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Open Enterprise Server 24.4

OES iPrint Advanced Administration Guide

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About This Guide

This guide describes how to install, configure, and customize OES iPrint Advanced on Open Enterprise Server (OES) 24.4.

- Chapter 1, “Overview,” on page 11
- Chapter 2, “What’s New in OES iPrint Advanced,” on page 17
- Chapter 3, “Installing OES iPrint Advanced Server,” on page 19
- Chapter 4, “Setting up OES iPrint Advanced on your server,” on page 25
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- Chapter 7, “Managing OES iPrint Advanced,” on page 55
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- Appendix D, “OES iPrint Advanced Support Matrix,” on page 167
- Appendix E, “Log Files Location,” on page 171
- Appendix F, “iPrint Advanced Configuration for Mobile Service (Optional),” on page 173

Audience

This guide is intended for OES administrators, or anyone who is involved in installing and managing OES iPrint Advanced .

Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the `comment on this topic` link at the bottom of each page of the online documentation.

Documentation Updates

For the most recent version of the *OES iPrint Advanced Administration Guide*, visit the Open Enterprise Server Documentation web site (https://www.microfocus.com/documentation/open-enterprise-server/24.4/iprint_advanced/).

Additional Documentation

For information about other OES products, see the OES 24.4 Documentation web site (https://www.microfocus.com/documentation/open-enterprise-server/24.4/).

For information about OES iPrint, see the OES iPrint Administration Guide. (https://www.microfocus.com/documentation/open-enterprise-server/23.4/iprint_lx/)

NOTE: Beginning with OES 24.4, OES iPrint and OES iPrint Advanced patterns are merged. OES iPrint Administration Guide is not available in OES 24.4.

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1 Overview

Organizations want to reduce the complexity of managing printers by IT and allow end users to easily locate and install printers.

That's where **OES iPrint Advance** comes in. OES iPrint Advanced is a component in Open Enterprise Server which offers a single, scalable solution for managing all of your printing across multiple office locations from any device. It lets the users print quickly, easily, and more securely.

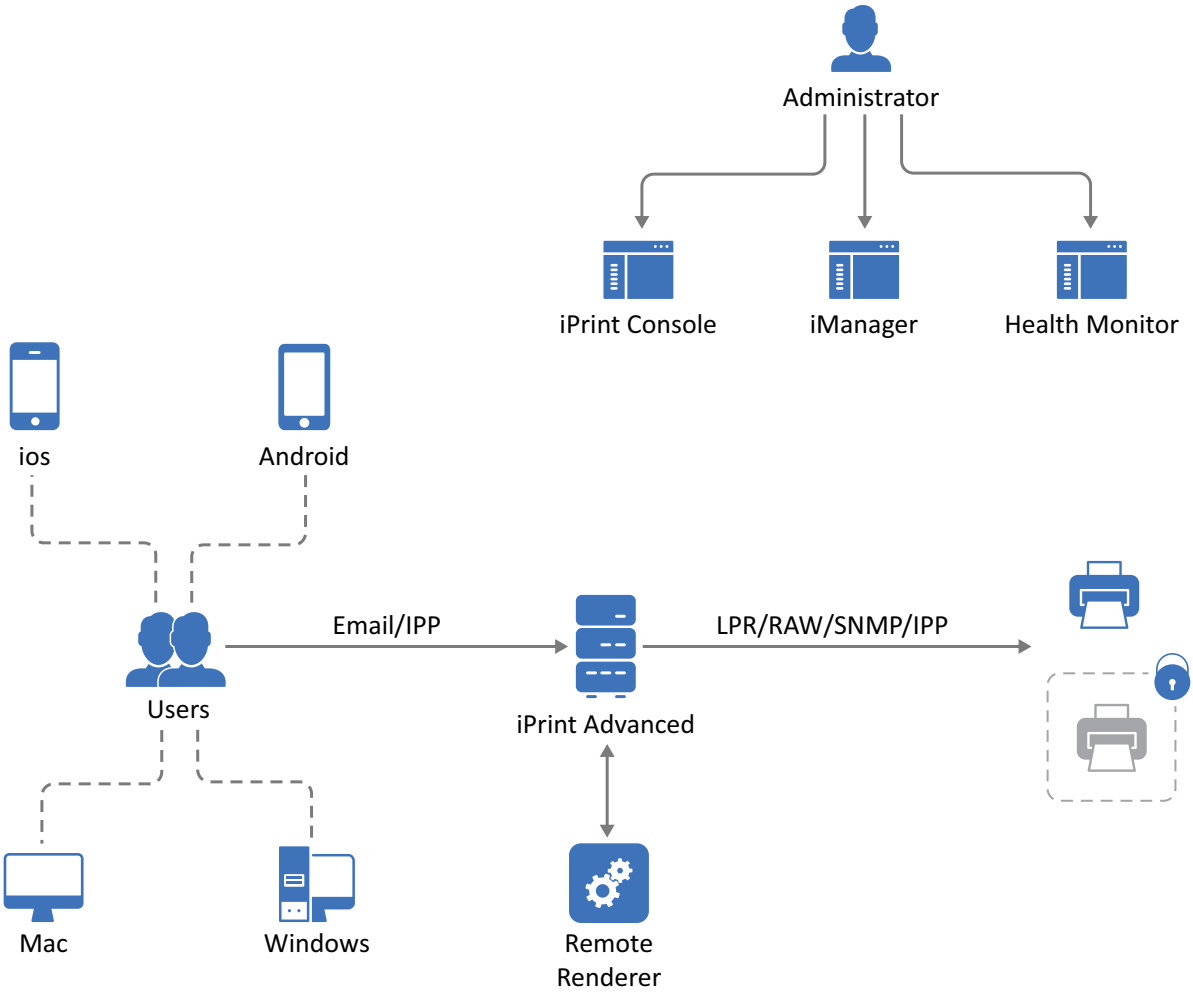
All these features and much more are available with `OpenText iPrint Appliance`, a standalone version of iPrint. For more information, see iPrint Appliance Feature Tour.

The `OES iPrint Advanced` service would be running on an `iPrint` server. Hence, this guide refers the server running the `OES iPrint Advanced` service as an `iPrint` server.

- Section 1.1, "Understanding OES iPrint Advanced," on page 12
- Section 1.2, "Benefits of iPrint," on page 14
- Section 1.3, "Feature List," on page 15
- Section 1.4, "Challenges in Print Environment," on page 16

1.1 Understanding OES iPrint Advanced

Figure 1-1 *Overview*



- Section 1.1.1, “Users,” on page 12
- Section 1.1.2, “Devices,” on page 13
- Section 1.1.3, “Protocols,” on page 13
- Section 1.1.4, “Administration,” on page 13
- Section 1.1.5, “Accounting With Third-party Solutions,” on page 13
- Section 1.1.6, “Renderers,” on page 14
- Section 1.1.7, “Printers,” on page 14

1.1.1 Users

Users can submit print jobs from their mobile, email-enabled devices, or Chromebook to both new and legacy printers from all the major print vendors, without worrying about print drivers.

1.1.2 Devices

Supports printing from desktops, laptops, or mobile devices.

Desktops and laptops: Clients for Windows and Mac workstations. Also, supports Chromebook.

Mobile Devices: Apps for iOS, Android devices, and Amazon Kindle.

1.1.3 Protocols

IPP: Desktop and mobile applications use IPP (Internet Printing Protocol) to submit the print job.

IPP/LPR/RAW/SNMP: Supports printer communications using the IPP, Line Printer Remote (LPR), RAW, or SNMP protocols.

1.1.4 Administration

You can add and manage printers, check the printer status, create printer maps, and monitor the iPrint server.

iPrint Console: A new console is available to manage items such as WalkUp printers, mobile printing, email printing, renderers, and so on.

To access iPrint Console, specify `https://<iPrint_Advanced_IP_or_hostname>/ipcon` or `https://<iPrint_Advanced_Cluster Resource IP>/ipcon`.

iPrint Portal: A new printer portal is designed for enhanced user experience.

To access iPrint Portal, specify `https://<iPrint_Advanced_IP_or_hostname>/print`

iManager: Allows you to set up and manage your print environment. You can create printers, printer drivers, profiles, and users using **iPrint Console** feature listed in **Roles and Tasks**.

To access iManager, specify `https://<iPrint_Advanced_IP_or_hostname>/nps`

iPrint Health Monitor: Monitors your iPrint environment. You can view status of WalkUp print jobs and generate audit reports that show details of who printed and how much.

To access Health Monitoring tool, specify `https://<iPrint_Advanced_IP_or_hostname>/psmstatus`

iPrint Map Designer: Use this tool to create map displaying the location of printers. Users can identify and install printers that are nearest to their location.

To access Map Designer, specify `https://<iPrint_Advanced_IP_or_hostname>/ippdocs/maptool.htm`

1.1.5 Accounting With Third-party Solutions

`OES iPrint Advanced` integrates with the third-party print accounting solution to provide support for accounting print jobs sent by email and from mobile devices to the printers.

To install and configure third-party print accounting solution, refer to their documentation.

1.1.6 Renderers

- "Local Renderer" on page 14
- "Remote Renderer" on page 14

Local Renderer

OES iPrint Advanced is bundled with an in-built document renderer (local renderer). The local renderer converts documents to the PDF format, then converts them to the print ready format. The renderer supports Open Office, Microsoft Office and image formats.

Remote Renderer

OES iPrint Advanced server also ships with a Remote Renderer. For enhanced desktop-quality printing, you should use Remote Renderer. The remote renderer can be downloaded from the iPrint Console and must be installed on a Windows 64-bit computer.

The remote renderer provides high quality rendering for different formats. It communicates with iPrint server for document conversion. Although, it is not a mandatory requirement, it is recommended for desktop quality printing.

1.1.7 Printers

Users can send print jobs through their devices to both new and legacy printers from all the major print vendors.

1.2 Benefits of iPrint

Self-service printing: Users can print from their desktops, laptops, or mobile devices without waiting for the helpdesk to set-up a printer.

From desktops or laptops, users can print by selecting printers on a map using a web browser.

From mobile devices, users can print to any organizational printer using an iPrint app or email.

WalkUp printing: Print jobs sent by the users are put on hold and can be released to a desirable printer.

Mobile device printing: Users of iOS, Android, and Windows mobile devices can download apps that allow them to print from their mobile devices directly to any of your organization's printers.

iPrint provides all of the necessary document rendering and conversion.

Expand your horizons: Users can print any time, from anywhere, using almost any device. Click to send a print job to any printer irrespective of the location of the printer.

Works with everything: iPrint provisions print services for nearly every device you have, including desktops, laptops, smartphones, and tablets. It works whether users are printing from Mac or Windows. It works on iOS, Android, and Windows Mobile.

Simplified enterprise printing: iPrint connects all your organization's workstations and mobile devices to your current printers. iPrint scales exceptionally well, reducing the server infrastructure you need to maintain hundreds or thousands of printers and thus lowering your network bandwidth costs.

Samsung KNOX certified: Enhanced security for Android devices while maintaining user-friendly, secure mobile printing in your corporate environment.

QR Code Support: Scan a QR code to quickly connect your mobile device to a specific printer.

Email print jobs to any iPrint printer: Any email-enabled device can print to any iPrint printer by sending the print job in the body of the email or as an attachment.

Secure printing: You can secure your data before it goes to the printer, provisioning print services based on user, group and container membership.

Works in heterogeneous environments: Saves IT time and money by significantly reducing the management burden required for mixed fleets of Mac or Windows desktops. It works across the major mobile platforms as well, meaning IT only has to manage a single print solution for all your organization's endpoints.

Leverages your current directory service: iPrint makes secure printing easy by integrating its data store with your identity directory. It works with lightweight directory access protocol (LDAP) directories such as Active Directory, eDirectory, and Microsoft Identity.

Works with legacy printers: Mobilize your existing fleet of printers rather than buying new. It works with what you have now and what you may want going forward.

1.3 Feature List

Table 1-1 *Features Available Per License*

Features	Licenses		
	Enterprise/ Desktop_Mobile	Desktop	Mobile
Printing from/with:			
◆ Desktop (Windows and MAC)	✓	✓	✗
◆ Mobile Devices (Android for Work/AppConfig Community Standards)	✓	✗	✓
◆ Chromebook	✓	✓	✓
◆ iPrint Portal (QuickPrint)	✓	✓	✓
Web Printing	✓	✓	✓
Email Printing	✓	✓	✓

Features			
High-Quality Rendering (Using Remote Renderer)	✓	✓	✓
Release WalkUp Jobs with:			
◆ Mobile Devices	✓	✓	✓
◆ Release Portal	✓	✓	✓
◆ Identity Cards	✓	✓	✓
◆ Identity Cards (Using Advanced Authentication)	✓	✓	✗
MDM Support (BlackBerry (formerly Good)/Ivanti Neurons /ZENworks)	✓	✓	✓

For more information on applying the license, see “License” on page 71.

1.4 Challenges in Print Environment

End users:

- Printing from mobile devices (BYOD)
- Ease of installing printers and printer drivers
- Updating printer specific drivers

Administrators:

- Complexity of managing printers and printer drivers
- Auditing and accounting of print jobs
- Health-monitoring of a printer
- Secure printing
- Printing in heterogeneous environments - Windows and Mac platforms

2 What's New in OES iPrint Advanced

- Section 2.1, "What's New in OES 25.2," on page 17
- Section 2.2, "What's New in OES 24.4," on page 17

2.1 What's New in OES 25.2

Managing iPrint

iPrint services are now efficiently managed through the Unified Management Console (UMC), simplifying configuration and administration. For more information, see iPrint in *Unified Management Console FAQ*.

iPrint Client for Windows

Upgraded the iPrint Client for Windows to version 6.27.10 to resolve defects.

2.2 What's New in OES 24.4

OES iPrint and OES iPrint Advanced patterns are merged. Thus, OES iPrint Advanced is available along with OES iPrint capabilities.

3 Installing OES iPrint Advanced Server

This section describes how to install and configure OES iPrint Advanced Server.

- Section 3.1, “Planning Your Environment,” on page 19
- Section 3.2, “Installing OES iPrint Advanced Server During OES Installation,” on page 20
- Section 3.3, “Installing and Configuring iPrint Services through YaST,” on page 23

3.1 Planning Your Environment

In addition to OES requirements, ensure to meet the following requirements:

- Section 3.1.1, “Server Requirements,” on page 19
- Section 3.1.2, “Remote Renderer Requirements,” on page 19
- Section 3.1.3, “OES iPrint Advanced Desktop License,” on page 19

3.1.1 Server Requirements

- **Memory:** 8 GB RAM or higher is recommended.
- **Hard Disk:** 40 GB. This disk stores the configuration details and all the WalkUp jobs. Depending on your usage, decide the space required on the disk.

3.1.2 Remote Renderer Requirements

For desktop quality printing for Microsoft Office and PDF documents, you must install a remote renderer. The minimum requirements are as follows:

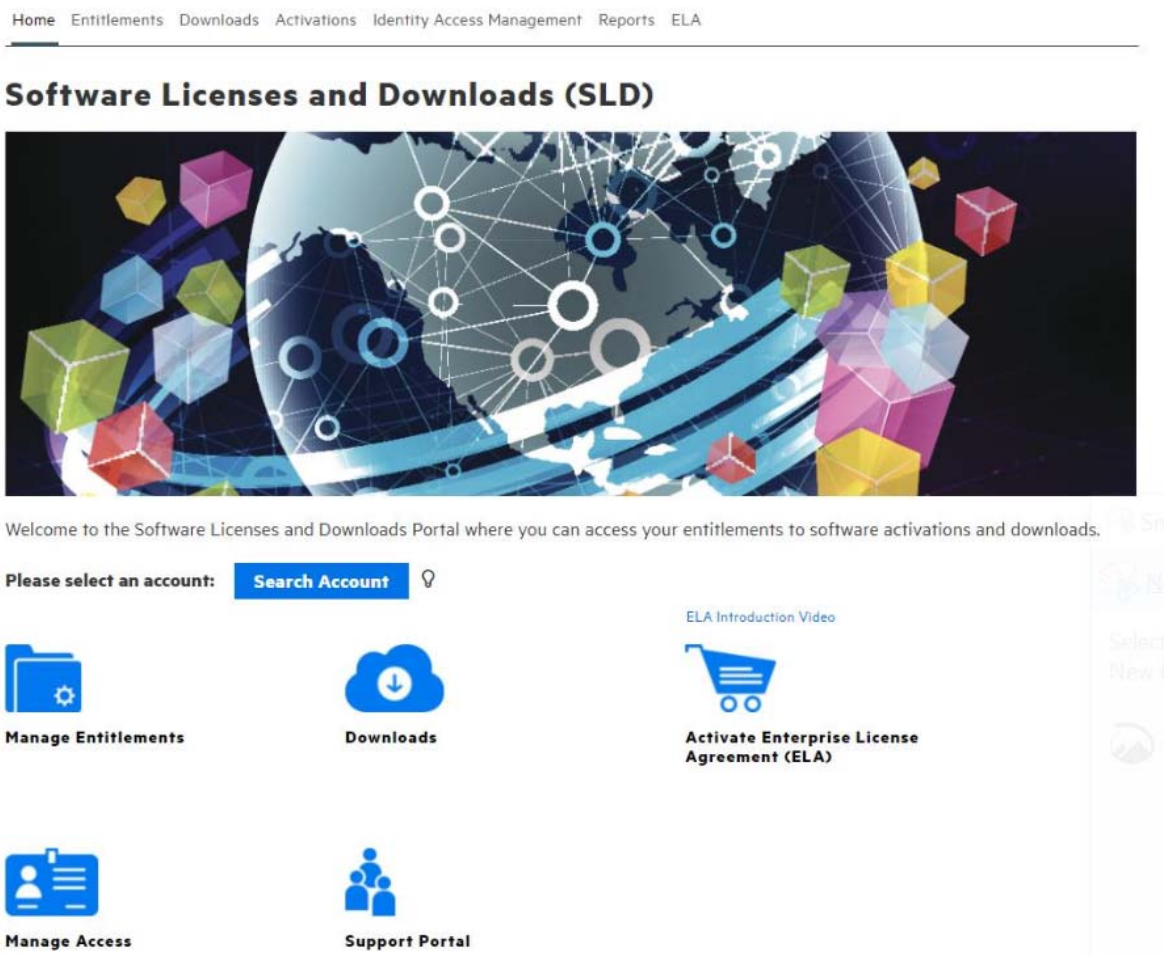
- Install the renderer on a Microsoft Windows 64-bit system.
- Windows 11/ Windows 2022/ Windows 10/ Windows 2019 with a dual-core processor or higher.
- Microsoft .Net Framework 4.5 or later.

For Desktop quality printing, we recommend to install the following optional software:

- Microsoft Office 2019
- Microsoft Office 2016
- Adobe Acrobat XI Professional
- Adobe Acrobat X Pro

3.1.3 OES iPrint Advanced Desktop License

Login to the Micro Focus Customer Center (SLD).



License File: Download the `NP-iPrint-Desktop.xml` file. All the OES customers are entitled to use the desktop features under this license. By using iPrint Console, upload the license file to continue using the advanced desktop features provided by `OES iPrint Advanced`. For more information about licenses, see "License" on page 71.

3.2 Installing OES iPrint Advanced Server During OES Installation

1. From the boot menu, select **Installation** and press enter, then continue with the installation as desired until you get to the Installation Settings page.

   For detailed instructions, see Installing OES as a New Installation in the Installation Guide.
2. On the **Installation Settings** page, click **Software** to open the Software Selection page.
3. Under **Open Enterprise Server**, select **OES iPrint Advanced** to continue with the installation process.

   The following additional services are automatically selected:

   - OES iPrint
   - NetIQ eDirectory
   - OES Linux User Management (LUM)

- OES Remote Manager (NRM)
- OES Backup / Storage Management Services (SMS)

4 Configure OES iPrint Advanced, for more information, Chapter 4, “Setting up OES iPrint Advanced on your server,” on page 25.

5 To configure mobility in a cluster environment, continue with Section 5.2.3, “Clustering on an NSS File System,” on page 45.

or

In a non-cluster environment, continue with the next step.

6 (Conditional) In a DSfW environment, do the following:

6a Modify the LDAP port parameters in the `/etc/opt/novell/iprintmobile/conf/iprintmobile.conf` as follows:

```
#LDAP Port
ldap_port = 1389

#LDAP Secure Port
ldap_secure_port = 1636
```

6b Restart mobile server:

```
systemctl restart novell-iprint-tomcat.service
```

6c Modify the LDAP parameter in the `/etc/opt/novell/iprintauth/conf/authService.conf` as follows:

```
config.RepositoryLdapUrl = ldaps://localhost:1636
```

6d Restart iprint auth service: `systemctl restart iprint-auth.service`

7 Launch **iPrint Console** in a web browser. You must login to the console the first time to complete the configuration of OES `iPrint Advanced`. No additional tasks needs to be performed in the console.

NOTE: Ensure that the Driver Store and Print Manager are running. For more information, see Section 4.3, “Creating a Driver Store,” on page 26 and Section 4.7, “Creating a Print Manager,” on page 33

Specify https://<*IP Address or host name of OES iPrint Advanced server*>/ipcon/

7a Specify the name and password of the OES administrator who has rights to manage the print manager.

- If the user is unique in the tree, then use CN to login. For example, admin.
- If there are multiple users with the same name in different containers, then specify FQDN in LDAP format. For example, cn=admin,o=microfocus.

Using iPrint Console, you can manage email and mobile features of the printers.

For more information, see Chapter 7, “Managing OES iPrint Advanced,” on page 55. Each of the page in iPrint Console includes an help icon . The help includes information for enabling the features.

3.2.1 Installing OES iPrint Advanced after OES 24.4 Installation

Prerequisites:

OES 24.4 must be installed and configured. See, OES Install.

Procedure:

On installing OES 24.4, continue with the following steps:

1. To launch YaST, run the command `yast2`.
2. Click **Open Enterprise Server > OES Install and Configuration**.
3. Select the pattern **OES iPrint Advanced**, then click **Accept**.
4. Continue with on-screen prompts until OES `iPrint Advanced` is successfully installed.
5. (Conditional) In a DSfW environment, do the following:
   - **5a** Modify the LDAP port parameters in the `/etc/opt/novell/iprintmobile/conf/iprintmobile.conf` as follows:

     ```
     #LDAP Port
     ldap_port = 1389

     #LDAP Secure Port
     ldap_secure_port = 1636
     ```

   - **5b** Restart mobile server:

     ```
     systemctl restart novell-iprint-tomcat.service
     ```

   - **5c** Modify the LDAP parameter in the `/etc/opt/novell/iprintauth/conf/authService.conf` as follows:

     ```
     config.RepositoryLdapUrl = ldaps://localhost:1636
     ```

   - **5d** Restart iprint auth service: `systemctl restart iprint-auth.service`
6. (Conditional) To configure mobility in a cluster environment, continue with the Section 5.2.3, “Clustering on an NSS File System,” on page 45.

   or

   In a non-cluster, continue with the next step.
7. Launch **iPrint Console** in a web browser. You must login to the console the first time to complete the configuration of OES `iPrint Advanced`. No additional tasks needs to be performed in the console. Using **iPrint Console**, you can manage email and mobile features of the printers.

NOTE: Ensure that the Driver Store and Print Manager are running.

Specify https://<*IP Address or host name of OES iPrint Advanced server*>/ipcon/

7a Specify the name and password of the OES administrator who has rights to manage the print manager.

- If the user is unique in the tree, then use CN to login. For example, `admin`.
- If there are multiple users with the same name in different containers, then specify FQDN in LDAP format. For example, `cn=admin,o=microfocus`.

For more information, see Chapter 7, "Managing OES iPrint Advanced," on page 55. Each of the page in **iPrint Console** includes an help icon . The help includes information for enabling the features.

3.3 Installing and Configuring iPrint Services through YaST

Follow this procedure to install and configure the iPrint services on an OES server in either of the following cases:

- Installing iPrint Advance with a bundle of products during OES installation.
- Installing only the OpenText iPrint service and its dependencies on an existing OES server.

Before you begin, ensure that you have the required eDirectory admin credentials to proceed, if you are installing iPrint Advance after installing OES.

1. Open YaST.

   From your Desktop: Click **Computer > More Applications > System > YaST**.

   From your Terminal: Run the `yast2` command on the server console.

2. Click **Group** > **Open Enterprise Server** > **OES Install and Configuration**.
3. Select **OES iPrint Advanced** from the software patterns listed.

   IMPORTANT: By default, the iPrint dependency packages are selected.

   ---

4. Click **Accept**.

   The subsequent pages allow you to configure iPrint Advance on OES.

5. To change the default configuration settings for iPrint Advance, click the **iPrint Advance** service, or click **Next** to continue with the default configuration.

   If you are installing iPrint Advance after installing OES, you are prompted to enter the eDirectory admin password. Enter the password and click **OK** to proceed. Enter the eDirectory parameters in the page that is displayed and click **Next**.

6. Read the confirmation message on the LDAP Server settings for the iPrint Advance configuration getting successfully saved, as you specified on your OES server.
7. The system displays a confirmation message to indicate a successful install.

4 Setting up OES iPrint Advanced on your server

- Section 4.1, “Overview,” on page 25
- Section 4.2, “Accessing and Using iManager,” on page 26
- Section 4.3, “Creating a Driver Store,” on page 26
- Section 4.4, “Changing the eDirectory Server Assignment,” on page 27
- Section 4.5, “Managing Printer Drivers,” on page 28
- Section 4.6, “Managing Driver Stores,” on page 32
- Section 4.7, “Creating a Print Manager,” on page 33
- Section 4.8, “Creating a Printer,” on page 36
- Section 4.9, “Implementing iPrint by Using the Command Line,” on page 36
- Section 4.10, “Using iprntcmd on Linux and Macintosh,” on page 39
- Section 4.11, “Setting up OES iPrint Advanced on the NSS File System,” on page 40

4.1 Overview

After you install the Open Enterprise Server components on your server (including iPrint), you need to start and configure iPrint. For complete management, you need to access iManager and iPrint Management Client. See, Chapter 10, “OES iPrint Advanced on Client Workstations,” on page 115.

For a review of supported browsers and iPrint operations, see Appendix B, “Supported Browsers for iPrint,” on page 143.

- ❒ Run iManager from the operating system in which you want to upload the print driver. For example, to upload a Windows 8 print driver, you must run Internet Explorer from a Windows 8 workstation. For more information, see the iManager Web site (http://www.netiq.com/documentation/imanager/).
- ❒ Create a Driver Store: A Driver Store is a repository where administrators add printer drivers and PPD files used for their print system.
- ❒ Add printer drivers and PPD files: To save the extra step of associating driver files when you create printers, you should add printer drivers to the Driver Store before you create printers.
- ❒ Create a Print Manager: The Print Manager communicates print job information between users and printers while also providing print job management, security, and spooling.

  For more information, see “Creating Additional Print Managers” on page 83.
- ❒ Create Printers: This task helps you create printers for your system and associate printer drivers.

  For more information, see Section 8.4.1, “Creating Additional Printers,” on page 88.

4.2 Accessing and Using iManager

iManager is a Web-based administration console that provides secure, customized access to network administration utilities and content from virtually anywhere you have access to the Internet and a web browser.

For iManager access and complete use of all its features, use one of the web browsers listed below. Although you might be able to access iManager through a web browser that is not on the list, we do not guarantee or support full functionality with any browser other than the following:

- Microsoft Internet Explorer 10 or later
- Mozilla Firefox

In order for some iManager wizards and help systems to work, you must enable pop-up windows in your web browser. If you use an application that blocks pop-up windows, you must disable the blocking feature while working in iManager or allow pop-ups from the iManager host. The mobile iManager functions similarly to the Web-based iManager, except that it does not allow you to upload drivers and to create profiles.

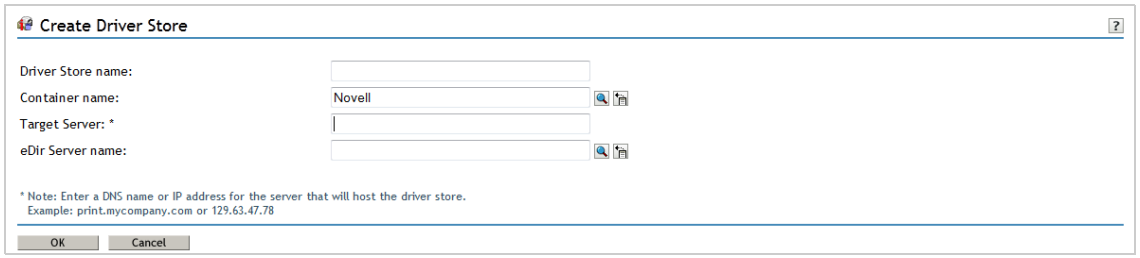
For information on using the iManager interface, see iManager documentation (https://www.netiq.com/documentation/imanager-32/).

4.3 Creating a Driver Store

You need only one Driver Store for your print system; however, depending on your network setup, you can add additional Driver Stores. You must create a Driver Store in order to create a Print Manager. For more information about placing Driver Stores on your network, see “Creating Additional Driver Stores” on page 100.

1 In iManager, click **iPrint** > **Create Driver Store**.

The Create Driver Store dialog box is displayed.



2 In the **Driver Store name** field, specify the name of the Driver Store object.

3 In the **Container name** field, specify the name of the container where you want the Driver Store object to reside.

TIP: Use the Object Selector to choose the container object from an object list. For more information on using the Object Selector, see iManager documentation (https://www.netiq.com/documentation/imanager-32/). Use the History Browser to browse through the list of objects you used recently.

4 In the **Target Server** field, specify the DNS name or the IP address of the server where you want the iPrint Driver Store to reside.

If you have set up the cluster, specify the DNS name or IP address of the iPrint resource.

5 In the **eDir Server name** field, specify an eDirectory server that you want the Driver Store to communicate with.

For fault tolerance, you can specify more than one eDirectory server from the same tree. For more information, see Section 4.4, “Changing the eDirectory Server Assignment,” on page 27.

6 Click **Cancel** to exit without saving any of your changes.

or

Click **OK** to save your changes.

IMPORTANT: When you try creating a Driver Store for the first time, you might receive a certificate error. You should accept the certificate in order to proceed with creating the Driver Store.

After the Driver Store is created, the Driver Store daemon is loaded on the server, and you can start uploading drivers.

NOTE: To check the status of the Driver Store, use the `systemctl status novell-idsd.service` command.

4.4 Changing the eDirectory Server Assignment

If you need to change the eDirectory server assignment for the Print Manager or Driver Store, edit the Directory Services Server1= entry in the corresponding configuration file, *`print_manager_name`*`.context.ipsmd.conf` or `idsd.conf`, located in `/etc/opt/novell/iprint/conf`.

NOTE: As many as two additional servers can be specified, using Directory Services Server2 and Directory Services Server3. Directory Services Server1 is considered to be the primary eDirectory server. Directory Services Server2 and Directory Services Server3 are considered to be secondary servers.

For example, editing the Directory Services Servers 1, 2, and 3 entries for the `idsd.conf` file looks like this:

```
cat /etc/opt/novell/iprint/conf/idsd.conf {

DSServer1 server1.blr.novell.com

DSServer2 server2.blr.novell.com

DSServer3 server3.blr.novell.com
```

```
IDSObjectDN CN=ds-102-59-2,O=novell

IDSObjectPasswd yhvuevdbumpuvfuklnqqapvipxvemh

IDSHostAddress 100.100.100.100

}
```

Editing the Directory Services Servers 1, 2, and 3 entries for the `ipsmd.conf` file looks like this:

```
cat /etc/opt/novell/iprint/conf/ipsmd.conf

DSServer1 server1.blr.novell.com

DSServer2 server2.blr.novell.com

DSServer3 server3.blr.novell.com

PSMObjectDN CN=psm-dns-name,O=novell

PSMObjectPasswd pgtnlafnfekh

PSMHostAddress server1.blr.novell.com
```

4.5 Managing Printer Drivers

A printer driver or PostScript Printer Description (PPD) file is software that directly supports a physical printer, enabling it to carry out its functions.

Hardware vendors develop printer drivers and PPD files, which are specific to each printer. Most printers require different printer drivers for each operating system they interact with. You can use iManager to view a list of printer drivers and PPD files you have uploaded to the Driver Store. On Windows Vista, Windows 8, Windows 8.1, and Windows 10 platforms, you can also upload printer drivers by using a command line option. For more information, see Section 4.9, “Implementing iPrint by Using the Command Line,” on page 36. You can add printer drivers and PPD files from diskettes, CDs, and the workstation operating system.

The Driver Store daemon must be running in order to add printer drivers, and the iPrint Client must be installed on a Linux or Windows workstation. To install the client, go to http://dns_name or IP_address/ipp and click the **Install iPrint Client** link. For more information on installing the client, see Chapter 10, “OES iPrint Advanced on Client Workstations,” on page 115. For a review of supported browsers and driver upload operations, see Section B.2, “Supported Browsers for the iPrint Plug-In and iManager,” on page 143.

To add printer drivers to the Driver Store:

1. In iManager, click **iPrint > Manage Driver Store**.

Figure 4-1 *iManager*

2 Specify the name of the iPrint Driver Store to which you want to add printer drivers.

3 Select the **Drivers** tab.

4 Use the Drivers Platform drop-down list to select the client platform for which you want to upload the printer driver.

5 Do one of the following:

- Click **Add from File** to add printer resources from a printer driver `.inf` file or PPD file.

  Mac: The standard file format is PPD (Postscript Printer Description) file.

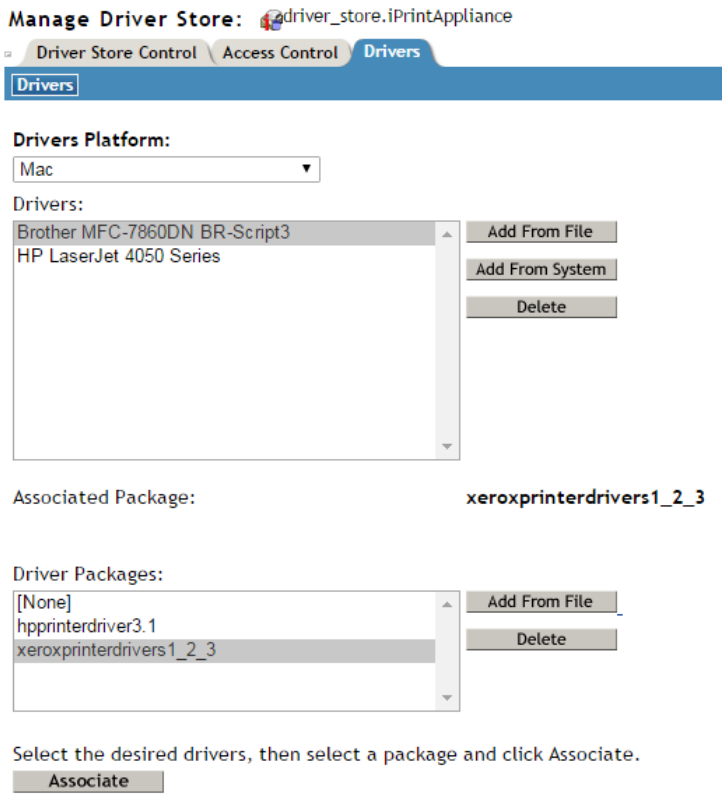
  Windows: The standard file format is `.inf` file.

- Click **Add from System** to add drivers from the workstation where you are running iManager.

  The drivers installed on your workstation are made available to be uploaded to the Driver Store. You can upload only drivers for the platforms installed on your workstation.

