Visus LLC

Microsoft Partner

USA Swimming

Going for Gold: How Visus Helped USA Swimming Scale Seamlessly for Millions of Website Visitors During the Paris Olympics

SNAPSHOT

ORGANIZATION

USA Swimming is the national governing body for the sport of swimming in the United States. Based in Colorado Springs, Colorado, the organization serves 380,000 members and 2,700 member clubs by providing a safe and healthy environment for athletes, coaches, officials and volunteers.

CHALLENGE

The previous version of the website repeatedly crashed during periods of peak interest in the sport and the 2020 Olympics. The challenge was how to enhance the organization's website to prepare for anticipated high visitor traffic in advance of the 2024 Olympic Swimming Team Trials and the 2024 Olympic Games.

STRATEGY

Upgrade the USA Swimming website to the latest supported version of Progress Sitefinity content management system. Migrate the website from on-premises hosting to Microsoft Azure platform-as-a-service. Implement an autoscaling solution in Azure to handle burst workloads resulting from high website traffic. Set up a continuous delivery workflow using Azure's DevOps pipelines. Integrate the organization's proprietary database with the website.

RESULTS

The new site seamlessly handled peak traffic with millions of visitors with no slowing of load times. During the 2024 Olympic Trials and Olympic Games, USA Swimming's visitor traffic doubled over 2021. The new solution leverages the latest version of Sitefinity including the ASP.NET Core renderer, ASP.NET Core pages and Microsoft's Azure Platform as a Service which automatically scales to accommodate burst workloads.

USA Swimming is the national governing body for the sport of swimming in the United States. Based in Colorado Springs, Colorado, the organization serves 380,000 members and 2,700 member clubs by providing a safe and healthy environment for athletes, coaches, officials and volunteers. Membership spans athletes of every age, from five years old to the U.S. Olympic Team. Their division for national team athletes is dedicated to providing resources to help athletes be the fastest swimmers possible and assists with nutrition, mental health, compliance with USADA anti-doping agency, and other services. At the grassroots level, USA Swimming focuses on providing resources for clubs and coaches, equipping them with assets for marketing, recruiting, retention and providing a positive experience for swimmers and their families.

USA Swimming's website for members and non-members offers education, marketing resources, training tips, news, events details, competition results, ticketing information and videos. Unfortunately, the website was having trouble handling visitor traffic loads during peak times such as the Olympic Trials and the Olympic Games.

"Our website couldn't handle the peak load and was crashing when the most people were interested in the sport of swimming in the U.S.," says Jacob Grosser, Managing Director of Marketing and Communications at USA Swimming. "When the 2021 Olympic trials were taking place, there was a lot of interest in the sport, which drove a lot of traffic to our site and it crashed repeatedly. We needed help identifying the problems and fixing them."

Company leaders at USA Swimming engaged the experts at Visus LLC for help. Visus upgraded the USA Swimming website to the latest supported version of Progress Sitefinity content management system, migrated the website from on-premises hosting to Microsoft Azure platform-as-a-service, set up a continuous delivery workflow using Azure's DevOps pipelines, implemented an autoscaling solution in Azure to handle burst workloads resulting from high website traffic, and other improvements including integrating USA Swimming's proprietary membership and times database with the website.

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>
> – Jacob Grosser, Managing Director of Marketing and Communications at USA Swimming

"The project with Visus was a huge success," Grosser says. "During the 2024 Olympic Games, our visitor traffic doubled over 2021. During the 10-day period of the 2024 Olympic Trials, we saw an 84 percent increase in users over 2021 and a 105 percent increase in website sessions as millions of eyes turned to our sport. Our new website

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Agile Framework Automatically Scales to Accommodate Website Traffic

In the months leading up to the 2024 U.S. Olympic Team Trials – Swimming, company leaders at USA Swimming were evaluating technology vendors to help them get their website ready to handle the anticipated spike in visitors that would arrive with the high-profile competition. The clock was ticking as the event approached.

