ORS

On Remote Service

Whitepaper

Colorado Series, ColorWave Series, PlotWave Series, Arizona 1300

PRISMA Solutions, VarioPrint Series, VarioPrint 6000 Series

Version 4.1

Table of Contents

Change History

This document is subject of constant review, only the last three versions are mentioned. If more history is required please contact your local service provider

Version	Change Description
3.3	Textual updates, ISO 27001 certification information added
4.0	Branding changed, Information Security Organization information added
4.1	Textual updates, 2020 disclaimer

1 Overview

1.1 About this Whitepaper

This Whitepaper is intended for IT administrators and others who would like to study the security features, system architecture and network impact of ORS.

This Whitepaper includes the following topics:

- Statement of Canon Production Printing data security policies.
- Security environment for installing and using ORS.
- Communication method(s) used by ORS in a customer network environment.
- Communication method(s) used by ORS for data transfer between print devices ("Device(s)") and/or the applicable PRISMA-brand software ("Software", and together with Devices, the "Products") in a customer network and ORS Server.
- Description of the Service Diagnostics Software on the Device and data gathered and sent by ORS.

1.2 About 'ORS'

Introduction

ORS is developed by Canon Production Printing a Canon Company, and is available to Canon and Canon Production Printing Customers, Canon National Sales Organizations (collectively, "Canon") and their authorized retail dealers ("Dealer(s)") to enhance support for defined Canon and Canon Production Printing Products.

Several security measures, controls and customer interaction aspects have been incorporated in the development of the ORS functionality:

- ORS uses industry standard HTTPS connection methods to communicate between the Products and the ORS Servers.
- The customer is in control and determines when and if Canon, Canon Production Printing or its servicing Dealer is allowed to connect to the Products to perform adjustment actions.
- ORS automated data collection module retrieves only Device meter and service data. Except as may otherwise be permissioned by a customer during a Remote Assistance session, no image data about customer print jobs or documents can be collected.

Data traffic between the Products at the customer site and the ORS Servers and then from the ORS Servers via web browser to the Dealer's PC (see diagram in Section 3 below) is primarily outbound, except when a Remote Assistance session is ongoing or Remote Software Distribution pulls software upgrades to the Products. In regards to Remote Assistance, the customer is always in control and can initiate or turn-off the Remote Assistance session at its own discretion.

ORS consists of the following functions (please see chapter 3 and 4 for details):

1. ORS Remote Meter Read Collection
2. ORS Remote Diagnostics
3. ORS Remote Assistance
4. ORS Event Forwarding
5. ORS Content Services*
6. ORS Remote Software Distribution*
7. Service Tools & Documentation*

Some functions involve automatic, scheduled data transmissions; others are invoked in specific service situations.

**some functionality is offered only for specific Products*

2 ORS Data Security Policy

Canon Production Printing's commitment to data security, personal data protection and non-disclosure of confidential information:

The sensitive issue of data security, personal data protection and non-disclosure of confidential customer information is given high priority at Canon Production Printing / Canon.

Regardless of the category or degree of secrecy and/or protection requirements regarding information provided to Canon Production Printing / Canon by customers, this Section briefly describes the type of protection measures and rules Canon Production Printing / Canon has implemented within ORS in order to maintain the confidentiality of product service and meter data retrieved by the ORS.

- *Data which is retrieved with ORS transmitted back to Canon Production Printing / Canon over a Transport Layer Security encrypted channel.*
- *Access to the systems diagnostics data is granted by the customer by permitting the installation of and/or enabling the ORS components on his network.*
- *ORS maintains no technical facilities whereby unauthorized access to data is enabled or supported (no backdoor access).*
- *Data security and data protection policies are maintained at the Canon Production Printing datacenter*
- *Employees receive instructions regarding how to comply with the provisions contained in this security policy.*
- *In addition, as part of their employment agreement, all Canon Production Printing / Canon employees explicitly agree in writing to keep confidential customer information secret and to comply with all applicable data protection provisions.*
- *The Canon Production Printing datacenter LAN is protected against unauthorized access through a multileveled entry control system*
- *Data processing systems are only accessed by authorized employees (physical access control).*
- *Behind the Canon Production Printing / Canon network which is protected by a firewall, Canon Production Printing / Canon operates a proactive updated virus and patch management system including malware protection.*
- *An internal incident management system based on ITIL (IT Infrastructure Library) has been in operation for many years.*

