



## Health Insurance Integration Platform

### Client Overview

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The client is a software company that has developed an EMR & ERP application specifically for plastic surgery clinics. Application is cloud-based, medical data-centric system. End users are physicians, nursing staff, office staff and professional medical billers. MDs using the application are from disciplines of plastic, cosmetic surgery and dermatologists. This application provides medical staff with a differentiating concierge experience for their patients allowing an end-to-end patient care and management including insurance claim submissions and settlements. This functionality enables their end-users to engage with the patient community more meaningfully, leading to increased patient satisfaction besides providing practice performance analytics to measure and improve the overall business health of the clinic.

### Challenges

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Client had a legacy practice management and part EPR system that had to be upgraded to include end-to-end US health insurance integration. Our client was sourcing experienced software professionals who could design, develop and implement different functional modules to the modernization and execution of their current system. This required accurate knowledge of the medical data as it pertains to insurance (ICD and CPT codes) and also the entire insurance back-end where insurance claims may be submitted, tracked and finally adjudicated.

### Solution

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OPTRA team strategically combined domain experts & experienced software architects, as insurance integration is a fairly wide term and includes a domain understanding of medicine and

should be developed by individuals who have experience of how medical practices operate at various touch points such as patient data, physician's data and medical data. It is very important that HIPAA and HITEC regulations are followed at all times. Since insurance also involves payments, the development team is also required to have knowledge about financial transactions.

Team Optra built different modules as and successfully upgraded clients existing system: We developed functional modules as scalable and extensible insurance framework that is web API based. This allows for data exchange using industry standard formats such as X12 Electronic Document Interchange (EDI), JSON and XML where required. Our framework is a complete end-to-end integration and is portable to any medical discipline(s) that requires insurance integration. A list of the framework modules and its core functionality is outlined below.

### **ICD & CPT Codes Management**

Extremely important module, main functionality developed: Storing ICD and CPT code for any given patient and procedure. Both these data points are required for any insurance claim processing. CPT codes are retrieved in real-time from the insurance provider APIs. ICD codes are read from a local database.

### **CMS 1500 module**

Main functionality developed: This module generates form 1500 which is auto populated with all the information that is required for filing insurance claims. This form 1500 is also visible to professional billers via the biller's dashboard. Billers may make changes to form 1500 and submit it to MDs for approval and re-work it if MDs suggest changes. In addition, a biller may also edit and re-submit and form 1500 if a claim is rejected by the insurance company. The CMS 1500 form is the real format in which data is submitted for insurance claims.

### **Claim Submission & Status Management**

Main functionality developed: This module lies at the heart of the insurance process and is mainly responsible for claim submission. All patient data, procedure data, insurance data, MD data is collated and send to API. If a claim is successfully filed a confirmation code is returned. Optra then uses this confirmation code to check for claim submission status. The main functionality of this module is to check outstanding claims. This is implemented as a CRON job that continually checks for outstanding claims, and when claim is found completed, returns the ERA to the payments sub module for further downstream processing.

### **Patient Insurance Management**

Main functionality developed: Store patient information such as demographics, insurance company name, multiple insurance policies, subscriber number and member ID.

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## **MD Information Management**

Main functionality developed: Store MD and practice location data points such as MDs NPI number, taxonomy ID numbers, and accurate and completed practice location.

## **Insurance Eligibility Management**

### **Billing Management**

Main functionality developed: It mainly acts as a validation check interface that allows professional billers to validate each claim that is submitted. This allows for reducing errors as much as possible before a claim is submitted. Once a claim is adjudicated or rejected the biller's UI is also updated to reflect the changes allowing billers to generate a final invoice for the patients.

### **Pre-authorization Management**

Main functionality developed: Application user is able to obtain a pre- authorization required for a certain procedure. It is required by insurance companies that some complicated or high cost procedures are pre- authorized to prevent post procedure denials.

### **Invoice Management**

Main functionality developed: Generation of invoices, this invoices also take into account if a certain item/ procedure is to be sent to insurance or will be paid out of pocket by the patient. It also takes into account co- pays and also aggregates old invoices to generate a statement of accounts.

