

The logo for Squire Technologies features the word "squire technologies" in a white, lowercase, sans-serif font. The letter "s" is white, while the "q" is yellow. A thick yellow vertical line extends from the top of the "q" down to the bottom of the frame. The background is a dark blue with a repeating geometric pattern of interlocking squares.

squire technologies



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5G SA

Core Network Optimisation

5G Adoption Rate in Europe



90%

of operators supporting
in Europe

5G



15%

these operators
have launched

5GSA



2.8%

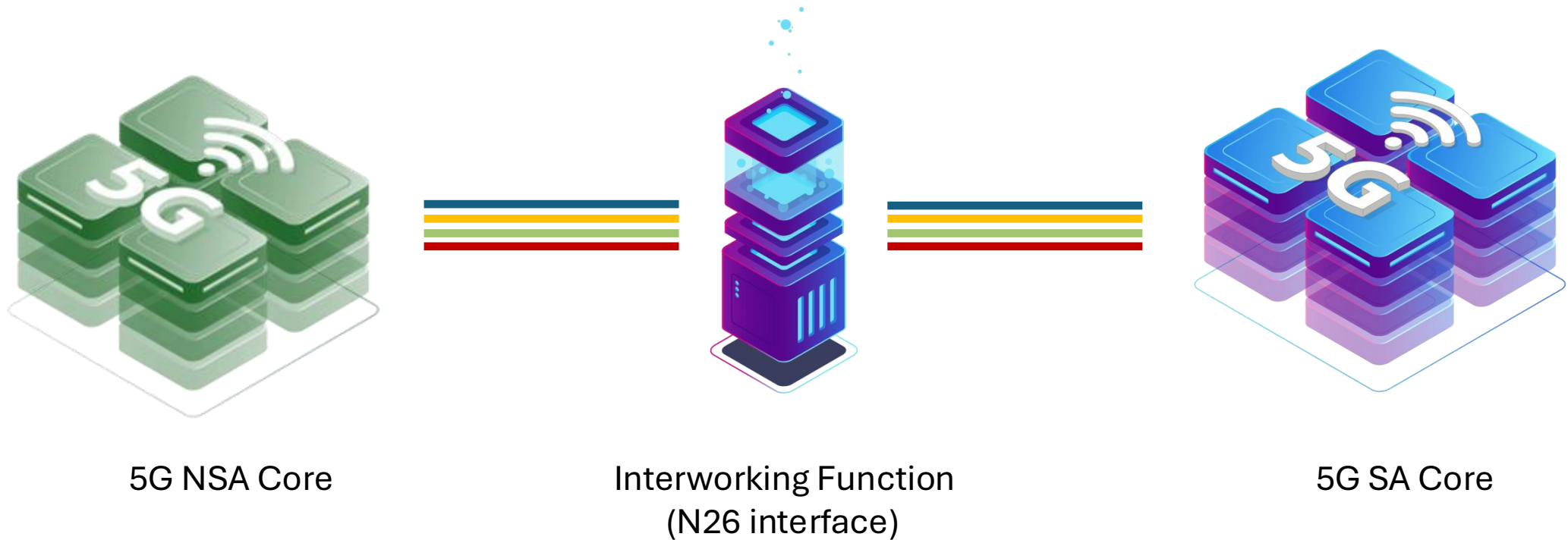
of

5GSA

connections

Signalling Interworking Function (5G IWF)

Interworking between 5G NSA and 5G SA



Signalling Interworking Function (5G IWF)

Implementation Perspectives

Duck



Rabbit

How to Mitigate issues

3rd Party Interworking Function

- Specialised vendors are more flexible
- Quicker to deploy changes than the large vendors
- Commercially attractive
- Neutral element between networks
- Forward facing capabilities

