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# Wal-Mart keeps the change

**Suppliers pay for new technology, but Bentonville really benefits.**

Imagine strolling into Wal-Mart to buy the new DVD of *The Matrix*. As you take it off the shelf, a radio signal alerts an employee to restock, telling him where in the backroom to find *The Matrix* and giving a warning ping if he mistakenly slides it onto the *Legally Blonde* shelf. Meanwhile, forget going through the checkout line: An electronic reader scans the items in your cart and automatically charges your debit card.

Sound far-fetched? The future is closer than you think. Wal-Mart, the company that almost singlehandedly made the bar code ubiquitous by demanding 20 years ago that suppliers use it, is promoting a new tracking and identification system. Called radio frequency identification (RFID), the geeky-sounding technology—already used by Exxon Mobil Speedpass and E-ZPass—will revolutionize both the way stores sell and the way consumers buy.

On Nov. 4, Wal-Mart's top 100 suppliers are convening near Bentonville, Ark., for what amounts to a United Nations of retail. Everyone from Procter & Gamble, which sells 17% of its goods to Wal-Mart, to Unilever, which sells 6%, will attend the two-day meeting. They'll discuss plans for attaching RFID tags by January 2005 to every box and pallet shipped to Wal-Mart (smaller suppliers have until 2006). Wal-Mart CIO Linda Dillman is expected to explain what needs to be tagged (high-volume products may be targeted first), where it will be rolled out (chances are it will happen by region), and how RFID will tie into existing delivery systems. Flout Wal-Mart's orders, and "you potentially get thrown off the shelf of the largest retailer in the world," says Banc of America household-products analyst William Steele.

Dozens of RFID component manufacturers—from tiny startups to tech titans like IBM, Intel, Microsoft, and Philips

Semiconductor—will also be at the Bentonville meeting, vying for a piece of the action.

Because of cost and privacy concerns, Wal-Mart plans to start using RFID just in its backrooms and distribution centers, not on individual products or at checkout. But wider use of the technology is inevitable. The Defense Department already uses it internally to track some 400,000 items—from air-cargo containers to Hummers—and last month the DoD issued a Wal-Mart-like edict to suppliers to be RFID-ready by 2005. Metro, Germany's leading retailer, opened an RFID-rich Future Store in April.

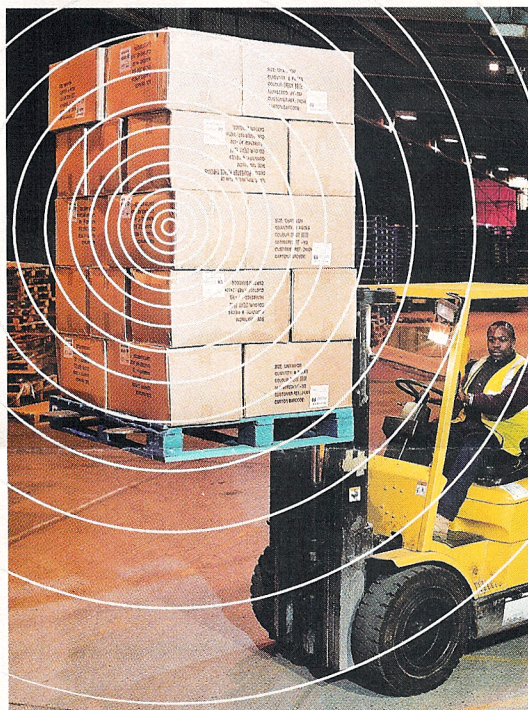
Retail analysts at Sanford C. Bernstein estimate that Wal-

Mart could save \$8.35 billion annually by using RFID—mostly in labor costs from not having to manually scan the bar codes of incoming goods. While other analysts believe the \$8 billion figure is optimistic, there's no doubt RFID can help solve retail's two biggest problems: out-of-stock items and shrinkage—products lost to theft or supply-chain snafus. Theft costs Wal-Mart alone an estimated \$2 billion a year; a legitimate business of that size would rank No. 694 on the FORTUNE 1,000.

Though few suppliers will say so publicly, many are less than thrilled with the RFID mandate—they see costs, not benefits. Only about two dozen companies have conducted meaningful pilots, and most analysts say RFID is still too expensive and full of bugs for widespread use. AMR Research estimates that a typical consumer-products company will spend \$13 million to \$23 million just to meet Wal-Mart's

2005 demands. True, Larry Kellam, director of supply-network innovation at P&G, notes that reducing out-of-stock products by 10% to 20% could boost its annual sales by anywhere from \$400 million to \$1.2 billion. But benefits of that magnitude will come when companies start analyzing their data to reduce inventories and respond better to fluctuations in consumer demand.

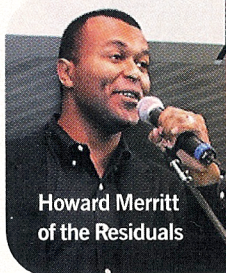
For now, it seems, RFID is just the latest cost of living in a Wal-Mart world. — Matthew Boyle



Heavy lifting: RFID will cost suppliers millions.

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NEAL HAMILTON



Howard Merritt  
of the Residuals

## bandcamp

It's the school of rock for grownups! At FORTUNE's battle of the corporate bands held Oct. 18 at the Rock and Roll Hall of Fame in Cleveland, bands from Oklahoma to Minnesota to California showed their metal, er, mettle. Consultants, software geeks, and health-care execs, plus folks from the likes of Autodesk and American Express, battled for the top spot. The winner? The Residuals, a band of R&B bankers from Fleet Capital Leasing out of Providence. Congratulations, guys! Lease on! — Andy Serwer