



# SCION: THE NEXT-GENERATION INTERNET

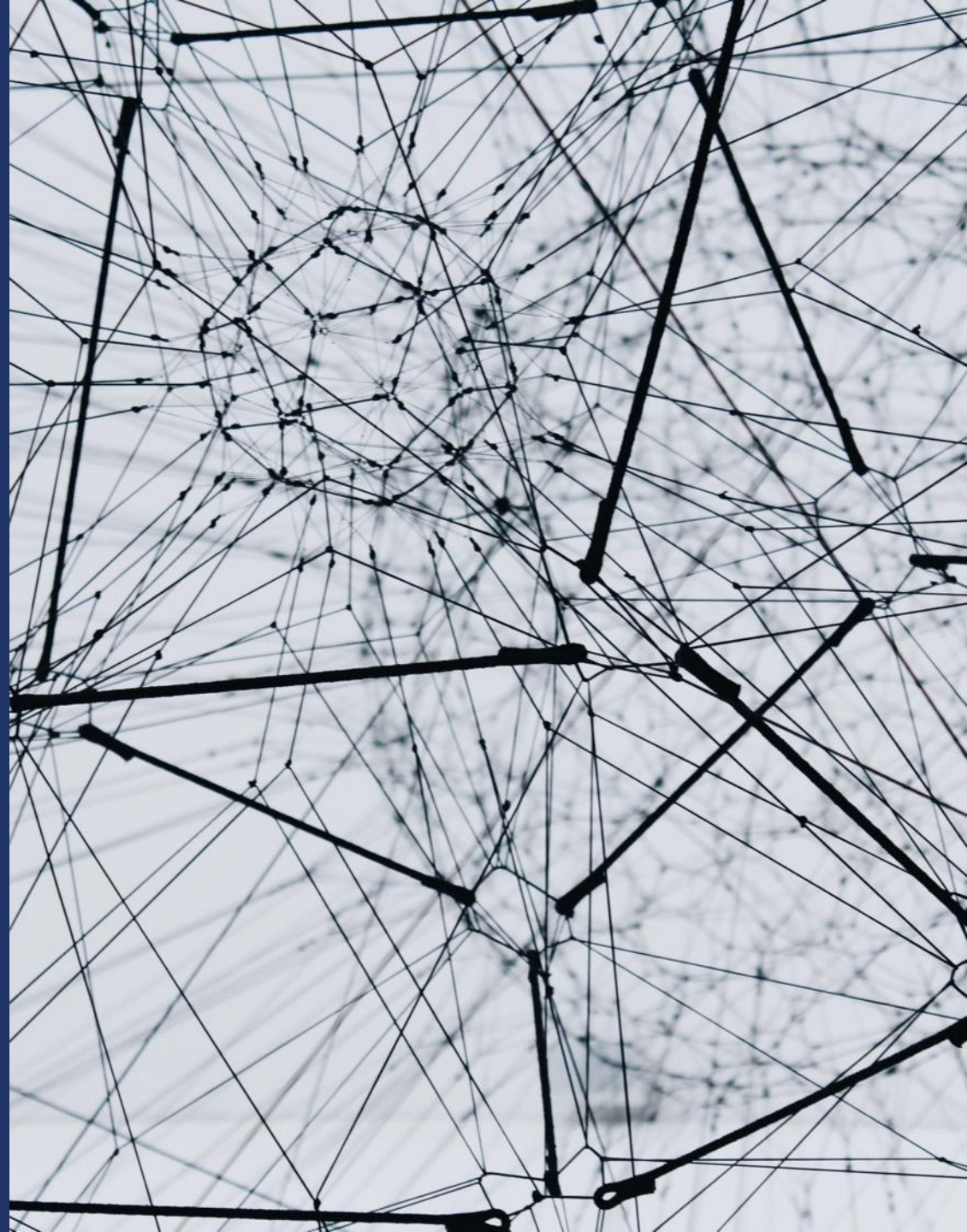
For secure, reliable and high-performing  
data communication in today's world

May 2025

# TODAY'S INTERNET

Designed in the '80s, the current Internet – made up of more than 70,000 networks (or paths) through which data, such as pictures, videos, calls, financial and personal information, flows – can no longer meet the security, reliability, and performance needs of today's society.