All of the above actions are subject to periodic review by the relevant bodies within Canon Production Printing / Canon as Canon Production Printing / Canon endeavors to protect product diagnostics data from unauthorized access / use, etc., using industry standard data security measures:

- *ORS is governed by an ISMS (Information Security Management System) according to IEC/ISO27001.*
- *development and maintenance practices follow an Enterprise Level QMS (Quality Management System).*
- *documented and mature coding practices embedded in our Development Lifecycle Standard adhere to international measures like e.g. OWASP,SANS,…*
- *access to source code is restricted to designated development personnel under the defined ISO27002 control.*
- *during development and maintenance the latest security patch situations are constantly considered and followed timely.*
- *Unused Software components are managed according to strict Security Policies and Technical Standards.*
- *Penetration testing is performed periodically and prior to every release of new software*
- *All SW that leaves development is checked against latest Virus and Malware signatures, according to our secure development practices.*

Service Diagnostics Software on the device collects diagnostics data and converts such data to information useful to the Canon / Canon Production Printing service organizations. Except as may otherwise be permissioned by a customer during a Remote Assistance session, neither customer specific information nor print job specific data is retrieved from the Products.
Note, that these security protections may not cover Dealer interactions with the ORS system itself where applicable.

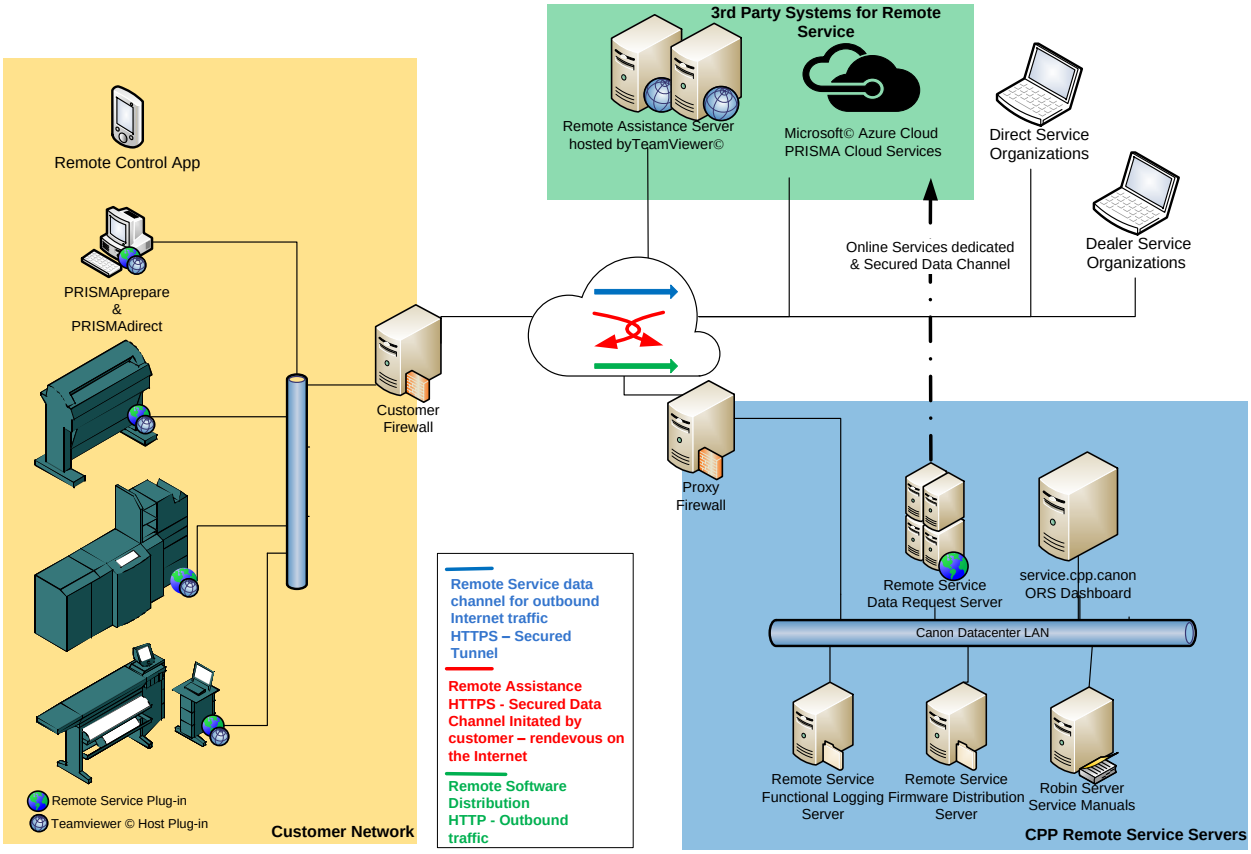
3 ORS General Architecture

3.1 Principles

- Every network communication is initiated from the customer´s product **to** the Remote Service Data Request Server **(following the outbound principle).**
- Enabling and disabling of ORS connection is always within the customer´s control.
- Customer product data is transferred through encrypted internet channels.
- Customer product only connects to known and dedicated servers.
- Remote Assistance access to the customer´s product always has to be initiated **at the** product itself.
- ORS retrieves only Device meter read and product service information.
- Except as may otherwise be permissioned by a customer during a Remote Assistance session, no print job content data (e.g., job names or files) is retrieved nor sent back to Canon Production Printing at any time by ORS.
- Names and address details are neither retrieved nor sent back to Canon Production Printing / Canon at any time by ORS.

3.2 ORS Schematic Overview (Recommended Implementation)

The image depicted below is a schematic overview of the ORS solution and the network communication of the individual ORS components.
The depicted setup represents the **recommended** network implementation recommendation, which allows the customer to stay in control by running all communication through his company Firewall/Proxy.



The ORS Servers consist of the following cluster of servers:

- ORS Data Request Server
- ORS Robin Server
- ORS Firmware Distribution Server
- ORS Functional Logging Server

ORS Communication over the Internet

Communication is initiated by the ORS Plug-in to most of the ORS Servers over the **HTTPS** protocol, with **AES 256** Bit session encryption.

