Captaris

RightFax

Version 9.0

Push Proxy Gateway Guide

Edition

Information in this document applies to version 9.0 of the RightFax Push Proxy Gateway Guide.

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For More Information

Captaris is a leading provider of Business Information Delivery solutions that integrate, process and automate the flow of messages, data and documents. Captaris produces a suite of proven products and services, in partnership with leading enterprise technology companies, delivered through a global distribution network. Captaris has installed over 80,000 systems in 44 countries, with 93 of the Fortune 100 using the company's award-winning products and services to reduce costs and increase the performance of critical business information investments. For more information please contact us at www.captaris.com or call +1.520.320.7000.

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Chapter 1
Introduction

The Push Proxy Gateway (PPG) is a key member of the Captaris suite of Business Information Delivery solutions. The people who need to receive critical corporate information are often on the move, working out of the office and away from their PC. The PPG solves this problem, enabling existing applications to quickly and easily deliver information to mobile users. It can also be a natural extension of the Captaris RightFax enterprise fax and e-document delivery solution channels.

Using This Guide

Scope of This Guide

This guide provides administration instructions for configuring the Push Proxy Gateway product.

Navigating Menus

This guide uses abbreviations for navigation in menus. For example, an instruction to select the **Save** command from the **File** menu is written **File > Save**.

Notes and Warnings

Notes and warnings provide instructions for special circumstances, side effects and product interactions, and important reminders. Notes include information that you might find useful but do not affect the integrity of your computer hardware, software, or data. Warnings always indicate that failure to proceed carefully may result in loss of data or damage to hardware or software. Always read and understand warnings before proceeding with an instruction in which they appear.

Customer Support

For the most current information, visit our Web site at **http://www.captaris.com**, then point to **Customer Support** and click **Contact Technical Support**.

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Chapter 2

Installing the Push Proxy Gateway Software

The PPG can be installed during the RightFax 9.0 installation. This chapter provides system requirements and troubleshooting information for the PPG.

Installation Requirements

Meet or exceed the following requirements before attempting to install the Mobility PPG software.

Server OS Requirements

- Windows 2000 Server with Service Pack Four (SP4)
- Windows 2003 Server
- Windows XP Professional SP1A

Server Hardware Minimum Requirements

Minimum Requirements for a Single Processor

- Single Processor P-III 500 with 256 MB of RAM
- Free Drive Space: 10 GB
- Network card with TCP/IP connectivity

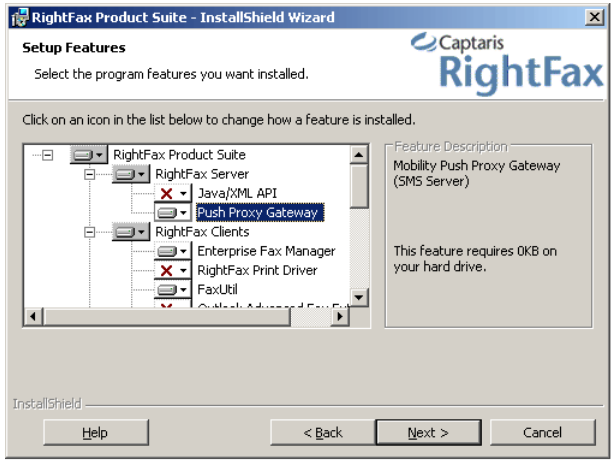
Minimum Requirements for Multiple Processors

- Dual Processor P-III 996 with 512 MB of RAM
- Free Drive Space: 20 GB
- Network card with TCP/IP connectivity

Installing the PPG

The PPG can be installed during the RightFax 9.0 Typical Server install. It can be selected on the **Setup Features** screen. It is not installed by default.

Figure 2.1 The Setup Features screen, during a RightFax 9.0 installation.



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Chapter 3

Understanding the Push Proxy Gateway

The PPG quickly and easily enables RightFax to deliver SMS messages to mobile devices. It uses a Global System for Mobile Communications (GSM) modem or direct connection to a Short Message Service Center (SMSC) to deliver them via the mobile network to the target device.

Understanding Message Types

The PPG supports the delivery of plain text SMS messages.

Plain text messages are sent by the PPG as text-only Short Message Service (SMS) messages. All GSM handsets on the market today can receive these SMS messages.

PPG is capable of two-way SMS messaging and can receive SMS messages in reply to the outgoing SMS messages that it sends.

