

sony style



CTO/Oracle Sony Style Site Enhancement Project
July 5, 2003
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I. Executive Summary

Oracle/CTO enhancements project will consist of several elements affecting the SonyStyle.com system, which will add and improve existing functionality. The new and improved enhancements will consist of the following elements.

- ?? Ability to sell initial refusals and returns of A-Stock CTO product as a fixed SKU.
- ?? Ability to sell B-Stock CTO products as a fixed SKU.
- ?? Ability to sell B-Stock fixed SKU products using original SKU name.
- ?? Improve current ATP process to minimize the overselling of products, particularly products with low inventory levels such as initial refusals.
- ?? Modify e-Solutions ATP to include pre-configured PC's both A and B stock along with the FET status.
- ?? Dynamic end of life control for CTO products.
- ?? Provide enhanced order status visibility to the customer.

Each aspect of the project will be detailed in terms of expected functionality and will require signoff from business owners prior to start of development.

Deviations from agreed functional specification will be reviewed by e-Solutions technical team and will advise on the impact deviations may have on schedule and budget.

II. Project Analysis

A. Problem Statement

The current functionality in reference to B Stock and A Stock CTO sales is limited. The Oracle/CTO Enhancements Project is comprised of several functionality enhancements aimed at increasing the sales of VAIO CTOs (configured to order laptops and desktops) on the Sony Style web site. In

order to enhance and increase functionality three business groups, e-Solutions, ITPD, and ISSA must be utilized.

B. Project Objectives

1. Resale of CTO items as fixed SKUs

The Sony Style web site has a configurator for VAIO computers that lets customers configure their own desktops or laptops based on certain predefined rules that are setup using the GEDY's configurator which is integrated with the Enfinity application.

When the customer returns these CTO items either through an initial refusal or a regular return, the product becomes available for sale, and each of these machines could potentially have a different configuration. There is no process in place today to merchandise these products on the Sony Style web site.

One of the requirements of this project is to be able to sell these CTO products as fixed SKUs on the Sony Style web site. These fixed SKU configurations will be referred to as ATOs. Customers should have the ability to search for specific configurations.

Individual SKUs/configurations should be automatically activated/deactivated from the site based on availability.

2. Support for sale of B stock inventory

The Sony Style web site should have the ability to support the sale of refurbished computers. Currently this requires a new SKU to be setup in the backend Order Management System (OMS) as well as the front-end Enfinity system. OMS supports a FET code (used to distinguish A/B stock items), but this is not recognized by the front-end. It is required to support a FET code in order to be able to sell B stock items with the same SKU as the original item and also to minimize the coordination and setup required to do this. This functionality is required both for B stock ATOs as well as B stock pre-configured items that are sold on sonystyle as Quick Ship items.

3. Accurate Inventory Position Visibility

The ATO products that become available for sale on the web site will typically have very low inventory. It is therefore important to have accurate inventory position visibility on the front-end. This calls for enhanced integration in inventory information (ATP) between the backend Oracle system and the front-end.

4. Enhanced Order Status visibility

Typically, customer service call volume is high for customers who have placed CTO orders. In order to minimize these calls, it is

required to offer better order status visibility to the customer by updating the customer when order milestones are reached in the assembly of the ordered product and by showing up-to-date order status on the SonyStyle web site.

5. End of Life control for CTO Components

The front end should dynamically deactivate components in the configurator once end of life has been reached. When there are cancellations, or the EOL volume is increased such that there is forecast available to be consumed, the front end should automatically reactivate the component in the system.

C. Scope

1. In Scope

- a) Resale of available A stock CTO inventory from cancellations and initial returns**
- b) Resale of available VAIO B stock originally sold by e-Solutions**
- c) Accurate inventory position visibility**
- d) Improved CTO Order Status visibility**
- e) End of Life Control for CTO components**

2. Out of Scope

- a) Selling ATO A/B stock items in channels other than Sonystyle will require special handling**
- b) A full-fledged implementation of the B stock functionality on Sonystyle**

D. User Interface Goals

1. Provide a Direct Sales Channel (DSC) for the effective distribution of returned and aged inventory in the following categories:

- a) Pre-configured CTO products (also called ATO)**
- b) Qualified Fixed SKU (Quick-ship) products**

2. Features include but not limited to:

- a) Product Representation**
- b) Inventory Search capabilities**

3. Interactive Search results

4. Messaging platforms for products may include:

- a) **Desktops Clearance**
- b) **Desktops Refurbished**
- c) **Notebooks Clearance**
- d) **Notebooks Refurbished**

5. Update Order Status Pages for better granularity to increase customer satisfaction and reduce costly maintenance inquiries to call centers.

