

# UniMPS System

## UniMPS System has two Primary components

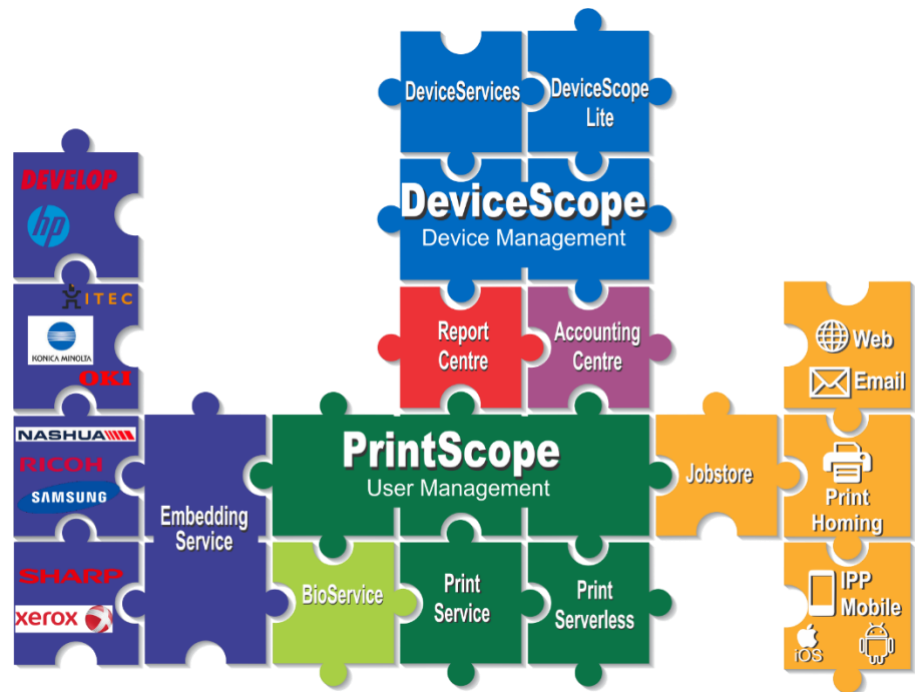
- PrintScope – User Print Management Module
- DeviceScope – Device Management Module

The UniMPS is a product suite that provides the complete set of Tools to provide management for all aspects Printing, photocopying and Scanning. Whether you are an MPS vendor or an independent Company looking to manage their own printing costs and environment. This solution caters for the very largest Corporation to the smallest



UniMPS embraces the OPSP (Optimal Print Service Framework) which encompasses the following functionality:

- Management of user printing including full integration with AD or LDAP
- PrintHoming release print at any device
- Cost recovery of print costs for professionals to third party clients
- Mobile printing.
- Prepay printing
- Document management
- Archiving
- Device management
- Print optimization
- Print Asset tracking
- Contract management
- Reconciled billing for internal cost distribution.



## The UniMPS system can provide the following MPS management functionality in print-based environments:

- Device auditing and management: Manage device alerts, supply levels and counters.
- User authentication and authorisation: Manage access to print, copy, scan and fax functionality.
- Job accounting: Track printer usage and allocate imaging and printing costs to individual department and users.
- PrintHoming, deployment of a single print driver, user can print and release at any MFP on the system.
- Management tools able to monitor and manage all functionality of the system from a central point.
- Reporting tools able to view site, cost centre, user, account and device data.
- Product licensing system.
- Enforce budgets via user, account or MFD
- Rules-based printing: Be able to put rules into place which control who prints what, how much, where and when.
- Secure print release and authentication by retrieving documents securely at any enabled printer or MFP.
- Print optimisation: Be able to reduce costs by optimising device usage.
- Pre-paid and post-paid user and professional services third party (account, project or matter) billing.
- Fax and Scan job accounting.
- Mobile printing - BYOD. Laptop, Tablet, Cellphone (Android, AOS)
- Other functionality available on enquiry

# PrintScope

## User print management Module

The UniMPS management is achieved through the selective deployment of the two primary modules. Each of which in turn can have functionality added through the installation of secondary components

### PrintScope

- Embedding Service
- JobStore
- Print Service
- Serverless Print
- ReportCentre
- Accounting Centre
- BioService

### DeviceScope

- DeviceScope Lite
- Device Service



### Embedding Service

Where manufacturers make their SDK's (Software Developer Kits) available, we are able to develop the UniMPS Embedded Terminal software to work off the front panels of the equipment.

