

LANTRONIX®



**xPrintServer™**  
**Home Edition**  
**User Guide**

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## Disclaimer & Revisions

The information in this guide may change without notice. The manufacturer assumes no responsibility for any errors that may appear in this guide.

## Revision History

Date	Rev.	Comments
July 2012	A	Initial document for firmware release 2.0.0.

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## 1: Introduction

The xPrintServer is a patent-pending AirPrint print server which provides wireless printing capabilities for iPad, iPhone and other devices with iOS-enabled AirPrint applications for up to 2 network printers and 8 USB printers (USB hub not included). xPrintServer Home Edition also enables printing to USB printers from Mac OS X Lion and Windows (XP, 7). Simply plug the xPrintServer into your network (router or switch with wireless access point), then plug your USB printer(s) into the xPrintServer. Within seconds the xPrintServer will auto-discover your printers to enable printing from iPads and iPhones.

Figure 1-1 xPrintServer



## Network and Home Editions

The xPrintServer comes in Network and Home editions. This user guide documents the features and functionality of the Home edition xPrintServer.

## Key Features

- ◆ No additional software is needed on the iOS device
- ◆ Simple configuration
- ◆ Supports up to 8 USB printers via USB hub and up to 2 network-attached printers

**Note:** *Print jobs process one at a time regardless of the number of configured printers. USB hub for connecting USB printers is not included.*

- ◆ Automatic printer discovery and configuration (for supported printers)
- ◆ Security features
- ◆ External LED status indicator
- ◆ Configuration via browser (HTTP)

## Supported iOS Devices

xPrintServer supports all iOS-enabled AirPrint applications. AirPrint is included in all newer generation Apple® devices with iOS 4.2 and later. These include:

- ♦ iPad, iPad2 and iPad3
- ♦ iPhone (3GS or later)
- ♦ iPod Touch (3rd generation or later)

## Supported Printers and Printer Protocols

**Note:** Supported printers should be directly attached to the network (wired or wirelessly).

The xPrintServer supports printers that support one of the following transport protocols and Page Description Language (PDL):

- ♦ JetDirect (also known as AppSocket)
- ♦ LPD
- ♦ LPR
- ♦ IPP
- ♦ HTTP

The following PDL is supported:

- ♦ PCL 4, 5 and 6
- ♦ Postscript

See <http://www.lantronix.com/it-management/mobile-print-servers/supported-printer-list.html> for the latest list of all supported printers. This list is periodically updated with new printers.

## Supported DHCP Configuration

xPrintServer supports DHCP-assigned IP Addresses. The following items are configured via Static IP or DHCP.

- ♦ IP Address
- ♦ Subnet Mask
- ♦ Default Gateway
- ♦ DNS Server

## Supported Browsers

Lantronix supports the latest version of Internet Explorer, Mozilla Suite, Mozilla Firefox, Safari, and Chrome.

## Product Information

You will need the **serial number** of your xPrintServer device when setting up your xPrintServer user interface. The serial number can be found on the product information label adhered to your device.

Figure 1-2 Sample Product Information Label



## Serial Number

A serial number is a unique, identifying number specific to each hardware device including an xPrintServer, printer or any Apple iOS device.

Figure 1-3 Sample Serial Numbers on Hardware Devices

00-80-A3-8E-00-63    or    00:80:A3:8E:00:63    or    0080A38E0063

## IP Address

Every device connected to an IP network must have a unique IP address. The xPrintServer gets a unique IP address from the DHCP server on your network (default method) or can be manually configured with a static IP address.

## 2: Installation

This chapter describes how to install your xPrintServer.

### Package Contents

Your xPrintServer product package includes the following:

- ◆ One (1) xPrintServer
- ◆ One (1) Quick Start Guide
- ◆ One (1) RJ-45 Ethernet Cable (3 ft)
- ◆ One (1) Universal Power Supply

### User-Supplied Items

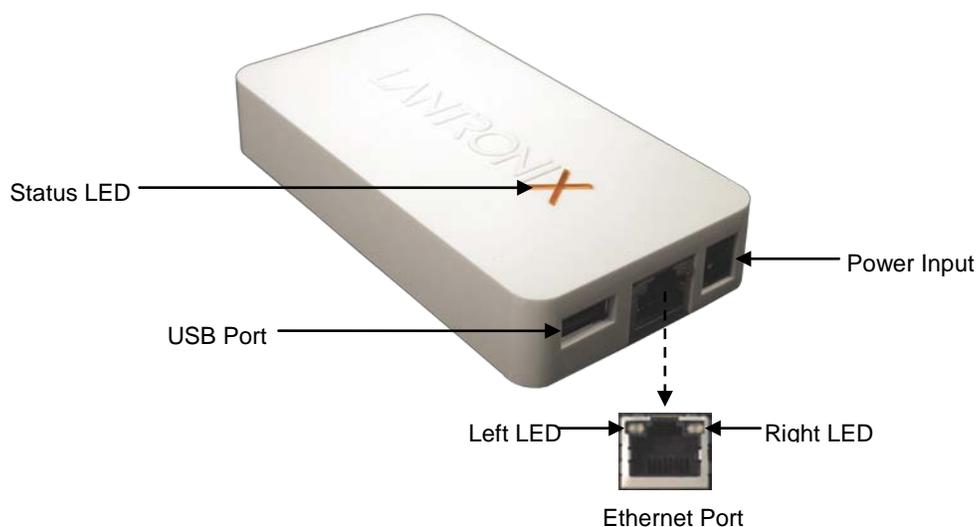
You also need the following items to install and operate your xPrintServer:

- ◆ A working power outlet
- ◆ WI-FI Access Point
- ◆ Network-Attached Printer (wired or wireless)
- ◆ USB Printer
- ◆ Your iOS device (e.g., iPad, iPhone) with connection to the network via WI-FI

### Hardware Components

There is one USB port, one power input, one Ethernet port, and two types of LED indicators on the xPrintServer. The LEDs provide information about device activity and status.

**Figure 2-1 xPrintServer LEDs**



## Ethernet LEDs

There are two LEDs located on the upper left and right corners of the Ethernet socket (see [Figure 2-1](#)). These indicate the status of the connection.

### Left LED

- ◆ Green ON, 100Mbps Ethernet Link
- ◆ Green Blinking, 100Mbps Activity
- ◆ Orange ON, 10Mbps Ethernet Link
- ◆ Orange Blinking, 10Mbps Activity
- ◆ OFF, No Ethernet Link

### Right LED

- ◆ Always OFF

The Ethernet port can connect to an Ethernet (10Mbps) or Fast Ethernet (100Mbps) network.

## Status LEDs

The Status LED on the xPrintServer device is incorporated into the “X” letter of the Lantronix logo on the top of the device. The behavior of this LED indicates the type of activity occurring in the xPrintServer device. The Status LED color is orange when lit, and specific display patterns indicate the specific type of activity. The LED may display a solid light, display no light, slowly glow on, slowly glow off, or flash on/off.

Table 2-1 Status LED, Top of Device

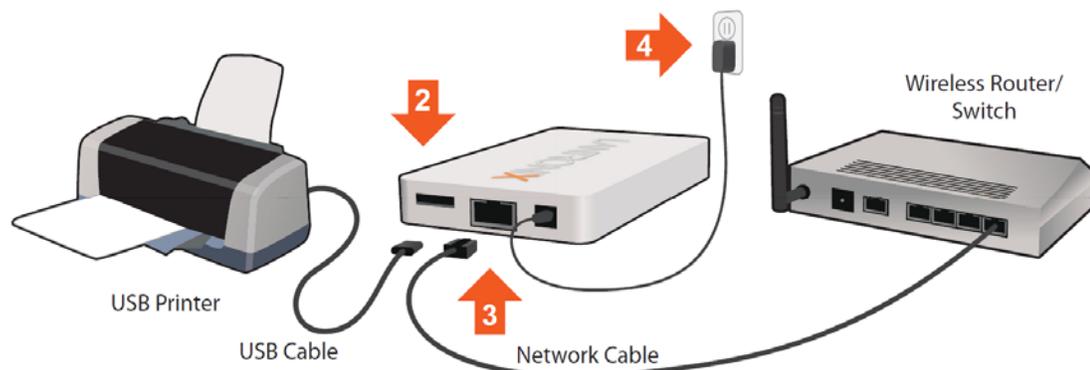
Orange “X” LED	Description	
<b>Solid</b>	A continuous solid light indicates the power is on or the device is booting.	
<b>OFF</b>	No light indicates the power is off.	
<b>Blinking</b>	Even blinking pattern indicates the device is printing.	
<b>Glow/Dim (Repeating Pattern)</b>	Pulsating pattern of glowing and dimming light cycle occurring once every three seconds. Indicates the device is booted, idle and waiting for a job.	
<b>Code 1</b>	A repeating pattern of a <b>single flash</b> followed by two seconds of no light indicates the device is obtaining the DHCP address.	<b>Note:</b> Codes 1 through 7 indicate a grouped number of flashes in the Orange “X” LED separated by a two second interval where the light is off. The specific code/number of flashes separated by a two second no-light interval indicates a specific status as described in the grey cells to the left.
<b>Code 2</b>	A repeating pattern of <b>two flashes</b> followed by two seconds of no light indicates there are no configured printers.	
<b>Code 3</b>	A repeating pattern of <b>three flashes</b> followed by two seconds of no light indicates a factory default reset.	
<b>Code 4</b>	A repeating pattern of <b>four flashes</b> followed by two seconds of no light indicates a <i>successful</i> firmware update.	
<b>Code 5</b>	A repeating pattern of <b>five flashes</b> followed by two seconds of no light indicates a <i>failed</i> firmware update.	
<b>Code 6</b>	A repeating pattern of <b>six flashes</b> followed by two seconds of no light indicates a printing error.	
<b>Code 7</b>	A repeating pattern of <b>seven flashes</b> followed by two seconds of no light indicates printer discovery is in process.	

