

EDGE-to-EDGE encryption

For confidentiality and integrity of sensitive data on the SCION Internet

EDGE-to-EDGE encryption is a feature available on the Anapaya EDGE Pro that enables payload encryption across SCION networks. This feature is integrated seamlessly with the other features offered by Anapaya EDGE and requires minimal configuration to set up.

Why EDGE-to-EDGE encryption?



Quick and error-free implementation

Click and upgrade approach – installation without complexity and no risk of VPNs configuration errors.



Simplified network architecture and management

Simplification in resource allocation and network management and monitoring.



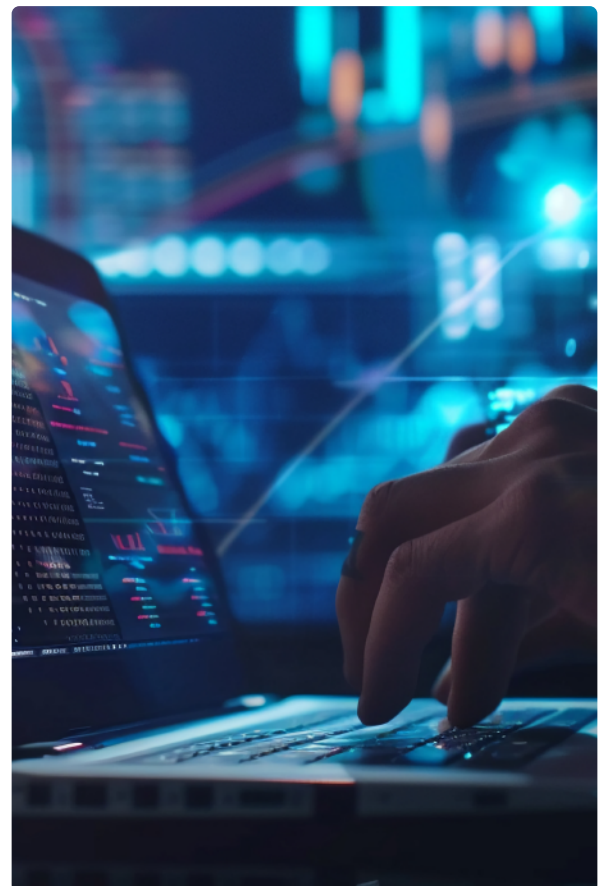
Cost savings

Achieve cost-efficiency by replacing other encryption solutions with EDGE-to-EDGE encryption.



Enhanced network traffic security

EDGE-to-EDGE encryption ensures that your data is protected from eavesdropping and tampering as it traverses the SCION Internet.