When the ORS Plug-in retrieves software and firmware updates from the Océ Remote Firmware Distribution Server this occurs over the HTTP protocol. The HTTP protocol supports auto-recovery during an interrupted firmware download session. File integrity and identity is verified after download through size, checksum and signature.

ORS Plug-in Solution

The ORS Plug-in solution has been embedded in the following components and products:

1. The Print System Controllers (e.g. Power Logic Controller or Graphic Arts) of the Canon Production Printing / Canon Device
2. Canon Production Printing PRISMAprepare and PRISMAdirect Software Suite.

The ORS Plug-in is the initiator of the connection to the ORS Servers or to the Remote Assistance Hosting Server Infrastructure. Accordingly, the connection is **always outbound** by design.

**some functionality is offered only for specific Products*

3.3 ORS - *How it Works**

The following chapter describes all ORS functionality. However, some Products may not support all ORS functionality by design. Please consult your local service provider for more questions.

The ORS Plug-in always establishes an outbound connection to the ORS Servers.

The principle of ORS is always based on the ORS Server requesting an operation and the ORS Plug-in responding to the request when the heartbeat establishes a connection and polls the request.

There are several types of requests such as:

1. Request for the Device to send its meter reads for billing purposes
2. Request for the Device to send machine diagnostics data
3. Request for the product to send the remote service audit logging
4. Request for the product to retrieve a new license for the product
5. Request for the product to retrieve software/firmware update instructions
6. Request for the Device to send trace log files
7. Request for the Device to send the most recent controller system settings backup
8. Request for the Device to update its meter read configuration rules
9. Request for the Device to update its alert (events) subscription profile
10. Request for the Device to update its service tools configuration file

The poll signal contains only the relevant product identification data for the remote infrastructure and possibly events occurring at that moment on the product. The latter data stream is only present on the poll signal, if an event is detected on a product for which a notification request to the ORS Server exists.

The ORS plug-in will poll the ORS Data Request Server on a regular basis (every 5 minutes) for a new data request on its address. If it encounters a request that is targeted to its specific address, it will process the request and act upon it accordingly.

The ORS Data Request Server will automatically create requests to update the Meter Read Configuration File, the Alert Configuration File and the Service Tools Configuration File on the product when new product configuration data becomes available.

- The “Meter Read Configuration File” contains the latest SNMP recognition rules and meter reading definitions.
- The “Alert Configuration File” only contains the list of error codes per product type to which the Canon/Canon Production Printing back office personnel is subscribing to receive notifications from the product. The notifications could result in a telephone call by a service technician to either resolve a problem remotely or to plan a corrective maintenance visit.
- The “Service Tools Configuration File” contains a list of preventive maintenance triggers as well as other errors relevant for the service diagnostics process.