6 Select a driver, then click **OK**.

6a (Conditional) If the client platform is Mac, new options are available as follows:

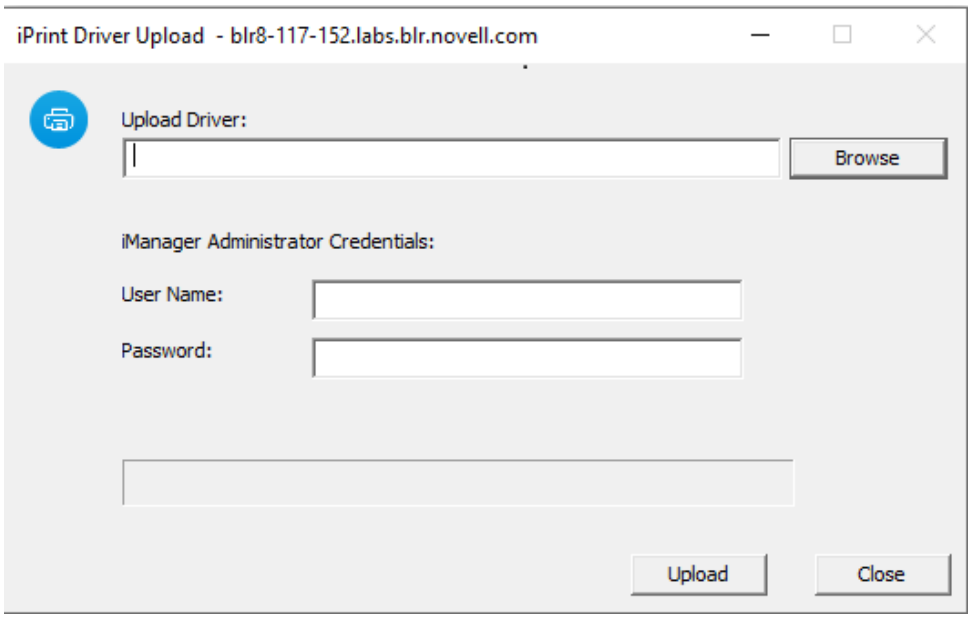


Associated Driver Package: Displays the driver package, if any, associated with the selected drivers. This is the dependent package for the driver and is installed with the printer. This option is available only on a Mac machine.

6a1 Perform one of the following actions:

- Click **Add from File** to add printer driver package to the list from a .pkg or .dmg file that you obtain from the printer vendor.

Figure 4-2 *Re-authentication for uploading associated driver packages on MAC*



- Browse and select the package from the **Driver Packages** list.
- Enter your **iManager Administrator Credentials** and click **Upload**.
- Click **Associate**. This associates the selected driver to the package. When a user installs the printer, the driver and its associated files from this package are installed on the workstation. If the dependent files are missing, the printer installation fails.
- To disassociate a driver from the package, select the driver and select None from the Driver Packages list and click Associate. The driver is no longer associated to any package.

7 Click **OK** to save your changes.

or

Click **Cancel** to exit without saving your changes.

8 Click **Refresh** to refresh the screen and display the changes you just made.

If you need to install an iPrint printer but cannot use a web browser, you can use the `iprntcmd.exe` command at a DOS prompt. For more information, see "Using iprntcmd.exe to Install iPrint Printers" on page 37. You can also install driver files from a Linux console prompt by using the `iprntcmd` command. For more information, see Section 4.10, "Using iprntcmd on Linux and Macintosh," on page 39.

To delete printer drivers from the Driver Store:

1 In iManager, click **iPrint** > **Manage Driver Store**.

2 Select the **Drivers** tab.

3 Read the list of existing printer drivers displayed in the **Current Drivers** panel.

4 Select a driver, then click **Delete**.

5 Click **OK** to save your changes

or

Click **Cancel** to exit without saving your changes.

6 Click **Refresh** to refresh the screen and display the changes you just made.

4.6 Managing Driver Stores

To look at the information on the existing driver stores:

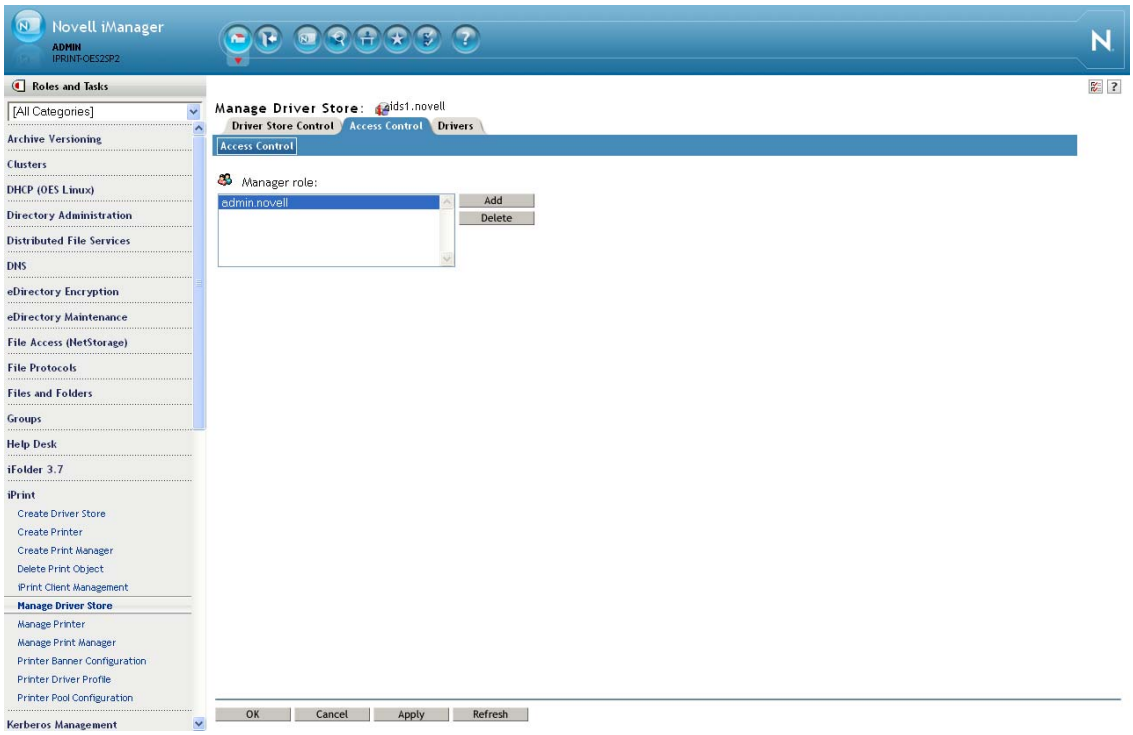
1 In iManager, click **iPrint** > **Manage Driver Store**.

2 Use the **Driver Store Control** tab to make changes in the driver functionality as needed:

- Use the **Driver Store Control** panel to start up or shut down the driver store, copy the printer drivers in this driver store to another driver store, move the Driver Store configuration files and printer drivers to a different server, and view the status of the driver store (Active, Down, Initializing, or Shutting Down).
- Use the **Identification** panel to view and add information related to the Driver Store, such as the Driver Store name, version, the network address where the Driver Store is running on, the list of iPrint Manager Customers using your Driver Store, the physical location of the server that the Driver Store is loaded on, and any extra information that you might want to note about your driver store.

3 Use the **Access Control** tab to view and modify the list of resources that have been the assigned manager roles for your driver store:

- View the list of the existing Driver Store Manager role objects in the **Manager Role** panel.
- Click **Add** to add a new Driver Store Manager object.
- To delete a Driver Store Manager object, select an object from the **Manager Role** panel, then click **Delete**.



4 Use the **Drivers** tab to create and maintain Printer Drivers.

5 Click **OK** to save your changes.

or

Click **Cancel** to exit without saving your changes

6 Click **Refresh** to display the changes you just made.

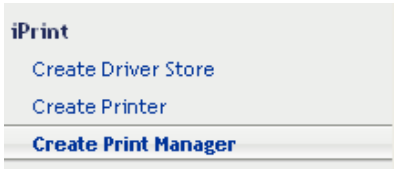
4.7 Creating a Print Manager

You need to create at least one Print Manager for your print system. Depending on your network setup, you can create additional Print Managers, such as across a WAN link. The Print Manager must be running in order to create printers. For more information about placing Print Managers on your network, see "Creating Additional Print Managers" on page 83.

IMPORTANT: Based on the Print Manager configuration, the Print Manager creates a URL for each printer. When you create the Print Manager, you can specify a DNS name or an IP address for the iPrint Service of the same server where you are creating the Print Manager. You should use the DNS name because if the IP address changes, users must delete and reinstall the printers.

A Driver Store must exist before you can create a Print Manager. For more information, see Section 4.3, "Creating a Driver Store," on page 26.

1 In iManager, click **iPrint** > **Create Print Manager**.



When you create the Print Manager the first time, you might receive an error about trusting a certificate. You need to click the **iPrint Certificate Manager** link and accept the certificate, then attempt to create the Print Manager again.

2 In the **Print Manager name** field, specify the name for your iPrint Manager object.

3 In the **Container name** field, specify the name of the container where you want the Print Manager object to reside.

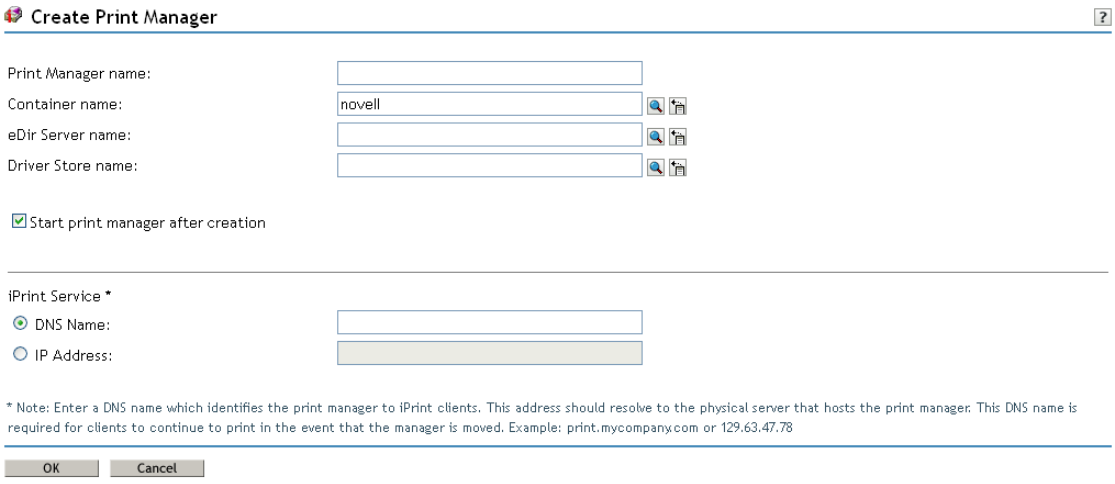
TIP: Use the Object Selector to choose the container object from an object list. For more information on using the Object Selector, see iManager documentation (https://www.netiq.com/documentation/imanager-32/). Use the History Browser to browse through the list of objects you used recently.

---

4 In the **eDir Server name** field, specify an eDirectory server with which you want the Driver Store to communicate.

For fault tolerance, you can specify more than one eDirectory server from the same tree. For more information, see Section 4.4, “Changing the eDirectory Server Assignment,” on page 27.

5 In the **Driver Store name** field, specify the Driver Store you want this Print Manager to use to deliver printer drivers to iPrint clients.



6 Select the **Start print manager after creation** check box to automatically launch the Print Manager after creating it.

This option starts the iPrint Manager after the object is created and also starts the iPrint service after every server reboot.

If you do not select the **Start print manager after creation** check box, you should start the Print Manager manually after creating it. You do this by using **Manage Print Manager** > **Manager Control** in iManager or by entering `systemctl start novell-ipsmd.service` at a command prompt.

IMPORTANT: In a cluster setup, do not select the **Start print manager after creation** check box.

7 Use the **iPrint Service** panel to specify a DNS name (such as print.mycompany.com) to identify the iPrint service on the network.

This address should resolve to the physical server that hosts the Print Manager. Additionally, this address is used to create the iPrint printer's URL, which is installed on users' workstations during a printer installation.

If this URL changes, users must delete and reinstall their printers. The DNS name should not be the server's DNS name (such as server1.mycompany.com).

An IP address can be used if DNS is not configured for your network or if you use a secondary IP address. Using a primary IP address or the server's DNS name limits your ability to move the Print Manager. You should use DNS names, whenever possible, to avoid client issues, especially if you need to change the IP address in the future.

8 Click **OK** or Click **Cancel** to exit without saving any of your changes.

A CNAME is a DNS name that is tied to a Service and not tied to a Server Name. OpenText recommends that you bind the Print Manager to a CNAME and not to a server DNS name or a server IP address. If the Print Manager is bound to a CNAME, the iPrint printers installed to workstations automatically point to the new server when you migrate iPrint services. There are two methods to view which address or name the Print Manager is bound to:

- Viewing the Installed Printer
- Using ipsmd.conf

Viewing the Installed Printer

Look at the name of an iPrint printer installed to a workstation. The name looks similar to one of the following formats:

printer1 on ipp://servicename.company.com

or

printer1 on <Name>

or

printer1 on ipp://servername.company.com

or

printer1 on ipp://<ipaddress>

The first format is the recommended format.

Using ipsmd.conf

View the PSMHostAddress value within the `/etc/opt/novell/iprint/conf/ipsmd.conf` file. The only recommended value is a CNAME, such as servicename.company.com.

To conform to the CNAME recommendation:

IMPORTANT: Do not proceed with these steps if the Print Manager is bound to an IP address or a server DNS name.

1. Create a DNS entry for a Print Manager service name (CNAME) within the network's DNS configuration.

   The CNAME must resolve to the IP address of the server hosting the Print Manager. If the Print Manager is hosted on a cluster, the CNAME must resolve to the IP address of the cluster volume.
2. `/etc/hosts/` -Add the CNAME and server IP address to the server's `/etc/hosts` file.
3. `ipsmd.conf` - Modify the PSMHostAddress value within the `/etc/opt/novell/iprint/conf/ipsmd.conf` file from the server DNS or IP address to the Print Manager's CNAME.
4. Restart the Print Manager by using the `systemctl restart novell-ipsmd.service` command.

The iPrint clients detect the name change within the `ipsmd.conf` file, uninstall the iPrint printer, and re-install the iPrint printer to reflect the new name.

4.8 Creating a Printer

Before you can create a printer, you must first create a Print Manager on your server. See Section 4.7, “Creating a Print Manager,” on page 33 for more information. For information on the prerequisites for creating additional printers, see Section 8.4.1, “Creating Additional Printers,” on page 88.

1. In iManager, click **iPrint** > **Create Printer**.
2. Follow the prompts and fill in the fields.

   Click the help for explanations about the fields.
3. Click **Next**, then select the drivers for this printer.

   If the printer drivers for this printer are not listed, you can still create the printer. After the printer is created, add the printer drivers to the Driver Store and then associate the drivers to the printer by clicking **Manage Printer** > **Drivers**.
4. Click **Next** to create the printer.

4.9 Implementing iPrint by Using the Command Line

`Iprntcmd.exe` is a DOS command line utility that lets you install iPrint printers without a web browser and capture LPT ports to iPrint printers. This command is useful when you have legacy applications that require output to an LPT port or when you want to add printers through a login script.

4.9.1 Using iprntcmd.exe to Install iPrint Printers

If you need to install an iPrint printer but cannot use a web browser, you can use the `iprntcmd.exe` command at a DOS prompt. The `iprntcmd.exe` command can install, remove, or set a printer as the default printer.

Use the following parameters when executing the `iprntcmd` command.

Table 4-1 *Parameters Used with `iprntcmd`*

Parameters	Description
-a | --addprinter *options printer_uri*	Installs the specified printer. You can replace *options* with any or all of the following: ◆ no-gui: Does not display the printer installation dialog box when installing a printer. ◆ default: Installs the specified printer as the default printer. ◆ temp: The installed printer is removed when the workstation is rebooted. **NOTE:** These options are available only in the Windows Client.
-c	Clears the password from the cache.
-d | --delprinter *printer_uri*	Removes the specified printer.
-f | --fetchdriverlocal *printer_uri*	Pulls drivers from the server and stores them in the local cache directory, such as the `c:\ndsp\drvr_cache directory`.
-g | --getdefault	Displays the default printer installed on the workstation.
-h | --help	Displays help for the command.
-i | --info *printer_uri*	Displays the printer information.
-j | --listjobs *printer_uri*	Lists the print jobs for the specified printer that are on the server in a pending or printing state.
-l | --listlocalprinters	Lists printers installed on the workstation.
-L | --listprintersonserver *psm-hostname or psm-address*	Lists iPrint printers on the specified Print Manager where *psm-hostname* or *psm-address* can be a DNS name or IP address.

Parameters	Description
-p | --printfile *printer-uri file path*	Sends a printer-ready file to the specified iPrint printer. This option is used to test the print path (job flow) from the client workstation to the server and subsequently to the printer. This requires a print-ready file as an input. The printer or the driver does not need to be installed on the client workstation.
-P | --ppdlist	Lists the PPDs installed on this workstation.
-s | --setdefault *printer_uri*	Sets the specified printer as the default.
-S | --setprimarypsm *psm-hostname or psm-address*	Sets the PSM address for iCM configuration.
-t | --testpage *printer_uri*	Prints a test page to the specified printer.
-v | --version *server_uri server_user*	Displays the server platform and version information, where *server_uri* is the URI for the server and *server_user* is a valid user for the server.
-U | --uploaddriver <*ids-address*> or <*ids-hostname*> <*username*> <*password*> [INF-Filepath <*model-name*>]	Uploads printer drivers. **IMPORTANT:** INF-Filepath and model-name are mandatory only for Windows XP platforms.
`-w | --trustedwebsiteforInternetExplorer` *printer_installation_page_uri*	Adds the specified URI of the printer installation page to the trusted site list for Internet Explorer. The trusted site list allows users to view and add the printers directly from the printer IPP site or printer map page, without running the Internet Explorer browser with administrator privileges on Windows Vista. For example, *http://printing.my_company.com/ipp*.

Use quotes around printer-uri if it contains spaces.

Syntax

`iprntcmd` *`parameters`*

Example

To install a printer named ColorPrinter1 and set it as the default printer, you would enter the following command:

```
iprntcmd -a -s ipp://printing.my_company.com/ipp/ColorPrinter1
```

4.10 Using iprntcmd on Linux and Macintosh

The Linux and Macintosh iPrint Clients include the iprntcmd utility that performs the same functions as iprntcmd in the Windows iPrint Client. In addition, you can use iprntcmd to upload PPD drivers to a Driver Store from the Linux iPrint Client. iprntcmd is located in `/opt/novell/iprint/bin/iprntcmd` on Linux and in `/usr/bin` on Macintosh.

Use the following parameters when executing the `iprntcmd` command:

Table 4-2 *Parameters Used with iprntcmd*

Parameters	Description
-T | --tray-icon	Displays an iPrint icon to the notification area and starts the `iprint-listener-gui` process, if it is not running.
-r | --run-listener	Launches the `iprint-listener` process if it is not already running.
-a or --addprinter *printer_uri*	Installs the specified printer.
-d or --delprinter *printer_uri*	Removes the specified printer.
-d or --delprinter all	Removes all printers. This option requires your confirmation before removing all the printers.
-d or --delprinter all --force	Remove all the printers. This option removes all the printers forcibly without any user intervention.
-g or --getdefault	Displays the default printer installed on the workstation.
-h or --help	Displays help for the command.
-j or --listjobs *printer_uri*	Lists the print jobs for the specified printer that are on the server in a pending or printing state.
-l or --listprinters	Lists printers installed on the workstation.
-L or --listprintersonserver *psm-hostname or psm-address*	Lists iPrint printers on the specified Print Manager where *psm-hostname* or *psm-address* can be a DNS name or IP address.
-p or --printfile *printer-uri filepath*	Sends a printer-ready file to the specified iPrint printer.
-P or --ppdlist	Lists the PPDs installed on this workstation.
-s or --setdefault *printer_uri*	Sets the specified printer as the default.
-t or --testpage *printer_uri*	Prints a test page to the specified printer.
-u or --uploadids *ids_uri ppd with/without a wildcard*	Uploads the specified PPD files to the indicated Driver Store where *ids_uri* is the IP address or DNS name for the Driver Store, and *ppd* is the directory path and filename to the PPD files. You can use a wildcard in the PPD filename.

Parameters	Description
-U or --uploadbroker *rms_uri rms_name ppd with/ without a wildcard*	Uploads the specified PPD files to the indicated Broker where *rms_uri* is the IP address or DNS name for the Broker's associated Print Manager, *rms_name* is the username with rights to add drivers to the broker, and *ppd* is the directory path and filename to the PPD files. You can use a wildcard in the PPD filename.
-v or --version *psm-hostname or psm-address*	Displays the server platform and version information where *server_uri* is the URI for the server.
-i or --info *printer-uri*	Displays the printer information.

Syntax

`iprntcmd options parameters`

You must use quotes around parameter information that contains a space, such as printer names and printer drivers.

Example

To install a printer named Color Printer 1 and set it as the default printer, enter the following

```
iprntcmd -a "ipp://printing.my_company.com/ipp/Color Printer 1"
```

```
iprntcmd --setdefault "ipp://printing.my_Company.com/ipp/Color Printer 1"
```

For uploading PPD files from Mac , enter the following:

```
iprntcmd -u <ids-hostname or ids-address> <ppd path with/without wild cards>
```

When prompted for a username, examples of two acceptable formats are:

`admin` or `cn=admin,o=OrgName`

For more examples, use the `man iprntcmd` command on your server console.

4.11 Setting up OES iPrint Advanced on the NSS File System

It is now possible to host OES iPrint Advanced configuration and data on an NSS Volume. In a standard single server setup, you can continue to host OES iPrint Advanced on your default native Linux file system or you can host OES iPrint Advanced on the NSS file system.

In a cluster setup, we recommend making OES iPrint Advanced available in an OES NSS Cluster.

NOTE: When you create a volume, ensure that it has enough space to host all your driver needs.

Use `iprint_nss_relocate` script to host OES iPrint Advanced on NSS file system in a standalone or cluster setup. This script performs the following actions:

- Moves iPrint configuration data to the NSS Volume.
- Creates symbolic links on the Linux POSIX file system that point to the location on NSS.
- Removes the `/etc/passwd` local iPrint user.
- Creates an iPrint LUM user and an iprintgrp LUM group.

  These users, along with Apache's www group and wwwrun user, are given rights to those sections of the NSS file system where the iPrint configuration and data are hosted.

4.11.1 Running the `iprint_nss_relocate` script

To run the `iprint_nss_relocate` script:

1. Go to the `/opt/novell/iprint/bin` folder on your OES server.
2. Run the following command at the prompt:

   `./iprint_nss_relocate -a <admin dn> -p <password> -n <NSS path> [-l cluster[-c] [-w]]`

   For example: `./iprint_nss_relocate -a cn=admin,o=novell -n /media/nss/DATA -c o=Novell,t=iPrint_Tree -w o=Novell,t=iPrint_Tree -l cluster`

If you do not specify the password in the command, you are prompted to enter the password when the script runs. Refer to the following table for details on the options.

Option	Value
`-a`	Admin DN in LDAP format
`-p`	Password for the Admin user
`-n`	NSS Path with no trailing slash **IMPORTANT:** When you specify the path, ensure that there are no trailing slashes after the NSS path. For example: The path should be specified as `/media/nss/NSSVOl1` and not as `/media/nss/NSSVOL1/`.
`-l Cluster`	Use this parameter only when you want to achieve clustering on NSS file systems. For more details on clustering, see Chapter 5, “Configuring OES iPrint Advanced Server,” on page 43. **IMPORTANT:** Use the `cluster` keyword with the `-l` option. Do not replace the cluster keyword with a cluster object name.

Option	Value
`-c (Optional)`	Specify the container FDN in LDAP format where the iPrint LUM object already exists or should be created. All the iPrint nodes on an NSS Cluster should share the iPrint LUM objects (iprint user and iprintgrp group) and should be in the same container. If the nodes are in different containers, you should specify the existing iPrint LUM objects' context on subsequent nodes where ipring_nss_relocate is running. To specify the context, give the -c option in the command. Do not choose the context where the non-user object named iPrint already exists.
`-w (Optional)`	Specify the container FDN in LDAP format where Apache LUM objects exist.

5 Configuring OES iPrint Advanced Server

This section describes how to configure OES `iPrint Advanced` server in a Standalone and Cluster environment.

- Section 5.1, “Configuring OES iPrint Advanced Server In a Standalone Environment,” on page 43
- Section 5.2, “Configuring OES iPrint Advanced Server in a Cluster Environment,” on page 44
- Section 5.3, “Patching OES iPrint Advanced 24.4,” on page 50

5.1 Configuring OES iPrint Advanced Server In a Standalone Environment

- Section 5.1.1, “Planning for OES iPrint Advanced Server As a Standalone,” on page 43
- Section 5.1.2, “OES iPrint Advanced Server as a Standalone On an NSS File System,” on page 44

5.1.1 Planning for OES iPrint Advanced Server As a Standalone

- “OES 24.4” on page 43
- “OES iPrint Advanced” on page 43
- “NSS File System” on page 43

OES 24.4

Install and configure OES 24.4. For more information, see Installation Guide.

OES iPrint Advanced

Install and configure OES iPrint Advance. For more information, see Chapter 3, “Installing OES iPrint Advanced Server,” on page 19 and Chapter 4, “Setting up OES iPrint Advanced on your server,” on page 25.

NSS File System

Install and configure NSS, if you are using NSS file system to host iPrint configuration and data on an NSS Volume. For more information, see Storage Services File System (NSS) Administration Guide for Linux.

5.1.2 OES iPrint Advanced Server as a Standalone On an NSS File System

1. Install OES `iPrint Advanced` service on an OES server using YaST. For more information, see Section 3.3, “Installing and Configuring iPrint Services through YaST,” on page 23.
2. Run the `iprint_nss_relocate` script located at `/opt/novell/iprint/bin` on the OES server. For more details on this script, see Section 4.11, “Setting up OES iPrint Advanced on the NSS File System,” on page 40.

5.2 Configuring OES iPrint Advanced Server in a Cluster Environment

- Section 5.2.1, “Understanding the Benefits of High Availability Printing,” on page 44
- Section 5.2.2, “Planning for OES iPrint Advanced Server in a Cluster,” on page 44
- Section 5.2.3, “Clustering on an NSS File System,” on page 45
- Section 5.2.4, “Clustering on a Linux POSIX File System,” on page 47
- Section 5.2.5, “Modifying the Load, Unload, and Monitor Scripts,” on page 50

5.2.1 Understanding the Benefits of High Availability Printing

Running OES iPrint Advanced on a cluster provides the following benefits:

- By configuring the Print Management Database to reside on a shared disk cluster volume, you no longer need to replicate information to achieve high availability.
- The cluster console GUI enables you monitor and control the location of cluster volume with the Driver Store and Print Manager services using them from a single management workstation.
- Because cluster volumes are tightly consistent and highly available, distributed print management tasks are simplified.
- If a server fails, the cluster volume containing the Print Management Database and spool area automatically remounts on a surviving server in the cluster. The Driver Store and Print Manager also automatically restart without user intervention.
- On restart, the Driver Store and Print Manager discover the Print Management Database on a cluster volume mounted on their server. Because the cluster volume is the same regardless of the server it is mounted on, no print-related information is lost or out-of-date.

5.2.2 Planning for OES iPrint Advanced Server in a Cluster

- “Open Enterprise Server 24.4” on page 45
- “OES Cluster Services” on page 45
- “NSS File System” on page 45

Open Enterprise Server 24.4

Ensure that each node in the cluster is running the same release version of OES 24.4.

OES Cluster Services

Ensure that each node is running the same release version of OES Cluster Services with the latest patches applied. For information on installing OES Cluster Services, see Installing, Configuring, and Repairing OES Cluster Services in the OES Cluster Services for Linux Administration Guide.

NSS File System

`OES iPrint Advanced` supports only NSS file system.

5.2.3 Clustering on an NSS File System

Prerequisites

- Ensure that NSS pools exist and are configured to work with OES Cluster Services.
- Verify that the target pool resource for iPrint services is **cluster-enabled** and **online**.

Procedure

1. Run the `iprint_nss_relocate` script located at `/opt/novell/iprint/bin` on the node where the pool resource is running. For more details on this script, see Section 4.11.1, “Running the `iprint_nss_relocate script,” on page 41`.
2. Stop Mobile and CUPS services on the node pool where the pool resource is running.

   ```
   ./iprint_nss_relocate -s y
   ```

   This script is located at `/opt/novell/iprint/bin`
3. Migrate the pool resource to the next identified node, and then run the `iprint_nss_relocate` script with the same arguments. For more information, see Cluster Migrating Resources to Different Nodes in *OES Cluster Services for Linux Administration Guide*.
4. Repeat Step1 on all the iPrint cluster nodes.
5. Configure iPrint services. See, Chapter 4, “Setting up OES iPrint Advanced on your server,” on page 25 and iPrint in *Unified Management Console FAQ*.

   When you configure iPrint, ensure that all references to IP addresses or DNS names are pointing to the resource’s IP address or to the DNS name..

   NOTE: IMPORTANT:During creation of the Print Manager, ensure that you do not select the Start Print Manager after Creation check box.

   At this stage you will encounter a certificate error, indicating that the hostname or IP address of the server where you are the print object does not match any of the certificates on the server where iManager is running. For more information on resolving certificate errors, Section 8.2, “Understanding and Managing Certificates,” on page 73.
6. Stop the service on the last active node.

   ```
   ./iprint_nss_relocate -s y
   ```
7. Modify the **cluster pool load script** to include the Mobile and CUPS services.

   7a Add the following lines to the existing load script **before the exit 0** statement:

```
ignore_error mv /media/nss/NSSVOL1/var/opt/novell/iprint/
iprintgw.lpr /media/nss/NSSVOL1/var/opt/novell/iprint/
iprintgw.lpr.bak

exit_on_error systemctl start novell-idsd.service

exit_on_error systemctl start novell-ipsmd.service

exit_on_error systemctl start novell-iprint-ocs.service

exit_on_error systemctl start novell-iprint-license.service

exit_on_error systemctl start orientdb.service

exit_on_error systemctl start iprint-auth.service

exit_on_error systemctl start iprint-cups.service

exit_on_error systemctl start novell-iprint-tomcat.service

exit_on_error systemctl start iprint-cups.service
```

7b Replace `/media/nss/NSSVOL1` with your actual cluster volume mount point.

NOTE: Changes take effect only after taking the resource offline and bringing it online again.

For information on editing a load script, see Section 5.2.5, “Modifying the Load, Unload, and Monitor Scripts,” on page 50

8 Modify the cluster pool unload script to include the Mobile and CUPS services. Add the following lines to the existing load script **after the exit 0** statement:

```
ignore_error systemctl stop novell-iprint-tomcat.service

ignore_error systemctl stop iprint-cups.service

ignore_error systemctl stop iprint-auth.service

ignore_error systemctl stop orientdb.service

ignore_error systemctl stop novell-iprint-license.service

ignore_error systemctl stop novell-iprint-ocs.service

ignore_error systemctl stop novell-ipsmd.service

ignore_error systemctl stop novell-idsd.service
```

NOTE: Changes take effect only after taking the resource offline and bringing it online again.

For information on editing a load script, see Section 5.2.5, “Modifying the Load, Unload, and Monitor Scripts,” on page 50

9 Migrate the pool resource to the next identified node. For more information, see Installing, Configuring, and Repairing OES Cluster Services.

10 (Conditional) In a DSfW environment, do the following:

10a Modify the LDAP port parameters in the `/etc/opt/novell/iprintmobile/conf/iprintmobile.conf` as follows:

```
#LDAP Port
ldap_port = 1389

#LDAP Secure Port
ldap_secure_port = 1636
```

10b Restart mobile server:

```
systemctl restart novell-iprint-tomcat.service
```

10c Modify the LDAP parameter in the `/etc/opt/novell/iprintauth/conf/authService.conf` as follows:

```
config.RepositoryLdapUrl = ldaps://localhost:1636
```

10d Restart iprint auth service: `systemctl restart iprint-auth.service`

11 To configure mobility, launch **iPrint Console** in a web browser. Using iPrint Console, you can manage email and mobile features of the printers.

NOTE: Ensure that the Driver Store and Print Manager are running.

---

https://<*Resource_server_ address of OES iPrint Advanced server*>/ipcon/

11a Specify the name and password of the OES administrator who has rights to manage the print manager.

- If the user is unique in the tree, then use CN to login. For example, admin.
- If there are multiple users with the same name in different containers, then specify FQDN in LDAP format. For example, cn=admin,o=microfocus.

12 If you add a new node to the cluster later, change the file as follows:

12a Install OES `iPrint Advanced` on the new node.

12b Comment out the load and unload scripts added in Step 7 and Step 8.

12c Migrate the resource to the new node.

12d Run the `iprint_nss_relocate` script on the new node.

12e Remove the comment tag from the load and unload scripts.

5.2.4 Clustering on a Linux POSIX File System

When setting up a new iPrint cluster resource from the template on Linux, a setup wizard guides you through the process sequentially.

To configure cluster resources for shared Linux POSIX volumes, refer to Upgrading and Managing Cluster Resources for Linux POSIX Volumes with CSM Containers.

1 In iManager, click **Clusters** > **My Clusters**, then select the cluster.

If the cluster does not appear in your personalized list of clusters to manage, you can add it. Click **Add**, browse and select the cluster, then click **OK**. Wait for the cluster to appear in the list and report its status, then select the cluster.

2 Select the **Cluster Options** tab.

3 Under **Cluster Objects**, click **New**.

4 Select **Resource**, then click **Next**.

5 Specify a name in the **Cluster Resource Name** field.

6 Use the object selector for **Inherit from Template** to browse to and open the Cluster object you created, then select the **iPrint_Template**.

7 Select the **Define Additional Properties** check box, then click **Next**.

8 Edit the load script by making the changes outlined in the following table:

Heading	Description
define the IP address	Specify the actual IP address you want to use for the resource. For example, 10.10.10.10.
define the file system type	Specify the file system type.
define the volume group name	Specify the name of the LVM volume group you have created.
define the device name	`/dev/$VOLGROUP_NAME/iprint`
define the mount point	`/mnt/iprint`. If a different mount point is selected for the shared disk, ensure that the same mount point is specified in the unload script.
activate the volume group	`exit_on_error vgchange -a ey $VOLGROUP_NAME`. Replace $VOLGROUP_NAME.
mount the file system	`exit_on_error mount_fs $MOUNT_DEV $MOUNT_POINT $MOUNT_FS`, where $MOUNT_DEV is the device name and $MOUNT_POINT is the mount point you defined.
add the IP address	`exit_on_error add_secondary_ipaddress $RESOURCE_IP`, where $RESOURCE_IP is the IP address.
run the iPrint relocate script	`exit_on_error /opt/novell/iprint/bin/iprint_relocate $MOUNT_POINT`, where $MOUNT_POINT is the mount point you defined.
start the iPrint driver store & printer manager	`exit_on_error /opt/novell/iprint/bin/ncs_iprint_svc_start`.

9 Set the *timeout* value in the load script to three minutes, then click **Next**.

10 Edit the unload script by making the changes outlined in the following table:

Heading	Description
define the IP address	Specify the actual IP address you want to use for the resource. For example, 10.10.10.10.
define the file system type	Specify the file system type.
define the volume group name	Specify the name of the LVM volume group you have created.
define the device name	`/dev/$VOLGROUP_NAME/<LVM logical volume>`
define the mount point	`/mnt/iprint`. If a different mount point is selected for the shared disk, ensure that the same mount point is specified in the unload script.
stop the printer manager and iPrint driver store	Printer Manager: `ignore_error systemctl stop novell-ipsmd.service` iPrint Driver Store: `ignore_error systemctl stop novell-idsd.service`

Heading	Description
delete the IP address	`ignore_error del_secondary_ipaddress $RESOURCE_IP`, where $RESOURCE_IP is the IP address.
unmount the file system	`exit_on_error umount_fs $MOUNT_DEV $MOUNT_POINT $MOUNT_FS`, where $MOUNT_DEV is the device name, and $MOUNT_POINT is the mount point you defined.
deactivate the volume group	`exit_on_error vgchange -a n $VOLGROUP_NAME`.

