

Delivering a Consolidated DoD Operational Wireless Network on LTE/5G

A consolidated LTE/5G network simplifies operations while future-proofing wireless services, so users can tap into a robust 3GPP ecosystem and eliminate vendor lock-in.

DoD's Modernized Mission Needs

The world is enthusiastically embracing the potential of IoT, machine learning and AI. In order to meet demand, it requires infrastructure digitalization of the base infrastructure to sustainably operate and service our evolving IoT, machine learning and AI world.

DH Tech recognizes Nokia's private LTE/5G solution as an industrial-grade wireless network solution that unlocks the value of Industry 4.0. This serves the DoD with the full benefits of digitalization and automation for expanded business efficiencies, higher safety and agility, and reduced footprint by fusing physical and digital processes.



Challenges with WiFi and Wired Solutions

Tethering systems to a wired network infrastructure is expensive.

Additionally, traditional IT solutions like Wi-Fi impose limitations with coverage, mobility, high-reliability/performance, security and multi-user capacity making them incapable of supporting business and mission-critical applications, failing to meet the future requirements of military applications.

Furthermore, existing wireless systems supporting current business and mission-critical requirements are application specific, creating the need for multiple systems, which increases OPEX costs and complexity.

With the same level of services comprised of mission critical networks today, a consolidated LTE/5G network simplifies operations while future-proofing wireless networking, allowing users to tap into the robust 3GPP ecosystem and eliminating vendor lock-in.

Contact Ben Hoisington, DH Tech DoD Account Director, to customize your solution needs.
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DH Tech

EMERGING TECHNOLOGY PROVIDER

Empowering both the public and private sectors with the solutions they need today, and the infrastructure to confidently secure them beyond tomorrow.

DH Tech, *emerging technology provider*, is an award winning industry recognized leader in the *design and implementation of resilient, cost effective and innovative enterprise solutions.*

Having successfully delivered more than \$65M in solutions for the Department of Defense since 2013, we are regularly relied upon to solve the most complex IT challenges and modernization needs.

As a HUBZone certified small business, DH Tech is actively supporting Energy's ability to bridge the gap in meeting its HUBZone goals through leading IT solutions.

DH Tech, a preferred solution partner to many, is a *market disruptor focusing on advanced technologies such as Virtualization, Data Center Optimization, GPU Acceleration and Hyperconverged Platforms.*

Our team of trusted, cleared, certified executives and solution architects are available to discuss your future needs.

Services/Solutions

Artificial Intelligence
Machine & Deep Learning
Virtualization & Optimization
Hyperconverged Platforms
Accelerated Storage
Enterprise Cloud
Backup & Recovery
Security
Networking
Big Data

CERTIFICATIONS & PROCUREMENT VEHICLES



Sole-Source Capability up to \$4M
Micro-Purchases up to \$10,000 and Simplified Acquisitions up to \$250,000
Purchase Cards Accepted

DH TECH, A TRUSTED TECHNOLOGY SOLUTIONS PROVIDER

#32 on Inc. 5000 List - Fastest Growing
#1 on CRN Fast Growth 150
CRN's List of Tech Elite 250
CRN Solution Provider 500
CRN Triple Crown Winner

Federal Partner of the Year (NVIDIA)
Value-Added Reseller For 500+ OEMs
More Than 275 Customers Worldwide
Active Member on OEM Technology Boards
DH Tech Innovation Lab - Experts Taking Technology Further

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Current DoD Operational Wireless Networks

| | | | | | |
|---------------------------|---------------|-----------------|-----------------------------|---------------------|-----|
| Voice | Data | Backup | Local | M2M | ... |
| Private PMR (TETRA / P25) | Private Wi-Fi | Public 3G / LTE | Private Transponder Network | Private Proprietary | ... |

