

LJ2206W

Laser Printer

激光打印机

网络用户手册

Network User's Guide

! 注意 使用本产品时，请您先仔细阅读使用说明书，再正确操作。

请妥善保管好本手册，以便日后查阅。

!CAUTION Before using this product, read carefully these instructions for correct operation.

Keep the User's Guide in a secure place for future reference.

The Lenovo logo is displayed in white text on a black rectangular background. The background of the entire page features a decorative pattern of gray squares of varying shades, arranged in a grid-like fashion that tapers towards the bottom right corner.

Lenovo

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Before You Use Your Lenovo Machine

- [Statement](#)
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- [Compilation and Publication Notice](#)
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Statement

Welcome to Lenovo products.

Please read carefully all the materials accompanying the machine before installing and using this product for the first time. It will help you make better use of the product. If you fail to operate the product in accordance with the instructions and requirements provided in this manual or mishandle the product due to misunderstanding or other causes, Githon Technology Co., Ltd. shall not be responsible for any losses arising out thereof, except for the loss resulting from improper installation or caused during the process of operation by professional maintenance personnel from our company.

Githon Technology Co., Ltd. has conducted a strict and careful collation of the manual. However, we cannot guarantee that the manual is completely free of any error or omission.

Githon Technology Co., Ltd. is committed to continuously improve product usage and service quality. Accordingly, it reserves the right to make changes to any product or software program described in the manual and information contained herein without prior notice.

The manual is intended to help you use Lenovo products in a correct way, which does not represent any description of software or hardware configuration for the product. In relation to product configuration, please refer to relevant contact (if any) and packing list or consult with the distributor who delivered the product to you. Pictures contained in the manual are for reference only. In case of inconsistency between particular pictures and actual display of the product, please follow the actual display of the product.

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If you find any inconsistency between product reality and this manual during the operational process or would like to obtain the latest information or have any problems or suggestions, please log onto:

Website: www.lenovoimage.com



Related Information

- [Before You Use Your Lenovo Machine](#)

Recommended Browsers

To view this User's Guide, we recommend using one of the following web browser versions:

Operating System	Recommended Browsers
Windows®	Internet Explorer® 8.0/9.0/10.0 Mozilla® Firefox®
Macintosh	Safari 5.1/6.0

Make sure JavaScript and CSS are enabled, regardless of which browser you are using.



Related Information

- [Before You Use Your Lenovo Machine](#)

Applicable Models

This User's Guide applies to the following models:

LJ2206W



Related Information

- [Before You Use Your Lenovo Machine](#)
-

Definitions of Notes

We use the following symbol and convention throughout this User's Guide:



Tips icons provide helpful hints and supplementary information.



Related Information

- [Before You Use Your Lenovo Machine](#)
-

Compilation and Publication Notice

This manual has been compiled and published to provide the latest product safety information at the time of publication. The information contained in this manual may be subject to change.



Related Information

- [Before You Use Your Lenovo Machine](#)
-

Important Note

- This product is approved for use in the country of purchase only. Do not use this product outside the country of purchase as it may violate the wireless telecommunication and power regulations of that country.
- Windows® XP in this document represents Windows® XP Professional, Windows® XP Professional x64 Edition and Windows® XP Home Edition.
- Windows Server® 2003 in this document represents Windows Server® 2003, Windows Server® 2003 x64 Edition, Windows Server® 2003 R2 and Windows Server® 2003 R2 x64 Edition.
- Windows Server® 2008 in this document represents Windows Server® 2008 and Windows Server® 2008 R2.
- Unless otherwise specified, the screens in this manual are from Windows® 7 and OS X v10.7.x. Screens on your computer may vary depending on your operating system.



Related Information

- [Before You Use Your Lenovo Machine](#)
-

Network

- [Get Started](#)
- [Select Your Network Connection Type](#)
- [Learn to Use Network Management Software and Utilities](#)
- [Locate the Machine's Network Settings](#)
- [Additional Methods of Configuring Your Lenovo Machine for a Wireless Network](#)
- [Advanced Network Features](#)
- [Technical Information for Advanced Users](#)
- [Troubleshooting](#)

Get Started

We recommend setting up and connecting to your network using the Lenovo installation CD-ROM. This guide provides more information on network connection types, introduces various methods to manage your network and explains some useful network features of your Lenovo machine.

- [Supported Basic Network Features](#)

Supported Basic Network Features

The print server supports various features depending on the operating system. Use this chart to see what network features and connections are supported by each operating system.

Operating Systems	Windows® XP Windows Vista® Windows® 7 Windows® 8	Windows Server® 2003/2008/2012/2012 R2	OS X v10.7.5 OS X v10.8.x OS X v10.9.x
Printing	Yes	Yes	Yes
BRAdmin Light ¹	Yes	Yes	Yes
Web Based Management ¹	Yes	Yes	Yes
Status Monitor	Yes		Yes



You can download the latest BRAdmin Light utility from www.lenovoimage.com.



Related Information

- [Get Started](#)

¹ The default password to manage this machine's settings is located on the back of the machine and marked "Pwd". We recommend immediately changing the default password to protect your machine from unauthorised access.

Select Your Network Connection Type

- [Wireless Network Connection Examples](#)

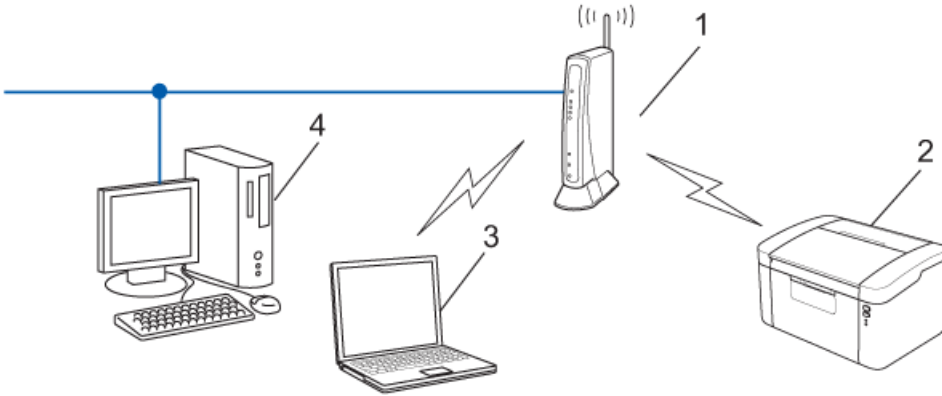
Wireless Network Connection Examples

Identify your wireless network connection type: Infrastructure mode or Ad-Hoc mode.

- [Connected to a Computer with a Wireless LAN Access Point Router in the Network \(Infrastructure Mode\)](#)
- [Connected to a Wireless Computer without a Wireless LAN Access Point Router in the Network \(Ad-Hoc Mode\)](#)

Connected to a Computer with a Wireless LAN Access Point Router in the Network (Infrastructure Mode)

This type of network has a wireless LAN central access point/router at the heart of the network. The access point can also act as a bridge or a gateway to a wired network. When the Lenovo wireless machine (your machine) is part of this network, it receives all print jobs via an access point.



1. Wireless LAN Access Point/Router
2. Wireless Network Machine (your machine)
3. Wireless Computer Connected to the Wireless LAN Access Point/Router
4. Wired Computer Connected to the Wireless LAN Access Point/Router with a Network Cable

Configuration Method

Select one of these methods for configuring your Lenovo machine in a wireless network environment.

- Wireless Configuration Using the Setup Wizard from the Computer (Recommended)
- One-Push Wireless Configuration Using WPS or AOSS™
- PIN Method Wireless Configuration Using WPS

✓ Related Information

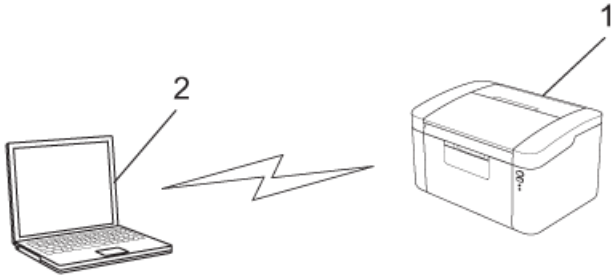
- [Wireless Network Connection Examples](#)

Related Topics:

- [Configure Your Machine for a Wireless Network Using the PIN Method of Wi-Fi Protected Setup™ \(WPS\)](#)
- [Configure Your Machine for a Wireless Network Using the One Push Method of Wi-Fi Protected Setup™ \(WPS\) or AOSS™](#)

Connected to a Wireless Computer without a Wireless LAN Access Point Router in the Network (Ad-Hoc Mode)

This type of network does not have a central wireless LAN access point/router. Each wireless client communicates directly with each other. When the Lenovo wireless machine (your machine) is part of this network, it receives all print jobs directly from the computer sending print data.



1. Wireless Network Machine (your machine)
2. Wireless Computer

We cannot guarantee secure wireless network connections with Windows Server® products in Ad-Hoc mode.

✓ Related Information

- [Wireless Network Connection Examples](#)

Learn to Use Network Management Software and Utilities

Configure and change your Lenovo machine's network settings using a management utility.