11 Set the *timeout* value in the unload script to three minutes, then click **Next**.

12 Edit the monitor script by making the changes outlined in the following table:

Heading	Description
define the IP address	Specify the actual IP address you want to use for the resource. For example, 10.10.10.10.
define the file system type	Specify the file system type.
define the volume group name	Specify the name of the LVM volume group you have created.
define the device name	`/dev/$VOLGROUP_NAME/iprint`
define the mount point	`/mnt/iprint`. If a different mount point is selected for the shared disk, ensure that the same mount point is specified in the unload script.
check the logical volume	`exit_on_error status_lv $VOLGROUP_NAME`.
check the file system	`exit_on_error status_fs $MOUNT_DEV $MOUNT_POINT $MOUNT_FS`, where $MOUNT_DEV is the device name, and $MOUNT_POINT is the mount point you defined.
check the IP address	`exit_on_error status_secondary_ipaddress $RESOURCE_IP`, where $RESOURCE_IP is the IP address.
check the iPrint driver store & printer manager	`systemctl status novell-idsd.service` and `systemctl status novell-ipsmd.service`.

13 View the current Preferred Nodes assignments, and click the arrow button to assign or unassign servers to the print volume resource.

You can click the up-arrow or down-arrow button to change the failover order of the servers assigned to the print volume.

If you add a node to the cluster later, it might be added to the Assigned Nodes list. You must check this list after adding nodes to ensure that iPrint fails over to the desired nodes.

14 Click **Finish**.

5.2.5 Modifying the Load, Unload, and Monitor Scripts

You can view or modify the load, unload, or monitor scripts even after you create a resource.

1. Log in to iManager.
2. Under Roles and Tasks, select **Clusters > My Clusters**, then select the cluster.

   If the cluster does not appear in your personalized list of clusters to manage, you can add it. Click **Add**, browse and select the cluster, then click **OK**. Wait for the cluster to appear in the list and report its status, then select the cluster.
3. On the Cluster Manager page or Cluster Options page, select the cluster resource to view its properties, then click the **Scripts** tab.
4. Click the **Load Script**, **Unload Script**, or **Monitor Script** links to view or modify the scripts. If you modify a script, click **Apply** to save your changes before you leave the page.

   Changes do not take effect until you take the resource offline, and bring it online again.

5.3 Patching OES iPrint Advanced 24.4

5.3.1 Remote Renderer

On applying the latest patch, the `iPrintRendererBundle.zip` file must be manually updated. For the standalone environment, the remote renderer zip file is automatically bundled. But for the cluster environment, before updating the remote renderer zip file, you must manually re-bundle it.

Re-bundling the Remote Render Zip File

Perform the following steps to re-bundle the `iPrintRendererBundle.zip` file.

1. Ensure that every node running OES `iPrint Advanced` is patched with the latest patch.
2. Go to `/opt/novell/iprintmobile/bin` folder on the node where the pool resource is running.
3. Run `sh /opt/novell/iprintmobile/bin/certman_oes.sh -b`. The latest remote renderer zip file is re- bundled.

Updating the Remote Render Zip File

On re-bundling the latest remote renderer zip file, download, install, configure and register remote renderer. For more information, see “Downloading the Remote Renderer” on page 110.

6 Upgrading to OES iPrint Advanced

- Section 6.1, “Supported Source Upgrade Paths,” on page 51
- Section 6.2, “Upgrading to OES iPrint Advanced (Standalone),” on page 51
- Section 6.3, “Upgrading to OES iPrint Advanced Server (Cluster),” on page 51
- Section 6.4, “Post Upgrading to iPrint Advanced on OES 24.4,” on page 53

6.1 Supported Source Upgrade Paths

- OES iPrint Base or OES iPrint Advanced on OES 23.4 or 24.3
- OES iPrint Base or OES iPrint Advanced on OES 2023
- OES iPrint Base or OES iPrint Advanced on OES 2018 SP3

6.2 Upgrading to OES iPrint Advanced (Standalone)

Follow the step-by-step instructions for upgrading to OES 24.4. For more information, see Upgrading OES in the Installation Guide.

NOTE: Beginning with OES 2018 SP3 and later, a new service file `iprint-cups.service` is added to start the cups binary on `OES iPrint Advanced` server with `cupsd-iprint.conf` (iPrint configuration file) file. The CUPS file (`cups.service`) available with the earlier release is masked and should not be used with the OES 2018 SP3 and later server.

Post upgrading to OES 24.4, you must complete the following tasks before using `OES iPrint Advanced` on NSS volume:

1. Migrate the pool resource to upgraded node.
2. Run the `iprint_nss_relocate` script located at `/opt/novell/iprint/bin`.

   For more details on this script, see Section 4.11.1, “Running the `iprint_nss_relocate` script,” on page 41.

6.3 Upgrading to OES iPrint Advanced Server (Cluster)

1. Follow the step-by-step OES upgrade instructions. See Upgrading OES in the Installation Guide.
2. Ensure that the upgraded OES 24.4 node is joined to the cluster.
3. Migrate the pool resource to the upgraded OES 24.4 node.
4. Ensure that the pool and volume is running on the node running the OES 24.4 server.
5. Run the `iprint_nss_relocate` script located at `/opt/novell/iprint/bin`.

For more details on this script, see Section 4.11.1, “Running the iprint_nss_relocate script,” on page 41

6 Stop Mobile and CUPS services on the node pool where the pool resource is running.

```
./iprint_nss_relocate -s y
```

This script is located at `/opt/novell/iprint/bin`

7 Edit the load script (to add Mobile, License, and CUPS service) for the Cluster Pool. Add the following lines to the existing load script before the `exit 0` statement.

```
exit_on_error systemctl start novell-idsd.service
exit_on_error systemctl start novell-ipsmd.service
exit_on_error systemctl start novell-iprint-ocs.service
exit_on_error systemctl start novell-iprint-license.service
exit_on_error systemctl start orientdb.service
exit_on_error systemctl start iprint-auth.service
exit_on_error systemctl start iprint-cups.service
exit_on_error systemctl start novell-iprint-tomcat.service
```

NOTE: You must remove the line `ignore_error rcnovell-iprint-mobile start` as it is replaced with license and tomcat services and add `exit_on_error systemctl start iprint-cups.service` as it replaces CUPS service.

Changes do not take effect until you take the resource offline, and bring it online again.

For information on editing a load script, see Section 5.2.5, “Modifying the Load, Unload, and Monitor Scripts,” on page 50.

8 Edit the unload script to add the Mobile, License, and CUPS service for the Cluster Pool. Add the following lines to the existing unload script after the `ignore_error systemctl stop novell-ipsmd.service` statement:

```
ignore_error systemctl stop novell-iprint-tomcat.service
ignore_error systemctl stop iprint-cups.service
ignore_error systemctl stop iprint-auth.service
ignore_error systemctl stop orientdb.service
ignore_error systemctl stop novell-iprint-license.service
ignore_error systemctl stop novell-iprint-ocs.service
ignore_error systemctl stop novell-ipsmd.service
ignore_error systemctl stop novell-idsd.service
```

NOTE: You must remove the line `ignore_error rcnovell-iprint-mobile stop` as it is replaced with license and tomcat services and add `ignore_error systemctl stop iprint-cups.serviceas` it is replaced with CUPS service.

For information on editing an unload script, see Section 5.2.5, “Modifying the Load, Unload, and Monitor Scripts,” on page 50.

Changes do not take effect until you take the resource offline, and bring it online again.

9 Ensure all the services (Print Manager, License, Mobile, and Cups) are up and running. Also, ensure that the Driver Store configured with the Print Manager is running.

```
systemctl status novell-ipsmd.service
systemctl status novell-iprint-license.service
systemctl status novell-iprint-tomcat.service
systemctl status iprint-cups.service
```

10 To upgrade to the next identified nodes in cluster, do the following:

10a Follow Step 1 to Step 4 on all the identified cluster nodes.

10b Run the `iprint_nss_relocate` script located at `/opt/novell/iprint/bin` on the node where the pool resource is running.

For more details on this script, see Section 4.11.1, "Running the `iprint_nss_relocate` script," on page 41.

10c Stop the Mobile and CUPS service by executing the following commands:

```
systemctl stop novell-iprint-tomcat.service
systemctl stop novell-iprint-license.service
systemctl stop iprint-cups.service
```

10d Changes do not take effect until you take the resource offline, and bring it online again.

10e Login to **iPrint Console** on successful migration of a node.

6.4 Post Upgrading to iPrint Advanced on OES 24.4

- After upgrading to OES 24.4 using physical media, channel, or AutoYaSt upgrade, do one of the following:
  - You must log in to iPrint Console (https://*<iPrint_Advanced_IP_or_hostname>*/ipcon) once to view the printer details in the iPrint Portal (https://*<iPrint_Advanced_IP_or_hostname>*/print).

    Or,
  - You can launch the IPP Portal (https://*<iPrint_Advanced_IP_or_hostname>*/ipp) instead of the iPrint Portal (https://*<iPrint_Advanced_IP_or_hostname>*/print) using the following command:

    ```
    sh /opt/novell/iprintmobile/bin/ipp_page_enable_disable.sh –enable
    ```
- After performing transfer ID migration to OES 24.4, the IPP page fails to launch. To resolve this issue, run the following command:

  ```
  mv /etc/opt/novell/httpd/conf.d/iprint_g.conf /etc/opt/novell/httpd/
  conf.d/iprint_g.conf.bkp
  ```

  ```
  ln -sf /etc/opt/novell/iprint/httpd/conf/iprint_g.conf /etc/opt/novell/
  httpd/conf.d/
  ```

7 Managing OES iPrint Advanced

iPrint Console (*ipcon*) is used to manage the features provided by OES iPrint Advanced. To access *ipcon*, specify either the host name or the IP address of OES iPrint Advanced server and in case of cluster setup, specify the resource IP. For example, https://iprintforoes.example.com/ipcon or https://10.0.0.1/ipcon.

NOTE: Ensure Print Manager is up and running in the tree.

Specify the name and password of the OES administrator who has rights to manage the print manager.

If the user is unique in the tree, then use CN to login. For example, admin

If there are multiple users with the same name in different containers, then specify FQDN in LDAP format. For example, cn=admin,o=microfocus.

On logging in to the **iPrint Console**, the local Print Manager is selected in the **Connected to** drop-down box. All the data is displayed of the server where the selected Print Manager is running on.

The **Connected to** field displays all the active Print Managers that are configured with OES iPrint Advanced.

iPrint Console allows you to manage the following:

- Section 7.1, “Printers,” on page 55
- Section 7.2, “WalkUp Printers,” on page 63
- Section 7.3, “Configuration,” on page 66
- Section 7.4, “Renderers,” on page 67
- Section 7.5, “Printer Status,” on page 68
- Section 7.6, “Identity Card Release,” on page 68
- Section 7.7, “Identity Sources,” on page 69
- Section 7.8, “Advanced Authentication,” on page 70
- Section 7.9, “License,” on page 71

7.1 Printers

Lists all printers managed by the active Print Manager. You can enable a printer for mobile and email printing. Creating and modifying the printer details can only be done by using iManager.

7.1.1 Enabling Mobile Printing

Select a printer or printers, click the **Mobile** menu, then click **Enable**. On enabling the printer for mobile, you can print to that printer from your mobile devices.

When the mobile license expires, the **Mobile** option is disabled and the iPrint features on the mobile device are not available.

7.1.2 Email Printing

Using email printing, you can print documents from any device capable of sending emails. You can print emails by specifying email printing commands in the subject line of the email. You can also print documents by emailing them to your printer as attachments. When configured for email printing, iPrint server becomes a client to an email server.

When you enable email printing, the email address you provide becomes the global print email address. You can also configure a printer for private email printing by providing a specific email address to each printer.

The difference between global email printing and private email printing is:

- **Global Email Printing:** When you enable email printing, you are prompted to specify an email address. This email address is the global print email address. When configured for email printing, iPrint server becomes a client to an email server. The global email account inbox is polled for incoming print jobs, which are then routed to the intended printer.
- **Private Email Printing:** With private email printing, you can assign a specific email address to each printer. When a user sends an email printing request, the print job is sent directly to the printer. Users do not need to specify any print commands in the subject line of the email.

Email printing is not enabled by default. You can enable email printing through the **iPrint Console**. You must create a unique email address for iPrint server to receive and process print requests. For more information on enabling Email, see “Global Email Settings” on page 66 and “Enabling Private Email Printing” on page 60.

IMPORTANT: If you enable auditing for email print jobs, the email address of the user is logged in the iPrint audit logs. If the same email address is populated for the user object in the LDAP source, then the user FDN is logged instead of email address. This is important if you are using an accounting software to ensure that jobs are tracked or accounted correctly.

- “Enabling Email Printing” on page 56
- “Email Printing Commands” on page 57
- “Printing Using Email” on page 59

Enabling Email Printing

To enable email printing, you must ensure to meet the following:

- Configure global email settings
- Email accounts are created and functional

After configuring the global email settings, do the following:

Select a printer or printers, click the **Email** menu, then click **Enable**.

On enabling the printer for email, you can print to that printer from any device capable of sending emails.

Email Printing Commands

You can print the body of the email and the attachments by using a few simple print commands in the subject line of your email.

- "Basic Print Commands" on page 57
- "Additional Print Commands" on page 58

Basic Print Commands

`help`

Provides information on email printing commands.

`list printers`

To get the names of the available printers, send an email to the iPrint server address (for example, iprint@example.com) with the subject line `list printers`.

`print printer=<printer_name>`

Prints your email and its attachments to the specified printer. For example, `print printer=hp#Test Mail`.

If you print to a specific printer by using the printer's email address, the `print printer` command is ignored.

`hold printer=<printer_name>`

Queues your email along with its attachments and sends you the job ID as acknowledgment.

`resume`

Resumes the printing of a job that you put on hold. There are two ways to print a job on hold:

- Send an email with subject `resume` followed by the job ID. For example, `resume 10`
- Send an email with the original subject line prefixed with `resume`. For example, `resume#Test Mail`

`cancel`

Cancels a job that you put on hold. There are two ways to cancel a job on hold:

- Send an email with subject `cancel` followed by the job ID. For example, `cancel 10`
- Send an email with the original subject line prefixed with `cancel`. For example, `cancel#Test Mail`

`status`

Displays the status of a job. There are two ways to check the status of a job:

- Send an email with subject `status` followed by the job ID. For example, `status 10`
- Send an email with the original subject line prefixed with `status`. For example, `status#Test Mail`

move

Moves a job to a new printer. There are two ways to move a job to a new printer:

- Send an email with subject `move`, the job ID, and the name of the new printer. For example, `move 10 printer=<PrinterName>`
- Send an email with the original subject line prefixed with `move`, the name of the new printer, and #. For example, `move printer=<PrinterName>#Test Mail`

list jobs

Lists the details of the held jobs.

default printer

Displays the default printer.

default printer=<PrinterName>

Sets a particular printer as your default printer. After you set the default printer, you do not need to include the printer name while printing to the default printer. You only need to use the `print` command followed by the email subject. For example, `print#Test Mail`.

Note

- If a printer name contains spaces, enclose the printer name within double (") or single (') quotes. For example, `print printer='HP PRINTER'`.
- To separate the email subject from the command, use #. For example, `print printer=hp#Test Mail`.

Additional Print Commands

In addition to the basic print commands listed above, you can use these commands to refine your printing:

portrait [portrait=yes/portrait=y (or) portrait=no/portrait=n]

Prints your email content in portrait orientation. For example, `print printer=hp portrait=y#Test Mail`

landscape [landscape=yes/landscape=y (or) landscape=no/landscape=n]

Prints your email content in landscape orientation. For example, `print printer=hp landscape=y#Test Mail`

color [color=yes/color=y (or) color=no/color=n]

Prints your email content in color. For example, `print printer=hp landscape=y color=y#Test Mail`.

pages

Prints a given range of pages in your email. For example, the command `print printer=hp landscape=y color=y pages=1-3#Test Mail` prints pages 1, 2, and 3.

copies

Prints the specified number of copies of your email and its attachments. For example, the command `print printer=hp landscape=y color=y pages=1-3 copies=5#Test Mail` prints 5 copies of pages 1, 2, and 3.

duplex [duplex=yes/duplex=y (or) duplex=no/duplex=n]

Prints your email and its attachments on both sides of the printing paper. For example, the command `print printer=hp landscape=y color=y pages=1-3 copies=5 duplex=y#TestMail` prints 5 copies of pages 1, 2, and 3 in duplex mode.

media

Prints your email and its attachments with the specified paper type. The default paper type is "LETTER." You can change the default paper type by using the iPrint Console. The other available print paper types are A3, A4, and other common paper types. For example, the command `print printer=hp landscape=y color=y pages=1-3 copies=5 duplex=y media=A3#Test Mail` prints 5 copies of pages 1, 2, and 3 in duplex mode, on an A3 size paper.

mailbody [mailbody=yes/mailbody=y (or) mailbody=no/mailbody=n]

Prints either your email and its attachments or only the attachments from your email without the email body. For example, using the command print `printer=hp landscape=y color=y mailbody=n#Test Mail` prints only the email attachments in landscape mode.

NOTE: If you do not specify any of the additional commands, your print job is carried out according to the default preferences set by your administrator.

IMPORTANT: When printing to a specific printer using the printer's private email address, you do not need to specify the printer's name in the command. You can also leave the subject line empty. Printing is carried out according to the default print options set by the administrator.

However, you must specify the print command in the following scenarios:

- The administrator changes the `subject_optional_for_printer_specific_emails` to `False` in the configuration file located at `/etc/opt/novell/iprintmobile/conf/iprintmobile.conf`.
- If you want to customize the print options, you must specify the `print` command, along with the required print options. For example, `print landscape=y color=y pages=1-3 copies=5 duplex=y media=A3#Test Mail`.

Printing Using Email

Using email printing, you can print documents from any device capable of sending emails. You can print emails by specifying email printing commands in the subject line of the email. You can also print documents by emailing them to your printer as attachments.

Ensure to meet the following prerequisites:

- iPrint server is configured with global or private email address. For example, iprint@example.com
- The users are provided with the configured email address
- List of printers configured for email printing

Perform the following steps to print using email:

1. Open an email. You can use any email mail box.
2. In the **To** field, specify the configured email address. For example, iprint@example.com
3. In the **Subject** field, specify the commands from the "Email Printing Commands" on page 57 section.

   For example,

   - To print from a printer named printer1, `print printer=printer1`
   - To view list of printers that are available to print, list printers
   - To view the list of commands, `help`
4. Specify the information to print in the body of the message or add an attachment to print.
5. Click **Send**.

   The document is printed and a confirmation message is received in the mail box.

7.1.3 Enabling Private Email Printing

You can configure a printer for private email printing by providing an unique email address for each printer.

To enable private email printing, you must ensure to meet the following:

- Configure global email settings
- Email accounts are created and functional

To enable a private email address for the printer, do the following:

1. Select a printer, click the **Configure** menu, then click **Printer Email Settings**.
2. Specify the values as follows:

Account	• **Email Address:** Specify the full email address of the mailbox to be polled for the print jobs. When an email-based job arrives, the print job is processed to the printer. For example, print@example.com. The email address must be unique for every server. • **Username:** Specify the user name to be used by iPrint server to log in to the email server to access the private printer email account. For example, john. • **Password:** Specify the password for iPrint server to log in to the email server to access the private printer email account.

Server	◆ **Incoming Mail Server:** Specify the address of the incoming email server for the email account. For example, imap.example.com. ◆ **Incoming Mail Server Port:** Specify the port of the incoming email server for the email account. ◆ **Outgoing Mail Server:** Specify the address of the outgoing email server for the email account. For example, smtp.example.com. ◆ **Outgoing Mail Server Port:** Specify the port of the outgoing email server for the email account. ◆ **Access Method:** iPrint server supports two different protocols to poll for incoming print jobs. Select POP or IMAP depending on the protocol your email server supports.

Caveats For Email Printing

- An email address used for a particular printer (per-printer email configuration) should not be used for any other printer or service.
- Secure printers cannot be configured for email printing.

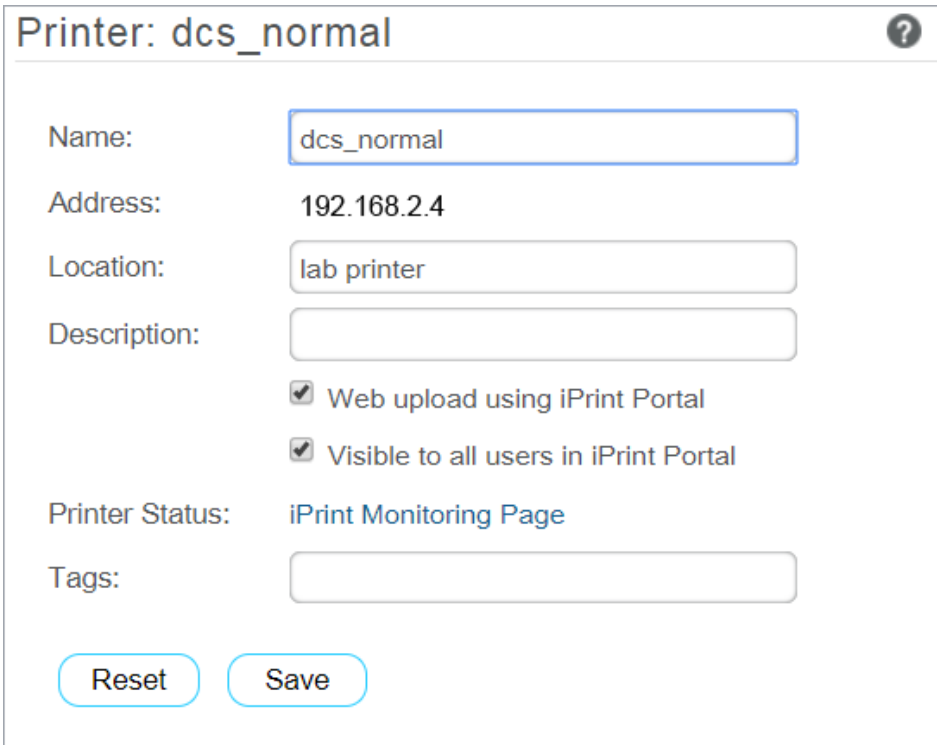
7.1.4 Printer Rename and Printer Refresh

Select a printer, you want to rename, click the **Configure** menu, then click **Rename Printer**.

To refresh the printers list, click the **Refresh** button in the upper right corner of the window.

7.1.5 Editing a Printer

1 To view and modify the details of a printer, click the printer name.



2 You can modify the details as follows:

- **Name:** Displays the name of the printer.
- **Address:** Displays the IP address or host name of the printer.
- **Location:** (Optional) Local location of the printer.
- **Description:** (Optional) Specific description related to the printer.
- **Web upload using iPrint Portal:** This option enables the QuickPrint button in the iPrint Portal. Using any web browser, the user selects a file and prints. The user no longer requires client or driver installations.
- **Visible to all users in iPrint Portal:** By default, all printers are listed in iPrint Portal when a user is not logged in. If you want to hide some printers from the user who is not-logged in, then you can deselect this option.
- **Printer Status:** Displays the Health monitoring GUI to monitor the printer status.
- **Tags:** Specify a label for the printer. Multiple printers can be grouped under same label. In the iPrint Portal, it will be easier for the users to find a specific set of printers. For example, if you specify a tag as Color Printer. In the iPrint Portal, a user can easily locate specific printers by selecting the Color Printer tag.

3 Click **Save**.

7.2 WalkUp Printers

WalkUp printer is a virtual print queue that includes group of physical printers. The print jobs sent to the WalkUp printer are put on hold by the iPrint server and released to a desirable printer. The jobs can be released through Release Portal, Mobile App, or ID card.

You must associate drivers for printers when performing desktop printing.

- Section 7.2.1, “Prerequisites,” on page 63
- Section 7.2.2, “Creating a WalkUp Printer,” on page 63
- Section 7.2.3, “Editing a WalkUp Printer,” on page 64
- Section 7.2.4, “Deleting a WalkUp Printer,” on page 64
- Section 7.2.5, “Enabling Mobile Printing For a WalkUp Printer,” on page 64
- Section 7.2.6, “Modifying the Job Hold Time,” on page 64
- Section 7.2.7, “Caveats for Implementing WalkUp Printing,” on page 65
- Section 7.2.8, “Release Portal for Users,” on page 65

7.2.1 Prerequisites

- Ensure that the physical printers are available before creating a WalkUp printer.
- Ensure there is enough disk space to store the WalkUp jobs.
- The users releases the jobs by using either a Release Portal, Mobile App or ID card. Ensure that the user is aware of the printer location and printer names.

7.2.2 Creating a WalkUp Printer

The user that has logged in to the **iPrint Console** must have rights to create the WalkUp printer object. The WalkUp printer object is created in the active Print Manager container.

1. Click **New**.
2. Specify the name of the WalkUp (virtual) printer. This name is exposed to the user when they install printers on their desktop or mobile devices.
3. (Optional) Specify description for the printer.
4. To enable mobile users to use this printer, select **Mobile Printing**.
5. By default, the **Web upload using iPrint Portal** option is enabled. This enables the QuickPrint feature in the **iPrint Portal** and user can print files using any web browser. The user no longer requires client or driver installations.
6. By default, the **Visible to all users in iPrint Portal** option is enabled. This option lists all the printers in **iPrint Portal**. If you want to hide some printers from the user who is not-logged in, then you can deselect this option.
7. From the list of printers, select the printers to group under WalkUp printer. The jobs sent to the WalkUp printer are put on hold and the user has control to release those jobs to one of the grouped printer.

   You must select at least one printer.
8. Click **Next**.

9 Assign platform-specific drivers for the WalkUp printer.

If Windows drivers are selected, then bi-directional communication can be set for the WalkUp printer.

9a Specify the IP Address or host name from the pool of printers that you have selected for WalkUp.

10 Click **Finish**.

WalkUp printer object is created that includes group of printers. The jobs on hold can only be released to these printers.

7.2.3 Editing a WalkUp Printer

1 Click the printer name.

Displays the details of the printer and its drivers.

2 In the **Printer Details** tab, modify the details of the printer.

3 Click the **Drivers** tab, then reassign the drivers for the selected printers. You can also modify the IP address or host name for bi-di communication.

4 Click **Save**.

The modified settings are applicable to all jobs sent to the selected WalkUp printer.

7.2.4 Deleting a WalkUp Printer

Ensure all the jobs are completed before deleting the printer. On deleting this printer, all the held jobs will be automatically canceled.

Select a printer or printers, then click **Delete**.

7.2.5 Enabling Mobile Printing For a WalkUp Printer

Select a printer or printers, click the **Mobile** drop-down menu, then click **Enable**.

7.2.6 Modifying the Job Hold Time

By default, the job is put on hold for four hours, after which the job is canceled. You can modify the time duration to put the job on hold as follows:

1 Click **Settings**.

2 Modify the duration to hold a job. This change is applicable only for the jobs put on hold after the setting is modified. The existing jobs will continue to be on hold as per the earlier set duration.

7.2.7 Caveats for Implementing WalkUp Printing

This section lists a few pointers for avoiding common WalkUp implementation problems.

- **Using iManager:** The following management tasks for the WalkUp printer are only managed by iManager:
  - Enable auto driver or profile update
  - Assign driver profiles
  - Set Access Control
  - Enable auditing
  - Delete held jobs
- **Using iPrint status (iPrint Health Monitoring page):** The following tasks of the WalkUp printers are monitored using the iPrint Health Monitoring tool:
  - Delete held jobs
  - Enable auditing
- **Job hold time:** By default, the job is put on hold for four hours, after which the job is canceled. If a job is canceled it is no longer available in the Release Portal. The job hold time can be modified from the iPrint Console. For more information, see "Modifying the Job Hold Time" on page 64.
- **Insufficient balance when printing in PaperCut setup:** If the user prints in spite of having insufficient balance in his account, the job is canceled even though the Release Portal displays a success message.

7.2.8 Release Portal for Users

The iPrint Release Portal displays the jobs that are put on hold, the time the job was submitted to the WalkUp printer, and the expiry time of the job. By default, the job is put on hold for four hours, after which the job will be canceled. If a job is canceled it is no longer available in the Release Portal.

To launch the Release Portal in a web browser, specify the iPrint server's address (<https://*<OES iPrint Advanced server address>*/user> or <https://**<OES iPrint Advanced server address>**/release-portal).

Printing a WalkUp Job

1. Using a web browser, specify the server address (https://<OES iPrint Advanced server address>/user) or (https://<OES iPrint Advanced server address>/release-portal).
2. Specify the user authentication details.

   On successful authentication, jobs are displayed.
3. Select the document, then click **Print**.
4. Select the printer, then click **OK**.

   The document is printed by the selected printer.

Deleting a WalkUp Job

1. Using a web browser, specify the server address (https://<OES iPrint Advanced server address>/user) or (https://<OES iPrint Advanced server address>/release-portal).
2. Specify the user authentication details.

   On successful authentication, jobs are displayed.
3. Select the document or multiple documents, then click **Delete**.

   The selected jobs are deleted and no longer available to print.

7.3 Configuration

You can configure the default print options for mobile, email, and Chromebook printing.

7.3.1 Global Settings

Following are the default settings for all the printers when printing from the mobile, email, and Chromebook. When printing, these settings can be modified for an individual printer.

Paper Size: Select **Letter** or **A4**.

Orientation: Select between **Landscape** or **Portrait** printing.

Enable Duplex Printing: Duplex printing allows printing on both the sides of a paper. Printers without this capability can only print on a single side of paper (simplex printing).

Enable Color Printing: Color printing prints the documents in color, as opposed to monochrome (black and white) printing.

7.3.2 Global Email Settings

You can configure iPrint server to accept the print jobs through email messages and attachments. Using email printing, you can print documents from any device capable of sending emails. You can print emails by specifying email printing commands in the subject line of the email. You can also print documents by emailing them to your printer as attachments. When configured for email printing, iPrint server becomes a client to an email server. Email account inbox is polled for incoming print jobs, which are routed to the intended printer.

Ensure email accounts are created and functional prior to their association with the iPrint server.

Enable email-based printing: Select this option to enable email printing. A global email address is assigned for all the printers.

The following fields are used by iPrint server to describe and access the global email account:

Email address: Specify the full email address for global print jobs. For example, print@example.com. The email address must be unique for every server.

iPrint server polls the inbox of this email address looking for print jobs. When an email-based job arrives, the subject line is parsed to determine the printer to which the job is sent.

IMPORTANT: Do not use an existing email account. If an existing email account is used, the mails in that account might get deleted, auto-replied, and so on.

Account Username: Specify the user name for iPrint server to log in to the email server to access the global email account. For example, john.

Account Password: Specify the password for iPrint server to log in to the email server to access the global email account.

NOTE:

- When you are modifying the global email settings, ensure to provide the account password. An error occurs if password is not provided.
- If you are providing Gmail ID, you must provide App Password (application specific password).

  For more information, see KM000014531 (https://portal.microfocus.com/s/article/KM000014531).

Incoming Mail Server: Specify the address of the incoming mail server for the email account. For example, imap.example.com.

Incoming Mail Server Port: Specify the port number of the incoming mail server for the email account.

Incoming Server Type: iPrint server supports POP and IMAP protocols to poll for incoming print jobs. Select POP or IMAP depending on the protocol that your email server supports.

Outgoing (SMTP) Mail Server: Specify the address of the outgoing mail server for the email account. For example, smtp.example.com. iPrint server uses the SMTP protocol to send email back to users who submit email-based print jobs to report their job status. In order to support iPrint server, the email server you select must support the SMTP protocol.

Outgoing (SMTP) Mail Server Port: Specify the port of the outgoing mail server for the email account.

Message body Printing: With email-based printing, attachments are always printed. This option allows the email message body to also be printed. It is enabled by default.

Polling Interval: Specify the interval (in seconds) at which emails are fetched from the mail servers.

IMPORTANT: When using email printing, the print command in the subject line might trigger spam filters. To avoid this issue, configure your email system to allow print-specific emails. Include the approved print users in the spam filter of your email system to prevent unwanted print requests.

You can also configure a printer for private email printing by providing an email address to each printer.

7.4 Renderers

This page allows you to download the remote renderer and also manage all the renderers. For managing the renderers, see “Managing the Remote Renderer” on page 113.

7.5 Printer Status

This page displays a global view of your print system. The tool displays the current status of Printer Agents, and lets you configure settings and generate reports about your print system.

For more information about the **iPrint Printer Status** tool, see the iPrint Manager Health Monitor Administration Guide (https://www.microfocus.com/documentation/open-enterprise-server/2023/iprint_health_lx/front.html).

7.6 Identity Card Release

A user can now print the WalkUp jobs by using their identity card. A card reader is placed adjacent to the printer and the user swipes his/her identity card to print the jobs.

1. The administrator configures the Ethernet 241 switch and card reader.
2. The card reader is attached to the printer.
3. The user prints to a WalkUp queue and job is put on hold.
4. The user swipes his/her identity card on the card reader.
5. The OES iPrint Advanced server validates the user credentials.
6. All the jobs in the WalkUp queue submitted by the user for that printer are printed.

OES iPrint Advanced works with RF IDeas Ethernet 241 devices. For more information on supported card types, see the RF IDeas product page.

7.6.1 How to Configure Identity Cards for OES iPrint Advanced

You must configure the OES iPrint Advanced server to allow the release of WalkUp jobs by using the identity cards:

1. Configure the Card (Ethernet 241) devices as per the instructions of the vendor.
2. Launch the **Ethernet 241 Web portal** (http://<ethernet241 device's IP)
   - **2a** In **Server's** tab, specify the **Data Server IP** as the OES iPrint Advanced IP details.
   - **2b** The **Data Server URl** as the OES iPrint Advanced URL (http://hostname or IP of OES iPrint Advanced).
   - **2c** In the **Data Server Str**, specify the exact value given below:

     ```
     /iprint/users/
     release?csn=$1&mac=$2&luid=$3&seq=$4&ip=$5&devmac=$6&devip=$7&rdr=$
     8&fwver=$9
     ```
   - **2d** Click on **Update** to configure the device with the details of OES iPrint Advanced.

3 Launch **iPrint Console** and in the Identity Card Release page, specify the following details:

3a **Enter the attribute names that are mapped with the user's identity cards:** Specify the attribute that maps the user to their identity card. When releasing the WalkUp job, OES `iPrint Advanced` maps this attribute to the attribute specified in eDirectory and on receiving the user details, authenticates the user. On successful authentication, the jobs are released.

3b **(Optional) Search Context for Users:** Specify the context to search the user object.The OES Common Proxy user will be given `Compare` rights on this context to read the card attributes for all the users.

If no context is specified, the users are searched in the complete tree. This will take longer time to return the user objects.

Search Subtree: Select whether you want to search for users in containers below the specified DN (that is, in subtrees).

3c **Release WalkUp jobs only with identity cards:** Select this option to release the WalkUp jobs only by using the identity cards. On enabling this option, WalkUp jobs cannot be released using the Mobile App or Release Portal.

7.7 Identity Sources

Configure Azure Active Directory (Azure AD) users to print jobs by using iPrint application.

Configuring Microsoft Identity Source

Ensure all the prerequisites are met before configuring Microsoft Identity in the iPrint Console.

