

Real Time Digital Medical Assistance

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ABSTRACT

Any Medical sales representative visits various physicians and hospital; performing multiple visits on the same day. Sales representative have stiff monthly targets to meet. The delay in response from physicians and hospitals downgrade his/her performance which is mainly because of unanswered queries. Some queries are too technical which sales representative cannot answer and that leaves physicians and hospitals unsatisfied. This dissatisfaction triggers challenges in getting next appointment from hospitals and physicians. Also these delays or unresponsiveness creates difficulty in guessing the inclination of physician and hospitals towards drug. Sales representative job involves lot of other manual time taking tasks that further delays overall sales cycle. As part of this paper we are presenting a solution that resolves pain areas that sales representative faces on daily basis. Digital solution that provides real time medical information and automates all manual reporting steps.

Keywords: Mobility, Cloud, Digital Collaboration

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I. INTRODUCTION

Medical sales representatives are responsible for marketing medical products and services to hospitals, clinics and doctors' practices. Any medical sales representative (MR) in medical field visits various physicians and hospitals [1]. MR has to perform multiple visits on the same day and they have stiff monthly targets to meet. The delay in response from physicians and hospitals downgrade MR's performance which is mainly because of unanswered queries. Some queries are too technical which MR cannot answer and that leaves physicians and hospitals unsatisfied. This dissatisfaction puts sales representatives in condition of not getting next appointment. Also these delays or unresponsiveness creates difficulty in guessing the inclination of physician and hospitals towards drug. Sales representative faces issues of conveying these problems to upper management. Following are the business drivers to address pain areas that Sales Representative goes through:

1. Sales Representative had to meet Medical information specialist or Lab experts to get these queries answered and then scheduling next appointment with same physician and hospital

2. These lapses used to hit the target and affect company figures in the longer run.
3. Advertising of upcoming blockbuster drugs getting impacted.
4. Sales Representative needed one such solution which will help them to resolve the queries from physician and hospitals right at that time.
5. No or very less turnaround on complex queries.
6. Leave no stone turned to ensure that physician and hospitals have no hesitations about any factor in the drug.
7. Plan for next follow up meetings with same physician and hospitals by guessing their interest

As part of this paper we are presenting a solution that resolves above mentioned pain areas. The solution provides the real time interaction of physicians with medical information specialists and helps in deep dive discussions. The solution also provides digital features like chatting, document, video and desktop sharing. Solution involves lightweight native app installed on iPad that facilitates real time medication information features.

II. CURRENT MEDICAL SALES PROCESS

Medical sales representatives are responsible for marketing medical products and services to hospitals, clinics and doctors' practices [2]. Medical sales representatives are often responsible for a set territory in which they may serve as either inside or outside sales representatives, or independent representatives who serve a number of businesses and sell a variety of medical products.

Medical sales representatives are primarily responsible for establishing and maintaining relationships with customers. This often involves corresponding with customers via personal visit, telephone, email or other means to take orders, solicit opinions, provide information about new products and services, keep records or complete progress reports. Sales representatives in technical industries, such as the medical industry, must also keep abreast of new developments in the field in order to provide competitive information to customers.

In a typical sales visit, sales representative takes doctor's appointment based on his/her availability. Sales representative provides information on new products and services. He tries to answer any queries doctor may have on products. He makes a note of any query he could not answer. Sales representative then moves for next appointment after giving brochure to doctor. In the evening he compiles all unanswered queries and send it to lab assistant through email or other manual means. Lab assistance replies with answers to queries and lot of back and forth happens in this process. In this overall process medical representative need to fill long messy forms manually. All this manual process reduces doctor's interest in product and impact sales representatives' performance; and that eventually impacts pharma company's sales figures.

Palo Alto, CA-based consulting firm Health Strategies Group released a report showing that 87% of physician contacts with pharmaceutical sales reps last less than two minutes. With thousands of reps in the field, this statistic isn't likely to get any better. "Less time in front of the doctors is something that's a part of pharma industry, and it will always be a part of pharma industry," says Farrell. Medical representatives struggle to communicate and satisfy doctor with required information in two minutes.

There is critical need to make use of futuristic digital tools that can provide real time communication and collaboration. Digital tool that can automate all manual tasks and can reduce overall sales cycle.

III. REAL TIME MEDICATION ASSISTANCE SOLUTION

Mobile technology, including tablets and smart phones, allows medical product companies to develop platforms and apps faster than ever. It also enables those platforms and apps to make a sizeable business impact. Mobility computing offers reps the opportunity to demonstrate products through video or initiate a video conference with peers or clinical specialists for expert commentary. This collaborative and customized environment during sales calls

improves the quality of a rep's interactions with physicians and other key decision makers. Apps that deliver fast interactions, easy accessibility and easy-to-reach data serve as a seamless integration of the sales rep's natural routine and result in increased productivity, convenience, efficiency and responsiveness [3]. Mobile solutions can also improve the effectiveness of closed-loop marketing solutions by allowing reps to provide immediate feedback on physician responses to marketing materials.

The solution involves lightweight native app installed on iPad that facilitates real time medication information features. Solution consist of latest cocoa touch framework and all components related to Authentication, security, business logic, network, Utility, Security, logging etc. Cocoa Touch is a UI framework [4] for building software programs to run on iOS [5] (for the iPhone, iPod Touch, and iPad), watchOS for the Apple Watch, and tvOS for the fourth-generation Apple TV, from Apple Inc. Cocoa Touch provides an abstraction layer of iOS, the operating system for the iPhone, iPod Touch, and iPad.

