



# **Optimized Patient health monitoring and availability of critical Medical Equipment in Hospitals ensuring on-time Service of the same**

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## **Achievement summary**

### **What was delivered and what was the result?**

#### **Background:**

The Company is a Medical Equipment manufacturer which provides Medical Devices to Hospitals and provides real-time health monitoring Services to Patients. The Strategy of the Company was to become the most Patient-Centric Company by providing excellent Patient Care and Customer Service for the Hospitals.

#### **Challenges:**

The Company was facing the below challenges:

1. Delays in delivery of Medical Devices to Hospitals and direct Patients resulting in delays in patient care
2. Delays in Service Order completion for previously installed Devices at Hospitals and Patient homes resulting in longer wait times for Patient Care
3. Incorrect billing for Patients for Real-time Monitoring Services resulting in Patient Trauma

#### **Final Deliverables:**

1. Automated the Work Order and Field Service Management Processes and integrated them with the Order Management, Patient monitoring systems and financial systems thereby reducing the amount of manual intervention in the Process and hence optimizing the entire Delivery and Work Order management process
2. Provided top management with Dashboards reflecting KPIs related to Field Service and Patient monitoring systems
3. Improved the business processes related to Patient Monitoring Services by real-time integration and Mobile capabilities

#### **As a BA I delivered the following:**

1. Business Case document: Depicted the As-Is situation with challenges, proposed to-be situation, Solution, and benefits of each with 1-1 mapping including ROI estimation of the Project. This played a critical role in getting Approval from Business for the Project Budget.
2. Business Process Flow diagrams for As-is and to-be processes (Swim Lane diagrams)

3. Business Requirements Document: Included the high-level requirements which served as a foundation for the development team to provide estimates
4. Detailed Requirements/User Stories documentation in JIRA: Documented the functional and non-functional requirements as User Stories with Acceptance Criteria in JIRA
5. User Acceptance Testing: Facilitated the overall UAT including testing, coordination with Business Users and developers for defect resolution
6. End-User Training: Training the end-users with the new system and process implementation
7. Coordination: Overall coordination with Business Stakeholders and Development team

**Result:**

1. The Delivery and Service of critical Medical Devices to Hospitals got optimized resulting in on-time Patient care.
2. The Financial issues faced by Patients got reduced by improving the accuracy of billing for Real-time monitoring Services for Patients.
3. The overall Customer satisfaction improved and resulted in repeat business for the Company, hence making it the most preferred Company for Medical Equipment by both Hospitals and Patients.

## **Achievement details**

### **Please explain the details of the initiative and the approach that was taken.**

The objective of the initiative was to solve the problems the company was facing with the Delivery and Service of Medical devices/equipment to Hospitals cum Patients and resolve the Complaints from Patients for inaccurate billing for Real-time monitoring Services offered by the Company. Below was the approach followed as part of the Project:

Assessment of Current Process and Systems: I was responsible for the assessment of the Company's current Processes and systems. Below are the methodologies I used to achieve the same:

- Analysis of existing documentation
- Interviews with VPs and Directors to understand the high-level Business Processes
- Interviews and Shadowing of Customer Service Representatives and Field service Representatives to understand the detailed processes

- Workshops with cross-functional Stakeholders to understand the handoffs of each process
- Interviews with the Technical team to understand the existing technical landscape
- Socializing with stakeholders to better understand the processes and challenges

Below was the As-Is situation of the Company with respect to Processes and Systems for the Delivery and Service of Medical Devices:

- The Delivery and Service of Medical Devices was handled by both the Company Field Service Representatives (FSRs) and 3rd party contractors.
- There was no real-time integration between the Order Management system and the delivery tools used by FSRs. The FSRs did not have the capability to update Work Order Status while they were on the field due to the lack of Mobile capability of the Delivery management tool
- There was no integration between the Company's Order management system and the 3rd Party Contractors' tools. Everything was manually coordinated by the Customer Service Representatives of the Company with the 3rd party contractors
- This resulted in delays in the delivery and Service of Critical Medical devices
- The Real-time monitoring of the Patient's vitals was recorded and transmitted from the monitoring device on the Patient to the Monitoring system of the Company. The Patient should be billed only when they opt-in for the service and vice versa.
- Due to the inefficiency in the system, there was a delay in the transfer of the Patient's opt-in/out information to the finance team which resulted in inaccurate billing
- The Finance team had to do a lot of reverse transactions to correct the billing and refund the Patients

