

# Cisco Virtualized Packet Core

As one of the industry's most complete, fully virtualized 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 Premium Mobile Broadband and machine-to-machine (M2M) connections as the [Internet of Everything](#) (IoE) comes online.

With feature commonality with the physical Cisco® ASR 5000 Series, the Cisco VPC gives service providers the flexibility to use either solution to best address the needs of their customers. This approach helps reduce IT integration costs as providers migrate their mobile Internet network to a virtual environment.

Cisco VPC combines all packet core services for 4G, 3G, 2G, and even 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. The Cisco VPC uses 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. This allows an easy transition from physical to virtualized packet core services or the use of both simultaneously.

## Benefits

### **Consolidate Packet Core Services**

The Cisco VPC combines all mobile packet core services in a virtualized cloud solution. The Cisco VPC is both hardware and hypervisor independent, abstracting the solution from the physical layer and hypervisor, giving operators greater choices for the design of their packet core. Capacity can be added along with network intelligence to keep pace with growing demand for advanced mobile data applications, as well as your older 2G and 3G services, without adding layers of complexity and cost to the mobile network.

### **A More Elastic, Cost-Effective Mobile Packet Core**

The Cisco VPC dynamically scales 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 deploy services as needed and in a topology that is most economically suited.

### **Lower CapEx and OpEx**

The solution helps lower your CapEx by letting you replace purpose-built hardware with standardized compute and storage platforms. It helps reduce OpEx by adding efficiency to your packet core infrastructure, reducing the network footprint, and simplifying network configuration and maintenance.

### **Accelerate the Introduction of New Services**

Cisco VPC provides resource management and orchestration intelligence that simplifies and automates the configuration, testing, and integration of new services. You can create and change service offerings and add new customers to your environment more quickly and at a lower cost.

## Easily Transition to Virtualized Cloud Services

Cisco VPC draws on Cisco StarOS software intelligence to provide flexibility and high availability across both physical and virtual packet core infrastructures. 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.

**Table 1.** Features and Benefits

Feature	Benefit
<b>Cisco StarOS</b>	
<b>Scalability</b>	Scale to fit available hardware resources through software designed to address four planes of scalability
<b>Redundancy/Resiliency</b>	No hardware or software single point of failure Stateful Session Recovery and Inter Chassis Session Redundancy (ICSR) No effect on end-user session due to failures Designed for world-class, mission-critical applications
<b>Elasticity</b>	Elastic non-bladed, distributed architecture Dynamically grows and shrinks without user intervention
<b>Flexibility</b>	One network, Any G, Any Screen - Single software for all services Service abstraction - Single "logical entity" regardless of number of instances
<b>Road to Virtualization</b>	Linux-based OS provides virtualized mobile gateway services Services implemented as virtualized application level tasks
<b>Mobile Cloud Evolution</b>	
<b>Virtualization Migration</b>	Go from dedicated, purpose-built hardware to partially virtualized key functions to complete virtualization, all at your own pace.

## 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 <http://www.cisco.com/go/spservices>.

## Cisco Capital

Cisco Capital makes it possible for organizations to preserve cash and align payments with incoming revenue through OpEx-based leasing. It also lets you pay for the entire solution, from technology to support services, with a single, convenient payment plan that offers highly competitive rates and excellent residual values. Our financing can include Cisco and other vendors' costs, operating or CapEx treatment, with fixed and/or uneven payment structures to match cash flow or usage needs and upfront payment deferrals too. One contract simplifies management. Visit <http://www.ciscocapital.com> for more information or to identify your local Cisco Capital representative.

## For More Information

For more information about Cisco VPC, visit the [Cisco LTE Evolved Packet Core Page](#) or contact your local account representative.




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