



Satellite Network Keeps Soldiers Close To Home

One of the greatest hardships of military service is spending long stretches of time away from home. Prior to 2003, a soldier's only means of staying connected with loved ones were letters or the occasional phone call. Overseas troops often missed momentous family milestones without the necessary communications link to witness them.

In March of 2000, the Morale Welfare and Recreation (MWR) Division of United States Army Europe (USAREUR) focused on finding a solution. With the assistance of the SPAWAR Systems Center Atlantic-European Office (SPAWAR Europe), MWR began building a network capable of supporting high volumes of voice, video and data traffic to help foster positive morale and troop welfare by connecting soldiers with their loved ones. Today this program is sponsored by the Multinational Corps Iraq, U.S. Forces Afghanistan, and the Office of the Secretary of Defense's Quality of Life Office.

Satellite Network Keeps Soldiers Close To Home

Turning to Satellite

Since these organizations often operate in remote areas of the world, MWR faced the immediate challenge of providing troops with connectivity from locations where traditional terrestrial networks could not reach. To overcome these terrestrial limitations, the SPAWAR MWR network utilized satellite connectivity.

To support this network, SPAWAR sought a reliable satellite solution that could:

- Efficiently handle large volumes of high quality voice calls, Web browsing, email, chat and video conferencing
- Support frequent movement of Internet/voice cafés as troops relocate
- Be easily deployed in the field by soldiers with limited or no knowledge of satellite or IP technology



A Vital Link

SPAWAR selected DRS who in turn chose the iDirect Government satellite communications platform to provide the backbone for the MWR Network, which currently supports over 600 MegaBits of satellite connectivity for approximately 10,000 computers and over 4,000 telephones. SPAWAR chose DRS Technical Services, Inc. (DRS TSI), a Virginia based supplier of integrated products and services to military forces, intelligence agencies and prime contractors, to manage the network's ten hubs and more than 780 remotes, one for each Internet café site.

The Internet cafés are located in designated tents and buildings at major US military bases throughout the world, including Camps Victory and Liberty located within Iraq, and at smaller forward deployed installations throughout Southwest Asia as well. Each café houses a set of stations with computers and/or telephones that military personnel may access 24/7 with a prepaid calling card account.

Soldiers have access to a variety of communications, including personal email, chatting with family and friends at home, browsing the Internet, and in some locations using Web cameras. Soldiers can use high resolution live video teleconferencing sessions to witness births, graduations and other key moments in their family life.

Additionally, many military personnel utilize the cafés for continuing education programs while deployed. During downtime, soldiers can take online courses towards a degree or certification to enhance their current skill set or for a future profession. Specially designated education centers even offer troops computer, language and skill-based training. This capability not only provides the soldier with important additional education but also valuable promotion points toward their next rank.

Each café houses a set of stations with computers and/or telephones that military personnel may access 24/7 with a prepaid calling card account.



Satellite Network Keeps Soldiers Close To Home

Rapid Expansion

In connection with the build-up of forces supporting Operation Iraqi Freedom and Operation Enduring Freedom, the sponsors directed that SPAWAR expand the service so as many soldiers as possible could benefit from staying connected. In 2007, there were 525 café sites producing 180 Megabytes of traffic over satellite. Today, thanks to the ability to manage existing traffic and maximize space capacity from iDirect, the network has expanded to almost 900 sites transferring more than 600 Megabytes of shared bandwidth.

iDirect Government's network management system, iVantage, has been a key factor in supporting network growth. With iVantage, network operators can analyze network traffic volume, as well as project growth patterns. Without the proper tools to monitor traffic, it would be difficult to keep up with the frequent relocation of smaller cafes, located in intersections and small towns at COPs (Command Outpost) and FOBs (Forward Operating Base).

With space capacity in the Middle East and Southwest Asia already heavily tapped by standard military use, iDirect Government's Deterministic TDMA (Time Division Multiple Access) technology minimizes cost by effectively maximizing existing capacity across seven different satellites. With this advanced TDMA, satellite capacity can be efficiently distributed to over 800 different cafés all on one shared network.

With iDirect Government providing high quality satellite connectivity on a shared IP platform, and DRS supporting the network, the SPAWAR Internet Cafe Program is able to reconnect thousands of overseas troops with their families every day. By leveraging iDirect Government's satellite platform, SPAWAR will continue to add new cafés every week and help additional soldiers stay connected with home — no matter where they are.



Ease of Deployment

Because of the network's size and wide reach over the Middle East, staffing was a concern. iDirect Government's equipment is designed to make deployment simple. Soldiers in the field can direct an antenna and make a remote operational with limited or no knowledge of the technology or need for technician support.

