

Network Slicing: A Critical Component of 5G Success

Network slicing is one of the main architectural capabilities in 5G that operators will be leveraging to move the addressed use cases beyond the mobile internet domain. In this infographic we explore how creating multiple virtual core networks atop a shared physical infrastructure is at the heart of the industry 4.0 revolution.

The Use Cases for Network Slicing Applications are Potentially Endless

Network slices are customized to use cases and can span multiple parts of the home and other operator networks

With network slicing, each use case receives optimized resources which dynamically expand and contract as the run time need dictates



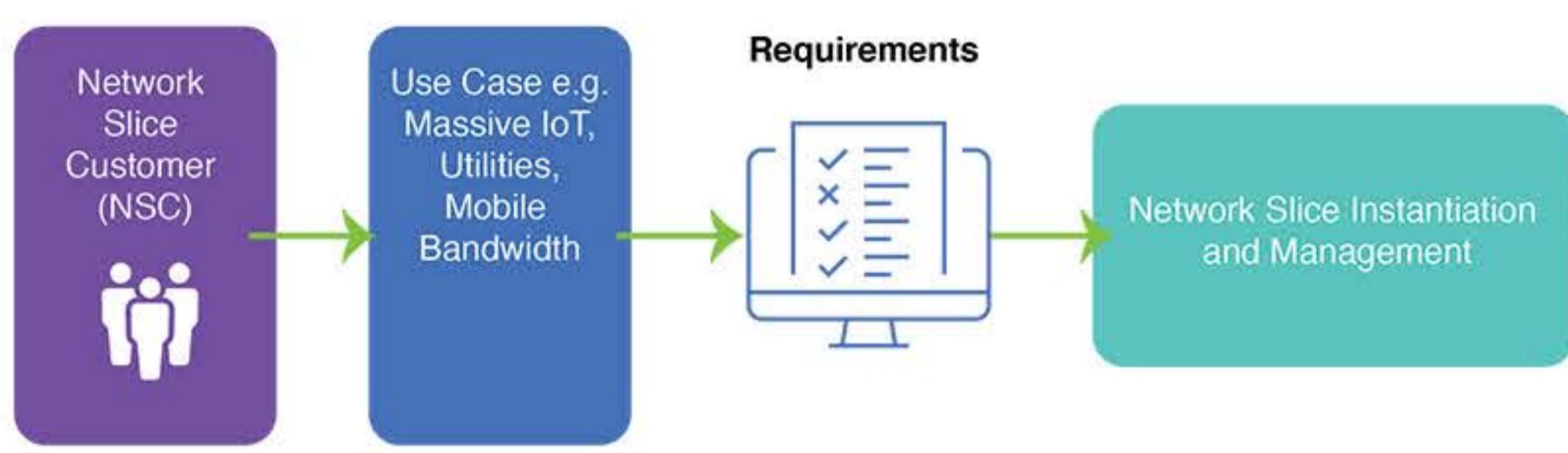
This can include the UE, access network, core network and transport network

Using network slicing, 5G networks can dynamically cater to all perceivable use cases applicable to all industry verticals

5G IoT use cases will evolve over time with high density and low bandwidth requirements, and eventually low latency applications

How Does Network Slicing Work?

Network slicing can provide a near-direct path for communications, providing significant latency and reliability advantages



However...

It is important to recognize that network slices are different from traditional Virtual Private Networks

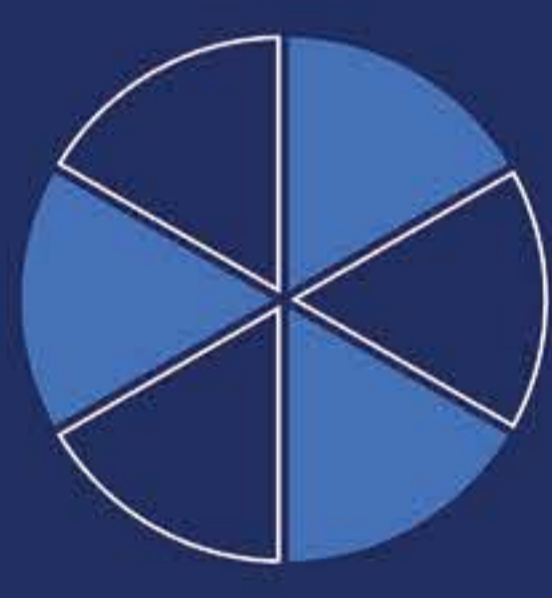
Network Slicing



Must guarantee resources and quality of service (QoS) for every use case in the service, every time



Service based architecture using micro services to enable cloud native implementation, providing a very dynamic, scalable and efficient network model