When data is sent from one device to another, the route it takes is determined automatically, without the sender having any control over it. As a result, data can be routed through vulnerable, unsafe, or congested networks, which puts its integrity, availability, and performance at risk.





# ROUTING ISSUES OF THE INTERNET

Issues with BGP have been understood for many years

## VULNERABLE TO ROUTE LEAKS AND HIJACKING



Service disruption, traffic interception, redirection or modification, and potential for large-scale Distributed Denial-of-Service (DDoS) attacks.

## LACK OF PATH SELECTION, LONG FAILOVER TIMES



Data can be (and often is) routed through different countries and over unsafe or congested networks. Failure reaction time is too long for critical infrastructure.

## NO WAY TO ENFORCE DATA SOVEREIGNTY



Traffic can be disrupted, intercepted, or monitored by bad actors, and data can be sent outside of particular jurisdictions, which can breach national and supranational data protection legislation, such as FADP and GDPR.



ELEVATING SECURE COMMUNICATION

What's clear is that the Internet can no longer meet the security and reliability needs of many organizations and users, particularly those in the finance, healthcare, utilities, and public sectors, as well as operators of critical infrastructure.

# WHAT IS SCION?

SCION is a resilient inter-domain path-aware architecture that offers the following advantages:



## TRUSTED NETWORKS FOR REDUCED ATTACK SURFACE

Clear network governance with common trust domains with agreed trust policies.



## PATH SECURITY AGAINST HIJACKINGS

Paths are cryptographically secured at each hop. Networks can choose how they advertise their network topologies and how they send and receive traffic from other SCION networks.



## GEOFENCING FOR DATA SOVEREIGNTY

Users can select the path(s) by which to send their data across the Internet, based on optimal characteristics or other parameters (e.g. geofencing, latency, ...).



## MULTI-PATH AND FAST FAILOVER FOR PERFORMANCE AND UPTIME

SCION uses multiple paths and operators simultaneously, switching paths in less than a second, increasing resilience and performance.

SCALABLE AND INTEROPERABLE FOR EASY DEPLOYMENT

# SCION NETWORKS TODAY



## FINANCE

The Secure Swiss Finance Network (SSFN) is an inter-banking network, handling money transfers between banks and other critical real-time financial services in Switzerland.

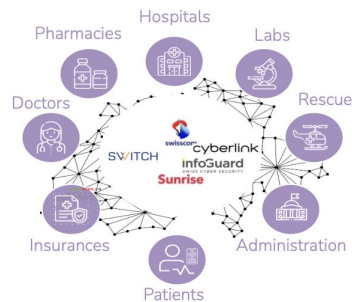
- 300+ institutions
- ~200 Billion CHF/day

SCHWEIZERISCHE NATIONALBANK  
BANQUE NATIONALE SUISSE  
BANCA NAZIONALE SVIZZERA  
BANCA NAZIONALE SVIZZA  
SWISS NATIONAL BANK



## HEALTHCARE

HIN adopts SCION to interconnect Swiss hospitals and 50K+ doctors.



## POWER

The Association of Swiss Electricity Companies has spearheaded the [Secure Swiss Utility Network \(SSUN\)](#).

The SSUN is as a community network, designed to integrate validated ecosystems and industry platforms, cloud applications, BPO providers, IoT, technicians, remote workers, and security operation centers.



## EDUCATION

The SCION Education, Research & Academic Network connects campuses with path-aware high performance SCION connectivity.



## PAYMENTS

The Secure EFTPOS Network (SEPN) leverages SCION technology to deliver unmatched resilience, security, and flexibility in cashless payments.



# THE WORLD OF SCION

A growing ecosystem

## THE EXPERTS DRIVING INNOVATION

With over sixty researchers and hundreds of practitioners using SCION in real-world scenarios, the deployment of SCION's technology continues to expand.

Research



## BUILDING INFRASTRUCTURE FOR COMPETITIVE EDGE

Service providers, integrators and vendors play a crucial role in managing and maintaining the infrastructure that enables SCION. They offer SCION services to the users, enabling SCION's use today.

