Kratos To Develop Virtual Prototyping Holodeck for US Army

Kratos Defense & Security Solutions is using I/ITSEC to promote a key recent contract win from the US Army for the development of a virtual prototyping holodeck (VPH).

Designed for various training purposes, the Kratos [Booth 1312] holodeck staging environment uses Cross Reality (XR) technologies to allow participants to engage with different virtual and real environments.

The Army's Night Vision and Electronic Sensors Directorate (NVESD) will utilize the holodeck to evaluate physical and psychological warfighter performance under simulated real-world conditions.

Kratos Chief Technical Officer Craig Clark said the VPH would be used to test various current and future Army systems and sensors.

"The main purpose of the VPH contract is to prototype this technology, not just for training systems, but also more tactical systems. So, they'll be using that to prototype future systems that the Army will be using. The system will mainly be out of Fort Belvoir, but we are doing some systems that are at Fort Rucker and we'll have a system here [in Orlando] with PEO STRI."

Visitors to the Kratos stand will get to experience the immersive nature of the company's Reconfigurable Virtual Collective Training System (RVCTS).

Using mixed reality, participants can still see their hands and other real-world elements. However, the simulation features a "virtual wall" so, when users look behind themselves, they view the simulation rather than the back of the holodeck.

This allows two different participants – in this case one playing the role of a CH-47F rear gunner, the other a forward observer – to take part in the simulation in close proximity.

Clark said, that as well as creating a fully immersive experience, Kratos has designed the simulation environments to be deployable to the point of need (PoN) as well as being based on an open architecture for lower costs.

"The idea here is that the item is able to break down very easily, put into a box and be able to move into a point of need. So, in this particular case, you're going to see three different helicopters and the component is all based on the same mixed reality platform - it all comes together in containerized systems that you just put together, stage, and then set up and execute.

"Once we put light tape on the walls, you can actually put yourself inside the virtual world, with the head gear on and you can actually touch the walls and still interact with the simulation. It's pretty cool."