

Anchor packaging OCI Cloud platform for Enterprise Workloads



Anchor Packaging, LLC manufactures packaging solutions for the food industry, retail supermarket and food manufacturing markets. They have been PE backed by The Jordan Company since 2019 to drive strategic growth through acquisitions, new manufacturing facilities, and new complementary product lines to better serve customers with a broader set of solutions.

90%+ Time savings achieved by reducing shipping report runtime

25% Oracle Export speed boosted

30% Report processing efficiency enhanced

Executive Summary

Anchor packaging extensively utilizes Oracle E-Business Suite applications, particularly for Financials, Purchasing, Process Manufacturing and Order Management. They utilized a 3rd party data center on-premises, backed by VMWare Infrastructure. Given the aging hardware, storage limitations, multiple hardware/capacity related performance issues, Anchor packaging decided to undertake a comprehensive upgrade of its EBS platform and migrate to Oracle Cloud Infrastructure (OCI).

Anchor packaging aimed to migrate and upgrade their systems with a focus on ensuring high availability, security, and scalability. As their current managed services provider, Apps Associates was selected as their partner for cloud infrastructure hosting, migration, and upgrades, based on the quality of their deliverables and proven expertise.

The migration plan spanned 23 weeks and included the upgrade of Operating Systems, upgrade of Oracle Database, migration of supporting systems (Orbit, NodeJS and OIC), testing of cloning procedure and POC of a robust Disaster Recovery Plan.

Given the timelines of other projects, the migration and upgrade were required to be completed by mid-November. Apps Associates successfully completed three planned iterations and then focused on completing the Disaster Recovery test Plan on schedule, without any deviations.

Environment

Anchor packaging has Oracle E-Business Suite with One Production and two Non-Production environments.

Environment Details:

- **OCI Servers:** 17 Compute Instances, Block/Object Storage, Load Balancer, VPN
- **Products:** EBS 12.2.7 with 19.24
- **Operating Systems:** OEL 8

Driving Factors

Anchor packaging aimed to modernize their E-Business Suite infrastructure by ensuring high availability and including a disaster recovery solution. On-premises was running on old un-stable hardware, with an operating system with no valid support. The onpremises storage unit was utilized to its max capacity and there was no room for growth. There was no option to build Business Continuity in on-premises infrastructure. Anchor packaging decided to leverage OCI features to reduce costs, streamline support efforts, and eventually retire their on-premises data center. The OCI cloud platform was chosen for its performance, agility, scalability, and modern infrastructure, providing the capacity to support the organization's future growth.

“ APPS team -- Congratulations on a successful migration! The team was methodical and thorough in going through everything and making this a big success. I particularly appreciate the team members taking the turn to run the tasks continuously and many stayed late well into the morning. This transition addressed the risks and gaps brought to us through the QBR discussions and positions us well for a better operation. ”

- Subbu Subramanian, CIO, Anchor Packaging, Inc.

High Level Steps of Migration

During the OCI migration phase, Apps Associates architected and optimized existing OCI resources to better utilize the Oracle Cloud network and infrastructure for both PROD and Non-PROD environments. The migration process involved three iterations. The first step in the migration and upgrade project was migrating the workload from on-premises to OCI with Operating System upgrades from OEL 7 to OEL 8 in Oracle Cloud. Following this, Apps Associates upgraded the E-Business Suite Database from 12.1.0.3 to 19c.

The migration approach included creating a physical standby database in OCI to facilitate minimal downtime. This ensured a smooth production rollback and adherence to strict timelines. Additionally, R12.2.7 E-Business Suite applications were cloned to the target hosts with the upgraded operating system, thereby eliminating the need for a backup of the source on-premises environment and isolating it from the upgrade process. As part of the database upgrade to 19c, the database was converted to a Multi-tenant Architecture which enabled the EBS applications to support the new architecture of the database. Each iteration included rolling out the latest security patches as well as Orbit, NodeJS, and OCI agent configurations and other integrations.

Testing (Unit, Integration and User Acceptance Testing) was performed by the Customer IT/End User team with the help of Apps Associates Application Managed Services (AMS) team. As part of the iteration process, all business functionalities were tested and validated successfully.

The migration was followed by two weeks of Hypercare and transition to support teams.

Challenges

During the migration a couple of major issues arose. Copying the on-premises database took a very long time due to internet bandwidth constraints. This was resolved by standing up a physical standby database in parallel with working with the thirdparty connectivity vendor to increase internet bandwidth. The second issue was, the DBUA was running for very long time. After multiple tries and research, the upgrade team identified the issue with custom packages related to 3rd party integration (NodeJS). Once identified, the upgrade team came up with a mitigation plan to fix the issue and moved forward. The environment features significant customizations, many of which include hard-coded values. The team spent considerable time replacing these hardcoded values with variables to mitigate future impacts.

Benefits Realized After Migration

- Advantages with Cloud agility and increased server capacity (vertical/horizontal) as per the business needs
- Latest supported Oracle database version and operating systems to keep up to date on Security and provide desired stability
- Future readiness for business growth, in term of compute capacity, storage capacity
- Eliminate hardware support costs for in-scope applications
- Robust business continuity plan with desired RTO/RPO
- Moved further along in the journey to sunset the data center
- Environment provisioning is faster using Infrastructure as a Code

About Apps Associates

Apps Associates is a premier enterprise applications and technology advisor, counseling and executing across every stage of the enterprise transformation journey - not just the destination. For more than two decades, Apps Associates has closely collaborated with decision makers across nearly every industry, offering end-to-end integration, modernization, and cloud migration services. By helping to break down the silos within today's most complex business challenges, Apps Associates is unlocking solutions and efficiencies that scale into future opportunities.

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