When Remote Assistance is enabled on the product with licensed TeamViewer or FastViewer software, Canon Production Printing / Canon service personnel and / or the Dealer will be able to login remotely on the product. By means of the service tools on the product itself, Canon Production Printing / Canon service personnel or the Dealer will be able to troubleshoot and/or possibly correct software and configuration settings issues without physically visiting the product.

Remote Software Distribution offers an automated firmware upgrade process, for the printer controller software, that is easy to perform by a system administrator at customer’s site. The product can automatically download firmware upgrades and notifies the print operator to launch the upgrade process at his or her own convenience or the downloaded software components can be installed by the service technician at the next planned maintenance visit.

The Service Documentation Framework on the product maintains the documentation on the product up to date by initiating the synchronization process with the ORS Robin Server.

For providing printer operators with device status information the Canon Production Printing Remote Service Server relays the events designated for the Remote Control App towards the Microsoft Azure hosted Canon Production Printing Cloud Services Web Site. From there the notifications are sent to the Remote Control App installed on the operator’s smartphone or tablet.

**some functionality is offered only for specific Products*

4 ORS Components – *Functional Description**

Note: Not all component functionality mentioned hereinafter are supported or may be enabled in every product. Please consult your local Service representative for more information

4.1 ORS Remote Meter Read Collection

Communication is initiated by a Meter Reads Data Request on the ORS Data Request Server. Meter Reads Data Requests are scheduled on a daily basis. Devices that have a controller version that supports remote meter read collection will be able to respond to the meter read data requests. These meter reads can be used to bill the customer for printed volume.

4.2 ORS Remote Diagnostics

4.2.1 Diagnostics Data Request

Remote Diagnostics offers the customer considerable advantages by allowing Canon Production Printing / Canon or the Dealer to automatically retrieve via a web browser service related data for analysis and troubleshooting of a Device as soon as the customer submits a service request to Canon.

Communication is initiated by a Diagnostics Data Request on the ORS Servers. The Diagnostic Data Request can be created automatically through a scheduled request, manually by the Canon Production Printing / Canon or Dealer call screening department or automatically through the Canon Production Printing / Canon management interface when a customer with a remote connected Device submits a service request to the Canon Production Printing / Canon Customer Service Desk. The Canon Production Printing / Canon call screening department and the field service technician or the Dealer can analyze the Diagnostics Data gathered around the time that the incident was reported. The analysis can help determine the cause of the incident more accurately and possibly identify the failing parts.

Canon Production Printing / Canon or the Dealer can decide to schedule Diagnostics Data Requests on a regular basis in order to determine general population performance.

4.2.2 Controller Backup Request

Communication is initiated by a Controller Backup Request on the ORS Servers. The Controller Backup Request can be created manually by Canon Production Printing / Canon or the Dealer call screening department or automatically through a scheduled request set on the ORS Servers. The printer controller will proceed to create the Controller Backup and send it to the ORS Servers for backup.

A “Controller Backup” contains all of the necessary Device and customer site specific settings used to restore a controller back to a working state after a hardware failure. Controller Backup Requests are scheduled to be retrieved on a periodic basis.

4.2.3 Remote Service Auditing Information

The ORS Plug-in maintains a detailed chronological log of all communications and transactions between the ORS Plug-in on the device and the ORS Servers. At any time the customer, its Dealer or Canon Production Printing / Canon can request a copy of this file from the Device to consult it and or troubleshoot remote connection issues.

**some functionality is offered only for specific Products*

4.3 ORS Remote Assistance*

A Canon Production Printing / Canon Service & Support representative or the Dealer will contact the customer by telephone and express his or her intentions to connect remotely to the product via licensed TeamViewer or FastViewer software. The customer will then have to manually set the target system into the "allow remote connection mode" and set a Remote Assistance Session Time Out Period every time Canon Production Printing / Canon or the Dealer requests to start a Remote Assistance Session. Once this is done a secured connection can be established for the set Remote Assistance Session Time Out Period. The customer can also choose to unilaterally terminate the Remote Assistance Session if desired.

What is possible with Remote Assistance?