Option, Field, or Button	Information and/or Action
Directory (tenant) ID	Specify the unique identifier generated for iPrint in the Azure AD portal.
Application (client) ID	Specify the identifier that is set up as an application in the directory instance.
Client Secret	Specify the secret key value that will be used when communicating with Azure AD server.
API Scope	Specify the scope, so you can provide permissions-based access to iPrint resources to authorized users and client apps that access your API.
New Group	Create a group called IPRINT_ACCESS_GROUP and add AzureAD Users/Groups to that group.
Save	Click this to save your changes.
Delete	Click this to delete to configured Azure server.

7.8 Advanced Authentication

OES iPrint Advanced supports Advanced Authentication for the users releasing the WalkUp jobs. Only Card or combination of a Card and a Smartphone is used for multi-factor authentication. The Smartphone method is used for authentication through your Smartphone that uses an app to perform the out-of-band authentication. The authentication method must be in order of Card and Smartphone. We do not support only Smartphone or changing the order to Smarphone and Card.

For more information about using the Advanced Authentication Framework, see the Advanced Authentication - Administration documentation website.

The following steps describe the authentication flow for Card and a Smartphone authentication:

1. To release a print job, when a user swipes the identity card, the authentication request is initiated and OES iPrint Advanced contacts the Advanced Authentication server.
2. The Advanced Authentication server validates the user's card data.
3. After validating the data, the Advanced Authentication server sends a push message to the user's Smartphone to inform that an authentication request has been initiated.
4. When the user opens the Smartphone app, the app reaches the Advanced Authentication server to validate if there is an authentication needed. The authentication is indicated by the **Accept** and **Reject** options. The user's selection is then sent to the server.
5. The server validates the authentication and OES iPrint Advanced releases all the print jobs of the user for that printer.

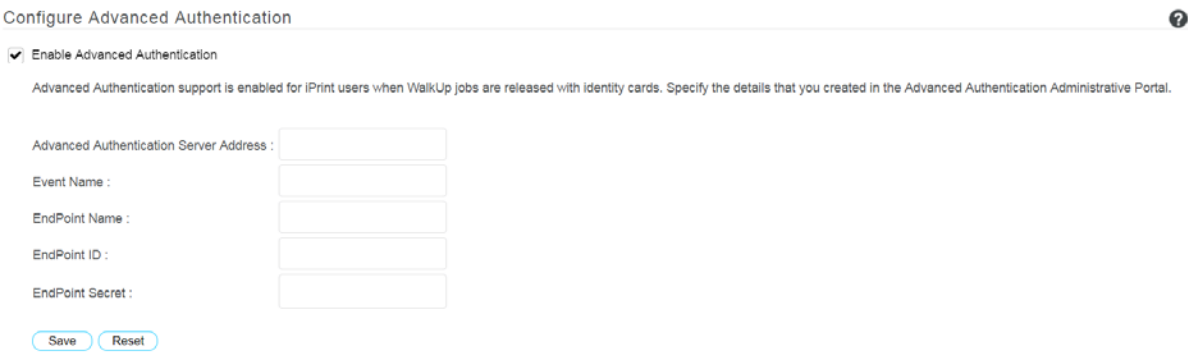
7.8.1 Prerequisites

- Ensure that the OES iPrint Advanced users are available in the Advanced Authentication server. If the users are not available on both the servers, authentication will fail.
- Configure the Advanced Authentication server with the following:
  - Authentication Chain with the authentication method as Card and Smartphone or only Card
  - Authentication Event with the event type as Generic
  - Endpoint with type as Other

  NOTE: Ensure that a Owner is not set for the Endpoint that is configured for the OES iPrint Advanced.
- Endpoint ID and Endpoint Secret should be available before configuring Advanced Authentication in the **iPrint Console**.

7.8.2 Configuring Advanced Authentication

Ensure all the prerequisites are met before configuring Advanced Authentication in the **iPrint Console**.



Enable Advanced Authentication: Select this to enable advanced authentication for iPrint users when releasing the WalkUp jobs by using their identity cards.

Option, Field, or Button	Information and/or Action
Advanced Authentication Server Address	The hostname or IP address of the Advanced Authentication server that you want to use for authentication.
Event Name	Specify the name that you created in the Advanced Authentication Administrative Portal. If inaccurate name is provided, the users will be unable to release their WalkUp jobs.
Endpoint Name	Specify the name that you created in the Advanced Authentication Administrative Portal.
Endpoint ID	Specify the value that is automatically generated when you use the Advanced Authentication Administrative Portal to create a Endpoint. You can copy the ID from the portal and paste it here.
Endpoint Secret	Specify the value that is automatically generated when you use the Advanced Authentication Administrative Portal to create a Endpoint. You can copy the secret key from the portal and paste it here.
Save	Click this to save your changes.
Reset	Click this to clear the changes you have made.

7.9 License

OES iPrint Advanced ships with a 90-day trial license. To continue usage of OES iPrint Advanced, to a Desktop license. You can obtain a new license key from OpenText SLD (https://sldlogin.microfocus.com).

The type of licenses available are:

- **Trial License:** This is a 90-day license to evaluate the advanced features of desktop and the features on the mobile devices.
- **Enterprise License:** This license provides printing from Desktop, Mobile devices, and any email-enabled devices.
- **Desktop License:** This license provides printing from Desktop, any email-enabled devices, and release jobs from Mobile applications.

NOTE: With the Desktop license, you can evaluate the Mobile-specific features for 90 days. After 90 days, the mobile-specific features will stop working.

- **Mobile License:** This license provides printing and release jobs from Mobile devices.

For features available per license, see Section 1.3, “Feature List,” on page 15.

7.9.1 Updating the OES iPrint Advanced License

Go to **iPrint Console > Administration > License** to view the available license information and perform any of the following actions:

- **Replace existing license file:** Browse and upload a new license (`.xml`) file to overwrite the existing license file.
- **Upload additional license file:** Browse and upload additional license (`.xml`) file to apply multiple licenses. This functionality helps applying multiple licenses.

IMPORTANT: If you are running multiple copies of `OES iPrint Advanced`, you must update the license for each copy of `OES iPrint Advanced` individually.

- **Delete**: Click this option to delete a license.

After updating the license file, restarting of the services is not required.

8 Managing Your Print System

- Section 8.1, “Using Web-Based Enterprise Management,” on page 73
- Section 8.2, “Understanding and Managing Certificates,” on page 73
- Section 8.3, “Managing the Print Manager,” on page 74
- Section 8.4, “Managing Printers,” on page 88
- Section 8.5, “Managing the Driver Store,” on page 99
- Section 8.6, “Configuring LDAP,” on page 102
- Section 8.7, “Auto Clearing a Printer Queue,” on page 102

To manage your print system, use OES iManager. The iPrint plug-in for iManager works with workstations running Mozilla-based browsers or Internet Explorer 5.5 with Service Pack 2 or later. For a review of supported browsers, see Appendix B, “Supported Browsers for iPrint,” on page 143.

- To manage iPrint running on Linux, you must access iManager installed on a Linux server. To manage iPrint on NetWare, you must access iManager installed on a NetWare server.
- You cannot administer iPrint from iManager installed on a Windows, Solaris, or HP-UX server platform.
- You cannot administer iPrint from a Macintosh computer.

For more information iManager, see the iManager documentation (https://www.netiq.com/documentation/imanager-32/).

8.1 Using Web-Based Enterprise Management

You can use the iPrint Web-Based Enterprise Management (WBEM) `iprntman` command in scripts or at a console prompt to create, modify, and manage Print Managers, Printers, Driver Stores, and print jobs. For more information on using `iprntman`, see the `iprint manpage`.

8.2 Understanding and Managing Certificates

When you manage Print Managers, driver stores, and printers that are running on a different server than the server running iManager, you might receive a certificate error, meaning that the host name or IP address of the server where you are managing the print object does not match any of the certificates on the server where iManager is running.

To find and accept the correct certificate:

1. Click the **iPrint Certificate Manager** link in the error.
2. Review the certificate information for accuracy.
3. Select the action you want to perform for this certificate.

   In order to manage the print object, you must accept the certificate.

4 Click **OK**.

You might need to scroll down in order to click **OK** to accept the certificate.

5 Restart your task.

Certificates are accepted on a per-user basis.

You can remove accepted certificates by deleting the certstore folder located at: `/var/opt/novell/iManager/nps/portal/modules/iPrintX/certstore`. Deleting this folder removes all accepted certificates.

8.3 Managing the Print Manager

Although the default settings let users print without additional configuration, you probably want to modify some of those settings so that you can manage your printing resources most effectively.

NOTE: Printer driver profiles are stored in the Print Manager database file (psmdb.dat). While the `.dat` file can be viewed only using iManager and the /psmstatus page, a text copy of the database file can be viewed using many tools (including text editor, web browser, and others). This text copy is periodically backed up in the same directory as the `.dat` file, but in XML format. The directory location is: `/var/opt/novell/iprint/<print manager name.ou.ou.o>.psm/`.

- Section 8.3.1, “Understanding the Print Manager Database,” on page 74
- Section 8.3.2, “Understanding the Print Manager Configuration File,” on page 75
- Section 8.3.3, “Changing the eDirectory Server Assignment,” on page 75
- Section 8.3.4, “Using the Print Manager Health Monitor,” on page 75
- Section 8.3.5, “Setting Up a Printer Pool,” on page 78
- Section 8.3.6, “Using Print Auditing,” on page 79
- Section 8.3.7, “Creating Additional Print Managers,” on page 83
- Section 8.3.8, “Loading or Unloading the Print Manager,” on page 84
- Section 8.3.9, “Moving Print Managers to Another Linux Server,” on page 85
- Section 8.3.10, “Auto Driver/Profile Update,” on page 85
- Section 8.3.11, “Enabling Printer Agent Redirection,” on page 86

8.3.1 Understanding the Print Manager Database

The Print Manager uses a database to store information about the printers it controls. The database creates a backup when you create or delete a printer and also every night at midnight.

NOTE: Although database creation is a quick process, sometimes the backup is delayed because of other tasks the Print Manager is doing. You might need to wait a short while after you create or delete a printer before a backup is generated and uploaded to eDirectory.

The last four backups are saved. When a new backup file is created, the oldest of the four stored files is deleted. If the oldest backup file is older than four days, then the Print Manager creates a new backup.

If the database fails to load through normal mechanisms, you can use the following procedure to access the backup database:

1. Rename `/var/opt/novell/iprint/<PSM_Name>/psmdb.*` to `psmdbold.*`.
2. Rename `/var/opt/novell/iprint/<PSM_Name>/psmdbsav.*` to `psmdb.*`.
3. Start the Print Manager.

8.3.2 Understanding the Print Manager Configuration File

When you create a Print Manager, a configuration file is created in `/etc/opt/novell/iprint/conf`. The file name is *`print_manager_name`*`.context.ipsmd.conf`. A separate file is created for each Print Manager that is created and assigned to run on the same server. Only one Print Manager can run on the server at a time. For information about the entries in the configuration file, see `/etc/opt/novell/iprint/conf/ipsmd-template.conf`.

The `ipsmd.conf` file links to the configuration file of the currently loaded Print Manager.

To load a different Print Manager on the server, use the **iPrint> Manage Print Manager** > **Manager Control** page in iManager. If you attempt to load a Print Manager when one is already running, you receive an error message instructing you to unload the current Print Manager before loading the new one.

8.3.3 Changing the eDirectory Server Assignment

If you need to change the eDirectory server assignment for the Print Manager or Driver Store, edit the Directory Services Server1= entry in the corresponding configuration file, *`print_manager_name`*`.context.ipsmd.conf` or `idsd.conf`, located in `/etc/opt/novell/iprint/conf`.

NOTE: As many as two additional servers can be specified, using Directory Services Server2 and Directory Services Server3. Directory Services Server1 is considered to be the primary eDirectory server. Directory Services Server2 and Directory Services Server3 are considered to be secondary servers.

8.3.4 Using the Print Manager Health Monitor

The Print Manager Health Monitor provides you with a global view of your print system. The Health Monitor shows you the current status of the Print Manager and the associated printers and lets you configure error threshold, customize some print system settings, and generate reports about your system.

- "Understanding the Print Manager Health Monitor" on page 76
- "Accessing the Print Manager Health Monitor" on page 76
- "Generating Reports" on page 76
- "Configuring Health Monitor Settings" on page 77
- "Posting Administrator Messages about a Printer" on page 78

Understanding the Print Manager Health Monitor

The Print Manager Health Monitor is a powerful tool for managing and troubleshooting your print system.

The opening page of the Health Monitor shows all of your printers; their current state; and general statistics including the number of print jobs printed in the last hour, in the last day, and since the Print Manager was last started.

A quick look at these statistics helps you identify which printers are not printing because of errors or which printers are not being used. You can click a printer name to see additional details about the printer that can help you troubleshoot a reported printer error and why users are not using the printer.

For example, if the printer status shows `Error printing`, click the printer for a list of known problems. If one of the known problems is `Printer not connected`, use the IP address listed in the **Load String** field to ping the printer to determine if the IP address is valid.

By looking at the statistical information, you can correct printer problems or make decisions about redeploying underused printers to departments that print a lot. For more information, see "An Overview of the iPrint Manager Health Monitor" in iPrint Manager Health Monitor Administration Guide (https://www.microfocus.com/documentation/open-enterprise-server/2023/iprint_health_lx/front.html).

Accessing the Print Manager Health Monitor

Access the Health Monitor by going to http://*server_address*/psmstatus, where *server_address* is the IP address or DNS name of the server where the Print Manager is running.

For example: http://printing.my_company.com/psmstatus.

You can view current Printer Agent states, start up and shut down Printer Agents, and other information about your print system.

Generating Reports

The report feature of the Health Monitor allows you to generate a report that can be displayed on the page or saved as a comma-separated-value (`.csv`) file that can be used in a spreadsheet program.

1. On the Print Manager Health Monitor main page, click **Advanced Print Manager Information** > **Generate Report**.
2. (Optional) To save the report as a file, click **Write Results to File** under the **File Options** heading.

   The heading specifies the location and filename of the report.
3. Select the information you want included in the report by selecting the corresponding check boxes.
4. Click **Generate Report**.

   The report is displayed on the screen, even if you selected to save the report to a file.

The following common reports are available for you to generate:

Printer Configurations: To determine what features are enabled for each Printer Agent, generate the following reports:

- SSL Required for iPrint Access
- Auditing Enabled

Printer's Current State: To view the states of the printers and any printer console messages, generate the following reports:

- Printer Agent Status
- Printer Agent State Reasons
- Printer Console

Printing Statistics: To view statistics about your print system, generate the following reports:

- Jobs Printed Ever
- Jobs Printed Since Load
- Jobs Printed Today
- Average Job Size Since Load
- Average Job Size Today

Gateway Information: To view information about a gateway associated with the Printer Agents, including the gateway's IP address, generate the following report:

- Gateway Load String

Printer Driver Associations: To view the printer drivers associated with each printer, generate the driver reports for the platforms listed.

Printer and Printer Agent Associations: Because a Printer Agent can service more than one printer, use the **Associated NDS Printers** option to view the number of printers serviced by each Printer Agent.

Configuring Health Monitor Settings

You can configure settings in the Health Monitor to control how the Health Monitor presents information when certain thresholds are met.

1. On the Print Manager Health Monitor main page, click **Advanced iPrint Manager Information** > **Configure Settings and Error Thresholds**.
2. Adjust the settings you want to change.

   See the online help for information about the available settings. For most print systems, the default settings are sufficient.

Posting Administrator Messages about a Printer

Suppose a printer has been taken offline and sent for repairs, but you keep getting phone calls from other administrators that the printer has an error in the Health Monitor. This can be resolved by leaving a message about the printer in Health Monitor. Users can see the message, but only administrators can edit it.

1. On the Print Manager Health Monitor main page, click the printer you want, then click **Message from Admin**.
2. Type the text you want displayed for this printer.
3. Click **Apply**.

To remove a message, follow the steps above and delete the text in the message box (Step 2).

8.3.5 Setting Up a Printer Pool

You can create a pool of printers to share the load of printing. Users install one of the printers in the pool. When a printer in the pool has a print job waiting, the Print Manager can redirect that print job to an idle printer in the pool. The Print Manager attempts to evenly distribute print jobs among all printers in a pool.

For example, if four printers are in the pool and the first printer is printing a 100-page job, then the next print job is sent to the second printer. If the second printer completes the print job and the first printer is still busy, the next print job is sent to the third printer to distribute print jobs throughout the pool. Printer pools are specific to the Print Manager, and a printer pool cannot span multiple Print Managers.

Printers that are included in a pool should be the same model and use the same printer drivers. You can include only printers from the same Print Manager in a pool.

When you create a printer pool, the pool information resides in the Print Manager and can be viewed only using iManager. Unlike the printers and the Print Manager, a separate eDirectory object for a printer pool is not created.

After you set up a printer pool, users install only one of the printers in the pool on their workstation. When a user submits a print job to the installed printer, the Print Manager uses the method described in the example above to send the print job to the next available printer in the pool. Users should be reminded that their print jobs might be printed by any printer in the pool. For this reason, the physical printers that are members of a printer pool should be located close to one another. You might also want to enable banner pages, depending on the type of documents being printed.

To configure a printer pool, do the following:

1. In iManager, click **iPrint** > **Printer Pool Configuration**.
2. Select the Print Manager for this pool.
3. Select **Create Pool** from the **Select Operation** list, then click **OK**.
4. Specify the name of the printer pool.

   This name is used to identify the pool only within iManager.
5. Select the printers you want included in the pool.
6. Click **Next**, then click **OK**.

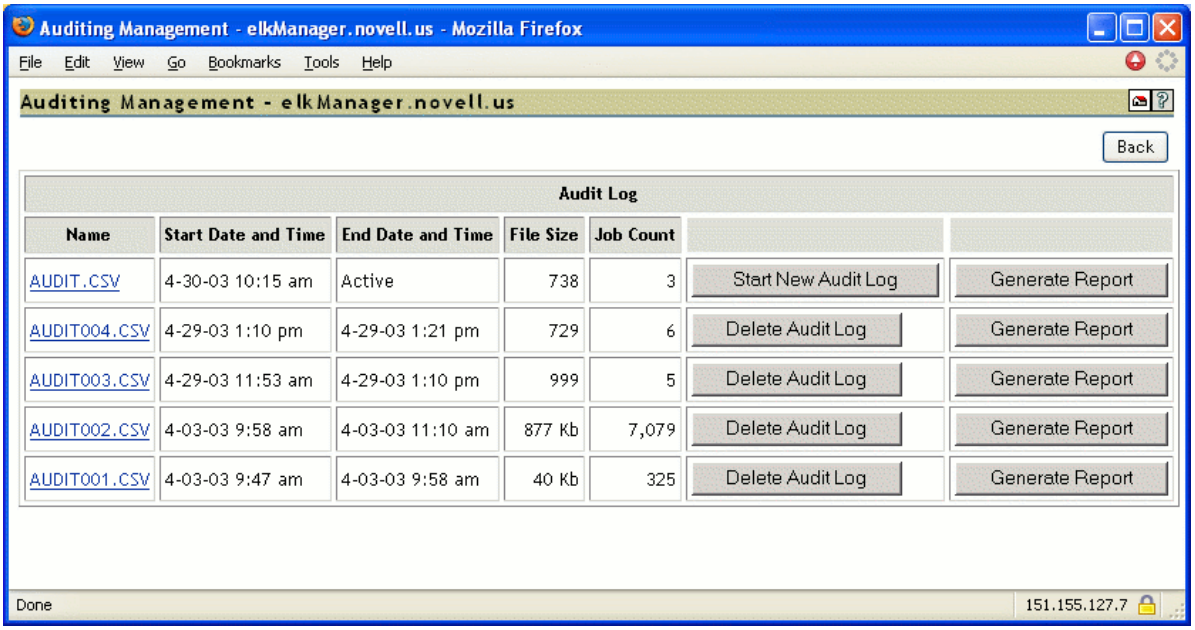
To modify or delete a pool, follow the above steps and select the desired action from the Select an Operation list in Step 3.

8.3.6 Using Print Auditing

To use print auditing, you first need to enable auditing for *each* printer you want to audit using iManager or the Print Manager Health Monitor.

When auditing is enabled for a Printer Agent, a log file is created indicating who printed how many pages to which printer on a given date. The log file is in a comma-separated format (.csv). The data from this log file can be viewed from the Health Monitor or downloaded into a spreadsheet.

Figure 8-1 *Auditing Management Page*



From the Auditing Management page, you can complete the following tasks:

- "Using iManager to Enable Auditing" on page 79
- "Using the Health Monitor to Enable Auditing" on page 80
- "Viewing Auditing Information" on page 80
- "Managing Audit Logs" on page 82
- "Configuring Automatic Log Rotation" on page 82
- "Downloading an Audit Report" on page 83

Using iManager to Enable Auditing

1. In iManager, click **iPrint** > **Manage Printer**.
2. Browse to and select the printer you want to enable auditing for.
3. Click **Configuration** > **Auditing**.
4. Select the **Enable Auditing** check box.

Using the Health Monitor to Enable Auditing

1 To access the Print Manager Health Monitor, open http://*server_IP_address*/psmstatus in a web browser.

For example: http://printing.my_company.com/psmstatus.

2 Select a printer, then click **Configuration Options**.

You can also access Configuration Options by going to https://*server_IP_address*/PsmStatus/configOpt/*Printer_Name*.

3 Select the **Enable Auditing** check box.

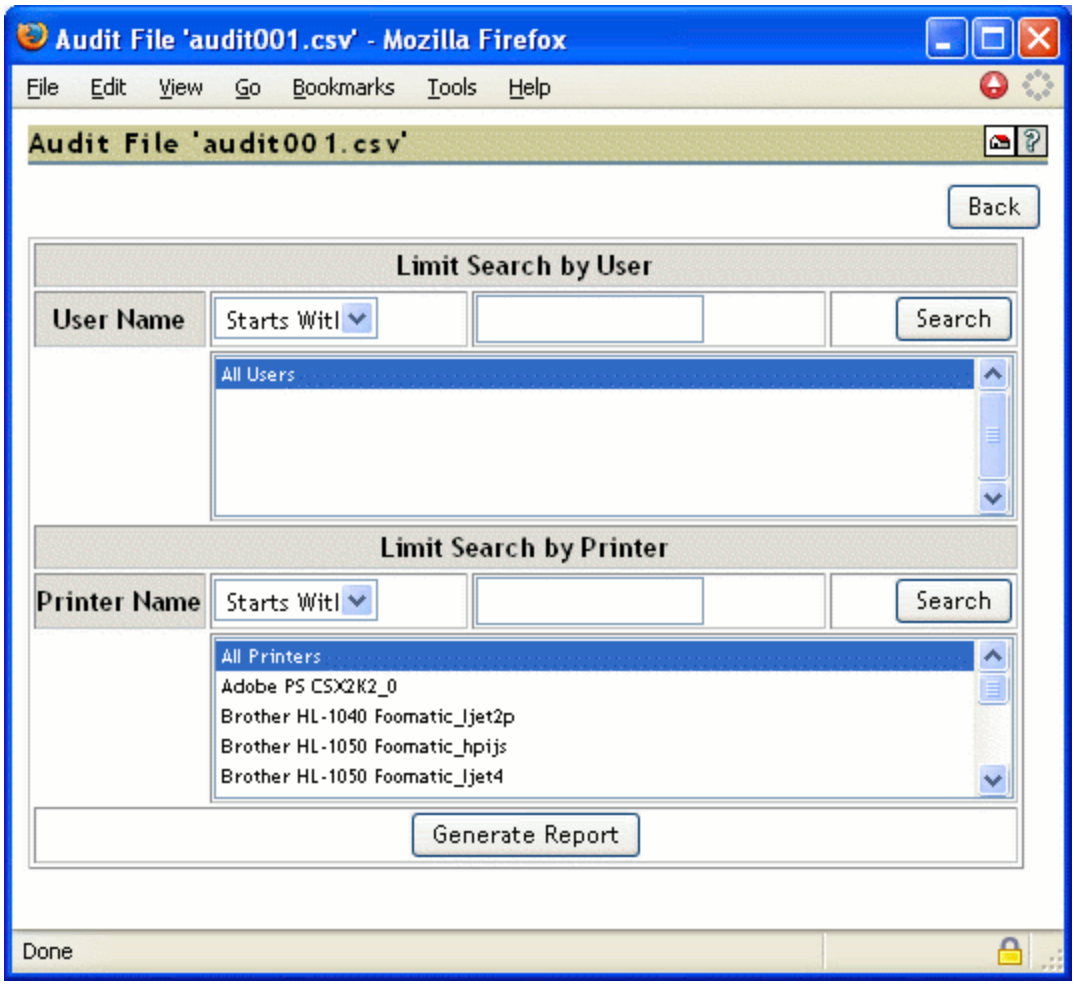
Viewing Auditing Information

You can generate an audit report that shows all print jobs, or you can filter the report based on a user or a printer or both.

1 In the Print Manager Health Monitor, click **Advanced iPrint Manager Information** > **Auditing** > **Generate Report**.

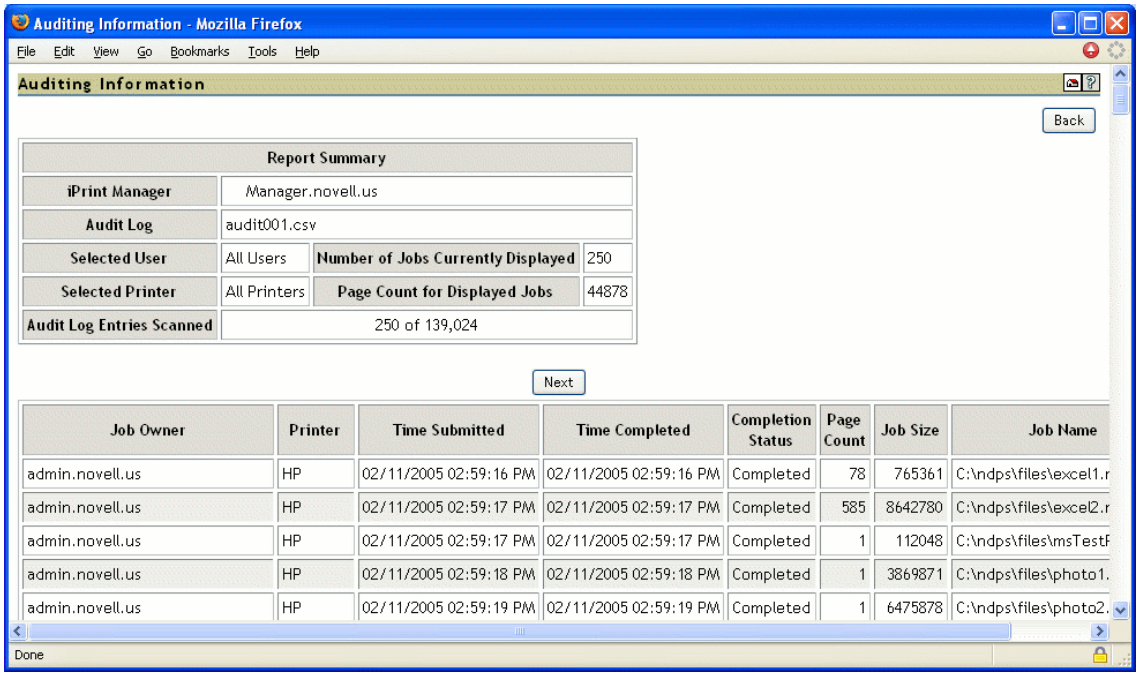
If there is more than one audit log, click **Generate Report** for the audit log you want to view.

2 (Optional) Filter the search by using the **Limit Search by User** or **Limit Search by Printer** filters.



3 Click **Generate Report** to view the report with the specified filters.

There are only 250 print jobs listed at a time. To view more print jobs in the report, click **Next**.



The following table explains the fields that are displayed under the Report Summary.

Field	Description
iPrint Manger	The Print Manager that the information is from.
Audit Log	The audit log filename that was used to create the report.
Selected User	Any user filter criteria that were used to create the report.
Selected Printer	Any printer filter criteria that were used to create the report.
Number of Jobs Currently Displayed	The number of jobs submitted by the indicated users and printers.

The following table discusses what is displayed in the body of the report.

Field	Description
Job Owner	The owner of the print job.
Printer	The printer the print job was sent to.
Time Submitted	The time the print job was submitted to the printer.
Time Completed	The time the print job was printed on the printer.
Completion Status	The completion status of the submitted print job: Completed, Cancelled by User, Cancelled by Operator, or Other (Other usually indicates the job was aborted by the system).
Page Count	The number of pages printed.
Job Size	The size of the print job (in bytes).
Job Name	The print job filename that was submitted and the type of print client that submitted the print job.

Managing Audit Logs

You can manage your audit logs by using the buttons on the Auditing Management page. When audit logs are no longer needed, you can manually delete them. To automatically save and create new logs, see "Configuring Automatic Log Rotation" on page 82.

The active audit log file (audit.csv) logs data for all printers that have been enabled for auditing. You can generate a report from this file or you can move the data to a saved file by using the **Start New Audit Log** option. You cannot download the `audit.csv` file. To download a file, it must be saved as a separate audit log. When you move the data to a saved audit log by using the **Start New Audit Log** button, the log file is named `audit`*xxx*`.csv`, where *xxx* is the next sequential number of the log. After a log file is saved, you can download the file to your workstation and import it into a spreadsheet program.

Configuring Automatic Log Rotation

Audit Log Rotation automatically creates a new log when certain criteria are met.

1. In the Print Manager Health Monitor, click **Advanced iPrint Manager Information** > **Auditing** > **Configure Log Rotation**.
2. Select **Enable Audit Log Rotation**.
3. Specify the number of logs to keep.

   When the number of logs to keep is reached, the oldest log is deleted when the next log is created. When setting this number, take in to account the criteria you are using to create new log files. If you want a year's worth of logs, set the number of audit logs to keep to 12 and then select the **By Date** and **By Month** options.
4. Specify the criteria used for log rotation:

   By Job Count: Specify the maximum number of print jobs that an audit log can contain before a new log is created.

By Date: Select when you want the audit logs to rotate.

- **Day:** The log rotates each day at midnight.
- **Week:** The log rotates each Sunday. If the Print Manager is not loaded on Sunday, the log is rotated the next time the Print Manager starts.
- **Month:** The log rotates at midnight on the first day of the month.

NOTE: If you select Day or Week, ensure that the **Maximum Number of Audit Logs to Keep** entry is large enough so that logs are not rotated before you need the data.

By File Size: Specify the maximum file size (in KB) before a new log is created. The maximum file size is 4194304 KB.

Downloading an Audit Report

When the file is downloaded, you can open the report in a spreadsheet application to sort, view, and format the data to meet your needs. The active audit log, `audit.csv`, cannot be downloaded. You must first start a new audit log by clicking the **Start New Audit Log** option, then download the newly created audit log.

1. On the Print Manager Health Monitor main page, click **Advanced iPrint Manager Information** > **Auditing**.
2. Right-click the name of the audit log you want to download, then click **Save Target As**.
3. Follow the prompts and save the file to the desired location.

8.3.7 Creating Additional Print Managers

A Print Manager must be created and running before you can create and associate printers. A Print Manager provides a platform for Printer Agents, which are logical representations of printers that reside on the server. You can manually load Print Managers on a server.

Use the following guidelines to determine where and when to place a Print Manager:

- Only one Print Manager can be running on a server.
- For optimal performance, place the Print Manager and the printers it controls on the same LAN segment.
- Consider distributing your printers across multiple Print Managers so that if one manager goes down, not all of the Printer Agents are affected.

You need the Supervisor right for the container where the Print Manager object is to reside.

1. In iManager, click **iPrint** > **Create Print Manager**.
2. Specify the Print Manager name for the iPrint Manager object.
3. Specify the container name where you want the Manager's object to reside.
4. Specify an eDirectory server you want the iPrint Manager to communicate with.

   For fault tolerance, you can specify more than one eDirectory server from the same tree. For more information, see Section 8.3.3, “Changing the eDirectory Server Assignment,” on page 75.
5. Specify the Driver Store name.
6. Select the **Start print manager after creation** check box.

If you do not select the **Start print manager after creation** check box, you should start the Print Manager. You can start the Print Manager by using **Manage Print Manager** > **Manager Control** in iManager or by entering `systemctl start novell-ipsmd.service` at a command prompt.

IMPORTANT: In a cluster setup, do not select the **Start print manager after creation** check box.

7 Click **OK**.

After the Print Manager is created, the daemon is loaded on the server.

To modify the Print Manager properties, click **Manage Print Manager**, then select the manager you want to modify.

8.3.8 Loading or Unloading the Print Manager

You can start and stop the Print Manager in two ways:

- "Using the Command Line" on page 84
- "Using iManager" on page 84

Using the Command Line

The Print Manager uses systemctl scripts for starting and stopping the daemon. To load the Print Manager from the command line, enter `systemctl start novell-ipsmd.service`.

The following systemctl script actions are also valid:

Table 8-1 *Print Manager Actions*

Action	Description
start	Starts the daemon.
stop	Stops the daemon.
reload or force-reload	Stops and then starts the daemon.
restart	Restarts the daemon.
try-restart	Tries restarting the daemon.
status	Displays the status of the daemon and the name of the Print Manager.

Using iManager

On the Manager Control Property page, you can view the Print Manager's status and unload or load the manager daemon.

1 In iManager, click **iPrint** > **Manage Print Manager**.

2 Browse to and select the Print Manager you want to control.

3 Click **Manager Control** > **Shutdown** to stop Print Manager.

4 Click **OK**.

8.3.9 Moving Print Managers to Another Linux Server

Sometimes it is necessary to move the Print Manager from one server to another. If you assigned a DNS name to the Print Manager, you should update the DNS entry with the new IP address that the Manager is running on when the move is completed; otherwise, you cannot manage the Print Manager and users are cannot print.

IMPORTANT: The URLs generated by iPrint are based on the server's IP address or a DNS name. If you move a Print Manager to a server that has a different IP address or a different DNS name than is currently being used, a new URL is generated for each printer. Users must delete and reinstall their iPrint printers. If you are using NDPS Printers, printing is not affected.

---

1 In iManager, click **iPrint** > **Manage Print Manager**.

2 Browse to and select the Print Manager you want to move, then click **OK**.

3 Click **Shutdown**.

IMPORTANT: All printing associated with this Print Manager ceases and waiting print jobs are lost.

---

4 On the Manager Control page, click **Move**.

5 Fill in the fields:

Target Server: Specify the DNS name or IP address for the server that is to host the Print Manager. For example, 192.0.34.166 or print.my_company.com.

iPrint Service Name: Displays the IP address or DNS name for the iPrint service.

eDir Server: Specify an eDirectory server that you want the Print Manager to communicate with.

If you are using a DNS name, you must update your DNS host tables to reflect the move.

6 Click **OK** to move the Print Manager.

The Print Manager is moved and loaded on the destination server.

8.3.10 Auto Driver/Profile Update

An auto driver/profile update allows you to automatically update the client with the latest drivers and the modified profiles available on the server, without users needing to manually update the driver or profile. If you make any changes to the driver in the Driver Store or modify the profile, the client is prompted for the changes and the client is updated.

NOTE: The client might take few seconds to 24 hours to reflect the changes.

To enable the auto driver/profile update:

1 Upload the updated driver.

For more information on how to upload the driver, see Section 4.3, “Creating a Driver Store,” on page 26.

2 Create or modify the profile.

For more information on how to create the profile, see Section 8.4.4, “Using Printer Driver Profiles,” on page 89.

3 Enable the auto driver/profile update:

3a In iManager, click **iPrint** > **Manage Print Manager**.

3b Browse to and select the Print Manager for which you want to enable the auto driver/profile update.

3c Click *Printer Agents*.

