5G NSA network architecture.

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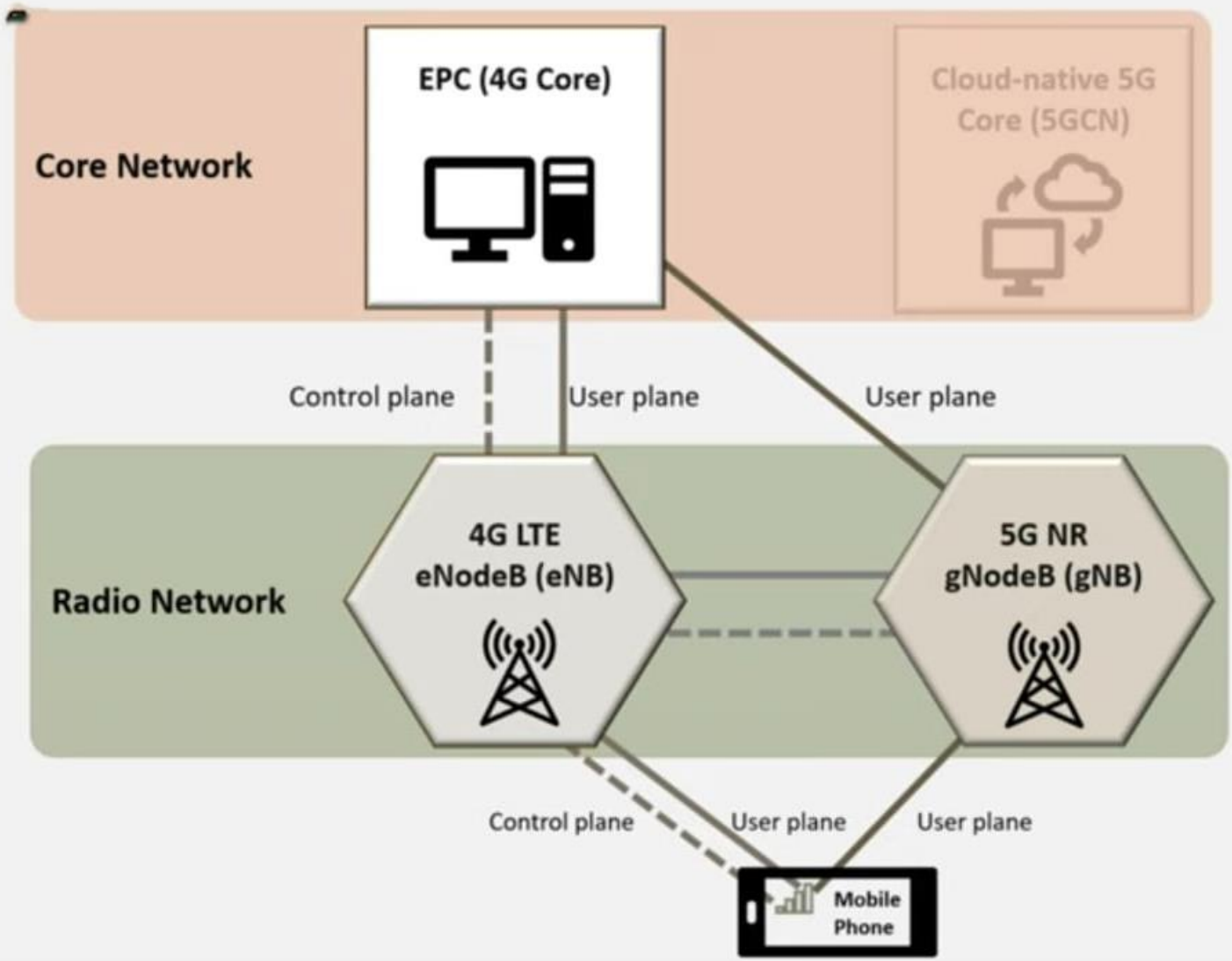
What is 5G NSA network architecture.

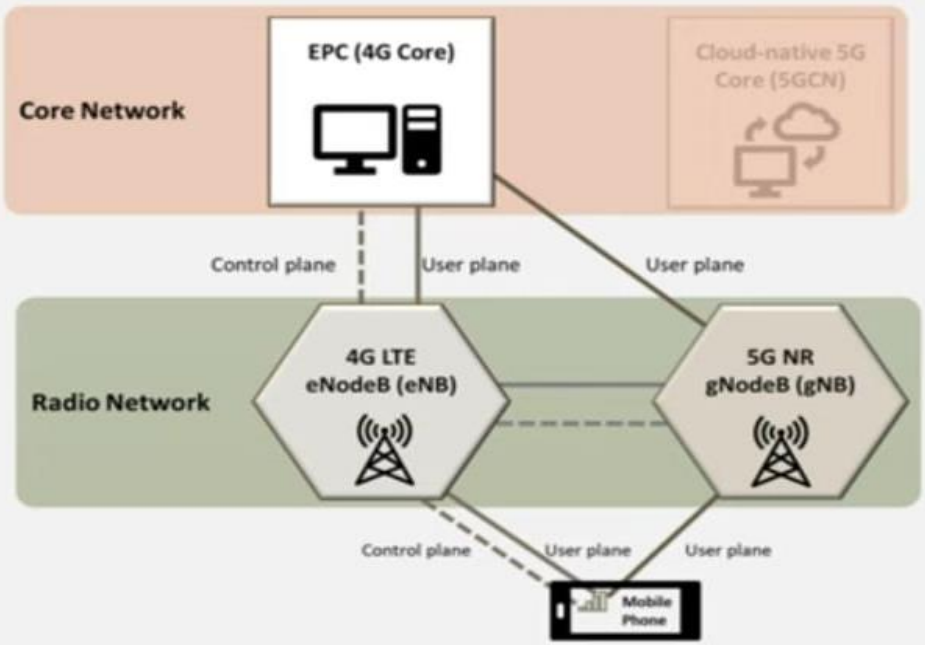
- NSA stands for Non-Standalone. The basic meaning of the 5G NSA mode is clued in the name – A network that can't stand alone. To put it in one sentence, NSA is a **RAN (Radio Access Network) that operates with the help of the 4G LTE's core called EPC (Evolved Packet Core).**

