



Solomon
TECHNOLOGY SOLUTIONS

STACS-100 Overview

The STACS-100 provides reliable data and voice communications in situations where existing communications infrastructure may be unavailable or unreliable. The STACS-100-PP is packaged as a man-portable, weatherproof, self powered unit bridging EVDO/Edge, BGAN satellite, radio, WiFi, telephone and data communications. The unit weight is less than 10lbs. and can be deployed from its transport case to an operational state in less than 2 minutes requiring only a clear view of the southern sky for satellite access.

STACS-100PP Capabilities

1. Packaged in a single rugged shipping case weighing approximately 30 lbs.
2. From shipping case to operational readiness in under 2 minutes
3. Unit has only two switches; power on/off and satellite aim mode. Staff can be trained on the basic system operation in less than 15 minutes.
4. Five long-range wireless phones and one wireless Netbook computer (which can also operate as a phone)
5. Local WiFi and wired Ethernet access for customer provided PDAs, notebooks and SIP based VOIP phones
6. Expandable up a combination of 20 handsets, PDAs and notebook computers
7. Software provided with unit (field installable without administrator access) to provide basic incident management and VOIP phone functionality from standard Microsoft Windows® based notebooks
8. Two radio interoperability ports supporting simplex, trunking and repeater radios using standard Tessco® and JPS/Ratheon® cables
9. Local and remote bridging of radio ports, internet based monitoring and PTT transmission on radio ports (with username/password access)
10. Built-in PBX functionality including conference bridge, voicemail, outbound voicemail and access control
11. Automatic least-cost routing of normal priority voice and data traffic with automatic most-reliable routing of emergency calls
12. Minimum of 3 PSTN network calls across the BGAN Satellite network using local or toll-free US telephone numbers for inbound calls. Minimum of 3 PSTN calls across EvDO and WiFi networks using the same local or toll-free US telephone numbers.
13. Automatic meshing of STACS units with other STACS units and STACS repeaters allowing the extension of existing UHF/VHF repeater and trunking radio systems into RF shadow areas. STACS repeaters also extend VOIP and notebook operations into areas without EvDO coverage or satellite visibility.

STACS-100PP

What's in the Box?

1. Standard packaging is a single waterproof shipping case measuring 24.6 x 19.7 x 8.6 inches and weighing less than 30 pounds.
2. STACS-100CU communications unit containing:
 - a. INMARSAT BGAN satellite communications terminal
 - b. EvDO (Verizon) high speed cellular modem
 - c. Mesh port to support STACS or customer provided mesh adapters.
 - d. Local WiFi adapter with 5dbi omni antenna
 - e. VOIP and Data intelligent switch
 - f. Lithium Polymer battery rated for a minimum of 12-20 hours of operation without external power
 - g. Power conditioner / battery charger
 - h. Radio-Interop port supporting simplex/repeater and trunked radios (UHF/VHF public safety, RACES amateur radio, CERT GMRS radio aware)
 - i. Weatherproofed to IP65, tested to operate between -10C and 50C (will operate below -10C with external power)
3. STACS-100RU remote unit containing:
 - a. 10m remote cable
 - b. 4 port 100baseT Ethernet switch for wired Ethernet connections to notebooks or VOIP phones
 - c. 1 wireless access point with antenna to extend wireless coverage inside a shielded vehicle
 - d. One Radio-Interop port
4. Field tripod
5. 5 wireless VOIP phones
6. 1 wireless Netbook computer (Samsung NC-10 with Microsoft Windows XP)
 - a. Extended life battery for 7-10 hours of operation without external power
 - b. GPS mapping, Web/Email/VOIP capabilities
 - c. Bluetooth support allowing use of standard Bluetooth headsets for VOIP calling
 - d. Webcam built in for video conferencing
 - e. Office software provided with ICS form templates
 - f. Complete instruction and troubleshooting manuals
7. Storage wrap and charging harness for all phones and Netbook
8. 110/220v Universal AC power adapter for system operation and charging
9. Standard 12v cigarette lighter adapter with extension cable for temporary vehicle use
10. Improvised power cable, 10v to 18v operational -60v to 60v protected
11. Hand-held compass to facilitate satellite aiming
12. Kit of useful parts and tools for improvised power situations
13. Kit of useful spares (antennas, N-Type elbows, etc)
14. Laminated field deployment instruction card