3d Select the *Auto driver/profile update* for the Printer Agents for which you want to enable auto driver/profile update.

3e Click *OK*.

8.3.11 Enabling Printer Agent Redirection

Printer Agent Redirection is useful when you are decommissioning an iPrint printer and want to automatically redirect printing to a different iPrint printer without users manually deleting and reinstalling the printer. Redirection can continue even after you delete the printer agent for iPrint printers only.

Printer Agent Redirection is supported with the iPrint client for Windows v4.26 or later.

With Printer Agent Redirection enabled by entering a Printer Redirect URL, the client attempts to access the printer and is then redirected to the new printer. The client verifies that it can access the new printer before deleting the installed printer and installing the new printer.

Before implementing Printer Agent Redirection, you should be aware of the following:

- When you redirect a Printer Agent, the iPrint Printer List Web page is automatically updated to install the redirected printer. This means when a user clicks to install a printer listed from the list page, the link has been updated to install the redirected printer.

  For example, you redirect a Printer Agent that has the name of Printer_1_Color to a printer called Color_Printer. On the iPrint Printer List Web page, the user sees and clicks Printer_1_Color. After the printer is installed, the printer listed in the Windows Printer Folder is Color_Printer.
- Printers on maps are not automatically redirected. If you are using maps and you redirect the Printer Agent, you need to also update your map and republish it to show the newer Printer Agent. You should update the map before enabling Printer Agent Redirection because as soon as you enter a redirection URL, the link on the map is broken and any user clicking the link in the map receives an error.
- If you redirect a Printer Agent to another printer that is also being redirected, the iPrint client attempts to install the final destination printer; however, this might cause undesired results.

For example, if you have redirected Printer_1_Color to Color_Printer, and then redirect Printer_A to Printer_1_Color, the iPrint client attempts to install Color_Printer for Printer_A.

- You should enable Printer Agent Redirection before deleting a printer; otherwise, when the client accesses the Print Manager and cannot find the associated Printer Agent for an installed printer, the installed printer is deleted.

IMPORTANT: If you are using iPrint Client Management, you should not use Printer Agent Redirection. Using Printer Agent Redirection for printers being used by iPrint Client Management can cause undesired results.

Instead, you should update iPrint Client Management with the desired printers.

Managing Printer Agent Redirection

Before deleting Printer Agents from a Print Manager, you should enable Printer Agent Redirection for iPrint printers by entering another printer URL. By adding the URL before deleting the printer, workstations can update to the newest printer.

The Printer Agent Redirection lists includes NDPS and iPrint printers. If you enable redirection for NDPS printers, then install the iPrint client on the workstations and edit the `UpgradeNDPSPrinter=` entry in the `iprint.ini` file, NDPS printers can be upgraded. However, if you delete an NDPS Printer Agent, redirection is discontinued.

NOTE: By default, the iprint.ini file is located at: /var/opt/novell/iprint/htdocs/iprint.ini. In case of NSS volumes for Cluster environments, the file is located at: /media/nss/NSSVOL1/var/opt/novell/iprint/htdocs/iprint.ini.

---

1. In iManager, click **iPrint** > **Manage Print Manager**.
2. Browse to and select a Print Manager.
3. Click **Printer Agent Redirection**.
4. For each Printer Agent you want to redirect, use the browse button to select the Printer object in eDirectory to ensure that you use the correct URL.

   If the printer resides in a different tree, you can manually enter the URL in the following format: ipp://*server*/ipp/*pa_name* where *server* is the IP address or DNS name of the server and *pa_name* is the Printer Agent.
5. Click **Apply**.

   Each URL is validated to ensure that the format is valid and that the Printer Agent is available. An error is displayed when the URL cannot be validated.

Managing Deleted Printer Agent Redirection

Each time a Printer Agent is deleted, it is moved to the Deleted Printer Agent Redirection list. Periodically, you should review this page and delete printers that are no longer being accessed or printers where redirection was not enabled.

1. In iManager, click **iPrint** > **Manage Print Manager**.
2. Browse to and select a Print Manager.

3 Click **Printer Agent Redirection > Deleted Printer Agent Redirection**.

4 Select the Printer Agents to delete.

Use **Printer Last Accessed Time** and **Printer Deleted Time** to determine if users are still attempting to access a specific printer and if sufficient time has passed that you can delete Printer Agents from the list.

5 Click **Apply**.

Each URL is validated to ensure the format is valid and that the Printer Agent is available. An error is displayed when the URL cannot be validated.

8.4 Managing Printers

Although the default settings let users print without additional configuration, you might want to modify some of those settings so that you can manage your printing resources most effectively.

- Section 8.4.1, “Creating Additional Printers,” on page 88
- Section 8.4.2, “Deleting Printers,” on page 89
- Section 8.4.3, “Managing Printer Agents,” on page 89
- Section 8.4.4, “Using Printer Driver Profiles,” on page 89
- Section 8.4.5, “Enabling iPrint Direct,” on page 92
- Section 8.4.6, “Managing Print Jobs,” on page 93
- Section 8.4.7, “Using Printer Banner Pages,” on page 94
- Section 8.4.8, “Modifying the Printer’s Gateway Load Commands,” on page 96
- Section 8.4.9, “Configuring LPR Printers,” on page 98
- Section 8.4.10, “Configuring Job Holds,” on page 99

8.4.1 Creating Additional Printers

Before creating additional printers, ensure that you meet the following prerequisites:

- ❒ Have the Supervisor right for the destination container where its associated Printer object is to reside.
- ❒ Be designated as a manager of the Print Manager that controls this printer.
- ❒ Have a Driver Store running.
- ❒ Have a Print Manager running.

To create additional printers:

1 In iManager, click **iPrint** > **Create Printer**.

2 Fill in the fields.

Click **Help** for explanations about the fields.

3 Click **OK**.

4 Click **Next**, then select the drivers for this printer.

If the printer drivers for this printer are not listed, you can still create the printer. After the printer is created, you can add the printer drivers to the Driver Store and then associate the drivers to the printer by clicking **Manage Printer** > **Drivers**.

These drivers are automatically downloaded to users' workstations when they install the printer in the future.

Because the list of printer drivers included with this product is limited, you can add drivers to the Driver Store. See "Updating Printer Drivers" on page 101 for more information.

If you do not select a driver, users are prompted to provide a disk with the appropriate driver the first time they install this printer on their workstations.

5 Click **Next** to create the printer.

8.4.2 Deleting Printers

You use iManager to delete existing Printer Agents. Before deleting a Printer Agent, ensure that the agent is no longer being used by running an report on the printer or by using Printer Agent Redirection to redirect the printer for a period of time before deleting it.

WARNING: Deleting a printer permanently removes the printer from the Print Manager. You cannot use Printer Agent Redirection. The printer is automatically removed from workstations the next time the workstation communicates with the Print manager.

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1 In iManager, click **iPrint** > **Delete Print Object**.

2 Browse to and select the objects you want to delete.

3 Click **OK**.

8.4.3 Managing Printer Agents

You use iManager to manage Printer Agents. You can start up and shut down a Printer Agent, pause and resume input and output, view printer information, set configuration settings, and change the printer drivers.

1 In iManager, click **iPrint** > **Manage Printer**.

2 Browse to and select the printer you want to manage.

3 Use the tabbed property pages to complete the task you want.

8.4.4 Using Printer Driver Profiles

A printer driver profile allows you to set the driver defaults for a Windows printer driver. When you associate the printer driver profile to a printer, the printer is installed and configured with your defined settings. For example, in a law office you might want the default paper size to be legal size. This means that every time the printer and its corresponding driver is installed on a workstation, the paper size is set to legal size.

When creating a printer driver profile, you work directly with a platform-specific printer driver; so you should create and modify profiles from the same operating-specific platform as the printer driver. For example, to create or modify a Windows 2000 printer driver profile, you must access iManager and complete the task from a Windows 2000 workstation.

Use the Bi-Directional driver option to enable the selected printer driver to communicate with the printer. Bi-Directional communication allows the driver to communicate with the printer and discover its capabilities. This enables you to create more detailed profiles. Bi-Directional drivers communicate with the printer during profile creation. If your printer is not reachable from the client during profile creation, only basic profiles are created. When you create a profile for Bi-Directional drivers, you must provide a Printer Agent.

Use the Universal Printer Driver (UPD) model to simplify the task of managing the vast array of printer makes and models. This model allows the printer vendor to create a single printer driver that works with most of the printer and multifunction devices that the vendor manufactures. With this innovation, the Administrator/User no longer needs to install a unique driver for each and every printer model, but uses one driver to communicate with their devices.

Installing the UPD on the iPrint server (NetWare or Linux) is the same as installing individual drivers. Use iManager to upload the driver to the Broker or Driver Store and then assign this driver to the printers. You should use the latest iManager and also the latest support packs/updates for the iPrint server. Updates include printer driver profile updates, and enhancements for bidirectional communications, which are necessary for UPD function and printer driver profile creation. For more information, see "OES iPrint Universal Printer Driver Support" (http://www.novell.com/products/openenterpriseserver/pdfs/iprint_upd_environment.pdf).

You can create, copy, delete, and modify the printer driver profiles.

- "Creating a Printer Driver Profile" on page 90
- "Modifying a Printer Driver Profile" on page 91
- "Copying a Printer Driver Profile" on page 91
- "Deleting a Printer Driver Profile" on page 92
- "Associating a Printer Driver Profile with a Printer" on page 92

Creating a Printer Driver Profile

1. In iManager, click **iPrint** > *Manage Printer*.
2. Browse to and select the Print Manager where you want the driver profile to be stored and made available to the printers on that manager.
3. From the **Select operation** drop-down menu list, select Create Printer Driver Profile and click **OK**.
4. In the **Create driver profile** window, perform the following tasks:
   - **4a** Specify the Driver Profile name.

     You can create a new driver profile or you can use the existing driver profile.
   - **4b** To create a new driver profile, select *Create new driver profile* and then select the driver for new profile from the list.
   - **4c** To use the existing driver profile, select *Create using existing driver profile* and then select the driver profile from the list of existing driver profiles.

     The associated printer model of the selected driver profile is displayed.
   - **4d** To enable printer communication, select the *Requires printer communication* check box.
   - **4e** Specify the name of the existing Printer Agent in the *iPrint Printer name* field. The driver profile is created and associated with the printer model.

NOTE: Ensure that your printer is reachable from the client during profile creation, or only basic profiles are created.

4f Click *Next*.

The Loading Driver Configuration window appears and shows the progress.

4g When the driver profile is loaded, the Save Driver Profile page is displayed. Click *Next*.

The complete page opens.

4h Click *OK*.

The driver profile is created.

After creating a printer driver profile, you must associate it with a printer. For information on associating the driver profile, see "Associating a Printer Driver Profile with a Printer" on page 92.

Modifying a Printer Driver Profile

1. In iManager, click **iPrint > Printer Driver Profile**.
2. Browse to and select the Print Manager where you want the driver profile to be stored and made available to the printers on that manager.
3. From the Select operation list, select Modify Printer Driver Profile and click OK.
4. Select the Driver Profile that you want to modify and click Next.

   You can select only one driver profile at a time for modification.
5. (Optional) Specify the name of the existing Printer Agent in the *iPrint Printer name* field and click *Next*.

   Ensure that the printer model matches the profile printer model.

   This option is displayed only if the printer model is displayed.

   The printer model is displayed if you have selected **Requires printer communication** when creating the printer driver profile.

   The **Loading Driver Configuration** window is displayed to indicate the progress.
6. When the driver configuration is completed, the **Modify Driver Profile** page is displayed. Click *Next*.

   The complete page is displayed.
7. Click *OK*.

   The driver profile is modified.

Copying a Printer Driver Profile

1. In iManager, click **iPrint > Printer Driver** Profile.
2. Browse to and select the **Print Manager** where you want the driver profile to be stored and made available to the printers on that manager.
3. From the Select operation drop-down list, select Copy Printer Driver Profile, then use the Destination printer manager name list to select the Printer Manager where you want to copy your driver profile. Click OK.

4 Select the **Driver Profiles** that you want to copy and click **Next**.

5 The complete page is displayed.

6 Click *OK*.

The driver profile is copied.

Deleting a Printer Driver Profile

1 In iManager, click **iPrint > Printer Driver** Profile.

2 Browse to and select the **Print Manager** where the driver profile that you want to delete is stored.

3 From the Select operation drop-down list, select **Delete Printer Driver** Profile and click **OK**.

4 Select the driver profiles that you want to delete and click **Next**.

5 The complete page is displayed.

6 Click **OK**.

The driver profile is deleted.

Associating a Printer Driver Profile with a Printer

1 In iManager, click **iPrint** > *Manage Printer*.

2 Browse to and select the printer you want to modify.

3 Click **Drivers** > *Drivers Platform*.

4 Select the printer driver from the list of available drivers.

5 Select the profile that you want to associate with this printer from the list of **Available Driver Profiles for Selected Driver**.

If you do not want a profile to be associated, select **None**.

6 Click **OK** to save the changes.

8.4.5 Enabling iPrint Direct

A printer that is enabled for iPrint Direct sends print jobs directly to the printer instead of sending the job to the Print Manager first. A job is sent to the printer in LPR or raw 9100 format, depending on the setting in the gateway autoload command for the printer. Although this greatly reduces server communication, the ability to audit print jobs is lost. iPrint Direct supports direct banner printing (if the banner is already configured) and driver updates. The printer information is gathered directly from the printer by using SNMP.

NOTE: Direct Banner for iPrint Direct is supported only on Windows.

---

1 In iManager, click **iPrint** > **Manage Printer**.

2 Browse to and select the printer for which you want to enable iPrint Direct printing.

3 Click **Client Support** > **iPrint Direct**.

4 Select the **Enable iPrint Direct Printing** option.

5 Click **OK**.

NOTE: For detailed information on iPrint Direct, see *Technical Information Document (TID #7001343)* on the OES Support Site.

8.4.6 Managing Print Jobs

The following sections provide specific information about the print job management features. Users designated as managers or operators for a printer can perform these tasks for all jobs routed to that printer; individual job owners can perform these tasks only for their own print jobs.

- "Viewing Print Job Information" on page 93
- "Deleting Print Jobs" on page 93
- "Changing the Order of Print Jobs" on page 93

Viewing Print Job Information

You can view information about individual print jobs waiting to be processed by a specific printer.

1. In iManager, click **iPrint** > **Manage Printer**.
2. Browse to and select the printer the job was sent to.
3. Click **Printer Control** > **Jobs**.

   Information about print jobs is displayed.

Deleting Print Jobs

Administrators can delete any print job after it has been submitted if the job has not yet started printing. Users can delete only their own print jobs.

1. In iManager, click **iPrint** > **Manage Printer**.
2. Browse to and select the printer the job was sent to.
3. Click **Printer Control** > **Jobs**.
4. Select the check box next to the job you want to delete.
5. Click **Delete**.

Changing the Order of Print Jobs

Occasionally, you might need to print a job ahead of other jobs that have already been submitted to a printer but have not yet started printing. Administrators, managers, and operators can move any job up or down the list. Users can move only their own jobs, and can move them only down the list.

1. In iManager, click **iPrint** > **Manage Printer**.
2. Browse to and select the printer the job was sent to.
3. Click **Printer Control** > **Jobs**.
4. Select the check box next to the job you want to modify.
5. Click **Promote** to move a print job up the list.

8.4.7 Using Printer Banner Pages

Banner pages create a cover sheet for each print job that a printer produces. You use the Printer Banner Configuration task to customize the information printed on a banner to your needs. If you select to display eDirectory information such as the eDir e-mail address, the Print Manager needs rights to read these attributes. Follow the steps in "Using eDirectory Attributes with Custom Banners" on page 95.

- "Configuring a Custom Banner" on page 94
- "Associating a Custom Banner to a Printer" on page 94
- "Using eDirectory Attributes with Custom Banners" on page 95

Configuring a Custom Banner

1. In iManager, click **iPrint** > **Printer Banner Configuration**.
2. Browse to and select the Print Manager you want.
3. Select an operation and click **OK**.

   Create Custom Banner: Lets you create a new custom banner.

   Delete Custom Banner: Lets you delete an existing banner.

   Modify Custom Banner: Lets you edit the settings of an existing custom banner profile.
4. Complete the fields with the information you want. If you create multiple banners, you should use banner names that are descriptive enough to identify them when you associate the banner to a printer.
5. Select the **Banner Text Location**.

   This is where the banner option information appears on the banner page. The banner information is grouped together and then placed as a unit either starting at the top of the page, centered on the page, or starting at the bottom of the page.
6. Select the banner options you want and the font size you want to display the information.
7. Click **OK** to save the changes.

Associating a Custom Banner to a Printer

1. In iManager, click **iPrint** > **Printer Banner Configuration**.
2. Browse to and select the Print Manager where the Printer Agents are hosted.
3. Select **Assign Custom Banner**, then click **OK**.
4. From the **Custom Banner** drop-down list, select the banner you want.
5. Select the check box next to each printer you want this banner associated with.

   When you select the check box, the banner name appears in the **Assign Banner** field. To associate a different banner, select the desired banner from the **Custom Banner** drop-down list, and select the check box for the printer you want to change. If you do not want a banner to be used, select **None**.

You can also assign banners when you use the Manage Printer task.

1. In iManager, click **iPrint** > **Manage Printer**.
2. Browse to and select the printer you want to modify.
3. Click **Configuration** > **Custom Banners**.
4. In **Available Banners**, select the banner that you want this printer to use.
5. Click **OK** to save the changes.

   If you select to display eDirectory information such as the eDir e-mail address, the Print Manager needs rights to read these attributes. Follow the steps in "Using eDirectory Attributes with Custom Banners" on page 95.

Using eDirectory Attributes with Custom Banners

Custom banners lets you select the information you want displayed on the banner page. Some of the banner options use information contained in eDirectory. In order for the Print Manager to obtain this information, you must modify the trustee rights and give the Print Manager read rights to these properties. Because rights flow down the eDirectory tree, you can assign the trustee right at a container level above the users, or to the tree.

1. In iManager, click **Rights** > **Modify Trustees**.
2. Select the container or tree where you want to modify the rights.
3. Click **Add Trustee**, then select the Print Manager object.
4. Click **Add Property**, then select the **Show All Properties in Schema** check box.
5. Select the attributes that you want:

Banner Option	eDirectory Property
eDir mail stop	mailstop
eDir e-mail address	EMail Address
eDir location	L
eDir telephone number	Telephone Number
eDir user first name	Given Name
eDir user full name	Full Name
eDir user last name	Surname

6. Click **OK**.
7. Ensure that at least the Read right is selected.
8. Click **Done**.

NOTE: If your client, printer, and server are not all configured for the same language, you might experience problems with the output of your banner pages, such as the job name being corrupted. If you are working in this type of mixed environment, you should consider not using banner pages.

8.4.8 Modifying the Printer's Gateway Load Commands

1. In iManager, click **iPrint** > **Manage Printer**.
2. Browse to and select the printer you want to modify.
3. Click **Configuration** > **Gateway**.
4. Edit the gateway autoload command.

   The following table describe the gateway load commands and parameters that can be used.

Gateway Load Parameters	Description
NOIPP	iprint-gateway will switch to SNMP instead of IPP (the default) to communicate with printers and obtain their attributes.
NONSECUREIPP	On non-secure port 631, the iprint-gateway will connect with printers using IPP (by default).
NOSNMP_NOIPP	Printers won't receive any communication from iprint-gateway. Additionally, the psmstatus page will continue to provide the most recent values of the printer's attributes (consistent with current behavior). Remove this configuration from the gateway load command, then restart the printer to get the updated value.
IPRINTGW	The gateway executable that is loaded for the Printer Agent.
PA=	The name of the Printer Agent to be supported by this gateway instance.
PORT=	The port on the physical printer to be used for print job submission. Valid values are: **LPR:** Specifies the LPR print protocol and resolves to the standard LPR port - 515. **RAW:** Specifies the RAW print protocol and resolves to the default RAW port - 9100 unless the port number is specified separately in the load string. Port 91 can also be used instead of 9100. **Number:** The actual port number for the physical printer. **NODATA:** Specifies the LPR print protocol, but document data is not submitted to the physical printer. **NULL:** SNMP and ping are disabled for this gateway instance. Document data is not submitted to the physical printer.
STRICTLPR	Limits the port number on the gateway side of LPR communication to the standard LPR range of sockets (721 - 1020). This parameter is needed only for some older printers that enforce the range of ports specified by the original LPR specification for LPR clients.
HOSTADDRESS= HOSTNAME= HOST= IPADDRESS=	Any of these specifies the hostname / IP address for the physical printer to be supported by this gateway instance. **NOTE:** If the hostname / address value has :nn at the end of the value, the port number for the printer is derived from this value. However, the most common approach is to specify the port with the PORT= parameter.
PRINTERNAME= PRINTER=	The printer / queue name for LPR protocol print sessions to the physical printer. The default value is PASSTHROUGH.
USERNAME_CN	This parameter is needed when you want the user name submitted to the printer in CN format.

Gateway Load Parameters	Description
GETCOMMUNITYSTRING= GET=	Specifies the community string for SNMP requests. This is only needed when a printer has been configured with a community string that is different from the default string "public".
SQUERYACTIVE=	Specifies the interval between SNMP requests to the physical printer while the printer is idle. The default value is 300 seconds (5 minutes).
SPOLL=	Specifies the interval between SNMP requests to the physical printer while the printer is active or idle.
SETCOMMUNITYSTRING=	Sets the community string to be used for the SNMP`Get` and `GetNext` requests.
JPOLL=	Sets the job polling interval (in seconds). **NOTE:** When the JPOLL option is not set, the job polling interval is 2 seconds.
NOSNMP	Disables SNMP requests for this gateway instance to its respective physical printer.
WAITONPRINTER=	Specifies the number of minutes to timeout for communication to the physical printer. **NOTE:** For write attempts, this parameter is only effective if the value is greater than the minimum default timeout value. If SNMP is disabled by the NOSNMP or the NULL parameter, the minimum default is 15 minutes. If SNMP is active, the minimum default is 5 minutes.
THROTTLE=	Specifies a delay of nn seconds while establishing communication with the physical printer and between print jobs. This is primarily used for solving a problem where the end of a job is lost when submitting an LPR job to a windows system.
KYOCERA=	Sets the Printer Manufacturer (Make) attribute for this Printer Agent to "Kyocera".
RICOH=	Sets the Printer Manufacturer (Make) attribute for this Printer Agent to "Ricoh".
TROY=	This has no effect.

5 Click **OK** to save the changes.

8.4.9 Configuring LPR Printers

UNIX, Macintosh, and other LPR clients can print to iPrint printers through LPR.

IMPORTANT: In order for LPR to work, the Printer Agent name cannot contain spaces. If it does, you need to re-create the Printer Agent or select a different printer.

1 In iManager, click **iPrint** > **Manage Printer**.

2 Browse to and select the printer you want to enable LPR printing for.

3 Click **Client Support** > **LPR Support**.

4 Select the **Enable LPR/LPD Client Support** check box.

The **LPR Host** and **LPR Printer/Queue** fields display information required when setting up printing for Macintosh, UNIX, or other LPR clients.

LPR Host: The server name where the Print Manager is running.

LPR Printer/Queue: The same as the Printer Agent's name. The Printer Agent name cannot contain any spaces; otherwise, LPR does not work properly.

5 (Optional) Enable the following options:

Filter All LF to CRLF and Append FF to Jobs: Selecting this check box changes bytes in the LPR data stream of all incoming LPR print jobs from Line Feeds to Carriage Returns with Line Feeds and appends a Form Feed to the end of the print job. Typically, these changes are made at the LPR client; however, if you are sure of your users' configurations, you can implement this option.

Address Ranges: Add an address range only if you want to restrict access to this printer to LPR clients within the address range. When the list is empty, all addresses are allowed to print (default).

6 Click **Apply** or **OK** to update the printer settings.

7 From the UNIX, Macintosh or other LPR client, set up a printer using the LPR Host and LPR Printer/Queue information displayed in Step 4.

8.4.10 Configuring Job Holds

1 In iManager, click **iPrint** > **Manage Printer**.

2 Browse to and select the printer you want to modify.

3 Click **Configuration** > **Job Holds**.

4 Modify the settings.

Operator Hold: A job does not print until the operator releases it.

User Hold: A job does not print until the user who has submitted the job releases it.

5 Click **OK** to save the changes.

8.5 Managing the Driver Store

Although the default settings lets users print without additional configuration, you might want to modify some settings so that you can manage your printing resources most effectively.

- Section 8.5.1, "Creating Additional Driver Stores," on page 100
- Section 8.5.2, "Understanding the Driver Store Configuration File," on page 100
- Section 8.5.3, "Changing the eDirectory Server Assignment," on page 100
- Section 8.5.4, "Loading or Unloading the Driver Store," on page 101
- Section 8.5.5, "Updating Printer Drivers," on page 101
- Section 8.5.6, "Deleting Printer Drivers," on page 102

8.5.1 Creating Additional Driver Stores

Although you can create additional Driver Stores, you only need one for your iPrint system because the Print Manager saves the downloaded drivers files to disk. If the Print Manager does not have a requested driver, it copies the driver from the Driver Store and then saves it to disk. This process is relatively quick, even for the first user to request a printer driver. We recommend that you maintain only one Driver Store, so you do not need to track which Driver Store contains what printer drivers. Periodically, the Print Manager checks the Driver Store for updated printer drivers.

If you configure multiple Driver Stores that run on the same server, they all point to the same repository of printer drivers. This can be useful because each Driver Store has its own eDirectory object, and you can distribute the objects in your eDirectory tree.

To create a driver store:

1. In iManager, click **iPrint** > **Create Driver Store**.
2. Specify the Driver Store name you want for the Driver Store object.
3. Specify the container name where you want the Driver Store object to reside.
4. Specify a DNS name or IP address of the target server where you want the Driver Store to reside.
5. Specify an eDirectory server that you want the Driver Store to communicate with.

   For fault tolerance, you can specify more than one eDirectory server from the same tree. For more information, see Section 8.5.3, “Changing the eDirectory Server Assignment,” on page 100.
6. Click **OK**.

To modify the Driver Store properties or to add printer drivers, click **Manage Driver Store**, then select the Driver Store you want to modify.

8.5.2 Understanding the Driver Store Configuration File

When you create a Driver Store, a configuration file is created in `/etc/opt/novell/iprint/conf`. The filename is `idsd.conf`. Each time you use iManager to create a Driver Store object and assign it to the same server, a separate entry is added to `idsd.conf`. Although you can have several Driver Stores assigned to a server, all printer driver files are stored in one file structure on the server. For information about the entries in the configuration file, see `/etc/opt/novell/iprint/conf/idsd.conf`.

8.5.3 Changing the eDirectory Server Assignment

If you need to change the eDirectory server assignment for the Print Manager or Driver Store, edit the Driver Store Server1= entry in the corresponding configuration file, *`print_manager_name`*`.context.ipsmd.conf` or `idsd.conf`, located in `/etc/opt/novell/iprint/conf`.

NOTE: As many as two additional servers can be specified, using Driver Store Server2 and Driver Store Server3. Driver Store Server1 is considered to be the primary eDirectory server. Driver Store Server2 and Driver Store Server3 are considered to be secondary servers.

8.5.4 Loading or Unloading the Driver Store

You can start and stop the Print Manager in two ways:

- “Using the Command Line” on page 101
- “Using iManager” on page 101

Using the Command Line

The Driver Store uses systemctl scripts for starting and stopping the daemon. To load the Driver Store from the command line, enter `systemctl start novell-idsd.service`

The following systemctl script actions are also valid:

Table 8-2 *Driver Store Actions*

Action	Description
reload or force-reload	Stops and then starts the daemon.
start	Starts the daemon.
status	Displays the status of the daemon and the name of the Driver Store.
stop	Stops the daemon.

Using iManager

On the Driver Store Control property page, you can view the Driver Store’s status and unload or load the Driver Store daemon.

1. In iManager, click **iPrint** > **Manage Driver Store**.
2. Browse to and select the Driver Store you want.
3. Click **Driver Store Control** > **Shutdown** to stop the Driver Store process.
4. Click **OK**.

8.5.5 Updating Printer Drivers

1. Add a new driver.

   For more information on adding a new driver, see Section 4.5, “Managing Printer Drivers,” on page 28.
2. Associate the printer to the driver.

   For more information on associating a printer to the driver, see Step 3 on page 36.

NOTE: Only the new iPrint Clients auto-update the drivers. For the existing or old Print Clients, you need to manually install and associate the drivers.

8.5.6 Deleting Printer Drivers

1. In iManager, click **iPrint** > **Manage Driver Store**, then browse to and select the Driver Store you want.
2. Click **Drivers**, then select the client platform you want to work with.
3. Select the driver you want to delete.
4. Click **Delete**.
5. Click **OK**.

8.6 Configuring LDAP

iPrint uses LDAP to verify rights to perform various iPrint operations, including authenticating users for printing, and performing management tasks such as uploading drivers. During the iPrint installation, iPrint attempts to identify the top-most container of the eDirectory tree and sets the base DN to this container for the AuthLDAPDNURL entry in `/etc/opt/novell/iprint/httpd/conf/iprint_ssl.conf`. For most installations, this is adequate because users are often distributed across containers. However, if you have multiple peer containers at the top of your eDirectory tree, leave this field blank so the LDAP search begins at the root of the eDirectory tree.

Use the following syntax for the AuthLDAPDNURL entry:

`ldap://host:port/basedn?attribute?scope?filter`

Use the following example of a typical AuthLDAPDNURL entry where the base DN is set to a container called DivisionA:

```
"ldaps://server1.my_company.com/C=DivisionA???(objectClass=user)"
```

Use the following example of a modified AuthLDAPDNURL entry where the base DN is removed. This means that the search begins at the root of the eDirectory tree:

```
"ldaps://server1.my_company.com/???(objectClass=user)"
```

TIP: For fault tolerance, you can specify additional LDAP servers if an LDAP server is unavailable. Additional servers use the attributes prescribed on the first server. Additional LDAP servers are separated by a space. An AuthLDAPDNURL entry specifying multiple LDAP servers appears like `ldaps://ldap.domain.com ldap1.domain.com/o=novell???(objectClass=user)`

For more information about AuthLDAPURL, see the AuthLDAPUrl Directive (http://httpd.apache.org/docs/2.0/mod/mod_auth_ldap.html#authldapurl).

8.7 Auto Clearing a Printer Queue

This features automatically deletes the staled print jobs after a fixed amount of time.

1. Update the `/etc/opt/novell/iprint/conf/iprintconf.properties` file with the following parameter:

`job_expiry_timeout=x`

where *x* represents time in minutes.

- If the expiry time is not set or set to `0` this feature is not enabled.
- If the expiry time is set less than 60 minutes, then the scheduler runs every x/2 minutes. For example, if the `job_expiry_timeout=40` then the scheduler will run every 40/2 = 20 minutes. So every 20 minutes, the jobs that are in the print queue for 40 or more minutes are deleted.
- If the expiry time is set to 60 minutes or more (maximum time that can be set is 8640 minutes i.e. 6 days), then the scheduler runs every 15 minutes. Every 15 minutes, the jobs that are in the print queue for 60 or more minutes are deleted.

- **IMPORTANT:** This setting is effective only when the printer is in an error state. Jobs are only deleted if the printer status displays “Error Printing”. It is not deleted if the jobs are paused by the administrator. To verify the status of the printer, see iPrint Manager Health Monitor Administration Guide (https://www.microfocus.com/documentation/open-enterprise-server/2023/iprint_health_lx/front.html).

---

2 Restart Print Manager

```
rcnovell-ipsmd restart
```

This setting is enabled for all the printers in a Print Manager.

NOTE: On restarting the Print Manager, if printers are not listed, you must restart the Mobile server (`novell-iprint-mobile`).

---

9 Document Rendering

iPrint provides a client-independent and driverless printing environment to mobile users.

- Section 9.1, “Overview,” on page 105
- Section 9.2, “Key Features,” on page 106
- Section 9.3, “Deploying a Remote Renderer,” on page 107
- Section 9.4, “Using Secure Remote Renderer When Upgraded From OES 2015 SP1 or Earlier Versions,” on page 112
- Section 9.5, “Managing the Remote Renderer,” on page 113

9.1 Overview

What Is a Renderer?

iPrint now supports printing from mobile devices that have limited abilities to convert documents into print-ready formats. On desktop platforms, the documents are usually converted to print-ready formats by the application, driver, and the spooler subsystems. This functionality is primitive or non-existent in many of the mobile devices and hence must be provided by the Print Service. To facilitate this, iPrint now provides Rendering and Conversion capabilities in the product and can convert and render most of the documents that are submitted by a mobile device, email, or other submission methods.

This conversion (rendering) is performed on the OES iPrint Advanced server using our built-in solution known as Local Renderer. Printing quality varies, depending on the document complexity so for enhanced desktop-quality printing, you can use the Remote Renderer on a Windows platform.

You can view the Local renderer and list of remote renderers in the **iPrint Console > Administration > Renderers**.

The renderers support broad range of document formats. For more information, see “Supported Document Formats By the Local Renderer and Remote Renderer” on page 169.

9.1.1 Local Renderer

`OES iPrint Advanced` server is bundled with a built-in document renderer known as Local Renderer. The renderer converts documents to the PDF format, and then converts them to the print-ready format using CUPS. The renderer supports multiple formats, has a multithreading feature, and provides limited support for Microsoft Office formats. If a printer does not have a driver associated with it, the default printer driver PostScript is automatically used to print documents.

9.1.2 Remote Renderer

OES iPrint Advancedserver also ships with a Remote Renderer. For enhanced desktop-quality printing, you can use the Remote Renderer. The remote renderer can be downloaded from the iPrint Console and installed on a Windows 64-bit computer.

The remote renderer provides high quality rendering for different formats. The remote renderer job might take some additional time to complete the print jobs in comparison to the local renderer. If you do not want to use the built-in PDF renderer, you can also install Adobe Acrobat Pro for PDF rendering. However, if you are printing PDF using a built-in pdf renderer, then there can be some minor print quality differences such as color shade difference in the PDFs.

The remote renderer communicates with iPrint server for document conversion. Although, it is not a mandatory requirement, the remote renderer is recommended for desktop quality printing.

9.2 Key Features

- Section 9.2.1, “Multi-driver Support,” on page 106
- Section 9.2.2, “Secure and Non-secure Communication Support (Remote Renderer),” on page 106
- Section 9.2.3, “Automatic Printer Driver Updates,” on page 107
- Section 9.2.4, “Printer Rename and Redirection (Remote Renderer),” on page 107

9.2.1 Multi-driver Support

You can configure the local and remote renderer to use multiple drivers for different mobile enabled printer agents. The renderer installs the unique drivers associated with various mobile enabled printer agents, on the renderer machine. During the rendering of jobs, the correct printer driver is selected based on the printer agent to which the job is being submitted for rendering.

If a printer agent does not have any driver associated with the renderer platform, the renderer uses the default driver for rendering the jobs sent to those printer agents. You can select a default driver when adding a renderer from the iPrint Console. Also, an option to change the default drivers is available.

For information on how to upload drivers to the Driver Store, see Chapter 11, “iPrint Management Client,” on page 123.

9.2.2 Secure and Non-secure Communication Support (Remote Renderer)

The remote renderer can communicate over secure and non-secure channels with the iPrint server. By default, the `OES iPrint Advanced` server is set to communicate in non-secure modes.

Secure Communication Mode: When this mode is used, only the secure remote renderers can communicate with the iPrint server.

Non-secure Communication Mode: When this mode is used, both secure and non-secure remote renderers can communicate with the iPrint server.

You can verify the mode of the renderer in the **Renderers** page under the **Secure Mode** column.