## Installation Steps

With all xPrintServer package contents and the requisite user-supplied items listed above, you may begin installation.

1. Make sure printing from your Windows or Mac computer (from which the USB printer is directly attached) is working before proceeding. If you are installing a new USB printer, this may require downloading and installing print drivers to your desktop from the printer manufacturer.
2. Connect the USB printer cable to the USB port of the xPrintServer.
3. Connect the network cable from the wireless router/switch to the xPrintServer.
4. Power on the xPrintServer with the supplied power cord. The xPrintServer will automatically set-up all printers on your network. The glowing "X" will blink quickly for about 30 seconds, then it will pulse slowly to show it's ready for printing.
5. Monitor the LEDs on the xPrintServer for activity and status information (see [Ethernet LEDs](#) and [Status LEDs](#)).

Figure 2-2 Quick Connect Diagram



## Topology Support

The xPrintServer is hardwired (via standard CAT-5) cabling to a router, switch or hub. The system requires an Access Point (A/P) be also hardwired and connected to the network. The iOS devices associates with the A/P and communicates to the xPrintServer when a print job is ready to be processed. The xPrintServer communicates with network attached printer(s); the printers may either be wired or wirelessly connected to the network.

For the xPrintServer to auto-detect printers on bootup, the xPrintServer and printers must be on the same subnet. After auto-detection has been completed, the xPrintServer can then be relocated to a different subnet (WI-FI connected subnet that iOS devices are connected to) assuming that subnet can route to the previous subnet.

The xPrintServer uses Zeroconf to advertise print services to the iOS device(s) and requires either one or both of the following:

- ♦ Both the iOS device and the xPrintServer are on the same subnet.
- ♦ The iOS device and xPrintServer are on different subnets but multicast traffic is communicated between the subnets.

## 3: Navigation and Printing

This chapter explains how to navigate and use your xPrintServer user interface including directions on how to login and log out, how to change your password, and most importantly, how to print from your iOS device.

### Finding the xPrintServer IP Address

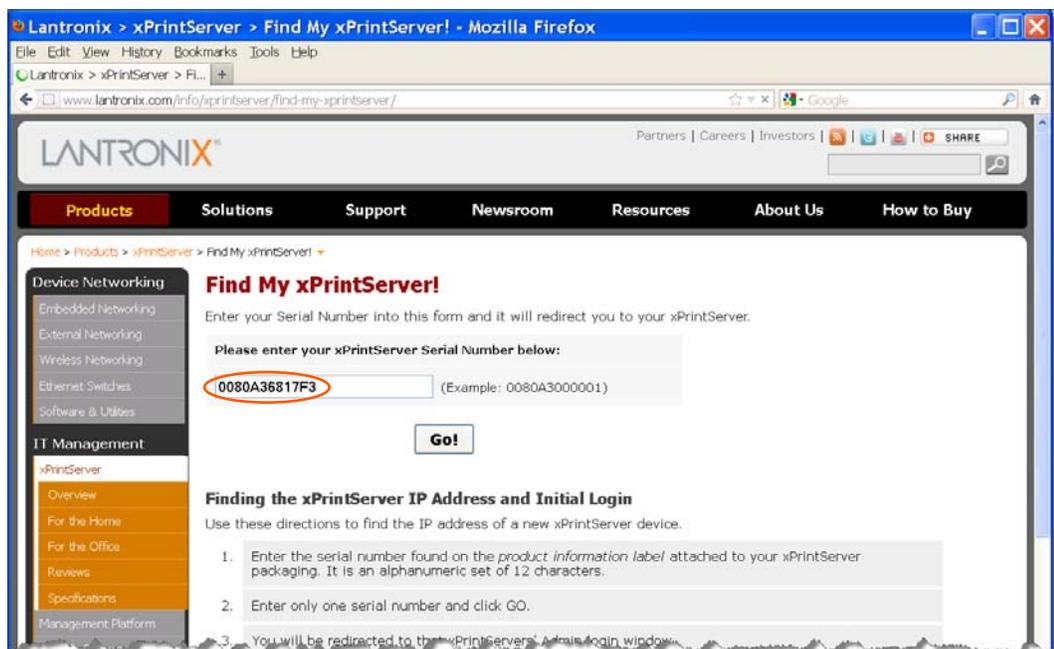
Use these directions to find your device IP address through which you may log into your xPrintServer device. Internet access is required.

Every xPrintServer device has a unique, identifying serial number that can be found on the *product information label* (see *Figure 1-2*). As part of the initialization/boot up process, the xPrintServer will automatically register its IP address and associated serial number with the Lantronix Web Services website (<http://www.lantronix.com/findmyxprintserver>) which in turn provides the unique IP address of the xPrintServer device. You may then use the xPrintServer IP address to log into the user interface for printing management.

Use these directions to find the IP address of a new xPrintServer device.

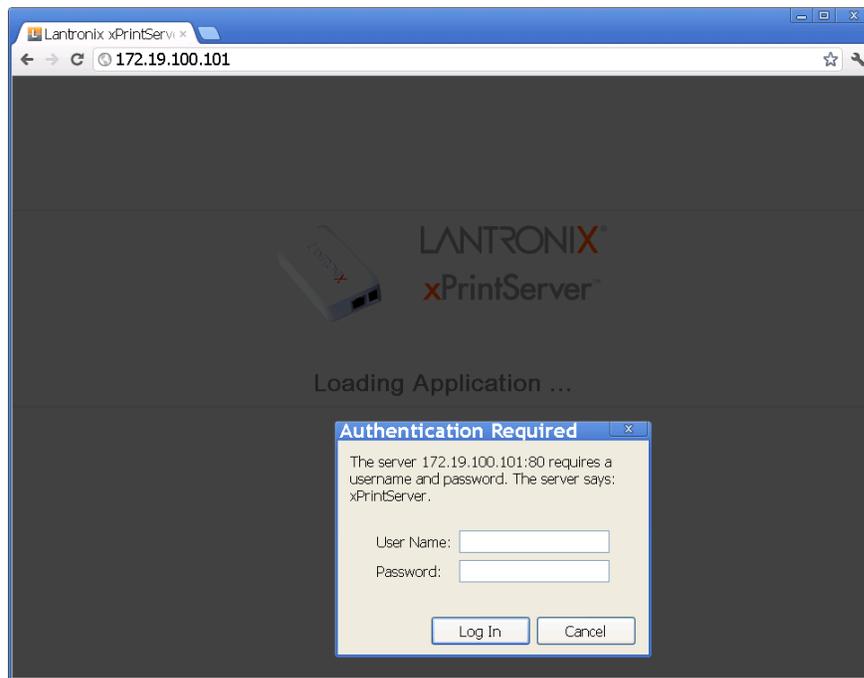
1. Open an internet web browser. See *Supported Browsers*.
2. Enter <http://www.lantronix.com/findmyxprintserver> into the web browser address bar.
3. Press **Enter** on the keyboard. You will be prompted for the xPrintServer serial number.
4. Enter the serial number of your xPrintServer. The serial number can be found on the *product information label* attached to your xPrintServer packaging (see *Figure 1-2*). It is an alphanumeric set of 12 characters.

Figure 3-1 Serial Number



- Click the **Go!** button. You will be redirected to your xPrintServer URL, after which a login prompt will appear.

Figure 3-2 Redirected to Login Prompt



- Enter the default admin user login information.

- User Name: **admin**
  - Password: **PASS**
- Note:** Upon initial login, modify the default "PASS" password as soon as possible for security reasons. See [Changing Passwords](#).

You will be redirected to your xPrintServer device URL where you will see the [System Status on the Home Page](#).

- Take note of the IP address of your xPrintServer device for all future logins.

**Note:** Your xPrintServer IP address is assigned by DHCP by default, however, you can manually configure a static IP address. See [Assigning a Static IP Address to the xPrintServer](#).

## System Status on the Home Page

You will see your xPrintServer **System Status** information on the **Home** page whenever you log into your xPrintServer URL.