Business Case Document: Once the current Process and Systems were studied, a detailed Business Case Document was prepared by me in collaboration with the Solution Architect which had the As-Is situation with challenges, proposed to-be situation, Solution, and benefits of each with 1-1 mapping including ROI estimation of the Project. This played a critical role in getting Approval from Business for the Project Budget.

Business Requirements Document: I have documented the high-level requirements in the Business Requirements Document (BRD) with In Scope and out of scope

elements. This played a critical role in providing a development estimate by the Project Team.

Once the approval from Business was obtained, the Project kicked off and the delivery methodology used was Hybrid(i.e. Agile + Waterfall)

User Story Documentation: I have documented the detailed User stories in JIRA with Acceptance Criteria in the backlog and worked with the Business in prioritizing the Stories for respective Sprints. At the end of each Sprint, I performed testing, gave a demo to end-users and coordinated the UAT. The Project had one final Release (Go-Live) at the end of all Sprints and End-user sign off.

Below is the final solution that was implemented:

- A full-fledged Field Service implementation solution on the Salesforce platform was proposed and implemented.
- The Solution provided Real-time integration to the Order Management system of the Company
- It also provided 3rd Party Vendors with Real-time access to the Orders and Work Orders
- It provided Mobile capabilities to the FSRs along with Reports and Dashboards for the Management
- This resulted in on-time delivery and Service of Critical Medical Devices by both FSRs and 3rd Party contractors
- It also provided a Patient login portal where Patients could opt-in/out for the Real-time monitoring Services. This was integrated real-time to the financial system of the Company and hence solved the problem of inaccurate billing to patients.

Result:

- The Delivery and Service of critical Medical Devices to Hospitals got optimized, hence reducing the delays, and resulting in on-time Patient care. The evidence for the result was the reduction in a number of delivery and services related complaints/cases the company received YoY.
- The Financial issues faced by Patients got reduced by improving the accuracy of billing for Real-time monitoring Services for Patients. The evidence for the result was the reduction in the number of billing-related inquiries and complaints/cases from patients.
- The overall Customer satisfaction improved and resulted in repeat business for the Company, hence making it the most preferred Company for Medical Equipment by both Hospitals and Patients. The evidence for the result was the

increase in the number of Service renewal Contracts and a decrease in the number of Accounts lost.

#### Change Management:

- Top-Down approach: The End-Users like Customer Service representatives and Field Service Agents were initially reluctant to adopt the automation in the process. We followed a top-down approach where the Top management was educated and aligned on the benefits of the initiative, and they ensured to communicate the change to their respective teams during All-Hands meets and written communications highlighting the positive impact it would have on the lives of Patients
- User Champions: A User champion was identified from each team like Customer Service, Field Service, Finance etc. and involved them from the beginning of the Project during requirements gathering, demos, UAT to ensure they are up to date with the upcoming changes and communicate the same to their respective teams
- End-User Training: Provided End User training by preparing training documentation and live sessions
- Post-Go-Live Support: A hotline was established for 1 week post Go-Live with User Champions, Business Analyst(i.e myself), Developer on the line to resolve any issues faced by the End Users. I believe providing the necessary guidance and support is critical for Users to adopt any new solution.

### **Key achievement**

#### **Why do you think this initiative should receive the award?**

The initiative had an impact on the lives of Patients as the Hospitals which faced a shortage of Medical Equipment or had malfunctioning medical devices were unable to provide Patient care on time and with this implementation, Patients would receive on-time care from Hospitals. This implementation particularly makes me feel proud as I feel I played my little role in providing better Medical Services to Patients. Also, this reduced the additional trauma a Patient might face due to financial issues by improving the accuracy in billing Patients.