| **Service** | **Mục tiêu chính** | **DB chính** | **Sự kiện phát/nhận (event)** |
| --- | --- | --- | --- |
| **catalogue-svc** | Quản lý products/groups/plans/features | MySQL | emits: plan.updated, feature.updated |
| **customer-svc** | Hồ sơ KH, segment, tenant | MySQL | emits: customer.created, segment.changed |
| **order-svc** | Đơn hàng/đăng ký/upgrade | MySQL | consumes: plan.updated; emits: order.created, subscription.created |
| **billing-svc** | Invoice, recurring billing | MySQL | consumes: subscription.created; emits: invoice.generated, invoice.paid |
| **payment-svc** | Giao tiếp cổng thanh toán | MySQL | consumes: invoice.generated; emits: payment.succeeded/failed |
| **inventory-svc** | Tồn kho (nếu làm retail) | MySQL | consumes: order.created; emits: inventory.reserved |
| **promotion-svc** | Ưu đãi, feature-flags | MySQL/Redis | consumes: segment.changed; emits: feature\_flag.updated |
| **api-gateway** | Gateway + Auth + Routing | — | — |

**Bounded Contexts (gợi ý)**

* **Product/Catalogue**: quản lý sản phẩm/gói/feature.
* **Pricing/Billing**: tính giá, hóa đơn (one-time/recurring).
* **Order**: đơn hàng/đăng ký (subscribe/unsubscribe).
* **Inventory** (nếu có hàng vật lý).
* **Customer/Identity**: hồ sơ KH, phân khúc, tenant.
* **Promotion/Feature Flags**: ưu đãi, bật/tắt tính năng theo plan.
* **Orchestrator** (để sau sprint 2): áp dụng ChangeSet.

**Domain entities & quan hệ (logic)**

* **Catalogue**:
  + product\_group (id, code, name)
  + product (id, sku, name, group\_id)
  + plan (id, code, cycle: monthly|yearly|none)
  + feature (id, key, description)
  + **pivot**: plan\_feature (plan\_id, feature\_id, enabled\_by\_default bool)
* **Customer**:
  + customer (id, tenant\_id, segment)
  + subscription (id, customer\_id, plan\_id, status, start\_at, end\_at, renew\_at)
* **Order**:
  + order (id, customer\_id, type: purchase|subscribe|upgrade, status)
  + order\_item (order\_id, product\_id/plan\_id, qty, price)
* **Billing**:
  + invoice (id, customer\_id, amount, currency, cycle, status, due\_at)
  + payment (id, invoice\_id, gateway, status, paid\_at)
* **Inventory** (nếu dùng retail):
  + stock (product\_id, quantity), reservation

Chọn 3 mô hình có độ khác biệt để “chuyển đổi” thấy rõ:

1. **Retail (B2C bán lẻ)**: bán sản phẩm đơn chiếc, thanh toán 1 lần.
2. **Subscription (SaaS)**: trả phí tháng/quý/năm, có nâng cấp hạng gói.
3. **Freemium + Add-on** (tuỳ chọn): gói base miễn phí, trả phí add-on/tính năng.

| **Microservice** | **Retail (B2C)** | **Subscription (SaaS)** | **Freemium+Add-on** |
| --- | --- | --- | --- |
| **customer-svc** | ✅ | ✅ | ✅ |
| **catalogue-svc** | ✅ (product, SKU) | ✅ (plan, feature) | ✅ (plan, add-on) |
| **inventory-svc** | ✅ | ❌ | ❌ (optional nếu add-on là vật lý) |
| **order-svc** | ✅ (purchase) | ✅ (subscribe/upgrade) | ✅ (buy add-on) |
| **billing-svc** | ✅ (one-time) | ✅ (recurring) | ✅ (mixed: recurring + one-time) |
| **payment-svc** | ✅ | ✅ | ✅ |
| **subscription-svc** | ❌ | ✅ | ✅ |
| **promotion-svc** | (optional) | ✅ (trial, discount) | ✅ (unlock features) |

**Yêu cầu “điểm giao” để chuyển đổi:**

* **Pricing/Plan**: one-time vs recurring.
* **Catalogue**: SKU vs Plan/Feature flags.
* **Billing**: invoice theo sự kiện vs theo chu kỳ.
* **Customer Segments**: VIP/Standard; tenant-based.