

# Transport for Satellite

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# Transport for Satellite

- tcpsat wg produced RFC2488 and RFC2760 (concluded 2000)
  - TCP features that require tuning for satellite deployment
- Modern satellite services:
  - Are much faster than 20 years ago!
  - TCP over satellite today is accelerated by PEPs
- However:
  - PEPs are a deployment barrier to new features and are impractical for QUIC, VPN, etc
  - A range of satellite systems and orbits: LEO, MEO, Hybrid terrestrial, etc

# Satellite systems require path awareness

- Satellite systems:
  - Point-to-point links or TV broadcast
  - Use as an access technology for remote locations
  - Backup and rapid deployment of new services
  - Transit networks
  - Backhaul of various types of IP networks
- **Satellite: IP network segment one part of the end-to-end path**
- User traffic can experience a path that includes:
  - Satellites capacity (long delay link, variable delay links, etc.)
  - With a wide variety of other network technologies (Ethernet, cable modems, WiFi, cellular, radio links, etc)

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Description of SATCOM systems

System characteristics

On path mitigation technics

Generic transport mechanism that are affected by satellite

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TCP mechanisms

QUIC mechanisms

# Questions

- Path awareness helps
  - End users can know the characteristics of SATCOM systems
- The draft describes methods to overcome from SATCOM systems characteristics
- We need help from LEO / MEO actors
  
- Is this work of interest to PANRG ?
- How should we move on with this draft ?