Figure 3-3 IP System Status Information on the Home Page

The screenshot shows the xPrintServer web interface. At the top, there is a header with the xPrintServer logo, version 2.0.0-34, and the LANTRONIX logo. Below the header is a navigation bar with links for Home, Admin, Jobs, Printers, Logs, and Log-Off. The main content area is titled "System Status" and contains a table with the following information:

<b>Edition</b>	Home
<b>Version</b>	2.0.0-34
<b>Name</b>	xPrintServer
<b>IP Address</b>	172.19.100.101 (DHCP)
<b>Serial Number</b>	00:80:A3:68:17:E6
<b>Up time</b>	4:00
<b>Configured Printers</b>	3
<b>Current Status</b>	Ready
<b>Time-zone</b>	Pacific Standard Time (GMT -08:00)
<b>Status Time</b>	15:04:51

At the bottom of the page, there is a footer with the text: "xPrintServer is a trademark of Lantronix, Inc. Copyright © 2012 Lantronix Inc, All Rights Reserved." and the website URL "www.lantronix.com".

The System Status information includes your **IP address** along with other important system status information:

- ♦ **Edition**  
The edition of xPrintServer (Home Edition).
- ♦ **Version**  
The current version of your firmware.
- ♦ **Name**  
The configurable name for the xPrintServer device. The default name is **xPrintServer**.
- ♦ **IP Address**  
The unique IP address associated with your xPrintServer device. This IP address may be used to directly pull up the user interface of a connected and live xPrintServer.
- ♦ **Serial Number**  
The unique serial number associated with the xPrintServer device which should match what is on the [product information label](#).
- ♦ **Up time**  
The amount of time the xPrintServer has been operational since powered on or last restarted.
- ♦ **Configured Printers**  
The number of total discovered printers available for use on iOS devices.

- ♦ **Current Status**  
The current status of the xPrintServer.
- ♦ **Time-zone**  
The configured time zone (can be changed through the **Admin** tab/page).
- ♦ **Status Time**  
The time at which the system status information you see on the screen was captured.

## Logging In

Once the xPrintServer is installed (see [Installation Steps](#)) and the IP address discovered (see [Finding the xPrintServer IP Address and Initial Login](#)), you may follow these directions to login to xPrintServer at any time.

1. Open an internet web browser.
2. Enter the IP address of your xPrintServer device.

**Note:** If Bonjour is installed on your computer or Mac, you may also access the user interface by entering: `xPrintServer.local`

Figure 3-4 Login Prompt



3. Enter your login information when prompted.
  - ♦ User Name
  - ♦ Password

You are logged into the xPrintServer user interface when you see [System Status on the Home Page](#).

## Logging Off

1. Click the **Log-Off** tab located at the top far right of any xPrintServer user interface page. You will be prompted to close out of your browser window.
2. Close out of your browser to completely log off.

## Changing Passwords

Use these directions to change your password.

### **To change your password:**

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Password** link on the left side of the **Home** page. The **Change Password** page will appear displaying the **User** for which the password change is being made.
3. Complete the following fields:
  - ♦ Current Password
  - ♦ New Password
  - ♦ Re-enter new Password
4. Click **Change Password**.
5. Click **OK** in the confirmation popup that appears. Your password is changed.

**Note:** Passwords are case-sensitive and may include up to 32 characters. All printable characters maybe used with the exception of single and double quotation marks such as: ' or ".

**Note:** You will be asked to login again if you attempt to navigate to a different user interface page.

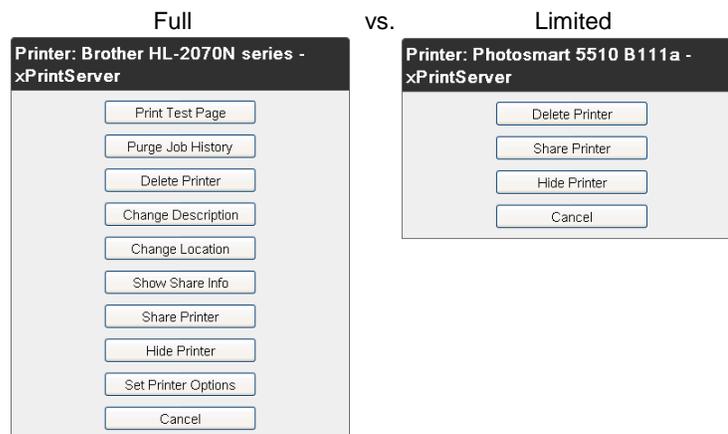


As illustrated above, basic navigation features for the xPrintServer user interface include the following:

- ◆ **Tabs/Pages**  
All the functionality of your xPrintServer user interface is divided between the **Home**, **Admin**, **Jobs**, **Printers**, **Logs** and **Log-Off** tabs located across the top of the user. Access these pages by clicking the same-named tab along the top of the screen. For instance, click the **Jobs** tab to get to the **Jobs** page or click **Home** to get to the **Home** page.
- ◆ **Links**  
Click to select from the links/commands available for each tab/page. All links available for a particular web page are displayed along the left side. For instance, links to **Active**, **Completed** and **All jobs** are available on the left side of the **Jobs** page.
- ◆ **Search**  
A **Search** field is available for the **Jobs**, **Printers** and **Users** tab/pages. Directly typing into the Search field will automatically update the displayed list of jobs, printers or users. The contents of the Search field can be edited repeatedly or even deleted and the Jobs/Printers/Users list will adjust automatically. Deleting all contents of the **Search** field will cause the results to show everything available and no longer display filtered results.
- ◆ **Button**  
This button may be found beside all items listed on the **Jobs** and **Printers** pages. Click the  button beside a particular print job or printer on these pages to pull up a popup command menu with commands that are available for that item.

**Note:** The Home edition of xPrintServer supports printing for up to two configured network-attached printers. The first two printers will have the full popup command menu of options (see the left screenshot in [Figure 3-6](#)). However, printers added beyond the first two configured printers are considered “Over Network Printer Limit”. These over limit printers may be accessed through xPrintServer but cannot be printed to and will display a limited popup command menu (see the right screenshot in [Figure 3-6](#)).

**Figure 3-6 Full and Limited Printer Command Popup Menus**



- ◆ **Log-Off Tab**  
A **Log-Off** tab located at the far upper right of every xPrintServer user interface page allows you to logout easily.

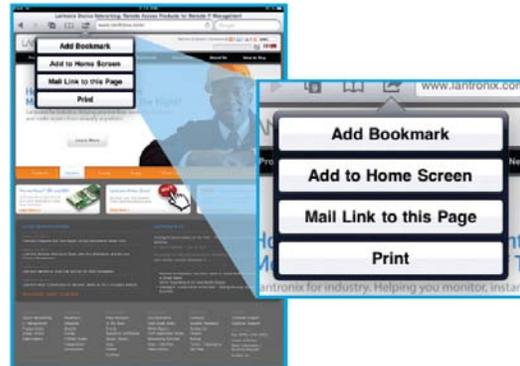
## Printing from an iOS Device

This section explains how to print from your iOS device (e.g., iPad, iPod or iPhone).

Use these steps to print from your iPad, iPhone or other iOS device.

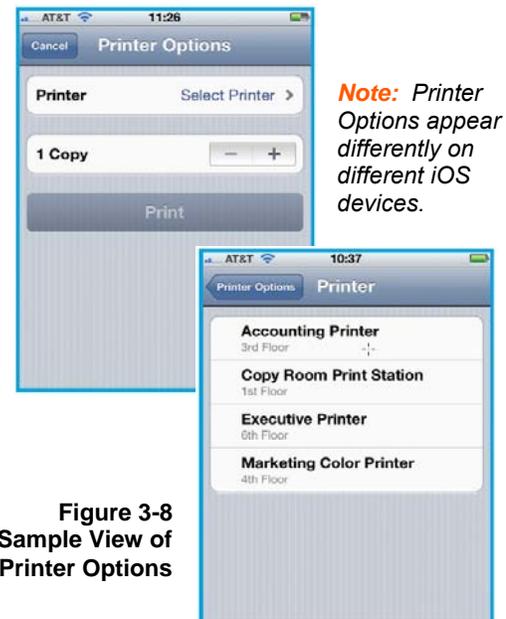
1. Connect your xPrintServer according to [Installation Steps](#).
2. Using your iPad, iPhone or other iOS device, open web page, email, photo, etc. you wish to print and choose the icon to open the native print menu: 

Figure 3-7 Sample View of Native Print Menu



**Note:** A list of available commands will appear on the native print menu and will differ in appearance depending on the type of Apple device.

3. Choose **Printer** in the **Printer Options** menu that appears. All available networked printers will display on your iOS device.
4. Select the **appropriate printer**.
5. Select the **number of copies** to print.
6. Click **Print**. Your print job will be sent to the selected printer



**Note:** Printer Options appear differently on different iOS devices.

Figure 3-8  
Sample View of  
Printer Options

## Printing from a Mac OS X Lion Desktop

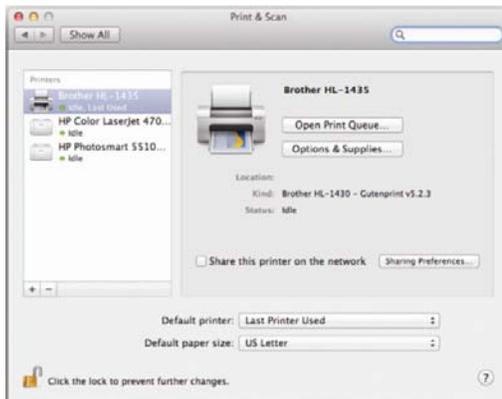
This section explains how to print from your Mac Operating System (OS) desktop. xPrintServer Home Edition supports desktop printing from Mac OS X Lion.

