

Chapter 15: General Architecture

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“If a builder builds a house for someone, and does not construct it properly, and the house falls and kills its owner, then that builder shall be put to death.”

Hammurabi, King of Babylon 1780 b.c.

Introduction

eCommerce architectures generally serve two constituents—the eCommerce operator and the customers. Marketplace architectures add a third constituent—the sellers. It is helpful to think of the architecture in terms of customer-facing components, seller-facing components, and marketplace operator-facing components.

Usually a commercial eCommerce platform (Magento, Shopify, Salesforce Commerce Cloud, etc.) serves as the customer-facing software. Similarly, a commercial marketplace platform (Mirakl, Webkul, Unirgy, etc.) is used as the seller-facing platform. Part of a marketplace implementation project is the integration of the eCommerce software and the marketplace software.

Sometimes the eCommerce platform is called the front end and the marketplace is the back end. However, from the common 3-tier architecture viewpoint, this description is not accurate. The eCommerce platform has its own back end and the marketplace platform has its own front end for sellers.

There are a few integrated platforms which include both the customer-facing components and the seller-facing components. VTEX, Arcadier, Sharetribe, and Marketplacer are examples which simplify launching a new eCommerce and marketplace platform. However, if a business has an existing eCommerce platform, these combined platforms may face challenges integrating smoothly to avoid two user interfaces, catalogs, carts, etc.

An annual comparison of the rapidly evolving marketplace platform vendors can be found at www.MarketplaceSuiteSpot.com. The next chapter discusses the pros and cons of custom building, buying, or renting (cloud subscription) a platform.

Regardless of the software selected (or built), a foundational understanding of the software architecture and the data flow is important for a marketplace business.

A detailed description of basic and advanced marketplace features is provided in Chapters 4 and 26, respectively. However, a quick review of marketplace features and requirements can add context for discussing technical architecture:

- Marketplace Set Up and Branding
- Vendor Management
- Orders, Shipping & Returns
- Accounting & Vendor Payouts
- Product Catalog Management
- APIs for extensions
- Governance & Administration
- Performance & Scalability
- Integration Capabilities
- Mobile Experience