



SHERIDAN COLLEGE ACHIEVES SUSTAINABILITY GOALS FOR PRINTING:

4 Office and **Lexmark** partner to design and implement a streamlined and sustainable Managed Print Services solution reducing the College's environmental footprint and delivering improved efficiencies

With campuses in Oakville, Brampton, and Mississauga, Ontario, Sheridan College is one of Canada's most recognized institutions for technology and advanced learning. In 2010, the College outlined a framework for institution-wide sustainability initiatives with a mandate to re-envision its future energy needs by making significant reductions in its environmental footprint. Its *"Mission Zero"* initiative represents operational sustainability goals and targets derived from the College's environmental mandate.

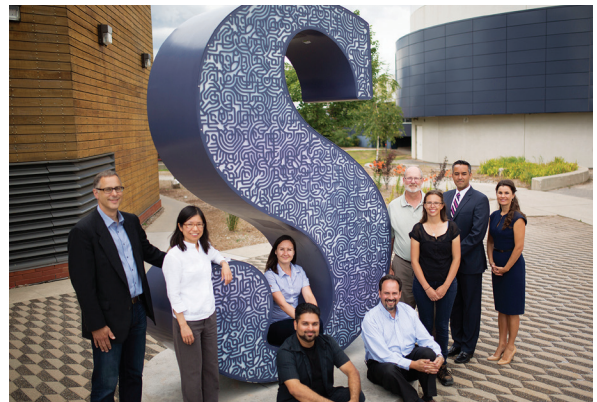
As part of its *"Mission Zero"* initiative, Sheridan embarked on a Managed Print Services (MPS) program to reduce the environmental footprint of its print fleet through device consolidation and decrease printed output by implementing a solution to monitor and manage usage.

Sheridan's Two-Phased Approach

Given the College's experience with college-wide deployment projects and to ensure the success of its MPS program, Sheridan's project team decided it would be both prudent and beneficial to run a one-year pilot project prior to deploying a full-blown MPS solution.

This pilot allowed the Sheridan team to assess the reliability and features of Multi-Functional Devices (MFDs), track user behaviour and monitor users' adaptability to a MPS print environment. The team observed user habits, readiness for change and the type of services demanded — all with the view of validating the College's project vision.

Centralized printing, secure print release, new user interface, fully integrated PaperCut MF software,



Sandro Buffone, IT Projects Mentor (5th from left) and the Project Team

and virtual money were all extensively tested during the pilot.

Sheridan's MPS Project Vision

Sheridan's overarching MPS vision was to develop and implement a successful college-wide print strategy which also aligned with the College's *"Mission Zero"* sustainability goals. The primary objective was to provide a centralized and integrated solution (including print, copy, scan, and fax services) that was simple to implement and manage, provided new tracking and charge-back benefits, and achieved a significant reduction in print/copy volume.

With disparate printers, copiers, and fax machines located throughout its four

campuses, Sheridan's mandate was to streamline its printing environment, by:

- Replacing single purpose printers, copier, and fax machines with strategically located MFDs; thereby reducing the number of printer models and manufacturers which they supported;
- Ensuring all print devices would be on the college network and were less than three years old;
- Guaranteeing that all users would be within a reasonable distance of strategically located (decentralized) primary monochrome MFDs; and
- Integrating all MFD devices with PaperCut OneCard release.

Project Challenges and Goals

Sheridan College had five main challenges to surmount in order to deliver the targeted benefits:

- **Faculty and administrative expectations:** Faculty and administrative users were accustomed to printing within their departments and leery of a shift to centralized printing. They were also concerned about confidentiality. The shift to centralized printing, therefore, had to be convenient, easily accessible, secure, and minimally disruptive in order to garner support.
- **Address Accessibility for Ontarians with Disabilities Act (AODA) concerns:** Each device had to be accessible to all users and adhere to the policies set forth in the AODA.
- **Sustainability Objectives:** Sheridan College's commitment to minimize its greenhouse gas emissions and reduce its environmental footprint meant this MPS initiative had to closely align with these sustainability objectives, while delivering convenient and accessible printing services.

- **Access:** With four campuses (two in Oakville, and one each in Brampton, and Mississauga), 20,000+ full- and 35,000+ part-time students, and approximately 2,500 employees, the MFDs had to be easy to use and require minimal, if any, training.
- **Student expectations:** Students were accustomed to printing for free. A shift to paid printing had to be convenient, cost-effective, and simple to use.

4 Office and Lexmark responded to Sheridan's needs

The MPS Solution project kick-off meeting took place in mid-June 2013 where it was agreed that the equipment deployment would be divided into two groups – Administrative and Academic. Since the pay-for-print student initiative was top priority, it was agreed that the "Academic" MFDs had to be deployed before the Fall Term commenced in September.

