

Laboratory Assured Compliance Solution™ Automating Laboratory Regulatory Compliance

Built with Microsoft Visual Studio Tools for Xamarin. Hosted on Microsoft Azure. The Laboratory Assured Compliance Solution™ by Kaonsoft is a powerful tool that is advancing healthcare.

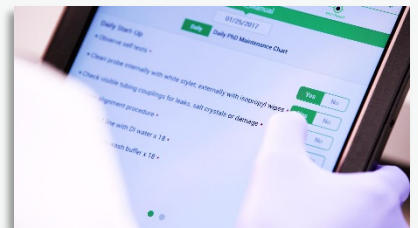
Although there have been great advancements on the clinical side of healthcare, the same technological innovations have not been made in the day-to-day operations of health systems. Maintenance and documentation have remained mostly paper-based in hospitals and laboratories across the nation.

This is the story of how ProMedica Laboratories challenged the status quo and achieved digital transformation by partnering with Kaonsoft, an enterprise mobility company, to streamline its operations.

Utilizing the holistic Kaonsoft Enterprise Mobility Platform™ (KEMP) and Microsoft Visual Studio Tools for Xamarin (Xamarin tools), Kaonsoft rapidly delivered the Laboratory Assured Compliance Solution™ (LACS) to ProMedica Laboratories and replaced an archaic paper-based system with a digital alternative. LACS™ has helped ProMedica work faster and smarter for improved compliance rates and optimized workflow to enhance patient care.

The Challenge

Laboratories are immensely automated. However, logging instrument maintenance and regulatory compliance has surprisingly remained a manual paper task for most labs. Even the most efficient organizations like ProMedica Laboratories burden lab compliance officers with stacks of binders, time consuming reports and long painful audits.



ProMedica is a mission-based, not-for-profit healthcare organization serving northwest Ohio and southeast Michigan. It is one of only 43 ISO certified labs in the United States where thousands of biological samples are analyzed every day, requiring that testing instruments be kept operational and calibrated to meet regulatory standards. Ensuring these tasks were completed and documented was an arduous process and had always been done the old fashioned way - with lots of paperwork.

“We had been using the same kind of checklists and clipboards and notebooks for years. And here we were trying to be the cutting edge laboratory and be on top of our game and do everything we can to do things better, faster, smarter,” said Bonnie Rashleigh, ProMedica Laboratories supervisor of Biochemical Pathology. “We needed a better way to track all the tasks that needed to be done and be made aware if something was missed.”

Mark Sattler, administrative director of ProMedica Laboratories, wondered, “What if our smartphone devices could be used to input the checks and what if the database could prompt the person responsible for doing those checks?” He explained that “there are many applications for it in the laboratory, other areas of healthcare and potentially outside of healthcare.”

The Laboratory Assured Compliance Solution™

Kaonsoft’s Laboratory Assured Compliance Solution™ (LACS) is a cutting edge healthcare tool that helps maintain the integrity of test results for patients and keep laboratories in compliance with regulatory requirements. The cross-platform software built with Xamarin tools allows engineers and technicians to perform routine quality inspection and equipment maintenance with the simplicity of a tablet.

In addition, LACS™ provides a secure and centralized database hosted on Microsoft Azure for users to record and review equipment status, access historical records and run reports. This is done in real-time from anywhere on any mobile device or desktop browser.



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PROMEDICA LABORATORIES

Furthermore, the solution not only tracks all scheduled instrument activity, it also sends push notifications to personnel when any error is detected until the chain of alerts is fully addressed.

“It will alert the technician at that station that this maintenance was not performed, which will let the tech know they need to investigate so it can be taken care of,” explained Amy Goodrich, medical laboratory scientist of ProMedica. “If that tech doesn’t get to it, it will go to the supervisor so they can follow up and ensure it gets performed. If the supervisor doesn’t get to it, it will go to the lab manager.”

The Result

Since implementing the Laboratory Assured Compliance Solution™ in January 2016, ProMedica has achieved a 100% compliance rate for log accuracy and task completion, thus ensuring timely and accurate lab results for patients. The app has also increased lab efficiency by saving technicians approximately 13 hours each month or 156 hours per year in administrative tasks.

LACS™ is also a green solution, eliminating paper and the cost to store it. Regulations dictate that these documents be stored for the life of the instrument plus two years. On average, the typical life span of an instrument is five years. LACS™ satisfies all of the regulatory requirements for storage without printing a single sheet of paper. It is a lot easier to find an archived document on the Microsoft cloud in LACS™ than shuffling through a file box of documents.

“We are already looking forward to utilizing the LACS application at other ProMedica Laboratories,” Rashleigh said. “It will soon move to the North Region laboratories and should help them be sure that they have all of their regulatory requirements documented.”

