Mixing TCP And Satellites: A View From Above
(Imreverent Confessions From The Standards Trenches)

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Eric Travis /NASA Jet Propulsion Labs (e.j.travis@ieee.org)

Why Are Open Protocol Standards Important?

- The Vision:
  - Cheaper, better, faster
  - Risk reduction & stability
  - Interoperability
  - Efficiency
- Potential Problems In Realizing The Vision:
  - Broad applicability not recognized
  - Flexibility contends with simplicity
  - Deployment into an installed base
- Do You Get A “Big Tent” Solution Or Just A “Big Top” Oddity?
  - Candor, industry participation and feedback will make the difference
- A Parable For Our Times: Should The Tail Be Wagging The Dog?
Protocols Are Like Galoshes: One Size Does Not Fit All

- The Dynamic Range Of Network Environments Is Larger Than Ever
  - Satellite networks mirror the full spectrum: wireless to fiber, mobile to static
  - Environments are Opaque: “On the Internet, nobody knows you’re in orbit”
- You Probably Own Only Part Of The Railroad
  - Actions at a distance can affect your bottom line performance
    - TCP Loss recovery is expensive and retransmissions are not always free
    - Loss recovery is inherently unfair to long(er) paths
  - Localized performance tuning keeps the trains running on-time
    - Spoofing and proxies: The benefits of impedance matching
    - Balancing security, transparency and the end-to-end argument
- Seamless Integration Is A Matter Of Perspective (Theory and Practice)
- Bottom line For Performance And Efficiency In The Near Term:
  Tailor Your Solutions, Do So With Standardized Mechanisms Appropriate To The Environment

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