Lexmark, 4 Office, and Sheridan College worked together and determined that the best approach would be to initially conduct a full assessment of the College's print fleet and present the new optimized print environment to stakeholders for approval. *"Lexmark was extremely proactive,"* according to Sandro Buffone, PMP, IT Projects Mentor at Sheridan College. *"They assisted with our internal audit, including an analysis of our users' needs and environment. They helped us map out where the multi-user MFDs should be strategically placed to facilitate the consolidation of our printers. Their guidance was extremely incisive. This extensive assessment provided us with a road map for deployment of the new fleet."*

The next activity was to ensure that all campus locations were ready to accept delivery of the new equipment. This included the upgrade and configuration of the pilot installation of PaperCut MF to host the new Lexmark MFDs.

Once the product mix, configurations and device mappings on the College's floor plans were finalized for the Academic MFDs, 4 Office designed a deployment template that was used by Sheridan's project personnel to request custom-configured MFDs for deployment on specific days to corresponding locations identified on the floor plans. This process was repeated for the subsequent deployment of Administrative MFDs. To maximize device optimization and to ensure the strategic placement of "Administrative" MFDs, prior to starting the deployment, a follow-up print assessment was conducted to confirm that the related devices were conveniently placed for students' usage.

To address the College's need for automatic consumables replenishment and to provide Network Administrators with a dashboard to manage the College's print fleet, Markvision, Lexmark's Enterprise Device Management Software was installed. Its low consumables alert feature which facilitates automatic order by email was activated to send requests to 4 Office for next day delivery. Automating consumables replenishment has proven to be very convenient and effective for users.

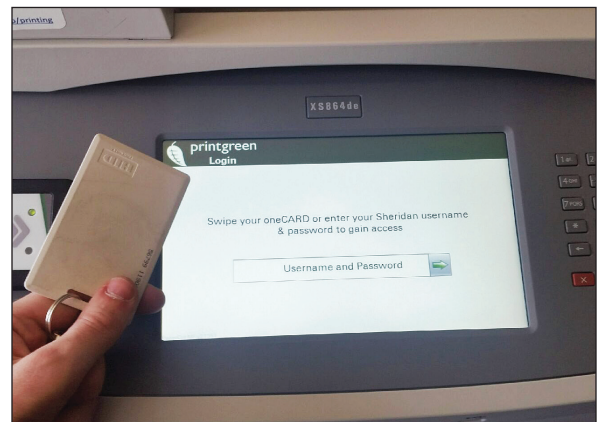
4 Office also handles all of the College's break/fix maintenance requirements. End users call Sheridan's service desk where all calls are triaged to determine whether the issue is hardware or software related. All hardware related calls are transferred

to 4 Office for resolution. Occasionally problems related to MFD embedded PaperCut MF are also escalated to 4 Office's technical services team. *"4 Office responds promptly to our break/fix requests and provides timely, reliable consumables replenishment. Overall, our relationship with 4 Office is excellent,"* says Buffone.

MPS Solution Deployment

"4 Office's project team liaised with the College's team and were very flexible and responsive to all of our requests, ensuring that our rollout went smoothly," noted Buffone.

- **PaperCut MF Deployment:** PaperCut MF was installed and thoroughly tested during the pilot phase. Additional licences were purchased and added to the existing PaperCut installation to facilitate the newly deployed Lexmark MFDs. All MFDs deployed were pre-configured by 4 Office with network settings provided by the College and pre-loaded with the embedded PaperCut application. Custom labels displaying the device's serial number and Sheridan's service desk contact information were placed on each MFD. A card reader compatible with the College's OneCard was configured and shipped with each MFD.



- **Academic Integration Phase:** To facilitate Sheridan's pay-for-print student initiative, 85 Lexmark MFDs were installed and more than 100 classroom printers removed in the Fall of 2013. As mandated, this phase was completed before classes commenced in September 2013.
- **Faculty and Administration Staff Phase:** In Spring 2014, 125 Lexmark MFDs were deployed for Administrative and Faculty staff. Over 150 print devices including MFDs and Administrative desktop printers were decommissioned during this phase.

