

## Sun's Electronic Product Take-Back Program in the US

[Sun Microsystems, Inc. \(Sun\)](#) business is primarily focused on providing network computing products and services to the commercial market, this includes computer systems from thin clients to data center-class servers and storage systems, software, support and professional services for commercial enterprises. These systems are typically large and the product installations are usually intermixed with systems from other OEM suppliers (Dell, IBM, HP, EMC), so customers who choose to retire systems are best served by a variety of product take back solutions.

### Product Stewardship - Taking Responsibility for Products at the End of Life

Electronic components and equipment naturally reach an end of life. Sun firmly supports its responsibility to design and plan for this phase in our products' life cycles. Sun has implemented a product returns program that recycles, reclaims, and reuses components or entire systems in an environmentally compliant manner. This Service will be provided at no charge to customers who deliver Sun-branded product to any of our authorized recycling locations in the US. Once at the recycler we sort for reuse opportunities at the system or component level, if not the product is recycled.

Customers can simply log onto Sun's [Global Products Return](#) website or at: <http://www.sun.com/aboutsun/environment/returns.jsp> to select by location what type of return they need. Since these forms are available through our website, the program is accessible to any one worldwide. The following describes the four types of returns available to customers.

**e-Waste Returns:** Sun will assist the customer in disposing of the product in an environmentally responsible and regulatory compliant manner.

**Install Base Business Returns:** For customers ready to return used Sun and other suppliers' systems to us as part of the Sun Upgrade Advantage Program. Sun will cover freight and recycling cost of the returned equipment from the customer to the recycler.

**Customer Return for Credit:** Depending on the commercial situation for the product, Sun may issue a credit, replacement product or facilitate return.

The customer is directed to select and complete the appropriate form based on these descriptions to start the process. A Sun representative will respond to the request within two business days to assist the customer in arranging for the collection and transportation of the returned products.

### What will happen to electronic waste returned to Sun?

<b>Reuse/ Remanufacture</b>	Products and parts are reused, either in their present condition, or with some refurbishment
<b>Recycling</b>	Products and parts that are beyond repair and have no commercial value are broken down; metals and plastics are recovered for recycling. Many recyclable materials have a commercial value, so recycling is often cost effective as well as ecologically responsible.

## **Recycling Process**

Used Sun equipment is either collected by Sun or sent direct to third-party recycling solution companies that receive and process material to Sun's requirements and in compliance with local law. Sun performs periodic walkthrough audits of these contracted recycler to ensure on-going compliance.

Product that is received at Sun's contracted recyclers go through the following steps;

**Step 1:** Products are checked against a "save list" to determine if there are Sun internal requirements as either whole systems or for spare parts. Products deemed as "save" are sent to Sun's Remanufacturing facility for later resale.

**Step 2:** Products that cannot be used in remanufacturing are disassembled and industry standard components with commercial value are removed and resold.

**Step 3:** Once products are disassembled and useful components and materials removed for reuse and/or resale, hazardous materials are removed for special processing and remaining materials are processed through a "grind" process which separates out into bins for plastics, printed circuit boards and assemblies and different metals. Bins are forwarded to smelters for transformation back into raw metals for later reuse. Less than 1 percent of any Sun material ends up in landfill.

Sun's strategy is to recycle products within the market that returns them to reduce transportation miles and negative carbon impact (rather than shipping e-waste to 3<sup>rd</sup> world countries). Smelting may occur within the country of return or in the country of raw material consumption.

## **Communicating the Take-Back Program**

As Sun markets its products our communications regarding our take-back processes and programs will be available through our website:

<http://www.sun.com/aboutsun/environment/returns-intro.jsp>. Additional detail around Sun's environmental performance is published annually in our Corporate Social Responsibility report also found on our website at: <http://www.sun.com/aboutsun/csr/index.jsp>