

# DUAL MATRIX SERVICE

A Dual Satellite Redundant Network  
For Mobile VSAT Satellite Dishes



Ground Control's Dual Matrix service provides a second satellite at the touch of a button when using our Toughsat Mobile Satellite systems. Dual Matrix uses two completely different satellite infrastructures but only one mobile dish and only one service plan. The ultimate in redundant satellite communication.

## Dual Satellites - Dual Teleports

While having a second satellite is good redundancy, then including a second teleport is far superior. If a teleport network in one part of the country goes offline, the other teleport on the other side of the country is unaffected. This "Dual-Infrastructure" should be what a fully redundant satellite network looks like.

## Dual Internet Backbones

Another advantage of a second teleport is the fact they are connected to separate Internet backbones, so a backbone line cut on one side of the country will not affect the other side of the country.

## One Monthly Service Plan

We've made Dual Matrix service easy to use by making all of our plans operate on either satellite at the touch of a button. No other configuration is required and no training is required to operate. Just request Dual Matrix service, and your system is ready to go.

## Toughsat Mobile Satellite Systems

Ground Control proudly manufactures the Toughsat mobile VSAT dishes that are designed for extreme environments and used by hundreds of public safety organizations in North America. With a superior IP-66 environmental rating it handles extreme rain, snow and wind.



## Toughsat TS2 Antenna Control Unit

The Toughsat TS2 ACU (Antenna Control Unit) has the Dual-Matrix service options (selecting satellite 1 or satellite 2) on the front panel. You may also control Dual Matrix from any web browser.

Switch to a different satellite instantly while on the same service plan by pressing Sat 1 or Sat 2.



## An Instant Wireless Hot-Spot

In addition to Dual Matrix, the Toughsat TS2 has an integrated router and wireless access point, so any wireless capable device within 100' from the vehicle may connect. With the Toughsat T-100 communications trailer, this wireless hotspot can be extended up to a half mile for any wireless device.

## Ground Control Quality

Ground Control is an industry leader in Mobile Satellite Internet connectivity in all business, public and industry sectors including state and local governments, military, emergency services, oil & gas, and mobile retail vendors to list a few. We offer unique add-on services such as VoIP phones and phone service, CIR's, Cellular-Over-Satellite service, Fax-Over-Satellite, VPN, Point-To-Point Networking, Private Networks and On-Demand Video Streaming. Our team of satellite experts will help you quickly negotiate your communications goals in time and on budget.



## TOUGHSAT



The Toughsat mobile satellite dish automatically creates a wireless hotspot up to 100' from the rig for high-speed connectivity to any in-range device. The web based interface screens allow for full control over the system from any connected computer.



Toughsat XP's are very popular with public safety organizations because they are easy to use and provide a stable and reliable connection no matter the location. The Toughsat has been designed to operate in extreme weather, temperatures and high-winds.



**TOUGHSAT TS2 Controller**



**iDirect Satellite Router**

The Toughsat TS2 Antenna Control Unit has simple front panel controls. Deploy, Stow, Stop and Power. The iDirect Evolution X5 gateway powers Ground Control's performance satellite network.

## TOUGHSAT FLYAWAY CASE



The Toughsat Flyaway Case is ideal for organizations that need communication flexibility. Easy one person setup with wireless connectivity that can fit in the back of an SUV. The Flyaway, requires no installation since the system is housed in a shippable case.



The Flyaway solution consists of an auto-pointing mount case with quick-release dolly, the 0.98 or 1.2 meter satellite dish in bag, and the 6U rolling rackmount case. One person may easily roll this 3-case system to any location for easy setup and operation.

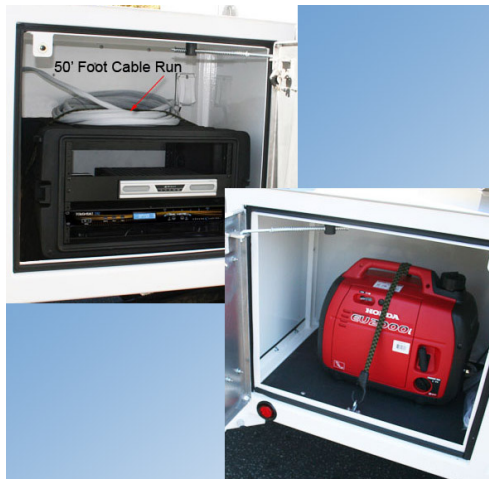


With the optional Fly-And-Drive bracketing, the Flyaway case may be mounted on any roof rack. Ship the Flyaway system and mount it on any vehicle equipped with a rack, including rental vehicles.

## TOUGHSAT T-100 TRAILERS



The Toughsat T-100 Trailer is a fully self-contained portable half-mile wireless access point for any command post or other event. Available with a large 1.2 meter or 0.98 meter dish, these trailers provide broadband Internet and VoIP phone service to any location in minutes.



The locking water sealed electronics cabinet contains a 6U rackmount case with 50' of cable so electronics may be located in a structure or tent. The ultra-quiet Honda 1000 watt generator is capable of supplying power for 8 hours on a tank of gas (A 2000 watt generator is available)



A large enclosed rear storage bay is useful transporting equipment for any event. Interior dimensions of the bay are 62"L x 24"H x 46" W. Trailer factory weight is under 1400lbs fully loaded.