Multi-path Extension for OLSRv2

draft-ietf-manet-olsrv2-multipath-02

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IETF 91

Outline

- Status

- Changes

- Implementation experiences

- Next steps

Status

- WG adoption on August 15th, 2014

- draft-ietf-manet-olsrv2-multipath-00, 01, 02 out

- A lot of comments received — thanks very much!

- Main changes:

  - Experiments to be conducted

  - Relation with OLSR

  - Security considerations

Experiments to be conducted

- Parameter settings

  - Number of paths, cost functions, etc.

- Metrics other than hop count:

  - draft-ietf-manet-olsrv2-dat-metric

  - Using of multi-topology (metric? ^_^) information?

- Selection of "key" routers for source routing

- etc.

With OLSRv2…

- The multi-path extension can be applied to certain applications suitable for multi-path

  - Audio/video streaming

  - Extremely lossy links

  - etc…

- Based on information such as DiffServ Code

# Security considerations

- Reference to:

  - RFC 7181 (OLSRv2)

  - RFC 7183 (nhdp-olsrv2-sec)

  - draft-clausen-manet-olsrv2-sec-threats

- Consideration of source routing

New Implementation Experiences

- Experimental performance comparison of single-path and multipath routing in VANETs

  - IEEE Global Information Infrastructure and Networking Symposium (GIIS), 2014

  - Macedo, Ricardo ; Melo, Robson ; Santos, Aldri ; Nogueira, Michele

