



Release Notes for InfoPrint Manager for Linux 4.4.1 (March 2015)



Release Notes for InfoPrint Manager for Linux 4.4.1 (March 2015)

Copyright © 2014, 2015 Ricoh Company Ltd. All rights reserved.

This edition applies to InfoPrint Manager for Linux, Version 4 Release 4. It is available on the Ricoh Production Print Web site: <http://rpp.ricoh-usa.com/>

What's new in Release 4.4.1?

- **Added support for the following InfoPrint Manager for Linux features:**

- **AFP2PDF Feature.**

The Infoprint Manager AFP2PDF feature is now available for the Linux operating systems. The `afp2pdf` transform converts Mixed Object Document Content Architecture (MO:DCA-P) documents, also called AFP documents, to Adobe Portable Document Format (PDF) documents to be viewed, archived, e-mailed, or printed.

For more information, see *InfoPrint Manager AFP2PDF Transform Feature: Installing and Using*, G550-1057, *InfoPrint Manager for Linux: Planning Guide*, G550-20262, and *InfoPrint Manager for Linux: Getting Started*, G550-20263.

- **InfoPrint 4247 Feature.**

InfoPrint Manager supports InfoPrint 4247 IPDS printers on Linux platforms.

- **Japanese PostScript Font Feature.**

The Infoprint Manager Japanese PostScript Font feature is now available for the Linux operating systems. This feature lets users to print the Kanji fonts required by PostScript data streams.

For more information, see *InfoPrint Manager for Linux: Planning Guide*, G550-20262.

- **Print Page Printer Formatting Feature.**

Print Page Printer Formatting lets users of Advanced Function Presentation (AFP) products create form definitions and page definitions on a variety of different operating systems. These definitions specify how pages of printed output are formatted and how the printer should handle the physical sheets of paper. Using Print Page Printer Formatting, you can turn unformatted z/OS or ASCII line data into highly effective documents without making changes to the application program.

The InfoPrint Manager Page Printer Formatting Aid feature runs only on AIX or Windows operating systems. However, the resulted form definitions and page definitions can be used on InfoPrint Manager for Linux as well. All resources created with PPFA on AIX or Windows need to be copied on Linux.

For more information, see *InfoPrint Manager for Linux: Planning Guide*, G550-20262.

- **Print-On-Demand Feature.**

The InfoPrint Manager Print-On-Demand feature is now available for the Linux operating systems.

Print-On-Demand is the commercial print option available with InfoPrint Manager for Linux. With this support you can obtain:

- ◆ Personalized Print Markup Language (PPML) transform, which is an emerging XML-based data stream that can include PDF, PostScript, TIFF, and JPEG objects. The PPML transform converts PPML data into AFP data
- ◆ InfoPrint Manager server (Basic)
- ◆ InfoPrint Submit Express
- ◆ InfoPrint Job Ticketer
- ◆ Halftone Management System

For more information, see *InfoPrint Manager for Linux: Getting Started*, G550-20263.

– **Pull Print Feature.**

The InfoPrint Manager Pull Print feature is now available for the Linux operating systems. The InfoPrint Manager Pull Print feature works with your existing InfoPrint Manager server. This feature schedules the job to print when you, as the authenticated owner, request them from the printer. You can use this to reduce unwanted print out and therefore save money. You can further save paper by turning off header sheets. This feature provides a secure printing environment by not printing the job until the owner requests it from the printer console.

For more information, see *Pull Print Feature: Installing and Configuring*, G550-20129.

– **SAP Print Feature.**

The InfoPrint Manager SAP Print feature is now available for the Linux operating systems. A business enterprise that uses SAP can use this print feature to print to InfoPrint Manager for Linux. The SAP Print Feature contains the sap2afp transform for converting both Advanced Business Application Programming (ABAP) data and Output Text Format (OTF) data to AFP for printing, and the SAP OMS (Output Management Support) support for obtaining enhanced status regarding print jobs.

For more information, see *InfoPrint Manager for Linux: Planning Guide*, G550-20262, *InfoPrint Manager for Linux: Getting Started*, G550-20263, and *InfoPrint Manager: SAP R/3 Planning and Configuring Guide*, S550-1051.

