

VNA-SB-031 | Industry Operating Platforms (Public Sector, B2B, POS & Transit) | B2B Storefront & ERP Integration | Redwood River

# B2B E-Commerce to Oracle Fusion ERP Zero-Downtime Pricing Cache & ORDS API Hub

Transition from Direct Synchronous B2B Storefront Calls to Oracle Fusion Cloud ERP / Legacy ERP to OCI Autonomous Transaction Processing (ATP) Pricing Cache + ORDS REST APIs + BI Publisher Sync with automated binary/AST metadata profiling, deterministic cost-control levers, auto-generated BRD and test documentation, and a fixed-fee 4-phase delivery roadmap.

**Search Queries & Scope Covered:** oracle fusion erp b2b ecommerce pricing api | zero downtime erp maintenance storefront cache | ords rest api contract pricing | cloudfy magento oracle fusion integration

| SOURCE LEGACY STACK (STACK X)                                                   |                     | MODERNIZED TARGET ARCHITECTURE (STACK Y)                                                       |                |
|---------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------|----------------|
| Direct Synchronous B2B Storefront Calls to Oracle Fusion Cloud ERP / Legacy ERP |                     | OCI Autonomous Transaction Processing (ATP) Pricing Cache + ORDS REST APIs + BI Publisher Sync |                |
| STOREFRONT UPTIME                                                               | PRICING API LATENCY | ERP PATCH OUTAGES                                                                              | CONTRACT TIERS |
| 100% (24x7)                                                                     | < 25 ms             | 0 Min Impact                                                                                   | Real-Time      |

## 1. Problem Space & Architectural Bottlenecks

- Critical business operations remain trapped in Direct Synchronous B2B Storefront Calls to Oracle Fusion Cloud ERP / Legacy ERP, creating audit risk, manual reconciliation overhead, and rising support costs.
- Duplicate queries, cloned reports, and undocumented triggers make impact analysis slow and expensive across contract sku pricing combinations.
- Lack of automated binary-to-database metadata mapping causes traditional consulting shops to pad estimates with 40% manual discovery buffers.
- Leadership needs a predictable, fixed-fee phased timeline with verifiable test specifications and zero-downtime cutover guarantees.

## 2. Technical Solution & Reference Architecture

- 2.1 Automated Phase 0 AST & binary scan mapping Direct Synchronous B2B Storefront Calls to Oracle Fusion Cloud ERP / Legacy ERP artifacts directly to live Oracle dictionary metadata and profiling production data.
- 2.2 Target architecture built on OCI Autonomous Transaction Processing (ATP) Pricing Cache + ORDS REST APIs + BI Publisher Sync, consolidating cloned queries into governed core SQL views with runtime Smart Filters.
- 2.3 Automated generation of full Business Requirements Documents (BRD), Technical Approach Docs, Testing Specifications, and Verified Test Results.
- 2.4 Zero-trust SSO/MFA (Entra ID / Okta) paired with database-enforced row-level security (VPD / RAS) and SQLcl Liquibase CI/CD pipelines.

## 3. Artifact-by-Artifact Conversion & Modernization Matrix

| Legacy Artifact / Baseline Workload                                                                | Modernized Oracle / Cloud Target                                                               | Engineering Method & Outcome                        |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Source Tier: Direct Synchronous<br>B2B Storefront Calls to Oracle<br>Fusion Cloud ERP / Legacy ERP | OCI Autonomous Transaction Processing (ATP) Pricing Cache + ORDS REST APIs + BI Publisher Sync | Automated AST & Metadata Uplift (85%-95%)           |
| Primary Footprint: Active B2B<br>Customer Accounts / Buyers                                        | Oracle APEX 24.2 Redwood UI + PL/SQL APIs                                                      | Binary-to-DB Metadata Mapping + Pilot Sprint        |
| Workload & Queries: Contract SKU<br>Pricing Combinations                                           | Canonical Core SQL Views + Runtime Smart Filters                                               | Query Fan-Out Clustering (75%-90% Reduction)        |
| Undocumented Legacy Business<br>Rules & QA                                                         | Auto-Generated BRD, Approach Doc, Test Specs & Results                                         | 100% Automated Documentation & utPLSQL / Playwright |

4. Oracle APEX & Ancillary Engineering Toolchain

- Oracle APEX 24.2 & Universal Theme (Redwood Light Flavors)
- Oracle Database 23ai / Autonomous Database (ATP / ADW)
- Viscosity Automated Binary (.fmb/.rdf) & AST Metadata Profiler
- Auto-Doc Engine (BRD, Approach Doc, Test Specs & Test Results)
- Oracle REST Data Services (ORDS) & APEX Office Print (AOP)
- SQLcl Liquibase CI/CD, utPLSQL & Playwright Regression Suites

**Anonymized Production Proof:** Engineered a custom B2B pricing REST API and ATP caching layer bridging an enterprise e-commerce storefront with Oracle Fusion Cloud ERP for a healthcare supply chain organization, achieving 100% ordering uptime across ERP patch windows.

5. Principal Architect Q&A

**Q: What are the primary levers that control the cost of B2B ERP Zero-Downtime Pricing Cache?**

A: Cost is controlled by five levers: (1) collapsing cloned query fan-out across contract sku pricing combinations into canonical core SQL views, (2) percentage of business logic already in database packages vs. UI triggers, (3) production data quality profiled during Phase 0, (4) external integration/SSO count, and (5) cutover downtime requirements.

**Q: How does your tool convert binaries (.fmb, .rdf, etc.), map database metadata, and generate documentation?**

A: Our automated analyzer parses legacy binaries and source files, extracts every trigger, query, and UI control, cross-references them against live database dictionary metadata (ALL\_TAB\_COLUMNS, ALL\_DEPENDENCIES), profiles actual column data distributions, and automatically generates the Business Requirements Document (BRD), Technical Approach Doc, Test Specifications, and Verified Test Results.

**Q: What does a typical project timeline look like from kickoff to production cutover?**

A: Projects follow four gated phases: Phase 0 (Weeks 1-2: Binary AST Scan, Data Profiling & Auto-Generated BRD), Phase 1 (Weeks 3-6: Core Schema Uplift & Working Pilot), Phase 2 (Weeks 7-12: Automated Conversion Sprints & Test Spec Execution), and Phase 3 (Weeks 13-16: Parallel Run, Zero-Downtime Cutover & 30-Day Hypercare).