

A photograph of a modern hospital hallway with large windows on the right and a glass wall on the left. Several people in white lab coats are standing and talking near the windows. The lighting is bright and clean.

RelayHealth Saves 50% on Azure Development Time with AzStudio

About RelayHealth

Founded in 1999, RelayHealth is a subsidiary of the pharmacy division of McKesson Corporation, a U.S. based, Fortune 10 pharmaceuticals and health information technology distributor. McKesson purchased RelayHealth in 2006 for its prestigious online physician-patient communications services that help hospitals, health systems, and pharmaceutical companies securely share and aggregate data across healthcare sites. RelayHealth, on its own, has nearly 1,000 employees company-wide and connects with over 50,000 pharmacies across the nation, generating more than 18 billion real-time transactions and exchanges per year.

RelayHealth's Challenges: Scale and Security

RelayHealth supports a large number of existing legacy systems that do high-speed, secure data processing of pharmacy claims, mostly out of their own on-premise data centers. With thirty plus years of building their own datacenters—managed and run internally by over 200 hundred IT staff and developers—RelayHealth provides extremely high SLAs for their pharmaceutical processing. These high SLAs (and robust security) are critical as RelayHealth does processing for the majority of pharmacies in the U.S. More specifically, RelayHealth enables pharmacies to discover in near real-time the unique pricing per individual, factoring in healthcare insurance, individual history, and market trends.

While the RelayHealth legacy systems had worked for their needs so far, a recent mandate from McKesson Corporation required that all affiliates start migrating to Microsoft Azure (and other) public clouds over time.

Cloud migrations are no easy task for any company, but—when considering the magnitude and complexity of RelayHealth’s current applications—RelayHealth had their work cut out for them. Building the necessary tools (strictly using Azure cloud APIs) would be inherently difficult, especially when considering the need to support:

- **Strict SLAs**
- **Robust security**
- **Highly engineered system design patterns**

All of these complexities would need to be translated to an entirely new environment—the RelayHealth operations and development teams had never faced these migration challenges before. Therefore, without ready-made migration solutions to Azure, RelayHealth developers were looking at years of extensive effort spent building the necessary tools and expertise within and around public cloud.

What the Company Needed: McKesson's Migration Plan to Microsoft Azure

RelayHealth had been looking for ways to increase their expertise and ability to test, investigate, mitigate, and resolve issues inside Azure public cloud but had not found any solution that sufficiently met their needs. They resigned themselves to the grueling effort of building the tools from scratch, realizing that the effort ahead would be tantamount to their decades of previous work constructing their current on-premise environments and applications. But it would all have to be accomplished in significantly less time.

Unfortunately, with the complexity of the project, and the lack of pre-built tools, this “speedy solution” was a nearly impossible task under the circumstances.

RelayHealth needed a way to streamline the migration process, without cutting critical security or development corners. They needed a preexisting framework—that, to their knowledge, didn't yet exist—in order to get to public cloud.

A framework did exist, however; RelayHealth just hadn't found it yet.

A senior McKesson Cloud Solutions Architect (tasked with helping Business Units like RelayHealth move their operations to Azure) had seen demonstrations of the Monza Cloud AzStudio development framework at a few community meetups and speaking engagements put on by Robert Dytmire, our CTO. This particular Architect was impressed by what he saw, so he proposed that RelayHealth investigate AzStudio as a possible alternative to building from scratch with Azure APIs. Taking this advice, Mark Beers, Senior Director of Development at RelayHealth, brought all of his direct reports and a few subject matter experts (developers with public cloud experience) into a few exploratory sessions with the Monza Cloud team.

Ease of use and adoption was critical to RelayHealth IT teams, as well as how much time and resources could be saved from not having to build their own tooling for public cloud development and operations. In these initial meetings, Monza Cloud demonstrated how AzStudio would meet all of these requirements and more.

RelayHealth decided to engage in a formal POC with AzStudio for more formal evaluation purposes.

