



QLOGIC®

QLogic OCP Update

QLogicって?

本社はアメリカ、南カリフォルニア

昨年度の売り上げ: \$458.9M

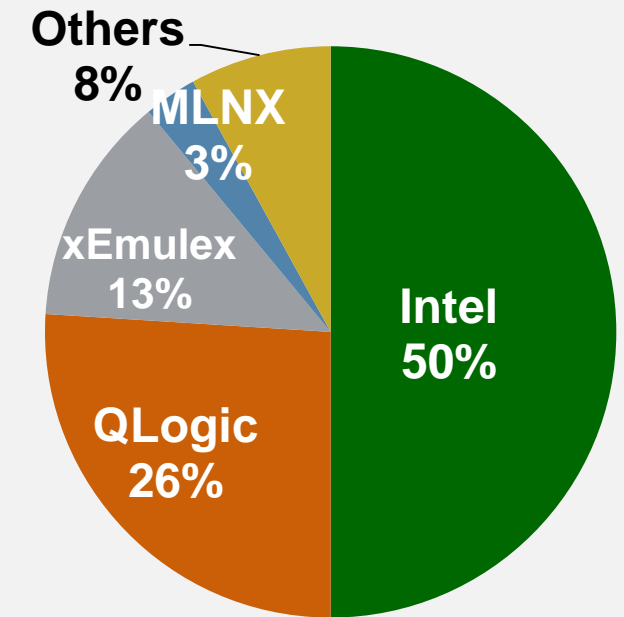
従業員は世界で 800 人程度

ファイバーチャネルとイーサネットのアダプター、ASICの会社

ファイバーチャネルアダプター(HBA) 12年連続シェアNo.1

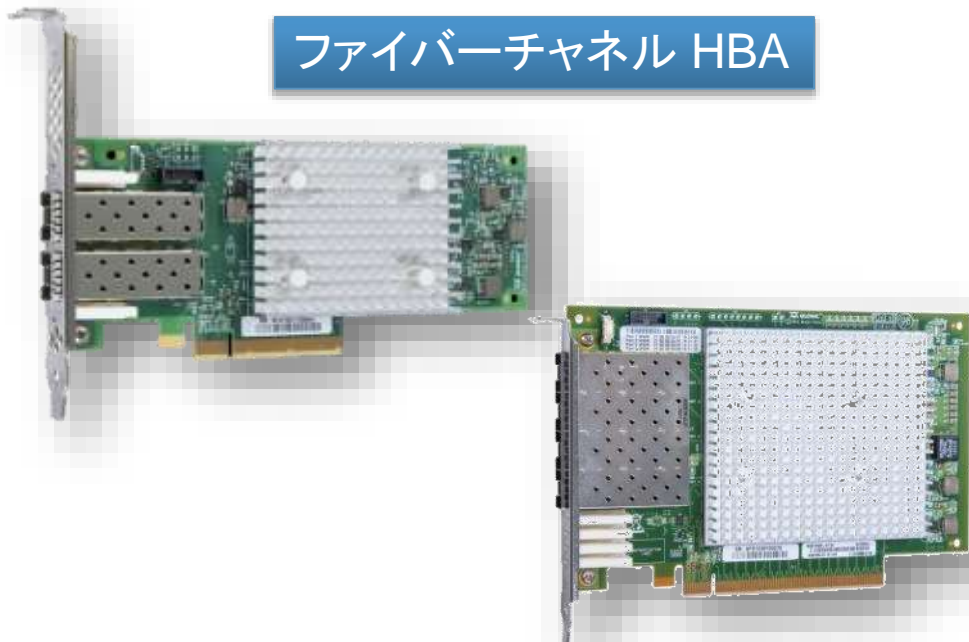
ストレージインターフェースも高いシェア

10Gbイーサネット Q4-14 ポート数シェア*



Dell 'Oro '14Q4

ファイバーチャネル HBA



ASIC



NIC, CNA



Breaking news ! (June 16)



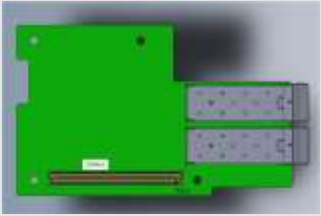
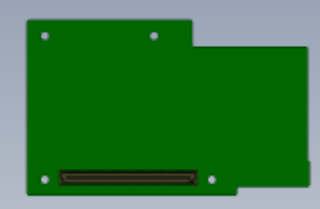
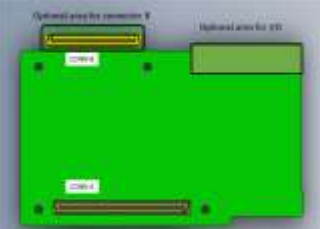
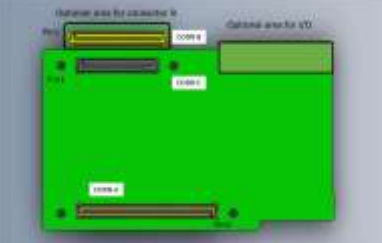
- Cavium to Acquire QLogic

