

White Paper

TONER AS A STAND-ALONE CATEGORY

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INTRODUCTION:

This White Paper documents the benefits of managing toner as a separate category. It shows three common business models used to buy toner supplies. We conducted carefully controlled experimentation at Countrywide Home Loans. Our research was based upon evaluating eight manufacturing facilities. We reviewed the test results of each manufacturer by Buyers Labs and Rochester Institute of Technology. Countrywide then performed its own internal testing. We proceeded to use the business model shown as C below, (management of toner as a separate category), for nine years. We have now validated this model with the purchase of over 500,000 toner cartridges. We have summarized our findings below.

The data shows the strengths and weaknesses of the following toner supply management strategies:

A. Toner bundled with Office Supplies.

B. Toner bundled by the printer manufacturer using a cost per copy model.

C. Management of toner as a separate category, unbundled, with toner/maintenance kits treated on a stand-alone basis.

Our research and extensive cost studies proved that the lowest total cost for printer cost management was achieved by unbundling the sourcing of printer hardware, maintenance, and toner/maintenance kit supplies. Here are the facts which led to this conclusion:

Vital Toner Management Factors:

1. Our Total Cost of Ownership studies at Countrywide showed that toner constituted approximately 66% of the total cost of printing. Printer hardware, maintenance, and other costs made up the other 34%.
2. Typical cost per page studies furnished by printer manufacturers are usually based on coverage figures with understated toner coverage, especially with increased printing of Internet pages and more graphics.
3. Printer supplies accounted for 30% or more of the total budget for expendable supplies used, which made it the largest single portion of this expense and an ideal target for cost reduction.
4. Printer-related calls account for as much as 75% of the total IT Help Desk calls.
5. Freight costs have become more significant. They should be included in the net delivered toner cost.
6. Prices should be based on no monthly, annual, or contract term minimum quantities to be ordered.
7. Contract terms should not contain any guarantees of exclusivity. The distributor and the manufacturers will continue to look after the customers best interests because they are certain that they deliver the best value.
8. Maximum savings occurs only if toner and maintenance kits are managed with more technical expertise and razor sharp focus than is devoted to a low unit price commodity like office supply items.
9. Unlike basic office supply products, toner is vitally important to the day to day operations of your company. Toner supplies are a complex technical component of the printer hardware, which requires sophisticated technical support and management process.

10. OEM Printer manufacturers make most of their profit from toner, not from hardware. Their business model and profitability is based on a constant introduction of new printer models as a defense to fend off alternative manufacturers.
11. Manufacturers introduce new printer models more frequently than any other office supply items. This forces the user to buy OEM cartridges for new models for up to 18 months until the remanufacturing sources develop a remanufactured cartridge.
 - a. OEM Manufacturers main defense involves scare tactics such as prohibiting the use of remanufactured cartridges "or it will void the warranty". **The Magnuson-Moss Warranty Act of 1975 states that "Warranties cannot be voided because of the use of after-market products"**.
 - b. Manufacturers price new model cartridges at higher price points, making long term budget projections difficult.
 - c. They also discourage customers from using lower cost remanufactured toner from quality sources by using unique electronic chips embedded in the cartridge itself.
12. Companies with inadequate controls frequently get locked in to a fixed toner price, which never goes down despite the fact that the manufacturers cost goes down with increased volumes and a long printer life cycle. If toner is included in a standard multi-year office supply contract or a Printer Manufacturer Cost per Copy agreement, it is not possible to take advantage of these toner price reductions.
13. Remanufactured toner cartridges as an option to OEM supplies represent a significant savings opportunity. This savings can only be maximized when the performance and reliability meet or exceed the OEM specifications.
 - a. Toner-centric distributors provide a complete resolution on any toner warranty issue on toner they sold. The end user does not have to deal with the remanufacturer.
 - b. This insures quick coverage of the repair or replacement of the printer in the rare event that a distributor-confirmed defective cartridge causes printer failure.
14. The price savings will significantly increase when there is a dedicated toner distributor managing the program. This dedicated resource insures maximum cost efficiency of toner, which represent the largest portion of the expendable supplies budget. Maximizing savings is achieved with technical support by the distributor, not the manufacturer. There are few distributors structured to perform all of these functions.
15. Prices for OEM toner are typically 66% higher than for remanufactured toner (i.e. the prices for remanufactured toner are about 40% lower than for equivalent OEM versions). Countrywide's current price difference is 41% lower than OEM prices on a weighted basis based on 2008 data.