Use these steps to setup printing from your Mac OS through the xPrintServer.

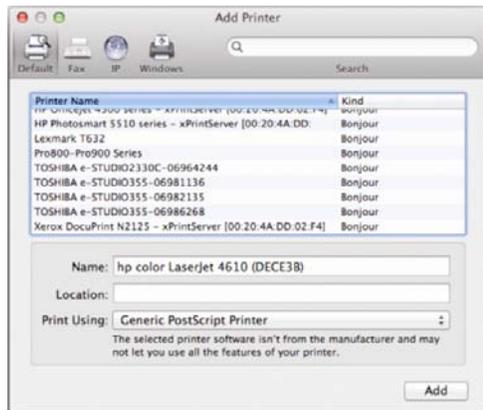
1. Connect your xPrintServer according to [Installation Steps](#).
2. Go to **System Preferences > Hardware**.
3. Click on **Print & Scan**.



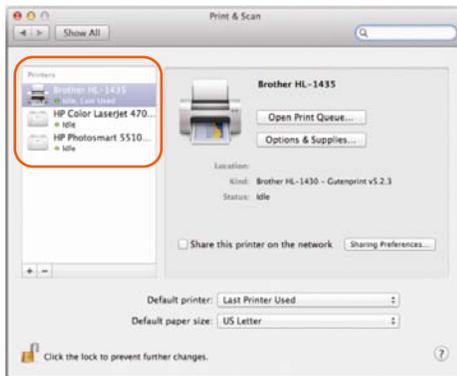
4. Click on the + button on the lower left corner. A list of printers appear.



5. Select the printer you wish to add.



6. Click on the **Add** button. The printer is now added in your available list of printers and is ready to print.



## Setting Up Printing from a Windows 7 Desktop

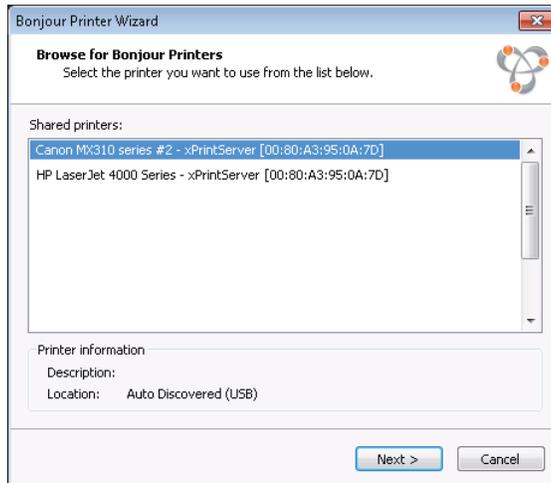
This section explains how to prepare your Windows 7 desktop for printing . xPrintServer Home Edition supports desktop printing from Windows 7 and Windows XP Operating Systems through Bonjour Print Services. You will need to download Bonjour Print Services for Windows v2.0.2 or higher. .

### Performing Add Printer Setup

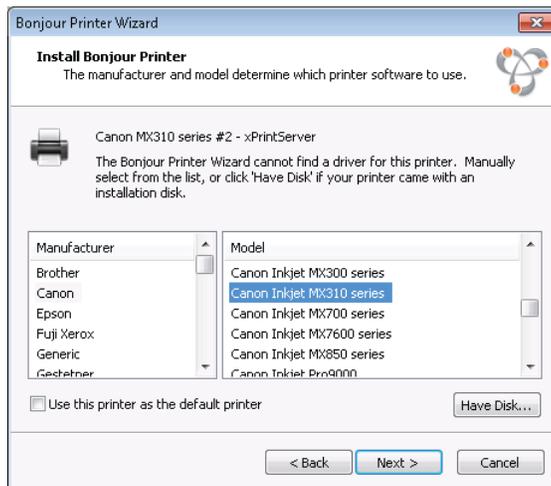
1. Connect your xPrintServer according to [Installation Steps](#).
2. Download Bonjour Print Services at <http://support.apple.com/kb/DL999>, following prompts as instructed.
3. Launch Bonjour Printer Wizard:
  - ♦ Through Window's Start Menu by clicking **Start > Control Panel > Bonjour Print Services > Bonjour Print Wizard**.
  - ♦ By double-clicking the **Bonjour Print Wizard** icon on your desktop.

The Bonjour Printer Wizard appears with a list of discovered printers.

4. Click on printer you wish to install.



5. Search and select your printer by **Manufacturer** or **Printer** (model number) and click **Next**.



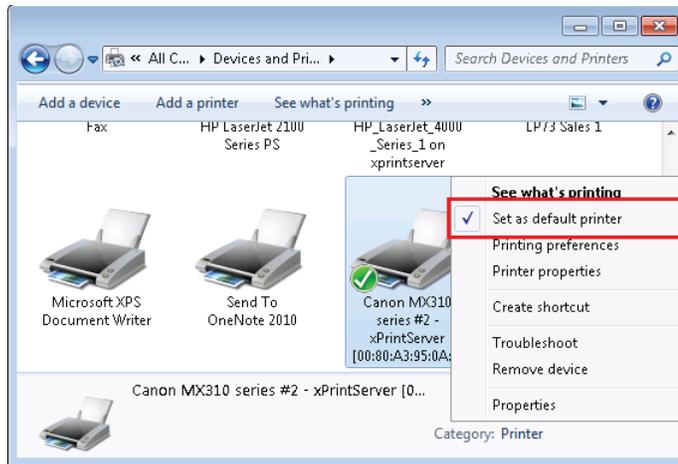
6. Click **Finish** to complete the installation.



## Configuring a Default Printer

This section provides instructions on setting an installed printer on your network as the default printer.

1. Click **Start > Control Panel** on your desktop.
2. Double-click to select **Devices and Printers**.
3. Right-click the printer to be set as default and select **Set as default printer**. The selected printer is now set as the default printer.



## Setting Up Printing from a Windows XP Desktop

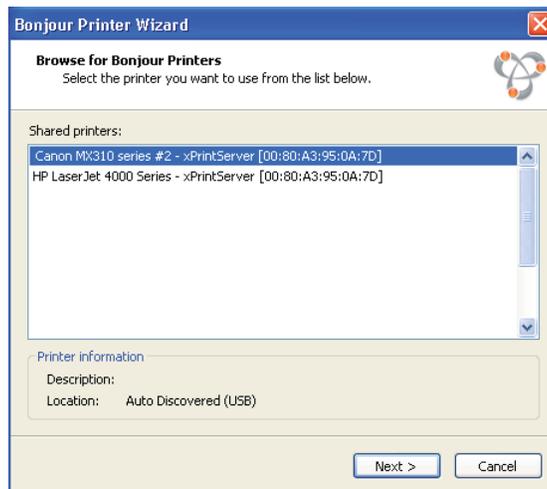
This section explains how to prepare your Windows XP desktop for printing. xPrintServer Home Edition supports desktop printing from Windows XP and Windows 7 Operating Systems through Bonjour Print Services. You will need to download Bonjour Print Services for Windows v2.0.2 or higher. .

### Performing Add Printer Setup

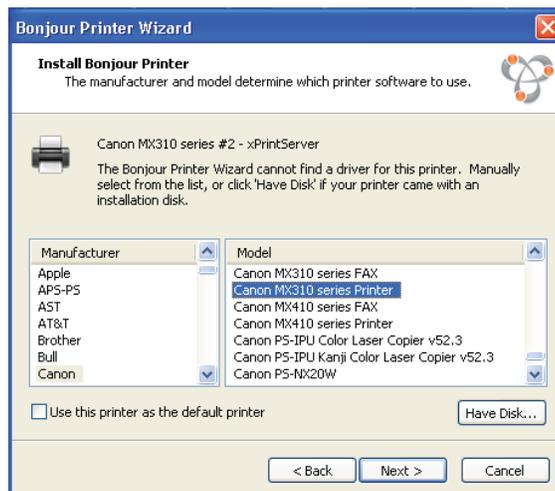
1. Connect your xPrintServer according to [Installation Steps](#).
2. Download Bonjour Print Services at <http://support.apple.com/kb/DL999>, following prompts as instructed.
3. Launch Bonjour Printer Wizard:
  - ♦ Through Window's Start Menu by clicking **Start > Control Panel > Bonjour Print Services > Bonjour Print Wizard**.
  - ♦ By double-clicking the **Bonjour Print Wizard** icon on your desktop.

The Bonjour Printer Wizard appears with a list of discovered printers.

- Click on printer you wish to install.



- Search and select your printer by **Manufacturer** or **Printer** (model number) and click **Next**.



