KIRA – Scalable Zero-Touch Routing

KIRA: Kademlia-directed ID-based Routing Architecture

Karlsruhe Institute of Technology

Contact:
bless@kit.edu

- Why? Never lose control over your network infrastructure!
- Goal provide highly resilient autonomous control plane connectivity
- Features
  - Scalability: 100,000s of nodes (in a single domain)
  - Zero-touch: no configuration required
  - Topological versatility: works well in all scalable topologies
  - Supports mobility (Cellular, but also MANETs, LEO Satellites), multi-homing, and domain contexts
- Add-on services
  - KeLLy: efficient topology discovery
  - DHT/ Distributed Key-Value Store
    → dynamically register and lookup names/services

More Info

https://s.kit.edu/KIRA

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- Need KIRA in every networked device → IETF Standard
- Internet-Draft: https://datatracker.ietf.org/doc/draft-bless-rtgwg-kira/
  - Comments welcome!
  - Running code provides zero-touch IPv6 connectivity
- Looking for: operators, collaborations & implementers
- Public Side meeting:
  Wednesday July 23rd, 16.00–17.00h, Segovia
  - Overview, Q&A, Collaboration & Next Steps

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