

Smart Engineering & Digital Collaboration Use Case

CHALLENGE

A large-scale maritime organization implemented a Smart Engineering initiative to transition from paper-based workflows to a fully digital, collaborative design and operations environment. The initiative enabled complex projects to be designed, reviewed, and managed without relying on physical documentation, supporting secure, paperless engineering workflows from concept through production.

SOLUTION

Using centralized digital platforms, engineers and specialty teams located across multiple sites and remote locations were able to securely collaborate in real time without the need for constant travel. Digital work packages, 3D models, cloud-based applications, live camera feeds, and shared engineering data provided teams with immediate access to the information needed to support design reviews, operations, and project execution.

The organization also deployed secure KVM and remote access technologies that allowed distributed engineering teams to securely connect to and control physical workstations, systems, and applications from anywhere. This enabled engineers working in secure or mission-critical environments to seamlessly switch between systems, collaborate on sensitive projects, and maintain operational continuity while meeting strict security requirements.

Advanced visualization technologies, including augmented reality, laser scanning, and real-time monitoring, further improved collaboration and situational awareness by creating accurate digital representations of facilities and operational environments. By establishing a centralized "single source of truth" for engineering, operational, and production data, the organization streamlined workflows, improved productivity, reduced delays, and enabled more efficient collaboration between geographically dispersed teams.

RESULTS

The result was a scalable, secure, and highly connected digital engineering environment that supported modern manufacturing, remote collaboration, and data-driven decision-making across the enterprise.