Roaming – Signalling Normalisation

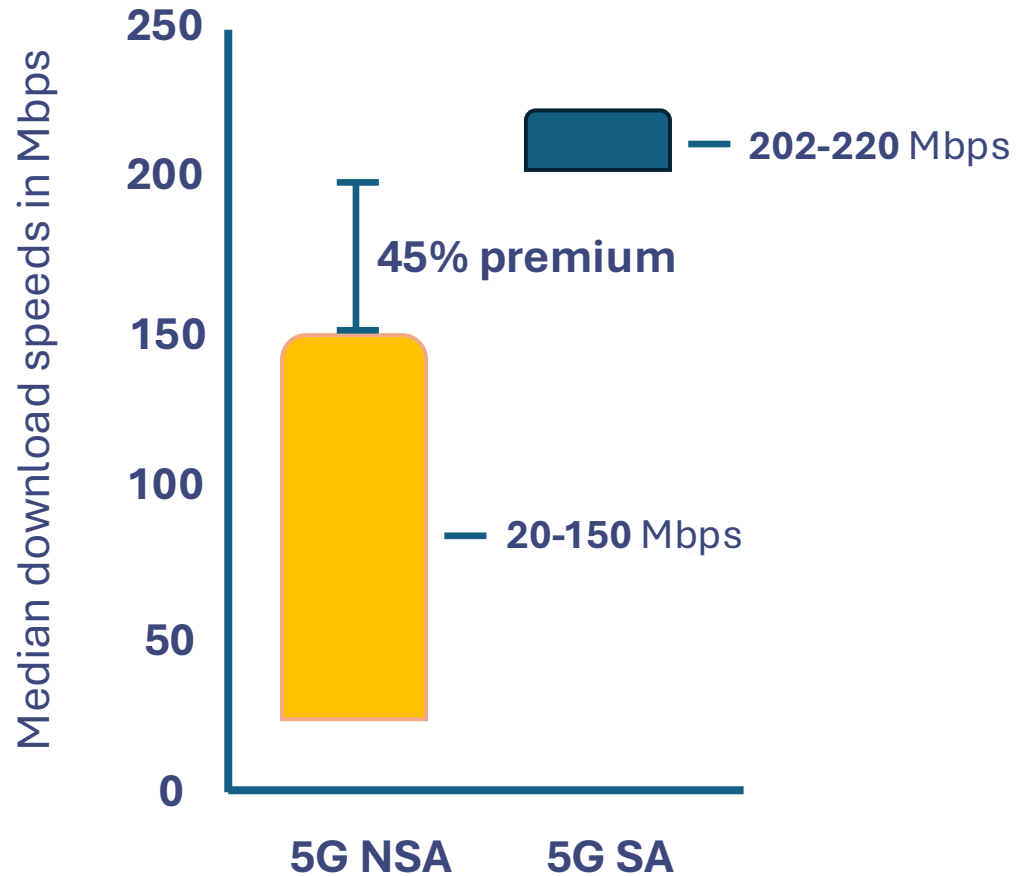
The next challenge is around future roaming capabilities.

- Point to point connections are needed
- Unknown Roaming challenges to overcome
- Additional complexity over VoLTE Roaming
- Possibility of opensource 5G cores being commercialised as they mature?
- A specialist SEPP should be considered!



Traffic Throughput – Signalling Harmonisation

5G SA Networks are designed for low latency providing much higher data speed.



- 5G SA provides higher efficiency
- Lower latency

- Potential for more catastrophic issues
- Signalling storms
- Overload of certain NF (SMF, AMF, CHF, UDM)

Traffic Throughput – Signalling Harmonisation

The 5G SCP provides the central signalling harmonisation layer required to ensure your network elements are not overwhelmed.

- SCP Enables:
 - Holistic view of all network traffic
 - Consistent behaviour as a control point
 - Throttling, load balancing and load sharing across multiple elements
 - Vendor neutral



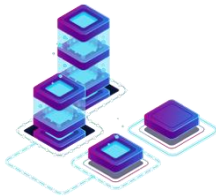
INTERWORKING

N26 and beyond? – An IWF should be considered as an additional element with flexible Interworking capabilities for forward facing use.



ROAMING

Taking advantage of 5G SA security specifications requires a powerful edge solution and is a key aspect to think about.



SIGNALLING CONTROL AND HARMONISATION

Central stability, routing flexibility, throttling and normalisation requires an SCP, especially in future scaling – Something to consider upfront to reduce complexity over time as the network matures.

The background is a deep purple gradient with abstract, wavy, particle-like patterns in lighter shades of purple and blue. Several bright, out-of-focus light spots are scattered across the scene, creating a sense of depth and movement. The logo is centered in the upper half of the image.

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www.squire-technologies.com