

**Digital Printing and Imaging
Multi-Function Printer
Total Cost of Ownership
DPI-12A**

Dated: August 27, 2012

Release Four

This document has been prepared by the AFPEO EIS/HIJB, Information Technology Commodity Council (ITCC).

Purpose: This document provides a summary of the Digital Printing and Imaging (DPI) total cost of ownership (TCO) results based on the DPI vendor product submissions for the Multi-function Printer (MFP) product categories under DPI-12A product selection cycle.

Total Cost of Ownership: Printing device selection should consider the total cost of ownership (TCO) instead of the initial purchase price since the largest lifecycle costs are consumables (toner and maintenance kits). Each MFP purchaser should complete a comprehensive TCO calculation to ensure an equivalent comparison is made between MFP products. TCO is comprised of the total purchase price, warranty or maintenance costs, shipping costs, and consumable costs.

TCO Calculation: In order to calculate the MFP TCO, the purchaser should sum the following:

- Device purchase price including all options/upgrades selected
- Shipping charges, if required
- Warranty or Maintenance charges covering the same period of time
- Consumables required over life of product

The TCO value is calculated using the same methodology for each product to ensure a fair and equitable comparison between products. For the DPI-10B cycle, the warranty and shipping costs are included in the purchase price. Therefore, the TCO is calculated by summing the purchase price with the consumable costs for four years to match the four-year warranty period. To ensure a consistent TCO calculation, a standard set of page output values by MFP product category is used (see table below). Toner utilization is based on a five percent (5%) coverage for a standard page. For monochrome printing the coverage is 5%. For color printing the coverage is 5% per color including black; thus the coverage rate is 20% overall. Since each printer includes an initial toner cartridge, the estimated page output value (or yield) of the included toner cartridge is subtracted from the total page count to determine the number of cartridges needed to support the remaining page count. The maintenance kit costs are calculated in a like manner.

| DEVICE CATEGORY | 4-YR TOTAL PAGE OUTPUT (BW) | 4-YR COLOR PAGE OUTPUT |
|-----------------------------------|-----------------------------|------------------------|
| MFP B&W Small | 180,000 | 0 |
| MFP B&W Large | 420,000 | 0 |
| MFP Color Small (including 11x17) | 120,000 | 72,000 |
| MFP Color Large (including 11x17) | 240,000 | 144,000 |

The specific TCO equation is as follows:

$$\text{TCO} = \text{Purchase Price} + \text{Toner TCO}_n + \text{Maintenance TCO}_n$$

where n = the number of items required and,

$$\text{Purchase Price} = \text{Device Cost} + \text{Warranty (3-year)} + \text{Shipping Charges}$$

$$\text{Toner TCO}_n = \text{Sum}(((3\text{-yr Page Output} - \text{Included Toner Yield})/\text{New Toner Yield}) * \text{New Toner Price})_n$$

$$\text{Maintenance TCO}_n = (((3\text{-yr Page Output} - \text{Included Maint. Yield})/\text{New Maint. Yield}) * \text{New Maint. Price})_n$$

Note: "Toner" includes Black, Cyan, Magenta, and Yellow toner cartridges as applicable to the product.

"Maintenance" includes maintenance kits, fusers, used toner bottles, etc.

TCO could include the costs associated with changing toner and maintenance items. The actual cost differences due to labor costs associated with ordering and changing toner/maintenance items between products are minimal and therefore not considered in the DPI TCO calculation.

MFP TCO Tables: The MFP TCO tables are provided to support TCO analysis and purchasing decisions. The tables are separated by vendor. Purchasers should use these tables to understand the TCO differences between the products.

Using the TCO results tables is a simple four-step process.

1. Select the product category to evaluate based on mission needs.
2. Select the appropriate CONUS or OCONUS TCO calculated price for the devices to compare.
3. Analyze and compare the CONUS or OCONUS TCO calculated prices and technical requirements.
4. Select the best value product to meet mission needs.

Purchased MFPs

| Hewlett-Packard | | | | | | | | | | |
|--|-----------------|--------------|-------------|-------------|---------------|------------|-------------|------------|----------------------------|------------|
| Purchased Multifunction Printers | Product | | TCO | | Purchase Cost | | Toner Costs | | M/F & Other Consumables | |
| | Vendor | Model | CONUS | OCONUS | CONUS | OCONUS | CONUS | OCONUS | CONUS | OCONUS |
| Low-End BW | Hewlett Packard | HP M525f | \$3,286.41 | \$3,629.05 | \$2,321.81 | \$2,664.45 | \$964.60 | \$964.60 | \$0.00 | \$0.00 |
| High-End BW | Hewlett Packard | HP M4555fskm | \$5,875.59 | \$6,770.59 | \$3,277.01 | \$4,172.01 | \$2,371.51 | \$2,371.51 | \$227.07 | \$227.07 |
| Low-End Color | Hewlett Packard | HP M575f | \$6,050.08 | \$6,602.61 | \$2,855.00 | \$3,407.53 | \$3,185.98 | \$3,185.98 | \$9.10 | \$9.10 |
| High-End Color | Hewlett Packard | HP CM4540f | \$10,615.30 | \$11,560.30 | \$4,224.80 | \$5,169.80 | \$6,184.22 | \$6,184.22 | \$206.28 | \$206.28 |
| Low-End Color 11x17 | Hewlett Packard | HP CM6040f | \$10,325.90 | \$11,495.90 | \$8,482.82 | \$9,652.82 | \$1,202.08 | \$1,202.08 | \$641.00 | \$641.00 |
| High-End Color 11x17 | Hewlett Packard | HP CM6040f | \$13,458.83 | \$14,628.83 | \$8,482.82 | \$9,652.82 | \$2,869.61 | \$2,869.61 | \$2,106.40 | \$2,106.40 |

