

MOBILITY & CONNECTIVITY



Public Safety Interoperable Communications

Agiosat Global Communications leads the way with 700 MHz interoperability solutions that perfectly meet the requirements of the PSIC Grant Program.

Agiosat Global Communications is a leader in public safety communication. Agiosat's family of solutions supports 700 MHz interoperability in a variety of ways:

- Backhauls traffic from repeater sites, freeing additional capacity while providing continuity during disasters
- Provides State-wide interoperable networks, via dedicated satellite capacity, covering an entire state or region
- Ensures continuity of the current communication infrastructure with disaster-proof satellite systems integrated tightly into state and local systems
- Replaces damaged, or overtaxed communication infrastructure, and fills gaps with portable satellite-based systems that easily integrate and supplement state and local communication systems

Agiosat's solutions share some very important qualities: all are P25-compliant, all can link 700 MHz to other systems, all can create a communications "cloud" over an entire state, territory or region, creating a functional standards-based shared system.

Agiosat's solutions meet PSIC Grant requirements.

PSIC Grant Program Solutions from Agiosat Global Communications

Technology

Adopt Advanced Technological Solutions:

Agiosat has created a technological “sweet spot” with a system that is advanced and “state of the art,” is widely deployed, and is used by a wide range of customers. The system supports IP protocols for voice, radio, data, and video applications such as videoconference, security and network interconnection.

Some forward-thinking capabilities of the Agiosat system include utilization of IP protocol, software upgradable systems, downloaded updates, analog to digital interconnectivity, and on-demand bandwidth management.



Improve Spectrum Efficiency:

By utilizing an interoperable, integrated system, Agiosat improves spectrum utilization. For example, by utilizing the Agiosat network for backhuls from radio repeater sites, 700 MHz spectrum is saved while also providing a diverse route in the communications network.

By utilizing Agiosat VSAT in a field-deployable mode, or Agiosat BGAN, agencies can easily supplement their communication capacity as more responders are brought into action. Agiosat’s interoperable capabilities allow these portable systems to be deployed on very short notice.

Agiosat has its own spectrum efficiency benefits. First, the Agiosat network has “on-demand” scalability. Therefore, agencies can utilize base level bandwidth levels but in the case of a major event, scale the bandwidth up to levels exceeding multiple T-1 capability. Second, as the Agiosat network covers the entire state, each county and/or a number of municipalities, can share a common pool of bandwidth which can be expanded on-demand, if required. Third, Agiosat BGAN is a measured service where, other than a small monthly service fee, users pay only for the bandwidth they use and phone calls they complete.

Cost-Effective Measures:

The Agiosat Network is extremely cost-effective. It utilizes industry accepted, widely deployed standards such as IP, in order to seamlessly intergrate into most communication networks. Adhering to standards also permits the inclusion of voice and video without any alteration to the Agiosat network.

The start-up costs for each site is also cost-effective. Initial costs range from under \$3,600 for an Agiosat BGAN system, to under \$35,000 for a full VSAT system with the weatherproof **defi™** antenna built to withstand sustained winds of 200 mph.

The Agiosat network has a wide coverage, spanning all of the continental United States, Alaska, the Pacific and the Caribbean. This creates a Wide Area Network (WAN) that can be accessed by any agency in a particular state. Because every user is on the same WAN, there is instant interoperability to any device on the network. For example, a state could sponsor a state-wide Agiosat network which would have bandwidth shared among the users within the state, thereby lowering the per-site network cost. Should more bandwidth be required to meet the needs of a specific event, the bandwidth can be increased.

All Hazards Mitigation

Agiosat Global Communications

All Hazards Mitigation

Improve Interoperable Communications in Areas of High Risk for Natural Disasters:

Agiosat truly excels, and has an enviable track record in providing interoperable communication systems that overcome natural disasters. Satellite, by its very nature of having its communication “switch” 22,300 miles above the earth, creates an automatic barrier against being affected by natural and man-made disasters.

Agiosat’s **defi** antenna system ensures that connectivity is available before, during, and after the natural disaster. The **defi** system is resistant to winds up to 200 mph. It also shields the satellite antenna from rain and dust. There is also a heated version to eliminate the threat of antenna icing.

