

New QCT 100GbE Switches Launched: QuantaMesh T7032-IX1 and T4048-IX2

By **Patrick Kennedy** - November 22, 2016



QCT QuantaMesh T7032-IX1 in QCT Rack Scale Architecture

At Computex 2016 we saw two new switches from QCT, the QuantaMesh T7032-IX1 and the QuantaMesh T4048-IX2. Both switches are powered by Broadcom Tomahawk chips and support 10GbE, 40GbE, 25GbE/ 50GbE/ 100GbE. The QCT QuantaMesh T7032-IX1 is a 32 port QSFP28 switch that can support 10/25/40/50/100GbE. The QCT QuantaMesh T4048-IX2 is a 48 port 10/25GbE switch with 8x QSFP28 uplinks operating at up to 100GbE. If we were buying again today, we would likely have gotten the T4048-IX2 over the [T3048-LY8](#) we purchased last year as our lab switch.

The QCT QuantaMesh T7032-IX1 is an awesome 1U switch with up to 6.4Tbps of switching bandwidth. It uses a Rangeley based CPU and is meant to use ONIE switching software such as Cumulus Linux. Here is a picture of the unit from when we saw it in Taiwan earlier this year.



QCT QuantaMesh T7032-IX1 front

The QCT QuantaMesh T4048-IX2 is meant as a top of rack switch and can utilize up to 48x 10GbE or 25GbE SFP28 ports. There are also 8x QSFP28 ports that can be used for up to 100GbE or 800Gbps aggregate uplink bandwidth. Here is a show of the switch from our Taipei visit [earlier this year](#):



QCT QuantaMesh T4048-IX2

We are certainly seeing a strong push towards 25/50/100GbE. For those not yet adopting the new standards, moving to 40GbE may make sense as the pricing is quite a bit lower. For example, while we are waiting for 100GbE products such as these to hit the market, we moved much of the DemoEval lab to 40GbE. 10GbE is too slow for modern SSD arrays using NVMe SSDs.

Here is an excerpt from the official press release:

Quanta Cloud Technology (QCT), a global leader in hyperscale cloud and hyperconverged infrastructure, today launches a new series of bare metal switch (BMS) hardware supporting 25/100Gbps for hyperscale datacenter networking solutions. These switches—the [QuantaMesh T7032-IX1](#) and the [QuantaMesh T4048-IX2](#)—are powered by Broadcom Tomahawk chips and deliver a 25 percent performance improvement compared to 10/40G switches.

Cloud infrastructure operators are rapidly evolving from 10G and 40G switches to 25G and 100G hardware, and these new BMS offerings from QCT address and support datacenter customers' needs to optimally pair networking software with the hardware of their choice.

These BMS Ethernet switches offer not only lowest cost of ownership (TCO), but also the ability to optimize software for best performance. By deploying the QuantaMesh next-generation 25/100G Ethernet switch, data center operators can upgrade to 25G for top-of-rack (ToR) configurations and 100G at the middle-of-row (MoR) and end-of-row (EoR) configurations based on spine-and-leaf infrastructure for growing server/storage workloads.

QuantaMesh Ethernet switches feature integrated baseboard management controller (BMC), which usually resides in servers. This allows administrators to use the same management tool and protocol for management of all data center assets, enabling further savings on operational costs.

Spec Overview

The QuantaMesh T7032-IX1 supports 32 QSFP28 (10/40 or 25/50/100GbE speed) ports in a 1U size to deliver ToR or spine switch performance. The QuantaMesh T4048-IX2 supports 48 SFP28 (10/25GbE speed) downlink ports and 8 QSFP28 (10/40 or 25/50/100GbE speeds) uplink ports in a 1U size in ToR switch position to perform 1.5:1 oversub performance.

QuantaMesh BMS Ethernet switches are based upon open hardware designs with ONIE (Open Network Install Environment) pre-loaded to support multiple NOS. Cumulus Linux OS and ICOS NOS are certified to install for different networking applications. These networking products are ideal for applications that require high performance, high availability, fast scale out, low latency performance and continuous serviceability.

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Patrick has been running STH since 2009 and covers a wide variety of SME, SMB, and SOHO IT topics. Patrick is a consultant in the technology industry and has worked with numerous large hardware and storage vendors in the Silicon Valley. The goal of STH is simply to help users find some information about server, storage and networking, building blocks. If you have any helpful information please feel free to post on the forums.

