

LRS USER GROUP



Industry Trends

Modern Print

The world as we know it is changing

Microsoft Modern Print Platform

- “Modern print is Windows' preferred means of communicating to printers, including the Internet Printing Protocol (IPP), eSCL scanning, and Universal Print.”
- "Driverless printing architecture built into Windows.
- Replacing the traditional driver-dependent print stack with a more secure, simplified, and consistent solution across all Windows devices."

Collection of features for Microsoft's vision of printing

Microsoft Modern Print Platform

- Key Terms:
- Mopria
- Windows protected print mode (WPP)
 - Direct Print requiring line of sight
- Print support applications (PSA's)
- Universal Print
 - A way to reduce the need for an intranet with limitations
- WPP, PWG IPP, Mopria, Driverless, PSA's, Wi-Fi-Direct, WSD...
- A paradise world for the Alphabet Soup Chefs (ASC's)

Mopria



- Formed in 2013 by Canon, HP, Samsung, and Xerox
- Created to standardize mobile printing
- Provides specs and certification tools for device-printer communication
- Supports local and internet-based printing
- Uses IPP, PWG, WSD, mDNS, Wi-Fi Direct, eSCL, IPP FAX
- Standards managed by multiple working groups
- LRS is an Executive Member of the Mopria Alliance

Windows Protected Print (WPP)

- Disables all print drivers except for the built in Microsoft IPP class driver
- Disables PrintUI and other connection mechanisms
- Enforces printing to Mopria certified devices only using Microsoft's drivers
- Windows verifies printer compatibility and abilities using IPP communications (if it can find the right device.)
- May be enabled by GPO, but currently no way to prevent accidental activation by an inquisitive end user

Windows Protected Print (WPP)

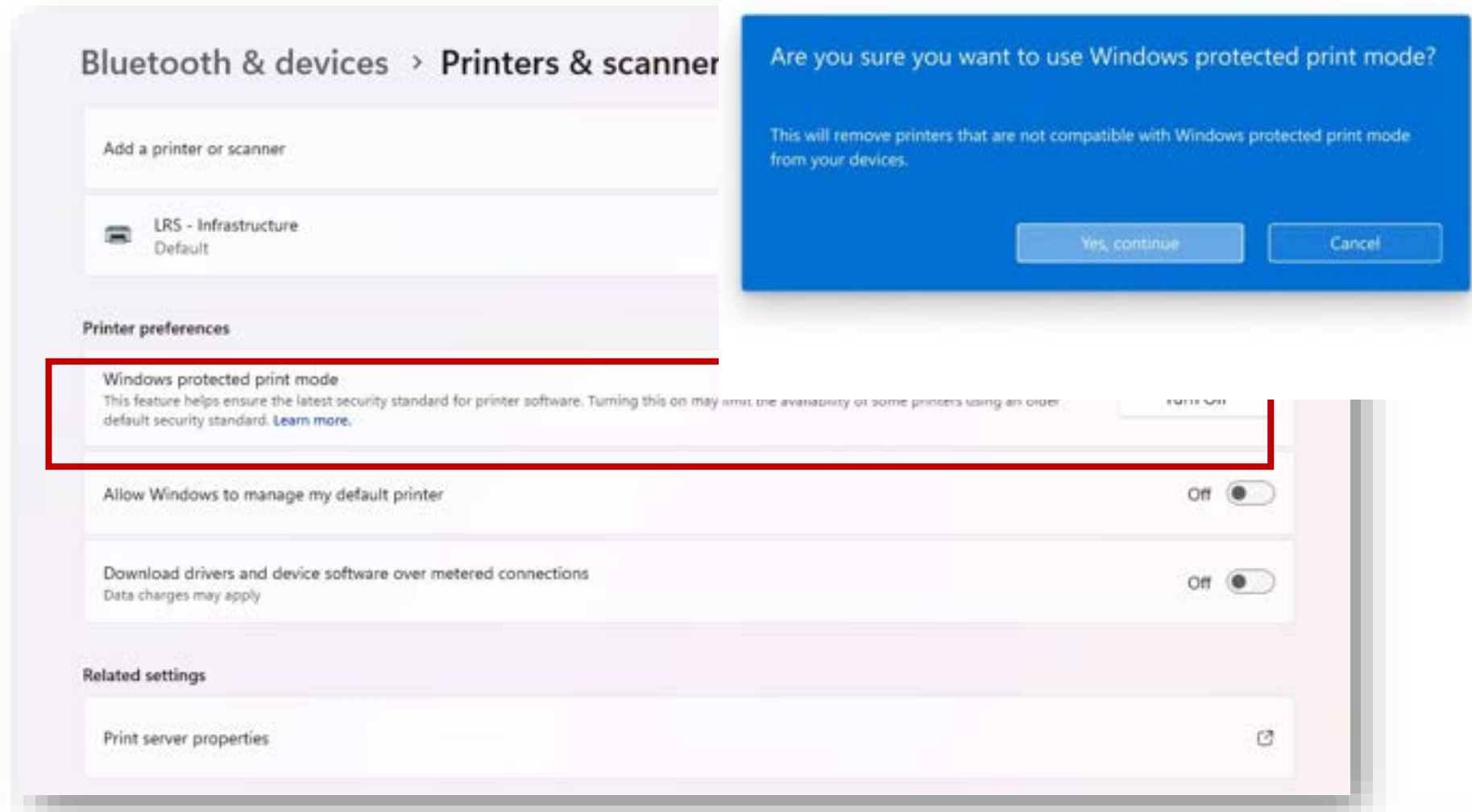
- Generates PDF's
- Finishing options via IPP Attributes
- Supports Universal Print
 - User must be authorized in Entra ID



