Microsoft Azure

Korcomptenz

Modernize Your Web Apps:

Five stories of creating better customer experiences through cloud migration

This is for you if:

- You lead a team of developers or IT professionals involved in building, managing, and securing customer-facing websites and web applications.
- You are looking for solutions to enhance customer experiences.
- You want to learn more about the values the cloud can bring to your business, such as optimizing costs, operating more efficiently, and speeding innovation.

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Introduction

The recent surge in digital demand has made customer experience a key differentiator for businesses today. According to a Gartner survey study, positive customer experiences drive more revenue, higher employee satisfaction, and greater customer retention.[1] It's no wonder that organizations are anxious to improve their customer interactions—more and more of which are exclusively happening online.

Moving web apps to the cloud has a direct and immediate impact on customer experience and convenience. Improving application performance alone is critical, with research showing that 40 percent of people will abandon a mobile site if it takes longer than three seconds to load, and 47 percent expecting a web page to load in two seconds or less.[2] Cloud-based solutions allow organizations to act and execute new features more quickly, scale easily, and give developers and IT professionals more flexibility to focus on strategic priorities.

For years, Azure has helped technology partners build, deploy, and manage applications in the cloud, in hybrid environments, and at the edge using the tools and platforms of their choice. The following customer stories demonstrate how moving from on-premises to cloud helps improve the customer experience, from speed and performance to overall satisfaction.

40%

of people will abandon a mobile site if it takes longer than three seconds to load.

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[1] "Gartner Customer Experience Management Survey," Gartner, 2019.

[2] "How Loading Time Affects Your Bottom Line," NeilPatel.com, undated.

1.

Innovate and increase efficiency

The Academy of Motion Picture Arts and Sciences—home of The Oscars®—has more than 10,000 members and a film archive of more than 230,000 items, as well as more than 10 million photographs. Prior to 2014, however, much of the organization's information still existed on paper or in isolated on-premises databases. Even Academy Awards® voting was conducted via distributing DVDs of nominated films and mailed-in ballots.

With the appointment of the Academy's first Chief Information Officer, Bev Kite, in 2014, the organization began a significant technology transformation. The advancements were significant, but the pace of technology and industry change required more tools and member services, such as a new mobile app, and making all awards categories available for streaming across all major desktop and mobile platforms, and the Apple tvOS platform. Databases and apps had to be modernized and scaled quickly and efficiently.

Even with hundreds of virtual machines—and constantly adding more—the Academy hit its limits in terms of data storage, and the mere physical aspects of scaling were taking time away from delivering new value to members. The Academy simply couldn't afford to deliver a poor online experience while expanding its digital footprint.

The cloud migration journey

The Academy knew the answer to this challenge was migrating its on-premises infrastructure to the cloud, and it quickly decided that Microsoft Azure had the strongest managed offerings for its .NET and SQL server workloads.

The migration process from on-premises to Azure took about a year. The Academy began by moving its main SQL Server database to the cloud and into Azure SQL. It then moved its data access and API layers to Azure, ultimately transitioning its main member portal into Azure App Service. Finally, the Academy developed a streaming app for voting, which enabled movie studios to upload their own films and protect them with full digital rights management. They are now about 95 percent done moving all of their legacy web apps to Azure, an overall smooth and straightforward experience requiring minimal code changes.

The Academy rolled out its new Azure infrastructure in time for the 92nd Oscars® in February 2020. Thanks to migrating its legacy web applications to the cloud, the Academy went from streaming just a few award categories to streaming 850 movies across all award categories, including Best Picture. "Had we continued with an on-premises infrastructure, to get the scalability we needed for the next few years, we were looking at an upfront capital investment of $2 to $3 million," Kite said.

The Academy now employs a full range of Azure services, including Azure DevOps to manage the development lifecycle, and Visual Studio Live Share to support remote work environments. As Nick Amperano, the Academy's Associate Director of Applications Development, noted, "We're twice as productive now as we were before, and the reason is that we can focus fully on development instead of getting pulled into infrastructure issues."

> Azure gave us built-in scalability and high availability, which allowed us to take more risks."
>
> Bev Kite, Chief Information Officer
> Academy of Motion Picture Arts and Sciences

Key benefits

- ✓ Quickly and efficiently modernize databases and apps.
- ✓ Built-in scalability saved $2 to $3 million in on-premises capital investment.
- ✓ Innovate and deliver new services easily over multiple platforms.

Learn related skills

Ship .NET code changes with no downtime using deployment slots >

Collaboration made easy with Visual Studio Live Share >

MS Learn SQL DB module >

2.

Enhance customer convenience

Premera Blue Cross is the largest health plan in the Pacific Northwest, serving more than two million people—from individuals and families to employees of Fortune 100 companies. The not-for-profit company provides comprehensive, tailored services, including innovative programs focused on wellness and prevention, disease management, and patient safety.