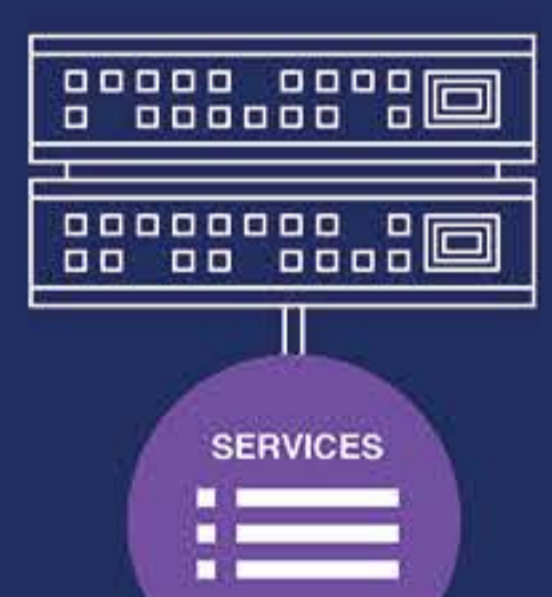
Rolls out logical slices on demand utilizing dynamic runtime orchestration capabilities



Enables a faster time to market

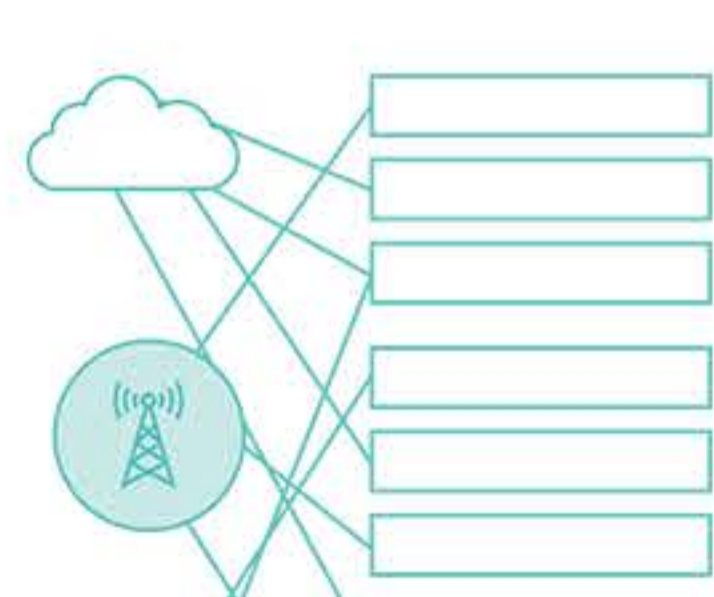
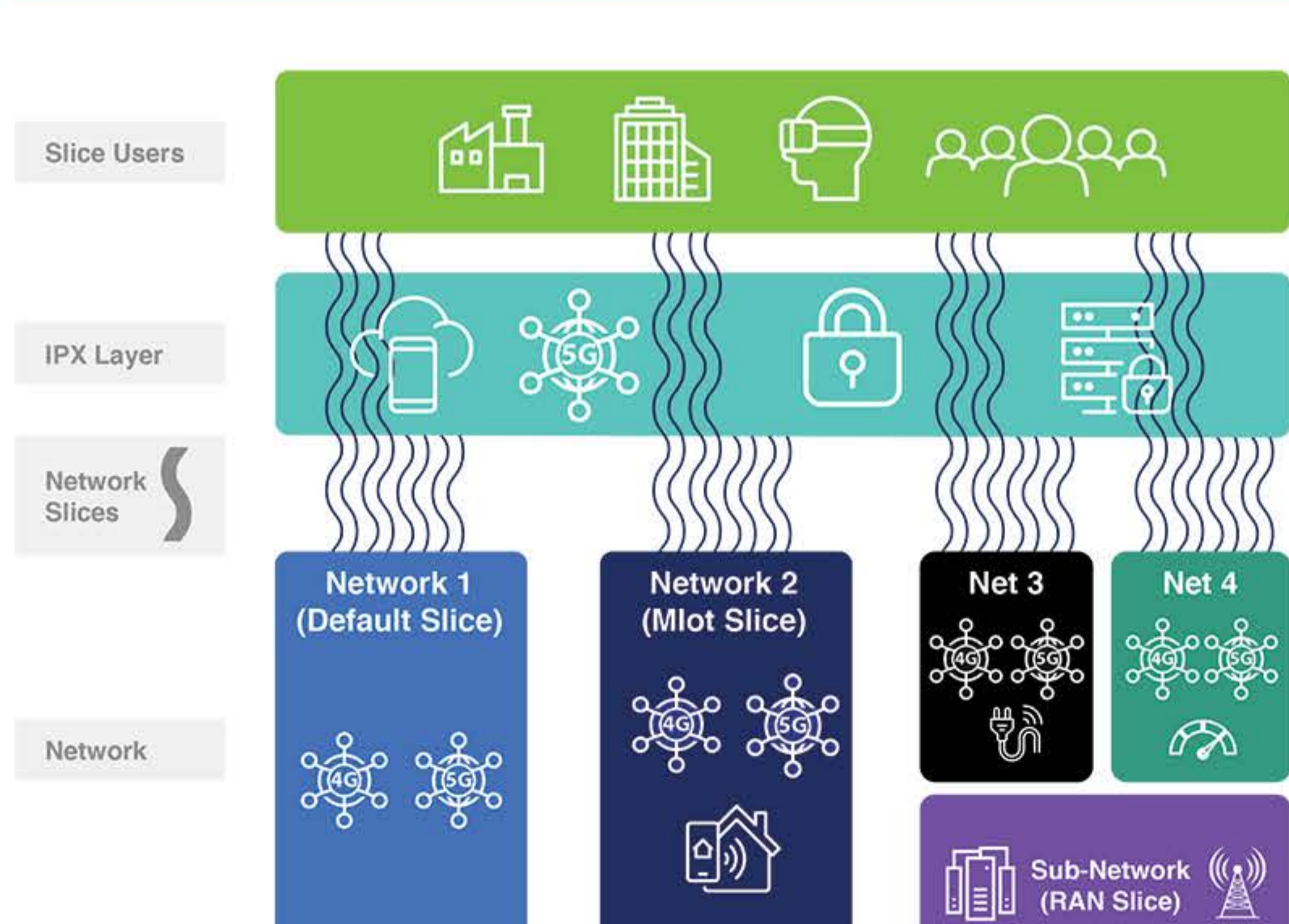