1. For Devices that support TeamViewer, Canon Production Printing / Canon Service and Support personnel or the Dealer will be able to setup a VPN or a Remote Desktop connection with the Device. A VPN connection is chosen by a Canon Production Printing / Canon Service & Support representative or the Dealer in case an issue is related to the web services available on the Device. This VPN connection, for example, will allow Canon Production Printing / Canon or the Dealer to launch the web settings interface of the Device and strive to correct configuration issues remotely. A Remote Desktop connection is chosen when the issue reported by the customer is more of the 'how-to-do' nature. Canon Production Printing / Canon or the Dealer can subsequently remotely show or instruct the customer how to make the required configuration changes. Anything visible on the user interface of the device is visible to Canon Production Printing / Canon or the Dealer, including preview of images or job names, therefore Canon Production Printing / Canon advices the customer to clear the UI of any print job or print files that may contain sensitive information prior to allowing Canon Production Printing / Canon to start the Remote Assistance connection

2. On the Software, a remote control session is possible, thereby allowing Canon Production Printing / Canon or Dealer assistance in the areas of the system configurations or 'how-to-do' questions.

Note: If a customer does not allow or want Remote Assistance, it is recommended to check that it is in fact disabled.

In all cases Canon Production Printing / Canon or the Dealer respects all security levels imposed by a customer. Canon Production Printing / Canon or the Dealer can, upon customer request, record the Remote Desktop Session and share the recording with the customer afterwards for its own validation. Canon Production Printing / Canon or the Dealer may also use such recordings for its own internal training purposes.

4.4 ORS Event Forwarding*

4.4.1 Remote Event Forwarding

Event information is sent upon the heartbeat signal. If a subscribed event occurs on the Device, the Remote Service Plug-in will send a notification on the heartbeat back to the ORS Servers for transmission to Canon Production Printing / Canon or the Dealer. The error code is only sent when it has been detected and not yet successfully delivered at the ORS Data Request Server. The error code can be used to create an email notification or generate automatically a Diagnostics Data Request.

4.4.2 Mobile Alerting

Operator Alerts are sent real time over the ORS connection to the ORS Data Request Server and these Device Operator Alerts are immediately sent to the Remote Control Notification Cloud Services Web Site. Device operators registered as contacts subsequently receive these alerts as notifications on their mobile devices.

4.5 ORS Remote Software Distribution*

New firmware is announced to the Product and, depending on the customer's Product firmware download preferences, the firmware download is initiated by the operator or downloaded automatically by the device. If the firmware has been previously flagged by Canon Production Printing / Canon as "customer installable", the administrator can start the installation process. In a situation where the customer is not satisfied with the update, it is always possible to restore the controller software to the situation prior to the update. For

firmware flagged as “Service installable only” a Canon Production Printing / Canon technician or the Dealer will need to go on-site to execute and complete the upgrade process.

When a new update is available for a remote connected system the ORS Servers will announce this update to the customer system. This announcement contains information (download url(s), file size(s) and encrypted checksum(s)) about the software package(s) that need to be downloaded. Once the packages are downloaded they are validated for identical file size and checksum. The internal installer on the device will perform a final check on the installation packages to verify that they are of Canon Production Printing / Canon origins by checking their digital signatures. After this final check has been approved by the internal installer the update process can start.

System licenses can also updated through ORS if the product supports this update method.

4.6 ORS Content Services*

“Functional Logging” one-way synchronization will be performed at set intervals or on request. The upload speed from the product to the ORS Functional Logging Server is limited to prevent clogging of the customers Internet connection.

“Functional Logging” is controlled and secured in multiple ways:

- A Support Specialist or the Dealer initiates a “Functional Logging” request;
- The product creates a secured VPN connection to Canon Production Printing for transferring the functional logging (transport layer security);
- “Functional Logging” transmission is only possible on this VPN tunnel. Its functionality is also protected (application security) by means of authentication using security credentials that change on a regular basis;
- The transmission of data (log files) is only possible in **one direction**, from the product to the ORS Server; and
- The VPN tunnel is encrypted using 256 bit AES encryption.

4.7 Service Tools Data & Documentation*

Communication to update the Service Tools Configuration & Knowledge Files is initiated by a service tools data request from the ORS Data Request Server. The Service Documentation Framework on the Device maintains the technical service documentation up to date by replicating the documentation changes on the ORS Robin Server back to the Device.

4.8 System Lockdown*

Some Printer Controllers (PRISMAsync) and Service Control System are secured with McAfee® Solidifier. Solidification™ is the name for the mechanism that takes an initial snapshot of the software implemented on a system, and creates a Solidifier File Inventory (inventory) of program code, including binary executables (for example, .exe,.dll), and scripts (.bat, .cmd, .vbs) for Windows platform. The Solidification process constantly monitors the system and compares the systems signature with the Solidifier Inventory File; if a deviation is detected the PRISMAsync Controller is automatically rebooted, wiped clean and reinstalled back to factory default and ORS sub services on the Service Control Station or Controller are stopped.

