

AI Engineering and the Cortex AI Platform Drive Improved Speed-to-Value

About our Client

Our client is one of the largest health insurance companies in the country with over 40 million members across numerous states and lines of business both commercial and government health plans. The Chief Digital Officer (CDO) has established a 3-5 year roadmap to drive digital transformation across the enterprise to become an “AI-first,” client-centric company. They’ve identified hundreds of use cases that range from how to better engage their members across all channels of interaction to improve their Net Promoter Score (NPS), to back office processes that manage claims and detect fraud, waste and abuse.

The Challenge

As a company that has grown organically and through acquisitions, they have hundreds of siloed legacy systems, data that is duplicated across the enterprise, and thousands of Machine Learning (ML) and non-ML models that exist within functional silos. They have invested extensively in data and data science toolkits in addition to hiring a team of data scientists and data engineers. They’ve spent billions of dollars annually on Information Technology (IT) costs to support a very complex environment with the need to continuously innovate in one of the fastest-growing industries, healthcare. Customers have numerous options available to them, and both cost and customer service is critical to drive loyalty. To achieve their goal to drive digital transformation, there are several key challenges they must overcome:

- **Speed.** Drive rapid innovation across all aspects of how they serve their customers. From prospecting to onboarding, engaging, and servicing customers through their call centers. The challenge is to unlock their data and models that exist in silo’s within the enterprise and to rapidly infuse intelligence into their systems of engagement (CRM, Marketing, Care Management, Call Centers).
- **Cost.** They employ 10,000+ developers to support and maintain legacy systems while building new applications to better engage their customers. Lack of reuse and repeatability within enterprise silo’s results in millions of dollars annually in poor productivity and also impacts the speed of innovation.
- **Risk.** There is an increasing need to ensure that systems that impact decisions and touch the customer need to be compliant with industry and regulatory best practices. AI-powered applications in regulated industries such as healthcare are facing more rigorous compliance and governance demands before they can be put into production.

Our Client's Goals

Our client's goal is to be a leader in delivering client-centric AI-powered applications. They realize that while they've made investments in Data Science and MLOps, they are hand wiring applications each time with little to no reuse or repeatability. They understand the importance of an AI engineering centric approach to combine their investments in technology, tools, people, systems and development processes that are needed to give them sustainable advantages with their membership. They approached CognitiveScale looking to establish their Enterprise AI Platform with AI Engineering best practices that are:

- **Open.** Able to support and leverage their existing data, data science, legacy systems, and cloud infrastructure investments.
- **Flexible.** Able to support and enhance developer workflows across a team that spans data engineers, data scientists, application developers, Dev/ML Ops, site reliability engineers, and business analysts.
- **Resilient.** Able to live within an ever-changing landscape of data, tools, and technology infrastructure.
- **Scalable.** Able to support massive workloads that support the needs of millions of members, claims and providers.

A Robust AI Engineering Discipline Relies on Enabling Tools

AI Engineering is a discipline for combining the people, processes, and tools that will enable the development of high-value AI Applications. Carnegie Mellon's Software Engineering Institute considers the three pillars of AI Engineering to be¹:

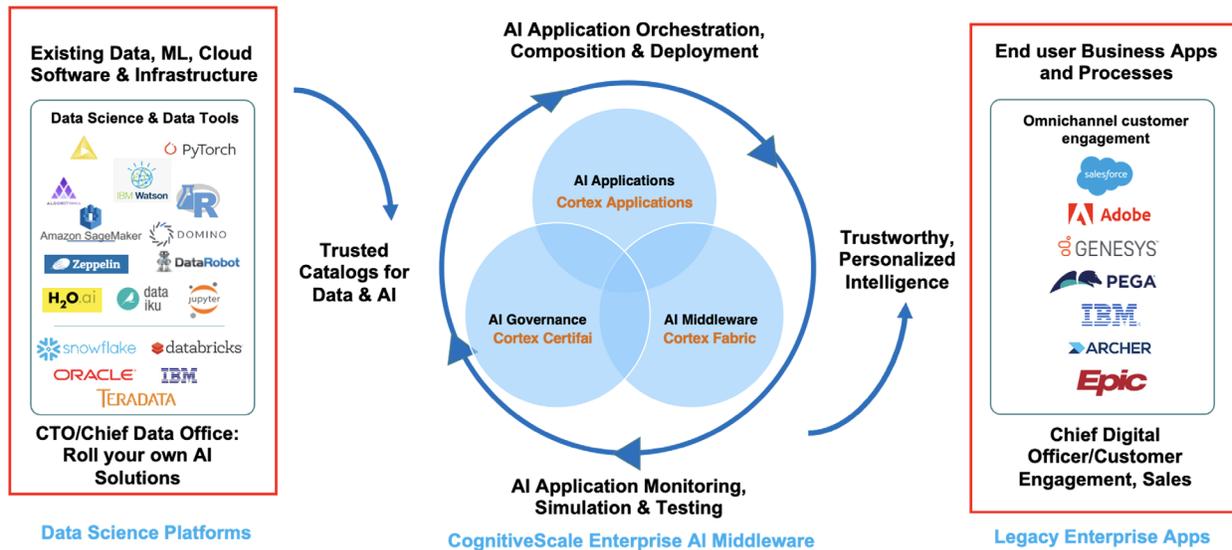
- **Robust and Secure AI:** AI Application development, deployment, monitoring, maintenance, feedback, learning and value capture.
- **Scalable AI:** Scaling AI Applications across the enterprise for many use cases – and scaling the AI infrastructure, data, and models – requires low code platform capabilities and reusable assets.
- **Human-centered AI:** How AI systems are designed to align with humans, their behaviors, and their values – and built by teams across the enterprise (Data Science, ML Ops, Data Engineering, Subject Matter Experts, etc.).

Through an AI engineering approach our client has set the goal to speed up the development of AI Applications at a lower cost, greater impact, increased value, and with lower risk to achieve their 3-5 year roadmap of being an AI-first client-centric company.

¹ <https://www.sei.cmu.edu/our-work/artificial-intelligence-engineering/>

The CognitiveScale Solution

CognitiveScale's Cortex was selected by our client to build their AI Platform and to enable an AI Engineering discipline to develop AI infused applications and business processes across their enterprise.



In the case of this large health insurance payer who is building out numerous AI Applications across multiple value streams (sales, customer service, contact center, operations, transaction processing, and more), Cortex is helping accelerate time to value while reducing the costs to realize their AI Roadmap.

Realized Business Impact



Specific Results in Time Improvement & Developer Productivity Measurement

Time Improvement & Developer Productivity Measurement Framework with Cortex Fabric

#	AI Lifecycle Stage & Description	Cortex Contribution to Time Improvements & Productivity	Cortex Hours Saved per AI Project
1	AI Environment Initiation	Time saved onboarding a tenant and bootstrapping infrastructure	362 hours
2	User Onboarding	Time saved provisioning access and security to all necessary project users on hybrid/complex infrastructure	162 hours
3	Application Architecture & Design Templates	Time saved building use case architecture design, project plan-estimates, UX design (if applicable) & gaining approvals	720 hours
4	Data Operations	Time saved in identifying, exploring, ETL, provisioning data via data sources and strategy. Along with setting up data connections, ETLs, and building profiles for use case	390 hours
5	Model Operations	Time saved building, training, testing, and deploying models in their respective tools like python, Jupiter Notebooks	1,123 hours
6	AI Solution Development	Time saved building components of application or solution	12,740 hours
7	Testing and Deployment	Time saved testing (unit, UAT, integration, performance, etc.) & deploying application or solution from Dev --> Test --> SIT/Pre-prod --> Production environment	5,497 hours
Total Hours Saved per AI Project			20,994 hours

Conclusion

CognitiveScale's Cortex AI Platform is enabling our clients to build, deploy, manage and realize value from AI Applications across several operational areas and AI use cases. Our client is able to rapidly deploy trusted AI Applications developed with our open, low-code Cortex platform. Contact us to explore how we can help your organization realize value from AI.

Contact us at sales@cognitivescale.com or **1-855-505-5001**



CognitiveScale is an enterprise AI software company with solutions that helps customers win with intelligent, transparent and trusted AI/ML powered digital systems. Our Cortex software and industry AI accelerators enable businesses to rapidly build, operate, and evolve intelligent, transparent, and trusted AI systems on any cloud. The company's award-winning software is being used by global leaders in banking, insurance, healthcare and digital commerce to increase user engagement, improve employee expertise and productivity, and protect brand and digital infrastructure from AI Business risks. Headquartered in Austin, Texas, CognitiveScale has offices in New York, London, and Hyderabad, India, and is funded by Norwest Venture Partners, Intel Capital, IBM Watson, Microsoft Ventures, and USAA.