

## What can The CoTS Partnership do for you?

The Tactical Operations Center in a Box (TOC in a Box) is a collaborative effort of The CoTS Partnership based on the capabilities of the core components provided by Advantech and Wind Talker Innovations.

The TOC in a Box, Osmosis software-defined network technology, and other components delivered by The CoTS Partnership are ready (or nearly ready) for deployment.

All products have been tested to withstand commercial and military environments and include flexible options for rapid upgrades to avoid obsolescence.

The CoTS Partnership brings together a complete team to deliver the most advanced, configurable, and adaptable technology in the field to meet the ever-changing mission of the warfighter.

## The Tactical Operations Center in a Box

### Powerful

Truly dynamic Software Defined Network, hyper-configurable TOC in a Box

### Capable

Comprehensive C5ISR  
Sensor Data Fusion  
Geospatial Awareness

### Practical

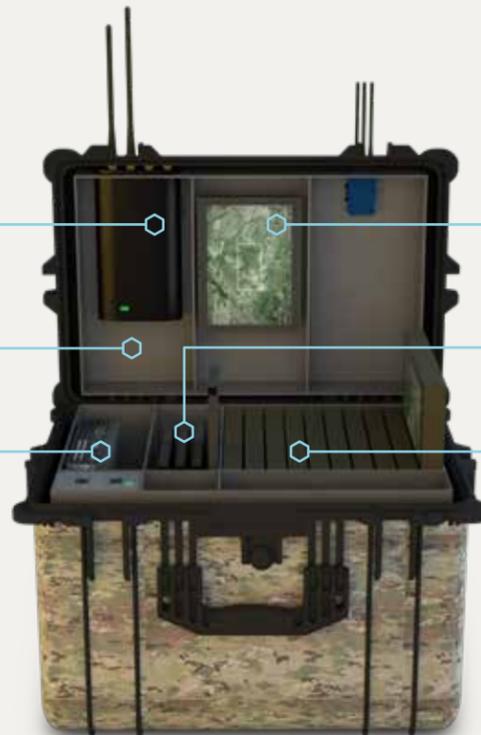
Easily deployable and scalable

### Flexible

Tech inserts allow modification in the field to meet dynamic demand

### Complete

Communications, situational awareness, cybersecurity, and A/I enabled



*“Designed for those who serve by those who served”*

**ADVANTECH**

*Enabling an Intelligent Planet*

**John Reis**

(772) 302-4384  
john.reis@advantech.com  
www.advantechusa.com/military

**WIND TALKER  
INNOVATIONS.**

**Patrich Skendzie**

(801) 726-6574  
Patrich.skendziel@windtalker.com  
www.windtalker.com/solutions/defense

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Advantech and Wind Talker Innovations® Present

## Tactical Operations Center In A Box

Featuring **Osmosis®** Software Defined Network  
Designed specifically for the tactical edge

The rapidly deployable Tactical Operations Center in a Box (TOC in a Box) enables communication anywhere using Osmosis, a dynamic software-defined network (SDN) technology. Designed specifically for Military and Public Safety use, TOC in a Box is highly customizable and equipped with 5G Internet of Warfare Servers, All-In-One PC's, rugged tablets, and more.



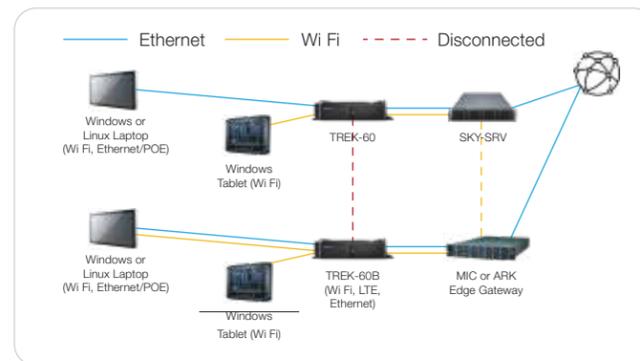
# Osmosis® Next Generation Software Defined Network

Osmosis enables communication over any available communications system using self-forming and self-healing network topologies and techniques.