III. Return on Investment Analysis

A. Expected Benefits

Approximately \$40,000 increase in revenue per day during peak season of September through December. Approximately \$20,000 increase in revenue per day during off peak times, January to August.

B. Expected Costs

Estimated cost for use of employee resources is \$89,400. Two additional CPUs at a cost of \$100,000 will be needed in order to accommodate additional traffic during peak periods.

IV. Measures of Success

A. Additional revenue generation of \$20 - \$40 thousand dollars per day.

B. 2.5% increase in Sony Style web traffic.

C. 10% increase in VAIO traffic.

D. Deliver current system with added functionality to include:

- 1. Resale of CTO items as fixed SKUs**
- 2. Support for sale of B stock inventory**
- 3. Accurate Inventory Position Visibility**
- 4. Enhanced Order Status visibility**
- 5. End of Life control for CTO Components**

V. Project Design

A. Requirements Analysis

1. Current infrastructure contains the following three layers and can support 3900 orders per day. This infrastructure will be utilized to support expanded functionality proposed in this project:

a) Web Servers

(1) 6 web servers (each having 2 CPU's)

b) Application Servers

(1) 3 application servers (each having 8 CPU's)

(2) 8 live/staging eCS instances, 8 storefront and 4 back-office eTS instances

c) Database Servers

(1) 1 - eCS Database server (8 cpu, being shared by non-commerce databases)

(2) 1 - eTS Database server (8 cpu)

2. Given the following assumptions in terms of orders per day, web traffic, and increase in sales for the Sonystyle e-platform from ATO & B-Stock VAIO Sales:

a) Approximately 10% increase in VAIO traffic, meaning 2.5% increase in the website activity, assuming 25% of the traffic to the site is through VAIO department.

b) Approximately 100 additional orders per day during the peak season.

c) Approximately \$40,000 increase in revenue per day during the peak season.

Two additional CPUs at a cost of \$100,000 will be needed in order to accommodate additional traffic during peak periods.

3. A total of nine employees, two managers, and one QA team, are tasked with action items during the project duration. All employees are rated at \$75 per hour. The project is estimated to take 1,192 hours and 58 days during which times employees and teams will have intermittent work regarding said project. One technical project manager will be devoted full time for the duration of the project until completion.

B. Feasibility Study

Economically speaking, the CTO/Oracle Enhancement Project will significantly increase overall sales and traffic generation. The project is operationally possible through thorough coordination between e-

Solutions, ITPD, and ISSA departments and resources. A full time technical project manager will be assigned to the project in order to help secure project completion and adequate time-line setting. The technology and in house resources exist to see this project successfully to completion. Upper management has determined the project to be economically, technically, and operationally sound and given the go ahead to develop.

C. Risk Management Strategy

1. Risk Identification

a) During the peak season, if the load reaches beyond the threshold limits, the entire system may reach full capacity and may be rendered unusable for that time period.

b) Given the number of people and groups necessary for the success of this project, communication and effective planning will be essential to overall success.

2. Risk Planning and Control

a) Two additional CPUs will be needed in order to accommodate additional traffic during peak periods. CPUs will be purchased during the duration of the project and in place before completion. Site traffic will continue to be monitored daily to determine if additional resources will be needed at a later date.

b) Ensure effective communication management strategy is in place. Strategy will be assessed weekly to ensure all parties are properly communicating and informed of status of project.

D. Communication Management Strategy

1. Information regarding status, action items, and problems are communicated via e-mail throughout the project.

2. Weekly status meetings are held via conference call to bring together all parties involved for discussion.

3. Central project manager available 100% for communication updates regarding the project and immediate needs as required by business unit and project implementers.

VI. Project Development/Implementation

A. Timelines/Work Breakdown Structures

The project is estimated to take 1,192 hours and 58 days during which time employees and teams will have intermittent work regarding said project. Nine employees will be assigned action items. One QA team will be tasked with final evaluation and sign off. One manager will be

devoted full time for the duration of the project until completion.