Microsoft Future

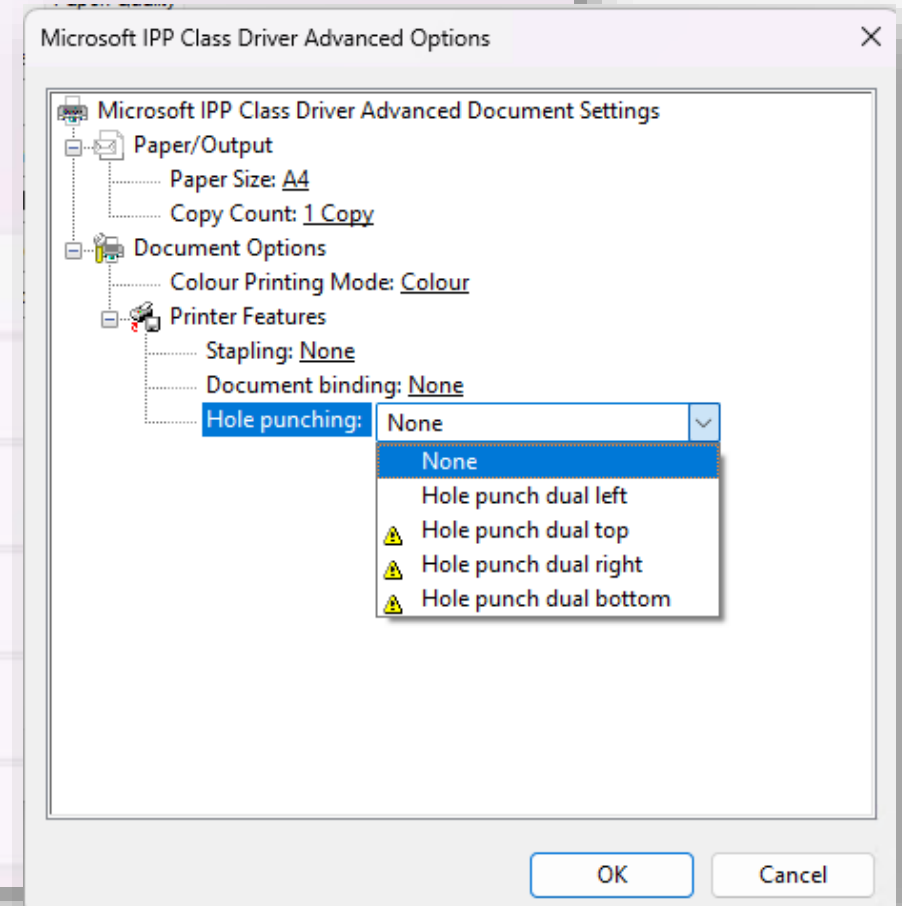
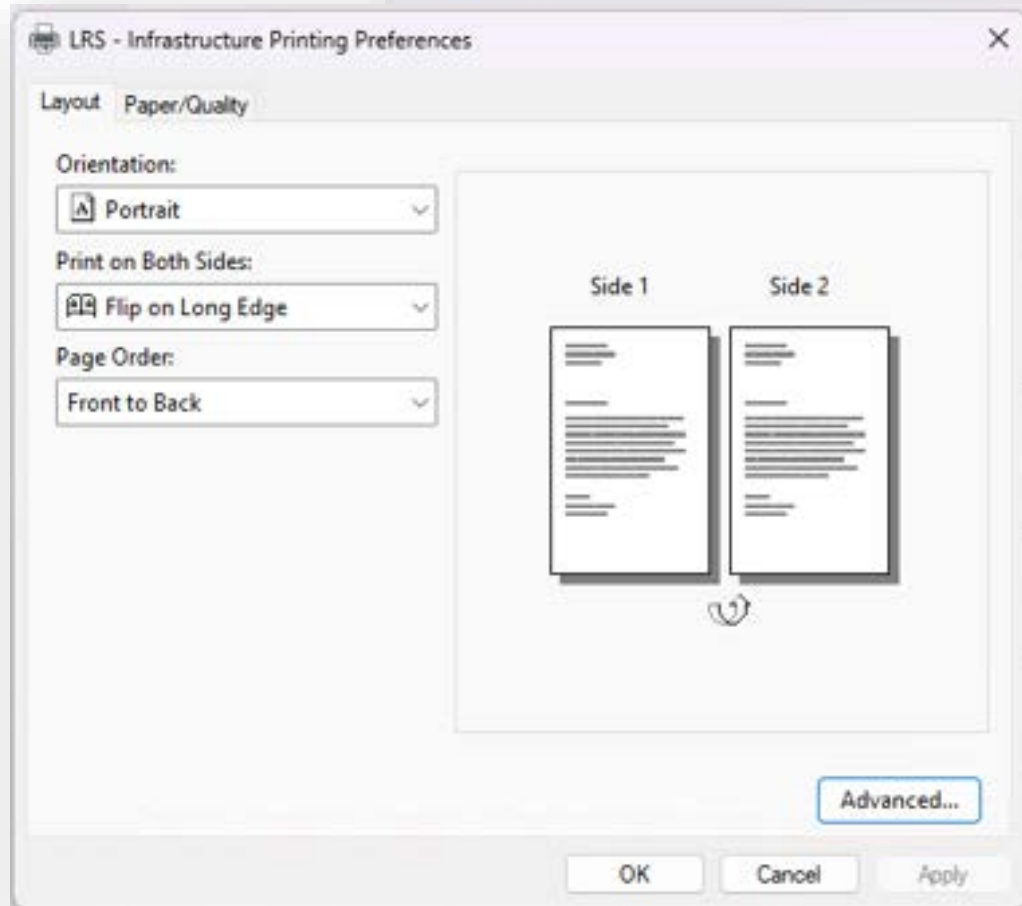
- Eliminate Windows Print Servers
- Everyone just prints locally or via universal print
- Focusing on end user generated print (Front-end printing)

Windows Protected Print (WPP)

