PrinterOn Enterprise

Service Monitoring Guide

Version 4.1

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Monitoring your PrinterOn service

The PrinterOn Enterprise service is a complete printing infrastructure that manages a print job from the time it is submitted by the user to the time it is printed by the printer. During this time, the print job passes through a number of components, which must be able to communicate with each other.

The PrinterOn system maintains a lot of data about the activity of its components and member printers. For example, you can determine the most popular app used to submit print jobs by users, which errors are occurring most frequently. You can use this information to optimize your service or detect potential issues before they begin to impact users.

To ensure that your service is functioning as expected, and to catch any possible errors that can inhibit the service's ability to successfully complete each print request, PrinterOn provides a number of tools you can use to monitor the health of your system. These tools include the Configuration Manager's log files generated for every component, but also APIs you can use to gain a holistic look at the activity across the entire service.

The intention of this guide is to provide you with the knowledge and skills to keep your printing infrastructure operational, to understand when and why print jobs are unsuccessful, and should problems arise, to be able to detect and remedy them early. Sections in this guide include:

- An overview of how the various process flows within the system.
- How to monitor your service using the PrinterOn Configuration Manager utilities.
- Recommendations on how to configure the thresholds and metrics used when monitoring the service.

- How to locate and analyze system log files, and troubleshoot common issues.
- How to use PrinterOn APIs to create your own dashboard to monitor activity within your PrinterOn service.

This guide also includes a complete service message reference, which details all the messages that may be generated by the system, and outlines some possible reasons why the message was returned.

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Understanding how print jobs flow through PrinterOn Enterprise

Should you need to address an unexpected issue with the PrinterOn Enterprise server, a critical part of finding a solution is determining what component is at fault. To help understand where problems arise, it is helpful to understand the various process flows within the PrinterOn service as a print request travels through the various subcomponents, from submission by the user to it's eventual release to the printer.

At a high level, the PrinterOn system can be divided into three primary process flows:

- Print job submission
- Print job processing
- Print job delivery

These process flows can be broken down into more granular workflows, which are discussed in further detail in the sections that follow.

2.1 Print job submission

The first phase in the printing process is the submission of the print job and reception of the job by the PrinterOn server. There are two stages to print job submission:

1. The end user submits a print job from a client app to initialize the print request workflow. The CPS component of the PrinterOn Server receives and validates the request.

2. The CPS passes the validated request to the PrintAnywhere server for processing.

2.1.1 Initiating a print request: Client to Central Print Services (CPS)

The printing process is initialized when the end user submits a print request from any number of clients (for example, the PrinterOn Mobile App, the Web Print portal, the PrintWhere Universal Print Driver, among others) to the CPS component of the PrinterOn Server.

Clients use the HTTP-based Document API to submit and track print jobs using **DocProcess** and **DocsStatus** operations. As part of the print request submission, the client supplies printer destination information, user information (if required), and any desired print options (such as duplex, color, number of copies, etc.).

Print requests are sent to the **Service URL**, the root end-point of the PrinterOn service where the CPS listens for requests.

> **Configuration requirements to complete this phase of the process:**
>
> - The PrinterOn administrator must **configure the Service URL** in the Configuration Manager.
>
> - The PrinterOn administrator can **include the Service URL value in the PrinterOn Directory** to allow clients to discover this connection point from a central source, rather than requiring additional client configuration.

Initiating a print request follows the process outlined below:

1. The user submits a print request from a PrinterOn client such as the PrinterOn Mobile App, the Web Print Portal, PrintWhere Desktop Edition, etc, which sends the request to the PrinterOn service's Service URL.

2. The CPS receives the request and validates the format to determine whether it is an acceptable HTTP multipart/post operation.

   If the format of the request is not valid, the CPS rejects the job.

3. The CPS checks the arguments supplied in the request and validates that it contains all arguments required by the server configuration (for example, a printer ID).

   If authentication is required, the server will validate that the userID/password are supplied.

   If the does not contain the required arguments, the CPS rejects the job.

4. The CPS validates that the data supplied is valid for the service configuration (it ensures that the PrinterOn printer ID is owned by the specific CPS instance, for example).

   If authentication is enabled, the CPS validates the supplied credentials against the authentication service.

If any of these steps fail, the request fails and the client is informed.

2.1.2 Submitting the job for processing: CPS to PasServlet

Although a small step in the overall workflow, it is important to understand how the CPS passes the print request on for processing by the PrintAnywhere server. At the intersection of the CPS and PrintAnywhere Server, a Java Servlet—referred to as the PasServlet—is responsible for receiving and filtering all content to be delivered to PrintAnywhere.

Because the PasServlet provides support for Apache Tomcat, it allows PrintAnywhere to be deployed in various locations, independent of the CPS, while still allowing the solution to use the built-in capabilities of the web server, such as SSL.

> **Configuration requirements to complete this phase of the workflow:**
>
> • The PrinterOn administrator must configure the **network location of the PasServlet** in the Configuration Manager.
>
> • The **network address and communication port of the Status Server, if it is on a different server than the PasServlet**. You can configure this value in the PasServlet.properties file, located in the deployed PasServlet directory.
>
>   **Note:** When deploying PrintAnywhere on a server separate from the CPS, it is generally recommended that a separate Tomcat or other web server be deployed on the PrintAnywhere server along with the PasServlet.

The transfer of the print request from the CPS to the PrintAnywhere Connector follows the process outlined below:

1. The CPS submits a request to the PasServlet as a Document API request.

2. The PasServlet validates the print request as being a valid and recognized Document API request.

3. If successfully validated, the print request is passed it to the Status Server component of the PrintAnywhere server.

2.2 Print job processing

The second phase of the printing workflow is the processing of the print job. Processing a print job involves rendering the content, translating it into a format that can be interpreted by the printer, and injecting PJL headers to add information about the request (such as job owner and other metadata). Processing takes place among the various subcomponents of the PrintAnywhere Server.

The following diagram illustrates at the process at a high level.
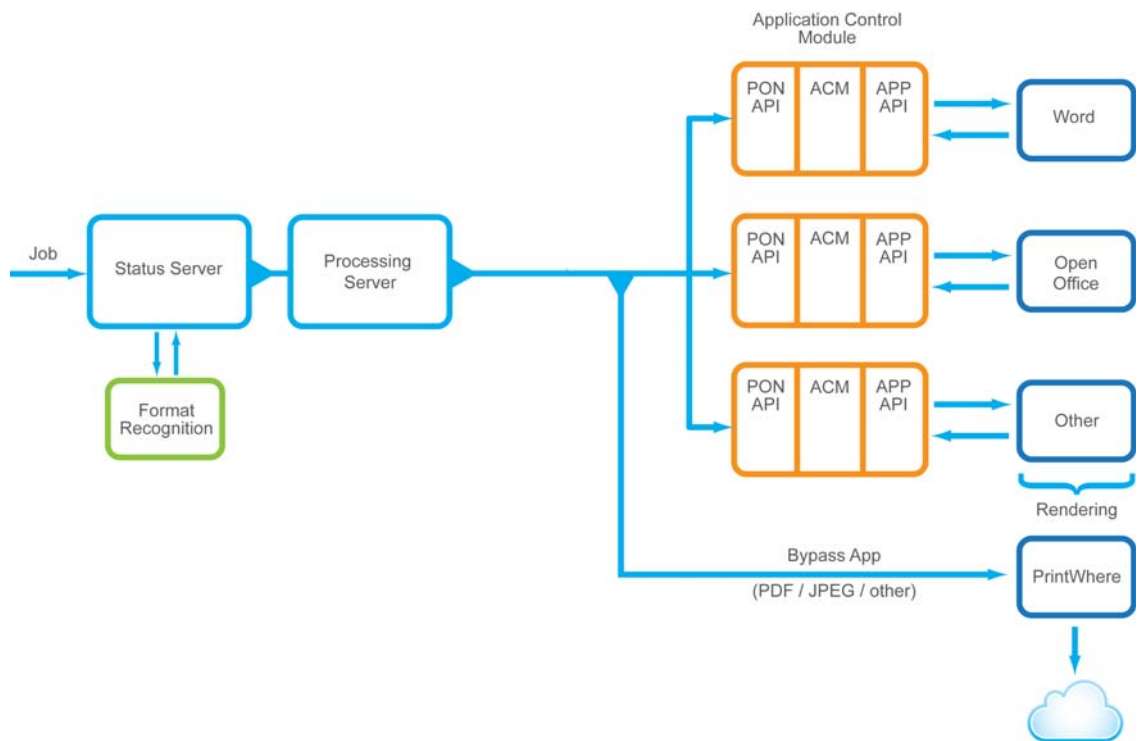
Processing the print job involves several stages:

1. Receiving the print job for processing: PasServlet to Status Server

2. Dispatching jobs for processing: Status Server to Processing Server

> **Note:** If you have a clustered environment with multiple Processing Servers, there are further implications to the flow of data through the system. For more information, see Dispatching jobs for printing in a clustered environment.

3. Rendering the document: Processing Server to PrintWhere

2.2.1 Receiving the print job for processing: PasServlet to Status Server

After validating that the request is valid, the PasServlet passes the job directly to the PrintAnywhere Status Server, which listens on port 5400. The PrintAnywhere Status Server is responsible for managing all incoming and in-process print requests. After validating the request and passing it to a PrintAnywhere Processing Server, the Status Server continues to monitor the progress of the print job.

You can cluster multiple Status Servers to provide greater redundancy in a multi-server environment.

> **Configuration requirements to complete this phase of the workflow:**
>
> • The PrinterOn administrator must configure the **network address and communication port of the Status Server, if it is on a different server than the PasServlet**. By default, the Status Server listens on port 5400. You can change this value in the PasServlet.properties file, located in the deployed PasServlet directory.

When a request is received, the Status Server performs the following operations before accepting the request:

1. The PasServlet passes the print job to the Status Server.

2. The Status Server validates that the request is the proper format, based on the Document API structure, then sets the job state to Pending while the document waits to be processed. This state often only lasts for a fraction of a second.

3. The Status Server generates a unique Job Reference ID for the job. This value is used to identify the job in a number of scenarios:

    • It is returned as the **jobReferenceID** in the **DocAPI DocProcess** response.

    • It is used in a **DocAPI DocStatus** request to request the state of the job.

    • It is used to unique identify a job in the PrintAnywhere Server logs. Each log provides this information, if it is available.

4. The Status Server determines if the printer that the user supplied is valid.

If the printer is not recognized, the user is not licensed to use the printer, or the server is not licensed, the Status Server rejects the job.

5. The Status Server creates a unique storage location for the request based on the JobReferenceID.

    If the storage location cannot be created or is not unique, the Status Server rejects the job and informs the client.

6. The Status Server saves the print job document to the previously created directory.

7. The Status Server uses a built-in content-based recognition system to check the format of the documents and determines if the format is supported.

    If the document format is not supported, or if neither the server nor one of its clustered processing nodes have the components necessary to process the document type, the Status Server rejects the job.

8. The Status Server determines if there are any Processing Servers available that can process the document based on its format.

    If none are running, the Status Server rejects the job.

9. The Status Server adds the job to the Job Manager as it waits to be processed.

    • The job metadata is saved to the temporary job folder as XML.

    • This file is only used to restore the state of the server should it be shutdown. The Status Server will re-read the files to determine their state.

    • All in-process jobs are managed in-memory and only backed up to disk.

    • Each update or change of a jobs status will also result in the job metadata being updated on disk.

2.2.2 Dispatching jobs for processing: Status Server to Processing Server

After receiving and validating a print request and assigning it a **jobReferenceID**, the Status Server passes the job on to a Processing Server for rendering and conversion. This portion of the workflow is typically most impacted by network configuration or deployment decisions.

In a simple deployment, the workflow follows the following steps:

1. The Status Server submits an HTTP request to the Processing Server for new job submission.

To enable the Status Server to act as a job state report server, as part of the job information sent to the Processing Server, the Status Server includes its DNS host name.

> **Note:** This address must be a fully qualified DNS name on the network. This is to ensure that conflicts do not occur if NAT is part of the configuration.

2. Processing Server validates that the **jobReferenceID** of the request is unique, a job storage directory does not already exist, and that a temporary storage location can be created.

   If any of these criteria fail, the Processing Server rejects the job.

3. The Processing Server ensures that it can communicate with the Status Server so that it can update the status of the job as it is processed.

   To determine the response/report address, the Processing Server:

   a) Resolves the supplied DNS name to an IP address, then performs a reverse DNS lookup on the IP address to retrieve the fully qualified DNS name.

   b) Matches the supplied name to the resolved name to ensure communication will be successful.

   > **Note:** A common issue arises when PrinterOn is deployed in a VM environment where the VM is using NAT addressing with the Host PC. In such cases, the Processing Server might not be able to determine whether it should use the Host or Guest OS as the endpoint.

   If the address cannot be resolved, the Processing Server rejects the job.

2.2.2.1 Dispatching jobs for printing in a clustered environment

In a clustered environment, processing of print jobs is shared among several Processing Servers. Basic clustering involves attaching a second PrintAnywhere Processing Server to the primary server's Status Server.

There are a number of benefits to a clustered environment:
- Increased overall capacity of the service.
- Reduced response time for print requests when multiple print jobs are received in a short period of time.
- Increased resiliency of the service when processing complex, incompatible documents or when a server is experiencing technical difficulty.

- Simplified maintenance when upgrading as servers can be upgraded independently, allowing the overall service to continue processing user print requests.
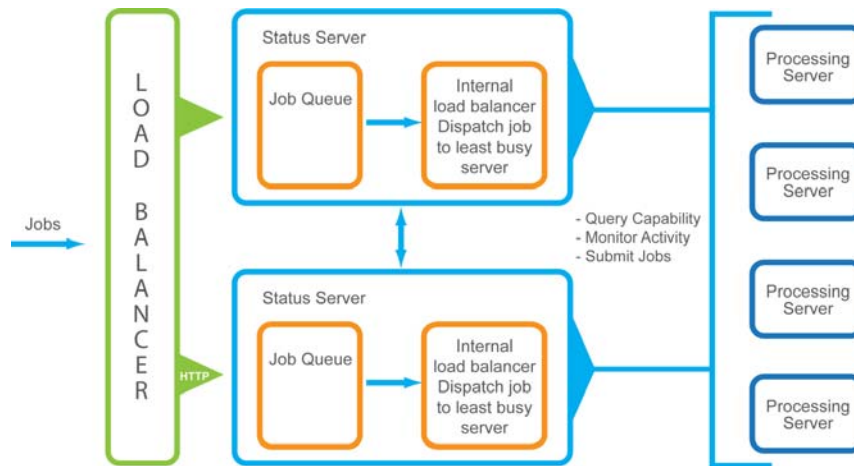
Whether configuring your service for clustering or diagnosing issues, it is useful to understand the workflow within a clustered deployment.

The following provides a brief overview of how the Status Server and Processing Servers communicate in clustered environment:

- The Status Server delivers jobs to the Processing Servers in the order that they are listed in the Configuration Manager.

  > **Note:** The Status Server delivers new jobs to the least busy server each time a new job arrives. As a result, in a low volume deployment with clustering enabled, the first Processing Server in the list will receive the bulk of the jobs.

- The Processing Server reports its capabilities to the Status Server during a Synchronization process. This process:
  - Informs the Status Server which applications and formats are supported by each configured Processing Server.
  - Allows the Status Server to determine whether a Processing Server is running.
  - Occurs every two minutes, allowing the Status Server to update its state information when idle.
- The Processing Server also reports its status to the Status Server each time a job is submitted or completed, allowing the Status Server to maintain an up-to-date status of all Processing Servers.
- If a configured Processing Server is not available when the Status Server is started, the Status Server automatically checks its status every two minutes so that when

the Processing Server is started, the Status Server automatically detects the change in status and starts using that Processing Server.

If no Processing Servers in a cluster are available, the Status Server rejects all incoming jobs until one becomes available.

2.2.3 Rendering the document: Processing Server to PrintWhere

The PrintAnywhere Processing Server is the core rendering server, responsible for converting documents into a printer-usable format. The Processing Server integrates with both applications installed on the server and the PrinterOn PrintWhere Driver to render documents.

In addition to the Process Server and PrintWhere, this phase of the process involves two helper utilities:

- **PWCBridge**: The PWCBridge is responsible for managing communication with the PrintWhere driver.
- **One or more ACMs**: An ACM (called ACMEXE32.exe or ACMEXE64.exe, depending on the bitness of the application it's managing) integrates with and manages any third-party applications required to provide rendering services.

  A new ACM instance is launched for each third-party application providing rendering services and makes the required API calls that application or its libraries. As a result, multiple ACM instances may be running simultaneously at any given time.

By providing these utilities as a separate manageable executables, the Processing Server can shut them down when there are issues and start new instances to continue printing.

Note: In addition to their primary function, the Processing Server also uses these utilities to collect runaway tasks, memory, or other resources leaked by third-party drivers so those resources can be freed after extended use. To free up these collected resources, the server recycles these utilities regularly (after every 25 print jobs in the case of the PWCBridge; after every 10-15 in the case of the ACMs).

Because of this recycling process, you can expect to see the PWCBridge and the ACM instances stop and start on a regular basis.

This modular approach allows PrinterOn to isolate the rendering applications, which ensures greater print reliability and offers the ability to pro-actively detect printing issues prior to starting the print process. It also allows the Processing Server start, stop, monitor, and terminate instances of these utilities based on the state of a given print job so that no

single document can disrupt printing on the server.
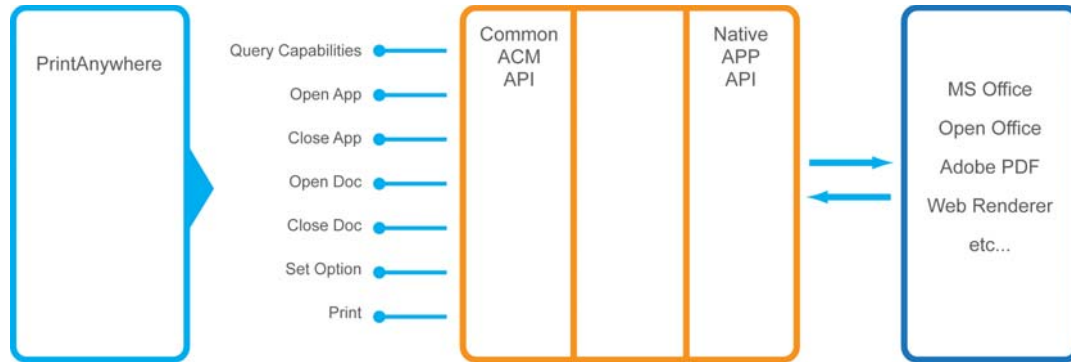
The following process outlines how the Processing Server renders a supplied document and manages both the printer subsystem and the third-party applications:

1. The Processing Server validates the state of the PrintWhere print driver using the PWCBridge executable.

2. The Processing Server provides the printer information to the PrintWhere driver and performs printer setup operations. The individual steps include:

    a) Validating that PrintWhere can communicate with the printer or destination service before starting a print job. To verify communication, the PrintWhere Driver performs an IPP status API call to the destination service.

    If a specific port is specified in the printer configuration that port will be used. Otherwise, if no port is specified, PrintWhere will scan the destination address on ports 80, 443 and 631 to determine if an IPP listener is available.

    b) Activating the printer plugin required for the destination printer, which involves changing the print port from the FILE: port to the PW_PORT: to allow PrintWhere to collect the print data.

3. If necessary, the Processing Server, via the ACM executable, starts the third-party application that will be used to render the document.

4. The Processing Server initiates the rendering of the print job, and informs PrintWhere (via the PWCBridge) that a job is starting.

5. The Processing Server sends the print job to the ACM, which submits a print request to the third-party application.

6. As the job is rendering, PrintWhere collects the print data in the following folder:

    ProgramData\Spool

    The job data is comprised of two parts: the print job itself (.rdt file), and the print job metadata (.rjb file).

7. When the ACM completes the print job, the Processing Server informs the PrintWhere Driver that the job is complete.

8. PrintWhere validates the print data and reports the final page count to the Processing Server, which in turn informs the Status Server of the page count and the completed print state.

2.3 Print job delivery

The Print delivery process flow carries the print request from the PrintAnywhere Server to the output destination, that is, the printer specified in the original print request.

Delivering the print job involves several stages:
1. Validating the destination.
2. Delivering the print job.
3. Releasing the print job to the printer. This stage is only performed if print jobs must be manually released to the printer by the user. This functionality is configurable.

2.3.1 Validating the destination: PrintWhere to PrintWhere Router

Prior to delivering a print job to its destination, PrintWhere is responsible for determining the capabilities of the destination and steps necessary to prepare the job for the destination.

Once a job is rendered and prepared for delivery, PrintWhere must determine where to deliver the print job.

The destination validation follows the steps outlined below:
1. PrintWhere starts the PrintWhere Router, a sub-component of PrintWhere that is started whenever a print job is ready to be delivered to a destination service.
2. PrintWhere determines the destination address and validates the destination listener by performing an IPP **GetPrinterAttributes** operation.

> **Note:** The results of the **GetPrinterAttributes** operation and the successful communication port are cached by PrintWhere. These settings are then used in subsequent requests, unless communication fails or the configuration changes.

If the destination cannot be contacted, PrintWhere rejects the job.

3. The PrintWhere Router performs an IPP **PrintJob** operation to submit the job to the print service. The print service can be one of:

   - A PDS server, which distributes print jobs to printers.

   - A PDH server, which acts as an intermediate location prior to downloading by PDS.

