New, future-oriented functionalities and the road to Asia accompany the anniversary: over one million managed printing systems using the in-house Mercury MPS solution

For more than ten years, docuFORM has been developing its own Managed Print Services solution, which meets European requirements. In addition to the product requirements, the focus was always on the service aspects in conjunction with optimum support from the specialist trade.

Since market introduction, however, the requirement profile has changed to a future-oriented MPS solution. Therefore, docuFORM with your own MPS solution enables comprehensive management of all printing systems, but also simultaneously, interaction between MPS and other modules of the Mercury Suite. This allows the user not only to optimally manage their devices, but also to optimize workflows in the field of printing.

Martin Denk, managing director and owner of docuFORM GmbH: "Today it is no longer enough to collect and evaluate meter readings from printing systems, the requirements for a modern and future-oriented MPS system are far more extensive - with our in-house MPS solution we will meet these challenges. A cloud connection, as well as extensive additional modules increase customer efficiency."
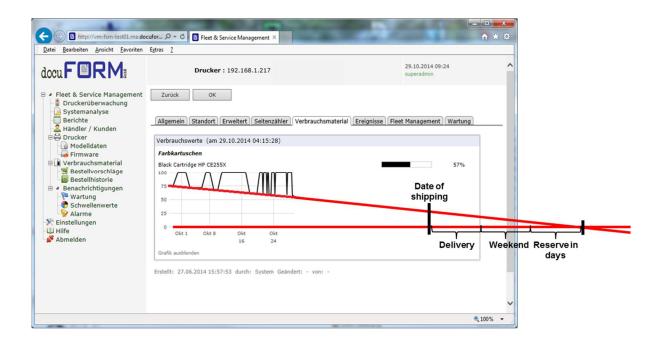
Intensive partnership with the Computer Compass Group

For many years, docuFORM has worked closely with the Computer Compass Group. Product functionalities have been developed together, based on decades of experience of the Compass members and today benefit all docuFORM MPS users. One of the central common achievements is the ability to determine the range of each cartridge per day, directly incorporating user behavior when calculating toner range. In the context of the experience gained, it is therefore no longer sufficient to transmit toner fill quantity in percentages or to order consumables only when the device reports this. Today, it's all about analyzing on-the-spot printing and having the required cartridge delivered just in time - not a day too early, but more importantly, not a day too late!

The algorithms have been developed in collaboration with the Compass Group over years and represent the core functionality of this intelligent MPS solution. The so-called OTT 'optimal toner exchange time' was developed, which determines the exact day a toner cartridge makes its way to the device. Whether weekends or public holidays, all border parameters are taken into account throughout Europe. If the printing behavior changes due to holidays or if there are load peaks on the devices, all this information influences the ordering behavior in real time and ensures an optimal delivery time. In addition, the system has comprehensive mathematical algorithms for calculating the true toner usage curves, another important prerequisite of an optimized MPS solution.

Denk adds: "Again and again, Europe-wide tests with customers have shown that our MPS solution is by far the most suitable for the requirements of optimal toner delivery."

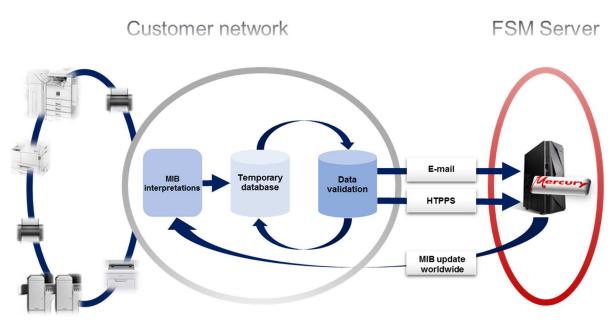**Optimal calculation of the consumable ordering process**

Cloud Service for Autoupdates and Printer MIB Administration

Furthermore, the MPS solution from docuFORM is cloud-ready and therefore has decisive advantages in operation. All so-called MIB files are maintained centrally in the docuFORM cloud server, which represent the characteristics of the respective printing systems. There is no integration in the MPS software itself, so that by simply exchanging or supplementing the intelligent MIB files, all present and future acquisition parameters of the printing systems can be completely and correctly analyzed. Thousands of capture clients already on the market can then send a request to the cloud to determine whether current MIB files or changes exist. The acquisition clients are updated automatically and globally, creating a maintenance-free system in which the user can rest assured that docuFORM always has the latest MIB files from all manufacturers available in the cloud. In-house algorithms and technologies are also available for the analysis of the respective MIB devices - a closely guarded secret at docuFORM.