- If the **Secure Mode** column displays **false**, then the renderer is in a non-secure communication mode.
- If the **Secure Mode** column displays **true**, then the renderer is in a secure communication mode.

9.2.3 Automatic Printer Driver Updates

The local and remote renderer supports the Automatic Driver Update feature. When a printer driver is updated on the Drive Store, or if the association of a particular printer agent is changed, the driver is automatically updated on the renderer.

Local Renderer: All the jobs submitted for printing is rendered by the driver that is currently associated with the printer. However, the first print job that is sent for printing after the driver association change may take some time to be rendered depending on the size of the driver.

Remote Renderer: All the jobs submitted for printing is rendered by the driver that is currently associated with the printer. However, the first print job that is sent for printing after the driver association change may take some time to be rendered depending on the size of the driver. This is because the remote renderer installs the driver first and then processes it for rendering.

9.2.4 Printer Rename and Redirection (Remote Renderer)

If a printer is renamed or redirected through the **iPrint Console**, the remote renderer automatically updates its Advanced server to associate the correct printer drivers with the printer.

When you redirect a printer, the printer driver associated with the destination printer is used for rendering.

9.3 Deploying a Remote Renderer

For desktop quality printing for Microsoft Office and PDF documents, you must install a remote renderer on a Microsoft Windows 64-bit system.

Before installing and configuring the remote renderer, ensure that you have met the requirements listed in Section 3.1.2, “Remote Renderer Requirements,” on page 19.

NOTE: If you have upgraded to OES 2018 SP2 or later from OES 2015 SP1 or earlier server, then you need to perform additional steps before using the remote renderer in a secure mode. For more information, see “Using Secure Remote Renderer When Upgraded From OES 2015 SP1 or Earlier Versions” on page 112.

- Section 9.3.1, “OES iPrint Advanced Server,” on page 108
- Section 9.3.2, “Windows Machine,” on page 110

9.3.1 OES iPrint Advanced Server

- "Prerequisites" on page 108
- "Secure/ Non-Secure Communications With OES iPrint Server Advanced" on page 108
- "Secure Communication Mode" on page 109

Prerequisites

- At least one printer driver is uploaded to the Driver Store for the Windows platform on which you are setting up the renderer. This is required because when you add a remote renderer from the **iPrint Console**, you must designate one driver as the default driver for the renderer.

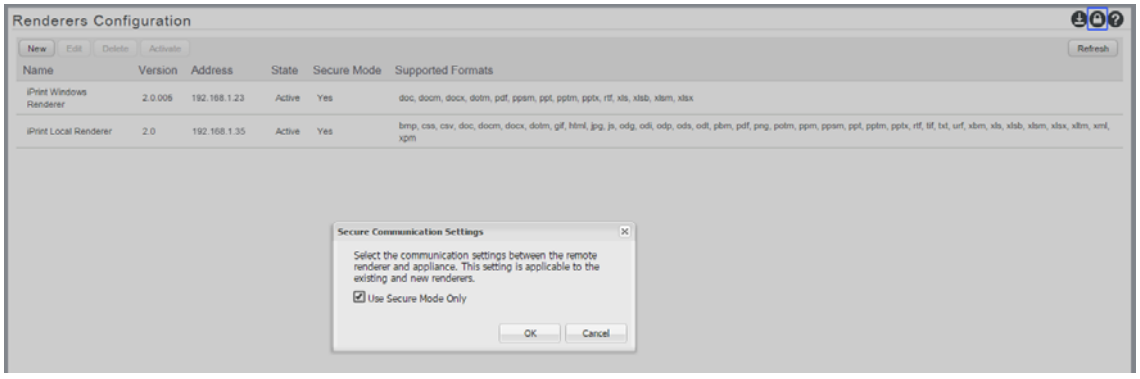
  NOTE: It is recommended that you upload a universal printer driver such as HPUPD, and set that as the default driver.

Secure/ Non-Secure Communications With OES iPrint Server Advanced

The remote renderer communicates over both secure and non-secure channels with the OES `iPrint Advanced` server. By default, the OES `iPrint Advanced` server is set to communicate in non-secure modes. To modify the communication channel, do the following:

1. On a web browser, specify either the host name or the IP address of OES `iPrint Advanced` server and in case of cluster setup, specify the resource IP. For example, https://iprintadvanced.example.com/ipcon or https://10.0.0.1/ipcon.
2. Specify the name and password of the OES administrator who has rights to manage the print manager.
3. Under **Administration**, click **Renderers**. All the available renderers are displayed.
4. Click the **Secure settings for renderers** icon. This setting impacts all the renderers displayed on this page.

   The Secure Communication Settings window is displayed.



5 **Secure Communication:** If you have configured the Remote Renderer to secure mode in Step 4a on page 111, then select the **Use Secure Mode Only** check box and click **OK**. The OES iPrint Advanced server will now accept only secure communications. The non-secure renderers will fail to communicate with the server and no jobs can be rendered by those renderers.

or

Non-Secure Communication: Deselect the **Use Secure Mode Only** check box, then click **OK**. The OES iPrint Advanced server will now accept both secure and non-secure communications from the renderers.

Secure Communication Mode

The OES iPrint Advanced server accepts both secure and non-secure communication. To set only secure communication mode, you must ensure that the renderer is secure and the OES iPrint Advanced server accepts only secure communications. Do the following:

1 On the OES server, generate the `.pfx` file - "Generating PFX File" on page 109.

2 Install and configure Remote Renderer - "Installing and Configuring the Remote Renderer" on page 111.

3 Additional steps to accept secure communication between OES iPrint Advanced and Remote Renderer - "Secure/ Non-Secure Communications With OES iPrint Server Advanced" on page 108.

Generating PFX File

1 On to the OES server, run `sh /opt/novell/iprintmobile/bin/certman_oes.sh -c` to generate the CSR file. This generates a `iprint_renderer_cert.csr` file in the `/etc/opt/novell/iprintmobile/conf/certs` folder.

2 Copy the `iprint_renderer_cert.csr` file to a iManager workstation.

3 On the iManager workstation, generate the digital certificate using the `.csr` file and eDirectory.

3a In iManager, go to **NetIQ Certificate Server > Issue Certificate**, select the `iprint_renderer_cert.csr` file, then click **Next**.

3b Under **Key type**, select the option **SSL or TLS**. Under **Extended key usage**, select the options **Server authentication** and **User authentication**, then click **Next**.

3c Under **Certificate Type**, select the option **End Entity**, then click **Next**.

3d In the remaining screens, click **Next** and continue with the default options. Verify the certificate and click **Finish**.

3e To download the `iprint_renderer_cert.der` file, click **Download the issued certificate**.

4 Copy the `iprint_renderer_cert.der` file in the `/etc/opt/novell/iprintmobile/conf/certs` folder.

5 Run `sh /opt/novell/iprintmobile/bin/certman_oes.sh -g` to generate the PFX file. This generates a `iprint_renderer_cert.pfx` file in the `/etc/opt/novell/iprintmobile/conf/certs` folder.

9.3.2 Windows Machine

- "Prerequisites" on page 110
- "Downloading the Remote Renderer" on page 110
- "Installing and Configuring the Remote Renderer" on page 111
- "Registering the Remote Renderer" on page 111

Prerequisites

You must assign **Log on as a service** rights to the account with which you want to set up the renderer.

Assigning Log On as a Service Rights

1. On your Windows computer, click **Start > Control Panel**.
2. In the upper-right corner of the Control Panel window, click the **View by** drop-down menu, then select **Large icons**.
3. Go to **Administrative Tools > Local Security Policy**.
4. In the left pane, double-click **Local Policies**.
5. Click **User Rights Assignment**.
6. In the right pane, under **Policy**, double-click **Log on as a service**.
7. Click **Add User or Group**.
8. Specify the user name in the **Enter the object names to select** box, then click **Check Names**.
9. Click **OK** after the user is displayed.
10. Click **OK**.
11. Click **OK**, then close the Local Security Policy window.

Downloading the Remote Renderer

1. On a web browser, use either the host name or the IP address to access the **iPrint Console**. For example, https://10.0.0.1/ipcon or https://iprint.example.com/ipcon.
2. Specify the name and password of the OES administrator who has rights to manage the print manager.
3. Under **Administration**, click **Renderers**.
4. Click the icon in the upper-right corner of the screen.

NOTE: The remote renderer installation interface is not available in Slovak, Hungarian, Netherlands Dutch, or Catalan languages

A zip file named `iPrintRendererBundle.zip` is downloaded. This zip file contains a `setup.exe` file, `iPrintRendererSetup.msi` file, `ReadMe.txt`, and a `.pfx` certificate file.

Continue with installing and configuring the remote renderer.

Installing and Configuring the Remote Renderer

1. Unzip the `iPrintRendererBundle.zip` file, then launch the `setup.exe` file. Follow the on-screen prompts to complete the installation procedure.
2. When the installation is complete, launch the command prompt in the **Run as administrator** mode.
3. Run the command `iPrntRendCmd -c` to configure the remote renderer.
   - **3a** If you want to configure the remote renderer over a secure channel, copy the `.pfx` file into the `C:\NDPS\Renderer\certificates\` folder. The `.pfx` file is generated on the OES server - "Generating PFX File" on page 109.
4. When prompted for **Do you want to configure the remote renderer over secure channel**, depending on your requirement, specify **Yes** or **No**.
   - **4a** When you specify **Yes**, the renderer is configured in a secure mode. You should perform additional steps for the `OES iPrint Advanced` server to accept only secure communications. For more information, see "Secure/ Non-Secure Communications With OES iPrint Server Advanced" on page 108.
   - **4b** When you specify **No**, the renderer is configured in a non-secure mode. You need to perform additional steps to ensure that `OES iPrint Advanced` server accepts non-secure communications. For more information, see "Secure/ Non-Secure Communications With OES iPrint Server Advanced" on page 108.
5. When prompted for credentials, specify your credentials.

On successful configuration, you must register the Remote Renderer.

Registering the Remote Renderer

1. In the **iPrint Console**, under **Administration**, click **Renderers**.
2. Click **New**.
3. In the **Renderer Host/IP address** box, specify the hostname or IP address of the renderer system, then click **Connect**.
4. Under Options, specify a name for the renderer in the **Renderer Name** box.
5. Select the document formats you want the remote renderer to render.
6. Choose the **Default Printer Driver**, then click **Register**.

After you click the **Register** button, a success message is displayed, but the remote renderer is still configuring. The OES iPrint Advanced server time depends on the number of unique drivers associated with mobile enabled printers. During that period, the renderer is in the **Configuring** state. After the registration is complete, the renderer changes to the **Active** state. When the status of the remote renderer displays **Active**, it means that the registration is successful. Refresh the page after a couple of minutes to check the status.

9.4 Using Secure Remote Renderer When Upgraded From OES 2015 SP1 or Earlier Versions

Perform the following steps:

1 Log on to iManager with the admin privileges.

2 **Update the CRL object “One” to include the default CRL distribution points:**

2a Click **Roles and Tasks** > **NetIQ Certificate Server** > **Configure Certificate Authority**.

2b Click **CRL**, then **One**.

2c Under **CRL Distribution Points**, click **Add defaults**.

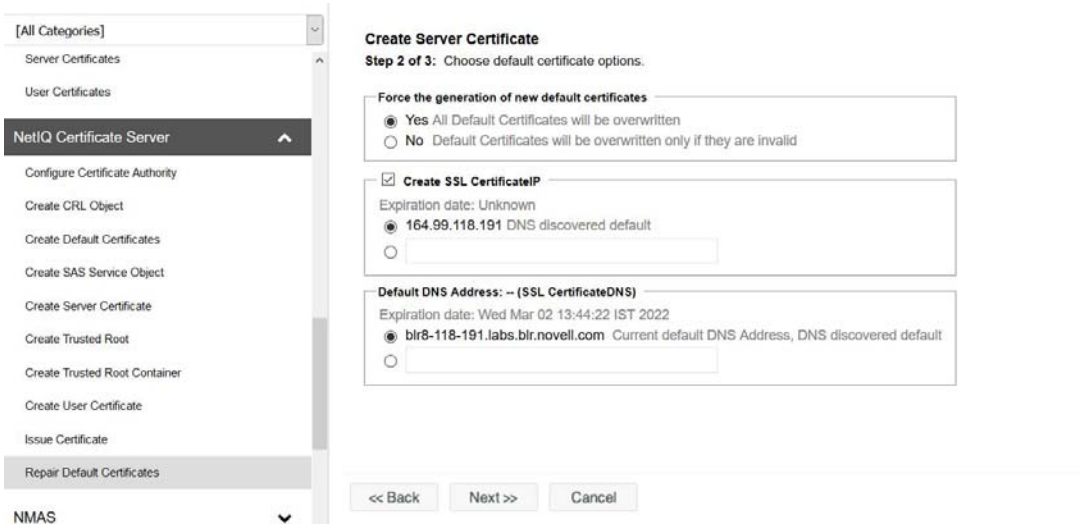
2d Click **OK**.

3 **Repair Default Certificates:** To add the CRL distribution point in the server certificate

3a Click **Roles and Tasks** > **NetIQ Certificate Server** > **Repair Default Certificates**.

3b Select the server to repair the server, then click **Next**.

3c In **Choose default certificate options**, select the following options:



- **Yes All Default Certificates will be overwritten**
- Select **Create SSL CertificateIP**, select the DNS server that is discovered by default
- Under **Default DNS Address**, select the default DNS address.
- Click **Next**.
- Verify the details and click **Finish**.

4 **Restart eDirectory and iPrint Services**

4a (Standalone Server) Restart the following services on a Standalone OES 24.4 server:

- To restart the eDirectory service, run `rcndsd restart`
- To restart the Apache service, run `rcapache2 restart`
- To restart Print Manager, run `rcnovell-ipsmd restart`
- To restart the Mobile server, run `rcnovell-iprint-mobile restart` (for standalone server)

4b (Cluster) Login to the terminal of the node where the cluster pool is running and perform the following steps:

4b1 Restart the following services:

- To restart the eDirectory service, run `rcndsd restart`
- To restart the Apache service, run `rcapache2 restart`
- To restart Print Manager, run `rcnovell-ipsmd restart`

4b2 To recreate the certificate and keystore for the mobile server, run the command:

```
sh /opt/novell/iprintmobile/bin/yast_mobile_config.sh -c
```

4b3 Move the cluster pool to another node.

4c Perform steps in Step 4b on all the cluster nodes.

4d After successfully performing Step 4c, restart mobile service as follows:

```
rcnovell-iprint-mobile restart
```

Proceed with "Deploying a Remote Renderer" on page 107.

9.5 Managing the Remote Renderer

The management of remote renderer is supported from the **iPrint Console**. You can additionally, use the command line interface by launching the command prompt in the **Run as administrator** mode and executing the `iPrntRendCmd` command.

On the Renderers page, you can perform the following actions:

- Section 9.5.1, "Add a Renderer," on page 113
- Section 9.5.2, "Edit a Renderer," on page 114
- Section 9.5.3, "Delete a Renderer," on page 114
- Section 9.5.4, "Activate or Deactivate a Renderer," on page 114

9.5.1 Add a Renderer

1. Under **Administration**, click **Renderers**.
2. Click **New**.
3. In the **Renderer Host/IP address** box, specify the host name or IP address of the renderer system, then click **Connect**.
4. Under Options, specify a name for the renderer in the **Renderer Name** box.
5. Select the document formats you want the remote renderer to render.

NOTE: The **Build-in PDF renderer** is selected by default. If you want to use Adobe Acrobat, you must ensure that Adobe Acrobat Pro is installed on the renderer machine before selecting the **Adobe Acrobat** option. Similarly, if you want to enable the remote renderer to render Microsoft Office formats, you must ensure that Microsoft Office is installed on the renderer machine before selecting the **Office Support** option.

---

6. Choose the **Default Printer Driver**, then click **Register**.

9.5.2 Edit a Renderer

You can change a remote renderer's name, the document rendering options, and the default printer driver using the **Edit** feature on the Renderers page.

1. Under Administration, click **Renderers**.
2. Select a renderer which you want to edit, then click **Edit**.
3. Modify the details, then click **Commit**.

9.5.3 Delete a Renderer

1. Under Administration, click **Renderers**.
2. Select a renderer that you want to delete, then click **Delete**.

Deleting a renderer unregisters the renderer from the OES iPrint Advanced server.

9.5.4 Activate or Deactivate a Renderer

1. Under Administration, click **Renderers**.
2. Select a renderer that you want to activate, then click **Activate**.

   The renderer is now in an active state.

If the renderer is in an Inactive state, it will not render any jobs. Deactivating a renderer does not unregister the renderer from the server.

10 OES iPrint Advanced on Client Workstations

This section describes how to install iPrint Client and printers on your workstation by using **iPrint Portal**. When a printer is selected for installation, OES iPrint verifies if the iPrint Client is installed and then installs it if necessary. If iPrint Client is already installed, the printer driver is downloaded and the printer is installed on your workstation.

You can distribute the client to user's workstations in a variety of ways. See, Chapter 3, "Installing OES iPrint Advanced Server," on page 19 and Chapter 5, "Configuring OES iPrint Advanced Server," on page 43.

- Section 10.1, "Installing the iPrint Client," on page 115
- Section 10.2, "iPrint Portal: Installing Printers," on page 116
- Section 10.3, "iPrint Portal: QuickPrint," on page 117
- Section 10.4, "Windows: Context Menu-based Desktop Printing," on page 118
- Section 10.5, "MAC: Automatic Update Notification," on page 120

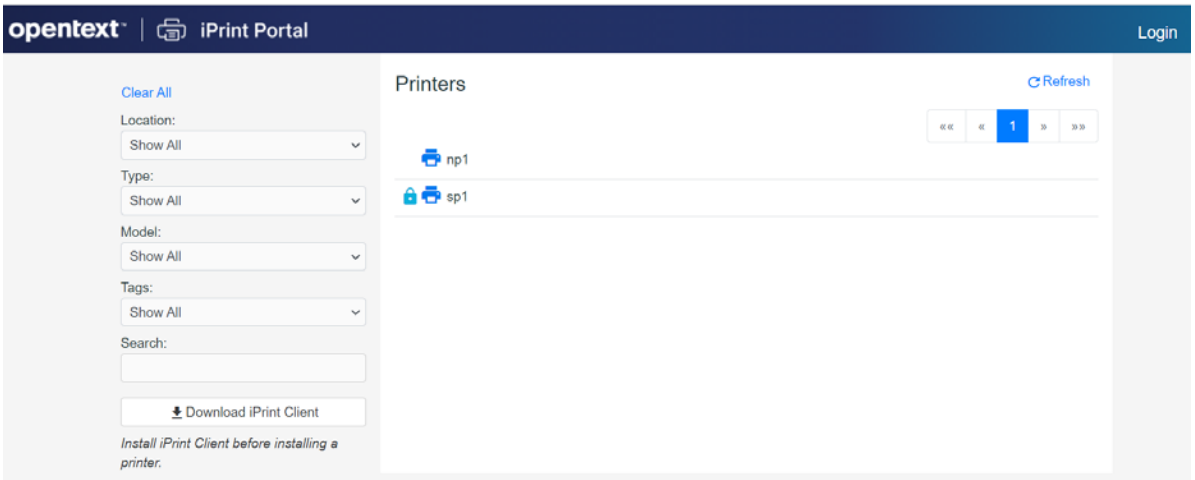
10.1 Installing the iPrint Client

You can use iPrint Client to install the printers on your workstation. The client is located in the `/var/opt/novell/iprint/htdocs` directory.

10.1.1 iPrint Portal

To access **iPrint Portal**, specify **https://<iPrint_Advanced_IP_or_hostname>/print** in the web browser. To download iPrint client, click **Download iPrint Client**.

Figure 10-1 *iPrint Portal*



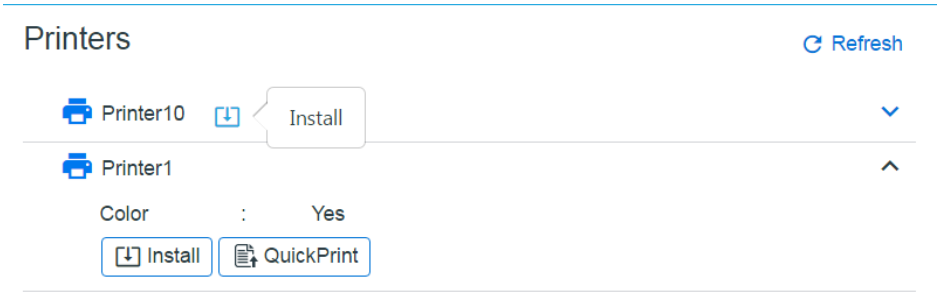
10.2 iPrint Portal: Installing Printers

A new printer portal with intuitive GUI that includes QuickPrint functionality, search and quick access (bookmark) to printers based on filters.

To access iPrint Portal, specify **https://<iPrint_for_OES IP or hostname>/print**

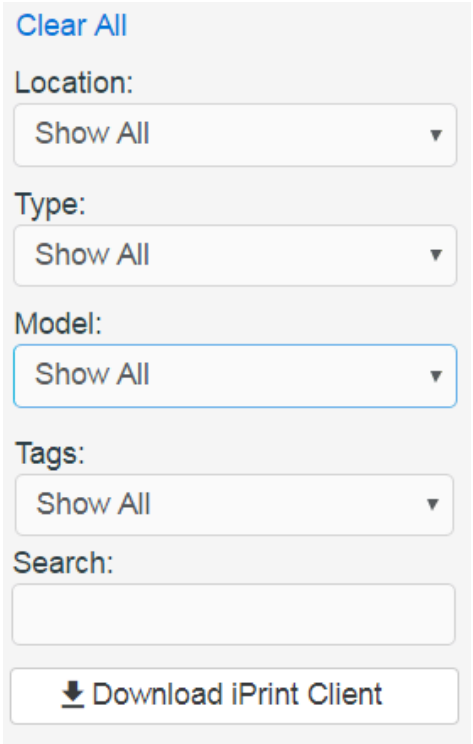
Installing a Printer: To install a printer, hover the cursor on the printer and click . You can also expand a printer to view the printer properties and then click **Install**. The installation of secure and WalkUp printers is controlled through ACLs set for that user.

Figure 10-2 *iPrint Portal Printer Installation*



Quick Access (bookmark) Printers: Printers can now be filtered on location, type, model, and tags. You can also filter with the **Search** field, just type description or any such printer details. The browser url can be bookmarked and shared.

Figure 10-3 *Filter Printers*



10.3 iPrint Portal: QuickPrint

QuickPrint is printing documents via a Web browser. iPrint service renders and coverts the document into a print-ready format using the renderer, hence, no drivers are required to be associated with the printer.

Using any web browser, the user selects a printer and document, then prints. The QuickPrint feature is controlled through ACLs set for that user.

To print using web browser, do the following:

1. Launch the iPrint Portal (**https://<iprintforoes_IP or hostname>/print**).
2. Expand a printer and click **QuickPrint** or select the **QuickPrint** icon next to a printer.

Figure 10-4 *Expand Printer to View QuickPrint*

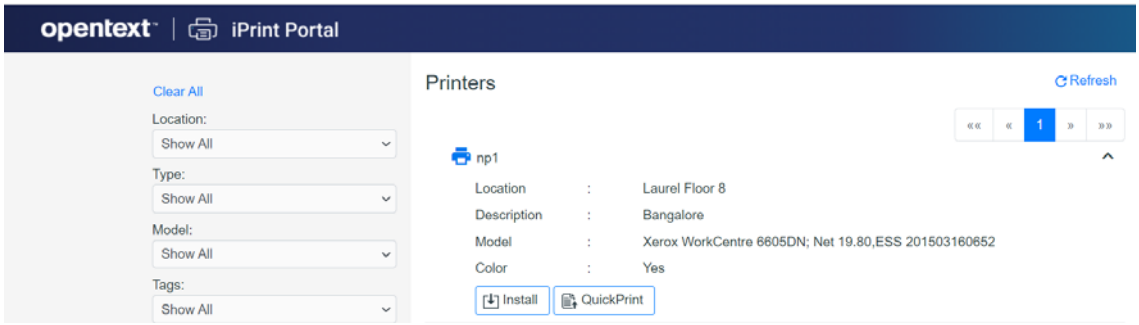
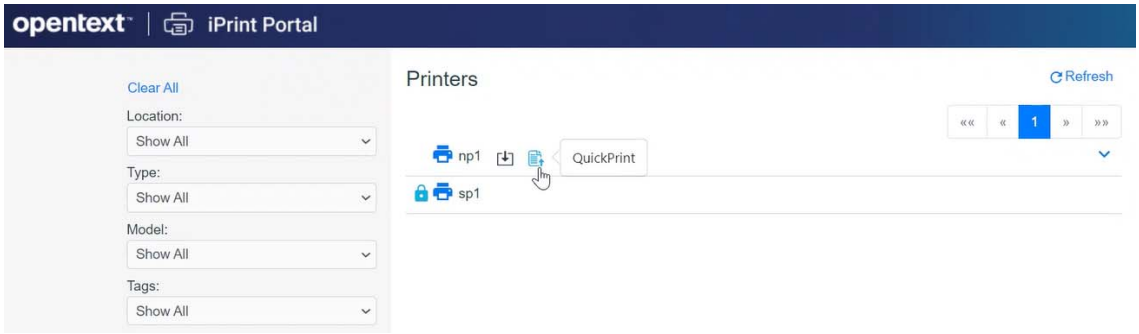
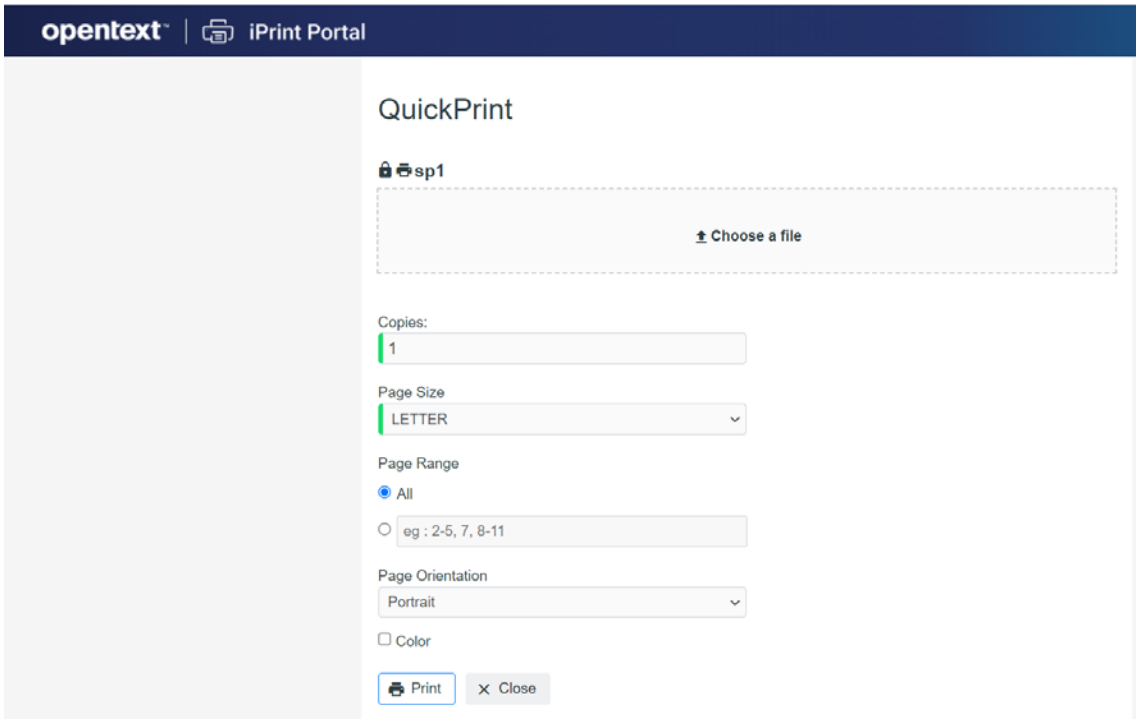


Figure 10-5 *QuickPrint Adjacent to a Printer*



3 Select a file, modify the printer options and click **Print**.

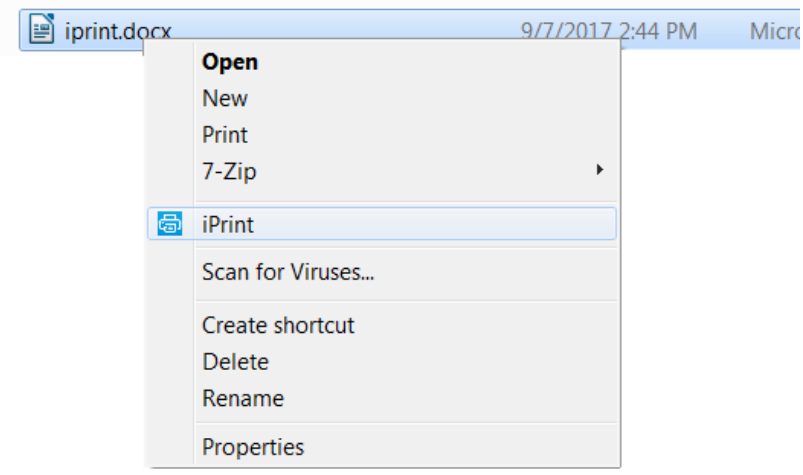


10.4 Windows: Context Menu-based Desktop Printing

iPrint is now available as a context menu option on Windows. To print from the Context menu do the following:

1 Right-click a file or files, then select iPrint, an iPrint dialog is displayed.

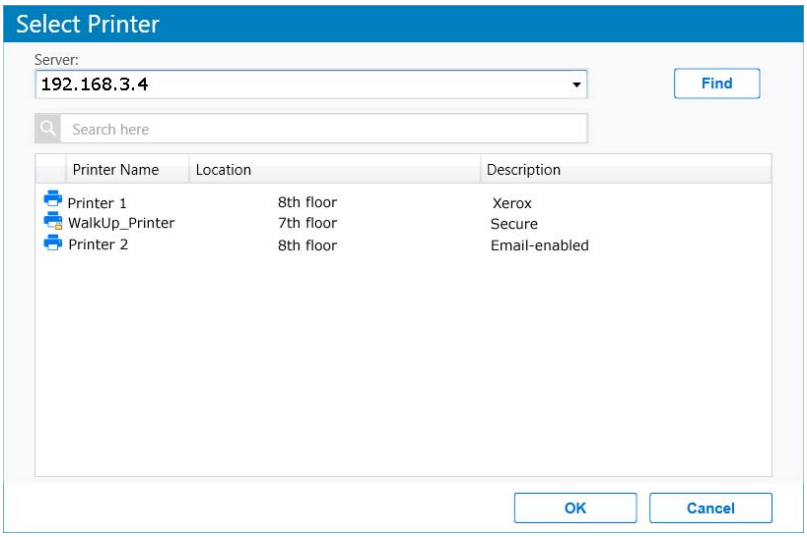
You can print without opening a document. For example, if you received a document in an email, and no application is available to view it, you can still print with the context menu option.



2 Click **Select a printer**.

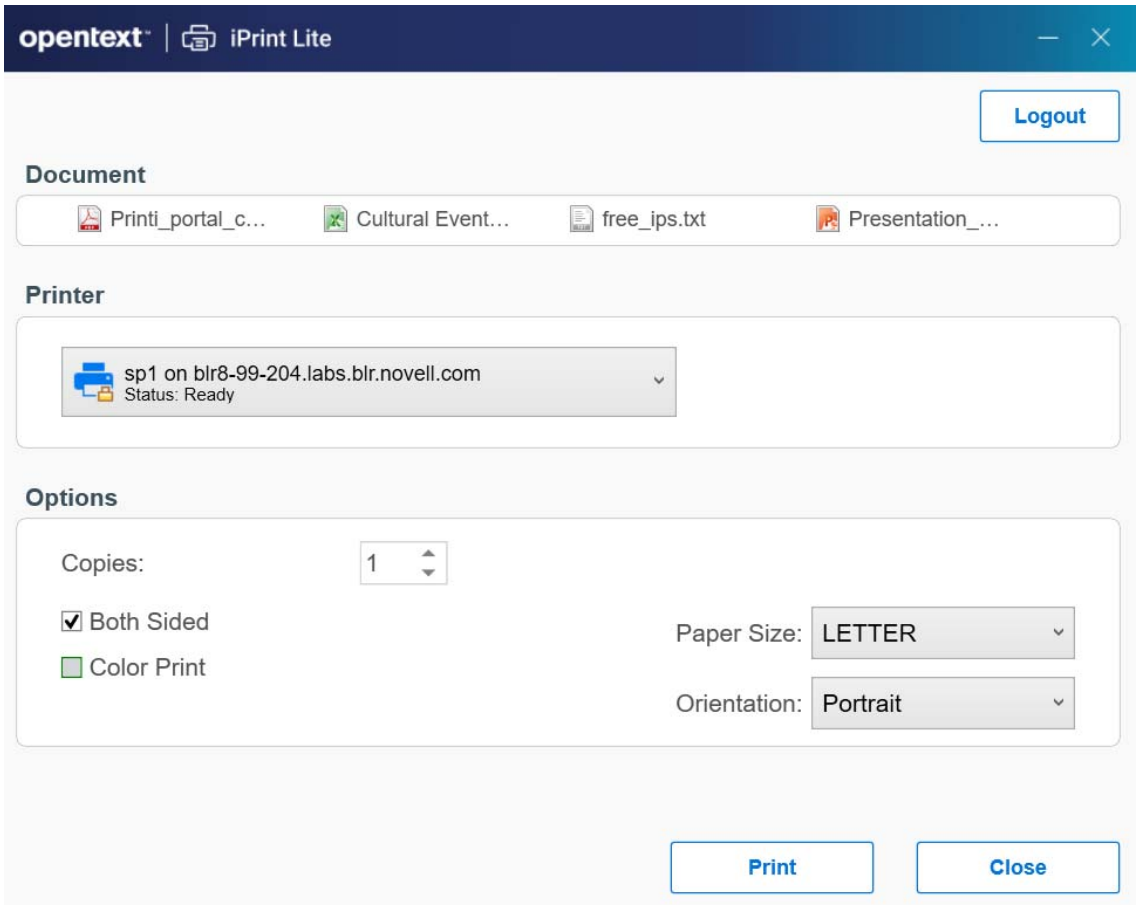
2a The recently used printers are populated in the drop-down menu of **Printer**. Select a previously used printer or Click **Choose printer** to select a different printer.

2b Specify an iPrint server and click **Find**.



For secure or a WalkUp printer, you must login to the server. On logging in, printers are displayed through ACLs set for that user. You can login using only the username or in a LDAP format (comma separated).

3 Click **Print**. The documents are successfully printed.



The **Options** displayed are set in the **Mobile > Global Settings** page of the **iPrint Console**. The values can be changed as per your printing requirements.

NOTE: If some file formats are not supported for printing, the file will not be listed for printing.

The info icon lists the unsupported files.

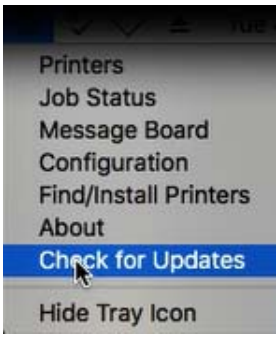
To see the list of supported file formats, see TID 7022058.

10.5 MAC: Automatic Update Notification

When the MAC workstation boots up, iPrint checks the default printer to ensure that the workstation is using the latest iPrint Client. If necessary, a notification is launched to update the newer client. The notification provides you two options:

- Update: Click Update for downloading the client and launch the installer for updating the client.
- Later: Click **Later** five times after which the iPrint Client is forcefully downloaded on the workstation and client installer is launched

If the notifications are disabled on the client workstations, then the user can click the **Check for Updates** option from the tray menu.


