Cisco Virtualized Packet Core

As one of the industry’s most complete, fully virtualized evolved packet cores, the new Cisco Virtualized Packet Core (VPC) solution redefines the paradigm of agility for service providers. It allows them to capture untapped revenue opportunities, particularly with the proliferation of Internet of Everything (IoE) and machine-to-machine (M2M) connections. The new Cisco VPC allows service providers to forgo new information technology integration costs as they migrate functions to a virtual environment for their mobile networks.

The Cisco VPC combines all packet core services – for 4G, 3G, 2G, Wi-Fi, and small cell networks – into a single solution. It provides those network functions as virtualized services, so you can scale capacity and introduce new services much faster and more cost-effectively. Cisco VPC is based on the same proven Cisco StarOS software used in Cisco ASR 5000 Series platforms. It is designed to distribute and orchestrate packet core functions across physical and virtual resources, so you can easily transition from physical to virtualized packet core services – or use both simultaneously.

The Challenge: Growing Packet Core Demands

Mobile traffic from smartphones and other portable devices, along with new traffic types like M2M applications, are creating huge volumes of mobile data traffic. And the signaling requirements for these diverse applications are even more challenging than the capacity needs. To keep pace, operators must continually expand their mobile networks. But in the race to meet short-term needs, they risk adding layers of complexity that will make their business less agile, less competitive, and less profitable over time.

To succeed in this environment, operators need solutions that can address new demands while reducing the capital and operational expenditures (CapEx and OpEx) of the network. This includes older 2G and 3G services and newer ones as Cisco provides a smooth transition to 4G LTE. They need tools to take advantage of the advanced capabilities of their networks to create new revenue-generating services. And they need to simplify and accelerate the process of adding new enterprise and M2M customers and bringing new applications to market.

The Solution: An Elastic, Cost-Effective Mobile Packet Core

The Cisco VPC provides a universal mobile packet core to support all your wireless services in a single solution. It uses the same Cisco award-winning mobile packet core technology used by more than 300 mobile network operators in 75 countries. But it lets you take advantage of those capabilities with the flexibility, efficiency, and scale of virtualized cloud services.

Cisco VPC provides the resource management and orchestration intelligence to dynamically scale your packet core functions to adapt to real-world needs. So instead of building out a packet core infrastructure for peak capacity, your system can elastically create or take down resources as you need them. The solution lowers your CapEx by letting you replace purpose-built hardware with standardized compute and storage platforms. And it lowers OpEx by helping your packet core infrastructure run more efficiently, reducing the network footprint, and simplifying network configuration and maintenance.

These same capabilities also make it easier to create innovative new services and bring them to market faster. Configuring, testing, integrating, and changing services is much easier. As a result, you can create new service offerings that meet unique traffic requirements, such as those of M2M applications. And you can add new M2M and enterprise customers to your environment more quickly and at a lower cost.

Cisco VPC uses the same Cisco StarOS software that runs on the industry-leading Cisco ASR 5000 Series platforms. It is designed to provide flexibility and high availability across both physical and virtual packet core infrastructure. So you can transition to a virtualized packet core at your own pace, even running some packet core services with dedicated hardware and others as virtualized cloud services, if you choose.
Product Highlights

- Cisco VPC software runs on top of the Cisco StarOS software, which was designed to be a highly distributed software architecture and has been running commercially on commercial, off-the-shelf x86-based hardware since 2007 and in virtual machines since 2009.

- The first hardware platform- and hypervisor-independent solution that combines network functions virtualization (NFV) and software-defined networking (SDN) to help service providers nimbly scale new packet core systems for markets such as automotive, energy, and healthcare.

- Allows service providers to utilize their existing Cisco ASR 5000 Series investments and continue to scale them for consumer and enterprise services.

- Reduces the time and OpEx for service providers to deploy new services.

Why Cisco?

As the clear leader in network virtualization, with more network elements and applications virtualized than all major network competitors combined and orchestrated elements across wide area network (WAN), data center, and access technologies, Cisco is heading service providers’ move to virtualization at their own pace. Cisco mobile packet core solutions lead the industry, lowering costs and allowing innovation for service providers around the globe. Today, Cisco packet core solutions serve more than one billion subscribers and about half of all the world’s LTE connections.

Cisco Services

Services from Cisco and our partners help you get the most value from your Cisco VPC solution. Quickly and cost-effectively.

- We can help you solidify your vision. Create a strategy, roadmap, and scalable design. Migrate smoothly. Simplify your architecture and operations. And strengthen your team by sharing what we know.

- We deliver award-winning services with a history of market changing innovation. Including software-enabled smart services built through more than 28 years of industry leadership. And globally recognized expertise in engineering IP next-generation network solutions and managing large system and network integration projects.

Learn more at [www.cisco.com/go/spservices](http://www.cisco.com/go/spservices).

Cisco Capital Financing

Cisco Capital enables simple, fast migration to the Cisco technology solutions you need. Our financing solutions lower total cost of ownership and protect against technology obsolescence: on or off balance sheet, with fixed or variable costs, and payment holidays. We provide one contract so it’s easier to manage.

Visit [www.ciscocapital.com](http://www.ciscocapital.com) for more information.

Learn More

For more information about the Cisco VPC, visit the [LTE Evolved Packet Core Page](http://www.cisco.com/go/lteevolvedpacketcore).