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# XYZ Hospital Print Management Report of Findings

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## Summary

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The following assessment of your print environment was developed using data collected from remote monitoring software installed with help from your IT staff.

The assessment uncovered the following details about your current print environment.

- Hardware
  - The devices deployed are primarily HP devices and are moderately new. By keeping the devices to one or two vendors as is currently the case you increase vendor accountability and reduce administrative costs associated with managing your printer fleet.
  - An area that should be looked at on an ongoing basis is color printer usage. Currently there are 10 color devices deployed in your environment. Eight of these devices have a very high black print count. Users should be educated to limit black only prints going to these devices because of the high per page cost associated with these devices.
- Supplies
  - This is an area that significant savings can be obtained. Low volume cartridges are being purchased when high yield versions are available increasing toner and related costs.
  - Currently you are using OEM toner supplies. Switching to a compatible toner cartridge would save 20-30% in real dollars as well as reduce the impact on the environment.

Our recommendations also took into consideration the following industry statistics:

- Office printing is increasing 18% per year.
- Color printing which has an increased cost of 5x that of black prints is expected to increase from the current 10% volume to 30% in the next 3 years.

## Hardware

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Our assessment of your printing hardware revealed that your office contains the following:

- 159 printing devices
- 10 color printing devices
- 23 different models of printing devices

<b>Device Name</b>	<b>Device Count</b>	<b>Unique SKU's (Toner-maint kit-transfer belts-image kits)</b>
Dell Laser Printer 5310n	1	2
FS-3830N	4	2
FS-C5030N	1	2
HIS-Director	?	?
HP LaserJet 1200	12	2
hp LaserJet 1300	5	2
hp LaserJet 1320	10	2
HP LaserJet 2100	1	2
HP LaserJet 2200	18	2
hp LaserJet 2300	4	2
hp LaserJet 3380	2	2
HP LaserJet 4000	9	2
HP LaserJet 4050	14	2
HP LaserJet 4100	30	2
HP LaserJet 4100 MFP	1	2
hp LaserJet 4200	4	2
hp LaserJet 4250	2	2
hp LaserJet 4300	2	2
HP LaserJet 8150	1	2
Lexmark T640	1	2
Phaser 4500DT	20	2
Phaser 4510N	7	2
Phaser 8550DP	7	5
Phaser 8560	3	5

Total Unique Devices:	23
Total Unique SKU's (user replaceable parts):	52
Total Device Count:	159

## Hardware (continued)

- Considering that there are 159 networked print devices having only 23 that are unique is good. Going forward keeping the number of models down should be a continued effort to lower administrative costs and down time.
- There are 10 color print devices currently deployed in your print environment. Although it is unlikely to stop all black prints from being printed to these devices, effort should be made to educate the users and/ or provide monochrome print devices for them to print to. Currently your added costs for black prints that have been sent to these devices have totaled \$217.00. This is a small cost now but as color devices become more prevalent, that number will grow quickly causing budgets to be affected.
- One area that should be looked at is utilization of some of your smaller desktop devices. These devices are being used well over the expected outputs and will cause these devices to need more repairs and a shorter life cycle. A simple redeployment of devices between these devices and other underutilized devices that can better handle the volumes can solve this without the added cost of new equipment.

Device Name	Serial #	Life Count	Page Total	B&W Total	Color Total	Black Prints	Duty cycle	Utilization	IP Address
hp LaserJet 1320	CNRC6900XC	84429	5617	5617			10000	56.17%	130.1.240.180
hp LaserJet 1320	JPGD55W0DL	65017	4256	4256			10000	42.56%	130.1.243.80
hp LaserJet 3380	CNBM148912	95607	3706	3706			10000	37.06%	130.1.245.99
hp LaserJet 1320	JPGD55W0FD	57548	3476	3476			10000	34.76%	130.1.247.98
HP LaserJet 1200	CNDL068489	177191	2996	2996			10000	29.96%	130.1.244.64
HP LaserJet 4050	USQX066746	870505	18739	18739			65000	28.83%	130.1.243.68
HP LaserJet 1200	CNDL068496	99855	2853	2853			10000	28.53%	130.1.244.61
HP LaserJet 1200	CNDL090549	84571	2284	2284			10000	22.84%	130.1.241.66
hp LaserJet 4200	CNDX609246	1037908	33581	33581			150000	22.39%	130.1.241.46
hp LaserJet 4200	USBNL11715	1663487	29499	29499			150000	19.67%	130.1.243.199
Phaser 4510N	ART300376	594	216	216			150000	0.14%	130.1.245.234
Phaser 8560DN	FBT185257	677	393	112	281	28.50%	85000	0.13%	130.1.247.209
HP LaserJet 4100	USBDF02747	72374	157	157			150000	0.10%	130.1.243.69
FS-3830N	ABU5413640	22492	167	167			175000	0.10%	130.1.245.54
Phaser 4500N-1	PMT289537	3678	123	123			150000	0.08%	130.1.240.188
Phaser 4500N	PMT297822	30825	119	119			150000	0.08%	130.1.245.156
FS-3830N	ABU5413644	29853	136	136			175000	0.08%	130.1.243.209
HP LaserJet 4100 MFP	USLGY47905	5793	100	100			150000	0.07%	130.1.240.203
HP LaserJet 4000	USEK019450	40116	28	28			65000	0.04%	130.1.240.189
HP LaserJet 2200	CNGRG79884	75460	14	14			40000	0.03%	130.1.241.89
Phaser 8560DN	FBT185101	421	396	28	368	7.07%	85000	0.03%	130.1.240.221
HP LaserJet 8150	JPBLM64805	419182	17	17			150000	0.01%	130.1.244.74
FS-C5030N	APE5501874	45504	0	0	0		100000	0.00%	130.1.240.148