Martin Denk: "Through this cloud mechanism and the automatic, worldwide roll-out of up-to-date current MIB files, we guarantee our customers a perfectly functioning MPS solution. In addition to in-house technologies, our close collaboration with all Mercury printer manufacturers ensures that we receive all in-time updates so that we can deliver them to our partners in just a few hours - worldwide!"

The on-site docuFORM capture client is also already working as an intelligent analysis unit. The evaluations of the devices are carried out on-site using the MIB files, which can always be updated automatically via the docuFORM cloud system. Only after validation is the MPS data transmitted to the central server. This technology significantly relieves the load on the MPS server so that tens of thousands of devices can be operated at high performance with one MPS server. A database integrated in the data entry client will also keep collection data if, for reasons uncontrollable, no connection to the MPS server can be established temporarily. As a result, a complete acquisition of all device data is guaranteed, which ultimately allows the basis of optimal evaluation of the toner usage curves and associated ordering system.

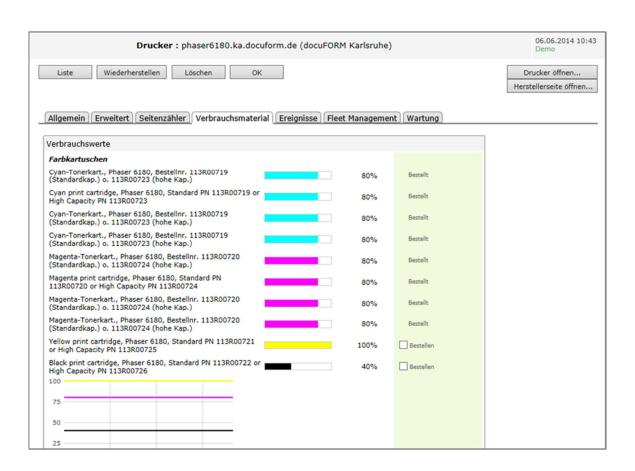**Intelligent capture client with cloud service for device analysis**

Online store for individual control of consumption logistics

In addition, there is the optional online store, which has all manufacturer consumable data and their order numbers. Through this data knowledge and the provision of information in the order shop, the user can decide for themselves, whether to simply pass on an empty toner order, or instead determine locally whether a cartridge with a higher capacity should be requested. Based on the consumption figures and the frequency of orders, which are noted in the device history, they can make informed decisions with regards to the filling quantities of the cartridges and add new ones to the order shop. It is also possible to initiate both collective orders or, if necessary, manual orders. All order statuses can be monitored in the MPS user interface and additionally displayed in the dashboard. At the same time, all order processes in the device history are archived for extensive evaluations. The consumables database is also constantly updated via the docuFORM cloud and made available to all users. Also, consumables from any manufacturer can be integrated and managed in parallel via user interfaces.

Status of consumables with order overview and delivery information

The Statistics and Analysis Module - Cost Center Reports

Due to the validation of the device data on site and the optimized transmission to the central MPS server itself, larger amounts of data can also be used for long-term evaluations. In order to determine the optimal toner exchange time in days, but also by constant examination of the toner usage curve of the devices, the so-called Analysis Module was developed. The analysis module is able to independently detect unpredictable fluctuations or errors in the device. These include toner jumps at almost constant meter readings, but also irregularities in the flow meters themselves.

The system itself is so intelligent that it not only automatically reveals these irregularities, but also provides the user with solutions for a detected device problem. This may suggest changing the cartridge mileage, changing the mileage from percentage to days, but also enabling toner interpolation. Through this analysis module, the rules for the procurement of consumables can be refined and optimized.

New and very important is the statistics module with its current extensions. So far, the statistics module has made it possible to provide a historical evaluation of the toner running performances, their changes, residual toner quantities as well as the planning of service operations.

From now on, the docuFORM MPS system has three interfaces via which the following data can be imported via Active Directory or CSV:

1. Extended import of device data such as locations or cost centers from external asset systems
2. User data and their cost centers, including smart card IDs
3. Print job information from any Mercury OMS system with optional use of the docuFORM Global Printer Driver or the integrated Follow "2" Print solution

With this extension, the docuFORM MPS solution becomes a cloud-capable central control system for cross-network printing.

For example, Mercury servers from different networks can pass information about print data from their print queues to the MPS system. At the same time, the embedded apps of the docuFORM Follow "2" Print solution send cost-center specific print, copy and scan information to the MPS server. Through this combination of Mercury MPS, Mercury Output Management and embedded apps for Follow "2" Print, the docuFORM MPS solution now enables comprehensive cost center evaluations to be performed both for users / user groups and for printing systems.

"These evaluations are much more far-reaching in the interim," says Martin Denk, "if a customer uses the Mercury Follow "2" Print solution or, in general, a Mercury print server, non-printed pages can be recorded in addition to the cost centers. As a result, the workflow as part of the introduction of docuFORM MPS can determine how many print pages are actually printed and how many pages were not printed due to deletion by the apps or non-pickup on the device.

