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## Integrating with External Systems (15 pages)

Wholeness is not achieved by cutting off a portion of one's being, but by integration of the contraries.

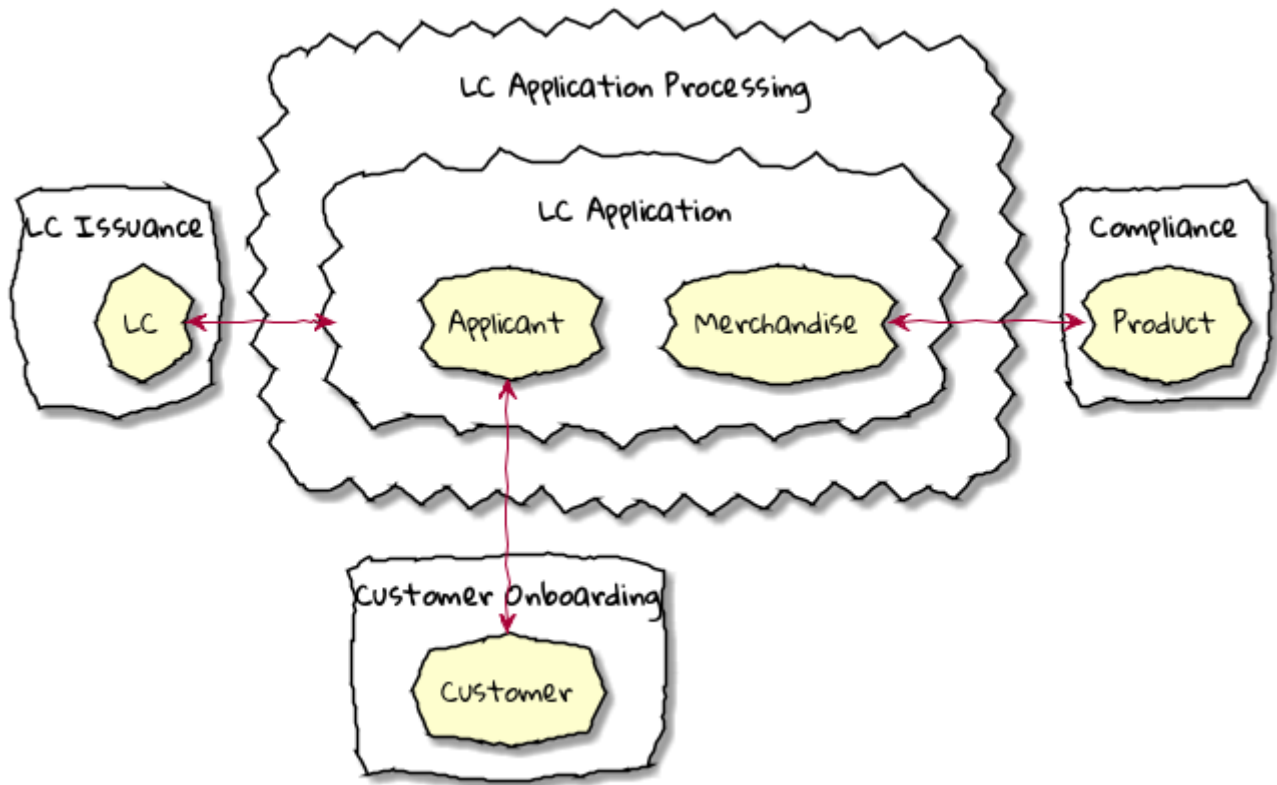
— Carl Jung

Thus far, we have used DDD to implement a robust core for our application. However, most bounded contexts usually have both upstream and downstream dependencies which usually change at a pace which is different from these core components. To maintain both agility and reliability and enable loose coupling, it is important to create what DDD calls the anti-corruption layer in order to shield the core from everything that surrounds it. In this chapter, we will look at integrating with a legacy Inventory Management system. We will round off by looking at common patterns when integrating with legacy applications.

## Technical Requirements

### Continuing our design journey

From our eventstorming session, we have arrived at four bounded contexts for our application as depicted here:



[lc application context map] | *lc-application-context-map.png*

Figure 1. A simple context map for the LC application

## Integration mechanisms

### Symmetric relationship patterns

Partnership

Shared kernel

Separate ways

### Asymmetric relationship patterns

Conformist

Anti-corruption layer

Open host service

## Implementation patterns

Data-based

**API-based**

**HTTP-based APIs**

**Message-based APIs**

**Shared code artifacts**

**Enforcing contracts**

**Legacy Application Migration Patterns**