

## Recycling technology and emerging economies: Making a difference



Whatever happened to that 8088-based computer that used to sit on your desk, and the 256-color monitor that went with it? Or the 1200-baud modem that somebody used to be so excited about?

Perhaps you remember how these things brought computing out of the ivory tower and into everyday life—and forever changed the way we all thought about business, communications and even the concept of community.

There are places in the world today where that revolution is just beginning. And by participating with IBM, you can help.

### Reuse and recycling

IBM Asset Recovery Solutions accepts used PCs and other technology for recycling and/or redeployment wherever there's a need, using the market as a guiding force. Offering economical alternatives for safe and responsible disposal of unwanted equipment for everyone from home-office businesses to worldwide organizations, IBM Asset Recovery Solutions manages technology sorting, refurbishment, system remarketing, component harvesting, smelting and environmentally safe disposal.

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### Overview

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- *Only 5% of the world's population has any form of access to the Internet.<sup>1</sup>*
- *Even very obsolete equipment can find a productive role somewhere in the world.*
- *Outdated equipment can end up improving—or even saving—lives in faraway places.*
- *IBM and its associated partners have a unique worldwide remarketing and distribution system for used equipment.*
- *While handling more than 40,000 used PCs and related units per month, with an overall throughput of more than 111 million kilograms of technology per year, IBM IT Asset Recovery Solutions sends less than 2% to landfill.*



*Any given CRT monitor contains some of the most expensive components needed for making a TV set.*



*This television receiver was built with parts from discarded CRT monitors.*



*This monitor, with PC speakers, now works as a TV set, with the simple addition of a low-cost "black box."*

## **Getting creative with Cathode Ray Tubes**

An important first step for an emerging community is inbound communication. By seeing how the rest of the world operates, individuals are informed, inspired and empowered. They can see and act on local opportunities to improve their lives and those of the people around them.

Perhaps the most powerful tool ever created for this purpose was television.

Working with a partner, IBM recently shipped a thousand monitors to various communities in The Subcontinent (India, Pakistan, Bangladesh, Nepal and/or Bhutan). While all of these monitors were considered to be worthless as computing equipment because of their technology levels and needed repairs, enterprising local businesses snapped them up and converted them to television receivers. They were then sold at prices low enough to be affordable to the local populations.

These conversion efforts took several forms, as seen in the photos:

- *Re-casing with generic casework.*
- *Cannibalization for parts, such as cathode ray tubes (CRTs) and speakers, to be used as needed in other equipment.*
- *"Black box" conversion, in which the monitor plugs into a discrete unit that serves as the receiver and driver.*

Out of the entire shipment of 1,000 obsolete monitors, only seven were unusable in this creative and vigorous market. The result: 993 "worthless" monitors have been kept out of landfills and are now delivering information and opportunity to a new population.

While these photos were taken in India, the business of turning discarded CRTs into television receivers is widespread in emerging economies. IBM has documented conversions in areas of Pakistan, China and Africa as well.

## Information superhighway via dirt road

By far, the majority of India's 1.06 billion people live in rural villages.<sup>2</sup> Yet with its network of engineering institutes and growing significance in the worldwide technology sector, computing skills are seen by many to comprise the key to personal success.

*IBM Asset Recovery Solutions provides safe disposal and remarketing for unwanted IT assets and helps enable low-cost technology acquisition worldwide.*

That's where a government-funded project called Infothela (literally, "info-cart") comes in. Conceived in 2003 by the Indian Institute of Technology in Kanpur, Infothela matches portable computer and telecommunications technology with pedal-powered delivery wagons to bring computers—and instruction in their use—to remote villages. But

most of all, these brightly painted, festive carts (designed to resemble the temple carriages of deities) bring a blend of progress and respect for tradition that can be embraced by young and old, student and teacher alike.

Infothela also provides functional information resources to remote professionals serving these distant communities. Doctors use it to improve healthcare. Using Web cams and video conferencing, they can be virtually present in an experimental program exploring remote access to healthcare. Farmers are beginning to use it to check crop prices and learn of new techniques.

For a program like Infothela to succeed over so much territory and so large a population, economical equipment is a must. And that's where you and IBM Asset Recovery Solutions come in.

## How are you helping?

By recycling with IBM Asset Recovery Solutions, you make your unwanted equipment available on the world market, where its price is set by demand.

That means low-demand equipment goes for low prices, enabling entities with extremely limited resources to acquire life-changing technology.

It also means that even your oldest equipment—equipment that you cannot imagine redeploying in any role (and which will not, frankly, return any significant revenue when sold)—can meet the needs of innovative manufacturers and ambitious government programs working to establish and grow vital, modern economies.

Or to put it another way, it means that recycling your IT assets is good for all concerned. It clears a path for new technology in your business. It protects the environment from hazardous waste materials. And it empowers people to embrace the challenges and opportunities of the connected world.



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<sup>1</sup> *Digitally Powered Development*, by Allen Hammond, CIO, World Resource Institute, Foreign Affairs March/April 2001

<sup>2</sup> This fact and most of the information in this section come from *Rickshaws help wheel in computer age*, by Associated Press, as seen at SMH.com.au, August 27, 2004: [www.smh.com.au/articles/2004/08/26/1093456733920.html?from=storylhs](http://www.smh.com.au/articles/2004/08/26/1093456733920.html?from=storylhs)