1. Provides offline mode where data collected is stored in an embedded database until the connection to PrintScope is re-established.
2. Grouped by of Manufacturer, model, and devices.

Embedding Service is a service that enables the installation of software agents on Multi-Function Printers that support embedding.

We are registered Development partners for the following manufacturers and can embed on their products:



We have access to the following manufacturers SDK but have not developed an Embedded Control Panel at this stage.



Canon are reluctant to partner with South African software development companies and do not make their SDKs available.

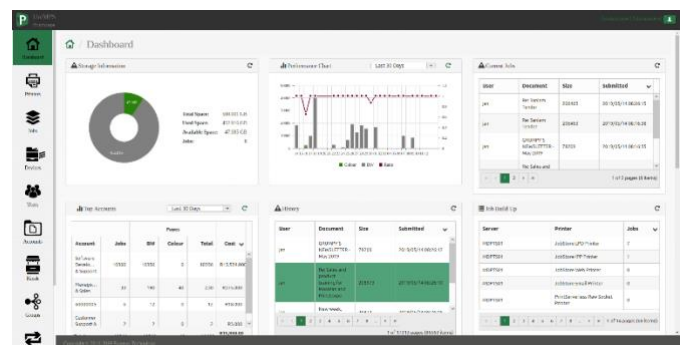
### Embedding Service facilitates the following functions:

#### On-device authentication using the following methodology:

- ✓ User,
- ✓ User and Pin
- ✓ LDAP - User and password
- ✓ User and Account
- ✓ Account
- ✓ Card

#### Job accounting

- ✓ Copy tracking
- ✓ Scan tracking
- ✓ Fax tracking
- ✓ Secure print release
- ✓ PrintHoming (Pull printing)



JobStore provides the following functionality:

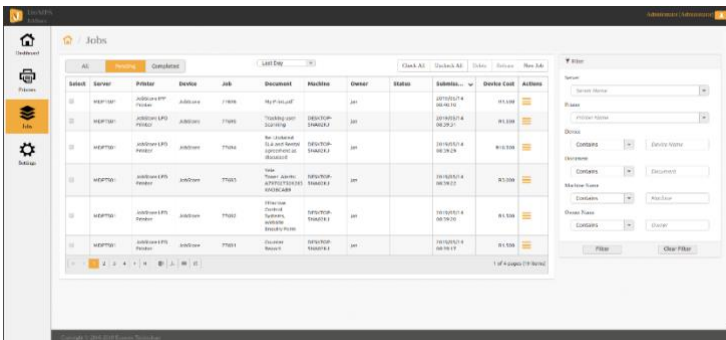
### PrintHoming Service

A service that enables PrintHoming and secure print release. JobStore communicates the data to **PrintScope**. **All documents received and communicated by Printscope use standard encryption protocols to secure content**

1. IPP - The Internet Printing Protocol (IPP) is an Internet protocol for communication between client devices (computers, mobile phones, tablets, etc.) and printers (or print servers). ... Like all IP-based protocols, IPP can run locally or over the Internet.
2. LPD
3. RAW

**Web Print Service** Web Print is a driver-less printing service that allows users to print by uploading documents from a web browser. (BYOD)

**Email to Print Service** A service that allows users to email documents to for printing and communicates the data to PrintScope. (BYOD)



### PrintService

- ✓ PrintService is a software service installed on desktop PCs or Servers in order to collect print usage information.
- ✓ It uses the print spooler to collect usage information from local (USB, LPT, Serial) printers or direct IP connected print devices. This information is then reported to the PrintScope Server for processing into the Database.
- ✓ Can be batch deployed using Group Policy.
- ✓ Provides offline mode where data collected is stored in a Local database until the connection to PrintScope is re-established.
- ✓ Supports remote updating.
- ✓ Supports Remote Configuration
- ✓ Extracts a unit ID from the job (prevents jobs being counted more than once)
- ✓ Parsing of the job data

### Serverless print

Serverless print functionality is designed to facilitate print tracking in small branch offices of large companies where no print server is available and connectivity bandwidth is restricted.

