



Broadcom NetXtreme Dual Port 10 GbE SFP+ Adapter and Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x server platforms offer increased performance, efficiency, and scalability for the enterprise data center

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At a glance

The Broadcom NetXtreme Dual Port 10 GbE SFP+ Adapter and Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM® System x® offer:

- 10 GbE connectivity for selected IBM System x rack server platforms
- Support for x8 PCI Express® (PCIe) V2.0 (5 GT/s)
- Full line-rate performance
- Network boot support - Preboot eXecution Environment (PXE) 2.0
- Broadcom Advanced Control Suite management application
- MSI and MSI-X support
- IPv4 and IPv6 offloads
- PCI-SIG SR-IOV
- Comprehensive stateless offloads
- RX/TX multiqueue
- Receive Side Scaling (RSS)
- Transmit Side Scaling (TSS)
- VLAN support with VLAN tagging
- Jumbo frame support for frames larger than 1,500 bytes
- Network teaming, failover, and load balancing
 - Smart Load Balancing (SLB)
 - Link Aggregation Control Protocol (LACP) and generic trunking

Overview

A Dual Port 10 GbE SFP+ Network Adapter and a Dual Port 2x10 GbE SFP+ Mezz Adapter, based on the Broadcom BCM57810 ASIC controller chip, are now available for selected IBM Systems x M4 rack server platforms. These adapters leverage Broadcom's controller technology, which is designed to provide outstanding performance, efficiency, and scalability for the enterprise data center. These BCM57810 ASIC-based network adapters are an excellent choice for virtualization and cloud-computing applications.

Feature exchanges

None

Key prerequisites

- For a list of compatible System x Servers and OS, refer to the IBM System x ServerProven® Plan located at <http://www-03.ibm.com/systems/info/x86servers/serverproven/compat/us/xseries/lan/matrix.html>
- Limit of one Embedded (Mezz) adapter per supported system
- Network Operation System and IBM Server Proven: For information on additional support, certification, and versions of networking operating systems, visit <http://www-03.ibm.com/systems/info/x86servers/serverproven/compat/us/>

Planned availability date

- December 19, 2013: Broadcom NetXtreme 2 x 10 GbE SFP+ Mezz Adapter for IBM System x (44T1360)
- January 17, 2014: Broadcom NetXtreme Dual Port 10 GbE SFP+ Adapter for IBM System x (94Y5180)

Description

Broadcom NetXtreme Dual Port 10 GbE SFP+ Adapter and Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x

The Broadcom NetXtreme Dual Port 10 GbE SFP+ Adapter and Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for selected IBM System x M4 server platforms are based on the Broadcom BCM57810 ASIC controller chip. Each adapter offers the following features and functionality:

- Streamlines administrative tasks through Broadcom Advanced Control Suite (BACS) management application.
- Delivers 10G line rate networking performance and lowest CPU utilization with TCP/IP offload (TOE).
- Maximizes server processing performance by reducing CPU overhead and lowering interrupt latency through the use of the MSI-X standard.
- Boosts performance in Linux™ environments by directing interrupts to the server's CPU cores, leveraging TSS/RSS.
- Includes robust virtualization capabilities that enhance network management and efficiency with support for VLAN/VLAN tagging.

Product positioning

A Dual Port 10 GbE SFP+ Network Adapter and a Dual Port 2x10 GbE SFP+ Mezz Network Adapter, are based on the Broadcom BCM57810 ASIC controller chip, are now available for selected IBM System x M4 rack server platforms. It leverages Broadcom's controller technology, which is designed to provide outstanding performance, efficiency, and scalability for the enterprise data center. This BCM57810 ASIC-based network adapter is an excellent choice for virtualization and cloud-computing applications.

Product number

Options Offerings (SEOs)

The following are features already announced for the 3331 machine type:

Description	Machine Type	Model	Feature	SEO	Part number
Broadcom NetXtreme Dual Port 10 GbE SFP+ Adapter for IBM System x	3331	HC1	A4Z6	94Y5180	94Y5180
Broadcom NetXtreme 2 x 10 GbE SFP+ Mezz Adapter for IBM System x	3331	HC1	A4YQ	44T1360	44T1360

The following are features already announced for the 2583, 3331, 5455, 5460, 7143, 7147, 7158, 7160, 7382, 7383, 7912, 7914, and 7915 machine types:

Description	MT	Model	Feature
Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x	3331	HC1	A4YQ
Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x	5460	AC1 MC1	
Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x	7912	AC1 MC1	
Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x	7914	AC1 MC1	
Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x	7915	AC1 MC1	
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	2583	AC1 MC1	A4Z6
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	3331	HC1	
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	5455	AC1 MC1	
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	5460	AC1 MC1	
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	7143	AC1 MC1	
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	7147	AC1 MC1	
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	7158	AC1 MC1	
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	7160	AC1 MC1	
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	7382	AC1 MC1	
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	7383	AC1 MC1	
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	7912	AC1 MC1	
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	7914	AC1	

			MC1	
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	7915	AC1	MC1	
Intel Xeon Processor E5-2603 v2 4C 1.8GHz 10MB 1333MHz 80W(2nd GPU)	7915	AC1	MC1	A4ZB
Intel Xeon Processor E5-2609 v2 4C 2.5GHz 10MB 1333MHz 80W(2nd GPU)	7915	AC1	MC1	A4ZC
Intel Xeon Processor E5-2637 v2 4C 3.5GHz 15MB 1866MHz 130W(2nd GPU)	7915	AC1	MC1	A4ZD
Intel Xeon Processor E5-2620 v2 6C 2.1GHz 15MB 1600MHz 80W(2nd GPU)	7915	AC1	MC1	A4ZE
Intel Xeon Processor E5-2630 v2 6C 2.6GHz 15MB 1600MHz 80W(2nd GPU)	7915	AC1	MC1	A4ZF
Intel Xeon Processor E5-2650 v2 8C 2.6GHz 20MB 1866MHz 95W(2nd GPU)	7915	AC1	MC1	A4ZG
Intel Xeon Processor E5-2660 v2 10C 2.2GHz 25MB 1866MHz 95W(2nd GPU)	7915	AC1	MC1	A4ZH
Intel Xeon Processor E5-2640 v2 8C 2.0GHz 20MB 1600MHz 95W(2nd GPU)	7915	AC1	MC1	A4ZJ
Intel Xeon Processor E5-2670 v2 10C 2.5GHz 1866MHz 115W(2nd GPU)	7915	AC1	MC1	A4ZK
Intel Xeon Processor E5-2680 v2 10C 2.8GHz 1866MHz 115W(2nd GPU)	7915	AC1	MC1	A4ZL
Intel Xeon Processor E5-2643 v2 6C 3.5GHz 25MB 1866MHz 130W(2nd GPU)	7915	AC1	MC1	A4ZM
Intel Xeon Processor E5-2667 v2 8C 3.3GHz 25MB 1866MHz 130W(2nd GPU)	7915	AC1	MC1	A4ZN
Intel Xeon Processor E5-2695 v2 12C 2.4GHz 1866MHz 115W(2nd GPU)	7915	AC1	MC1	A4ZP
Intel Xeon Processor E5-2697 v2 12C 2.7GHz 1866MHz 130W(2nd GPU)	7915	AC1	MC1	A4ZQ
Intel Xeon Processor E5-2630L v2 6C 2.4GHz 15MB 1600MHz 60W(2nd GPU)	7915	AC1	MC1	A4ZR
Intel Xeon Processor E5-2690 v2 10C 3.0GHz 1866MHz 130W(2nd GPU)	7915	AC1	MC1	A4ZS
Intel Xeon Processor E5-2628L v2 8C 1.9GHz 20MB 1600MHz 70W(2nd GPU)	7915	AC1	MC1	A4ZT
Intel Xeon Processor E5-2648L v2 10C 1.9GHz 1866MHz 70W(2nd GPU)	7915	AC1	MC1	A4ZU
Addl Intel Xeon™ Processor E5-2603 v2 4C 1.8GHz 80W w/Fan(2nd GPU)	7915	AC1	MC1	A4ZV
Addl Intel Xeon Processor E5-2609 v2 4C 2.5GHz 80W w/Fan(2nd GPU)	7915	AC1	MC1	A4ZW
Addl Intel Xeon Processor E5-2637 v2 4C 3.5GHz 130W w/Fan(2nd GPU)	7915	AC1	MC1	A4ZX
Addl Intel Xeon Processor E5-2620 v2 6C 2.1GHz 80W w/Fan(2nd GPU)	7915	AC1	MC1	A4ZY
Addl Intel Xeon Processor E5-2630 v2 6C 2.6GHz 80W w/Fan(2nd GPU)	7915	AC1	MC1	A4ZZ