- [BRAdmin Light \(Windows® and Macintosh\)](#)
- [Web Based Management](#)



Related Information

- [Network](#)
 - [Learn about Network Management Software and Utilities](#)
 - [Install or Access Network Management Software and Utilities](#)

Related Topics:

- [What is BRAdmin Light? \(Windows® and Macintosh\)](#)
 - [What is Web Based Management?](#)
-

Learn about Network Management Software and Utilities

- [What is BRAdmin Light? \(Windows® and Macintosh\)](#)
- [What is Web Based Management?](#)

What is BRAdmin Light? (Windows® and Macintosh)

BRAdmin Light is a utility for the initial setup of Lenovo network-connected devices. This utility can search for Lenovo products on your network, view the status and configure the basic network settings, such as IP address. You can download the latest BRAdmin Light utility from www.lenovoimage.com.



If you are using Windows® Firewall, or the firewall function of an anti-spyware or antivirus application, temporarily disable them. When you are sure you can print, configure the software settings following the instructions.



Related Information

- [Learn about Network Management Software and Utilities](#)

Related Topics:

- [Learn to Use Network Management Software and Utilities](#)
-

What is Web Based Management?

Web Based Management is a utility that uses a standard web browser to manage your machine using the Hyper Text Transfer Protocol (HTTP). Type your machine's IP address into your web browser to access and change your print server settings.



- We recommend Microsoft® Internet Explorer® 8.0/9.0/10.0 for Windows® and Safari 5.0/6.0 for Macintosh. Make sure that JavaScript and Cookies are always enabled in whichever browser you use. If a different web browser is used, make sure it is compatible with HTTP 1.0 and HTTP 1.1.
- You must use the TCP/IP protocol on your network and have a valid IP address programmed into the print server and your computer.



Related Information

- [Learn about Network Management Software and Utilities](#)

Related Topics:

- [Learn to Use Network Management Software and Utilities](#)
- [Access Web Based Management](#)
- [Locate Network Settings When Using Web Based Management](#)

Install or Access Network Management Software and Utilities

Before using your Lenovo machine in a network environment, you must install the Lenovo software and configure the appropriate TCP/IP network settings on the machine itself.

We recommend using the Lenovo installer to install the Lenovo software and guide you through the software and network installation.

If you do not want to or are unable to use the Lenovo installer, see *Related Information*.



Related Information


- [Learn to Use Network Management Software and Utilities](#)
 - [Install BRAdmin Light from the Installer CD-ROM \(Windows®\)](#)
 - [Access Web Based Management](#)

Install BRAdmin Light from the Installer CD-ROM (Windows®)

1. Make sure your Lenovo machine is on.
2. Turn on your computer.
Close any open applications before starting configuration.
3. Put the Installer CD-ROM into your CD-ROM drive.
4. If the model name screen appears, select your machine.
The CD-ROM main menu will appear.
5. Click **Install Software**.
6. Click the **BRAdmin Light** button and follow the on-screen instructions to install.



If the Lenovo screen does not appear, do the following:

- (Windows® XP)
Go to **My Computer**, double-click the CD-ROM icon, and then double-click **start.exe**.
- (Windows Vista® and Windows® 7)
Go to **Computer**, double-click the CD-ROM icon, and then double-click **start.exe**.
- (Windows® 8)
Click the  (**File Explorer**) icon on the taskbar, and then go to **Computer (This PC)**. Double-click the CD-ROM icon, and then double-click **start.exe**.



Related Information

- [Install or Access Network Management Software and Utilities](#)

Related Topics:

- [Locate Network Settings When Using BRAdmin Light \(Windows® and Macintosh\)](#)

Access Web Based Management

The default password to manage this machine's settings is located on the back of the machine and marked "Pwd".

Attention: The password does not contain the letters O, o, l, l, Z, z, b, q, v and y.

We recommend immediately changing the default password to protect your machine from unauthorized access, and to make the following features and software more secure:

- Web Based Management
- Application BRAdmin Light
- Firmware Update Tool

You can also find the default password in the Network Configuration Report.

1. Start your web browser.
2. Type "http://machine's IP address" in your browser's address bar (where "machine's IP address" is the machine's IP address).

For example: http://192.168.1.2



- If you are using a Domain Name System or enable a NetBIOS name, you can type another name, such as "SharedPrinter" instead of the IP address.

For example:

http://SharedPrinter


If you enable a NetBIOS name, you can also use the node name.

For example:

http://brwxxxxxxxxxxxx

The NetBIOS name can be found in the Printer Settings Page.

- For Macintosh, access Web Based Management by clicking the machine's icon on the **Status Monitor** screen.

3. If the machine prompts you for a password, type it, and then click .

You can now change the print server settings.

If you have changed the protocol settings, you must restart the machine after clicking **Submit** to activate the configuration.



Related Information

- [Install or Access Network Management Software and Utilities](#)
 - [Set a Logon Password for Web Based Management](#)

Related Topics:

- [What is Web Based Management?](#)
- [Print the Printer Settings Page](#)

Set a Logon Password for Web Based Management

We recommend setting a logon password to prevent unauthorized access to Web Based Management.

The default password to manage this machine's settings is located on the back of the machine and marked "Pwd".

Attention: The password does not contain the letters O, o, l, l, Z, z, b, q, v and y.

We recommend immediately changing the default password to protect your machine from unauthorized access, and to make the following features and software more secure:

- Web Based Management
- Application BRAdmin Light
- Firmware Update Tool

You can also find the default password in the Network Configuration Report.

1. Start your web browser.
2. Type "http://machine's IP address" in your browser's address bar (where "machine's IP address" is the machine's IP address).

For example: http://192.168.1.2



- If you are using a Domain Name System or enable a NetBIOS name, you can type another name, such as "SharedPrinter" instead of the IP address.

For example:

http://SharedPrinter


If you enable a NetBIOS name, you can also use the node name.


For example:

http://brwxxxxxxxxxxxx

The NetBIOS name can be found in the Printer Settings Page.

- For Macintosh, access Web Based Management by clicking the machine's icon on the **Status Monitor** screen.

3. If the machine prompts you for a password, type it, and then click .
4. Click **Administrator**.
5. Type the password you want to use in the **Enter New Password** box (up to 32 characters).
6. Retype the password in the **Confirm New Password** box.
7. Click **Submit**.

In the future, every time you access Web Based Management, type the password in the **Login** box, and then click .

After configuring the settings, log off by clicking .



If you are not setting a logon password, you can also set a password by clicking the **Please configure the password** button on the machine's web page.

Related Information

- [Access Web Based Management](#)

Locate the Machine's Network Settings

You can change your machine's network settings (IP address, subnet mask, gateway and others) using BRAdmin Light or Web Based Management.

- [Locate Network Settings When Using Web Based Management](#)
- [Locate Network Settings When Using BRAdmin Light \(Windows® and Macintosh\)](#)

Locate Network Settings When Using Web Based Management

1. Start your web browser.
2. Type "http://machine's IP address" in your browser's address bar (where "machine's IP address" is the machine's IP address).

For example: http://192.168.1.2



- If you are using a Domain Name System or enable a NetBIOS name, you can type another name, such as "SharedPrinter" instead of the IP address.

For example:

http://SharedPrinter


If you enable a NetBIOS name, you can also use the node name.

For example:

http://brwxxxxxxxxxxxx

The NetBIOS name can be found in the Printer Settings Page.

- For Macintosh, access Web Based Management by clicking the machine's icon on the **Status Monitor** screen.

3. If the machine prompts you for a password, type it, and then click .

You can change the network settings.

If you change the protocol settings, restart the machine after clicking **Submit** to activate the configuration.



Related Information




- [Locate the Machine's Network Settings](#)

Related Topics:

- [What is Web Based Management?](#)
- [Print the Printer Settings Page](#)
- [Reset the Network Settings to the Factory Settings](#)

Locate Network Settings When Using BRAdmin Light (Windows® and Macintosh)

- You can download the latest BRAdmin Light utility from www.lenovoimage.com.
- If you are using Windows® Firewall, or the firewall function of an anti-spyware or antivirus application, temporarily disable them. When you are sure you can print, configure the software settings following the instructions.
- Node name: The node name appears in the current BRAdmin Light window. The default node name is "BRNxxxxxxxxxxxx" for a wired network or "BRWxxxxxxxxxxxx" for a wireless network (where "xxxxxxxxxxxx" is your machine's MAC Address / Ethernet address).

1. Install BRAdmin Light.
2. Start BRAdmin Light.
 - (Windows® XP, Windows Vista®, Windows® 7, Windows Server® 2003 and Windows Server® 2008)
Click  (Start) > All Programs > Lenovo > BRAdmin Light > BRAdmin Light.
 - (Windows® 8, Windows Server® 2012 and Windows Server® 2012 R2)
Click  (BRAdmin Light).
 - (Macintosh)
You can download the latest BRAdmin Light utility from www.lenovoimage.com.
Select the folder you have downloaded, and then double-click the  BRAdmin Light.jar icon.
3. Double-click on the print server whose settings you want to change.



- If the print server is set to its factory default settings (if you do not use a DHCP/BOOTP/RARP server), the device will appear as **Unconfigured** in BRAdmin Light. Double-click the unconfigured device.
- You can find the Node Name and MAC Address (Ethernet Address) by printing the Printer Settings Page.

4. Type a password if you have set one, and then click **OK**.

You can now change the network settings.



