



# Children's Hospital LOS ANGELES<sup>SM</sup>

— APPLAUSE CASE STUDY —

*“ HAVING THIRD-PARTY EXPERTS TRYING TO ACCESS AND HACK THE SYSTEM GAVE US A SECOND SET OF EYES AND GREATER CONFIDENCE IN THE SECURITY OF THE APPLICATION.”*

MOHAMED ELMALLAH, MANAGER OF ENTERPRISE APPLICATIONS AND ARCHITECTURE, CHLA

## CUSTOMER

The signing and implementation of the Affordable Care Act may have dominated the media headlines, but for health care providers, medical staff and patients, the process of digitization and data availability had been part of the landscape for some years. The ACA may have brought certain issues to wider attention, but the modernization of the healthcare industry was well underway prior to the launch of online health exchanges in October 2013.

As mobile devices and expanded digital access have become part of daily life, there was always a requirement for hospitals, doctors, and care providers to upgrade their systems. The sector has traditionally been known for physical documentation as the preferred means of recording or transmitting data, but the introduction of electronic health records (EHRs) into the system has pushed providers get with the program.

## CHALLENGE

While there is still an ongoing debate regarding the security aspects of EHRs and digital information, more and more healthcare providers are putting IT infrastructure in place that can handle the digital load. Children's Hospital Los Angeles (CHLA), Nationally acknowledged as one of best pediatric hospitals in the country, is in the middle of its own digital revolution.

### COMPANY

Childrens Hospital  
Los Angeles

### INDUSTRY

Healthcare

### TESTING TYPES

Security

### APP TYPES

Mobile | Web

### CHALLENGES

- Creating an app that can securely store and transfer sensitive patient data
- Ensuring the mobile experience works seamlessly across any device and browser
- Scaling internal teams to meeting the testing needs of a dispersed community

### RESULTS

- Avoided downtime while addressing valuable bug fixes
- Eliminated important security vulnerabilities through “White Hat” hacking and other tests
- Increased testing capacity quickly to alleviate the testing burden on internal teams

During a normal year, CHLA treats an average of 104,000 children, with more than 600 medical staff available to provide care. With patient data naturally considered a valuable commodity by not only the medical staff concerned, but also a recognized cyber-crime fraternity, the need for effective app testing across a wider community has become a priority.

According to Mohamed Elmallah, manager of enterprise applications and architecture at CHLA, the development of not only custom applications that can be used within the hospital itself while also accessible through a variety of devices and browsers has presented a series of challenges.

With only a two-man internal QA team testing throughout the software development lifecycle, covering all of the bases – data transfer, usability loads, hacker prevention, BYOD, etc. – proved to be overwhelming for them.

“We have a small and overwhelmed QA team that is responsible for QA-ing all the applications and packages,” Elmallah says. “That means most of the weight of the QA-ing of this application is on the development team itself. This is why we wanted to make sure we had an extra set of eyes looking at it, especially at the security aspect.”

## SOLUTION

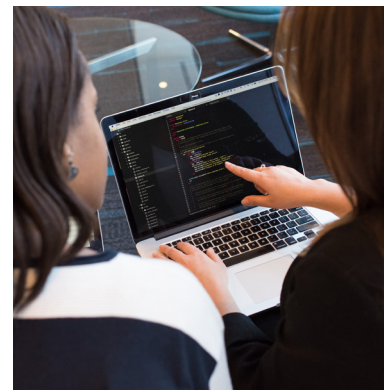
While it is often hard to understand why patient data could be a magnet for hackers, there is increasing evidence that the healthcare sector is a target. Recent studies have shown that 50% of all health-related organizations in the USA have been hacked in the last year, according to Information Week, and the per capita data breach cost for healthcare organizations is \$359, according to an independent study by Ponemon Institute.

With so much at stake, bringing an independent managed service into the fray proved to be a true difference-maker. Applause has access to testers across the globe and has established a community that is naturally involved with real world conditions on a daily basis.

“Having third-party experts trying to access and hack the system gave us a second set of eyes and greater confidence in the security of the application,” notes Elmallah. “It would have taken us some time to ramp up that skill.”

## RESULTS

Although easing the pressure on his team was a key component for Elmallah, the partnership with Applause primarily focused on CHLA apps being rolled out on a gradual basis to selected physicians, care providers and support staff. This meant that testing was often put on hold while



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identified bugs were fixed, especially if problems were flagged by medical staff using the app at that time.

“Because the application was at some point up and running, we didn’t want the testing to occur at that time,” Elmallah said. “The Applause testing teams helped us to determine times that the systems were not being used as much and managed to do most of the testing without affecting any end user. The whole [process] was smooth, and we appreciated that.”

Those that work in the healthcare sector know the job is a full-time commitment. As the virtual domain continues to be part of modern life, the medical industry is likely to become more reliant on the digital advantages that health-related apps can bring to the workplace. Knowing that there is an app testing community just as willing to be part of the revolution should always bring comfort to those who provide care.

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## ABOUT APPLAUSE

Applause is the worldwide leader in crowd-sourced digital quality testing. Software is at the heart of how all brands engage users, and digital experiences must work flawlessly everywhere. With **highly vetted testers available on-demand around the globe**, Applause provides brands with a full suite of testing and feedback capabilities. This approach drastically improves testing coverage, eliminates the limitations of offshoring and traditional QA labs, and speeds time-to-market for websites, mobile apps, IoT, and in-store experiences.

**Thousands of leading companies** — including Ford, Fox, Google, and Dow Jones — rely on Applause as a best practice to deliver high-quality digital experiences that customers love.

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