ISPs,  
Integrators,  
Vendors

SCION  
ASSOCIATION

Users

## THRIVING THROUGH SECURITY, RELIABILITY AND PERFORMANCE

With SCION, enterprises in various verticals, non-profits, app developers and blockchain developers can have complete control over their online data flows, benefitting from security, reliability and performance advantages.





# INSIDE THE SCION ASSOCIATION

Open, trusted, connected and curious





## OUR PURPOSE

# CREATING A SAFE CONNECTED WORLD

Our Purpose is to create a safe connected world. Because we believe in a future where the exchange of information can be made trustworthy; anytime, anywhere and for anyone. Our openness, curiosity to learn and innovate continuously pushes the boundaries of what is possible. It's what drives us and it's what makes SCION a truly transformative catalyst. Fast, reliable and scalable. This is why SCION is the first choice for everyone looking to elevate the secure exchange of data.



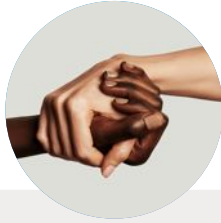
# OUR VALUES

The guiding principles we live by



## WE ARE OPEN

- We actively seek and welcome new ideas, empowering innovation and continuous improvement.
- We cultivate a culture of broadening horizons and learning, constantly challenging ourselves to explore new ways of making SCION and everyone within even better.
- We are inclusive and nurture a community that celebrates diversity, embracing everyone's unique contributions.
- SCION is an inviting space where collaboration and teamwork thrive.
- Together, we build an open ecosystem, uniting diverse talents and perspectives to continuously elevate SCION as the transformative leap in internet technology.



## WE ARE TRUSTED

- At the core of our motivation lies a deep commitment to the safety of information exchange – making our lives safer and better.
- But it's not just about protecting sensitive data; it's about safeguarding the trust and confidence placed in the SCION technology we continuously elevate.
- This extends to the people we collaborate with, fostering a culture of mutual trust and respect in our entire ecosystem: academics, researchers, implementation partners, users etc.
- We believe that building strong relationships lays the foundation for a reliable and successful future of SCION.