(Please see MS Project schedule for specifics.)

B. Staffing/Scheduling

A total of nine employees, two managers, and one QA team, are tasked with action items during the project duration. One manager will be devoted full time for the duration of the project until completion.

(Please see MS Project schedule for specifics.)

C. Implementation Method Discussion

The project will be implemented in its entirety. New functionality will be considered a new project and subject to upper management and technical assessment for feasibility, cost, and pertinence to business.

VII. Testing/Documentation

A. Implementers and business owners to test system throughout implementation process and address issues as needed.

B. Final testing will be completed by QA team to ensure system compatibility and site stability.

C. Design, content, and technical documentation to be issued by development team and project manager during final weeks of project to those team members required to support on-going updates to site and systems.

VIII. Final Analysis/Methods of Evaluation

The project is currently in implementation phase. All development work has been finalized and we are currently testing functionality. The project is currently on schedule. User and Development testing is going smoothly and is estimated to finish with completion of all goals within the estimate time schedule.

IX. Appendix

A. Reference Materials

"Order Status Visibility," by Sydney Lee

"Sale of A-stock CTO & B-stock CTO Products," by Sydney Lee

"E-Solution CTO/ Oracle Enhancements Functional Specification (Front end systems), by Frank Kaufman, Feb. 24 2003, revised April 4, 2003, revised April 24, 2003

Composite mockups online:

http://esolw.sel.sony.com/projectweb/CTO_project/mockups_online/comps_display.htm

HTML assets online:

http://esolw.sel.sony.com/projectweb/CTO_project/HTML/HTML_assets.htm

B. Design Documentation

1. Web Pages Organization and General Navigation

a) Primary navigation and jump pages

Customers will access new Clearance and Refurbished Pages through multiple access points which will point to various jump pages. Jump pages will provide explanations for "Clearance" and "Refurbished" with links pointing to CTO enhancement.

b) Primary Navigation

Primary navigation for category and sub-category pages within Computers and Peripherals, Desktops and Notebooks will contain a new link labeled

“Specials” (or other label as prescribed by business rules)

