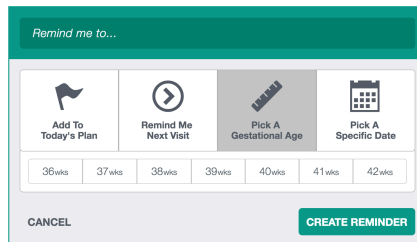


A Case Study of **The Dorsata Healthcare Cloud Adoption and Publishing System**



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.



The screenshot shows a web interface for creating a reminder. At the top, it says "Remind me to...". Below this are four options: "Add To Today's Plan" (with a flag icon), "Remind Me Next Visit" (with a clock icon), "Pick A Gestational Age" (with a ruler icon), and "Pick A Specific Date" (with a calendar icon). Under "Pick A Gestational Age", there are buttons for 36wks, 37wks, 38wks, 39wks, 40wks, 41wks, and 42wks. At the bottom, there are "CANCEL" and "CREATE REMINDER" buttons.

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 number of challengers enter the OBGYN healthcare space over the years and was losing customers. 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
- 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 helped Dorsata by designing a solution that was needed for their versatile application.

IMPLERUS ramped their solutions quickly using:

- 1) AWS Lightsail to host the latest Wordpress engine
- 2) “Elementor Pro” within Wordpress to provide a drag-and-drop editing tool for Dorsata page layout and text-modifications.
- 3) AWS Cloudfront to provide global CDN distribution and decrease latency.
- 4) AWS WAF to protect Dorsata from SQL-injection, Denial-of-Service attacks, and other security measures.
- 5) And 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:

A PREGNANCY APP FOR YOUR EHR

Request Demo

The ACOG Prenatal Record Designed by OBs for OBs

- It's Familiar**
Fits into the existing EHR workflow. No new software to learn. No new hardware to buy. No new staff to train.
- It's Smart**
Integrates ACOG guidelines and evidence-based best practices into the workflow. No more manual data entry. No more manual calculations.
- It's Simple**
Works with your current EHR and workflow. No new software to learn. No new hardware to buy. No new staff to train.

A Simple Clinical Interface That's Actually Easy To Use

This new EHR platform features a simple, intuitive interface that makes it easy for OBs to use. The interface is designed to be used on a tablet or smartphone, making it easy to use in the exam room. The interface is also designed to be used on a desktop computer, making it easy to use in the office. The interface is also designed to be used on a mobile device, making it easy to use on the go.

Real-time ACOG Guidance, Based on Her Pregnancy

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athenahealth **Dorsata**

New Site:

Dorsata SOLUTIONS TEAM SCHEDULE A MTG SIGN IN

Technology that helps health care providers offer the right care at the right time.

FOR PROVIDERS FOR ANCILLARY SERVICES FOR HEALTH PLANS

LEARN MORE SCHEDULE A MEETING

We Are Dorsata

We believe the U.S. health care market will continue to transform from one that is predicated on volume of services to one that incentivizes quality and rewards value. Providers deserve tools and information that enable this shift while positively impacting the provider and patient experience.

Starting in Women's Health, Dorsata empowers providers with intuitive and delightful workflow technology that alleviates clinical burden, supports evidence-based decision-making, and maximizes value-based reimbursement.

Dorsata for Women's Health Providers

Dorsata brings a solution designed by OB-GYN and the American College of Obstetrics and Gynecologists to deliver an unparalleled experience enhancing care quality and productivity.

- Improve Clinical Quality and Controls
- Integrate Risk
- Enhance Productivity

LEARN MORE

Dorsata for Ancillary Services

Dorsata enables closer clinical care relationships among physicians and the product and service providers when they rely on for the provision of care.

- Streamline Applications
- Clinical and Business Intelligence

LEARN MORE

Dorsata for Health Plans & Self-Funded Employers

Dorsata enables risk-bearing entities to transparently see and manage the pregnancy episode within their patient population.

