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# How **HealthCare Insights** built an award winning app that sold for \$65m with the expertise of **Gritsa**

A Case Study of a Triumphant Voyage of HCI LLC with Gritsa Technologies



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# Overview

HealthCare Insights faced a critical challenge in developing a robust financial analytics application tailored for the healthcare industry. The envisioned application required cloud-based deployment with desktop app capability, featuring an intuitive self-serve dashboard for reporting and analytics. A key aspect was the need for a versatile data integration service on the backend, capable of seamlessly interfacing with various healthcare systems such as EPIC, Meditech, and Cerner. This integration was crucial for aggregating data from diverse Electronic Medical Records (EMR) and Enterprise Resource Planning (ERP) systems, to provide comprehensive financial insights and streamline healthcare financial management.





# Problems to solve

1

**Develop a Comprehensive Financial Analytics Platform:** Create a powerful, cloud-based financial analytics application with desktop app functionality, specifically designed for healthcare financial management.

2

**Integrate with Various Healthcare Systems:** Build a versatile data integration service capable of seamlessly pulling data from different healthcare systems like EPIC, Meditech, Cerner, and various EMR and ERP systems.

3

**Enhance Financial Reporting and Analysis:** Implement features for detailed Income Statements, Budgeting Statements, and What-If Analysis Statements, enabling efficient and accurate financial planning and analysis.

4

**Facilitate Long-term Financial Planning:** Develop a module within the application for Long Term Financial Planning, aiding healthcare organizations in strategic financial decision-making and future resource allocation.



## Project objective

Develop a cloud-based yet desktop client-server, integrative financial analytics and budgeting app for healthcare, enhancing data-driven decision-making and operational efficiency.



# Understanding the tech challenges

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# Snappy yet powerful UI delivered over the Cloud

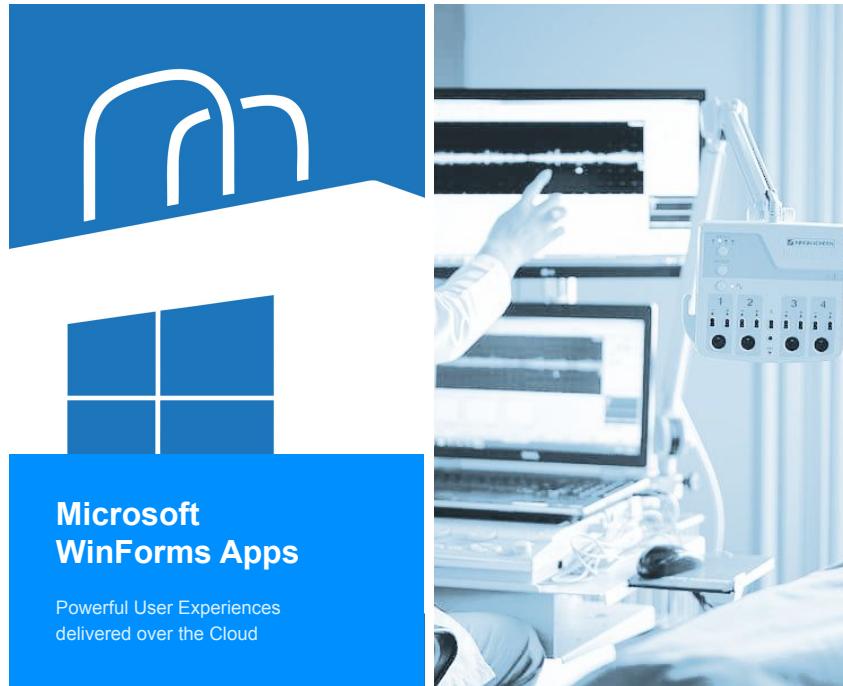
## O1

Desktop Apps are well known for their snappy user experience and powerful native capabilities like networking, I/O ops, client-server architecture etc. But delivering this over the cloud like a web-app was a next level challenge.

### Our solution:

To bring a snappy desktop user experience with powerful analytics capabilities, we used DevExpress control suite. DevExpress WinForms UI components are an industry leading provider of UI components that super-charge UI.

For delivering over the Cloud, we implemented [Microsoft Remote App](#) with [ClickOnce deployment](#)



# Financial Analytics, Budgeting, Planning and What-Ifs

02

Multiple modules in an application that can be sold to a client hermetically or as a package mandated we implement a strong modular and service oriented architecture with graceful messaging to stitch them together.

## **Our solution:**

Using the industry standard solutions to solve key challenges have been our forte. We got MEF or Managed Extensibility Framework and MSMQ or Microsoft Messaging Queue to our rescue. It enabled us to build a robust and stable solution that could implement and deploy modules in a plugin like architecture. Messaging Queue enabled a Command Pattern for communications between all the modules.





# Dev team configuration

## The Power of Three: Scaling Agile Teams for Module Mastery

1. Started with a core of 3 versatile Full Stack Developers.
2. Strategic team expansion in batches of 3, fostering focused and efficient module development with structured and measured plan for scaling.
3. Each trio became a powerhouse for end-to-end delivery of distinct modules.
4. Each trio was assisted by a shared tech architect and a subject matter expert for the relevant business domain
5. Key Insight: Triad full stack dev teams are the cornerstone of parallel development and targeted success while keeping specialised skills like technical architecture and business analysis and expertise as shared skills across the triads.



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# Tech Stack

## Tag Cloud

WinForms C#  
SQLServerDevExpress SQL SSIS  
T-SQL Milos MSMQ  
SSRS DevX Dashboards MEF TCP/IP WPF Entity Framework

# Success KPIs

We decided to measure our performance against a few key KPIs - Feature Delivery rate, Defects per feature and Customer Satisfaction Factor

- 01** | A team of 3 would deliver a feature achieving a FDR of 3/sprint
- 02** | While defects would be common, we progressively achieved a DPF of < 5 defects per feature
- 03** | Insights product ranked KLAS #1 category leader for 4 straight years with a Customer Satisfaction Factor of 9.2



# Dev Process



## Quarterly Dev Roadmap

Following Agile best practices, the quarterly roadmap was converted into a Feature set with Epics. 75% was allocated to roadmap items and 25% to BAU ops

## Three week sprints

Feature stories would be neatly spread over three week sprints with each quarter having 4 sprints. BAU would be tracked over a Kanban board.



## Daily Scrum

Daily scrum ensured every member ended the day with their days update and next days plan. Leave plans would be promptly communicated.



# Acquisition of NOMISe Systems

New Products

2

To be integrated into the existing product suite of Insights

New employees

25

An acquired dev team to be onboarded into the existed dev process and dev methodology

New revenue

\$2.5m

New revenue means new clients and new challenges with expansion of BAU boards

The acquisition of NOMISe Systems by HealthCare Insights LLC introduced a new dimension to the project: integrating eSIMON, a Patient Analytics and Cost Accounting web application, into the existing Insights suite. This posed a significant challenge, given the distinct nature and architecture of eSIMON as a web application. The team was now tasked with not only continuing the development of Insights but also ensuring seamless integration and harmonization with the newly acquired eSIMON product suite. This expanded the project scope, demanding strategic planning and technical adaptability to unify these distinct solutions effectively.



# And the magic unfolds...

## Best year of Healthcare Insights

We built a KLAS rank 1 product having more than 200 hospitals as clients including the worlds best cancer research institute. Revenue of HCI swells to over \$10m annually.



2014

2013

## Premier Inc acquires HCI LLC for \$65m

And then our final win happens when Premier acquires HCI LLC with 6x multiplier and brings into their fold a complete end to end solution to assist their ERP offering



2015 Q4

2015

## Acquisition of NOMISe Systems

We acquired NOMISe and their product suite eSIMON increasing our revenues by another 2.5m and making our product offering complete - Financial Analytics + Budgeting + Patient Analytics + Cost Accounting

## Gritsa completes the B-O-T

And like a final victorious lap, Gritsa completes its Build-Operate-Transfer commitments and hands over the cloud native transitioned product plus the dev team over to Premier Inc.



2018

## Gritsa enters a B-O-T with Premier Inc

While the leadership team of Gritsa makes a win with acquisition, the story doesn't end yet, as now we enter into a Build Operate Transfer deal with Premier Inc to ensure continuity of operations

# Team

The tech leadership team through this amazing journey were three key people shown on the right - the Owner and CSA, Mary Grace Wilkus, the CTO, Jacob Bruner and the Tech Architect, Lead and Offshore Manager at Gritsa, Abi (Abhishek) Chatterjee



Owner & CSA

Mary Grace Wilkus



CTO

Jacob Bruner



Tech Architect & Offshore Manager  
(Gritsa)

Abi Chatterjee



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Thank you.