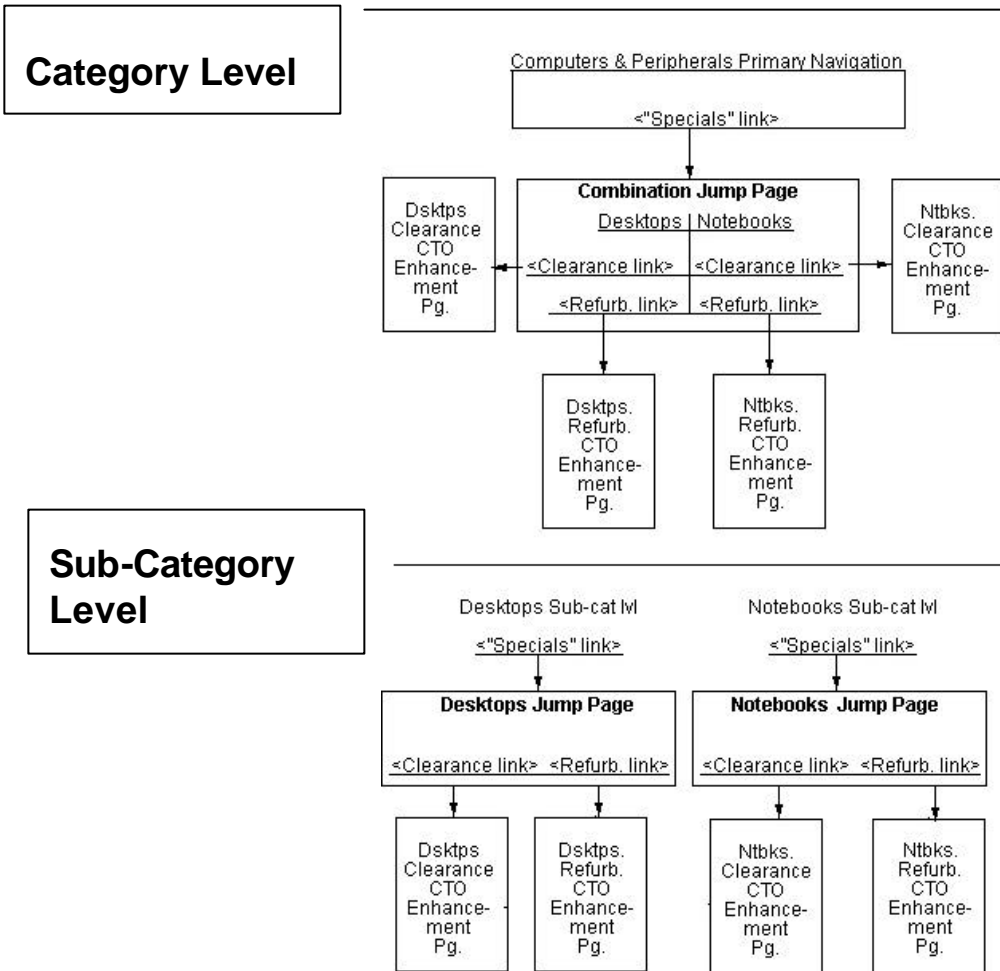
c) Other Access Points

It is highly recommended that additional access points be implemented as usability studies show that “primary navigation” does not necessarily mean “primary use.” Some recommended locations are:

(1) Banner on CPU Great Deals page

(2) Promotional banners on Desktop and Notebooks top sub-cat pages

(3) Messaging/ links integrated into 566x210 banner(s) currently used on sub-cat pages



Point of Sale mock-up

enter search term
 GO all of Sony Style
 GO in Computers and Peripherals

- computers and peripherals
- Hot Picks
- Great Deals
- VAIO® Notebooks
- VAIO® Desktops
- Customize Your Own RZ Series Desktop
- Ready to Ship
- System Solution Bundles
- Specials
- Displays
- Peripherals
- PC Accessories
- AIBO

- digital cameras/camcorders
- computers and peripherals
- handhelds/PDAs
- televisions
- home audio/video
- portable audio
- accessories
- car audio
- gift center
- business solutions
- movies
- music

computers and peripherals

VAIO® Refurbished Desktops

Save on NEW and FACTORY REFURBISHED Sony VAIO® Desktop PCs. Hurry, quantities are limited!



- VAIO
- Live Sales Help
- Software Solutions
- Digital Demo Gallery
- More About VAIO®

VAIO® Software Solutions
 BUNDLED WITH DESKTOPS & NOTEBOOKS
 LEARN ABOUT 8 EXCITING NEW, SONY ORIGINAL SOFTWARE TITLES!

REFURBISHED- VAIO Digital Studio RZ Series



VAIO® Digital Studio™ RZ Series
 Create your own digital photo album and slideshow to DVD with the industry's first desktop PC with a built-in DVD +/- RW drive.

MONITOR SOLD SEPARATELY

INVENTORY SEARCH - Do a search based on features that are important to you:

RZ Series ← Select a Desktop Series

| | | | |
|--------------------------------------|----------------------------------|--------------------------------|---------------------------------|
| Price Price | Specials Type Refurbished | Memory RAM | Processor Processor |
| Operating System Operating System | Hard Disk Size Hard Disk Size | Optical Drive Optical Drive | Gigapocket Giga Pocket (yes) |
| Software Software | Audio Card Sound Card | Video Card Graphics Card | |