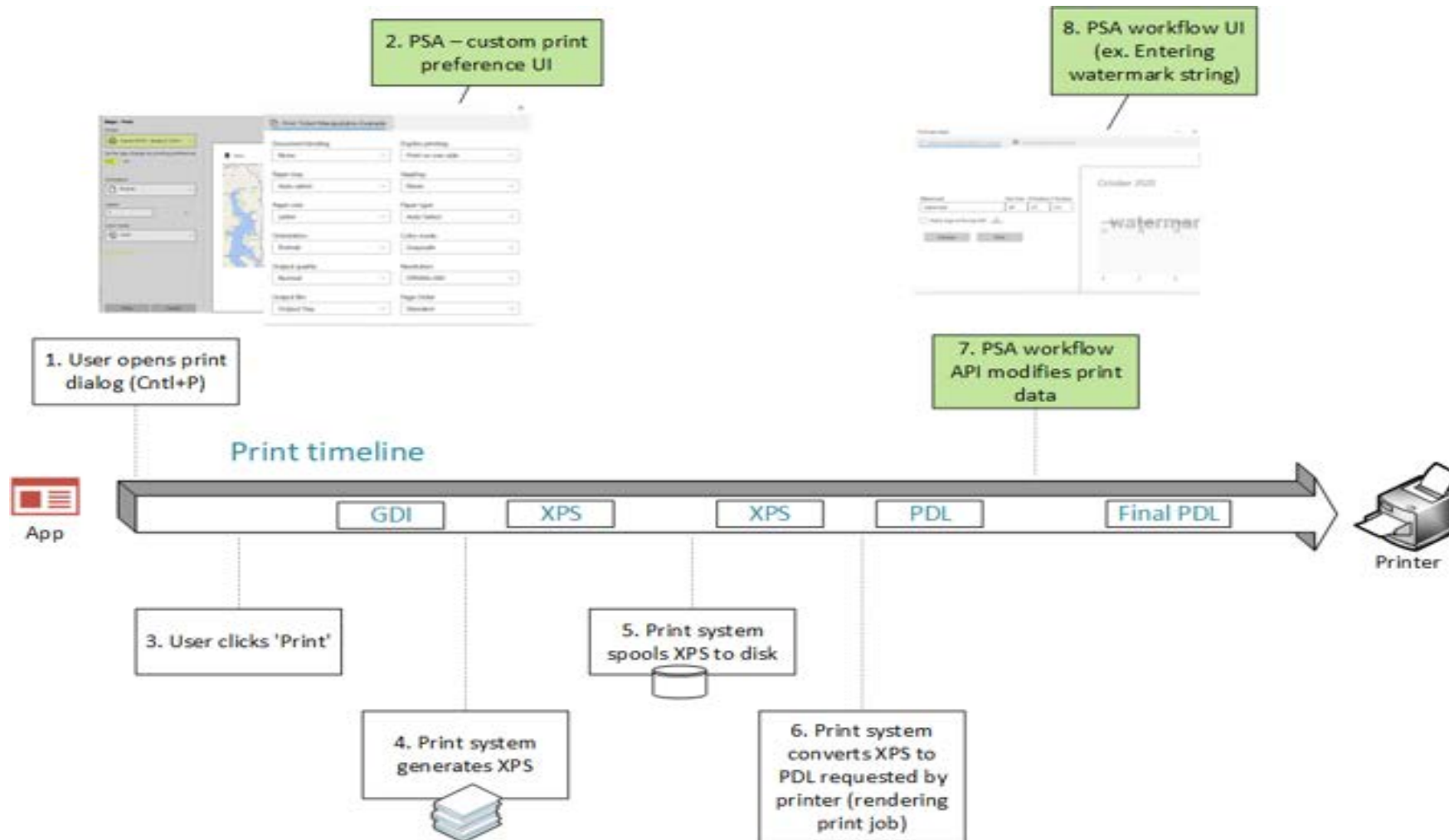


Windows Protected Print (WPP)

Bluetooth & devices > Printers & scanners > LRS - Infrastructure



Printer Support Apps



Third Party tools which allow for customisation of the printing process.

LRS Response




- LRS will continue to handle
 - Printer installation
 - Security via encryption
 - At rest
 - In motion
 - Data stream conversion
 - Policy enforcement
 - Access control
 - Specialized print applications
- LRS is actively developing a robust WPP Mopria-compatible solution that allows your organization to work as it always has

Cloud Strategies

Cloud first, Cloud all?

- I asked AI why companies try to move everything to the Cloud
- Here are three of the most common and compelling reasons companies shift their IT operations to the cloud:
- ☁ 1. Cost Efficiency
 - Reduces capital expenditure on hardware and infrastructure.
 - Converts fixed costs into variable ones—pay only for what you use.
 - Minimizes maintenance and upgrade expenses by outsourcing to cloud providers.
- 🚀 2. Scalability and Flexibility
 - Easily scale resources up or down based on demand.
 - Supports rapid growth without the need for physical infrastructure changes.
 - Enables global access and collaboration across distributed teams.
- 🗝 3. Improved Security and Reliability
 - Cloud providers invest heavily in cybersecurity and compliance.
 - Data backups, disaster recovery, and redundancy are built-in.
 - Systems are monitored 24/7, reducing downtime and ensuring business continuity.

Why are 80% of companies repatriating?

-  1. Escalating Cloud Costs
 - Cloud pricing can balloon over time, especially with storage-heavy or legacy workloads.
 - Companies like 37signals reported saving millions by exiting AWS.
 - Subscription fees, data transfer costs, and unpredictable billing models often outweigh initial savings.
-  2. Compliance and Data Sovereignty
 - Industries like healthcare and finance face strict regulations (e.g., HIPAA, GDPR).
 - Keeping sensitive data in-house helps meet legal and internal policy requirements.
 - Some organizations prefer direct control over where and how data is stored.
-  3. Performance and Architectural Control
 - Repatriation allows for tailored infrastructure optimized for specific workloads.
 - GEICO found cloud reliability issues and architectural limitations that hindered performance.
 - On-prem setups can offer better latency, customization, and integration with legacy systems.

Hybrid Cloud Trends

Cloud as a Platform

The cloud is a powerful platform—ideal for certain workloads, but not a one-size-fits-all solution.

Print as an IoT Solution

Print services align more with IoT than SaaS. It's not just about browser access—it's about connected devices and smart infrastructure.

Cloud Economics

Transitioning to the cloud doesn't necessarily cut costs at the enterprise level—it redistributes capital across different operational areas.

Networks and Architecture



The old world | but that didn't work

So what are companies doing?

- Workstations on the open internet
- Printers either on the open internet (less common)
- Printers on an isolated subnet
 - So how do I print?



Strategies for the new world



HPPS over the open internet



Mopria Cloud



Pull print only

All of these things struggle with real, backend print.

AI

Is this real or is this another buzz word?

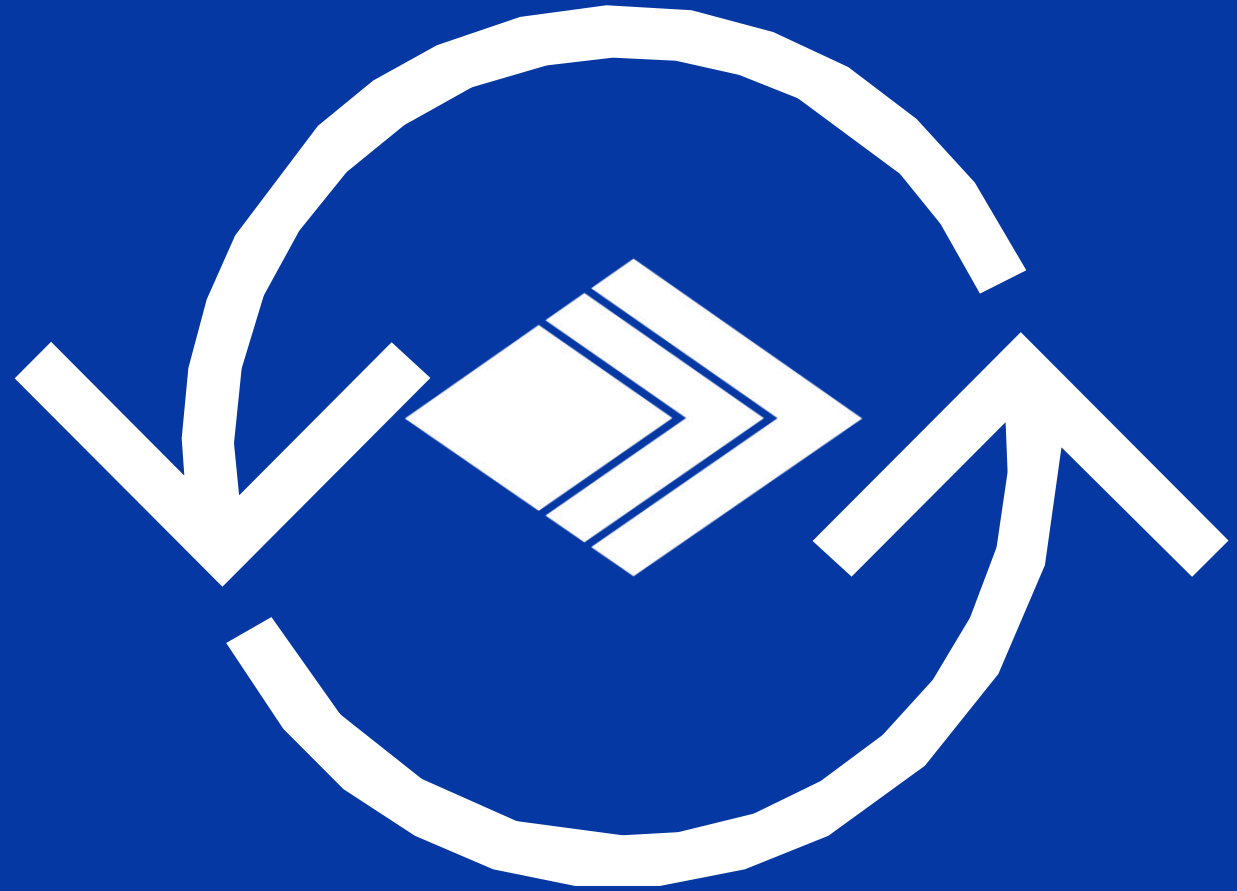
- Yes.
 - Some companies are promoting old automation strategies as AI.
 - Some are creating new and innovative interfaces into real AI engines
 - Gemini
 - Co-Pilot
 - ChatGPT
 - Etc.
 - AI is really good at generating anything that has an $A \rightarrow B$ need but there are requirements
 - An appropriate data set
 - Processing
 - Money

What to consider

- Get educated. Many things are good candidates for AI
- Look at cost in the Cloud. Also look at cost to build it in house – many companies are repatriating AI engines.
- What about output management.
 - More on that later.