   - An IPP printer, which receives and prints the job.

   > **Note:** Based on the destination service, how PrintWhere packages the job data for delivery differs:
   >
   > - If the destination service is a PrinterOn component (PDS or PDH), PrintWhere compresses and encrypts the print data prior to delivery and includes additional job owner and job metadata.
   >
   > - If the destination is an IPP compatible printer or MFP, PrintWhere uses the IPP protocol to deliver the print data and job attributes based on the specification. The data is not encrypted.

2.3.2 Delivering the print job: PrintWhere Router to print service

The route the print job takes from the PrintAnywhere server to the printer varies depending on how the PrinterOn service is deployed and configured. For information on how to configure the service for the various deployment scenarios, see Configuring the routing to the print service.

The PrintWhere router can deliver a print job to one of three print service destinations:

- A Print Delivery Station, which then delivers the job to a printer for printing.

- A Print Delivery Hub, which acts as an intermediate distribution server for the PDSs and embedded agents that download the jobs and deliver them to a printer for printing.

- Directly to an IPP-compatible printer for printing.

PrintWhere queues print jobs for delivery. Queuing and delivery behavior differ depending on the destination print service. When delivering jobs, the following queuing logic applies:

- PrintWhere determines the whether a destination is unique based on its PrinterOn Printer ID.

- PrintWhere delivers ten concurrent jobs to ten different services, assuming their PrinterOn IDs are different. Other jobs are held until at least one job has been successfully delivered.

- PrintWhere serializes the delivery of print jobs to a particular Printer ID to ensure the printer is not overloaded.
- The queuing logic means that when PrintWhere is delivering jobs to a PDS or PDH, it will deliver multiple jobs concurrently if the destination printers have different PrinterOn Printer IDs.

2.3.2.1 Configuring the routing to the print service

The route to the destination print service is determined by the printer's output location configuration settings in the PrinterOn Configuration Manager.

The following settings impact the route that the print job takes to the printer:

Setting	Description
Printer is an IPP Printer	When checked, indicates that the printer is an IPP-compatible printer. When this setting is checked, the remaining settings in the panel are hidden and the **PrinterAddress** field appears, which allows you set the IP address and port for the IPP printer. PrintWhere delivers all print jobs submitted to this printer listing directly to the printer at the specified address, bypassing the PDS. **Note:** • The PrinterOn service does not validate whether the printer is IPP compatible. • The printer must be on the same network as the PrinterOn server.

Setting	Description
Allow Printing Directly to PDS	When checked, indicates that PrintWhere attempts to deliver print jobs to the PDS server. If communication with the PDS fails, PrintWhere attempts to communicate with the Print Delivery Hub, if one is specified (unless **Print Directly to PDS Only** is enabled).
	When this setting is checked, a **Server Address** field appears, which allows you to supply the address and optionally, the communication port, of the PDS server that manages the printer.
	If a network port is specified, PrintWhere only communicates on the specified port. If no network port is specified, PrintWhere queries the server address for active listeners on ports 80, 443 and 631. PrintWhere uses 443 port, if enabled; otherwise, it uses the first port on which it receives a successful response.
Print Directly to PDS Only	When checked, PrintWhere sends all print jobs directly to the PDS.
	PrintWhere will *not* attempt to communicate with the Print Delivery Hub, if one is available, regardless of the success or failure to communicate with PDS or the printer.
Use an Alternate Location or Print Delivery Hub To Host Print Jobs	When checked, indicates that a Print Delivery Hub server is available. This option should be specified if a PDS is accessible directly by the server. In some cases, this option may be used if multiple PDS servers are deployed for the same printer, for redundancy.
	When this setting is checked, a **Server Address** field appears, which allows you to supply the address and optionally, the communication port, of the PDH server.
	If a network port is specified, PrintWhere only communicates on the specified port. If no network port is specified, PrintWhere queries the server address for active listeners on ports 80, 443 and 631. PrintWhere uses 443 port, if enabled; otherwise, it uses the first port on which it receives a successful response.

2.3.2.2 Delivering the print job to a PDS

The Print Delivery Station (PDS) provides a bridge between the PrinterOn delivery infrastructure and the physical printer or print queue.

PDS communication is based on the IPP specification and provides extensions to the protocol for advanced functionality, such as encryption. PDS implements an IPP listener to receive print jobs from PrintWhere.

Depending on the PrinterOn configuration, print jobs received by PDS can be delivered to their destination automatically, or they might require user input before they can be released to the printer/MFP. If they must be manually released, the PDS holds the print jobs until the user input is supplied, after which the delivery process continues.

> **Note:** Whichever release configuration is specified does not impact the underlying process; the process outlined below ignores the concept of manual release.

Delivery to the PDS follows the steps outlined below:

1. The PDS receives a **PrintJob** API request from the PrintWhere Router.
2. The PDS validates the contents of the request and its contents:

   If the request is not a valid IPP request, the PDS rejects the job.
3. The PDS determines whether the destination device's PrinterOn Printer ID is registered with the PDS and enabled.

   If the device with the PrinterOn ID is not managed by the PDS, the PDS rejects the job.
4. Once the job is successfully received by the PDS, the PDS stores the print job in the PDS Job Storage Directory as two separate files:

   • The print job data is stored with the .pj file extension.

   • The print job metadata is store with the .pjs file extension.
5. When naming the job, PDS uses an internal and unique job ID.

   > **Note:** This job ID is not the same as the PrinterOn Job Reference ID. Rather, it is assigned by the server as required by the IPP specification.

2.3.2.3 Delivering the print job via Print Delivery Hub

PrinterOn's Print Delivery Hub (PDH) is used to deliver print jobs when printers and MFPs are distributed across numerous disparate and isolated networks. The PDH acts as a centralized distribution server, coordinating the delivery of print jobs between PrinterOn's print servers and Release Stations. A Release Station refers to a PDS or a PrinterOn Embedded Agent installed on the printer itself (for example, a Ricoh HotSpot or Samsung embedded agent).

From PrintWhere's perspective, communication with PDH is no different than with a PDS; PrintWhere uses all the same logic, processes, and APIs.

Print jobs are held by the PDH only as long as necessary. Once downloaded by the Release Station, a print job is deleted from the PDH.
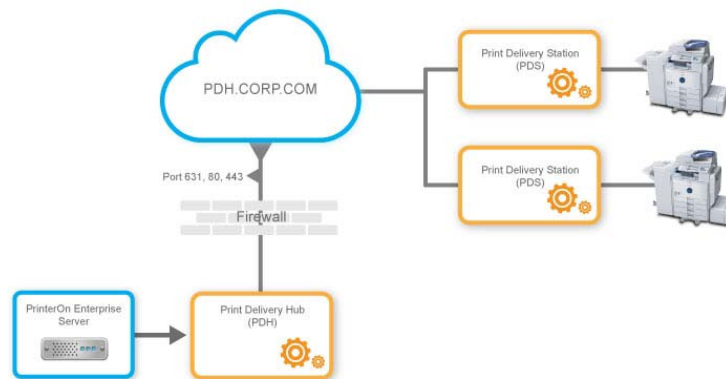
Delivery to the PDH follows the steps outlined below:

1. The PDH receives a **PrintJob** API request from the PrintWhere Router.
2. The PDH validates the contents of the request and its contents.

   If the request is not a valid IPP request, the PDH rejects the job.
3. The release station software (either a PDS or an embedded agent) connects to the PDH to check for available jobs.
4. The release station software sends a call to the Check Jobs URI. This is a very lightweight call in which the release station identifies itself with its PrinterOn ID to determine if the PDH has any print jobs waiting for it.
5. The server responds with the number of jobs:
   - If no jobs are available, the Release Station waits for the configured interval before sending another call.
   - If at least one job is available, the Release Station starts to download the job.

6. The Release Station establishes an SSL connection to the PDH and performs an IPP **GetJobs** operation, which requests detailed information about all jobs on the server that belong to the printer.

7. The PDH returns an XML response containing all information about the available jobs for download. The response includes a unique Job ID for each job.

> **Note:** This job ID is not the same as the PrinterOn Job Reference ID. Rather, it is assigned by the server as required by the IPP specification. If the PDH server is restarted, the value will restart at 0.

8. For each job available, the IPP **GetJobData** operation is initiated to download the associated print job.

9. The Release Station downloads the print job data for each available print job.

> **Note:** The client-server communication supports a resume download operation. If the operation is interrupted, it simply resumes where it left off.

10. When the release station has successfully downloaded all the print data, it informs the PDH and issues an IPP **DeleteJob** operation to remove the job from the PDH server.

2.3.2.4 Delivering the print job directly to an IPP-compatible printer

When submitting a print job from PrintWhere directly to an IPP-compatible printer, PrintWhere is responsible for delivering the print data and metadata to the printer directly.

Direct delivery to an IPP-compatible printer encompasses the following steps:

1. PrintWhere determines the destination is a printer/MFP by first performing an IPP **GetJobAttributes** operation. By default this communication occurs on port 631.

2. Once communication with the IPP printer has been established, the PrintWhere Router opens a network connection to the printer and performs an IPP **PrintJob** operation, which streams the print data to the printer.

3. After the job has been delivered to the printer, PrintWhere reports the successful delivery to PrintAnywhere, then immediately purges the job information. At this point, the PrintAnywhere Status Server maintains the job state information.

If at any time during this process the printer reports an error or a connection cannot be established, PrintWhere reports this information to PrintAnywhere as a communication error with the printer.

2.3.3 Releasing the print job: PDS to printer

Once the PDS has received the print data and metadata, it initiates the delivery of the job to the destination print device.

If the job or PDS has been configured for automatic release, the PDS delivers the print data to the printer as soon as it receives it.

If the job or PDS has been configured for manual release, the PDS holds the job until the user enters a release code. The user can supply the release code in one of two ways:

- In person, using the keypad or touch screen panel on the printer/MFP.
- Remotely, from the PrinterOn Mobile App.

> **Note:** Remote release is a configurable setting in the PrinterOn printer configuration. By default, it is enabled, but it can be disabled at any time, if a more secure printing environment is required.

The release process follows the steps outlined below:

1. If manual release is configured, the user enters their release code. The printer submits the code to the PDS for verification.

2. The PDS creates a connection to the print device based on its communication protocol then reads the contents of the .pj job file and streams it to the print device.

   - If re-prints are enabled, the job data file is maintained on the PDS server for the configured re-print duration (20 minutes, by default)
   - If re-prints are *not* enabled, the job data file is immediately deleted from the server.

3. The PDS maintains the print job metadata (the .pja file) is maintained in memory and on disk for the configured period of time (72 hours by default).

> **Note:** If you have configure automatic release with reprints disabled, you can reduce this value to reduce the amount of data maintained by the PDS server.

4. When the job retention period has expired, the PDS deletes the .pja file and purges the job from memory.

3

Monitoring system health with Configuration Manager

In addition to service configuration functionality, the PrinterOn Configuration Manager also includes a number of panels and utilities you can use to monitor your PrinterOn service.

To access performance and usage information about your system, you'll primarily be interested in two tabs of the Configuration Manager:

- **Home**: Provides access to general information about your system health. You can also manage your PrinterOn license and add PDS, PDH, and Print Anywhere components to your PrinterOn deployment. For more information, see Viewing system information.
- **Reports**: Lets you generate various reports on your overall PrinterOn deployment. For more information, see Reviewing service activity.

3.1 Viewing system information

Your first source for information about the status of your PrinterOn service will likely be your PrinterOn Configuration Manager. In addition to configuring settings for the various PrinterOn components, the Configuration Manager also provides you with general high-level details about your service, for example, which components are running, what version of each components are installed, server usage, and so on.

The information provided by the Configuration Manager can help you quickly identify when there are issues. Additionally, when issues do occur, knowledge about your system is often necessary to help diagnose the problem.

3.1.1 Viewing the Overview tab

The **Home** > **Overview** tab of the Configuration Manager is the default tab displayed when you first log into the system. It provides snapshot information about the service, including system version information, general usage statistics, and status of the service components.

To view the Overview tab:
1. In the Configuration Manager, click **Home** > **Overview**. The Overview tab appears.

2. Review the information in the panels as necessary.

- Reviewing version information about your PrinterOn installation.
- Reviewing service usage statistics.
- Viewing the status of components and remote servers.
- Viewing Windows Server information.

3.1.1.1 Reviewing version information about your PrinterOn installation

The Server Overview panel of the Overview tab provides information about your PrinterOn Server software version.
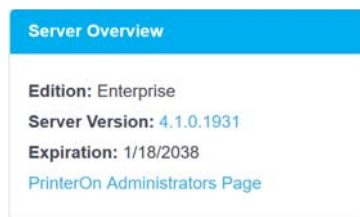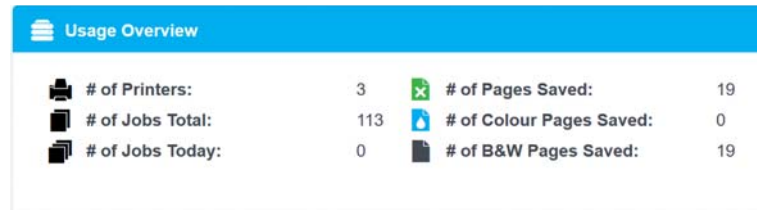
- For version information about each of your installed PrinterOn components, click the value for **Server Version**. The Installed Components Versions dialog appears.

- To open the PrinterOn.com web admin portal at www.printeron.com/administrators, click **PrinterOn Administration Page**.

3.1.1.2 Reviewing service usage statistics

The Usage Overview panel provides an overview of the system usage, displaying basic printer and print job metrics that detail how many jobs have been processed both over the lifetime of your PrinterOn service and for the current day, and how many pages have been saved.

The server calculates the number of pages saved as follows:
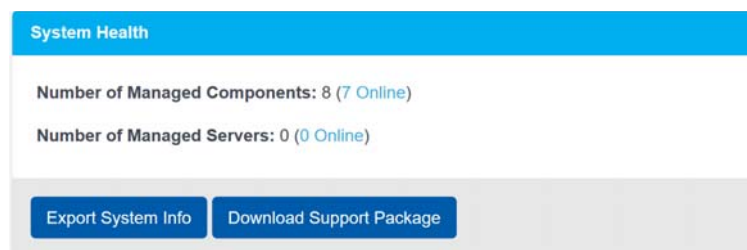
* If a job is submitted and held for release but the user never releases the job, all pages in the job are considered saved. This typically occurs when the printer has been configured for secure release.

* If duplex is used when printing, each physical piece of paper saved is counted as a saved page.

  For example, when printing a 4-page document with duplex selected, the system considers that 2 pages are saved, since only 2 physical sheets of paper are used. When printing a 3-page document with duplex, only 1 page is saved, since 2 physical sheets of paper are still used.

* If a job is printed as Color, then the savings are tallied as **# of Color Pages Saved**.

* If a job is printed as Black and White, then the savings are tallied as **# of B&W Pages Saved**.

3.1.1.3 Viewing the status of components and remote servers

The System Health panel provides an overview of the current components and remote servers managed by this Configuration Manager.

From the System Health panel, you can view:

- The **Number of Managed components** value, which shows how many PrinterOn components (CPS, PDS, PDH, etc) are being managed by your service, and how many of those services are currently online and available. This includes components installed on the local server as well as those installed in remote servers.

  To view the Managed Components page, where you can launch the component configurations and configure settings for each of the PrinterOn components, click the adjacent link.

- The **Number of Managed Servers** value, which shows how many remote servers are hosting PrinterOn components and are being managed by this parent server, and how many of those servers are currently online and available.

  To view the Server Status page, where you can view the status of the child servers, click the adjacent link.

The System Health panel also includes two buttons that allow you to download system information and log files, which you can send to PrinterOn Support so they assist with troubleshooting issues that you are unable to solve. For more information, see the following sections:

- Exporting server and system information.
- Creating a package of diagnostic information.

3.1.1.4 Viewing Windows Server information

The System Information panel provides an overview of the Windows Server on which the PrinterOn service is running.

> **Note:** This information represents the server where the parent Configuration Manager is installed. When installing all components on multiple servers, you should load this page in the Configuration Manager for each server.

3.1.2 Exporting server and system information

You can export the system and server information displayed on the **Overview** tab to a text file that you can send to PrinterOn Support so that they have insight into the OS on which the PrinterOn service is running.

To export system information:

1. In the Configuration Manager, click **Home** > **Overview**.

2. Locate the **System Health** panel, then click **Export System Information**. A text file with a summary of the content of this tab is created and displayed in your browser.

3.1.3 Creating a package of diagnostic information

If you are unable to determine the root cause of an issue based on the log files and need to escalate it to PrinterOn Support, the Configuration Manager provides an easy way to create a package of all available log files that you can send to PrinterOn for further analysis.

You can quickly create a package of this information from the **Overview** tab of the Configuration Manager.

To create a package for PrinterOn support:

1. In the Configuration Manager, click **Home** > **Overview**.

2. Locate the **System Health** panel, then click **Download Support Package**. The Configuration creates a ZIP file with comprehensive server information and logs for all managed components.

3.2 Reviewing service activity

From the Reports tab of the Configuration Manager, you can view a wide range of activity information for your service. You can generate a single activity report for all printers attached to your service, or create a report for s specific printer.

You can export any report you generate to a CSV file so you can archive or present the data as necessary.

> **Note:** If you choose, you can create your own custom dashboard to monitor the activity of your PrinterOn service. As a PrinterOn Enterprise customer, you have access to the PrinterOn Activity API, which lets you submit API calls to your service for activity information, which you can then process or display as suits your needs.
>
> For more information, see Creating a custom activity dashboard to monitor your service.

The Reports tab includes three subtabs:

Tab	Description
Summary	Generates a site summary report, providing high-level usage information for your PrinterOn service.
Printer	Generates a report of the activity for a single printer attached to your PrinterOn service.
Advanced	Generates a variety of filtered activity reports for your service.

3.2.1 Creating a Site Summary report

The Summary tab lets you generate a site summary report for your PrinterOn service. A site summary report presents a three-month snapshot of usage statistics.

To create a site summary report:

1. In the Configuration Manager, click **Reports** > **Summary**. The server generates and displays the report.

2. To export the data, click **Export to CSV**.

3.2.2 Creating a printer activity report

The Printer Activity tab lets create a printer activity report, which outlines the activity of a single printer over a specified period of time.

To generate a printer activity report:

1. In the Configuration Manager, click **Reports** > **Printer Activity**. The Printer Activity panel appears.

2. From the **Printer** drop-down, choose which printer you want to generate a report for.

3. From the **Time Range** drop-downs, choose the start date and end date for the report.

4. Click **Generate Report**. The report is generated and data presented in a series of additional panels.

   • The **Detailed Report** panel contains information about each job that was sent to the selected printer: when it was submitted, who submitted it, page and impression counts, whether it was printer in color, whether it was duplexed, and so on.

- The **Job Count** and **Impression Count** panels display graphs that illustrate various stats.
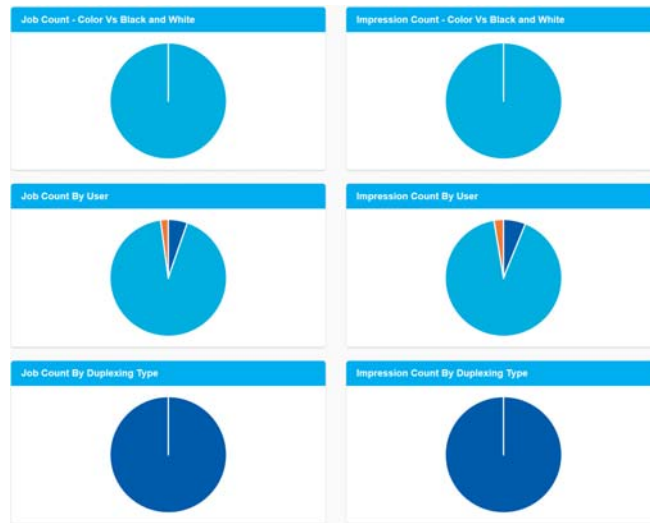
5. To export the data, click **Export to CSV**.

3.2.3 Creating advanced reports

The Advanced tab lets you create of predefined reports, which distill the data and filter it to display more focused usage reports that provide additional insight into how the service is being used, who is using it, and what issues they are encountering.

The Configuration Manager provides six different predefined reports:

- **Top 5 most used printers**: Displays which were the most active printers over the specified time period.
- **Job count by user type**: Displays the most common types of users using the service over the specified time period.
- **Top 5 most active departments**: Shows which departments submitted the most print jobs over the specified time period.
- **Top 10 most common errors**: Shows which errors were encountered most over the specified time period.
- **Job count - Color vs black and white**: Shows the frequency of jobs submitted as color print jobs versus those submitted as black and white over the specified time period.
- **Top 5 most used applications**: Shows the applications most commonly used to create the documents submitted for printing over the specified time period.

To generate an advanced report:

1. In the Configuration Manager, click **Reports** > **Advanced**. The Advanced tab appears.

2. For one of the report types, from the **Time Range** drop-downs, specify a start data and end date.

3. Click **Generate Report**. The report is generated and presented in a chart.
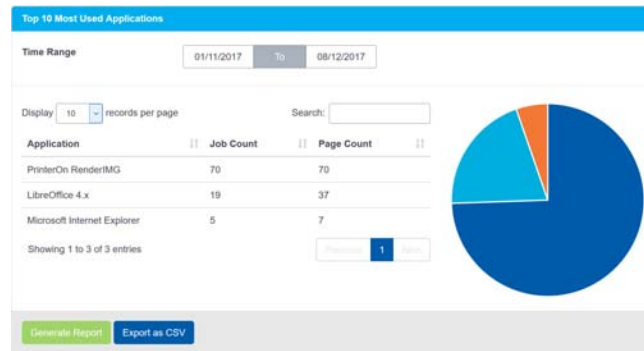
4. To export the data, click **Export to CSV**.