Related Information

- [Locate the Machine's Network Settings](#)

Related Topics:

- [Install BRAdmin Light from the Installer CD-ROM \(Windows®\)](#)
- [Print the Printer Settings Page](#)
- [Reset the Network Settings to the Factory Settings](#)

Additional Methods of Configuring Your Lenovo Machine for a Wireless Network

To connect your machine to your wireless network, we recommend using the Installer CD-ROM.

- [Before Configuring Your Lenovo Machine for a Wireless Network](#)
- [Configure Your Machine for a Wireless Network Using a USB Cable](#)
- [Configure Your Machine's Wireless Network Using the Lenovo Installer Application without USB Cable](#)
- [Configure Your Machine for a Wireless Network Using the One Push Method of Wi-Fi Protected Setup™ \(WPS\) or AOSS™](#)
- [Configure Your Machine for a Wireless Network Using the PIN Method of Wi-Fi Protected Setup™ \(WPS\)](#)

Before Configuring Your Lenovo Machine for a Wireless Network

Before attempting to configure a wireless network, confirm the following:

- To achieve optimum results with normal everyday document printing, place the Lenovo machine as close to the wireless LAN access point/router as possible with minimal obstructions. Large objects and walls between the two devices and interference from other electronic devices can affect the data transfer speed of your documents.
Due to these factors, wireless may not be the best method of connection for all types of documents and applications. If you are printing large files, such as multi-page documents with mixed text and large graphics, you may want to consider selecting USB for the fastest throughput speed.
- Before configuring wireless settings, you must know your Network name (SSID) and Network Key.



Related Information


- [Additional Methods of Configuring Your Lenovo Machine for a Wireless Network](#)
-

Configure Your Machine for a Wireless Network Using a USB Cable

Connect your Lenovo machine to your wireless network using a USB cable. Once connection is complete, remove the USB cable.

1. Turn on your computer and put the installer CD-ROM into your CD-ROM drive.
 - For Windows®, follow these instructions.
 - For Macintosh, please go to Githon Website www.lenovoimage.com to download printer drivers. Follow the on-screen instructions to install printer drivers.
2. The opening screen will appear automatically.
3. The CD-ROM main menu appears. Click **Install Software**, click **Printer Driver**, and then click **Yes** if you accept the license agreements.
Follow the on-screen instructions.



-
- (Windows® XP)
If the Lenovo screen does not appear automatically, go to **My Computer**. Double-click the CD-ROM icon, and then double-click **start.exe**.
 - (Windows Vista® and Windows®7)
If the Lenovo screen does not appear automatically, go to **Computer**. Double-click the CD-ROM icon, and then double-click **start.exe**.
 - (Windows® 8)
Click the  (**File Explorer**) icon on the taskbar, and then go to **Computer (This PC)**. Double-click the CD-ROM icon, and then double-click **start.exe**.
 - If the **User Account Control** screen appears, do one of the following:
 - (Windows Vista®) Click **Allow**.
 - (Windows® 7/Windows® 8) Click **Yes**.
-
4. Choose **Wireless Network Connection**, and then click **Next**.
 5. Choose **Lenovo Peer-to-Peer Network Printer** or **Network Shared Printer**, and then click **Next**.
 6. If you selected **Network Shared Printer**, choose your machine's queue on the **Browse for Printer** screen, and then click **OK**.
 7. Select the radio button for the Firewall setting you want in the **Firewall/AntiVirus detected** screen, and then click **Next**.
 8. Select the **Yes, I have a USB cable to use for installation**. radio button, and then click **Next**.
 9. When a list of SSIDs appears, select the SSID you want, depending on your wireless network communication mode (Infrastructure mode or Ad-Hoc mode).
 10. Follow the on-screen instructions to configure the settings.



-
- If your SSID is not visible when the **Available Wireless Networks** screen appears, it may be that your access point is not set to broadcast the SSID. Manually add it by clicking the **Advanced** button and follow the on-screen instructions for entering the **Name (SSID)**.
 - If the wireless setup failure screen appears, click **Retry** and repeat these steps.
 - If you need assistance during setup and want to contact your local authorized repair station, make sure you have your SSID (Network Name) and Network Key ready. We cannot assist you in locating this information.
 - If you do not know this information (SSID and Network Key), you cannot continue the wireless setup.

How can I find this information?

- Check the documentation provided with your wireless access point/router.
- The initial SSID could be the manufacturer's name or the model name.
- If you do not know the security information, please consult the router manufacture, your system administrator, or your Internet provider.

After you have completed the wireless setup, the installer program walks you through installing the drivers. Click **Next** in the installation dialog box and follow the on-screen instructions.



Related Information

- [Additional Methods of Configuring Your Lenovo Machine for a Wireless Network](#)
-

Configure Your Machine's Wireless Network Using the Lenovo Installer Application without USB Cable

Wirelessly add your Lenovo Machine to your wireless network.

1. Turn on your computer and put the installer CD-ROM into your CD-ROM drive.
 - For Windows®, follow these instructions.
 - For Macintosh, please go to Githon Website www.lenovoimage.com to download printer drivers. Follow the on-screen instructions to install printer drivers.
2. The opening screen will appear automatically.
3. The CD-ROM main menu appears. Click **Install Software**, click **Printer Driver**, and then click **Yes** if you accept the license agreements.

Follow the on-screen instructions.




- (Windows® XP)

If the Lenovo screen does not appear automatically, go to **My Computer**. Double-click the CD-ROM icon, and then double-click **start.exe**.

- (Windows Vista® and Windows®7)

If the Lenovo screen does not appear automatically, go to **Computer**. Double-click the CD-ROM icon, and then double-click **start.exe**.

- (Windows® 8)

Click the  (**File Explorer**) icon on the taskbar, and then go to **Computer (This PC)**. Double-click the CD-ROM icon, and then double-click **start.exe**.

- If the **User Account Control** screen appears, do one of the following:
 - (Windows Vista®) Click **Allow**.
 - (Windows® 7/Windows® 8) Click **Yes**.

4. Choose **Wireless Network Connection**, and then click **Next**.
5. Choose **Lenovo Peer-to-Peer Network Printer** or **Network Shared Printer**, and then click **Next**.
6. If you selected **Network Shared Printer**, choose your machine's queue on the **Browse for Printer** screen, and then click **OK**.
7. Select the radio button for the Firewall setting you want in the **Firewall/AntiVirus detected** screen, and then click **Next**.
8. Select the **No, I do not have a USB cable.** radio button, and then click **Next**.
9. Follow the on-screen instructions to configure the settings.



- If you need assistance during setup and want to contact your local authorized repair station, make sure you have your SSID (Network Name) and Network Key ready. We cannot assist you in locating this information.
- If you do not know this information (SSID and Network Key), you cannot continue the wireless setup.

How can I find this information?

- Check the documentation provided with your wireless access point/router.
- The initial SSID could be the manufacturer's name or the model name.
- If you do not know the security information, please consult the router manufacture, your system administrator, or your Internet provider.

After you have completed the wireless setup, the installer program walks you through installing the drivers. Click **Next** in the installation dialog box and follow the on-screen instructions.



Related Information

- [Additional Methods of Configuring Your Lenovo Machine for a Wireless Network](#)
-

Configure Your Machine for a Wireless Network Using the One Push Method of Wi-Fi Protected Setup™ (WPS) or AOSS™

If your wireless access point/router supports either WPS (Push Button Configuration) or AOSS™, you can use WPS or AOSS™ from your machine's **WiFi** button to configure your wireless network settings.



- Routers or access points that support WPS are marked with this symbol:



- Routers or access points that support AOSS™ are marked with this symbol:



AOSS™





Related Information

- [Additional Methods of Configuring Your Lenovo Machine for a Wireless Network](#)
 - [How to Configure Your Wireless Network Using the One Push Method of WPS or AOSS™](#)

Related Topics:















- [Connected to a Computer with a Wireless LAN Access Point Router in the Network \(Infrastructure Mode\)](#)

How to Configure Your Wireless Network Using the One Push Method of WPS or AOSS™

1. Make sure that the power cord is plugged in and the top cover is closed.
2. Press  to turn on the machine and make sure only the Ready LED () lights up.
3. Press the WPS or AOSS™ button on your wireless access point/router.
4. Press and hold the **WiFi** button on your machine for about two seconds.
5. The machine starts the one-push wireless setting mode.

The machine will search for a WLAN access point/router that supports Wi-Fi Protected Setup or AOSS™ for two minutes.

6. If your wireless device is connected successfully, the **WiFi** LED lights up and the machine prints your machine's wireless status report. If the connection fails, check the error code on the printed report.

LED Indication	Setting WLAN ¹	Connected	Connection fail	No Access Point ²
				
!				
				

¹ The LED will blink in a pattern of ON for 0.9 seconds and then OFF for 0.3 seconds.

² The LED will blink ON and OFF at 1.2 seconds intervals.

✓ Related Information

- [Configure Your Machine for a Wireless Network Using the One Push Method of Wi-Fi Protected Setup™ \(WPS\) or AOSS™](#)

Related Topics:

- [Wireless LAN Report Error Codes](#)

Configure Your Machine for a Wireless Network Using the PIN Method of Wi-Fi Protected Setup™ (WPS)

If your wireless LAN access point/router supports WPS, you can use the Personal Identification Number (PIN) Method to configure your wireless network settings.

