Navigating Application Modernization for Healthcare Digital Transformation

In today's healthcare landscape, the backbone of patient care and operational efficiency lies in a complex web of digitally connected services. From electronic health records (EHR) to telehealth platforms, these applications vary widely in age and capability, reflecting both cutting-edge innovations and legacy systems dating back decades. This disparity underscores a critical need for application modernisation—a process pivotal to driving ongoing digital transformation within hospitals and health systems.

Driving Healthcare Forward: The Imperative for Application Modernization

Application modernisation aims to revitalise existing software infrastructures to better meet the evolving needs of internal users and external stakeholders. The goal is to transform how people interact with an organisation rapidly. Several key factors propel healthcare organisations towards prioritising application modernisation. Firstly, consumer expectations for streamlined engagements demand data accessibility that older systems struggle to provide. Brendan Fowkes, global industry technology leader for healthcare at IBM, notes that monolithic systems on ageing hardware often incur escalating maintenance costs and hinder agility—a critical drawback in an era where nimbleness is paramount.

Regulatory Demands: Advancing Healthcare Through Application Modernization

Moreover, regulatory shifts, such as CMS Interoperability and Prior Authorization Final Rule, mandate robust data-sharing capabilities that many legacy systems fail to support adequately. These challenges necessitate not only updating existing applications but also ensuring their scalability and interoperability in a rapidly evolving healthcare environment. The process of application modernisation typically unfolds through several phases. Initially, organisations assess their current application landscape against modernisation goals, crafting a roadmap prioritising updates and potential retirements. This strategic approach facilitates smoother transitions while addressing staffing, cost, security, and compliance considerations.

Embracing Cloud Migration and Technological Advancements

Migration to cloud-based environments emerges as a pivotal step, enhancing security, performance, and operational agility. Roth cites Forrester research indicating that cloud migration empowers organisations to deploy new features swiftly and manage applications more flexibly through microservices architecture. Simultaneously, updating applications with contemporary technologies like containers, AI, and automation further augments their functionality and efficiency. These innovations optimise performance and enhance healthcare systems' adaptability and resilience —a crucial factor given the mission-critical nature of applications like EHR and imaging systems.

Overcoming Legacy Challenges and Embracing Innovation

However, the path to modernisation in healthcare isn't without its complexities. Legacy applications entrenched in obsolete coding languages such as COBOL or MUMPS pose unique challenges due to their integration with other vital systems. Fowkes underscores the potential of advanced technologies like generative AI to revitalise such legacy codebases, potentially reducing costs and enhancing operational efficiency. Beyond technical upgrades, application rationalisation plays a pivotal role. This process involves identifying and consolidating redundant or inefficient applications, streamlining operations, and reducing maintenance costs. DeVries emphasises the financial benefits of retiring obsolete applications, thereby reallocating resources to more impactful digital initiatives.

Benefits of Healthcare Application Modernization: Security, and Strategic Partnerships

Ultimately, successful application modernisation in healthcare yields manifold benefits. It not only accelerates innovation and improves user experiences but also fortifies data security—a critical concern given the sensitivity of patient information. Greg Peters from CDW asserts that robust application management is integral to sustaining digital transformation initiatives and enhancing overall organisational effectiveness.

Looking ahead, partnerships with experienced technology providers offer invaluable support in navigating the complexities of application modernisation. These alliances provide strategic assessments, DevOps enhancements, and managed services that streamline the modernisation journey and ensure sustained benefits for healthcare organisations.

As healthcare continues to embrace digital transformation, application modernisation emerges as a linchpin for enhancing care delivery and operational efficiency. By revitalising outdated systems, leveraging cutting-edge technologies, and embracing strategic partnerships, healthcare organisations can not only meet current challenges but also pave the way for future innovations in patient care and organisational excellence.

Source: [CDW HealthTech](#)

Image Credit: [iStock](#)

Published on : Thu, 20 Jun 2024