



## e-Commerce Platform Redesign Project

Future System Overview  
Version 1.1

## Table of Contents

1. Objectives .....	4
2. Abbreviations/Acronyms.....	4
3. Future E-Commerce System Requirements .....	4
3.1 Core Business Requirements and Limitations .....	4
3.2 Future System Requirements Overview .....	5
3.3 System Requirements Summary .....	5
4. Future e-Commerce System Architecture and Design Overview .....	17
4.1 Overview .....	17
4.2 Proposed System Architecture.....	17
4.3 System Design.....	21
4.3.1 System configuration (software).....	21
4.3.2 System configuration (hardware).....	21
4.3.3 e-Commerce Portal (Software).....	22
4.4 Integrating e-Commerce System with legacy ERP System.....	22
5. Detailed Requirements .....	25
5.1 Order Creation Workflow.....	25
5.1.1 Automate back-end processing.....	25
5.1.2 Collect Additional Information.....	26
5.1.3 Integrate Ecometry processes.....	26
5.1.4 Three-Tier .....	26
5.2 Product Tags.....	26
5.2.1 Implentation .....	27
5.2.2 Hierarchical Tags.....	27
5.2.3 Other Information.....	27
5.3 Corporate Storefronts .....	27
5.3.1 Storefront Creation .....	28
5.3.2 Storefront Access Control .....	28
5.3.3 Purchase Tracking.....	28
6. Third Party E-Commerce Systems Overview.....	29
6.1 Microsoft Commerce Server 2007 Overview .....	29
6.2 MEDIACHACE e-Commerce Framework (ECF) Overview.....	30
6.3 Ominor Feature Overview .....	31

6.4 e-Commerce Systems Comparison.....34

6.5 e-Commerce Systems Recommendations.....36

## 1. Objectives

This document is designed to organize and amplify the requirements for future state of the client's e-commerce system and operational processes. The existing Scope Matrix remains the authoritative list of future systems requirements.

## 2. Abbreviations/Acronyms

- ERP – Enterprise Resource Planning system
- CA – Corporate Account, customer record
- RA – Requestor Account, buyer who is approved to place POs
- WMS – Warehouse Management System
- CSR – Customer Service Representative
- CDR – Credit Department Representative
- PO – Purchase Order
- SCR – Shopping Cart Reminder
- Q.C. – Quality Control

## 3. Future E-Commerce System Requirements

This section recaps the information from the Scope Matrix, organizing the individual requirements by the modules expected in the high-level design. It also adds some additional descriptive information from meeting notes and other documentation collected in the investigation phase.

### 3.1 Core Business Requirements and Limitations

- Future e-Commerce web portal should support the desired growth for an increase in operations up to 50% in 5 years (up to 100-120 orders per day in the future)
- Future system should support features like bulk/Future orders, quoting, purchasing and requisition, History Reports and proper customer management.
- New Order Creation Workflow should allow Client's Customer Service and Sales people to use it as a one stop solution and to support the shared process for processing phone orders and web orders.
- Next e-Commerce system should support MiniSite feature to become B2B e-Commerce hub for vendors.
- Future Product Catalog should support up to 500,000 products.
- Ecometry should be involved in e-Commerce transactions in the future

The future e-Commerce platform will use the present Ecometry ERP system with associated Manhattan warehouse management system and several service systems connected directly to Ecometry.

### 3.2 Future System Requirements Overview

Document Scope\_Matrix describes 8 major groups of business requirements. Six groups of requirement are related to future Public front-end functionality, one group of requirement is related to back-office functionality and the last group of requirement is related to technology and service functionality.

#	Groups of Requirements	PH-1	PH-2	PH-3	Total
A	Product Catalog	45	7	23	75
B	Merchandizing, Mini Sites & Search	28	6	0	34
C	Shopping List, Shopping Cart & Checkout	54	11	0	65
D	Account Management & Personalization	17	18	5	40
E	Corporate Account Management & Storefronts	45	2	14	61
F	Marketing & Communications	27	27	3	57
G	Back Office Functionality	11	10	6	27
H	Technology Requirements	39	1	0	40
<b>TOTAL ::</b>		<b>266</b>	<b>82</b>	<b>51</b>	<b>399</b>

In total, Scope-Matrix has 399 requirements that should be implemented in 3 Phases.

In this document we provide the analysis of requirements relevant to Phase-1 of current project.

Total during Phase-1 of future system development will be implemented 266 custom requirements described in Future\_Scope\_Matrix document.

### 3.3 System Requirements Summary

PH-1 Requirements divided by:

- i. Features available in most e-Commerce Systems
- ii. Features probably not available in any e-Commerce System
- iii. Features that partially exist in some/few e-Commerce Systems

#### 1. Account Management

##### b. Individual Accounts

- i. Features available in most e-Commerce Systems
  1. Ability to add/edit all personal information
  2. Allow customer to set default shipping and billing addresses
  3. Provide "remember me next time" auto-login functionality
  4. Ability to view "pre-shipping" order status
  5. Provide progress bar for filling out first time registration

- ii. Features probably not available in any e-Commerce System
    1. Support nicknames for shipping locations
    2. Support auto-fill account information when filling out forms
    3. Provide communication preferences, opt-in/out and frequency options
    4. Ability to register as individuals, corporations
  - iii. Features that partially exist in some/few e-Commerce Systems
    1. Ability to access order history and current status of placed orders (with search, filter, sort functions)
    2. Ability to manage multiple shipping and billing addresses
    3. Support order tracking (FEDEX/UPS integration)
    4. Ability to manage stored payment methods
    5. Provide check to avoid duplicate registration
- c. Corporate Accounts**
- i. Features available in most e-Commerce Systems
    1. Ability to register corporate account online
    2. Ability to set default shipping destinations/billing information for their organization
  - ii. Features probably not available in any e-Commerce System
    1. Ability to manage the purchasing workflow in terms of requests, approvals, denials, and purchase completion, along with associated messaging and communications (e.g. e-mails to the correct people in the approval chain - could multiple approvers)
    2. Ability to set permissions for who can order, who can request products, who can approve products for purchase (permissions and entitlements)
    3. Ability to "convert" individual account to corporate account (collect more info, welcome message, assigned sales rep, "get started" introduction, feature & benefits of corporate programs)
    4. Ability to alert sales rep when a new buyer is created for an existing corporate customer
    5. Ability to alert corporate sales when a new corporate account is created
    6. Provide welcome message to new account administrator and surface program features and benefits
    7. Roles/responsibilities and approval/workflow for corporate accounts rules can be modified: by year, quarter, monthly, weekly
    8. Ability (internal) to "merge" accounts under corporate umbrellas
    9. Ability to set up a list of "approved" products for purchasing and restricting purchases to those products
    10. Ability to add product to "approved" list from product page
    11. Support customer purchase/activity reports
    12. Provide "corporate dashboard" with high-level purchase activity (number of open orders, orders waiting for approval, etc.)
    13. Provide view of open orders/pending approval for buyers
    14. Support for contract compliance

15. Allow "master" user to put message on login screen for all users to see
16. Allow corporate users to petition to become buyers in system
17. Allow "auto-setup" for customers registering from managed customer accounts (domain check)
18. Show Account Manager on login screen
19. Provide "What's New" highlights (both client and corporate information)

**d. Purchase Order Management**

- i. Features available in most e-Commerce Systems
  1. Ability for customers to change release dates, quantity, item numbers
  2. Show payment receipts and amounts
  3. Ability to print copy of invoices
- ii. Features probably not available in any e-Commerce System
  1. Ability to set up blanket order: customers approved P.O. for set dollar amount and/or set products and quantities multiple orders
  2. Ability to monitor value/balance on open P.O.s, see order history against P.O.s, alert customer when P.O. balance is low
  3. Ability to pay outstanding invoices online (via credit card/EFT)
  4. Ability for the customer to view credit limit (view/request/history)
  5. Ability to monitor customer credit cutoff (orders won't ship once this is reached)
  6. Show running credit limit total and flags for nearing credit limit
  7. Show both kinds of credits (applied to order, applied to credit balance)
  8. Support online credit application, potentially even as part of registration
  9. Ability to limit the items available to "resellers" (customer type)
  10. Ability to notify sales of all future orders
  11. Provide reports on future orders
  12. Post Future orders to Ecometry when they are ready to be fulfilled
  13. Future orders must be logged into Ecometry but flagged so it doesn't hit customer's credit limit
  14. Provide advance warning to users of future order ship date
  15. Present orders to corporate buyers as waiting for approval (workflow for purchase approvals)
  16. Allow customers to view outstanding P.O.s, invoices and "open/close" status and aging
- iii. Features that partially exist in some/few e-Commerce Systems
  1. Ability to purchase using P.O.s or to require purchases to have P.O.s
  2. Ability to set future "order/ship date"; edit dates, frequency, etc.
  3. Credit and accounts payable management

