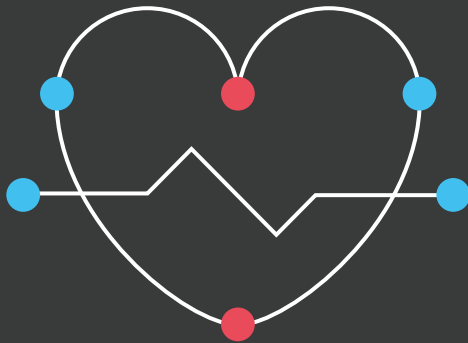
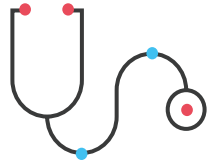


vaadin}>



HEALTHCARE



## IT in healthcare

### Accelerating digital transformation in healthcare

Digital transformation continues to accelerate in the healthcare sector. The trend is driven by increased pressure from non-traditional competition in Silicon Valley, an increase in demand from tech-savvy consumers, crippling security threats to legacy systems and a tightening of budgets in general. Innovators, such as AXPM and Partners Healthcare, have boosted their technology budgets and started automating their operations to take control of their processes and boost productivity for their users.

### Digital healthcare in the post COVID-19 world

The effects of the Coronavirus pandemic have had a ripple effect on almost every industry, but none more so than healthcare. The pandemic has exposed vulnerabilities in the industry and reinforced the importance of heightened security, efficient telehealth solutions, streamlined administrative systems and medical collaboration utilities.



# IT Priorities for healthcare



## MOBILE HEALTHCARE

The growth in mobile use has changed the way we build healthcare apps. An increasing number of appointments are made online using a mobile device, while an increasing number of millennials (43% in 2014) access patient portals on their mobile devices. Healthcare professionals are also increasingly adopting mobile devices to access patient records, manage their practices and share vital medical information. Vaadin applications are:

- Platform agnostic.
- Fully responsive and mobile-first.
- Progressive web applications that offer native features on any device.



## SECURITY FIRST

Security is the number-one concern when healthcare organizations go digital. Patient data must be stored, accessed and handled securely, in line with stringent government regulations. In addition, hospital systems must be secured against crippling security threats, such as ransomware. Over 730 healthcare providers were affected by cyber attacks in 2019, and this statistic rose by 350% in the 4th quarter. There is also evidence that the COVID-19 pandemic has caused a similar increase for the first quarter of 2020. Vaadin can bolster your security by:

- Offering architectural security against common threats out of the box.
- Minimizing the risk of security vulnerabilities being introduced by developer error.



## LARGE-SCALE PROJECTS WITH LONG LIFESPANS

Large healthcare applications can have a lifetime of 20+ years, during which they need to be maintained and kept up to date with both technology and industry changes. Apps written today should function well on today's mobile phones: developers should be able to add new features, without the hassle of first learning the latest trend and implementing costly migrations. Vaadin caters to enterprise healthcare systems by prioritizing:

- Non-disruptive and regular feature updates.
- Long-term updates, security patches and premium support of up to 15 years.
- Comprehensive warranty and urgent bug fixing.
- Development assistance and project mentorship.

# IT Priorities for healthcare



## PHASED MIGRATIONS AND LEGACY INTEROPERABILITY

The critical nature of healthcare systems often require migrations and updates to be conducted in phases and run in parallel with the existing system. Vaadin allows your organization to implement upgrades according to your requirements and schedule, because Vaadin:

- Is an stable, yet flexible, enterprise-oriented framework.
- Offers robust migration tools.
- Helps developers build apps using a component model, which better supports compartmentalized, phased upgrades.

[Learn more about migrating to the latest version of Vaadin](#)



## VISUALIZING DATA IN A MEANINGFUL WAY

Gathering, processing and visualizing large quantities of data, for example from sensors, patients and IoT devices, is a critical aspect of many modern telehealth and healthcare administration systems. Vaadin offers:

- A charting solution with 30+ options to visualize and share complex data.
- Consulting options to develop custom visualization solutions at an affordable cost.
- Easy implementation of any UI component built in compliance with the widely-supported Web Components standard.



# An enterprise web framework rooted in healthcare

Vaadin's standing in the world-class Finnish healthcare sector is unmatched. Developed by the team behind Europe's first virtual hospital service, the framework that would become Vaadin was originally inspired by the frustrations and trials of completing the hospital service with the available technologies.

## ONE APP, A NATIVE EXPERIENCE ON ANY DEVICE

A single Vaadin application can provide a performant and cohesive experience on all modern devices and in all browsers. We develop and test our UI components on all platforms and devices to ensure they look and behave as expected everywhere—whether it's the touch screen of a mobile phone or an ultrawide desktop monitor.

Any Vaadin application can easily be converted into a **progressive web application (PWA)** to enable 1-click installation and native features (such as push notifications) on any device. PWAs can help your organization:

- Decrease development costs by over 33%.
- Simplify maintenance by focusing on a single codebase for all platforms
- Deploy new features faster.
- Combine the discoverability of web applications with the power of native applications.

## SECURE BY DESIGN

Vaadin's architecture is inherently secure because it is server-driven. This means that all application and UI logic runs on the server, whether the UI displays on a tablet, desktop or smartphone. This protects your users from common data interception and forgery attacks. Unlike many competitors, Vaadin also standardizes and securely automates the communication between the server and the browser. This minimizes security vulnerabilities in your application, ensuring that patient data remains secure and accessible only with the appropriate credentials.

## UNMATCHED STABILITY AND SUPPORT

Vaadin's unique architecture has allowed us to keep our Java API very stable for the past 16 years, while constantly evolving the browser-based code to take advantage of the latest frontend technologies. Vaadin is used in projects ranging from 1 person-month projects to 600 person-year projects. As a vendor-backed, open-source framework, you get the benefit of professional support, combined with community support from a large user base that has developed more than 600 free add-ons.



## The perfect blend of maturity, stability and progressive features

First released in 2000, Vaadin now serves over 150,000 developers from over 40% of Fortune 100 companies and numerous other enterprises in multiple verticals, including many major names in healthcare.

### COMPLETE, OUT OF THE BOX DEVELOPMENT SOLUTION

Every aspect of Vaadin is engineered to ensure stability, reliability and security. The underlying technologies are curated and optimized by experts. Your team receives a complete development framework, with all the tooling required to build a full-featured web application out of the box. Maintenance is also a breeze, as our product team ensures the continued compatibility of all underlying technologies.

### STREAMLINED DEPLOYMENT, UPDATES AND MAINTENANCE

It's straightforward to deploy, manage and maintain Vaadin applications at any scale. The architectural design and component-based UI model allow modular and incremental updates, while our regular updates and clear migration pathways ensure that even major upgrades are seamless.

### INTUITIVE UX FROM A BEAUTIFUL UI

Vaadin allows your team to focus on what matters most — your users. Our standardized, reusable component-model approach to developing UIs helps you build a clean, beautiful application that provides a cohesive and enjoyable experience.

### ACCESSIBLE FOR EVERYONE

Vaadin helps you create fully accessible apps that work exceptionally well with assistive technology, such as screen readers. Vaadin's entire library of UI components complies with WAI-ARIA standards.



## Vaadin services

### OPEN SOURCE WITH EXTENSIVE VENDOR SUPPORT

Vaadin is a vendor-supported, open-source framework. This means that Vaadin is completely free: there are no hidden costs, even for commercial projects. We take care of releasing updates, ensuring continued security and developing new features for the framework.

### EXPERT DESIGN, UX AND DEVELOPMENT CONSULTING

Vaadin offers a range of consulting services to help complete your application on time, and on budget. Our expert designers, UX specialists and developers have an in-depth understanding of Vaadin. We provide a range of services, from team mentorship to UX concepting and complete turnkey web app development solutions





## Vaadin services

### SUPPORT THAT GOES ABOVE AND BEYOND

If your team needs that extra edge, we offer an extensive range of support, customization, mentorship and development services to assist you make the most of Vaadin's capabilities:

- Extended 15-year enterprise update guarantee (feature updates, security updates and bug fixes).
- Comprehensive warranty that entitles you to bug-fix prioritization.
- Custom feature implementation.
- Built-for-you development services.
- A-la-carte development assistance.
- Influence over future framework investments and features.
- On-demand support services.

Visit [vaadin.com/business-benefits](https://vaadin.com/business-benefits) for more details.

Vaadin support rocks! Working with them feels like an extension of our own team. During our relationship they have developed a good understanding of our own vision and their ability to interpret our requirements and suggest improvements on both a business and architectural level is much appreciated.