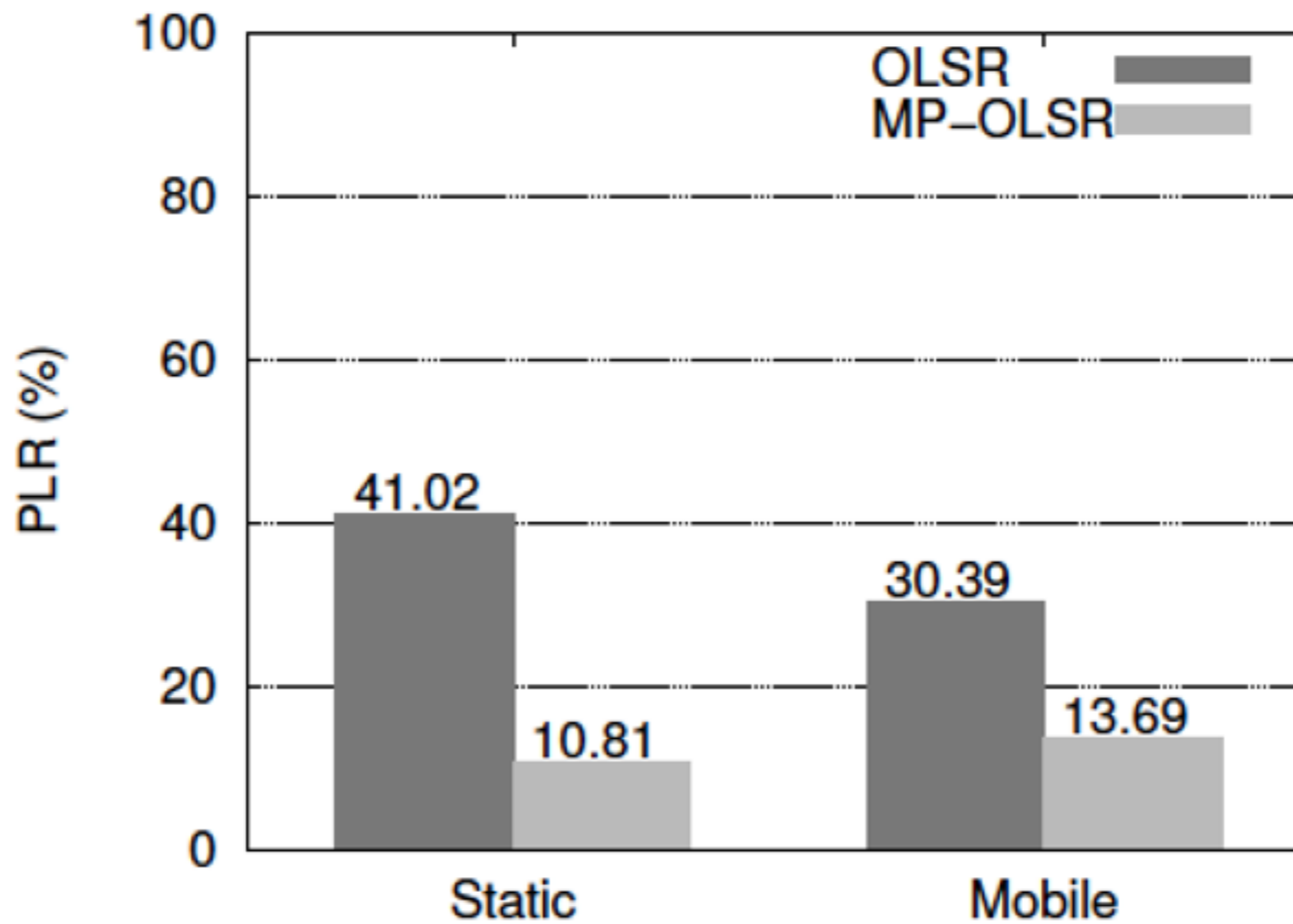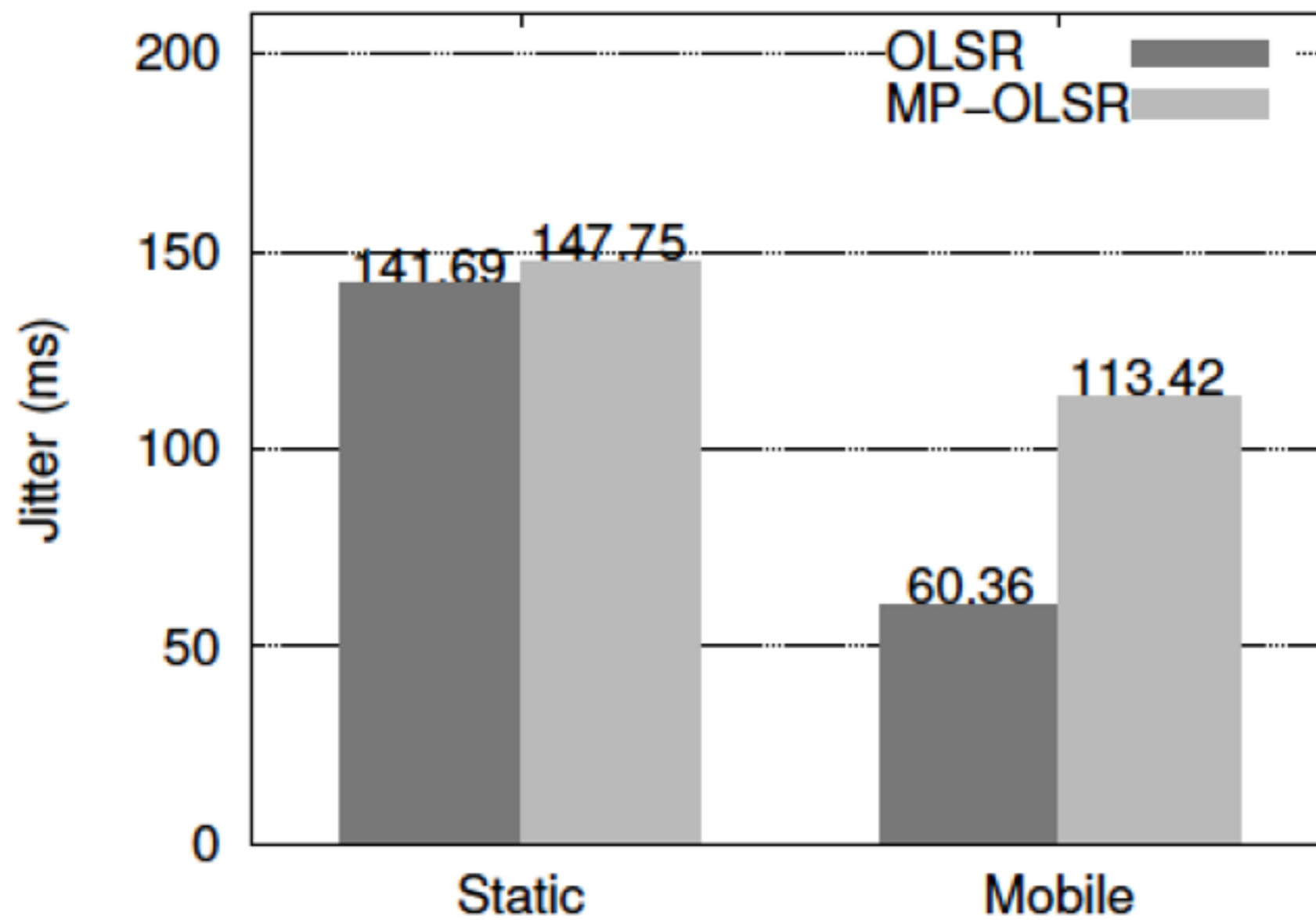 - NR2 - Federal University of Paraná (UFPR), Brazil ;
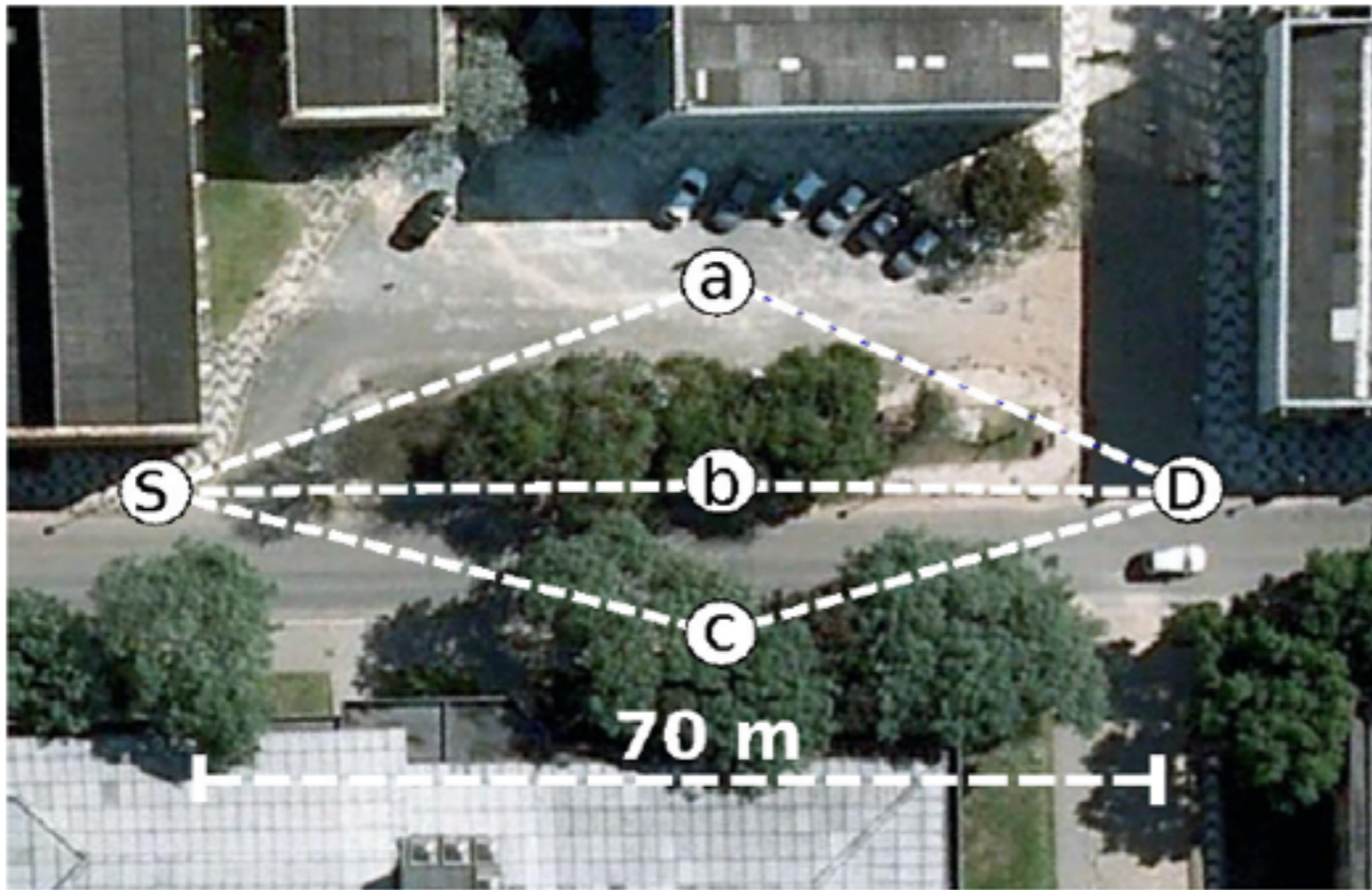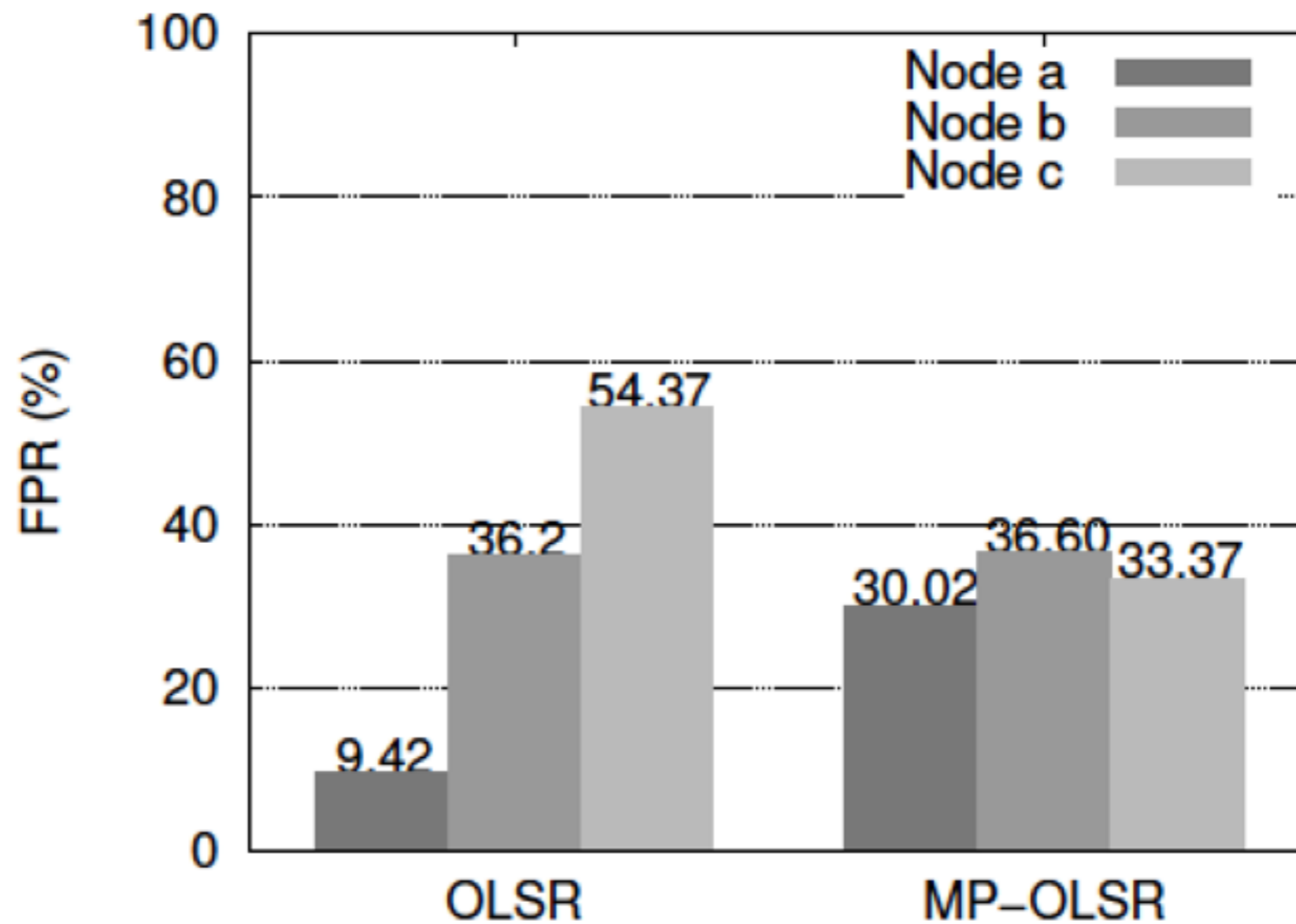
Static scenario
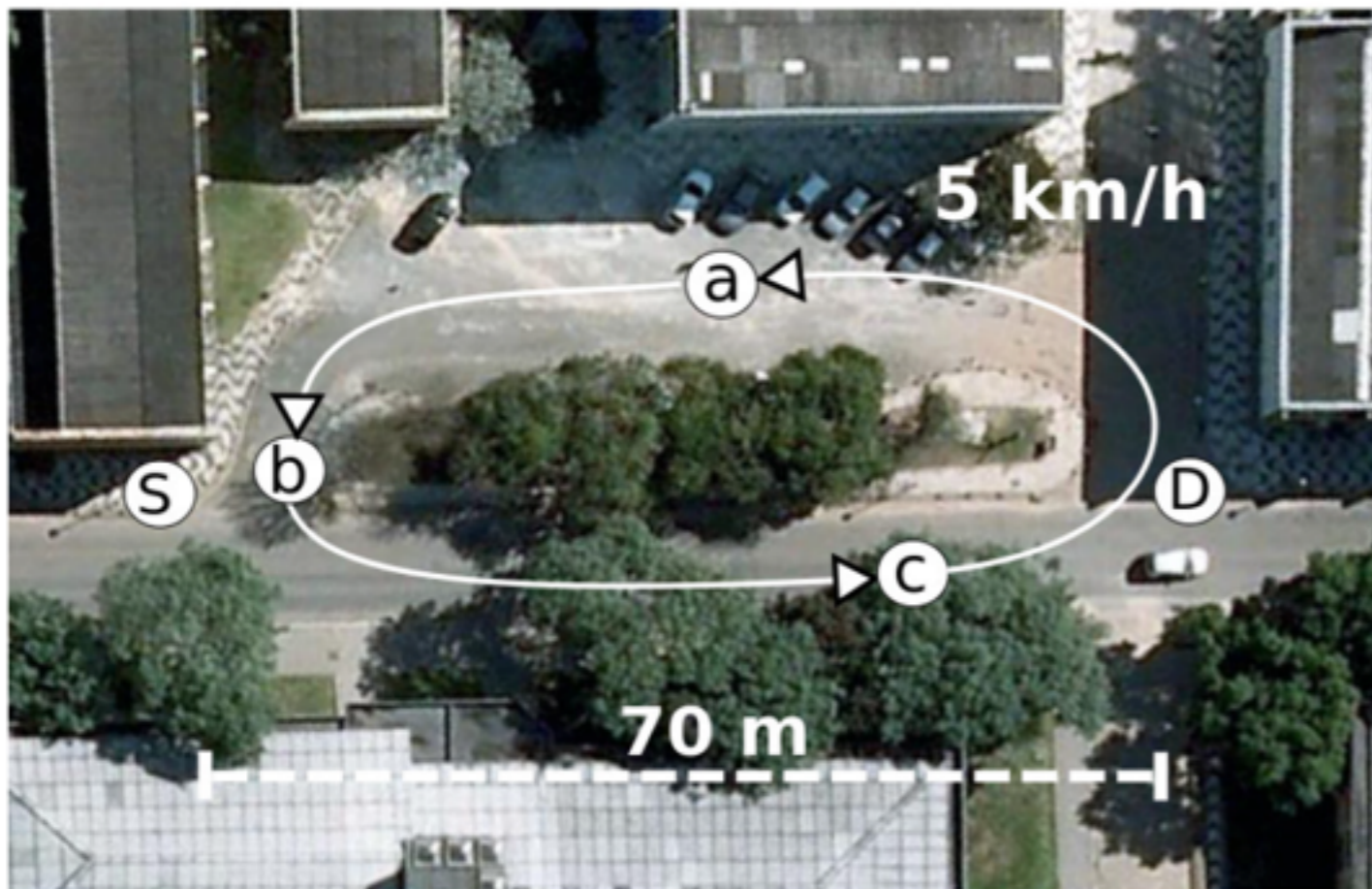
Mobile scenario
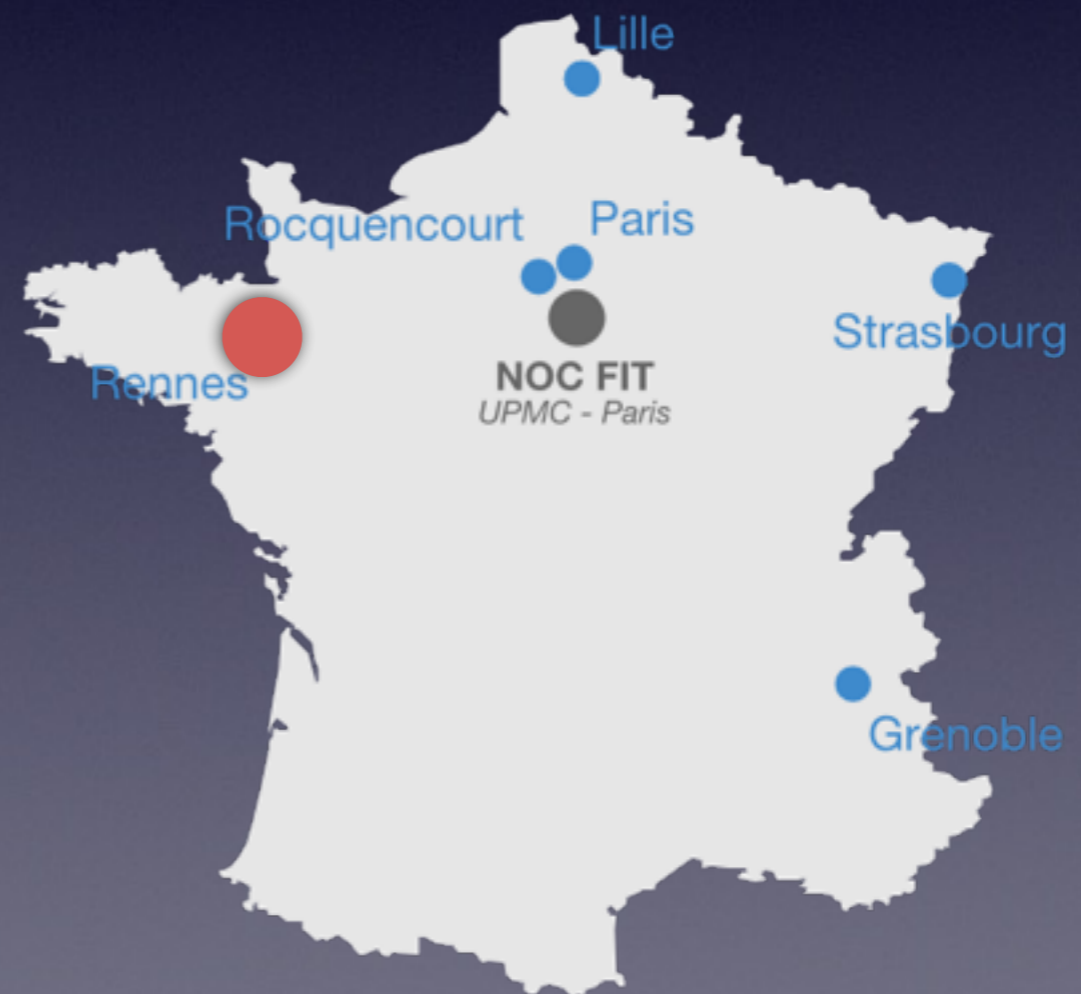
Packet loss ratio

Jitter

Packet forward ratio

Ongoing Experiments

- Large-scale tests (200-300 nodes expected)

- FIT-IoT Lab, Rennes, France

What's Next?

- Target:
  - Experimental RFC

- Ready for WGLC - <u>NOW!</u>
  - Comments appreciated
  - Suggest 3 week WGLC?

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