5. Repeat Steps 2-4 for any other advanced report type you want to create.

4

Measuring system health

4.1 Performing benchmarking tests using the PrinterOn APIs

Probably the key metric in determining the health of your PrinterOn system is the speed at which key inter-component operations can be performed. If the system is able to return expected results within acceptable time frame, it is a good indicator that the system components are functioning efficiently and without issue.

Using the APIs included with your PrinterOn Enterprise license, you can run two very basic tests to provide a general idea of how well the system is performing:

- Performing a search of the PrinterOn directory.
- Performing a print job status request.

In each case, the test is comprised of one or two HTTP requests submitted to the Service URL associated with your PrinterOn Service.

4.1.1 Performing a printer search

As a very basic measure of the health of the service, you can use the Directory API to perform a search of the PrinterOn directory. The object of this test is simply to determine how quickly the result is returned.

For consistent and regular results that are not impacted by the configuration, it is recommended that you search by the PrinterOn printer ID for a printer you know to be present and available.

In a healthy system, the PrinterOn service should provide a response in less than one second.

For example, the following request searches the PrinterOn server with the Service URL of server.com/cps for the printer with the ID 900784151735:

```
http://server.com/cps/
DirSearch?ponAPIfunc=DirSearch&clientSWKey=clientKey&clientSWName=MyPairApp
&clientSWVer=3.2.2&searchType=searchByPrinterNum&searchPrinterNum=900784151735
```

For a complete description of the **DirSearch** request and response format, refer to the Directory API Reference.

4.1.2 Performing a print job status submission

A more rigorous test of the system involves using the Document API to submit a print job status request.

The Document API provides two methods of measuring performance using status checks:

- Status request only: Submits a **DocStatus** request only (which will be unsuccessful) to validate the response.
- Full print request and status request: Submits a **DocPrint** request and subsequently tracks the status of the job with one or more **DocStatus** requests.

4.1.2.1 Submitting a status request only

The **DocProcess DocStatus** operation lets you submit a status request to the CPS to retrieve the current status of a print job. You can use this operation to verify that the CPS is accessible and to measure the response time.

Because the **DocStatus** call is not tracking the status of an existing print job in this case, you should perform this test with the understanding that it will fail; the purpose is only to validate the response.

In a healthy system, the expected response time should be less than one second. You can validate the response by locating the **jobState** value in the XML response.

For a complete description of the **DocStatus** request and response format, refer to the Document API Reference.

4.1.2.2 Submitting a full print request and status request

This test is comprised of two Document API operations:

1. A **DocPrint Release** request to submit a document for processing.
2. One or more **DocStatus** requests track the job until the **jobState** reaches a value of 9 (success).

For a complete description of the **DocStatus** and **DocPrint** request and response formats, refer to the Directory API Reference.

When using the Document API for measuring the status of a service, keep in mind that rendering times can vary from document to document and also for specific drivers. Typically, a full print completion process is not used to measure system health, since the results can be highly variable.

If you intend to perform a full print submission cycle, you should first attempt to eliminate potential variability in response times by:

- Using a known document as your test job.
- Determining the average print duration prior to running the test. To determine the average print duration, send the test job multiple times. It is recommended you add 25%-50% buffer time, based on the typical server load.

4.2 Recommended thresholds for service monitoring

The following information is provided as a reference only; each implementation and service design inherits certain custom characteristics. You can use the following thresholds as a guideline for your own monitoring service and adapt the values for your specific needs.

The tables below describe component-specific thresholds that the system uses to initiate automated notifications. The values provided do not always indicate a problem or fault; they are sometimes indicative of possible future problems or may simply indicate that the server status or logs should be reviewed manually.

You can define threshold values for the following components:

- PrintAnywhere Status Server
- PrintAnywhere Processing Server
- PrintAnywhere PASPort Server
- CPS Tomcat
- PWCRoute.exe
- Windows Print Spooler

4.2.1 PrintAnywhere Status Server

Monitoring Metric	Thresholds and Action(s)	Frequency recommendation
Memory	> 100MB Allocated - Clear PrintAnywhere JobRecords Folder - Restart Service	- Check 5 min interval - Memory should remain consistent across two intervals
CPU	> 50% utilization - Restart Service	- Check 5 min interval - Memory should remain consistent across two intervals
Process Failure	- Allow Auto-restart up to 2 times - Subsequent failures require service cleanup and log review	

4.2.2 PrintAnywhere Processing Server

Monitoring Metric	Thresholds and Action(s)	Frequency recommendation
Memory	• > 250MB Allocated • Clear PrintAnywhereStorage Folder • Restart Service • Restart Server	• Check 5 min interval • Memory consistent across 2 intervals
CPU	• > 50% utilization • Restart Service • Clear PrintWhere Spool Directory • Restart Server	• Check 5 min interval • Consistent CPU usage across 2 checkpoints • CPU spikes for up to 4 minutes generally accepted
Process Failure	• Allow Auto-restart up to 1 time The Processing Server contains complex server management tools to attempt to self-heal the print subsystem. If the Processing Server cannot fix itself, the Print Subsystem it will shut itself off. • After auto-shutoff review logs for re-registration notifications • Restart Server and re-install PrintWhere	

4.2.3 PrintAnywhere PASPort Server

Monitoring Metric	Thresholds and Action(s)	Frequency recommendation
Memory	• > 100MB Allocated • Restart Service • Restart Server	• Check 5 min interval • Memory consistent across 2 intervals

Monitoring Metric	Thresholds and Action(s)	Frequency recommendation
CPU	• > 50% utilization • Restart Service • Restart Server • > 5 messages pending in the managed mailbox inbox • Restart Service • Clear Monitored Mailbox of messages.	• Check 5 min interval • Consistent CPU usage across 2 checkpoints • CPU spikes for up to 4 minutes generally accepted
Process Failure	• Allow Auto-restart up to 1 time • After auto-shutoff review logs for re-registration notifications	

4.2.4 CPS Tomcat

Monitoring Metric	Thresholds and Action(s)	Frequency recommendation
Memory	• > 400MB Allocated • Restart Service	• Check 5 min interval • Memory consistent across 2 intervals
CPU	• 50% utilization • Restart Service	• Check 5 min interval • Memory consistent across 2 intervals
Process Failure	• Allow Auto-restart up to 2 times • Subsequent failures require service cleanup and log review	

4.2.5 PWCRoute.exe

Monitoring Metric	Thresholds and Action(s)	Frequency recommendation
Memory	• > 250MB Allocated • Restart Processing Server Service • Clear PrintWhere Spool Directory • Restart Sever	• Check 5 min interval • Memory consistent across 2 intervals
CPU	• > 50% utilization • Restart Service	• Check 5 min interval • Memory consistent across 2 intervals
Process Failure	N/A	

4.2.6 Windows Print Spooler

Monitoring Metric	Thresholds and Action(s)	Frequency recommendation
Memory	• > 768MB Allocated • Restart Service • Restart Server	• Check 5 min interval • Memory consistent across 2 intervals
CPU	• > 50% utilization • Restart Service	• Check 5 min interval • Memory consistent across 2 intervals
Process Failure	• Allow Auto-restart up to 2 times • Subsequent failures require service cleanup and log review	

5

Locating and analyzing PrinterOn log information

To address an unexpected issue with the PrinterOn Enterprise server, determining where the problem occurred and what component is at fault is a critical part of the process. The following is intended to provide assistance with this process. The process will involve investigating major components or the communication between them.

5.1 Narrowing the scope of the problem

In most cases, a few key symptoms and some contextual information can help to reduce the problem space significantly. In general, the PrinterOn Enterprise system can be divided into three primary divisions:

- **Print Job Submission**: Submission encompasses the submission client (PrinterOn Mobile App, the Web Print Portal, PrintWhere Desktop Edition), through CPS, to the PrintAnywhere Status Server.

- **Print Job Processing**: Processing primarily involves the PrintAnywhere server and PrintWhere Server Edition. Processing may be impacted by access to end-point printers or services.

- **Print Job Delivery**: Includes the PrintWhere Router, the destination printer, and intermediate components such as PDS, PDH, and PrinterOn's embedded agents, such as Ricoh HotSpot printers or Samsung Embedded Agent, in which PrinterOn software is installed directly on the printer. Delivery may be impacted by submission from the PrintAnywhere Server.

In addition to these divisions, the overall configuration of the system may be the cause of an issue. That overall configuration and the information that binds the systems together will also be discussed below.

5.2 Key troubleshooting data points

Two key data points may be used to help assist and rapidly divide the problem space into smaller pieces:

- Job Reference ID: The Job Reference ID is a unique identifier of a print job. The Print Anywhere Status Server assigns a Job Reference ID to every job it accepts.

- User messages: The various components within the PrinterOn service will often provide information to the user in the form of messages. Each message is prefixed with a code specific to the component that issued it.

These do not always identify the root cause of the issue but do aid with a rapid assessment of where to review.

5.2.1 Job Reference ID

When the PrintAnywhere Status Server accepts a print job, it assigns it a Job Reference ID, a unique value that is used to identify the print job as it passes through the PrinterOn system. The presence or absence of a Job Reference ID provides a major clue where to start investigating issues.

If a Job Reference ID...	It is highly likely that...	Troubleshooting should focus on...

was not returned	• The job did not get submitted to the Status Server
	
	 • The problem resides in CPS
	
	 • The problem resides in the data submitted with the request including:
	
	    • Missing required parameters
	
	    • Missing or corrupt data file
	
	    • Invalid API format
		• CPS & Tomcat logs
		
		 • Status Server logs

If a Job Reference ID...	It is highly likely that...	Troubleshooting should focus on...

was returned	• The job was received by the PrintAnywhere Server
	
	• The problem resides within the PrintAnywhere Server
	
	• The problems may include:
	
	   • Invalid printer information
	
	   • Communication issues amongst PrintAnywhere components
	
	   • Issues printing specific documents
		• Status Server logs
		
		• Processing Server logs

5.2.2 User messages

Once a job has been accepted by the service, components will communicate information to administrators and users in the form of messages. Some of these messages may be presented to the user submitting the job; all messages the result in a print failure are save to the log file for the component that issued the message.

In general, user messages are comprised of three components:

- A component prefix: A code that identifies the component that reported the message.

Messaging Prefix	Base reporting component
PAS	PrintAnywhere
PWC	PrintWhere
PTS	Configuration and Licensing
FCS	Print Delivery Station

- A message ID: The numerical value appended to the code, unique to each user message.
- The message text: A description of the issue.

This information can be used to quickly isolate whether the issue was caused by PrintAnywhere, PrintWhere communication, or other components.

For a complete list of user messages, see Appendix A: PrinterOn Server message reference.

5.3 Analyzing the PrinterOn log files

The PrinterOn service maintains robust logging facilities are vital in identifying the root cause of an issue. At the default logging level, all errors and warnings are saved to the log files.

There are several components that provide logging in the Print Anywhere Server: Apache Tomcat, CPS, PrintAnywhere and PDS. Logging must be enabled and the service restarted to capture troubleshooting information for review or escalation.

5.3.1 Configuring log levels

The PrinterOn service gives you a lot of control over how much information the system logs for each component by supporting a variety of different logging levels. You can set a system-wide logging level or configure each component individually.

As a best practice, to reduce the impact on server performance, you should set the logging to **Information** (the default) or lower, and adjust it for individual components when necessary to troubleshoot an issue.

PrinterOn supports the following logging levels:

Log Level	Description
Off	All logging is disabled.
Fatal	Only records non-recoverable or fatal errors.
Error	Records all errors.
Warning	Records warning messages (recoverable errors or unexpected conditions).
Information	Records all informational messages (default).
Debug	Records detailed troubleshooting logs that are useful for debugging.
Trace	Records more detailed troubleshooting logs than Debug.
All	Records all log information, providing the most detailed logs.

5.3.1.1 Setting system-wide logging levels

You can set the logging levels for all components in the Configuration Manager. Higher levels of logging are most useful when troubleshooting.

To set a logging level for all PrinterOn components:

1. In the Configuration Manager, click **Home** > **General**.

2. In the General tab, locate the Debug Logging panel.

Debug Logging		
Log Level		Information

3. Configure the logging level as necessary.

5.3.2 Component log files

The log files from each of the different PrinterOn Enterprise components provide specific troubleshooting information. Once you have isolated the component (or components) where the issue has originated, you can modify the component-specific logging settings as necessary to gather more detailed information:

- CPS and Apache Tomcat logging
- PrintAnywhere logging
- Print Delivery Station and Print Delivery Hub logging

5.3.2.1 CPS and Apache Tomcat logging

The CPS and Tomcat log information to the CPS.log file. Analyzing this log file can help to troubleshoot:

- Client requests that are not successfully received by the server.
- API-related errors that are being reported to a client.
- User permission issues that prevent the client from recognizing or accessing a destination print device.
- Print jobs that are aborted time out before printing is completed.
- Issues with mobile app search results.
- Network communication issues.

By default log files are stored in the following location:

- C:\ProgramData\PrinterOn Corporation\Apache Tomcat\logs

The log file name is appended with the date on which it was created. A new log file is created whenever the service is restarted, unless a new log file was already created that same day. For example, if a log file was created on 1/1/2017 and then the service was restarted on 1/3/2017, a new log file will be created. However, if a log file was created on 1/1/2017 and then the service is restarted that same day, the same log files are be used.

To modify the logging level for the CPS:

1. In the Configuration Manager, click **Advanced** > **Components**, then click the **Configure** button adjacent to **Central Print Services**.
2. Click the **Advanced** tab.
3. In the **Logging Level** drop-down, select the desired logging level.

> **Note:** When troubleshooting API integrations, it is recommended to set the logging level to **All**. At this level, the log collects full details of inbound API requests and how they are processed by the server.
>
> Note that the log files are not appended on the Tomcat service and it is therefore not recommended to leave the log level at **All** for an indefinite amount of time; the files may grow too large and cause other performance related issues.

4. Click **Apply Settings**.
5. Restart the PrinterOn services for the change to take effect.

5.3.2.2 PrintAnywhere logging

Analyzing the PrintAnywhere logs can help you to troubleshoot:

- Issues reported to a client application or user with a message prefix of PAS, PWC, or PTS; an error code; or a userMessageID.
- Why a document cannot be printed.
- Communication issues with a printer or print service.
- When PrintAnywhere components cannot be started.
- Issues encountered when receiving print jobs via email.

PrintAnywhere creates three separate log files, one for each of the main components (Processing Server, Status Server, and PasPort Email Plugin). By default, the log files are saved to the following location:

C:\ProgramData\PrinterOn Corporation\PONData\Logs\PrintAnywhere\

To modify the logging level for a PrintAnywhere Server:

1. In the Configuration Manager, click **Advanced** > **Components**, then click the **Configure** button adjacent to **PrintAnywhere Server**.

2. On the **Basic** tab, in the **General Settings** panel, configure the following logging settings:

Setting	Description
Server Logging	When checked, enables logging for the PrintAnywhere Server. By default, logging is enabled.
Keep Log File For	The length of time, in days, that the log file is saved before the server purges it.
Log Level	A numerical value representing the log level. The following guidelines are recommended for selecting a log level: • Level 1: Error information only. • Level 3: Basic job monitoring. Provides information identifying when a job is received, which server in a cluster has processed the job, and the name of the printer. • Level 5: Detailed Job Tracking. Provides sufficient information to track a job from start to end and to identify major events in the workflow • Level 9: Detailed trace logging. Provides a full description of all events in the print workflow. This level is recommended for a detailed issue analysis.
Output Directory	The location where PrintAnywhere log files are saved.

3. Click **Apply Settings**.

4. Restart the PrinterOn services for the change to take effect.

5.3.2.3 Print Delivery Station and Print Delivery Hub logging

The PDS and PDH logs capture much of the same kind of information, documenting communication between components in the delivery phase of the printing process. In general, if have a PDH deployed and are experiencing an issue during the delivery phase, you will likely want to check both the PDS and PDH log files.

By default, logging by both the PDS and PDH is disabled. To record behavior by either component, you must first enable logging for the component.

Analyzing the PDS and PDH log files can help you to troubleshoot:

- Why a print job does not reach the physical printer, despite successfully being received by the CPS and processed by the PrintAnywhere Processing Server.

- When the PrinterOn Enterprise Server reports that it cannot contact the printer or print server.

Log file names take the following form:

- **PDS**: Directory*yyyyMMddhhmmss.sss*.log
- **PDH**: Listener*yyyyMMddhhmmss.sss*.log

where:

- Directory: the base name for all PDS log files.
- Listener: the base name for all PDH log files.
- *yyyy*: year
- *MM*: month (January = 01)
- *dd*: day (first of the month = 01)
- *hh*: hour (24-hour clock)
- *mm*: minutes
- *ss.sss*: seconds (including milliseconds)

To enabled logging and modify the logging level for a PDS or PDH:

1. In the Configuration Manager, click **Advanced** > **Components**, then click the **Configure** button adjacent to one of **Print Delivery Station** or **Print Delivery Hub**.
2. Click the **Logging** tab.
3. In the **General Settings** panel, configure the following logging settings:

Setting	Description
Log Level	A standard PrinterOn Logging level.
Output Directory	The location where log files are saved. By default, PrinterOn stores these logs in the following locations: • **PDS**: C:\ProgramData\PrinterOn Corporation\ PONData\PDS\client\log • **PDH**: C:\ProgramData\PrinterOn Corporation\ PONData\PDS\client\log
Maximum File Size	The maximum file size for a single PDS or PDH log file.
Total Size Limit	The maximum size limit for all PDS or PDH log files. When this limit is met, the PDS or PDH server purges the oldest log file.

4. Click **Apply Settings**.

5. Restart the PrinterOn services for the change to take effect.

6.

6

Creating a custom activity dashboard to monitor your service

In addition to the basic utilities included in the Configuration Manager, PrinterOn provides an Activity API that you can use to customize your monitoring abilities and to create your own dashboard to monitor activity within your PrinterOn service in real-time.

Similar to the Reports tab in the Configuration Manager, the Activity API lets you request activity information about a specified destination device, or for all printers attached to your PrinterOn service. You can take the response and present or process the data with the tools of your choice to examine activity trends.

6.1 Requesting activity data

PrinterOn activity data is accessed by making an HTTPS POST request to the CPS at the Service URL. You collect the necessary data to perform the request (for example, printer name, date range, etc.), then call the API function. If the request is successful, the PrinterOn service returns an XML document with the requested activity information, which you can process or display using your preferred tools.

Currently, the Activity API implements a single function, **ActPrinter**, which you can use to generate two report types:

- Printer activity: Returns activity information about a single specified licensed printer attached to your PrinterOn service. For more information, see Generating a printer activity report.

- Site summary: Returns activity information about the PrinterOn service as a whole. For more information, see Generating a site summary report.

All ActPrinter requests must include a set of standard parameters. Additional parameters unique to each request type can be included as well.

Once the submitted request is received by the CPS, the user credentials are validated and the CPS returns an XML document in an HTTPS response. Every response returned by the CPS includes a **<returnCode>** element that indicates whether the request was successful. A successful request returns a value of 0; any other value indicates that the request failed.

6.1.1 Standard request parameters

All requests, whether a printer activity request or a site summary request, must include the following information. Additional parameters, specific to each request type, can also be included in the request.

Data	Description
API information	Use the **ponAPIfunc** and **clientAPIver** to specify the API function you're calling (in this case, **ActPrinter**) and the version of the API you're using. These parameters are required with every request.
Type of report	Use the **reportType** parameter to indicate which type of report you are generating. Valid values include: • **PrinterAdmin**: Generates a printer activity report. • **SiteSummary**: Generates a site summary report. If **reportType** is not included in the request, a value of **PrinterAdmin** is assumed.

Data	Description
Credentials	Depending on the type of report your generating, you'll need to supply one of the following sets of credentials: • **adminEmail**, **adminPassword**: Required for a printer activity report to specify credentials to access the specified printer. • **siteUID**, **siteAuth**: Required for a site summary report to specify site credentials for your PrinterOn service. **Note:** Requiring credential information with every request allows the API to remain stateless, maintaining no sensitive information from request to request.

6.2 Generating a printer activity report

A printer activity report provides activity information about a single printer. The request specifies the printer and a date range, and the response returns a list of each job that was sent to the printer during that period of time and whether the job was successfully printed.

To generate a printer activity report, you must be an administrator for that printer.

You must submit a **PrinterAdmin** activity request to the CPS, specifying which printer you want to query, and providing valid administration credentials to access data for that printer.

In addition to the general request parameters described in Standard request parameters, printer activity requests support the following parameters, which you can use to restrict the amount of data returned:

Data	Description
Time and date range	To retrieve meaningful data, you'll want to limit the request to a particular period of time using the **startDate**, **endDate**, **startTime**, and **endTime** parameters. **Note:** The **startTime** and **EndTime** parameters must be in 24-hour format.

Data	Description
Filter	Use the **statusFilter** parameter to further restrict what data is returned. Valid values include:

- **ALL**: Returns data about every print job submitted.
- **SUCCESS**: Returns data about successful print jobs.
- **FAILURE**: Returns data about failed print jobs.
- **PENDING**: Returns data about pending print jobs.

For a complete description of all the parameters that can be included in an activity request, see the PrinterOn Activity API specification.

