HUGHES
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DATASHEET

Smart Network Edge

The **Hughes Smart Network Edge** (SNE) is a virtualized SD-WAN router built on a modular and extensible management/control microservice architecture and a FIPS certified state-of-the-art routing and security engine. The SNE SD-WAN router supports multiple transport types (wireline, GEO, MEO, LEO satellite, 4G/5G, and Fiber), can actively monitor the transports, performs policy-based traffic routing, and has a next-generation firewall and a local user interface for transport situational awareness. The management/control plane decision engine enables execution of PACE (Primary, Alternate, Contingency, and Emergency) plans with or without an operator (automatic) or central orchestrator (disconnected), and therefore can operate in a congested and contested environment. Figure 1 shows the SNE interfaces and connections, and Figure 2 is a sample of network connectivity topologies, enabled by the SNE.

Benefits

- Deployable at a tactical (fixed or mobile) or hub site
- Extensible to future network transports
- Monitors and manages WAN transports, such as SATCOM—GEO, MEO, LEO, 5G, and Terrestrial
- Local situational awareness via a secure web-based local user interface
- Local or Network Manager (Controller/Orchestrator) supplied SD-WAN rules/policies
  - PACE policies (priorities, failover, time window)
  - Aggregation/load balancing policies
  - Per WAN link monitoring
- SNE is capable of
  - Receiving policies and SA from the Hughes Network Manager
  - Operating unconnected under contested environments
  - Overriding policy or SA locally from the Hughes Network Manager

Current Features

- Virtualized SD-WAN multi-transport, multi-WAN router
- Integrated security (Next Generation Firewall, IPS/IDS, and QoS)
- Modular support for SATCOM (GEO/MEO/LEO): Starlink, OneWeb, Hughes JUPITER™ HT, and Hughes HM; Wireless 4G/5G; Wireline transports
- Link resiliency: PACE plan support and automatic failover to alternate links
- Integrated with NMS using government FTI ICD
- Edge-to-Edge and Edge-to-Network topologies

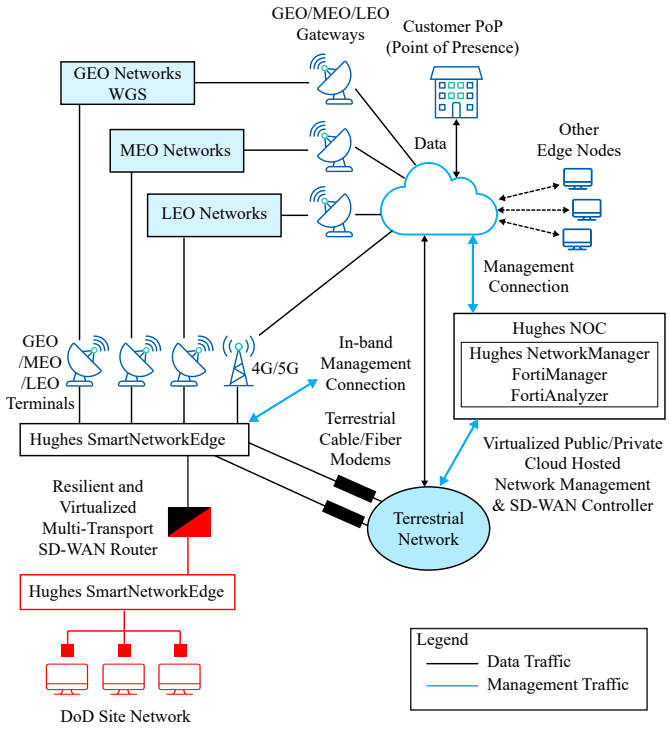

Figure 1. Hughes SNE

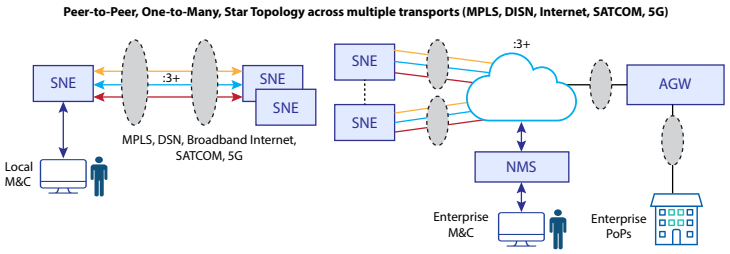

Figure 2. Flexible Network Connectivity and Topologies

Roadmap Features

- Link aggregation, edge compute framework management, software and configuration download
- Support for additional transports (Comtech EBEM, iDirect, 5G radios, etc.)
- Edge-to-Edge/Edge-to-AGW IPSec support

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