

Mavenir's unique approach to cloud-centric NFV infrastructure pushes performance thresholds across its end-to-end 5G portfolio.

5G Initiatives

The promises of 5G go well beyond high data rate, spectral efficiency, ultra-low latency, or massive sensor networks.

The fundamental appeal of 5G lies in the fact that the entire infrastructure acts as a cohesive platform for innovative applications and is tuned to flex with demand - providing services tailored to their unique characteristics. While the infrastructure may encompass discrete components from multiple vendors and heterogeneous wireless networks, it is designed to be a fully programmable and an interoperable framework both in the core and radio resource management.

This smart network infrastructure and an enhanced ability to support exponential scale for connectivity open the doors to innovative applications across a variety of markets such as connected cities, smart agriculture, smart manufacturing, connected healthcare, virtual reality, and autonomous vehicles.

Mavenir is committed to cloud-centric infrastructure across its end-to-end 5G portfolio ([vRAN](#), [vEPC](#), IMS, Security and other critical solutions), using open development techniques and programming tools to deliver the networks of the future.

The recent announcement of [5G Core Network](#) and vRAN solutions means that Mavenir is a full end-to-end 4G LTE and 5G, IoT network provider.

The [5G New Radio \(NR\)](#) and the 5G Core element realization and deployment requirements are sharp departures from the traditional approaches of legacy vendors. Mavenir has these elements, supporting 4G LTE, already in trials and POCs in several countries.

Mavenir's 5G ready Cloud Native architecture is a fully virtualized, integrated service centric framework that is critical for highly granular scalability, elasticity, dynamic control, and orchestration for the entire network.

Mavenir's 5G Core Network is designed for mobile communications systems with the functional capabilities to support high bandwidth, massive IoT connectivity and ultra-low latency applications. Highlights:

- Cloud Native, fully virtualized, stateless architecture with a flexible end-to-end orchestration framework to suit varied CSP needs
- SDN-controlled 5GC with complete separation of both control and user plane framework that allows independent dynamic scaling of control and user plane elements with intelligent packet handling.

Mavenir's vRAN extends the virtualization to the edge of the network and provides strategic differentiation by enabling the Remote Radio Units (RRUs) to interwork with the virtualized Cloud Base Band Unit (vBBU) over ethernet Fronthaul (FH), overcoming the traditional constraints of Common Public Radio Interface (CPRI™) over fiber. Highlights:

- With end-to-end network slicing support, flexibility for the vBBU and even the vEPC co-located for Multi-access Edge Computing ([MEC](#)) – the solution can be tailored for unique service centric architectures,

enriching user experience while addressing proximity specific deployment constraints.

- Investment protection is achieved (e.g. 4G LTE to 5G NR) through remote-upgradable Software Defined Radio (SDR) capabilities.

Both Mavenir's access and core offerings are enabled by its network functions virtualization (NFV) and container management and orchestration platform called [CloudRange™](#).