



SOLUTION BRIEF

MAVENIR'S CONVERGED PACKET CORE

Mavenir's Converged Packet Core enables operators to leverage their existing mobile network while evolving to a 5G core network. The Converged Packet Core Solution provides an end-to-end fully containerized 5G Core product portfolio with combo nodes for 2G/3G and 4G support. Mavenir provides customers with a flexible and cost-effective journey to 5G that allows maximum reuse of 4G networks using combo nodes. In addition to multi-generation support, the Mavenir Converged Packet Core also supports non-3GPP access and can be tailored to fit a customer's infrastructure and business needs.

The Mavenir Converged Packet Core solution uses cloud-native architecture with granular micro-services, following web-scale principles which provide the required scalability, agility, and reliability to meet the wide range of 5G use cases and stringent 5G performance requirements for end-to-end latency, high throughput demand, and overall network availability.

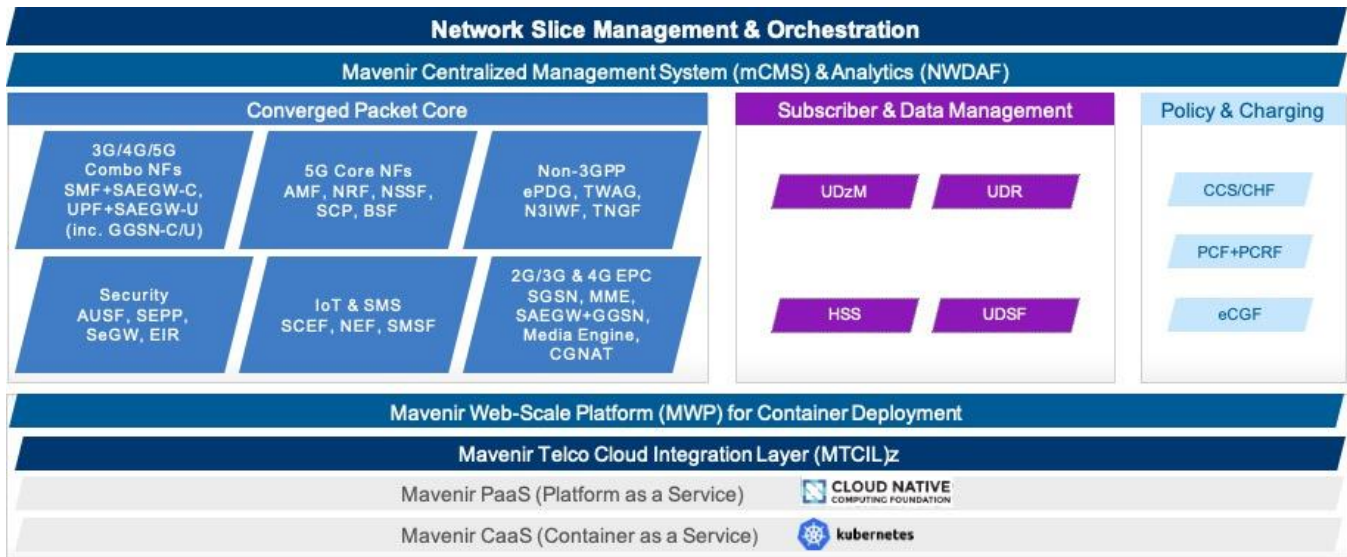


Figure 1: Mavenir Converged Packet Core Solution Components

The Mavenir Converged Packet Core Solution offers 5GC NF applications that are de-coupled and built independent of the platform, allowing the Mavenir 5GC NFs to run in any underlying CaaS/PaaS and IaaS layers. In addition, Mavenir has de-coupled the 5GC NF application services from the common management services to provide a truly disaggregated and independently scalable packet core architecture.



Mavenir is committed to changing network economics and driving positive business outcomes for their customers. Mavenir’s packet core network architecture simplifies network transformation and focuses on **core principles** that have consistently resulted in customer success.

