

ORACLE VIRTUAL NETWORKING – WHAT'S NEW

INDUSTRY'S FIRST AND ONLY OPEN ARCHITECTURE DATA CENTER FABRIC

NEW FEATURES

- Support for Oracle SPARC T-series and M5 Servers
- Support for Oracle Solaris 11 on SPARC and x86 platforms
- High Availability for Oracle Fabric Manager
- Plug-in for VMware vCenter

Oracle Virtual Networking, the industry's first and only open architecture data center fabric, simplifies complex data center deployments with a wire-once solution and simple software defined network configurations. This enables you to gain IT and business flexibility, while reducing capital/operating costs.

Introduction

Oracle Virtual Networking provides an agile, highly efficient infrastructure built on your choice of hardware and software. This open architecture lets you dynamically connect servers, networks, and storage. You create networks and connections entirely in software to enable secure, isolated services that support your business processes and priorities. With Oracle Virtual Networking, all traffic types, including Ethernet and Fibre Channel, traverse a converged infrastructure, resulting in a simpler, more efficient, wire-once environment with flexible connectivity.

Oracle Virtual Networking is interoperable with leading server, storage, and networking products and is supported on all major hypervisors and operating systems. For the current list of supported products, see:

<https://wikis.oracle.com/display/SystemsComm/Home#tab:Oracle-Virtual-Networking>

Oracle Virtual Networking for Oracle SPARC servers and Oracle Solaris OS

Flexible I/O and networks for Oracle SPARC servers

Oracle Virtual Networking replaces physical adapters, cables, and switches with virtual devices and network connections, enabling provisioning and orchestration to be achieved through software. Operating systems and hypervisors see these virtual resources exactly as they would see their physical counterparts. Server and storage deployments leveraging Oracle Virtual Networking are much easier to manage, more flexible, and far more cost-effective.

With the release of *Oracle Virtual Networking Drivers for Oracle Solaris*, Oracle Virtual Networking now supports Oracle SPARC T4, T5, and M5 servers, as well as Oracle Solaris 11 on x86 and SPARC servers.

Expand network virtualization capabilities for Oracle Solaris virtualization deployments

Oracle Virtual Networking complements the hardware and OS virtualization technologies embedded within Oracle SPARC servers and Oracle Solaris. I/O and network resources provided by Oracle Virtual Networking are seamlessly integrated into deployments leveraging the capabilities of Oracle VM Server for SPARC and Oracle Solaris Zones.

The mechanism by which Oracle Virtual Networking presents virtual I/O devices to the hypervisor and operating system is key to unifying Oracle Virtual Networking with the I/O and network virtualization features afforded by Oracle VM Server for SPARC and Oracle

Solaris Zones. Oracle Virtual Networking's virtual I/O devices are presented as physical I/O devices to the hypervisor and operating system.

Oracle VM Server for SPARC

On Oracle SPARC T-series and M5 systems, Oracle Virtual Networking's I/O devices (vNICs and vHBAs) are presented to the control and service domains as physical NICs and HBAs. I/O and network virtualization capabilities afforded by Oracle VM Server for SPARC are available to provision I/O and networking for guest domains including:

- Dynamic provisioning of I/O and networks
- I/O multi-pathing through redundant I/O domains
- Virtual switching
- Virtual network services
- Network isolation

Oracle Solaris Zones

When Oracle Virtual Networking is deployed with Oracle Solaris for SPARC or Oracle Solaris for x86, Oracle Virtual Networking's I/O devices (vNICs and vHBAs) are presented to the Global Zone as physical NICs and HBAs. I/O and network virtualization capabilities afforded by Oracle Solaris, including those introduced in Oracle Solaris 11 are available to provision I/O and networking for Solaris Zones including:

- Dynamic provisioning of I/O and networks
- Oracle Solaris Network Virtualization
- I/O multi-pathing, load balancing, and failover
- Virtual switching
- Virtual network services
- Network isolation
- Live migration

Enhance availability of volume Oracle SPARC platforms with hot plug I/O

Deploying Oracle Virtual Networking with Oracle SPARC T5-2, Oracle T4-2, or Oracle T4-1 servers delivers hot pluggable I/O capabilities to these platforms. Ethernet or Fiber channel ports can be added to volume T-series servers without powering down servers to install additional hardware. Oracle Virtual Networking enables non-disruptive:

- Expansion of LAN and SAN capacity
- Connection of servers to additional physical networks

Oracle Fabric Manager - High availability for mission critical environments

With the introduction of Oracle Fabric Manager 4.1, availability of management for Oracle Virtual Networking deployments is increased through High Availability clustering of management servers. Oracle Fabric Manager 4.1 instances can be deployed in active-standby pairs with each instance residing on a different physical server. In the event of a failure of the server hosting the active instance of Oracle Fabric Manager, mastership of the Fabric Management function can be transitioned to the standby instance with no service disruption or loss of state.

Supporting Oracle VM Server 3.2.1 for x86

Oracle Virtual Networking now supports Oracle VM Server 3.2.1 for x86.

Integrator plug-in for VMware vCenter

Oracle Fabric Manager 4.1 includes an integrator plug-in for VMware vCenter. The VMware plugin allows the instantiation of vSwitches and allows connecting the virtual NICs to the vSwitches.

Contact Us

For more information about Oracle Virtual Networking, visit oracle.com/fabric or call +1.800.ORACLE1 to speak to an Oracle representative.



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