**e. Personalization**

- i. Features probably not available in any e-Commerce System

1. Ability to surface discounts, sales reps, special offers and pricing/promos (all customers)
2. Display recently viewed items
- ii. Features that partially exist in some/few e-Commerce Systems
  1. Surface "welcome back" message on homepage

#### **f. Customer Service/Live Chat**

- i. Features probably not available in any e-Commerce System
  1. Support live chat to support customer decision making
  2. CSR automatically flagged when order has exceptions or needs manual intervention (e.g., drop ship quote, LTL, duplicate accounts)
  3. Ability to view customer's exact confirmation page
  4. CSR automatically flagged for suspicious orders or other business rules
  5. Ability to gather general site feedback via a feedback form; results mailed to internal address (global navigation - source page and time stamp)
- ii. Features that partially exist in some/few e-Commerce Systems
  1. Support customer service content area
  2. Support multiple communications channels with customer service team, including click-to-call (back) and e-mail communication

## **2. Product Catalog**

- i. Features available in most e-Commerce Systems
  1. Ability to request catalog from site (form)
  2. Generate confirmation email to customer
- ii. Features probably not available in any e-Commerce System
  1. Provide Quick Look (on mouseover) for products at category, product listings, product thumbnail level
  2. Ability to shop/filter by safety/compliance standards (e.g., OSHA)
  3. Ability to merchandize best sellers at category level
  4. Ability to merchandize featured products at category level
  5. Ability to merchandize new products at category level
  6. Support sub-category landing pages (SEO)
  7. Ability to display non-stock items (order qty, lead time, pricing)
  8. Ability to flag products as New, Clearance, Best Seller, Sale (across the site)
  9. Submitted form data emailed to office services team (customer IA record created in Ecometry)
  10. Generate catalog order in Ecometry
- iii. Features that partially exist in some/few e-Commerce Systems
  1. Support up to 500,000 items in Product Catalog
  2. Ability to enter multiple product SKUs and add them to the cart in one batch
  3. Ability to browse products by category, brand (including client's products), price ranges, (filter only: in stock/out of stock/drop ship) and other attributes that are appropriate at the category/sub-category

levels (e.g. materials, dimensions, safety ratings, application, style, color, customizable, A-Z, etc.)

4. Provide "Clearance", "Sales", "New Products" category/sub-category pages
5. Ability to filter and sort the products in a category by key attributes like product name, price, brand, and more
6. Ability to browse product offering through A-Z PRODUCT index PAGE; might be a module on a page

#### a. Merchandizing

- i. Features probably not available in any e-Commerce System
  1. Apply logic of customer buying patterns to up-sell/cross-sell: related items, "you may also like" items
  2. Apply logic of catalog ad structure to web site (bundles, kits)
  3. Ability to "match" accessories with products (may be replacement parts)
  4. Improve Quick Shop functionality (SKU parser)
  5. Maximize opportunities for cross-selling via discounts (promotion): creating joined products – "buy this and buy this and you'll get an discount"
  6. Ability to surface free shipping at product level (items that qualify for free shipping, items that exceed \$1000, some vendors include free shipping)
  7. Highlight automatic email reminder to reorder products (product detail, my account, checkout confirmation)
- ii. Features that partially exist in some/few e-Commerce Systems
  1. Ability to easily add add-ons to shopping cart
  2. Ability to easily associate add-on products from back-end system

#### b. Shopping Lists

- i. Features probably not available in any e-Commerce System
  1. Ability to maintain multiple shopping lists (each list can have a nickname)
  2. Ability to e-mail shopping list to a friend or colleague
  3. Ability to move products from shopping list to shopping cart
- ii. Features that partially exist in some/few e-Commerce Systems
  1. Ability to save products to shopping list
  2. Ability to manage (e.g., delete, edit attributes) products in shopping list

#### c. Search

- i. Features available in most e-Commerce Systems
  1. Ability to search on keyword, description text, item number, partial item number and/or category keyword
- ii. Features probably not available in any e-Commerce System
  1. Ability to support "Did you mean?" related search terms.
  2. Provide pre-configured advanced search parameters when a customer searches on specific products/categories

3. Ability to refine search results by attribute (sort, filter, drill-down on availability, SKU number, Price, Brand, etc.)
  4. Make most common searches available to customers
  5. Support modified “ignore” words (words like “no”, “not”, “before” cannot be searched)
  6. Ability to filter out “non-stocked” products from results (products that are in the system, but no longer available for sale, like discontinued items, etc.)
  7. Ability to return product categories/sub-categories in search results
  8. Improve search accuracy: misspellings, poor keywords, etc.
  9. Provide web log successes and failures: need reporting (dynamically feeds keyword mapping)
  10. Want to be able to map keywords to products, categories, and other keywords
  11. Highlight recently viewed/searched items for each customer
  12. Desire for “types ahead” based on log files (predictive search input)
- iii. Features that partially exist in some/few e-Commerce Systems
1. Ability to search only in certain areas of the site (e.g., Clearance) "Confine your search"
  2. Support advanced search functionality (words to ignore, styles/attributes, price ranges, common attributes - browse structure, pre-configured searches for special categories, search on items I've purchased, catalog page number, promo code)
  3. Ability to fine tune relevance weighting in results returned (weighted keywords)
  4. Ability to search on products only, content only or products and content

#### d. Promotions/Rebates

- i. Features probably not available in any e-Commerce System
  1. Display all specials offered on a single page
  2. Provide category/sub-category pages for Clearance, Sales & Offers
- ii. Features that partially exist in some/few e-Commerce Systems
  1. Implement Promotional Codes

### 3. Promotions/Campaigns

- i. Features probably not available in any e-Commerce System
  1. Create promotions and campaign landing pages without engagement of web team (private affiliates, core categories, disaster topics, industry verticals, etc.)
  2. Surface promotions, pricing and discounts at category, sub-category and product pages (e.g., Free Shipping)
  3. Support SEO through page coding, meta tags, internal links
  4. Track marketing source codes both internally and externally (from online/offline campaign assets or partner sites)
  5. Offer, track and fulfill rebates online (future feature)

6. Manage promotion creation/rules, start date, end date (personalized rules)

#### 4. Product Details

- i. Features probably not available in any e-Commerce System
  1. Ability to zoom in on product image (Scene 7)
  2. Display schematic of product (where appropriate), or detail shot of a specific part of the product (line drawings, charts, matrices, etc. that show the product parts they need)
  3. Ability to display color options for products and swap selected color (as appropriate)
  4. Ability to display affinity-based product recommendations (i.e., "customers who bought this, also bought...")
  5. Ability to display "real-time" inventory (may change depending on style/color/attributes)
  6. Support simple navigation through parent and related categories/sub-categories
  7. Ability to "Share with a Friend" (e-mail) from product page
  8. Ability to estimate shipping carrier/time/cost
  9. Display hazmat info on product page, OSHA and ANSI standards (and other standards)
  10. Support quick search for similar products
  11. Display whether a product is New, Sale, Replacement, etc.
  12. Display multiple items together in an "Ad Like" fashion (grid layout)
  13. Ability to add products to "favorites" list (personal/company)
- ii. Features that partially exist in some/few e-Commerce Systems
  1. Ability to show large, alternate views of products including application shots (product in use)
  2. Ability to select product attributes (color, size, etc.) as appropriate
  3. Allow customers to download PDF instruction manuals and MSDS sheets

#### a. Product Comparison

- i. Features probably not available in any e-Commerce System
  1. Ability for the Client to identify "key attributes" by category/sub-category for product comparison
  2. Support for automatic product comparison
- ii. Features that partially exist in some/few e-Commerce Systems
  1. Ability to compare several products across various attributes
  2. Ability to compare products from search results page

#### b. Images/Image Management

- i. Features probably not available in any e-Commerce System
  1. Manage image assets dynamically across the site
  2. Image database maps images to SKU/EDP numbers
  3. Integrate asset management tool with offline photography workflow
- ii. Features that partially exist in some/few e-Commerce Systems
  1. Store multiple images for each product

**c. Custom Product Details**

- i. Features probably not available in any e-Commerce System
  1. Provide online custom sign application (with text and logos/images)
  2. Ability to choose sign template and enter custom copy/artwork (logos)
  3. Ability to transmit artwork (logo assets) to Client's team
  4. Ability to preview custom sign
  5. Route custom sign order to appropriate Client's team (for follow-up)
  6. Electronically transmit custom sign (or pipe markers, or tags) orders to vendors (e.g., Accuform)
  7. Ability to store artwork to "My Account" for future use (branders.com - logo locker)
  8. Ability to save custom products to "My Favorites" list for later shopping
  9. Provide online custom product configurators (for logo imprinting - hardhats, protective clothing)
  10. Ability to transmit artwork (logo assets) to Client's team
  11. Ability to provide logo/copy via email, fax; email proof to customer
  12. Automatically calculate set-up charges (set-up charge waived if repeat order)

**5. Create Mini-Site****a. Government vertical page**

- i. Features probably not available in any e-Commerce System
  1. Government vertical page: establishes credibility with government buyers by showing they accept GSA smart pay card and who we sell to in government

**b. Mini-Site category**

- i. Features probably not available in any e-Commerce System
  1. Category "mini site" (top categories such as Eye Protection or Gloves); not co-branded; signs; branded products.