Example: If a remanufactured cartridge sells for \$60, the OEM version is likely to sell for \$100. The \$40 difference is 66% of the \$60 cost of the remanufactured toner cartridge. Many companies pay this premium because remanufactured cartridge quality varies widely between remanufacturers. But there ARE reliable remanufacturing sources whose product quality rivals their corresponding OEM versions at a much lower cost. The challenge is to find a Best of Breed remanufacturer who produces the quality product required. The final challenge is to find a distributor to provide all of the services covered in this White Paper which are not furnished by the OEM or the remanufactured toner source.

Our conclusions are:

1. All of these vital factors enable multimillion dollar savings for treating printer supplies as its own stand-alone category managed by a toner-centric distributor. Conventional supply sources do not have the expertise, resources or the motivation to provide these services. Purchasing and IT departments have the motivation, but not the manpower or the expertise. The solution lies in

separating printer supplies which include toner and maintenance kits from standard distribution models.

Conclusions (continued)

2. Maximum savings occurred when the Purchasing and the IT departments enter into a contract for support from a new breed of printer supply management companies that are the Best of Breed technical distributor. They provide supplies from the Best in Breed remanufacturers.
3. Our success relied on the good business practice of requiring multiple manufacturing sources in order to assure availability, price and quality control. After trying many business models, it became obvious that the critical member of this team is the printer supplies distributor, who must help manage the category with the best interests of the customer in mind. We made sure our distributor had the required technical skills to help qualify multiple toner remanufacturers with overview and appropriate participation by Countrywide's Procurement, Contracts, and IT Departments.
4. Our research and experimentation pointed directly to the need for printer supplies sourcing to be tightly controlled. It was clear in our studies the average department end user did not have the expertise nor were they expected to know all these nuances needed to control printer supply expenses. We concluded there MUST be a standardization system from a printer supply specialist, backed by a simple, easy to understand ordering process to help users support our cost savings initiatives.
5. Toner costs are extremely high unit cost item compared with office supplies, so carrying excess inventory in desks and cabinets is very expensive. This was avoided by fast order response times and by very detailed usage analysis by the technical distributor to detect erratic or excessive ordering.
6. As sophisticated buyers we knew that monthly quality reporting was essential. Managing this unique multi-million dollar category required a supplier capable of providing very detailed monthly reports, which included information and trends on the following:
 - A. Service Level Agreements graphs
 - i. Cartridge quality
 - ii. Toner Help Desk calls broken down by model and machine type
 - iii. Invoice quality
 - iv. Timely delivery
 - v. Toner spend per Full Time Employee (FTE)
 - B. Volume indicators
 - i. OEM and compatible sales and usage
 - C. Customer quality indicators
 - i. New printer models anticipated (so the remanufacturer can begin developing the appropriate processes)
 - ii. Volume forecasts (so the distributor can adjust inventory levels)
 - iii. These reports should all be furnished by the Technical distributor.
7. After implementation and fine tuning of this sophisticated management process for printer supplies, we had an internal structure and discipline in place to add the following cost reduction programs:
 - A. **PRINT MANAGEMENT SOFTWARE.** Use a team approach to implementing/using Print Management Software to further reduce the cost of printing. Benefits will include a 30% reduction in calls to the customers Help Desk, elimination of random replacement of expensive printer maintenance kits, and an assurance that the repair technician has the right parts on the first visit to perform a quick repair. These all result in an increase in printer uptime and user productivity, with a corresponding reduction in overhead costs. **Status: Partially Implemented**
 - B. **MAINTENANCE KITS.** Countrywide's Printer Maintenance Kits are provided by a 3rd party Service Provider under their contract for printer service. The Service Provider was overusing

these kits as a blanket solution for printer problems within Countrywide. We were paying the Service Provider full list price for over 500 kits per month. Since this all happened as part of a service call, those kit purchases never went through the Procurement Dept. as a purchase.

The Technical Distributor initiated a project to reduce Countrywide's costs knowing that he might not benefit from it directly, but did it based on doing the right thing for Countrywide. **The value of this customer-centric mindset is priceless.** These kits should be acquired from the Technical Distributor if practical, who has access to reports from the Print Management Software noted in 13a above. This helps insure that a minor problem is not "solved" by prematurely installing the entire maintenance kit.

Printer users should review the process of sourcing, ordering and installing printer maintenance kits. These represent another major cost reduction area since they are costly, frequently purchased at list price, and the ordering process is not controlled by any management oversight. Maintenance kits are frequently ordered by whoever is maintaining the printers and the cost and timing are largely uncontrolled at large users. Invoices get approved routinely, one at a time.

STATUS: Implemented. We reduced maintenance kit installations by over 400 kits per month and reduced the purchase price about \$125 per kit through renegotiation with the 3rd party. This led to a Countrywide savings of over \$2,500,000. If this practice had gone unchecked over the next 9 years, it would have cost Countrywide an estimated \$22,500,000.