– **Web Operations GUI Feature.**

The InfoPrint Manager Web Operations GUI feature is now available for the Linux operating systems. This feature allows InfoPrint Manager to run operations on a web browser user interface.

For more information, see *InfoPrint Manager for Linux: Planning Guide*, G550-20262, and *InfoPrint Manager for Linux: Getting Started*, G550-20263.

• **Added support to view the documents for a job in the InfoPrint Manager Web Operations GUI.**

The View Job option is available in the InfoPrint Manager Web Operations GUI.

Note

Starting with this release, the InfoPrint Manager Web server does not start automatically during system startup. You can specify whether or not the InfoPrint Manager Web server starts on reboot using the InfoPrint Manager Management Interface.

For more information, see *InfoPrint Manager for Linux: Getting Started*, G550-20263.

- **New and enhanced InfoPrint Manager Administration and Operations GUIs.**

The InfoPrint Manager Administration and Operations GUIs provide an improved readability and visual presentation.

- Redesigned icons for objects and trees.
- Redesigned icons in the toolbar.
- New icons displayed in the pop-up dialogs.
- Easier identification of the object.

- **The speed ranges for InfoPrint-driven Printer Features have changed as follows:**

- Workgroup Speed Print Engine Feature (0 to 62 pages per minute)
- Low Speed Print Engine Feature (63 to **110** pages per minute)
- Medium Speed Print Engine Feature (**111** to **300** pages per minute)
- High Speed Print Engine Feature (**301** to 1499 pages per minute)
- Ultra High Speed Print Engine Feature (1500 and higher pages per minute)

For more information, see *InfoPrint Manager for Linux: Planning Guide*, G550-2026.

- **Added support for PCL6 for PSF-Other and PSF Command destinations.**

InfoPrint Manager now supports printing data streams as PCL6 for PSF-Other and PSF Command destinations.

For more information, see *InfoPrint Manager for Linux: Planning Guide*, G550-2026, *InfoPrint Manager for Linux: Getting Started*, G550-20263, and *InfoPrint Manager: Reference*, S550-1052.

- **Added support for FS45 IOCA streams for PSF-Other and PSF Command destinations.**

InfoPrint Manager now supports full printing color IOCA objects on the PCL6 printers defined as PSF-Other and PSF Command destinations.

For more information, see *InfoPrint Manager for Linux: Getting Started*, G550-20263.

- **Support for new Windows client operating systems.** InfoPrint Manager clients for Windows platform now support Windows Server 2012 R2 Standard, Windows 8.1 Pro, and Windows 8.1 Enterprise.

For a complete list of supported operating systems for clients, see *InfoPrint Manager for Linux: Planning Guide*, G550-2026.

- **Enhanced support for printing specific page ranges using the page-select attribute.**

The **page-select** attribute is now supported by CUPS DSS. The supported data streams are PS and PCL.

For more information, see *InfoPrint Manager: Reference*, S550-1052.

- **Enhanced support for scheduling a job for printing using the job-print-after attribute.**

The **job-print-after** attribute is now supported for individual job scheduling.

For more information, see *InfoPrint Manager: Reference*, S550-1052.

- **New -H host:port parameter for all command line client commands.**

The host and port client connection information to the InfoPrint Manager server can now be specified by all **pd** commands via -H parameter.

For more information, see *InfoPrint Manager: Reference*, S550-1052.

- **More detailed information on the reason why a job needs to be ripped can be found in the error log.**

A new error logs message was added that contains information about the attribute that caused the job to be ripped.

For more information, see *InfoPrint Manager PSF, Server, and Transform Messages*, G550-1053.

- **InfoPrint Manager Administration and Operations GUIs support the message logical destination attribute.**

The message logical destination attribute is now displayed in the InfoPrint Manager Administration and Operations GUIs. The **Message** field is available under the **General** tab in the **Logical Destination Properties**.

- **Enhanced support for InfoPrint Manager output format for files greater than 2 gigabytes.**

The InfoPrint Manager output format for files greater than 2 gigabytes is now supported for **booklet print**, **booklet print with integrated cover**, and **side-by-side copies**.

For more information, see *InfoPrint Manager for Linux: Getting Started*, G550-20263.