A screenshot of the Cavium website's news page. The page features the Cavium logo in the top left, a navigation menu with links for PRODUCTS, SUPPORT, NEWS & EVENTS, SALES, PARTNERS, CORPORATE, and INVESTORS, and a search bar. The main content area is titled "Cavium to Acquire QLogic" and includes a sub-headline: "Opportunity to drive significant growth at scale in data center and storage markets". A large orange banner with white Japanese text is overlaid on the page. Below the banner, the text of the press release is visible, starting with "San Jose and Aliso Viejo, CA, June 15, 2016".

QLogic の製品群に影響はありません！

San Jose and Aliso Viejo, CA, June 15, 2016 – Cavium, Inc. (NASDAQ:CAVM) ("Cavium"), a leading provider of semiconductor products that enable intelligent processing for enterprise, data center, cloud, wired and wireless networking, and QLogic Corp. (NASDAQ:QLGC) ("QLogic"), a leading supplier of high performance networking infrastructure solutions, today announced that they have entered into a definitive agreement for Cavium to acquire all of the outstanding QLogic common stock for approximately \$15.50 per share, comprised of \$11.00 per share in cash and 0.098 of a share of Cavium common stock for each share of QLogic common stock (valued at approximately \$4.50 based on the volume weighted average Cavium trading price for the three trading days beginning June 10, 2016), through an exchange offer. The transaction values QLogic at approximately \$1.36 billion in equity value, inclusive of approximately \$355 million of cash on QLogic's balance sheet, and has been unanimously approved by the boards of directors of both companies.

OCP Versions Comparison

	Release Date	Default Form Factor	PCI-e	Connector	New I/O Types	Vertical Stack Types (heat sink height)	Management
OCP 0.5 (a.k.a. OCP 1.0)	Oct, 2012		Gen3x8	A – Gen3x8	- Single/dual 10G SFP+	No type define, height the same as 2.0 type 1	OOB through I2C
OCP 2.0 rev 0.4	Aug, 2014	 	Optional Gen 3x16	A – Gen 3x8 B(optional) - Gen 3x16	- Single/dual 40G QSFP+ - Quad 10G SFP+ - Quad 10GBT - 16x KR	Type 1 – single/dual /quad QSFP+ Type 2 – single/dual /quad QSFP+ w/ higher heat sink Type 3 – Quad 10G SFP+/Base-T	OOB through I2C or NC-SI
OCP 2.0 rev 1.0	Dec, 2015	 Adding connector C	Optional Gen 3x16	A – Gen 3x8 B(optional) - Gen 3x16 C(optional) – KR	- Single/dual 50G/100G QSFP+ - Single/dual 25G SFP+ - Single/Dual 10GBT	Adding Type 4 – single/dual QSFP+ sink-down design	OOB through I2C or NC-SI

