

ROLL Working Group Meeting

IETF-84, Vancouver, July 2012

draft-hui-vasseur-roll-rpl-deployment-00

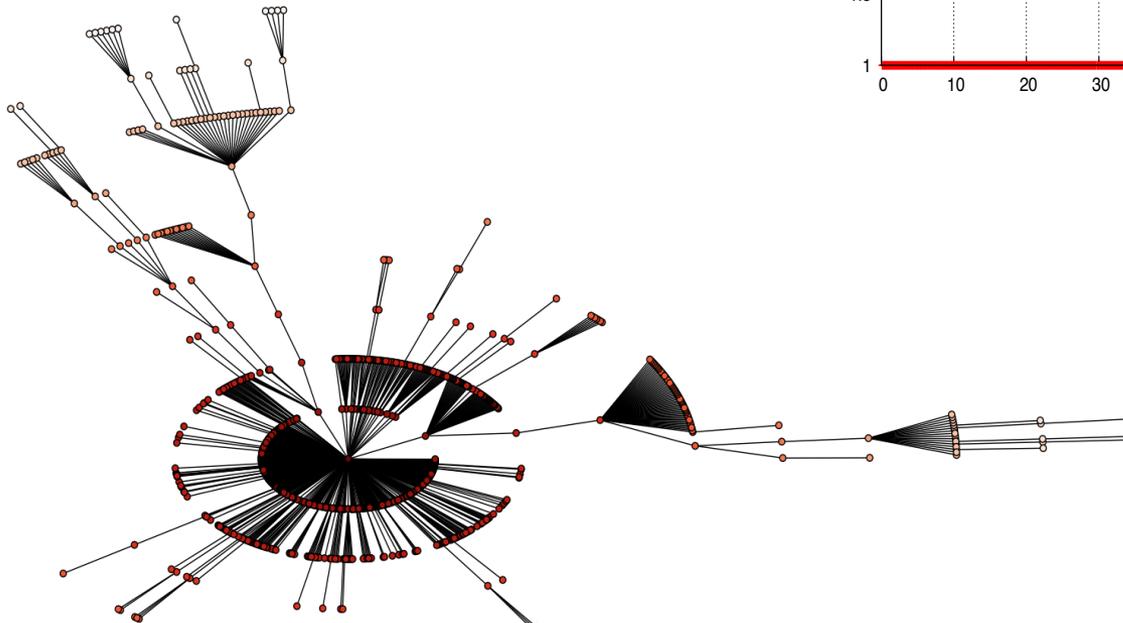
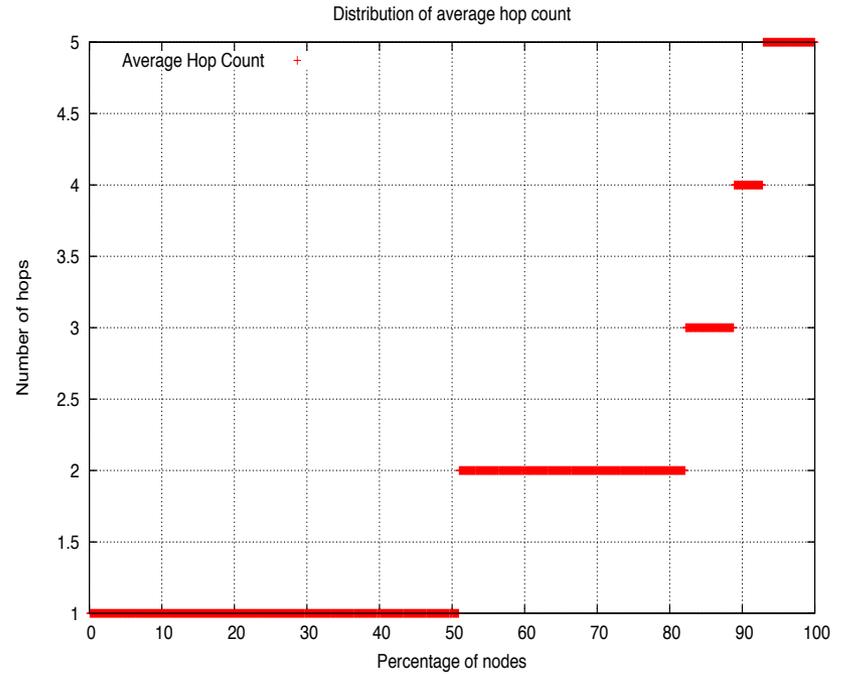
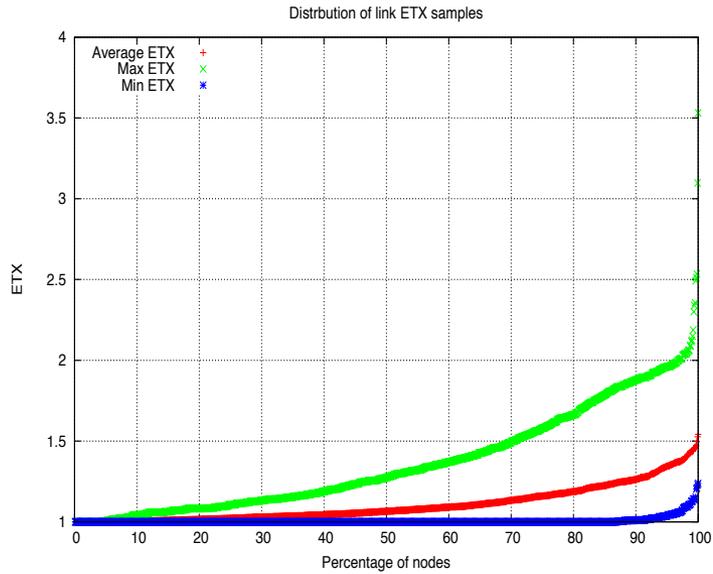
Jonathan Hui, johui@cisco.com

JP Vasseur, jpv@cisco.com

Objectives of this document

- ***This is not a deployment guide or a BCP !***
- Share RPL large-scale experience and see RPL at work !
- Operating in the 902---928 MHz US ISM band, effective data rate of 75 kbps and frequency hopping (64 channels with 400 kHz channel spacing).
- MOP: non-storing mode
- Not a Lab ... but deployed operational network (1,000 nodes) with representative outdoor environments (see the ETX) using 15.4g
- Local and global repair were implemented
- OF: MrHOF (ETX as a metric)
- Studied performance metrics: number of hops, stability, control plane overhead, dynamics of trickle, user delivery rate (99%), ...
- ***Few*** ones shown here: Number of hops, topology, ETX, control plane overhead was minimal (to be added in future version)

Few results



Next Step

- Add more results, subject to confidentiality from end-user!
- Add more networks (next one will have 5,000 nodes in a single DAG)
- Other networks will comprise mix of RF, PLC and 3G/4G/LTE
- Feed-back welcome !
- Is it of interest to the WG ?