Consolidated DoD Operational LTE/5G Wireless Networks

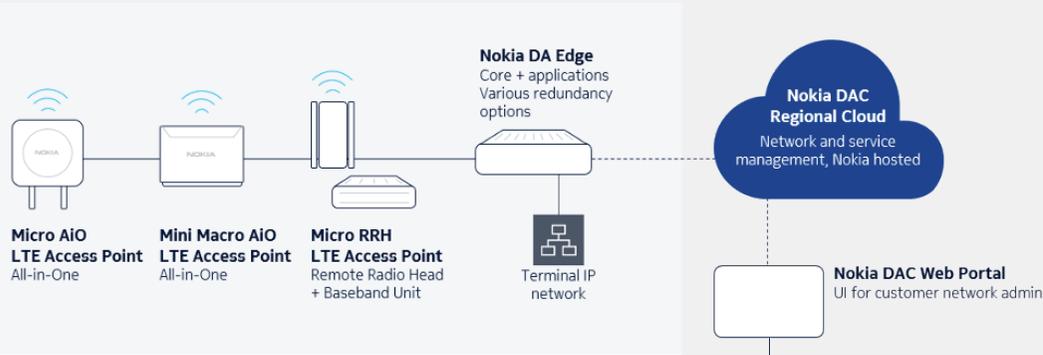
| | | | | | |
|------------------|------|--------|-------|-----|-----|
| Voice | Data | Backup | Local | M2M | ... |
| Private LTE / 5G | | | | | |

Nokia's Private Wireless Solution

The best way for Defense customers to cost-effectively implement the widest range of Industry 4.0 applications is with a mission critical-grade private wireless network—Nokia's Digital Automation Cloud (DAC), a digital automation service platform providing local plug-and-play private wireless connectivity and a framework for click-and-deploy of defense and industrial use cases.

Nokia DAC enables diverse wireless connectivity services with voice, data and video over a single, converged platform. Historically, Defense customers have only been able to leverage LTE and cellular technology by procuring services from a large mobile carrier, limiting those services to where the carrier makes them available.

Nokia DAC brings the advantages of the 3GPP LTE and 5G to military bases by providing a private reliable, secure, and high-performance wireless network that is scalable to grow with future needs, and operate despite lost connection to a DAC Regional Cloud. Nokia's DAC Architecture is illustrated below.



Nokia's DAC can start with coverage for a single building, or scale up to a base or large test range.

NDAC can be sized and priced to meet the exact requirements, or priced as a subscription model to leverage OPEX funding, or on a perpetual basis to leverage CAPEX budgets.

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Mobile radio

4G/LTE mobile broadband radio

Tactical radio ecosystem connects soldiers, drones, robots and other sensor end points to enable at the edge data intelligence and communications. It provides battlefield commanders never before seen accessibility and situational awareness.



Supports up to 400 users
Supports 400 concurrent users sharing up to 300Mbps DL / 100Mbps UL in simultaneous band / max configuration



Integrated mesh radio
Fully integrated MANet radio for backhaul connectivity and communication redundancy



No annual license
No need to pay for an annual license when you own your own infrastructure



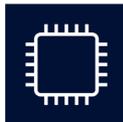
Dual 2 x 5W LTE bands
1W – 20W options and configurations available to fit your case



CSFC compatible
Over-the-air 128-bit AES, optional double wrapped 256-bit AES (CSFC compatible) ensuring end-to-end security



a. Front view



Onboard computer
Embedded computer for onboard EPC and edge data services. TAK ready!



Tactical radio

4G/LTE mobile broadband radio

Tactical radio ecosystem connects soldiers, drones, robots, loitering munitions and other sensor end points to enable at the edge data intelligence and communications. It provides battlefield commanders never before seen accessibility and situational awareness.



Supports up to 128 users

Supports up to 128 concurrent users sharing up to 300Mbps DL / 100Mbps UL in simultaneous band / max configuration



Integrated mesh radio

Fully integrated MANet radio for backhaul connectivity and communication redundancy



No annual license

No need to pay for an annual license when you own your own infrastructure



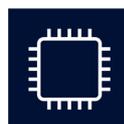
Dual 2 x 250mw LTE bands

Numerous 2x2x250mW MIMO LTE band options and configurations available to fit your use case



CSFC compatible

Over-the-air 128-bit AES, optional double wrapped 256-bit AES (CSFC compatible) ensuring end-to-end security



Onboard computer

Embedded computer for onboard EPC and edge data services. TAK ready!



a. Front view