- The PrinterAdmin request
- The PrinterAdmin response

6.2.1 The PrinterAdmin request

The following sample illustrates the structure of a request for activity information for a single printer. The target printer is specified by its PrinterOn printer ID using the **printerAlias** parameter:

```
http://www.printeron.net/ActPrinter?
    ponAPIfunc=ActPrinter
    clientAPIver=1.4
    reportType=PrinterAdmin
    statusFilter=ALL
    adminEmail=admin@company.com
    adminPassword=<password>
    printerAlias=312345678901
    startDate= 2013-10-01
    startTime= 00:00:01
```

6.2.2 The PrinterAdmin response

A PrinterAdmin response is returned as an XML document. The document contains a **<printer>** element that contains several child elements that provide identifying information for the printer. The **<printer>** element also contains one or more **<activity>** elements, each of which provides the details for a job submitted to that printer.

> **Note:** The date and time displayed for an activity represents when the last job status was recorded. This might not match the date and time that PrinterOn notifies you that a job was submitted, as the job might not be delivered successfully to the end location until a later time.

```xml
<?xml version="1.0" encoding="UTF-8" ?>
<actPrinter ponAPIver="1.2.1" ponSWver="3.6.3.6" startDate="2003-02-13"
            startTime="00:00:00" endDate="2003-02-20" endTime="23:59:59">
    <returnCode>0</returnCode>
    <userMessage />
    <errText />
    <printer>
        <alias>printeron.net/corp-test-printer-color</alias>
        <numericAlias>300423901350</numericAlias>
        <locatorCode />
        <locatorIP />
        <activity colour="0" encrypted="No">
            <jobReferenceID>738496</jobReferenceID>
            <jobComplete>SUCCESS</jobComplete>
            <jobState>9</jobState>
            <jobStateText>completed</jobStateText>
            <jobDestination />
            <dateTime>2003-02-13 14:05:20</dateTime>
            <jobPageCount>2</jobPageCount>
            <duration />
            <userEmail>test_user@printing.foo</userEmail>
            <userUID />
            <releaseMode>N/A</releaseMode>
            <releaseID />
        </activity>
    </printer>
</actPrinter>
```

6.3 Generating a site summary report

A site summary provides high-level activity information about your entire PrinterOn service. The request specifies the number or periods (months) to be included in the report, and the response returns a snapshot of activity over those periods. Information includes the number of pages printed, the number of users using the service, and the number of jobs sent. Data is generated for the site as a whole, and also broken down by organizational groups of users and printers within the site.

To generate a site summary report, you must submit a **SiteSummary** activity request to the CPS and include your PrinterOn site credentials in the request.

The site credentials can be found in the [Site} section of your PrinterOn License file, PritnerOnConfig.txt. For example:

```
[Site]
APIsiteUID = 261345523975
APIsiteAuth = XWeQ9dqj
AdminEmail = printeron_admin@company.com
```

In addition to the general request parameters described in Standard request parameters, site summary requests support the **reportPeriods** parameter, which lets you specify how many reporting periods data will be returned for. If this parameter is excluded, the response includes data for two reporting periods.

> **Note:** A site summary can be generated for a maximum of three months at a time. If you want to process data for longer periods of time, it is recommended that you archive report data so that it remains available to you.

- The SiteSummary request
- The SiteSummary response

6.3.1 The SiteSummary request

The following sample illustrates the structure of a request for activity information for all printers across your PrinterOn service.

```
http://www.printeron.net/ActPrinter?
    ponAPIfunc=ActPrinter
    clientAPIver=1.4
    reportType=SiteSummary
    siteUID=X4577X88X5X
    siteAuth=HXXXXXXG
    reportPeriods= 1
```

6.3.2 The SiteSummary response

A SiteSummary response contains a **<site>** element that contains several child elements that define the reporting period and summary information for the site, as well as for each group defined for the site.

```xml
<?xml version="1.0" encoding="utf-8" ?>
<actPrinter ponAPIver="1.2.1" ponSWver="3.6.3.6" reportType="siteSummary">
    <returnCode>0</returnCode>
    <site siteUID="ABC123" name="University Campus">
        <reportPeriodList>
            <reportPeriod periodID="201701">2017 - January</reportPeriod>
        </reportPeriodList>
        <siteSummary>
            <sitePeriod periodID="201701">
                <pages>100</pages>
                <jobs>20</jobs>
                <users>10</users>
            </sitePeriod>
        </siteSummary>
        <group name="Library">
            <groupSummary>
                <groupPeriod periodID="201701">
                    <pages>100</pages>
                    <jobs>20</jobs>
                    <users>10</users>
                </groupPeriod>
            </groupSummary>
            <printer number="300123456789" name="edu-uw-lib1" status="Active"
                            colorCapable="1" makeModel="HP LJ4" locatorCode="lib001">
                <printerPeriod periodID="201701">
                    <pages>100</pages>
                    <jobs>20</jobs>
                    <users>10</users>
                </printerPeriod>
            </printer>
            <printer number="3006" name="edu-uw-lib2" status="Deleted" colorCapable="0"
                        makeModel="HP LJ5" locatorCode="lib002"></printer>
        </group>
    </site>
</actPrinter>
```

A

PrinterOn Server message reference

This document contains references to nearly all messages that may be returned or used by PrinterOn's PrintAnywhere Server and PrintWhere Universal Driver.

This document is meant to supplement other troubleshooting techniques and tools such as log files and test tools. When a message or error code is received, search for it in this document for additional information.

When reading this document, please note that
- Not all messages are currently active in the products and therefore may never be returned
- Not all messages are potentially presented to users. In some cases messages are used internally to communicate between components
- Internal messages and references are included as they may assist troubleshooting a system when they are encountered in a log file.

The messages presented in the document below may be presented in a number of different presentation styles and contexts. Please be aware that the context the message is presented is important and may not be readily apparent by reading this document in isolation.
- PrintAnywhere error messages
- PrintWhere error messages
- PTS error messages

A.1 PrintAnywhere error messages

The following is a list a messages that may be presented or logged by PrintAnywhere. In some cases messages are only used internally in the product.

PAS0010

Indicates that a particular server could not start due to initialization failure.

Possible causes: Indicates that a particular server could not start due to initialization failure.

PAS0011   This job has already been processed. No further actions are required.

A **DocStatus** request was received for a print job that required interactive authorization and has already been processed.

Possible Causes: This message is typically returned when performing a **DocStatus** request on a request that required additional user interaction to complete, but is now in a final state.

PAS0012   This job has already been processed. Further actions are not required.

A job **Release** or **Cancel** request was made for a job that required interactive authorization and has already been processed.

Possible Causes: This message is typically returned when performing a **DocProcess/Release** or **DocProcess/Cancel** request on a request that required additional user interaction to complete, but is now in a final state.

PAS0057   The service is temporarily unavailable.

No Status Server is configured for the web plugin.

Possible Causes: There are no Status Servers configured in the ISAPI HTTP plugin INI file (C:\Windows\PasPlugin.ini) or in the PasServlet Java properties file (~\Tomcat\Conf).

This issue is often due to a misconfigured or corrupted installation of the PrintAnywhere server. It is recommended that you try a repair of the install.

PAS0058   The service is temporarily unavailable.

No configuration file exists for the web plugins.

Possible Causes: The configuration file required by the web plugins during use is missing. The ISAPI HTTP plugin stores its values at C:\Windows\PasPlugin.ini. The PasServlet Java properties file at ~\Tomcat\Conf.

This issue is often due to a misconfigured or corrupted installation of the PrintAnywhere server. It is recommended that you try a repair of the install.

PAS0059   Invalid request. Please check your information and re-submit your request.

The **jobReferenceID** is missing in a request that requires it.

Possible Causes: The DocAPI request was formed incorrectly. A **DocStatus** request, for example, requires a **jobReferenceID**. Without this value, the request is considered invalid.

PAS0060   The status of this job is not available as it was submitted by another user.

The criteria specified in a Job Status request does not match the job with **jobReferenceID** supplied.

Possible Causes: The credentials of the status may not match those in the original submission request.

Other mismatched criteria may include the email address, printer ID, or others.

PAS0061   Your request could not be processed. The status of this job is no longer available.

The **jobKey** supplied in the request could not be validated.

Possible Causes: The job required a valid **jobKey** API parameter to complete. The value supplied was invalid or was missing.

PAS0062   Your request could not be processed. The job requested has expired.

The pending job has expired.

Possible Causes: The job key used to access the job has expired and can no longer be used to release the job.

By this point, the job itself is likely also expired and can no longer be released. This is kept for informational purposes by the caller.

PAS0063   Your request could not be processed. Authorization was not required for this job.

A request was made to perform authorization on a job that does not require it.

Possible Causes: The API caller assumed that the job was held using the PON Job Accounting API for job authorization, and it was not.

PAS0064   Your request could not be processed. Authorization was not required for this job.

A request was made to perform authorization on a job that does not require it.

Possible Causes: The API caller assumed the job was held using the PON Job Accounting API for job authorization, and it was not.

PAS0065   Your request could not be processed. The request could not be authenticated.

The supplied **apiKey** does not match the calculated server token.

Possible Causes: The API caller submitted an AuthToken for a AAA-based auth job. The key supplied by the API did not match the key calculated by the server.

In addition to the **apiKey**, there may have been mismatched versions in the cluster, an invalid **jobReferenceID** provided for job, or an invalid printer supplied.

PAS0066   Your request could not be processed. The request could not be authenticated.

The status of this job is no longer available.

Possible Causes: The Job Reference ID is not available on the Status Server that the request was sent to. The job might have expired, or an incorrect **jobReferenceID** might have been supplied in the request.

If the service is using a clustered configuration, the Status Servers may not be configured correctly.

PAS0068   Invalid request. Please check your information and re-submit your request.

The request is missing a required Document API parameter and, as a result, is invalid.

Possible Causes: The request did not contain the required values for a valid Document API request. Check whether the request includes the **jobDestination**, **userEmail**, and **clientSWVer** parameters.

PAS0069   The service is temporarily unavailable.

PrintAnywhere could not determine the Document API action.

Possible Causes: This error typically indicates that the **DocAPIfunc** call was missing a **DocProcess** or **DocStatus** action, or the action was missing a required qualifier, such as **Release** or **Cancel**.

PAS0070   Incomplete request. Please check your information and re-submit your request.

Unable to retrieve request from ISAPI server.

Possible Causes: This message is typically returned when the ISAPI HTTP plugin cannot retrieve the context of the file data from the web server. This may be due to a misconfigured plugin or web server.

The service is temporarily unavailable.

Typically occurs with communication between PasPort and the Status Server or the web plugin and the Status Server.

PAS0071   Your request could not be processed. The file size exceeds server limits.

The submitted job data exceeds the maximum permitted size, as configured in the PrinterOn Server settings.

Possible Causes: This message is returned when the server determines that the size of the file exceeds the maximum file size permitted for the service, as configured by the PrinterOn service administrator.

The PrinterOn administrator can set the maximum file size can for the service as a whole, or can be configured differently for each component of the service. As a result, this message might be returned by either the Status server or the web plugin, if the maximum file size are different for each component.

PAS0072   The service is temporarily unavailable.

The server is not enabled.

Possible Causes: This message is returned when the server has been disabled by the administrator. The server may be running but configured to report that it is unavailable.

PAS0073   The service is temporarily unavailable.

An internal network communication error occurred; a connection with the server was unsuccessful.

Possible Causes: This message can be returned by multiple components within PrintAnywhere. It indicates that one of the server components is not running.

This error code will not generally be returned, and should be overridden with a more detailed message.

PAS0074   The service is temporarily unavailable.

A network communication error is preventing data from being sent between server components.

Possible Causes: This message is returned when a server component can establish a connection to another but cannot send print data. This error might be the result of an incorrect configuration or an unexpected error. Review the logs to determine why the server cannot send.

This error is generally a symptom of server misconfiguration that cannot be identified without further analysis.

PAS0075

A network communication error is preventing a server component from receiving a response from another component.

Possible Causes: This issue occurs when a server component sends a request to another component but does not receive a response. This error might be the result of an incorrect configuration or an unexpected error. Review the logs to determine why the server cannot send.

This error is generally a symptom of server misconfiguration that cannot be identified without further analysis.

PAS0076   Unable to locate required user information for your request.

The server is unable to validate the user using the User Email LDAP/AD feature.

Possible Causes: The user's email address cannot be found in the configured LDAP/AD server.

If this is unexpected, ensure that the configuration is correct and test the user's email address. Ensure that the user's primary Exchange email address is available in the LDAP/AD server.

PAS0077   The service is temporarily unavailable.

The specified jobReferenceID expired before it could be submitted to the Processing Server.

Possible Causes: When the Status Server cannot submit a print job to a Processing Server in the configured time frame (by default, ten minutes), it discards the job.

This issue might be caused by a spike in activity that has resulted in print jobs waiting longer to be processed. If this occurs regularly, it is a symptom that the service has deployed an insufficient number of Processing Servers.

> **Note:** The length of time the Status Server waits before discarding the job is configurable. To extend the maximum wait time, configure the **Pending Processing Job Retention** setting (on the **Job Settings** tab of the PAS component settings in Configuration Manager).

PAS0078   The service is busy. Please re-submit your request.

The job was rejected by server (or subcomponent) because the server (or subcomponent) is unable to accept new jobs.

Possible Causes: The Status Server has a maximum number of jobs pending processing (by default, up to 50). When the number of pending jobs reaches this value, the Status Server rejects additional print requests.

This issue might be caused by a spike in activity that has resulted in print jobs waiting longer to be processed. If this occurs regularly, it is a symptom of insufficient number of Processing Servers.

> **Note:** The maximum number of pending jobs the Status Server will store is configurable. To increase the maximum number of pending jobs, configure the **Max Pending Requests Queue Size** setting (on the **Job Settings** tab of the PAS component settings in Configuration Manager).

PAS0079   Your request could not be processed. The file size exceeds server limits.

The print job data exceeded the maximum upper bounds size configured for the web plugin.

Possible Causes: The web plugin has its own maximum file size setting that is different from the Status Server maximum data size. Typically this value is configured to be larger than the Status Server's file size limit and is used as a guard against accepting print data of a certain size.

> **Note:** The maximum file size for the web plugin is configurable. To increase the maximum size, configure the **Maximum File Size** setting (on the **Job Settings** tab of the PAS component settings in Configuration Manager).

PAS0080   Email body is blank or print email body option is disabled in your system.

The server was unable to locate any print data submitted to print.

Possible Causes: This issue is typically caused when the content submitted was an email body, but email body printing is disabled.

PAS0083   Incomplete request. Please check your information and re-submit your request.

The server was unable to locate any print data submitted to print.

Possible Causes: This issue is typically cause when an invalid URL was submitted for printing, the request contained a 0-byte file, or no **documentURI** parameter was supplied by an API integrator.

PAS0084   Incomplete request. Please check your information and re-submit your request.

The Processing Server is unable to create a storage directory for the print request.

Possible Causes: This internal error occurs when the Processing Server cannot create a unique storage directory for a job. This message is very rarely returned to a user or API integration.

If this issue occurs, delete all files in the PrintAnywhere storage directory.

PAS0085   Incomplete request. Please check your information and re-submit your request.

The Processing Server is unable to create a unique storage directory for request.

Possible Causes: This internal error occurs when Processing Server cannot create a unique storage directory for a job. This message is very rarely returned to a user or API integration.

If this issue occurs, delete all files in the PrintAnywhere storage directory.

PAS0086   Invalid request. Please check your information and re-submit your request.

The Status Server is unable to create a unique storage directory for request.

Possible Causes: This internal error occurs when the Status Server cannot create a unique storage directory for a job, typically caused when an API integration attempts to re-use a **jobReferenceID**. The **jobReferenceID** must be unique for every print job.

PAS0087   Invalid request. Please check your information and re-submit your request.

The Print job was submitted with Job Reference ID that already exists.

Possible Causes: This issue occurs when an API integration attempts to re-use a **jobReferenceID**. The **jobReferenceID** value must be unique for every print job.

PAS0088   The service is temporarily unavailable.

An internal configuration error or possible network error occurred.

Possible Causes: This issue is typically the result of a memory corruption or a misconfiguration during service startup. It may also be caused if the Processing Server configuration is corrupted in the Status Server configuration during operations. Saving the configuration again might clear up the issue.

PAS0089   The service is temporarily unavailable.

None of the configured Processing Servers are available for use.

Possible Causes: The Status Server cannot contact any of the configured Processing Servers. This is typically the result of a network communication issue between Status Servers and Processing Servers.

PAS0090   The service is temporarily unavailable.

An internal error that indicates that a request will be redirected to another server for processing.

Possible Causes: An internal error that is not returned to users. This message is typically returned if the Status Server cannot contact a configured Processing Server and attempts to redirect to another server for processing.

PAS0098   Your request could not be processed.

The document processor reported an error with document or is unable to access the app required to perform the document rendering.

Possible Causes: The Application Control Module (ACM) failed, in under 5 seconds, without providing further information.

This error may be caused by a corrupted installation where the ACM cannot find its configured application. Typically, when the server encounters this error, it tries again immediately. In some cases, the application has become corrupt and by restarting the instance it is repaired. However, if the restart of the application does not work and the error repeats, the error will be returned to the user.

To confirm the cause of the issue, log into the server and launch the rendering applications (such as Word or OpenOffice) to confirm that they are working.

PAS0099   This type of file cannot be processed by your service.

The Processing Server could not locate rendering application installation information for the submitted file type.

Possible Causes: The Processing Server could not locate information required to launch and use a specific application required to render a document of the submitted file type.

To confirm, log into the server and launch the rendering applications (such as Word or OpenOffice) to confirm they are working.

PAS00100   This type of file cannot be processed by your service.

The file submitted cannot be processed because the service does not support files of that type.

Possible Causes: The Status Server does not recognize the file format of the submitted document, or, if recognized, could not locate a Processing Server to print it.

This issue might occur because:
- the rendering applications are not properly installed or have not been launched at least once on the Processing Server.
- the Status Server cannot contact, or has lost contact with, the Processing Servers.

PAS00101   This version of the file type is not supported by your service.

The file submitted cannot be processed as the service does not support the specific version of that file format.

Possible Causes: The Status Server recognized the file format of the submitted document, but the version of the file may be older or newer than what is supported by the service.

This issue might occur because:
- the rendering applications are not properly installed or have not been launched at least once on the Processing Server.
- the Status Server cannot contact, or has lost contact with, the Processing Servers.

PAS00102 Your request could not be processed.

An internal server version configuration error occurred.

Possible Causes: The PrintAnywhere servers contain versions of the components in the that are not compatible. This issue might occur because:

- the core PrintAnywhere server was updated but the web plugins were not, or vice versa,
- the versions of the cluster within a clustered deployment are not compatible with each other.

PAS00103 Your request could not be processed.

The rendering application did not complete the printing of the document within the configured timeout.

Possible Causes: The Processing Server took longer to process a document than the configured ACM timeout permits. It is typically caused when a very large, complex, corrupt, or incompatible file was received and cannot be processed. The server is capable of detecting these errors and recovering from them to continue processing after the configured timeout.

This might also occur if the rendering application presents a pop-up or other message that was not handled by the server correctly.

This issue is generally document-specific. To troubleshoot the document, attempt to open the same document manually using the native application on the server to determine if the rendering application provides additional insight.

> **Note:** By default, the rendering timeout for each processing application is two minutes. However, this setting is configurable for each app and can be extended it the document is expected to print. To increase the length of the timeout, open the **Applications** tab of the PAS component settings in Configuration Manager, expand a specific application, then modify the **Processing Timeout** setting for that app.

PAS00104 The service is temporarily unavailable.

The specific printer cannot be located, or PrintWhere is corrupt.

Possible Causes: This issue might be reported by PrintAnywhere when the printer name or ID cannot be located by the license server. Typically, this issue is accompanied by a **returnCodeReason** and message from PTS. In some rare cases, it may be an indication that PrintWhere is not installed correctly, but this can only be assumed after further analysis of the logs reveals no other likely cause.

PAS00105 The service is busy. Please re-submit your request.

An internal error indicating that the server cannot allocate memory.

Possible Causes: This error is usually a symptom of a corrupted installation, or an incompatible server OS. If you encounter this error, try re-installing PrintAnywhere and ensure that your server meets the recommended system requirements.

PAS00106 The service is busy. Please re-submit your request.

PrintAnywhere is unable to communicate with the rendering application.

Possible Causes: This issue typically occurs when the rendering application is not installed correctly, or has not been launched at least once prior to starting the server.

PAS00107 The service is temporarily unavailable.

The Status Server could not determine the Document API action.

Possible Causes: This error typically indicates that the **DocAPIfunc** was missing a **DocProcess** or **DocStatus** action, or the action was missing a required qualifier, such as **Release** or **Cancel**.

PAS00108   The service is temporarily unavailable.

An error was received by license server, or Status Server is unable to contact the license server.

Possible Causes: If reported independently, this issue indicates that the Status Server could not contact the PrinterOn License Server and failed to launch.

This error is returned as the **userMessageID** in combination with a **returnCodeReason** for integrators. Users will receive a message that contains the **returnCodeReason** from PTS itself.

If encountered by an integrator, the integration should review the **returnCodeReason** to determine the root cause of the issue.

PAS00109   The service is temporarily unavailable.

A generic file reading error.

Possible Causes: This error is generally an indication of insufficient disk space.

PAS00110   File contains no data.

PrintAnywhere could not determine the document page count, or the file does not contain any content.