## Supplies

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Our assessment revealed the following about the state of your imaging device supplies inventory and supplies fulfillment processes:

- Your 10 color devices require 36 separate supply SKUs
- The remaining devices require an additional 14 supply SKUs
- At the time of our inventory count you had 61 toners in reserve for replacement. It was explained that this number was lower than is typical because of end of fiscal year budget constraints and is typically much higher. Although you need to store some toner for critical devices, this method of toner replenishment ties up considerable assets; both budget dollars and real estate.
- After analyzing the purchasing trends that were provided by XYZ Hospital it was discovered that a considerable amount of toner is being purchased as a low yield supply when a high yield option is available. A simple switch to purchasing the high yield supply consistently would have saved \$6000.00. To go beyond that obvious cost savings, other costs would have been reduced as well. The high capacity cartridges are able to print double the prints of low yield cartridges which would have reduced the number of toner purchased by 161 boxes. This reduces the purchasing and receiving department's time which has a true dollar value associated with it. Another area that savings could have been realized is the associated cost of replacing the extra 161 low yield toners. A conservative rate of \$25.00 an hour and approximately 1 hour per replacement would equate to \$4025.00 in salary and 106 hours of time freed up to allocate into other areas.
- During the analysis period we provided toner alerts that allowed for a more proactive supplies fulfillment eliminating end user productivity loss. Positive feedback was received by staff as to the usefulness in a proactive approach like this.

Actual Usage 8/1/07 to 7/31/2008

Part #	Description	UOM	QTY	Price	Extension	Cost/Page
XER113R00656	TONER,F/4500 (10K)	EA	89	\$ 156.63	\$ 13,940.07	0.015663
XER113R00657	TONER,F/4500 -18K	EA	3	\$ 258.16	\$ 774.48	0.014342222
HEWQ2612A	TONER,F/LJ1012/3030(2K)	EA	4	\$ 59.06	\$ 236.24	0.02953
HEWQ5942X	TONER F/LJ4250/4350 -20K	EA	4	\$ 190.66	\$ 762.64	0.009533
HEWQ5949A	TONER,F/LJ1160/LJ1320 BK-2.5K	EA	105	\$ 60.35	\$ 6,336.75	0.02414
HEWQ5949X	TONER,F/LJ1320 HY-6K	EA	10	\$ 110.41	\$ 1,104.10	0.018401667
HEWQ2613A	CART,F/LJ1300 (2.5)	EA	61	\$ 60.35	\$ 3,681.35	0.02414
HEWQ2613X	CART,F/LJ1300 HY (4K)	EA	75	\$ 75.43	\$ 5,657.25	0.0188575
HEWQ1338A	TONER,BLK F/4200 (12k)	EA	57	\$ 129.42	\$ 7,376.94	0.010785
HEWQ1339A	TONER,BLK F/4300 (18k)	EA	11	\$ 172.05	\$ 1,892.55	0.009558333
HEWC4096A	CART.LSR,FLJ2100/2200S(5K)	EA	44	\$ 84.74	\$ 3,728.56	0.016948
HEWC8061A	TONER,CART,F/4100(6K)	EA	20	\$ 84.11	\$ 1,682.20	0.014018333
HEWC8061D	TONER,2/PK, F/ LJ4100,BK	PK	2	\$ 194.13	\$ 388.26	0.0097065
HEWC8061X	TONER,CART,LJ4100/4150(10K)	EA	120	\$ 107.85	\$ 12,942.00	0.010785
HEWC7115A	TONER, F/1200/1220 (2.5)	EA	79	\$ 52.01	\$ 4,108.79	0.020804
HEWC7115X	TONER,F/1200/3300SER(3.5K)	EA	27	\$ 64.84	\$ 1,750.68	0.018525714
HEWC4127A	CARTRG,F/HP L.J.4000 (6K)	EA	25	\$ 84.03	\$ 2,100.75	0.014005
HEWC4127X	TONER,CART,MAX CAP,LJ4000,(10K)	EA	65	\$ 107.86	\$ 7,010.90	0.010786
			QTY	Amount		
Totals:			801	\$	75,474.51	

