AIRBORNE NETWORKING GIG INTERFACE (ANGI)

Current as of December 20, 2019

MISSION

ANGI provides a single consolidated global information grid (GIG) ground entry point (GEP) gateway for selected airborne and ground platforms to the Air Force Network (AFNet) Gateway. ANGI is configured to provide a secure, managed, enterprise gateway that enables Inmarsat's Platforms and Iridium users to reach back to receive NIPRNet, SIPRNet, and other DISN services.

BACKGROUND

ANGI was created as a Joint Urgent Operation Need (JUON) from CENTCOM in 2007. ANGI's purpose was/is to consolidate ground entry points (GEPS) and fill gaps in warfighter needs by utilizing commercial satellite communications for connection to the AF Information Network (AFIN) and the DoD Information Network (DODIN).

FEATURES

Supported through implementation of commercial Internet Protocol (IP) based SATCOM to provide Beyond Line of Sight (BLOS) communications. ANGI is designed with A and B sides at both sites for redundancy, in order to meet the 99% availability KPP. ANGI improves cybersecurity of aircraft platforms by enforcing bidirectional protections at each GEP. By leveraging shortest path routing, ANGI load balances platform traffic based on geographic location. In the event of a site outage, platform traffic migrates to the opposite GEP to maintain operations without requiring user intervention.

CAPABILITIES

Network transport, mission compatibility, network management, access to enterprise and AFNet services.

ANGI also provides basic network services, such as prioritization, Performance Enhancing Proxies (PEP), compression, network management, and Information Assurance (IA) for tactical disadvantage users.

CHARACTERISTICS

Air Platforms can connect to AFNET voice and data services with ANGI via IPSec (Inmarsat) and the DSN network (Iridium). Inmarsat is a commercial SatCom provider used by DoD for voice and data service. The Inmarsat Network is a commercial SatCom provider used by DoD for voice and data service. Inmarsat also offers a shared APN called bgan.inmarsat.com. The Iridium Network is a meshed constellation of interconnected, cross-linked satellites where each satellite "talks" with the other nearby satellites in front, behind and in adjacent orbits. The call is relayed from satellite to satellite around the constellation without touching the ground until it is downlinked at an Iridium gateway and subsequently patched into the public switched telecommunication network (PSTN) for transmission to its destination.

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