SCION ASSOCIATION

SCION DAY 2026 · GLOBAL EDITION

SCION OPEN SOURCE UPDATE 2026

github.com/scionproto/scion

docs.scion.org · www.scion.org



THE YEAR IN NUMBERS

4 releases

67 PRs merged

101 PRs opened

34 issues opened

15 contributors, 6 of them new

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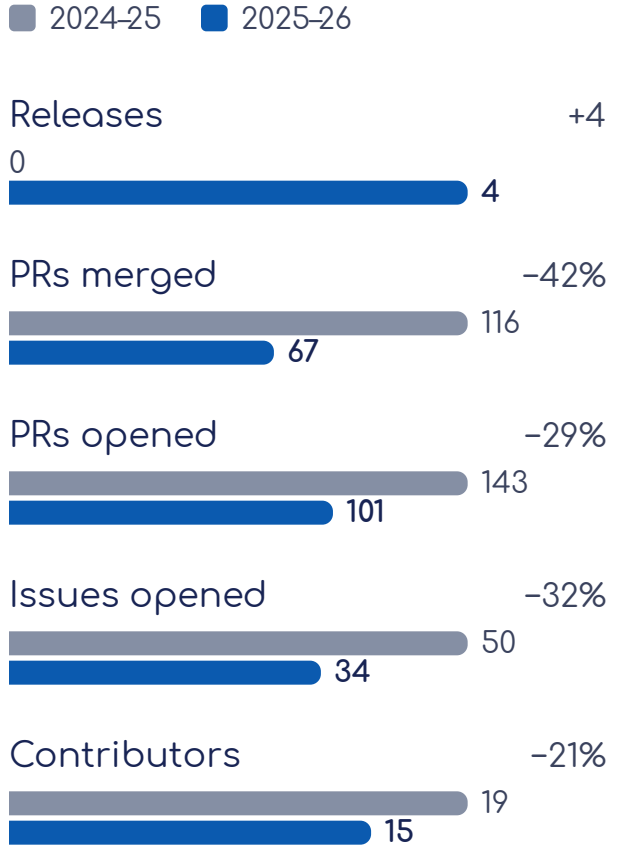
ANAPAYA The SCION Company

ETH zürich

OTTO VON GUERICKE UNIVERSITÄT MAGDEBURG

VS. LAST YEAR

Between SCION Days, without Dependabot



WHAT'S NEW

Latest release: v0.15.1

NAT TRAVERSAL

Hosts behind a NAT can now use SCION.

DAEMON OPTIONAL

Applications and the scion CLI run without a daemon.

BEACONING, SIG

Various bug fixes.

CI

Technical maintenance and improved CI/CD.

PKI TOOLS

Voting certificates no longer need an ISD-AS.

TOOLCHAIN

Go 1.26, Bazel 9, security updates.

COMING SOON

v0.16.0

And beyond...