### **Billing & Payment Management**

Main functionality developed: The billing module is used at the end of the overall process and relies on mainly Electronic Remittance Advice (ERA) document, in the context of insurance as mode of reimbursement. Optra developed an ERA parser which efficiently reads data from the ERA and updates the billing database further enabling the generation of accurate bills. Payments module is a sub module of the billing module and it works specifically in the reconciliation of payments. This means when an ERA is retrieved then the data is used to update the billing database but it is the payment module which enables the accepting/ rejecting payments from patients.

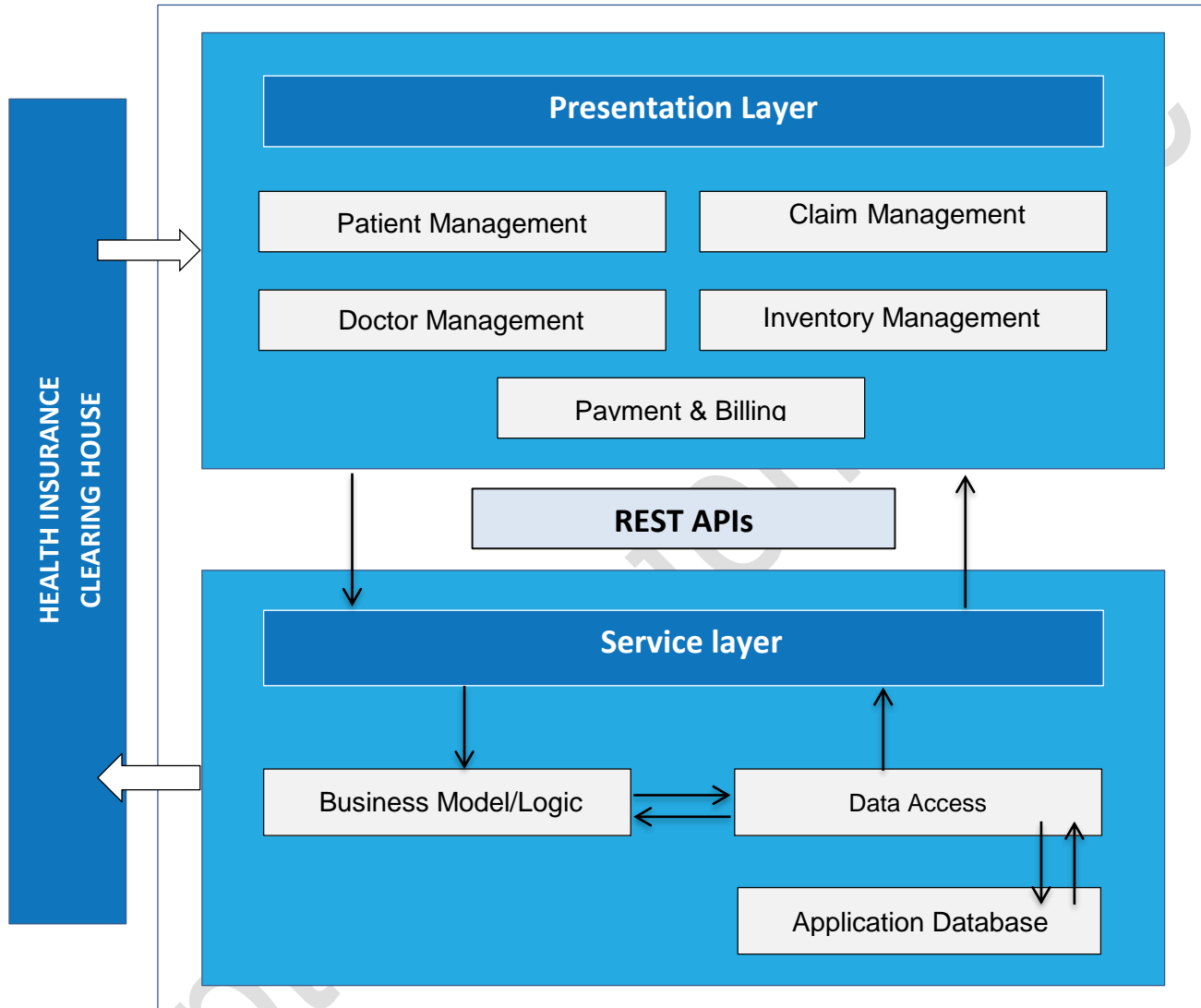
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**: Optra proposed a following framework that covered all the client's requirements:**



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