CENGN

NORTAC DEFENCE INNOVATION HIGHLIGHT

NORTAC DEFENCE

COMPANY OVERVIEW

NORTAC Defence® is a leading provider of commercial-off-the-shelf hardware and software to digitize the operational space and provide Situational Awareness and Command and Control beyond the line of sight at the tactical level. The platform is the hub of the TITAN BY NORTAC® solution. It allows data to flow laterally between field units providing tactical level communications using secure, cost-effective, short burst data satellite channels. The platform provides organizations with a secure web-based application or in-premise rapidly deployed solution behind client firewalls.

LOCATION: OTTAWA, ON

TECHNOLOGY

Data Centre and Cloud

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A NEED FOR COMMERCIAL OFF THE SHELF COMMAND AND CONTROL SYSTEMS

In 2003, the U.S. military began to use the Force Battle Command Brigade & Below BlueForce Tracking (FBCB2-BFT) system. This system uses satellite data communications to overcome the challenges of radio communication. The result forever changed the management of the battlespace. Recognizing that an affordable, Commercial Off the Shelf (COTS) solution was required, Nortac Defence embarked on developing TITAN BY NORTAC® to fill the gap for countries worldwide.

MAINTAINING MILITARY COMMUNICATIONS WHEN VOICE RADIO OR CELLULAR NETWORKS ARE UNAVAILABLE

Nortac developed the hardware and software suite used in TITAN BY NORTAC to track and transmit Situational Awareness (SA) and Command and Control (C2) data. It provides this using beyond line-of-sight satellite technologies in remote areas. By transmitting important information, personnel status, and geospatial display of deployed assets at the tactical level, TITAN BY NORTAC ensures that SA and C2 are maintained when tactical voice radio or cellular networks are unavailable.

DISCOVERING OPTIMIZATION OPPORTUNITIES WITH CENGN

Using the CENGN Testbed, Nortac validated their TITAN BY NORTAC test platform. CENGN's device simulator was deployed on an on-prem private cloud with their configuration scripts. The device simulator load-generation identified bottlenecks which occurred at scale. This showed an opportunity to optimize the data access layer for resolving device scaling bottlenecks in future production deployments and ensure smooth processing with a heavy load.

> "The experts at CENGN provided excellent guidance on how to use their deployment environment and on the statistical logging systems provided. "
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> **Martin Bouchard,**
> CEO,
> NORTAC Defence