Project Goals Achieved

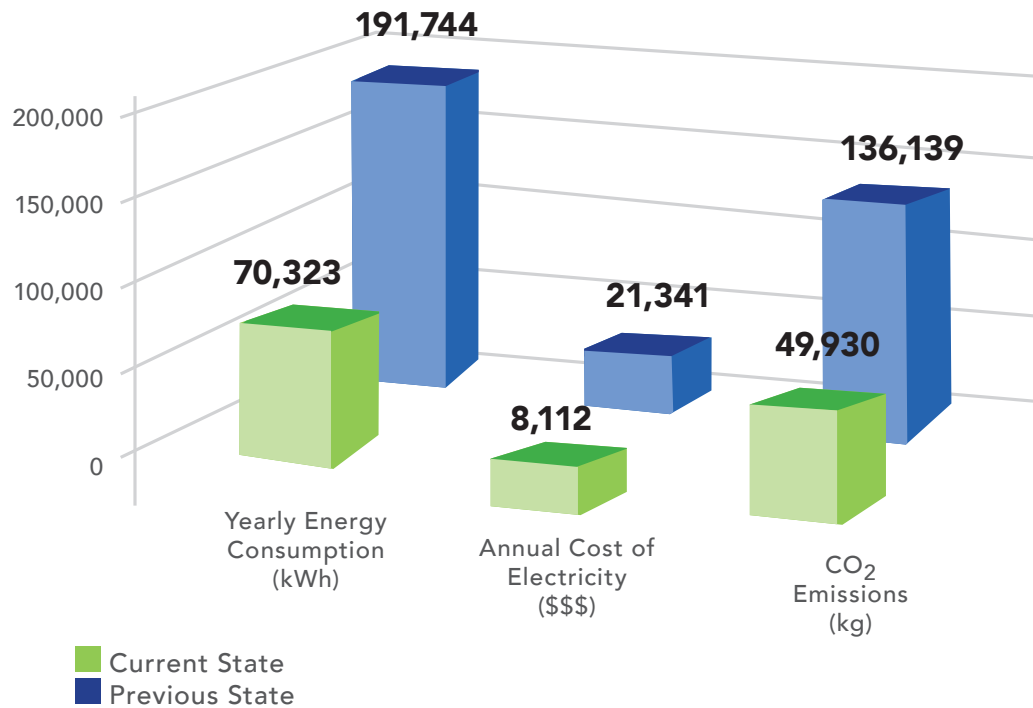
Over 50% Device Reduction

UNMANAGED PRINT ENVIRONMENT		
DESCRIPTION	PRINT DEVICES	STATUS
Photocopiers / MFD	132	Multi-Brand / Multiple Models
- User Interface		Multiple User Interfaces
- Features		Limited Feature-Set
- Drivers		Multiple Drivers
Printers*	379	Multiple Models
Make		Five Brands
Supplies		> 75 SKU's
Print Management Software		None
Contracts & Vendors		Multiple
TOTAL DEVICES	511	

MANAGED PRINT ENVIRONMENT		
DESCRIPTION	PRINT DEVICES	STATUS
Multi-Functional Devices (MFDs)	210	Seven Lexmark Models
- User Interface		Common User Interface
- Features		Full Solution Feature-Set
- Drivers		Universal Driver
Printers*	11	Two Lexmark Models
Make		Lexmark
Supplies		16 SKU's
Print Management Software		PaperCut MF
Contracts & Vendors		4 Office Automation Ltd.
TOTAL DEVICES	221	

* Lab and specialty printers were out of scope for this project.

Over 50% Environmental Footprint Reduction



Over 9.5 Million Impressions Reduction in Annual Print/Copy Volume

CAMPUS LOCATIONS	ACADEMIC YEAR 2013/2014			ACADEMIC YEAR 2014/2015		
	CURRENT PRINTS/ COPIES	DUPLEX %	SHEETS OF PAPER	CURRENT PRINTS/ COPIES	DUPLEX %	SHEETS OF PAPER
DAV - Brampton	13,677,217	30%	11,625,635	7,402,404	95%	3,886,262
HMC - Mississauga	2,603,307	30%	2,212,811	1,738,752	95%	912,845
STC / TRA - Oakville	9,746,506	30%	8,284,530	7,342,764	95%	3,854,951
GRAND TOTAL	26,027,030		22,122,976	16,483,920		8,654,058

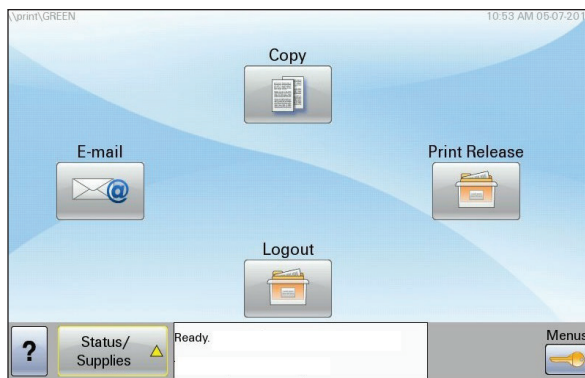
With the default output set to "duplex" yielding a 95% duplex rate compared to the previous rate of 30%,

the College's annual paper consumption has been reduced by over 13 million sheets of paper.