Product Update and Roadmap

Product Update

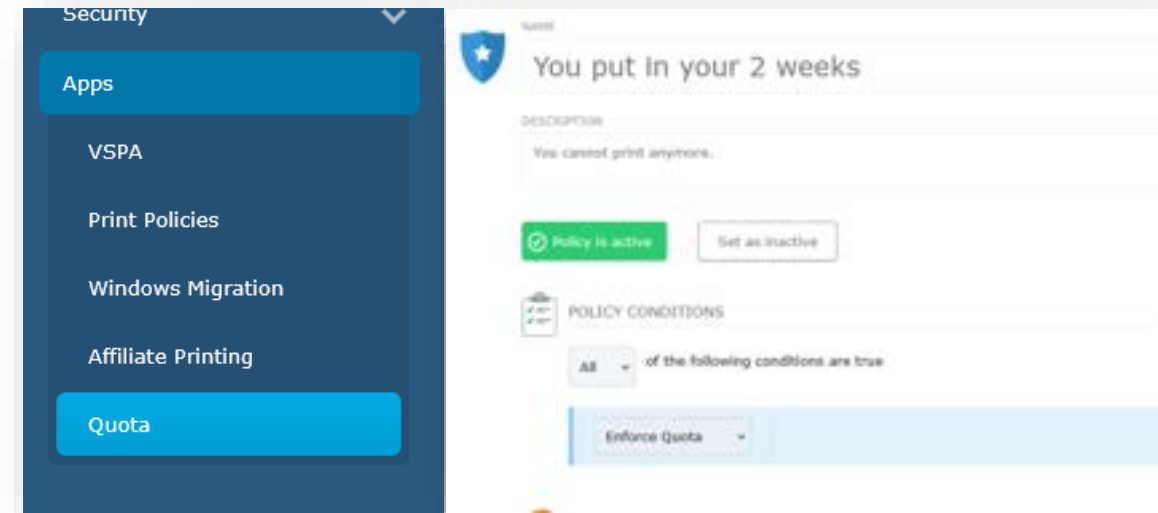


AGENDA

- New stuff released
 - Product updates
 - VPSX Family
 - MFPsecure/Print
 - MFPsecure/Scan
 - PageCenterX
 - Process updates
 - Futures

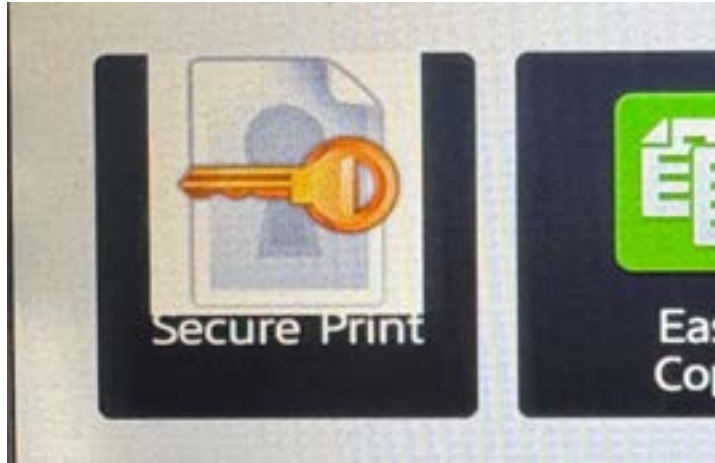
VPSX family - Quota

- What is Quota?
- Why, after all this time?
- How might it be used?



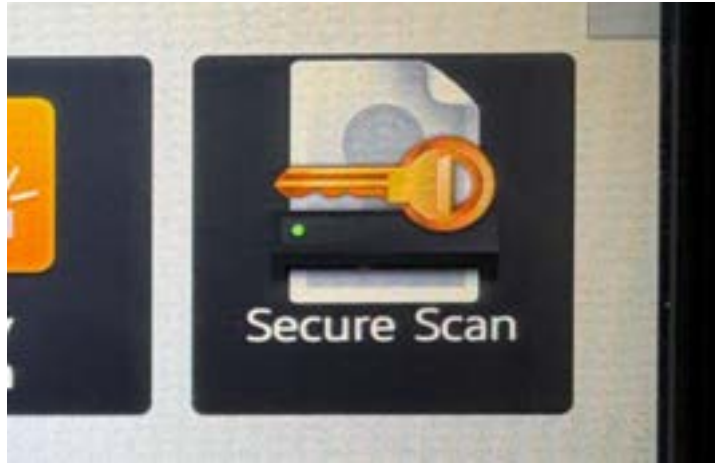
Refresh Options	
Users External Groups	
<input type="text"/> Add Modify Delete	
I< < > >I	
User	Limit Used Quota Limit
william.lindsey@lrs.com	0 6

MFPsecure/Print updates



- Agents are always being improved
 - Underlying infrastructure and security
- Language additions and adjustments
- I printed it to my personal print queue but I did it wrong. Now what?
 - Some agents allow for adjustment at release time now
- Oh, Brother!
- Canon i-SENSE and ImageCLASS models
- What is meant by supported?