- Real-time Patient Insight
- Uniform Care Guidelines & Clinical Policy Adherence
- Medical and Quality Measure Reporting

LEARN MORE

Dorsata for Pathway & Guideline Development

Dorsata's platform streamlines the care pathway development and delivery process, from start to finish, for large health systems and academic hospitals.

- Evidence Gathering & Literature Review
- Initial Drafting
- Workflow Prior Review
- Pathway Delivery
- Monitor, Update, and Improve

LEARN MORE

Come See Us on the Road

Visit Dorsata in person at the events of your choice. If you're attending any of these events, you're invited to come talk to us about the future of healthcare and DOR.

US WOMEN'S HEALTH ALLIANCE SEMINARIAL CONFERENCE
April 8 - April 9, 2019
Baltimore, Arizona

LEARN MORE

ACOG ANNUAL MEETING
May 24-25, 2019
Houston, Texas

LEARN MORE

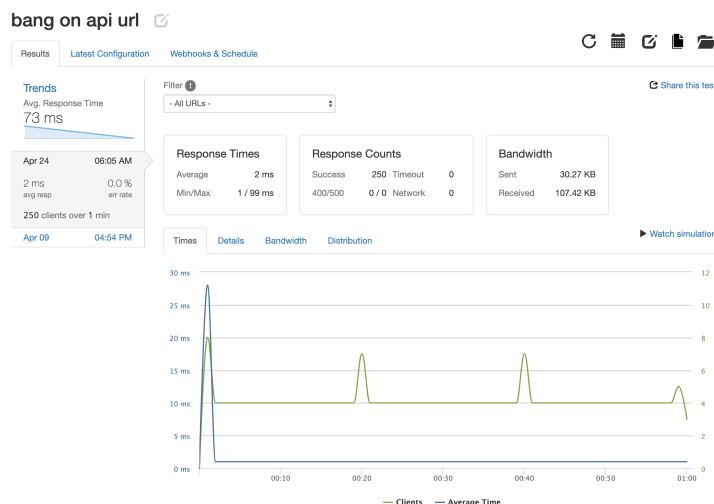


Performance Challenge

Because there was an “original” Dorsata website that had to be decommissioned, there were a number of redirects that had to be handled to send the user to new pages vs. old urls. Initially these were simple redirects that pointed users to product pages, login pages and other content and the Wordpress-native Redirects-plugin was used. However, additional redirects were needed to handle api-calls for their client apps, and the immense throughput required to handle that additional traffic would have been too much for Wordpress to handle.

For performance reasons, we opted to switch to apache-native .htaccess redirects, removing Wordpress from the equation altogether. This allowed the performance of the site to remain consistently high - - - acting both as a marketing site, but also as a central routing area for api calls.

Upon testing with Loader.io, Google Page Test, and Webpagetest.org, we were able to optimize further with improved graphics compression, caching and javascript optimization.



Salesforce Integration

Dorsata wanted to have contact-us forms throughout the site that were integrated tightly with their Salesforce account. We were able to achieve this by passing the first-name, last-name, company, email, phone, health-system data straight to Salesforce through Salesforce’s API calls, securely transmitted via Salesforce keys and authentication tokens.

The ultimate goal was to keep the user on the same web-page when submitting the form, as opposed to presenting a separate “thank you” page that typically occurs with contact-forms. To achieve this, we had to tightly couple the “Ninja forms” SUBMIT button with an AJAX-based transfer mechanism that doesn’t require a complete page-refresh. A subtle status-banner is displayed instead, thanking the user for their information.



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 organize and edit new content themselves. The new site's analytics show more user-engagement, more downloads of the application, and greater SEO benefits due to the extra traffic to the site via the blog integration. Scheduled remote-backups give Dorsata stakeholders piece-of-mind.

About IMPLERUS

Implerus Corporation is a Northern Virginia-based AWS Advanced-Tier 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