- **Added support for V8 toner.**

V8 toner supports only these printer models:

- 4100 HD3-HD4
- 4100 MD1-MD2
- 4100 TD1-TD2

For more information, see *InfoPrint Manager: Reference*, S550-1052.

- **Added support for the InfoPrint Font Collection, Version 3.3.0.**

InfoPrint Manager now supports the InfoPrint Font Collection, Version 3.3.0

For more information, see *InfoPrint Font Collection: Font Summary*, G550-20001.

- **Added support for Red Hat Enterprise Linux 7.** InfoPrint Manager server and client for Linux platform now support Red Hat Enterprise Linux 7.

For more information, see *InfoPrint Manager for Linux: Planning Guide*, G550-2026.

- **Added support for RICOH Pro VC60000.**

InfoPrint Manager provides support for the following continuous-form printer model:

- RICOH Pro VC60000.

For more information, see *InfoPrint Manager for Linux: Planning Guide*, G550-2026.

- **Support for jobs containing specific email attributes to be printed on non-email actual destinations.**

Jobs with email attributes can be printed on non-email destinations. These attributes are ignored by all DSS-es other than Email DSS:

- email-from-address
- email-to-address
- callback-number
- subject-text
- originating-company-text
- destination-company-text

For more information, see *InfoPrint Manager: Reference*, S550-1052.

- **Changes to AFP Conversion and Indexing Facility:**

- ACIF supports object area rotation that is specified in degrees and minutes within appropriate AFP structured fields.
- Regular expression patterns have been added to ACIF indexing parameter **FIELD** and **TRIGGER**.
- The column range `startColumn:endColumn` was added to the column options for the **TRIGGER** parameter. For more details, see chapters *ACIF parameters* and *Enhanced indexing parameters* of the *ACIF User's guide*.
- The option `TYPE={GROUP | GROUP,RECORDRANGE=(start,end) | FLOAT }` was added to the **TRIGGER** parameter. For more details, see chapter *Enhanced indexing parameters* of the *ACIF User's Guide*.

For more information, see *AFP Conversion and Indexing Facility User's Guide*, G550-1072.

- **New edition of the *InfoPrint Manager AFP2PDF Transform Feature: Installing and Using* publication.** The individual PDF of the publication will be available on the PTF 1/PU 1 download page that can be accessed through the Downloads & Drivers link from the InfoPrint Manager Support links.

- **Revised publications:**

- *InfoPrint Manager for Linux: Planning Guide*, G550-20262
- *InfoPrint Manager for Linux: Getting Started*, G550-20263
- *InfoPrint Manager for Linux: Procedures*, G550-20264
- *InfoPrint Manager for AIX and Linux: High Availability Guidelines*, G550-20261

- *InfoPrint Manager for AIX and Linux: Configuring and Tunning Guide*, S550-1062
- *InfoPrint Manager: Reference*, S550-1052
- *InfoPrint Manager: PSF, Server, and Transform Messages*, G550-1053
- *InfoPrint Manager Pull Print Feature: Installing and Configuring*, G550-20129
- *InfoPrint Manager Print-on-Demand Feature: Using Submit Express and Job Ticketer*, G550-20271
- *InfoPrint Manager: SAP R/3 Planning and Configuring Guide*, S550-1051
- *Page Printer Formatting Aid: User's Guide and Reference*, S550-0801
- *AFP Conversion and Indexing Facility: User's Guide*, G550-1342
- *InfoPrint Manager: Dictionary of Keywords*, S550-1188
- *InfoPrint Manager AFP2PDF Transform Feature: Installing and Using*, G550-1057

Revised Information

Updated the requirements table from *InfoPrint Manager for Linux: Planning Guide*

This information will be added to **Verifying requirements for all InfoPrint Manager installations** section in *InfoPrint Manager for Linux: Planning Guide*, the next time this book is published.

InfoPrint Manager for Linux is a 32-bit application, running using the root user, on 32-bit (i686) and 64-bit (x86_64) operating systems. However, for the 64-bit versions of the operating systems, the 32-bit compatibility versions of run-time libraries are required.

