Challenge

Everyday, <u>OneBlood</u> is saving lives. As one of the largest blood banks in the U.S., the not-for-profit organization provides donated blood to more than 200 hospital partners across multiple states. With hundreds of physical and mobile locations – including their signature "Big Red Bus" – OneBlood is an indispensable source for all types of blood, plasma, and platelet supplies. Additionally, their state-of-the-art biologics are responsible for testing thousands of donation samples rapidly and accurately, so supplies can be stored and distributed within their lifecycle. The need for blood never stops, and OneBlood's couriers are delivering vital supplies to hospitals 24 hours a day, 365 days a year.

OneBlood is one of the top blood systems in the world and delivers the safest transfusions with the latest technology and research. Despite being a mission focused NPO, OneBlood still requires the power of a strong brand to drive awareness and incent donorship. Central to these objectives is a dynamic web and digital strategy that provides an engaging, more personalized, multi-channel customer experience across all of their touchpoints.

To achieve their goals and improve the donor experience, OneBlood needed a comprehensive digital strategy to modernize their website. In addition to up-leveling the sophistication of their brand, the site needed to be mobile-responsive and simple to navigate – enabling users with quick, reliable access to information. They also required a web-based search experience for donors to easily find locations and blood drives, schedule appointments, and securely access their sensitive, HIPPA regulated donation results. Challenged by a fluid compliance landscape, the website also needed to be ADA accessible and GDPR-ready for emerging data privacy requirements. Finally, the website had to ensure maximum uptime and high availability, especially during emergencies or unexpected surges in traffic.

Solution

OneBlood engaged Solodev to help evolve the digital customer experience for their donors. To start, the front end UX for their website needed a modern design that reflected a cohesive brand voice, intuitive navigation, and mobile responsive framework. But below the code, their aging website needed a complete overhaul to integrate with best-of-breed third-party applications and improve latency performance issues.

Most importantly, the new website needed a content management system (CMS) that enabled their low-code/no-code marketing team to build custom landing pages, update blogs, and rapidly stage content with critical information and resources during an emergency. The new website also needed to meet the most rigorous security and governance requirements for protected health information (PHI), including HIPPA compliance. The regulatory challenges also included ADA accessibility, ensuring disabled users could use the website successfully – from page content to image tagging and even video captions.

In terms of hosting, Solodev recommended moving OneBlood's entire website workload to the cloud with **Amazon Web Services (AWS)**. In addition to trading CAPEX for OPEX and eliminating the need for managing expensive hardware, AWS would deliver a secure, scalable, highly available infrastructure that provided greater control over capacity. Additionally, AWS would provide best-of-breed redundancy, disaster recovery, and other cloud-based features and capabilities.

Using **AWS CloudFormation**, the Solodev DCX platform was provisioned in a matter of minutes. The scripted template automatically deploys all of AWS' innovative services for a highly available digital experience, including security, servers, database, file systems, storage, and more. By leveraging **AWS Elastic Compute Cloud (EC2)**, Solodev configured OneBlood's instances to quickly auto-scale capacity up and down as OneBlood's computing requirements shifted with traffic. To ensure a secure hosting environment, Solodev utilized **AWS Global Availability Zones** to increase redundancy and fault tolerance by replicating data between various geographic regions.

To help manage OneBlood's infrastructure, **AWS OpsWorks** provided a dynamic layer of management and orchestration for Chef recipes, enabling greater control over configuring and operating applications, installing software packages, and managing resources such as **AWS S3 Storage**. Solodev used **Amazon RDS** to set up, operate, and scale relational databases for OneBlood in the cloud, and also utilized **AWS Cloudfront** – a global content delivery network. By caching data through CloudFront, the delivery speed of OneBlood's vast amount of donor data, videos, promotional material, locations, and other multimedia content reached new levels of performance. **Amazon CloudWatch** was also used to provide a comprehensive view of all AWS services in their architecture.