Note *Plain text messages should only be used with a Modem or SMPP connector.*

Understanding Connectors

PPG uses *connectors* (sometimes called *channels*) to support different methods of delivering SMS messages. These connectors are supported: Modem and SMPP.

Understanding the Modem Connector

Modem connectors allow messages to be submitted to the carrier's Short Message Service Center (SMSC) through a GSM modem that is attached to the PPG server. You can use any GSM modem that provides a serial-port (COM) interface and supports the GSM 07.07 and 07.05 AT commands. The GSM modem can be a card connected to your server; or a mobile phone (with a GSM modem) connected to your server via a data cable. PPG supports two serial port modems on a single server. Examples of compatible devices include:

Dedicated SMS modems

- Wavecom Fastrack Modem

Handsets connected via data cable

- Siemens S46
- Sony Ericsson T68i
- Sony Ericsson T306

Modem Connector Throughput

The PPG throughput via a modem connector, using API, is as follows:

Single Modem:

- Sending Outbound only: 14 per minute
- Receiving Inbound only: 14 per minute
- Two-way (In and out simultaneously): 10 per minute

Two Modems:

- Outbound only: 14 per minute
- Inbound only: 30 per minute
- Two-way (In and out simultaneously): 10 per minute

Note *You must upgrade your license in order to reach these throughput capabilities.*

Understanding SMPP Connectors

SMPP connectors allow a high volume of messages to be sent via an SMSC. The supported protocol is SMPP version 3.4.

SMPP Connector Throughput

The PPG throughput via an SMPP connector, using API, is as follows:

- Two-way (simultaneously): 600 per minute

Understanding Two-Way SMS Support

PPG supports two-way SMS messaging via SMPP or Modem connectors.

Two-Way SMS and SMPP Connectors

PPG can use SMPP connectors to assist RightFax in associating incoming SMS messages with RightFax user mailboxes for routing purposes.

The wireless carrier allocates a phone number or short code to the PPG Administrator. This number is referred to in this document as a *reply number*. The reply number is used by mobile devices to reply to the SMS messages sent to them via the PPG. It is also used by the SMSC to receive the incoming SMS messages, that are then sent to PPG.

When PPG sends an SMS message, it specifies one of these available numbers in the **From** field. The recipient device sends an SMS message back to one of the reply numbers, all of which are intercepted by the SMSC and routed to PPG. Then, PPG can send the reply number, message contents, and the replying device's address to RightFax.

Understanding Log Files

PPG maintains log files in its program directory. The three log file types are transaction, error, and debug logs. The log files are rotated, or rolled, every 24 hours by default, where each roll occurs at zero-hundred hours. When this occurs, new log files are created with filenames based on the current time.

The interval setting for transaction logs can be changed so that the roll occurs anytime between 10 minutes and 24 hours. A directory to which the transaction log files are saved can be specified.

Transaction log files are generated in a standard format that can be parsed or saved by external applications, as shown in Table 3a. Error log files display error and warning messages that are also viewable in the debug log file. Debug log files do not need to be enabled in order to generate and view the error log files.

The rolled logs and the current logging file have file names with the following format:

prefix-GYYYYMMDDHHMM.LOG

In the above format, *prefix* is *cppg* for transaction log files, *dbgp* for debug log files, and *errp* for error log files.

Understanding Transaction Logs

This following table lists the formats used in a PPG transaction log.

Table 3a Transaction log formats

Col	Value	Description	Example
1	Type	The type of message: Outbound, Inbound, Notification, and Service. Service is used for PPG Service Startup/Shutdown messages.	Type: Outbound
2	Date and time	Date and time of request	12/03/2003 13:50:36:923
3	-	Static - separator	-
4	Push Initiator address	IP address of the Push Initiator	PI: 1.2.3.4;
5	Push ID	Push ID extracted from the PAP message	PushID: PI/64;
6	Device address (destination)	Subscriber number or address of destination extracted from PAP message	Device: +14255551212;
7	Notification URL	Address to be notified when the message has been sent. Does not apply to Modem connector.	NotifyTo: ;
8	Status	Status of the message, either Delivered or Failed.	Status: Delivered

The transaction logs use this format:

Type: [value]; PI: [value]; MessageID: [value]; FromAddress: [value]; ToAddress: [value]; NotifyTo: [value]; Status: [value]

Transaction log example:

12/03/2003 13:50:36:923 - Type: Outbound; PI: 1.2.3.4; MessageID: PI/64; FromAddress: 14255551234; ToAddress: +14255551212; NotifyTo: ; Status: Delivered

Understanding Firewalls

As a communications product, PPG is part of a larger system, linked to mobile devices, content servers, and more. There will usually be one or more firewalls present between these different components. This section explains which protocols must be allowed to pass through the firewalls for PPG to function correctly.

