A blue and green diamond shaped object

Description automatically generated

**Upgrade to Architect**

Unix2Linux Site PP App Migration

***October 2024***

**Unix2Linux – Site PP App Migration**

**Customer Situation:**

• It was an old web application running over AIX6.

• Multiple web applications deployed on AIX6 – shared server, first need to find the blueprint for first apex application and then other can be migrated also. But the challenge is to show how to stop aix and then start linux as multiple apps are hosted in aix so need to crack this.

• Customer wants to reduce infrastructure and its maintenance cost along with technology upgradation -- focus on dependencies

• In combination to that, the customer also wants to test the durability, efficiency benefits and ease of use of a Cloud Computing environment.

**Business Challenges:**

• One of the main challenges the customer was facing was to reduce the operational cost for this application.

• Maintenance and patching was a challenge due to older technologies used.

• Oracle APEX migration was a challenge that needed to be taken care of while migrating. – apex is gui-license cost, forms, oracle gui, approach-database, frontend, backend, soa architecture-focus; app - Admin system, Library system, order management system;

• After consulting with the Cloud migration team, the customer chose to move from currently running UNIX platform to Linux

**Expected output/Guidelines:**

• Cloud first approaches migration with complete modernization.

• Appropriately map unix to linux migration.

• Enterprise level security which was difficult in private data centre

• Technology Refresh by migrating from AIX to RHEL (U2L) and Cloud based infrastructure.

• Operational expenditure will reduce and will be clearly visible in some time as there will not be too many infrastructure level operational tasks and no upfront cost.

• Application TCO also reduced significantly by moving to the cloud with the Pay as You Use model.

• Proper TCO analysis with data backing up the case study.

• Cloud security with all compliance requirements in place. – ssl/tls/mtls, iam, in transit/at rest for database encryption;

• Proper Network, security, logging, and monitoring solutions in place. - firewall

**Technology Stack:**

AWS stack or AZURE stack with any programming language of your choice

**Output to be generated with/without GitHub Copilot:**

1. **High level design**
2. **Low level design** diagrams: class diagrams, sequence diagrams, ER diagrams, component diagram, deployment view all mentioned **Low level design** document template
3. API Design document: API views, API design, keys and everything as per **API design document** template