RED HAT ENTERPRISE VIRTUALIZATION: MESSAGING PERFORMANCE

EXECUTIVE SUMMARY

The goal

Determine the virtualized messaging performance of Red Hat Enterprise Virtualization with virtual machines running Advanced Message Queuing Protocol (AMQP).

Why should I care?

Business messaging software like AMQP provides the messaging middleware to allow very large, very scalable applications to function. Good performance on this test means your critical business applications will scale with Red Hat Enterprise Virtualization.

What was tested?

AMQP WORKLOAD
RED HAT ENTERPRISE MRG MESSAGING
RED HAT ENTERPRISE LINUX 5.4 GUEST
RED HAT ENTERPRISE LINUX 5.4 (WITH INTEGRATED KVM HYPERVISOR)
DELL POWEREDGE R710 (INTEL XEON W5570–NEHALEM)

Performance measured of AMQP workload using a two-socket, quad core server with 24GB of RAM and a 10GbE network card. Tested performance at different message sizes in Virtio and VT-d configurations.

What was the result?

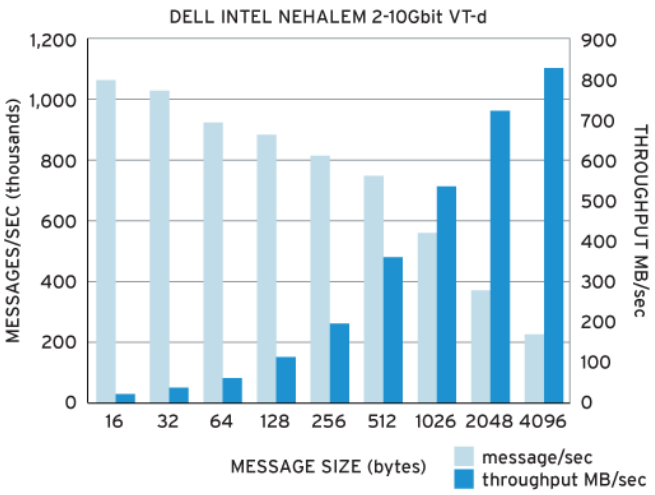
Red Hat Enterprise Virtualization provided messaging performance in one or two guests both with latencies under 200 milliseconds at 1000 messages per second in all but the largest message size. While running two simultaneous messaging workloads, the solution provided over 1 million messages per second at 16 byte and 32 byte message sizes, and over 800 MB/s at larger message sizes.

OVER A MILLION MESSAGES PER SECOND, UP TO 800MB/SEC, AND SUB-200-MILLISECOND LATENCY FOR ENTERPRISE MIDDLEWARE MESSAGING

While running one- and two-guest virtualized latency test messaging workloads, the KVM solution delivered sub-200-millisecond latencies at one thousand messages per second between the client system and the Dell PowerEdge R710 at all but the largest message size.

While running two simultaneous virtualized perftest messaging workloads, the KVM solution delivered over one million messages per second at 16-byte and 32-byte message sizes, and delivered over 800 MB/s at larger message sizes.

RHEL 5.4 KVM AMQP 2-GUEST



WHAT NEXT?

For more information, please go to **http://www.redhat.com/rhev/server** or contact your local Red Hat Enterprise Virtualization reseller.