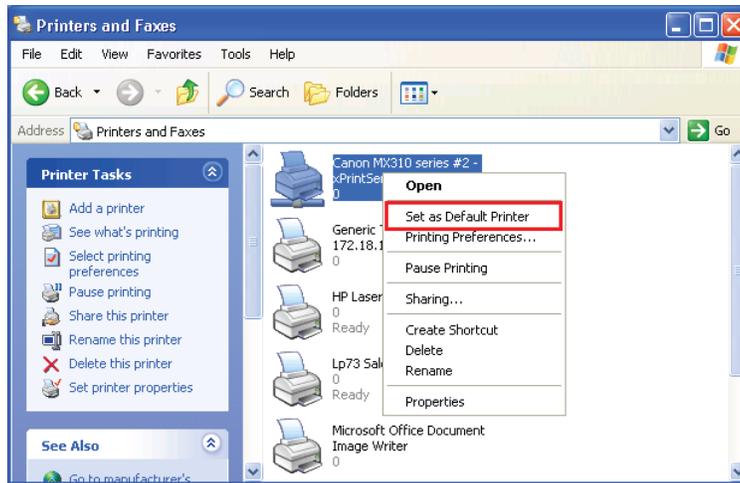
- Click **Finish** to complete the installation.



## Configuring a Default Printer

This section provides instructions on setting an installed printer on your network as the default printer.

1. Click **Start > Control Panel** on your desktop.
2. Double-click to select **Printers and Faxes**.
3. Right-click the printer to be set as default and select **Set as default printer**. The selected printer is now set as the default printer.



## 4: Configuration

This chapter describes how to configure your xPrintServer using the xPrintServer user interface.

### Viewing Configured Printers

Utilize these instructions to view provisioned network-connected printers installed since the xPrintServer last started up or printers on other networks if their IP addresses have been added (see [Adding a Printer IP Address](#)).

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Printers** tab to access the **Printers > List** page. The **Description**, **Location**, **Make/Model** and the most recent **Status** of all currently configured printers will be listed on this page.
3. Utilize [Navigation](#) as necessary in situations where there are multiple pages of printers.
4. Utilize [Search](#) as necessary to find a particular printer.
5. Click on any printer in the list to retrieve additional information on that printer. In [Figure 4-1](#) below, the second printer in the list was clicked and the printer details in the grey fields below appeared at the bottom of the list of printers.

Figure 4-1 Printer Information

The screenshot shows the xPrintServer interface with the 'Printers' tab selected. A table lists printers, and the second printer is expanded to show details. Labels on the left and right point to specific fields in this expanded view:

Description	Location	Make/Model	Status
Brother HL-2070N series - xPrintServer	Auto Discovered	Brother HL-2070N, hpc	Idle - "Ready to print."
EPSON Artisan 810 - xPrintServer	First Floor	Epson Artisan 810, E	Idle (NOT SHARED)

EPSON Artisan 810 - xPrintServer	First Floor
Epson Artisan 810, Epson Inkjet Printer Driver (ESC/P-R) for Linux	Idle (NOT SHARED)
socket://172.19.100.200	

Labels on the left: Description (points to EPSON Artisan 810 - xPrintServer), Name (points to Epson Artisan 810, Epson Inkjet Printer Driver (ESC/P-R) for Linux), IP Address (points to socket://172.19.100.200). Labels on the right: Location (points to First Floor), Status (points to Idle (NOT SHARED)).

6. Click the button to the right of a specific printer to access a pop-up command menu of options available for that printer (see [Figure 3-6](#)). Each of these options is explained in greater detail under [Admin Printer Configuration Options](#).

## Configuring Printers

**Note:** Discovery in the xPrintServer from a PC requires Bonjour®, which may be installed via iTunes® or Safari or Bonjour Print Helper® at [www.apple.com](http://www.apple.com).

All printers are added and configured to the xPrintServer via discovery where the xPrintServer discovers and provisions all network-connected printers as AirPrint printers. Discovery happens in one of two ways:

- ♦ **Auto Discovery:** This is the *automatic method* of printer discovery and provisioning. Auto discovery is enabled by default so that each time the xPrintServer starts up or a printer is connected to the USB port, the Discovery protocol automatically runs one time, discovering and provisioning all printers connected since the last start up. This automatic feature can be disabled.
- ♦ **Discovery:** This is the *user-activated method* of discovering and provisioning printers that can be initiated after the xPrintServer is up and running. This method is useful in situations where printer(s) have been added since the last xPrintServer start up. A user may wish to discover and provision the printer(s) at a particular moment rather than waiting until the auto discovery opportunity at the next xPrintServer startup.

**Note:** Only printers listed among the Lantronix xPrintServer published list of printers will be auto-provisioned after Discovery (see <http://www.lantronix.com/it-management/mobile-print-servers/supported-printer-list.html>). Configuration options to manually add a printer and modify advanced printer settings are available under **Printers > Advanced**. Use these advanced options only if instructed to do so by Lantronix Technical Support.

### Enabling or Disabling Discovery

The auto discovery utility of xPrintServer is enabled by default so that whenever you start up your xPrintServer device, auto discovery will automatically run one time. Auto discovery may be disabled or re-enabled at any time. Utilize these instructions to access where you may disable or re-enable auto discovery.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Printer** tab to access the **Printers > List** page.
3. Click the **Discovery** link to the left of the page to reach the **Printer Discovery** page. The current auto discovery mode will be displayed at the top of the page.

Figure 4-2 Printer Discovery Page



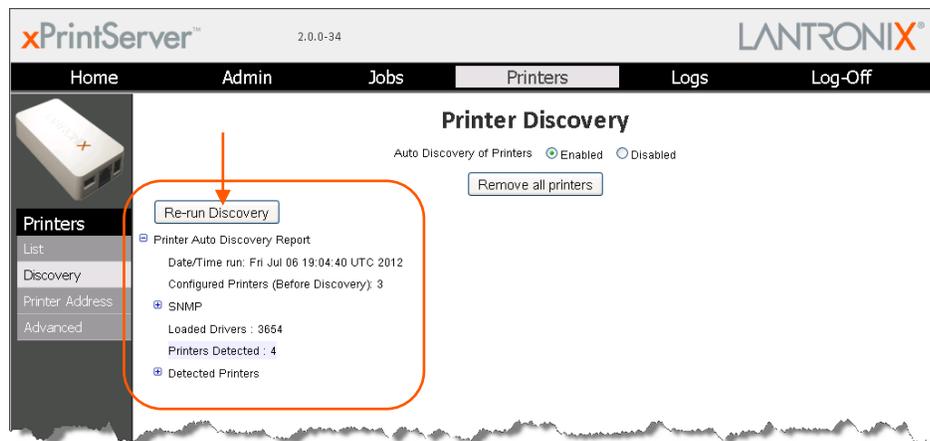
4. Check **Enabled** or **Disabled** to enable or disable printer discovery, as desired. The auto discovery mode will automatically adjust to your selection in a few seconds and your mode choice will be remembered for subsequent xPrintServer startups.

## Configuring Printers through Auto Discovery

Auto discovery of printers happens automatically each time you startup xPrintServer, so long as auto discovery is enabled prior to the startup.

1. Make sure auto discovery is enabled (see [Enabling or Disabling Discovery](#) above).
2. Startup and login to the xPrintServer user interface (see [Logging In](#)) as usual. The Discovery protocol runs one time automatically upon startup.
3. Click the **Printer** tab to access the **Printers > List** page. All printers which were auto discovered at this startup will be listed here with “Auto Discovered” listed under the **Location** column.
4. Click the **Discovery** link to the left of the page to reach the **Printer Discovery** page. A *Printer Auto Discovery Report* will appear showing the current date and time the xPrintServer automatically discovered and configured printers and associated downloaded drivers.

Figure 4-3 Sample Printer Auto Discovery Report



## Configuring Printers through Discovery

You may run Discovery anytime after xPrintServer is started up. Utilize these instructions to discover and provision network printers connected after the xPrintServer last started up or printers on other networks if their IP addresses have been added (see [Updating Printer IP Addresses](#)).

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Printer** tab to access the **Printers > List** page.
3. Click the **Discovery** link to the left of the page to reach the **Printer Discovery** page. A message stating “Printer Auto Discovery has not yet been run” will appear if printers are available for discovery. If new printers are not available for discovery, you will see a Printer Auto Discovery Report (see [Figure 4-3](#)).
4. Click the **Re-run Discovery** button within the *Printer Auto Discovery Report* to manually check for any new printers. After a few minutes, a new *Printer Auto Discovery Report* will

appear showing the current date and time of the current discovery and configuration of printers and associated downloaded drivers.

