What is 5G NSA network architecture.

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)

EPC is basically the framework on which a 4G network runs. It helps in converging data and voice for a 4G LTE network. Earlier, 2G and 3G networks had to use separate domains and switch constantly for providing data and voice. Thanks to EPC (the new core network), both data and voice are converged on a single domain. This made the network more efficient.

The EPC (4G LTE’s core network) acts as the sole framework for both the 4G LTE and 5G NR (wireless technology).

5G non-standalone (NSA) network architecture is a Radio Access Network (RAN) that uses a 4G LTE core, called the Evolved Packet Core (EPC), to support 5G networks. This allows carriers to provide 5G coverage in areas where they don't yet have the necessary equipment to build a fully-fledged 5G network.

NSA network architecture includes both a 4G and 5G base station, but the 4G base station takes precedence. When a device connects to a 5G network, radio frequency signals are forwarded to the primary 4G base station.

NSA has been used by many telecom companies for the initial deployment of 5G because it has some advantages, including: Cost-effective, Easy to deploy, Fast process of rolling out the network, and Faster call connect time on Voice.

However, NSA also has some disadvantages, including:

* Can't deliver low latency
* More power consumption
* Can't deliver the pure and best form of 5G in the initial stage