**some functionality are offered only for specific Products*

4.9 ORS Activation

ORS is **by default deactivated** on the Product with the ORS Plug-in. If agreed by customers, ORS can be turned on from within the control panel of the product.

4.10 ORS Plug-in communication from the customer to Océ / Canon

The ORS Plug-in uses only the HTTPS protocol to communicate directly with the Remote Data Request Servers.
The typical, best practice implementation/deployment of ORS Systems is “behind” a firewall maintained by the customer following his security policies.

It is important to verify if the product is connected with the ORS Servers. If this is not the case then the proxy settings on the product must be verified with a local customer IT administrator.

The ORS Plug-in can only communicate with Remote Data Request Server and the Software Upgrade Server by means of hard-coded URLs.

There are several URLs that (may) need to be white listed for **outbound** communication on the customer Firewall / Proxy Server (depending on customer internet access policy):

1. for Remote Meter Reads, Diagnostics, Functional Logging, Audit Logs and Software upgrades the following internet URLs need to be accessible from the Products:
    - **.cpp.canon; *.oce.com*
    - *Cmtime.codemeter.com*
2. for Remote Assistance the following URLs need to be accessible from the Products:
    - **.teamviewer.com*

Remote functionality	Information	Used network protocols	TCP port (outbound)
ORS Customer Site to – datacenter Connection	Machine Connect, Polling, Machine Data Transfer	HTTPS	443
Remote Software Distribution	Software / firmware upgrade package	HTTP	80
Remote Assistance	Machine Settings	HTTPS	443

The Addendum contains a summary of the information that Canon Production Printing / Canon or the Dealer will need to discuss with / gather from the customer’s IT department in order to realize the remote connection on the product installation.

ORS Data Encryption

From ORS Plug-in to the ORS Servers, data is encrypted based on Advanced Encryption Standards (AES) at the TCP transport layer. Therefore the data does not need to be encrypted at the application layer. However all machine diagnostics data sent to Canon Production Printing / Canon or the Dealer from the Products is compressed and encrypted by the compression tool at file package level as an extra security level.

5 Data Formats and Content*

The following table summarizes the data exchanges between ORS components at customer site and ORS Servers.

Data Type	Description	Timing	Average Size (product dependent)
ORS Connect / Disconnect	ORS communication protocol	Once per day or after every device restart	10 kB
ORS Poll	ORS communication protocol	Every 5 minutes	5 kB
Meter Read Configuration File	Tells the Devices which meters are relevant to include in the Meter reads package	Will be downloaded once when a new version of this file becomes available in the back-office	Avg: 500 kB
Alert Configuration File (Event Forwarding)	Tells the Devices which errors require a Service Technician visit, and which therefore should be sent in.	Will be downloaded once when a new version of this file becomes available in the back-office	Avg: 5 MB
Diagnostics Data Set	Encrypted Zip file containing data log, trace files, maintenance logbook and other service related files	When a service request is submitted to the datacenter or on a weekly basis in case is performing a general systems performance analysis	Avg: 500 kB Max: 10 MB
Meter Read Data Set	Encrypted XML file containing all relevant counter information of one or more Devices	Once per day	Avg: 200kB
ORS Audit Log	Zip file containing remote communications log	Only for analyzing remote communications problems	Max: 25 MB
Functional Logging	Tracedata files (controller memory dumps system trace files) Functional logs (real time sensory & timing data)	On demand for diagnostics purposes or scheduled regularly	Tracefiles 100 MB Functional Logging a max of 8 GB per day
Controller Backup	All Device Controller Settings, customer specific Media Catalogues and Color Profile Setting	Weekly	Avg: 80 MB Max: 200 MB

**some functionality is offered only for specific Products*

Datalog Structure

The datalog is a collection of all relevant product data, which could be helpful for analyzing problems in the target System or for analysis of the usage of a product aiming on improving the product in future releases.

