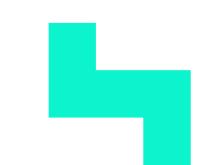


Hitesh Jain Sr. Product Market Development Director







5G – Transition, It is here and now, reinventing business model

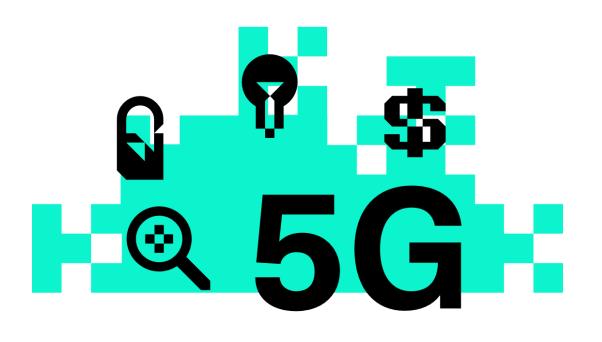
 5G, unique Mobile Subscribers estimated to be 1.5B + 25 Billion loT connections.

- GSMA

with Annual revenue of \$300B

 5G Investments on Capex alone would reach to

48B\$ + Opex (200B\$)

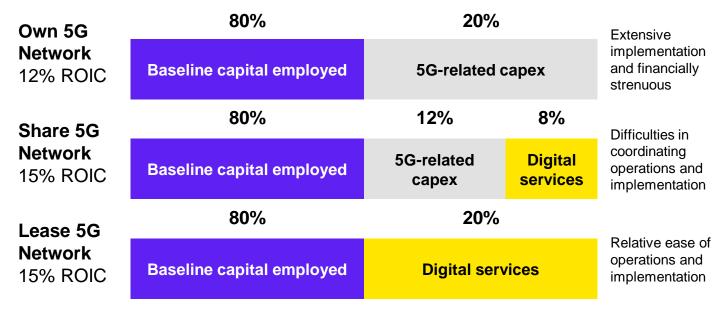




5G – Transition, It is here and now, reinventing business model

- High Capex investment
 — Pressure on Financial returns
 - Current ROIC of the operator 17%, projected to reduce to 12% by 2020
 - 64% of the Operators say that Capex planning is driven by technology and not by business case - PWC
- Business case + Commercial Strategy
- Scope for 20% Improvement on ROIC
- Open-ness:
 - Any to Any Partnership
 - Redefining Competition, Collaboration with Competitors
 - 5G private networks may be built by enterprises looking to upgrade their networks
 Gartner

Asset-light telcos under the leasing model to differentiate themselves in digital services



Source: DBS Bank

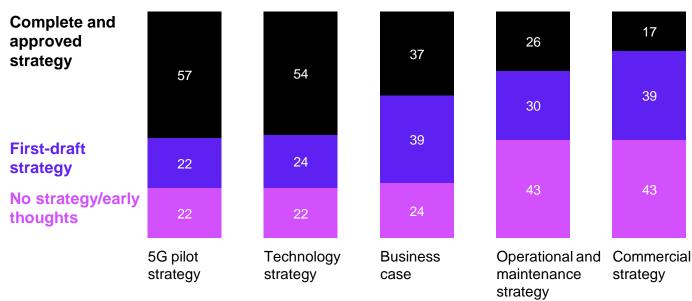


5G – Transition, It is here and now, reinventing business model

- A sharp right turn along the value chain is needed to emerge a long-term winner.
- The technology strategy is mature for most operators, while commercial strategy and business case remains immature for most
- In the near Future: 5G will rely heavily on 4G LTE for ubiquitous and seamless coverage everywhere in the network

The technology strategy is mature for most operators, while commercial strategy and business case remains immature for most.

Current status of 5G strategy development, %



^{1100% = 46} operators. Figures may not sum to 100%, because of rounding

Source: McKinsey & Co.