- If you follow the news or updates on 5G networks, you may have come across statements that suggest that 5G is different from the earlier generations of mobile networks.
- 2G, 3G and 4G networks were designed to be used by consumers and businesses in more or less the same way.
- While these networks enabled advanced business-centric use cases like the Internet of Things (IoT), the underlying network functioned in the same way.

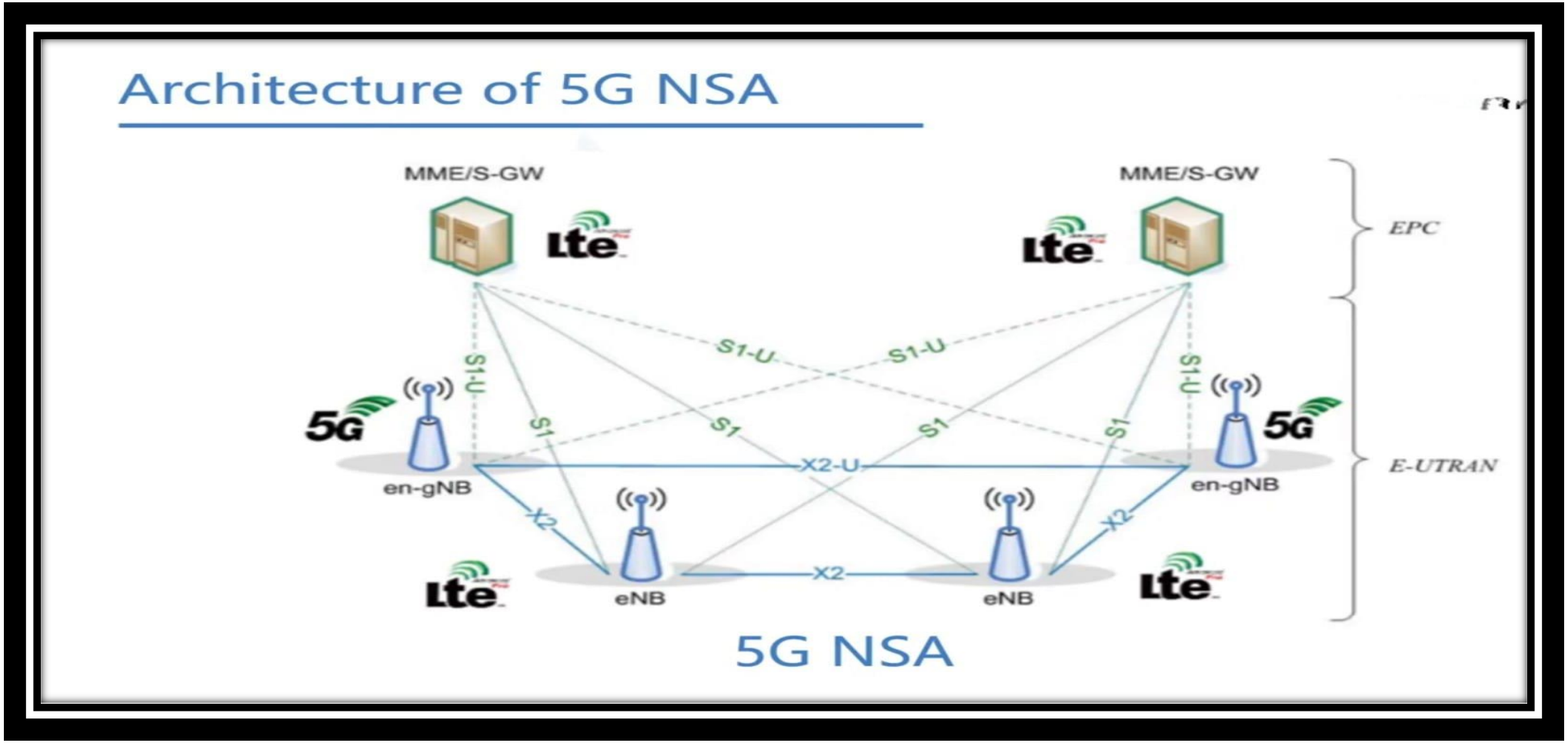
5G NSA


Core Network
EPC (4G Core)
Cloud-native 5G Core (5GCN)
Control plane
User plane
User plane
Radio Network
4G LTE eNodeB (eNB)
5G NR gNodeB (gNB)
Control plane
User plane
User plane
Mobile Phone

- Non-standalone 5G utilises 5G NR and 4G LTE networks to enable higher data rates through Dual Connectivity.
- With dual connectivity, a 5G phone can connect with both 4G LTE and 5G NR networks to offer higher data rates to phone users.
- Since non-standalone 5G can work with an existing 4G LTE mobile core network, it offers mobile operators a quick option to enter the 5G market.



Architecture of 5G NSA



- What changes in 5G is that 5G networks have been designed with advanced business use cases in mind. In fact, the majority of the use cases in 5G are for businesses and industries.
- There are three use case classes or categories for 5G NR networks: