

OPTIMIZING EMPLOYEE SCHEDULING: HOW AI-DRIVEN ENTERPRISE OPEN SOURCE SOLUTIONS CAN EMPOWER HEALTH CARE ORGANIZATIONS



Employee scheduling is complex in every industry, but even more so in health care. The COVID-19 pandemic has exacerbated these challenges, as health care providers fall ill to the virus and are unable to work. To maximize resource availability and better manage schedules, hospitals and point-of-care centers can no longer rely solely on manual processes. Applying automation to decision-making is an impactful way to respond to existing and emerging scheduling complexity.

*In this interview, **Ben Cushing**, Field CTO of Federal Health at Red Hat, a leading provider of enterprise open source solutions for the public sector, shares how Applied AI-driven solutions can help hospitals optimize their business processes, streamline the scheduling processes and ultimately put providers in the best position to deliver quality care.*

What are the main challenges hospitals and point-of-care centers face when it comes to scheduling providers and maximizing their resources?

The obvious challenge right now is that people are sick. You have health care workers who are on the front lines of this crisis who are disproportionately affected. They're exposed more frequently, so they're more likely to become sick. That has created a lot of challenges. If resources aren't available to care for your patients, then that immediately puts a strain on your hospital.

The solutions health care organizations use for scheduling really vary. There are hundreds of scheduling applications available, but the irony is Microsoft Excel is probably the most popular scheduling tool in hospital systems throughout the

country. The complexity of scheduling is such that it requires flexibility in a product. In the case of Excel, its strength is its flexibility.

Despite its flexibility, how does Excel prevent hospitals and point-of-care centers from being more efficient when it comes to scheduling?

Excel easily adapts to the user, but the challenge is that on its own it's not capable of solving anything. It still requires cognition on the part of the scheduler. One of the challenges that has been exacerbated now is the need to schedule frequently. It takes time to put a schedule together. You need to think about the qualifications of the individuals who are going to be on the unit, the construction of the teams based on each person's skill set, whether certain providers are even available to work and their risk profile

when it comes to being placed on a COVID unit. It is important all these constraints are kept in mind when producing a schedule.

What technology capabilities do health care organizations need? How can AI, in particular, benefit them?

Applied AI, and specifically, automation of provider scheduling, is an opportunity to leverage powerful but small footprint technologies to solve existing health care problems. These solutions have wide application, from optimizing PPE distribution and availability to producing sophisticated planning for ramp up and down of expensive surgical capabilities. Coupled with existing APIs, an Applied AI system becomes an integrated part of the IT ecosystem and can solve for current and future crises.

Many hospitals and health care organizations are overstretched, especially now. How can they balance modernizing their technology with improving care delivery?

It really comes down to improving the experience for the provider so they can deliver better care. The role of IT systems is to assist, and not be an additional burden. Certain technologies, like clinical decision support, have the potential to transform health care, but are more risky to implement because they directly interface with patient care. However, technologies focused on optimizing scheduling for health care providers largely have been overlooked. There has been more focus on improving the patient experience — and rightfully so — but improving the experience of the people who provide care will enable them to deliver better care. Implementation of such a system ranges from out-of-the-box readiness to full integration with existing scheduling systems. Our Applied AI technology solutions are engineered to meet the hospital system where they are on their automation journey.



About Red Hat

The adoption of open principles helps the U.S. government start, accelerate, and improve the art of digital transformation—people, process, and technology. As the world's leading provider of enterprise open source solutions, Red Hat uses a community-powered approach to deliver reliable and high-performing Linux®, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500 and 100% of U.S. executive departments. As a strategic partner to cloud providers, systems integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future. Learn more at www.redhat.com/gov.