

# On the subject of trustworthiness

*(“Only a Sith deals in absolutes” - Obi-Wan Kenobi)*

Spencer Dawkins

# From draft-irtf-panrg-what-not-to-do-18.txt Table 1

Lesson	Category
--------	----------

<clipped down to>

Endpoints Trusting Intermediate Nodes (Section 4.9)	<i>Not Now</i>
Intermediate Nodes Trusting Endpoints (Section 4.10)	<i>Not Now</i>

<clipped rest of Table 1>

- \* *"Not Now"* - *this characteristic tends to turn up a minefield full of dragons*, and prudent network engineers will wish to avoid gambling on a technique that relies on this, until something significant changes

# “Not Now” may actually be “Not Ever” ...

- As others have observed, PANRG focused on end-to-end transport
  - I’m sure draft-irtf-panrg-what-not-to-do-18 is correct **for the Internet**
  - (“if we could send packets with no SRC/DEST addresses, we would!”)
- I observe there are network elements and hosts that trust each other
  - (in addition to network elements and hosts that don’t)
  - See pretty [much all the onboarding presentations in IOTOPS BOF](#)
- I observe that people want to exploit trust (in a good way)
  - See next presentation: [draft-du-panrg-gateway-based-trust-relationship/](#)

# So, my questions (for discussion on the mailing list)

- Is trust **always** going to be a minefield full of dragon?
  - If we think that's true, we should write that down
  - If we think trust can be usable sometimes we should write that down, too
- What are the prerequisites for path aware trust?
  - Between host and first hop nodes? Between intermediate nodes?
  - (Gasp!) Between networks?
- How do we avoid tripping over the Lessons we've Learned?
  - If trust is usable, what needs to be true, to achieve deployment?
- **Are we ready to start working on a panrg-what-TO-do draft?**
  - People have been asking for this, for a while ...

# Spencer is curious about **these** Lessons Learned

Lesson	Category
Justifying Deployment (Section 4.1)	Invariant
Providing Benefits for Early Adopters (Section 4.2)	Invariant
Providing Benefits during Partial Deployment (Section 4.3)	Invariant
<i>Outperforming End-to-end Protocol Mechanisms (Section 4.4)</i>	<i>Variable</i>
Paying for Path Aware Techniques (Section 4.5)	Invariant
<i>Impact on Operational Practices (Section 4.6)</i>	<i>Invariant</i>
Per-connection State (Section 4.7)	Variable
<i>Keeping Traffic on Fast-paths (Section 4.8)</i>	<i>Variable</i>
<clipped>	
<i>Reacting to Distant Signals (Section 4.11)</i>	<i>Variable</i>
Support in Endpoint Protocol Stacks (Section 4.12)	Variable
One Chance to Achieve Deployment (Section 4.13)	Invariant

*<--- Starting Here!*

# Questions and Comments?

*Please don't be shy (here or on mailing list!)*