## WE ARE CONNECTED

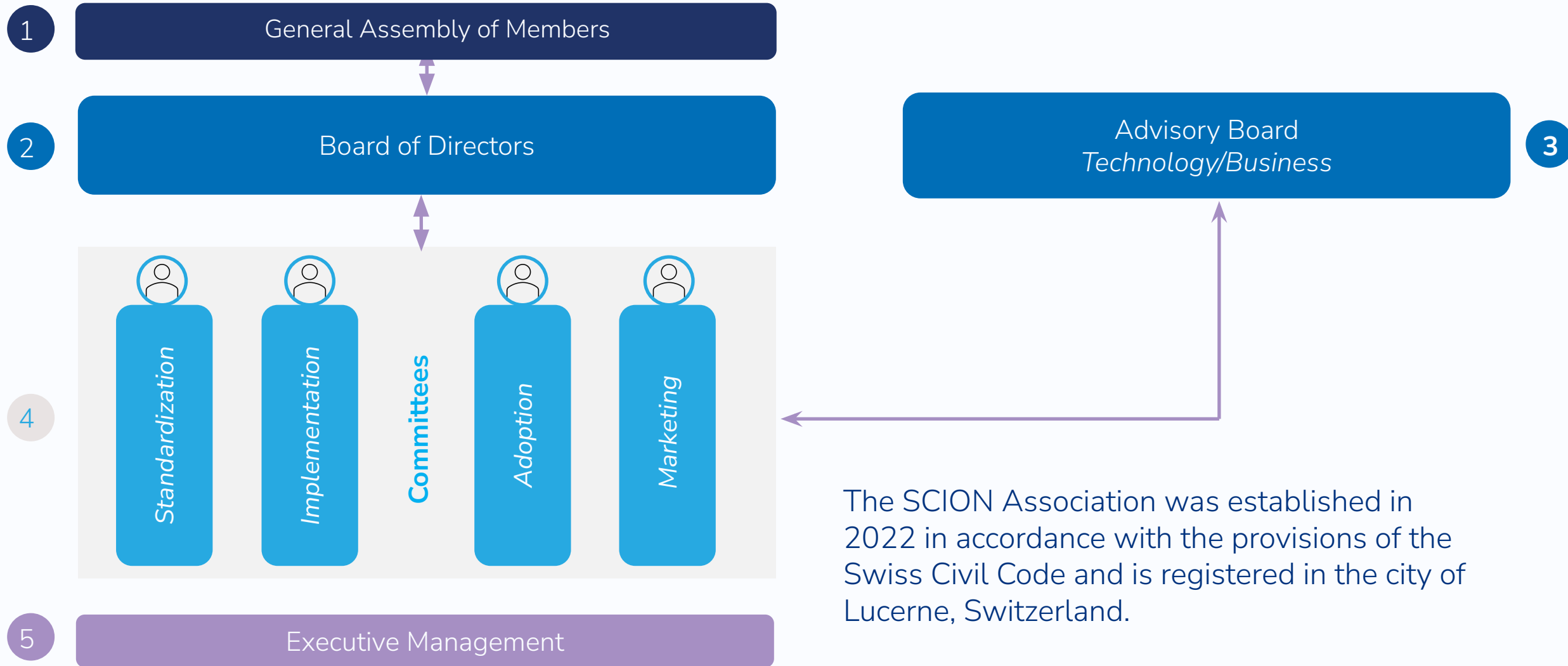
- Connectivity is the heartbeat of SCION and our society. It links our revolutionary technology with the real world.
- And it fuels our passion to continuously think and build secure data exchange technology, fostering deep trust and collaboration within and beyond our ecosystem.
- We forge bonds that transcend boundaries, uniting as teams and individuals.
- With SCION technology as our catalyst, we revolutionize internet architecture, driven by the profound belief in a future where every connection matters, anytime, anywhere and for anyone.



## WE ARE CURIOUS

- We live relentless curiosity, encouraging everyone in our environment to embrace a thirst for knowledge, explore new frontiers, and challenge the status quo.
- We always go deep and love to dissect complexity – and then to resurface with simplicity.
- The desire to learn and innovate, pushing the boundaries of what is possible to make the internet a more secure place is what drives us.
- It's what makes SCION a truly transformative catalyst to safely exchange information. Fast, reliable and scalable.

# GOVERNANCE - OVERVIEW





# BOARD OF DIRECTORS



LOTHAR THIELE

Professor,  
ETH-Delegierter für Digitale  
Transformation, ETH Zürich



PROF. RETO FRANCONI

UBS European Chair



DR. ULI SIGG

Private individual



DR. THOMAS WELLAUER

SIX Group BoD



PROF. VANESSA WOOD

ETH Board, VP Corporate  
relations



DR. THOMAS MOSER

SNB Observer



ANDREA MAECHLER

BIS Observer

# ADVISORY BOARD MEMBERS



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**CORNELIUS DORN**

Head of Strategy & Architecture, SIX



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Chairman of the Supervisory Board, Deutsche Börse AG



**MARIAM KAYNIA**

Director of Architecture, Strategy and Analytics, Telefónica Germany



**MARTIN BOSSHARDT**

CEO Anapaya



**MARKUS NISPEL**

CTO EMEA, Extreme Networks



**ADRIAN PERRIG**

Professor, ETH Zürich



**HAUKE STARS**

Member of the Executive Board / CDO, Volkswagen Group



**PETER THÜRING**

Head IT, SNB



**KLAAS WIERENGA**

Chief Information & Technology Officer, GÉANT



**HUI ZHANG**

Chief Scientist, Chairman of the Board, Conviva



**MIKE DARGAN**

Chief Operations and Technology Officer at UBS

# OUR TEAM



NICOLA RUSTIGNOLI

Co-CEO



LUZIUS CAMERON

Co-CEO



KATARINA GARIC

Marketing & Communications  
Manager



JEAN-CHRISTOPHE HUGLY

Software Engineer



KEVIN MEYNELL

Community Engagement Manager



KATYA TITKOVA

Software Engineer



ROMAN SCHARKOV

Software Engineer



# GROWING THE SCION MOVEMENT

Empowering communities, creating value

## TECHNOLOGY

The technology keeps evolving to provide more and more benefits to its users, more use cases are developed and deployed.



