

Booz Allen Hamilton Engineering Services to Introduce Next-Generation Deployable Broadband Long Term Evolution (LTE) Communications System at 2014 APCO Conference

BAHPR-CO Press Release By James Fisher

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Booz Allen Hamilton Engineering Services, an ISO 9001 and AS9100 certified engineering and technical solutions wholly-owned subsidiary of Booz Allen Hamilton, will introduce to the public safety community its new next-generation broadband deployable communications system at the APCO 2014 Conference to be held in New Orleans from August 3-6. The exhibit will include Booz Allen Engineering Services' new mobile communications vehicle and provide live capabilities demonstrations to APCO attendees.

In light of the ongoing development of the nationwide public safety LTE broadband network, FirstNet, the requirements of the first responder community for broadband communications-enabled information sharing at disaster scenes, remote locations, and national security incidents have become clear. Today, current generation deployable communications have focused on providing communications paths between users to enable interoperable voice communications between first responders. But, going forward, the public safety community and its industry partners now face the challenge of how to provide advanced data and information to first responders quickly after an emergency.

Previous demonstrations of deployable LTE systems for disaster communications have focused on simply connecting a small transportable LTE base station node to a satellite communications link, raising the challenge of bandwidth limitations. The high bandwidth capability of LTE (up to 150 Mbps) when connected to a satellite connection with at most 20 Mbps capacity will not meet user expectations. Additionally, satellite bandwidth is expensive, has an inherent half second round-trip time delay, and must be subscribed on a continuing basis.

Further, the public safety community has been clear in stating that future deployable communications systems must provide more than just "pipes" of connectivity. Users need to access and share data, video, and voice to enable them to better manage incidents of increasing complexity. This is exactly the mission that Booz Allen Engineering Services'

next-generation deployable communications system is intended to perform.

Building on its field-proven deployable satellite communications system, which has operated successfully with U.S. military units both in the U.S. and Afghanistan, Booz Allen Engineering Services has developed a modular, pre-integrated deployable communications system that maximizes the performance of the local LTE portion of the deployed system operating over the limited bandwidth of affordable satellite connections to deliver data, video, and voice services to first responders quickly after a disaster. This system uses local routing and data servers at the deployed communications node to handle most data services locally within the deployed system rather than relying exclusively on a fragile, expensive satellite link back to a fixed data center.

System virtualization, multiple application servers and data repositories are provided within a single application server that resides at the deployed LTE node, which also contains its own LTE Evolved Packet Core. This ensures that local data stays local and reduces the load on the provided broadband satellite link to only that data which needs to be accessed from or shared with areas outside the incident. Additionally, advanced data acceleration and caching functions significantly increase the effective capacity of the satellite link, greatly improving the user experience.

The system can be integrated into new or existing mobile communications vehicles, transportable ruggedized transit cases, or even installed in aircraft. Additionally, Booz Allen Engineering Services offers shared hosted applications in its data center to minimize the user investment required.

The system incorporates multiple layers of security, with all IP connectivity secured by IPsec (including over the satellite link), firewalled access to the public Internet, interconnection to the public telephone network, peered access to enterprise networks, and the ability to set up remote VPN's so that selected network services can be shared among multiple agencies while restricting access to confidential data to only authorized users. Deployed system nodes are remotely monitored and managed by our engineers to proactively identify and respond to maintenance requirements and provide system upgrades.

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