Table 3b Firewall configuration settings

From	To	TCP/ UDP	Port	Protocol	Notes
Push Initiator	PPG	TCP	8980	PAP over http	Incoming
Admin client	PPG	TCP	8901		Incoming
PPG “Direct” connector	WAP Device	UDP		WAP PUSH over UDP	Outgoing to port 2948

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Chapter 4

Configuring the Push Proxy Gateway

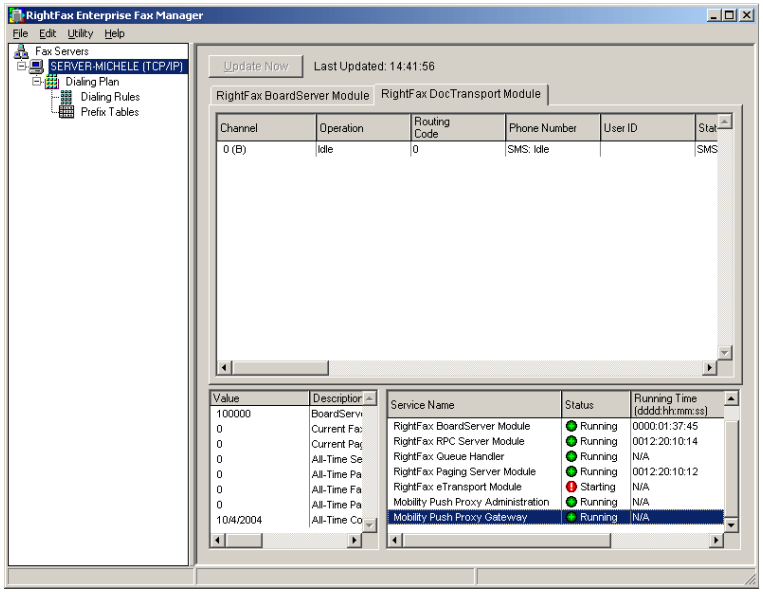
You can configure PPG using the RightFax interface. This chapter describes the PPG configuration options, as well as provides information to help you get up and running.

Stopping and Starting the PPG Services

The PPG and the PPG Administration run as Windows services and can be started and stopped via the RightFax Enterprise Fax Manager.

1. Choose **Start** > **Programs** > **RightFax Enterprise Fax Manager**.
2. In the left pane, select the server on which PPG is installed.
3. Right-click the PPG service that you wish to start or stop, located in the Service Name column.
   - Click **Start Service** to start the selected service.
   - Click **Stop Service** to stop the selected service.

Figure 4.1 Starting or stopping the PPG services.



Accessing and Configuring the PPG

After you make changes in the PPG interface via RightFax, (described in the following sections), you must stop and restart the PPG service before the changes will take effect. For more information, see "Stopping and Starting the PPG Services" on page 13.

Important *You must add PPG as a Transport in the DocTransport module before you can configure and use the PPG. Refer to Chapter 5 of the RightFax Administrator's Guide for more information.*

Accessing PPG via RightFax

You can access PPG configuration options via the Enterprise Fax Manager.