## ECOSYSTEM

The ecosystem keeps growing together, creating new adoption areas and building up a larger and larger SCION network.



# CREATING A SAFE CONNECTED WORLD

Together with our Members



# ENABLING THE SUCCESS OF THE ECOSYSTEM

How we are driving progress in four core areas



## SPECIFICATION

We create the technical specifications to implement SCION, with the goal of ensuring interoperability and keeping the ecosystem open. We represent the SCION community at standards development venues such as the IETF.



## OPEN SOURCE

We coordinate and maintain a SCION implementation for research, development, and experimental deployments.



## BRAND & COMMUNITY

We raise awareness of the benefits and features of SCION while fostering an actively engaged community.

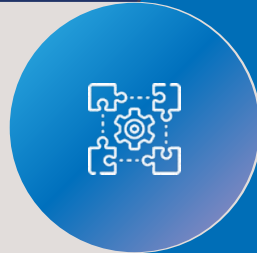


# SCION SPECIFICATION

A big step towards global adoption

## INTEROPERABILITY

Multiple implementations ensuring compatibility.



## OPEN ECOSYSTEM

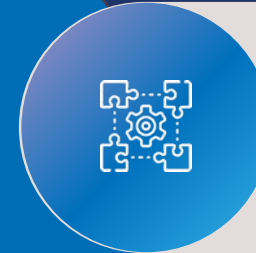
Anyone can succeed with a clear specification.



**SCION**  
ELEVATING SECURE COMMUNICATION

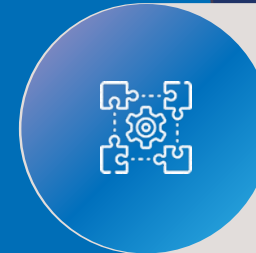
## BETTER TECHNOLOGY

Multiple Wider community review by renowned experts and global recognition.



## CERTIFICATION

Fundamental for a certification program.



## WHAT IS OUR ROLE?

Standardization technical committee

SCION draft specification (see: [datatracker.ietf.org](https://datatracker.ietf.org))

Representation at standardization development organizations

# HOW CAN MEMBERS GET INVOLVED WITH THE SPECIFICATION?

## Define future protocol evolution

Be informed with timely updates on the latest developments with the SCION protocol and its IETF specification.



Shape together the future of the SCION specification and of its journey through IETF/IRTF.



Join us at IETF meetings worldwide for collaboration, hackathons opportunities.



## STANDARDIZATION COMMITTEE



NICOLA RUSTIGNOLI  
Chair, SCION Association



FRITZ STEINMANN  
SIX Group



ROGER LAPUH  
Extreme Networks



WILLIAM BOYE  
Swiss National Bank



SAMUEL HITZ  
Anapaya



JUAN GARCIA PARDO  
ETH Zurich



MIKAEL HOLMBERG  
Extreme Networks



TONY JOHN  
OvG Magdeburg



JONAS BEHRING  
Swisscom



KEVIN MEYNELL  
SCION Association

# SCION OPEN SOURCE

Fostering a healthy community with transparency and collaboration at its heart

## WHAT IS OUR ROLE?

- Custodians of the open-source SCION implementation.
- Actively contribute to software development projects.
- Support through code contribution reviews.
- Provide documentation.
- Define the open-source roadmap.
- Organize member community meetings.

## WHY DO WE DO THIS?

- To make sure the SCION ecosystem can rely on a stable, quality reference implementation.
- To have a vendor-independent, low-barrier entry point to SCION.
- To ensure that there are multiple software options for SCION adopters.

