XORIANT

END-TO-END DEVELOPMENT OF A HEALTH INSURANCE EXCHANGE

Achieved 20% growth of consumer base with a cloud-based system

Client Background

- Our client is the leading provider of software solutions, ensuring online and easy access to health insurance. Their services cater to a range of consumers from employees of small and medium businesses, state governments and customers across the USA.
- Additionally, acting as an agency offering health insurance by bridging the gap between brokers across various locations. This includes information on plans, rates, and eligibility requirements in an easy-to-understand format. The client's user group included end-users, brokers, corporates, etc.

Key Requirements

- Allow individuals/small organizations to gather information and purchase subsidized health insurance as per their fitment evaluated from data gathered through several third-party providers. Aggregate health insurance plans from various carriers (across different states in the US)
- Provide a secure and custom mechanism for communicating user-specific premium invoice and other reminders via emails and other alerts
- Provide end-to-end document management right from scanning files and adding to the system to easy retrieval and role-based access from the system
- Payments and transactions management through various third-party payment gateways
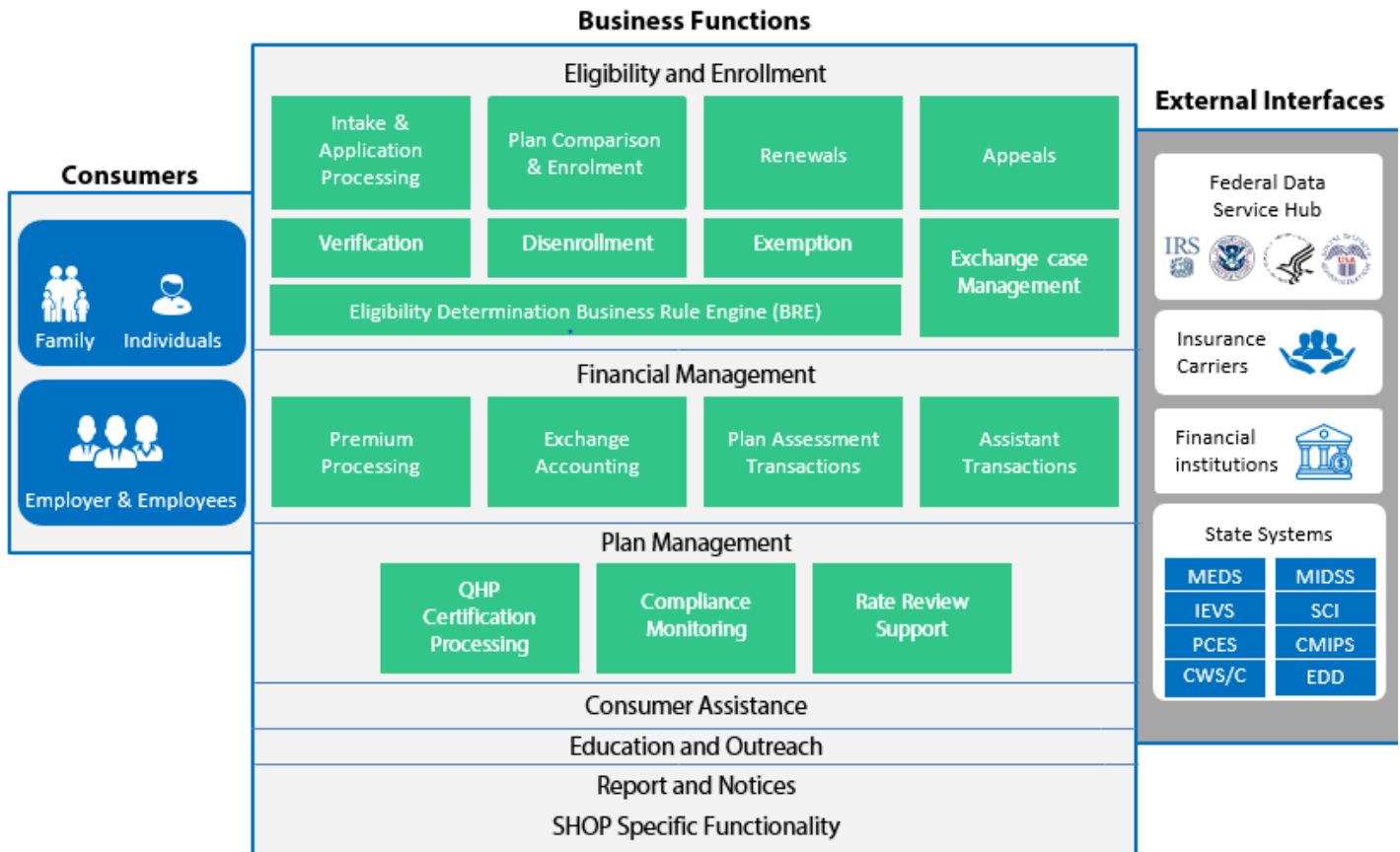
KEY BENEFITS

- Comprehensive solution with an end-to-end support for health insurance claims lifecycle thus increasing operational efficiency by 20%

- Cloud based system with user friendly UI led to wide and quick adoption of the system leading to a 20% quarterly growth of customer base

- Complied to several healthcare federal laws and standards including OWASP, HIPPA, PCI ensuring the security of customer information as mandated by the US government

- A modular engine was created to ensure effortless incorporation of any law or standards changes at runtime

- Address validation processes for customer information authentication
- Generate reports for analyzing trends like the popular insurance plans and products from different insurance providers

Xoriant Solution | Key Contributions

- Followed service-oriented architecture (SOA) model for the HIX platform, different components that are loosely coupled, highly configurable, and scalable
- Developed the platform using Java Spring, Hibernate (JPA), JAXB, Spring MVC, XML, Tomcat, Apache HTTP Server. Communication of each component in the system through either REST or SOAP services
- Built the backend on Oracle database for its robustness and easy data retrieval
- Adopted Alfresco as the CMS of choice for efficient document management and collaboration
- Deployed the platform on multiple servers like JBOSS, WebLogic, VMware, Tomcat and hosted the application on RackSpace cloud
- Developed DSS (Analytics and Reporting) for business-critical information like Enrolments, Plans and Agent Information using Pentaho Kettle and MicroStrategy
- Developed an EDI compliance module to ensure enrolments, invoices, etc., follow the standards as the information exchange was between different third party systems
- Developed the UI components using KENDO UI and Angular JS framework
- Handled the session and plans information from third-party insurance providers in jQuery AJAX
- Ensured secured login implementation using Duo Security, ReCAPTCHA
- Used JSON data-interchange format to pass data between server-side and client-side scripts
- Integration with Authorize.Net, CyberSource payment gateways for multiple payment modes such as Electronic Check Payment, Automated Recurring Billing
- Executed best practices of QA testing using specific processes for unit testing. Early bug identification in the product lifecycle using Sonar testing tool

High Level Architecture

Business Functions

Consumers

Family Individuals

Employer & Employees

Eligibility and Enrollment

| Intake & Application Processing | Plan Comparison & Enrolment | Renewals | Appeals |
| Verification | Disenrollment | Exemption | Exchange case Management |

Eligibility Determination Business Rule Engine (BRE)

Financial Management

| Premium Processing | Exchange Accounting | Plan Assessment Transactions | Assistant Transactions |

Plan Management

| QHP Certification Processing | Compliance Monitoring | Rate Review Support |

Consumer Assistance

Education and Outreach

Report and Notices

SHOP Specific Functionality

External Interfaces

Federal Data Service Hub
IRS

Insurance Carriers

Financial institutions

State Systems

MEDS	MIDSS
IEVS	SCI
PCES	CMIPS
CWS/C	EDD

Technology Stack

Development Tools: Java, J2EE, JBoss, Tomcat, WebLogic, JSP, Angular JS, Backbone JS, JavaScript, Spring, Hibernate, AJAX

Database: Oracle 10g

Management tracking tool: JIRA, Confluence, Crucible, Bamboo

Source Code Repository: GitHub

Messaging: Rabbit MQ

ETL: Pentaho Kettle

Reporting: Micro strategy

Xoriant is a Silicon Valley headquartered product engineering, software development and technology services company, serving technology startups as well as mid-size to large corporations. We offer a flexible blend of onsite, offsite and offshore services from our eight global delivery centers with over 2500 software professionals. Xoriant has deep client relationships spanning over 25 years with various clients ranging from startups to Fortune 100 companies.