Agiosat VSAT is a fully managed satellite communications system therefore, it always operates at less than maximum power. Each sites’ status is constantly monitored by Agiosat. Should an event, such as a strong rain storm, occur

Agiosat automatically increases the power to ensure continuous signal strength.

Agiosat’s teleports in Atlanta and Los Angeles are redundant and interoperable to ensure continuous operation. Should one be affected by a natural or man-made event, the other can take over all operations.

Finally, Agiosat has a number of portable system options that can be stored in a safe location inside the disaster area, or can be shipped in from outside the area. Whether it is an auto-deploy VSAT system or Agiosat BGAN, the system can be set-up and deployed in minutes with the touch of two buttons. These systems are specifically designed and implemented by Agiosat to ensure no technical skills are required in the disaster area to make the system operational.

Continue to Improve Interoperability Efforts in Urban and Metropolitan Areas at High Risk for Threats of Urban Terrorism:

The Agiosat System is very compact. It can be mounted on command and control vehicles to replace communication infrastructure either rendered inoperable or overloaded by a terrorism event. In addition, any system on the Agiosat network is fully interoperable with any other system. If two units from different cities in a state or even from

different states find themselves responding to the same event, they are interoperable with no changes or reprogramming.

Agiosat’s network also supports VPN and other network security tools, so information can be exchanged in a secure environment.

Finally, the Agiosat Network automatically supports single-hop-on-demand (SHOD) . If multiple Agiosat units are attempting to communicate with each other, the system has intelligence to permit a direct one-hop communication between the units rather than forcing the communication back to the teleport and then out to the other units. This improves the speed of the communication while lowering the bandwidth requirement.

System Options

Agiosat’s systems are available “off-the-shelf”. These systems are extremely flexible, permitting a wide range of applications and network capacities without any change to the basic system.



High Speed Broadband Connectivity- Agiosat Global Communications VSAT

Agiosat VSAT brings high speed broadband connectivity fully interoperable with the 700 MHz and IP environments. Every Agiosat VSAT system includes:

- Bandwidth on-demand adjustable up to multiple T-1 capacity
- IP based platform with direct connection into IP networks
- High transmission power to ensure high capacity and speed in all conditions.
- Supports hundreds of phones, radios and computers

defi-Tropical

The **defi** system features an unique patent-pending design that keeps the satellite system in place and operating in sustained winds up to 200 mph. This system is designed to be part of a communications network designed to ensure continuous communication. The Agiosat **defi** system comes in white and camouflage colors.

From \$31,544



defi-Anti-Ice

This **defi** system offers the same wind resistance, capacity and power of the standard **defi** system, plus it adds deicing capability. Ice and sleet build-up can significantly affect the performance of "regular" satellite systems. **defi** Anti-Ice encloses the antenna, and heats the enclosure so no ice interferes with the antenna's performance.

From \$32,544

VSAT Auto-Deploy, Mobile

This Agiosat system is designed to be mounted on a response or command and control vehicle. With a stowed height of 14" and weighing less than 200 lbs, this system easily mounts onto trucks or trailers. Most importantly, with Agiosat's exclusive "One-Touch" feature, a single press of one button automatically deploys the antenna and brings the system up on the network.

From \$47,130



VSAT Auto-Deploy, Flyaway

This system features the same antenna and functionality as the mobile antenna except it is contained in three cases specifically designed to be shipped via land or air to wherever the system is needed. Just attach the antenna to the robotic arm with 4 screws, push one button, and the system is on the network.

From \$59,870

VSAT-Fixed

This is the most economical of the Agiosat Systems available without sacrificing the full Agiosat suite of connectivity features. The system is ideal for applications where the antenna site is fixed, and not susceptible to severe weather conditions.

From \$20,544



Big Functionality in a Small Package...

Agiosat BGAN with Hosted Service

Agiosat BGAN

BGAN (Broadband Global Area Network) is a system based upon a small laptop-sized satellite antenna and modem device. This system communicates on a global satellite constellation operated by Inmarsat. BGAN supports data at rates up to 492 Kbps, circuit-switched telephone, Voice over IP, and Streaming Media at speeds up to 256 Kbps. This system is ideal for locations with limited communication requirements, for the earliest of responders, or for locations where telecommunication infrastructure does not exist.



