



# Huawei Cloud Data Center Network Open Ecosystem

HUAWEI TECHNOLOGIES CO., LTD.





Huawei is dedicated to establishing a cloud-computing data center ecosystem to better serve customers. By cooperating with world-renowned IT suppliers and standardization organizations, Huawei has established an end-to-end SDN industry chain for cloud data centers.

## Huawei Cloud Data Center SDN Industry Chain Panorama

Huawei CloudFabric data network solution provides end-to-end network products from cloud platforms to compute virtualization platforms, and has an openarchitecture. The Agile Controller is based on the Open Network Operating System (ONOS), and its components are loosely coupled. It can integrate OpenDaylight apps and provides extensive northbound APIs to enable one-stop application integration and quick innovation with partners.





## Collaboration with cloud platforms

---

Huawei Agile Controller and CloudEngine series data center switches use open APIs to connect to the network modules of cloud platforms. This creates an end-to-end solution covering services and network devices. In addition to the Huawei FusionSphere cloud platform, the Agile Controller can also seamlessly interoperate with VMware, Microsoft, open-source OpenStack, Red Hat, and other mainstream cloud platforms, enabling unified management of network and IT resources.

## Collaboration with third-party controllers and tools

---

Huawei CloudEngine series switches can connect to the VMware NSX controller and Brocade Vyatta controller using northbound APIs, such as OpenFlow and Open vSwitch Database Management Protocol (OVSDB). The openness of the switches allows third-party controllers to be used to implement unified resource provisioning and unified topology management for both physical and virtual networks. Moreover, CloudEngine switches can seamlessly interoperate with Puppet automation software to implement automated network deployment and accelerate service provisioning.

## Collaboration with network devices

---

Based on southbound open APIs and OpenFlow protocol, the Agile Controller flexibly schedules VAS resources, orchestrates application networks, and automatically delivers configuration. It has achieved seamless integration with systems of application delivery networking leader F5, world-leading Internet security solutions provider Check Point, and leading core network services provider Infoblox. By cooperating with these industry leaders, Huawei offers comprehensive data center services, such as security, load balancing, and DHCP.

## Collaboration with compute virtualization platforms

---

The Agile Controller can work with VMware, Microsoft, and KVM compute virtualization platforms to enable collaboration between physical and virtual networks of data centers.

---

## Summary

---

To accelerate the innovation of cloud services, Huawei's cloud data center solution offers a fully open architecture, with openness at the controller, network, and device layers. During Interop Tokyo 2016, a summit of multi-vendor interoperability verification, Huawei data center switches demonstrated interoperability with the devices of mainstream vendors, showcasing outstanding openness and SDN support. The switches received the Best of Show Award Grand Prix in the ShowNet Product category at Interop. Huawei established the Cloud Open Labs and will continue to collaborate with industry organizations and partners to innovate cloud data center network solutions and create an open cloud data center ecosystem.

**Copyright © Huawei Technologies Co., Ltd. 2017. All rights reserved.**

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Technologies Co., Ltd.

**Trademark Notice**



HUAWEI, and  are trademarks or registered trademarks of Huawei Technologies Co., Ltd.

Other trademarks, product, service and company names mentioned are the property of their respective owners.

**General Disclaimer**

The information in this document may contain predictive statements including, without limitation, statements regarding the future financial and operating results, future product portfolio, new technology, etc. There are a number of factors that could cause actual results and developments to differ materially from those expressed or implied in the predictive statements. Therefore, such information is provided for reference purpose only and constitutes neither an offer nor an acceptance. Huawei may change the information at any time without notice.

HUAWEI TECHNOLOGIES CO.,LTD.  
Huawei Industrial Base  
Bantian Longgang  
Shenzhen 518129,P.R.China  
Tel: +86 755 28780808

[www.huawei.com](http://www.huawei.com)