In this environment the Serverless Print Agent is deployed to each workstation and the print devices are embedded from one of the workstations. The embedding control and configuration of the print devices is replicated to each workstation and in the event that the workstation acting as the primary is switched off the control automatically switches to the next workstation based on which one has been active for the longest period.

The Primary workstation performs the task of collecting information from the local printer queues on the other workstations and publishes a list of available jobs awaiting release to the embedded printers. When the user logs on to the print device it queries the primary workstation which publishes the list of print jobs owned by that user regardless of which workstation he printed from. The user then selects the jobs he wishes to release and the printer then pulls the job from the workstation it originates from and prints it.

This system is capable of working offline indefinitely and will sync back to the central server when connectivity is available.



## Reports Centre

Centralised report management application to access, view, print, export and/or email report data.

Comprehensive Platform for Data Integration & Business Analytics

The Report Centre application retrieves data from the database and generates reports for viewing or email reports at scheduled times

The user can view their usage for a specified period.

The user can schedule a usage report to be sent to their email address daily, weekly and monthly.

Separate user profiles with different access privileges can be configured to view, create, edit and delete only authorised content.

Protects the integrity of sensitive information by enabling users to only access data below their login level

Emailing one or more different reports at the same time as a bundle.

Receive an early warning email when a specific threshold (e.g. high usage) is reached. May be applied to users or devices.

Interactive visual analysis with Dashboard, drill through.

Output in popular formats: HTML, Excel, CSV, PDF and RTF.

ReportCentre gets data from the following applications

- **PrintScope**
- **DeviceScope**
- **DeviceScope Lite**

ReportCentre reports will contain information covering

- **User**

## Accounting Centre

### AccountingCentre OPC

- ◀ OPC will consistently generate a fully substantiated billing/costing at a device, person and accounting charge point level by aggregating data from PrintScope and DeviceScope management systems and produces information via a balanced processing rule set.
- ◀ OPC delivers quality and balanced information covering charge back for services delivered as well as the ability to identify usage exceptions. Such information not only assists the billing/costing process but also that of overall MPS operations by timeously identifying and facilitating the correction of operational and processing exceptions. The resultant base of quality information that can be queried and mined for further analysis and to support better decision making.
- ◀ OPC will maximise the usage substantiation by being able to identify missing or surplus information and wayward devices or users that can be identified, investigated and rectified.
- ◀ OPC is a continual process and more regular consumption and analysis, is recommended in order to maximise visibility on exceptions and rectify soonest to reduce impact.
- ◀ The OPC process, can be for the most, be automated and support interventions can be focused on exceptions rather than the everyday process.
- ◀ OPC caters for the management of required reference data and data associations in order to manage the process and to drive integrity, consistency, structure and quality of the data within the system.
- ◀ OPC publishes information that allows stakeholders to have access to the usage and charge information that can be used to alter usage behavior and lower abuse of the services.

### Accounting Centre Asset360

Comprises the following components:

Asset management: manages and tracks all assets but specializes in network MFP and Print device monitoring where it detects any movement of devices by monitoring the network parameters. It creates a database of devices and their locations and enforces a management policy with regard to the movement of devices to new locations.



## Accounting Centre (continued)

### Accounting Centre Asset360

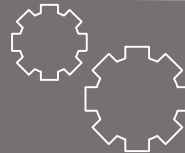
Comprises the following components:

- ▶ **Asset management:** manages and tracks all assets but specializes in network MFP and Print device monitoring where it detects any movement of devices by monitoring the network parameters. It creates a database of devices and their locations and enforces a management policy with regard to the movement of devices to new locations.
- ▶ **Optimisation of print devices.** This module takes a feed from a device management or fleet management software where it monitors the print volumes being printed and does statistical analysis to check whether devices are optimally utilized according to their published specification. If devices are not optimal it flags these devices and recommends that over utilised devices are swapped with under utilised devices.
- ▶ **Contract management.** This module captures all details of device purchases and the associated rental contracts including, term, escalation clauses, SLA, maintenance costs, cost per page, minimum billing, and a number of other parameters. It does a continuous comparison with the monthly bills that are received and highlights any variances.
- ▶ **Tender facilitation.** This module gathers information from all the above products and builds a complete and accurate Print Hardware requirement specification which feeds into a comprehensive Tender template which caters for the evaluation process of completed tenders against a scientifically compiled set of criteria.

