USER-DRIVEN PATH VERIFICATION AND CONTROL FOR INTER-DOMAIN NETWORKS

UPIN

Workshop #3

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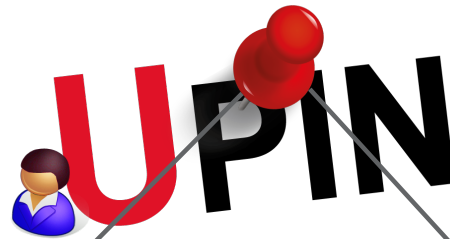
ONLINE

FEBRUARY 10, 2022

TODAY'S GOAL

- Update on status and future work

- Get your feedback

- Result: further improve researchers' work based on your feedback

PROPOSED AGENDA

10:00   Opening (Cristian)

10:00   Overall progress (Cristian)

10:10   UPIN architecture/TAURIN paper (Leonardo)

10:20   Progress path control (Leonardo)

10:40   Progress path tracing (Rodrigo)

11:10   Demo path tracing (Ralph)

11:20   Discussion (All)

11:50   Plans NLnet Labs and SURF (Benno, Ronald)

12:00   Adjourn (Cristian)

HIGH LEVEL APPROACH

Path verification:
- Path specification = required (security) properties of equipment and links
- Obtain (security) descriptions of equipment and links across domains
- Assess trustworthiness of the path by comparing these two

Path control:
- Path specification = required path performance and operations
- Enforced through inter-domain control of network paths and dynamic VNFs
- Using techniques such as SDN and Segment Routing (SR)

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OVERALL PROGRESS SINCE JULY 1, 2021

- Presentation at CODE2021, Ph.D. workshop

- Presentations at TAURIN workshop and engagement in discussions

- Contributions to network courses (ANET/UT and N&NS/UvA)

- Qualifiers passed

- More details in Rodrigo's and Leonardo's talks

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QUESTIONS AND DISCUSSION