Premera derives its success from controlling rising medical costs while amplifying customer convenience and ensuring quality care. By 2016, the company knew it needed a cost-effective and customer-centric solution to help stay ahead of the technology curve—one that didn't sacrifice value for agility but could deliver both.

The cloud migration journey

Premera's migration journey began with Azure App Service, the fully managed platform that hosts apps built on a range of popular frameworks, including Microsoft .NET and Python. The company's cloud engineering team felt that it had the cloud services it needed in Azure to help protect patient data while accelerating development.

Premera first developed a mobile app that customers could use to access plan information from the company's database systems, increasing convenience while reducing operating costs that could then be passed on to consumers. The company also used Azure to deliver new and improved web services for its customer-facing website, Premera.com.

Azure App Service powers Premera's site and acts as a service tier for its crucial user interfaces, from choosing a provider to checking on a claim. The migration to a PaaS model also increased developer efficiency, as the team could now quickly deliver and scale new services.

By focusing on customer-centric solutions and not on infrastructure, Premera was able to prioritize other critical needs such as security, performance, and proactiveness.

For example, when issues occur – such as a memory leak caused by unused applications that result in downtime – the Premera development team can use the App Service diagnostics auto-healing feature to restart Premera's web apps proactively, and to seamlessly monitor memory consumption. This ultimately means better and more reliable customer service.

“With Azure capabilities, our development teams experiment and learn at a pace that was not previously possible,” said Todd Manning, Premera's director of Digital Customer Experience (DCX.) “This increase in learning velocity has propelled business and customer ideation—and has yielded customer satisfaction dividends beyond our expectations.”

> We needed to redesign Premera.com to create a unified, seamless experience for our customers – so we chose Azure.”
>
> Tom Craig, Senior Cloud Engineer,
> Digital Customer Experience (DCX)
> Premera Blue Cross

Key benefits

- Speed patient time to treatment.
- Reduce hardware costs.
- Increase customer convenience and service reliability.

Learn related skills

Checklist for migrating your .NET web app >

Auto-healing feature to restart web apps proactively >

Building web apps with Azure SQL >

3.

Reduce complexity and improve user satisfaction

The Canadian Real Estate Association (CREA) owns and operates REALTOR.ca, the country's top real estate site, boasting 264 million visits and 965 million properties viewed annually. The trade association of more than 120,000 real estate brokers and agents also supplies its members with technology tools for digitally transacting contracts and closings.

The complex system of member-facing and internal technologies was quickly outgrowing its life inside a locally hosted datacenter. Scaling to meet seasonal surges was difficult and costly, not to mention inhibiting CREA's ability to innovate with new site features and faster, more frequent home listings.

The cloud migration journey

CREA needed infrastructure agility, speed to innovation, and on-demand computing power, among other priorities. The organization evaluated Microsoft Azure, Amazon Web Services, and Google Cloud, in the end choosing Azure. “We felt that Azure had a better PaaS portfolio than Amazon Web Services, and we wanted PaaS to be our go-to approach for every application need,” said Kriteen Lahiry, CREA’s Director of IT Client Solutions.

Lahiry’s team also wanted a good application performance management tool, which they found in Azure Application Insights . This alone saved CREA tens of thousands of dollars versus using a third-party solution, reducing infrastructure costs by an estimated 25 percent. CREA can now post new listings nearly in real time, and scale performance as needed.

Performance also greatly improved. “We saw an immediate change in site performance after moving REALTOR.ca to Azure,” said Lahiry. “Uptime has been at record levels—100 percent for the past year, which is unheard of.”

CREA’s ultimate migration journey will take them out of the infrastructure business altogether, as they move their entire datacenter to Azure. While they know they won’t get there overnight, they expect to get there with ease and confidence, operating in hybrid fashion until the migration is complete.

> Now that we use Azure, we’re better able to handle the seasonal nature of the real estate market.”
>
> Kriteen Lahiry, Director of IT Client Solutions
> CREA

Key benefits

- 100% uptime performance.
- Agility in production and user testing.
- 25% reduction in hardware and maintenance costs.

Learn related skills

[Setup App Insights for your ASP.NET website](#) >

[Use Traffic Manager to direct visitors to best available datacenter](#) >

4.

Deliver e-commerce success at scale

Norway's Komplett Group is a household name for 1.8 million e-commerce customers throughout Scandinavia. With 10 web stores located across the Nordic region, Komplett's business model connects product manufacturers with a variety of customers—from consumers and businesses to resellers and public enterprises.

In the past, Komplett relied on its on-premises datacenters to operate and fulfill a complex e-commerce operation. This was not only expensive and time-consuming to maintain, it was also limited in its ability to scale at speed. So Komplett decided to explore cloud offerings, attracted to the cloud's ability to improve service while reducing costs.

"We were looking for a platform we could grow with," said Thomas Wilhelmsen, Head of IT Operations for Komplett. "For us, Azure was the perfect platform to transition from the datacenter to the public cloud."

