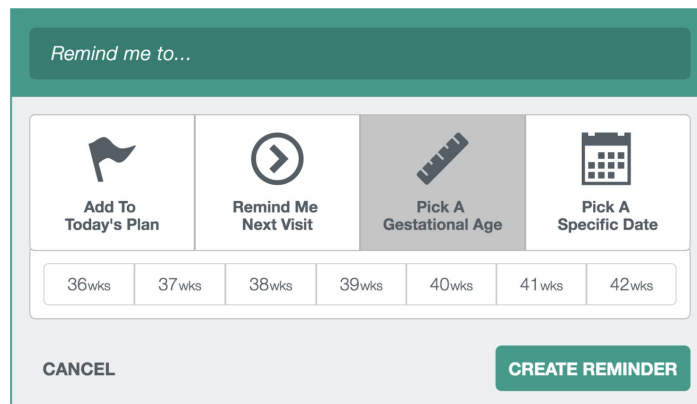A Case Study of
The Dorsata Healthcare
Cloud Adoption and Publishing System

About Dorsata

Dorsata, in partnership with the American College of Obstetricians & Gynecologists has created an electronic Prenatal Record platform used by OBGYN's all over the world.

With an easy-to-use interface and API's to connect with healthcare agencies, Dorsata makes clinical tasks and patient engagement activities easy to track. You can schedule reminders for a certain gestational age, your next visit with the patient, or even a specific date.

The ACOG Prenatal Record integrates directly with your EHR to enhance the way you manage pregnancies. All patient information (problems, allergies, meds, previous visits, order, and labs) is kept in sync, meaning that all findings documented and order entered are push back to your EHR in real-time.

The Challenge

Dorsata had a web portal that was 8 years old and not designed with multiple screen-sizes, global distribution, scalability or a sense of destination in mind. Dorsata greatly needed modern features within their web-app-portal to regain momentum in the sector:

Portal Improvements Needed:

- Responsive-design for cross-platform compatibility
- Client-side html5/CSS3 hardware-acceleration
- Search-engine optimization
- Global CDN deployment
- WAF security measures
- High Availability
- A 'Mobile-first' architecture
- Retina-display-renditions (higher resolution imagery)
- Sticky headers (persistent navigation)
- Integrated medical blogs
- Geo-targeting and localization
- Remote Auto-backups
- Modern back-end to allow the Dorsata staff to make changes to text and layouts.

Lastly, the user-interface needed a complete overhaul to provide more intuitive "calls to action".

The Solution

After researching different Cloud companies, and listening to valued opinions of IMPLERUS Cloud Solution Architects, Dorsata quickly settled into using AWS as their Cloud Computing Service Provider.

IMPLERUS ramped their solutions quickly using:

1. Wordpress on a Multi-AZ Autoscaling Amazon EC2 instances behind an Application Load Balancer to provide the logic to dynamically render the site.
2. "Elementor Pro" within Wordpress to provide a drag-and-drop editing tool for Dorsata page layout and text-modifications.
3. Amazon CloudFront to provide global CDN distribution, decrease latency and HTTPS security using AWS Certificate Manager.
4. AWS WAF to protect Dorsata from SQL-injection, Cross-scripting attacks, and other security measures.
5. Multi-AZ Amazon Aurora MySQL for database storage and rapid customer data retrieval.
6. Route 53 to point DNS resolution to the Amazon CloudFront CDN.
7. Wordpress responsive-design logic and custom plugins to handle cross-platform browser compatibilities, sticky headers, SEO optimization, blog integration, remote-backups, localization, and mobile-first breakpoints.

Old site: New Site:

The Benefits

Dorsata was pleased with the quick results of the IMPLERUS implementation of their new web portal. Not only is the hosting much more cost-effective, but the drag-and-drop editing capability allows Dorsata to save money on future development costs as now they can lay out new content themselves. Amazon CloudFront also permits a fast-loading global distribution, making the site faster, no matter the distance from the origin. Scheduled remote-backups give Dorsata stakeholders piece-of-mind. In addition, our solution was able to integrate seamlessly with Dorsata's medical blog needs and event announcements.

About IMPLERUS

IMPLERUS Corporation is a Northern Virginia-based AWS Advanced-Trier IT consulting and services firm dedicated to providing innovative solutions to the Intelligence Community, public and private-sectors.

We design, build, integrate and manage solutions for cloud-based applications and system architectures.

Our clients range from Fortune-level global VC firms to government intelligence and defense agencies through our successful relationships with satisfied clients over 25+ years.

For more information or to contact IMPLERUS, please visit us at www.implerus.com