**KIM PEARCE**, Software Development Manager

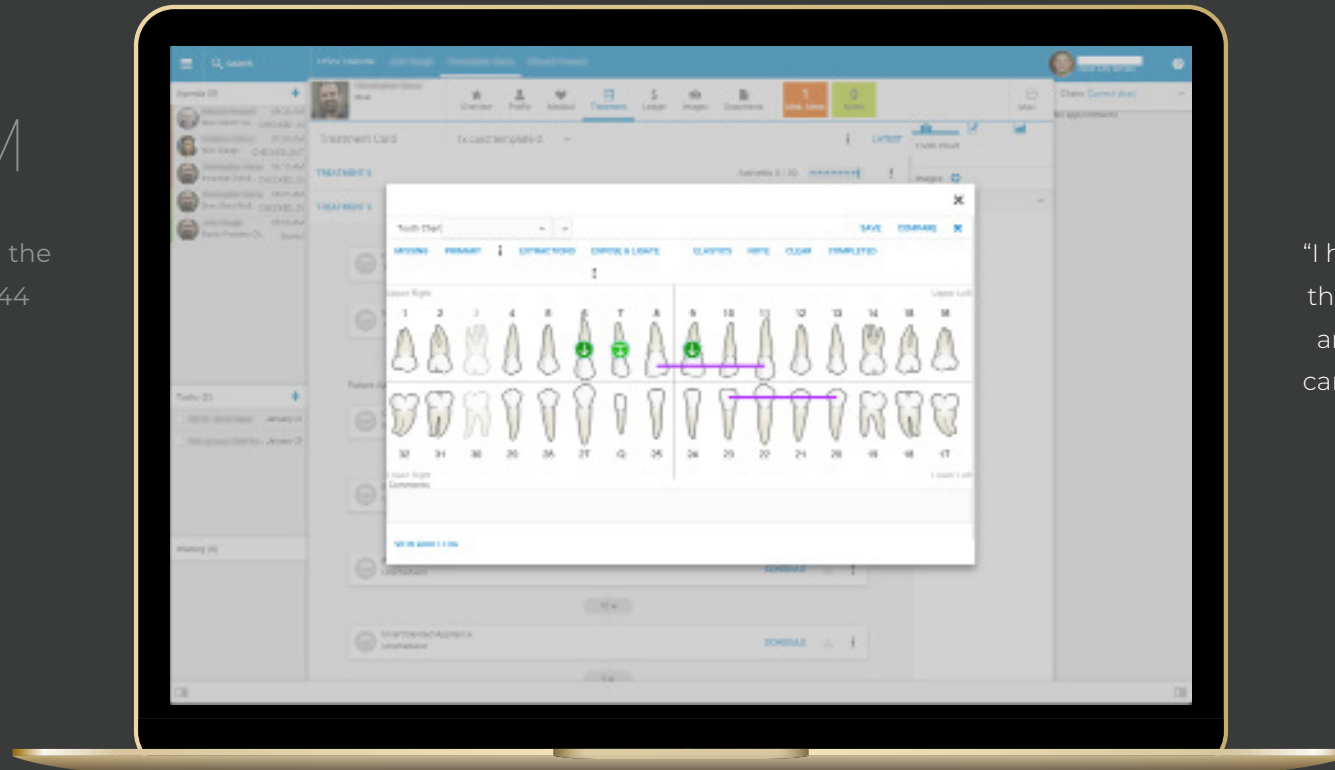
Myosh, United States

Health Safety, Environment and Quality management software vendor





Healthcare company from the United States. Owner of 44 dental practices.



"I had a lot of interaction with the UX and UI guys and they are excellent to work with. I can't say enough good things about them."

**JAKE GULICK**

President  
AXPM

**AXPM One** is a lightweight and powerful Vaadin-based office solution that allows dental and dental specialty practices to run their entire business from a single app.

See more at [vaadin.com/customer-stories](https://vaadin.com/customer-stories)



# Vaadin: We help build web apps that users ❤️

Vaadin is the open source leader in business web application creation. **Over 150 000 developers** worldwide and **40% of Fortune-100 companies** are using it as their platform to build business critical applications.



## Healthcare visionaries that trust Vaadin





# Simplifying every step of the app-development process

Simplification is at the core of our framework and business model. Vaadin equips your team with the tooling and support services necessary to build applications that increase your users' productivity and simplify your business, while providing a best-in-class developer experience.

**Ask us about providing your patients and staff with the user experience they deserve!**



**Pete Galligan**

VP of sales

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