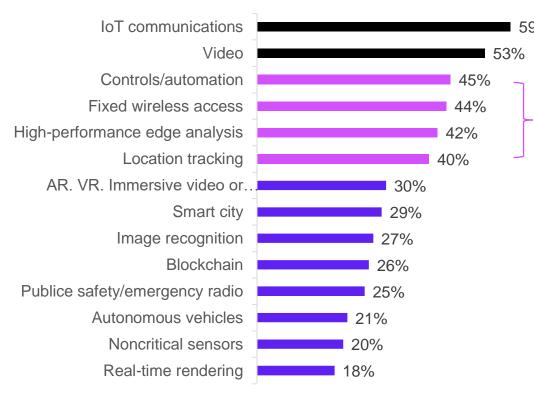


The early phase / transition phase

Application and services would be the one which supports and enables commercial ready collaboration

Expected use for 5G capable networks

Percentage of Respondents



Controls/automation, fixed wireless access, high-performance edge analytics and location tracking are a second tier of uses for 5G-capable networks

- The global 5G applications and services market:
 - Value 132B\$ in 2020 and is expected to reach 663B\$ by 2027
 - CAGR of 25.8% between 2020 and 2027

Source: Zion Market Research.

Source : Gartner



Services and applications during early phase, focus on quick monetization

The hyper-connected approach: Mobile operators would create a blend of pre-existing technologies covering 2G, 3G, 4G, Wi-fi and others to allow higher coverage and availability, with the key differentiator being greater connectivity

Attributes -

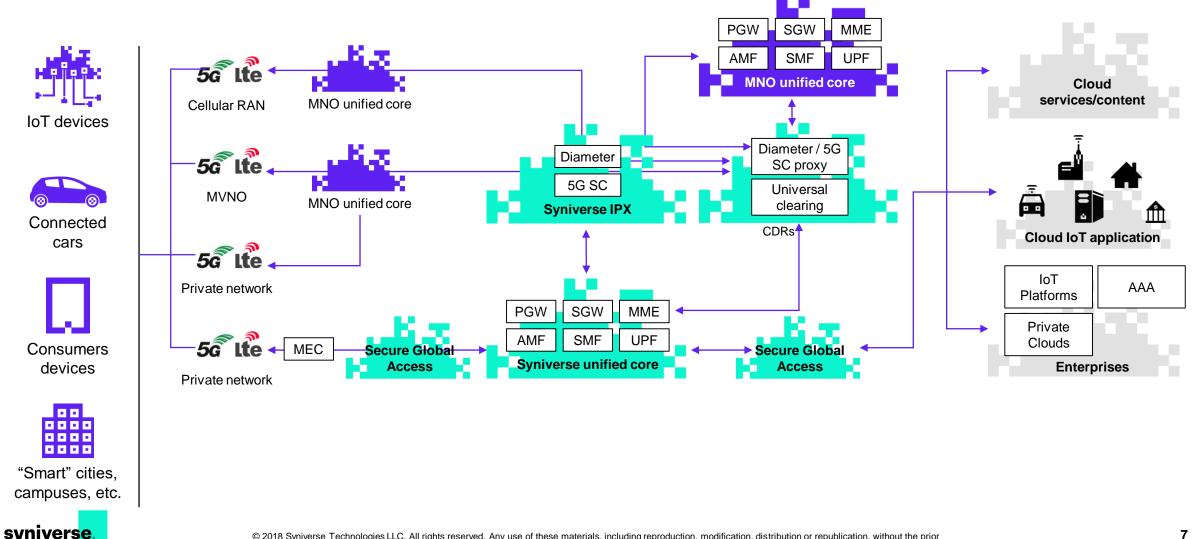
- Open & Secure Architecture:
- Collaborative, secure, decentralize
- Enables continuous growth of business and infrastructure & Commercial Models





Connected everything in a 5G World

3GPP Access Options

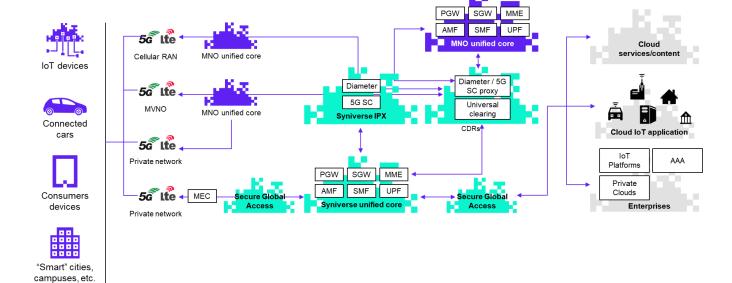


Creating secure interconnections and commercial models

Syniverse is uniquely positioned to provide device connectivity and also create and monetize public network interconnections for enterprises and service providers

