

Mavenir brings cutting-edge technology to its customers with 3rd Gen Intel® Xeon® Scalable processors

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As a global leader, Intel® pushes the boundaries of what’s possible with flexible infrastructure, optimized for multi-cloud and AI, and serves the most in-demand workload requirements.

Since the UPF is in the path of processing all network data, it plays a vital role in the 5G network and the ability to realize the ambitious vision of supporting low latency and high throughput requirements. Mavenir’s fully containerized and powerful User Plane Function (UPF) is cloud-native, employs a low hardware footprint, and features a highly optimized packet processing design. With these superpowers, it can only mean better performance, higher efficiency, and improved scalability for CSPs.

Mavenir and Intel continuously strive to bring together an ecosystem of expertise to ensure our customers get the most advanced and unbeatable technology.

The 5G advantage with 3rd Gen Intel® Xeon® Scalable processors:

1.62x

Average performance improvement
(across network and communication workloads vs prior gen)

Up to 1.76x

Enhanced DPDK L3 forwarding
(across network and communication workloads vs prior gen)

Up to 1.63x

Increased CDN throughput
(enabling more users to be served at higher resolution or more subscribers at the same resolution vs prior gen)

Joining forces with Intel, a global leader in processor innovation, empowers Mavenir to bring the most advanced technology to customers

Intel’s latest 3rd Gen Intel Xeon Scalable processors

deliver a balanced architecture with built-in artificial intelligence acceleration, crypto acceleration, and advanced security capabilities. PCIe Gen 4 enhancement delivers 2.7X increase in aggregate peak bandwidth.

Mavenir’s User Plane Function (UPF)

leverages Enhanced DPDK forwarding capacity, 64 PCI lane per socket, and 2X throughput per PCI lane delivered by 3rd Gen Xeon architecture.

Mavenir and Intel partnership and collaboration

- > Over the years, Mavenir and Intel have collaborated to build a high-impact partnership and co-innovated to provide advanced and differentiated solutions for customers.
- > By jointly addressing crucial and emerging customer needs and achieving performance goals for CSPs, Mavenir and Intel are unlocking the growth potential of the mobile industry.

Innovation does not happen in isolation. Mavenir collaborates and partners with global industry leaders and key ecosystem players to pioneer and build network capabilities that boost performance, capacity, and make the promise of 5G and edge deployment a reality.

Mavenir’s containerized UPF can deliver unbeatable performance with Intel® 3rd Gen Xeon® scalable processors

1. Mavenir’s UPF, built with cloud-based microservices, enables Intel® 3rd Gen Xeon® scalable processors to deliver an added benefit of **1.58X higher performance** vs. its prior generation.
2. Container technology requires less RAM and disk storage space and is more sparing in its use of hardware resources. This, combined with **Intel QuickAssist Technology (Intel QAT)** that offloads CPU to dedicated hardware acceleration, enables speedy compute-intensive operations and enhances compression performance in cloud applications.
3. Being a cloud-native application, Mavenir’s UPF is dynamically managed on a proven Kubernetes-based container-orchestration platform that offers **hardware decoupling essential for deployment automation and platform independence**. This design seamlessly supports rapid adoption of new hardware and future advanced processors.
4. **Mavenir’s containerized UPF is lightweight, fully portable, fast, OS independent, and can be deployed quickly in any environment.** It instantly adapts to hardware changes and can therefore leverage the performance of the latest 3rd Gen Intel® Xeon® Scalable processors.



Centrally deployed EPC or 5GC can easily be extended by adding remote UPFs (SAEGW-U for EPC) for local traffic breakouts. Enterprises can scale devices or users with edge deployments and efficiently process larger volumes of data.

Conclusion

Mavenir and Intel are disrupting network technology with their ultra-advanced User Plane Function (UPF) and 3rd Gen Intel® Xeon® Scalable processors (Ice Lake).

Together, these leaders are revolutionizing performance-demanding services by bringing superior compute capabilities to the network with built-in AI acceleration that helps customers achieve more.

Consumers can experience never-before fast speeds and high bandwidth. Industries can move towards automation with IoT, AI, and reliable connectivity, and CSPs can re-engineer strategies to open doors to new business verticals that didn’t exist before.