**📄 POS Architecture Document: Oracle Simphony, GAAP, and Xenial**

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**1. Overview**

This document outlines the architecture of three POS systems—**Oracle Simphony**, **GAAP Unity POS**, and **Xenial POS**—with a focus on zone configurations, enterprise-level master records, API-based data integration, and card transaction handling via **Transaction Junction**. It supports operational consistency, analytics, and predictive modeling across multiple properties.

**2. POS System Architecture Summaries**

**🟦 Oracle Simphony**

* **Type**: Cloud-based enterprise POS
* **Architecture**:
  + Centralized configuration via **Enterprise Management Console**
  + API feeds push transactional and operational data to the **data warehouse**
  + Supports **zone-based routing**, **inventory**, and **reporting**
* **Integration**:
  + RESTful APIs for real-time data sync
  + Card transactions via **Transaction Junction**
  + Menu and KDS zones defined at enterprise level

**🟨 GAAP Unity POS**

* **Type**: Cloud-native POS with modular architecture
* **Architecture**:
  + Centralized via **Unity Enterprise**
  + Real-time data streaming via APIs
  + Supports conversational ordering, KFS/CFS routing
* **Integration**:
  + API-based data export to external BI and warehouse systems
  + Card transactions via **Transaction Junction**
  + Zone definitions aligned with Simphony for consistency

**🟩 Xenial POS**

* **Type**: Cloud-native, OS-agnostic POS
* **Architecture**:
  + Fully cloud-based with offline sync capabilities
  + Open API architecture for omnichannel integration
* **Integration**:
  + Real-time and batch API feeds to data warehouse
  + Card transactions via **Transaction Junction**
  + Zone configurations supported via enterprise tagging

**3. Zone Configuration Definitions**

| **Zone Type** | **Zone Values** |
| --- | --- |
| **Menu Zoned** | Easter, Winter, Spring, Festive |
| **Kitchen Display Zone** | KDS Sides, KDS No Sides |
| **Screen Zones** | Integrated Pay SCN, Card Offline Pay SCN, Hybrid Pay SCN |
| **Order Type Routing** | Delivery KDS Del & Phone, Delivery KDS Del & 3rd Party Aggregator |

* Zones are defined at the **Enterprise level** and pushed to properties.
* Used for routing, seasonal menu control, and device-specific UI behavior.

**4. Enterprise-Level Configuration**

**🔹 Master Records**

* Centralized across all POS systems
* Includes menu items, pricing, tax rules, and zone definitions

**🔹 Print Classes**

* Defined at enterprise level for consistent receipt and kitchen printing
* Supports zone-based routing (e.g., KDS Sides vs. No Sides)

**🔹 Menu Zones/Tags**

* Tags used to activate seasonal menus
* Enable dynamic menu switching based on time, location, or campaign

**5. Reporting & Analytics Inventory**

* All POS systems feed data into a **central data warehouse**
* Data types:
  + Sales transactions
  + Inventory movements
  + Zone performance
  + Payment method usage
* Used for:
  + Predictive analytics
  + Operational insights
  + Inventory optimization

**6. Device-Level Implementation**

| **POS System** | **Device Management** |
| --- | --- |
| Oracle Simphony | Devices configured per property; synced with enterprise settings |
| GAAP POS | Devices managed via Unity Enterprise; supports mobile and fixed terminals |
| Xenial POS | Devices are cloud-synced; supports offline mode and auto-sync on reconnection |

**7. API Data Integration**

| **System** | **Integration Method** | **Warehouse Feed** |
| --- | --- | --- |
| Oracle Simphony | RESTful APIs | Real-time and batch data ingestion |
| GAAP POS | Unity APIs | Streaming and scheduled exports |
| Xenial POS | Open API architecture | Real-time sync and offline batch sync |

**8. Card Transactions via Transaction Junction**

* All POS systems integrate with **Transaction Junction** for card payments.
* Supports:
  + Online and offline card processing
  + Tokenization and PCI compliance
  + Integration with screen zones (e.g., Hybrid Pay SCN)

**9. Conclusion**

This architecture ensures a unified, scalable, and analytics-ready POS ecosystem across Oracle Simphony, GAAP, and Xenial. Zone configurations, enterprise-level controls, and API integrations enable consistent operations and deep insights across all properties.