**c. Corporate Storefront**

- i. Features probably not available in any e-Commerce System
  1. Ability to create custom, co-branded storefronts personalized for appropriate customers that will provide a subset of products available at a specific URL
  2. Ability to set corporate username and password for access to storefronts

**6. Ordering (Shopping Cart)**

- i. Features probably not available in any e-Commerce System
  1. Ability for user to calculate estimated freight (enter postal code and shipping method)
  2. Ability to display estimated shipping and taxes (by default from account info or if the user enters their shipping ZIP code)
  3. Display expected delivery times/dates
  4. Show comparison between shipping methods (cost and delivery times)

5. Enter item number in shopping cart or during check out process to order
  6. "Quotes" appear after adding to cart (once in the shopping cart area, active quotes can be viewed by the customer)
  7. Ability to message individual unit prices as "Quoted Price", "Sale", "Discount", etc.
  8. Ability to "Share (shopping cart) with a friend" (Colleague)
  9. Ability to highlight savings in shopping cart and checkout (based off of first column): "You saved \$\$ on this offer!!"
  10. Keeping track of how much more you need to spend until they qualify for free shipping or threshold promotion: "Add \$50 more for free shipping!" (This messaging can also appear in the header/mini-cart.)
  11. Provide links/promotions in empty shopping cart (to continue shopping, etc.)
  12. Provide "Route for approval" call-to-action for managed accounts (instead of checkout)
  13. Ability to enter promo/priority codes in shopping cart
  14. Need messaging on saved carts that prices may change
  15. Ability to "save for later" items in cart
  16. Ability to "save cart" for future action
  17. Ability for CSR to pull up/edit a customer's cart
- ii. Features that partially exist in some/few e-Commerce Systems
    1. Display shopping cart persistent across sessions
- a. Inventory**
- i. Features probably not available in any e-Commerce System
    1. Site will provide "real time" visibility into available to sell inventory through regular DB updates from Ecometry/ILS
    2. Site will provide inventory status for inventory exceptions (e.g. "this item is currently back ordered")
    3. "Available to sell" inventory will be decremented when customer enters checkout process from cart; inventory reservation will happen at order processing
    4. Exception handling will provide messages to customer in the event that their order cannot be fulfilled as promised
- b. Quotes/Pricing**
- i. Features probably not available in any e-Commerce System
    1. Commerce engine will support volume discount and offer-based pricing rules generated in Ecometry to provide customers with best price guarantee based on their individual or corporate entitlements.
    2. Commerce engine will support quantity based pricing rules (column pricing)
    3. Ability to request quote online (registration required)
    4. Submitted form data emailed to sales team
    5. Support automatic confirmation of quote request (to customer)
    6. Explore options for sales team to post quote PDF/HTML to customers "personalized" site

7. Site will have a mechanism for displaying sale, quoted or discount pricing (e.g. strikethrough, etc.) - the blue "Q"
8. Site will provide feedback to customers on how much they have saved (esp. in shopping cart and checkout)
9. Site will clearly message "your best price" or similar

### c. Shipping

- i. Features probably not available in any e-Commerce System
  1. Allow for business rules on shipping exceptions (e.g., Alaska/Hawaii, reductions in certain cases)
  2. Dynamically route orders (based on the business rules) to different warehouses
  3. Calculate shipping based on UPS and FEDEX tables
  4. Incorporate dunnage variable into shipping price calculation
  5. Automatically include hazmat, ORMD charges
  6. Ability to store shipping statuses in order DB (update from Ecometry/ILS)
  7. Support split-fulfillment, hold until complete, back orders, replenishment (future orders) and reorders

## 7. Check-out

- i. Features probably not available in any e-Commerce System
  1. Ability to select/show shipping destinations as combo of nickname and address. Provide functionality for users to manage hundreds of addresses
  2. Support business rules for "free freight"
  3. Support one-click or "express" checkout process for (registration required)
  4. Ability to check out without registering – guest checkout; push, wherever possible, for registration
  5. Support de-duplication of previous guest customers (within commerce engine)
  6. Support APO/FPO (Army, Federal, Military destinations) functionality
  7. Provide option to show/hide address information in checkout (and edit)
  8. Support address validation and standardization (can't ship to PO boxes)
  9. Ability to save credit card information to profile (credit card number, etc.)
  10. Provide list of order status definitions at checkout confirmation
  11. Provide sign-in capability mid-way through checkout if user has forgotten
  12. Support multiple addresses per shipment
  13. Support multiple ship methods/fulfillment options throughout checkout (e.g. some items via drop ship, some via FedEx)
  14. Display savings in order summary and review/payment page
  15. Offer customer satisfaction survey at completion of checkout for first time users (or until user fills it out)

- 16. Allow customers to specify tax exempt status (customer may upload form)
- ii. Features that partially exist in some/few e-Commerce Systems
  - 1. Ability to accept multiple forms of payment
  - 2. Ability to purchase products using promotional codes and coupon codes
  - 3. Display cart summary as you go through the checkout process (one page checkout with vertical orientation)
- a. Payment Processing**
  - i. Features probably not available in any e-Commerce System
    - 1. Auto-payment processing without accounting intervention (for all forms of payment)
    - 2. Potential to “store” credit card information
    - 3. Support tax calculation using Vertex (exceptions for drop ship)
  - ii. Features that partially exist in some/few e-Commerce Systems
    - 1. Support for multiple payment methods: credit card, PO, balance transfer/EFT, Government purchasing cards (smart pay)
    - 2. Support real-time credit card authorization
- 8. Returns**
  - i. Features probably not available in any e-Commerce System
    - 1. Ability to process returns online (RMA number issued automatically)
    - 2. Ability to return entire order or line item
    - 3. Provide qualification form to determine whether or not CSR intervention is required
    - 4. Provide NS.com/returns as source for all return related content/functionality (access to live chat)
    - 5. Ability to log shipping problem (shipped wrong qty or product); access to live chat
- 9. Content Management System**
  - i. Features probably not available in any e-Commerce System
    - 1. Ability to create/manage products (records): product name, style tables, vendor information, keywords, tiered pricing (in CMS Access system), images - workflow for internal approval
    - 2. Support versioning and change logs for product management
    - 3. Vendors to have the ability to set up products in the system; workflow for the client’s approval of these products (pricing controlled by NS)
- 10. Ecometry/ECF Synchronization (business layer only)**
  - a. Order Management & Alerts**
    - i. Features probably not available in any e-Commerce System
      - 1. Future orders posted to Ecometry when they are ready to be fulfilled
      - 2. Future orders logged into Ecometry but flagged so it doesn’t hit customer’s credit limit
- 11. Marketing & Communications**
  - a. About Us**
    - i. Features probably not available in any e-Commerce System

1. Display locations: content/story, address, photos (friendly, warm fuzzies)
2. Highlight core values, company mission, community work, strategic initiatives, PR

**b. E-Blast Management**

- i. Features probably not available in any e-Commerce System
  1. Support landing pages for E-Blasts in site structure
  2. Ability to track E-Blast responses, open rates, etc.

