



Satellite Communications Supports “Comm on the Move”

The need for bandwidth from “birds in the sky” has skyrocketed, especially as Defense Department warfare operations – currently on the move in several locations around the globe – demand more from satellite network services, both here in the United States, and overseas.

As a result, the U.S. military must constantly juggle bandwidth. In March 2004, at the MilSat Forum in Washington, D.C., Government Computer News reported that the DOD had launched four satellites in 2003, two of them to support the Army’s Central Command in Operation Iraqi Freedom, according to Mike Gipson, associate director of combat support at the U.S. Strategic Command at Offutt Air Force Base, Neb.

In total, the DOD has \$20 billion worth of hardware in orbit plus \$7 billion worth of terrestrial management, said Gipson. And even so, the department purchased an additional \$400 million worth of commercial satellite services in 2003, he added.

Contracts involving satellite communications increasingly require commercial off-the-shelf technologies (COTS). Two significant trends are the use of IP for multicasting, and the growth of key applications such as distance learning and videoconferencing, especially since 9/11.

Providing federal customers with “cost effective, turnkey systems that use open-architecture, standards-based COTS technologies is important because it enables agencies to better control costs and incorporate satellite networks that will interoperate as standards evolve,” says Sonny Marshall, chief executive officer, Marshall Communications Corp., Ashburn, Va.

Marshall Communications is a systems integration firm specializing in satellite communications and streaming media over WANs and LANs, including satellite DVB/IP networks.

Marshall says his company is focused on successfully supporting satellite communications projects at both civilian and military agencies. On the civilian side, Marshall has helped design, implement or support satellite networks for the U.S. Postal Service, the Department of Justice’s Immigration and Nationalization Service and the U.S. Border Patrol.

On the defense side, Marshall has supported satellite projects such as Navy Satellite Communications (SPAWAR and NAVAIR), the Defense Information Services Agency’s JEIO and AF Communications.

In December, Marshall was awarded GSA’s Federal Technology Services satellite communications contract, under which the company sells satellite bandwidth from Loral Skynet, New Skies Panamsat, AMERICOM Government Services, and Intelsat, as well as secure broadband Internet access services from Hughes Network Systems, Spacenet and Tachyon.

And in March, Marshall, along with Americom Government Services Inc. (AGS), won a \$25 million, four-year contract with the National Aeronautics and Space Administration (NASA) to supply space shuttle video feeds during pre-launch, launch and re-entry. The service, provided by AGS, via prime contractor Marshall Communications, will carry NASA TV, which is transitioning from one analog channel to multiple digital channels. NASA uses the video feeds and TV broadcasts for ongoing scientific analysis, educational initiatives and distribution to news media outlets. Communications will be broadcast to NASA Flight Centers across the country including Marshall, Kennedy, Goddard, White Sands and Johnson.

In the past year, Marshall Communications rolled out its first IP multicasting offering, the EagleStreams Service. EagleStreams is a national, secure, satellite-based, IP datacasting service that brings streaming video and files direct to desktops, laptops and kiosks. “EagleStreams delivers live and stored content to different DOD agencies throughout the world,” says CEO Marshall.

There are currently three uplink sites, in Italy, Virginia and Hawaii, which are simultaneously testing for conversion from ATM to IP for content dissemination. Marshall is also working with digital video broadcast terrestrial (DVB-T) technology, which is better designed than traditional UHF channels for delivering video to “groups on the move.”

Marshall hopes to play a role in supporting military users around the world with EagleStreams as IP is implemented on defense networks. ○