The PIN Method is one of the connection methods developed by the Wi-Fi Alliance®. By submitting a PIN created by an Enrollee (your machine) to the Registrar (a device that manages the wireless LAN), you can set up the wireless network and security settings. For more information on how to access WPS mode, see the instructions provided with your wireless access point/router.

✓ Related Information

- [Additional Methods of Configuring Your Lenovo Machine for a Wireless Network](#)
 - [Two Wireless Network Connection Types Using the PIN Method of Wi-Fi Protected Setup™ \(WPS\)](#)
 - [How to Configure Your Wireless Network Using the PIN Method of Wi-Fi Protected Setup™ \(WPS\)](#)

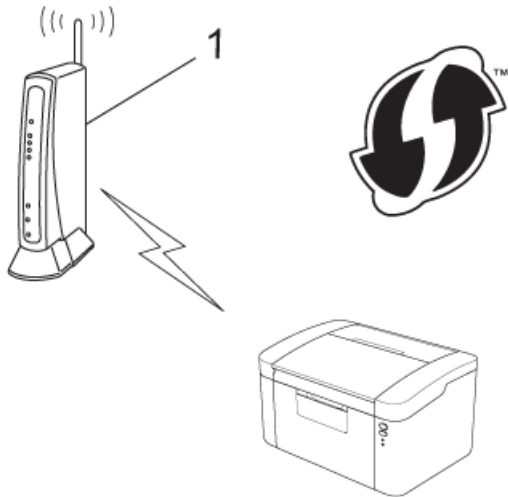
Related Topics:

- [Connected to a Computer with a Wireless LAN Access Point Router in the Network \(Infrastructure Mode\)](#)

Two Wireless Network Connection Types Using the PIN Method of Wi-Fi Protected Setup™ (WPS)

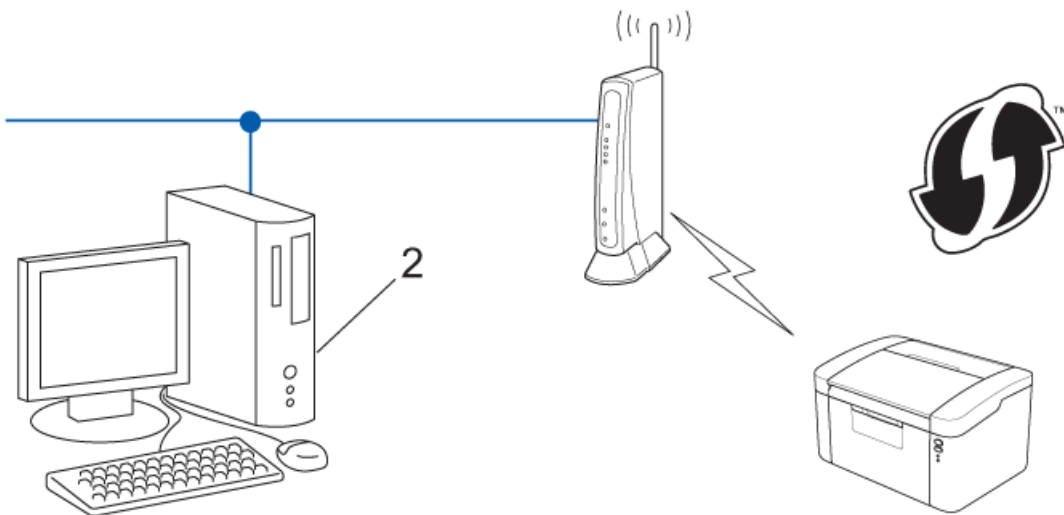
Type A

Connection when the wireless LAN access point/router (1) doubles as Registrar.



Type B

Connection when another device (2), such as a computer, is used as Registrar.



Routers or access points that support WPS are marked with this symbol:







Related Information

- [Configure Your Machine for a Wireless Network Using the PIN Method of Wi-Fi Protected Setup™ \(WPS\)](#)

How to Configure Your Wireless Network Using the PIN Method of Wi-Fi Protected Setup™ (WPS)


1. Make sure that the power cord is plugged in and the top cover is closed.
2. Press  to turn on the machine and make sure only the Ready LED () lights up.
3. Press the **WiFi** button three times.
4. The machine prints an eight-digit PIN and starts searching for a WLAN access point/router.
5. Using a computer that is on the network, type "http://access point's IP address" in your browser (where "access point's IP address" is the IP address of the device that is used as the Registrar).
6. Go to the WPS settings page and type the PIN, and then follow the on-screen instructions.




- The Registrar is usually the wireless LAN access point/router.
- The setting page will differ depending on the brand of wireless LAN access point/router. For more information, see the instructions supplied with your wireless LAN access point/router.

If you are using a Windows Vista®, Windows® 7, or Windows® 8 computer as a Registrar, complete the following steps:

7. Do one of the following:
 - (Windows Vista®)

Click  (**Start**) > **Network** > **Add a wireless device**.
 - (Windows® 7)















Click  (**Start**) > **Devices and Printers** > **Add a device**.
 - (Windows® 8)

Move your mouse to the lower right corner of your desktop. When the menu bar appears, click **Settings** > **Control Panel** > **Hardware and Sound** > **Devices and Printers** > **Add a device**.



- To use a Windows Vista®, Windows® 7, or Windows® 8 computer as a Registrar, you must register it to your network in advance. For more information, see the instructions supplied with your wireless LAN access point/router.
- If you use Windows® 7 or Windows® 8 as a Registrar, you can install the printer driver after the wireless configuration by following the on-screen instructions. To install the full driver and software package, use the Lenovo installer on the Installer CD-ROM.

8. Select your machine and click **Next**.
9. Type the PIN from the printed page, and then click **Next**.
10. Select your network, and then click **Next**.
11. Click **Close**.
12. If your wireless device is connected successfully, the **WiFi** LED lights up and the machine prints your machine's wireless status report. If the connection fails, check the error code on the printed report.

LED Indication	Setting WLAN ¹	Connected	Connection fail	No Access Point ²
				
!				
				

-
- 1 The LED will blink in a pattern of ON for 0.9 seconds and then OFF for 0.3 seconds.
 - 2 The LED will blink ON and OFF at 1.2 seconds intervals.

For Windows®:

You have completed the wireless network setup. To install drivers and software necessary for operating your device, click **Install Software** on the Installer CD-ROM's Top Menu page.

For Macintosh:

You have completed the wireless network setup. Go to the Githon Website at www.lenovoimage.com to install drivers and software necessary for operating your device.



Related Information

- [Configure Your Machine for a Wireless Network Using the PIN Method of Wi-Fi Protected Setup™ \(WPS\)](#)

Related Topics:

- [Wireless LAN Report Error Codes](#)
-

Advanced Network Features




- [Print the Printer Settings Page](#)

Print the Printer Settings Page

The Printer Settings Page lists the printer settings, including the network print server settings.



- Node Name: The Node Name appears on the Printer Settings Page. The default Node Name is "BRNxxxxxxxxxxxx" for a wired network or "BRWxxxxxxxxxxxx" for a wireless network (where "xxxxxxxxxxxx" is your machine's MAC Address / Ethernet Address.)
- If the IP Address on the Printer Settings Page shows 0.0.0.0, wait for one minute and try printing it again.
- You can find your machine's settings, such as IP address, subnet mask, node name, and MAC Address on the settings page, for example:
 - IP address: 192.168.0.5
 - Subnet mask: 255.255.255.0
 - Node name: BRN000ca0000499
 - MAC Address: 00-0c-a0-00-04-99

1. Make sure that the power cord is plugged in and the top cover is closed.
2. Press  to turn on the machine and make sure only the Ready LED () lights up.
3. Press  three times.

The machine prints the Printer Settings Page.



Related Information

- [Advanced Network Features](#)

Related Topics:

- [Access Web Based Management](#)
- [Locate Network Settings When Using Web Based Management](#)
- [Locate Network Settings When Using BRAdmin Light \(Windows® and Macintosh\)](#)

Technical Information for Advanced Users

- [Supported Protocols and Security Features](#)
- [Available Services](#)
- [Other Ways to Configure the IP Address](#)
- [Reset the Network Settings to the Factory Settings](#)
- [Print the WLAN Report](#)

Supported Protocols and Security Features

Wireless LAN

IEEE 802.11b/g/n (Infrastructure Mode/Ad-hoc Mode)

Protocols (IPv4)

ARP, RARP, BOOTP, DHCP, APIPA(Auto IP), WINS/NetBIOS name resolution, DNS resolver, mDNS, LLMNR responder, LPR/LPD, Custom Raw Port/Port 9100, IPP, FTP Server, SNMPv1/v2c, HTTP Server, TFTP Client and Server, SMTP Client, ICMP, Web Services (Print)

Protocols (IPv6)

NDP, RA, DNS Resolver, mDNS, LLMNR responder, LPR/LPD, Custom Raw Port/ Port 9100, IPP, FTP Server, SNMPv1/v2c, HTTP Server, TFTP Client and Server, SMTP Client, ICMPv6, Web Services (Print)

Network Security (Wireless)

SMTP-AUTH

Wireless Network Security

WEP 64/128、 WPA-PSK (TKIP/AES)、 WPA2-PSK (AES)

Wireless Certification

Wi-Fi Certification Mark License (WPA™/WPA2™ - Personal), Wi-Fi Protected Setup (WPS) Identifier Mark License, AOSS Logo



Related Information

- [Technical Information for Advanced Users](#)

Available Services

When you want your computer to print to the Lenovo print server, you must use a resource, also known as a 'service.' The Lenovo print server provides these predefined services:

Service (Example)	Definition
BINARY_P1	TCP/IP binary
TEXT_P1	TCP/IP text service (adds carriage return after each line feed)
BRNxxxxxxxxxxxx ¹	TCP/IP binary



Related Information

- [Technical Information for Advanced Users](#)

¹ Where "xxxxxxxxxxxx" is your machine's MAC Address (Ethernet Address).

