Midokura Enterprise MidoNet

Product Overview
Midokura Enterprise MidoNet is a commercial product combining the most stable, production-hardened version of MidoNet for Network Virtualization with MidoNet Manager, longer term support, and enterprise-class 24 X 7 service level agreement.

Customers can benefit from the following:
- Predictable release of production-grade, hardened version of MidoNet – MidoNet is the industry’s leading hardware-agnostic, distributed network virtualization solution for OpenStack.
- Multi-tenant advanced controls from MidoNet Manager – MidoNet Manager provides a single pane of glass view of all the bridges, routers, tenants, tunnel zones being managed by MidoNet and the agents. Performing inter-tenant maintenance and making changes to the routing tables can be done easily with the intuitive user interface
- Enterprise-class 24X7 Service Level Agreement – support employees across 4 time zones, 3 continents, customers can count on Midokura’s “follow the sun” support model for increased responsiveness and quicker issue resolution
- Longer Term Support – Customers can benefit from the latest innovations from the open source community and avoid the disruptions from frequent upgrades with Midokura Enterprise MidoNet. Customers can rest assured that they have all the backports and priority access to product fixes for their release deployed

What is MidoNet
MidoNet is an open source network virtualization platform for Infrastructure-as-a-service (IaaS) clouds. By decoupling the IaaS cloud from the network hardware, MidoNet creates an intelligent, software-based network abstraction layer between the hosts and the physical network, allowing operators to move from hardware-based network appliances to software-based, multi-tenant virtual domains.

Networking Challenges
Traditional networking technologies challenge Service Provider and Enterprise IT’s ability to automate, manage, and scale infrastructure required to keep up with business and market needs. Networking is getting more complex as networks become virtualized.

Challenges faced by enterprise and service provider customers today are:
- Physical networks are not agile and not built for scale – taking too long to provision new services and/or make changes to the network
- There’s a hard limit on the number of VLANs in physical networks
- Difficult to implement security policies on the fly
- Even on the same VLAN, workloads on physical and virtual infrastructure cannot communicate with each other

Key Features & Benefits of MidoNet
Logical Switching
- Distributed virtual switching, Layer 2 over Layer 3, decoupled from the physical network
- Interconnect with VLAN/VxLAN networks (physical and virtual) via software L2 Gateway

Logical Routing
- Routing between virtual networks without exiting the software container

Logical Firewall
- Distributed Firewall that is integrated with the Linux kernel
- Enforces security policies for high packet processing performance

Logical Layer 4 Load Balancer
- Application Load Balancing in software
- Dynamically scale up and down load balancing with compute

MidoNet API
- RESTful API for integration into any Cloud Management Software (OpenStack, vSphere, Custom Platforms)
Architecture Overview

Enterprise MidoNet provides single hop virtual networking and provisions virtual network devices and services atop physical networks in a matter of seconds.

Distributed Architecture

- Controller/Agent resides on each hypervisor - captures packets on the edge before they enter the logical network, reduces unnecessary traffic on the overlay network and improves performance and latency
- Distributed Layer 4 Load Balancer and Firewall – Single points of failures in OpenStack Neutron are eliminated with MidoNet’s distributed architecture
- Integrate with OpenStack Neutron APIs into compatible cloud orchestration software or custom cloud management platform that supports Neutron

Ease of Management

- No need to reconfigure physical networks, changes are made on the logical networks using the MidoNet Manager UI or the MidoNet CLI only
- Avoid Spanning Tree Protocol problems by creating larger overlay network domains
- Manage virtual network devices through REST APIs
- Single pane of glass management with MidoNet Manager

Use Cases

- Tightly Integrated with OpenStack
  - Overcome OpenStack Neutron shortcomings by replacing default Open vSwitch (OVS) plugin with MidoNet plugin
  - Tightly integrated with OpenStack Horizon UI for a seamless, single pane of glass operations

- Add virtualized network infrastructure and services without reconfiguring hardware
  - Distributed logical networking firewall, load balancer, L2/L3 switching and routing, NAT
  - Scale out L3 gateway by deploying in an Active-Active configuration as opposed to Active-Standby configuration
  - Limitless “VLANs” removing the limit of 4096 VLANs

- 40Gb high throughput packet processing support at near Line Rate performance with VxLAN offloading
  - Connect workloads on physical networks to workloads on virtual networks through VxLAN hardware gateway
  - Reduce packet processing to a single hop by bypassing the L2/L3 software gateway, bridging workloads on the physical networks to the virtual workloads from the hypervisor directly
  - Enforce security & compliance with detailed audit logs for PCI and SOX for control and operational efficiency

- Scale network infrastructure without adding hardware for Green IT

- Network Provisioning for Dev/Test
  - Automated provisioning of L2 to L4 network functions in seconds
  - Isolated sandboxes with 3 layers of isolation (L2-VLAN, L3-Routing, L4-Security Groups)

- Build multi-tenants cloud for lines of business use cases like Big Data and Hadoop

Pricing

Unlike other SDN vendors who charge per VM or using some incredibly complex algorithms, Midokura Enterprise MidoNet pricing is simple. Enterprise MidoNet is priced at $1,899 per hypervisor host per year. Pricing includes the following:

- 1 year annual software subscription
- 1 year software updates
- 1 year advanced 24*7 support
- 1 year of software for all database clusters - no extra costs

Interested in a Risk-Free, 30-Day Free Evaluation of Midokura Enterprise MidoNet? Visit Midokura.com

Enterprise MidoNet can be purchased directly from Midokura by emailing sales@midokura.com.