

Avail Infrastructure Solutions (Avail) Leverages Oracle Cloud Infrastructure Platform for Enterprise Workloads



Avail is the global provider of application-critical equipment, highly engineered technologies, and specialized services to the power generation, transmission, distribution, oil and gas, and industrial markets. From fully integrated electrical enclosures and custom switchgear to high voltage bus systems, their proven solutions meet the most exacting requirements for safe, reliable operation.

Executive Summary

Avail adopts Enterprise Business applications including Oracle E-Business Suite (EBS), Splash BI, and Oracle Application Express (Apex) as it divests from parent company (AZZ, Inc.). Considering the challenging and dynamic business environment, Avail decided to deploy these environments on a modern infrastructure by selecting Oracle Cloud Infrastructure (OCI) and Apps Associates as their cloud infrastructure hosting and managed services partner.

Avail also wanted to expand the application footprint by implementing public-facing, external services with the Oracle Application Demilitarized zone (DMZ) modules. This included conducting penetration testing, as well as implementing Disaster Recovery (DR) across the Ashburn and Phoenix regions. 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 pivoting 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 Oracle Enterprise Manager (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. Rackware was leveraged to replicate the Operating system images for the Oracle EBS database, applications as well as for Apex and Splash BI to avoid any infrastructure issues.

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

Apps Associates 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 and went live on May 22nd, 2023. Apps Associates was able to successfully complete Avail's enterprise workload deployment/migration to OCI cloud platform on time and on budget.

Environment

Avail's 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 Database: E-Business (3 TB)**
- **Email system: Office 365 and OCI SMTP**

Driving Factors

Avail's parent company AZZ had grown significantly and expanded its product offerings through several acquisitions, allowing Avail to transition as a standalone company. As AZZ's hardware reached its capacity and the system continued to grow, they decided to leverage Oracle's OCI cloud platform for agility and the ability to scale with a modern infrastructure to handle the organization's growth as they are not able to host Avail environments. From a business perspective, having Avail's production system on OCI by May 22nd, 2023, was

a mandatory condition to align with the corporate plans for the transformation of Avail and the execution of the financial processes on an independent system. It must 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 the Operating System. During the 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 had 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 third-party company executed a carve-out process and in order to minimize the carve-out execution time, a temporary instance was created in OCI with the required tools used by the carve-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 parent company AZZ and Avail's Corporate network locations with OCI, Samba shares. The Apps Associates' Network team worked with the vendors to set up the FastConnect with OCI over MegaPort to establish the connectivity with all of Avail's network locations. There were challenges to access the environments on some plants because of additional rules set on AZZ firewalls that were not mapped initially. Also, there were some issues with printers and barcode scanners 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. Prior to the go-live, the carve-out team requested to have an additional clone during the cutover time, which required reorganizing resources and teams to complete all tasks on time.

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

Benefits Realized After Migrating to Oracle Cloud

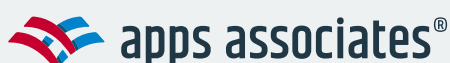
- Modernized infrastructure, improved cloning time as well as performance improvements.
- Advantages with Cloud agility and increased server capacity (vertical/horizontal) as per the requirement.
- Environment Provisioning is faster using Infrastructure as a code.
- Future readiness for business growth.
- Disaster Recovery automation using Full Stack DR.
- 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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