



ecoATM Background Information

Based in San Diego, Calif., ecoATM (formerly reMobile) was established in 2008 to create its Automated eCycling Station for eWaste recycling. The automated kiosk provides:

- an efficient, ubiquitous, collection system that incentivizes consumers to recycle an estimated one billion displaced phones
- a turn-key solution that complies with eWaste regulations, fully automates the take-back and reverse-logistics process, and manages incentive rewards programs for electronics retailers, OEMs, and wireless carriers

ecoATM's veteran team brings together 80+ years of experience and proven success across a wide range of environments, from entrepreneurial start-ups through Fortune 500 organizations, and spanning a variety of relevant industry segments, such as mobile recycling, wireless, channel management, and semiconductor sectors. ecoATM's founders have previously founded a dozen start-ups and have been involved in financial exits totaling more than \$1.25 billion.

The ecoATM team has four US patents issued and eleven pending; team inventions and intellectual property include - Kiosk Systems, Electronic Recycling Kiosks, Communications Systems, Mobile Content Management & Discovery, and Semiconductor Devices.

The Opportunity

An Explosion of "Retired" Mobile Phones

The current drawer-bound cache of one billion phones is estimated to have a total value of as much as \$12.2 billion if they were to be recycled. Recently displaced handsets less than two years old retain an average value of \$18 each at collection and before any refurbishment, and an average value well over \$50 once refurbished. Phones more than two years old that still have a vibrant aftermarket retain an average \$2 value at collection and over \$25 average after refurbishment. The remaining phones, generally considered "end of life," are worth roughly \$.75 per phone when smelted down to reclaim precious metals and hazardous materials.

Increasing Global Demand for Refurbished Phones

On the other end of the recycling equation, the demand for refurbished mobile phones continues to rapidly accelerate, due largely to the explosive growth of wireless markets within developing countries. According to Pyramid Research, the number of subscribers in emerging markets is projected to surpass those in existing markets during 2009 and to continue accelerating over the next five years.

For example, today, in India alone, a market of over 1 billion potential subscribers with a current 40 percent penetration rate, as many as 15 million mobile subscribers earning less than \$1,000 per year are being added to the mobile networks per month. As a result, the cost-advantages of refurbished handsets present a significant ongoing, lasting value for the majority of subscribers in these emerging markets.

Maturation of Backend Recycling Channels

Another key factor has been the evolution of mechanisms and channels for handling recycled mobile phones. A number of companies are OEM-certified and carrier-certified to perform

complete software and hardware repair, and have already established solid industry reputations by helping to pioneer the ecosystem for efficiently refurbishing and redeploying displaced handsets back into the US and into emerging markets.

An equally important and quickly maturing aspect of this business is the collections of used phones from consumers. Methods vary from donation drop boxes, to e-waste drives, to mail-in programs, to point-of-sale buy-back systems. One of the most respected early leaders in this segment is CollectiveGood, which has already collected processed more than one million phones in a profitable and environmentally responsible manner.

Expanding Mandates for eCycling/Recycling are Overwhelming Retailers

Electronics retailers are struggling to comply with growing federal, state, and local laws governing the “take-back” and recycling of the electronics they sell. Eager to turn these cost-center, take-back programs into profit centers, many retailers have embraced trade-in / trade-up incentive programs driving foot-traffic, revenue-lift, and sales of new devices through manual or POS-driven eCycling take-back systems. However, the labor and complexity of the “reverse-logistics” process has negated any potential profit gains.

Therefore, electronics retailers, OEMs, and wireless carriers are desperate for a turn-key solution which complies with regulations, fully automates the take-back and reverse-logistics process, and manages the incentive rewards programs.

The Problem

Only a Very Small Percentage of Retired Phones Are Recycled

While the huge number of retired phones continues to grow and the demand for refurbished phones is accelerating, only a very small percentage of displaced phones are actually making it into the recycling channels.

Nokia estimates that 74 percent of people are not even aware that their old phones can be recycled and most others don't know how or where to recycle them. From the results of a worldwide survey done in 2008 by Nokia, only three percent of displaced phones are being returned for recycling – even less than the four percent that are being thrown in landfills.

Current Collection Methods Lack Incentives & Outreach Mechanisms

The major shortcoming with existing collection methodologies is the lack of effective outreach or immediate, tangible incentives to attract the owners of used handsets. The majority of phones currently being recycled are picked up via cardboard collection boxes, with only minimal outreach methods, such as word-of-mouth, web-based searches or charitable appeals (e.g. abused women programs). In effect, these methods pre-suppose a certain willingness and self-motivation on the part of their customer to “do the right thing” and recycle their used handsets.

The ecoATM Solution

Automated eCycling Stations are Key

The unique ecoATM approach focuses squarely on this key need to boost collection volumes by reaching out to the owners of used handsets and providing both convenience and immediate incentives to draw them into the process. With these higher input volumes feeding into CollectiveGood's already well-established recycling/refurbishing relationships, ecoATM will be able to drive up overall system efficiencies to create a very sustainable and profitable business model.

By leveraging the lucrative mobile phone segment to profitably deploy a network of Automated eCycling Stations, ecoATM will also create a major revenue opportunity for automated eCycling of a variety of other consumer electronics products.

In order to bring those hundreds of millions of dormant phones out of household drawers and into the recycling stream, ecoATM will deploy a broad-based network of Automated eCycling Stations located in consumer electronics and handset retailers in the existing flow of these

Why Automated eCycling Stations are Ideal for Mobile Phone Recycling

With consumers increasingly using kiosks for all sorts of takes, such Automated eCycling Stations can be the perfect solution for collecting items from consumers, given the following conditions:

1. The items can be inspected by the machine to establish a precise value
2. The Automated eCycling Station can provide an immediate financial incentive
3. Aggregation at the Automated eCycling Station is more efficient than collection by mail or other means

Summary

ecoATM is a “game-changing” approach to recycling

Given the enormous underserved worldwide demand for used mobile phones and the enormous and perpetually growing cache of these phones cluttering the drawers of US consumers, a tremendous opportunity exists for anyone able to coax these phones into the recycle system.

Solving the eWaste problem on a broad scale requires the collaboration of the OEM's that make the devices, the retailers that sell them, and the consumers that buy and retire them. With \$25B in latent consumer assets available to mine and use as the incentive for all stakeholders in the chain, ecoATM will dramatically alter the current life-cycle of consumer electronics much the way 1970's redemption value laws on bottles and cans dramatically changed their life-cycle.

Given the enormous underserved worldwide demand for used mobile phones and other electronics, and the perpetually growing cache of these devices cluttering the homes of US consumers, the time is right for a game-changing approach.

ecoATM's patent-pending technologies and automated self-service system offer the ultimate solution to this difficult problem: an automated kiosk that provides efficient, ubiquitous, incentivized, profitable-for-all collection system which meets the complex needs of both retailers and consumers.

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