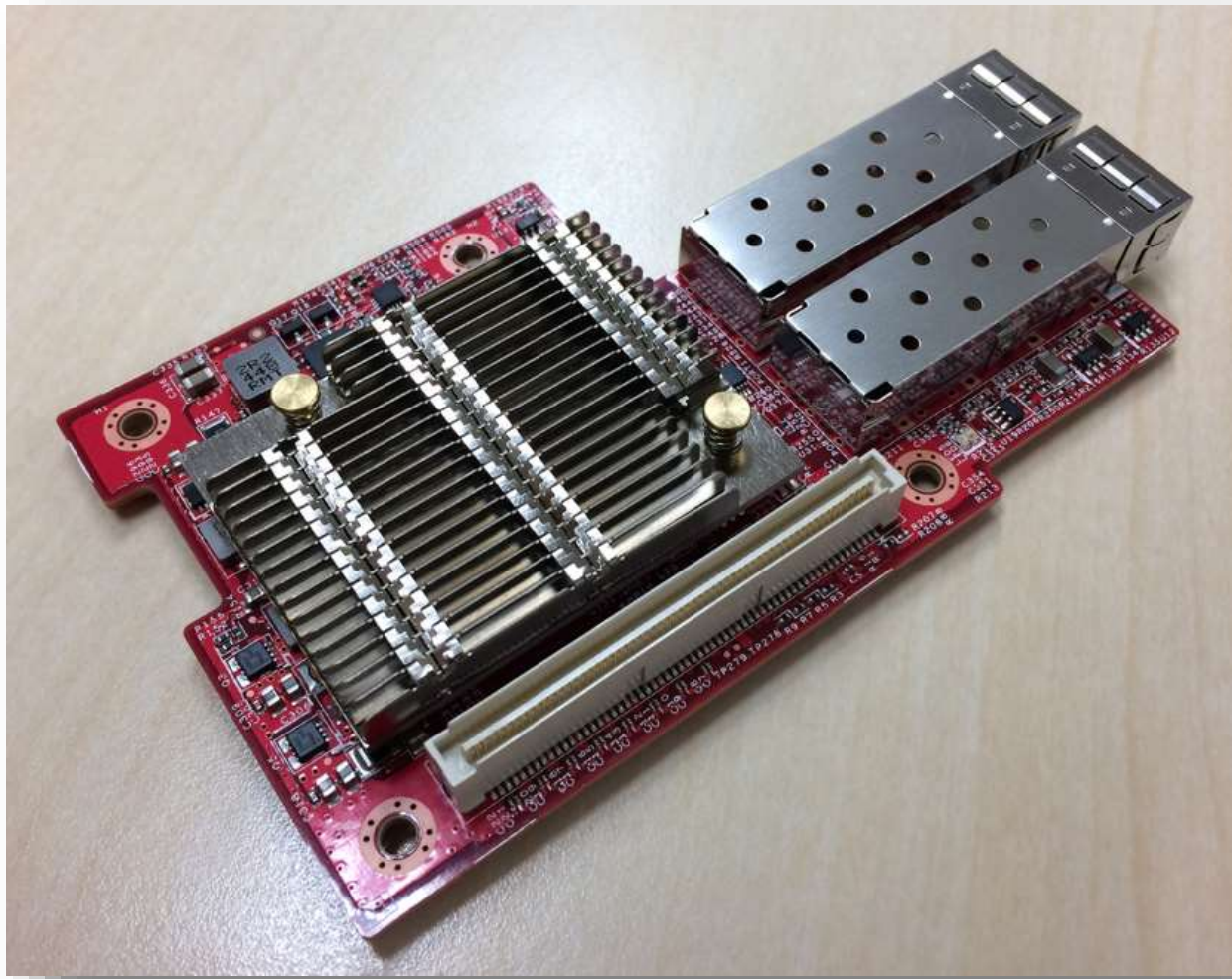
QLogic OCP Plan – as of June'16



Part Number	I/O	ASIC(s)	OCP Version	OCP Type	NC-SI	Status
QLE3452-CU	Single/dual-10G SFP+	E3	1.0 FF w/ 2.0 NC-SI	1	Yes w/ 2.0 spec	GA Q3'16
QLE3452-RJ	Single/dual-10GBT	E3	1.0 FF w/ 2.0 NC-SI	1	Yes w/ 2.0 spec	Sample
TBD	Single/dual-25G	E4	1.0 FF w/ 2.0 NC-SI	1	Yes w/ 2.0 spec	Plan 2017
TBD	Single-100G QSFP28	E4	2.0	2	Yes w/ 2.0 spec	Plan
TBD	Single/dual-40G QSFP+	E4	2.0	2	Yes w/ 2.0 spec	Plan

QLogic OCP Ethernet アダプター (開発中)

25Gb イーサネットOCPアダプター



40Gb イーサネットOCPアダプター



Why QLogic OCP?

- **実績 | Known-Good Solutions**
 - QLogic enterprise-class testing on customer's server platform
 - QLogic hardened SW stack and FW
- **管理性 | Manageability and Maintenance**
 - NC-SI design following OCP 2.0 spec
 - Crash dump provides history of failed adapters
 - Over temperature protection
 - Wake on LAN (WoL)
- **豊富な機能 | Most Comprehensive Protocol Support in the Industry**
 - Server virtualization support: multi-queue, SR-IOV, NPAR, RSS, TSS
 - Capable of RoCEv1/v2 and iWARP support
 - Tunneling support including HW/FW-ready for Geneve
 - Capable of iSCSI initiator offload
- **多くのベンダーと協業 | Flexible OCP Strategy**
 - ODM-flavored E3(10G SFP+) OCP to go with the box – Quanta, Mitac, Wiyynn, Foxconn, Inventec, Gigabyte, Asustek(10GBT)
 - Quanta to design Big Bear-based 25G/40G/100G OCPs

I/O テクノロジー ロードマップ

2016



ネットワーク
リンクスピード



ホスト接続



オフロード



I/O 技術



I/O の進化を
促すトレンド



ハイスピード ネットワーク: SAN 集積, DASを使ったGFS; 柔軟性

仮想化: サーバー、ネットワーク、ストレージ

統合: ストレージ (Flash), ネットワーク、低遅延、コンピュータ



Thank You!