This can be used to uncover potential savings and further optimize the overall customer network workflows."

Cost center evaluations in networks by docuFORM MPS

Druckvolumen

Monat 1-12/2017

Erstellt: 14.02.2018 14:22:09 - Fleet & Service Management V6.14a

Kunde: **docuFORM Karlsruhe**

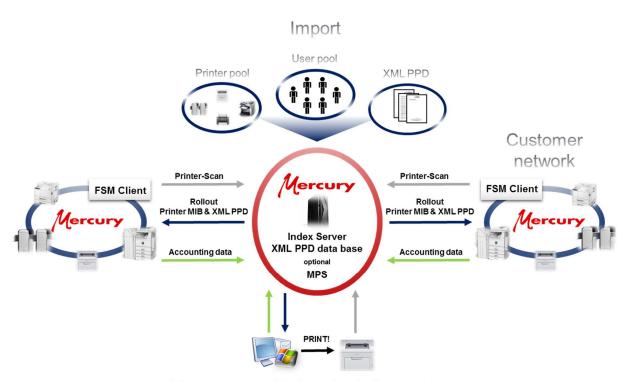| Drucker	Kostenstelle	I/N	S/N	Standort	Modell	Drucker S/W	Drucker Farbe	A3	A4	Tabloid	Letter	Legal	Andere	Kopierer S/W	Kopierer Farbe	Scanner S/W	Scanner Farbe	Fax
bhc3350.ka.docuform.de	Ohne Zuordnung		A4Y4021010180	docuFORM Karlsruhe, Sekretariat	KONICA MINOLTA bizhub C3350	355	552		895		12							
bhc3350.ka.docuform.de	CEO		A4Y4021010180	docuFORM Karlsruhe, Sekretariat	KONICA MINOLTA bizhub C3350	487	1.012		1.499									
bhc3350.ka.docuform.de	Geschäftsleitung		A4Y4021010180	docuFORM Karlsruhe, Sekretariat	KONICA MINOLTA bizhub C3350	577	510		1.087									
bhc3350.ka.docuform.de	Support		A4Y4021010180	docuFORM Karlsruhe, Sekretariat	KONICA MINOLTA bizhub C3350	13	4		17									
clx6260.ka.docuform.de	Ohne Zuordnung		Z77ABJED9000N8N	docuFORM Karlsruhe, Sekretariat	Samsung CLX-6260 Series	1			1									
clx6260.ka.docuform.de	CEO		Z77ABJED9000N8N	docuFORM Karlsruhe, Sekretariat	Samsung CLX-6260 Series	3	1		4									
clx6260.ka.docuform.de	Geschäftsleitung		Z77ABJED9000N8N	docuFORM Karlsruhe, Sekretariat	Samsung CLX-6260 Series	2			2									
devprt2.ka.docuform.de	Ohne Zuordnung		JPBVJDL02P		HP Color LaserJet FlowMFP M577	3			3									
talfa250ci.ka.docuform.de	Ohne Zuordnung		QJK0621258		TASKalfa 250ci	193	85	52	135		1							
talfa250ci.ka.docuform.de	CEO		QJK0621258		TASKalfa 250ci	6	6	3	3									
talfa250ci.ka.docuform.de	Geschäftsleitung		QJK0621258		TASKalfa 250ci	1	5	1	5									
xrx3250.ka.docuform.de	Ohne Zuordnung		3969299991	Entwicklung Mannheim	Xerox Phaser 3250	1.802		2	1.800									
xrx3250.ka.docuform.de	CEO		3969299991	Entwicklung Mannheim	Xerox Phaser 3250	3			3									
xrx3250.ka.docuform.de	SUP		3969299991	Entwicklung Mannheim	Xerox Phaser 3250	2			2									

Usage summary of printed / non-printed Follow "2" Print jobs

Nutzungsübersicht

Demo, Monat 1-12/2017

Erstellt: 14.02.2018 14:19:49 - Fleet & Service Management V6.14a

Kunde: **docuFORM Neu-Isenburg**

Drucker	I/N	S/N	Standort	Modell	Gedruckte Seiten	Nicht gedruckte Seiten	Gedruckte Aufträge	Nicht gedruckte Aufträge
fs2020d.fra.docuform.de		XEX0771295	Neu-IsenburgOdenwaldstrasse 31.OGBüro Alex	FS-2020D	1	0	1	0
hp2050.fra.docuform.de		CNCKB86001	Neu-IsenburgOdenwaldstrasse 31.OGBüro Oppl/Breimer	HP LaserJet P2055dn	24	0	19	0
mx611de.fra.docuform.de		70165PHH085H4	Neu-IsenburgOdenwaldstrasse 31.OGBüro Oppl/Breimer	Lexmark MX611de	681	2	229	2
TA3051.fra.docuform.de		L876147179	Neu-IsenburgOdenwaldstrasse 31.OGSchulungsraum	TASKalfa 3051ci	377	0	81	0
vhost0186.fra.docuform.de		RME00585	160 ThinkTank	Canon iR C1325	1	0	1	0
					1,084	**2**	**331**	**2**

