

# ABSTRACT

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Topic:

## **Planning a Strategic Transition to Healthcare 4.0**

The concepts and technologies of Healthcare 4.0 have developed significantly and received a lot of attention from researchers, developers, and healthcare organizations. Many healthcare service providers agree that Healthcare 4.0 applications will enhance healthcare operations and quality and reduce costs. Unfortunately, the available research, as extensive as it is, rarely address how a healthcare organization can transition their existing systems and technologies to adopt healthcare 4.0 concepts effectively and efficiently. This presentation walks through some essential steps that will strategically move current healthcare systems towards a full and systemic adoption of Healthcare 4.0 capabilities. The key to successful transition is a clear understanding of the following: (1) The organizations current capabilities, and resources; (2) A clear understanding of current technologies what these are capable (or not capable) of in terms of supporting Healthcare 4.0 systems; (3) Well-defined objectives that the transition is expected to accomplish; (4) A strong long term commitment from the administration and total buy-in from all stakeholders; (5) An understanding that such transition is a complex and expensive venture; and (6) The confidence that the successful transition will have a huge ROI (return on investment) in many tangible and intangible ways. Several healthcare organizations started incorporating some components of Healthcare 4.0 for specific applications in their systems. This provided some advantages; however, it also created additional challenges. In such cases, the individual upgrades could easily cause compatibility and integration problems when introducing more applications and services. We propose that a healthcare organization starts by dedicating enough time and resources to create a complete strategic plan for the move before actually making any changes to their current systems. The plan should outline a clear path to the transition with applications, technologies, and services that are compatible, interoperable, and extensible. Every upgrade, change or addition must be part of the master plan to achieve a fully integrated highly functional Healthcare 4.0 system. Principals and concepts of strategic planning combined with strong technical capabilities is the key for a successful transition. A highly skilled technology team that is also well versed in strategic planning and process/systems optimization techniques is extremely important. Combined these skills along with the Healthcare knowledge will help create the desired strategic plan and aid in its successful execution.