**12. Technology Requirements**

**a. SEO/SEM Requirements**

- i. Features probably not available in any e-Commerce System
  1. Ability to track organic search
  2. Support custom landing pages for PPC/SEM campaigns (possibly CMS generated)
  3. Page templates are search engine friendly and indexable
  4. Pages are generated in pseudo-static form to allow for crawlers
  5. Site needs to support source code session tracking
  6. Meta tags managed through the CMS

**b. Omniture/Reporting**

- i. Features probably not available in any e-Commerce System
  1. Need to embed Omniture tracking tags in all site templates/pages
  2. Need to develop new Omniture tagging/events scheme (mapping to new site structure and processes)

**c. Internal Reporting and Marketing Automation**

- i. Features probably not available in any e-Commerce System
  1. Omniture will provide site usage data
  2. Order, customer, and product data will be available for export to DW/SAS for sales and financial reporting
  3. Commerce platform will generate abandoned cart e-mails according to set business rules

## 4. Future e-Commerce System Architecture and Design Overview

### 4.1 Overview

Proposed e-Commerce Platform consists of the following modules and systems

- Content and Product Management System
- Personal Account Management System
- Corporate Account Management System
- Order Management System
- Mini-Sites Module
- Shopping Cart Module
- Search Module
- Reporting System
- Marketing and Promotion Management System
- Interface Module
- Administration System

Detailed design for each of these individual modules and systems with detailed modules' integration will be covered in the Design Phase of e-Commerce Platform Redesign Project.

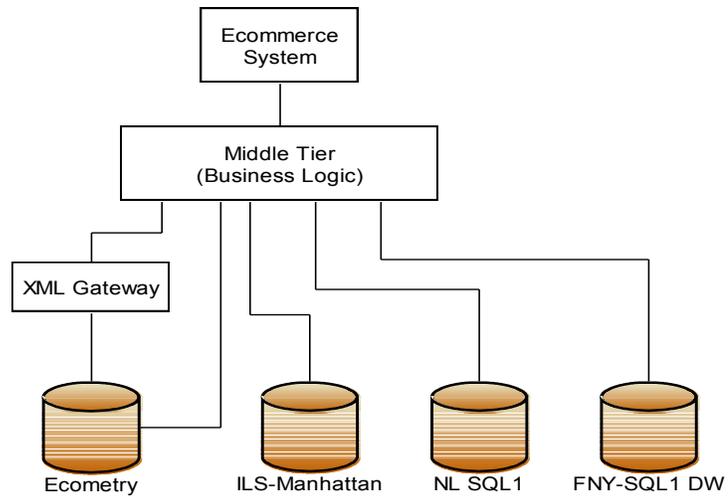
All the above modules and systems, which will be developed or customized using ASP.NET 2.0/3.0 technology, will work on Internet Information Server 6.0 based on Windows Server Platform.

### 4.2 Proposed System Architecture

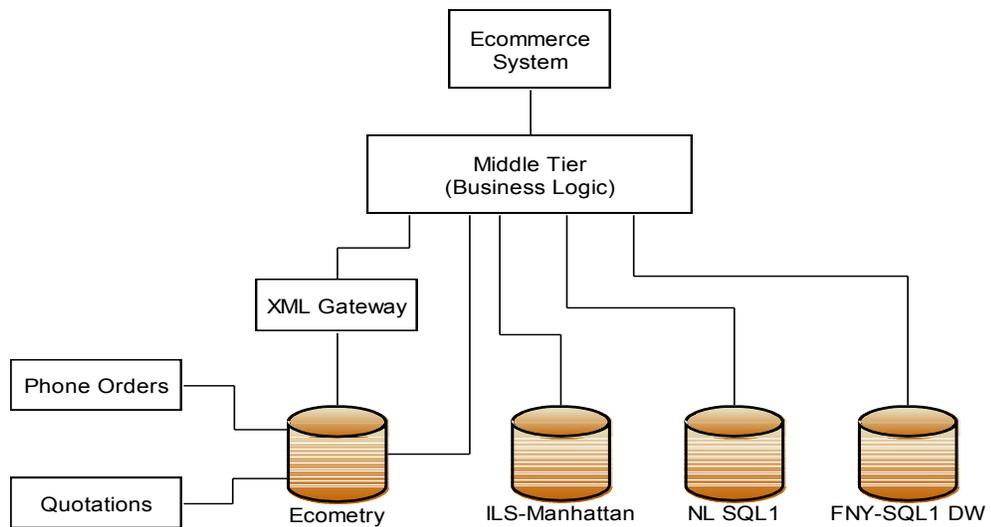
The existing system uses a (mostly) two-tier architecture, where the modules in the presentation tier (e.g. the existing e-Commerce system and existing Ecometry-based business procedures) connect directly to the relevant databases. Since many components rely on shared data, this architecture creates a serious problem when attempting to improve functionality.

Converting at the same time all modules that rely on shared information creates a training and conversion bottleneck: all individuals using the relevant processes must switch to improved systems all at the same time. Converting modules one at a time, however, requires adding back-end processes to synchronize mutually shared information with unconverted modules, introducing substantial additional risk of reduced functionality or outright failure.

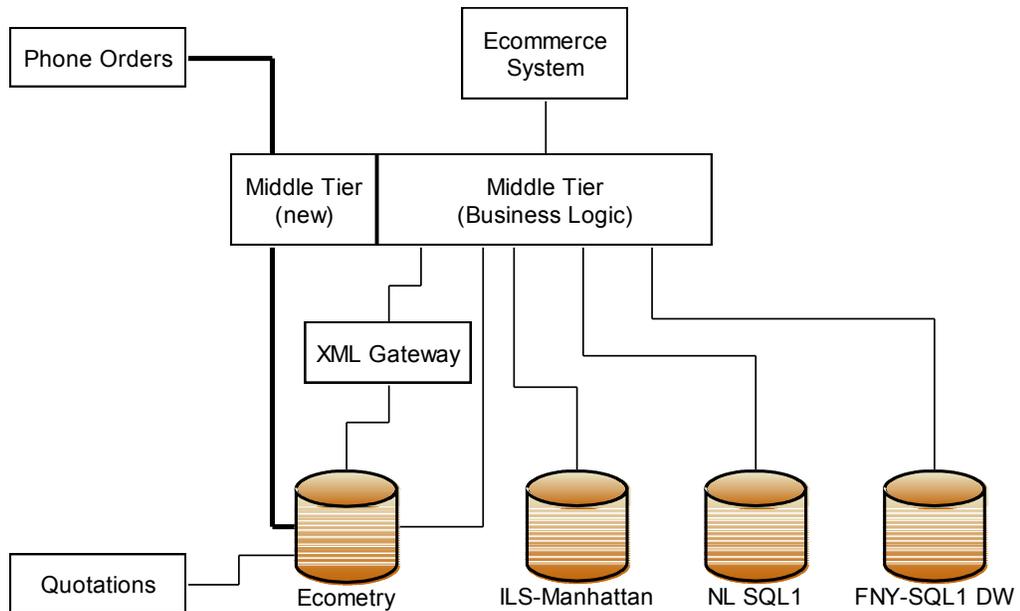
A three-tier architecture makes the conversion procedures substantially simpler. A middle layer of business rules allows the presentation layer of business processes to be storage-agnostic.



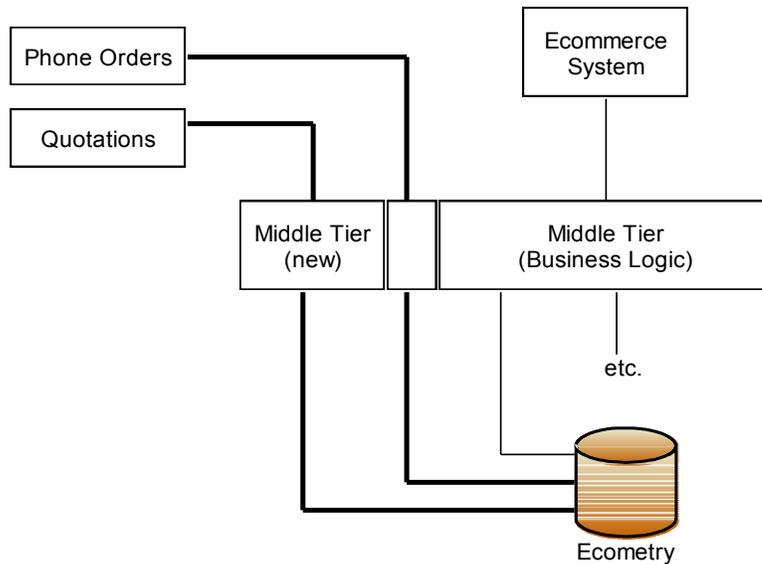
Existing business processes can then be moved one by one to the “top” of the middle tier, without altering their actual storage requirements. For example, phone orders and quotations might share information in the Ecometry database:



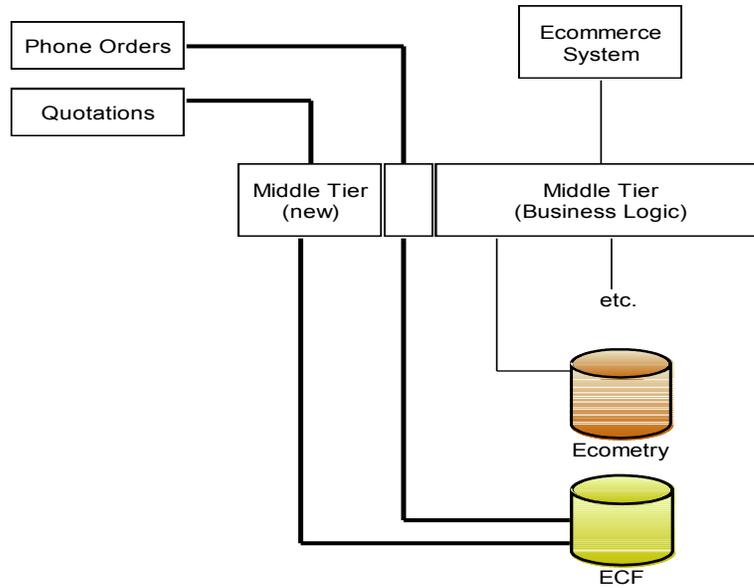
First, one module is moved above the middle tier. The middle tier is extended to reproduce the existing storage system. Since the actual storage is unaffected, existing unconverted systems coexist in the same way as before, and reliability and accuracy are at least no worse, with no additional points of failure introduced for synchronization.



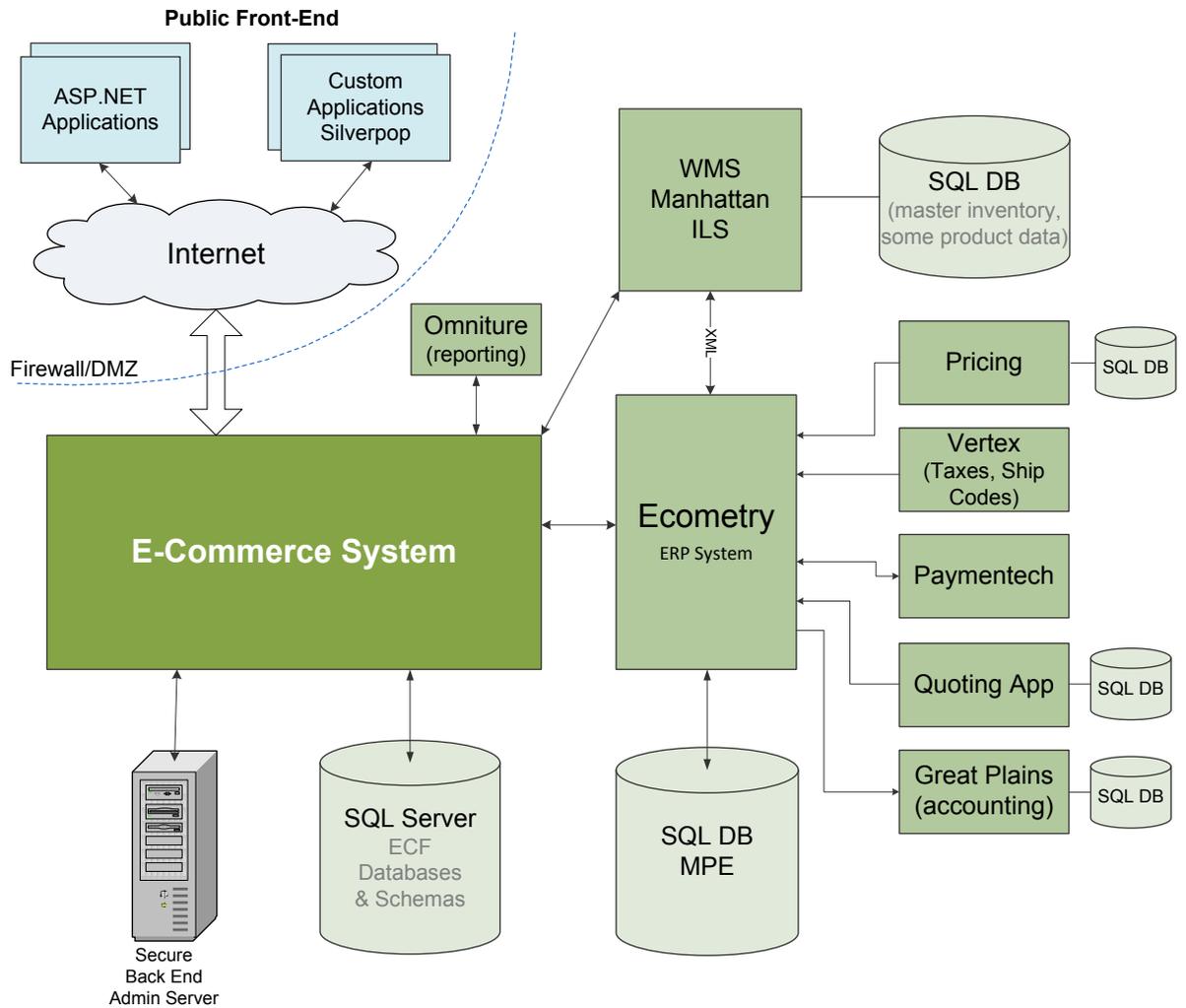
The second module can then be moved above the middle tier in the same way



Once all relevant modules have been moved to the presentation tier, changes to the storage tier can be made without directly affecting the users of additional modules. Although mutually shared information still requires a relatively large “all at once” conversion, the improved functionality can be tested extensively and deployed without directly affecting the users of existing modules.



Future system will be based on 3rd Party e-Commerce System which will be selected after detailed analysis of standard and customized features of these systems. The main proposed 3rd Party e-Commerce Systems described in Section 6 below.



### 4.3 System Design

The e-Commerce system will consist of the following modules:

#### 4.3.1 System configuration (software)

1. Windows 2003 Advanced Server SP1 or Windows 2008 Advanced Server
2. Internet Information Services 7.0 Cluster
3. MS Internet Security and Acceleration Server 2006 Enterprise Edition SP1 Load Balancing Cluster
4. SQL Server 2005 Enterprise Edition SP1 Cluster

#### 4.3.2 System configuration (hardware)

1. Server platform will be based on HP DL380 G5 series (or similar solutions from Sun or IBM or Dell PE2800, etc.)
2. Storage system will be present as 2-nodes RAID-5 Disk Array based on Dell Power Vault or similar solution. In the sequel up to 6 additional nodes may be added (8 nodes in total).

### 4.3.3 e-Commerce Portal (Software)

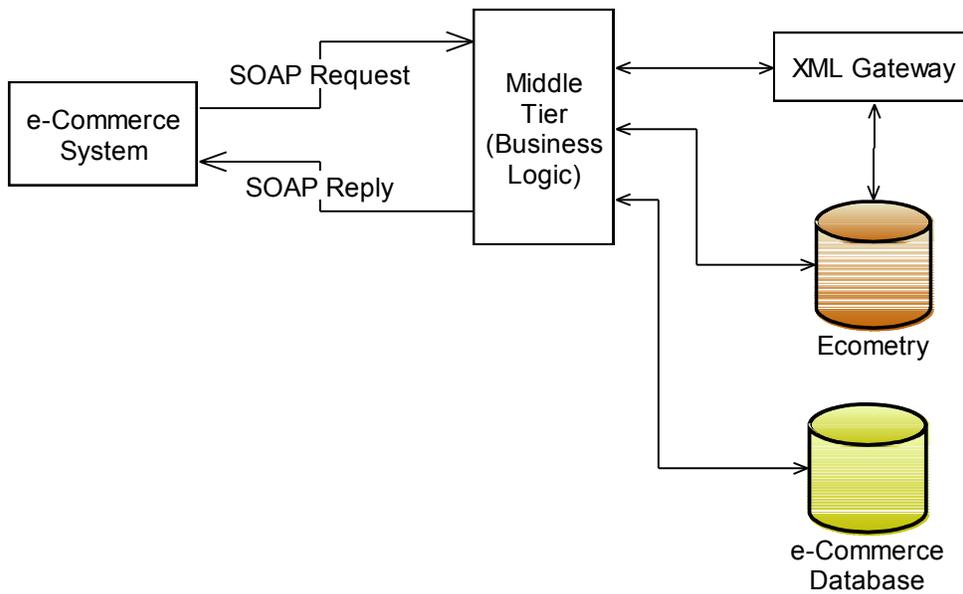
Note: Most modules include components for each tier: presentation layer, business-logic layer and storage layer.