Red Hat Enterprise Linux 6 or Red Hat Enterprise Linux 7

Package	Min. Version (RH ENT 6.0)	Note
glibc	2.12-1.7.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution
libstdc++	4.4.4-13.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution
libgcc	4.4.4-13.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution

cups-libs	1.4.2-35.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution
gtk2-engines	2.18.4-5.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution
libcanberra-gtk2	0.22-1.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution
eject		any version
mailx		any version
nfs-utils	1.2.2-7.el6	
libICE	1.0.6-1.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution
libSM	1.1.0-7.1.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution
libXau	1.0.5-1.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution
libxcb	1.5-1.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution
libXext	1.1-3.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution
libXi	1.3-3.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution
libXmu	1.0.5-1.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution

libXrender	0.9.5-1.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution
libXt	1.0.7-1.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution
libXtst	1.0.99.2-3.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution
PackageKit-gtk-module	0.5.8-13.el6	install i686 (32-bit) package on x86_64 (64-bit) distribution

Install procedure (with automatic install of dependencies):

x86_64	i686
yum install package.i686 (32-bit) another_package.i686 (32-bit) ...	yum install package another_package ...

SUSE Linux Enterprise Server 11

Package	Min. Version SLES-11-SP2	Note
glibc glibc-locale	2.11.3-17.31.1	on i686 (32-bit) distribution
glibc-32bit glibc-locale-32bit	2.11.3-17.31.1	on x86_64 (64-bit) distribution
glibc-i18ndata	2.11.3-17.31.1	
libstdc++46	4.6.1_20110701-0.13.9	on i686 (32-bit) distribution
libstdc++46-32bit	4.6.1_20110701-0.13.9	on x86_64 (64-bit) distribution

libgcc46	4.6.1_20110701-0.13.9	on i686 (32-bit) distribution
libgcc46-32bit	4.6.1_20110701-0.13.9	on x86_64 (64-bit) distribution
cups-libs	1.3.9-8.44.1	on i686 (32-bit) distribution
cups-libs-32bit	1.3.9-8.44.1	on x86_64 (64-bit) distribution
gtk2-engines	2.16.1-4.26	on i686 (32-bit) distribution
gtk2-engines-32bit	2.16.1-4.26	on x86_64 (64-bit) distribution
libcanberra-gtk	0.18-2.1.225	on i686 (32-bit) distribution
libcanberra-gtk-32bit	0.18-2.1.225	on x86_64 (64-bit) distribution
xorg-x11-libICE	7.4-1.15	on i686 (32-bit) distribution
xorg-x11-libICE-32bit	7.4-1.15	on x86_64 (64-bit) distribution
xorg-x11-libSM	7.4-1.18	on i686 (32-bit) distribution
xorg-x11-libSM-32bit	7.4-1.18	on x86_64 (64-bit) distribution
xorg-x11-libXext	7.4-1.16.21	on i686 (32-bit) distribution
xorg-x11-libXext-32bit	7.4-1.16.21	on x86_64 (64-bit) distribution
xorg-x11-libXrender	7.4-1.14	on i686 (32-bit) distribution
xorg-x11-libXrender-32bit	7.4-1.14	on x86_64 (64-bit) distribution
xorg-x11-libXt	7.4-1.17	on i686 (32-bit) distribution

xorg-x11-libXt-32bit	7.4-1.17	on x86_64 (64-bit) distribution
xorg-x11-libs	7.4-8.26.32.1	on i686 (32-bit) distribution
xorg-x11-libs-32bit	7.4-8.26.32.1	on x86_64 (64-bit) distribution
eject		any version
mailx		any version
nfs-kernel-server	1.2.3-18.17.2	

Function not supported on InfoPrint Manager for Linux

- Infoprint 2000 DSS (available on AIX only)
- IPP DSS (available on Windows only)
- Passthrough DSS (available on Windows only)
- DPF (available on Windows only)

Limitations

Search results not displayed when entering Japanese characters in InfoPrint Manager Web GUI help system

The search engine does not return any search results when entering in Japanese symbols.

InfoPrint Manager for Linux and Ricoh ProcessDirector for Linux limitation

InfoPrint Manager for Linux and Ricoh ProcessDirector for Linux cannot coexist on the same Linux machine.

