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Cisco Cloud Services Stack for Mobility

The race to 5G and industry impediments

5G innovation is the next big technology disrupter for the telecommunication industry. Today, mobile operators are focused on virtualization of 4G and early 5G deployments to deliver new services to market faster, and Network Function Virtualization and Service Provider (SP) Private Cloud, also known as Telco Cloud, are key enablers of the upcoming 5G infrastructure. According to Markets and Markets, the market for 5G service provider-delivered services is estimated at \$53Bn in 2020 and forecasted at \$123Bn by 2025.

However, the initial NFV promise of simplicity and plug and play to deliver ease of use, cost-efficiency and scale has not been realized by many vendors. Many Service Providers (SPs) have rushed to develop networks based on NFV comprising best-in-class and disparate technology stacks. While a few have had success building SP Private Clouds, these projects require substantial skillsets and budgets, often not easily available to majority of providers. Additionally, they have struggled to define, integrate and regression test their best-of-breed stacks, leading to increased integration costs, recurring interoperability issues and heightened security risk.



Accelerate 4G and 5G Mobile Core Deployments

In response to these customer challenges, Cisco is introducing a new cloud-based mobile packet core solution called **Cisco Cloud Services Stack for Mobility** that accelerates implementation and innovation of 4G / 5G mobility services. It offers a horizontal, carrier-grade NFVI platform, formally designed by Cisco Customer Experience (CX), that is pre-integrated with multiple network functions, pre-validated through Cisco testing, and embedded with hardened security, automation and assurance. These capabilities help reduce spiraling integration costs and overall networking complexity.

Cisco Cloud Services Stack for Mobility has been built based upon the years of Cisco experience, services expertise, best practices, and networking insights our experts have gained from engagement with some of the world's leading telecom companies such as T-Mobile and Rakuten, and is fully supported by a primary point-of-contact through Cisco Solution Support.



Cisco Cloud Services Stack for Mobility enables **faster rollout of new services** by utilizing industry leading capabilities, mobile packet core software, and extensive Cisco experience and insights, leveraging:

Cisco's market-leading Ultra Packet Core, deployed in the world's largest
and most challenging mobile networks,
and Cisco's **carrier-grade virtualization**

platform, Cisco Virtual Infrastructure Manager (CVIM)

Award-winning automation and orchestration product, Cisco
Network Service Orchestrator (NSO)

Virtual Network Function (VNF)

Manager with Cisco Elastic Services
Controller (ESC)

A **sophisticated hardware platform** based upon Cisco Unified Computing System (UCS) and Cisco Nexus data center fabric

Cisco Solution Support centralizes technical support across solution hardware and software, resolving complex issues 44% faster than product support¹

Optional High or Dedicated Touch Technical Support (HTTS, DTTS)

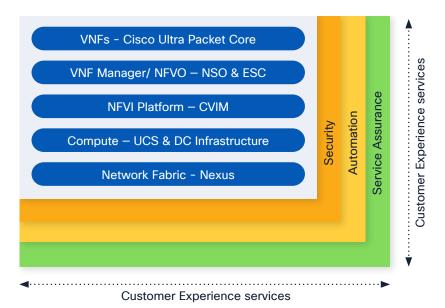
Optional Solution Validation Services for ongoing testing, design and validation capabilities

1. IDC Solution Support value study, December 2017

Benefits

- Accelerate implementation and innovation of 4G/5G mobility services by standardizing the infrastructure, leveraging economies of scale and avoiding the challenges of unique stacks.
- Speed deployment of the market-leading Packet Core solution, based on carrier grade Cisco VIM, Cisco UCS servers, Cisco NSO, and embedded security.
- Reduce design and procurement complexity through a pre-tested and pre-validated horizontal, carrier-grade NFVI platform for telco cloud/ NFVI, based on years of Cisco experience.
- Reduce integration cost by leveraging Cisco's investment in pre-design and pre-validation testing of best-in-class stack components.
- Solve complex issues faster with an SP Private Cloud by providing one single point of contact for all technical support issues, across multiple stack components.
 - Leverage Cisco's investment in security penetration testing of this stack, together with large scale performance and scale validation, saving SPs significant investment.

Cisco Cloud Services Stack for Mobility



For more information, read the <u>Cisco Cloud Services for Mobility Blog</u> and contact your Cisco representative.