

**Sunrise**

# **SS7 Security Operator view**

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# Background

Sunrise:- Independent Swiss Operator, not part of any group.

Very Innovative, CEO is keen on Best Quality, Best Network.

E.g. Best Network in Switzerland 2 of last 3 years.

First in Switzerland and Europe to have Live 5G Service



# Issues with ss7 Firewalling

Sunrise

**Filtering is complicated. Matching CC+NDC with MCC+MNC is not always 1-2-1.**

**E.g. Caribbean operator with 1 HSS covering several territories.**

MCC-MNCs:

× 3380500

× 33805085

× 338050637

× 348770

× 36269

× 36302

× 71404

CC-NDCs:

× 1876380

× 18763885

× 1876388637

× 187630441

× 187630443

× 187630444

**Not all unusual Signalling is are attacks.**

**Could be:-**

**MNP resolution, SMS grey Route (SMS HR Bypass)**

**SigFW is Important but so is SMS Home Routing Luckily SMS HR has a good business case.**

# Other things to consider

- Attacker still needs a configured connection to an MNO/MVNOs network.

i.e. This requires agreement or someone on the inside to configure the links.

- For SMS intercept, attacker still needs real Global Title (Routing address).
- Operators should share cases of SMS intercept so these GT/ranges are made useless. Perhaps there is a role here for the ITU.
- Should Signalling Carriers or SigFW vendors have a role? Most seem to want to sell this functionality as a service.

**Thank you**