



Industry Brief: Leveraging Uptime and Availability to Improve Productivity with EMR/EHR

WHITE PAPER

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IN THIS INDUSTRY BRIEF

The healthcare provider industry is at a crossroads. Regulatory initiatives are dictating the rapid implementation of clinical applications while disrupting operating models, as providers race to demonstrate meaningful use under the Health Information Technology for Economic and Clinical Health (HITECH) Act of the American Recovery and Reinvestment Act (ARRA) and improve care quality while reducing costs under healthcare reform. Healthcare providers need to implement and adopt electronic health records (EHRs) and health information exchange (HIE) technologies to receive meaningful use incentives under ARRA, and they need to do this by 2015 to avoid penalties. Deadlines are tight, and opportunities to receive incentive payments begin this year. Meaningful use technology is valuable in itself, but it also provides a foundation for success as the provider industry adapts to increasing cost pressure, consolidation, and adoption of the accountable care organization (ACO) under healthcare reform. However, the majority of providers do not have either the applications or the technology infrastructure in place and/or in use to proactively respond to the HITECH, ARRA, and Patient Protection and Affordable Care Act (PPACA) reforms. They are still weighing the costs, benefits, and risks of the many varieties of EMR/EHR and IT infrastructure, which they want to work together effectively with minimized unexpected interruptions.

SITUATION OVERVIEW

Provider organizations that have adopted EHRs have taken an important step toward automating clinical documentation, driving efficiencies, and improving the quality of care. Nevertheless, many providers have negative first impressions of EMR/EHR systems. Providers are rightfully worried about committing to expensive new systems that could be time-consuming to implement, nonintuitive to use, costly to maintain, or prone to crash unexpectedly. They are wary of systems that could reduce productivity, halt work, impair staff morale, or cause errors in patient treatment due to information being unavailable.

Compounding this challenge is an often myopic focus on the features of EMR/EHR applications to the exclusion of the supporting infrastructure and systems that deliver appropriate service levels, uptime, and availability. Providers need to sort through the different perspectives on downtime to mitigate risk in a balanced way:

1. The costs and benefits need to be weighed over the short term and the long term. Federal incentives encourage providers to focus on short-term adoption and meaningful use requirements. As a result, providers can easily overlook investing in IT infrastructure that can protect them from the risk of lost productivity due to unexpected system downtime.
2. Healthcare providers and IT professionals often have different perspectives of the impact of downtime. For example, 99.9% uptime may sound acceptable and be viewed as an accomplishment by a hospital's IT professionals. However, 99.9% uptime means at least 87 hours per year of EHR downtime. This is not likely to be acceptable to providers, particularly when downtime occurs at critical moments in patient care, results in backlogs of work, and serves to diminish trust of staff and community partners that can be very difficult to repair, endangering future progress on EHR adoption.
3. The impact of downtime is different for large organizations and small ambulatory practices. In large hospital or health system settings, IT systems are more likely to have redundancy and effective disaster recovery processes that minimize the effects of system downtime. However, disaster recovery solutions do not prevent downtime; they only assist in recovery from outages. Providers in small ambulatory settings may be less equipped to cope with equipment failure or EHR system downtime or its knock-on effects because they don't have the IT resources, experience, or foresight to plan for a variety of contingencies or deal with them in a time-efficient manner.

Uptime and availability are important elements of the user experience and must be considered to deliver systems that providers will use, trust, and adopt. As clinical applications are used at the point of care, availability and uptime have the potential to impact clinical decisions and reduce quality of care if patient information is not readily available to providers via reliable systems.

FUTURE OUTLOOK

EMR and computerized physician order entry (CPOE) applications are mission-critical workloads to healthcare providers and require high levels of performance and availability. In defining service-level agreements (SLAs) and system architecture, providers will need to

distinguish between the expectations of different stakeholders in the organization. Although 99.9% uptime may meet the expectations of IT professionals, clinicians are more sensitive to the legal and financial ramifications of professional errors and may require higher levels of availability to trust electronic records. Unpredictable downtime impacts workflow and patient care. Providers need to weigh their tolerance for downtime and invest in solutions that meet these demands as they seek to achieve meaningful adoption of clinical applications in their organizations.

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