- Expand the **SNMP** field to see configuration information about the discovered printer(s). An example of what you may see in the SNMP field:

Figure 4-4 Expanding SNMP Information

The screenshot shows the xPrintServer web interface. The top navigation bar includes 'Home', 'Admin', 'Jobs', 'Printers', 'Logs', and 'Log-Off'. The 'Printers' section is active. On the left, a sidebar menu has 'Printers' selected, with sub-items: 'List', 'Discovery', 'Printer Address', and 'Advanced'. The main content area is titled 'Printer Discovery' and shows 'Auto Discovery of Printers' as 'Enabled'. A 'Re-run Discovery' button is visible. Below, the 'Printer Auto Discovery Report' is displayed, including the date/time run (Fri Jul 06 17:10:47 PST 2012) and the number of configured printers (3). The 'SNMP' field is expanded, showing details for three printers: Canon MX410 series, Epson Stylus NX620, and HP Photosmart 5510 series. A red arrow points to the 'SNMP' field.



Expand the **Detected Printers** field and further expand additional available subcategories (indicated with a  icon to the left) to see a list of discovered printers and the status of the provisioning results:

Figure 4-5 Expanding Detected Printers Information

The screenshot shows the xPrintServer web interface. The top navigation bar includes 'Home', 'Admin', 'Jobs', 'Printers', 'Logs', and 'Log-Off'. The 'Printers' section is active. On the left, a sidebar menu has 'Printers' selected, with sub-items: 'List', 'Discovery', 'Printer Address', and 'Advanced'. The main content area is titled 'Printer Discovery' and shows 'Auto Discovery of Printers' as 'Enabled'. A 'Re-run Discovery' button is visible. Below, the 'Printer Auto Discovery Report' is displayed, including the date/time run (Fri Jul 06 17:10:47 PST 2012) and the number of configured printers (3). The 'Detected Printers' field is expanded, showing a list of discovered printers and their provisioning status. Red arrows point to the 'Detected Printers' field and its sub-items.

**Note:** If you expand the **Printer Auto Discovery Report**, you may need to use the left-right and up-down scroll bar to see the entire contents of your report.

## Deleting All Configured Printers

The auto discovery utility of xPrintServer is enabled by default so that whenever you turn on your xPrintServer device, auto discovery will automatically run one time. Utilize these instructions to access the area where you may disable or re-enable auto discovery.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Printer** tab to access the **Printers > List** page.
3. Click the **Discovery** link to the left of the page to reach the **Printer Discovery** page.
4. Click the **Remove all printers** button to remove all configured printers, as desired.
5. Click **Yes** in the confirmation popup that appears.
6. Log-off (see [Logging Off](#)) and close your browser. All printers are deleted.

## Setting Real Time Clock

Real Time Clock is a built-in function in xPrintServer which time-stamps printing-related activities such as identifying the time of log activities or print jobs. Real Time Clock is automatically on and syncs time with [pool.ntp.org](http://pool.ntp.org) (Network Time Protocol) and is set it at GMT -800 PST (Pacific Standard Time).

### *To modify the Time-zone*

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Admin** tab to access the **Admin** page.
3. Click the **Time-zone** link on the left side of the page to access the **Select Time-zone** page.
4. Select a new time zone from the **Select Time-zone** drop-down menu.
5. Click the **Change Time-zone** button.
6. Click **Yes** in the confirmation popup that appears.
7. Wait for the xPrintServer to reboot. When the time zone is changed, the xPrintServer device will automatically restart, bringing you back to [System Status on the Home Page](#). The unit is now set to your new chosen time zone.

## Assigning a Static IP Address to the xPrintServer

Your xPrintServer IP address is DHCP by default, but can be configured with a static IP address. Utilize these instructions to establish a static IP address.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Admin** tab to access the **Admin > Time-zone** page.
3. Select **IP Address** to access the **Admin > IP Address** page.
4. Click the **Static** radio button near the top of the page to access static IP address configuration fields.
5. Complete the following fields:
  - ♦ IP Address

- ♦ Netmask
  - ♦ Default Gateway
  - ♦ DNS Server
6. Click **Save**.
  7. Click **OK** in the confirmation popup that appears. The unit will automatically restart.
  8. Close out of your xPrintServer browser and open a new browser.
  9. Enter the newly assigned static IP address.
  10. Login to the xPrintServer user interface (see [Logging In](#)). The assigned static IP address will appear on the **System Status** page.

## Admin Printer Configuration Options

Configuration options available on a specific printer can be accessed and configured through the xPrintServer user interface (i.e., configuring the number of copies, duplexing and page range). You may utilize the [Search](#) feature as necessary to find a particular, previously discovered printer and use these directions to configure it.

### Printing a Test Page

Use these directions to print a test page for a selected printer.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Printer** tab to access the **Printers > List** page.
3. Utilize [Navigation](#) as necessary in situations where there are multiple pages of printers.
4. Utilize [Search](#) as necessary to find a particular printer.
5. Click the  button beside the printer through which you want to print a test page.
6. Click **Print Test Page** in the popup command menu that appears (or **Cancel** within the same menu if you want to back out of it) and a test page print job will be sent to the selected printer..
7. Click **OK** in the confirmation popup providing a print job ID.

### Purging Job History

Use this selection to purge all printed job history information. By default, xPrintServer otherwise maintains a list of the last 50 printed jobs.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Printer** tab to access the **Printers > List** page.
3. Utilize [Navigation](#) as necessary in situations where there are multiple pages of printers.
4. Utilize [Search](#) as necessary to find a particular printer.
5. Click the  button beside the printer with the job history you want to purge.

6. Click **Purge Job History** in the popup command menu that appears (or **Cancel** within the same menu if you want to back out of it).
7. Click **Yes** in the confirmation popup to continue (or **No** to cancel action) and all print jobs not yet printed will be purged from the selected printer.
8. Click **OK** in the second confirmation popup.

## Deleting a Printer

Use this selection to delete a printer that is currently configured. Printers may later be added and configured according to the directions in the [Adding, Finding and Discovering Printers](#) section.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Printer** tab to access the **Printers > List** page.
3. Utilize [Navigation](#) as necessary in situations where there are multiple pages of printers.
4. Utilize [Search](#) as necessary to find a particular printer.
5. Click the  button beside the printer you want to delete.
6. Click **Delete Printer** in the popup command menu that appears (or **Cancel** within the same menu if you want to back out of it).
7. Click **Yes** in the confirmation popup to continue (or **No** to cancel action) and the selected printer will be deleted.
8. Click **OK** in the second confirmation popup.

## Changing Printer Description

Use this selection to change the description of a configured printer as it will display to all users.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Printer** tab to access the **Printers > List** page.
3. Utilize [Navigation](#) as necessary in situations where there are multiple pages of printers.
4. Utilize [Search](#) as necessary to find a particular printer.
5. Click the  button beside the printer for which you want to change description.
6. Click **Change Description** in the popup command menu that appears (or **Cancel** within the same menu if you want to back out of it).
7. Type the new description for the printer in the field which appears.
8. Click **Save**. After a few seconds, the printer description will be changed.

## Changing Printer Location

Use this selection to change the location of a configured printer. This command is useful for updating the location of printers initially identified as “Auto Discovery”.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Printer** tab to access the **Printers > List** page.

3. Utilize **Navigation** as necessary in situations where there are multiple pages of printers.
4. Utilize **Search** as necessary to find a particular printer.
5. Click the  button beside the printer with location to be changed.
6. Click **Change Location** in the popup command menu that appears (or **Cancel** within the same menu if you want to back out of it).
7. Type the new description for the printer in the field which appears.
8. Click **Save**. After a few seconds, the printer name will be changed.

## Showing Shared Printer Information

Use this selection to make an xPrintServer-provisioned printer visible and available to iPad, iPhone and other iOS devices. Up to 2 network-attached printers can be seen and shared at a time.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Printer** tab to access the **Printers > List** page.
3. Utilize **Navigation** as necessary in situations where there are multiple pages of printers.
4. Utilize **Search** as necessary to find a particular printer.
5. Click the  button beside the printer information to be shared.
6. Click **Show Share Info** in the popup command menu that appears (or **Cancel** within the same menu if you want to back out of it). An information popup window appears showing the printer as it is shared:

**Figure 4-6 Show Share Info Popup**



7. Click **OK** in the information popup window to close it.

## Sharing a Printer

Use this selection to make an xPrintServer-provisioned printer visible and available to iPad, iPhone and other iOS devices.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Printer** tab to access the **Printers > List** page.
3. Utilize [Navigation](#) as necessary in situations where there are multiple pages of printers.
4. Utilize [Search](#) as necessary to find a particular printer.
5. Click the  button beside the printer to be shared.
6. Click **Share Printer** in the popup command menu that appears (or **Cancel** within the same menu if you want to back out of it).
7. Click **Yes** in the confirmation popup to continue (or **No** to cancel action) and the selected printer becomes visible and available on iOS devices.
8. Click **OK** in the second confirmation popup.

## Hiding a Printer

Use this selection to hide an xPrintServer-provisioned printer so that it is no longer visible or available on iPad, iPhone and other iOS devices.