## scionproto/scion

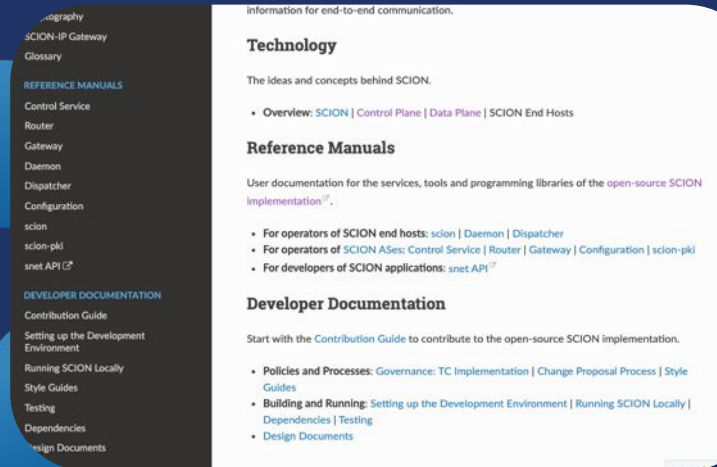
SCION Internet Architecture

68  
Contributors

25  
Used by

244  
Stars

107  
Forks





# HOW CAN MEMBERS GET INVOLVED WITH IMPLEMENTATION?

Unlock exclusive benefits

Opportunity to contribute to the development of the SCION open source.



Have a direct say in determining the next steps of SCION's progress



Participate in hackathon projects at worldwide events.



