Welcome remarks



Prof. Adrian Perrig
Network Security Group, ETH Zürich



PRESENTED BY:







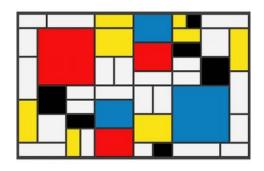
2021 Highlights: Research



Global secure time sync



First globally scalable bandwidth guarantees (COLIBRI)



Mondrian zoning system



Green Routing



Awards at top conference (CoNEXT'21)

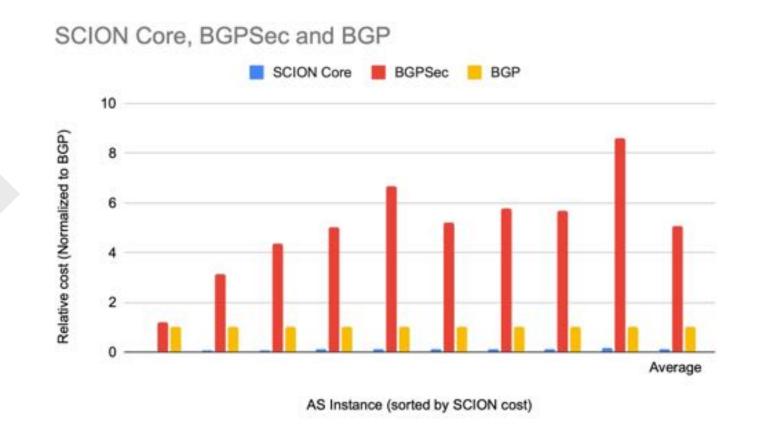




2021 Highlights: Scalability Demonstration

Scalability analysis:

on a per-path basis, SCiON expends 200 times less effort than BGP, and 1000 times less effort than BGPsec!



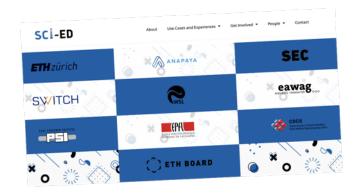




2021 Highlights: Development and Deployment

New ISPs, SCI-ED, SBAS, DRKey & COLIBRI in SCIONLab P4 router, Video app, LINC, Lightning Filter, Hercules, ...





Call without Scion

SSFN Launch



New implementations

New SCiON Book

Deployment





Technologies to Drive Deployment

Scenario	Backbone ISP		End host ISP 🖔		End Application (
	SRC	DST	SRC	DST	SRC	DST
Locally deployed SCION IP Gateway (SIG)					\otimes	\otimes
SCION built into application (Used if present in end-host ISP)						
"Happy Eyeballs" standard with SCION support					\otimes	
Secure Home Office (Carrier- Grade SIG deployed at ISP)	<u> </u>		\bigotimes		\otimes	\bigotimes
Secure Backbone AS (SBAS)		\otimes	\otimes	\otimes	\otimes	\otimes







No change required







4. Long-term Incentives Leading to Deployment

2021

ISPs offering Products & training Staff

Replace Leased Lines

Motivate

2017

3b. Early Adopters

Financial Sector

How did we get here?

Deployment Milestones

3a. Early Deployments

First Production Traffic

Require

Long-Term Reliability

2. Early Incentives for Providers

2016

Deploy First Routers in ISPs

1. Architecture Design

Initial SCION Idea

ETH zürich

2009

SCiON Journey

- For 12+ years, we have been on our SCiON journey
- We now have an internet architecture that is faster, greener, and secure
- Thank you for joining us on our expedition to establish the new internet!