AF_XDP UNDERLAY

Linux-only, high-performance packet I/O for the border router

ROUTER

Topology reload without router restart

STABILITY

Focus on fixing long-standing bugs

TESTING

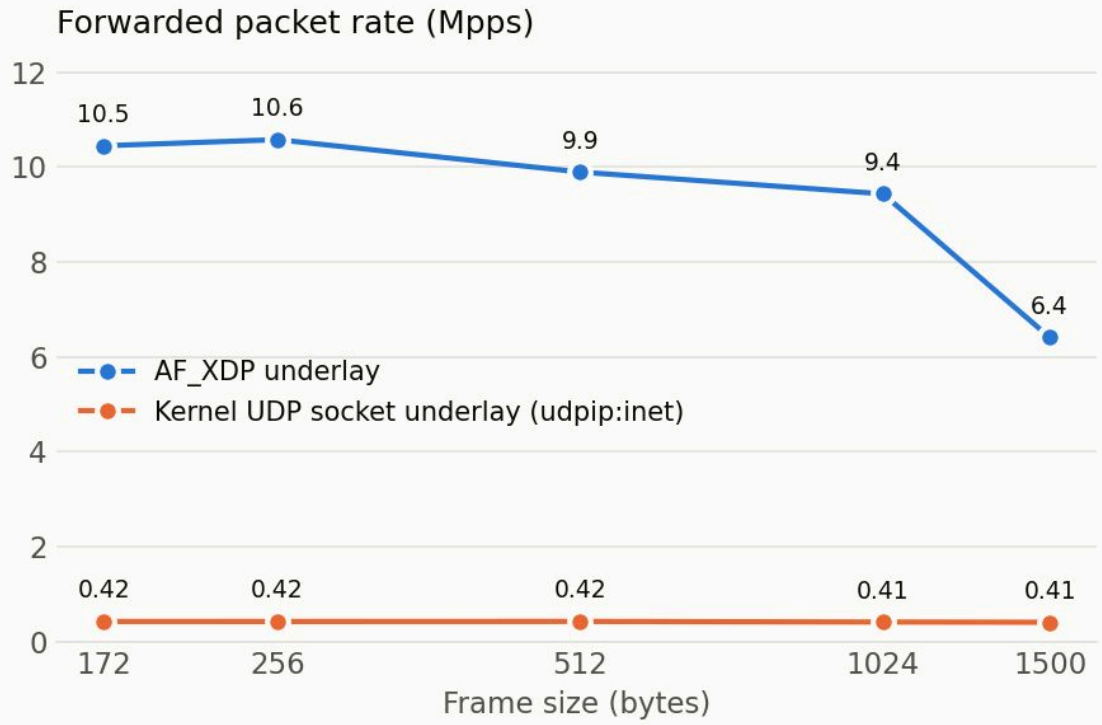
Easier test topology setup with containerlab