Printers
Job Status
Message Board
Configuration
Find/Install Printers
About
Check for Updates
Hide Tray Icon

11 iPrint Management Client

iPrint Management client is a browser independent management tool. This is a standalone utility for managing drivers and profiles. Only iPrint Administrators have access to this management tool. The tool provides improved security, large driver uploads are made easy and fast. You can upload drivers for Mac/Linux too. Hence, provides a seamless experience of driver & profile management.

- Section 11.1, “Managing Printer Drivers,” on page 123
- Section 11.2, “Managing Printer Driver Profile,” on page 126

11.1 Managing Printer Drivers

A printer driver or PostScript Printer Description (PPD) file is software that directly supports a physical printer, enabling it to carry out its functions.

Hardware vendors develop printer drivers and PPD files, which are specific to each printer. Most printers require different printer drivers for each operating system they interact with. You can use iManager to view a list of printer drivers and PPD files you have uploaded to the Driver Store. On Windows10 and Windows 11 platforms, you can also upload printer drivers by using a command line option. You can add printer drivers and PPD files from diskettes, CDs, and the workstation operating system.

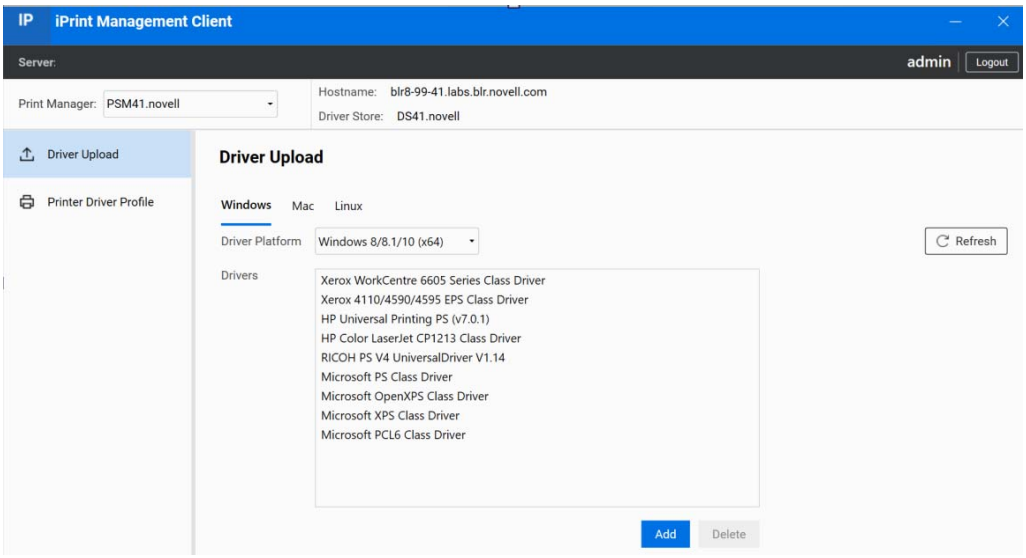
The Driver Store daemon must be running in order to add printer drivers, and the iPrint Client must be installed on a Linux or Windows workstation. To install the client, go to http://dns_name or IP_address/ipp and click the **Install iPrint Client** link.

11.1.1 Adding a Printer Driver

To add printer drivers to the Driver Store:

1. Right-click the **Micro Focus iPrint Client** tray icon in the system tray on the taskbar and choose **Manage**. The iPrint Management Client is launched.
2. Login to the **iPrint Management Client**.
3. From the **Print Manager** drop-down list, select the Print Manager where you want the driver to be stored and made available to the printers on that manager.
4. Select the **Printer Driver Upload** on the left pane.
5. Do one of the following:
   - **5a** If the client platform is **Windows**, perform the following:
     - **5a1** Click the **Windows** tab.

Figure 11-1 *Windows Driver Upload*



5a2 You can choose *Windows 8/8.1/10(x64)* or *Windows 8/8.1/10(x86)* as Driver Platforms.

5a3 Click **Add**, and the **Add Printer Wizard** with the available printer drivers is displayed. The drivers installed on your workstation are made available to be uploaded to the Driver Store. You can upload only drivers for the platforms installed on your workstation.

5a4 Select the driver and click **OK**.

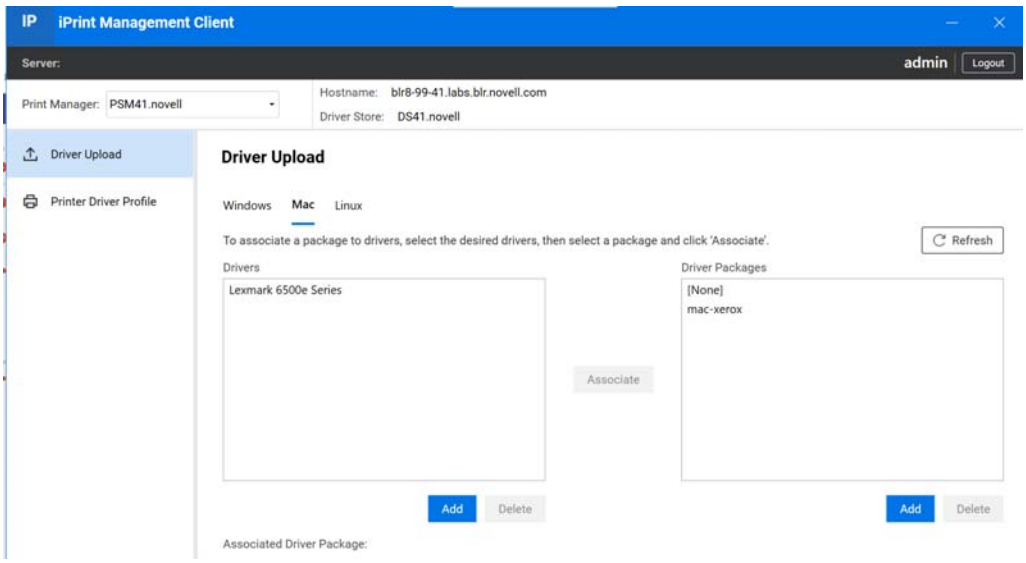
5a5 If you want to delete the driver(s), you can select the driver(s) that is added and click **Delete**.

5a6 Click **Refresh** to refresh the screen and display the changes you just made.

5b If the client platform is MAC perform the following:

5b1 Click the **MAC** tab.

Figure 11-2 *Driver Upload*



5b2 Click **Add** under the **Driver** pane, and the **Add Printer Wizard** with the available printer drivers is displayed. The drivers installed on your workstation are made available to be uploaded to the Driver Store. You can upload only drivers for the platforms installed on your workstation.

5b3 Select the driver and click **OK**.

5b4 Click **Add** under the **Driver Pakages** pane. Browse and select the package from the **Driver Packages** list.

5b5 Click **OK**.

5b6 Click **Associate**. This associates the selected driver to the package. When a user installs the printer, the driver and its associated files from this package are installed on the workstation. If the dependent files are missing, the printer installation fails.

5b7 To disassociate a driver from the package, select the driver and select None from the Driver Packages list and click Associate. The driver is no longer associated to any package.

5b8 If you want to delete the driver(s), you can select the driver(s) that is added and click **Delete**.

5b9 Click Refresh to refresh the screen and display the changes you just made.

Associated Driver Package: Displays the driver package, if any, associated with the selected drivers. This is the dependent package for the driver and is installed with the printer. This option is available only on a Mac machine.

5c If the client platform is Linux, perform the following:

5c1 Click the Linux tab. Generic PostScript Printer Foomatic/Postscript(recommended) and

Generic PCL 4 Printer Foomatic/laserjet (recommended) are the two default printer drivers.

5c2 Click **Add**, the **Add Printer Wizard** with the available printer drivers is displayed. The drivers installed on your workstation are made available to be uploaded to the Driver Store. You can upload only drivers for the platforms installed on your workstation.

5c3 Select the Driver and click **OK**.

5c4 If you want to delete the driver(s), you can select the driver(s) that is added and click **Delete**.

5c5 Click **Refresh** to refresh the screen and display the changes you just made.

11.2 Managing Printer Driver Profile

A printer driver profile allows you to set the driver defaults for a Windows printer driver. When you associate the printer driver profile to a printer, the printer is installed and configured with your defined settings. For example, in a law office you might want the default paper size to be legal size. This means that every time the printer and its corresponding driver is installed on a workstation, the paper size is set to legal size.

When creating a printer driver profile, you work directly with a platform-specific printer driver; so you should create and modify profiles from the same operating-specific platform as the printer driver. For example, to create or modify a Windows 10 printer driver profile, you must access iPrint Management Client and complete the task from a Windows 10 workstation.

Use the Bi-Directional driver option to enable the selected printer driver to communicate with the printer. Bi-Directional communication allows the driver to communicate with the printer and discover its capabilities. This enables you to create more detailed profiles. Bi-Directional drivers communicate with the printer during profile creation. If your printer is not reachable from the client during profile creation, only basic profiles are created. When you create a profile for Bi-Directional drivers, you must provide a Printer Agent.

Use the Universal Printer Driver (UPD) model to simplify the task of managing the vast array of printer makes and models. This model allows the printer vendor to create a single printer driver that works with most of the printer and multifunction devices that the vendor manufactures. With this innovation, the Administrator/User no longer needs to install a unique driver for each and every printer model, but uses one driver to communicate with their devices.

Installing the UPD on the iPrint server (NetWare or Linux) is the same as installing individual drivers. Use iPrint Management Client to upload the driver to the Broker or Driver Store and then assign this driver to the printers using iManager. You should use the latest iManager and also the latest support packs/updates for the iPrint server. Updates include printer driver profile updates, and enhancements for bidirectional communications, which are necessary for UPD function and printer driver profile creation.

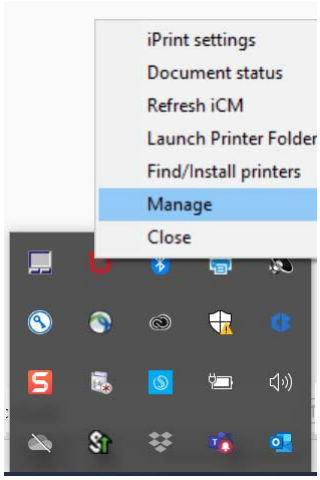
You can create, copy, delete, and modify the printer driver profiles.

- Section 11.2.1, “Creating a Printer Driver Profile,” on page 126
- Section 11.2.2, “Modifying a Printer Driver Profile,” on page 128
- Section 11.2.3, “Copying a Printer Driver Profile,” on page 128
- Section 11.2.4, “Deleting a Printer Driver Profile,” on page 128

11.2.1 Creating a Printer Driver Profile

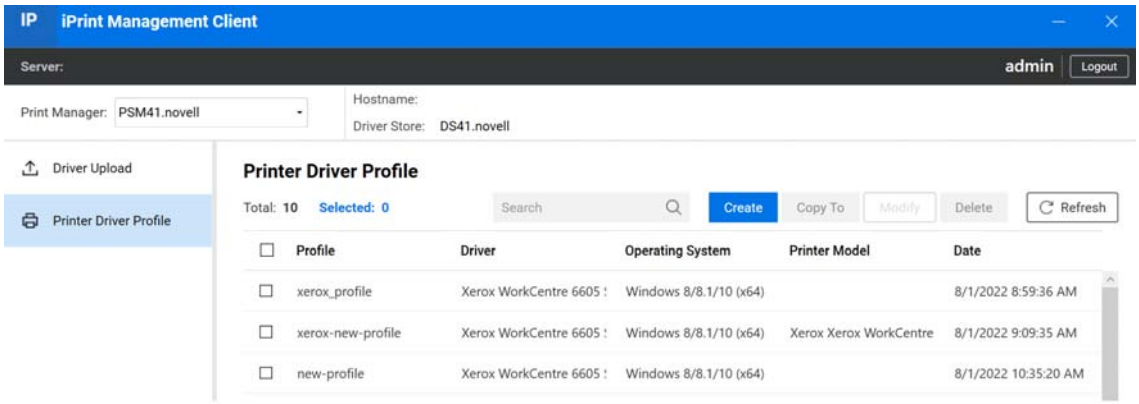
1 Right-click the **Micro Focus iPrint Client** tray icon in the system tray on the taskbar and choose **Manage**. The iPrint Management Client is launched.

Figure 11-3 *Tray Icon*



2 Login to the **iPrint Management Client** with the Administrator credentials.

Figure 11-4 *Printer Profile View*



3 From the **Print Manager** dropdown list, select the Print Manager where you want the driver profile to be stored and made available to the printers on that manager.

4 Select the **Printer Driver Profile** on the left pane and click **Create**.

5 In the **Create driver profile** window, perform the following tasks:

5a Specify the Driver Profile name.

You can create a new driver profile or you can use the existing driver profile.

5b To create a new driver profile, select *Create new driver profile* and then select the driver for new profile from the list.

5c To use the existing driver profile, select *Create using existing driver profile* and then select the driver profile from the list of existing driver profiles.

The associated printer model of the selected driver profile is displayed.

5d To enable printer communication, select the *Requires printer communication* check box.

5e Specify the name of the existing Printer Agent in the *iPrint Printer name* field. The driver profile is created and associated with the printer model.

NOTE: Ensure that your printer is reachable from the client during profile creation, or only basic profiles are created.

5f Click **Confirm**. The Loading Driver Configuration window appears and shows the progress.

The driver profile is created.

After creating a printer driver profile, you must associate it with a printer.

11.2.2 Modifying a Printer Driver Profile

1 Right-click the **Micro Focus iPrint Client** tray icon in the system tray on the taskbar and choose **Manage**. The iPrint Management Client is launched.

2 Login to the **iPrint Management Client**.

3 From the **Print Manager** dropdown list, select the Print Manager where you want the driver profile to be stored and made available to the printers on that manager.

4 Select the **Printer Driver Profile** on the left pane.

5 Select the *Driver Profile* that you want to modify and click **Modify**.

You can select only one driver profile at a time for modification.

6 The Loading Driver Configuration window is displayed to indicate the progress.

The driver profile is modified.

11.2.3 Copying a Printer Driver Profile

1 Right-click the **Micro Focus iPrint Client** tray icon in the system tray on the taskbar and choose **Manage**. The iPrint Management Client is launched.

2 Login to the **iPrint Management Client** with the administrator credentials.

3 From the **Print Manager** dropdown list, select the Print Manager where you want the driver profile to be stored and made available to the printers on that manager.

4 Select the **Printer Driver Profile** on the left pane.

5 Select the *Driver Profile*(s) (source) that you want to copy from and click **Copy**.

6 Select the Print Manager/ Server (destination) that you want to copy to.

7 Click *Confirm*.

The driver profile is copied.

11.2.4 Deleting a Printer Driver Profile

1 Right-click the **Micro Focus iPrint Client** tray icon in the system tray on the taskbar and choose **Manage**. The iPrint Management Client is launched.

2 Login to the **iPrint Management Client**.

3 From the **Print Manager** dropdown list, select the Print Manager where you want the driver profile to be stored and made available to the printers on that manager.

4 Select a **Printer Driver Profile** on the left pane.

5 Select the *Driver Profile*(s) that you want to delete and click **Delete**. The confirmation page is displayed.

6 Click *Confirm*.

The driver profile(s) is deleted.

12 Mobile Device Management (MDM)

- Section 12.1, “Managing the iPrint App with ZENworks Mobile Management 24.4,” on page 131
- Section 12.2, “Managing the iPrint App with ZENworks Configuration Management 24.4,” on page 131
- Section 12.3, “Configuring Ivanti Neurons to Manage the iPrint App,” on page 133

12.1 Managing the iPrint App with ZENworks Mobile Management 24.4

ZENworks Mobile Management (ZMM) 24.4 is a mobile device management solution that provides organizations with centralized management and control of the wireless device platforms in their enterprise network.

The OpenText iPrint App 24.3 available in the Apple App Store and Google Play Store is enabled for ZMM. You can now manage the OpenText iPrint app using ZMM solution. For more information, see Enrolling Mobile Devices in the ZENworks 24.4 Mobile Management Reference (https://www.novell.com/documentation/zenworks-24.4/zen_mobile/data/bookinfo.html) guide.

12.2 Managing the iPrint App with ZENworks Configuration Management 24.4

The OpenText iPrint App 24.3 available in the Apple App Store and Google Play Store is enabled for ZENworks Configuration Management 24.4. For information about provisioning iPrint iOS and Android App, see Provisioning Applications in the ZENworks 24.4 Mobile Management Reference (https://www.novell.com/documentation/zenworks-24.4/zen_mobile/data/bookinfo.html) guide.

12.2.1 Key-Value Pairs

Key-value pairs allow you to populate user login information and set configuration options.

Table 12-1 *iPrint Key-Value Pairs*

Key	Value
`server`	Specify the URL of your iPrint site. For example, iprint.acme.com.
`server1`	When specifying multiple servers, the subsequent servers will be `server2`, `server3`, and so forth. You can provide same or different user for each server.
`username`	Specify ${LoginName} for ZENworks to automatically populate the app with the login name of the ZENworks user. Alternatively, you can specify name of an individual user.

Key	Value
configLocked	The value is true or false. If the value is true, the app users will not be able to modify the iPrint app configuration on their devices. This value of the data type must be string and not boolean.

Examples for Key-Value Pairs

- **Multiple Servers and Same Users:** If there are two iPrint servers and you want all the app users to print through both the servers, specify the server values and username as the key.

  Table 12-2 *Multiple Servers and Same Users*

Key	Value
server	iprint.acme.com
server1	iprint2.acme.com
username	${LoginName}

- **Multiple Servers and Different Users:** If there are two iPrint servers and you want different set of app users to print through each server, specify the server values and subsequent username as the key. Use the key-value pair as server and username and server2 and username2.

  Table 12-3 *Multiple Servers and Different Users*

Key	Value
server	iprint.acme.com
username	admin
server1	iprint1.acme.com
username1	admin1

- **Sample Format of Configuration File**

```
<key>Configuration</key>
<dict>
     <key>server</key>
     <string>iprint.acme.com</string>
     <key>server1</key>
     <string>iprint1.acme.com</string>
     <key>username</key>
     <string>admin</string>
     <key>username1</key>
     <string>admin1</string>
     <key>configLocked</key>
     <string>true</string>
</dict>
```

12.3 Configuring Ivanti Neurons to Manage the iPrint App

iPrint App is enabled for Ivanti Neurons. You must configure Ivanti Neurons to manage the iPrint mobile app.

- Section 12.3.1, “Supported Features,” on page 133
- Section 12.3.2, “Adding the iPrint App to Ivanti Neurons,” on page 133
- Section 12.3.3, “Pre-Populating Fields for iPrint Login,” on page 135
- Section 12.3.4, “Distributing the iPrint App to Devices,” on page 137

12.3.1 Supported Features

iPrint mobile app provides an additional feature to pre-populate the following fields on the iPrint login screen on both iOS and Android devices:

- **Server IP Address**
- **User ID**

12.3.2 Adding the iPrint App to Ivanti Neurons

- “Adding the Android iPrint App” on page 133
- “Adding the iOS iPrint App” on page 134

Adding the Android iPrint App

To add the Android iPrint app to Ivanti Neurons, upload the `*.apk` file and then apply the Android label to the application:

1. Download the OpenText iPrint for Ivanti Neurons Appconnect (`*.apk`) file from the Novell downloads site (https://download.novell.com).
2. Upload the file to Ivanti Neurons:
   - **2a** In the Ivanti Neurons Admin Portal, click the **Apps** tab.
   - **2b** On the **App Distribution Library** tab, in the **Select Platform** drop-down list, select **Android**.
   - **2c** Click **Add App**.

     The Add App Wizard is displayed.
   - **2d** Click **Next**, then specify the following information:

     Distribution Type: Select **In-house App**.

     Silently Install: If your device supports a silent install, select **Yes**. If the device does not support a silent install or if you are unsure, select **No**.

     App Upload: Browse to and select the `.apk` file that you downloaded.
   - **2e** Click **Next**, then specify the following information:

     App Name: `OpenText iPrint` is already specified for you. This cannot be changed.

     Display Version: The version is already specified for you. This cannot be changed.

     Code Version: The version is already specified for you. This cannot be changed.

Description: Specify a short description for the app.

Override URL: For information about this feature, see the blue information icon next to this field.

Featured: Select whether you want to feature this app.

Category: Select the category that most closely matches the app. You can add a new category as described in the dialog box.

2f (Optional) Click **Browse** to upload any screen shots that you have for the app.

The mandatory image size is displayed in the dialog box.

2g Click **Finish** to close the Add App Wizard.

3 Apply the Android label to your application:

3a From the **App Distribution Library** tab on the **Apps** tab, select the OpenText iPrint app that you created, then click **Actions** > **Apply To Label**.

The Apply To Label dialog box is displayed.

3b Select the **Android** label, then click **Apply** > **OK**.

Adding the iOS iPrint App

To add the iOS iPrint app to Ivanti Neurons, import it from the Apple Appstore and then apply the iOS label to the application:

1 Import the app from the Apple Appstore:

1a In the Ivanti Neurons Admin Portal, click the **Apps** tab.

1b On the **App Distribution Library** tab, in the **Select Platform** drop-down list, select **iOS**.

1c Click **App Store Import**.

The App Store Search dialog box is displayed.

1d In the **App Name** field, type `OpenText iPrint`.

1e In the **App Store** field, select the country appropriate to your location.

1f Click **Search**.

1g Click **Import** next to the OpenText iPrint app, then click **OK** after it is imported.

1h Close the App Store Search dialog box.

1i From the **App Distribution Library** tab on the **Apps** tab, click the **Edit** icon next to the OpenText iPrint app that you imported.

The Edit App for iOS dialog box is displayed.

1j Make any desired changes to the app details and icon, then click **Save**.

2 Apply the iOS label to your application:

2a From the **App Distribution Library** tab on the **Apps** tab, select the OpenText iPrint app that you just created, then click **Actions** > **Apply To Label**.

The Apply To Label dialog box is displayed.

2b Select the **iOS** label, then click **Apply** > **OK**.

12.3.3 Pre-Populating Fields for iPrint Login

Pre-populate the server URL and user ID fields for both the iOS and Android apps.

You must modify the app configuration for Android, and create a new app configuration for iOS.

- "Creating the iOS iPrint App Configuration for Ivanti Neurons" on page 135
- "Key-Value Pairs" on page 135
- "Modifying the Android iPrint App Configuration for Ivanti Neurons" on page 136

Creating the iOS iPrint App Configuration for Ivanti Neurons

1. In the Ivanti Neurons Admin Portal, click the **Policies & Configs** tab.
2. On the Configuration tab, click **Add New** > **AppConnect** > **Configuration**.

   The New AppConnect App Configuration dialog box is displayed.
3. Specify the following information:

   Name: Provide a name for the configuration, such as `iPrint iOS Configuration`.

   Description: (Optional) Provide a description for the configuration.

   Application: Specify the iPrint iOS bundle ID, which is `com.novell.print`.
4. In the **App-specific Configurations** section, click the **Plus** icon to add a new field to the key-value pair table; you can then specify the key-value pair to be included in the configuration.

   The key-value pairs that you can add are shown in Table 12-4, "iPrint Key-Value Pairs," on page 135. Key-value pairs that you add to the table represent the information that will be pre-populated for iPrint login.
5. Click **Save**.

Key-Value Pairs

Table 12-4 *iPrint Key-Value Pairs*

Key	Value
`server`	Specify the URL of your iPrint site. For example, iprint.acme.com.
`server2`	When specifying multiple servers, the subsequent servers will be `server2`, `server3`, and so forth. You can provide same or different user for each server.
`user`	Specify $USERID$ for Ivanti Neurons to automatically populate the app with the users' Ivanti Neurons user ID. Alternatively, you can specify an individual user's user ID.
`configlocked`	The value is true or false. By default, the value is true and the app users will not be able to modify the iPrint app configuration on their devices.

Examples for Key-Value Pairs

- **Multiple Servers and Same Users:** If there are two iPrint servers and you want all the app users to print through both the servers, specify the server values and `user` as the key.

Table 12-5 Multiple Servers and Same Users

Key	Value
server	iprint.acme.com
server2	iprint2.acme.com
user	$USERID$

- **Multiple Servers and Different Users:** If there are two iPrint servers and you want different set of app users to print through each server, specify the server values and subsequent `user` as the key. Use the key-value pair as `server` and `user` and `server2` and `user2`.

Table 12-6 Multiple Servers and Different Users

Key	Value
server	iprint.acme.com
user	$USERID$
server2	iprint2.acme.com
user2	$USERID$

Modifying the Android iPrint App Configuration for Ivanti Neurons

1. In the Ivanti Neurons Admin Portal, click the **Policies & Configs** tab.
2. On the **Configuration** tab, in the **Name** column, click the name of the iPrint configuration for the iPrint app that you uploaded, as described in "Adding the Android iPrint App" on page 133.
3. Click **Edit**.

   The Modify AppConnect App Configuration dialog is displayed.
4. Specify the following information:

   Name: Provide a name for the configuration, or keep the default.

   Description: (Optional) Provide a description for the configuration, or keep the default.

   Application: Select `OpenText iPrint` from the drop-down list.
5. In the **App-specific Configurations** section, keep or remove the key-value pairs that are shown in Table 12-4, "iPrint Key-Value Pairs," on page 135. Key-value pairs that remain in the table represent the information that will be pre-populated for iPrint login.
6. Click **Save**.

12.3.4 Distributing the iPrint App to Devices

You must distribute the iPrint app to devices in your organization via Ivanti Neurons if this is the first time your organization is using Ivanti Neurons with iPrint, or any time a new device enters the organization.

Some users might have independently download the iPrint app from the app store before their device is managed by Ivanti Neurons. Even in this scenario, you must push the app to their device via Ivanti Neurons. (These devices will lose any cached or downloaded files within the iPrint app after their device becomes managed and the iPrint app is pushed to their device.)

A Troubleshooting OES iPrint Advanced

The following are some common troubleshooting issues:

- Section A.1, “Unable to Login to IPCON After Upgrade,” on page 139
- Section A.2, “Post Printer Migration, Unable to Login to Mobile App and Access Secure Printers,” on page 139
- Section A.3, “Allow Users to Log in to Apps and Portal in the CN Format,” on page 140
- Section A.4, “Local Renderer Fails to Print the Password-Protected PDF Files,” on page 140
- Section A.5, “Printer Prints Junk Characters,” on page 140
- Section A.6, “All Print Jobs Fails Post Configuration,” on page 141
- Section A.7, “Email Printing Fails When the Filename Includes Extended Characters Or Double-byte Characters,” on page 141
- Section A.8, “Unable to Configure Email Printing When SSL Is Enabled for IMAP/POP on a Mail Server,” on page 142
- Section A.9, “Garbage Characters Printed When Printing from Gmail on Internet Explorer,” on page 142
- Section A.10, “Caveats,” on page 142

A.1 Unable to Login to IPCON After Upgrade

In a cluster setup, if you are unable to login to IPCON due to an OrientDB issue, then follow the TID 7024959 to resolve it.

A.2 Post Printer Migration, Unable to Login to Mobile App and Access Secure Printers

Post printer migration, logging in to the iPrint mobile app fails. Also, printing to secure printers fails when using **iPrint Portal** and Context-menu “iPrint” option. To resolve this issue, users can log in to the Mobile apps or secure printers by using the FQDN format (cn=admin,o=microfocus). To enable logging through the CN format, you must modify the trustee rights of the user container:

1. Login to iManager (https://<*IP Address or host name of OES iPrint Advanced server*>/nps).
2. Under **Roles and Tasks**, click **Rights > Modify Trustees.**
3. Browse and select the user container whose trustee you want to modify.
4. Click **Assigned Rights** link for that trustee.
5. To add the CN property, click **Add Property**, then click **Show all properties in schema** and click **OK**.
6. In **Modify Trustees**, select **Inherit** for CN property, then **Done** and **OK**.

You can successfully login to mobile apps and print through secure printers by using the FQDN format.

A.3 Allow Users to Log in to Apps and Portal in the CN Format

Users can log in to the mobile apps, Release Portal, and iPrint Portal only in the FQDN format (cn=admin,o=microfocus). To enable logging through the CN format, you must modify the trustee rights of the user container:

1. Login to iManager (https://*<IP Address or host name of OES iPrint Advanced server>*/nps).
2. Under **Roles and Tasks**, click **Rights > Modify Trustees.**
3. Browse and select the user container whose trustee you want to modify.
4. Click **Assigned Rights** link for that trustee.
5. To add the CN property, click **Add Property**, then click **Show all properties in schema** and click **OK**.
6. In **Modify Trustees**, select **Inherit** for CN property, then **Done** and **OK**.

A.4 Local Renderer Fails to Print the Password-Protected PDF Files

The local renderer fails to print password-protected or corrupt PDF files.

You might get a message in the audit page that the job is complete or success message for email printing, if the local renderer uses the pre-packaged driver for printing.

A.5 Printer Prints Junk Characters

When trying to print a document, the printer might print only junk characters in the following scenarios:

- This issue is caused because the local renderer does not support all the font types. To resolve this issue, you can install the Microsoft TrueType fonts on your iPrint server.
  1. Sign in as `root`.
  2. Navigate to the `fonts` directory.

     ```
     cd /opt/novell/iprintmobile/fonts/
     ```
  3. Install the `cabextract` RPM.

     ```
     rpm -ivh cabextract.rpm
     ```
  4. Install the `fonts-config` RPM.

     ```
     zypper in fonts-config
     ```

     NOTE: If the RPM package is already installed, the system will display the message: "The `highest available version is already installed`". You can safely proceed without taking any further action.

At this point, all required RPM dependencies are installed on the iPrint server.

5. Retrieve the fonts.

   `sh fetchmsttfonts-11.1-5.7.10-fetchmsttfonts.sh.txt`

- Few of the Linux drivers might fail to print due to absence of certain filters. You can verify this information, using the command: `lpstat -p`

  The command displays the status of the drivers. Change the driver for which you have received the failure messages. This is applicable only for local renderer.

- If the remote renderer is registered with Built-in-PDF Renderer for processing the PDF jobs, it might print junk characters for PDF files.

  To resolve this issue, you need to reconfigure the remote renderer using `iprntrendcmd -c` command.

- If the remote renderer is not registered for PDF file processing, the printer might print only junk characters and not the actual content. This can be caused by an incompatible printer driver.

  To work around this issue, use the drivers that are compatible with your printer.

A.6 All Print Jobs Fails Post Configuration

If Driver Store or Print Manager is not running, printing fails.

Execute the following command to list the installed drivers: `lpstat -p.`

If no drivers are listed, then run the following command to install the default driver: `sh /opt/novell/iprintmobile/bin/post_initial_config.sh -u <adminuser> -p <passwd>`

A.7 Email Printing Fails When the Filename Includes Extended Characters Or Double-byte Characters

Printing through email fails, if the name of the file includes either extended characters or double-byte characters.

To resolve this issue, rename the file to include only supported characters.

A.8 Unable to Configure Email Printing When SSL Is Enabled for IMAP/POP on a Mail Server

If SSL is enabled for IMAP/ POP on a mail server, you might be unable to configure email printing using the iPrint Console.

To work around this issue, you must manually import the mail server certificate into iPrint using the following procedure:

1 On the OES `iPrint Advanced` server, execute the following command:

```
keytool -import -alias <alias_name> -keystore /usr/lib64/jvm/jre-1.8.0-ibm/lib/security/cacerts -file <Cert_file_path>
```

Th default password is “`changeit`”.

2 To accept the certificate, restart the Mobile server:

rcnovell-iprint-mobile restart

A.9 Garbage Characters Printed When Printing from Gmail on Internet Explorer

If you are using Gmail on Internet Explorer and you try to print an email, you might see garbage characters in place of line breaks. This is caused by a character encoding issue.

To work around this issue, you must change the default text encoding to UTF-8 in your Gmail settings.

1 Launch Internet Explorer, then go to www.gmail.com.

2 Sign in to Gmail with your user name and password.

3 Click the settings icon in the upper-right corner of the screen, then select **Settings**.

4 Under **General** settings, in the **Outgoing message encoding** section, select **Use Unicode (UTF-8) encoding for outgoing messages**.

5 Click **Save Changes**.

A.10 Caveats

This section discusses the following caveats:

- Users should login to mobile apps, Release Portal, and iPrint Portal in FQDN format (cn=admin,o=microfocus).
- You must restart the mobile server on changing the driver store from local to remote or vice-versa. The command to restart the mobile server is `rcnovell-iprint-mobile restart`.
- If you need to restart Apache and Print Manager, it is recommended to first restart Apache, then the Print Manager.

B Supported Browsers for iPrint

The section provides information on which web browsers are supported for different iPrint tasks and operations.

- Section B.1, “iPrint Client Supported Browsers,” on page 143
- Section B.2, “Supported Browsers for the iPrint Plug-In and iManager,” on page 143
- Section B.3, “Supported Browsers for the iPrint Map Designer,” on page 144

B.1 iPrint Client Supported Browsers

The following table indicates which browsers are supported with the various iPrint Client platforms:

iPrint Client Platform	Supported Browsers
Macintosh	◆ Safari ◆ Mozilla Firefox ◆ Google Chrome
Windows 8.1	◆ Internet Explorer ◆ Mozilla Firefox ◆ Google Chrome
Windows 10	◆ Internet Explorer ◆ Mozilla Firefox ◆ Google Chrome ◆ Microsoft Edge

NOTE: Mozilla Firefox and Google Chrome browsers are supported only for installing printers.

B.2 Supported Browsers for the iPrint Plug-In and iManager

The iPrint plug-in with iManager supports the following browsers:

- Internet Explorer
- Mozilla Firefox

When you upload printer drivers and PPD files, you should use the following browsers for the operations indicated:

- Section B.2.1, “Uploading PPD Files Using iManager,” on page 144
- Section B.2.2, “Uploading Windows Printer Drivers Using iManager,” on page 144

B.2.1 Uploading PPD Files Using iManager

iPrint Client Platform	Supported Browser	Upload PPD file to Driver Store on Linux
Windows	Internet Explorer	Supported using the **Add from File** button.

NOTE: On Mac operating systems, PPD upload is not supported. PPD files for Mac can be uploaded using Internet Explorer on Windows. Alternatively, you can also upload the PPD files for Mac and Linux using the `iprntcmd` command from a terminal session. For uploading the PPD files for Mac and Linux, refer Section 4.10, “Using iprntcmd on Linux and Macintosh,” on page 39.

B.2.2 Uploading Windows Printer Drivers Using iManager

Client	Supported Browser	Upload Windows Printer Driver to Driver Store on Linux
Windows	Internet Explorer	Supported

B.3 Supported Browsers for the iPrint Map Designer

The iPrint Map Designer works only with Microsoft Internet Explorer.

C iPrint Commands and Utilities

This section contains information about iPrint commands and utilities.

- “iprntman(1)” on page 146
- “iprntcmd(1)” on page 161
- “ipsmd(1)” on page 165

iprntman(1)

Name

iprntman - Manage iPrint Managers and Driver Stores.

Syntax

This section contains iPrint commands and utilities used on the Linux platform.

`iprntman <target> <targetcommand><options>`

Description

iprntman is a management tool used to manage and configure iPrint print managers, driver stores, printers, pools, and print jobs. You can also import driver profiles from one server to the another.

Help

To display help about a specific target, use the following command:

Syntax

`iprntman <target> -h or iprntman <target> --help`

Example:

`iprntman psm -h or iprntman ids --help`

Target Summary

A target is the iPrint object type you want to manage. It includes either the target's distinguished name (DN) in LDAP format or just the common name.

NOTE: FDN is used for target's PSM and iPrint Driver Store (IDS) iprntman commands, and the common name is used for printer iprntman commands.

