

Overview

HPE Distributed Cloud Networking

Models

HPE DCN Hardware VTEP Orchestration Software and E-LTU	JL331AAE
HPE DCN Virtual Services Directory Software and E-LTU	JL025AAE
HPE DCN Virtual Services Controller Software and E-LTU	JL026AAE
HPE DCN VMware Plug-in for vCenter and E-LTU	JL027AAE
HPE DCN Virtual Services Directory High Availability Cluster Add on Redundancy Software and E-LTU	JL174AAE
HPE DCN Virtual Services Gateway/Federated/Policy and Analytics 10GbE Software and E-LTU	JL175AAE
HPE DCN Virtual Routing Switch/Federated/Policy and Analytics 10GbE ESXi Software and E-LTU	JL176AAE
HPE DCN Virtual Routing Switch/Federated/Policy and Analytics 10GbE KVM Software and E-LTU	JL177AAE
HPE DCN Virtual Services Gateway/Federated/Policy and Analytics 40GbE Software and E-LTU	JL179AAE
HPE DCN Virtual Routing Switch/Federated/Policy and Analytics 40GbE ESXi Software and E-LTU	JL180AAE
HPE DCN Virtual Routing Switch/Federated/Policy and Analytics 40GbE KVM Software and E-LTU	JL181AAE

Key features

- Application-driven automated instantiation of network services
- SDN-based unified physical / virtual network configuration across data center networking
- Seamless data center interconnect for both virtual and physical compute environment
- Large scale tenant support across multiple private, hybrid, public clouds
- Unified policy server build to align with data center application needs

Product overview

Very large organizations and service providers need to build distributed, scaled-out, federated multi-data center environments in a simple, standard and agile method using SDN and networking virtualization. HPE Distributed Cloud Networking is a complete and comprehensive networking solution that provides the framework to unify private, public, and hybrid clouds by virtualizing existing data center environments and allowing network resources to be easily provisioned and managed. It also interfaces seamlessly with various cloud management platforms such as OpenStack, CloudStack, HPE Helion OpenStack and VMware vSphere. Leveraging programmability of business logic and policy engine, the platform allows an open and agile solution that scales to solve the stringent needs of multi-tenant data centers.

The solution is comprised of a network layer both physical and virtual, a control layer with federated controllers that can interconnect using MP-BGP within and across data centers, and a service directory layer with advanced programmable policies and analytics framework where IT administrators can define, visualize and control the network without being burdened by network implementation details. They can implement security, load balancing, and user access policy with a high level of abstraction, instead of manual CLI and IP address assignment. Once defined, those policies can dynamically be used to govern network behavior on an as-needed basis triggered by compute instance creation, migration and deletion. It also provides extensive service insight with an analytics engine based that collects and stores per-tenant, per-VPN, per-VM statistics.

Finally, HPE Distributed Cloud Networking provides business agility while controlling infrastructure costs. Customers can accelerate their businesses using HPE DCN by lower their time-to-market for critical application and services while staying ahead of the competition.