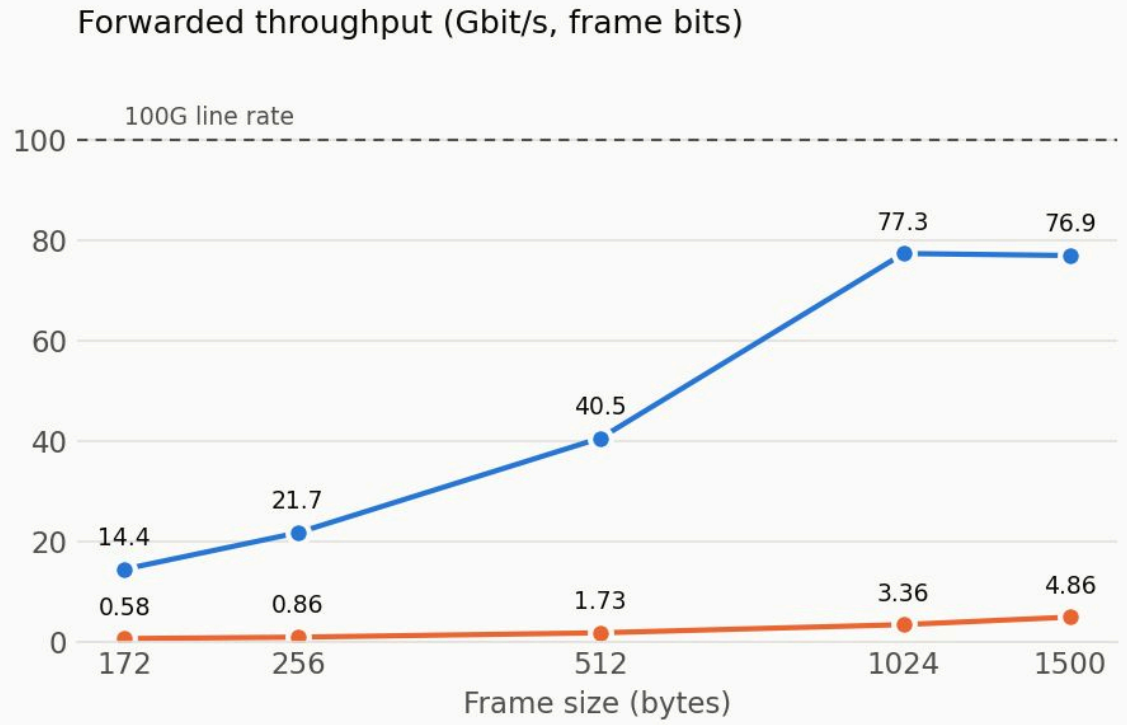
DOCUMENTATION

Docs link to the latest IETF drafts

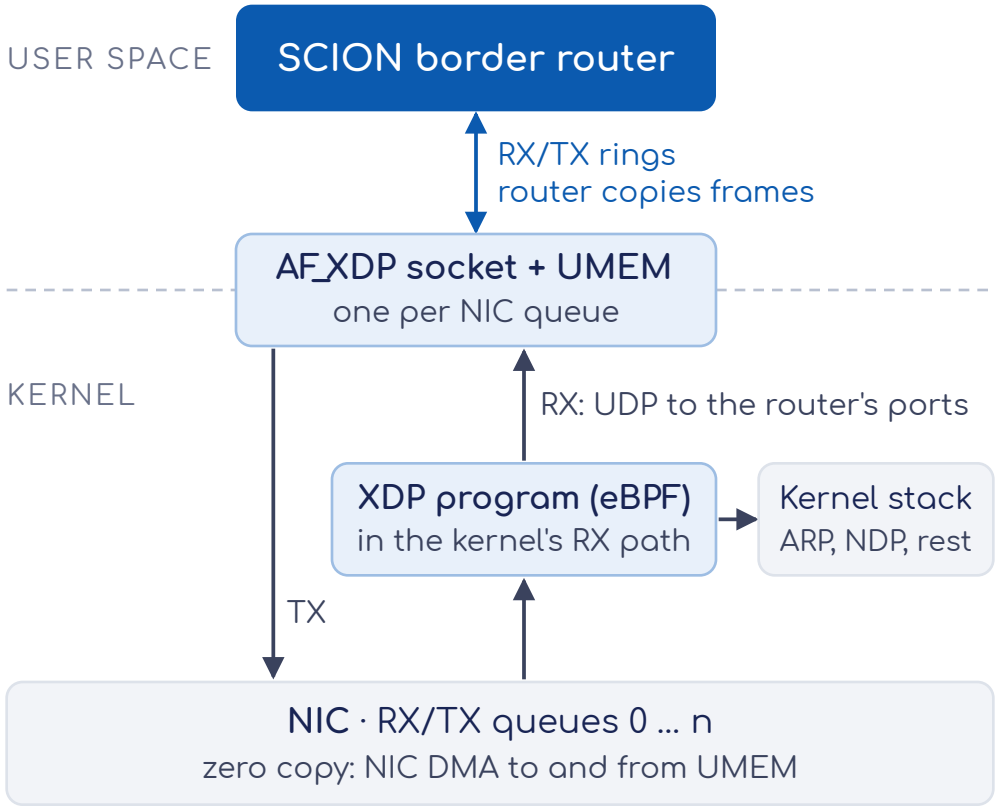
AF_XDP BENCHMARKS

SCION border router e5776d2, br_transit, MoonGen at ~line rate on E810. AF_XDP: mean of 3 runs; kernel socket: 1 run





AF_XDP UNDERLAY: HOW IT WORKS



ENABLE (OPT-IN)

udpip = "afxdp" in [router.preferred_underlays]

REQUIREMENTS

Linux 5.9+ on amd64 or arm64, plus three capabilities

LIMITATIONS

No fragments or jumbo frames, one RX queue per link

WIP: XDP_SHARED_UMEM

Zero-copy forwarding across interfaces

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THANK YOU.

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