Other Ways to Configure the IP Address

- [Configure the IP Address Using DHCP](#)
- [Configure the IP Address Using BOOTP](#)
- [Configure the IP Address Using RARP](#)
- [Configure the IP Address Using APIPA](#)
- [Configure the IP Address Using ARP](#)

Configure the IP Address Using DHCP

The Dynamic Host Configuration Protocol (DHCP) is one of several automated mechanisms for IP address allocation. If you have a DHCP server on your network, the print server obtains its IP address from the DHCP server automatically and registers its name with any RFC 1001- and 1002-compliant dynamic name services.



If you do not want your print server configured via DHCP, you must set the Boot Method to **Static** so that the print server has a static IP address. This will prevent the print server from trying to obtain an IP address from any of these systems.

To change the Boot Method, use BRAdmin Light application or Web Based Management.



Related Information

- [Other Ways to Configure the IP Address](#)

Related Topics:

- [Configure the IP Address Using ARP](#)
-

Configure the IP Address Using BOOTP

Before you configure the IP address using Bootstrap Protocol (BOOTP), you must set the machine's Boot Method to BOOTP. To change the Boot Method, use BRAdmin Light application or Web Based Management.

BOOTP is an alternative to Reverse Address Resolution Protocol (RARP) that has the advantage of allowing configuration of the subnet mask and gateway. To use BOOTP to configure the IP address, make sure BOOTP is installed and running on your host computer (it should appear in the `/etc/services` file on your host as a real service; type `man bootpd` or see your system documentation for information). BOOTP is usually started up via the `/etc/inetd.conf` file, so you may need to enable it by removing the "#" in front of the bootp entry in that file. For example, a typical bootp entry in the `/etc/inetd.conf` file would be:

```
#bootp dgram udp wait /usr/etc/bootpd bootpd -i
```

Depending on the system, this entry might be called "bootps" instead of "bootp".



To enable BOOTP, use an editor to delete the "#" (if there is no "#," then BOOTP is already enabled). Then edit the BOOTP configuration file (usually `/etc/bootptab`) and enter the name, network type (1 for Ethernet), MAC Address (Ethernet Address) and the IP address, subnet mask and gateway of the print server. Unfortunately, the exact format for doing this is not standardized, so you will need to see your system documentation to determine how to enter this information (many UNIX[®] systems also have template examples in the `bootptab` file that you can use for reference). Some examples of typical `/etc/bootptab` entries include: ("BRN" below is "BRW" for a wireless network.)

```
BRN310107 1 00:80:77:31:01:07 192.168.1.2
```

and:

```
BRN310107:ht=ethernet:ha=008077310107:\ip=192.168.1.2:
```

Certain BOOTP host software implementations will not respond to BOOTP requests if you have not included a download filename in the configuration file. If this is the case, create a null file on the host and specify the name of this file and its path in the configuration file.

As with RARP, the print server will load its IP address from the BOOTP server when the machine is powered on.



Related Information

- [Other Ways to Configure the IP Address](#)

Related Topics:

- [Configure the IP Address Using ARP](#)

Configure the IP Address Using RARP

Before you configure the IP address using Reverse Address Resolution Protocol (RARP), you must set the machine's Boot Method to RARP. To change the Boot Method, use BRAdmin Light application or Web Based Management.

The Lenovo print server's IP address can be configured using the RARP facility on your host computer. This is done by editing the `/etc/ethers` file (if this file does not exist, you can create it) with an entry similar to the following:

```
00:80:77:31:01:07 BRN008077310107 (or BRW008077310107 for a wireless network)
```

where the first entry is the MAC Address (Ethernet Address) of the print server and the second entry is the name of the print server. (The name must be the same as the one you put in the `/etc/hosts` file.)

If the RARP daemon is not already running, start it (depending on the system, the command can be `rarpd`, `rarpd -a`, `in.rarpd -a`, or another command; type `man rarpd` or see your system documentation for additional information). To verify that the RARP daemon is running on a Berkeley UNIX[®] based system, type the following command:

```
ps -ax | grep -v grep | grep rarpd
```

For AT&T UNIX[®]-based systems, type:

```
ps -ef | grep -v grep | grep rarpd
```

The Lenovo print server will get the IP address from the RARP daemon when the machine is powered on.



Related Information

- [Other Ways to Configure the IP Address](#)

Related Topics:

- [Configure the IP Address Using ARP](#)

Configure the IP Address Using APIPA

The Lenovo print server supports the Automatic Private IP Addressing (APIPA) protocol. With APIPA, DHCP clients automatically configure an IP address and subnet mask when a DHCP server is not available. The device selects its own IP address in the range 169.254.1.0 through 169.254.254.255. The subnet mask is automatically set to 255.255.0.0 and the gateway address is set to 0.0.0.0.

By default, the APIPA protocol is enabled. To disable the APIPA protocol, use BRAdmin Light application or Web Based Management.



Related Information

- [Other Ways to Configure the IP Address](#)

Configure the IP Address Using ARP

If you are unable to use the BRAdmin Light application and your network does not use a DHCP server, you can also use the Address Resolution Protocol (ARP) command. The ARP command is available on Windows® systems that have TCP/IP installed and UNIX® systems. To use ARP, type the following command:

```
arp -s ipaddress ethernetaddress  
ipaddress
```

Where `ethernetaddress` is the MAC Address (Ethernet Address) of the print server and `ipaddress` is the IP address of the print server.

For example:

Windows® systems

Windows® systems require the hyphen (dash) "-" character between each digit of the MAC Address (Ethernet Address).

```
arp -s 192.168.1.2 00-80-77-31-01-07  
ping 192.168.1.2
```

UNIX®/Linux® systems

Typically, UNIX® and Linux systems require the colon ":" character between each digit of the MAC Address (Ethernet Address).

```
arp -s 192.168.1.2 00:80:77:31:01:07  
ping 192.168.1.2
```



You must be on the same Ethernet segment to use the ARP command, that is, there cannot be a router between the print server and operating system.

If there is a router, you may use BOOTP or other methods to enter the IP address. If your administrator has configured the system to deliver IP addresses using BOOTP, DHCP, or RARP, your Lenovo print server can receive an IP address from any one of these IP address allocation systems, so you will not need to use the ARP command. The ARP command works only once. For security reasons, when you have successfully configured the IP address of a Lenovo print server using the ARP command, you cannot use the ARP command again to change the address. The print server will ignore any attempts to do this. To change the IP address again, use Web Based Management, or perform a factory reset on the print server, which will then allow you to use the ARP command again.



Related Information

- [Other Ways to Configure the IP Address](#)

Related Topics:




- [Configure the IP Address Using DHCP](#)
- [Configure the IP Address Using BOOTP](#)
- [Configure the IP Address Using RARP](#)
- [Reset the Network Settings to the Factory Settings](#)

Reset the Network Settings to the Factory Settings

You can reset the print server to its default factory settings. This resets all information, such as the password and IP address.



You can also reset the print server to its factory settings using BRAdmin Light or Web Based Management.

1. Make sure the power cord is plugged in, the top cover is closed and the machine is turned off.
2. While holding down , open and close the top cover.
3. Release . Make sure that all the LEDs turn off.
4. Press  six times.

The machine will restart.



Related Information




- [Technical Information for Advanced Users](#)

Related Topics:

- [Configure the IP Address Using ARP](#)
- [Locate Network Settings When Using Web Based Management](#)
- [Locate Network Settings When Using BRAdmin Light \(Windows® and Macintosh\)](#)

Print the WLAN Report

The WLAN Report reflects your machine's wireless status. If the wireless connection fails, check the error code on the printed report.

1. Make sure that the power cord is plugged in and the top cover is closed.
2. Press  to turn on the machine and make sure only the Ready LED () lights up.
3. Press  five times.

The machine will print the WLAN Report.



