A Service Plan for Providing Easily-Transportable Data and Processing

J.J. Johnston, Lindsey Sunden, Amy Askin

We decided to look at why users choose laptops over other available options and what services they were really looking for. In this analysis, we determined that the laptop is popular because of the ease with which one can carry their data with them and access their programs where it is convenient for them.

We also looked at why the typical cycle of laptop disposal is around two years. Clearly this is due to the rapid increase in computational power and data storage space available in new computers.

With this in mind, we developed a two-part business model that centers around creating a smaller device that would provide the mobile processing and data carrying capacity desired by users and a service package that would keep the users as upgraded as they are willing to pay to be.

With the service package, parts are reused, refurbished, and recycled efficiently, and with the smaller device with docking station approach, the longer-lasting peripherals of the computer are kept in service longer instead of being disposed of with each processor upgrade.

Service Plan

Users will not own their smart phones – rather pay a yearly lease that includes a new phone every 2 years. By having the mini-computers returned to the same company, they can more efficiently reuse and recycle outdated components.

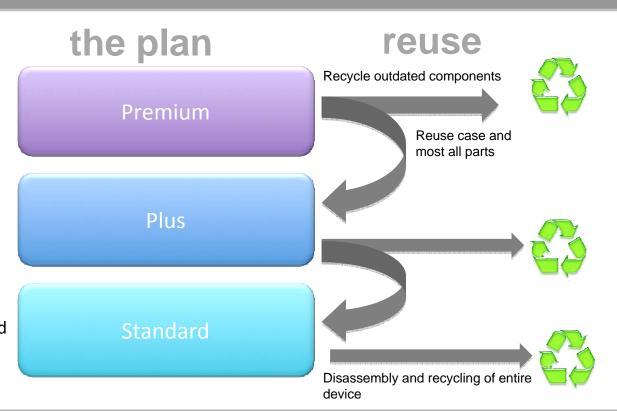
By offering a service hierarchy with premium and standard plans, the company could reuse old processors from the premium line in the new models for the standard line. A summary of likely 2 year services include:

the phone

Top of the line phone, with case, power supply and batteries made of old recycled parts

Reuse returned premium phone, with minor upgrades (e.g. processor and video card, based on improvements those years)

Reuse returned plus phone, with minor upgrades (e.g. battery and processor, based on improvements those years)



Docking Station and Mobile Device

A smart phone-type item will be used for all processing and data storage. This will allow users to easily carry their "computer" with them.

Currently data storage media can house many gigabytes of data in very small packages and therefore including that in the smart phone is not anticipated to be an issue. The small casing of the phone may pose an issue with the heat dissipation for the advanced processor that would be necessary, but this heat issue is an active area of current research and therefore we believe this issue can be overcome shortly.

The docking stations would basically include a keyboard and monitor. We chose to separate these items because they do not become outdated or need to be replaced as frequently as the processing and data storage elements. In fact a well designed keyboard and monitor could last well beyond ten years. For home use, a television already owned by the user could serve as the monitor, while other locations would need the whole docking station.

the advantages

- •Processors and data storage are reused over a longer time period
- •Users get the level of service they desire
- •Less material required for initial production of phone versus laptop
- Peripherals are used over several smart phone lifetimes
- •Smaller package to carry for the user

the issues

- •Small screens on the smart phones are harder to use than a laptop screen
- •Docking stations are required for ease of use
- •Heat dissipation issues exist with putting a processor into a smaller package
- •Transportation costs of shipping for servicing of the device