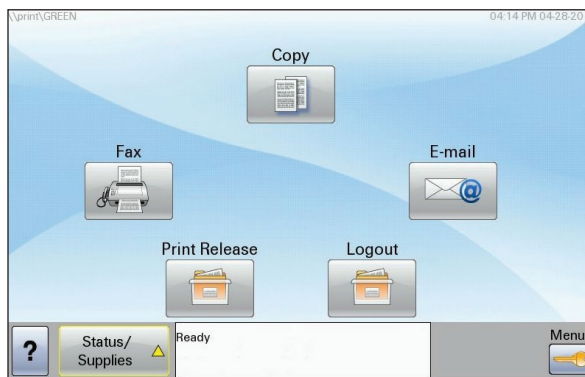
Key MPS Solution Benefits

1. Ease of Use

Once authenticated at the MFD using their OneCard, users are presented with similar customized home screens. The simple uncluttered layout of these screens features only essential options thereby ensuring that users do not require training to effectively use the Lexmark MFDs.



"Academic" Home Screen



"Administrative" Home Screen

2. Convenience/Productivity

Using OneCard provides users with easy access to MFDs on all campuses. Users simply wave their OneCard at the card reader and release their print jobs at their convenience. With MFDs strategically located, staff, faculty and students now have the choice of

selecting any unused MFD thereby avoiding extended wait times.

This College-wide Global Print Release system is supported by PaperCut which is configured to accept print jobs and hold them for up to four hours in a Global Print Queue until released. Users simply select the Global Print Queue and submit their job for printing. Jobs not released within the four-hour window are automatically deleted.

"Our change to using OneCard for printing/copying access represented a cultural shift in many ways," says Buffone. "We moved from offering free printing to our students to a paid program. Accordingly, we needed a system that was cost-effective for our students, but also fair and easily accessible. We offer photocopying, scanning, and printing services. OneCard enables us to offer a variety of options for our users to add money to their OneCards, including credit print vouchers, in-person Debit, and on-line web-based Debit cards all of which have been readily adopted."

3. Security/Confidentially

Since only users with a valid OneCard can access the Lexmark MFDs, usage is restricted to authorized users only. This mandatory authentication process guarantees the integrity of student pay-for-print charges and charge-back allocations to administrative staff.

The Global Print Release system only permits authenticated users to view and release their print jobs, safeguarding the confidentiality of the document, addressing security concerns and eliminating paper wasted on print jobs abandoned at the MFD.

4. Improved Customer Service and Operations

The more than 22,000 student, administrative, and faculty users at Sheridan College's campuses now have a straight forward, easy-to-use solution to fulfill printing and imaging needs. MFDs are wheel-chair user height and feature intuitive, tactile colour touch screens ensuring safe and easy printing/copying user access for everyone while conforming to the Accessibility for Ontarians with Disabilities Act (AODA) guidelines.

The automated proactive ordering of consumables using the low consumables alert feature of Markvision Enterprise ensures that imaging units and toner cartridges are always available to be installed in print devices when required.

5. Greater Visibility and Control

4 Office's duties include providing the College with monthly detailed reports on all facets of fleet charges. The College now has direct visibility of all related operational costs.

Device Control – Markvision Enterprise provides the College's IT Staff with the capability to centrally manage all print devices on the network through its intuitive web-based dashboard where devices are proactively tracked and monitored.

User/Usage Control – PaperCut's report generator produces a variety of summary and detailed usage reports. Managers/Administrators now have the pertinent usage data needed to formulate or amend print policies that control usage by effectively influencing user habits.



PaperCut can be configured to include the College's print policies ensuring continuous control of print device usage.

The Final Word

Actively engaging users early in the planning process, coupled with precise project planning and training, enabled Sheridan College, 4 Office and Lexmark to successfully deploy a sustainable college-wide MPS solution that efficiently delivers printing and imaging services to the user community while reining in costs, improving user productivity and supporting Sheridan's "Mission Zero" sustainability goals.

In conclusion, Buffone stated *"Projects that Go Live with no drama on the implementation date are the types of projects that I enjoy. They are well planned and executed without disruption to the College's operations, but add much needed functionality, ease of use, convenience and enrich the overall user experience"*.

About Us

4 Office Automation Ltd., in business for over 35 years, is one of the industry's leading independent Print Solution Providers. Clients include Federal, Provincial, Municipal Governments, the Health and Education sectors as well as major Canadian commercial enterprises. As an independent supplier, we deliver tailored solutions to our clients from innovative manufacturers known for their leading edge technologies and responsible environmental practices.

We specialize in providing "all in" cost per impression plans and in-depth reporting which enables our customers to better manage their imaging assets and costs.

To contact us call **1-800-4OFFICE** or visit our website at **www.4office.com**.

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