The success of LACS™ is a testament to the power of disparate technologies working together to improve people’s lives. Kaonsoft has barely scratched the surface of the potential impact of combining innovative solutions together to bring about total digital transformation. Xamarin tools enable Kaonsoft to rapidly build business specific applications on its agile KEMP platform for any mobile device (iOS, Android and Windows). Hosting the app on the Microsoft cloud provides a centralized database and added security. Leveraging the various of Azure backend services then help to drive further improvements in real-time. Such powerful combination can yield big changes both within and outside of the healthcare industry. The possibilities are endless.



ProMedica Laboratories received the ProMedica Innovations Inventor of the Year Award 2015, which recognizes its leadership to bring their innovation to the market efficiently.

“We are confident the issues we face as a healthcare organization are being faced by others, and that the solutions we have developed can be implemented in other systems as well.”

JUSTIN HAMMERLING
AVP OF INNOVATIONS
PROMEDICA INNOVATIONS

ProMedica

www.promedica.org

Challenges

- Convert paper based process of laboratory checklists into a digital alternative
- Provide a centralized database to record and review equipment status, access historical records, and run reports from a mobile device or a desktop browser
- Provide access to critical data, alerts and reports in real-time
- Roll out an app that matches the ProMedica brand identity

Solutions

- Kaonsoft Enterprise Mobility Platform
- Kaonsoft Assured Compliance Solution
- Microsoft Azure
- Microsoft Visual Studio Tools for Xamarin

Results

- Increased compliance rates to 100% since implementation
- Over 192 hours per year in administrative tasks saved
- Reduced operating costs, including reducing printing and document storage costs

About Kaonsoft

Established in 2011, Kaonsoft is an innovative enterprise mobility company that delivers secure end-to-end mobile strategies to organizations across industries. With decades of digital expertise, Kaonsoft aims to help clients improve customer experience, increase operational efficiency and optimize top line growth.

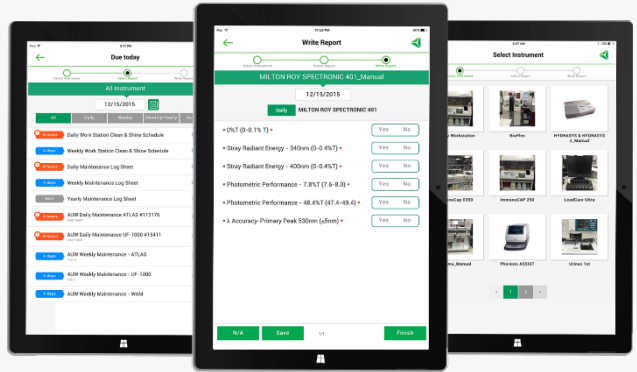
After the successful implementation of LACS™ and realizing its potential to spearhead advancements in healthcare, ProMedica and Kaonsoft jointly formed Kapios Health. The joint venture allows Kapios Health to leverage ProMedica’s industry knowledge and Kaonsoft’s decade long expertise in mobile technology to develop and commercialize sophisticated industry-inspired, field-tested mobile solutions to transform the face of patient care.

“Our partnership with Kaonsoft is helping us enable solutions to the problems that we face daily as a health care organization,” said Justin Hammerling, associate Vice President of Innovations, ProMedica Innovations. “Regulations and other outside forces create constant complications that healthcare systems need to overcome and adapt in order to operate. The Kaonsoft Enterprise Mobility Platform™ and Xamarin tools allow us to rapidly develop and deploy mobile-based solutions to our clinical and administrative staff to help overcome these challenges and operate as effectively as possible. We are confident the issues we face as a healthcare organization are being faced by others, and that the solutions we have developed can be implemented in other healthcare systems as well.”

“I’m thrilled to see technology and healthcare

working in tandem to enable advancements in the medical field,” said Daniel J. Lee, Kaonsoft chief technology officer/co-founder/CEO.

“We look forward to our ongoing partnership with ProMedica. Our hope is to continue to support and sustain innovation in the future for the benefit of individuals and healthcare organizations alike.”



About Xamarin

Founded in 2011 with a mission to provide rapid development of cross-platform mobile apps, Xamarin is a Microsoft owned company that uses an open source code and existing skillset in the .Net framework to allow programmers to easily write apps that will work on any popular operating systems (iOS, Android, Windows). Xamarin based apps look and feel native because they are built with standard, native user interface controls.



Established in 2011, Kaonsoft is an innovative software company that delivers secure mobile strategies to organizations across industries for a complete digital transformation. Our end-to-end mobility solutions include an award-winning app development platform, a line of business-specific mobile applications as well as app delivery services. We are committed to helping our clients achieve a successful adoption of enterprise mobility that will improve customer experience, increase operational efficiencies and optimize top line growth.

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