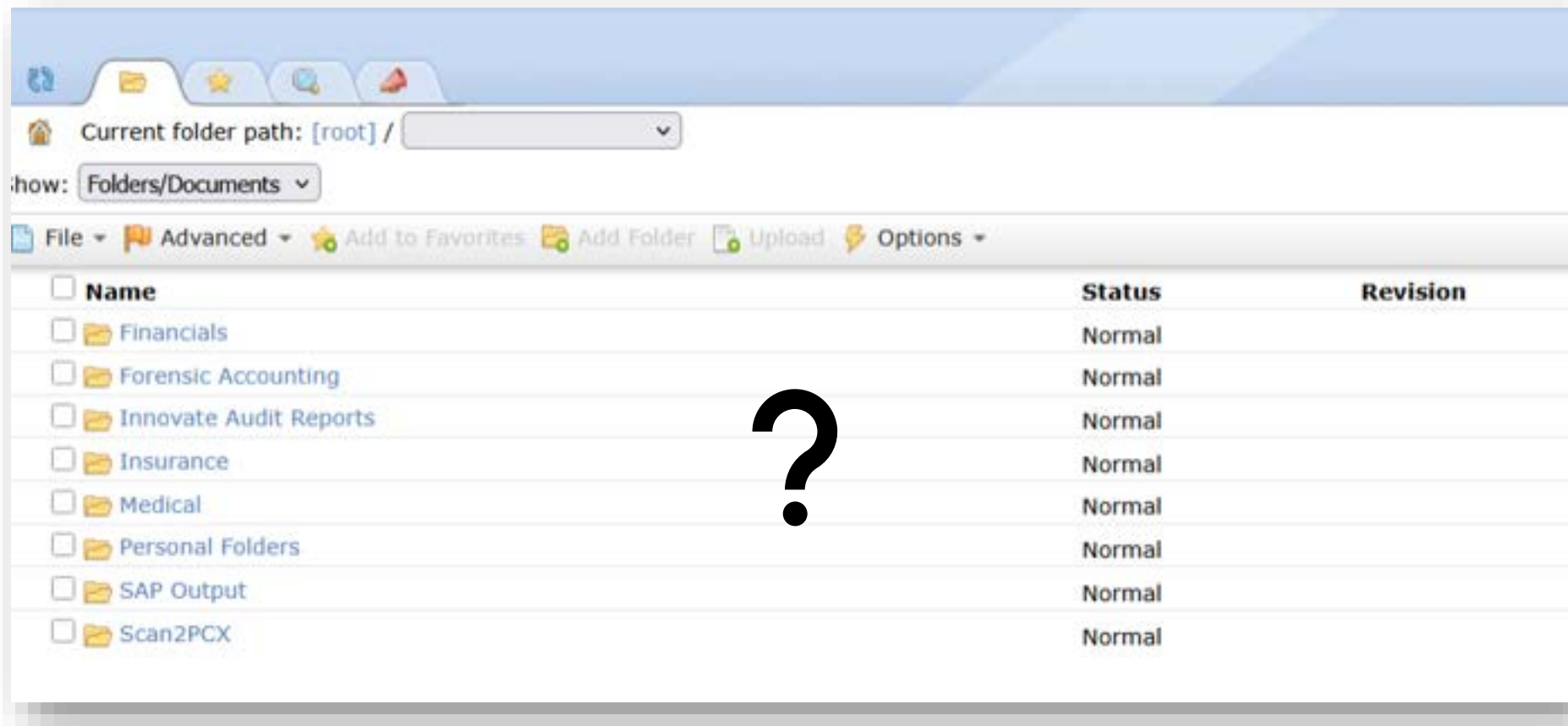
MFPsecure/Scan



- Web UI – Changes in the Web and legacy Uis
 - Google Drive, Google Mail, FTP
- Devices are always changing
 - HP Hi Res screens
- Real time adjustments at the MFD
- Language adjustments to OCR
- New job processor
- Numerous customer enhancements

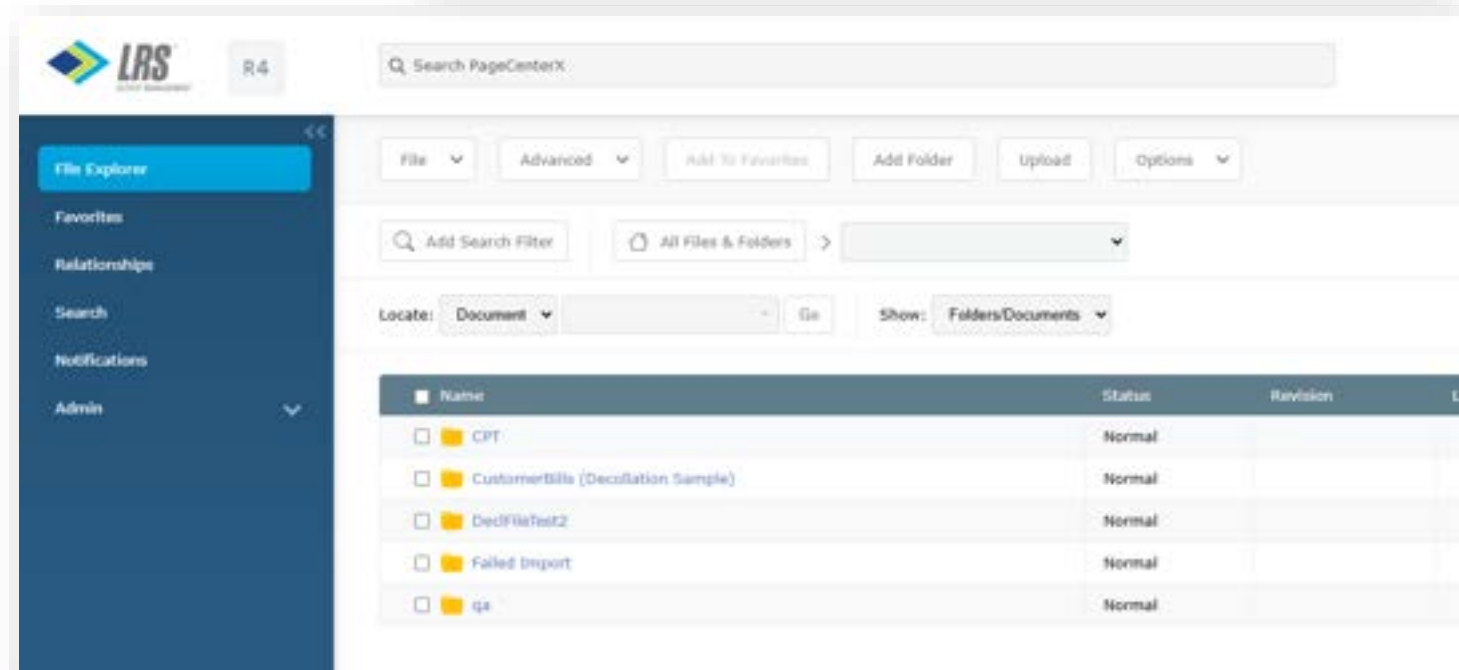
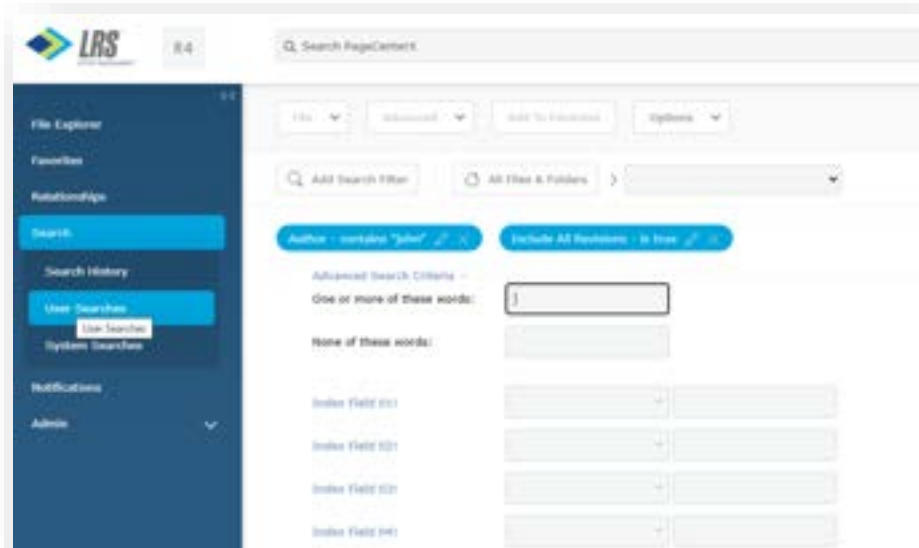
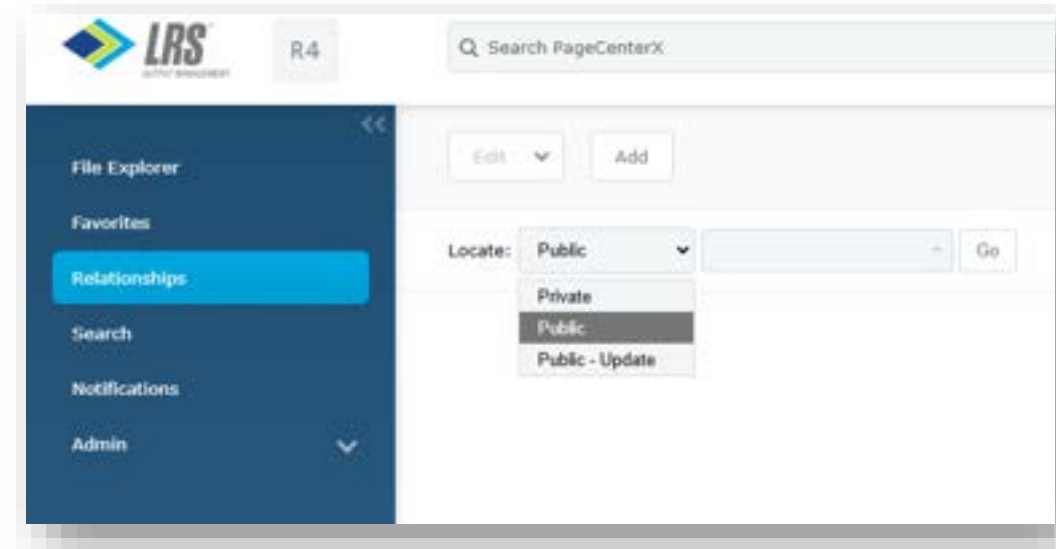
PageCenterX

