# SCION – Next Generation Internet at the BIS

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Confidential

# About the BIS



- The Bank for International Settlements (BIS) is the world's oldest international financial organisation (founded in 1930).
- The BIS supports central banks and other financial authorities in their pursuit of monetary and financial stability through international cooperation, and it acts as a bank for central banks.
- The BIS is owned by 63 member central banks and monetary authorities from around the world, and provides its members with:







## Why SCION?

- Current internet lacks adequate security and data protection, posing challenges for BIS in exchanging sensitive information with customers.
- BIS aims to provide top-tier services and technology to both customers and internal users.
- SCION offers a promising solution for secure communications.
- Implementing SCION can enhance data security and availability for BIS customers, while also allowing BIS to promote SCION architecture and explore new use cases within the central banking community.



#### WHAT ARE THE CURRENT CHALLENGES?

- Modern security threats of internet
- Internet resilience and fast recovery times requirements
- Data pathways are not guaranteed
- Finding a mature solution for international organisation

### THE PROPOSED WAY FORWARD

- SCION
- Path control, including limiting traffic to specific jurisdictions
- Reduced attack surface for path and denial-of-service attacks
- Inherent multi-path resilience
- Improved visibility
- Vendor neutral

### What are the Use Cases for the BIS?



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#### **Key benefits:**

- Resistance to attacks
- Fit with quantum-proofing innovation
- Geofencing to desired jurisdictions
- Higher Resilience
- Scalability & flexibility

### What are the Use Cases for the BIS?





#### 3. Customer Services

a) Digital Customer Experience (eBIS, Customer Portal)

#### **Key benefits:**

- Resistance to Denial of Service attacks
- Higher Resilience
- Simplification



### Proof Of Concept – Use Case 1

- **Deployment of Different Edges:** The primary use case was to deploy various edge locations to integrate several offices, rerouting a portion of the traffic through the SCION backbone to ensure more secure and efficient data transfer.
  - Familiarisation with the technology and features



## Proof Of Concept – Use Case 2

• Integration with Azure: We are currently exploring the integration of SCION within our Azure setup in Switzerland. This would eliminate the need for a VPN connection between our on-premises data centre and cloud services running in Azure, enhancing security and reducing latency while maintaining direct and secure communication through the SCION backbone.



## Proof Of Concept – Use Case 3

• Evaluation for Hong Kong and Mexico Offices: We are also aiming to evaluate the integration of SCION in our two offices in Hong Kong and Mexico. The objective is to replace existing leased connections with leased line connections through the SCION backbone, providing a more secure, transparent and cost-effective solution.





### Outcomes



# Challenges of PoC



### Roadmap – Improved visibility



### What are next steps for the BIS?

Build a working group with the Central Banking Community

Identify SCION connectivity partners and coverage map

> Explore SCION Integration, Deployment and Operations

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