



**Elegant MicroWeb**  
Delivering the Value of Technology

# Case Study

**Developing an e-commerce portal with shopping cart based on Liferay Portal Framework**



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# Case Study

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### The Company

The client of Elegant MicroWeb is a reputed online media agency based in USA. They needed a portal offering on-line shopping for products sourced from multiple vendors to customers across the nation. The client wanted to provide customers with a highly secure, easy-to-manage, on-line e-commerce solution with shopping cart, offering a wider range of products and services.

### The Objective

The client wished to implement an ecommerce solution where vendors could effortlessly create their own online store for different categories of products they wished to offer. They needed a portal personalized for vendors that would make it easy for them to update product information or content such as Product Catalogues, Technical Specifications, Prices, FAQ's, Product Reviews etc. The client wanted a secure application through which permissions could be assigned to users for accessing their allocated area(s) and enabling them to manage their shopping cart along with a highly secure payment gateway. Client wanted to develop the solution by developing JSR-286 compliant

portlets, which can be easily configured on Liferay Portal.

### The Solution

Elegant MicroWeb analyzed the requirements, conducted a features mapping exercise, and developed the portal utilizing the Liferay Portal Framework with well defined templates and easy-to-navigate layouts. To achieve all stated objectives, latest technologies that were used included: ICEFACES, JBOSS seam, JPA, JSR compliant portlets etc.

Administration portlets like Category Management, Product Management, Configuration Management and Order Management were developed with certain administration rights assigned to vendors. Using these portlets, Super Administrator can create and manage different vendors and design vendor interface whereas vendor administrator can define product categories, products and manage other vendor specific configurations. Additionally orders can be managed and tracked using order management portlet.

Elegant Microweb also developed Product catalog and Shopping Cart portlets for visitors that allow them to browse products by category and brands. Users can view product details such as technical specifications, product reviews,



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product images etc. For users to manage their shopping cart, place order and make payments, Elegant Microweb integrated third-party services like Authorized.net as payment gateway and UPS for shipping management.

### Challenges:

- Architecture design and implementation – Various environments and platforms like Liferay, ICEFACES, JBOSS seam, JPA
- Product engineering
- Easy to use interface
- Strict definition of layouts from the customer
- Cross browser compatibility

### Main Features:

- Super Administrator interface:
  - User Management & Access rights
  - Vendor Management and Configuration
  - Category Management
  - Product Management
  - Resource Center Management
  - News and Announcements
  - Order Management (View and Track Shipping)
- Vendor interface
  - Category and Subcategory management

- News and Announcements
- Product wise FAQ's
- Product attribute configuration
- Product Specifications - ability to add tabs like FAQ, Technical Specification
- Product Catalogues
- End User interface:
  - HTTPS based secure access
  - Secure payment gateway
  - My Account (Modify basic and address information and view order history)
  - Browse Product Catalogues
  - Browse product by category ad brand
  - Product Reviews & Rate
  - Product Search
  - Manage shopping cart



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### The Technology

|                      |   |  |
|----------------------|---|--|
| Front end            | : | Liferay 5.2.x, JSF, ICEFaces               |
| Other Framework      | : | JBoss Seam, JPA, JSR-286 compliant portlet |
| Back-end             | : | MySQL                                      |
| Third party Services | : | UPS, Authorize.NET payment gateway         |

### Elegant MicroWeb Role

Elegant MicroWeb was involved throughout the life cycle of Application Development that included:

- Understanding and Analyzing requirements
- Features mapping of requirements with Liferay Framework
- Architecture Design and Implementation
- Functional Specifications
- System design
- Customization and Development
- Implementation
- UAT

### Conclusion

Elegant MicroWeb worked closely with the client right from defining requirements, features mapping, prototyping the architecture etc. and collaborated with the client team to devise the right e-commerce solution. Latest technologies were utilized to execute client requirements within the Liferay Portal Framework. Close co-ordination of the Elegant MicroWeb team ensured successful and satisfactory implementation of project within budgeted cost and timelines.



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### Contact Us

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EMR5131C - CaseStudy - Developing an e-commerce portal with shopping cart based on Liferay Portal Framework - Version 1.2 - Published 2010  
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