- Added Drag and Drop functionality for moving documents

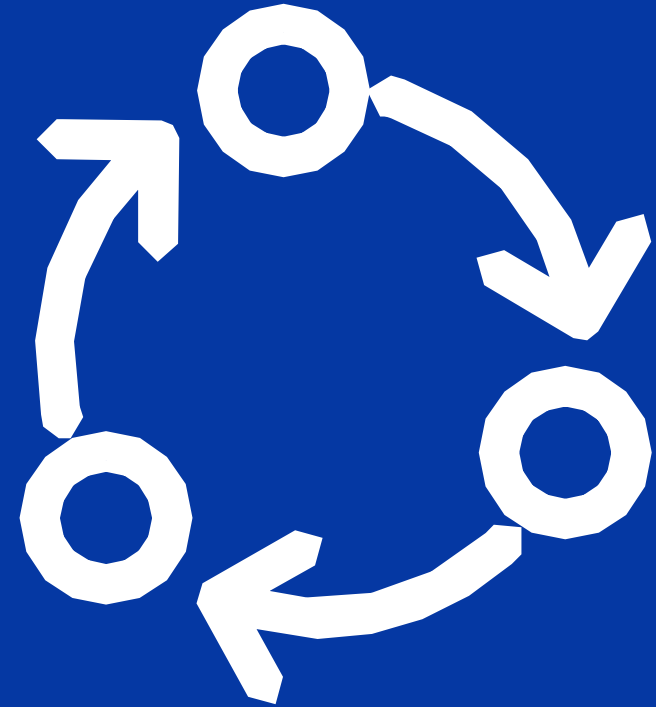


PageCenterX R4

- Gateway authentication
 - Authenticated transactions
 - Multi factor authentication?
 - That's up to you.
- New UI



Process updates



Process Updates

- Knowledge base
- Enhanced release notes
- Training
 - Documents
 - Presentations
 - Videos
 - Quizzes
 - Watch Parties

LRS Knowledge Base

Find the answers you need when you need them

Search (minimum 3 characters)

KB0010602

Enhanced Release Notes - MFPsecure V1 R4.0 Fix 0020

11d ago + 34 Views

NOTE: Customers using the HP Agent and upgrading to MFPsecure 1.3.54 or later must upgrade the HP Agent to V1R3.054.005 immediately following the MFPsecure upgrade. Redeployment is not required.

HP devices will require FutureSmart 5.6 or higher to support TLS 1.3 with SecureScan. However, due to firmware issues on various devices TLS 1.3 may result in the 49.38.03 error.

VPSX Enterprise
LRS/Queue Installation

Title
VPSX Enterprise-LRS/Queue Installa...

LRS Document Description
VPSX Enterprise-LRS/Queue Installation hands-on training

VPSX/DirectPrint Cloud
The Client Approach for SEs

Title
VPSX/DirectPrint Cloud - The Client...

LRS Document Description
Overview and hands-on instructions to configure a Solution for use with VPSX/

Personal Print Manager
Installation and Configuration

Title
Personal Print Manager - Installatio...

LRS Document Description
Personal Print Manager - Installation and Configuration hands-on training

Mopria Initiatives

- Who is Mopria?
 - Why did we join?
- Technical working group
- Cloud Working group
 - Cloud Tiger team
- Enterprise Working Group
 - Enterprise Tiger Team
- The problem is . . .

Board Members

Canon



Executive Members

Adobe

brother
at your side

DEX
imaging

EPSON

FUJIFILM

KYOCERA

Lexmark™

LRS
OUTPUT MANAGEMENT

Microsoft

PANTUM
The New Era for Printing

PRIMAX

RICOH

SAMSUNG

TOSHIBA

XEROX™

YSOFT

Adopters



KATUN™

OKI
Open up your dreams

vivo

Software Supporters

ALPS ALPINE

Cirros

PaperCut.™

Qualcomm

RISO



TUNGSTEN
AUTOMATION

LRS Mission Control

To infinity and beyond!



LRS Mission Control

- Available and encouraged.
- A Platform. This is the basis for LRS SaaS offerings
- Runs in Microsoft Azure
 - Front Door
 - Terraform
 - Database(s)
 - Storage
 - CPU
 - Ad infinitum

Customer benefit

- LRS Mission Control platform is included in onsite licensees
- Provides Analytics

- Provides license distribution
- R4 is prerequisite



LRS Mission Control

- How to think about SaaS costs:
 - Base infrastructure – Azure, Development, Maintenance
 - Usage of various facilities
 - Access
 - Infrastructure creation and deployment
 - Analytics
 - CPU usage
 - Various storage
 - Base files
 - Database components
 - Database consumption
- Note that for onsite products, the customer pays these same things and assumes certain risks!

Some LRS Mission Control Concepts

Environment

- LRS/Gateway Environment (On Premise)
 - This is included with LRS Mission Control.
 - We do not charge for this per se, but the cost to the customer is the onsite licenses they pay us for PLUS the infrastructure to run our products.
 - You may have more than one of these within prescribed limits.
- LRS Mission Control Hosted Environment
 - A single instance of LRS Mission Control resources. Customers may require multiple instances for purposes of managing the Azure data storage regions or for production and testing. Each is considered a separate LRS Mission Control instance and will incur an additional LRS Mission Control Hosted Environment fee.