- C. **RECERTIFIED PRINTERS.** Achieve major savings by using recertified printers to achieve a 40% reduction from list price on hardware purchase costs and a major cost savings by enabling the use of proven remanufactured cartridges on these reman printers to prolong the useful life cycle of a printer model which has gone out of production. This major cost reduction opportunity is a result of asking the right questions when a model goes End of Life at the manufacturer. How much will the new model actually reduce the cost of printing? How will that impact the average cost of toner per employee? These broad cost measurements can create a standard process to get around the manufacturer's arbitrary, self-serving decision to discontinue a successful printer model, which mainly benefits the manufacturer by helping them collect more for the new OEM toner. Countrywide's combined total annual savings on hardware and toner is estimated at \$1,700,000. **STATUS: Future project.**

Results

1. Good News! Countrywide Home Loans has perfected this process through a partnership with a printer supply management company. We have benefited from a multimillion dollar cost savings as a result of our nine year investment evaluating the best solutions for maximizing savings and efficiencies of our printer supply program. **After reviewing 189,000 cartridges (the top 10 toner SKU's) purchased between 2005 and 2008, savings of OEM list vs. reman cartridges equals \$28,982,716. The difference between CVOS OEM vs. CVOS reman prices equals \$20,396,776.** Current prices for remanufactured toner are 41% lower than OEM prices and the price difference between OEM and reman is growing every year.
2. This excludes the savings on low volume toner cartridges, print management software, maintenance kits, Help Desk call volume reduction, and other projects. The savings for these projects are in the multimillion dollar range. In spite of the 50%+ decline in buying power of the dollar since 1997, Countrywide's average toner cost has already been reduced dramatically.
3. Figure 1 shows toner cost trends for an HP 4250 printer. OEM cartridge costs continued to increase, while Countrywide's remanufactured toner cost decreased annually. This created a price gap which got bigger every year. This is representative of savings achieved for all toner used by Countrywide.

HP 4250 Toner Increasing Price Gap

YEAR	Toner Cartridge Price Difference OEM vs. Reman	OEM Premium (% higher than Reman cost)	Discount from OEM
2005	\$48.75	32%	24%
2006	\$56.97	39%	28%
2007	\$62.70	45%	31%
2008	\$88.33	66%	40%

Figure 1

PROS & CONS of EACH BUSINESS MODEL

A. Toner bundled with Office Supplies:

Pros: One office supply contract, consolidated billing and one contact point.

Cons: A premium cost for perceived convenience, very limited customer service, no on-site support expertise and an increased work load and cost for the companies IT Help Desk. Although most office supply distributors sell remanufactured toner, the user pays a high hidden premium because they lack expertise required for managing a highly technical product. Office Supply distributors think of toner as just another line item, like pens, pencils, and paper clips. Technical issues are referred to the manufacturer with no problem resolution, immediate technical support, or customized detailed management reports.

B. Toner bundled with a printer manufacturer package deal:

Pros: A single easy to budget cost for each printer.

Cons: Very high cost, no supplier incentive to initiate any cost reduction ideas, **no competition or comparative data.** Actual toner costs are hidden within bundled pricing. No provisions to reduce the cost at the manufacturer level to incorporate the natural cost reduction opportunities which occur as each toner cartridge increases in volume and matures through its life cycle.

C. Toner unbundled, with printer supplies treated as a stand-alone category.

Pros: Lowest total cost by selecting Best of Breed sources and executing a separate contract for printers, toner, and printer maintenance. Extensive research and cost studies were done by Countrywide's Procurement and Contracts Departments into all three of these business models to determine the best strategy. This unbundled business model produced a multi-million dollar cost reduction opportunity to Countrywide. It should be noted that there never was any risk of serious shortages at Countrywide, since backup toner is maintained for Countrywide at the manufacturer. It could have been drop shipped to the user on 24 hour notice, which was never needed.

The unbundled system was chosen based on selecting and managing the Best of Breed source in each category for printer hardware, maintenance, toner remanufacturing, and toner distribution. The success of this model is based upon a rigorous and careful nine-year study and development of a Printer Supply Management program for Countrywide that evolved to include all of the elements discussed in this paper.

The Printer Supply Program management was provided by the specialized toner distributor, whose entire business was built around the printer supplies category. It should be noted that once Countrywide switched 100% of its toner distribution to that distributor, their superior customer service, custom catalogs, and programs relieved the Buyers from a myriad of phone calls, and improved their productivity at least 50%. The distributor's Technical Staff provided hands on training for both Countrywide's internal IT department and their outside printer maintenance company. This team approach led directly to faster problem identification and resolution and a large reduction in toner/printer related Help Desk calls.