2. Account Management
  - a. Individual Accounts
  - b. Corporate Accounts
    - i. Purchase Order Management
    - ii. Credit/Accounts Payable
  - c. Personalization
  - d. Customer Service
  - e. Live Chat
3. Product Catalog
  - a. Merchandizing
  - b. Shopping Lists
  - c. Search
  - d. Promotions/Rebates
4. Promotions/Campaigns
5. Product Details
  - a. Images/Image Management
  - b. Custom Product Details
6. Create Mini-Site
  - a. Government vertical page
  - b. Mini-Site category
  - c. Corporate Storefront
7. Browse Mini-Site
8. Ordering (Shopping Cart)
  - a. Inventory
  - b. Backorders
  - c. Quotes/Pricing
  - d. Shipping
9. Check-out
  - a. Ecometry order creation
  - b. Payment Processing
10. Returns
11. Content Management System
12. Ecometry/ECF Synchronization (business layer only)
  - a. Quote/Bid Request
  - b. Order Management & Alerts
  - c. Ecometry (ERP) Interface
  - d. Vendor product creation

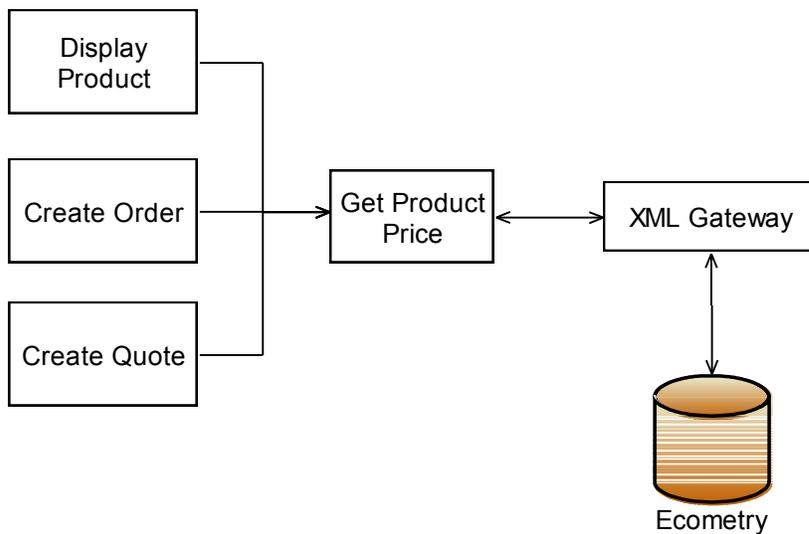
### 4.4 Integrating e-Commerce System with legacy ERP System

Integrating e-Commerce application with an existing Ecometry ERP system is critical to successfully implementing the future system.

All Ecometry integration will be virtualized through the business logic layer:



This approach will hide the implementation details of the Ecometry integration from the presentation layer. Additional structure within the business logic layer can further isolate Ecometry integration issues:



Integrating with Ecometry will employ one of these methods:

1. Standard access
  - a. Use existing functionality in XML gateway to Ecometry
  - b. Batch-replicate/populate Ecometry information (existing implementation)
2. Nonstandard access
  - a. Batch-replicate/populate Ecometry information (new implementation)
  - b. Enhance XML gateway to Ecometry

c. Directly query/modify Ecometry database

The decision of which approach to use must be made feature-by-feature based on the required accuracy or authority of the information, the required immediacy (fully interactive/immediate, asynchronous/soon or batch/later), and how well the existing Ecometry functionality supports the desired functionality.

If sufficient new features require nonstandard access to Ecometry, then an analysis of the Ecometry technical details must be made to determine how to Ecometry handles concurrency, referential integrity, and transactionality to best implement the required functionality.

## 5. Detailed Requirements

This section amplifies certain requirements and explores high-level design ideas for those requirements where feasible and valuable at this phase. Most requirements do not require additional high-level design; they are straightforward implementations of or extensions to standard e-Commerce functionality. Many other requirements do not presently have sufficient workflow or use cases defined for meaningful amplification; additional analysis will be required to even begin to suggest high-level design ideas.

### 5.1 Order Creation Workflow

A key component of the new system will be improving the Order Creation Workflow.

In the current system customer-originated web orders are just stored by the e-Commerce system; a CSR must manually convert the orders to Ecometry. Phone, fax and postal mail orders are entered directly by a CSR into Ecometry.

The new system must then

- Automate the back-end process of converting web orders to Ecometry
- Allow CSRs to use the web interface to place customer orders by phone or fax

#### 5.1.1 Automate back-end processing

1. Verify existing/create CA and/or RA
2. Create order
  - a. Set order type
    - i. I – Internet order
    - ii. M – Postal Mail
    - iii. F – Fax
    - iv. P – Phone
  - b. Set credit card name
  - c. UPS/FedEx Set collect account numbers
  - d. Add alternate shipping address to order notes
3. Update RA record
  - a. shipping address
  - b. drop ship (order exception?)
  - c. Split order
  - d. UPS/FedEx collect address (create order?)
4. Check order exceptions (and do what?)
  - a. Hazmat
  - b. Drop ship (Update RA record?)
  - c. Exceeded quantities
  - d. Etc. (TBD)
5. Confirm order (requires human intervention?)

### 5.1.2 Collect Additional Information

1. RA information
  - a. shipping address
  - b. drop ship (order exception?)
  - c. Split order
  - d. UPS/FedEx collect address (create order?)
2. Credit card name
3. UPS/FedEx Collect account number(s)
4. UPS/FedEx collect address

### 5.1.3 Integrate Ecometry processes

1. Credit card authentication
2. Product authorization
3. Pricing (already integrated?)
4. Shipping rules and costs

We will have to determine which model to use for processing orders from the web (including phone/fax/mail orders):

1. Fully interactive: The user can see in real time a confirmation that his order has *really* been processed (i.e. accepted by Ecometry)
2. Asynchronous: The order creation back-end happens continuously, but in the background (same or different physical machine)
3. Batch: The order creation back-end happens all at once as a nighttime batch process

Currently, much information is retrieved from and entered into Ecometry through its integrated (?) user interface. Each item of additional functionality must be added to the back-end interface by one of the following means:

1. Batch-replicate Ecometry information in e-Commerce database: most useful for static information such as CA/RA records
2. Enhance XML gateway to Ecometry: most secure
3. Directly modify Ecometry database

### 5.1.4 Three-Tier

Regardless of the method chosen to directly interface to Ecometry, the actual presentation layer functionality should access the new business logic layer (middle-tier); the actual interface to Ecometry will be built into the business logic layer.

## 5.2 Product Tags

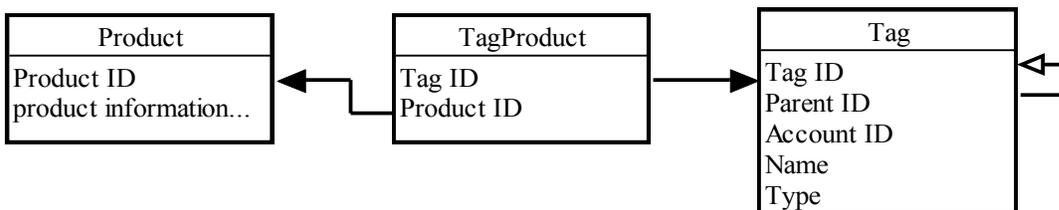
Product tags can be used to implement many of the high-level requirements, including:

- Product Catalog browsing by
  - category/subcategory
  - brand

- safety rating
- etc.
- Merchandizing
- Mini Sites
- Keyword mapping
- Corporate Storefronts
- Shipping (Hazmat)
- Promotional Codes
- Specials (Sale, Clearance & Offers)

### 5.2.1 Implementation

The typical way to implement this functionality is to store the product, tag, and tag-product relationship separately:



### 5.2.2 Hierarchical Tags

The self-referential Parent ID approach allows a hierarchical tag structure:

- “Category” (Parent ID null)
  - “Fire Extinguisher” (Parent ID “Category”)
    - “ABC” (Parent ID: “Fire Extinguisher”)
- “Brand”
- etc.

Care must be taken in the design and implementation to avoid circular references.

### 5.2.3 Other Information

The Account ID can serve to control access to tags and tag-product associations for outside customers, e.g. Corporate Storefronts. The Type can serve to uniquely identify special top-level tags such as “Category”, to dynamically create the category list.

This allows all product browsing – standard, filtered, mini site, and storefront – to use a consistent implementation: always show products associated with one or more specific tags.

Additional information can be added to the tags for special purposes, such as category-specific tags.

## 5.3 Corporate Storefronts

The ability to create custom, co-branded and personalized storefronts entails a number of subsidiary requirements.