Possible Causes: This error is generally limited to PDFs, and is the result of a page count of 0 being returned.

PAS00111   The page range is invalid.

An invalid page range option was specified.

Possible Causes: Either the page range is outside of the bounds of the file, or the format is invalid. Typically due to asking for a page range that exceeds the number of pages in the document.

PAS00112 The file is password protected.

The document is password protected.

Possible Causes: The file is password protected and could not be opened for printing.

PAS00113 Unable to locate the requested file or URL, please check your request format for accuracy and resubmit your request.

An invalid URL or file name supplied with request.

Possible Causes: This issue typically occurs when a URL is submitted for printing that cannot be opened. Validate the URL by opening it in a browser. In some cases, this error might be returned when the server cannot write to disk, possibly due to permissions on the server or insufficient disk space.

PAS00114 Please check your request format for accuracy and resubmit your request.

An invalid request was submitted to server.

Possible Causes: This message is returned when the request submitted cannot be parsed. It is typically returned when performing a Document API integration that is not properly formed multi-part data.

PAS00115 The service is temporarily unavailable.

A network communication error occurred.

Possible Causes: This message is typically returned when subcomponents of the PrintAnywhere server cannot communicate with each other.

PAS00116 Your request could not be processed. Please ensure the correct printer is selected.

The printer name or ID was not included in the request.

Possible Causes: The request is missing the printer name or ID. This error should rarely be reported; typically, a separate error is returned from the CPS or other web service that validates the request before it reaches PrintAnywhere.

PAS00117   Your request could not be processed.

PrintAnywhere was unable to create internal thread.

Possible Causes: An internal error that is not returned to users. If encountered, you should review the log information to determine the cause of the issue.

PAS00118   Authorization failed.

The Status Server serial number is incorrectly configured.

Possible Causes: The serial number configured in the Status Server configuration does not match the value set in the actual Processing Server.

Determine the serial number entered on the server where the Processing Server is installed and ensure that this is the same value configured in the Status Server.

PAS00119   The service is temporarily unavailable. $$$$$$

The installation was corrupted.

Possible Causes: An internal error caused when the Processing Server cannot prepare for print jobs using PrintWhere. If you encounter this error, a re-install is likely required.

PAS00120   The service is temporarily unavailable.

Error in getting document format ID.

Possible Causes: Deprecated and replaced with error 100.

PAS00121   The service is temporarily unavailable.

Cannot submit request to Status Server.

Possible Causes: Generic error when client cannot submit job to the Status Server and further information is not available. Ensure Status Server is running.

PAS00122   The service is temporarily unavailable.

Page Range option is not supported for this application.

Possible Causes: Page Range option is not supported for this application

PAS00124   The service is temporarily unavailable.

Generic catch all error for server, unknown cause. These are not typically returned to a user.

Possible Causes: Review PrintAnywhere logs for causes. These should rarely if ever occur.

PAS00125   Your request could not be processed. Please ensure that the document does not prompt for information when opened.

The document triggered a pop-up in the rendering application.

Possible Causes: The document cannot be processed.

PAS00126   The service is temporarily unavailable.

Cannot set default printer to PrintWhere during print setup/.

Possible Causes: PrintWhere installation is corrupt or Processing Server user is not a local administrator. Re-install PrintWhere

PAS00127   The service is temporarily unavailable.

Cannot setup PrintWhere during print setup.

Possible Causes: PrintWhere installation is corrupt or Processing Server user is not a local administrator. Re-install PrintWhere.

PAS00128   The service is temporarily unavailable.

No Processing Servers are available to process the job.

Possible Causes: A Processing Server was found that indicated it was capable of processing the document, but the job could not be delivered.

Check if Processing Server is running, network communication is valid and that the Processing Server has not been disabled in the Status Server configuration.

PAS00129 The service is temporarily unavailable.

No Processing Servers are available to process the job.

Possible Causes: A Processing Server was found that indicated it was capable of processing the document, but the job could not be delivered after multiple attempts.

Check if Processing Server is running, network communication is valid and that the Processing Server has not been disabled in the Status Server configuration.

PAS00130 Your request could not be processed. Please ensure the correct printer is selected.

Job aborted after exceeding delivery timeout to printer or PDS.

Possible Causes: The print job was aborted because PrintWhere could not deliver the job to the destination in the configured time period

Ensure the PDS or printer destination information is correctly configured. network access is available.PDS logs if available.

PAS00131 The requested web address could not be opened. The web address may be invalid, it may be empty, it may be password protected, the server may be offline.

Did not receive successful response from website for URL print.

Possible Causes: The web server contacted for a URL print was something other than HTTP 200.

PAS00132 The requested web address could not be opened. The web address requires user authentication to continue.

URL print request reported error 401, password protected.

Possible Causes: The web server contacted for a URL print reported that a password was required.

PAS00133   Your request could not be processed. Resubmitting your request may resolve this issue.

Unexpected error reported during printing from PrintWhere.

Possible Causes: PrintWhere installation may be damaged. Review PrintAnywhere logs for more details.

PAS00134   Your request could not be processed. Resubmitting your request may resolve this issue.

Processing Server print queue is full, cannot accept more jobs.

Possible Causes: This is rarely, if ever, returned to the user. This is an internal error, that may be seen in the logs only. The Processing Server will report this to the Status Server when a job is submitted and the Processing Server's queue is full. The Status Server tries again later.

PAS00135   The requested file name contains invalid characters, a file name cannot contain the following characters= '?', '*'. '"', '<', '>'.

Invalid URL or file name supplied with request.

Possible Causes: Typically occurs when submitting a URL for printing that cannot be opened. Validate the URL by opening it in a browser. some cases this may be returned when the server cannot write to disk, possible due to permissions on the server or insufficient disk space.

PAS00136   This type of request cannot be processed by the service at this time.

Job Accounting API job cannot be completed due to incompatible Processing Server.

Possible Causes: Caused by an out of date server installation. Update the PrintAnywhere software to continue.

PAS00140   Please specify the number of copies between 1 and 999.

Invalid number of copies submitted.

Possible Causes: Invalid number of copies submitted. Value must be between 1 and 999

PAS00141   Please specify 0 or 1 for the color option.

Invalid color print option specified.

Possible Causes: Generally an API integration error caused by an incorrect format

PAS00142   Please specify the print adjust greater than 0.

Invalid Visio print adjust option specified.

Possible Causes: Generally an API integration error caused by an incorrect format. The Visio Page Adjust was invalid (less than or equal to 0%).

PAS00143   Please specify 1 or 0 for the collation option.

Invalid collate print option specified.

Possible Causes: Generally an API integration error caused by an incorrect format. The "Collate" option is incorrect (not 1 or 0).

PAS00144   Please select "S" (slides), "N" (notes) or "O" (outline) as a print option.

Invalid PowerPoint slides print option specified.

Possible Causes: Generally an API integration error caused by an incorrect format. The "What" option is incorrect (not "Slides", "Notes" or "Outline").

PAS00145   Please select a non-zero value between 1 and 100

Invalid print scaling option specified.

Possible Causes: Generally an API integration error caused by an incorrect format. The "Scale" option is incorrect (0 or invalid option).

PAS00146   Please select a non-zero value, "TOFIT", "HALF" or "ACTUAL" for the scale option.

Invalid image print scaling option specified.

Possible Causes: Generally an API integration error caused by an incorrect format. The "Scale" option is incorrect (0 or invalid option).

PAS00147   Please specify 1 or 0 for the scale-to-fit option.

Invalid scale to fit print option specified.

Possible Causes: Generally an API integration error caused by an incorrect format. The "scale-to-fit" option is incorrect (not 0 or 1).

PAS00148   Please specify 1 or 0 for the pure black & white option.

Invalid Pure BW PowerPoint print option specified.

Possible Causes: Generally an API integration error caused by an incorrect format. The "pure black & white" option is incorrect (not 0 or 1).

PAS00149   Please specify 1 or more for the pages-across option.

Invalid Visio Pages Across print option specified.

Possible Causes: Generally an API integration error caused by an incorrect format. The "pages-across" option is incorrect (less than 1).

PAS00150   Please specify 1 or more for the pages-down option.

Invalid Visio Pages Down print option specified.

Possible Causes: Generally an API integration error caused by an incorrect format. The "pages-down" option is incorrect (less than 1).

PAS00151 The sheet range is invalid.

Invalid Excel Sheet Range print option specified.

Possible Causes: Generally an API integration error caused by an incorrect format. The sheet range option is out of bounds (less than 0 or beyond the sheet count).

PAS00153 The orientation option is invalid. Please verify your options and re-submit your request.

Invalid Orientation print option specified.

Possible Causes: Generally an API integration error caused by an incorrect format. The orientation is invalid (not "L", "Landscape" or "P", "Portrait").

PAS00180 The paper size selected is invalid. Please verify your options and re-submit your request.

Invalid paper size print option specified.

Possible Causes: Generally an API integration error caused by an incorrect format. Paper Size Number is invalid (not an integer number)

PAS00181 The requested duplex option information is invalid.

Invalid duplex print option specified.

Possible Causes: Generally an API integration error caused by an incorrect format. DuplexOption is invalid (not Simplex, or DuplexLong or DuplexShort, or Default)

PAS00200 Could not process requested file.

Unable to initialize API for rendering application integration.

Possible Causes: Generally caused by an incomplete or corrupt installation of the rendering application.

Ensure the application is installed using the same account which is running the Processing Server service.

Ensure the application has been started at least once

PAS00201   Could not process requested file.

Unable to open the file submitted.

Possible Causes: The document may be password protected, corrupt or of a version that is not compatible with the installed application.

Attempt to open the document on the server manually using the application

Ensure the application is installed using the same account which is running the Processing Server service.

Ensure the application has been started at least once

PAS00202   The service is busy. Please re-submit your request.

Unable to close the file submitted.

Possible Causes: This is not generally reported to users as the document has been processed.

Attempt to open the document on the server manually using the application

Ensure the application is installed using the same account which is running the Processing Server service.

Ensure the application has been started at least once

PAS00203   Your request has been processed.

Unable to properly quite the rendering application.

Possible Causes: This is not generally reported to users as the document has been processed.

Attempt to open the document on the server manually using the application

Ensure the application is installed using the same account which is running the Processing Server service.

Ensure the application has been started at least once

PAS00204 The service is busy. Please re-submit your request.

The rendering application reported an error request a print operation.

Possible Causes: This is generally a compatibility error with the specific document

Attempt to open the document on the server manually using the application

Ensure the application is installed using the same account which is running the Processing Server service.

Ensure the application has been started at least once

PAS00205 The service is busy. Please re-submit your request.

The rendering application reported an error request a view operation.

Possible Causes: This is generally a compatibility error with the specific document

Attempt to open the document on the server manually using the application

Ensure the application is installed using the same account which is running the Processing Server service.

Ensure the application has been started at least once

PAS00206 The service is busy. Please re-submit your request.

Unable to initialize API for rendering application integration.

Possible Causes: Generally caused by an incomplete or corrupt installation of the rendering application.

Ensure the application is installed using the same account which is running the Processing Server service.

Ensure the application has been started at least once

PAS00207   The service is busy. Please re-submit your request.

Unable to initialize API for rendering application integration.

Possible Causes: Generally caused by an incomplete or corrupt installation of the rendering application.

Ensure the application is installed using the same account which is running the Processing Server service.

Ensure the application has been started at least once

PAS00208   The service is busy. Please re-submit your request.

Unable to initialize API for rendering application integration.

Possible Causes: Generally caused by an incomplete or corrupt installation of the rendering application.

Ensure the application is installed using the same account which is running the Processing Server service.

Ensure the application has been started at least once

PAS00209   The service is busy. Please re-submit your request.

Unable to initialize API for rendering application integration.

Possible Causes: Generally caused by an incomplete or corrupt installation of the rendering application.

Ensure the application is installed using the same account which is running the Processing Server service.

Ensure the application has been started at least once

PAS00210 Your request failed to process. Please check your options and try again.

Unable to print the requested document, indicates possible error with one or more print options.

Possible Causes: Reported when a print fails, and a generic error is returned regarding print options.

Remove print options if specified

Review server logs for more information.

PAS00220 The requested web address could not be opened. The web address may be invalid, it may be empty, it may be password protected, the server may be offline or an invalid page range was provided.

Web rendering application cannot load the requested URL.

Possible Causes: Attempt to load the URL using Internet Explorer on the server.

Determine if a plugin is required or other operation is blocking the file loading such as proxy or password

PAS00221 The requested web address could not be opened. The web address may be invalid, it may be password protected or the server may be offline.

Web rendering application canceled URL loading waiting for response from server.

Possible Causes: Attempt to load the URL using Internet Explorer on the server.

Determine if a plugin is required or other operation is blocking the file loading such as proxy or password

PAS0400   The service is temporarily unavailable.

Error received from PrintWhere or corrupt PrintWhere install.

Possible Causes: If reported independently, the Processing Server is unable to locate or communicate with PrintWhere. A repair or re-install of PrintWhere may be required. this is returned as the userMessageID in combination with a returnCodeReason for integrators. Users will receive a message that contains the returnCodeReason from PrintWhere itself.

If encountered by an integrator, the integration should review the returnCodeReason to determine the root cause of the issue.

PAS0481   The cover page comments supplied are too long.

Cover page comments print option specified is too long.

Possible Causes: Generally an API integration error caused by an incorrect format. The value specified exceeds the maximum length specified by the API

PAS00500   A printing error occurred. The printer machine may be offline, busy or out of paper.

Print job was aborted.

Possible Causes: Print job was aborted. Generally related to an IPP aborted state returned from the print or print server. Review the PDS logs for more information.option is usually overridden by a more detailed PrintWhere error

PAS00501   Printer error occurred. The printer may be out of paper.

Print job was canceled.

Possible Causes: Print job was canceled. Generally related to an IPP canceled state returned from the print or print server. Review the PDS logs for more information.option is usually overridden by a more detailed PrintWhere error

PAS00502   Printer error occurred. The printer may be out of paper.

Print job completed, but no print data was generated.

Possible Causes: Print job was completed, but no data was available to send to the printer. Ensure the document is printable and the print driver is compatible. option is usually overridden by a more detailed PrintWhere error

PAS00700   The service is busy. Please re-submit your request.

Internal error: Application error reported printing.

Possible Causes: Not returned to the user, generally appears in Processing Server logs. May indicate printer or application issues, review logs for more information.

PAS00701   The service is busy. Please re-submit your request.

Internal error: Application error reported preview.

Possible Causes: Not returned to the user, generally appears in Processing Server logs. May indicate printer or application issues, review logs for more information.

PAS00800   User Lookup validation failed.

Cannot validate user using User Email LDAP/AD feature.

Possible Causes: Wrong credentials, User doesn't exist.

PAS00801   User Lookup validation failed.

Cannot validate user using User Email LDAP/AD feature.

Possible Causes: You are not authorized to use this printer.

PAS00802 User Lookup validation failed.

Cannot validate user using User Email LDAP/AD feature.

Possible Causes: Not a site printer.

PAS00803 User Lookup validation failed.

Cannot validate user using User Email LDAP/AD feature.

Possible Causes: Check LDAP connection and configuration

PAS00804 User Lookup validation failed.

Cannot validate user using User Email LDAP/AD feature.

PAS00805 User Lookup validation failed.

Cannot validate user using User Email LDAP/AD feature.

PAS00820 User Lookup validation failed.

Cannot validate user using User Email LDAP/AD feature.

Possible Causes: Check User Lookup Rules.

PAS00821 User Lookup validation failed.

Cannot validate user using User Email LDAP/AD feature.

Possible Causes: Check User Lookup Rules.

PAS00822 User Lookup validation failed.

Cannot validate user using User Email LDAP/AD feature.

Possible Causes: Check User Lookup Rules.

PAS00823   User Lookup validation failed.

Cannot validate user using User Email LDAP/AD feature.

Possible Causes: Check User Lookup Rules.

PAS00824   User Lookup validation failed.

Cannot validate user using User Email LDAP/AD feature.

Possible Causes: Check User Lookup Rules.

PAS02000   The service is busy. Please re-submit your request.

Cannot initialize Status Server listeners, internal and external.

Possible Causes: Not returned to the user. Review the Status Server logs for more information.

PAS01501   The service is busy. Please re-submit your request.

Internal error: Application error reported printing.

Possible Causes: Not returned to the user, generally appears in Processing Server logs. May indicate printer or application issues, review logs for more information. option is usually overridden by a more detailed PrintAnywhere or PrintWhere errors

A.2 PrintWhere error messages

The following is a list a messages that may be presented or logged by PrintWhere. In some cases messages are only used internally in the product.

PWC1000   Unable to Launch Target Application %1.%0

PrintWhere was unable to launch a printing subcomponent.

PWC1001   Failed while translating arguments. Target will not launch.

PrintWhere was unable to launch a printing subcomponent.

PWC1002   Print Failed... Unable to read from Spooler Temp File! *<Windows Error Description>*

PrintWhere was unable to create a temporary file for rendering data.

Possible Causes: Insufficient permissions or disk full.

PWC1003   Print Failed... Unable to allocate memory for Spooler Temp File! *<Windows Error Description>*

PrintWhere was unable to allocate memory for rendering data.

Possible Causes: System out of memory.

PWC1004   Print Failed... Unable to create file *<File Name>*. *<Windows Error Description>*

PrintWhere was unable to create a temporary file.

Possible Causes: Insufficient permissions or disk full.

PWC1005   Print Failed... Unable to write data to disk. *<Windows Error Description>*

PrintWhere was unable to write or create a temporary file.

Possible Causes: Insufficient permissions or disk full.

PWC1006   You have not specified a printer to print with. Please choose: [File][Print][Properties] to open the Internet Printing Properties window. Click the Find a Printer button, select a printer, and then try again. *<Windows Error Description>*

PrintWhere not configured properly.

Possible Causes: The user has not selected a PrinterOn printer to use from the PrintWhere UI

PWC1007   Print failed... Could not create Printer Model Plug-in. Please confirm your Print settings from the Print menu, Properties button, and reprint the document. *<Windows Error Description>*

PrintWhere could not add the selected printer to the system.

Possible Causes: Insufficient print permissions or Incompatible OS and printer.

PWC1008   Printing cancelled. Not enough memory. *<Windows Error Description>*

Not enough memory error.

Possible Causes: Not enough memory.

PWC1010   Printing cancelled. Could not connect to printer at *<printer name>*. *<Windows Error Description>*

Failed retrieving remote printer status.

Possible Causes: Unable to determine the online status of the remote printer possibly due to network problems or printer turned off.

PWC1011   Print failed.... Could not create job. *<Windows Error Description>*

Could not read DEVMODE from the DSF file during EndDoc.

Possible Causes: Insufficient disk space, corrupted memory. *Inconceivable*

PWC1012   Print failed... Could not get Printer Model Plug-in settings. Check that a Printer Model Plug-in is installed and connected to IPP Port. *<Windows Error Description>*

Print Failure.

PWC1013   Print failed... Error processing print job using *<Printer Name>*. *<Windows Error Description>*

Print Failure.

PWC1014   Print failed... Could not start print job using *<Printer Name>. <Windows Error Description>*

Print Failure.

PWC1015   Print failed. *<Windows Error Description>*

Print Failure.

PWC1016   Exceeded maximum number of pages:

Print Failure.

PWC1018   Overwrite Existing file *<File Name> <Windows Error Description>*

Print Failure.

PWC1017   Print Failed... Unable to allocate resources. *<Windows Error Description>*

Unable to allocate system memory.

Possible Causes: System out of memory

PWC1022   Error - seek failed

Print Failure.

Possible Causes: Internal error.

PWC1023   Another instance of the PrintWhere properties dialog is currently opened in: *<application name>*. Please close it to continue. *<Windows Error Description>*

Unable to initialize the PrintWhere UI.

Possible Causes: The PrintWhere properties dialog is open by another application.

PWC1025   socket failed. Reason = *<Windows error description>*

Unable to open an internal listening communication socket.

Possible Causes: A firewall is blocking PrintWhere

PWC1026   bind failed. Reason = *<Windows error description>*

Unable to open an bind listening communication socket.

Possible Causes: A firewall is blocking PrintWhere.

PWC1027   listen failed. Reason = *<Windows error description>*

Unable to resolve host name.

Possible Causes: A firewall is blocking PrintWhere or DNS is misconfigured. *Inconceivable*

PWC1028   accept failed. Reason = *<Windows error description>*

Unable to accept an inbound network connection.

Possible Causes: A firewall is blocking PrintWhere *Inconceivable*

PWC1029   rec failed. Reason = *<Windows error description>*

Unable to receive data on a network socket.

Possible Causes: A firewall is blocking PrintWhere *Inconceivable*

PWC1030   Unable to Launch Web Browser

UI Failure.

PWC1031 Cannot change printer destination while a print job is being processed. Please finish the current print job before selecting a new printer. *<Windows Error Description>*

User warning to disallow changing printer during a print job.

Possible Causes: User tries to change printers from one application while printing form another.

PWC1032 Print to File is not supported by PrintWhere.

PrintWhere fails to print when configured to print to file.

Possible Causes: Misconfigured printer or user has manually configured PrintWhere to print to file. *Rare*

PWC1033 Are you sure you want to clear the Membership Information.

PrintWhere UI warning message.

PWC1047 unable to load 32Bit dll: djthnk30.dll.

unable to load 32Bit dll: djthnk30.dll.

Possible Causes: Internal Error

PWC1050 You do not have the required Printer Model Plug-in installed to use this printer. Would you like PrinterOn to install it now *Information*

PrintWhere printer install information message.