For Example,

The screenshot shows the 'Levi, Ray & Shoup, Inc. - Demo' EOM Environment dashboard. On the left is a navigation sidebar with icons for home, users, security, alerts, and settings. The main content area has a green 'Add EOM Environment' button at the top. Below it, the 'LRS Mission Control Hosted Environments' section shows '1 used of 1'. Under 'Hosted Environment - East US', there is a green diamond icon for 'LRS Mission Control Hosted Environment', which is 'Connected'. Below this, it lists 'East US' and 'LRS Mission Control Hosted Environment' with a 'Production' tag. The 'Existing LRS/Gateway Environments' section shows '1 used of 2'. Under 'Demo Environment', it shows a green circle icon for 'Connected - All LRS/Gateway Nodes Connected (1)', with 'East US' and 'Production' tags.

The screenshot shows the 'Add EOM Environment' form for 'Levi, Ray & Shoup, Inc. - Demo'. The form title is 'Add EOM Environment' with a subtitle 'Complete the options and click Add EOM Environment when finished.' There are two buttons: 'Add EOM Environment' (green) and 'Cancel' (grey). The form has three main sections: 'Environment Name' (Required: Please enter an alphanumeric name to describe the EOM environment), 'Description' (Optional: Optionally enter a description of the environment), and 'Resource Location' (Required: The geographical region where data for the environment should be stored). The 'Resource Location' dropdown is open, showing 'East US' (selected), 'East US', and 'North Europe'. On the right, there are two radio button options: 'Existing LRS/Gateway' (checked) and 'Production Environment' (unchecked). The 'Existing LRS/Gateway' option has a note: 'Use this environment to manage an existing LRS/Gateway VPSX UI to establish a connection to LRS Mission Control.' The 'Production Environment' option has a note: 'You have reached the maximum number of production environments.'

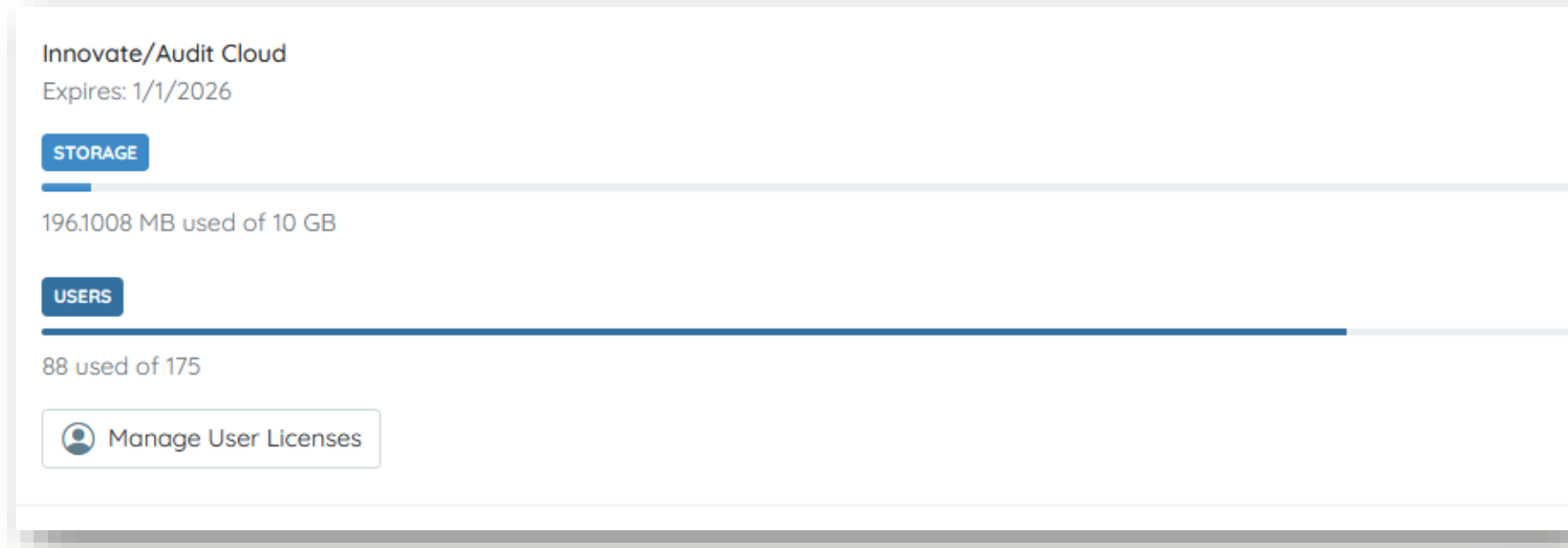
Single Hosted Environment

- This will be typical
- This provides a basis for products to run
- But –
 - Some customers may have some unforeseen need for a second environment
 - Location?
 - Test? (I believe this is something we should discourage)
 - Storage segregation?
 - Who knows – but . . .
 - A second environment will incur a fee that the first did not.



Innovate/Audit Cloud – Available today

- Accepts data from both LRS/Gateway and Hosted environments.
- If you have LRS/Gateway environment(s) (On Premise)
 - Innovate/Audit (AuditX) must be installed.
- Hosted Environments send data to Innovate/Audit Cloud only.
- Licensed
 - By storage and
 - By user