May leverage a multi-tenant virtual infrastructure to support simultaneous, dynamic slices, with varying quality and security parameters

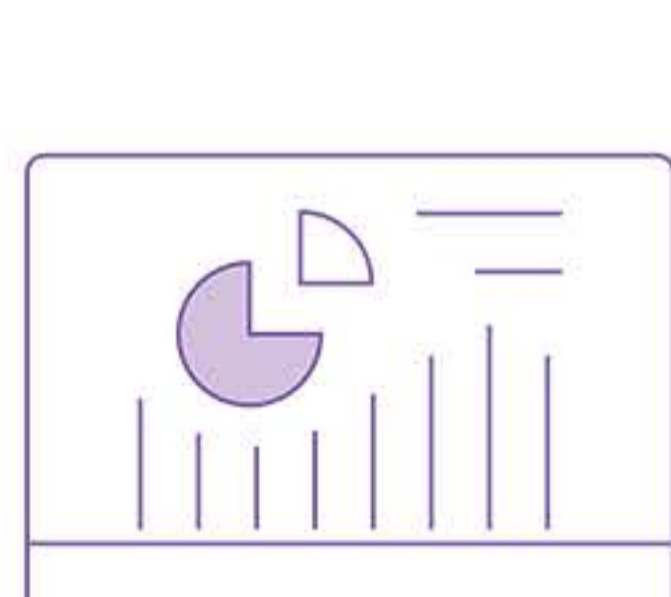


Depends on service orchestration and automation

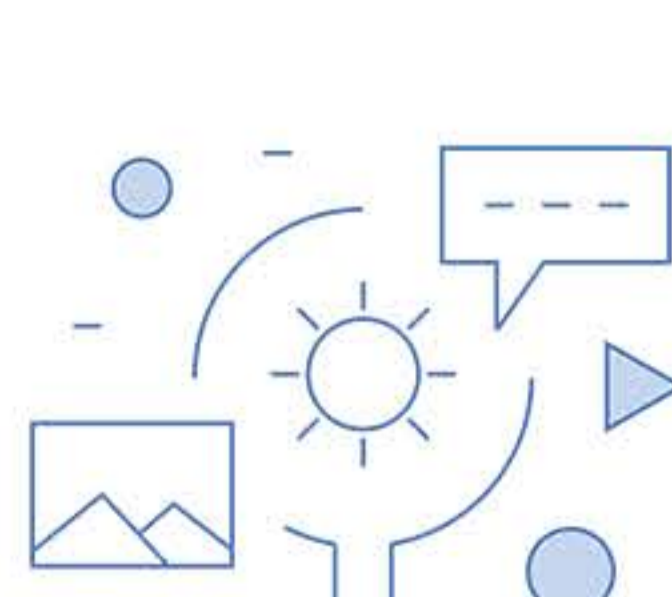
The role of multi-domain dynamic orchestration



Slice-aware provisioning of services into specific slices allows operators to transition customers between slices in real time



Closed loop analytics drive service assurance with real time QoS management delivering QoS based services



Orchestration also supports tracking of service level adherence and healing, scaling, or modifying underlying services when deviation is detected

For a deeper dive into the FCC's Fourth Report and Order please read our whitepaper: Updated Factors to Consider When Implementing the STIR/SHAKEN Call Authentication Requirements Under the Pallone-Thune TRACED Act, available at [tnsi.com](https://www.tnsi.com)