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- Main Interests: Networks and Security
- Spent last 9 years trying to answer question: how secure can a “secure-by-design” Internet be?
- Result: SCION secure Internet architecture
 - Secure control and data plane
 - PKIs: control-plane and TLS
 - Built-in DDoS defense mechanisms
 - Multipath communication system
 - Anonymous communication system
 - ...



Interests and Questions

- Can we bootstrap a “BGP-free” Internet?
- SCIONLab testbed enables new research
 - Next-generation Internet architecture research
 - Users obtain real ASes
 - Path-aware networking, multi-path research
 - Hidden paths for secure IoT operation
 - Control-plane PKI in place, each AS has certificate
 - Supported features (PKI, DDoS defense mechanisms, path selection support, end host / application support)
 - SIBRA inter-domain resource allocation system
 - DDoS defense research using in-network defense mechanisms
 - Next-generation routing architecture policy definitions