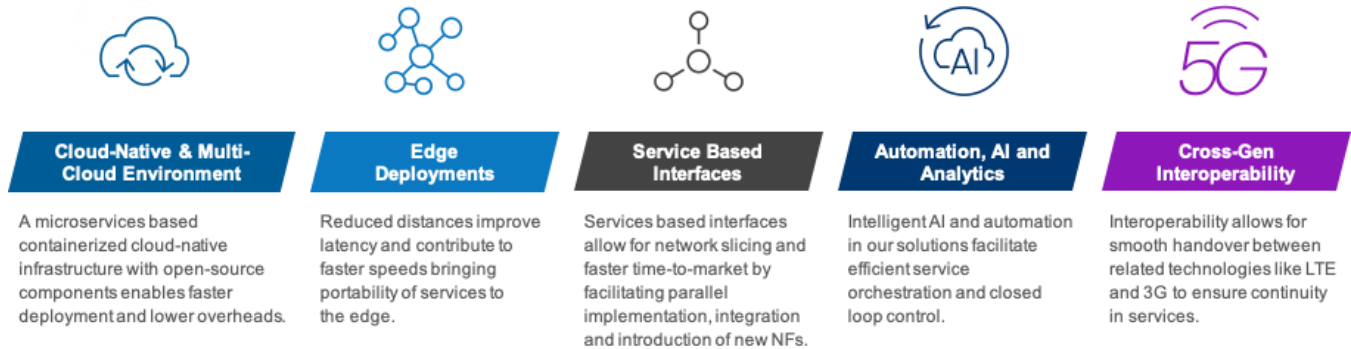


Figure 2: Key Tenets for Converged Packet Core

To realize the full potential of 5G, Mavenir’s solution implements cloud-based technologies and adheres to strong design principles and architecture. Our solution delivers:

- > **A 100% Cloud-native solution**
Applications and services are purpose-built for the cloud model that offers easy scaling, hardware decoupling, agility, portability, and resilience across multiple cloud environments. A light hardware footprint reduces costs while fine-grained microservices lend control and simplicity to the environment. A cloud-native environment helps create and sustain a culture where building, testing, releasing, and deploying happens swiftly and consistently. An automated path for continuous delivery lets developers rapidly deploy to production environments.
- > **Service-based architecture:** Application services are decoupled from the network and platform infrastructure. Open APIs provide flexibility and extensibility for service agility.
- > **Service velocity and automation:** Operators can rapidly launch new services with service deployment agility and AI/ML for network scaling that also results in reduced opex.
- > **Network slicing:** Traffic isolation, security, and differentiated performance gives operators the ability to customize the network to suit specific requirements of their customers.
- > **Optimized footprint:** A complete 5G Core as an enterprise service, dedicated network slice or Non-Public Network (NPN) can be deployed in an efficient small footprint server configuration.



- > **Continuous Development & Continuous Integration (CI/CD):** DevOps-based software release and upgrade cycles reduce time to market, cost, and lengthy integration processes.
- > **Access agnostic core or access independence:** A common core caters to all types of access (3GPP, non-3GPP), allowing seamless interworking between them and enabling operational efficiencies.
- > **Multi-Access Edge Computing (MEC):** Operators can achieve the low-latency requirement of use cases enabled by 5G. Low latency and high throughput requirements demand placing network functions closer to the application servers.
- > **High Performance User Plane Function (UPF):** Mavenir's cloud-native, highly optimized packet processing design for UPF uses DPDK and VPP technology that delivers low hardware footprint, reduces compute costs (with SmartNIC offload), including support for 2G/3G and 4G.
- > **Network Functions:** Network Functions are microservices-based, containerized, reliable, agile, and stateless.

About Mavenir

Mavenir is building the future of networks and pioneering advanced technology, focusing on the vision of a single, software-based automated network that runs on any cloud. As the industry's only end-to-end, cloud-native network software provider, Mavenir is transforming the way the world connects, accelerating software network transformation for 250+ Communications Service Providers in over 120 countries, which serve more than 50% of the world's subscribers.

For more on Mavenir Solutions please visit our website at www.mavenir.com