

Network Attestation for Secure Routing (NASR)

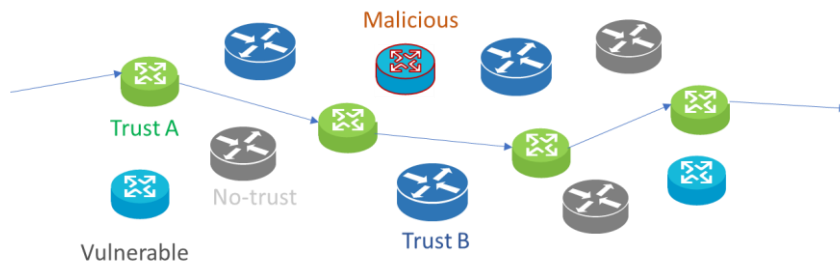
IETF 119
16–17 March 2024
Brisbane, Australia



Problem Statement

Traditional routing security and encryption does not suffice anymore!

- **Problem:** Traditional routing security does not guarantee predictability and auditability of forwarding behaviors.



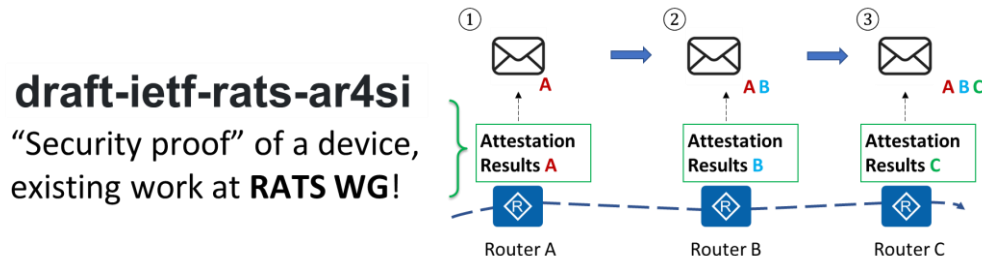
- **Motivation:** Security-sensitive clients want their sensitive data forward only via trusted devices, with no data leakage or deviation from these predictable paths.

How to solve?

Reuse IETF work, build on solid IETF grounds, no disruption!

1. Orchestrate a path that consists only of trusted devices, trusted operation environments, and trusted services; produce attestation evidence

- A dedicated packet collects all devices' "security proofs" along the path, produce a path-level security proof!



2. Verify the actual forwarding complies to the above attestation


- Proof of Transit! (In-band or out-of-band)

What got done

- **NASR Initiative**— we seek WG formation and BoF
- **NASR Mailing List:** <https://www.ietf.org/mailman/listinfo/nasr>
- **NASR Documents:**
 - draft-richardson-nasr-terminology-00
 - draft-liu-nasr-requirements-01
 - draft-liu-path-validation-problem-statement-00
- **NASR Side Meeting** – Wednesday 6:30PM-8:00PM
- New code: <https://github.com/liuchunchi/vcpot-demo>

Seek collaboration for a new WG

Contact: liuchunchi@huawei.com; diego.r.lopez@telefonica.com; chenmeiling@chinamobile.com



Join **NASR side meeting** at
Wednesday 6:30PM-8PM!
Room P6-7

Collaboration:

- Chartering, architecture
- Design team
- BoF co-proponents

Plans:

- **IETF 119:** NASR Side Meeting
- **IETF 120:** Non-WG Forming BoF
- **IETF 121:** WG Forming BoF
 - Interims, design team meetings in between.
- Side meeting agenda and materials:
 - https://github.com/liuchunchi/nasr_side_meeting
- Side Meeting Wiki Page:
 - <https://wiki.ietf.org/meeting/119/sidemeetings>
- NASR Mailing List:
 - <https://www.ietf.org/mailman/listinfo/nasr>