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experience partnership.

Case Study

Leading Long-Term Care Provider Develops Award-Winning Software Applications to Advance Their Mission

emids helps top 5 long-term care provider build a successful product engineering strategy for rolling out resident-centered technologies that meet industry, compliance and time to market benchmarks

Overview

The client is a leading long-term care provider operating more than than 200 skilled nursing homes, assisted living facilities, Alzheimer's centers and retirement communities across the U.S. Their facilities offer multiple levels of patient care, from skilled nursing to independent living, and also provide Alzheimer's and dementia care, post-acute care, inpatient and outpatient therapy and on-site physicians. Campuses are centered around residents and provide a homelike environment that differs from more traditional long-term care settings.

Business Opportunity

The provider was using a software bundle from a third-party vendor to manage clinical processes and all other activities related to resident care. The software was not intuitive and did not fit well with their mission or the overall processes the provider used to care for residents. The technology was also

not scalable enough to support the volume of patients at each facility and the number of activities that needed to be processed on their behalf. Dependency on the vendor hampered the provider's ability to easily and quickly customize, scale and update the software, and gaps in compliance with mandates led to increased costs. The company did not want the software to dictate how they cared for residents and wanted more control over their technology infrastructure, so they decided to develop their own suite of software applications piece by piece.

The provider faced several challenges in this endeavor, including:

- Lack of healthcare IT talent in the local market

- Changing internal stakeholders' mindsets

- Limited in-house expertise in product engineering and experience with product life cycle management

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Solution

In 2008, emids came on board to help the long-term care provider develop their first software application: an incident management system that provided staff with a consistent process for tracking and addressing incidents that arose among residents. We set up a product engineering team to help the company with end-to-end development, rollout, support and maintenance of the application. We also introduced efficiencies into the process by adopting Agile product development methodologies and assembling an enterprise production support team.

After the successful deployment of the first application, company leaders envisioned more modules they wanted to create—and the engagement grew to include the development of applications for clinical, therapy and rehab systems.

Restrictions on proprietary software from the previous vendor made it difficult to obtain documentation from existing applications and apply it to new modules under development. Therefore, the development process required constant communication and collaboration between emids and the provider to ensure newly designed applications would meet the needs and expectations of the business.

The company also turned to emids for help developing a resident information and tracking application, user and patient portals, and an electronic medical record (EMR) for its physician group that met Meaningful Use (MU) requirements. We analyzed and delivered requirements for the new EHR application within a month, giving the client more time to prepare the business case and helping board members make the most informed decision.

Technologies Used

- Windows Server
- IIS 7.5
- .NET 3.5
- C# WPF/WinForms
- WCF
- SSRS
- SSIS
- Mirth Connect
- Selenium

Services Provided

Other services we have provided over the nearly decade-long engagement spanning development, implementation and rollout of software include:

- Strategies for continuously improving technical quality, automation, integration and code analysis of applications as well as management of problems in production

- Reusable frameworks for auditing, exception handling, security, user administration, caching, logging, reporting, responsive design patterns and user experience components

- Modernized applications for cloud and mobile access

- Automated risk assessment forms

- Expertise to keep applications updated and complaint with new and evolving regulations

- An interface engine integrating the provider's clinical system with the in-facility pharmacy provider and diagnostic lab chain, providing users with a secure, summarized view of medications prescribed and administered

Results

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Not only has emids helped the provider successfully build their own suite of integrated software applications, but we have also continued to upgrade, enhance and maintain these technologies, while keeping them aligned to the evolving needs of the company and changing regulatory environment in healthcare. Our partnership has helped the client accomplish their core mission of providing resident-centered care and break down barriers to innovation.

emids' technology work with the provider has even resulted in award-winning recognition for the company, including McKnight's Excellence in Technology gold award for care transitions technology in 2015. The award praised interoperability features in the provider's EMR system that import essential clinical and care information from disparate systems outside the network into patient health records to ensure no medication, diagnoses or other vital information is missed or misinterpreted.

Benefits

Specific benefits we have brought to the company include:

- Smooth execution of projects from start to finish, including rollouts to all of the provider's facilities

- A global delivery model that provided cost savings, greater access to talent, increased efficiency and faster time to market

- Healthcare IT expertise and guidance on market, regulatory and technology issues

- Improved performance, integration and relevance of clinical applications

- Willingness to collaborate closely with stakeholders on the design, development and deployment of applications and cater to their needs, requirements and timelines

About emids

emids is a premier provider of healthcare IT services and solutions. emids enables healthcare entities to achieve accessible, affordable and high-quality care by providing custom application and data solutions. Our clients experience true partnership with us as together we navigate the challenges of a rapidly changing healthcare industry.

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Online: www.emids.com   **Email:** info@emids.com