Total Jobs

160K

Total Pages

1.56M

Total Impressions

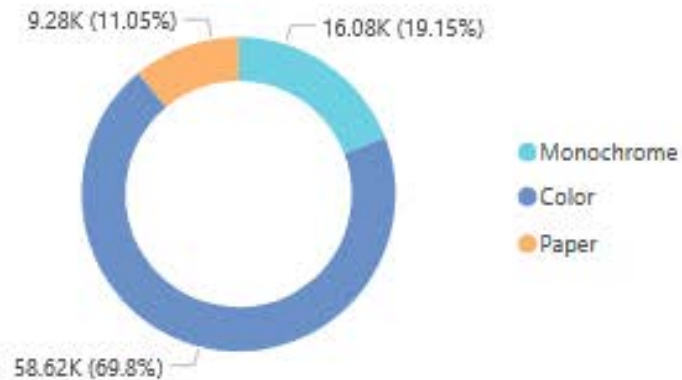
1.57M

Total Cost

83.98K

Possible Savings

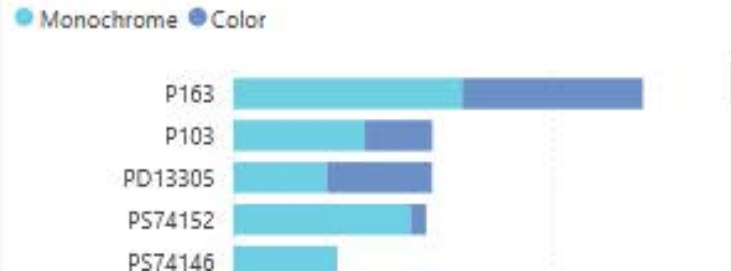
Cost Breakdown



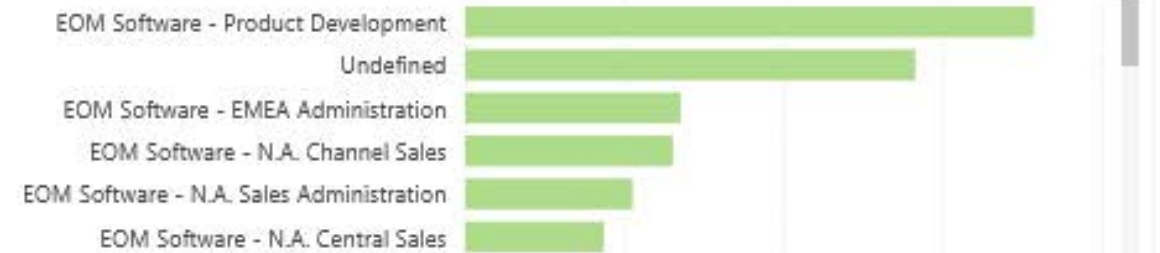
Job Count



Top Printers by Print Volume



Top Departments by Cost



Reports are environment-specific, generated in Power BI, and represent a superset of the current I/A Reporting capabilities.

Innovate/Audit Cloud

VPSX/DirectPrint Cloud – Available today









- Just like VPSX/DirectPrint, but without any onsite server
- Though the name says VPSX, this is NOT VPSX, but rather written for LRS Mission Control specifically
- The workstation agent used is the exact same – Personal Print Manager.
 - This means the same look and feel
 - Driver uploads are the same
 - Direct Print is the same
 - Location data is . . .
 - Floorplans are . . .

Print Server

Printer List

The list of printers for this environment

Printer  Add Filter Add Printer Selection Options 0 

<input type="checkbox"/>	Printer  Location	Hostname/IP 	Description 
<input type="checkbox"/>	 IMC300 USA/Illinois/Springfield/Building 7/4th floor	RNP5838797ECF74	Ricoh IM C300
<input type="checkbox"/>	 LINDSEYHOME No Location Set	HPIF28BF3	Not Set
<input type="checkbox"/>	 LOCALHOST-SOCK USA/Illinois/Springfield/Building 9/4th floor	127.0.0.1	A Localhost Socket Test Printer
<input type="checkbox"/>	 MELBOURNE1 USA/Florida/Melbourne/Collinwood Dr	192.196.1.44	Not Set
<input type="checkbox"/>	 P019 USA/Illinois/Springfield/Building 7/4th floor	10.96.120.19	HP LaserJet M402dn

VPSX/DirectPrint Cloud

MFPsecure/Print Cloud

- Allows users to print to a personal print queue and retrieve jobs from the device
- Jobs can be either Direct Secure Release or released from MFPsecure/Print Cloud
- If they are Direct Secure Release, then the workstation must have line of sight to the device
- If they are released from MFPsecure/Print Cloud, then it is the same as Internet Only printing.
- Submission is done via Personal Print Manager, same look and feel as onsite products to the end user.

MFPsecure/Print Cloud

- Licensed by user
 - Enforced by safeguarding the add of a PPQ in PPM
- These are named users.
- The initial agents:
 - HP
 - Canon
 - Ricoh
 - Lexmark
- Agent deployment requires a Broker (PPM with line of sight to the printer) except for HP (Detailed to the SE team tomorrow).
- Agents work the same way as any Internet Only Agent.



[Overview](#)[Print Server](#)[Secure Print](#)[Desktop App](#)[Audit](#)

Device Setup


Deploy/Configure apps via PPM Network Brokers


INSTALL DEVICE APPS


DEVICE



+ Add Printer >

 Manage Canon Printers 1 >

 Device Settings >

 Network Brokers 0 >



? Canon Device Help >

User Printing


Documents are printed to and stored in a PersonalQ


DOCUMENT


PERSONALQ





+ Add PersonalQ >


 PersonalQ List 0 >


 Jobs Pending Release 0 >


 Retained Jobs Archive 0 >


 Printed Secure Print Jobs >

 Secure Print Printing Errors >

 Uncollected Expired Secure Print Jobs >

 Expired Retained Secure Print Jobs >

 Successful PersonalQ Installs >

 Failed PersonalQ Installs >




At The Device


A user authenticates then accesses the Secure Print app.


AUTHENTICATE


DEVICE APPS


LRS MISSION CO




 Authentication Settings

 Secure Print App Settings


 User Emails

 MFP User Session Activity

MFPsecure/Print Cloud



LRS USER GROUP 2025



MFPsecure/Scan Cloud – a product

- This is coming.
- Initial release will be scan to My Email and My OneDrive
- Licensed by users

MFPsecure/Print and Scan Cloud Timelines

- End of August
 - MFP/SecurePrint Cloud, Ricoh Agent, HP Agent
- End of September
 - Canon Agent
 - Lexmark Agent
- Mid October – Phase 1
 - MFPsecure/Scan Cloud
 - Scan to My Email
 - Scan to My OneDrive
 - HP and Lexmark agents

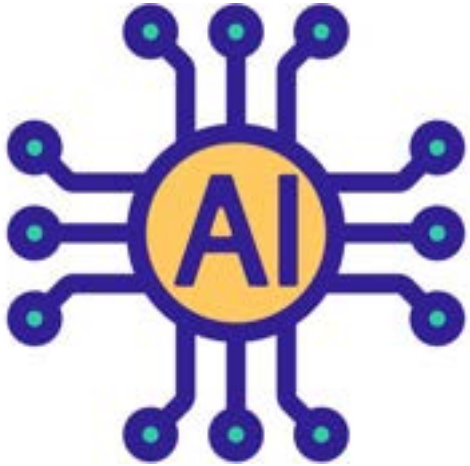
MFPsecure/Print and Scan Cloud Timelines

- Mid-November – Phase 2 - Scan
 - Canon Agent (with page limit)
 - Ricoh Agent
 - Review plan for other potential agents
 - Xerox? KM?
- End of December – Phase 3 – Scan - HP, Lexmark, Ricoh?
 - Scan to PPM Address book (email, OneDrive)
 - Scan to local folder as user (methods being discussed)
 - Scan to Teams
 - Scan to SharePoint
 - OneDrive folder navigation
 - PDF combining

MFPsecure/Print & Scan Cloud Timelines

- End of January – Phase 4
 - Update Canon Agent to remove page limit
- End of March – Phase 5 – HP, Lexmark, Ricoh
 - SecureScan Cloud Additional Features
 - Document processing and custom profiles
 - Scan to local folder extended
- End of April – Phase 6
 - Canon Agent with SecureScan Cloud Additional Features
- May – Phase 7
 - Additional Agents where possible.
 -

AI



- Artificial Intelligence (AI) refers to the ability of computer systems to perform tasks that typically require human intelligence, such as learning, problem-solving, and decision-making. In essence, AI aims to create machines that can mimic human cognitive functions ~ AI
- Identify data in print scan jobs?
 - Data loss detection/prevention
- Actively being investigated
- How else might it fit into our product suite?



Questions?



Thank You



Technical Up-date

Mainframe Roadmap

Digitization & Scanning

Customer Stories

Q & A