For example, if you want to modify settings for a printer with the common name *colorprinter*, the command and target appear as iprntman printer *colorprinter*.

target_type

driver

target_instance

<repository_name> <driver_name>

target_type

ids

target_instance

<IDS_DN>

target_type

job

target_instance

<printer_agent_name <JOBID>>

target_type

pool

target_instance

<pool_name>

target_type

printer

target_instance

<printer_agent_name>

target_type

profile

target_instance

<profile_name>

target_type

psm

target_instance

<print_manager_DN>

All distinguished names (DN) should be in LDAP format. If the name of a target instance or option contains a space, use quotes, for example, "HP LaserJet 4Si".

Target Commands

Target commands indicate which operation to perform for the specified target. For targets whose name is a distinguished name (DN), the DN is given in LDAP format. For example, to modify settings for a PSM with a DN of cn=manager,ou=printing,o=my_company, run the following command:

```
iprntman psm cn=manager,ou=printing,o=my_company
```

Driver Commands

For driver options, see “Driver Options” on page 155.

Syntax

```
iprntman driver <repos_name> <driver_name> <command> <options>
```

Example

```
iprntman driver driver_windows-nt-5_x86-32_en "HP Color LaserJet 5500
PS" -i
```

-d | --delete

Deletes a printer driver. This operation prompts interactively to reduce unintentional deletes. To skip the confirmation prompt, use the `-f` or `--force` option.

-i | --info

Displays driver information.

-l | --list

Lists drivers in a repository.

--upload

Uploads the driver to the IDS.

--download

Downloads the driver from the IDS.

Driver Store (IDS) Commands

Syntax

```
iprntman ids <ids_dn> <command> <options>
```

Example

```
iprntman ids cn=ids1,ou=print,o=my_company -c --hostname
printing.my_company.com --use-directory-server ds.my_company.com
```

-c | --create

Creates an IDS. See IDS OPTIONS for specific options.

-d | --delete

Deletes an IDS. This operation prompts interactively to reduce unintentional deletes. To skip the confirmation prompt, use the `-f` or `--force` option.

-i | --info

Displays information about an IDS.

-l | --list

Lists IDS instances.

--start

Starts IDS. All IDS instances on the server are started.

--status

Displays the status of the IDS.

--stop

Stops IDS. All IDS instances on the server are stopped.

Job Commands

Syntax

```
iprntman job <printer_name> <job_id> <command> <options>
```

Example

```
iprntman job HP_ColorLaserJet 3 -l
```

-d | --delete

Deletes a print job. This operation prompts interactively to reduce unintentional deletes. To skip the confirmation prompt, use the `-f` or `--force` option.

-i | --info

Displays information about a print job.

-l | --list

Lists all jobs for the specified printer.

--pause

Pauses the processing of a print job.

--resume

Resumes the processing of a print job.

--status

Displays the status of a print job.

Pool Commands

Syntax

```
iprntman pool <pool_name> <command> <options>
```

Example

```
iprntman pool Xerox_printer_pool -c --add-printer Xerox_printer -s
ds.my_company.com
```

-c | --create

Creates a printer pool on the server. Creation of an empty pool is not allowed. It is mandatory to pass the `--add-printer` option with this command.

-d | --delete

Deletes the specified printer pool. This operation prompts interactively to reduce unintentional deletes. To skip the confirmation prompt, use the `-f` or `--force` option.

-m | --modify

Modifies the printer pool.The modification includes adding or removing printers from the pool.

--add-printer *<printer_name>*

Adds the printer to the printer pool. This option works only with the `-c` option or `-m` option.

Example

```
iprntman pool Xerox_printer_pool \-m --add-printer Xerox_printer
```

--remove-printer *<printer_name>*

Removes the printer from the printer pool. This option works only with the `-m` option.

Example

```
iprntman pool Xerox_printer_pool \-m --remove-printer Xerox_printer
```

Print Manager (PSM) Commands

Syntax

```
iprntman psm <psm_dn> <command> <options>
```

Example

```
iprntman psm cn=PrintManager1,ou=print,o=my_company -c --hostname
printing.my_company.com --use-ids cn=ids,ou=print,o=my_company --use-
directory-server ds.my_company.com
```

-c | --create

Creates a Print Manager. See PRINT MANAGER (PSM) OPTIONS for specific options.

-d | --delete

Deletes the specified Print Manager. This operation prompts interactively to reduce unintentional deletes. To skip the confirmation prompt, use the -f or --force option.

-i | --info

Displays information about the Print Manager.

-l | --list

Lists the Print Manager instances.

--set-default

Make this Print Manager the default manager. This is useful when you have created several Print Managers running on the same machine and want to specify one to be the default on the next load. When you load a Print Manager, it is automatically set as the default.

--start

Starts the default Print Manager. If the Print Manager DN is given, it starts the Print Manager corresponding to DN; otherwise, the current default Print Manager is started. When a Print Manager is started, it becomes the default Print Manager.

--status

Displays the Print Manager status.

--stop

Stops the running Print Manager. If the Print Manager DN is given, it verifies that the running Print Manager corresponds to the Print Manager DN; otherwise, the currently running Print Manager is stopped.

Printer Commands

Syntax

```
iprntman printer <printer_name> <command> <options>
```

Example

```
iprntman printer Xerox_Color -d -s server1.my_company.com
```

-c | --create

Creates a Printer Agent. See PRINTER OPTIONS for specific options.

-d | --delete

Deletes the specified Printer Agent. This operation prompts interactively to reduce unintentional deletes. To skip the confirmation prompt, use the -f or --force option.

--grant-access *<object_DN>*

Adds the object as a user to the printer's Access Control List (ACL), explicitly granting print access to the object. If the printer is a secure printer (see --ssl-required), only supervisors and users with rights to the printer can access the printer. Access can be granted to User, Group, and Container objects. Granting access to a group or container allows contained users and groups to inherit access.

--grant-operator *<object_DN>*

Adds the object as an operator to the printer's ACL list, explicitly granting Operator Role access to the object. Only supervisors and users with Operator or Manager rights to the printer can manage the printer. Access can be granted to User, Group, and Container objects. Granting access to a group or container allows contained users and groups to inherit access.

--grant-manager *<object_DN>*

Adds the object as a manager to the printer's access ACL list, explicitly granting print access to the object. If the printer is a secure printer (see --ssl-required), only users with rights to the printer and supervisors can access the printer. Access can be granted to User, Group, and Container objects. Granting access to a group or container allows contained users and groups to inherit access.

-i | --info

Displays printer information.

-l | --list

Lists target instances.

-m | --modify

Modifies properties of the printer. See PRINTER OPTIONS for specific options.

-n | --new-name

Renames the printer.

--pause-input

Pauses printer input.

--pause-output

Pauses output from the printer.

--purge-all-jobs

Deletes all jobs queued for this printer.

--resume-input

Resumes printer input.

--resume-output

Resumes output from the printer.

--start

Starts the Printer Agent when it is shut down.

--revoke-access *<object_DN>*

Removes the object as a user from the printer's ACL list, revoking explicitly granted print access from the object.

Removing a user, group, or container from the ACL might not take away the access rights because they might also inherit access based on other permissions.

For example, if the ACL contains a user named “Bob” and the group named “Sales”, and Bob is also a member of the group Sales. Revoking access from Bob is not sufficient to prohibit Bob's access to the printer. Bob still inherits the rights as a member of the group Sales.

--revoke-manager *<object_DN>*

Removes the object as a manager from the printer's ACL list revoking the explicitly granted print access from the object.

Removing a user, group, or container from the ACL might not take away the access rights because they might also inherit access based on other permissions.

For example, if the ACL contains user named “Bob” and the group “Sales”, and Bob is also a member of group Sales. Revoking access from Bob is not sufficient to prohibit Bob's access to the printer. Bob still inherits rights as a member of the group Sales.

--revoke-operator *<object_DN>*

Removes the object as an operator from the printer's ACL list revoking the explicitly granted printer access.

Removing a user, group, or container from the ACL might not take away the access rights because they might also inherit access based on other permissions.

For example, suppose that the ACL contains user Bob and the group Sales, and Bob is also a member of group Sales. Revoking access from Bob is not sufficient to prohibit Bob's access to the printer. Bob still inherits rights as a member of the group Sales.

--status

Displays the printer status.

--stop

Shuts down the Printer Agent.

Profile Commands

Syntax

```
iprntman profile --list [platform] <options>
iprntman profile --import ["profile1,profile2,.."] <options>
```

Example

```
iprntman profile --list
```

-l | --list

Lists all the driver profiles on the server. You can also specify the platform (`win9x`, `winnt`, `win2k`, `winxp`, `vista32`, `vista64`, `win732`, `win764`, `win832`, `win864`,`win1032`, `win1064`, `linux`, `mac`)for which you want to list the profiles.

For example, to list the driver profiles for Windows 8 platform, specify the value as Windows 8, Windows 8 (x64), or win764. To list the driver profiles for Windows 10 or 10.1 platform, specify the value as Windows 10/10.1, Windows 10/10.1 (x64), or win864. The profiles for Windows 10 or Windows 10.1 are same.

--import

Imports all the driver profiles from one server to another. You can also specify the profiles to be imported in a comma separated format. The Print Manager must be running on both the servers.

--overwrite

Overwrites the existing profile.

--source-server

Specify the hostname or IP address of the server from where to copy the driver profiles. The Print Manager service must be running on this server.

--source-username

Specify the user (LDAP format) who has the privileges to perform the import operation. For example: cn=admin,o=iPrintAppliance.

--source-password

Specify the password of the user performing the import operation.

Options

Options modify the command specified. General options can be used with all commands in conjunction with target specific options.

General Options

-f | --force

Suppresses the display of interactive confirmation prompts for the delete and other operations.

-p | --passfile *<filename>*

Specifies a file containing a password for the eDirectory user performing the operation. By default, if a password is required, the user is prompted. For security purposes, ensure that your password file is not readable by other users.

-P | --password

Specifies the password for the eDirectory user performing the operation. Use of this option should be limited because other users can see command line options, including the password. Use --passfile instead.

-s | --server *<host>*

Specifies a server host on which to perform the operation, where host is a hostname or IP address. Defaults to localhost.

-u / --*username <username>*

Specifies a username that is in LDAP format, using the FDN of the eDirectory user performing the operation. For example: cn=admin,o=myorganization

-v | --verbose

Determines the level of detail to display about the execution of operations.

-w | --warnings

Disables any warning messages from appearing.

--accept-cert

Automatically accepts any certificates when you make your first IPP connection or your first direct eDirectory access through the JNDI library.

--log-level

Sets the log level to one of these: SEVERE (highest), WARNING, INFO, CONFIG, FINE, FINER, or FINEST.

-mime | --mimetype *<arg>*

MIME type of the file during job submission.

-version | --UserAgentVersion *<arg>*

Version of the User Agent that submits the job.

Driver Store (IDS) Options

--hostname *<hostname>*

When you create URIs for drivers and repositories associated with this IDS, this hostname is used. If it is not specified, it defaults to whatever is specified by --server.

Example: `--server server2.my_company.com --hostname ids.my_company.com`

--use-directory-server *<ds_hostname>*

The directory servers this IDS uses. The hostname can be followed by an optional port, if the directory server is running on a non-standard port. This option can be specified up to three times to designate a primary server and two backup directory servers.

Example: `--use-directory-server ds1.my_company.com use-directory-server ds2.my_company.com`

Driver Options

--from-ids-zip *<zipfile>*

For use with the --upload command. The *<zipfile>* is a `.zip` file that came directly from an iPrint Driver Store. This option is intended to facilitate scripts for IDS backup/restore or IDS synchronization.

--from-ppd *<ppdfile>*

For use with the --upload command. The *<ppdfile>* is a `.ppd` file for Linux or Mac OS X clients.

Print Manager (PSM) Options

--hostname *<hostname>*

Use this hostname when you create URIs for services associated with this Print Manager. If it is not specified, it defaults to whatever is specified by --server. You should use this option with the create (-c) and modify (-m) commands.

Example: `--server server1.my_company.com --hostname printserver.my_company.com`

--use-ids <DN>

Specifies the IDS that printers on this Print Manager will use. This option is required when creating a Print Manager.

Example: `--use-ids cn=ids,ou=print,o=my_company`

--use-directory-server *<ds_hostname>*

The directory server this Print Manager uses. The host name can be followed by an optional port, if the directory server is running on a non-standard port.

Example: `--use-directory-server ds1.my_company.com:663`

Printer Options

--audit-enable <yes|no>

Enables auditing for this printer.

--banner *<banner_name>*

Specifies the banner you want to use for this printer.

Example: `--banner BigBanner`

--container *<container_DN>*

Only valid on printer creation. A directory object corresponding to the printer is created with the DN CN=*<printer_name>*,*<container_DN>*. If this option is not used, the Print Manager's object container is used.

Example: `--container ou=printers,o=my_company`

--description *<description_string>*

Set the description of the printer.

Example: `--description "Marketing color laser printer"`

--direct-print-enabled <yes|no>

Enables or disables iPrint Direct, which lets you print directly to the printer and bypass the Print Manager.

--driver-*<platform>* *<driver_name>*

Set the IDS driver associated with the printer for the specified platform (`win9x`, `winnt`, `win2k`, `winxp`, `win732`, `win764`, `vista32`, `vista64`, `linux`, `mac`). The *driver_name* is the name of the driver in the iPrint Driver Store used by the iPrint Print Manager for the printer.

Example `--driver-winxp "HP 5 Si/Mx"`

--gateway-load-string *<load_string>*

Lets you specify the gateway load string information. This load string is usually used to specify the printer's IP address. You must use the entire syntax, as shown in the example, every time this option is used. This field is required when creating a Printer Agent.

Example: `--gateway -load -string "iprintgw PORT=LPR HOSTNAME=192.168.0.100 PRINTERNAME=PASSTHROUGH"`

If you need to connect to a printer using port 9100, use PORT=RAW.

See `iprintgw` for options that can be passed to the gateway in the load string.

--accounting-load-string*<arg>*

Lets you set the accounting load string for the printer.

--location *<location_string>*

Set the location string of the printer

Example: `--location "Second floor, South West corner"`

--lpr-input-enabled <yes|no>

Allows the printer to accept LPR print jobs.

--profile-*<platform>* *<profile>*

Set the printer profile you want associated with the printer for the specified platform (`win9x`, `winnt`, `win2k`, `winxp`, `win7`, `vista`, `linux`, or `mac`). The *profile* is the name of the profile used by the iPrint Print Manager for the printer.

Example `--profile -winxp "HP 5 Si/Mx A4paper"`

--ssl-required <yes|no>

Specifies whether or not Secure Sockets Layer (SSL) is required for clients to print to this printer.

--auto-driver-update <yes|no>

Enables the printer for automatic driver and profile updates.

iprntman.conf File

The `iprntman.conf` file defines the scope of search when authenticating short user names. You can use either `iprintssl.conf` or `iprntman.conf`. To use `iprintssl.conf`, you must change the `iprintssl.conf` parameter to `yes` in the `iprntman.conf` file. The `iprntman.conf` file is located at `/etc/opt/novell/iprintmgmt/conf/iprntman.conf`, and the `iprintssl.conf` file is located at `/etc/opt/novell/iprint/httpd/conf/iprint_ssl.conf`.

Examples

Creating a Driver Store

Syntax

```
iprntman ids <IDS_DN> -c --hostname <DNS_name> --use-directory-server
<ds_hostname>
```

Example

```
iprntman ids cn=ids1,ou=print,o=my_company -c --hostname
printing.my_company.com --use-directory-server ds.my_company.com
```

Creating a Print Manager

Syntax

```
iprntman psm <print_manager_DN> -c --hostname <DNS_name> --use-ids
<IDS_DN> --use-directory-server <ds_hostname>
```

Example

```
iprntman psm cn=PrintManager1,ou=print,o=my_company -c --hostname
printing.my_company.com --use-ids cn=ids,ou=print,o=my_company --use-
directory-server ds.my_company.com
```

Creating a Printer

Syntax

```
iprntman printer <printer_agent_name> -c --container <container_DN> --
gateway-load-string "iprintgw port=lpr hostaddress=<IP_address>
printername=passthrough"
```

Example

```
iprntman printer "HP Color LaserJet 5000" -c --container
ou=print,o=my_company --gateway-load-string 'iprintgw port=lpr
hostaddress=192.0.34.166 printername=passthrough'
```

Creating a Printer As a Non-Root User

On OES, non-root local users can also create and delete printers.

1. Add the non-root local user to the LUM group.
2. Set the required permissions for the directory by using the command `chmod -R 775 /var/opt/novell/log/iprntmgmt/`.
3. Provide LUM group rights to the directory by using the command `chgrp <group> /var/opt/novell/log/iprintmgmt`.
4. Modify the `Logger.properties` file located at `/opt/novell/iprintmgmt/lib/Logger.properties` by adding `%h` on line 19.

   For example: `java.util.logging.FileHandler.pattern=/var/opt/novell/log/iprintmgmt/%h/iprintman%g.log`.

Log files are created for each user individually.

List Printer Drivers in Repository for Windows 2000

Syntax

```
iprntman driver <repository_name> -l
```

Example

```
iprntman driver driver_windows-nt-5_x86-32_en -l
```

Upload Printer Driver

Syntax

```
iprntman driver <repository_name <driver_name>> --upload
```

Example

```
iprntman driver driver_windows-nt-6.1_x86_32_en --upload --from-ids-zip
/root/drivers/drv.zip
```

Assign Print Driver to Printer

Syntax

```
iprntman printer <printer_agent_name> -m --driver-<platform>
<driver_name>
```

Example

```
iprntman printer "HP LaserJet 4" -m --driver-winxp "HP LaserJet 4Si"
```

Import Driver Profiles from One Server to Another Server

Syntax

```
iprntman profile --import ["profile1, profile2.."] -s <host> -u
<username> -P <password> --source-server <source_servername> --source-
username <source_username> --source-password <source_password>
```

Example

```
iprntman profile --import -s ds.my_company.com -u
cn=admin,o=iPrintAppliance -P novell --source-server 192.168.0.100 --
source-username cn=admin,o=iPrintAppliance  --source-password novell
```

The import command is executed on the server ds.my_company.com. All the driver profiles are imported from the source server *192.168.0.100* to the server *ds.my_company.com*.

Imports specific driver profiles

Syntax

```
iprntman profile --import ["profile1, profile2.."] -s <host> -u
<username> -P <password> --source-server <source_servername> --source-
username <source_username> --source-password <source_password>
```

Example

```
iprntman profile --import "Profile1, Profile 2" -s ds.my_company.com -u
cn=admin,o=iPrintAppliance -P novell --source-server 192.168.0.100 --
source-username cn=admin,o=iPrintAppliance  --source-password novell
```

The import command is executed on the server ds.my_company.com.The driver profiles “Profile1” and “Profile 2” are imported from the source server *192.168.0.100* to the server *ds.my_company.com*.

Overwrites profiles that already exists on the server

Syntax

```
iprntman profile --import ["profile1, profile2.."] --overwrite -s
<host> -u <username> -P <password> --source-server <source_servername>
--source-username <source_username> --source-password <source_password>
```

Example (Profile 2 exists on the ds.my_company.com server)

```
iprntman profile --import "Profile1, Profile 2" --overwrite -s
ds.my_company.com -u cn=admin,o=iPrintAppliance -P novell --source-
server 192.168.0.100 --source-username cn=admin,o=iPrintAppliance  --
source-password novell
```

The import command is executed on the server ds.my_company.com. The driver profile “Profile1” is imported from the source server *192.168.0.100* to the server *ds.my_company.com*. The “Profile 2” on the server is overwritten with the corresponding attributes from the source server *192.168.0.100*.

Enable Auditing and SSL on Printer

Syntax

```
iprntman printer <printer_agent_name> -m --audit-enabled yes --ssl-
required yes
```

Example

```
iprntman printer "HP LaserJet 4" -m --audit-enabled yes --ssl-required
yes
```

Modify Printer Location and Description

Syntax

```
iprntman printer <printer_agent_name> -m --location <location_info> --
description <description_info>
```

Example

```
iprntman printer "HP LaserJet 4" -m --location "Next to front desk" --
description "Color printer with envelope tray"
```

Delete a Printer

Syntax

```
iprntman printer <printer_agent_name> -d
```

Example

```
iprntman printer "HP Color LaserJet 5000" -d
```

Display Information about a Printer

Syntax

```
iprntman printer <printer_agent_name> -i
```

Example

```
iprntman printer "HP LaserJet 4Si" -i
```

Associate Drivers to an Existing Printer

Syntax

```
iprntman printer <printer_agent_name> -m --driver-<platform>
<driver_name>
```

Examples

```
iprntman printer printer1 -m --driver-winxp "HP LaserJet 4200 PCL 5e"
iprntman printer printer1 -m --driver-win2k "HP LaserJet 3200 Series
PCL 5e"
iprntman printer printer1 -m --driver-linux "HP LaserJet 8000 Series"
```

You can list the drivers in the Driver Store by using the following Linux command:

```
ll /var/opt/novell/iprint/resdir/<platform>
```

Files

The `iprintman.keystore` file is available in the user's home directory.

iprntcmd(1)

Name

`iprntcmd` - iprint administrative utility.

SYNTAX

`iprntcmd` *<options> <parameter>*

DESCRIPTION

iprntcmd provides command-line functionality for iPrint administrative tasks on a workstation.

OPTION SUMMARY

You must use quotes around parameters that contain spaces.

OPTIONS

Option type <parameter>

-a | --addprinter *<printer-uri>*

Installs the specified printer.

-c | --clearallpasswords

Clears all saved passwords.

-d | --delprinter *<printer-uri>*

Removes the specified printer.

-d | --delprinter all

Remove all the printers. This option requires your confirmation before removing all the printers.

-d | --delprinter all --force

Remove all the printers. This option removes all the printers forcibly without any user intervention.

-f | --fetchdriverlocal <printer-uri>

Fetches the printer driver on local machine.

-g | --getdefault

Displays the default printer installed on the workstation.

-h | --help

Displays help for the command.

-j | --listjobs *<printer-uri>*

Lists the print jobs for the specified printer that are on the server in a pending or printing state.

-i | --info *<printer-uri>*

Displays the printer information.

--icm-refresh [no-gui]

Applies the iCM settings modified by the administrator. If the [no-gui] option is used, the modified settings are applied but no iCM GUI is displayed.

-l | --listprinters

Lists printers installed on the workstation.

-L | -listprintersonserver *<psm-hostname or psm-address>*

Lists iPrint printers on the specified Print Manager where *psm-hostname* or *psm-address* can be a DNS name or IP address.

-p | --printfile *<printer-uri> <file path>*

Sends a printer-ready file to the specified iPrint printer.

-P | --ppdlist

Lists the PPDs installed on this workstation. This option is only available on a Macintosh client.

-r | --run-listener

Launches the `iprint-listener` process if it is not already running. This option is only available on a Macintosh client.

-r | --purgealljobs <printer-uri>

Purges all jobs of the specified printer. This option is only available on a Windows client.

-s | --setdefault *<printer-uri>*

Sets the specified printer as the default.

-S | --setprimarypsm <IP/DNS>

Sets the PSM address for iCM configuration.

-t | --testpage *<printer-uri>*

Prints a test page to the specified printer.

-T | --tray-icon

Displays an iPrint icon to the notification area and launches the `iprint-listener-gui` process, if it is not running. This option is only available with Macintosh client.

-u | --uploadids *<ids-uri> <ppd path with/without wildcards>*

Uploads the specified PPD files to the indicated driver store where ids_uri is the IP address or DNS name for the driver store, and ppd is the directory path and filename to the PPD files. You can use a wildcard in the PPD filename.

-U | --uploadbroker *<rms-uri> <rms-name> <ppd path with/without wildcards>*

Uploads the specified PPD files to the indicated Broker where rms_uri is the IP address or DNS name for the Broker's associated print manager, rms_name is the username with rights to add drivers to the broker, and ppd is the directory path and filename to the PPD files. You can use a wildcard in the PPD filename.

-v | --version *<psm-hostname or psm-address>*

Displays the server platform and version information where *server_uri* is the URI for the server.

-w | --trustedwebsiteforInternetExplorer *<printer_installation_page_uri>*

Adds the specified URI of the printer installation page to the trusted site list for Internet Explorer.

The trusted site list allows users to view and add the printers directly from the printer IPP site or printer map page, without running the Internet Explorer browser with administrator privileges on Windows Vista.

For example, *http://printing.my_company.com/ipp*.

EXAMPLES

Syntax

`iprntcmd --<option> ipp://<host_address>/ipp/<printer_name>`

Example to add a printer

iprntcmd --addprinter ipp://printing.MyCompany.com/ipp/Printer1

Example to delete a printer

iprntcmd --delprinter ipp://printing.MyCompany.com/ipp/Printer1

Example to get a default printer

iprntcmd --getdefault

Example to list the print jobs

iprntcmd --listjobs ipp://printing.MyCompany.com/ipp/Printer1

Example to get the list of installed printers

iprntcmd --listprinters

Example to get the list of printers on a server

iprntcmd --listprintersonserver printing.MyCompany.com

Example to print a file

iprntcmd --printfile ipp://printing.MyCompany.com/ipp/Printer1 /home/user1/temp.txt

Example to get a list of local ppd files

iprntcmd --ppdlist

Example to set a default printer

iprntcmd --setdefault ipp://printing.MyCompany.com/ipp/Printer1

Example to test a print page

iprntcmd --testpage ipp://printing.MyCompany.com/ipp/Printer1

Example to upload driver <without using a wildcard> to ids

iprntcmd --uploadids printing.MyCompany.com /usr/share/cups/model/HP/LaserJet_4V_4LJ_Pro-lj4dithp.ppd.gz

or

iprntcmd --uploadids 192.168.3.4 /usr/share/cups/model/HP/LaserJet_4V_4LJ_Pro-lj4dithp.ppd.gz

Example to upload driver <using a wildcard> to ids

iprntcmd --uploadids printing.MyCompany.com /usr/share/cups/model/HP/LaserJet_4*

or

iprntcmd --uploadids 192.168.3.4 /usr/share/cups/model/HP/LaserJet_4*

Example to upload drivers (without using a wildcard) to rms

iprntcmd --uploadbroker printing.MyCompany.com rms_name /usr/share/cups/model/HP/LaserJet_4V_4LJ_Pro-lj4dithp.ppd.gz

or

iprntcmd --uploadbroker 192.168.3.4 rms_name /usr/share/cups/model/HP/LaserJet_4V_4LJ_Pro-lj4dithp.ppd.gz

Example to upload drivers (using a wildcard) to rms

iprntcmd --uploadbroker printing.MyCompany.com rms_name /usr/share/cups/model/HP/LaserJet_4*

or

iprntcmd --uploadbroker 1.2.3.4 rms_name /usr/share/cups/model/HP/LaserJet_4*

Example to get iprint server version

iprntcmd --version printing.MyCompany.com

or

iprntcmd --version 192.168.3.4

Example to get information of a printer

iprntcmd --info ipp://printing.MyCompany.com/ipp/Printer1

See Also

iprintman(1)

ipsmd(1)

Name

ipsmd - The daemon for the OES iPrint Services.

Syntax

ipsmd *<options>*

Options

Usage Options:

-c, 'config file'

Lets you specify an alternative ipsmd configuration file.

-m

Lets you run ipsmd without monitor process.

-n

Indicates that ipsmd should not be daemonized.

-R

Lets you run ipsmd as a 'root' user.

-r, 'savedDBFile'

Restores the Managed Object Database from the saved file.

NOTE: Include only the filename without a path.

-x, <XML File>

Lets you import the XML file.

-u

Allows you to enter the username in FQDN LDAP format.

-P

Allows you to enter the password for authentication.

Help Options:

-h, --help

Display the help information and exit.

D OES iPrint Advanced Support Matrix

This section provides information on the following.

- Section D.1, “Mobile Server Support,” on page 167
- Section D.2, “Mobile Operating System Support,” on page 167
- Section D.3, “iPrint Console Support,” on page 168
- Section D.4, “Ivanti Neurons Support,” on page 168
- Section D.5, “Remote Renderer,” on page 168
- Section D.6, “Supported Document Formats By the Local Renderer and Remote Renderer,” on page 169
- Section D.7, “Clients for Email Printing,” on page 170

D.1 Mobile Server Support

Table D-1 *Mobile Server Support*

Features	Version
Email	◆ GroupWise 18.4.x ◆ Microsoft Exchange 2013 ◆ Gmail ◆ IBM Domino server 9 ◆ Lotus Notes

D.2 Mobile Operating System Support

Table D-2 *Mobile Operating System Support for Apps*

Type	Version
iOS	◆ 16.x ◆ 15.x ◆ 14.x ◆ 13.*x* ◆ 12.*x*

Type	Version
Android	◆ Android 13 (13.x) ◆ Android 12 (12.x) ◆ Android 11 (11.x) ◆ Android 10 (10.x) ◆ Pie (9.x) ◆ Oreo (8.x) ◆ Nougat (7.x)
Amazon Kindle	Fire Phone OS 4.6.6.1

D.3 iPrint Console Support

Table D-3 *Management Console Support*

Access	Version
Browser	◆ Microsoft Edge ◆ Firefox ◆ Chrome ◆ Safari latest on Mac ◆ iOS 10.x or later tablet with default browsers ◆ Android 6.x or later tablet with default browsers

D.4 Ivanti Neurons Support

Table D-4 *Support Matrix*

Ivanti Neurons for MDM	OpenText iPrint Mobile App Version
100 - 110	24.3 for iOS and Android

D.5 Remote Renderer

- Table D-5, “Operating Systems Support,” on page 169
- Table D-6, “Software Support,” on page 169

Table D-5 *Operating Systems Support*

Support	Version
Operating System	◆ Windows 10 64-bit Enterprise ◆ Windows 8.1 64-bit Enterprise ◆ Windows 2016 Standard ◆ Windows 2012 R2 Standard ◆ Windows 2008 R2 64-bit Enterprise ◆ Windows Vista (32-bit and 64-bit)

Table D-6 *Software Support*

Support	Version
Microsoft Office	◆ Ms Office 2016 (64-bit) Standard ◆ Ms Office 2013 (32-bit and 64-bit) Standard
Adobe Acrobat	Adobe Acrobat XI Professional

D.6 Supported Document Formats By the Local Renderer and Remote Renderer

Table D-7 *Local Renderer Supported Document Formats*

Software	File Formats
OpenDocument	ODT, ODP, ODG, ODS
Graphics	JPG, BMP, TIF, GIF, PNG
Others	PDF TXT HTML (Static) Static HTML content refers to the HTML content that does not change or have dependencies on external files such as MySQL database and JavaScript.

Table D-8 *Remote Renderer Supported Document Formats*

Software	File Formats
Microsoft Word	DOC, DOCX, DOCM, DOTM, RTF
Microsoft Excel	XLS, XLSX, XLSM, XLSB
Microsoft PowerPoint	PPT, PPTX, PPTM, PPTX
Others	PDF

D.7 Clients for Email Printing

- Novell GroupWise 2012 and Novell GroupWise 2014
- Microsoft Outlook 2010
- IBM Lotus Notes 9
- iOS 5, 6. *x*, 7.*x* default mail client
- Mail clients on Android 4.x or later
- Gmail
- Groupwise 18.3.x

E Log Files Location

This section details the location of the OES iPrint Advanced log files:

Name	Location
Mobile Server	/var/opt/novell/log/iprintmobile/iprint_mobile*.log
iPrint Console	/var/opt/novell/iprint-tomcat/logs/catalina*.log
iPrint auth log	/var/opt/novell/log/iprintauth/iprint-auth.log
License Server	/var/opt/novell/log/iprintlicense/license*.log
OCS	/var/opt/novell/log/iprintgmt/iprintocs*.log

F iPrint Advanced Configuration for Mobile Service (Optional)

In addition to the iPrint Console, there are a few additional parameters that can be configured to fine-tune the iPrint service, based on your network and printing requirements. The iPrint Server Configuration file, located at `/etc/opt/novell/iprintmobile/conf/iprintmobile.conf`, allows you to customize the iPrint Mobile service per your requirements.

You must configure the `iprintmobile.conf` file manually. When assigning a value to any parameter, ensure that you uncomment the line, in order for the changes to take effect.

IMPORTANT: After configuring the file, you must restart the iPrint Mobile service through the iPrint Console.

The advanced configuration is optional. For most environments, the configuration does not require modifications.

The OES `iPrint Advanced` server configuration file contains the following information:

Table F-1 *Server Configuration File Contents*

Parameter	Default Value	Function
home_directory	/var/opt/novell/iprintmobile	A directory on the file system that is used to store the data. This folder contains the service metadata and temporary job data.
conversion_wait_time	300	Duration of time (in seconds) that the job submission threads wait for the job conversion threads.
db_backup_interval	10000	Duration (in milliseconds) after which the database is backed up on the disk.
is_test_setup	false	Set this flag if the server is being set up for testing and no dedicated email address is available. Print job requests are read-only from the Cabinet folder.
job_submission_thread_timeout	60	Duration (in seconds) for which an excess idle thread waits before terminating.

Parameter	Default Value	Function
delete_completed_job_data	true	Deletes the converted email print job data stored at `/var/opt/novell/iprintmobile/jobs/`. Set the value to *false* to retain the converted job data for email print jobs. The /var/opt/novell/iprintmobile/jobs/ folder does not maintain the IPP job data. IPP job data includes job data from the Novell iPrint app. The job data for apps are stored in the PA spool directory of the Print Manager. **WARNING:** If you set the value to *false*, you must ensure that you delete the print job data regularly to free up disc space. If the disk space gets full, then email print jobs are not processed.
fallback_to_local_converter	false	If the remote renderer fails, you can run the job through a local converter.
num_email_receiver_threads	0	Configure this parameter to the maximum number of threads to be used for processing multiple mailboxes. By default (when set to 0), the number of threads to email addresses ratio is 1:5 (1 thread per 5 email addresses).
use_global_address_for_notifications	false	By default, notifications are sent from the printer-specific email address. Change the value to 'true' if you want to send notifications to users using the global email address.
renderer_time_out	180000	Duration (in milliseconds) after which a registered renderer times out and moves to an inactive state.
verify_certificates	false	Disable certificate validation.
renderingOnlyServiceEnabled	true	RenderOnly Configuration
backendRenderingPollingInterval	500	Backend Rendering Polling Interval (in milliseconds)
email_polling_interval	30000	Configures the interval (in milliseconds) at which emails are fetched from mail servers.
subject_optional_for_printer_specific_emails	true	Stops printing emails without the correct iPrint email print command. By default this value is 'true.' Emails forwarded to the printer-specific email address, with or without a subject line, are printed.
email_reconnect_interval	30	If the email server is unavailable, OES iPrint Advanced tries to reconnect to the email server after the specified duration (in seconds).
stellent_conversion_thread_count	5	Number of threads allocated for job conversion.
pdf_conversion_thread_count	10	Number of threads allocated to PDF job conversion.
convert_stellent_pdf_using_external_renderer	true	If this is set to false the PDF job data is not send to the remote renderer, even if the remote renderer is configured and active.

Parameter	Default Value	Function
enable_client_login	false	By default this value is ‘false’. Set this value to ‘true’ if you require user authentication in apps for printer-based license.
driver_update_interval	60	Duration (in minutes) after which driver update is triggered.
default_network_interface	eth0	Change the default value, if you have configured multiple NIC cards configured.
direct_pdf_print	-	Add and set this value to ‘true’ to enable direct pdf printing. If this parameter is not added or set to ‘false’, then the printing is done in the earlier way where the jobs are rendered by the Renderer.
proxy_server_hostname	-	Add and specify the value as IP address or host name along with port number. Whenever a user adds the proxy configured iPrint server in the iPrint mobile app, it will automatically get configured with the Proxy server. All the requests of the mobile app users will be redirected to the iPrint server thru the proxy server. For example, http://proxy.mycompany.com:8080