Addl Intel Xeon Processor E5-2650 v2 8C 2.6GHz 95W w/Fan(2nd GPU)	7915	AC1 MC1	A500
Addl Intel Xeon Processor E5-2660 v2 10C 2.2GHz 95W w/Fan(2nd GPU)	7915	AC1 MC1	A501
Addl Intel Xeon Processor E5-2640 v2 8C 2.0GHz 95W w/Fan(2nd GPU)	7915	AC1 MC1	A502
Addl Intel Xeon Processor E5-2670 v2 10C 2.5GHz 115W w/Fan(2nd GPU)	7915	AC1 MC1	A503
Addl Intel Xeon Processor E5-2680 v2 10C 2.8GHz 115W w/Fan(2nd GPU)	7915	AC1 MC1	A504
Addl Intel Xeon Processor E5-2643 v2 6C 3.5GHz 130W w/Fan(2nd GPU)	7915	AC1 MC1	A505
Addl Intel Xeon Processor E5-2667 v2 8C 3.3GHz 130W w/Fan(2nd GPU)	7915	AC1 MC1	A506
Addl Intel Xeon Processor E5-2695 v2 12C 2.4GHz 115W w/Fan(2nd GPU)	7915	AC1 MC1	A507
Addl Intel Xeon Processor E5-2697 v2 12C 2.7GHz 130W w/Fan(2nd GPU)	7915	AC1 MC1	A508
Addl Intel Xeon Processor E5-2650L v2 10C 1.7GHz 70W w/Fan(2nd GPU)	7915	AC1 MC1	A509
Addl Intel Xeon Processor E5-2630L v2 6C 2.4GHz 60W w/Fan(2nd GPU)	7915	AC1 MC1	A50A
Addl Intel Xeon Processor E5-2690 v2 10C 3.0GHz 130W w/Fan(2nd GPU)	7915	AC1 MC1	A50B
Addl Intel Xeon Processor E5-2628L v2 8C 1.9GHz 70W w/Fan(2nd GPU)	7915	AC1 MC1	A50C
Addl Intel Xeon Processor E5-2648L v2 10C 1.9GHz 70W w/Fan(2nd GPU)	7915	AC1 MC1	A50D
Intel Xeon Processor E5-2650L v2 10C 1.7GHz 1600MHz 70W(2nd GPU)	7915	AC1 MC1	A51W
2U Bracket for Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter	7147	AC1 MC1	A52A
2U Bracket for Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter	7158	AC1 MC1	
2U Bracket for Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter	7160	AC1 MC1	
2U Bracket for Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter	7914	AC1 MC1	

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld® ID and password are required (use IBM ID).

<https://www.ibm.com/partnerworld/mem/sla.jsp?num=113-213>

Publications

Publications are shipped with the announced product.

The IBM Systems Information Center provides you with a single information center where you can access product documentation for IBM systems hardware, operating systems, and server software. Through a consistent framework, you can efficiently find information and personalize your access. The IBM Systems Information Center is at

<http://publib14.boulder.ibm.com/infocenter/systems>

IBM Publications Center Portal

<http://www.ibm.com/shop/publications/order>

The Publications Center is a worldwide central repository for IBM product publications and marketing material with a catalog of 70,000 items. Extensive search facilities are provided, as well as payment options via credit card. A large number of publications are available online in various file formats, which can currently be downloaded free of charge.

Displayable softcopy publications: None

Source file publications: None

Services

Global Technology Services®

IBM services include business consulting, outsourcing, hosting services, applications, and other technology management.

These services help you learn about, plan, install, manage, or optimize your IT infrastructure to be an on-demand business. They can help you integrate your high-speed networks, storage systems, application servers, wireless protocols, and an array of platforms, middleware, and communications software for IBM and many non-IBM offerings. IBM is your one-stop shop for IT support needs.

For details on available services, contact your IBM representative or visit

<http://www.ibm.com/services/>

For details on available IBM Business Continuity and Recovery Services, contact your IBM representative or visit

<http://www.ibm.com/services/continuity>

For details on education offerings related to specific products, visit

<http://www.ibm.com/services/learning/index.html>

Select your country, and then select the product as the category.

System x and BladeCenter® support services

Recommended core technical support

When you buy IBM System x technology, include the support services you need -- to help keep both your hardware and software working for you, day after day, at peak performance. It is your first step toward helping to protect your investment and sustain high levels of system availability. We offer service-level and response-time options to fit your business needs. And we will help you get started with a core support package that includes:

- **Continuous system monitoring**

Electronic monitoring that helps speed up problem-solving with automated, early detection of potential problems and system errors.

