



SCION HACKATHON 2025

18.06.2025, Tenity hub, Zurich



Picture Credit: IETF

Finally merge the connectRPC work

Here's what the problem was and how we solved it

PROBLEM



Not as fun as creating new tech, but a very efficient way to use the fact that we're all next to each other. We could fast cycle code reviews and fixes so in one day we get something done that had been lingering for months. Tracked by: <https://github.com/scionproto/scion/issues/4434>. The code exists in <https://github.com/scionproto/scion/compare/master...connectrpc>

OUTCOME



Merged old commits into fresh branch. Let it be broken. Collaborated on broken fresh branch to un-break it piece-by-piece. PR, not merged yet: <https://github.com/scionproto/scion/pull/4788> Started, but not finished: selection of the preferred protocol in the config, and tests for it

TEAM

Dominik, Katya and JC

scion-orchestrator

Here's what the problem was and how we solved it

PROBLEM



The scion-orchestrator simplifies the administration of SCION ASes and provides a quick way to set up the SCION end host stack on a new host. At the moment it is oriented towards setting up entire ASes, not necessarily end hosts, which should be very user friendly.

OUTCOME



Created a standalone application using Wails and Go that contains the bootstrapper and daemon. This application can have a systray icon showing the status of the endhost stack. The application should (does not yet) facilitate installation of other SCION application, making it a one-stop solution. Great start, lots to do.

TEAM

Francois & Jelte

SCION Desktop

Status

Bootstrapping

Marketplace

SCION Desktop Status

SCION Desktop

SCION Desktop

Status

Bootstrapping

Marketplace

Tools

Ping

Showpaths

Proxy

Options

Marketplace

Install other SCION-abled applications



QUAKE 3

Play the classic QUAKE game over SCION

[Install](#)

Ollama

Use SCION to fetch your AI models

[Install](#)

Webbrowsing Proxy

Install to visit webpages hosted using SCION.

[Installed](#)

```
cfg 0x12ced40]
[
ace wlp9s0f0]
e wlp9s0f0]
e wlp9s0f0]
ion from resolv.conf, Ctx:
DNS hinting, Ctx: [resolv
[err error creating ndp con
discovery._tcp.ethz.ch. rr 12
```

Path-Awareness in Xonotic/ENet/Godot

Here's what the problem was and how we solved it

PROBLEM



Getting SCION to work in games is one of my ongoing projects. Given the work already done in Quake 3 it would be easy to hack SCION into the open-source FPS Xonotic. Another idea would be to play with path awareness in ENet, a popular low-level game networking library for example used by the Godot game engine.

OUTCOME



We looked into supporting multi-path SCION in ENet. Decided to associate ENet channels 1:1 with SCION paths. Default paths are decided by ENet, with new API for explicit path selection. Path selection can still be overridden on a packet-by-packet basis (e.g., for mixing reliable and unreliable messages on the same channel). Pulled SCION-C++ UDP socket into ENet to override existing UDP/IPv6 sockets. Still much to do... <https://github.com/lschulz/scion-cpp>

TEAM

Lars-Christian, Juan and Matthew

Extend SCION tutorial to include SIGs

<https://docs.scion.org/en/latest/tutorials/deploy.html>

PROBLEM



At the IETF118 hackathon we built this nice tutorial. However, the set up is relatively basic. It could be extended to include a bit more (e.g. SIGs, and how to connect to an existing SCION network).

LESSONS LEARNED



Tutorial needed several clarifications (commands, permissions, explanations)

We identified several gaps in the SIG documentation

OUTCOME

PR: github.com/romshark/scion (SIG still missing!)

SIG doc improvement ideas: [#4787](#)

Likely related SIG issue that we bumped into: [#4715](#)

Reduce SVC roundtrips RESULTS

Here's what the problem was and how we solved it

PROBLEM



SVC resolution causes a lot of extra round trips in the network.

Reduce the number of SVC resolutions to a minimum

OUTCOME



We created a beacon extension to include control and discovery service addresses. Instead of doing SVC resolution use the addresses out of the extension -> don't need SVC. Only place that needs SVC resolution still is when sending a beacon downstream.

Code: <https://github.com/scionproto/scion/pull/4789>

TEAM

Jordi and Luke