50,000 Healthcare Workers Online

3RNet needed a highly secure, bulletproof, hybrid technology solution – ½ website and ½ custom application – to support their nationwide network of users. Here's how we did it.

May 29, 2018

The Mission

3RNet was created as an organization to fill a vital need in the healthcare industry. They serve as an import link connecting healthcare workers with opportunities in rural and underserved areas of the United States. That means coordinating secure job postings across all fifty states from more than 6500 healthcare facilities to match up with more than 59,000 registered candidates.

Keeping all of that data secure, accessible, and current is a daunting task. But 3RNet also knows that their service has to be lean, fast, and mobile responsive to keep busy medical clinicians connected and engaged.
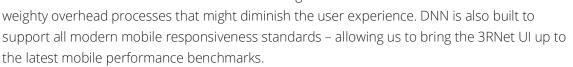
Why IowaComputerGurus?

IowaComputerGurus (ICG) has built websites for several healthcare-base businesses and organizations – a few of which were already in 3RNet's partner program. That means that ICG understands the particular regulatory and compliance challenges faced by healthcare organizations – including HIPPA, ADA, and W3C guidelines. We are also experts at creating and deploying highly-secure, custom integrated websites and applications that seamlessly form complete solutions that work efficiently in real-world production environments, are easy to use, and look great on mobile devices.

Architecting The Solution

When it comes to technology in any healthcare-related business the most important objectives are security and regulatory compliance. Since the mission began with a website solution, selection of the base Content Management System (CMS) and technology stack were critical. Planning well and making the right technology choices at the beginning would save significant costs and time resources later on.

Choosing the CMS Platform

ICG quickly identified the DNN/EVOQ Platform as the optimal choice for CMS due to its strong roles, permissions, and workflow functionality that's built into the software. These native features would allow for strict access control to data and content without adding weighty overhead processes that might diminish the user experience. DNN is also built to support all modern mobile responsiveness standards – allowing us to bring the 3RNet UI up to the latest mobile performance benchmarks.

Backend Development and Deployment

Since DNN is built on Microsoft ASP.NET and utilizes a Microsoft Sequel database, custom code would be written in the same framework and any additional databases would be built in Sequel as well – eliminating unnecessary integration steps.

Even though Microsoft Azure has been successfully expanded to host all major operating systems and code platforms, ASP.NET, DNN, and Sequel are all native to that cloud environment. Further, Azure has a strong emphasis on security and performance and achieving geographic-redundancy for compliant recovery best practices is a relatively straight-forward task. Therefore, The solution would be deployed to the Microsoft Azure public cloud.

Implementation

Using the existing colors and styles as a guide, ICG built a new DNN installation from the ground up on a customized theme. This resulted in a completely responsive UI across every size screen and device – from desktop and tablet to smartphone. But since this installation of DNN was going to function as both a CMS platform for the public-facing website as well as a development platform for the systems and services, the majority of the effort was put in behind the scenes.

Once a user was properly authenticated and logged into the website the system would personalize the experience based upon each person's individual data points and the roles and permissions granted to that individual.

- Qualified job seekers could access the latest opportunities and resources.
- Healthcare recruiters could manage their opportunities view related statistics.
- Industry partners could view larger market data.
- Employees and managers of 3RNet had administrative control of specific areas of responsibility.

In total, ICG built thirty-six custom DNN modules that operated as secure DNN "app-pages" to deliver results. The public-facing website data is pulled from a single Sequel instance, while the backend app functions used a set of segregated Sequel tables. And the entire solution is fully-managed by ICG in the Azure public cloud.

Finally, ICG ran a series of performance optimization, security, and accessibility tests to ensure that the entire solution was performant, secure, bulletproof, and compliant with all currently known regulations.

"The 3RNet project was a big success and DNN was the perfect platform to build the solution on. That's becasue DNN lends itself really well to operating as both a secure content management system and a web-based app platform. That not only made for a seamless result, but it saved a lot of time and resources."

— Mitch Sellers

Mission Accomplished

The latest version of the new 3RNet website and applications went live in August of 2017, meeting or exceeding all project requirements:

- The new website has been completely updated, is modern and responsive.
- Website content is easier to manage and maintain.
- Security is more robust — protecting user and employer data.
- Users, employers, and employees have a secure, personalized experience.
- The entire solution is completely stable, geographically redundant, and robust to traffic volume.

If you have questions about this case study or need assistance with your business technology solution, let us know. We are always happy to help.

About 3RNet

3RNet – Rural Recruitment and Retention Network – is a non-profit organization whose fifty-three member companies work together to create a communications hub that connects health professionals with career opportunities in rural and underserved areas. They deliver their services to across all fifty states. Learn more about 3RNet at: 3rnet.org

About ICG

IowaComputerGurus (ICG) is a leading provider of custom application solutions built upon the Microsoft .NET Technology stack; including all major CMS platforms, MVC Core, and the Azure Cloud. With an emphasis on web technologies, performance optimization, security, and compliance projects, we set ourselves apart by placing a strong focus on quality and customer service for the life of the project. Learn more about us at: iowacomputergurus.com

Sidebar

IowaComputer GURUS

Custom Websites and Intranets

.NET Application Development

Expert Technology Support and Training

Performance Optimization

Technology Services and Support ... for the Life of Your Project