Accounting information when printing PJL nested jobs to Ricoh controller devices reports 0 (zero) pages completed

Accounting information when printing PJL nested jobs to Ricoh controller devices reports 0 (zero) pages completed both when InfoPrint Manager is configured to report job completed when printed (wait-for-job-completion is enabled) and when using InfoPrint TCP/IP Network Port Monitor. If you encounter this problem, contact your local Ricoh printer representative.

Single Cell Halftone

Single Cell Halftone support has a limitation with the provided transparency support. The small (one bit monochrome) images that are transformed with transparency enabled are not transformed with the Single Cell algorithms. The native PostScript data streams that use the `imagemask` operator are transformed using the original halftone algorithms. The PDF data streams that process small (one bit monochrome) images with transparency enabled also use the original algorithms.

Internet Protocol version 6 (IPv6)

InfoPrint Manager does not yet support IPv6. InfoPrint Manager currently requires IPv4.

Indexed Multiple Data Sets

MVS Download cannot be used with multiple data sets that have already been indexed (contain AFP TLEs).

Longer processing for color text that uses embedded fonts

When transforming PDF with color text that uses embedded font subsets to black and white or color AFP output, the rip processing can take longer. If you use `savevm=false`, this performance will improve. However, we recommend using the current default of `savevm=true` because, in some cases, PDF input files with many embedded font subsets might fail to transform. The `savevm` option appears on the `ps2afp/pdf2afp` command line as: `-pragma pdf2psoptions=savevm=true`.

AFP Printer Driver

AFP Printer Driver available on the Common Clients CD is not supported on the 64-bit version of Windows XP.

Interchange set version attribute

The `sap2afp` transform command does not create IS/3 compliant AFP output when converting an ABAP file by specifying 3 as a value for the `-is` flag. The `sap2afp` transform command creates IS/3 compliant AFP output only when the input file is an OTF file.

Known problems and workarounds

Daylight Saving Time discrepancies

After Daylight Savings Time changes, depending on your configuration, it is possible to notice discrepancies in their server accounting logs or job submission failures. The problem can be resolved by stopping and starting the InfoPrint Manager server. If you are already experiencing these symptoms or want to avoid them in the future, arrange to have your servers restarted immediately following a Daylight Savings Time change.

Times New Roman font issue

If you use the *Times New Roman* font, with spaces, the file is not ripped correctly and an error message is displayed. This problem is specific to ripping PDF files as opposed to both PDF and PostScript files.

To solve the problem, regenerate the PDF file requesting *TimesNewRoman* instead of *Times New Roman* by removing the spaces in the font name. If the change of the input file is not possible, remove the installed *TimesNewRoman* font from the PostScript font directory which causes a suitable font substitution to occur.

CCRs included in Release 4.4.1

Release 4.4.1 includes resolution for these CCRs:

CCR	Description
1-1U4M64T	Pausing a job on PSF TCP/IP destination causes minor discrepancies that are saved in the accounting log.
1-1VB0UY0	When printed through PCL secondary process via PSF-Other destination, the documents are printed in bold.
1-1VFIGK5	For input files larger than 2 GB the afpconcat fails.
1-1VGS4WJ	After a paper jam occurs, the job goes in "Retained state" and is not completely printed.
1-1VO7I69	Because of the NULL printer OID, the SNMP communication cannot be established with the Oce 4110 printer.
1-1W6PQDN	The text color does not always get reset between pages when PSF Other destination is used.
1-1W7TA6B	InfoPrint Manager always displays "0" (zero), instead of the actual signal number that comes from the operating system in the message 5010-433 The server has been interrupted by the signal 0.
1-1WKLW8T	The PDF parallel processing (pdfprs) fails to function due to single-cell-type attribute implementation.
1-1WOZJOK	Intermittent afpconcat error "BPF is not the first SF in the file..." when there is no BPF in the file.
1-1XJ5PEV	The pcl2afp transformer does not follow the front-back page order by not invoking the medium maps at right page order.
1-1XZISRU	Server core memory leak caused by printer losing the connection with InfoPrint Manager for too many times.
1-1XZLIVC	Enhance D-APAR IZ62815. Disable the header/trailer pages on Locked Print PostScript job types.
1-1Y1PFOB	The InfoPrint Manager Web GUI desynchronizes with the server while Java GUI continues to be in sync.
1-1Y41HQ3	Fixing miscellaneous issues with jobs going through Email DSS not preserving the font mapping, missing text and failing when many barcodes are present in the data stream.
1-1Y5BKEV	The InfoPrint Manager for AIX 4.4.0 – SAP Client fails with message "libstdc++.a (libstdc++.so.6) could not be loaded".
1-1YLTGO1	The PCL XL files are sometimes identified as PostScript by InfoPrint Manager.