To access PPG via RightFax

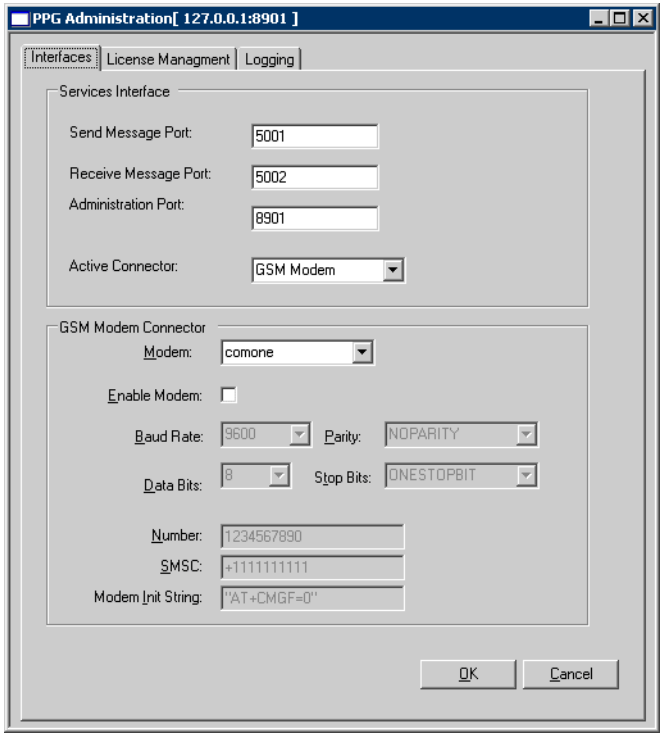
1. Choose **Start** > **Programs** > **RightFax Enterprise Fax Manager**.
2. In the left pane, select the server on which PPG is installed.
3. Double-click **Mobility Push Proxy Administration**, located in the Service Name column.

   The PPG Administration dialog box displays.

Using the Interfaces tab

The **Interfaces** tab establishes connection details for the PPG. The Connector section of the tab displays different fields when you change the Active Connector.

Figure 4.2 The Interfaces tab –Modem



Send Message Port Enter the port number of the Internal Interface. This is a port used for communication between RightFax and the PPG service. It should not be accessible by outside/Internet computers. The port value is 5001 by default.

Receive Message Port The PPG service sends inbound messages to RightFax via this port. This port is 5002 by default.

Administration Port The PPG Administration service listens on this port for configuration requests and uses 8901 by default.

Important *Some of the ports used by the PPG by default are registered as service contact ports with the Internet Assigned Numbers Authority (IANA). If you encounter a port conflict, you can assign a different port number by modifying the entries on the Interface page or editing the CPPG.INI file.*

Refer to http://www.iana.org/assignments/port-numbers for a list of registered ports.

Active Connector Choose the connector to be used by the PPG. GSM Modem and SMPP are supported.

These fields are specific to the GSM Modem connector:

Modem Select an available modem from the drop down box.

Enable Modem Select this checkbox to instruct PPG that the selected port is active and should use these configuration settings.

Modem Properties Change the fields for Baud, Data Bits, Parity, and Stop Bits as appropriate for the modem in use.

Number The phone number of the cell phone or cellular modem that will connect to the communications port.

SMSC Enter the telephone number of the SMSC used by the carrier to which your modem is subscribed. Contact your carrier to get this number.

Modem Init String Enter the initialization string. The default is AT+CMG=0. The initialization string can be found in the phone's manual.

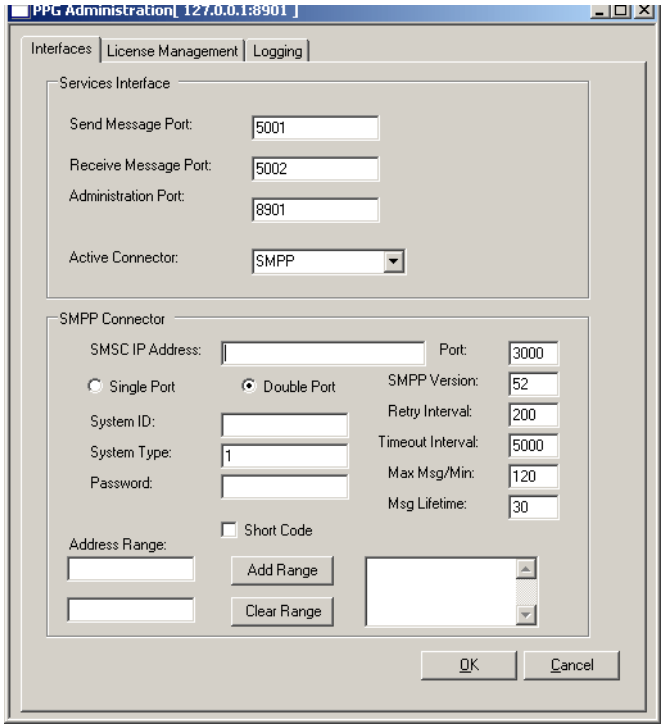
Examples:

Sony: AT+CMGF=0|AT+CPMS="ME","ME"

Wavecom: AT+CMGF=0|AT+CPMS="SM","SM"

These fields are specific to the SMPP connector:

Figure 4.3 The Interfaces tab – SMPP



SMSC IP Address The IP address of the carrier.

