Delay Tolerant Networking (DTN) in Space

x-works

D3TN

μPCN

IETF 104
23-24 March, 2019
Prague
Hackathon Plan

• Preparation for DTN real-space test, to be launched in 2020
Hackathon Plan

- draft-ietf-dtn-bpbis-12 - Bundle Protocol Version 7 (BPv7)
- RFC 7242 - DTN TCP Convergence-Layer Protocol
- draft-irtf-dtnrg-ipnd-03 - DTN IP Neighbor Discovery (IPND)

**Issue:** IPND draft is expired, but we need it for testing our approach

**Solution:** Let’s check it is still up-to-date and bring it back to life
What got done

• Improved pyDTN reference implementation: 19 issues fixed

• Started pyDTN/uPCN discovery using IPND

• Gitlab: pyDTN
Feedback to DTN WG

• Let’s bring IPND draft up-to-date (currently expired) and have it adopted by WG

• CBOR should be used consistently in both BPv7 and IPND (SDNV is currently used by IPND for encoding/decoding numeric values)

• IPND could make IP requirement optional, so it would be DTN-ND and support further CLAs
Wrap Up

Team members (ABC order):

Alex Tokar (Cisco)
Boris Pilka (X-works)
Martin Pilka (X-works)

First timers @ IETF/Hackathon:

Juraj Sloboda (X-works)
Lukas Bača (X-works)
Ronald in ‘t Velt (TNO)
Yannic Ahrens (Cloud&Heat)

dtn@x-works.io
x-works
contact@d3tn.com
www.upcn.eu

IETF Hackathon - DTN