

Automatically deploy lean, ad hoc wireless communications infrastructure to disaster-stricken areas

THE LARGEST INITIAL HURDLE TO OVERCOME IN A DISASTER SITUATION IS GATHERING INFORMATION AND COORDINATING THE RESPONSE

Large-scale disasters almost always involve the loss of critical communications infrastructure, whether the effects are direct (i.e., damage to cell towers, power outages, internet services disruption) or indirect (i.e., increased bandwidth consumption by those who still have service). Unfortunately, this happens at a time when said infrastructure is most needed. Over a period of a few minutes or hours, the demand for emergency services grows exponentially while the various emergency services agencies tasked with responding must coordinate their response using disparate, often incompatible technologies and platforms.

SOLUTION: ALL DOMAIN NETWORK – ADN

The All-Domain Network (ADN) is a mobile platform that provides complete, unified communications (SATCOM, Radio, VoIP, MANET, Edge Server) infrastructure in places where existing communications are nonexistent or unusable, such as in a disaster area.

INTEGRATED SOLUTION COMPONENTS

WAN TRANSMISSION SWITCHING

- Tampa Microwave MP-950 satellite terminal provides SATCOM-dedicated bandwidth before, during, and after an emergency situation when commercial cellular services could be overwhelmed with peak traffic
- Klas VoyagerTRX provides Cellular, WIFI, and SATCOM WAN auto-switching without user intervention

MPU-5 INTEGRATION

- MPU-5 integration – Persistent Systems MANET radio provides secure mesh, self-healing network
- Basic connection to existing MANET (i.e., helicopters, planes, etc) requires minimal configuration, just username and password to join
- WIFI LAN USB Access Points can be connected directly to MPU-5 to provide SOHO WIFI connectivity
- Persistent Cloud-Relay functionality allows seamless mesh into additional MANET

RADIO

- Klas VoyagerEMm provides radio relay over E&M leads allowing any radio or frequency (cross-banding) to be consolidated into one voice radio network, which grants civilian and government agencies the opportunity to use any radio device and continue to have integrated services
- SIP trunk between Klas VoyagerEMm to Cisco 5915 CME 10.x integrates Cisco Voice Enterprise infrastructure to radio network (VoIP phones communicating to radios)

TACTICAL EDGE SERVER

- Klas VoyagerVM08 provides data center grade CPU and memory at the tactical edge - supports the use of virtualization using VMware ESXi to deploy virtual servers, such as a Team Awareness Kit (TAK) server as a tactical information platform in the ADN solution
- TAK – government maintained Situational Awareness service
- TAK server provides all local and cross-lateral team voice, video, and data on one platform – interoperable with all variants of Team Awareness Kit for Android (ATAK/CivTAK) and Windows Team Awareness Kit (WinTAK)
- TAK services a multitude of edge user devices (cellphones, tablets, and laptops)

AUTOMATED CONFIGURATION

- NTS MANTLE provides users the ability to automate and orchestrate the configuration of devices in the ADN solution
- NTS MANTLE enables users to easily maintain/sustain the ADN solution; single-click provisioning in DDIL environments

BENEFIT

The All-Domain Network guarantees that a robust, flexible communications system can be made immediately available to coordinate rescue and recovery efforts, regardless of the severity of damage in the affected area. The system enables state and local responders to participate with their own devices in a tactical network, and bridges communications across spectrums and frequencies enabling collaboration of voice and video for all. Each device that's added to the network becomes a logical extension of the LAN and enhances rescue efforts.

CONTACT US TODAY TO LEARN MORE

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NexTech Solutions implements customized cloud, hybrid, and edge solutions. Our holistic approach to problem-solving means that we devote our time to truly understanding the unique mission requirements of our federal clientele before building mission-driven solutions that meet today's demands as well as tomorrow's. We offer a diverse and customizable set of classified and unclassified capabilities focused on mission support.

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