"We assessed a lot of technology vendors," Grosser says. "Visus impressed us by demonstrating a deep knowledge of subject matter expertise with Sitefinity CMS and Microsoft Azure. They did a proof-of-concept project for us that confirmed their proficiency and got our team familiar with theirs. The teams were able to work together without a huge upfront investment or commitment from us. We were able to take those early results to our Board and executive team to show the value that a larger project could produce."

The Visus team upgraded the USA Swimming website to Sitefinity version 15.1. That version of Sitefinity delivers the ability to create a .NET Core application that serves as a client application to handle the presentation layer of the website. ".NET Core provides us scalability, which is really nice for handling website traffic," Grosser says. "We can have as many .NET Core front end applications as we want, but we still only need one back-end application running. Visus supported our team as they did load testing with thousands of simultaneous users and the new site handled it without a hiccup."

USA Swimming must constantly make updates to the website so that it reflects current news, events, competition results, and other details. Sitefinity provides a built-in feature that streamlines those updates. "Visus and our team don't need to do any additional work on the pages themselves because the data just flows in," Grosser explains. "We can add events, news, videos and other details very easily at the back-end and those automatically populate to the pages of the website. There is no additional development."

Visus experts also migrated USA Swimming's entire website data center from on-premises hardware in Colorado to Microsoft Azure cloud-based platform-as-a-service. The Visus team had only 90 days to accomplish this major task as the 2024 Olympic Trials approached and very high traffic was expected. Microsoft Azure has efficient scaling options that enable USA Swimming's website to handle burst traffic on the fly.

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"We are seeing increased interest in the sport of swimming," Grosser says. "Sometimes we can predict when peak website traffic will occur, such as when a high-profile competition is in the news. But unexpected elevated visitor traffic could be driven by a new world record suddenly being broken or breaking news about a popular athlete. Microsoft Azure automatically scales to handle the load. That on-demand scalability is very valuable for us. We now have an extremely agile framework thanks to Visus."

Visus Team Delivers On Time and On Budget

The majority of the project was done in the spring of 2024, leading up to the Olympic Trials and the 2024 Paris Games. "Once we signed the contract to work with Visus, the cadence was weekly calls with our teams to collaborate on the various aspects of the website upgrade," Grosser explains.

Visus set up a Slack channel that enabled the teams to easily chat throughout the day. Slack is a cloud-based team communication platform. "That tempo with action items week to week along with the chats on Slack kept us on task and on time throughout the project" Grosser continues. "It was a very condensed timeline. We did all of this in just a couple of months as we led up to the Olympic Trials."

USA Swimming has a small internal team that handles the day-to-day servicing of technology. "One of the main advantages of working with Visus was it gave us access to

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more developers and specialized resources that we didn't have internally," Grosser says. "The teams worked together. Once we got going, the relationship allowed our team to stay primarily focused on the day-to-day servicing of our existing technology while Visus helped us with the development work of the special project."

One of the challenges for USA Swimming's technology team is the delicate balance between the two main aspects of the website. It is both a fan website and a member services website. The fan aspect comprises content such as editorials, visuals and videos. The member services aspect houses resources and tools available to members. Significant custom work was required on the member services portion of the website.

USA Swimming built a proprietary database that houses hundreds of millions of swim times for the entire world. "We are the premier database for swimming," Grosser shares. "Our website requires a front-end experience that allows swimmers and coaches to search for swim times and track progress. That database must be managed day to day for our members. In the past we struggled with this. Visus connected that proprietary database to the new Sitefinity website and created custom widgets that display information from the database. The Visus team helped us integrate the database and the website so we can effectively display and share information."

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"From a project management standpoint, it is one of the easiest projects that I've ever managed. I was pleased with the upfront preparation. That led to zero surprises throughout the project and a very successful implementation."

"Our relationship with Visus remains extremely positive," Grosser concludes. "As our de facto website partner, they are very available if we ever reach out. We want to make sure we're always working with the latest technology tools and resources so we have a modern and scalable website. As we look to make future modifications and enhancements to the website, we will continue to call on Visus."

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