BGAN is a metered service, meaning you pay only for what you use when you use it except for a small monthly maintenance charge. Each unit comes with its own phone number and has connectors supporting circuit-switched phones, Ethernet, USB, and Bluetooth. BGAN is a simple point-and-use system with a one-button, intuitive user interface.

Agiosat takes BGAN several steps further, making it ideal for public safety and first responders. Key is Agiosat's Enhanced Service. All BGAN is carried on Inmarsat's network to its teleport outside of Amsterdam. From there, it is transported per the service providers' request which is normally via the European public Internet. This means long delays to dozens of switch and routing points, network contention, and security concerns.

Agiosat's Enhanced Service has a direct, exclusive link from Amsterdam directly to its teleport facility outside of Atlanta, GA. From there, it can be sent, at the customer's direction, via fiber links, direct connections to the customer's in-place network, sent over satellite, or placed directly into the U.S. Internet. This increases speed and reliability.

A significant exclusive benefit is the fact that Agiosat provides interoperability between its VSAT and BGAN networks. This permits BGAN units to have unfettered communication with VSAT based units. In addition, Agiosat's unique PEP capability increases efficiency for data by up to 30%, and increases the available number of circuit-switched phones from one to two.

Agiosat also provides unique packaging, ensuring that everything required for a specific task is packaged together. For example, the Agiosat BGAN Responder System contains a BGAN unit, a POTS telephone, a spare battery, and all cables in a hardside case small enough to fit under an airline seat.



Agiosat's BGAN Media System includes a BGAN unit, spare battery, a video encoder designed to encode and compress broadcast quality video to a 128 or 256 Kbps stream, plus cables and interconnects in a case light and small enough to fit into an airline overhead bin.



These and many other configurations featuring Agiosat BGAN with the Agiosat Responder System start at only \$ 3535.



It's More Than Just Hardware- It's a Commitment to Service

Voice over IP (VoIP)

Agiosat maintains its own telephone switch, and assigns the telephone numbers. The phone switch is connected directly into the public network, so at no time does a phone call travel via the Internet, which is important when security and confidentiality are of concern. Agiosat also supports different types of phone instruments, ranging from POTS to full-featured phone sets. With the Agiosat phone network, you receive many benefits:

- Secure network that can be instantly sized to meet demand
- Four-digit dialing to any phone on the Agiosat network
- Full access to the world-wide telephone grid
- Three-way calling
- Conference bridges
- Low cost out-of-network calling
- Portable, permanently assigned phone numbers



Teleports

Agiosat owns and operates two teleports in the continental U.S.: one located near Atlanta, GA, and the other in Los Angeles, CA. The teleports are redundant, and interconnected via fiber and satellite to ensure continued operation in the unlikely event one teleport should fail. Each teleport has redundant back-up power generators, and are secure facilities. These facilities permit Agiosat to provide geographically diverse locations equipped to maintain constant network availability regardless of where an incident may geographically occur.

Agiosat's satellite network covers all of the continental U.S., Alaska, Hawaii, the Caribbean and the Pacific Island Territories.

Support

Agiosat supports its network and systems with satellite engineers on duty at the facilities 24 hours a day, 7 days a week. Regardless of the time of day, all customer support needs can be met immediately by a person employed and accountable to Agiosat. In addition, Agiosat satellite systems have built-in monitoring and diagnostic tools. These permit the engineers to monitor the condition of each system, identify any issues, and resolve them usually before the customer notices a problem.

About Agiosat

Agiosat provides cutting-edge, satellite-based, communication, and network technologies, with global reach, and is a vertically integrated satellite provider that owns and operates its own telecommunications facilities.

Communications solutions are delivered by a team with an unparalleled expertise in turn-key, satellite-based connectivity. Agiosat Global Communications is where immediate need meets immediate – and skillful – execution.

Agiosat is ready to help you utilize the resources provided through the PSIC Grant Program to expand, strengthen and protect your 700 MHz infrastructure. Our system solutions can be easily customized to meet your specific requirements.

We are ready to start helping your state and local agencies experience complete communications continuity. Call us at 818-526-1700 or toll-free at 877-728-2668. Visit us at our company website **www.agiosat.com**.