Related Information

- [Technical Information for Advanced Users](#)
 - [Wireless LAN Report Error Codes](#)

Wireless LAN Report Error Codes

If the Wireless LAN Report shows that the connection failed, check the error code on the printed report and refer to the corresponding instructions in the table:

Error Code	Problem and Recommended Solutions
TS-01	The wireless setting is not activated, turn the wireless setting to ON.
TS-02	<p>The wireless access point/router cannot be detected.</p> <ol style="list-style-type: none"> Check the following four points: <ul style="list-style-type: none"> Make sure that the wireless access point/router is powered on. Move your machine to an obstruction-free area, or closer to the wireless access point/router. Temporarily place your machine within about 3.3 feet (one meter) from the wireless access point when you are configuring the wireless settings. If your wireless access point/router is using MAC address filtering, confirm the MAC address of the Lenovo machine is allowed in the filter. If you manually entered the SSID and security information (SSID/authentication method/encryption method/Network Key), the information may be incorrect. Confirm the SSID and security information and enter the correct information as necessary.
TS-04	<p>The Authentication/Encryption methods used by the selected wireless access point/router are not supported by your machine.</p> <p>For infrastructure mode, change the authentication and encryption methods of the wireless access point/router. Your machine supports the following authentication methods:</p> <ul style="list-style-type: none"> WPA-Personal TKIP or AES WPA2-Personal AES Open WEP or None (without encryption) Shared key WEP <p>If your problem is not solved, the SSID or network settings you entered may be incorrect. Confirm the wireless network settings.</p> <p>For Ad-Hoc Mode, change the authentication and encryption methods of your computer for the wireless setting. Your machine supports Open authentication method only, with optional WEP encryption.</p>
TS-05	<p>The security information (SSID/Network Key) is incorrect.</p> <p>Confirm the SSID and Network Key. If your router uses WEP encryption, enter the key used as the first WEP key. Your Lenovo machine supports the use of the first WEP key only.</p>
TS-06	<p>The wireless security information (Authentication method/Encryption method/Network Key) is incorrect.</p> <p>Confirm the wireless security information (Authentication method/Encryption method/Network Key) listed in TS-04. If your router uses WEP encryption, enter the key used as the first WEP key. Your Lenovo machine supports the use of the first WEP key only.</p>
TS-07	<p>The machine cannot detect a wireless access point/router that has WPS or AOSS™ enabled.</p> <p>If you would like to configure your wireless settings using WPS or AOSS™, you must operate both your machine and the wireless access point/router. Confirm your wireless access point/router supports WPS or AOSS™ and try starting again.</p> <p>If you do not know how to operate your wireless access point/router using WPS or AOSS™, see the documentation provided with your wireless access point/router, ask the manufacturer of your wireless access point/router or ask your network administrator.</p>

Error Code	Problem and Recommended Solutions
TS-08	Two or more wireless access points that have WPS or AOSS™ enabled are detected. <ul style="list-style-type: none">• Confirm that only one wireless access point/router within range has the WPS or AOSS™ method active and try again.• Try starting again after a few minutes in order to avoid interference from other access points.



Related Information

- [Print the WLAN Report](#)

Related Topics:

- [How to Configure Your Wireless Network Using the One Push Method of WPS or AOSS™](#)
 - [How to Configure Your Wireless Network Using the PIN Method of Wi-Fi Protected Setup™ \(WPS\)](#)
-

Troubleshooting

Use this section to resolve typical network problems you may encounter when using your Lenovo machine.

- [Pre-troubleshooting Actions that May Solve the Problem](#)
- [Identify and Solve the Problem](#)

Pre-troubleshooting Actions that May Solve the Problem

If you encounter network problems when using the Lenovo machine, there are several things you can check before consulting the troubleshooting section.

Make sure you have checked the following:

- The power cord is connected correctly and the Lenovo machine is turned on.
- The access point (for wireless), router, or hub is turned on and its link button is blinking.
- All protective packaging, including all tape and all protective parts has been removed from the machine.
- The toner cartridge and drum unit are installed correctly.
- The top cover is fully closed.
- Paper is inserted correctly in the paper tray.

If, after checking these items, you are unable to resolve the problem, please contact Lenovo.



Related Information

- [Troubleshooting](#)
-

Identify and Solve the Problem

You can resolve most errors yourself. If, after reading this guide, you are unable to resolve your problem, please contact Lenovo.

- [Where Can I Find My Lenovo Machine's Network Settings?](#)
- [I Cannot Complete the Wireless Network Setup Configuration.](#)
- [My Lenovo Machine is Not Found on the Network During Printer Driver Installation.](#)
- [My Lenovo Machine Cannot Print over the Network.](#)
- [My Lenovo Machine is not Found on the Network Even After Successful Installation.](#)
- [My Security Settings are not Working Properly.](#)
- [I Want to Check that My Network Devices are Working Correctly.](#)

Where Can I Find My Lenovo Machine's Network Settings?

Use one of the following methods to find your Lenovo machine's network settings, for example, IP address, default gateway, and other settings:

- [Print the Printer Settings Page](#)
- [Use BRAdmin Light](#)



Related Information

- [Identify and Solve the Problem](#)
-

I Cannot Complete the Wireless Network Setup Configuration.

Turn your wireless router off and back on. Then try to configure the wireless settings again. If you are unable to resolve the problem, follow the instructions below:

Investigate the problem using the WLAN Report.

Cause	Action	Interface
Your security settings (SSID/ Network Key) are not correct.	Select and confirm that you are using the correct security settings. <ul style="list-style-type: none">- See the instructions supplied with your wireless LAN access point/router for information on how to find the security settings.- The manufacturer's name or model number of the wireless LAN access point/router may be used as the default security settings.- Consult with the access point/router manufacturer, your Internet provider, or network administrator. For definitions of SSID and Network Key, see the entries SSID, Network Key and Channels in the Glossary.	Wireless
Your Lenovo machine's MAC address is not allowed.	Confirm that the Lenovo machine's MAC Address is allowed in the filter.	Wireless
Your wireless LAN access point/router is in stealth mode (not broadcasting the SSID).	<ul style="list-style-type: none">• Enter the correct SSID name or Network Key manually.• Check the SSID name or the Network Key in the instructions supplied with your wireless LAN access point/router and reconfigure the wireless network setup.	Wireless



Related Information

- [Identify and Solve the Problem](#)

My Lenovo Machine is Not Found on the Network During Printer Driver Installation.



Cause	Action	Interface
Your computer is not connected to the network correctly.	Make sure your computer is connected to a network, that is, to a LAN environment or Internet services. For support on your network problems, contact your network administrator.	Wireless
Your machine is not connected to the network correctly, or your machine does not have a valid IP address.	Print the Printer Settings Page and check that Wireless Link Status is marked Link OK . If Link OK does not appear, do the following: <ul style="list-style-type: none"> • Make sure the wired or wireless setting is listed as active. • Ask your network administrator if your IP address is valid. • Confirm that your WLAN access point/router is available. 	Wireless
Your security software blocks your machine's access to the network.	<ul style="list-style-type: none"> • In the Installer dialog box, select the option to search for the Lenovo machine again. • Allow access when the alert message of the security software appears during the printer driver installation. • (Macintosh) If you are using a firewall function of anti-spyware or antivirus security software, temporarily disable it and then install the Lenovo software. 	Wireless
Your Lenovo machine is placed too far from the wireless LAN access point/router.	Place your Lenovo machine within 1 meter/3.3 feet from the wireless LAN access point/router when you configure the wireless network settings.	Wireless
There are obstructions (walls or furniture, for example) between your machine and the wireless LAN access point/router.	Move your Lenovo machine to an obstruction-free area, or closer to the wireless LAN access point/router.	Wireless
There is a wireless computer, Bluetooth device, microwave oven, or digital cordless phone near the Lenovo machine or the wireless LAN access point/router.	Move all the devices away from your Lenovo machine or wireless LAN access point/router.	Wireless



Related Information

- [Identify and Solve the Problem](#)

My Lenovo Machine Cannot Print over the Network.

Cause	Action	Interface
Your security software blocks your machine's access to the network.	Some security software might block access without showing a security alert dialog box even after successful installation. To allow access, see the instructions for your security software or ask the software manufacturer.	Wireless
Your Lenovo machine was not assigned an available IP address.	Confirm the IP address and the Subnet Mask. Verify that both the IP addresses and Subnet Masks of your computer and the Lenovo machine are correct and located on the same network. For more information about how to verify the IP address and the Subnet Mask, ask your network administrator.	Wireless
The failed print job is still in your computer's print queue.	<ul style="list-style-type: none"> • If the failed print job is still in your computer's print queue, delete it. • Otherwise, double-click the printer icon in the following folder and cancel all documents: <ul style="list-style-type: none"> - (Windows® XP/Windows Server® 2003) Click Start > Printers and Faxes. - (Windows Vista®) Click  (Start) > Control Panel > Hardware and Sound > Printers. - (Windows® 7) Click  (Start) > Devices and Printers > Printers and Faxes. - (Windows® 8) Move your mouse to the lower right corner of your desktop. When the menu bar appears, click Settings > Control Panel. In the Hardware and Sound group, click View devices and printers > Printers. - (Windows Server® 2008) Click Start > Control Panel > Printers. - (Windows Server® 2012) Move your mouse to the lower right corner of your desktop. When the menu bar appears, click Settings > Control Panel. In the Hardware group, click View devices and printers > Printers. - (Windows Server® 2012 R2) Click Control Panel on the Start screen. In the Hardware group, click View devices and printers. - OS X v10.7.5, 10.8.x Click the System Preferences > Print & Scan. - OS X v10.9.x Click the System Preferences > Printers & Scanners. 	Wireless
Your Lenovo machine is not connected to the wireless network.	Print the WLAN Report to check the error code on the printed report.	Wireless

If you have checked and tried all of the above, but your Lenovo machine still cannot print, uninstall the printer driver and reinstall it.



Related Information

- Identify and Solve the Problem
-

My Lenovo Machine is not Found on the Network Even After Successful Installation.

