Veterans Health Administration Project Convergence

VHA, in partnership with Microsoft, Medivis, and Verizon, has merged state-of-the-art mixed reality technology with 5G, cloud computing, and AI to enhance the quality and safety of surgical care for America’s Veterans. Additional advancements, in remote telepresence have the ability to bridge the gap for a large number of VHA patients that would benefit from remote medical care.

Use case 1:
With AnatomyX, medical trainees and seasoned clinicians can literally “see inside” the human body with greater 3D clarity and realism than ever before, making it easier to grasp and master the complexity of human anatomy, physiology, and understand the best approaches to clinical interventions.

Use case 2:
Doctors can pre-plan surgeries with a 3D realism and accuracy that was never before possible with the help of SurgicalAR, leading to safer, more efficient, and effective care. Patients can also take a virtual tour of their own body, and in the process be provided an intuitive understanding of the challenges and strategies for their personalized care.

Use case 3:
In the future, surgeons can utilize the technology to have virtual x-ray vision to guide safer procedures. In addition, clinicians in different physical locations can collaborate on difficult surgeries as if they were in the same room. Volumetric telepresence is also positioned to allow physically isolated patients to have real-time, personal interactions.

Technology
The marriage of 5G, Medivis imaging software, and HoloLens Mixed Reality technology allows enhanced understanding and use of large data sets. The 5G network is the foundational infrastructure for interacting with sophisticated imagery and technology in real time. Medivis imaging technology creates interactive 3D holograms from 2D MRIs and CTs. Together, these elements can be leveraged to provide better healthcare outcomes for Veterans and their families.