## IMPLEMENTATION COMMITTEE



JC HUGLY  
Chair, SCION Association



KATYA TITKOVA  
SCION Association



ROMAN SCHARKOV  
SCION Association



MARC FREI  
ETH Zurich



DOMINIK ROOS  
Anapaya



JORDI SUBIRA NIETO  
ETH Zürich



MARKUS LEGNER  
Mysten Labs



FRANCOIS WIRZ  
ETH Zurich



LUKAS VOGEL  
Anapaya



TILMANN ZÄSCHKE  
ETH Zürich

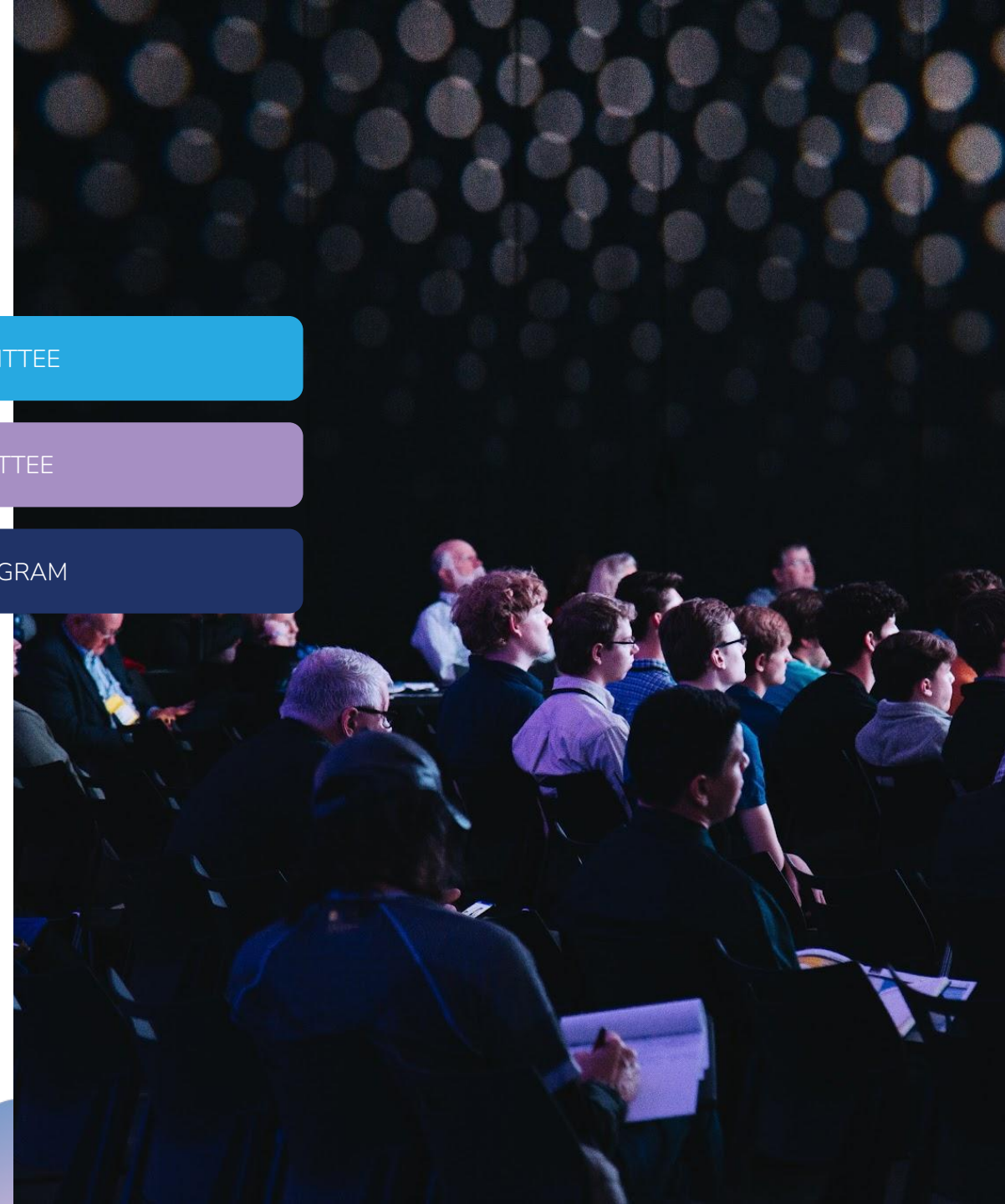
# SCION BRAND & COMMUNITY

Spreading the SCION story worldwide

MARKETING COMMITTEE

ADOPTION COMMITTEE

AMBASSADOR PROGRAM



# MARKETING COMMITTEE

Unlock exclusive benefits

Get your products recognizable thanks to the SCION brand and trademark.



Enhance your marketing impact with co-branded campaigns and gain valuable insights into the success of campaigns led by other members.



Participate in joint events in Switzerland and abroad and get exposure.



IVONNE CANO HÄLG  
Anapaya



CÉLINE MAYER  
Cyberlink



PATRICIA MEYRE  
Axp Systems



JULIA TRUNKWALTER  
Sunrise Business



JULIAN CHAN  
SIX Group



SARAH SPAGNUOLO  
Digital Realty



KATARINA GARIC  
Chair, SCION Association

# ADOPTION COMMITTEE

Expanding the SCION ecosystem

Identify SCION use cases, benefits, challenges and business models – develop market analysis.



Identify sectors for future SCION adoption and how these can be developed - connect to stakeholders, industry bodies & international initiatives.



Define and document best practices for SCION deployment - e.g. ISD governance, adoption playbook.



CORNELIUS DORN

Six Group



DARIO COLACICCO

Anapaya



DAVID HAUSHEER

OVGU Magdeburg



FRITZ STEINMANN

Slx Group



URS FISCHER

HIN



ANDREAS QUADT

Eraneos



KEVIN MEYNELL

Chair, SCION Association



STEPHAN ULRICH

Cyberlink



CHRISTIAN ETTER

Sunrise Business



# SCION AMBASSADORS

Affiliation to one of the members of the SCION Association is required to become a SCION ambassador



## YOUR ROLE

- Speaking at SCION industry events
- Contributing to webinars, and blogs
- Offering insights on SCION applications in specific markets
- Engaging with current and potential users
- Crafting business cases for SCION adoption
- Delivering SCION training (tutorials, workshops, online)
- Advising on policy and regulations relevant to SCION
- Promoting SCION Association membership



## THE PERKS

- Become a SCION thought leader
- Drive innovation and positive change
- Exposure on global stages with an exciting technology
- Free use of the SCION logo in relation to your role



## TECHNICAL SKILLS

- Knowledge of telcos, network security, Internet routing and SCION
- Willingness to be a national, regional or sector specific expert, and how SCION can offer solutions
- Skilled in technical training delivery, including to non-technical audiences.



