# **Digital Health**

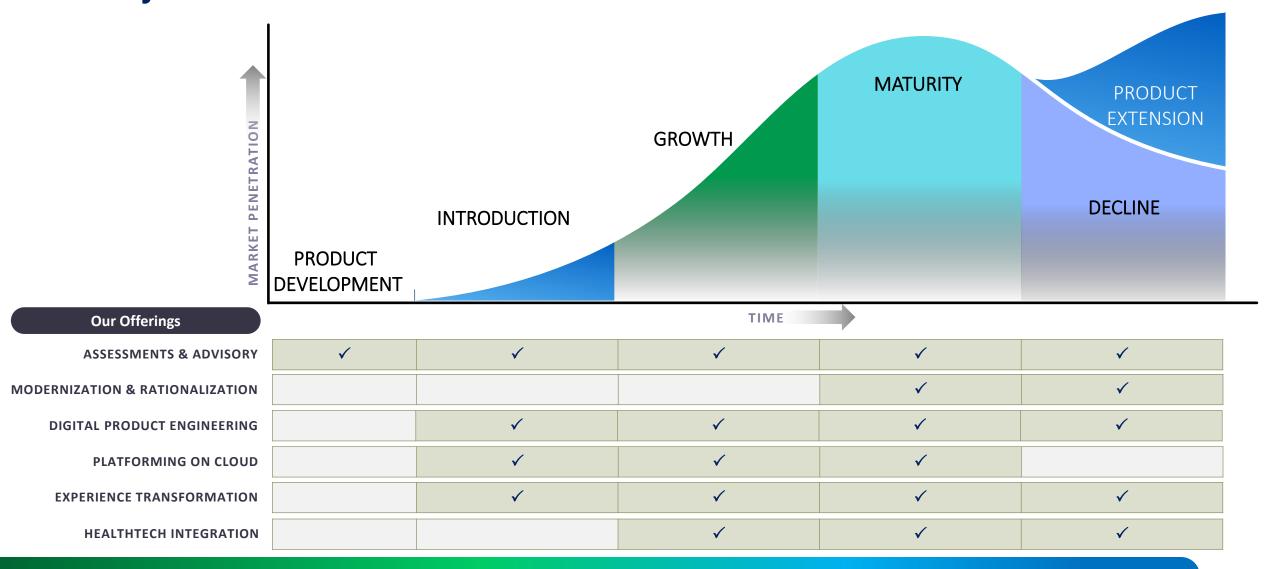
Segment Overview





# We can engage with you at every stage of your product lifecycle





# Our Offerings, as your Consulting & Engineering Partner





#### DIGITAL PRODUCT ENGINEERING

- Product Managed Services
- Digital Application Services
- UI/XM Services

- Quality Engg Services
- Enterprise Content Management



#### **HEALTH TECH INTEGRATION**

- IOT & Devices integration
   API Library / Factory
- FHIR & interoperability
- EHR Integration
- Document Ingestion & Integration



- Other industry leading
- data sources



#### **EXPERIENCE TRANSFORMATION**

- Member Experience
- User/Agent Experience
- Responsive Design
- Mobile First Design
- Rapid Prototyping
- **Experience Measurement** & Analytics



#### **PLATFORMING ON CLOUD**

- Infrastructure **Management Services**
- Cloud transformation services

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- Leverage partnership benefits
  - Sandbox env. for Innovation
  - Cost Optimization
  - License Optimization



#### PRODUCT MODERNIZATION & RATIONALIZATION

- Data Platform Modernization
- Intelligent Automation
- Generative Al Adoption
- Feature consolidation



#### **ASSESSMENTS & ADVISORY**

- Market launch
- New product features (based on market study)
- Proof of Concept / Beta Version build
- Revenue Maximization

- (New market entry)
- Transformation Roadmap
- Scale up & Adoption
- Product Life Extension

### PRODUCT ALIGNMENT

greater product maturity and market penetration



**Right Domain** Channels



**Skilled Talent** Supply



200+ Platform **Implementation** Experience

### SOLUTION ACCELERATORS

- **HL7 Data Adapter (WIP)**
- **Medical Device Ingestion (WIP)**
- **Document Ingestion &** Integration



# **Our Partnership Models**



We offer different partnership models to drive maximum outcomes

- Assessments & Advisory
- Product Modernization & Rationalization
  - Digital Prod Engineering
    - Platforming on Cloud
  - Experience Transformation
    - Health Tech Integration

#### WHY INNOVA

- Deep domain experience
- Strong product engineering experience
- Strong tech capabilities & partnerships
  - 50K+ engineering professionals



- End-to-end professional services
- Design & implementation & maintenance
- Integration with client platforms and applications

#### WHY INNOVA

- Deep domain experience
- Enterprise Architecture expertise
- Strong clientele on Payer & Provider business

- Generate demand through cross-pollination of clients.
- While we become resellers of your product, would be keen to join as a preferred SI Partner for existing and new clients

#### **PARTNERSHIPS**









#### WHY INNOVA

- Success implementing this model
- Business growth with our product partners

# **Success Stories**



# Innovation Partner for a Large Health Tech Company

- Innovation Partner for more than 8 years.
- Involved in development, upgrade, testing, integration and maintenance of more than 50% of their total products across 4 LoBs
- Involved in 3 Patents and 8+ trade secrets

# Developing a Gen AI-based Conversational Bot

- Built a state-of-the-art highly scalable chatbot platform for the end users - payers, providers, and life sciences clients
- The conversational bot is a SaaS application with Gen AI capabilities and supports multiple languages

### Driving Engineering at the Industry Leading Claims Editing Platform

- Driving digital product engineering for industry leading claims auditing & editing platform
- >100 payers supported
- >20k rules configured and maintained
- Enhanced claims processing (>70 claims processed per sec)

# Transforming Population Health Management Solution

- Built a scalable population governance solution to ingest health data sets from multiple sources, curate, and aggregate the data to better understand risks and take appropriate actions.
- Use cases: 1. Epidemiology 2. Health Equity

# Strategic Partner for a Healthcare Reimbursement-Focused Solution Vendor

- Engineering and Innovation partner for 5 years working on inception through market adoption for 12+ Products
- Encounter Mgmt. System; Risk Mgmt.
   System; Revenue Cycle Analytics, CMS Star Ratings, etc.

### **Member Risk Identification**

- Created a solution that assigns a risk score to patients with chronic and expensive illnesses, incorporating demographics, disease conditions, and the HCC model.
- This aids in prioritizing interventions and enhancing patient care.



# **Our Success Stories**

We have been partnering with some of the large health tech organizations to drive greater adoption and growth of their flagship products



# Success Story: Driving innovations at a HealthTech organization from inception through market adoption



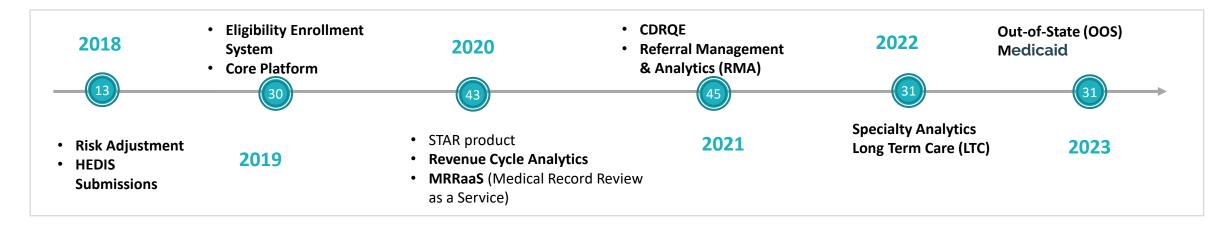
Driving Business Outcomes as an Engineering & Innovation Partner







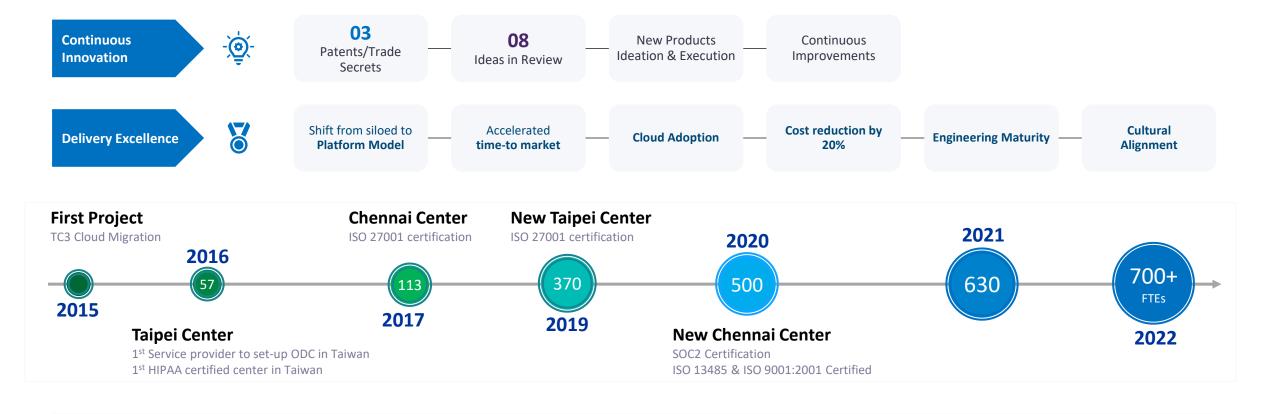






# Success Story: Driving business and tech innovation for over 60% of products at a leading digital health firm







**5** Locations USA, India, Taiwan, Mexico, Canada



**4** Lines of business Administrative, Clinical, Software, Network & Data solutions, Enterprise Imaging



**700+** Global Staff



**7+** years of partnership

# Success Story: Driving digital product engineering for industry leading claims auditing & editing platform



100+

**Payer Organizations Supported** 

We support over 100+ ClaimsXten customers for reviewing and auditing their claims

#### >1M Claims

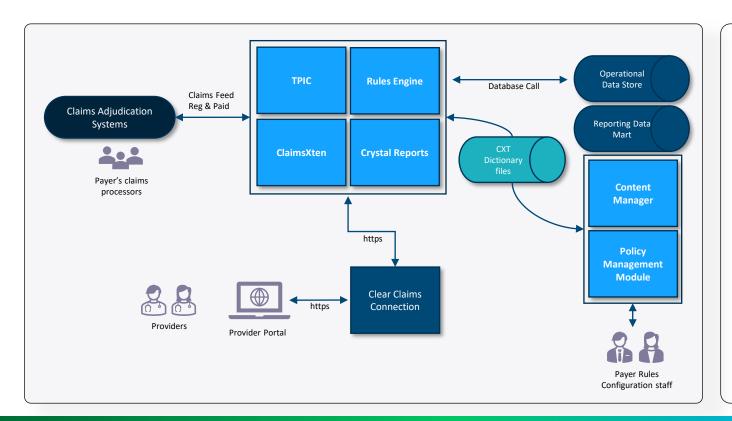
Volume of claims processed in 4 hrs

High speed processing ~70 Claims/Sec monitored on daily basis

#### >20K

Rules configured and maintained

Deep knowledge in configuring & maintaining (200 Rule Sets) X (100+ config. paths)



#### **KEY MODULES BUILT**

- Total Payment Integration Components (TPIC) software modules enable claims data to be passed between ClaimsXten Solutions and a market-based claim processing system such as AMISYS, Facets, and QNXT.
- Rules Engine: Rules range in complexity from simple single line edits to complex logic across claims
  - 200+ rulesets configured in the system
  - Approximately 100 possible configuration paths
- Crystal Reports: Statistical info on different aspects of claims processing
- Content Manager (CM) is an application used to house, maintain, and customize KnowledgePacks (KPs) and rule content referenced in ClaimsXten Solutions for claim editing
- **Policy Management Module (PMM)** is compromised of a combination of user defined sub-rules.

# Building a conversational bot platform for Healthcare Payers, Providers and Life science customers



Our client is a healthcare consulting firm that provides solutions to public and private sector healthcare and life science organizations. Their areas of expertise include Behavioral health, Population health management and Value-based care solutions. They wanted us to build a state-of-the-art chatbot platform as a SaaS application with Gen AI capabilities

### **Customer Need**



- Client was looking to build a comprehensive Al-enabled Enterprise Chatbot Platform
- Build prototypes covering different conversation flows, Documents, PDFs, and Video files for each of the targeted business segments – Payers, Providers, Pharma, and, Government agencies
- The platform should leverage Generative AI and NLP techniques to give a conversational feel to the end users
- Provide Azure and GCP cloud options to their potential customers in different business segments

## Solution Provided



- Implemented the flows on GCP and Azure, using respective platforms' development suite for creating conversational interfaces, and developed Flask application as the middleware for the chatbots.
- The chatbot functionalities included:
  - Multi-lingual support for conversations
  - Speech-to-text and text-to-speech functionalities
  - Generative responses from LLM (OpenAI) grounded to the documents provided by the client.
  - Rendering rich responses like YouTube videos, cards, and quick replies/suggestions

# Benefits / Results



- The platform built is 80-90% reusable and most of its features can be extended to potential customers with a few hours of development effort
- The ensemble approach of using the NLU engine, Gen AI will give flexibility to address different types of chatbased scenarios
- Bot built helps as first contact with the customer, guides with information and other features from the client website. Our solution helps minimize the effort required to go through the documentation and provide a summarized solution with the relevant document references

**Technology Stack** 













# Offerings Deep Dive Details of our Digital Health Offerings

# **Digital Product Engineering Services**

Scalable and secure modern applications and products

- Application Development & Support
- Application Modernization
- Enterprise Apps
- Integration Services

**Digital Application Services** 

- Responsive Design
- Mobile-First Design
- Rapid Prototyping
- Experience Measurement & Analytics

Our Accelerators

Digital Kitchen

# UI/XM

# **Quality Engineering**

- Test Factory
- Test CoE



# **Enterprise Content Management**

- Data Capture & Imaging
- Document Management
- Records Management
- Workflow & Case Management
- **Decision Management**
- Content Analytics



**OUR OFFERINGS SUITE** 



## **Products & Platforms**

- Platform Engineering Saleforce, Pega etc.
- Product Solutions and Partnerships
- Product Sustenance & Support



**Enabled a Microservices Architecture** using DevOps for a warehouse management customer to help developers easily test and merge code into GitHub, with minimal manual effort.

**Implemented Electronic Remittance** Advice (ERA) services for a leading healthcare technology provider that helped compress the reimbursement cycle and streamline workflow.

**Designed responsive UI with better** business rule validations for a leading healthcare provider that enhanced the user experience in terms of visuals and usability.

Developed an automation studio for an installation company to create keyword-driven and data-driven frameworks and schedule test cases to save time for regression testing.

# Assessments & Advisory





# Market Assessment

- Target market analysis
- Competitive analysis
- Customer surveys and insights
- Product fitment analysis



# Product Launch

- Product roadmap and management
- Sandboxed PoC
- IT setup and product development
- Regulatory compliance



# Scale & Adoption

- Market / Geographic expansion assessment
- Talent management
- Org. change management
- Continuous Improvement & Outsourcing



# Lifecycle Extension

- Product adjacency assessment
- New features suggestion/ assessment
- Product transformation roadmap

# Assessments & Advisory – Case Studies



# **Global Healthcare Technology & Business Solutions Company**

Innova is a trusted partner across the lifecycle, driving business outcomes at each stage **Highlights:** 

- Siloed to platform-based product landscape
- 3 Patents/trade secrets
- New products ideation and execution, continuous improvement

#Product Launch #Scale & Adoption

# **Leading AI Healthcare Technology Company**

Innova as a partner in building and maintaining ClaimsXten product, and with rich claims domain knowledge & product engineering capabilities, proposed expansion of the vision, scope and opportunity for ClaimsXten

Offered partnership for joint GTM & co-sell with-

- Target customer identification
- Market fitment analysis
- Demand generation & collaborative sales

#Product Extension

# **Healthcare Technology and Services Company**

Our long-standing partnership and understanding of the ecosystem enabled us to help on product vision and roadmap, across product innovation, user experience, lifecycle stage-specific consulting, joint GTM strategies and product lifecycle extension

#### **Recent solutions/initiatives -**

- Medical review as a service
- Medicare STARS

**#Scale & Adoption** 

### Cloud-based Telehealth Solution

We are successfully partnering in adoption and scale up of Care Expand tele health platform with payer organizations.

#Product Launch #Scale & Adoption

# **Growing Healthcare Technology Company**

We are helping build, launch and scale a compliant mobile application and chatbots that facilitate the client in moving towards the vision of creating Healthcare centric products around behavioral and mental health services.

**#Market Assessment** 

**#Product Launch** 

# **Product Modernization & Rationalization**



•••



# Data Platform Modernization

- Data Hub adoption
- Enablement for downstream data consumers
- GRC models for healthcare data



# Intelligent Automation

- Competency in DPA, RPA & Cognitive Automation
- Automation CoE Set up
- Domain assets Industry aligned use cases
- Frameworks for
  - Maturity assessment
  - Lever identification
  - Biz Value
     Assessment



# Generative Al Adoption

- Gen Al Advisory
- Gen Al Environment
- Model Engineering
- Gen Al Platform Integration
- Solution Development



# Feature Consolidation

- Best-fit product identification
- Consolidation of features / functionalities
- Migration of data into the product of choice

# Product Modernization & Rationalization



# Global Healthcare Technology & Business Solutions Company

We have helped the largest health tech organization, modernized its product suite while rapidly scaling its health tech products, in the payer and provider market

- Move into a Centralized Health Data Hub
- Cloud platform adoption for existing products
- Build cloud products
- Data-Science-as-a-Service / Software-as-a-Service business model

#Product Modernization #Gen AI Adoption

## **Leading Managed Care Provider**

We have helped a large national payer Rationalize and Integrate multiple enterprise modules and applications, post its acquisition of another large payer's business. Modules integrated:

- Member Enrollment apps & data
- Provider Platform & data
- Authorization apps and data
- Pricing Configuration Business Rules
- Lab Claims Processing Platform

Feature Consolidation

# Healthcare Technology and Services Company

Helping the Health Tech leader to adopt the most appropriate Intelligent Automation levers and modernize the Health Tech products

- Generative AI Adoption to augment capabilities of existing products
- AIML and NLP-based product inception, development & delivery
- Centralized health data hub inception and design

#Product Modernization #Gen Al Adoption

# **Health Insurance Company**

We have helped a large BCBS Payer automate their retail billing operations using

- Digital Process Automation
- Robotics Automation
- Cognitive Automation Levers

#Intelligent Automation

# Our Key Cloud Capabilities



### **Cloud Strategy & Advisory**



Well-Architected Framework



Cloud **Economics** 



**Cloud Estate Reviews** 



Security **Assessments** 

#### Cloud Edge IoT

**Cloud Migration** 



Intelligent **Operational Analytics** 



Data generated by IoT Edge devices, **AWS IoT Greengrass, IoT Core and FreeRTOS** 

# aws **PARTNER** Advanced Tier

- **Public Sector**
- Immersion Day
- AWS IoT Core Delivery
- Managed Service Provider



#### Infrastructure



**Automated, Cloud**scaled infrastructure



Governance. **Risk and Compliance** 



**Secure Application Delivery** 



**Multi-Cloud** and Hybrid



**Automated** Migrations



Mainframe to Cloud



Storage and **Backup Migration** 

## Google Cloud **Partner**

#### **Cloud-Native Apps**



Semi-automated **DevSecOps** 



**Automated** CI/CD



**Automated QA**, Lambda, EKS, DynamoDB

## **Managed Cloud Services**



**Proactive** 



**Preventative** 



Comprehensive



Application Development Cloud Platform Data Analytics Datacenter DevOps Data Platform

# Cloud Migration: Our Offerings





## **Infrastructure Migration**

- Develop a highly effective plan for infrastructure migration
- Undertake seven key phases:
  - ✓ Discovery & Analysis
  - ✓ Strategy & Planning
  - ✓ Infrastructure Build
  - ✓ Pre-Migration
  - ✓ Migration Execution
  - ✓ Operation Hand-off
  - ✓ Decommission



### **Data Migration**

- Ascertain where the data resides, address the challenges associated with silos, and solve the quality issues before migration
- Evaluate how much data needs to be moved and the types of workloads involved
- Prioritize workloads, analyze target environment, determine correct migration plan for each workload



## **Platform Migration**

- Combine careful analysis, validated communication frameworks, and prioritization models to achieve migration goals
- Prioritize a cloud-native approach to build game changing platforms
- Deploy high-value platforms to meet the requirements of modern workloads



# **Application Migration**

- Evaluate application's dependencies, technical and security requirements & cost constraints
- Conduct cloud affinity assessment for each application and categorize them into strategic or non-strategic ones

### 200+

Cloud Service Migrations

#### 3000+

Members in Cloud & Infra Practice Team

# 25,000+

Devices Supported

## **Our Accelerators**

- Cloud migration factory
- Infra as a Code blueprints
- R-Lane templates
- Comprehensive Cloud management portal

### **Why Clients Choose Us**



Agile cloud migration project delivery methodology



Marquee technology partnerships with major platform and tool providers



Client-focused, communicative, and collaborative approach.



A cross functional team of over 600 certified cloud engineers.



A proven track record of cost effective and successful project delivery.

# Platforming on Cloud - Case Studies



# Global Healthcare Technology & Business Solutions Company

Innova helped a major digital health organization migrate their flagship applications to cloud (AWS)

- Evidence-based clinical decision support system
- Intelligent Coding Solution (ICS)
- Chart Retrieval as a Service
- Data Science as a Service
- RCM Solutions

## **Growing Telecom Company**

A major Telco in Mexico and provider of triple play services, wanted to migrate a 100+ applications to control costs with huge risk of business disruption.

Innova built a solution with a focus on managing costs and minimizing disruption of the sales network applications.

- Cost savings of 30% with cloud computing
- 51% in storage costs
- 20% in relational database needs
- Reduced the migration timeline by 33%

## **Health Insurance Company**

The client, one of the largest healthcare networks in the US, wanted to transform a complex, legacy on-prem application to cloud.

Innova completed one-touch deployment of the entire application ecosystem.

Helped the client reduce costs and improved manageability.

## **Leading Medical Institution**

Distinguished hospital network in the U.S., with campuses in Arizona, Florida, and Minnesota.

- Migrated 70+ Applications to Azure
- Automated 600 resources, including app environments, containers, databases
- 2000 laaS VMs and 2000+ cloud apps
- Automation improved efficiency and reduced costs.
- Hassle-free management of resource needs.

# **Experience Transformation**



Full range of services to enhance the usability and accessibility of customer products, websites, and applications that drive genuine experiences.



# Responsive Design

Respond to user behaviors and environment through dynamic changes in website appearances and orientation. Innova's collaborative approach ensures that a businesses site reflects its brand promise clearly and it is future-ready, offering the visitors an immersive digital experience.



# Mobile First Design

Design mobile friendly web designs/products for a seamless experience. Right from prioritizing content, providing intuitive navigation, high-speed loading, minimizing disruptive pop-ups to testing the mobile website on real devices for optimal user experience Innova's designers know what it takes to deliver an ideal mobile website.



# Rapid Prototyping

Create 3D designs and explore the final product virtually even before it is delivered. Innova's designers start by gaining clarity on the specs, the next steps involve creating a UX wireframe, and the use of advanced software to create full UI designed experience or near-live experience.



# Experience Measurement & Analytics

Collect, analyze and utilize customer experiences and feedback to improve product journeys and buying behaviors. Innova's team of experts start by helping enterprises identify areas they require an understanding of. Next, invite feedback from users and finally analyze the feedback received.

#### Benefits of Innova's UI XM Services

- Increased customer base and loyalty
- Lower bounce rate and faster conversions
- Strong credibility with the users
- Improved revenue generation

#### Success Stories

- Internationalizing portal for a global healthcare organization to support any language and culture for their global users.
- Implemented UX, UI and backend functionality for a leading software business provider in the US to ensure users view all the products in a list applied with manual override price, discounted price and promotion applied price

# HealthTech Integration Capabilities

# Scalable and secure modern applications and products





# IoT & Devices Integration

Building blocks that support endpoint mgmt., onboarding, security and data management

Product specific IoT enablement for device level data, supporting business models



# FHIR & Interopera bility

A structured process of Analyze & Convert to convert the healthcare data into FHIR format using JSON Conversion and load the data into the cloud FHIR server



# EHR Integration

Integrate with all EHR/EMR and practice management solutions seamlessly, further leveraging your preexisting investments



# Document Ingestion & Integration

A scalable solution to drive automation of intake processing leveraging optical character recognition (OCR) by converting the in-bound documents to electronic formats



# API library & Industry Data Sources

We build API management platforms to enable Microservices architecture efficiently and effectively.

Provide access and integration to rich industry datasets to further aid with business insights

# HealthTech Integration Capabilities – Case Studies



#### **Modern Healthcare Solution**

To improve the operational and financial efficiency of the eligibility determination, we Implemented the eligibility determination application. Configured the resources that informed a patient's eligibility during an episode of care and the cost incurred before the claim is made. We also created a FHIR Server for electronic transfer of data through secure APIs

## Water, Hygiene and Infection Prevention Solutions Provider

To enable remote monitoring and management of the client's IoT devices, we built an Azure IoT hub for the client. Registered every device using IPv4 addresses with a unique key assigned to each of the devices. Built a web interface using MVC for remote monitoring and remote upgrading of the device firmware. Reducing cost, device downtimes and ensured business continuity

## **Integrated Healthcare System**

To support research across clinical practices, we assimilated data from the client's Epic EMR, data from several ancillary systems, and registries. We provided the data strategy, data architecture, data marts leveraging data from epic, and data extracts to support medical research through reports for clinical functions and medical research

# World's Largest Insurance and Assitance Company

To improve customer service through analyzing audio files containing conversation between a company representative and a customer, we developed a solution using a pipeline of AI services like speech-to-text APIs and NLU agents. Applied NLP techniques like sentence tokenization, spell check etc., on the obtained text to identify information and determine the context