Deployment Experiences

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Background & goal

SCION is a path-aware technology that with early adopters who gained operational experience:

- **SSFN**: Connecting 300+ banks with each other for payments and settlements, others in rollout (Health, power). Presented at last session in Prague.
- **SCIERA**: global research network
- **SCIONLab R&D testbed

What can we learn from these early adopter experiences?

Can we answer some of the open question in path-aware networking (RFC 9217)?
  - how can a path-aware network in a path-aware internetwork be effectively operated?
  - how can the incentives of network operators and end users be aligned?
SCION Deployment Experiences – some ideas

1. Deployment Models:
   - SCION Network – how to roll it out ➙ most operational experience, some documentation
   - SCION-IP Gateway ➙ some operational experience
   - SCION-enabled endpoints/applications ➙ experimental

2. Establishing and running an Isolation Domain ➙ operational experience, detailed documentation
   - Description & Use Case
   - Governance, roles (Core members, TRC signers, CAs)
   - ISD Policy Development & Maintenance
   - Assignment and registration of ISD numbers + SCION AS numbers ➙ longer-term solution required
   - TRC configuration
3. Establishing and running a SCION AS
   - Pre-requisites
   - How to join an ISD
   - Obtaining a SCION AS and certificate
   - Setting-up the Control Services (Beacon, Path & Certificate servers) and SCION Border Routers
   - Configuring path(segment) attributes and parameters

4. Adding and removing networks from an Isolation Domain
   - Adding a new core / removing existing core network
   - Adding a new / removing existing non-core network

6. Connecting to other ISDs

   some operational experience and documentation

   limited operational experience

   some experience in education network
Next Steps

We have some ideas and a draft skeleton.

• Is the RG interested about these topics? If so, what should be addressed in the draft?

• Is there anything we missed?

Thank you!