



Reprinted with permission from *GSN: Government Security News*

OPINION /

## Path-diverse, satellite communications: An essential component for homeland security network planning

By Tony Bardo

February 1, 2010

Reliable communications networks are among governments' greatest homeland security assets. They are essential for the critical information-sharing needed among agencies to rapidly and effectively manage response and recovery efforts in the event of a worst-case scenario, such as a terrorist attack.

Government leaders and first responders depend on secure, reliable connectivity to enable Continuity of Operations (COOP) and coordinate response and recovery activities. If an agency's primary terrestrial network is damaged, decision-makers and first responders may suddenly lose their communications advantage when it is needed most. Path-diverse, satellite technology is essential to ensure consistent, reliable and secure connectivity, enabling agencies to meet their COOP, emergency response and recovery requirements – and, more broadly, to ensure homeland security.

### WHAT IS PATH DIVERSITY?

Path-diverse communications utilizing satellite technology provide government agencies with a true alternate network path, separate from the primary terrestrial network. Most agencies have traditionally relied on land-based communications for their primary network requirements, which are vulnerable to events on the ground. Agencies often falsely assume that adding a second terrestrial facility to back up their network will ensure resilient, reliable connectivity if the primary is damaged or destroyed. Nothing is further from the truth. The back-up facility likely shares the same last-mile conduit as the primary network, making it just as vulnerable to terrorist attacks and other disasters.

Unfortunately, disasters such as Hurricanes Katrina and Gustav have already demonstrated the catastrophic impact on COOP and emergency response and recovery efforts when terrestrial networks are compromised. Cellular, wireless or landline networks were either disabled or heavily congested in the affected areas, impacting the government's ability to respond effectively.

### PATH DIVERSITY – WHAT'S DIFFERENT?

By contrast, path-diverse satellite broadband communications provide a true, alternate network path, ensuring that

if an agency's primary terrestrial network fails, connectivity will continue, uninterrupted. Path-diverse satellite enjoy high availability (with some networks exceeding 99 percent), meet government encryption standards for security, and are fast, with speeds up to 2 Mbps typically available.



*Tony Bardo*

In addition, the continent-wide coverage of path-diverse, satellite services offer the potential to transform the role of government teleworkers in supporting COOP and homeland security response activities, no matter where they live. Teleworkers can connect remotely through secure private networks, ensuring uniform, reliable access to the Internet and to an agency's intranet for video conferencing, email and other applications. Put simply: incorporating path-diverse, satellite communications significantly mitigates the risk that communications will fail when they are needed most, while providing an unparalleled capability to transform homeland security communications.

### HOPE FOR THE BEST... PREPARE FOR THE WORST

Government, private industry and everyday citizens all share in the responsibility for homeland security. Fortunately, the high-quality satellite networks and services needed to support homeland security COOP and response-and-recovery activities not only exist, but are faster, more reliable and more accessible than ever. In fact, the timing is particularly good for federal agencies to rethink their homeland security communications networks as they transition from their FTS2001 telecommunications contracts to the Networx contract vehicles in the coming months.

*Tony Bardo is assistant vice president for government solutions at Hughes. He can be reached at [tony.bardo@hughes.com](mailto:tony.bardo@hughes.com)*