



Use Case 2

An ecosystem of Swiss organisations, exchanging critical data

Different organizations located in Switzerland, as part of an ecosystem, need to exchange critical information safely, in real time and across organizational boundaries. Today, they can ① go over the internet, or ② connect to a single shared instance of a private network from a single provider, or ③ connect, with their own private network, to a concentration hub, routing the data between them.

However, none of these approaches solves all the challenges of inter-organizational communications, which are:

Flexibility and ubiquity	Only internet ① can offer a connection to “everybody”
Reducing the risk of deny of service or eavesdropping	Only private networks (options ② and ③) are resilient to DDoS attacks, immune to route hijacking and guarantees the data will not exit Swiss jurisdiction
No focal point to reduce the risks inherited from a man-in-the-middle and fewer operations when peers need to communicate	Only the two first options avoid a hub
Freedom to choose its provider	Only the first and the last options let the company choose its provider

Moreover, if some companies are participating in multiple ecosystems (e.g. lots of the 3000+ suppliers of BMW are also part of Mercedes’ or Peugeot’s ecosystems), only the internet option (1) does not require dozens of access and devices at the company. **But who would trust the internet for sharing critical and sensitive information?**

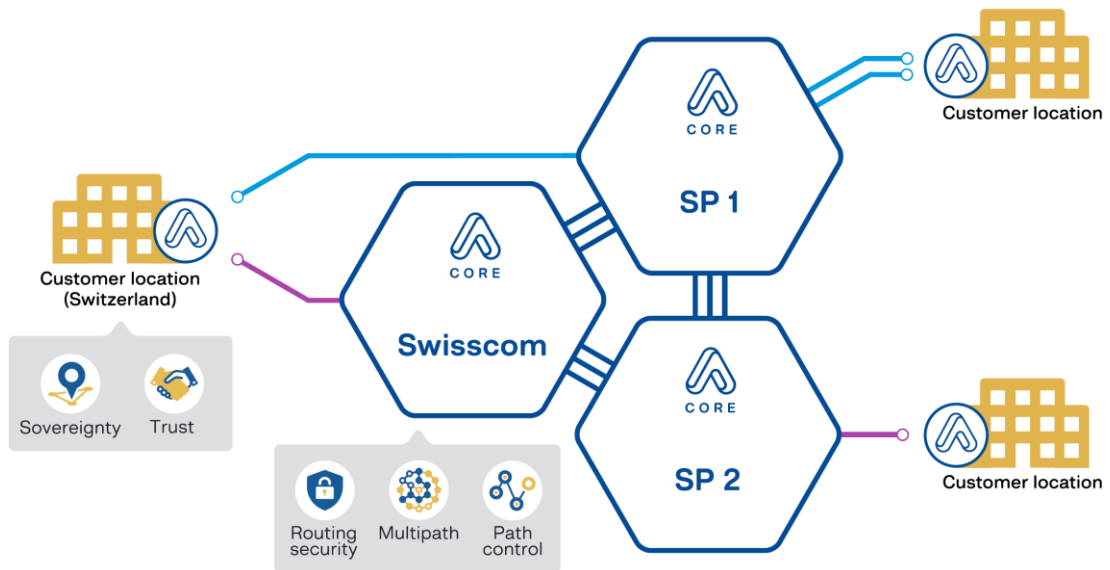
A new paradigm: transporting critical data on a next-generation internet

A location connected to the SCION-Internet (name of the B2B- focusing next-generation internet using the SCION protocol) constantly gets a plurality of paths to its destinations. This diverse set of paths—all of which can be used simultaneously—lead to a drastic increase in reliability and security making it the ideal transport network for business critical data.

Let’s list the most compelling properties for our use case:



- **Public network:** All organizations can communicate with each other, making it flexible to establish new connections.
- **Business continuity:** several paths are consistently available. In the event of an incident with the active path, the immediate fast failover allows traffic to be switched to another path in a few milliseconds. And with the “hidden path” communication with peers is made resilient to DDoS attacks.
- **Trust:** all the network information is verifiable and accountable.



Another breakthrough introduced is the **governance model**, which is fully decentralized and organized into jurisdictions, called “Isolation Domain (ISD)”:

- The **Swiss isolation domain** is made of Swiss service providers like Swisscom, authenticated through a Swiss-governed root of trust and interconnected securely, in Switzerland, with the support of the SwissIX association. This contributes to technological **sovereignty!**
- Each organization connecting to the global network decides its trusted jurisdictions and is fully in control of which traffic must go or stay in this or that jurisdiction, thus supporting **compliance.**



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Swisscom (Schweiz) AG - Enterprise Customers, Postfach, CH-3050 Bern, Tel. 0800 800 900, www.swisscom.ch/enterprise

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How to benefit from the SCION-Internet in Switzerland?

To benefit from the properties offered by the SCION-Internet, two ingredients are mandatory:

- ① A connection to an enabled Point-of-Presence
- ② An EDGE, the on-premise software gateway

Integrated into the well proven high-performance IP Plus Business Internet offering, Swisscom provides solutions that suit the needs of demanding companies: from a SCION-enabled internet access that allows the customer to manage the EDGE on his own up to complete bundles, including accesses everywhere in Switzerland, the EDGE software, the underlying hardware and the management of the whole solution within the selected SLA. Designs, with multiple EDGEs or specific isolation domains, are possible optionally.