What AzStudio Provided: An Accelerated Pathway to Azure Cloud

Before connecting with Monza Cloud, a RelayHealth Senior Developer had been tasked with building a highly flexible product prototype (for later testing purposes in Azure) in order to simulate their bigger goal of moving all production applications to public cloud. However, this early prototype was built fully on-premise—few of the developers from RelayHealth had the practical experience or time to pilot this initial prototype in cloud. Two of our developers met with this initial developer as well as another senior dev to discuss the transition of their PoC product to cloud as well as how to measure:



Performance in cloud



Improvements in cloud



Improvements in Azure PaaS

Fundamentally, the goal was to recreate the Core of the Prototype application in the cloud using the AzStudio development framework. If they could get several of the scenarios to work in cloud, then they could move forward with confidence that the rest of the scenarios and other applications could be made cloud-ready as well.

During initial meetings, the biggest question that the RelayHealth developers had for us was, “Can we achieve these goals in a shortened time frame?” The original product prototype was built by one developer in 20 working days. Now, with two of RelayHealth’s developers, after only a single day of training with AzStudio (plus our two Monza Cloud developers’ support¹ as needed), our Monza Cloud team assured RelayHealth that the PoC sprint could be done in the remaining 2 working days (based on two developers working for a total of 4 “person days”).



¹By “support” we mean that our devs would provide code examples and relevant topics, as-needed “over-the-shoulder-guidance,” and general instruction and recommendations. They did not code on the application.

Initial Trial: What the Company Accomplished with AzStudio

The original on-premise prototype was written using Java; the Azure-based prototype would be written in .NET. This meant no recycling—RelayHealth developers would have to write all new code for this new cloud instance.

However, despite this, the two RelayHealth developers were able to rebuild the prototype in Azure cloud—with all of the features and capabilities of the original on-premise instance—in just a day and a half. As compared to the original prototype build which took one developer 20 days to do, AzStudio enabled the same amount of work to be completed in just 2 days (with two developers).

This streamlined, more efficient methodology is due to the AzStudio intuitive framework and development toolset. The pre-built modules and user-friendly interface allowed RelayHealth's developers to spend only one day training and 1.5 work days coding the instance. With minimal support from our development team, the two developers had a half day left over, so our team demonstrated how to leverage AZStudio for stretch goals:



Datacenter Failover
(**< 2 minutes**)



Security Protocols



Identity Management



Performance Monitoring



Debugging

The RelayHealth developers were impressed (and frankly excited) at the variety of features offered by AzStudio, and while we were able to cover quite a few in the remaining half day, the developers were left wanting to see more—but we had run out of time for the trial period.



Monza Cloud is an Atlanta-based Microsoft Partner that focuses on Azure adoption and cloud best practices & standards. Monza was built after years of direct project work for a variety of clients, when it became clear that tools like AzStudio would be necessary to fully utilize the power of the Microsoft Cloud. Come visit us today, at www.monzacloud.com

The Results of the AzStudio Trial & RelayHealth Today

During our end-of-trial meeting with RelayHealth's development team and upper management, Mark Beers (Senior Director of Development) reported that he had been in discussion with his development team and other observers and liked what he was hearing. All were pleased that AzStudio's inclusion did not measurably change the code performance; instead, the development team built the application much faster and maintained its original transfer speeds.

Most importantly, the development team had determined that AzStudio would save the company at least 50% on development time and effort to get into public cloud and 30% on their ongoing maintenance costs going forward. Beers explained that they, of course, would reserve the right to revise these numbers (because they may be higher as they continued with the project) but that RelayHealth made their buying decision on the 50% and 30% estimates.

"We've seen it work, it's is easy to use, our developers like it, and it's going to save an enormous amount of resources," Beers concluded.

RelayHealth went ahead with their AzStudio adoption and immediately began working on the mandated migration to Azure. RelayHealth developers are in the midst of building their application, but their road to cloud has been considerably shortened—AzStudio's streamlined development framework cuts out about 2 years of their original 5-year internal plan. RelayHealth's team still needs to decide on a secure and agile data storage solution, incorporate GCP, extend to multi-cloud, and build their own hooks—all of which is enabled through the simple extensibility of AzStudio.

Facing an incredibly difficult cloud migration?

Develop faster and smarter with AzStudio. Schedule a demo [today](#).