The datalog file is stored in xml or MDB format.
The datalog is built-up as follows:

1) System information
   - Serial number
   - System type
   - Billing counters
   - etc.
2) Snapshots (several snapshots are being stored) giving a service history of controller and printer
   - Controller
   - Scanner
   - Printer (cold process, warm process)

   Each section contains parameters and counters relevant for that section, thus providing information towards preventive maintenance.
3) Event history
   - Errors
   - Simple events (start-up, shut-down, back-up, restore, replacement of cartridge, etc.)
4) Actual errors (present at the moment of datalog generation)
5) Modifications
6) Listing with error descriptions

6 Service Organization Setup Background

One feature of ORS is to provide a Service Organization (i.e., Canon \ Canon Production Printing or a Dealer) with current product status information, which includes diagnostic information that can be used by the Service Organization to prepare for a corrective maintenance visit to a customer's location. The Service Organization will use this diagnostic information to assist in determining the condition of the product and what parts may be required to fix the problem which necessitated such corrective maintenance visit. The Service Organization may also use the diagnostic information to determine if a product is due for periodic preventative maintenance and, for Devices, which parts will need to be proactively replaced in order to prevent another corrective maintenance visit in the near future.

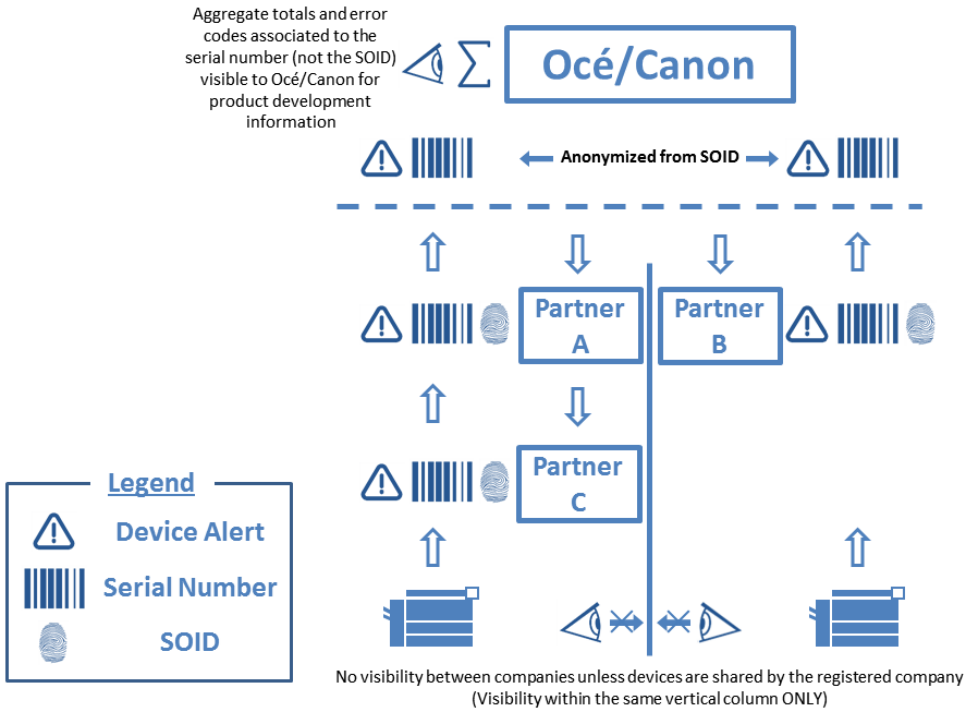
Each Service Organization using ORS will receive a unique identification code - a Service Organization Identifier ("SOID"). After a product has been installed and configured, the Service Organization must enter the SOID into the product in order for the product to be paired in ORS to such Service Organization. Except as otherwise described below, a Service Organization will only have access to its own connected product and will be unable to see or access each other's product in the ORS Dashboard.

Print job content data is not sent from an ORS connected product to the Data Request Server. Canon Production Printing / Canon only collect product performance and service data in order to analyze such data to create initiatives to improve the ORS.

As more fully described in the figure below, when product performance and service data is collected by Canon Production Printing / Canon from ORS connected Dealer product such data is automatically stripped of all Dealer information (i.e., SOID). Accordingly, Canon Production Printing / Canon will be unable to associate a product to a particular Dealer.

Canon Production Printing / Canon will not have access to a Dealer's ORS connected product through the ORS Dashboard unless the Dealer specifically provides Canon Production Printing / Canon with access thereto (either to a single product or to the Dealer's entire fleet of connected Products). A Dealer may choose to provide Canon Production Printing / Canon with access to its connected Products in the ORS Dashboard to allow Canon Production Printing / Canon to assist with maintenance and support escalations.

Dealers will be able to provide access to ORS connected Products to other Dealers by adding the SOID of the "partner" Dealer to the Products. This "Shared Service" will allow the primary Dealer to extend its ORS capabilities by working together with other Dealers in geographical areas where the primary Dealer does not have sufficient coverage.



