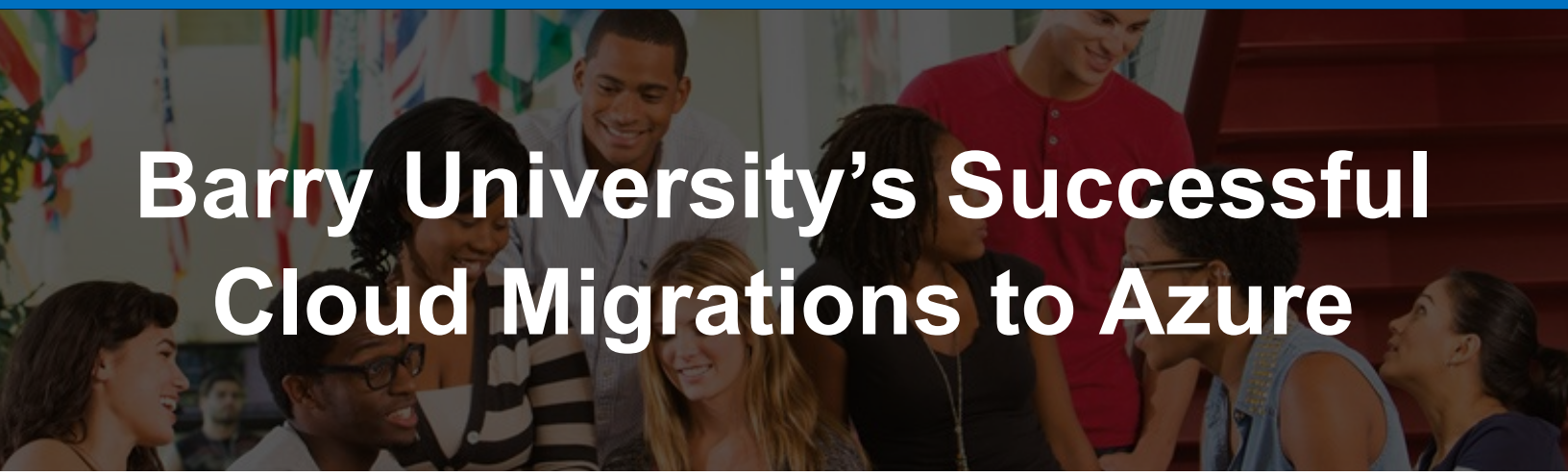

Barry University's Successful Cloud Migrations to Azure

A deeper look into how the University's cloud strategy and migration process helped them increase availability and efficiency and offer the best education possible to their student base.

Introduction

As the cloud continues to mature and become more robust, reliable and cost-effective, many organizations are considering migrating their on-premises computing environments to cloud architectures. However, many shops are unsure about how to start a transition to a cloud environment and what best practices to utilize as they migrate.

To help alleviate some of these concerns, RDX takes a deeper looks at Barry University's transition to the cloud. Barry University has a mature cloud environment that has grown significantly as the result of a recent migration of its SQL Server databases to Azure. Due to their thorough planning, testing, and effective communication between the team members, Barry University was able to achieve a successful migration and enhance the services it provides to its prospective and current student base.

Barry University's Background

Founded in 1940, Barry University has become a leading higher education center in Florida through its core commitments of knowledge and truth, inclusive community, social justice and collaborative service. With its campus headquarters located in Miami, Barry University has 17 locations and over 8 thousand enrolled students across Florida. While Barry University has approximately two thousand staff members, their IT department consists of a handful of personnel. As with most small IT departments, Barry University's goal was to implement strategies that will allow it to focus less on daily maintenance activities and more on delivering better service to its current and prospective student base. The cloud has shown to be one of those efficiencies and critical in helping Barry University stay innovative and deliver the best education possible to its students.

Developing a Cloud Strategy

Barry University started its cloud journey several years ago and began looking into it as a way to save money on disaster recovery efforts and increase database availability. Before any migrations took place, Barry University did a thorough analysis of their environments to determine which systems made the most sense to migrate, the order in which they should migrate these systems and what kind of financial and availability impacts this would have on its business operations.

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Being located in an area that has a high threat of hurricanes, disaster recovery is a top priority for Barry University. Any sustained downtime would have a significant impact on the staff and student body. Not only would prospective students not be able to submit applications and register online, but current students would lose the ability to access the University's digital learning center, check their University email and manage their courses, resulting in potential retention problems for the school.