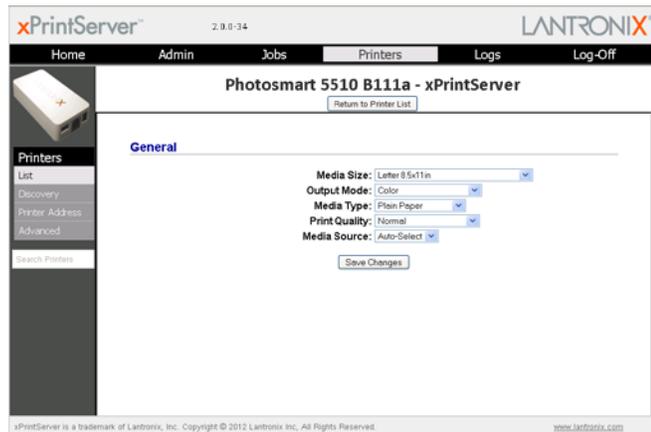
1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Printer** tab to access the **Printers > List** page.
3. Utilize [Search](#) as necessary to find a particular printer.
4. Click the  button beside the printer you wish to hide.
5. Click **Hide Printer** in the popup command menu that appears (or **Cancel** within the same menu if you want to back out of it).
6. Click **Yes** in the confirmation popup to continue (or **No** to cancel action) and the selected printer becomes invisible and no longer available on iOS devices.
7. Click **OK** in the second confirmation popup.

## Setting Printer Options

Use this selection to view and modify settings in an xPrintServer-provisioned printer.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Printer** tab to access the **Printers > List** page.
3. Utilize [Search](#) as necessary to find a particular printer.
4. Click the  button beside the printer you wish to set printer options.
5. Click **Set Printer Options** in the popup command menu that appears (or **Cancel** within the same menu if you want to back out of it). Available printer settings will appear.
  - ♦ Different printers will have different printer settings available for modification.
  - ♦ Some printers will have **multiple heading tabs** by which all the setting options are organized.

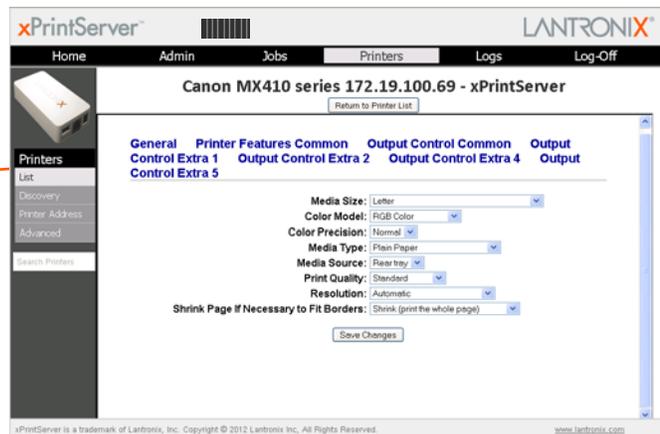
Figure 4-7 Sample Printer Options



Every printer has different setting options available, organized under one or more heading tab(s) as exemplified by the options available in these printers.

The **printer above** provides only five modifiable settings under the single heading tab, "General".

The **printer to the right** has several modifiable settings organized beneath each of the seven dark blue heading tabs. Clicking any of the blue heading tabs brings you to the printer setting options organized under that tab.



6. Click through available tabbed headings (all in dark blue) and make changes as desired.
7. Click **Save Changes** to save. A note verifying that settings have been saved successfully will appear on the screen. Changes to printer settings will remain in place until changed through xPrintServer.

- Click the **Return to Printer List** button at any time to return to the **Printers > List** page.

## Updating Printer IP Addresses

Use this feature to update printer IP addresses on the xPrintServer. This feature allows auto-discovery of printers outside the current subnet.

- Login to the xPrintServer user interface (see [Logging In](#)).
- Click the **Printers** tab to access the **Printers** page.
- Click the **Printer Address** link on the left side of the **Printers** page. A list of existing Printer IP Addresses will appear in the **Printer IP Addresses** page, if any were previously established.
- Click into the large square field in the **Printer IP Addresses** page.

Figure 4-8 Printer IP Address Page



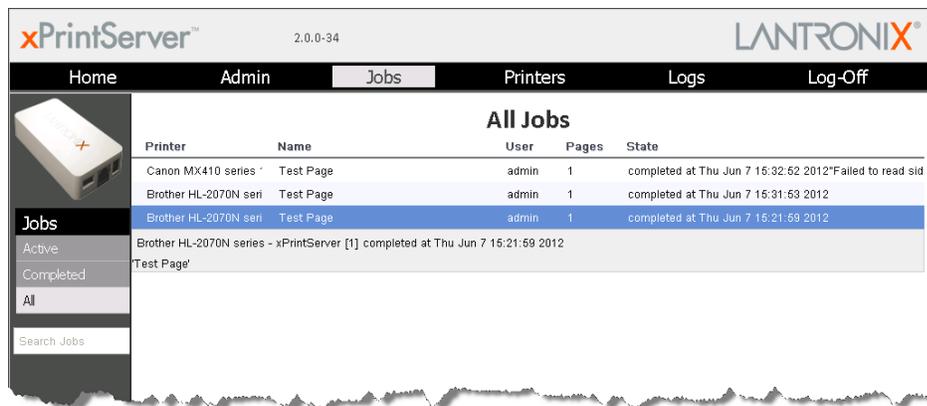
- Update the Printer IP Addresses by adding a new printer IP address, modifying an existing IP address or deleting an address. To add more than one printer IP address, enter one address per line (separated by a paragraph break using the **Enter** key on the keyboard).
- Click **Save** to save added or modified IP address(es).
- Click **OK** in the confirmation popup.

## Viewing Print Jobs on the xPrintServer User Interface

Use these steps to view all print jobs and details on a specific print job.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Jobs** tab to access the **Jobs** page. All **Active Jobs** are listed here. The information on this page is refreshed every 15 seconds.
3. Click the desired link to left to view a desired job category:
  - ♦ **Active:** to show all jobs that are currently active (default view)
  - ♦ **Completed:** to show all jobs that have been completed
  - ♦ **All:** to show all jobs, active or completed.
4. Utilize [Navigation](#) as necessary in situations where there are multiple pages of jobs.
5. Utilize [Search](#) as necessary to find a particular print job.
6. Clicking on a particular job brings up specific information about the job in a grey field below the job list.

Figure 4-9 Print Job Details



## Renaming xPrintServer Device

As part of the initialization process, the xPrintServer registers a Lantronix-specific Bonjour Service Type (`lantronix-ips._tcp` which uses the default device name of `xPrintServer`). As with any Bonjour discovery application, you can find your xPrintServer or any Bonjour-supported web browser using the URL: `http://<devicename>.local`, substituting the `<devicename>` with the name of the device. Therefore, you would search for your xPrintServer device with `http://xprintserver.local` by default. If you change the default device name, the xPrintServer URL used to access the xPrintServer web interface would also be modified. For instance, if the default name `xprintserver` is renamed to `printer1`, the browser URL address would be `http://printer1.local`.

The directions below can be used to rename an xPrintServer device. This is a useful function in situations where there are multiple xPrintServers on a network as each device should have a unique name. Changing the xPrintServer name requires a restart to use the new xPrintServer name. Login to the xPrintServer user interface (see [Logging In](#)).

1. Click the **Admin** tab to access the **Admin** page.

2. Click the **Name** link on the left side of the page to access the **Change xPrintServer Name** page. The **Current Name** of your device will display (xPrintServer).
3. Type in the **New Name** (an alpha and/or numeric combination that may include the - and \_ characters).
4. Click the **Change Name** button to submit the new name.
5. Click **Yes** in the confirmation popup to continue (or **No** to cancel action) renaming your xPrintServer device.
6. Wait for the xPrintServer to reboot. When the renaming of your unit is complete, the xPrintServer device will automatically restart, bringing you back to the **Change xPrintServer Name** page where your new device name will display.

## Resetting the xPrintServer to Factory Defaults

There are two ways to reset the xPrintServer to factory default settings: through the user interface or utilizing the reset button on the xPrintServer device.

### Via the User Interface

Use these directions to reset the xPrintServer to factory default settings through the **Reset Unit to Factory Defaults** page of the xPrintServer user interface. A device restart automatically follows a reset.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Admin** tab to access the **Admin** page.
3. Click the **Default** link on the left side of the page to access the **Reset Unit to Factory Defaults** page.
4. Click the **Reset to Factory Defaults** button.
5. Click **Yes** in the confirmation popup that appears (or **No** to cancel this action). The unit automatically restarts in order to complete resetting to factory defaults.
6. Wait for the xPrintServer to reboot. When the resetting to default is complete and the device restarted, you will be brought back to [System Status on the Home Page](#). Authentication ([Logging In](#)) will be required to access the xPrintServer user interface.

### Via the Hardware Reset Button

Use these directions to reset the xPrintServer to factory default settings utilizing the **Reset** button on the bottom of the xPrintServer device. This button is accessible through a hole in the case.

To reset the unit to factory defaults, perform the following steps:

1. Place the end of a paperclip or similar object into the reset opening (pin-sized hole on the bottom of the device) and press for a minimum of 15 seconds.
2. Remove the paperclip to release the button. This procedure restores factory default settings to the configuration and reboots the unit.

