

AZZ Migrates Enterprise Workloads to OCI Cloud Platform



AZZ Inc, a global provider of galvanizing and metal coating solutions, welding solutions, specialty electrical equipment and highly engineered services for maintaining and building critical infrastructure. With over 60 locations across the United States and Canada, AZZ is North America's largest galvanizer, and independent provider of coil coating solutions.

Executive Summary

AZZ hosted their Oracle eBusiness Suite (eBS), Splash BI, and Oracle Application Express (APEX) environments at their in-house datacenters located at multiple locations in North America. As AZZ acquired companies and business, and continued to grow, they decided to divest a portion of their business into a new entity. As part of this divestiture, they wanted to leverage their existing IT systems footprint at AZZ, migrate to a modern OCI Cloud platform, and perform a carveout of the Oracle E-Business Suite as per the new business entity structure.

In addition, they wanted to expand the application footprint by implementing public-facing, external services with Oracle Application DMZ modules, as well as implement Disaster Recovery (DR) across the Ashburn and Phoenix regions. They chose OCI and Apps Associates as their cloud infrastructure hosting and managed services partners. The initial migration plan was about six months, however due to competing business priorities, the migration plan was condensed to two months (phase 1) with the Apps Associates team pivoted the activities and resources to achieve this tight timeline with a two phased approach. Phase 1 covered the EBS, Apex and Splash BI and phase 2 covered the OEM and Disaster Recovery. The approach used for this tight timeline utilized the Oracle Physical Standby database to replicate the production database onto the OCI cloud platform and leveraged RackWare to replicate the Operating system images for the Oracle EBS database, applications and for Apex and Splash BI to avoid any infrastructure issues.

Connectivity was established between the AZZ on-premise datacenters and OCI Ashburn and Phoenix regions using FastConnect over MegaPort infrastructure.

Apps was able to complete one non-prod iteration on TEST infrastructure and one Dry-Run iteration on future PROD infrastructure. Additionally, two non-production environments for their EBS, Splash BI, and APEX applications were built within the two months, during a tight turnaround phase 1 with a Go-Live date of May 22nd, 2023. Apps Associates was able to successfully complete AZZ's OCI migration.

Environment

AZZ has Oracle EBS, Splash BI, and Apex along with Oracle OEM and Disaster Recovery.

Production environment Statistics:

- **Products: EBS 12.2.10, DB 19.15**
- **Servers: EBS (3), Splash BI (1), OEM (1) and Apex (1)**
- **Size of the Databases: E-Business (3 TB)**
- **Email system: Office 365 and OCI SMTP**

Driving Factors

AZZ has grown significantly and expanded its product offerings through several acquisitions. As the system is growing, they decided to divest the business and they needed a scalable and modern infrastructure to handle the organization's growth. It has to be stable, reliable and scalable with a predictable performance.

High Level Steps of Migration

As part of the OCI Migration phase, Apps Associates conducted an Oracle Technology License Assessment to map the Oracle Licenses to OCI Cloud Platform compute instances by analyzing the license entitlements and workload characteristics, and OCI compute instance types to run the Enterprise workloads on OCI.

During the OCI migration phase, Apps Associates leveraged the OCI infrastructure provisioning process and then performed two iterations of migrations for the Oracle E-Business Suite, Splash BI (Analytics) and Apex environments by adopting physical standby for Data and Rackware for Operating System. During Dry-run iteration, Production Infrastructure was used, which allowed Apps Associates to identify all the additional configurations that needed to be replicated to mimic the solution the client has on-premise. Standby Database was used as source to build Dry-Run and PROD iterations which considerably minimized the cutover downtime. As part of the divestiture requirements, a thirdparty company executed a carved-out process and in order to minimize the carved-out execution time, a temporary instance was created in OCI with the required tools used by the carved-out team.

During the OCI Migration Phase 1, several tests (Unit testing and User Acceptance Testing) were performed as part of the migration and all the functionalities were tested and validated successfully without any issues. Project Phase 1 duration was 2 months.

Challenges

The challenges were around the network connectivity between AZZ and other locations' network with OCI, Samba

Shares. The Apps Associates' Network team worked with the vendors to set up the Fast Connect with OCI over Megaport to establish the connectivity with all the AZZ network locations. There were challenges to access the environments on some plants because of additional rules set on AZZ firewall that were not mapped initially. Also, there were some issues with printers and barcode scans that were identified and solved during Dry-Run iteration. Due to the tight timeline, the project team had to work during the UAT phase to complete monitoring, backups, and other mandatory setup for Go-Live. There were unexpected changes during the implementation that forced the team to redo some setup such as changing internal and public domains. Previous to the Go Live, the carved-out team requested to have an additional clone during the cutover time. This applied to reorganized resources and teams.

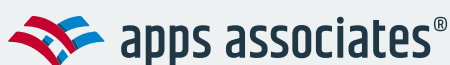
The migration required significant resources to assist with planning, migration, and testing across all environments.

Benefits Realized After Migrating to Oracle Cloud

- Advantages with Cloud agility and increased server capacity (vertical/horizontal) as per the requirement.
- Modernized infrastructure, improved cloning time as well as performance improvements
- Environment Provisioning is faster using Infrastructure as a code
- Better Price for Performance

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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