Overview

Features and benefits

Virtualization

- **Network Virtualization**
HPE Distributed Cloud Networking supports NVO3 framework for DC network virtualization with L2/3 NVE support allows seamless VM mobility across data centers and scalable management of tenants across the network
- **Architecture Scalability**
Federated SDN control architecture based on MP-BGP and BGP-EVPNs which allows seamless extension of L2 and L3 networks across data centers and MPLS networks
- **Traffic Isolation**
VXLAN and MPLSoIP-GRE used for interoperability with existing L3VPN services
- **Tunneling capabilities**
Layer 2 and Layer 3 services through distributed Virtual Switching using VXLAN tunneling and BGP EVPN control plane to extend the service across controllers
- **Quality of service**
Multiple class of traffic; rate limiting; programmatic rate setting
- **VPN integration**
Seamless integration based on MP-BGP with use of standard BGP functionality
- **VM Mobility support**
Unrestricted within/across DCs
- **Hypervisor integration**
Openflow to open source hypervisors (XEN,KVM) and VMware ESXi interoperability
- **OSS/app integration**
Northbound API access through RESTful APIs and HTML5-based web portal for user self-service
- **Data Center Management**
Plug-ins for HPE Helion, vCloud Director, CloudStack
- **Analytics Engine**
Fully programmable and extensible engine based on Hadoop clusters with real-time analytics support
- **Access Security**
Distributed policy-based L2-L4 firewall
- **Openflow TLS Authentication**
Certificate-based mutual authentication of VSC and VRS
- **Network Security Policy**
 - **Policy Based Routing (PBR)**
Policy Based Routing (PBR) allows the steering of flows matching a specified criteria to a nexthop bypassing the regular routing
 - **Ethertype**
Ethertype match criteria allow for identifying non-IP traffic
 - **Port Range**
Port Range criteria allow for specifying a range of TCP/UDP ports
 - **Egress Security Policy**
Egress ACLs allow policy application in the egress direction
 - **Global security**
Granular, flexible security groups beyond the subnet or zone boundaries
- **Split Subnet**
Split subnet using proxy ARP enables a subnet to span a VLAN-based environment and a dVRS service
- **DHCP enhancements**
DHCP ranges, DNS attribute
- **Multiple shared domains**

Overview

Support for multiple shared domains in VSD Architect

- **Service Chaining**

Service Chaining provides the ability to template a complex service topology where the traffic between Application hosts may be steered according to match criteria through a number of Appliances offering different Service Functions (FW, LB, NAT, IPS/IDS, etc.)

- **Docker Networking**

Fully supports and integrates with Docker architecture to seamlessly allow connectivity and policy extension across virtual, physical and Docker environments

Technical Specifications

HPE DCN Hardware VTEP Orchestration Software and E-LTU (JL331AAE)

Notes	One license per 48 server attached physical ports (regardless of speed 10G/40G/100G) IRF cluster requires license for individual switches in the cluster
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

HPE DCN Virtual Services Directory Software and E-LTU (JL025AAE)

Recommended software	Server: Hypervisor: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0 Management: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0 KVM on RedHat Enterprise Linux 6.5, 6.6, and 7 KVM on Ubuntu 12.04.x LTS and 14.04.x LTS
Notes	Deployed and delivered as a virtual appliance. For supported hypervisor types please refer to the product release documentation. libvirt: VRS requires that libvirt be installed on the hypervisor. For compatible releases please refer to the product release documentation.
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

HPE DCN Virtual Services Controller Software and E-LTU (JL026AAE)

Recommended software	Server: Hypervisor: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0 Management: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0 KVM on RedHat Enterprise Linux 6.5, 6.6, and 7 KVM on Ubuntu 12.04.x LTS and 14.04.x LTS
Notes	Deployed and delivered as a virtual appliance on a dedicated physical server. For supported hypervisor types and server hardware resource requirements please refer to the product release documentation. libvirt: VRS requires that libvirt be installed on the hypervisor. For compatible releases please refer to the product release documentation.
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

HPE DCN VMware Plug-in for vCenter and E-LTU (JL027AAE)

Recommended software	Server: Hypervisor: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0 Management: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0
Notes	Supports VMware vSphere infrastructure. For supported version details please refer to the product release documentation.
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

HPE DCN Virtual Services Directory High Availability Cluster Add on Redundancy Software and E-LTU (JL174AAE)

Technical Specifications

Recommended software	Server: Hypervisor: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0 Management: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0 KVM on RedHat Enterprise Linux 6.5, 6.6, and 7 KVM on Ubuntu 12.04.x LTS and 14.04.x LTS
Notes	Deployed and delivered as a virtual appliance. For supported hypervisor types please refer to the product release documentation. libvirt: VRS requires that libvirt be installed on the hypervisor. For compatible releases please refer to the product release documentation.
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

HPE DCN Virtual Services Gateway/Federated/Policy and Analytics 10GbE Software and E-LTU (JL175AAE)

Recommended software	Server: Hypervisor: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0 Management: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0 KVM on RedHat Enterprise Linux 6.5, 6.6, and 7 KVM on Ubuntu 12.04.x LTS and 14.04.x LTS
Notes	License is limited to one (1) active GbE or 10GbE interface running on supported hypervisor. For hypervisor support please refer to the product release documentation. libvirt: VRS requires that libvirt be installed on the hypervisor. For compatible releases please refer to the product release documentation.
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

