The Role of RIRs and LIRs in SCION

Birds of a Feather Session at RIPE81

David Hausheer (OVGU Magdeburg), Victor Reijs (SIDN Labs), Adrian Perrig (ETH Zurich)
Welcome

• Thanks to the RIPE81 organizers and PC
• Thanks to all the BoF speakers and participants
• Thanks to Caspar Schutijser (SIDN Labs) for serving as secretary
Logistics

• How to ask a question:
  • Ask for mic access: press on mic symbol at the left top
  • Write a question: press ‘Q&A’ icon and include your affiliation in your question
What this BoF is about

• Something different than the IP protocol suite
• Secure internetworking protocol SCION, which is implemented and in operation
• How can we involve RIRs/LIRs in a SCION Internet?
• This BoF is to hear your ideas how to roll this out at a large scale.
Agenda

• David Hausheer (OVGU Magdeburg): Chair’s Welcome (5min)
• Adrian Perrig (ETHZ): SCION overview, ambition and progress (10min)
• BoF Discussion: The new roles of RIRs and LIRs in a SCION Internet (40min)
  • Moderator: Victor Reijs (SIDN Labs)
  • Several presenters will provide their ideas around the subject (1 min each)
  • Afterwards, we expect you to provide your remarks/comments and questions
• Wrap-up
Poll

• Caspar Schutijser (SIDN Labs)

• What is your experience with SCION?
  • None
  • I heard about it
  • I played with it
  • Practical experience
  • I’m an expert.

Press the poll symbol
Next...

- Adrian Perrig (ETH Zurich): SCION Overview, Ambition and Progress
BoF Discussion Questions

• Would RIRs want to take up coordination around SCION?
• Should RIRs hand out the SCION-AS numbers?
  • How to coordinate with traditional Internet AS numbers?
  • Owners of a SCION-AS, contrary to owners of traditional Internet ASNs, would often want to obtain multiple SCION-AS numbers for different domains to take advantage of SCION’s features.
• We expect 10-100 times more SCION-ASNs.
BoF Discussion Questions (cont’d)

• Should RIRs assist with the establishment of ISDs?
  • Does this provide additional opportunities for LIRs?
• What about SCION-AS certificates?
  • Should RIRs take on a similar role as in RPKI?
  • What’s the CA role in all of this? For current IP prefixes; could RIRs provide certificates that enable the owner to prove ownership?
  • This could be based on RPKI, but require the active use of the private key for authentication / key establishment purposes.
BoF Discussion: The New Roles of RIRs and LIRs in a SCION Internet

• Moderator: Victor Reijs (SIDN Labs)
Speakers

- The ISPs/LIR’s Perspective:
  - Simon Leinen (SWITCH)
  - Fritz Steinmann (SIX)

- The Role of IXPs:
  - Stavros Konstantaras (AMS-IX)

- An Implementer’s Viewpoint:
  - Joeri de Ruiter (SIDN Labs)
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Wrap-up

- There will be a summary of the BoF
  - We plan to write an article and publish it on RIPE Labs https://labs.ripe.net/
- Slides are available here:
  - https://ripe81.ripe.net/presentations/presentation-archive/