

## Crafting An Innovative Solution For The Ayn Rand Institute

The Ayn Rand Institute (ARI) wanted to focus on creating a great user experience for their customers while reducing maintenance and hosting cost. This would allow ARI to focus on their core foundational goals instead of managing infrastructure. A scalable solution was required and Microsoft Azure WebServices was the ideal choice. ARI partnered with XCentium to upgrade their website to Sitecore 8.2u2 and migrate to Azure WebApps. ARI's three new sites also run on Azure SQL Database and XCentium's Gigya connector for Sitecore to handle all user profile data.

## The First To Deploy Sitecore On Azure

One pleasant surprise once launching the site in Azure was the site's improved performance. This was first noticed when browsing normal Sitecore pages with static content. Pages that had previously taken 4 or 5 seconds to load were now rendered within 3 seconds. Keeping in mind that since the site, at this point, did not leverage a CDN – this is a decent boost in page load time.

This improvement, however, pales in comparison when experiencing the site as an authenticated user. ARI's Campus site which is aimed to educate people of all levels on the works and philosophies of Ayn Rand, saw the most dramatic improvement. Users are able to enroll, interact with, and complete a large number of lessons and courses throughout the site. Each user's interaction data is stored in a custom SQL database to provide both reporting as well as content Personalization. When the site was hosted at Rackspace, some users reported page load times of up to 30 seconds when waiting for their profile to load. After deploying the site to Azure, authenticated pages that previously took 20+ seconds to load were now loading in around a mere 5 seconds.



### CLIENT

Ayn Rand Institute

### WEBSITE

www.aynrand.org

### INDUSTRY

Higher Education

### SOLUTIONS

Sitecore Experience Platform

"Sitecore and Xcentium partnered to recommend an innovative solution that addressed our website hosting pain points. The migration process was quick and seamless, with both companies working behind the scenes to ensure all timing milestones were met. We now have an incredibly fast website and reliable ongoing support."

- Carla Silk, Ayn Rand Institute

"We are very privileged to be working with XCentium as our business partner for the Ayn Rand project. The team at XCentium is leading the way among Sitecore partners to implement the Sitecore Experience Platform with Microsoft Azure WebApps. This innovative approach allows for easy and fast deployment for the Ayn Rand team and gives them true scalability and improved productivity as they grow with Sitecore. Congratulations to the team on another successful launch."

- Alyssa Murphy, Partner Alliance Director, Sitecore



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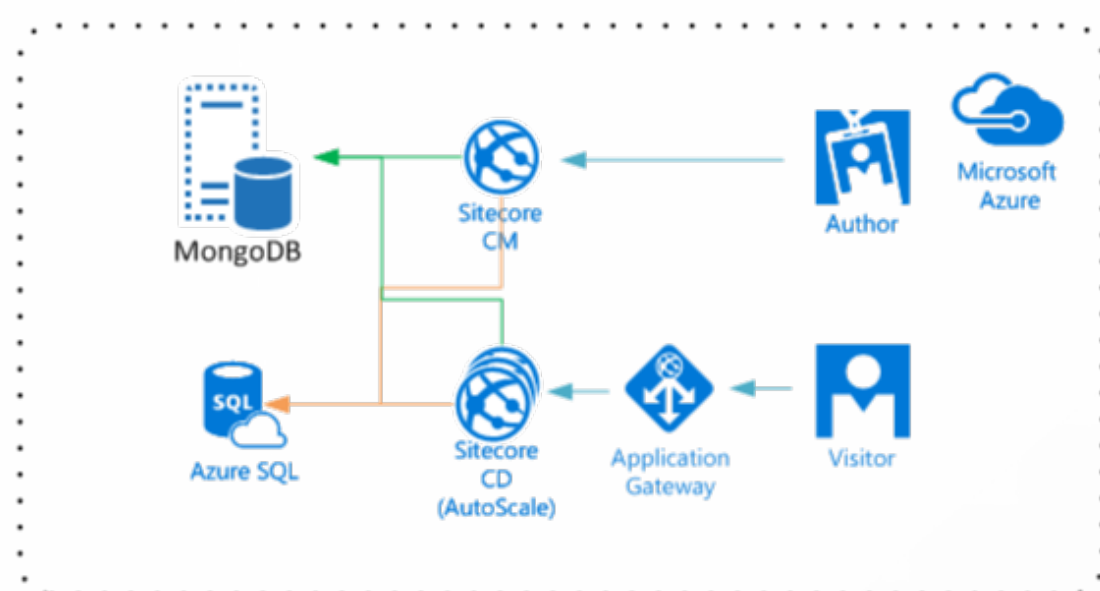
Sitecore Experience Platform

Azure Cloud

Gigya

SQL

## TECHNICAL DIAGRAM



## Working With The Azure Architecture

### Azure Architecture Includes

- WebApps for Sitecore Content Delivery Servers
- WebApps for Sitecore Management Delivery Server
- An Azure SQL Server
- A MongoDB Virtual Machine

### Azure Requirements

The following are used in the ARI infrastructure:

- Sitecore CD
- App Service (S3 Standard) – Two instances
- Sitecore CM
- App Service (S3 Standard) – One instance
- SQL
- Azure SQL server – Elastic Pool (100 eDTU)
- Mongo
- Azure IaaS VM (DS2v2)

The number of instances required depends on the load the deployment is expected to sustain.

### The Deployment

One of the primary challenges for many of features was “how can we do this on Azure”? In a traditional server based architecture you have complete access to the Sitecore server, the physical location of the Sitecore files, IIS etc. this is in stark contrast to the control you have in an Azure WebService.

Azure SQL is not same as a traditional SQL server where you can access, backup, restore, create users etc. using SQL Management Studio. There is this specific tool "Azure SQL Server Migration Tool" (<https://sqlazuremw.codeplex.com/>) that we had to use to migrate existing production SQL databases over to Azure SQL.

Sitecore logs although visible and downloadable were not conveniently accessible. The new way to go was to enable application insights

There is a requirement for IIS application pool setting changes and normally we would use IIS manager to do those. But here we had to download the existing “applicationhost.config” file, create an “applicationHost.xdt” file with changes (recycling disabled), upload it to the “Site” folder and restarting the web app.

## Working With The Azure Architecture

ARI now has reduced page load times from 20 seconds to 5 seconds, an astounding 4x increased performance which allows their servers to handle more concurrent users, and a scalable architecture backed by Microsoft Azure WebApps provides ease of management and low maintenance. This gives the ARI Team peace of mind and the freedom to focus on their business and customers rather than managing infrastructure while simultaneously reducing hosting and management costs.