Single Port Choose to instruct PPG to communicate with the SMSC via a single port.

Double Port Choose to instruct PPG to communicate with the SMSC via a dual port. This is the default.

System ID This is identification on the carrier's system, such as a user name. It is provided by the carrier.

System Type This is additional information used to identify the user and is provided by the carrier.

Password This password is used to connect to the SMSC and is provided by the carrier.

Port The port used to connect to the SMSC, in the format IP Address:Port.

SMPP Version The version number is generally 3, depending on the SMSC implementation.

Retry Interval The number of seconds the PPG waits to retry a connection, after a connection fails.

Timeout Interval The connection is no longer valid if a response is not received within this number of milliseconds.

Max Msg/Min The maximum number of messages sent per minute.

Msg Lifetime The number of hours a message is considered valid. The message is discarded if it is not delivered within this time frame.

Short Code Select if using a shortened phone number, if one was assigned to you.

Address Range Input the range of phone numbers assigned to your SMPP connection.

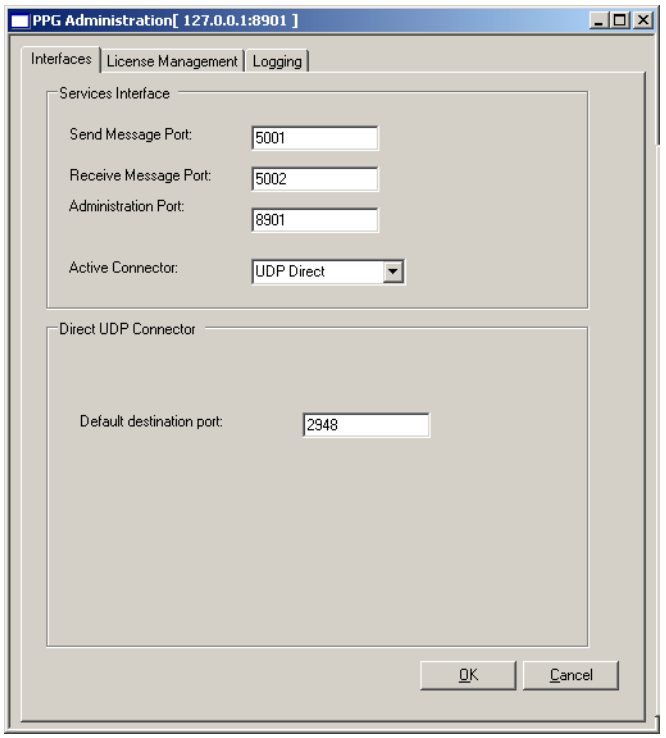
- Add an individual number by entering it in the upper field, then clicking **Add Range**.
- Add a range of numbers by entering the beginning of the range in the upper field and the end of the range in the lower field. Click **Add Range**. The assigned numbers in the range are automatically generated.

Add Range Click to specify the addresses as entered in the **Address Range** fields.

Clear Range Click to delete all of the numbers currently assigned to this connection.

These fields are specific to the UDP connector:

Figure 4.4 The Interfaces tab – UDP



Default Destination Port The PPG uses port number 2948. RightFax 9.0 does not use the UDP connector.

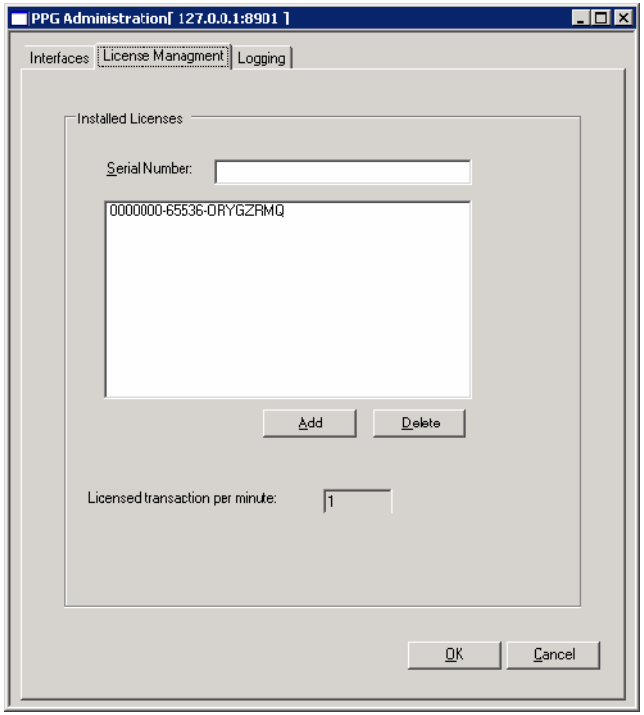
Using the License Management tab

The License Management tab allows you to add or remove PPG licenses.