- Provide device connectivity to Enterprise and IoT applications
 - MNO 5G Core for traditional mobile access
 - Syniverse Unified Core for private networks and MVNOs
- Create, authenticate and secure connections between networks and service providers
 - Syniverse IPX and 5G Signaling Controller (HTTP/2)
 - Syniverse Secure global access
- Facilitate commercial agreements between customers, service providers, and MNOs
 - Syniverse Marketplace
 - Syniverse Universal Clearing and Settlement

3GPP Access Options

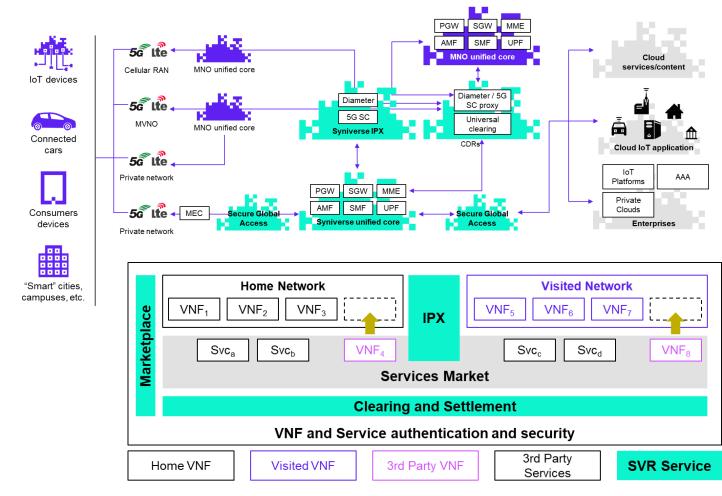




Enabling the evolving mobile market community

The capabilities of 5G to deliver new network solutions (eMBB, mMTC, URLLC) will impact the market ecosystem and encourage new ways of providing and consuming services

- Marketplace to enable secure service exchange and monetize commercial models
- Universal clearing and settlement based on exchange of universal data records
 - Multi-party billing arrangement
 - Non-traditional service elements
 - Enterprise participation
 - Non-traditional service providers
 - Flexible billing cycles
- Interconnectivity infrastructure required to facilitate Enterprise and Consumer connections to applications and services





Source for above Information:

https://www.mckinsey.com/industries/telecommunications/our-insights/a-5g-manifesto-for-the-ceo

https://www.dbs.com/in/personal/aics/templatedata/article/generic/data/en/GR/012017/170127 insights the push for 5g shaking up the landscape.xml&cid=aio heroblock gl in 01

https://www.tmforum.org/

https://www.gsma.com/mobileeconomy/wp-content/uploads/2018/05/The-Mobile-Economy-2018.pdf

https://www.forbes.com/sites/insights-intelai/2018/09/21/five-ways-5g-will-rock-our-world/#723ffdaa73f6

www.Gartner.com

https://www2.deloitte.com/insights/us/en/topics/emerging-technologies/5g-next-gen-network-of-networks.html

https://investors.att.com/~/media/Files/A/ATT-IR/financial-reports/quarterly-earnings/2019/1q-2019/ATT%201Q19%20Earnings.pdf

https://www.sdxcentral.com/5g/definitions/5g-architecture/

https://futurumresearch.com/exploring-early-5g-use/

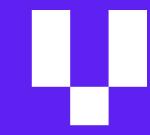
https://www.globenewswire.com/news-release/2018/11/30/1659818/0/en/Comprehensive-Forecasts-for-Leading-5G-Applications-and-Services-2018-2023-Enterprise-and-Industrial-IoT-Enhanced-Mobile-Services-and-Ultra-Reliable-and-Low-Latency-Communication.html

https://www.sdxcentral.com/5g/definitions/5g-architecture/

http://telecoms.com/opinion/5g-from-personal-transformation-to-society-enterprise-transformation/

https://www.telecomlead.com/mwc/gsma-reveals-5g-investment-and-subscriber-trends-at-mwc-89242





The world's most connected company ™

