



Optimizing Healthcare Revenue Management with OCI and Automation



PROBLEM STATEMENT:

The client sought to modernize and optimize its revenue management services by leveraging Oracle Cloud Infrastructure (OCI) for enhanced scalability, security, and performance. Key objectives included streamlining patient data management, automating Notice of Admission (NOA) submissions, and improving integration across healthcare providers. Additionally, they required ongoing OCI environment implementation, support and maintenance to ensure high availability and performance of their applications.

KEY CHALLENGES:

- 1 Manual Processes:** Heavy reliance on manual data entry and fax-based communications led to inefficiencies, errors, and slow order processing.
- 2 Delayed NOA Submissions:** Manual submission processes caused delays in insurer notifications, increasing claim denials and affecting cash flow.
- 3 Integration Complexity:** Ensuring seamless integration of new applications within the existing ecosystem hosted on OCI without disruptions.
- 4 OCI Infrastructure Support:** Managing and optimizing OCI-hosted applications to ensure scalability, security, and high availability.

SOLUTIONS PROVIDED:

1. OCI Environment configuration, Support & Infrastructure Management

- Provided end-to-end configuration, support for the client's OCI environment, ensuring optimal performance, security, and cost efficiency.
- Managed OCI virtual machines, networking, and storage, optimizing cloud resource utilization.
- Ensured disaster recovery, backup strategies, and high availability of applications hosted on OCI.

2. Patient Management System (PMS) Development & Support

- Developed a low-code Patient Management System (PMS) hosted on OCI, enabling efficient management of patient records, bed allocations, and admissions.
- Integrated role-based access controls to enhance security and compliance.
- **Outcome:** Reduced dependency on third-party systems, improving efficiency and lowering operational costs.

3. Healthcare Physician Portal for Direct Data Entry

- Developed a secure physician portal to replace fax-based patient data submissions, allowing real-time updates into the OCI-hosted system.
- Implemented role-based authentication to ensure controlled access for healthcare providers.
- Outcome:** Improved data accuracy and processing speed, reducing administrative overhead.

5. Order Manager Module for Centralized Physician Orders

- Developed an Order Manager module for centralized tracking of physician orders linked to patient records.
- Automated workflows for processing faxed orders, splitting, linking, and assigning them to the correct department.
- Outcome:** Reduced manual errors and improved operational efficiency in order processing.

4. Admit Notifier Module for Automated NOA Submissions

- Built an automated Admit Notifier module that submits NOAs in various formats (EDI 278, Fax, RPA) as per insurer requirements.
- Enabled real-time notifications to payers, reducing claim denials and payment delays.
- Outcome:** Enhanced cash flow efficiency and minimized delays in insurance claims.

6. Robotic Process Automation (RPA) for NOA Submissions

- Implemented RPA to automate the identification of new admissions and NOA submissions to insurers.
- Automated data extraction, submission, and tracking of payer responses, eliminating manual intervention.
- Outcome:** Reduced manual workload, freeing up staff time equivalent to five full-time employees, allowing focus on patient care.

KEY BENEFITS:

Optimized OCI Utilization:
Ensured high availability, performance, and cost-efficiency of OCI-hosted applications.

Operational Efficiency:
Streamlined patient data management, reducing manual interventions and errors.

Financial Improvement:
Faster NOA submissions decreased claim denials and improved cash flow.

Seamless Integration:
Integrated new solutions into OCI infrastructure without disrupting existing operations.

Scalability:
The low-code approach allowed easy expansion, enabling additional healthcare providers to onboard seamlessly.