Possible Causes: The user has chosen a new printer to use which needs to be installed.

PWC1051 Install of the Printer Model Plug-in failed.

PrintWhere generic printer install message.

Possible Causes: The user has chosen a new printer to use which needs to be installed.

PWC1052   Failed to add printer.

PrintWhere generic printer install message.

PWC1053   Printer Model Plug-in DEVMODE does not exist.

PrintWhere generic printer install message.

PWC1054   System appears unstable. Reboot and retry.

Windows printing subsystem has become corrupted.

Possible Causes: Windows was asked to work too hard.

PWC1055   Unable to initialize listening for web browser response.

Print Failure.

PWC1056   Please enter member information in the Members tab.

UI Warning.

PWC1058   No printer address specified. Enter, select or click the Find a Printer button to select a printer.

UI warning indicating no printer was selected.

Possible Causes: The user clicked OK on the PrintWhere properties UI without choosing a printer.

PWC1059   Print job not possible with current configuration.

UI warning indicating invalid configuration.

Possible Causes: Printer setup incomplete or incompatible printer information.

PWC1066 This version of PrintWhere is out of date. Print request will not be processed. Update is available at www.PrinterOn.net.

Information message requiring a PrintWhere update.

Possible Causes: The current version of PrintWhere is no longer supported and cannot be used. *Information*

PWC1060 Print job not possible with the current printer.

Invalid configuration.

PWC1061 Print failed. There has been an error in selecting a printer from the MRU list.

Invalid internal configuration.

PWC1062 MRU list is empty!

Invalid internal configuration.

PWC1064 Print job not possible. The required Printer Model Plug-in has not been installed!

Invalid internal configuration.

PWC1066 This version of PrintWhere is out of date. Print request will not be processed. Update is available at www.PrinterOn.net.

Information message requiring a PrintWhere update.

Possible Causes: The current version of PrintWhere is no longer supported and cannot be used. *Information*

PWC1067 PrintWhere version: \<new version\> is currently available. Do you want to upgrade?

Information message information of a new PrintWhere version

Possible Causes: A new version of PrintWhere is available for download.

PWC1068   Communications with the PrintWhere database failed. Could not get the necessary printer info.

Error communicating with PrinterOn via Internet.

Possible Causes: A firewall is blocking PrintWhere

PWC1069   PrintWhere is configured for Server Mode. A job appears to be in process and applying changes may interrupt the print job. Would you like to continue?

PrintWhere UI requests to apply changes while server mode job in progress.

Possible Causes: PrintWhere is configured for servermode and a job is in process. May be caused if a printer is taking excessive time to install.

PWC1078   Launch web browser failed

Unable to launch a web browser.

Possible Causes: No default web browser is configured on the host computer.

PWC1079   Unable to locate *<component name>*

Unable to locate PrintWhere utility DLL.

Possible Causes: Bad or corrupted PrintWhere install.

PWC1080   Cannot access *<function name>*

Unable to locate PrintWhere utility DLL entry point.

Possible Causes: Bad or corrupted PrintWhere install. *Inconceivable*

PWC1081   send failed

Network send error.

Possible Causes: A firewall is blocking PrintWhere *Inconceivable*

PWC1088   PrintWhere version: *<new version>* is currently available. Do you want to upgrade?

Information message information of a new PrintWhere version.

Possible Causes: A new version of PrintWhere is available for download. *Information*

PWC1094   This printer is no longer a valid registered printer. Would you like to remove it from the list of printer addresses? *<Windows Error Description>*

The printer selected has been removed from the PrinterOn Database.

Possible Causes: The printer selected has been removed from the PrinterOn Database.

PWC1095   Unable to display properties for this driver *<Windows Error Description>*

Corrupted system driver.

Possible Causes: Windows printing system has become corrupted or invalid information stored in PrinterOn printer database.

PWC1097   Failed to run *<Component Name>*   *<Windows Error Description>*

Unable to launch PrintWhere subcomponent executable.

Possible Causes: Corrupted PrintWhere installation.

PWC1098   Print Failed... Unable to initialize Printer Model Plug-in.

Printer setup failure

PWC1100   Print Failed... Unable to print to other printer

Printer setup failure.

PWC1101   Print Failed... Could not write to port

Unable to write rendering data to file.

Possible Causes: Insufficient permissions or disk full.

PWC1102   Print Failed... Unable to create file

Unable to creating data file.

Possible Causes: Insufficient permissions or disk full.

PWC1103   Print Error... Bad or missing data *<Windows Error Description>*

Low level Windows printing error.

Possible Causes: Invalid print data size supplied to PrintWhere. Typically caused by printing application.

PWC1108   Print failed... Could not CreateDC using %1

Print Failure.

PWC1112   The entered Member info is invalid

Print Failure.

PWC1113   The password must be at least six characters in length.

Invalid PrinterOn member password length.

Possible Causes: PrinterOn member password entered is less than 6 characters.

PWC1114   Print Failed... Out of resources!

Print Failure.

PWC1115   The port monitor library could not loaded. Please contact customer support.

Print Failure.

PWC1116   The common library has been corrupted. Please contact customer support.

Print Failure.

PWC1117   Printing cancelled. Not enough memory.

Print Failure.

PWC1118   The user name must be supplied.

PrinterOn member validation failed due to no user name.

Possible Causes: No user name was supplied in the PrintWhere members tab.

PWC1119   Failed to find *<component name>* window handle. *<Windows Error Description>*

Internal PrintWhere communication error. Unable to find helper application window.

Possible Causes: Insufficient user permissions, corrupted PrintWhere install.

PWC1120   send failed. Reason = %1!d!%0

Print Failure.

Possible Causes: Network problems.

PWC1121   Error deleting the printer info structure

Print Failure.

PWC1123   You have exceeded the maximum number of attempts to enter a member password. As a security measure, PrintWhere has been disabled. To continue, uninstall PrintWhere and install a new version, available at www.printeron.net.

PrinterOn member password retry limit exceeded.

Possible Causes: User tried to enter their password too many times. Re-install required.

PWC1127   Cannot find the printer in PrinterOn database

Print Failure.

PWC1128   Your PrinterOn member profile does not allow receipts.

Print Failure.

PWC1131   Error occurred during rendering of this document. Please contact Customer Support

Print Failure.

PWC1132   The printer %1 has been disabled. Print job not possible with the current printer.

Print Failure.

PWC1133   An internal error has been caught. Please enter the PrintWhere properties dialog and reselect your printer.

Print Failure.

PWC1136   The currently entered printer address must be verified before this action can be performed.

Print Failure.

PWC1137   Error occurred during rendering of this document. *<Windows Error Description>*

Internal job rendering error.

Possible Causes: Windows printing subsystem corrupted, driver corrupted or locked by other printing process, system out of resources. Reboot and or uninstall the driver.

PWC1138   Cannot start Job Router, the print job will not be sent to the printer. *<Windows Error Description>*

Unable to start the PrintWhere Router helper application.

Possible Causes: Corrupted PrintWhere install or unstable printing system. Restart computer or reinstall PrintWhere *ServerMode*

PWC1139   A print notice has been selected without specifying an email address. Please enter the email address for the recipient of this notification.

User email receipt configuration error.

Possible Causes: Email address not supplied for email receipt.

PWC1140   Please enter member information that allows for receipts in the Members tab.

User configuration error.

Possible Causes: User configuration error.

PWC1141   The operation that you have requested requires adding a printer or a printer driver. The account that you are currently logged into does not allow for the adding or removing of printers and printer drivers. This operation cannot be completed.

Unable to add or remove system printer through PrintWhere.

Possible Causes: Windows user permissions.

PWC1144   TPTS Internal Error.

PrinterOn website communication error.

Possible Causes: Unable to initiate PrinterOn database request for resolve *Inconceivable*

PWC1153   Add printer failed! Error: *<Windows Error Description>* Printer: *<Printer Name>* Driver:*<Driver Name>*

Unable to install print driver on host computer.

Possible Causes: Failed adding printer with Windows AddPrinter API. Incompatible printer or misconfigured PrinterOn printer data.

PWC1154   Installation of Printer Model Plug-in failed.

Unable to install print driver on host computer.

Possible Causes: Windows does not recognize or support the print driver.

PWC1156   A print notice has been selected with an invalid email address. Please enter a valid email address for the recipient of this notification.

User email receipt configuration error.

Possible Causes: Email address not supplied for email notification.

PWC1157   No PTID was supplied by the server.

Server did not send job reference ID for print request.

Possible Causes: PrintAnywhere sent invalid request, no jobReferenceID, to PrintWhere *Inconceivable*

PWC1158   Print job cancelled by user or application.

The Printing application aborted the print job.

Possible Causes: The user likely pressed cancel while printing.

PWC1159   An error occurred in setting the paper information for your currently selected printer.

Could not configure paper size information for the printer.

Possible Causes: Unable to access printer DEVMODE, unstable printing subsystem, low memory, incompatible printer driver.

PWC1160   The current paper size: *<Selected paper size>*, is not registered for this printer. The following paper sizes are allowed: *<Paper Size List> P*aper size has been defaulted to: *<Default Size>*

User configured paper size is not supported.

Possible Causes: User selected paper size in printer listing that is not supported by the printer.

PWC1161   The current paper size is not registered for this printer. The default paper size has been selected.

User configured paper size is not supported.

Possible Causes: User selected paper size in printer listing that is not supported by the printer.

PWC1162   An error occurred in validating your current paper information for this printer.

Unable to validate paper sizes.

Possible Causes: Printing subsystem unstable, driver not installed properly, incompatible printer.

PWC1163   An internal error occurred when trying to display the Delivery Options dialog. The current print job will be cancelled.

Internal user interface error.

Possible Causes: Corrupted PrintWhere install /Inconceivable

PWC1164   An internal error occurred when trying to display the Delivery Options dialog. The current print job will be cancelled.

User interface error.

Possible Causes: Corrupted PrintWhere install *Inconceivable*

PWC1165   Print job *<Job Name>* exceeded user account maximum number of pages: *<Configured Maximum Page Count>*.

Maximum page count exceeded.

Possible Causes: The printed job contains more pages than configured for the user. This applies to the number of pieces of paper needed to print the job. *Deprecated*

PWC1166   Print job *<Job Name>* exceeded user account maximum number of pages: *<Configured Maximum Page Count> a*llowed by printer manager.

Maximum page count exceeded.

Possible Causes: The printed job contains more pages than configured for the printer listing. This applies to the number of pieces of paper needed to print the job.

PWC1167   Print Failed... Unable to create file *<File Name>*

PrintWhere was unable to create a temporary file.

Possible Causes: Insufficient permissions or disk full.

PWC1168   Print Failed... Unable to initialize Printer Model Plug-in *<Plug-in Name>*

Custom printer fixes failed to be applied.

Possible Causes: Custom PrintWhere fixes for drivers failed. Includes Epson Stylus 900, IBM InfoPrint Color8, Xerox DocuPrint 750

PWC1169   Print Failed… Unable to locate Printer Model Plug-in *<Plug-in Name>*

Cannot access printer after installation. Cannot create DC with Printer Name.

Possible Causes: Incompatible printer.

PWC1170   An error occurred sending the print job to *<Plug-in Name>*

Cannot access printer after installation. Cannot create DC with Printer Name or StartDoc fails.

Possible Causes: Incompatible printer or unstable printing subsystem.

PWC1171   Another instance of the PrintWhere print dialog is currently opened in: (unknown). Please close all other instances of PrintWhere to continue.

Unable to initialize the PrintWhere UI.

Possible Causes: The PrintWhere properties dialog is open by another application. *Inconceivable*

PWC1172   Warning, document may be printed in colour instead of black and white. Please select another printer.

Custom printer color fixes failed to be applied.

Possible Causes: Custom PrintWhere fixes for drivers failed. Includes Epson Stylus 900, IBM InfoPrint Color8, Xerox DocuPrint 750

PWC1173   GDI command StartPage failed.

Failed calling Windows Subsystem StartPage.

Possible Causes: Incompatible printer. May be caused by printing application or OS.

PWC1174   GDI command EndPage failed.

Failed calling Windows Subsystem EndPage.

Possible Causes: Incompatible printer. May be caused by printing application or OS.

PWC1175   Incorrect parameter.

Internal memory access error, accessing empty context pointer.

Possible Causes: Windows supplied invalid data when printing. Reboot and reinstall

PWC1176   Error reading DSF file.

Error initializing context pointer or corrupted DSF file.

Possible Causes: Corrupted PrintWhere install. Delete DSF or reinstall.

PWC1177   Unable to allocate memory.

Error initializing context pointer creating memory for paper info.

Possible Causes: Corrupted PrintWhere install. Delete DSF or reinstall.

PWC1178   Unable to retrieve the API duplex option.

Print duplex failure.

Possible Causes: Error

PWC1179   An error occurred generating PDF output.

Catchall error for PDF generation.

Possible Causes: Internal coding error generating PDFs *Inconceivable*

PWC1180   Print Failed... Output Width of *<Pixel Count>* exceeds limit of *<Maximum Supported Pixel Count>*. Please reduce paper size or DPI.

Internal rendering error determine video card color capabilities.

Possible Causes: Very old or lame video card. *Inconceivable*

PWC1181   Current print job cannot be processed because print settings have changed. Please confirm your Print settings from the Print menu, Properties button, and reprint the document.

Print Settings failure.

Possible Causes: Error

PWC1182   The current Paper settings are incompatible with the printer. The printer you are selecting has managed paper sizes and the set sizes are not valid on the printer. To enable printing to this printer the list of managed paper sizes must be changed through the printer registration.

Incompatible paper size.

Possible Causes: User selected paper size is not compatible with the paper size configured in the printer listing.

PWC1183   The printer you are selecting has managed paper sizes and the set sizes are not valid on the printer. To select this printer the list of paper sizes must be changed through the printer registration.

Incompatible paper size.

Possible Causes: User selected paper size is not compatible with the paper size configured in the printer listing. *APIerror*

PWC1184   An error occurred printing this document. If problems persist, please restart the application and try again.

Unable to start PWCPost.

Possible Causes: Unable to start the PrintWhere Post processing executable.

PWC1185   NUp print job is rejected, set proper NUp values in request and NUp Driver Language in the printer listing.

NUp failed to be applied.

Possible Causes: NUp value not supported or nUpDriverLang not specified.

PWC3001   Error - reading DSF file

Print Failure.

PWC3002   Error - no printer info

Print Failure.

PWC3003   Launch web browser failed

Print Failure.

PWC3004   socket failed. Reason = *<Windows Error Description>*

Print Failure.

PWC3005   bind failed. Reason = *<Windows Error Description>*

Print Failure.

PWC3006   listen failed. Reason = *<Windows Error Description>*

Print Failure.

PWC3007   accept failed. Reason = *<Windows Error Description>*

Print Failure.

PWC3008   recv failed. Reason = *<Windows Error Description>*

Print Failure.

PWC3009   send failed

Print Failure.

PWC3010   System out of memory

Print Failure.

PWC3011   Error - unable to contact host

Print Failure.

PWC3012   FavoriteList problem

Print Failure.

PWC3013   InternetOpen failed. *<Windows Error Description>*

Unable to open an HTTP session to download an OEM driver.

Possible Causes: Possible misconfigured proxy or firewall

PWC3014   InternetOpenUrl failed. *<Windows Error Description>*

Failure connecting to PrinterOn website.

Possible Causes: Possible misconfigured proxy or firewall

PWC3015   HttpQueryInfo failed. *<Windows Error Description>*

Failure sending driver download to PrinterOn website, or invalid HTTP response.

Possible Causes: Possible misconfigured proxy or firewall.

PWC3016   GetSystemDirectory failed.

Print Failure.

PWC3017   Unable to open temporary file for download. *<Windows Error Description>*

Unable to create temporary file for driver download.

Possible Causes: User permissions or disk full

PWC3018   Out of memory.

Unable to allocate memory for driver download response.

Possible Causes: Out of memory

PWC3019   Could not create status window.

Cannot create a user status update windows.

Possible Causes: Unstable operating system or low memory. *Inconceivable*

PWC3020   InternetQueryDataAvailable failed. *<Windows Error Description>*

Driver download network session corrupted getting response data size.

Possible Causes: Possible misconfigured proxy or firewall.

PWC3021   InternetReadFile failed. *<Windows Error Description>*

Unable to read network data from driver download response.

Possible Causes: Possible misconfigured proxy, firewall or network cable is unplugged.

PWC3022   Error writing out file. *<Windows Error Description>*

Unable to write driver download response to disk.

Possible Causes: User file permissions or disk full.

PWC3023   Could not download file *<Driver File>*. Printer Model Plug-in not installed.
<Windows Error Description>

Received incomplete driver download response, data size is less than 40K.

Possible Causes: Possible misconfigured proxy, firewall or network cable is unplugged.

PWC3024   Could not install the Printer Model Plug-in. *<Windows Error Description>*

Printer Failure.

PWC3025   Failed to load IPWorksSSL library.

Failed to load IPWorksSSL library.

PWC3027   Error - Missing Input Data

Printer Failure.

PWC3028   Error - No Printer Info

Printer Failure.

PWC3037   Printing cancelled. Not enough memory.

Printer Failure.

PWC3038   This trial version of PrintWhere is out of date. Print request will not be processed. Update is available at www.PrinterOn.net.

Printer Failure.

PWC3039   The port monitor library has been corrupted. Please contact customer support.
<Windows Error Description>

Printer Failure.

PWC3046   PrintWhere has determined that there is not enough free space in *<directory name> t*o install the Printer Model Plug-in. Please free up *<required> M*B before continuing. If the Printer Model Plug-in still can not be installed please contact customer support for additional information.

Insufficient disk space.

Possible Causes: PrintWhere calculated that there is not sufficient space to save the downloaded driver.

PWC3049   A cover page is required for this printer. The mandatory cover page cannot be found. Printing cancelled.

PrintWhere could not locate required cover page template file.

Possible Causes: Corrupted PrintWhere install, reinstall.

PWC3050   A cover page is required for this printer. The mandatory cover page cannot be found. Printing cancelled. *<Windows Error Description>*

PrintWhere could not locate required cover page template file.

Possible Causes: Corrupted PrintWhere install, reinstall.

PWC3051   Unable to initialize the rich edit control. The riched32.dll in the system directory is either missing or corrupted. Please install the riched32.dll from your Windows system disk. *<Windows Error Description>*

PrintWhere could not locate required rich edit system DLL.

Possible Causes: Corrupted Windows install, reinstall.

PWC3052   The printer that you have selected has changed and printing cannot be completed. Please open the properties dialog, select the printer and try printing again.

The printer listing changed and is no longer compatible with the system.

Possible Causes: Incompatible printer or printer listing settings.

PWC3055 This will cancel the current print job. Do you wish to cancel this print job?

Information message when a user chooses to cancel a print job.

Possible Causes: The user has chosen to cancel a print job. *Information*

PWC3056 There was an error in drawing the properties pages for the post job information dialog. *<Windows Error Description>*

Printer Failure.

PWC3059 The Paste operation is not supported for contents from other applications.

Printer Failure.

PWC3060 Do you wish to change your member information?

User credentials failed communicating with PTS.

Possible Causes: Invalid username or password. *Information*

PWC3061 The currently selected paper size: *<Paper Size>*, is not a paper size registered for this printer. The following are the registered paper sizes: *<Available paper sizes>* *P*lease change the paper size for this printer through the Print Properties dialog or change the document's paper size through the Page Setup dialog.

User configured paper size is not supported.

Possible Causes: User selected paper size in printer listing that is not supported by the printer.

PWC3062 There was an internal error in processing your request. *<Windows Error Description>*

Internal coding error.

Possible Causes: Internal coding error, invalid function parameter. *Inconceivable*

PWC3063 The *<Data to Validate> i*nformation is required and must be entered.

User warning message validating data.

Possible Causes: Information message indicating data the user is required and missing. *Information*

PWC3064 The *<Data to Validate> i*nformation must be at least *<size>* characters.

User warning message validating data.

Possible Causes: Information message indicating data the user is entering is incorrect size. *Information*

PWC3065 The Deliver To field needs to be shortened before printing can proceed.

User warning message validating data.

Possible Causes: Information message indicating data the Deliver To data is too long. *Information*

PWC3066 The Comments field needs to be shortened before printing can proceed.

User warning message validating data.

Possible Causes: Information message indicating data the Comments field data is too long. *Information*

PWC3067 The Deliver To and Comments fields needs to be shortened before printing can proceed.

User warning message validating data.

Possible Causes: Information message indicating data the Deliver To and Comments field data are too long. *Information*

PWC3068   Do you wish to enter your member information?

PTS passthrough message.

Possible Causes: PTS has reported a user credentials error. The PTS error will be reported as well.

PWC3069   <PTS message\>

PTS passthrough message.

Possible Causes: PTS has reported a error. The PTS error will be reported Typically used when PTS does not include an error prefix.

PWC3070   <PTS message\> Do you wish to enter your member information?

PTS passthrough message.

Possible Causes: PTS has reported a error. The PTS error will be reported

PWC3071   <PTS message\>

PTS passthrough message.

Possible Causes: PTS has reported a user credentials error. The PTS error will be reported as well

PWC3072   The *<Data to Validate> M*inimum and Maximum settings are invalid. Minimum is *<minimum size> a*nd Maximum is *<maximum size> c*haracters.

User warning message validating length.

Possible Causes: Information message indicating data is incorrect size. *Information*

PWC3073   The *<Data to Validate> i*nformation must be no more than *<Size> c*haracters.

User warning message validating length.