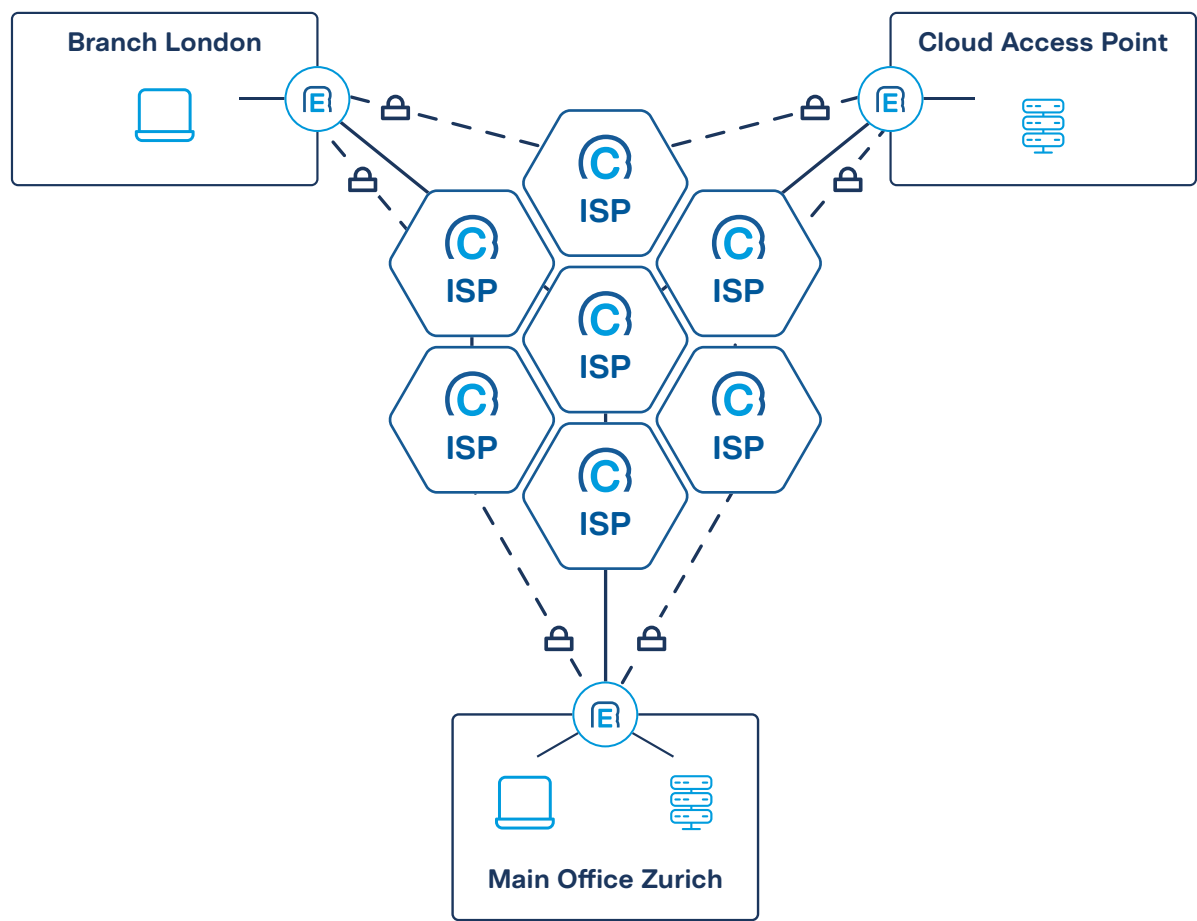


► Site-to-site VPN

Anapaya EDGE with EDGE-to-EDGE encryption can serve as a secure and reliable replacement for a traditional site-to-site VPN setup that connects your network to remote sites or cloud services.

► Secure communication with partners

EDGE-to-EDGE encryption is beneficial for securing your critical communication with partners. You don't have to exchange keys or certificates with your partners manually because EDGE-to-EDGE encryption utilizes the SCION CP-PKI for authentication.



Legend

-  Anapaya EDGE
-  Anapaya CORE
-  SCION Internet
-  Data Center
-  Working station
-  EDGE-to-EDGE Encryption
-  SCION link

Key features

Encryption and Authentication

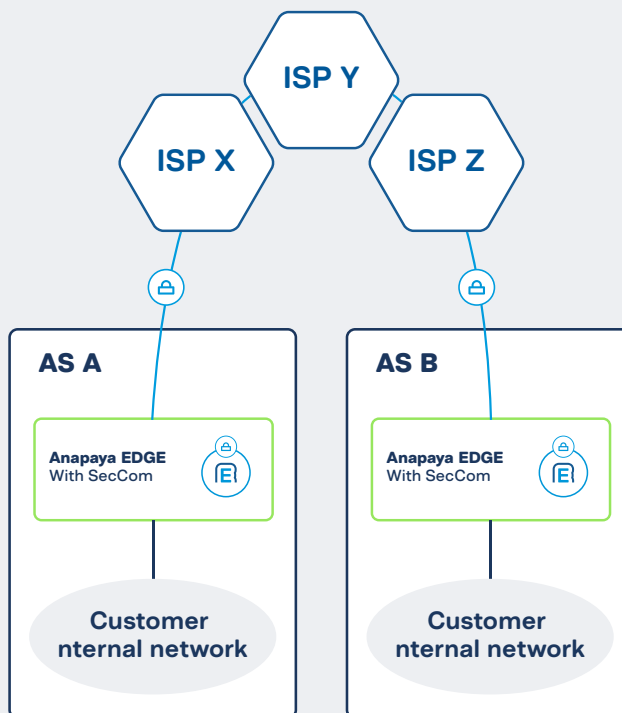
- Payload is encrypted in an ESP packet (IPsec protocol stack).
- Encryption scheme: AES-GCM 256 (high-speed symmetric encryption).
- Endpoint authentication based on SCION PKI with no need for additional certificate / key management.
- Optimized key establishment between endpoints based on QUIC / SCION RPC.

Deployment options

- Simple setup via Console or Appliance Configuration File
- EDGEs can define IP ranges for both encrypted and non-encrypted traffic
- Interruption-free transition to encrypted mode

Prerequisite

- EDGE Pro version (both on sender and receiver)



Upgrade your EDGE with encryption and ensure confidentiality and integrity of your sensitive data on the SCION Internet.

[Learn more](#)