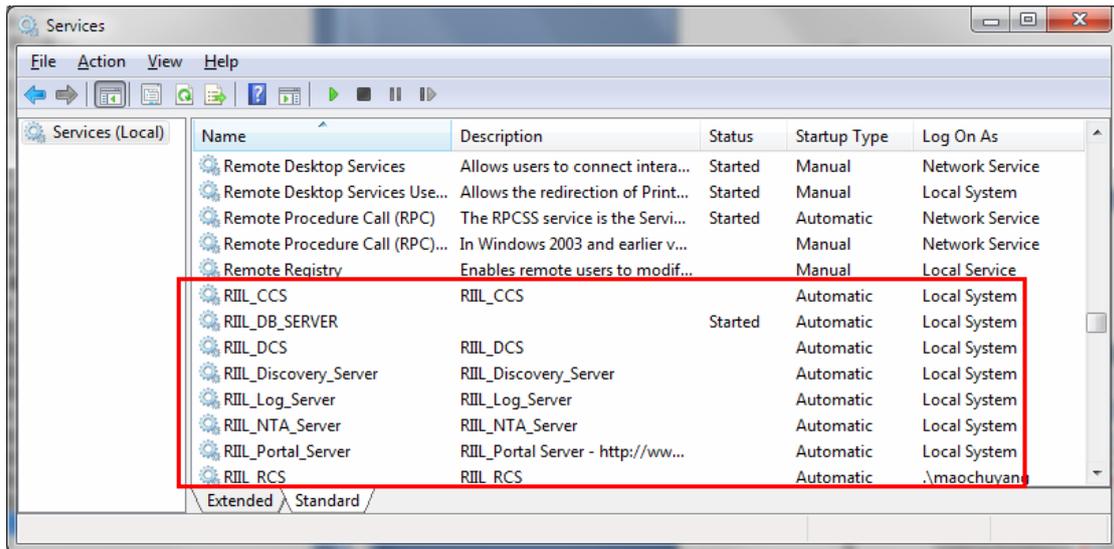


Figure 8-2

Services are stopped in the following sequence:

RIIl_Discovery_Server

RIIl_Log_Server

RIIl_DCS

RIIl_NTA_Server

RIIl_Portal_Server

RIIl_RCS

RIIl_CCS

RIIl_DB_SERVER

9 Uninstalling RIIl

Go to **Start -> All Programs -> RIIl -> RIIl 6.2 -> Uninstall.**

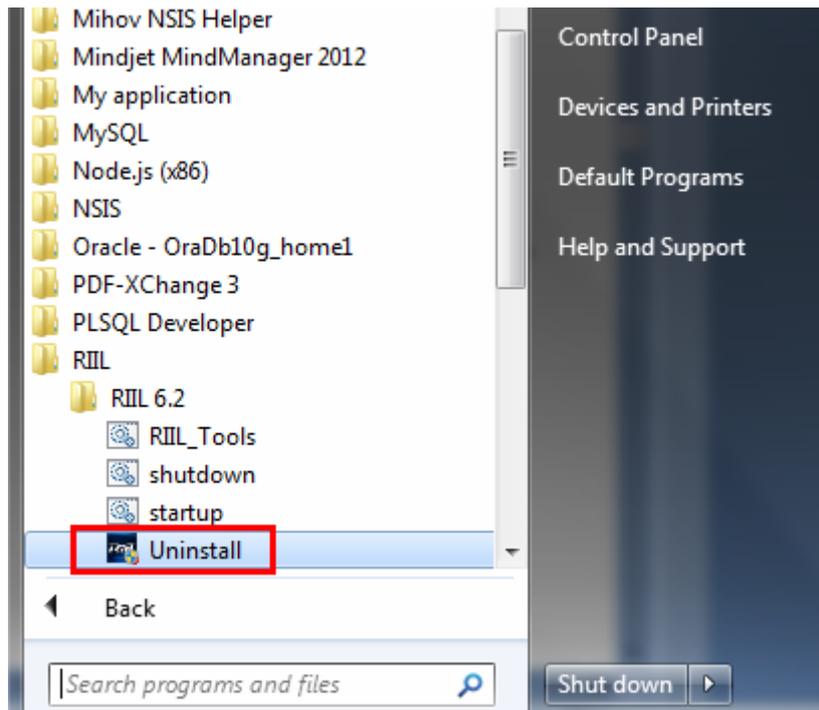


Figure 9-1