Handling digital blood data in a safe, secure manner presented significant challenges. To build a more streamlined solution, Solodev worked closely with HemaTerra – a global provider of donor lifecycle, supply chain, and experience management resources – to successfully integrate their API and manage blood donation data through a secure portal. While the functionality of the API was already extensive, Solodev and HemaTerra partnered to add rich, innovative features for capturing granular medical data and scheduling appointments at various geographic locations.

OneBlood also relied heavily on digital marketing to drive awareness for blood drives and build engagement. To help meet these needs, Solodev customized a multi-platform solution that enabled their marketing team to create and distribute high-quality web and video content with unprecedented speed and efficiency. To enhance loyalty and retention, Solodev also developed an online rewards store with CashStar. Now, donors are able to claim their rewards through the website and receive gift cards to major brands including Best Buy, Dominos, GameStop and more. This simple gateway delivered greater choice and control for donors while eliminating waste – and saving OneBlood thousands of dollars.

Results

The new OneBlood web experience was beautiful and easy to navigate – and made it possible to track, shape, and personalize a donor's journey from website to blood donation and beyond. The custom HemaTerra API integration gave donors simple yet secure access to their blood donation results, while the online rewards portal made it simple and cost effective to give back. Greater choice meant greater satisfaction, increased retention, and loyal donors.

Prepared to Save Lives: The Pulse Nightclub Response
Active shooter scenarios are becoming an all-too-normal occurrence in our world. In June of 2016, one of the nation's worst mass shootings took place at the Pulse Nightclub in Orlando, Florida. 49 people lost their lives and countless victims were hospitalized. In the hours following the attack, local hospitals implored the community to give blood, which was in short supply to meet the urgent need. OneBlood was ready to answer the call, and in the space of a few short hours, tens of thousands of local residents and other parties visited their website to search for donation centers and related information. **Before long, their website traffic ballooned by over 2700%.**

By leveraging AWS auto scaling technologies, OneBlood was able to rapidly provision additional servers to meet the unplanned surge. As a result, **their website never went down** – and willing donors were able to connect with the right information just in time. Additionally, OneBlood team members were able to use Solodev DCX to quickly update their website with up-to-the-minute details throughout the crisis. The outcome: OneBlood was able to deliver more life-saving blood supplies to hospitals – and help a community recover from an unthinkable tragedy.

Rare Blood, Rare Response: The Zainab Mughal Story

Sometimes, superheroes come in small packages. Such is the case with Zainab Mughal, a little girl with a huge heart and a rare blood disease. When it was discovered in 2018 that she was missing a common antigen that affects only 4% of specific ethnic populations, OneBlood sparked a global search to find blood donations to support her life-saving cancer surgeries.

Within days of running an inspiring, multi-channel marketing campaign that leveraged Solodev's custom page building capabilities, OneBlood saw a spike in traffic from across the globe. Leveraging the scalability and service of both AWS and Solodev, they were able to meet the surge and capture vital form data. This rapid scaling helped OneBlood identify a small pool of donors that have continuously provided blood for Zainab's critical procedures such as bone marrow transplants. As of April 2019, the prognosis is positive – and Zainab is on the road to recovery. Together, Solodev and AWS are supporting OneBlood as they help save the lives of superheroes.

About OneBlood
OneBlood is a not-for-profit organization that provides donated blood to more than 200 hospital partners and operates more than 80 donor centers across Florida, Georgia, Alabama, North Carolina, and South Carolina. To learn more, visit **www.oneblood.org**

About Solodev
Solodev is a leader in digital customer experience (DCX) innovation. Their flagship product, Solodev DCX, is a content management (CMS) and customer experience platform that lets individuals and teams work together on their digital transformation in the AWS Cloud. Recently named a leading High Performer on the **G2 Grid** for WCM for the sixth consecutive quarter, Solodev has also been listed on the Inc. 5000 for the past four years running. An AWS Advanced Technology Partner with Competencies in Government, Education and Digital Customer Experience, Solodev products are available via enterprise terms, on the GSA Contract, or through self-service subscription on the **AWS Marketplace**. Learn more at **www.solodev.com**

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