Possible Causes: Information message indicating data is incorrect size. *Information*

PWC3500   The print data stream from the Windows spooler is corrupt. PrintWhere is canceling the print request. This may be a temporary condition, please try again.

Corrupted print data sent to Router. Router unable to load job.

Possible Causes: Insufficient disk space or internal coding error *Inconceivable*

PWC3501   PrintWhere cannot print the document *<Job Name>* on printer *<Printer Name> a*t this time.

Router print retry count exceeded.

Possible Causes: The router was unable to successfully send job to printer. Printer offline or misconfigured.

PWC3502   Print job '*<Job Name>* ' failed to print. *<Additional Info> P*lease verify the settings for this printer and try again.

Router failed to print job.

Possible Causes: Most likely due to internal coding error or corrupted PrintWhere install.

PWC3503   PrintWhere was unable to print the job *<Job Name>*. Error: *<Additional Info> Do* you wish to retry printing this job? *<Windows Error Description>*

Router failed to print job.

PWC3504   There are still print jobs to be processed. Do you wish to have the router delete these print jobs before closing?

User has chosen to close the router before all jobs are printed.

Possible Causes: User manually closed the router while jobs are in process. *Information*.

PWC3505   Unable to Launch Web Browser. *<Windows Error Description>*

Router internal error.

PWC3506   The job data could not be encrypted

Router internal error.

PWC3507   *<Job Name> wa*s successfully transmitted, but an error occurred while disconnecting. It cannot be determined if the printer will print all the data. If you retry, duplicate data may be printed.

Potential network error communicating with printer from router.

Possible Causes: Router sent all the data but failed to disconnect the network connection. *Information*

PWC3508   The connection to the printer was lost after approximately *<Percent data sent> of <Job Name> wa*s sent. It cannot be determined whether the printer has output this information. If you retry, duplicate data may be printed.

Router print data transmission interrupted.

Possible Causes: Loss of Internet connectivity.

PWC3509   The printer is unable to print your document. If possible, please check the printer.

The printer reported an IPP error to the Router.

Possible Causes: Incompatible printer, likely direct printer connection, or internal coding error.

PWC3510   Your document could not be printed. The printer does not support Internet Printing.

The printer reported an IPP not supported error to the Router.

Possible Causes: Incompatible printer, likely direct printer connection, or internal coding error.

PWC3511 There was an error processing your print request. The document may not have printed successfully.

Router failure.

PWC3512 A printer error, such as a paper jam, has occurred while printing your document.

The printer reported an IPP device error to the Router.

Possible Causes: Possible paper jam or printer failure, likely direct printer connection.

PWC3513 A temporary error, such as a memory overflow or disk full condition, has occurred while processing your print request.

The printer reported an IPP temporary error to the Router.

Possible Causes: The printer reported a temporary error, memory or disk full, likely direct printer connection.

PWC3514 Your document could not be printed. The printer is currently unavailable, at the request of the printer administrator.

The printer reported an IPP not accepting jobs error to the Router.

Possible Causes: The printer reported not accepting jobs error, printer offline or permissions error, likely direct printer connection.

PWC3515 Your document could not be printed. The printer is currently full, or is not accessible.

The printer reported an IPP busy error to the Router.

Possible Causes: The printer reported busy error, printer offline or full, likely direct printer connection.

PWC3516 Your document could not be printed. The print request was cancelled by the server or the operator of the printer.

The printer reported an IPP cancel job error to the Router.

Possible Causes: The printer reported cancel job error, job cancelled at the printer, likely direct printer connection.

PWC3517 Your document could not be printed. The printer is currently unavailable due to temporary overloading or maintenance.

The printer reported an IPP service unavailable error to the Router.

Possible Causes: The printer reported service unavailable error, printer offline or in maintenance, likely direct printer connection.

PWC3518 The current print job(s) will be resent to the printer from the beginning in the next printing session.

User chose to stop the router while jobs in process.

Possible Causes: User chose to stop the router while jobs in process. *Information*

PWC3519 Error opening Notepad. *<Windows Error Description>*

Router could not launch notepad to view log file.

Possible Causes: Router could not open notepad when user request to view log file. *Inconceivable*

PWC3520 IPP transfer error.

Unexpected error transmitting job to printer from Router.

Possible Causes: Router failed to send job, no data sent. Network configuration. Retries expired.

PWC3521   An error occurred when sending *<Job Name> t*o the printer. *<Percentage sent> wa*s sent.

Unexpected error transmitting job to printer from Router.

Possible Causes: Router failed to send job, partial data sent. Network configuration.

PWC3522   Print stream data is corrupted.

Invalid job information received by Router before transmission.

Possible Causes: Internal coding error. *Inconceivable*

PWC3523   Cover page print stream data is corrupted.

Invalid cover page information received by Router before transmission.

Possible Causes: Internal coding error. *Inconceivable*

PWC3524   Error copying local data to output directory. *<Windows Error Description>*

Router failed to copy data file to local print directory. Only applies to Router print to file.

Possible Causes: Internal coding error, disk full. *Deprecated*

PWC3525   A connection to the printer could not be established. *<Windows Error Description>*

Unable to connect or send IPP header data to the printer over the network.

Possible Causes: A firewall is blocking PrintWhere or DNS is misconfigured.

PWC3526   Could not initialize the IPP print request.

Unable to initialize IPP transport layer.

Possible Causes: Internal coding error. *Inconceivable*

PWC3527 Printer is forced for encryption but algorithm type is unknown.

Encryption forced but no algorithm specified.

Possible Causes: Misconfigured printer listing or PrinterOn data. *Inconceivable*

PWC3528 Printer is forced for encryption but algorithm type is unknown.

Encryption forced but the algorithm is not supported.

Possible Causes: Misconfigured printer listing or PrinterOn data. *Inconceivable*

PWC3529 Printer is forced for encryption but algorithm is not supported by this version.

Encryption forced but the algorithm is not known.

Possible Causes: Misconfigured printer listing or PrinterOn data. *Inconceivable*

PWC3530 No error.

Router internal logging.

PWC3531 Undefined Error. *<Windows Error Description>*

An unknown error occurred in the Router.

Possible Causes: An error was reported in the job but no details were supplied. *Inconceivable*

PWC3532 The job data could not be read from file. *<Windows Error Description>*

An unexpected error occurred reading job file in the Router.

Possible Causes: Job data size is 0 or AAA XML is unparsable. *Inconceivable*

PWC3533 The job data could not be read from file

Router failure.

PWC3534 The job data could not be read from file

Router failure.

PWC3535 Data size (*<Job Size>* KB) exceeded the maximum permitted job size (*<Permitted Size>* KB) for this printer.

Router determines the job data size is greater than configured by the user for the printer.

Possible Causes: Job data size is greater than what is configured in the printer listing or is greater than 4GB. *Configurable*

PWC3536 Could not encrypt the job.

Internal Router encryption failed for job forcing encryption.

Possible Causes: Internal coding error or corrupted PrintWhere install.

PWC3537 Session lost. *<Windows Error Description>*

Router printer connection unexpectedly lost.

Possible Causes: Data transmission error not handled elsewhere or communication lost after data accepted by the printer.

PWC3538 The job state is unknown.

The printer reported an unknown job state to the router.

Possible Causes: Incompatible IPP printer, likely direct printer connection.

PWC3539 The job was aborted by the printer.

The printer aborted a print job from the Router.

Possible Causes: IPP printer reported an aborted print state, incompatible printer or coding error. Likely direct printer connection.

PWC3540 The job was cancelled by the printer.

The printer cancelled a print job from the Router.

Possible Causes: IPP printer reported an cancelled print state, incompatible printer or cancelled by the user at the printer. Likely direct printer connection.

PWC3541 A printing/faxing error occurred. The printer/fax machine may be offline, busy or out of paper.

The printer reported an unknown error to the Router.

Possible Causes: IPP printer reported an unknown error, incompatible printer. Likely direct printer connection.

PWC3542 Error gluing multipart job.

Router failure.

PWC3543 Printer IP address is not provided.

The printer was configured without a destination IP address.

Possible Causes: The user misconfigured the printer listing to direct without an IP address.

PWC3544 The print job has been cancelled. No further actions are required or available.

The user cancelled the print job manually.

Possible Causes: The user chose to cancel a print job manually. *Information*

PWC3545 The print job has expired. No further actions are required or available.

The job was configured to be held for released and never released.

Possible Causes: A held job timed out waiting for release. Occurs in server mode if user does not confirm the print job via web after 10 minutes.

PWC3546   Print job was cancelled in the router user interface.

The job was cancelled by the user through the UI for a server job.

Possible Causes: A held job was cancelled through the UI. Occurs in server mode if someone manually cancels a job from the UI. *Inconceivable*

PWC3547   Unable to process print job.

The Router could not find job data for associated job file.

Possible Causes: Internal error occurred creating job data file. Disk full or unstable system, reboot.

PWC3548   Unable to process print job due to timeout.

The Router cancelled an orphaned job.

Possible Causes: Router cleanup routine for orphaned job. Catchall for cleanup. *Inconceivable*

PWC3549   Unable to determine size of print job.

The Router could not determine the size of a job file.

Possible Causes: Unstable system or file deleted manually during processing. *Inconceivable.*

PWC3550   Easy Security Manager is no response for Litech Integration.

Litech integration, No response.

Possible Causes: Easy Security Manager

PWC3551   User ID is empty for Litech Integration.

Litech integration, User ID is empty.

Possible Causes: Printer Optional Settings' User Information

PWC3552   Unregistered User ID for Litech Integration.

Litech integration, Unregistered User ID.

Possible Causes: User ID is invalid for Litech Integration.

PWC3553   Policy server address is empty for Litech Integration.

Litech integration, Policy server address is empty.

Possible Causes: Security Policy Server setting

PWC3554   Cannot connect to policy server for Litech Integration.

Litech integration, Cannot connect to policy server.

Possible Causes: Security Policy Server is not running

PWC3555   Job Manager is not running for Litech Integration.

Litech integration, Job Manager is not running.

Possible Causes: Job Manager is not running

PWC3556   Fail to run Job Manager for Litech Integration.

Litech integration, Fail to run Job Manager.

Possible Causes: Job Manager is not running

PWC3557   Quota is lack for Litech Integration.

Litech integration, Quota is lack.

Possible Causes: Unknown.

PWC3558   Unknown last error for Litech Integration.

Litech integration, Unknown last error

Possible Causes: Unknown.

PWC3559   Unable to show printer details.

Unable to show printer details

Possible Causes: Pointer is not initialized.

PWC3068   *<PTS message>* Do you wish to enter your member information?

PTS passthrough message.

Possible Causes: PTS has reported a user credentials error. The PTS error will be
reported as well. *Information*

PWC3069   *<PTS message>*

PTS passthrough message.

Possible Causes: PTS has reported a error. The PTS error will be reported
Typically used when PTS does not include an error prefix. *Information*

PWC3070   *<PTS message>*

PTS passthrough message.

Possible Causes: PTS has reported a error. The PTS error will be reported.
Information

PWC3071   *<PTS message> D*o you wish to enter your member information?

PTS passthrough message.

Possible Causes: PTS has reported a user credentials error. The PTS error will be
reported as well. *Information*

PWC4001 Error retrieving registry value. *<Windows Error Description>*

Registry read failure.

PWC4002 *<Error Code>* Cmd: *<Create Process command>*

Create process failure.

PWC4003 IPP: invalid configuration *<Windows Error Description>*

Invalid Internet Printing Protocol (IPP) configuration

PWC4004 IPP: invalid response *<Windows Error Description>*

Invalid Internet Printing Protocol (IPP) response

PWC4005 http session initialization error *<Windows Error Description>*

Http session initialization error

PWC4006 http connection error *<Windows Error Description>*

Http connection error

PWC4007 http start request error *<Windows Error Description>*

Http start request error

PWC4008 http header request generation error *<Windows Error Description>*

Http header request generation error

PWC4009 http sending request error *<Windows Error Description>*

Http sending request error

PWC4010   http writing to target server error *<Windows Error Description>*

Http writing to target server error

PWC4011   IPP: unable to set attribute *<Windows Error Description>*

Internet Printing Protocol (IPP) unable to set attribute.

PWC4012   IPP: invalid IPP message *<Windows Error Description>*

Invalid Internet Printing Protocol (IPP) message

PWC4013   IPP: printer state unavailable *<Windows Error Description>*

Internet Printing Protocol (IPP) error, no printer state.

PWC4014   IPP: client or server in error state *<Windows Error Description>*

Internet Printing Protocol (IPP) client or server in error state.

PWC4015   timeout *<Windows Error Description>*

Timeout.

PWC4016   general (system or application) error *<Windows Error Description>*

General (system or application) error

PWC4017   insufficient system memory *<Windows Error Description>*

Insufficient system memory

PWC4501   The service is temporarily unavailable - error in API parameters.

PrintWhere API received invalid parameter.

Possible Causes: Corrupt server mode installation. Insufficient registry permissions.

PWC4502 The service is temporarily unavailable - error in settings file. *<Windows Error Description>*

Corrupted PrintWhere install. Delete DSF or reinstall.

Possible Causes: DSF file could not be read.

PWC4503 The service is temporarily unavailable - unable to allocate memory. *<Windows Error Description>*

Unable to allocate memory.

Possible Causes: System out of memory.

PWC4504 The service is temporarily unavailable - unable to allocate memory. *<Windows Error Description>*

Unable to load the printers DEVMODE.

Possible Causes: Unable to access printer DEVMODE, unstable printing subsystem, low memory, incompatible printer driver.

PWC4505 The service is temporarily unavailable - unable to get plugin settings.

API Failure.

PWC4506 The service is temporarily unavailable - error writing to disk. *<Windows Error Description>*

The PWC API was unable to write to the registry or the DSF file.

Possible Causes: API caller permissions for write registry access or file access in PWC data folder.

PWC4507 The service is temporarily unavailable - unable to use plugin. *<Windows Error Description>*

PWC API could open printer after adding printer to update document properties.

Possible Causes: Incompatible printer or printer install error.

PWC4508   The service is temporarily unavailable - unable to read registry. *<Windows Error Description>*

The PWC API could not read PrintWhere registry values.

Possible Causes: API caller permissions for read registry access.

PWC4509   The service is temporarily unavailable - unable to add plugin. *<Windows Error Description>*

The PWC API failed adding printer or changing printer port after install.

Possible Causes: User permissions to add printer, incompatible printer or bad PrinterOn printer data in database.

PWC4510   There was a problem communicating with the printer/fax. Please make sure your selection is correct and re-submit your request.

PWC API did not receive ready status from the printer.

Possible Causes: Printer not accessible over the network due to firewall or proxy. Or possible corrupted PWC install.

PWC4511   The service is temporarily unavailable - printing service is stopped. *<Windows Error Description>*

PWC API received an RPC error enumerating printers.

Possible Causes: Windows print spooler crash likely. Incompatible printer install crashing spooler.

PWC4512   Authorization failed missing email address. Please check your member or selected printer information and re-submit your request.

No email address specified validating data in GetMemberInfo.

Possible Causes: Invalid member info provided to API *Inconceivable*

PWC4513   Authorization failed missing user password. Please check your member or selected printer information and re-submit your request.

No password was supplied for desktop print when an email address was supplied.

Possible Causes: Invalid user information provided through UI, returned through Printer Chooser.

PWC4514   The service is temporarily unavailable - incorrect parameter.

User email or password supplied exceeds maximum size.

Possible Causes: User email is greater than 512 characters, password is greater than 54 characters. Post render exe path exceeds 260 characters.

PWC4515   The service is temporarily unavailable - incorrect parameter.

Invalid data provided to GetMemberInfo API.

Possible Causes: Buffer provided to retrieve member information is too small. *Inconceivable*

PWC4516   The service is temporarily unavailable - unable to initialize PTS.

PTS data initialization failed.

Possible Causes: Unable to reset memory for PTS data.

PWC4517   The service is temporarily unavailable - unable to add plugin driver. *<Windows Error Description>*

Failed installing printer driver.

Possible Causes: Unable to load PrinterOn DLL, download the printer driver or failure installing the driver. Consider installing the print driver manually

PWC4518 The service is temporarily unavailable - unable to find plugin. *<Windows Error Description>*

Failed installed printer driver.

Possible Causes: Unable to load PrinterOn DLL, download the printer driver or failure installing the driver.

PWC4519 The service is temporarily unavailable - missing serial number.

No serial number supplied from PrintAnywhere server setting up server.

Possible Causes: Windows account used for processing has not been logged into prior to use. Possible permissions error reading registry

PWC4520 The service is temporarily unavailable - unable to write to registry. *<Windows Error Description>*

PWC API failed writing to the registry.

Possible Causes: User permissions problem or service credentials permissions too low.

PWC4521 The cover page recipient information is too long. Please revise and resubmit your request.

PWC API reported cover page recipient too long.

Possible Causes: The cover page recipient set is greater than 260 characters.

PWC4522 The printer has been set offline by printer administrator.

The printer was set offline in the printer listing.

Possible Causes: The printer was set offline in the printer listing. *Configurable*

PWC4523 The service is temporarily unavailable - unable to find system folder. *<Windows Error Description>*

Unable to determine or create the spool directory for PrintWhere.

Possible Causes: Permissions error for PrintWhere user or server service credentials.

PWC4524 The cover page comment information is too long. Please revise and resubmit your request.

PWC API reported cover page comments too long.

Possible Causes: The cover page comments set is greater than 1024 characters.

PWC4525 The service is temporarily unavailable - error writing settings file. *<Windows Error Description>*

A move file operation failed to rename a print data file for router use in EndJob API.

Possible Causes: User or Service permissions corrupted print job with no data not previously handled.

PWC4526 The service is temporarily unavailable - unable to find PrintWhere spool folder. *<Windows Error Description>*

Unable to determine or create the spool directory for PrintWhere.

Possible Causes: Permissions error for PrintWhere user or server service credentials.

PWC4527 The service is temporarily unavailable - missing PTID.

Job Reference ID not supplied to SetupCurrentPrinter API.

Possible Causes: Internal coding error *Inconceivable*

PWC4528   The service is temporarily unavailable - error setting plugin settings. *<Windows Error Description>*

Unable to update DEVMODE resolution information for printer that does not report a supported resolution (Epson 900n)

Possible Causes: Incompatible print driver.

PWC4529   The service is temporarily unavailable - error reading job file. *<Windows Error Description>*

Unable to load print job file when release job requested.

Possible Causes: Corrupted job data file. Insufficient disk space, likely internal coding error.

PWC4530   Unable to perform the action requested. The job identified could not be found. Please check your request for accuracy and resubmit your request.

Could not locate job file when release job API called.

Possible Causes: Release job API called for job that was not submitted for release mode, or job previously released.

PWC4531   Unable to perform the action requested. The job identified is not pending release. Please check your request for accuracy and resubmit your request.

Release job fails for release job request when job is not set to release.

Possible Causes: Release job API called for job that was not submitted for release mode. Job found but misconfigured.

PWC4532   The service is temporarily unavailable - error writing job file. *<Windows Error Description>*

Failed updating job file with delivery ID and password on EndJob API.

Possible Causes: Corrupted job data file *Inconceivable*

PWC4533   The service is temporarily unavailable. *<Windows Error Description>*

Failed closing PWC helper executable when initiated from PWC API.

Possible Causes: Unstable printing system or runaway printing from application. Usually addressed by server. *Inconceivable*

PWC4534   The service is temporarily unavailable. *<Windows Error Description>*

Unable to delete DSF file when requested from API.

Possible Causes: Unstable printing system or runaway printing from application. Usually addressed by server. Restart server if persists.

PWC4535   Missing network login. Please check your information and re-submit your request.

Network login required for print but not supplied. Set in printer listing.

Possible Causes: Printer configured to required a network login or user ID but not supplied *Configurable*

PWC4536   Invalid network login supplied. Please check your information and re-submit your request.

Network login or user ID length supplied is longer than the value configured in the printer listing.

Possible Causes: Network login or user ID length supplied is longer than the value configured in the printer listing. *Configurable*

PWC4537   Missing computer name. Please check your information and re-submit your request.

Computer name required for print but not supplied. Set in printer listing.

Possible Causes: Printer configured to required a computer name but not supplied *Configurable*

PWC4538   Invalid computer name supplied. Please check your information and re-submit your request.

Computer name length supplied is longer than the value configured in the printer listing.

Possible Causes: Computer name length supplied is longer than the value configured in the printer listing. *Configurable*

PWC4539   Missing release code. Please check your information and re-submit your request.

Release Code required for print but not supplied. Set in printer listing.

Possible Causes: Printer configured to required a release code but not supplied. Could be internal coding. *Configurable*

PWC4540   Invalid release code supplied. Please check your information and re-submit your request.

Release Code length supplied is longer than the value configured in the printer listing.

Possible Causes: Release Code length supplied is longer than the value configured in the printer listing. Could be internal coding. *Configurable*

PWC4541   The service is busy. Please re-submit your request. *<Windows Error Description>*

Could not update job file release state information.

Possible Causes: Unstable system or low disk space. If problems persist, reboot.

PWC4542   Invalid network login minimum and maximum length values. Please check the printer registration settings.

Network Login or User ID minimum or maximum length misconfigured in printer listing.

Possible Causes: Network Login or User ID minimum size is greater than the maximum size. *Configurable*

PWC4543   Invalid computer name minimum and maximum length values. Please check the printer settings.

Computer name minimum or maximum length misconfigured in printer listing.

Possible Causes: Computer name minimum size is greater than the maximum size. *Configurable*

PWC4544   Invalid printer release code minimum and maximum length values. Please check the printer registration release code settings.