When the Sales representative taps on the app, it opens with login screen where the user is authenticated. HTTPS requests goes through web services to oracle DB and fetches the products. Upon selection of any one product, it shows the lab info specialists currently available. When one of the lab info specialists is selected, and start meeting button is tapped, it uses the WebEx APIs to generate meeting request and send it to selected lab info specialist. Meeting starts after lab specialist accepts the meeting request. The video option needs to be enabled from the menu to see the attendee at other end.

When lab info specialist logs into web application, the requests goes through the layered architecture and authenticates the user against database and then provides the list of features the user can access. The ASP. Net is proven architecture for web application with MVC[6], connection management, session management, transaction management, Data caching and utility services which makes the architecture secure, robust and loosely coupled. When WebEx meeting request comes and user accepts it, the https response sends the required data there by establishing the connection and start the meeting seamlessly.

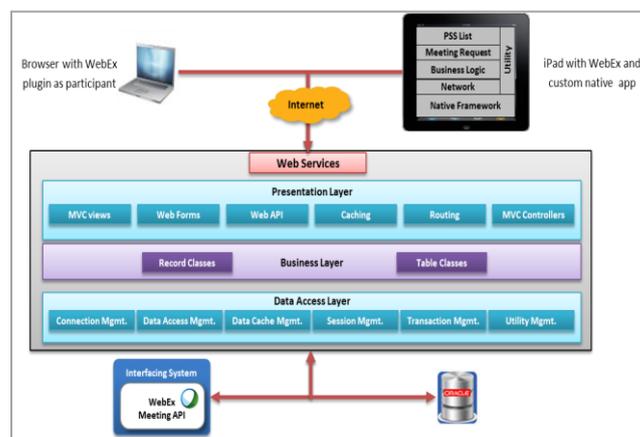


Figure 1. Real Time Digital Medical Assistance Architecture

Apart from real time digital assistance; with handheld tablets as a part of their Marketing Kit, Medical reps can show product video clips to health care professionals, along with 3D animations explaining the dosage, efficacy and indications for a particular drug. The high-resolution handheld tablet display makes presentations look crisp and professional. MRs can also use their handheld Tablets to display data from clinical tests.

IV. CONCLUSION

Sales forms the backbone of any pharmaceutical business. And it's the Sales force that acts as the main communication channel for Pharma companies. Real time digital medical assistance solution will provide great support to sales team. The solution also provides digital features like chatting, document, video and desktop sharing. These digital features:

- Assists Medical Representative in connecting the physicians with Medical Information Specialist
- Assists to provide a live interaction to bring more reality and meaning to discussions
- Help sales representative to resolve all the doubts of physicians in real time.
- Ensure to have all queries answered asked by physicians and hospitals
- Guesses the interest of physicians and hospitals and plan for next appointment
- Positive feedback from physicians and hospitals resulting recommendation of drugs to patients
- Saves manual time and cost
- Improve the sales figures by 12% annually as verbally quoted by customer stakeholders.
- Improve the efficiency and productivity of Sales Representative
- Empowered Sales Representatives with renewed energy and efficiency
- Positively impacted on sales of upcoming blockbuster drugs
- MRs can take better marketing decisions
- MRs can better manage their schedule
- Lightweight Apple iPad based – lighter, secured

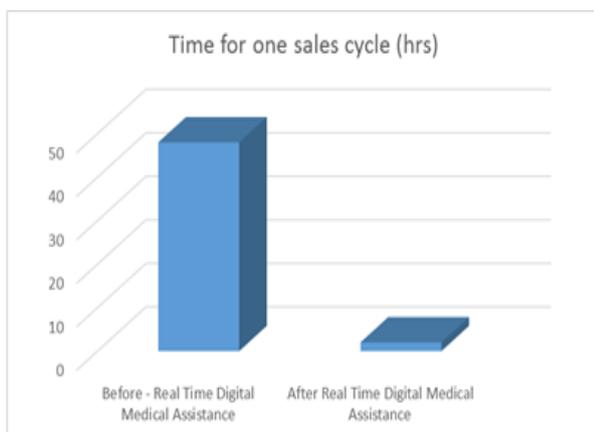


Figure 2. Time reduction after leveraging “Real Time Digital Medical Assistance” tool

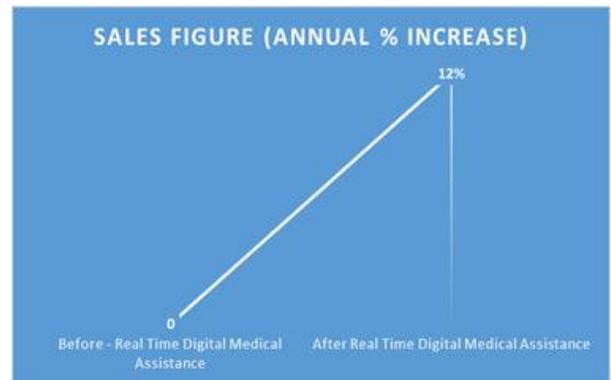


Figure 3. Annual sales figure % increase after leveraging “Real Time Digital Medical Assistance” tool

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