To help mitigate any issues that should arise during an emergency, Barry University maintains a separate DR facility. While disaster recovery is an important part of many organizations' IT strategies, managing a separate disaster recovery site is costly. Moving some of their most critical systems to the cloud would help Barry University save costs on disaster recovery efforts and also help improve availability. Barry University understood that it would be able to easily create a DR environment within Azure. "A sustained outage of our student-facing systems would be a disaster for us," said Justin Moses, Director of Data Center Operations at Barry University. "We need to keep critical services highly available, and cloud services help with that."

Barry University first moved its web server to the cloud. As the University works heavily with Microsoft products, Azure was a cost-effective and natural choice for a cloud provider. After moving the web server to Azure successfully, Barry University decided to move its SQL Server databases, consisting of over 10 systems which house critical data including the University's CRM and ERP systems, to Azure as well.

Barry University's SQL Server Database Migration

The University's SQL Server database migration had two main goals: moving from an on-premise to a cloud environment and database consolidation to increase the overall efficiency of their environments. Barry University understood that involving all affected departments in this process was the key to a successful migration. Barry University's IT department invited stakeholders from their Infrastructure, CRM, and ERP teams along with their RDX Primary DBA, Faisal Farouqi, to planning sessions. "One of the strategies that helped us ensure a smooth transition of our SQL Server databases to the cloud was to involve all potential stakeholders in the planning process from the very beginning," said Justin. "Even if you don't think a department has stakeholders, invite them anyway. They will most likely think of impacts you otherwise wouldn't have foreseen."

Barry University frequently held these meetings to bounce ideas off of each other and map out the transition process. When asked about the planning process, Faisal stated, "All members of the project team kept each other informed of progress and issues that cropped up. The project plan was agreed upon, and everyone knew their role and what activities they were expected to perform. Very detailed and thorough test plans were created. The test plans were executed step-by-step until the testing phase of the project was complete. "

Although Barry University had extensive planning and testing strategies in place, there were a couple bumps in the road along the way. While testing, Barry University experienced some routing and networking issues in addition to file transfer problems. Applicant data wasn't transferring into the appropriate systems correctly, putting Barry's ability to secure new students at risk. To solve these problems, Barry University held several white board sessions with Faisal and their internal teams to propose alternatives, agree upon solutions and put them into effect. When detailing the steps involved in the testing and cutover process, Faisal stated.

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"We configured Azure to be a standby environment for the on-premises systems. During the live cutover, we performed a standard failover from the on-premises databases to their cloud counterparts. The whole process went smoothly. Because of all of the testing we did, there were no surprises during the production cutover."

As the move to production drew closer, Barry University also took steps to make sure their student and faculty base was aware that changes affecting their ability to access critical applications were being made. Because Barry University involved all affected departments in the planning and testing process, had a thorough testing plan in place, and maintained a strong line of communication to all affected parties, the University transitioned their SQL Server databases from a test environment to Azure without a single incident arising. The University also leveraged outside partners as much as possible throughout the migration process. "We looked at our outside vendors such as RDX as team members. They were critical in the overall strategy and planning process. They also helped us leverage our internal resources more effectively," said Justin.

What's Next for Barry University?

Currently, ninety-five percent of Barry University's environments are virtualized. They are confident that should a failover happen on premises, their critical systems would remain unaffected in the cloud. When asked what advice they would give to organizations considering a cloud migration, Justin said that planning is key. "First identify resources that make the most sense for your organization to have in the cloud. Cloud does not save costs overall; it shifts them. Prioritize what is the best for your business goals, and start putting a cloud migration plan together accordingly that involves all potential parties affected. Also, it is important to communicate with your customers and set realistic expectations for all of your users along the way."

With multiple successful transitions to Azure complete, Barry University has two additional phases left that will result in their entire environment being migrated to Azure. The school plans to start the next phase with their Intranet. They are also looking into backup-as-a-service so that they no longer have to back up their systems to their disaster recovery site. Their plans to be fully migrated to Azure and utilize backup-as-a-service will help Barry University maximize the efficiency of their IT department and focus on more strategic activities.

Conclusion

Since first starting their cloud migration journey, Barry University has seen positive results. Being a small IT department, most of their time was spent on keeping the lights on through daily maintenance and disaster recovery activities. The IT staff was so focused on daily maintenance tasks that they were unable to implement strategies to enhance the University's education services.

Due to their migrations to Azure, Barry University's IT department now has the time to look into and implement new features that Microsoft frequently releases for their products, allowing the University to continue to innovate and offer best-in-class educational features to their student base. "It feels great knowing that my department now has more time to focus on bringing better service delivery to our students," said Justin. Since those daily maintenance activities are now supported through Azure, they can spend more time supporting Barry University's mission of providing the highest quality education to its student base and keeping their reputation of being a leading educational institution strong.

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