docuFORM MPS as a central control system for distributed printing

Furthermore, the docuFORM MPS solution can be a central task for distributing print jobs in heterogeneous customer networks. If several self-sufficient networks are operated, in most cases several different Mercury print servers are used. All devices and user data are now stored centrally in the MPS server. According to predefined rules, the printing systems are distributed to the associated Mercury servers, as a result of which the individual Mercury print servers are also automatically configured and then regularly updated by the FSM server. As part of the possible cost center evaluations, the central MPS server is kept constantly informed as to which print data is held on which servers for which user.

Now imagine a worldwide network of Mercury servers - employees can request their print jobs as required, simply by logging in to the app on the device. Additional communication with the MPS server ensures that all relevant print jobs can be viewed and retrieved for selection from any Mercury servers on different networks. The MPS server will then inform the Mercury server which device was polled and arrange for the print job to be forwarded across the network. This functionality is referred to as the Index Server within docuFORM and represents a central extension of the in-house MPS solution.
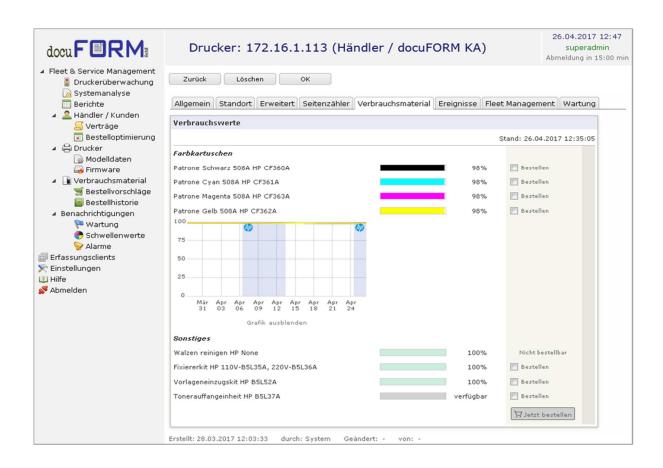
Worldwide partnership with Hewlett Packard on the Cloud Service Portal

"Likewise," says Martin Denk, "we are very proud to have inspired a company like Hewlett Packard for our MPS solution." In the past year, a worldwide partnership was agreed in which an interface to the HP Service Portal was set up for the docuFORM MPS solution. The service portal enables HP devices to log into the cloud, giving HP its own ability to perform automated service operations. In addition to firmware uploading, this also includes various service activities that can be performed remotely.

The result of this is cost savings for the contractor on site, but also an increase in device availability through rapid interaction with the cloud portal.

Since other manufacturers are also currently dedicating themselves to the service cloud subject, docuFORM is already working on a global solution that will also be able to support service portals from other manufacturers in the future.

docuFORM MPS goes to Asia

Denk: "Our customer portfolio, with well over a million managed printing systems, is wide-ranging. In our data center in Frankfurt, we host equipment in the six-digit range, both for our smaller partners and as part of a worldwide installation for DAX companies. In addition to Beiersdorf and Daimler AG, companies such as the Federal Labor Office and the Compass Group have been successfully using the docuFORM MPS solution for many years. Our latest project is

the Charité, which has also opted for the holistic Mercury solution. Recent orders in Asia have prompted us to completely port our solution to UTF-8 and double-byte formats. From now on, not only the entire user interface can be rendered in Asian fonts, but also all Asian messages from the devices themselves can be recorded, evaluated and communicated in the respective national language."

Conclusion:

1. Secure and optimal data collection is the basis of a reputable MPS solution. Close cooperation with equipment manufacturers, as well as the development of own algorithms, are continuous.

2. Interpolation mechanisms, taking into account the printing habits of the user, allow for a range determination of consumables in days and guarantee the resulting optimal toner exchange intervals.

3. The online store with its manufacturer-independent part database guarantees the correct ordering of all consumables with the respective parts and order numbers.

4. The combination of Mercury MPS and Mercury OMS, in conjunction with the embedded Follow "2" Print apps, allow additional far-reaching evaluations on the workload and cost centers, which are simply not possible with pure MPS solutions.