You WILL cut network traffic.

You WILL save dollars & man-hours.

Information provided by

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Critical Information for

M.I.S. / I.T. Managers

and

C.F.O. / Purchasing Managers

Impact of High Volume On Overall Costs and Network Traffic when using an HP Color LaserJet 4500/4550 on Local Area Networks

Comparing an HP 4500 to Minolta's DiALTA CF2001 with Fiery X3e

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HP 4500	Minolta CF2001
133 MHz Processor	**366 MHz Processor**
Processing speed directly affects first-copy print speed, depending upon the type of documents being printed (i.e. general office applications vs. color photography). What's more, when the ratio of originals to total number of prints is high, processing speed can significantly impact network traffic. For example, if an average job is 100 prints, a volume of 100,000 will require 1000 jobs. Typically a project will see 6 or more proof prints before getting final copy approval. Thus, 6,000 proofs plus 1,000 first pages of the production run will be printed at the first-page speed (36 seconds for an HP 4500—1.4 pages-per-minute—compared to less than 15 seconds for the CF 2001—and no "first page" print at all following the final proof since the job has already been ripped). Those 7,000 prints on the HP 4500 add up to 84.5 hours while the operator is waiting to see see his proof or first print—and everyone else on the network is waiting in line to use the printer.	SAVE 84.5 Man-hours per year
JetDirect 600N "Thin" Server	**Fiery X3e True Print Server**
HP's card is "thin" not only in its limited functionality, but also in its physical capability. 2 Mb of Flash Memory simply cannot off-load network traffic when compared to the Fiery's 128 Mb of RAM and 4.6 Gb hard disk. Performance improvements on all but the most powerful networks should be very noticeable. Assuming just 10% of those jobs exceed the existent memory capacity of the HP 4500, 100 jobs of 100 pages (10,000 prints) will be processed from the file server. That is nearly 42 hours during which network traffic (bandwidth) is limited—and hence affected, for EVERYONE using the network, not just those going to the HP 4500. If that translates into just 10% in real-time functionality for everyone, at least 4.2 hours would be lost.	SAVE 4.2 Man-hours per year
32 Mb RAM	**128 Mb (Fiery) + 256 Mb (CF 2001)**
HP's own tests expect that general office applications (which are not normally RAM-memory intensive) will experience slight processing speed gains with added RAM. More importantly, potential memory errors are ***virtually eliminated*** with an increase to just 48 Mb of RAM, and each of these errors will routinely result in a crash, followed by document adjustments and then a full reprint—i.e. **MAN-HOURS**. Color presentations can be printed an average of 40% faster with just 64 Mb of RAM (56% faster with 96 Mb). 7,000 @ 90% color @ 2 min. each @ 60% faster = 126 hours!	SAVE 126 Man-hours per year
No Hard Disk Option	**Standard 4.6 Gb**
When repeat jobs are common, the capacity to store pre-ripped jobs for instant reprinting is a huge advantage. HP 4500 with JetDirect simply has no storage resource. It handles large jobs by "farming" out the print server function to the network's file server. Minolta includes 256 Mb RAM on the printer plus 128 Mb RAM and a 4.6 Gb drive on the server. Consider the impact with a company's on-going catalog. Rather than printing a minimum color quantity (perhaps 2,000 or more), full color catalogs can be printed in-house and as needed—even a few at a time—with ZERO network strain—in seconds! ... since the whole job sits on the hard disk already ripped, waiting to be resent. This might mean hundreds of hours saved!	SAVE 100+ Man-hours per year
PostScript Level 2 Emulation	**Optimized PostScript 3**
PostScript Level 3 boosts performance while enhancing image quality. And ours is **TRUE** Adobe® PostScript, not a "reasonable facsimile." That should add up to a least a couple of hours per year.	SAVE 2 Man-hours per year
4 Pages per Minute	**20 Pages per Minute**
Although each of the factors above will negatively impact network traffic to varying degrees, the simple comparison of engine speeds is most dramatic. At 4 ppm our 100,000 copies above require 472 hours. Our 20 ppm machine will require about 103 hours. Imagine the same job requiring 12 weeks of work rather than two and a half! And, the smaller the average size of each job, the larger the benefit for the faster processor. Additionally, on every two-sided job 4 ppm becomes 2 ppm (or **less** when a refeed of paper is required to accomplish duplexing). The CF2001 uses tandem print processing to operate at **full rated speed** even while duplexing! Finally, there are many other points along the printing process which directly translate into increased man-hours with a slower machine: • Operators hanging around the printer waiting for their "final" proof print to spit out. • Toner can be replenish **while printing** with the CF2001. • Paper loading, retrieving and stacking in smaller "bites" so as to monitor the print job. • Minutes lost by each operator who is "in line" waiting while one urgent reprint is made. • Inevitable out-sourcing: At 4 ppm, most "rush" jobs must be sent out to a print shop—at significant expense—while costing additional man-hours in the print-purchasing function. Obviously, overall network traffic is heavily affected by the presence of a slower-processing printer. There may be too many variables to generate a specific number, but suffice to say that ALL network traffic is very definitely impacted. An under-powered printer depreciates network performance every single time one byte waits for another in the pipeline. Those "little" data collisions touch everyone on the network, costing constant milliseconds, which add up to very real minutes and very measurable—and expensive!—man-hours.	SAVE 369 or more Man-hours per year

Ask yourself these five simple questions:

1. How much out-sourcing of color work do you do?

   _____

   _____

2. How many out-dated pieces do you eventually ***throw away*** to get "good" pricing on out-sourced color?

   _____

   _____

3. How many man-hours are lost in pre-press/purchasing functions to out-source color work?

   _____

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4. How many color jobs do you do in house (or in black & white) because there's not enough lead-time to out-source? (How many *would* you do, if color was both affordable and fast?)

   _____

   _____

5. How many man-hours are wasted waiting for jobs to rip and print?

   _____

   _____

In High Volume Settings You Can Save THOUAND!

How Many Man-Hours & Real Dollars is Your "Less Expensive" Printer Costing YOU?