## Restarting the xPrintServer

Use these directions to restart the xPrintServer device through the xPrintServer user interface and without changing any settings.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Admin** tab to access the **Admin** page.
3. Click the **Restart** link on the left side of the page to access the **Restart Unit** page.
4. Click the **Restart Unit** button.
5. Click **Yes** in the confirmation popup that appears (or **No** to cancel this action).
6. Wait for the xPrintServer to reboot. The xPrintServer device will restart, bringing you back to [System Status on the Home Page](#). Authentication ([Logging In](#)) will be required to access the xPrintServer user interface.

## Viewing Logs

Use these directions to view logs. xPrintServer user interface provides logs for all diagnostic and access messages.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Logs** tab to access the **Logs** page. A list of all **Diagnostic** logs appear by default.
3. Click the **Access** link to the left to view only access logs.
4. Click the **Diagnostic** link to the left to view only diagnostic logs.
5. Utilize [Navigation](#) as necessary in situations where there are multiple pages of logs.

**Note:** The number of logs on the bottom of the page will update each time the **Diagnostic** or **Access** link on the left is clicked.

## 5: Updating Firmware

**Note:** Internet access is required for firmware updates.

This chapter provides directions for updating firmware, which may be necessary from time to time.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Admin** tab to access the **Admin** page.
3. Click the **Firmware** link on the left side of the page. The firmware you are currently running will display.

**Note:** The firmware version is also visible beside the xPrintServer logo on top of all xPrintServer pages.

4. Click the **Check for Firmware Update** button to check if a firmware update is available at this time. After a few seconds, you will receive one of two messages:
  - ♦ “Firmware update is available” indicating you may proceed to step 5.
  - ♦ “You are running the latest version of the firmware” indicating no firmware update is necessary at this time.
5. Click **Upgrade Firmware**.
6. Click **Yes** in the confirmation popup that appears. Wait a few minutes while firmware upgrades. When the upgrade is complete, the xPrintServer device will automatically restart, bringing you back to [System Status on the Home Page](#). The list of discovered printers, created users and other custom configuration settings remain unchanged across firmware updates.

## 6: Technical Specifications

Basic device information is provided in this chapter.

Table 6-1 Technical Specifications

Category	Description
<b>Power Input</b>	90 to 264 VAC 50/60 Hz Wall Cube with 5V power output Normal Power Usage: approximately 1 Watt
<b>Network Interface</b>	1 RJ45 10Base-T/100Base-TX Ethernet port
<b>USB Port</b>	1 USB Port
<b>Dimensions</b>	11.43 x 6.02 x 2.16 cm (4.5 x 2.37 x .85 in)
<b>Weight</b>	19g ( .4 lbs)
<b>Temperature</b>	Operating range: 0° to 55°C Storage range: -40° to 70°C
<b>Relative Humidity</b>	Operating 0% to 90% non-condensing
<b>Case</b>	White plastic case.
<b>Protocols Supported</b>	SNMP JetDirect (AppSocket) LPD LPR IPP
<b>Management</b>	HTTP (HTML/browser-based)
<b>System Software</b>	AirPrint Zeroconf Microsoft Internet Explorer, Version 8 and 9 Firefox Version 7 Safari Version 5 Chrome Version 16
<b>LEDs</b>	(1) Status LED (2) Ethernet LEDs

## A: Technical Support

This chapter provides directions and contact information for getting live technical support for your xPrintServer device. The xPrintServer user interface provides an easy way for you to directly send helpful diagnostic information to Lantronix. Calling Technical Support after they have received this information will help them better and more quickly assist you.

### Diagnostic Support

Follow the directions below to send diagnostic support information about your xPrintServer device to the Lantronix Technical Support before calling for assistance.

1. Login to the xPrintServer user interface (see [Logging In](#)).
2. Click the **Admin** tab to access the **Admin** page.
3. Click the **Diagnostic** link on the left side of the page.
4. Click **Send Diagnostic Information**. Wait a few moments while diagnostic information is sent to Lantronix Technical support.
5. Click **OK** in the confirmation popup that appears. Diagnostic support information is sent.

### Contact Information

#### Technical Support U.S.

Phone: (800) 422-7044

Please check our online knowledge base or send a question to Technical Support at <http://www.lantronix.com/support>.

#### Technical Support Europe, Middle East, Africa

Phone: (33) 13-930-4172

Email: [eu\\_techsupp@lantronix.com](mailto:eu_techsupp@lantronix.com) or [eu\\_support@lantronix.com](mailto:eu_support@lantronix.com)

Firmware downloads, FAQs, and the most up-to-date documentation are available at <http://www.lantronix.com/support>

When you report a problem, please provide the following information:

- ◆ Your name, and your company name, address, and phone number
- ◆ Lantronix model number
- ◆ Lantronix serial number/MAC address
- ◆ Firmware version (on the first screen shown when you Telnet to the device and type **show**)
- ◆ Description of the problem
- ◆ Status of the unit when the problem occurred (please try to include information on user and network activity at the time of the problem)

## B: Troubleshooting

Some of the errors encountered setting up or using the xPrintServer are addressed in this appendix. When troubleshooting, always ensure that the physical connections (power cable, network cable) are secure. When troubleshooting the following problems, make sure that xPrintServer is powered up and connected to a good network connection.

### Problems and Error Messages

Problem/Message	Possible Solution
LED lights display correctly but printer does not print job.	Make sure that the network printer: <ul style="list-style-type: none"><li>♦ Is powered on.</li><li>♦ Has a good network connection – wired or wireless. This includes proper cabling, correct IP addressing and/or WI-FI connection configuration settings and proper routing if going across routed network environments.</li><li>♦ Has adequate paper supply.</li><li>♦ Has adequate ink or toner supply.</li><li>♦ Has no paper jams.</li></ul> Consult the printer manufacturer to troubleshoot these or other print-specific technical issues.
Status LED does not display light.	Make sure that xPrintServer is connected securely to its power supply unit. Otherwise, try another wall outlet. Contact Technical Support if xPrintServer's status LED continues to not display light after confirming good power.
Ethernet LED(s) are not displaying light.	Make sure that Ethernet patch cable is securely connected to both xPrintServer's Ethernet port and the Ethernet hub or switch to the network at both ends. Otherwise, swap the patch cable for another known good cable. Use a straight CAT5 (or greater) Ethernet patch cable, not a crossover Ethernet cable to connect to the network drop.
Designated banner page is not printing with print job.	Ensure that banners configurations are enabled under <b>Set Default Options</b> in <b>Printers &gt; Advanced</b> page.
Document did not print to the correct printer.	Make sure your application output encode is set to ASCII. If not, change it to ASCII.
Network-attached printer is not displaying on the iOS device.	<ol style="list-style-type: none"><li>1) Reboot the xPrintServer.</li><li>2) Manually run Discovery</li><li>3) Verify that the network-attached printer supports Bonjour.</li></ol>
iOS device cannot print or access xPrintServer.	Make sure your iOS device is compatible. See <a href="#">Supported iOS Devices</a> .

## C: Compliance

### Declaration of Conformity

**Manufacturer's Name & Address:**

Lantronix, Inc.  
167 Technology Drive, Irvine, CA 92618 USA  
Tel: 800-526-8766  
Tel: 949-453-3990  
Fax: 949-450-7249

Product Name Model: xPrintServer

Conforms to the following standards or other normative documents:

**Emissions**

FCC Part 15 Class B, VCCI Class B, EN 55022, CISPR22, ICES-003

**Safety Agency**

UL, CE Mark, and C-Tick

**Agency Approvals**

RoHS, Reach, Linux OS

## RoHS Notice

All Lantronix products in the following families are China RoHS-compliant and free of the following hazardous substances and elements:

- Lead (Pb)
- Mercury (Hg)
- Cadmium (Cd)
- Hexavalent Chromium (Cr (VI))
- Polybrominated biphenyls (PBB)
- Polybrominated diphenyl ethers (PBDE)

Product Family Name	Toxic or hazardous Substances and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
DSC	0	0	0	0	0	0
EDS	0	0	0	0	0	0
IntelliBox	0	0	0	0	0	0
MatchPort	0	0	0	0	0	0
Micro	0	0	0	0	0	0
MSS100	0	0	0	0	0	0
PremierWave	0	0	0	0	0	0
SCS	0	0	0	0	0	0
SecureBox	0	0	0	0	0	0
SLB	0	0	0	0	0	0
SLC	0	0	0	0	0	0
SLP	0	0	0	0	0	0
Spider and Spider Duo	0	0	0	0	0	0
UBox	0	0	0	0	0	0
UDS1100 and 2100	0	0	0	0	0	0
WiBox	0	0	0	0	0	0
WiPort	0	0	0	0	0	0
xDirect	0	0	0	0	0	0
xPico	0	0	0	0	0	0
XPort	0	0	0	0	0	0
XPress DR & XPress-DR+	0	0	0	0	0	0
xPrintServer	0	0	0	0	0	0
xSenso	0	0	0	0	0	0

O: toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.

X: toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006.

## ***D: Warranty***

For details on the Lantronix warranty, go to our web site at <http://www.lantronix.com/support/warranty/index.html>.

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