



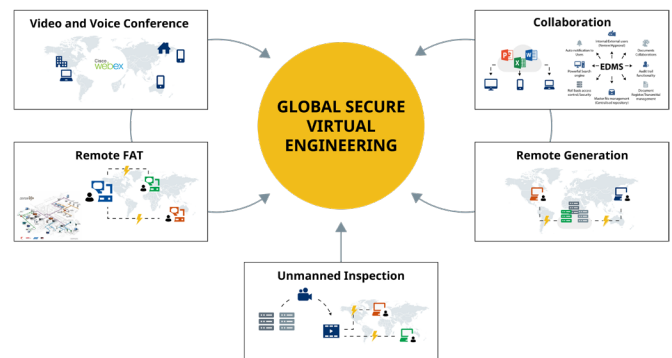
# Yokogawa e-Infrastructure Enables Virtual Remote FAT

Originally deployed to expedite control system project schedules, simplify hardware testing platform requirements and reduce travel expenses on the part of the customer, Yokogawa's e-Infrastructure has proven itself in light of the COVID-19 pandemic. In order to improve safety by maintaining social distancing, customers have taken advantage of Yokogawa's Cloud Enabled Test capabilities that allow full participation in Factory Acceptance Testing from remote locations.

Testing is fully compatible with the COVID-19 measures that all parties have implemented and can completely satisfy the original, pre-COVID-19 project requirements. Participation physically in the Yokogawa staging area is limited, often to a single project engineer. This underscores Yokogawa's commitment to continue collaborating with customers as they carry out alternative means of conducting their business operations.

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## Reductions:



*Yokogawa's e-infrastructure enables augmented reality, remote testing and replacement of a physical FAT with a virtual FAT via the Cloud.*

Through the Cloud Enabled Testing, Yokogawa provides the environment to connect personal computers or mobile devices at customer locations including home offices with the target system at the Yokogawa Factory Acceptance Test (FAT) staging area. Customers can remotely participate in a FAT at a convenient time, applying the '3R' concept, Right People, Right Location, Right Time. There is no need for travel schedules to delay the project.

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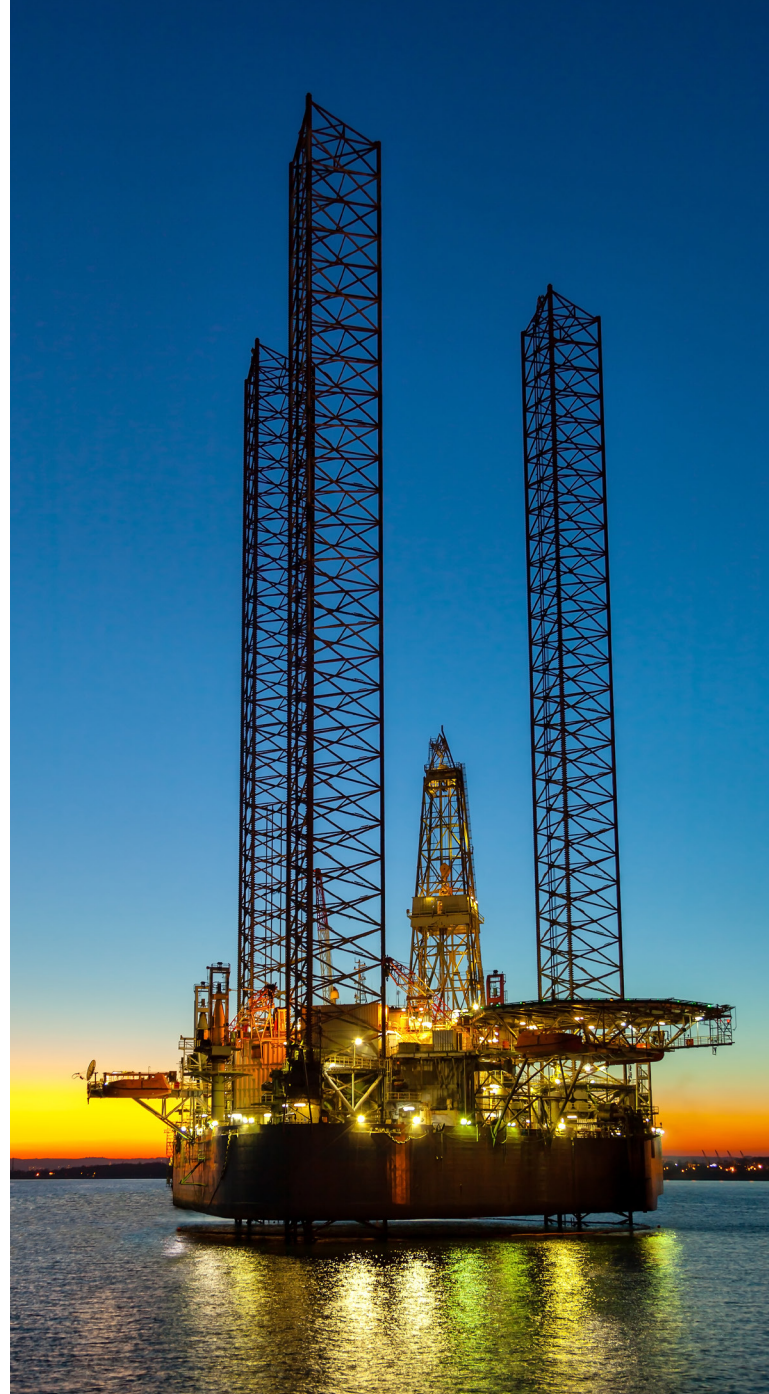
Cloud Enabled Testing supports Factory Hardware Acceptance Testing (FHAT) as well as testing of the application. Live streaming will relay the target system at the Yokogawa FAT staging area. Yokogawa provides the environment to check hardware from outside the staging area. For example, a project engineer in the staging area can wear a body camera while conducting a check of the wiring panel. Customers can view the test from the images streamed 'live' via the camera. During a recent test, Yokogawa's engineer used a Microsoft HoloLens augmented reality device for this purpose. The HoloLens allowed the entire project team to collaborate bidirectionally in an immersive test experience.

Yokogawa's staging areas are set up with a number of enabling technologies. The most recent tests used TeamViewer, a high-performance, reliable remote connectivity platform with end-to-end encryption, Cisco's AnyConnect industry-leading VPN for client connectivity, and various platforms for virtual meetings. Connectivity is through secure Internet access or tests can work with customers' private Clouds.

## Customers have indicated that even after COVID-19 restrictions are lifted, they are very likely to take advantage of Yokogawa's e-Infrastructure.

Remote users can access the operator interface (HIS), Engineering Workstation, Safety Engineering Workstation, OPC Server and any other PC or server-based applications on their projects.

Customers have indicated that even after COVID-19 restrictions are lifted, they are very likely to take advantage of Yokogawa's e-Infrastructure. In addition to remote Factory Acceptance Testing, it allows customers to simultaneously collaborate with project teams and Yokogawa subject matter experts anywhere in the world to engineer, review, test and monitor their systems anytime during the lifecycle. Engineering teams benefit from simplified project communication, simplified management of change and reduced travel to operations sites such as offshore platforms.



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