## BUSINESS SKILLS

- Ability to explain the business value of SCION to different stakeholders, including commercial companies, governments, and other public sector organizations
- Understanding the needs of target markets and how SCION can help
- Track record in developing customer relationships for Internet products and services

# OUR MEMBERSHIP MODEL

Join a vibrant community, be a catalyst for change!



# SCION ASSOCIATION MEMBERS

## SUPPORTER MEMBERS

**ETH** zürich

SCHWEIZERISCHE NATIONALBANK  
BANQUE NATIONALE SUISSE  
BANCA NAZIONALE SVIZZERA  
BANCA NAZIUNALA SVIZRA  
SWISS NATIONAL BANK



DR. ULI SIGG  
As a private  
individual



## ADOPTER MEMBERS



cyberlink



eraneos

**ETH** Foundation

**ev3**Ware  
Cloud & IT Services



**Mysten**Labs



**Switch**



# MEMBERSHIP & BENEFITS

	ADOPTER	COMMUNITY	SUPPORTER
<ul style="list-style-type: none"><li>• Use of SCION wordmark &amp; logo in marketing &amp; products for commercial use (free for academia)</li><li>• Be listed as a SCION provider on <a href="http://www.scion.org">www.scion.org</a></li><li>• <i>Free SCION AS number assignment*</i></li><li>• Access to discounted sponsorship packages for SCION Day</li><li>• Opportunity to join all our Committees subject to BoD approval</li><li>• Be part of general assembly, voting rights (excl. free tiers)</li></ul>			
<ul style="list-style-type: none"><li>• Be featured at SCION Day for free</li><li>• <i>Marketing starter package (including basic messaging)*</i></li><li>• Access to Marketing and Adoption Committees by default</li></ul>			
<ul style="list-style-type: none"><li>• Reduce risk and protect your SCION investment by supporting our efforts towards open source maintenance and standardization</li><li>• Custom joint events or articles under the SCION banner, including dedicated Marketing support</li><li>• Upon request, possibility for dedicated open source development support</li><li>• Right to join the Standardization and Implementation Committees by default</li><li>• <i>Certification discount*</i></li><li>• Access to SA boards/leadership for strategic discussions/guidance</li></ul>			
* Coming soon			
CHF / Year	10k	40k	SILVER 80k GOLD 160k PLATINUM 300k



# ASSOCIATE MEMBERSHIP

A “lightweight”, free membership tier



## FOR WHOM?

- Non-for profits
- Academic institutions
- Government organizations and regulatory bodies



## BENEFITS

- Be listed on [www.scion.org](http://www.scion.org)
- Attend member meetings/AGM (no voting rights)
- Use of SCION wordmark & logo in marketing & products for non-commercial use



## WHAT IS EXPECTED

Ongoing free membership is contingent on regular participation and contribution:

- Contributions to our Committees or to open source projects
- Cross marketing, e.g. writing a blog post, hosting an event
- Contributions to SCION deployments
- Equivalent membership for SCION Association (if similar program exists)

# VALUE-BENEFITS FOR ISPs

Telecommunications providers, IXPs and NRENs



## STANDARDIZATION

### ADVANTAGES

- Define further use cases
- Make the technology better thanks to your feedback and experience
- Interoperability between networks is maintained

### BENEFITS

- Reaffirm your role as an early adopter in a growing global SCION Internet
- Get early insights into future technology evolution
- Guarantee long-term credibility of technology



## OPEN SOURCE

### ADVANTAGES

- Influence technology future developments

### BENEFITS

- Explore new use cases
- Gain advantage with early insights into future technology developments



## BRAND & COMMUNITY

### ADVANTAGES

- Featured at events (e.g. SCION Day)
- Use of the SCION logo
- Listing on [scion.org](https://scion.org)
- Marketing starter package

### BENEFITS

- Connect with potential customers and like-minded companies
- Expand and accelerate market entry
- Lower entry barrier for your SCION offering
- Recognition by being an official SCION provider

# THANK YOU

Time for questions!

[SEND ME AN EMAIL](#)



NICOLA RUSTIGNOLI  
Co-CEO SCION Association

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[VISIT OUR WEBSITE](#)