A transaction is defined as one message sent to one address. For example:

- One PAP message, sent to one phone, equals one transaction.
- One PAP message, including a list of 10 phone numbers, equals 10 transactions.

Figure 4.5 The License Management tab



Serial Number The full license key.

Add Click to add the license entered in the Serial Number field to the list of available PPG licenses.

Delete Click to remove a selected license from the list.

Licensed transaction per minute A license is automatically installed that allows one transaction per minute. Once additional licenses are added to this page, the Mobility Push Proxy Gateway service verifies the validity of the license.

Note *The Mobility Push Proxy Gateway service checks for additional license keys periodically. You must stop and restart the service if you wish to update the number of transactions per minute immediately.*

Using the Logging tab

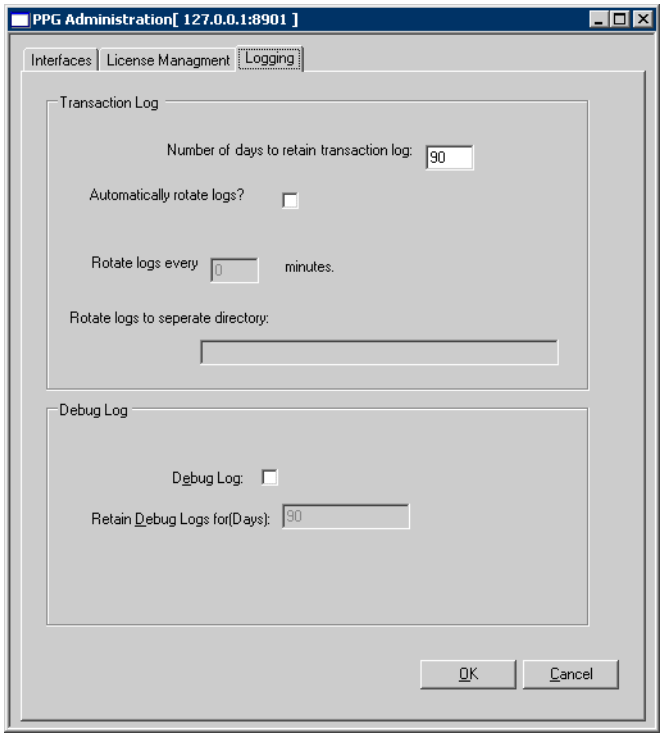
The **Logging** tab determines how transaction and debug log files are collected. The transaction log contains the Call Detail Records (CDR) and will be of the form:

cppg-GYYYYMMDDHHMM.LOG

where *G* is the gateway ID, and the rest of the string is the date and time the log file started.

See "Understanding Log Files" on page 10 for more information about log files.

Figure 4.6 The Logging tab



Number of days to retain transaction logs Enter a value for how many days old log files will remain on the system. By default, 90 days of previous log activity is saved.

Automatically rotate logs Select to rotate log files automatically. By default, the server's log file is closed and a new log file is created at midnight each day. This option closes the current log file and opens a new one more frequently.

Rotate logs every *n* minutes Specifies how often log files should be rotated. Type the value in hours and minutes (00:10 to 24:00).

Rotate logs to separate directory By default, the rotated log files are saved in the PPG installation directory. To save the log files in a different directory, type the complete path of the target directory in this box.

Note *Log files must be saved on a local drive. They cannot be saved to a mapped network drive.*

Debug Log Select to enable a detailed log file of gateway activity. Debug logs can be quite large, so this setting should be off for normal operation. If the debug log is enabled, then the PPG service must be stopped and restarted before it will take effect.

Important *Enable the "Enable Debug Log" setting only if directed to do so by Captaris customer support.*

Retain Debug Logs for (Days) Enter a value for how many days the debug log files will remain on the system. The default is 90.

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