

## Powering a Gaming Marketplace with Scalable Headless Commerce

We developed a robust, scalable digital game key store for a leading UAE e-commerce company using Headless Magento and PWA Studio, integrating the Genba API for optimized product and order management.

## Overview

QBurst helped a leading UAE digital goods e-commerce company revolutionize its 2play platform by migrating to a Headless Magento architecture, powered by PWA Studio on the frontend.

- Delivered a fast, app-like frontend experience using PWA Studio (leveraging GraphQL and SSR), significantly improving mobile performance and SEO.
- Implemented critical custom functionality, including a multi-pricing module and a custom indexer to handle different prices per currency without standard conversion.
- Integrated the Genba API for streamlined, real-time product import, secure stock management, and end-to-end order processing, ensuring robust scalability and security.



## Client

A UAE-based leading digital goods e-commerce company specialized in selling game keys, gift cards, and subscriptions.

## Challenges: Performance, Scalability, and Complex Pricing

The client faced challenges typically faced by high-volume digital e-commerce companies

- **Suboptimal User Experience:** The platform lacked the speed and mobile-friendliness required for high user engagement and retention in the gaming market.

- **Complex Pricing Logic:** Requirement for a custom multi-pricing module to set different, specific prices for each currency, bypassing standard currency conversion.
- **Stock and Order Management:** Need for seamless, real-time integration with the Genba API for secure digital key provisioning and accurate stock updates.
- **Performance Bottlenecks:** Managing large volumes of product and order data required extensive optimization to ensure fast page load speeds and query execution.

## High-Performance Gaming Marketplace Platform

QBurst developed a flexible, high-performing gaming marketplace using a Headless Magento backend for robust e-commerce capabilities and PWA Studio for the frontend experience. This two-phase approach ensured a secure and feature-rich platform.

- **Headless Architecture:** Magento's modularity and API-driven commerce were utilized, separating the backend logic from the frontend presentation for development flexibility and scalability.
- **PWA Studio Frontend:** The frontend was built with PWA Studio, leveraging Server-Side Rendering (SSR) and efficient caching to provide an app-like experience with faster load speeds, better SEO, and seamless mobile navigation.
- **Genba API Integration:** Comprehensive integration covered authentication, product catalog import, real-time stock management, and seamless order processing, ensuring secure key delivery.
- **Custom Pricing Solution:** A custom multi-pricing module was developed, along with a dedicated custom indexer, to handle and retrieve accurate, fast product prices for multiple currencies as required by the business logic.

## Technical Highlights

- **PWA Studio & GraphQL:** Used to optimize data retrieval and communication between the decoupled frontend and Magento backend.
- **Custom Indexer:** Built to ensure accurate and fast indexing of multi-currency pricing data across the catalog.
- **Elasticsearch Integration:** Provided advanced, accurate, and rapid search capabilities for quick product discovery.
- **Performance Optimization:** Implemented extensive caching, database indexing, and efficient query execution for high-volume data handling.
- **Security & Compliance:** Integrated strong security measures compliant with standards like PCI DSS for secure transactions and payment processing via Stripe and Genba.

## Impact

- **Enhanced User Experience:** PWA Studio resulted in a fast, mobile-friendly interface with seamless navigation and reduced load times, boosting user retention.
- **Accelerated Development:** Headless architecture facilitated faster iteration and deployment of new frontend features and API enhancements.
- **Increased Sales & Conversions:** Features like preorder, backorder, and robust search capabilities contributed to higher sales and user engagement.
- **Optimized Operational Efficiency:** The structured Genba API integration streamlined product import, stock management, and order fulfillment processes.
- **Accurate Financials:** The custom multi-pricing logic ensured accurate pricing display and inventory management tailored to currency requirements.