1-1YYH8Y3	The InfoPrint Manager for AIX DSS sends an incorrect paper size to piobe ("8.25 x 13") instead of A4.
DE12932	AFP2PDF cannot recognize character, error message is appearing like this: Date:10/04/13 time:00:53:02 UDC – GET CHARIMAGE RC=-1 FOR CHARACTER 6B43.
DE17618	The LPD daemon stops InfoPrint Manager for Linux after issuing 10 commands, such as lpr and lpq.
DE17624	Jobs that have apostrophes in the name fail when they are submitted through IPP Gateway.
DE17626	The IPP Gateway management scripts startippgw, lsippgw, and stopippgw do not run correctly on InfoPrint Manager for Linux using bash shell. They still require ksh.
DE17638	If the subject text job attribute contains special characters that are not supported in file names, such as \ / : * ? " < > , the name of the attachment file is incorrect.
DE17659	Within the InfoPrint Select for Mac, the notification client must be shut down to stop.
DE17771	Jobs submitted with an apostrophe in the are not accepted by the server (LPD Gateway).
DE17793	Printing data that comes from the PDF2AFP transform with the FS45 (color) parameter might cause NACKs on specific devices because the internal size of the image tile is slightly larger than the size of the presentation space.
DE17986	Starting the server as background process from a custom script when the server configuration file (pdserver.conf) is missing, changes permission of /dev/null from 666 to 644.
DE17993	Symbols are misaligned for jobs going through PSF Other or Command.
DE18220	Using the page range attribute when page one is not the first page of the document causes afpsplit to generate incorrect AFP files.
DE18299	Memory leaks occur when multiple server instances communicate.
DE18380	When processing CUPS jobs the InfoPrint Manager Linux server leaves some pipes open.
DE18474	Cannot cut and paste from the Java GUI views to text files.
DE18501	InfoPrint Manager for Linux stops when CUPS DSS is used intensively (multiple objects actions).
DE18668	AFP files with GOCA objects are printed with additional lines via PSF Other or Command destinations.
DE18767	Improving time duration of InfoPrint Manager license validation.

DE18903	InfoPrint Select causes Windows spooler to crash because of too many opened resource handles.
DE19491	Printing AFP datastream when the object environment group in the EPS objects does not specify an OBP structured field causes the EPS object to only be printed partially.

Trademarks

These terms are trademarks or registered trademarks of Ricoh Co., Ltd., in the United States, other countries, or both:

- Advanced Function Presentation
- Advanced Function Printing
- AFCCU
- AFP
- Bar Code Object Content Architecture
- BCOCA
- InfoPrint
- Infoprint
- Intelligent Printer Data Stream
- IPDS
- Mixed Object Document Content Architecture
- MO:DCA
- Ricoh

These terms are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both:

- AIX
- DFS
- HACMP
- IBM
- Linux
- MVS
- OS/2
- OS/390
- POWER
- PowerHA SystemMirror
- Print Services Facility
- pSeries
- S/370
- S/390
- z/OS

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

CUPS is a trademark of Apple Inc. in the United States, other countries, or both

Linux is the registered trademark of Linus Torvalds in the U.S. and other countries.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

SafeNet code: The license management portion of this Licensee Application is based upon one or more of the following copyrights:

Sentinel RMS
Copyright 1989-2006 SafeNet, Inc.
All rights reserved.

Sentinel Caffé (TM)
Copyright 2008-2009 SafeNet, Inc.
All rights reserved.

Sentinel EMS
Copyright 2008-2009 SafeNet, Inc.
All rights reserved.

Other company, product, or service names may be trademarks or service marks of others.