Usage if Managed Properly

Part #	Description	UOM	QTY	Price	Extension	Cost/Page
XER113R00657	TONER,F/4500 -18K	EA	53	\$ 258.16	\$ 13,682.48	0.014342222
HEWQ2612A	TONER,F/LJ1012/3030(2K)	EA	4	\$ 59.06	\$ 236.24	0.02953
HEWQ5942X	TONER F/LJ4250/4350 -20K	EA	4	\$ 190.66	\$ 762.64	0.009533
HEWQ5949X	TONER,F/LJ1320 HY-6K	EA	54	\$ 110.41	\$ 5,962.14	0.018401667
HEWQ2613X	CART,F/LJ1300 HY (4K)	EA	113	\$ 75.43	\$ 8,523.59	0.0188575
HEWQ1338A	TONER,BLK F/4200 (12k)	EA	57	\$ 129.42	\$ 7,376.94	0.010785
HEWQ1339A	TONER,BLK F/4300 (18k)	EA	11	\$ 172.05	\$ 1,892.55	0.009558333
HEWC4096A	CART.LSR,FLJ2100/2200S(5K)	EA	44	\$ 84.74	\$ 3,728.56	0.016948
HEWC8061D	TONER,2/PK, F/ LJ4100,BK	PK	68	\$ 194.13	\$ 13,200.84	0.0097065
HEWC7115X	TONER,F/1200/3300SER(3.5K)	EA	84	\$ 64.84	\$ 5,446.56	0.018525714
HEWC4127X	TONER,CART,MAX CAP,LJ4000,(10K)	EA	80	\$ 107.86	\$ 8,628.80	0.010786
			QTY	Amount		
Totals:			572	\$	69,441.34	
Savings:			229	\$	6,033.17	

- To further capture true savings the use of quality compatible cartridges would add an additional savings well beyond a minor adjustment in purchasing.

Usage if Using Reliable Managed Print Services

Part #	Description	UOM	QTY	Price	Extension	Cost/Page
XER113R00657	TONER,F/4500 -18K	EA	53	\$ 249.00	\$ 13,197.00	0.013833333
HEWQ2612A	TONER,F/LJ 1012/3030(2K)	EA	4	\$ 49.00	\$ 196.00	0.0245
HEWQ5942X	TONER F/LJ4250/ 4350 -20K	EA	4	\$ 139.00	\$ 556.00	0.00695
HEWQ5949X	TONER,F/LJ1320 HY-6K	EA	54	\$ 89.00	\$ 4,806.00	0.014833333
HEWQ2613X	CART,F/LJ1300 HY (4K)	EA	113	\$ 59.00	\$ 6,667.00	0.01475
HEWQ1338A	TONER,BLK F/4200 (12k)	EA	57	\$ 99.00	\$ 5,643.00	0.00825
HEWQ1339A	TONER,BLK F/4300 (18k)	EA	11	\$ 109.00	\$ 1,199.00	0.006055556
HEWC4096A	CART.LSR,FLJ2100/2200S(5K)	EA	44	\$ 69.00	\$ 3,036.00	0.0138
HEWC8061D	TONER,2/PK, F/ LJ4100,BK	EA	136	\$ 79.00	\$ 10,744.00	0.00395
HEWC7115X	TONER,F/1200/3300SER(3.5K)	EA	84	\$ 49.00	\$ 4,116.00	0.014
HEWC4127X	TONER,CART,MAX CAP,LJ4000,(10K)	EA	80	\$ 69.00	\$ 5,520.00	0.0069
			QTY	Amount		
			Totals:	640	\$ 55,680.00	
			Savings:	161	\$ 19,794.51	

## Service

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Service is provided primarily in house by the IT staff. Problems that cannot be resolved are outsourced to an outside vendor.

- From a strategic position outsourcing printer repair removes a burden from the IT staff so they can better focus on core business functions.
- End user productivity and satisfaction would increase if an outside printer repair company serviced the print fleet. A competent service company brings knowledge and resources of print devices that is not present within the IT staff.

Like the toner alerts, service alerts were also sent to XYZ staff to facilitate a proactive approach to maintenance and break/fix issues before end users experienced down time and loss of productivity.