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Ericsson Edge NFVI

To grasp the 5G opportunities, service providers must have a cost efficient edge platform optimized for distributed workloads

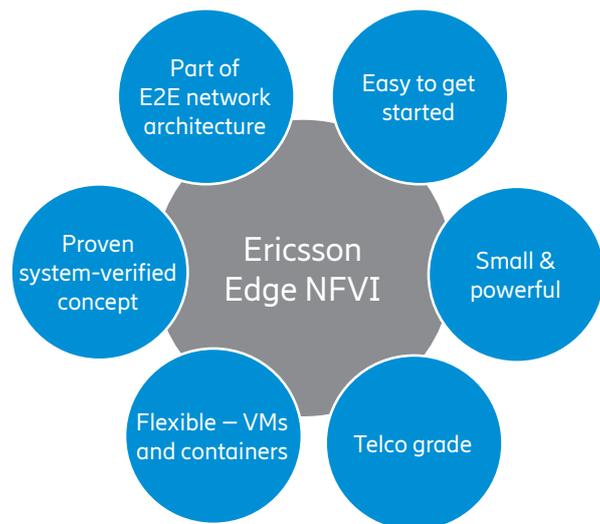
The opportunity at the edge

By 2024, 25% of mobile data traffic will be transported across 5G networks. That 5G traffic will include a significant proportion of communication between devices and between devices and people, such as automotive sensors, gaming devices with augmented reality, video streaming and other types of content distribution.

To seize the opportunities promised by these use cases, service providers must distribute compute, storage and network resources to the edge. Distribution also enables increased network architecture flexibility by using cloud, NFV and CUPS (Control Plane User Plane Separation) technologies.

Ericsson Edge NFVI - optimized for distributed workloads and edge use cases

Ericsson Edge NFVI is optimized to move traffic through a distributed network with the required latency at low cost and with high throughput. The design is compact and has a unified management of cloud native applications and virtual network functions running on a single platform. Using a market proven system-verified design with telco grade characteristics, Ericsson Edge NFVI is ready to be quickly deployed in demanding telecom environments.



Small and powerful providing cost efficiency

Ericsson Edge NFVI provides high throughput to cater to applications that put a heavy load on the user plane. It delivers a throughput of 200Gbps per server on the edge in 1/3 the hardware footprint. (Compared to 25GE based on 100% LTE traffic.) The software management overhead has been reduced significantly by co-locating the VIM controller with the local compute resources, making it well suited for edge deployments where fewer servers are needed than in the datacenter.

Ericsson Edge NFVI runs on Ericsson hardware or hardware from other vendors that Ericsson has verified to work. If using Ericsson hardware, a service provider can choose either our Compute Sled Unit 02 or Compute Rack Unit 02, which have been proven in datacenter environments, or a new NEBS-compliant version with a short form factor.

Ericsson Compute Sled Unit – Short format (CSU-S) is a general purpose 1.5U server that is only 350mm deep to fit into sites with scarce space, such as edge sites. It is compliant with NEBS level 3, and equipped with 2nd generation dual Intel® Xeon® scalable processors and up to 2TB of memory.



New short form factor CSU-S 02.
For edge sites with scarce space or harsh physical environment.



Established form factor CSU 02.
For data center and edge sites with data center characteristics.



Established form factor CRU 02.
For data center and edge sites with data center characteristics.

Efficient hybrid VM and container environment

Virtual machines and containers will co-exist for the foreseeable future. While most of today's VNFs are VM-based, 5G VNFs and new edge applications will be container-based. To accommodate both, Ericsson Edge NFVI provides a common MANO platform that manages both VMs and containers running on the same platform.

Proven system-verified concept

Ericsson Edge NFVI uses the same system-verified approach as Ericsson NFVI for central datacenter deployments, so it has been pre-integrated and pre-tested to reduce risk and deployment times. However, it has been scaled down to a smaller hardware footprint better suited for edge deployments. Ericsson Edge NFVI also supports applications and hardware from multiple vendors.

Part of E2E managed and orchestrated solution for distributed cloud

Our compact solution employs the same software stack and supports the same pre-integrated hardware components as our fully-featured NFVI solution. Dynamic orchestration and management for thousands of edge sites is mature and powerful, providing automated E2E orchestration across both central datacenters and distributed sites.

Telco grade

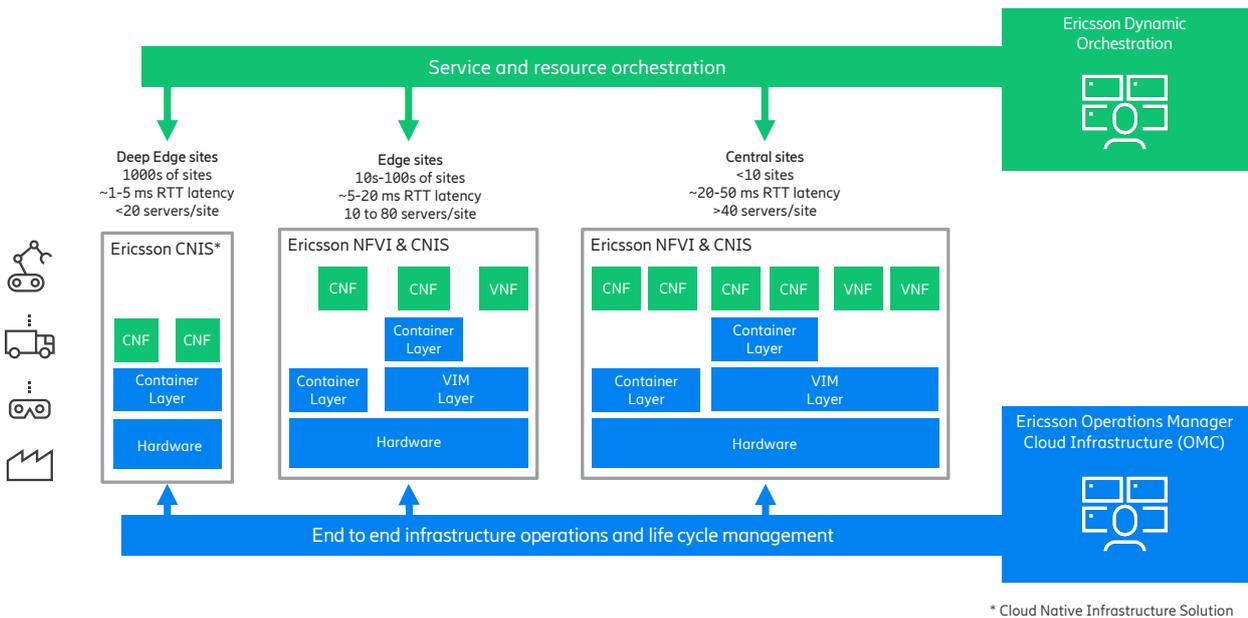
Fault and performance management are implemented at the system level. Security measures have been integrated across the platform, and verified to work at the system level. The performance of the entire system has been optimized from an end to end perspective, and Ericsson provides system support and release management for the entire solution.

Easy to get started

Ericsson Edge NFVI is easy to order, install, and deploy. Little configuration work is required. It is pre-integrated so it runs immediately, it is easy to install, and it is easy to integrate into your existing NFVI environment. The VNFs and applications we have certified are ready to use in distributed deployments across the network.

E2E operations system

Providing single pane of glass infrastructure operations such as fault, performance, logging, supervision and lifecycle management. Lowers integration risks and makes time-to-market faster for 5G deployments.



Additional facts

<p>SYSTEM VERIFIED SOLUTION CEE OpenStack, CEE Portal, CCD K8s, SDI Manager & SDI networking compact, Software Defined Storage (SDS) 3PP & Ericsson server hardware</p>	<p>DEPLOYMENT OPTIONS Up to 30 servers.</p>	<p>TELCO-GRADE Granular VM & Container HA, Auto failure recovery. Real time response for latency sensitive applications.</p>
<p>SECURITY Security Groups, CIS-CAT score > 80%, system security hardening, telco-grade IdAM.</p>	<p>HIGH PERFORMANCE Up to 200Gbps (10, 25, 100Gbps NICs). Tuned settings for VNF performance. OVS over DPDK, SRIOV & PF-PT</p>	<p>NETWORKING L2 & L3 Networking (dynamic Neutron ML2 and L3* plugin), Bandwidth based scheduling, VLAN aware VMs</p>
<p>ORCHESTRATION ETSI/MANO compliant, Multisite Support, Multi tenancy, Policy based VNF placement, VNF LCM incl. Or-VNFM, VLAN Aware VMs, OpenStack Heat and Kubernetes Helm, Virtual DC lifecycle mgmt, Advanced quota and capacity mgmt, alarm correlation. E2E infrastructure FM/PM</p>		<p>OPERATIONS End to end infrastructure operations and life cycle management through Ericsson Operations Manager Cloud Infrastructure.</p>

Ericsson enables communications service providers to capture the full value of connectivity. The company's portfolio spans Networks, Digital Services, Managed Services, and Emerging Business and is designed to help our customers go digital, increase efficiency and find new revenue streams. Ericsson's investments in innovation have delivered the benefits of telephony and mobile broadband to billions of people around the world. The Ericsson stock is listed on Nasdaq Stockholm and on Nasdaq New York.
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