



Red Hat

Ericsson vEPC on Red Hat OpenStack Platform



Introduction

There is a tremendous market growth in the mobile packet core area, both in new subscribers for mobile broadband as well as increased network throughput driven by the increasing data consumption, primarily from video. Albeit 5G Core is a later technology, there remains high demand for network expansions using 4G technologies based on Evolved Packet Core.

Ericsson and Red Hat have a technical collaboration to system verify Ericsson virtualized Evolved Packet Core (vEPC) on Red Hat® OpenStack platform to validate that the platform can onboard and host vEPC virtual network functions (VNFs), including vEPG and vSGSN-MME.

Ericsson vEPC on Red Hat® OpenStack is ready for production deployment in communication service provider (CSP) networks.

Ericsson and Red Hat work together to address CSPs who have chosen Red Hat® cloud platform products as infrastructure for Ericsson network functions.

Ericsson application:
vEPC

Red Hat® cloud platform:
Red Hat® OpenStack

The two companies run multiple technology collaboration projects where selected combinations of Ericsson and Red Hat® offerings are certified or system verified in a common environment prior to deployment in customer networks.

The technical collaboration projects set forth to accelerate the interoperability work and

enhance the ability to faster provide CSPs with more cost effective and pre-tested solutions.

As an outcome, this provides CSPs with the option to pursue a multi-vendor strategy and deploy Ericsson network functions on Red Hat® cloud platforms with a more efficient time-to-market, known outcome and lowered risks.

Ericsson vEPC: A proven solution with 100+ commercial customers

Ericsson vEPC supports high-capacity environments and provides verified solutions, addressing many vertical use cases that are leveraged and offered by communication service providers to their consumer and enterprise customers.

When putting vEPC in service mobile broadband is the main use case for CSPs when managing network capacity growth and adding sites. Network installations range from small-scale implementations with a complete vEPC and user management deployed in a single COTS server for a few thousand users, to large-scale MBB operations with more than 10 million subscribers.

The solution includes the virtualized Evolved Packet Gateway (vEPG) that provides the Serving Gateway, PDN Gateway, User Plane Function and Traffic Detection functionality for GSM, WCDMA, LTE, 5G, Wi-Fi and CDMA interworking. It also includes the world's most widely deployed vSGSN-MME, which supports all 3GPP access types (GSM, WCDMA and LTE) as well as non-3GPP accesses (Wi-Fi and CDMA).

Red Hat® OpenStack Platform: Speed up the delivery of telecommunications services with Red Hat® OpenStack Platform

Red Hat® OpenStack Platform is the industry standard for OpenStack and widely used in the telecommunication industry.

With Red Hat® OpenStack Platform, CSPs can transform their IT and telecommunications infrastructure into a more agile, efficient, and innovative environment. Modular by design, it optimizes operations for existing traditional

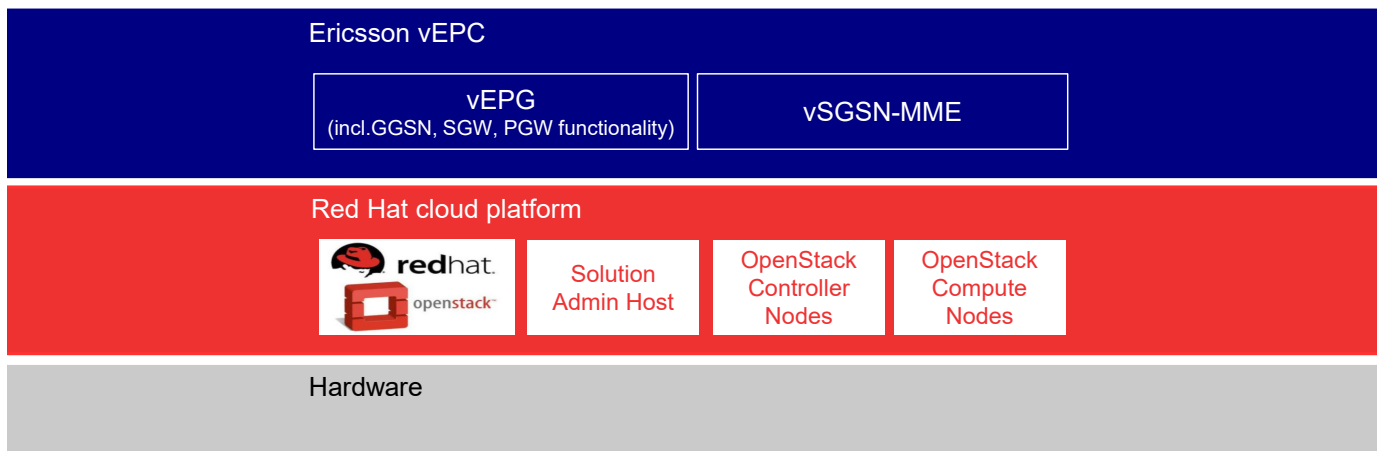
network functions while also being able to serve as the foundation for cloud-native application development and deployment. Red Hat® OpenStack Platform simplifies the delivery of network functions and services and is a key component in any NFV implementation for virtual infrastructure management.



Testing to ensure carrier grade reliability

The Ericsson and Red Hat® technical collaboration entails that an in-depth technical verification is performed on a specific reference configuration of Ericsson vEPC network functions and Red Hat® OpenStack platform. Tests are

performed against a predefined test specification including load tests, performance tests, resilience requirements, etc., with documented outcome, to be ready for implementation in a customer production environment.



Technical verification is performed on a specific reference configuration.

The collaboration project ensures system verification and develops documentation of the reference configuration for Ericsson vEPC on Red Hat® OpenStack, to support customers to deploy, run, operate, and maintain this combination of Ericsson and Red Hat® technology.

Description of the reference configuration, Ericsson vEPC VNFs on Red Hat® OpenStack, are available and constantly updated as new Ericsson and Red Hat® software releases become available.

The system verification of network functions and platform provides CSPs with a pre-tested solution that is more cost effective and faster deployable, with known outcome and lower risks.

For more information on Ericsson network function certifications on Red Hat® OpenStack [view the catalog](#).

Target market

Target market is any communication service provider who transforms their network into telco cloud with Red Hat OpenStack platform to enhance mobile broadband end-user services using Ericsson virtualized Evolved Packet Core system

Ericsson and Red Hat® are from a business, delivery, and support perspective individually responsible for their respective product and service offerings.