### **5.3.1 Storefront Creation**

The system must have some facility for creating new storefronts. For the first phase of the project, it should be enough to require client's web development to individually design storefront pages and add them to the ecommerce system. In later phases, a template plus customization feature can be considered to give corporate users more direct control over the appearance of their storefronts.

### **5.3.2 Storefront Access Control**

It will be necessary to implement a mechanism to allow corporate representatives to administer their storefront, especially to select included products. The ecommerce system must therefore control representatives' access to administrative features and product tags.

### **5.3.3 Purchase Tracking**

When a user purchases an item from a corporate storefront, the source storefront should be recorded in the ordering and included in reporting.

## 6. Third Party E-Commerce Systems Overview

This section highlights features of existing e-Commerce platforms. Because of the large amount of customization required, additional analysis will be required to determine how to extend each platform for the required customization.

### 6.1 Microsoft Commerce Server 2007 Overview

Commerce Server 2007 is designed for creating e-Commerce solutions and Web sites with high-performance, familiar tools that simplify setup, management, and administration tasks. Commerce Server 2007 allows to build an online store complete with product details, shopping cart, checkout processes, and marketing support. It was built and tested to support large enterprises against the following criteria:

- 10 million items
- 100,000 catalogs and virtual catalogs
- 60 million user profiles
- 100,000 orders/day (12 hour peak)
- 10 GB/hour data warehouse import
- Hosting support (100 active, 1,000 provisioned)

Commerce Server 2007 provides performance, usability, and security enhancements with the redesigned suite of Business Management Applications. These enhancements are summarized as follows:

- Simplified workflow with wizards to help you create complex objects and data edit pages broken down into constituent components. This makes task management easier.
- List views, where you can view search results or data objects, sort objects based on a selected property, select fields for sorting, and select the fields to use for sorting a list view.
- Preview pane, where you can view the properties of an object selected in List View.
- Status view, where you can view a summary of information for the selected object.
- Tree views, where you can view and explore the catalog hierarchy or marketing data hierarchy, and display objects alphabetically or sequentially.
- Perform expression-based searches based on any number of object properties.

Commerce Server 2007 provides next key features:

- Manage Customers & Orders, Catalog & Inventory and Marketing, through new Windows-based applications. By using the familiar look and feel of Microsoft Windows, with task-based interfaces and wizards to simplify complex tasks, these tools help business users achieve shorter turnaround times, lower maintenance costs, and make easy site updates and fine-tuning, helping to increase revenue.
- Advanced Reports and Analytics expose business intelligence and data mining from multiple information sources, including click stream usage, visitor browse history, campaign effectiveness, and purchasing patterns. Based on SQL Server Reporting Services, users enjoy full life cycle

management—including authoring, scheduling, versioning, taking data snapshots, access controls, and rendering.

- **Advanced Marketing Manager:** Create and manage customers, campaigns, advertisements, discounts, coupons/promotion codes, expressions, direct mail, and lists. Personalize the buying experience with targeted merchandising
- **New Catalog System Features:** Create virtual catalogs for custom and contract pricing, in addition to virtual catalog subsets and aggregates that support application of different pricing models, such as seasonal pricing. Rank products, categories, variants, and relationships. Multiple search mechanisms.
- **New Orders System Features:** Multiple and named baskets per user with track in-progress orders/baskets and placed orders/purchase orders. Payment and shipping methods - multiple types, split-tender, and globalization improvements. Improved orders storage and management with possibility to find, modify, and delete purchase orders.
- **Encryption and Security** - encrypt sensitive profile properties, such as passwords, by using a one-way hash. You can use two-way encryption to send sensitive information over a network.
- **Scalability** - scale to 60 million users.

## 6.2 MEDIACHACE e-Commerce Framework (ECF) Overview

The Mediachase .NET e-Commerce Framework (ECF) is an end-to-end .NET development framework and solution for building, extending, and delivering professional e-Commerce sites complete with integration capabilities. The ECF is designed and developed using best practices and allows developers and IT organizations ultimate flexibility to extend and adapt the ECF to virtually any type of commerce business scenario.

### Core Business Features

- Customer Management
- Improved Order Management
- Catalog/Content Management and Publishing
- Catalog and Role Security
- Product and SKU Management
- Advanced Search with Configurable, Dynamic Filtering
- News module
- Polls module
- Product Comparison - Built In Product Comparisons Logic
- Login Roles
- Customer Self Service Accounts
- Full Featured Shopping Cart
- Customer/Editorial Reviews
- Affiliates
- Digital Downloads
- Batch Updates
- Order Processing Workflow Enablement
- Serial Sets

- License Management
- Currency Rates/Exchange
- Payment Plans
- Real-Time Carts
- Built in Payment Gateways
- Custom Payment Gateways
- Fulfillment and e-delivery
- Shipping Methods
- Shipping Providers
- Shipping Packages
- Tax Management - Advanced Taxability by Country, Region, State, or ZIP code
- E-Mail Campaigns
- Coupons & Discounts
- Statistics and Reporting
- Multi-Language Support
- Warehouses & Inventory
- Data Import/Export
- Virtual Pages
- Event Logging
- Automated e-Mail Notifications
- Improved Performance/Speed

#### **Design, Branding, and Localization Features**

- Any type of design, brand, navigation, and theme through flexible master pages
- Flexible template based model for categories, products, SKUs and more...
- Support any language on front end as well as backend for localization
- Multi-language, Multi-currency product catalogs

### **6.3 Ominor Feature Overview**

The Ominor E-Commerce Framework has an extensive list of available features. These are divided into the core Standard Feature set, Advanced Features and Additional Modules.

The standard feature set of the Ominor E-Commerce Framework is:

- Product Database
- Advanced Import / Export Functions
- Catalogue Control
- Quick and Advanced Search
- Shipping and Taxes
- Payment Service Provider Integration
- Customer Accounts and Address Books
- Email notifications
- Best seller lists

- Related Products
- People who bought also bought
- Last product viewed
- Stock Control
- Invoice & Picking Slip creation
- Refunds and split orders
- KPI Reporting Engine
- Profit Margin Analysis
- Multi-currency support

### Advanced Features

Below is a list of advanced features and modules available within the Ominor E-Commerce Framework. In each case a brief description is provided. Due to the unique modular architecture of the Framework each of the features and modules can be configured and implemented to meet your exact requirements:

- **Content Management System** - Management of static pages and email content
- **Wish List / Saved Baskets** - Allow customers to save products to Wish Lists. Allow site users to search for Wish Lists and buy products for others
- **Shipping and Order Tracking** - Seamless integration with your Delivery Service Providers allowing manifest printing and advanced order tracking
- **Special Offers** - A range of special offer functionality (Buy x get y half price, Buy x and y get z free, Free delivery over x) and more
- **Promotional Codes** - Set codes for special discounts, incentivize first purchase, track offline campaigns
- **Product Personalization** - Customized products for purchase (engraving, embroidering, transfer, branded products)
- **Product / Gift Finder** - Assisted and guided product selection and purchase for your customers
- **Points / Loyalty Scheme** - Reward repeat customers by assigning points to products and orders. Allow customers to redeem points on your site
- **Gift Vouchers** - Allow site users to select from a range of gift vouchers. Delivery these either instantly via a branded email or in printed format
- **Product Reviews** - Allow site users to review and rate products and upload images. Moderate and / or edit the reviews before publishing to the site
- **Gift Wrap** - Allow products to be wrapped and messages to be added. Administer all gift wrap, card and message options and associated pricing
- **Advanced Reporting** - An extension to the standard reporting suite providing detailed data in tabular and graphical format including conversion ratios and critical path analysis
- **Postcode Lookup** - Ensure the integrity of addresses and reduce fraud with integrated postcode lookup. An extension of this system can also provide features such as 'Find your nearest branch'
- **Accessories** - Provide an intuitive interface for site users to select product accessories. Create dynamic pages following product selection to display relevant product accessories, raising average order value
- **Quick Shop / Shop by Catalogue** - Present a custom interface to add multiple products to a basket using product names or codes
- **Testimonials** - Allow customers to submit testimonials to any area of the site including individual products. Moderate testimonials and publish them to the site
- **Product Compare** - Assist site users in selecting the right product for them by providing a side by side comparison of products specifications and features
- **Advanced Related Products (Weighted)** - Administer weightings to products and product types to allow the Framework to automatically generate related products

## Additional Modules

Below is a list of additional modules of the Ominor E-Commerce Framework:

- **Affiliate System** - A fully featured Affiliate Management and Tracking System including product feeds. Bypass affiliate network commissions and maximize affiliate revenue by working directly with your affiliates
- **e-CRM Advanced System** - Advanced customer relationship management including multiple log in, call centre management, scheduling and automated emails
- **White Label System** - Share your store technology with one or many other sites. Allow other sites to re-brand and redesign the interface you provide while you retain overall control to maximize market penetration
- **Personalization Engine** - Build up detailed customer profiles allowing you to offer personalized web and email content based on previous buying habits and other criteria
- **Customer Contact Protocol** - A defined and automated way of interacting with your clients - automatically email your customers with post-purchase surveys, provide timely offers, detect customer churn and more...
- **Exponential Email (EE)** - An email acquisition and sales generation tool, EE provides a managed, automated and fully measured way to incentivize site users to recommend friends and colleagues to your store
- **Wedding List System** - Allow customers to build up and manage a wedding list for other site users to reserve and purchase
- **Calendar System** - Allow customers to list significant dates in an online diary on your store. Email customers reminders of these dates with targeting offers from a set of editable templates, all fully measured
- **Color Matching Module** - Allow sites users to search for products by a specific shade of color. Present products within your catalogue that match one particular product a customer is viewing, raising order values
- **Questionnaire / Polling Engine** - Set up and run an unlimited number of polls, questionnaires and competitions complete with all reporting
- **E-Brochure System** - Allow customers to select those pages of your catalogue or brochure which are of interest. Generate a customized PDF brochure for download, greatly reducing catalogue costs
- **Extranet / Intranet** - Extend your online product catalogue within your organization or retail environment compete with additional privileged content such as sales tips and known technical issues
- **Product Feeds (CSV, XML, RSS)** - Offer products feeds in a variety of formats to shopping networks and key affiliates
- **Integrated Forum** - Generate a community within your store by offering a fully featured forum with a host features, moderation control and security
- **Cookie Based Offer & Tracking System** - A sophisticated alternative to the use of promotional codes in the basket stage. Offer customized special offer pricing for each of your customers based on links and campaigns you set up, for the duration of their visit
- **Campaign Tracking and Management** - Track campaigns and promotions including all relevant metrics and conversion ratios. Review the acquisition status linked to all events in the system (registration, order, brochure download) including referring search engine and key terms
- **Named Day Delivery** - Allow your customers to specify a delivery date for their order. Administer your store to specify which dates are displayed including cut off time for next day delivery

## 6.4 e-Commerce Systems Comparison

This topic provides a comparison of key features for described e-Commerce Systems

### Catalog Management Features

Feature	Microsoft Commerce Server 2007	Mediachase E-Commerce Framework	Ominor E-Commerce Framework
Create, update, delete, retrieve, and manage catalog data, such as catalogs, categories, products, product variants, and properties.	Yes	Yes	Yes
Create relationships between products and hierarchies across catalogs.	Yes	Yes	Yes
Create multicurrency catalogs.	Yes	Yes	Yes
Create multilingual catalogs.	Yes	Yes	Yes
Convert data between time zones at client/server.	Yes	Yes	No
Virtual catalogs.	Yes	Yes	Yes
Catalog edit filter (Catalog Manager).	No	Yes	Yes
Ability to request catalog from site.	Yes	Yes	Yes
Search in a category.	Yes	Yes	Yes
Aggregate content from multiple catalogs.	Yes	Yes	No
Define and modify base catalogs.	Yes	Yes	Yes
Define and modify virtual (or custom) catalogs.	Yes	Yes	Yes
Construct virtual catalogs by specifying include and exclude rules.	Yes	Yes	No
Set product prices.	Yes	Yes	Yes
Define product variants.	Yes	Yes	Yes
Apply discount product prices.	Yes	Yes	Yes
Create category hierarchies.	Yes	Yes	Yes
Advanced Product Comparisons Logic	No	Yes	No
Create and manage products, categories, catalogs, catalog sets, and product relationships.	Yes	Yes	Yes
Manage category and product relationships.	Yes	Yes	Yes
Import and export catalogs.	Yes	Yes	Yes
Define and modify inventory catalogs.	Yes	Yes	No
List views. View search results or data objects. Sort objects based on a selected property.	Yes	Yes	Yes
Tree view. View and explore the catalog hierarchy. Display objects alphabetically or sequentially.	Yes	Yes	No
Simple search based on selected filters and full or partial name or property to find catalog data objects.	Yes	Yes	Yes
Advanced search using Boolean expressions to find products, catalog definitions, and other catalog data objects.	Yes	Yes	No
Advanced Search with Configurable, Dynamic Filtering	No	Yes	No

**Order Management Features**

Feature	Microsoft Commerce Server 2007	Mediachase E-Commerce Framework	Ominor E-Commerce Framework
Ability to change release dates, quantity, item numbers	Yes	Yes	Yes
Ability to print copy of invoices	Yes	Yes	Yes
Create, modify, enable/disable, and delete payment methods.	Yes	Yes	Yes
Create, modify, enable/disable, and delete shipping methods.	Yes	Yes	Yes
Customize shipping methods.	Yes	Yes	Yes
Add and edit tax rates.	Yes	Yes	Yes
Order Batch Workflow Processing	No	Yes	No
Find, sort, view, and delete orders.	Yes	Yes	Yes

**Marketing Management Features**

Feature	Microsoft Commerce Server 2007	Mediachase E-Commerce Framework	Ominor E-Commerce Framework
Add coupons to discounts.	Yes	Yes	Yes
Approve campaigns and discounts.	Yes	Yes	Yes
Create, delete, and restore campaigns.	Yes	Yes	Yes
Create ad and discount campaigns.	Yes	Yes	Yes
Discount Pricing Engine	No	Yes	No
Create target expressions and target groups.	Yes	Yes	Yes
Create direct mail campaigns.	Yes	Yes	Yes
Create and manage user lists for direct mail campaigns.	Yes	Yes	Yes

**Development Platform and Integration Features**

Feature	Microsoft Commerce Server 2007	Mediachase E-Commerce Framework	Ominor E-Commerce Framework
Full integration with Visual Studio 2008.	Yes	Yes*	No
Full integration with Visual Studio 2005.	Yes	Yes	Yes
Full support for ASP.NET Web applications.	Yes	Yes	Yes
Service-oriented architecture to support Windows Workflow Framework (WWF).	Yes	Yes*	No

\*Available in Mediachase .NET eCommerce Framework G5

## 6.5 e-Commerce Systems Recommendations

Two appropriate e-commerce systems – Mediachase .NET eCommerce Framework G5 and MS Commerce Server 2007 Enterprise Edition:

- Mediachase .NET eCommerce Framework G5 is very new e-Commerce system (release on IVQ-2008). Full access to source code.
- MS Commerce Server 2007 Enterprise Edition is older, but stable and proven solution (released on IVQ-2006). Well-documented.

MS Commerce Server 2007 Enterprise Edition software recommended configuration:

Area	Software
Operating System	Windows Server 2003 Standard Edition with Service Pack 1
.NET Framework	Microsoft .NET Framework 2.0
Database	SQL Server 2005 Enterprise Edition with Service Pack 1
Development Environment	SQL Server 2005
	Microsoft Visual Studio 2005 Team Edition
	Microsoft BizTalk Server 2006 Enterprise Edition
	Secure Sockets Layer (SSL) certificate
Business User	Microsoft Windows XP Professional SP2 (or later)
	Secure Sockets Layer (SSL) certificate
Data Warehouse	SQL Server 2005 Enterprise Edition with Service Pack 1
	SQL Server 2005 Analysis Services with Service Pack 1
Monitoring	Microsoft Operations Management (MOM) Server 2005 Agent with SP1
Web Browser	Microsoft Windows with Internet Explorer 5.0+, Firefox 1.0+, or Mozilla 1.7+
	Mac OS X 10.4 using Safari 1.1

Mediachase .NET eCommerce Framework G5 software recommended configuration:

Area	Software
Operating System	Windows Server 2008
.NET Framework	Microsoft .NET Framework 3.0
Database	SQL Server 2008 Enterprise Edition
Development Environment	SQL Server 2008
	Microsoft Visual Studio 2008 Team Edition
	Microsoft BizTalk Server 2006 Enterprise Edition
	Secure Sockets Layer (SSL) certificate
Business User	Microsoft Windows XP Professional SP2 (or later)
	Secure Sockets Layer (SSL) certificate
Data Warehouse	SQL Server 2008 Enterprise Edition
	SQL Server 2008 Analysis Services
Web Browser	Microsoft Windows with Internet Explorer 5.5+, Firefox 1.0+, or Mozilla 1.7+
	Mac OS X 10.4+ using Safari 1.1+