The cloud migration journey

The company moved almost everything to Azure, eliminating the complexity of virtual machines and going straight to Azure app services environments. But the ultimate test of Komplett's e-commerce operations would come during the busy holiday season, when the company handled up to 30 times its typical daily volume of web traffic on a single day—Black Friday.

Before migrating to the cloud, capacity planning for such peak events meant buying physical hardware, including additional servers and software licenses, to handle exponential increase in website visitors. Boosting capacity also required the extra space and resources needed to house and power the new equipment.

Thanks to Azure's PaaS offerings, Komplett's ability to scale quickly was immediate and invaluable. Komplett found it could scale up or down on a daily basis if needed, rather than being fully provisioned 24 hours a day, 7 days a week. The speed of development and deployment on the Azure platform also proved to be a game changer.

"We saw more than 500 views a second and delivered 21 TB of data to our customers, with great response times," Wilhelmsen said. "Using Azure, we were easily able to scale on demand to get the performance we needed."

> For us, Azure was the perfect platform to transition from the datacenter to the public cloud."
>
> Thomas Wilhelmsen, Head of IT Operations
> Komplett Group

Key benefits

- Scale on-demand without incurring additional costs.
- Speed project development and deployment.
- Deliver peak performance during high-traffic seasons.

Learn related skills

Configure auto-scale to meet uncertain demand ›

5.

Meet evolving customer needs with modernization

Los Angeles based City National Bank, known as the “bank of the stars” because of its entertainment industry clientele, is a full-service institution with 72 offices providing wealth management, brokerage, leasing, and other services. Its clients are demanding, and they expect high-quality experiences.

It’s this unique client base that drove the use of Agilink, a product of City National affiliate Datafaction, which gives clients such as business management firms and production companies the ability to integrate services across multiple general ledgers. But when City National acquired Datafaction in 2010, it was already a 40-year-old legacy client/server software solution. What's more, the Agilink product had been rewritten on the ASP.NET platform and Microsoft SQL Server.

“The main problem we faced was poor scalability,” said Verna Grayce Chao, who joined City National in 2017 as General Manager of Datafaction, and is now Executive Vice President for Treasury Management Solutions. “We had just launched our newly rewritten AgilLink solution and had to be able to scale it quickly, but our physical IT infrastructure was in the way.”

The cloud migration journey

Bank stakeholders decided that a move to PaaS was in everyone’s best interest and the decision to use Microsoft Azure was “almost a no-brainer,” according to Chao.

“Azure offered a robust cloud platform that would let us continue to use our existing skills,” said Chao. “What’s more, we saw how specific Azure services—namely, Azure App Service and Azure SQL Managed Instance—would let us quickly and easily migrate our existing AgilLink web app to Azure.”

City National implemented a hybrid architecture, ensuring wherever possible that the new version of AgilLink on Azure would take advantage of fully managed PaaS services. The solution fit well into the bank’s overall goals of moving quickly to the cloud to address immediate scalability needs, and improving other aspects of its architecture where it made the most sense.

By August 2020, user growth had increased 50 percent. “We’ve achieved the scalability we needed, so we’re ready for the rest of our clients whenever they’re comfortable making the move,” said Chao. “Best of all, we’re confident we can deliver the performance and experience our clients expect as we migrate them to a modern web-based service.”

> Azure offered a robust cloud platform that would let us continue to use our existing skills.”
>
> Verna Grayce Chao, Executive Vice President
> for Treasury Management Solutions
> City National Bank

Key benefits

- Hybrid architecture solution.
- Immediate scalability.
- Increase user growth by 50 percent.

Learn related skills

Refactor an on-premises application to an Azure App Service web app and a SQL managed instance >

Hybrid cloud architectures >

Three-step guide to begin your application migration

Get prepared

- ✓ Use our Cloud Adoption Framework to develop your migration plan. This will help you align business and IT stakeholders prior to migration, avoiding roadblocks and accelerating implementation.
- ✓ Once complete, create an Azure free account if you don't already have one. This account provides a year of popular Azure services for free, as well as a $200 credit valid for 30 days to try other offerings.

Get educated

- ✓ Read this migration overview for the basics on ASP.NET application migration with Azure App Service and Azure SQL Database, and for an introduction to our free migration tools.
- ✓ Explore the app and database migration learning path, where you will learn the steps necessary to migrate ASP.NET web applications and data to Azure App Service and Azure SQL Database.

Get started

- ✓ Use the Azure App Service Migration Assistant to assess the readiness of your web app and migrate your apps with minimal code changes.
- ✓ Finally, use the Azure Database Migration Service tool to easily migrate your data, schema, and objects from multiple sources to the cloud.

Microsoft Azure

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Our Azure sales specialists are here to help design custom cloud migration solutions and answer questions about cost optimization, deployment scenarios, and technical requirements.

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