Submit Search

VAIO REFURBISHED DESKTOPS - SPECIAL CONFIGURATIONS - SEARCH RESULTS

| Systems 11-15 of 50: | System 11 | System 12 | System 13 | System 14 | System 15 |
|-------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| ← Previous 5 Next 5 → | SELECT | SELECT | SELECT | SELECT | SELECT |
| Sort | Price | Price | Price | Price | Price |
| Processor | P4 2.80B GHz | P4 2.66 GHz | P4 2.80B GHz | P4 2.66 GHz | P4 2.80B GHz |
| RAM | 1.5 GB | 512 MB | 1.5 GB | 512 MB | 1.5 GB |
| HDD 1 | 120 GB | 320GB | 120 GB | 320GB | 120 GB |
| HDD 2 | 60 GB | | 60 GB | | 60 GB |
| Optical Drive 1 | DVD-ROM | DVD-RW | DVD-ROM | DVD-RW | DVD-ROM |
| Optical Drive 2 | DVD-RW | CD-RW | DVD-RW | CD-RW | DVD-RW |
| Video Card | Supercalifros | GeForce4TM MX | Supercalifros | GeForce4TM MX | Supercalifros |
| Audio Card | Audio Dynamite | | Audio Dynamite | | Audio Dynamite |
| Operating System | Win XP Home | Win XP Pro | Win XP Home | Win XP Pro | Win XP Home |
| Software | nVidia | | nVidia | | nVidia |
| Games | MadKap | | MadKap | | MadKap |
| Gigapocket | Yes | | Yes | | Yes |
| Modem | | SpeedShake | | SpeedShake | |
| Speakers | | HC Kustoms | | HC Kustoms | |
| Warranty | 5 Year | | 5 Year | | 5 Year |
| VAIO® Creation Suite Software | | Included | | Included | |
| Service: | | | | | |
| VAIO® Overseas | | Included | | Included | |

11-15 of 50 ← Previous 5 | Next 5 →

-OR-

VAIO REFURBISHED DESKTOPS - STANDARD CONFIGURATIONS

| RZ SERIES: | RZ26G | RZ24G | RZ22G |
|------------------|------------------------|------------------------|------------------------|
| | SELECT | SELECT | SELECT |
| Price | Price | Price | Price |
| Processor | Intel® Pentium® | Intel® Pentium® | Intel® Pentium® |
| RAM | M 1.60 GHz | M 1.60 GHz | M 1.60 GHz |
| Hard Drive | 1024 MB DDR | 1024 MB DDR | 1024 MB DDR |
| Optical Drive 1 | 60 GB | 60 GB | 60 GB |
| Optical Drive 2 | DVD-ROM | DVD-ROM | DVD-ROM |
| Operating System | CD-RW | CD-RW | CD-RW |
| Gigapocket™ | WIN XP Home | WIN XP Home | WIN XP Home |
| Video Card | Yes | Yes | Yes |
| | GeForce4™ MX 440 | GeForce4™ MX 440 | GeForce4™ MX 440 |

Top of Page ▲

1st Table

2nd Table

3rd Table

4th Table

Order Status Mock-up

Enter search term
[00](#) | All of Sony Style

- digital cameras/concealers
- computers and peripherals
- handhelds/PDAs
- televisions
- home audio/video
- portable audio
- accessories
- car audio
- gift center
- business solutions
- movies
- music
- phones

order details

Transaction Summary

>Lorem ipsum dolor et amet, consetetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat.

[Print this Page](#)

[return to order history](#) &
[return to view account](#) &
[return to shopping](#) >

| order date | transaction type | order status | order number | totals | |
|------------|------------------|--------------|---------------|--------------------|------------------|
| 05/08/03 | ORDER | IN PROCESS | SW03050000001 | Dam's Subtotal | 199.99 |
| | | | | Shipping Charge | \$ 0.00 |
| | | | | Sales Tax | \$ 15.50 |
| | | | | Total | \$ 225.49 |
| | | | | Paid | \$ 225.49 |
| | | | | Balance Due | \$ 0.00 |

Billing Information

Mike Bonasia
 123 Main St
 CARLEBAD, CA 92009
 (619) 877-1456
 mike.bonasia@am.sony.com

Payment Method

Visa

last 4 digits

1111

Shipping Information

Mike Bonasia
 123 Main St
 CARLEBAD, CA 92009
 (619) 877-1456

Shipping Method

Mixed - See Details

Order Status Item Summary

Click on links for more information

| item(s) | status | est. ship date | actual ship date | |
|-----------------|------------------------|----------------|------------------|-------------------------|
| PEG-S311 | SHIPPED | | 05/09/03 | Details |
| MSA-126A | IN PROCESS | 05/13/03 | | Details |
| PCV-RZ20 | IN PRODUCTION | 05/19/03 | | Details |
| NP-FS11 | CURRENTLY OUT OF STOCK | | | Details |
| NP-FS11 | PARTIAL SHIPMENT | | 05/14/03 | Details |
| DSC-U20 | ON HOLD | | | Details |
| PCG-V50SAZPKIT1 | CANCELLED | | | Details |
| V50SA | CREDIT | | | Details |