Cause	Action	Interface
Your security software blocks your machine's access to the network.	Some security software might block access without showing a security alert dialog box even after successful installation. To allow access, see the instructions for your security software or ask the manufacturer.	Wireless
Your Lenovo machine is not assigned with an available IP address.	Confirm the IP address and the Subnet Mask. Verify that both the IP addresses and Subnet Masks of your computer and the Lenovo machine are correct and located on the same network. For more information on how to verify the IP address and the Subnet Mask, ask your network administrator.	Wireless
Your Lenovo machine is not connected to the network using wireless capabilities.	Print the WLAN Report to check the error code on the printed report.	Wireless

If you have checked and tried all of the above, but your Lenovo machine is not found on the Network, uninstall the printer driver and reinstall it.



Related Information

- [Identify and Solve the Problem](#)

My Security Settings are not Working Properly.

Cause	Action	Interface
During installation of the printer driver, BRAdmin Light, or when using the printing features, you did not accept the security alert dialog box.	If you did not accept the security alert dialog box, the firewall function of your security software may be rejecting access. Some security software might block access without showing a security alert dialog box. To allow access, see the instructions for your security software or ask the manufacturer.	Wireless
The required port number for the security software setting may be closed.	The following port numbers are used for Lenovo network features: <ul style="list-style-type: none">• Network printing ¹: Port number 161 and 137/ Protocol UDP• BRAdmin Light: Port number 161 / Protocol UDP For more information on how to open the port, see the instructions for the security software or ask the manufacturer.	Wireless



Related Information

- [Identify and Solve the Problem](#)

¹ Windows®

I Want to Check that My Network Devices are Working Correctly.

Check	Action	Interface
Check that your Lenovo machine, access point/router, or network hub is turned on.	<p>Check the following:</p> <ul style="list-style-type: none"> The power cord is connected correctly and the Lenovo machine is turned on. The access point/router or hub is turned on and its link button is blinking. All protective packaging has been removed from the machine. The toner cartridge and drum unit are installed correctly. The top cover is fully closed. Paper is inserted correctly in the paper tray. 	Wireless
Check the Wireless Link Status in the Printer Settings Page.	Print the Printer Settings Page and check that Wireless Link Status is Link OK .	Wireless
Check that you can "ping" the Lenovo machine from your computer.	<p>Ping the Lenovo machine from your computer using the IP address or the node name at the Windows® command prompt or Macintosh Terminal application:</p> <p>ping <ipaddress> or <nodename>.</p> <ul style="list-style-type: none"> Successful: Your Lenovo machine is working correctly and connected to the same network as your computer. Unsuccessful: Your Lenovo machine is not connected to the same network as your computer. <p>Confirm that the IP address and the Subnet Mask are set correctly.</p>	Wireless
Check that your Lenovo machine is connected to the wireless network.	Print the WLAN Report to check the error code on the printed report.	Wireless

If you have checked and tried all of the above but you are still having problems, see the instructions supplied with your wireless LAN access point/router to find the SSID and the Network Key information and set them correctly.



Related Information

- [Identify and Solve the Problem](#)

Security

- [Before Using Network Security Features](#)
- [Supported Security Protocols and Features](#)
- [Send an Email Securely](#)

Before Using Network Security Features

Your Lenovo machine employs some of the latest network security and encryption protocols available today. These network features can be integrated into your overall network security plan to help protect your data and prevent unauthorized access to the machine.



We recommend disabling the FTP and TFTP protocols. Accessing the machine using these protocols is not secure.



Related Information

- [Security](#)
-

Supported Security Protocols and Features

- [Security Methods for Sending Email](#)

Security Methods for Sending Email



Configure the settings for these security methods using Web Based Management.

SMTP Authentication (SMTP-AUTH)

SMTP-AUTH expands SMTP (the Internet email sending protocol) to include an authentication method that ensures that the true identity of the sender is known.



Related Information

- [Supported Security Protocols and Features](#)

Related Topics:

- [Configure Email Sending Using Web Based Management](#)
- [Send an Email with User Authentication](#)

Send an Email Securely

- [Configure Email Sending Using Web Based Management](#)
- [Send an Email with User Authentication](#)

Configure Email Sending Using Web Based Management

We recommend using Web Based Management to configure secured email sending with user authentication.

1. Start your web browser.
2. Type "http://machine's IP address" in your browser's address bar (where "machine's IP address" is the machine's IP address).

For example: http://192.168.1.2



- If you are using a Domain Name System or enable a NetBIOS name, you can type another name, such as "SharedPrinter" instead of the IP address.

For example:

http://SharedPrinter


If you enable a NetBIOS name, you can also use the node name.

For example:

http://brwxxxxxxxxxxxx

The NetBIOS name can be found in the Printer Settings Page.

- For Macintosh, access Web Based Management by clicking the machine's icon on the **Status Monitor** screen.

3. If the machine prompts you for a password, type it, and then click .
4. Click the **Network** tab.
5. Click **Protocol** in the left navigation bar.
6. In the **SMTP** field, click **Advanced Setting** and make sure the status of **SMTP** is **Enabled**.
7. Configure the **SMTP** settings.
 - For more information, see the Help text in Web Based Management.
 - Confirm that the email settings are correct after configuration by sending a test email.
 - If you do not know the SMTP server settings, contact your network administrator or Internet Service Provider (ISP).
8. When finished, click **Submit**.

The **Test Send E-mail Configuration** dialog box appears.
9. Follow the instructions in the dialog box to test the current settings.



Related Information

- [Send an Email Securely](#)

Related Topics:

- [Security Methods for Sending Email](#)

Send an Email with User Authentication

Your Lenovo machine supports the SMTP-AUTH method to send email via an email server that requires user authentication. This method prevents unauthorized users from accessing the email server.

You can use SMTP-AUTH method for email notification and email reports (available for certain models).



We recommend using Web Based Management to configure the SMTP authentication.

Email Server Settings

You must configure your machine's SMTP authentication method to match the method used by email server. For details about your email server settings, contact your network administrator or Internet Service Provider (ISP).



To enable SMTP server authentication, in the Web Based Management **SMTP** screen, under **Server Authentication Method**, you must select **SMTP-AUTH**.



Related Information

- [Send an Email Securely](#)

Related Topics:

- [Security Methods for Sending Email](#)

Glossary

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Ad-Hoc Mode

The mode of operation in a wireless network, in which all devices (machines and computers) are connected without an access point/router.

AES

Advanced Encryption Standard (AES) is the Wi-Fi®-authorized strong encryption standard.

AOSS™

AirStation One-Touch Secure System (AOSS™) is a system provided by Buffalo Technology. AOSS™ allows you to configure a secure wireless connection with the push of a button.

APIPA

If you do not assign an IP address manually (using the BRAdmin Light software) or automatically (using a DHCP, BOOTP, or RARP server), the Automatic Private IP Addressing (APIPA) protocol will automatically assign an IP address from the range 169.254.1.0 to 169.254.254.255.

ARP

Address Resolution Protocol (ARP) performs mapping of an IP address to a MAC address in a TCP/IP network.

Authentication

Most wireless networks use some kind of security settings. These security settings define the authentication (how the device identifies itself to the network) and encryption (how the data is encrypted as it is sent on the network). If you do not correctly specify these options when you are configuring your Lenovo wireless machine, it will not be able to connect to the wireless network. Therefore, care must be taken when configuring these options.

Authentication Methods for a Personal Wireless Network

A personal wireless network is a small network (such as a home wireless network) without IEEE 802.1x support.

- Open system

Wireless devices are allowed to access the network without any authentication.

- Shared key

A secret pre-determined key is shared by all devices that will access the wireless network. The Lenovo wireless machine uses the WEP key as the pre-determined key.

- WPA-PSK/WPA2-PSK

Enables a Wi-Fi Protected Access® Pre-shared key (WPA-PSK/WPA2-PSK), which enables the Lenovo wireless machine to associate with access points using TKIP for WPA-PSK or AES for WPA-PSK and WPA2-PSK (WPA-Personal).

BOOTP

The Bootstrap Protocol (BOOTP) is a network protocol used by a network client to obtain an IP Address from a configuration server.



To use BOOTP, contact your network administrator.

BRAdmin Light

BRAdmin Light is a utility for the initial setup of Lenovo network-connected devices. This utility can search for Lenovo products on your network, view the status and configure the basic network settings, such as IP address. You can download the latest BRAdmin Light utility from www.lenovoimage.com.

Channels

Wireless networks use channels. Each wireless channel is on a different frequency. There are up to 14 different channels that can be used when using a wireless network. However, in many countries the number of channels available is restricted.

Custom Raw Port

Custom raw port is a commonly used printing protocol on a TCP/IP network that enables interactive data transmission. Default is Port 9100.

DHCP

The Dynamic Host Configuration Protocol (DHCP) is a network protocol that is used to configure network devices so that they can communicate on an IP Network.



To use DHCP, contact your network administrator.

DNS Client

The Lenovo print server supports the Domain Name System (DNS) client feature. This feature allows the print server to communicate with other devices using its DNS name.

DNS Server

The Domain Name System (DNS) is a technology to manage the names of web sites and internet domains. A DNS server allows your computer to automatically find its IP address.

Encryption

Most wireless networks use some kind of security settings. These security settings define the authentication (how the device identifies itself to the network) and encryption (how the data is encrypted as it is sent on the network). If you do not correctly specify these options when you are configuring your Lenovo wireless machine, it will not be able to connect to the wireless network. Therefore, care must be taken when configuring these options.

