

SUMMARY OF PRESENTATION

The Role of Information and Digital Transformation

Terry C. Bills

Global Transportation Industry Director, Esri

Key words: Digital transformation, business transformation, technology enablers, system of engagement, location and business intelligence.

Modern organizations are engaged in a wide array of digital initiatives in an attempt to gain a competitive edge. And while much of the attention has focused on technology adoption, a digital transformation is more usefully understood as the process by which organizations leverage technology to improve their performance, and to better achieve their mission goals. In this sense, it is really a business transformation through the application of technology, and involves redefining the interaction of people, process and technology, often with technology being the final piece of the equation.

With this important caveat in mind, this presentation will argue that the smart ports of the future will leverage information architectures, together with emerging technology enablers, to achieve greater coordination and collaboration, all with the goal of improving operational performance. This will require breaking down existing information silos, and a better use of data analytics and business intelligence to improve planning, and the control and management of intra and inter-organizational operations. Increasingly smart ports will rely on real time systems designed to share information among key actors in the port environment, integrating information from vessels, sensors and the infrastructure to optimize performance.

Another key characteristic of smart ports is the empowerment of everyone in the organization with access to the authoritative information and applications they need to do their work and make better decisions. Ports have often made significant investments in technology, but these information systems are rarely accessible across the organization. A “system of engagement” is designed to provide everyone within the organization (with proper authorization) access to the information they need, with no more than three clicks from any device.

Finally, a digital transformation is really a continuous process, rather than a one-time exercise. Successful organizations focus on continuous process improvements, and how technology can contribute to the success of their organizations.