

Emulex OneConnect OCe14102-NT Dual-port 10GBASE-T Adapter

Kod producenta: OCe14102-NT



Architektura	10GbE
Złącze	RJ45
Okablowanie	Skretka kat.6a do 100m
Ilość portów	2
Typ złącza magistrali	PCI Express 3.0 x8
Format	Low Profile
Chipset	XE100
Technologie	SR-IOV
iSCSI HW offload	Nie
FCoE	Nie
RoCE	1.0

The OCe140102-NT dual-port 10GBASE-T Ethernet network adapter provides high performance 10Gb Ethernet (10GbE) connectivity delivering multiple benefits for the enterprise cloud, including:

- Support for lowest cost 10GbE infrastructure using CAT 6/6A/7/7A twisted pair cabling
- 10GbE cabling support up to 100m for data center deployments using structured cabling
- Increasing data center IT agility and scalability through deployment of a secure multi-tenant cloud
- Optimizing server hardware utilization by scaling high density virtualization
- Delivering user-controlled bandwidth partitioning across workloads and management services

The OCe14000 10GBASE-T Ethernet network adapter is designed for the high bandwidth and scalability demands of enterprise applications, more scalable virtualization with support for RDMA over Converged Ethernet (RoCE), enhanced Single-Root I/O Virtualization (SR-IOV) and NIC port partitioning, and next-generation overlay network technologies that address the requirements for virtual machine (VM) mobility and massive scaling of Layer 2 subnets inside private or hybrid cloud infrastructures.

Emulex Virtual Network Exceleration (VNeX™) overlay network offloads for multi-tenant cloud networking

Scaling existing technologies for private or public multi-tenant infrastructures requires networking solutions that can enable VM-to-VM communication and virtual workload migration across Layer 2 and Layer 3 boundaries without impacting connectivity or performance.

At the same time, these solutions need to ensure isolation and security for thousands or millions of tenant networks. However, with existing technology, the available 4094 VLAN IDs are insufficient to isolate/secure each tenant in a data center (private cloud) or hybrid cloud environment.

Virtual Extensible Local Area Network (VXLAN), supported by VMware and Linux, and Network Virtualization using Generic Routing Encapsulation (NVGRE), supported by Microsoft, are next

generation overlay networking solutions that address these requirements. These solutions are a frame-in-frame data packet encapsulation scheme enabling the creation of virtualized Layer 2 subnets that can span physical L3 IP networks. Traffic from each VM is tunneled to a specific virtual network; the packets are then routed transparently over the existing physical infrastructure.

Emulex VNeX offload technology powered by a multi-core adapter ASIC engine accelerates the performance of network virtualization by preserving legacy stateless TCP offloads and scaling methods on encapsulated packets, providing full native network performance in a virtual network environment.

RDMA support

The OCe14000 10GBASE-T adapter leverages RoCE enabling server to server data movement directly between application memory without any CPU involvement providing high throughput and data acceleration on a standard Ethernet fabric without the need for any specialized infrastructure or management.

Optimized host virtualization density with SR-IOV support

SR-IOV optimizes I/O for VMs, enabling higher host server virtualization ratios to deliver maximum server ROI. SR-IOV provides a more cost-effective solution than multiple, physical adapter ports. SR-IOV enables multiple VMs to directly access the OCe14000's I/O resources, thus allowing VM networking I/O to bypass the host and take a path directly between the VM and the adapter, eliminating redundant I/O processing in the hypervisor. This, in turn, allows higher I/O performance, lower CPU utilization and significantly reduced latency as compared to the alternative of software-emulated NIC devices that are implemented in the hypervisor.

Optimized bandwidth allocation with Emulex Universal Multi-Channel port or network partitioning

Emulex Universal Multi-Channel (UMC) is ideal for virtualized server environments because bandwidth allocation can be optimized to support VM migration, management and I/O intensive applications. UMC allows multiple PCI physical functions to be created on each adapter port. Each port on the dual-port OCe14102-NT can be configured with up to eight functions.

Fourth generation platform delivers enterprise-class reliability and performance

Leveraging generations of advanced, field-proven controller and adapter technology, OCe14000 adapters meet the robust interoperability and reliability requirements of enterprise and scale-out data centers.

Strona firmowa produktu:

<https://www.superstorage.pl/emulex-oneconnect-oc14102-nt-dual-port-10gbase-adapter-p-2100.html>