7 Glossary

Term	Definition
ORS Data Request Server	The ORS Data Request Server is the main ORS Server which manages all data requests towards the customer's remote connected Products.
ORS Firmware Distribution Server	All firmware and software update packages are located and distributed to all connected systems through the ORS Firmware Distribution Server.
ORS Functional Logging Server	The ORS Functional Logging Server is specifically dimensioned to handle large amounts of sensory data and system log files coming from the Products.
ORS Plug-in	The ORS Plug-in resides on a Device or other software product and is responsible for setting up communication to the ORS Servers to execute pending data requests and to send real time device operator alerts to the Remote Control Cloud Services Website.
ORS Robin Server	The ORS Robin Server manages the synchronization of the technical service manuals on the connected systems.
ORS Servers	The ORS Servers are a collection of servers used to perform different remote service functions.
ORS Dashboard	The ORS Dashboard is a Service Web Portal accessible only by authorized service personnel of Canon and the Dealers and used to review service data collected from the connected Products .
Remote Control App	The Remote Control App is a customer-facing application used to obtain Device alerts (e.g., paper and toner outages) on a user's mobile device, smartphone or tablet.
Remote Control Notification Cloud Services Website	Customer Site Administrators can register their Products and operators on their Remote Control Notification Cloud Services Website. The push notification functionality available therein takes care of relaying the Product alerts to the mobile device of the print operator.
Service Diagnostics Software	Service Diagnostics Software enables Field Service Technicians to service and run tests on a Device without the aid of a laptop.

© 2020 Canon Production Printing
No part of this publication may be copied, modified, reproduced or transmitted in any form or by any means, electronic, manual, or otherwise, without the prior written permission of Canon Production Printing. Illustrations and printer output images are simulated and do not necessarily apply to products and services offered in each local market. The content of this publication should neither be construed as any guarantee or warranty with regard to specific properties or specifications nor of technical performance or suitability for particular applications. The content of this publication may be subject to changes from time to time without notice. Canon Production Printing shall not be liable for any direct, indirect or consequential damages of any nature, or losses or expenses resulting from the use of the contents of this publication.

Addendum:

ORS Connectivity Information/ Form

Remote Service	Remote Service Allowed	☐	Yes	☐	No	
	Remote Assistance Allowed	☐	Yes	☐	No	

Network Services	DHCP	☐	Yes: skip *	☐	No: fill in * with IT Admin	
	DNS	☐	Available	☐	Not Available	

* Hostname _____ IP Address _ _ _ _ _ _ _ _ _ _ _ _

Subnet mask _ _ _ _ _ _ _ _ _ _ _ _ Gateway _ _ _ _ _ _ _ _ _ _ _ _

DNS server _ _ _ _ _ _ _ _ _ _ _ _ DNS suffix _____

Primary WINS server _ _ _ _ _ _ _ _ _ _ _ _ Secondary WINS server _ _ _ _ _

Proxy Settings

☐ Direct Internet Connection
☐ Proxy using IP or hostname and Port Number (please fill in 1)
☐ Proxy using authentication (please fill in 1 and 2)

1) Proxy Server:

Proxy server IP/Name . . . . . .

Port . . . . . .

2) Proxy Authentication:

User Name . . . . . .

Password . . . . . .
(if not filled in, have this available during installation)

Domain . . . . . .

Remote Service URLs used

Firewall/Proxy requires URL white list information for <u>outbound</u> connection:

- **remoteservices.cpp.canon[1], remoteservices.oce.com[2]**
- **remoteservices-cs.oce.com[2]**
- **firmware.cpp.canon (Azure© Cloud Delivery Network)**
- **robin.cpp.canon[1], robin.oce.com[2]**
- **Cmtime.codemeter.com,**
- ***.teamviewer.com** (TeamViewer uses a large number of servers in a worldwide load balanced configuration)

URL	Description	IP Adress	Port (outbound)
remoteservices.cpp.canon; remoteservices.oce.com	Remote Service Data Connection	193.138.15.53	443
remoteservices-cs.oce.com	Functional Logging VPN Data Channel	193.138.15.102	443
robin.cpp.canon; robin.oce.com	Technical Service Manual Server	193.138.15.185	443
firmware.cpp.canon	Firmware Distribution Network		80
CMtime.codemeter.com	Code Meter Time Server	62.96.20.220	443
*.teamviewer.com	TeamViewer Infrastructure		80*/443

*only required for network availability test
[1] urls for machines connecting to *.cpp.canon services
[2] urls for legacy devices connecting to *.oce.com services