Cons: None, provided that the customer develops appropriate contracts and selects the Best-of-Breed Distributor who provides the training, coordination, and technical support to meet all of the vital customers needs as noted above.

SUMMARY

Our experience proved that the lowest total cost for printer cost management was achieved by unbundling the sourcing of printer hardware, maintenance, and toner/maintenance kit supplies. Since the best results are obtained when the various sources work closely together, the selection of the Technical Distributor and the remanufacturer(s) are key decisions in reaching the lowest total cost goal. Estimated savings are shown below:

1. TONER SAVINGS ACHIEVED: Total purchases over the last 9 years were over 500,000 cartridges. After reviewing 189,000 cartridges (the top 10 toner SKU's) purchased between 2005 and 2008, savings of OEM list vs. reman cartridges equals \$28,982,716. The difference between CVOS OEM vs. CVOS reman prices equals \$20,396,776.

2. FUTURE TONER SAVINGS: Countrywide will enjoy further toner savings over the next 9 years due to the guaranteed annual price reduction built into the latest Amendment to the Countrywide contract with the Technical Distributor.

3. LOW VOLUME TONER SAVINGS (low usage SKU's which the Office Supply sources do not stock). Additional savings would be based on 20% of the total volume.

4. EARLIER REMAN IMPLEMENTATION: When Countrywide was still splitting the business 50/50, the Technical Distributor led an initiative to get remanufactured toner cartridges qualified and stocked by the Office Supply Company. Their persistence in facilitating this conversion led to another Countrywide savings of hundreds of thousands of dollars. This also helped us decide that they were better qualified to provide 100% of our toner, which they've done now for several years.

5. MAINTENANCE KIT SAVINGS: If the Technical Distributor hadn't intervened, and the previous practices had gone unchecked over the next 9 years, it would have cost Countrywide an estimated \$22,500,000 as shown in section 7B of the Conclusions section above.

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See Exhibit A for notes about the authors.

David Galen

David Galen

ABOUT THE AUTHORS

Subject	Experience
Remanufactured Toner Process	Dave introduced the remanufactured toner process to Countrywide, and managed the testing verification. He also introduced all of the major sources used to implement the unbundling strategy.
Stand Alone Category Concept	David Galen and Marv Ward were responsible for introducing the concept of toner as a stand alone category to Countrywide, and negotiated and implemented the multi-year contracts. This enabled the unbundled sourcing system to become the company standard for toner management. Dave and Marv led the oversight, negotiation, and implementation team which also included key players from Contracts, Procurement, and IT.
Dave at Countrywide	Dave served as Countrywide's VP of Strategic Sourcing and Manager of Print Production, where he initiated many paradigm shifts and multimillion dollar cost reduction projects in a wide variety of goods and services.
Marv at Countrywide	Marv served as Countrywide's Contracts Manager, where he was repeatedly recognized for negotiations and projects which saved Countrywide over \$150 million. Many of these savings projects were achieved jointly with Dave and Marv working together as a team. Toner and Maintenance Kits were one of the largest ongoing projects.
Certifications	Marv is a Certified Purchasing Manager (Institute of Supply Management, formerly National Association of Purchasing Management). He is also a Certified Production and Inventory Control Manager (American Production and Inventory Control Society).
Experience	Both Dave and Marv have held buying and management positions for many different Fortune 500 companies over their careers including Quaker Oats, Hyatt Corp, RCA, Rocketdyne/North American, Northrop, Eaton Corp., Lockheed, and Countrywide.
Awards	Marv was awarded top recognition by NASA as a part of their Manned Space Flight Awareness Program. He toured Cape Kennedy, the Vertical Assembly Building, Mission Control Center, and witnessed a launch in recognition of his cost reduction efforts at Rocketdyne.
Experience	<p>Marv was the Director of Corporate Purchasing at Storage Technology Corp, a Fortune 500 manufacturer of computer peripherals, and taught Purchasing and Contracts for the University of Colorado and Salt Lake Community College for 17 years. He taught over 40 seminars including the Chester Karrass workshop "How to Fight a Price Increase".</p> <p>Marv served as President of the Denver chapter of the National Association of Purchasing Management (NAPM, now the Institute of Supply Management) and received numerous industry and association awards for his cost reduction and vendor management efforts and his major contribution to Purchasing Professional Development.</p>
Dave's Current Position	Dave is President of Creative One Marketing and Business Solutions in Moorpark, CA, bringing innovative cost management solutions to their clients.
Marv's Current Position	Marv is President of MWF Enterprises, LLC in Simi Valley, CA., educating clients to apply new technology tools to improve processes and achieve major savings.