



Nokia ups the ante with a critical IP infrastructure masterpiece

IP Networks Reimagined

San Francisco, June 14, 2017

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July 5, 2017

The top of the IP pyramid receives upgrade

As Silicon Valley guru Marc Andreessen stresses, software is eating the world. In this atmosphere, Nokia (NYSE: NOK) has wisely deviated from the herd and invested in a new routing platform — and, more specifically, in FP4, a specialized silicon that enables peak performance of a software environment. It is worth stating the obvious that software performance is governed by its underlying platform or foundation.

The launch of Nokia's reinvented 7750 SR-s family and 7950 XRS, announced at IP Networks Reimagined in San Francisco, delivers a notable and monetizable upgrade to the core of the internet. Considering the unrelenting exponential growth rate in IP traffic, real-time routing, steering, managing and securing of these flows is the commercial lifeblood of most new business models across nations and enterprises.

Establishing technological leadership in this typically unseen, and niche, area of the network will likely enable Nokia to secure and expand its systems level footprint further down the stack, particularly as dependence on high-performance and reliable networking expands and networks become truly integrated with business processes.

Upgraded IP accelerates service provider transformation

While the application of Nokia's reinvented platforms for webscale providers is a logical and foregone conclusion, it is telco providers that will experience the greatest transformation and/or impact.

Service providers' past business practices typically consisted of a multivendor deployment at the core of the network. Nokia's leading investment in this high-performance FP4 platform will likely challenge this practice, as the performance and functionality gained from the upgrade will commercially outweigh the need for a multivendor. Timing is a critical advantage, as service providers are entering the 5G era in which gigabit ubiquity in the access network will be the norm. Service provider action at this stage to re-engineer and ready the core for the onslaught of 5G data is a prudent business decision, particularly as it involves minor capital shifts to prepare the critical elements of the infrastructure.

As the service provider business model evolves from one that is traditionally consumer-loaded to a state of more network resources for less revenue, a re-engineered and efficient core will be a crucial asset. An influx in revenue is expected from the enterprise segment as companies work to integrate cloud migration, big data, low latency, the Internet of Things and, most importantly, security into business processes. As enterprise transforms, risk management and or mitigation becomes a key driver. Management, command and control of core data flows will be a key differentiator for the service provider. As competition with webscales increases, it drives the need for service provider investment in an upgraded core, which offers nearly indisputable return relative to the expansive access network.

Being capable of real-time network management as well as Distributed Denial of Service (DDoS) prevention will foster a new business logic for enterprises as traffic steering of workloads provides clear monetization options.

Implications for webscale providers

Scalability and performance are hallmarks of the webscale model. Dependence on data center economics drives continuous innovation. Nokia's investment in the FP4 silicon, which was used in the 7750 SR-s family and 7950 XRS routing platform relauches, is a vote of confidence in this business model. Similar to the service provider's deployment, command and control of the platform and Nokia's Deepfield capabilities (real-time analytics and DDoS protection), this model will likely usher in a new level of usability and road map to protect the business.

Conclusion

The development of FP4 silicon was a significant engineering achievement, and with it, Nokia established a hardware environment to fully optimize software performance, which the company expects will provide a sustained technological advantage in this specialized market. The real-time DDoS protection at the core, from Nokia Deepfield, should shift the security monetization opportunity to both service providers and webscales. Nokia's timing of the launch will likely provide a window of opportunity to gain share in the core routing market and thus create further system-level pull-through as service providers begin to provision this capability in preparation for the 5G era.

Go-to-market optimization will require dedicated focus as Nokia begins the journey of integrating an enterprise footprint into its network to fully capitalize on the advantage gained from the favorable timing of its product relauches.

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