REAL-TIME REMOTE CONTROL OF HEAVY MACHINERY WITH 5G

If 4G has been about every*one* being connected, 5G is about every*thing* being connected. The features of future 5G networks--including very high speed and capacity with very low latency-- are excellent for the expansion of the Internet of Things (IoT). One important 5G use case is remote control of sophisticated, heavy machinery. Through this demonstration, we showcase high bandwidth, low latency, and connecting of everything. Real-time responsiveness is shown by remotely controlling an actual Volvo Excavator located in Dallas, Texas with a connected simulator located at the FCC HQ. The end user will have a virtual reality headset with live immersive streaming video, and operation of the system via controls in the excavator simulator.

With 5G, heavy machinery can be remotely controlled with real-time responsiveness where latency is a critical for safety. One advantage of this approach is that a worker with unique or specialized skills could manage multiple projects around the world in the same work day. You could even have redundant workers in other parts of the world for efficient, comprehensive coverage and reliabilty. Also, real-time remote control of heavy equipment allows for workers to operate in areas that are hostile in terms of weather or personal security.

The ICT industry is now moving into the next phase of the 5G journey. Standardization work has been initiated, and a vibrant ecosystem is forming as both operators and industries start to explore 5G's transformative possibilities through activities such as test-bed cooperation and use case development. Ericsson's technology leadership puts us at the forefront of 5G research and development. At the same time, we understand that realizing the full potential of 5G requires cross-industry collaboration. That is why we are focused on driving a global 5G ecosystem that combines Ericsson's unique capabilities with the strengths and insights of customers, industries and academia to drive the opportunities in the Networked Society.