### BioService

BioService adds the functionality of allowing users use external fingerprint (or other biometric parameters) scanning to authenticate themselves at an MFP in order to access the device's functionality.

The Biometric Scanner will authenticate locally and send the user's ID along with the scanner ID back to PrintScope where PrintScope will identify the MFP and the user. PrintScope will then open the device to that user.



#### CUSTOM SOLUTIONS

A key factor which truly sets us apart from our competitors is our ability to customize our software for each client's individual needs. So whether your system is simple or complex DeviceScope can be set up to meet your exact requirements

#### SERVICE AND SUPPORT

Our team of qualified engineers, developers and support staff are equipped to provide various means of training and support. Our careful attention to the needs of our clients ensure that we provide the fastest and most thorough assistance possible

#### LICENSE CENTRE

This is a cloud based application, linked to our website and manages license purchasing and payments



# DeviceScope

## Device Management



DeviceScope is a Hardware Management or Print Fleet Management system that collects the following information from network printers:

- ❖ Meter readings broken down into its components Life, Print, Copy, Colour, B/W, Scan, Fax, A3/A4
- ❖ Toner levels, broken down into the various colours
- ❖ Alerts such as Toner low, Service Kit replacement, Paper low, Sleep mode, Door open, Paper jam etc.
- ❖ Alarms where the machine has experienced a terminal failure due to a component failure. The alarm is usually accompanied by an engineering code giving the technician the opportunity to take the correct spares to site with him.
- ❖ All these parameters can be sent via email to the various department for attention. Alternatively there is an API available for integration into Helpdesk systems or CRM software.

DeviceScope comprises three components each offering its own functionality:

### ◀ DeviceScope Enterprise

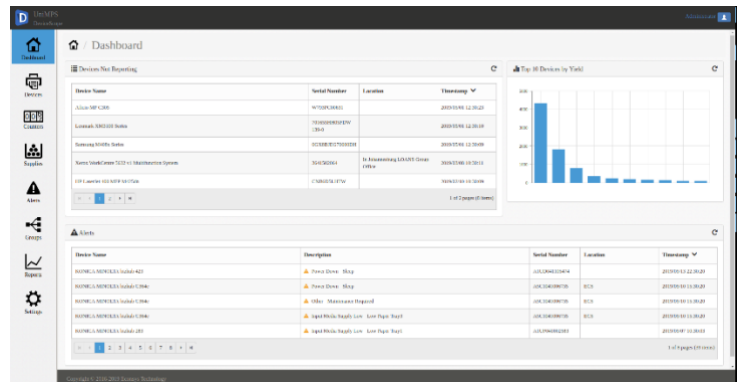
This system can be either a cloud based or a terrestrially based server and can accept inputs from DeviceScope Lite or DeviceService from a single or multiple sites or clients. It collects data from print devices on these sites and processes it into a database where users can log in and view the data and pull reports. It is scale able to whatever size is required. It is licensed per device per month or on a prepay basis.

### ◀ DeviceScope Lite

This software is installed on a site and can be used to manage all network print devices accessible on that network. It provides Dashboards displaying various print fleet parameters on a live basis allowing on-site support technicians to respond immediately to Alerts alarms and other information. This component is licensed per installation with unrestricted number of devices.

### ◀ DeviceService

This software is a collector agent that will collect Network printer information at a site. It is headless software that only allows you to configure Discovery parameters, devices of interest, and communication parameters. All collected data is then communicated to the selected DeviceScope server for processing into the database. This software is free to license



Screenshot of Device Scope Module