Order Status Item Details

| | | | |
|--|-------------------|---------------------------------------|--|
| PEG-S322 CLIE Handheld | | Status: Shipped | |
| Progress: | Date: | Comments: | |
| ✓ Order placed | 05/08/03 | Quantity: 1 | |
| ✓ Item Shipped | 05/09/03 | Extended Price: \$XXX.XX | |
| + Estimated Delivery Date | 05/12/03 | Coupons: - \$XX.XX | |
| | | Sub-Total: \$XXX.XX | |
| | | Ship Method: Free Standard Ship | |
| | | Tracking #: 1239092803645531 | |
| | | Track Item | |
| MSA-126A | | Status: Ready for Shipment | |
| Progress: | Date: | Comments: | |
| ✓ Order placed | 05/08/03 | Quantity: 1 | |
| + Estimated Ship Date | 05/10/03 | Extended Price: \$XXX.XX | |
| | | Coupons: - \$XX.XX | |
| | | Sub-Total: \$XXX.XX | |
| | | Ship Method: Free Standard Ship | |
| PCV-RZ20 | | Status: In Production | |
| Progress: | Date: | Comments: | |
| ✓ Order placed | 05/08/03 | Quantity: 1 | |
| ✓ Scheduled for Production | 05/09/03 | Extended Price: \$XXX.XX | |
| | | Coupons: - \$XX.XX | |
| | | Sub-Total: \$XXX.XX | |
| | | Ship Method: Free Standard Ship | |
| | | Configuration Details | |
| | | Prepared for Shipment | |
| + Estimated Ship Date | 05/15/03 | | |
| NP-FS11 Infallithium Battery | | Status: Currently Out of Stock | |
| Progress: | Date: | Comments: | |
| ✓ Order placed | 05/08/03 | Quantity: 2 | |
| | | Quantity Shipped: 0 | |
| | | Extended Price: \$XXX.XX | |
| | | Ship Method: 2-Day Ground | |
| + Estimated Ship Date | 05/14/03 | | |
| NP-FS11 Infallithium Battery | | Status: Partially Shipped | |
| Progress: | Date: | Comments: | |
| ✓ Order placed | 05/08/03 | Quantity: 2 | |
| ✓ Partial Shipment | 05/14/03 | Quantity Shipped: 1 | |
| | | Extended Price: \$XXX.XX | |
| | | Ship Method: 2-Day Ground | |
| + Estimated Delivery Date | 05/17/03 | Tracking #: 1239092803645531 | |
| | | Track Item | |
| DSC-U20 Cyber-shot U Digital Camera | | Status: On Hold | |
| Progress: | Date: | Comments: | |
| ✓ Order placed | 05/08/03 | Quantity: 2 | |
| ✓ On Hold | 05/09/03 | Extended Price: \$XXX.XX | |
| + Estimated Ship Date | Ship Date Unknown | Ship Method: 2-Day Ground | |
| PCG-V50SAZPKIT1 | | Status: Cancelled | |
| Progress: | Date: | Comments: | |
| ✓ Order placed | 05/08/03 | Quantity: 1 | |
| ✓ Order Cancelled | 05/09/03 | Extended Price: \$XXX.XX | |
| V50SA | | Status: Credited | |
| Progress: | Date: | Comments: | |
| ✓ Order placed | 05/08/03 | Quantity: 1 | |
| ✓ Return Credit | 05/09/03 | Extended Price: \$XXX.XX | |

C. Glossary

| | |
|-------------------------|---|
| SKU | A unique identifier for each product |
| CTO model | “Configure to Order” computer that the customer has configured on the sonystyle.com web site using the configurator. It consists of a base model SKU and several component SKUs |
| CTO Series | A class of computers with specific features. E.g. GRX Series, RZ Series |
| BOM | “Bill of material” for a particular series of CTO models. It is a flat file containing the SKUs that go with that series, and the rules for configuring the computer |
| Base Model | The main model for a series of computers. Typically, each series will have a new base model for each new season |
| Option Class | A configurable/hidden component class of a CTO model, e.g. hard drive, processor |
| Component SKU | A CTO component SKU that corresponds to an option class |
| ATO model | A fixed SKU computer that was originally sold as a CTO |
| Quick Ship model | A pre-configured computer |
| OMS | Order Management System |
| Enfinity | The e-Commerce platform that the Sony Style web site is built on |
| eCS | Enfinity Catalog Server |