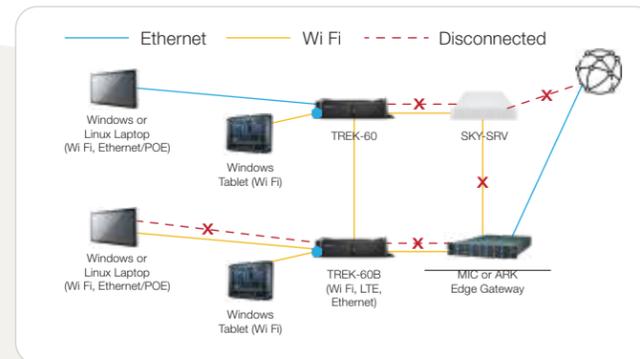
## Phase 1 Clear Network

A clear network in full operation allows for devices to form a mesh, benefitting from strong connectivity between hardware. Performance can benefit from this structure while fully operable as the devices have clear and functional pathways to at least one other point in the network. The network can be monitored, reconfigured, and visualized in Osmosis Manager. The configuration is capable under these ideal connection scenarios.



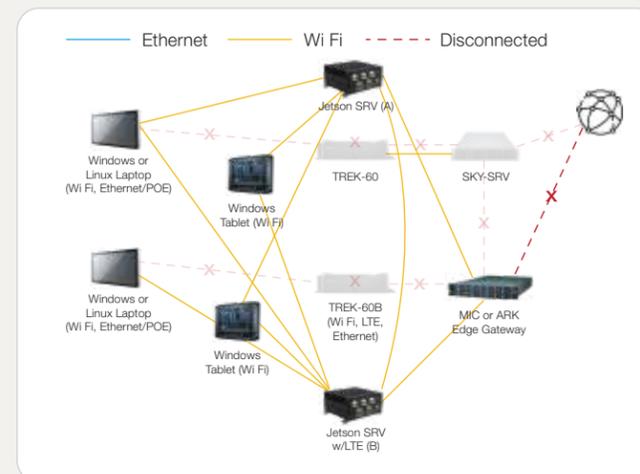
## Phase 2 Constrained Network

Loss of connection between devices using Ethernet can be remedied by Wi-Fi connection switchovers. From source to user, the connection can be healed by proper alternatives when available as Ethernet is removed or disabled on the network. In Osmosis Manager, these network health status changes are available in real-time.



## Phase 3 Fully Isolated Local Mesh Formed

With the loss or reset of Ethernet devices on the network and the source Internet, the alternative pathways can be enabled by activating the Jetson devices. The Osmosis-enabled devices on the network will rapidly form an offline mesh, while the Jetson device can inject Internet to the mesh network by activation of the LTE. In Osmosis Manager, the network devices, connectivity status, and all changes made will be displayed and recorded.



# Industrial COTS making rugged simple

## ADVANTECH

DEFENSE SOLUTIONS

Advantech Defense Solutions has been serving the military and aerospace markets for many years, offering the most comprehensive selection of industrial-grade COTS building block technologies and systems available. These building blocks are designed from the ground up using all industrial components necessary to tackle the long 24x7 operational cycles and rugged environments experienced within a wide variety of mission-critical applications.

Advantech Defense Solutions specializes in rugged, small form factor solutions. We design and manufacture SWaP-C optimized solutions to meet the needs of the warfighter.



Founded in 2016, Wind Talker Innovations® develops technologies that enable safe and secure data communications around the globe. Their visionary product, Osmosis®, allows any radio-enabled device, including smartphones, computers, and tablets, to connect to and through each other as part of a cognitive mesh network, all while safeguarding privacy and without the need for expensive network infrastructure. Osmosis is a truly novel technology that transcends existing communications barriers, leveraging and accelerating 5G deployment in a safe and secure way to change the way we live, work, and do business, and to enhance our capacity to meet national security and public safety needs.

## The Consortium of Technology Partnership (The CoTS Partnership) includes



The CoTS Partnership consists of individual companies offering custom hardware and software solutions. Within the partnership, Advantech is a global solutions provider assisting with global deployment. Each partner can work individually with programs or departments that wish to focus on one component. But together, The CoTS Partnership can bring truly great potential to deliver the capabilities you need now.

