



Value Added Service: **STU and STE Services**

Vizada's STU (Secure Telephone Unit) and STE (Secure Telephone Equipment) Secure Services enable government and enterprise users to transmit classified or business-sensitive information, using highly secure and reliable voice, fax, video, and data communications through Vizada's teleports. Vizada's STU and STE Secure Services offer a flexible range of secure communication speeds depending on the user's equipment and transmission requirements.

Features

- Available for Inmarsat B, Mini-M, GAN, BGAN, Fleet, Swift and Aero H/H+ services
- Supports a variety of cryptographic encryption devices including STU-III, STU-IIB, STE, KG-84 and KIV-7
- Globally available throughout all Inmarsat ocean regions
- Global coverage (wherever Inmarsat B, Mini-M, GAN, BGAN, Fleet, Swift, and Aero H/H+ services are available)
- Benefits of Secure Communications
- Secure terminal-to-terminal communications
- Fully transparent service—secure database at Vizada's teleport to identify STU-enabled Inmarsat mobile terminals not required
- Software pre-loaded in user's terminal and within channel units at Vizada's teleports enable low-speed secure STU services via low-speed voice channel
- No special software required in user's terminal or within Vizada's teleports to access 64 kbps STE/KIV-7 services via High-Speed
- Data (HSD) channel or up to 9.6 kbps STU services via Audio channel
- No additional airtime charge for encrypted communications
- Easy access – Low-speed STU protocol is available on all Vizada channel units for Land Earth Station (LES) Access Code 001
- Quick and easy dialing process
- No subscription fee

Comparison Chart for Vizada STU and STE Services

Service	STU-III/ STU-IIB	STU-III	STU-III/ STU-IIB	STE/KIV-7/ KG-84
Voice, fax, data	2.4 kbps	4.8 kbps	up to 9.6 kbps	64-128 kbps
Inmarsat B	Y	Y		Y
Inmarsat Mini-M	Y			
GAN	Y		Y	Y
BGAN			Y*	Y*
Fleet F77	Y		Y	Y
Fleet F55	Y		Y	Y
Fleet F33	Y			
Swift	Y		Y	Y
Inmarsat Aero H/H+		Y		

*Availability dependent on the ISDN capabilities of the terminal.



Equipment Required

Equipment and software requirements STU-III/STU-IIB Vizada's STU service enables secure calls to be placed using the low-speed voice channels at a maximum secure rate of 2.4 kbps for Inmarsat Mini-M, GAN, Fleet F77, Fleet F55, Fleet F33, and Swift through LES Access Code 001 and at a maximum secure rate of 4.8 kbps for Inmarsat B and for Aero-H (or Aero H+ terminals operating in Aero-H mode) through Vizada's LESs (001 and 004). To use lowspeed secure service, users must have a STU-enabled Inmarsat Mini-M, GAN, Fleet, Swift or Aero H/H+ terminal. Owners of existing terminals (except for Inmarsat B) must purchase the applicable STU upgrade (if available) from the terminal manufacturer and install the upgrade in accordance with the manufacturer's instructions. For mobile-originated communications, use of the 2.4 kbps STU service is transparent to the user through Vizada Access Code 001. For fixed-originated communications, users must use one of Vizada's Fixed-to-Mobile services, such as Satellite Direct® or Satellite Direct Plus® to ensure that the calls are routed through STU-enabled channel units at Vizada-owned facilities.

Users may also place STU calls using the high-speed 3.1 kHz Audio channel at a maximum secure rate of 9.6 kbps available on all GAN, BGAN, Fleet F77, Fleet F55, and Swift terminals through all Vizada teleports. No upgrades to the Inmarsat terminals or LES are required to place STU calls via the high-speed audio channel.

STE/KIV-7/ KG-84

Users of STE/KIV-7/KG-84 equipment may place secure calls using the 64 kbps high-speed data (UDI) channel available on Inmarsat B, GAN, BGAN, Fleet F77, Fleet F55, and Swift terminals through all Vizada teleports. Secure calls using STEs/KIVs provide a maximum secure rate of 64 kbps with one terminal and 128 kbps when two Inmarsat terminals are bonded together. No upgrades to the Inmarsat terminals or LES are required to place STE/KIV calls via the HSD channel. STEs also support STU-III secure mode and will interoperate with other STU-III phones using Vizada's low-speed STU-III secure service.

How secure communications work

Encryption devices are designed to encrypt the user's communications from unauthorized reception. A cryptographic device "locks" the message and sends the encrypted signals to another cryptographic device where the message is "unlocked." Communications are then encrypted from one phone to another all the way through the Public Switched Telephone Network (PTSN)/ ISDN network and Inmarsat satellite network. To use secure voice, data, or fax communications, simply connect the analog jack or ISDN port of the STU/STE device to the corresponding port on the Inmarsat terminal. To place a voice, fax, e-mail, video or data call to another compatible STU/STE device, simply follow the same procedures as with any normal phone call. Dial "00", the country code, city or area code, the number of the desired party, and then press the number (#) key on the STU/STE device to send the transmission.

Once the call is connected/answered, press the SECURE button on one of the STU/STE phones to make the communication private. The STU/STE phones begin exchanging encryption keys to lock communications. When the display reads "SECURE", communications are private. Vizada's STU/STE service enables mobile users to receive secure, incoming voice, fax, e-mail and data communications. The calling party simply dials the second voice/aux number to connect the voice, fax, video or data secure call. When the Inmarsat terminal receives the call, the STU/STE device connected to the Inmarsat terminal rings. After the call is connected, users can secure their communications.

Customer Care

STU-III/STE Secure Communications is a value-added service offered at no extra charge by Vizada. Vizada provides expert technical support 24-hours a day through personnel from our Customer Care Center. To reach Vizada's Customer Care Center, call + 1 301 838 7700 (worldwide), 1 800 685 7898 (North America) or send an e-mail to customer.care@vizada.com.