TRANSEC

Our nation's military and government agencies need an efficient, dependable way to transmit data that is also secure. iDirect Government Technologies (iGT) utilizes Transmission Security (TRANSEC) to deliver a secure IP based VSAT network.

The iGT Solution

iGT implemented a TRANSEC compliant network architecture that exceeds the requirements outlined by the government, while still maintaining the quality of service needed to support voice, video and data over a satellite link. The iGT platform secures VSAT transmissions from interception and exploitation by incorporating encryption inherent in COMSEC; 256 bit, FIPS 140-2 certified AES, while masking traffic types, volumes and acquisition of remote terminals.

Through a combination of hardware and software, TRANSEC ensures data blocks are a uniform size. This conceals traffic engineering information while incorporating x.509 digital certificates to authenticate remote terminals. Adversaries monitoring a TRANSEC-enabled network only see a constant wall of secure data, precluding anyone from monitoring the network and extracting any usable information.

Mask Channel Activity

iGT masks channel activity by building a "wall of data" by using free slot allocations and creating a uniform size of all TDMA slots. By creating this "wall of data," iGT negates the risk of using transmission activity as a source of intelligence.

Control Channel Information

By incorporating FIPS 140-2 certified encryption, 256-bit keyed AES encryption and over-the-air key exchange features, iGT is able to mask the source, destination and volume of data being transmitted. Through these increased levels of security, adversaries are unable to extract information such as the source, destination and type of communication. Should this information be known, it could be instrumental in identifying the nature of future operations.

Hub and Remote Authentication and Validation

iGT uses x.509 digital certificates to ensure all remotes and hubs on an iGT network are authorized and validated. This hub and remote authentication prevent adversary remotes from joining an iGT network and intercepting communications. This extra security level renders any breach in security even more difficult.

What is TRANSEC?

TRANSEC is a set of requirements developed for transmissions in an IP-based VSAT architecture.

- Mask Channel Activity – conceals traffic volumes and obfuscates acquisition activity
- Control Channel Information – disguises volumes to secure traffic source and destination
- Hub and Remote Authentication and Validation – ensures remote terminals connected to the network are authorized users

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