* Note: The HP CM6040F is the same device for the Low-End and High-End 11x17 MFP. The TCO difference is due to the estimated page count difference for the two MFP categories.

| Lexmark | | | | | | | | | | |
|----------------------|---------|----------|-------------|-------------|---------------|------------|-------------|------------|----------------------------|----------|
| Purchased | Product | | TCO | | Purchase Cost | | Toner Costs | | M/F & Other Consumables | |
| | Vendor | Model | CONUS | OCONUS | CONUS | OCONUS | CONUS | OCONUS | CONUS | OCONUS |
| Low-End BW | Lexmark | X466dte | \$4,303.35 | \$4,303.35 | \$2,218.25 | \$2,218.25 | \$1,982.00 | \$1,982.00 | \$103.10 | \$103.10 |
| High-End BW | Lexmark | X658dtfe | \$6,328.62 | \$6,328.62 | \$3,971.00 | \$3,971.00 | \$2,357.62 | \$2,357.62 | \$0.00 | \$0.00 |
| Low-End Color | Lexmark | X738dte | \$6,013.74 | \$6,013.74 | \$2,994.00 | \$2,994.00 | \$2,995.50 | \$2,995.50 | \$24.24 | \$24.24 |
| High-End Color | Lexmark | X792dte | \$9,579.81 | \$9,579.81 | \$3,990.00 | \$3,990.00 | \$5,536.65 | \$5,536.65 | \$53.16 | \$53.16 |
| Low-End Color 11x17 | Lexmark | X925dte | \$8,769.15 | \$8,769.15 | \$3,869.00 | \$3,869.00 | \$4,858.18 | \$4,858.18 | \$41.97 | \$41.97 |
| High-End Color 11x17 | Lexmark | X952dte | \$14,029.88 | \$14,029.88 | \$9,500.00 | \$9,500.00 | \$4,529.88 | \$4,529.88 | \$0.00 | \$0.00 |

| TIG | | | | | | | | | | |
|------------------------|------------------------------|----------------|------------|-------------|---------------|------------|-------------|-------------|-------------------------|----------|
| Purchased | Product | | TCO | | Purchase Cost | | Toner Costs | | M/F & Other Consumables | |
| Multifunction Printers | Vendor | Model | CONUS | OCONUS | CONUS | OCONUS | CONUS | OCONUS | CONUS | OCONUS |
| Low-End BW | Technology Integration Group | SCX-5835FN/XAR | \$3,717.41 | \$5,603.75 | \$1,215.83 | \$2,542.17 | \$2,403.98 | \$2,931.98 | \$97.60 | \$129.60 |
| High-End BW | Technology Integration Group | SCX-6555N | \$3,708.56 | \$5,456.12 | \$2,589.28 | \$3,993.64 | \$946.26 | \$1,262.26 | \$381.62 | \$456.02 |
| Low-End Color | Technology Integration Group | CLX-6250FX-TAA | \$9,941.58 | \$12,730.89 | \$1,239.87 | \$2,490.89 | \$8,650.11 | \$10,170.11 | \$51.60 | \$69.89 |
| High-End Color | Technology Integration Group | CLX-8540ND | \$7,760.32 | \$10,542.40 | \$3,723.61 | \$5,713.69 | \$3,560.71 | \$4,296.71 | \$476.00 | \$532.00 |
| Low-End Color 11x17 | Technology Integration Group | CLX-9250ND | \$5,898.25 | \$10,091.14 | \$4,847.09 | \$8,735.98 | \$1,051.16 | \$1,355.16 | \$0.00 | \$0.00 |
| High-End Color 11x17 | Technology Integration Group | CLX-9350ND | \$8,267.69 | \$12,844.57 | \$5,888.76 | \$9,777.64 | \$2,378.93 | \$3,066.93 | \$0.00 | \$0.00 |

| XEROX | | | | | | | | | | |
|------------------------|-------------------|---------------------|-------------|-------------|---------------|-------------|-------------|--------|-------------------------|--------|
| Purchased | Product | | TCO | | Purchase Cost | | Toner Costs | | M/F & Other Consumables | |
| Multifunction Printers | Vendor | Model | CONUS | OCONUS | CONUS | OCONUS | CONUS | OCONUS | CONUS | OCONUS |
| Low-End BW | Xerox Corporation | WorkCentre 5335PG | \$5,887.00 | \$7,287.00 | \$5,887.00 | \$7,287.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| High-End BW | Xerox Corporation | WorkCentre 5755APTG | \$9,348.00 | \$10,848.00 | \$9,348.00 | \$10,848.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Low-End Color | Xerox Corporation | WorkCentre 7535PG | \$10,184.00 | \$11,784.00 | \$10,184.00 | \$11,784.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| High-End Color | Xerox Corporation | WorkCentre 7545PG | \$13,015.00 | \$14,615.00 | \$13,015.00 | \$14,615.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Low-End Color 11x17 | Xerox Corporation | WorkCentre 7535 | \$10,184.00 | \$11,784.00 | \$10,184.00 | \$11,784.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| High-End Color 11x17 | Xerox Corporation | WorkCentre 7545 | \$13,015.00 | \$14,615.00 | \$13,015.00 | \$14,615.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |