



Modernizing a Provider Portal with INSPYR Velocity to Improve Self-Service and Enable AI

Challenge

A health insurance company needed to modernize its provider-facing portal and establish a scalable foundation for future digital services. While the existing portal supported essential functions such as policy lookup, eligibility verification, claims access, plan documents, FAQs, and provider updates, its legacy architecture limited the organization's ability to adapt the experience as needs changed over time.

Providers had limited search and filtering capabilities, making it difficult to quickly locate needed information. When self-service options fell short, providers turned to customer service representatives, who then had to manually research plan documents and internal information without AI-assisted search or citation-based support.

The legacy platform also could not be efficiently extended to support strategic priorities such as provider registration, single sign-on (SSO), external AI capabilities, and workflow automation. The client needed to modernize the portal while creating an extensible technical foundation that could support both immediate improvements and future innovation.

Solution

INSPIR Solutions engaged the client through INSPYR Velocity, a cutting-edge AI-augmented delivery model, to rebuild the provider portal and accelerate the software development lifecycle while maintaining engineering oversight, validation, governance, and security.

The modernized portal is designed to improve provider self-service, reduce manual customer service effort, and provide the client with an extensible foundation for continued digital transformation.



Our highly experienced engineers orchestrated specialized AI agents across requirements, architecture, development, testing, security, deployment, and documentation. AI accelerated repeatable development activities while INSPYR Solutions professionals reviewed, validated, and governed the resulting artifacts and software. The solution included:

- **Modern Provider Portal:** We rebuilt the portal with a React-based interface, providing a cleaner and more extensible experience for accessing policy information, eligibility, claims, plan documents, FAQs, contact information, and provider updates.
- **Improved Claims Self-Service:** A searchable, sortable, and filterable claims grid gives providers more

direct access to claim details, making it easier to locate routine information without contacting customer service.

- **API-Driven Architecture:** The new portal integrates with the client's provider, policy, eligibility, and claims APIs while allowing existing enterprise platforms to remain the systems of record.
- **AI-Assisted Customer Service Support:** An internal AI chatbot enables customer service representatives to retrieve answers from plan documents and FAQ content. Responses include citations to source materials, helping representatives verify information before responding to provider inquiries.

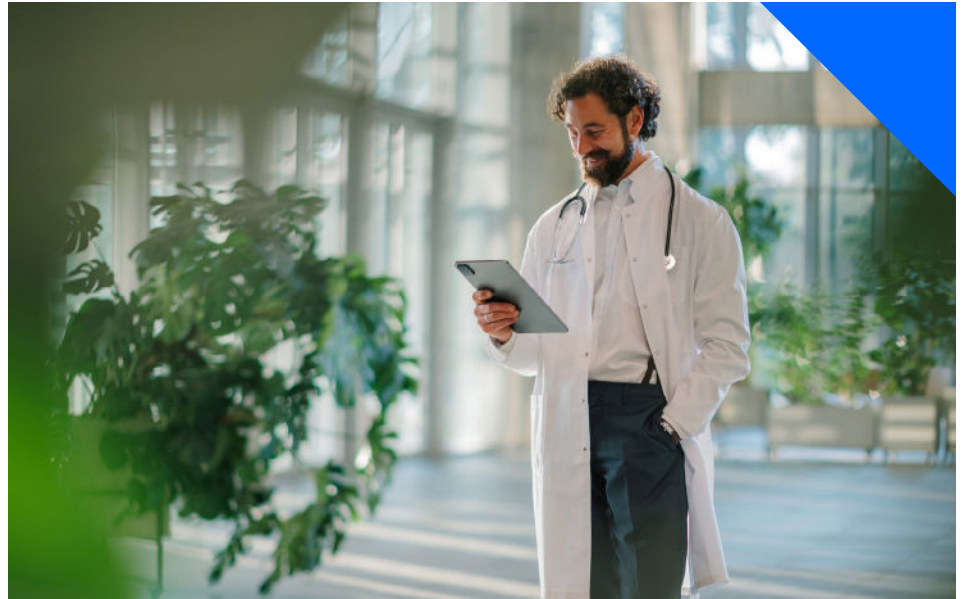
- **Human-Governed AI:** A structured feedback process allows customer service representatives to provide input on AI-generated responses, with designated human oversight determining whether feedback should influence future model behavior.
- **Azure-Native Security Foundation:** The platform leverages Azure-native services, Microsoft Entra ID for secure internal chatbot access, Azure Key Vault for secrets management, and controls addressing PHI, PII, session management, API authentication, and HIPAA-related security requirements.

Through this approach, we addressed immediate provider and customer service challenges while establishing an architecture capable of supporting future identity, automation, and AI initiatives.

Outcome

The modernized portal is designed to improve provider self-service, reduce manual customer service effort, and provide the client with an extensible foundation for continued digital transformation. The enhancements include:

- **Improved Provider Experience:** Providers gained a more intuitive way to search policies, eligibility information, claims, and plan details, making routine information easier to access independently.
- **Reduced Customer Service Effort:** Expanded self-service functionality and AI-assisted research reduce the time customer service representatives spend manually locating and validating information for provider inquiries.
- **More Consistent Customer Service Responses:** Citation-based AI answers allow representatives to validate information against underlying source documents, reducing reliance on individual knowledge and time-consuming manual research.
- **Foundation for Future Digital Capabilities:** The rebuilt portal establishes the technical foundation necessary to introduce future capabilities such as SSO, provider registration, workflow automation, external AI, and additional digital provider services.
- **Controlled AI Adoption:** By initially introducing AI within the customer service organization, the client can evaluate answer



quality, governance, security, and compliance in a controlled environment before considering provider-facing AI capabilities.

Microsoft Azure, Azure Container Apps, Azure Front Door, Azure Key Vault, Microsoft Entra ID, Azure AI Foundry, Azure OpenAI

Client Profile

The client is an established health insurance provider offering insurance products and services to individuals and families. Working with healthcare providers to support member care, the organization relies on secure and accessible digital services to facilitate the exchange of policy, eligibility, claims, and plan information. Its continued investment in technology is focused on improving digital experiences while maintaining the security and compliance standards required within the healthcare industry.

Technologies Supported

INSPIR Velocity, React 19, TypeScript, Vite, Tailwind CSS, FastAPI, Python, SQLAlchemy,

About INSPIR Solutions

Technology is our focus and quality is our commitment. As a leading expert in delivering flexible technology and talent solutions, we strategically align industry and technical expertise with our clients' business objectives and cultural needs. Our tailored offerings include a wide variety of professional services, project solutions, managed services, and talent resources, all bolstered by our strategic partnerships with cutting-edge technology services. By always striving for excellence and focusing on the human aspect of our business, we work seamlessly with our talent and clients to match the right solutions to the right opportunities. Learn more about us at www.inspyrsolutions.com.