Encryption Methods for a Personal Wireless Network

A personal wireless network is a small network (such as a home wireless network) without IEEE 802.1x support.

- None
No encryption method is used.
- WEP
When using Wired Equivalent Privacy (WEP) the data is transmitted and received with a secured key.
- TKIP
Temporal Key Integrity Protocol (TKIP) provides per-packet key mixing a message integrity check and rekeying mechanism.
- AES

Advanced Encryption Standard (AES) provides stronger data protection using a symmetric-key encryption.



- IEEE 802.11n does not support either WEP or TKIP as an encryption method.
- To connect to your wireless network using IEEE 802.11n, we recommend selecting AES.

Gateway

A gateway is a network point that acts as an entrance to another network and sends data transmitted via the network to an exact destination. The router knows where to direct data that arrives at the gateway. If a destination is located on an external network, the router transmits data to the external network. If your network communicates with other networks, you may need to configure the Gateway IP address. If you do not know the Gateway IP address, then contact your Network Administrator.

HTTP (Web Server)

Hypertext Transfer Protocol (HTTP) is used to transmit the data between a web server and a web browser. The Lenovo print server is equipped with a built-in web server that allows you to monitor its status or change some of its configuration settings using a web browser.

Infrastructure Mode

The mode of operation in a wireless network, in which all devices (machines and computers) are connected via an access point/router.

IP Address

An Internet Protocol (IP) address is a series of numbers that identifies each device connected to a network. An IP address consists of four numbers separated by dots. Each number is between 0 and 255.

Example: In a small network, you would normally change the final number.

192.168.1.1

192.168.1.2

192.168.1.3

How the IP address is assigned to your print server:

If you have a DHCP/BOOTP/RARP server in your network, the print server will automatically obtain its IP address from that server.



On smaller networks, the DHCP server may also be the Router.

If you do not have a DHCP/BOOTP/RARP server, the Automatic Private IP Addressing (APIPA) protocol will automatically assign an IP address from the range 169.254.1.0 to 169.254.254.255.

IPP

The Internet Printing Protocol (IPP Version 1.0) allows you to print documents directly to any accessible machine via the Internet.

IPv6

IPv6 is the next generation Internet protocol.

LLMNR

The Link-Local Multicast Name Resolution (LLMNR) protocol resolves the names of neighboring computers, if the network does not have a Domain Name System (DNS) server. The LLMNR Responder feature works in both the IPv4 or IPv6 environment when using a computer that has the LLMNR Sender feature, such as Windows Vista® and Windows® 7.

LPD

Line Printer Daemon (LPD or LPR) protocol is a commonly-used printing protocol on a TCP/IP network, mainly for UNIX®-based operating systems.

MAC Address

The MAC Address (Ethernet Address) is a unique number assigned for the machine's network interface. You can check your machine's MAC Address in the Printer Settings Page.

mDNS

Multicast DNS (mDNS) allows the Lenovo print server to automatically configure itself to work in an OS X Simple Network Configuration system.

NetBIOS Name Resolution

Network Basic Input/Output System (NetBIOS) name resolution enables you to obtain the IP address of the other device using its NetBIOS name during the network connection.

Network Key

The Network Key is a password, which is used when the data is encrypted or decrypted. The Network Key is also described as the Password, Security Key, or Encryption Key. The table shows the number of characters of the key to use for each setting.

Open system/Shared key with WEP

This key is a 64-bit or a 128-bit value that must be entered in an ASCII or hexadecimal format.

	ASCII	Hexadecimal
64 (40) bit	Uses five text characters. For example, "WLAN" (case-sensitive).	Uses 10 digits of hexadecimal data. For example, "71f2234aba" (not case-sensitive).
128 (104) bit	Uses 13 text characters. For example, "Wirelesscomms" (case-sensitive).	Uses 26 digits of hexadecimal data. For example, "71f2234ab56cd709e5412aa2ba" (not case-sensitive).

WPA-PSK/WPA2-PSK and TKIP or AES

Uses a Pre-Shared Key (PSK) that is eight or more characters in length, up to a maximum of 63 characters.

Network Shared Printing

Network Shared Printing is a type of printing in a network shared environment. In a network shared environment, each computer sends data via a server or print server.

Node Name

The Node Name is a machine name on the network. This name is often referred to as a NetBIOS name; it will be the name that is registered by the WINS server on your network. Lenovo recommends the name "BRNxxxxxxxxxxx" for a wired network or "BRWxxxxxxxxxxx" for a wireless network (where "xxxxxxxxxxx" is your machine's MAC address / ethernet address.)

Open System

Open System is one of the network authentication methods. Under open system authentication, any wireless devices are allowed to access the network without requiring a WEP key.

Peer-to-Peer

Peer-to-Peer is a type of printing in a peer-to-peer environment. In a peer-to-peer environment, each computer sends and receives data directly to and from each device. There is no central server controlling access or machine sharing.

Protocols

Protocols are the standardized sets of rules for transmitting data on a network. Protocols allow users to gain access to network-connected resources. The print server used on your Lenovo machine supports the Transmission Control Protocol/Internet Protocol (TCP/IP) protocol.

Public Key Cryptosystem

A Public Key Cryptosystem is a modern branch of cryptography in which the algorithms employ a pair of keys (a public key and a private key) and use a different component of the pair for different steps of the algorithm.

RARP

Reverse Address Resolution Protocol (RARP) finds the logical address for a machine that knows only its physical address.



To use RARP, contact your network administrator.

Shared Key Cryptosystem

A Shared Key Cryptosystem is a branch of cryptography involving algorithms that use the same key for two different steps of the algorithm (such as encryption and decryption).

SMTP Client

Simple Mail Transfer Protocol (SMTP) client is used to send emails via the Internet or Intranet.

SMTP-AUTH

SMTP Authentication (SMTP-AUTH) expands SMTP (the Internet email sending protocol) to include an authentication method that ensures the true identity of the sender is known.

SNMP

The Simple Network Management Protocol (SNMP) is used to manage network devices including computers, routers and Lenovo network-ready machines. The Lenovo print server supports SNMPv1 and SNMPv2c.

SSID

Each wireless network has its own unique network name and it is technically referred to as a Service Set Identifier (SSID). The SSID is a 32-byte or less value and is assigned to the access point. The wireless network devices you want to associate to the wireless network should match the access point. The access point and wireless network devices regularly send wireless packets (referred to as beacons), which contain the SSID information. When your wireless network device receives a beacon, you can identify the wireless network that is close enough for the radio waves to reach your device.

Status Monitor

The Status Monitor utility is a configurable utility to monitor the status of one or more devices, allowing you to get immediate notification when there is a problem, for example, when the machine runs out of paper or jams.

Subnet Mask

A subnet mask allows you to identify which part of an IP address is used as the network address and which part is used as the host address.

In the following example, the last segment of the IP address is known as the host address and the first three segments are the network address.

Example: Computer 1 can talk to Computer 2

Computer 1

IP Address: 192.168.1.2

Subnet Mask: 255.255.255.0

Computer 2

IP Address: 192.168.1.3

Subnet Mask: 255.255.255.0



0 denotes that there is no limit to communication at this part of the address.

TCP/IP

Transmission Control Protocol/Internet Protocol (TCP/IP) is the most popular set of protocols used for communication, such as Internet and email. This protocol can be used in almost all operating systems, including Windows®, Windows Server®, OS X and Linux®.

TKIP

Temporal Key Integrity Protocol (TKIP) is one of the encryption methods adopted by WPA™ to be used in a wireless network. TKIP provides per-packet key mixing, a message integrity check and rekeying mechanism.

Web Based Management

A standard Web Browser can be used to manage your machine using the Hyper Text Transfer Protocol (HTTP). You can perform the function listed or get the following information from a machine on your network using a web browser:

- Machine status information
- Change network settings, such as TCP/IP information
- Software version information of the machine and print server
- Change network and machine configuration details



In order to use Web Based Management, you must use the TCP/IP protocol on your network and have a valid IP address programmed into the print server and your computer.

WEP

Wired Equivalent Privacy (WEP) is one of the encryption methods used in a wireless network. When using WEP, the data is transmitted and received with a secure key.

WINS

Windows® Internet Name Service (WINS) is an information-providing service for NetBIOS name resolution. It consolidates an IP address and a NetBIOS name that is in the local network.

WINS Server

Windows® Internet Name Service (WINS) Server maps IP addresses to computer names (NetBIOS names) in a Windows® network.

WLAN Report

The WLAN Report prints your machine's wireless status report. If the wireless connection fails, check the error code on the printed report.

WPA-PSK/WPA2-PSK Authentication Method

WPA-PSK/WPA2-PSK authentication method enables a Wi-Fi Protected Access® Pre-shared key (WPA-PSK/WPA2-PSK), which enables the Lenovo wireless machine to associate with access points using TKIP for WPA-PSK or AES for WPA-PSK and WPA2-PSK (WPA-Personal).

WPS

Wi-Fi Protected Setup™ (WPS) is a standard that allows setup of secured wireless network. WPS was created by the Wi-Fi Alliance® in 2007.

Githon Technology Co., Ltd.
Website: www.lenovoimage.com
Version: 2.0

至像科技有限公司
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