HPE DCN Virtual Routing Switch/Federated/Policy and Analytics 10GbE ESXi Software and E-LTU (JL176AAE)

Recommended software	Server: Hypervisor: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0 Management: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0
Notes	License is limited to one (1) active GbE or 10GbE interface running on VMware ESXi.
Services	Refer to the Hewlett Packard Enterprise website at http://www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

HPE DCN Virtual Routing Switch/Federated/Policy and Analytics 10GbE KVM Software and E-LTU (JL177AAE)

Recommended software	Server: KVM on RedHat Enterprise Linux 6.5, 6.6, and 7 KVM on Ubuntu 12.04.x LTS and 14.04.x LTS
Notes	License is limited to one (1) active GbE or 10GbE interface running on KVM. libvirt: VRS requires that libvirt be installed on the hypervisor. For compatible releases please refer to the product release documentation.
Services	Refer to the Hewlett Packard Enterprise website at http://www.hpe.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

HPE DCN Virtual Services Gateway/Federated/Policy and Analytics 40GbE Software and E-LTU (JL179AAE)

Recommended software	Server:
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Technical Specifications

Hypervisor: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0
Management: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0
KVM on RedHat Enterprise Linux 6.5, 6.6, and 7
KVM on Ubuntu 12.04.x LTS and 14.04.x LTS

Notes License is limited to one (1) active 40GbE interface running on supported hypervisor. For hypervisor support please refer to the product release documentation. libvirt: VRS requires that libvirt be installed on the hypervisor. For compatible releases please refer to the product release documentation.

Services Refer to the Hewlett Packard Enterprise website at <http://www.hpe.com/networking/services> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

HPE DCN Virtual Routing Switch/Federated/Policy and Analytics 40GbE ESXi Software and E-LTU (JL180AAE)

Recommended software Server:
Hypervisor: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0
Management: VMware vSphere ESXi 5.0, 5.1, 5.5, 6.0

Notes License is limited to one (1) active 40GbE interface running on VMware ESXi.

Services Refer to the Hewlett Packard Enterprise website at <http://www.hpe.com/networking/services> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

HPE DCN Virtual Routing Switch/Federated/Policy and Analytics 40GbE KVM Software and E-LTU (JL181AAE)

Recommended software Server:
KVM on RedHat Enterprise Linux 6.5, 6.6, and 7
KVM on Ubuntu 12.04.x LTS and 14.04.x LTS

Notes License is limited to one (1) active 40GbE interface running on KVM. libvirt: VRS requires that libvirt be installed on the hypervisor. For compatible releases please refer to the product release documentation.

Services Refer to the Hewlett Packard Enterprise website at <http://www.hpe.com/networking/services> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

Summary of Changes

Date	Version History	Action	Description of Change
01-Aug-2016	From Version 4 to 5	Added	Model added: JL331AAE
		Changed	Product overview, Features and benefits and Technical Specifications updated
		Removed	Models removed: JLO32AAE, JLO33AAE, JLO34AAE, JLO35AAE, JLO36AAE, JLO37AAE, JLO38AAE, JLO39AAE, JLO40AAE, JLO41AAE, JLO42AAE, JLO43AAE, JLO44AAE, JLO45AAE, JLO46AAE, JLO47AAE, JLO28AAE, JLO29AAE, JLO30AAE, JLO31AAE
27-May-2016	From Version 3 to 4	Changed	Product description updated.
17-Aug-2015	From Version 2 to 3	Added	Models Added: JL174AAE, JL175AAE, JL176AAE, JL177AAE, JL179AAE, JL180AAE, JL181AAE
		Changed	Technical Specifications updated
12-Jun-2015	From Version 1 to 2	Removed	Removed the following SKUs: JLO48AAE, JLO49AAE, JLO50AAE, JLO51AAE, JLO52AAE, JLO53AAE, JLO54AAE, JLO55AAE



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