Release code minimum or maximum length misconfigured in printer listing.

Possible Causes: Release code minimum size is greater than the maximum size. *Configurable*

PWC4545   The service is temporarily unavailable.

Unknown failure.

PWC4546   The printer has been set offline due to hours of operation.

Print failed due to request outside of the configured hours of operation.

Possible Causes: The printer is configured with hours of operation and the printer is currently offline. *Configurable*

PWC4557   The requested paper size information is invalid. Please check your request for accuracy and ensure that the printer requested supports the desired paper size.

The server requested a paper size output not supported by the printer or enabled in the printer listing.

Possible Causes: The server requested a paper size output not supported by the printer or enabled in the printer listing. *Configurable*

PWC4558   The requested paper size information is invalid. Please check your request for accuracy and ensure that the printer requested supports the desired paper size.

The server requested a paper size output not supported by the printer or enabled in the printer listing.

Possible Causes: The server requested a paper size output not supported by the printer or enabled in the printer listing. *Configurable*

PWC4559   The requested duplex option information is invalid. Please check your request for accuracy and ensure that the printer requested supports the desired duplex option.

The server requested duplex option not enabled in the printer listing.

Possible Causes: The server requested duplex option not enabled in the printer listing. *Configurable*

PWC4560   Unable to reset print configuration. *<Windows Error Description>*

Server reset API failed.

Possible Causes: Internal server reset error not handled by other handlers. Insufficient permissions, unstable printing system. The server will attempt to fix in subsequent jobs. Reboot if persists.

PWC4561   Unable to update print configuration. *<Windows Error Description>*

Error querying Windows system printer list.

Possible Causes: Unstable system or insufficient permissions. Reboot if persists,

PWC4562   The database is temporarily unavailable. *<Windows Error Description>*

Received a malformed response from PTS.

Possible Causes: PTS query completed but data is malformed. Likely network issue, such as proxy.

PWC4563 An error occurred unregistering the PrintWhere printer. *<Windows Error Description>*

Failed removing PrintWhere print object from the Windows print spooler.

Possible Causes: Failed removing PrintWhere printer object from the spooler during extreme system recovery operations initiated by the server. Reboot if persists.

PWC4564 An error occurred unregistering the PrintWhere driver. *<Windows Error Description>*

Failed removing PrintWhere driver from Windows.

Possible Causes: Failed removing PrintWhere driver files from the spooler during extreme system recovery operations initiated by the server. Reboot if persists.

PWC4565 An error occurred unregistering the PrintWhere monitor. *<Windows Error Description>*

Failed removing PrintWhere port monitor from Windows.

Possible Causes: Failed removing PrintWhere port monitor from the spooler during extreme system recovery operations initiated by the server. Reboot if persists.

PWC4566 An error occurred registering the PrintWhere monitor. *<Windows Error Description>*

Failed reinstalling PrintWhere port monitor after extreme system recovery.

Possible Causes: Failed reinstalling PrintWhere port monitor during extreme system recovery operations initiated by the server. Reinstall PrintWhere

PWC4567 An error occurred registering the PrintWhere driver. *<Windows Error Description>*

Failed reinstalling PrintWhere driver files after extreme system recovery.

Possible Causes: Failed reinstalling PrintWhere driver files during extreme system recovery operations initiated by the server. Reinstall PrintWhere

PWC4568   An error occurred registering the PrintWhere printer. *<Windows Error Description>*

Failed reinstalling PrintWhere print object after extreme system recovery.

Possible Causes: Failed reinstalling PrintWhere print object during extreme system recovery operations initiated by the server. Reinstall PrintWhere

PWC4569   An error occurred opening the PrintWhere printer. *<Windows Error Description>*

Failed opening the PrintWhere print object after extreme system recovery.

Possible Causes: Failed opening the PrintWhere print object during extreme system recovery operations initiated by the server. Reinstall PrintWhere

PWC4570   An error occurred while processing the data file. Check disk space.

Failed changing release code in data file after print.

Possible Causes: Insufficient disk space.

PWC4572   An error occurred while processing the request.

Failed communicating with Post render executable during EndJob API.

Possible Causes: Corrupted PrintWhere install or firewall rules blocking internal communication.

PWC4573   The service was unable to setup the requested printer. Please contact the printer administrator.

Failed configuring the requested printer. Service hung during setup.

Possible Causes: Failed configuring the requested printer. Service hung during setup.

PWC5000   Not enough memory!

Port monitor failure.

PWC5001   The print job *<Job Name> wa*s sent to a PrintWhere Printer Model Plug-in and cannot be printed. Please change the selected printer to *<Printer Name> a*nd print again.

Port monitor failure.

PWC5002   The print job *<Job Name> wa*s sent to a PrintWhere Printer Model Plug-in and cannot be printed. Please change the selected printer to *<Printer Name> a*nd print again.

Port monitor failure.

Possible Causes: Corrupted PrintWhere install or unstable printing subsystem. *Inconceivable.*

PWC5100   AAA Authentication: Clear text protocol - not approved.

AAA clear text authorization failed.

Possible Causes: Third party did not approve authentication using clear text protocol Internal or third party coding or configuration error.

PWC5101   AAA Authentication: MD5 or MD5BASE64 protocol - not approved.

AAA MD5 or MD5BASE64 authorization failed.

Possible Causes: Third party did not approve authentication using Base64 or MD5 Base64 protocol. Internal or third party coding or configuration error.

PWC5102   AAA Authentication: Failed to calculate MD5 token.

MD5 token could not be calculated.

Possible Causes: PrintWhere install corrupted. Internal or third party coding or configuration error.

PWC5103   AAA Authentication: Missing required Authentication token.

AAA authentication token not received by AAA server.

Possible Causes: Improper response from third party confirmation server.
Internal or third party coding or configuration error.

PWC5104   AAA Authentication: Failed Authentication token check. The Authentication token
provided does not match printer registration.

AAA authentication token does not matched valued generated by PrinterOn
DB.

Possible Causes: Improper response from third party confirmation server.
Internal or third party coding or configuration error.

PWC5105   AAA Authentication: Unsupported protocol requested.

AAA service does not support protocol requested and configured for the
printer.

Possible Causes: Improper configured printer for use with third party
confirmation server. Internal or third party coding or configuration error.

PWC5227   Printer not found in the directory

Printer listing not located in PTS.

Possible Causes: Reported if printer supplied by user is not found in PTS and no
error information is returned from DB transaction.

PWC5228   User authentication failed

PrinterOn user credentials supplied to PTS are not valid.

Possible Causes: Reported if PrinterOn user credentials supplied to PTS are not
valid and no error information is returned from DB transaction.

PWC5229 User authentication failed

PrinterOn user credentials supplied to PTS are not valid.

Possible Causes: Reported if PrinterOn user credentials supplied to PTS are not valid and no error information is returned from DB transaction.

PWC5230 User authentication failed, printer not found in directory.

PrinterOn user credentials supplied to PTS are not valid AND the printer is not found.

Possible Causes: Reported if PrinterOn user credentials supplied to PTS are not valid AND the printer is not found and no error information is returned from DB transaction.

PWC5231 User authentication failed

PrinterOn user credentials supplied to PTS are not valid AND the printer is a public printer.

Possible Causes: Reported if PrinterOn user credentials supplied to PTS are not valid AND the printer is a public printer and no error information is returned from DB transaction.

PWC5232 User authentication failed

PrinterOn user credentials supplied to PTS are not valid AND the printer is NOT a public printer.

Possible Causes: Reported if PrinterOn user credentials supplied to PTS are not valid AND the printer is NOT a public printer and no error information is returned from DB transaction.

PWC5233 Printer not found in the directory

Printer could not be located in the PrinterOn directory.

Possible Causes: Reported if Printer could not be located in the PrinterOn directory and no error information is returned from DB transaction.

PWC5234 User authorization failed for printer

PrinterOn user credentials are valid but access is not granted to the private printer.

Possible Causes: Reported if PrinterOn user credentials are valid but access is not granted to the private printer and no error information is returned from DB transaction.

PWC5235 Data error. Please contact PrinterOn customer service.

Printer encryption settings are invalid.

Possible Causes: Reported if encryption policy settings are incorrect and no error information is returned from DB transaction. *Inconceivable*

PWC5236 This printer requires encryption. Please enter your member information.

The printer requires PrinterOn user credentials to print.

Possible Causes: Reported if the printer requires PrinterOn user credentials to print and no error information is returned from DB transaction. *Configurable*

PWC5237 This printer requires encryption. You must be a PrinterOn gold member to use encryption.

The printer requires PrinterOn user credentials to print.

PWC5238 This printer does not support encryption. Your profile indicates that encryption must always be used.

The printer requires encryption to print but is not supported.

PWC5239 This printer is not correctly configured to use encryption.

The printer requires encryption to print but is not supported.

PWC5240   Service unavailable. Please contact PrinterOn customer support.

Unable to communicate with PrinterOn Web Services.

Possible Causes: Firewall or proxy server blocking PrintWhere communication with PrinterOn web services.

PWC5241   Unable to connect to Service URL

Timeout while connecting to Service URL

Possible Causes: CPS is offline

PWC5242   Unable to resolve server name. Please check ServiceURL

Unable to resolve server name

Possible Causes: Service URL is invalid

PWC5243   Unable to communicate with the service

Unable to communicate with the service

Possible Causes: Network error

PWC7000   Your current request could not be read. *<Windows Error Description>*

Failed reading new job file in DriverStartDoc.

Possible Causes: Insufficient disk space, insufficient user permissions or corrupted PrintWhere install. *Inconceivable*

PWC7001   The current request could not be located in the processing queue.

Printing continued for 10 minutes, aborted job.

Possible Causes: Bad print from third party application.

PWC7003   A required operation could not be started.

Printing failure.

PWC7004   An invalid page count has been detected.

Internal data error, page count is greater than 0 before starting job.

Possible Causes: Internal coding error or invalid data from third party printing application. *Inconceivable*

PWC7005   The current job could not be located in the request queue.

Internal data error job not found in print queue, or insufficient memory.

Possible Causes: Data corruption or insufficient memory. *Inconceivable*

PWC7006   The current job could not be located in the request queue.

Internal data error job not found in print queue.

Possible Causes: Data corruption. *Inconceivable*

PWC7007   The current job could not be located in the request queue.

Internal data error could not updated copies or page count in job data.

Possible Causes: Data corruption. *Inconceivable*

PWC7008   The current job could not be located in the request queue.

Catchall error when Post processing exe cannot set provided error information in job data.

Possible Causes: Catchall error for internal coding error. *Inconceivable*

PWC7009   The current job could not be located in the request queue.

Failed adding job to post processing executable from server start job.

Possible Causes: Insufficient memory. *Inconceivable*

PWC7010   The current job could not be located in the request queue.

Failed updating completion status in job data.

Possible Causes: Insufficient memory. *Inconceivable*

PWC7011   The current job could not be located in the request queue.

Failed updated job data file information in server EndDoc API.

Possible Causes: Insufficient memory. *Inconceivable*

PWC7012   The current job could not be located in the request queue.

Unable to locate job in queue for new job. Post processing exe did not receive job details properly for new job.

Possible Causes: Insufficient memory. *Inconceivable*

PWC7013   The required files could not be generated for transmission. The current request cannot be processed.

Failed creating router job file when job completed.

Possible Causes: Insufficient disk space or spool directory permissions. *Inconceivable*

PWC7014   The printer *<Printer Name>* could not be verified. The current request cannot be processed.

Could not allocate memory to enumerate installed printers.

Possible Causes: Insufficient memory, unstable printing subsystem.

PWC7015 The printer *<Printer Name>* could not be installed. The current request cannot be processed.

Post processing exe failed to install printer driver of change PWC port.

Possible Causes: Incompatible printer or incorrect printer data from PrinterOn KB.

PWC7018 The requested job could not be found or is not a server mode job.

Could not locate print job in process or job was incorrectly set without server flags.

Possible Causes: Insufficient memory or internal coding error *Inconceivable*

PWC7019 There is no corresponding data for the current print request.

Page count for the job was 0.

Possible Causes: No data generated for the print job form third party application.

PWC7020 An error has occurred in reading one of the data segments for this current request.

Unable to open file to concatenate job data.

Possible Causes: Failed opening data file, insufficient disk space or user permissions.

PWC7021 An error has occurred in reading the data segment for this current request.

Unable to open root job data file to concatenate.

Possible Causes: Failed opening data file, insufficient disk space or user permissions.

PWC7022   An error has occurred in generating the fax data for your current request.

Unable to open TIFF job data file to concatenate for faxing.

Possible Causes: Failed opening data file, insufficient disk space or user permissions. *deprecated*

PWC7023   An internal memory error has occurred.

Internal memory allocation error.

Possible Causes: Insufficient memory

PWC7024   An error has occurred in injecting the cover page for your current print request.

Failed opening root data file adding cover page data to print data file.

Possible Causes: Insufficient disk privileges *Inconceivable*

PWC7025   An error has occurred in injecting the cover page for your current print request.

Failed opening cover page data file adding cover page data to print data file.

Possible Causes: Insufficient disk privileges *Inconceivable*

PWC7026   An error has occurred in injecting the cover page for your current fax request

Failed copying TIFF data file adding cover page data to print data file.

Possible Causes: Insufficient disk privileges *Inconceivable Deprecated*

PWC7027   Delivery Options Failed.

Print failure.

PWC7028   A child job for the current request cannot be located.

Could not file job part to concatenate with job data.

Possible Causes: Insufficient disk privileges *Inconceivable*

PWC7029   The current print request contains no printable data and will be discarded.

No job data generated for print job.

Possible Causes: Bad print from third party application.

PWC7030   The print request '*<Job Name>* ' started at *<Time Started> a*ppears to be hung and will be aborted.

Job has not completed printing in 10 minutes.

Possible Causes: Bad print from third party application.

PWC7031   The current settings are incompatible and the current request cannot be processed. Your settings have been updated, please try the request again. If this problem persists verify the Paper settings from File, Print, Properties, Paper Tab.

The printer listing changed and is no longer compatible with the system.

Possible Causes: Incompatible printer or printer listing settings.

PWC7032   Duplex warning. The duplex feature configured in the Directory Service is not compatible with this printer. PrintWhere cannot determine if single or double-sided printing will occur.

Failed injecting duplex options into job data.

Possible Causes: PrintWhere cannot confirm whether duplex options configured in the printer listings are compatible with the printer capabilities.

PWC7033   Your current request settings could not be accessed.

DSF file locked and cannot be read.

Possible Causes: Unstable printing subsystem or corrupted PrintWhere install. Reboot.

PWC7034   Your current request settings could not be read.

DSF file failed to be read.

Possible Causes: Unstable printing subsystem or corrupted PrintWhere install.
Reboot.

PWC7036   The system appears to be unstable. Please reboot and retry printing your
document. If the problem persists, please contact support.

DSF file locked and cannot be read.

Possible Causes: Unstable printing subsystem or corrupted PrintWhere install.
Reboot.

PWC7037   The current Paper settings are incompatible with the printer and the current request
cannot be processed. The printer you are printing to has managed paper sizes and
the set sizes are not valid on the printer. To enable printing to this printer the list of
managed paper sizes must be changed through the printer registration.

User configured paper size is not supported.

Possible Causes: User selected paper size in printer listing that is not supported
by the printer.

PWC7038   The release code must consist of numbers only.

The release code supplied contains letters when it should only contain
numbers.

Possible Causes: Invalid release code entered by the user.

PWC7039   Your print job could not be approved. The print request has been cancelled.

Print failure.

PWC7040   The release code must only contain the characters.

The release code supplied contains numbers when it should only contain letters.

Possible Causes: Invalid release code entered by the user.

PWC7041   An error occurred validating the transaction.

XML parsing error reading AAA data from PTS.

Possible Causes: Invalid XML data sent by PTS *Inconceivable*

PWC7042   The print job cannot be validated and will be cancelled. Please try another printer.

AAA information is invalid.

Possible Causes: Missing URL or hash value based on security model to use. *Inconceivable*

PWC7043   The User ID supplied is too short. Please re-submit the request with a longer code.

The user id entered by the user is shorter than the minimum value configured in the printer listing.

Possible Causes: Incorrect printer listing information. *Configurable*

PWC7044   The User ID supplied is too long. Please re-submit the request with a shorter code.

The user id entered by the user is longer than the maximum value configured in the printer listing.

Possible Causes: Incorrect printer listing information. *Configurable*

PWC7045   The release code supplied is too short. Please re-submit the request with a longer code.

The Release Code entered by the user is shorter than the minimum value configured in the printer listing.

Possible Causes: Incorrect printer listing information. *Configurable*

PWC7046	The release code supplied is too long. Please re-submit the request with a shorter code.

The Release Code entered by the user is longer than the maximum value configured in the printer listing.

Possible Causes: Incorrect printer listing information. *Configurable*

PWC7047	A release code was not returned from your provider. Please re-submit the request.

A Release Code was not supplied by the AAA provider.

Possible Causes: Incorrect printer listing information or bad AAA integration.

PWC7049	The current printer is offline and may not be able to process this job.nDo you wish to send the job to the printer anyway?

The requested printer has reported an offline status.

Possible Causes: Printer is offline.

PWC7050

Reminder to write down a release code.

PWC7051	The required files could not be generated for transmission. The current request cannot be processed.

Failed to convert PDF using GhostScript.

Possible Causes: Unable to launch GhostScript process, GhostScript conversion errors, Unable to copy/move generated PDF files.

PWC7052	The current job could not be located in the request queue.

The current job could not be located in the request queue.

Possible Causes: PWC Internal error.

A.3 PTS error messages

The following is a list a messages that may be presented or logged by PTS. In some cases, messages are only used internally in the product.

PTS10010 An error has occurred.

PTS can't print because of fatal error.

Possible Causes: An internal fatal error occurred during processing.

PTS10012 An error has occurred.

PTS can't print because of non-fatal error.

Possible Causes: An internal non-fatal error occurred during processing.

PTS10108 The supplied printer is not listed in the directory, or may be private.

PTS can't find the printer in the directory, or the printer is not public/active. User may have entered incorrect printer name.

Possible Causes: Printer is not accessible.

PTS10110 User authentication failed due to incorrect email or password. Please check your credentials and try again.

PTS can't find the user in the directory, or the user is not an active member

Possible Causes: User is not an active member.

PTS10114 The operation failed because PrinterOn Server S/N used is invalid or has expired.

PTS can't find validate the serial number of the server.

Possible Causes: Invalid server serial number.

PTS10222   The operation failed because the user must be an administrator of both the printer and the server.

PTS can't print because the user doesn't have administrator privileges on the printer.

Possible Causes: The user does not have administrative privileges on the printer.

PTS10224   The operation failed because the user must be an administrator of both the printer and the server.

PTS can't print because the user doesn't have administrator privileges on the server.

Possible Causes: The user does not have administrative privileges on the server.

PTS10227   The operation failed because the printer is not associated with the server. Please add the printer to the server on PrinterOn web site first.

PTS can't print because the printer is not associated with a server.

Possible Causes: The printer is not associated with the server yet.

PTS10262   This printer is not configured for PrintSpots email printing. You can use this printer from your web browser at www.printspots.com.

PTS can't allow email printing for a specified printer.

Possible Causes: Email printing is not set.

PTS10270   The operation failed because the server and the printer are configured for different sites.

PTS can't print because of the server and printer doesn't belong to the same site.

Possible Causes: The server and printer don't belong to the same site.

PTS10272   The operation failed. Please log onto www.printeron.net to manage your printers,
            and then import the changes into your system.

PTS can't print because of server configuration is locked.

Possible Causes: The PDS server configuration is locked.

PTS10274   This server is inactive, unlocked or UIDs/serialNo provided is not valid. Or the server
            has no printers. Please talk to your administrator.

PTS can't print because of server configuration error.

Possible Causes: The PDS server is not configured properly.

PTS10276   This Printer is currently linked to another agent

This Printer is currently linked to another agent

Possible Causes: This Printer is currently linked to another agent

PTS10280   An error has occurred.

PTS can't print because of bad XML data.

Possible Causes: An exception has occurred when processing XML data.

PTS10282   The model {0} is not supported.

The model {0} is not supported.

Possible Causes: The model {0} is not supported.

PTS10804   Unable to Validate. Mac Address {0} doesn't exists.

Unable to Validate. Mac Address {0} doesn't exists.

Possible Causes: Unable to Validate. Mac Address {0} doesn't exists.

PTS10810   An error has occurred.

PTS can't print because of fatal database exception.

Possible Causes: A fatal database exception has occurred.

PTS10812   No print driver available. The destination printer is not supported for your operating system.

PTS can't print because of print driver is not available.

Possible Causes: No OEM print driver is specified for this printer model on the client operating system.

PTS10824   The search query cannot be created because there is an illegal character in the input. Please correct the input and resubmit your request.

The search query cannot be created because there is an illegal character in the input.

Possible Causes: The search query cannot be created because there is an illegal character in the input.

PTS10814   An error has occurred. This printer listing is misconfigured.

PTS can't print because of unusable or conflicting driver rendering data.

Possible Causes: The printer listing has unusable or conflicting driver rendering data.

PTS10825   Authenticate Token did not match or expired.

Permission denied.

Possible Causes: Permission denied.

PTS10826   Authenticate Token not found. Please check the serial number.

Authenticate Token doesn't exist.

Possible Causes: Authenticate Token doesn't exist.

PTS10827   Serial Number not found in the database. Please check the serial number.

Serial Number not found in the database.

Possible Causes: Serial Number not found in the database.

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