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Why Saving Bandwidth Means Saving Dollars

By: Rick Lober, Vice President and General Manager
Hughes Defense and Intelligence Systems Division

When Leon Panetta assumed responsibility for the Department of Defense (DoD), he took command during a time of great transition – two wars, an ongoing conflict in Libya, warfighters that were giving more than 110 percent, and now: an impending budget crisis. The budget policy passed in August 2011 dictates that if Congress fails to act, a total of \$500 billion may be eliminated from defense spending.¹ If Secretary Gates' budget cutting was aimed at transforming the military, Secretary Panetta's may be focused on preserving it. However, there are areas where transformation and savings overlap – where implementing new technologies or transitioning old ones can conserve resources while better-equipping the military for future missions. Bandwidth efficiency for satellite communications is something Hughes has been focused on improving and perfecting for the past three decades. And it's one that can make a difference today.

If you talk to deployed warfighters about bandwidth availability in-theatre, the first thing they might tell you is that there is just not enough to meet their needs. Out in the field, satellite bandwidth is more than a means of communications – it's a lifeline. In the mountainous regions of Afghanistan, or in the volatile urban centers of a recovering Iraq, satellite communications (SATCOM) is essential to maintaining over-the-horizon communications for command and control (C2) – but increasingly it is becoming a critical part of the mission itself.

Do you want to know who's on the other side of that door before you enter? What about that truck parked suspiciously on the other side of the road? What is waiting for your unit beyond-the-line-of-sight? Information has always been a component of warfare, but ubiquitous access to that information is changing the rules of the game, protecting our warfighters from harm while still advancing the mission. SATCOM takes intelligence, surveillance, and reconnaissance (ISR) capabilities to the next level – but at a price. Increased data and availability demand higher bandwidth from satellite systems or the use of more bandwidth efficient technologies and smarter network management.

Without these advances, commanders are often faced with an impossible choice: either shortchange the warfighter due to a lack of available bandwidth, or be over-charged for unused

satellite services due to poor network management systems. The challenge is a technical one. Many current systems do not utilize bandwidth or a communications network efficiently. At Hughes, we're committed to serving the needs of the military. We've invested considerable resources to develop commercial products designed with managed bandwidth technologies, increasing capabilities while decreasing operational costs.

Our solutions employ technologies that deliver the highest bandwidth efficiency available, while promoting secure and robust networks that meet the needs of the military community. Often times, commercial satellite platforms can provide a model for more efficient capacity management. For example, our SPACEWAY® 3 satellite, which has seen great commercial success, provides us with dynamic resource allocation, making it a "switch-in-the-sky." Alongside intelligent network management software like the Hughes ExpertNMS, our Hughes HX System can provide military users with a consolidated, end-to-end network that completely transforms warfighter communications-on-the-move (COTM) – whether on the ground or in the air.

The impending budget crisis is poised to affect all areas of the military enterprise, but it doesn't have to undermine the mission. With more efficient tools for managing bandwidth, the military can take control of their communications resources, with greater flexibility and agility than ever before. We're working not only to provide our military customers with the most efficient and effective communications, but to also help them meet their budget constraints by providing the best value in not only hardware procurement costs but in operational costs as well. Just this past summer, we extended our contract focused on analyzing commercial platforms for the U.S. Air Force (USAF). The results will help the military community to understand how the commercial sector can help meet the communications gap, what future operations may look like, and overall mission-planning. At Hughes, we're committed to continued innovation, because the bandwidth crisis is not only about the technology; it's about improving the capabilities of the warfighter, increasing efficiency and accelerating the mission.

¹ <http://www.bloomberg.com/news/2011-08-02/-draconian-defense-cuts-are-tough-target-for-deficit-panel.html> (footnote)