- **Hardware maintenance**

World-class remote and on-site hardware problem determination and repair services.

- **Software technical support**

Access to help line calls for fast, accurate answers to your questions during installation and throughout ongoing operations.

For more information, visit

<http://www.ibm.com/servers/eserver/xseries/services.html>

Technical information

Specified operating environment

Physical specifications

Broadcom NetXtreme Dual Port 10 GbE SFP+ Adapter (95Y5180) and Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter (44T1360) for IBM System x

- Approximate height: 160 mm (6.30 in.)
- Approximate width: 150 mm (5.91 in.)
- Approximate depth: 17.3 mm (0.6875 in.)
- Approximate weight: 110 g (0.24 lb.)

Shipping dimensions:

- Approximate height: 290.3 mm (11.535 in.)
- Approximate width: 250.8 mm (8.19 in.)
- Approximate depth: 50.8 mm (2.28 in.)
- Approximate weight: .4 kg (0.89 lb.)

Agency approvals

- EN55022
- EN55024
- EN60950 / CE
- EN 61000-3-2
- EN 61000-3-3
- ICES-003, Issue-004
- IEC 950 CB Scheme
- FCC 47 CFR Part 15 Class A
- UL 1950
- CSA C22.2 950-95
- VCCI
- AS/NZSCISPR 22 / C-tick
- RRL for KC
- BSMI
- UL 94-/V

Standards

None

Operating environment

- Operating temperature: 32°F to 131°F (0°C to 55°C)
- Storage temperature: -40°F to 149°F (-40°C to 65°C)
- Relative humidity: 5% to 95% noncondensing

Homologation

Not applicable.

Hardware requirements

The Broadcom NetXtreme Dual Port 10 GbE SFP+ Adapter or Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter must be installed in a selected IBM System x system.

For information on additional support, certification, and versions of network operating systems, visit

<http://www-03.ibm.com/systems/info/x86servers/serverproven/compat/us/>

Software requirements

For information on versions of network operating systems, visit

<http://www-03.ibm.com/systems/info/x86servers/serverproven/compat/us/>

Compatibility

For information on additional support, certification, and versions of network operating systems, visit

<http://www-03.ibm.com/systems/info/x86servers/serverproven/compat/us/>

Limitations

None

User group requirements

This announcement satisfies or partially satisfies the requirements from one or more of the worldwide user group communities. Groups include COMMON, COMMON Europe, Guide Share Europe (GSE), InterAction (Australia/New Zealand), Japan Guide Share (JGS), and SHARE Inc.

Planning information

Customer responsibilities

The Broadcom NetXtreme Dual Port 10 GbE SFP+ Adapter and Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter products are designed as customer setup. Customer installation instructions are shipped with each option part.

Cable orders

None

Installability

The Broadcom NetXtreme Dual Port 10 GbE SFP+ Adapter and Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter each require about 20 minutes for installation.

Installation includes unpacking, setting up, and powering on.

Packaging

Broadcom NetXtreme Dual Port 10 GbE SFP+ Adapters

Product	Package description	Boxes
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	Option Unit Box	1
Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x		

Contents:

Broadcom adapter
2U bracket
Quick install guide
CD with pub
Important Notices Flyer

The Broadcom NetXtreme Dual Port 10 GbE SFP+ Adapter or Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter is shipped as a single package. Other items are in zipped bags.

Retail only

Packaging dimensions/weight

- Single box (HxWxD): 290.3 mm (11.535 in.) x 250.8 mm (8.19 in.) x 50.8 mm (2.28 in.)
- Package weight: 400 g (0.89 lb.)

Note: All measurements are approximate.

Security, auditability, and control

It is a customer's responsibility to ensure that the server is secure to prevent sensitive data from being removed.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

IBM Electronic Services

Electronic Service Agent™ and the IBM Electronic Support web portal are dedicated to providing fast, exceptional support to IBM Systems customers. The IBM Electronic Service Agent tool is a no-additional-charge tool that proactively monitors and reports hardware events, such as system errors, performance issues, and inventory. The Electronic Service Agent tool can help you stay focused on your company's strategic business initiatives, save time, and spend less effort managing day-to-day IT maintenance issues. Servers enabled with this tool can be monitored remotely around the clock by IBM Support all at no additional cost to you.

Now integrated into the base operating system of AIX® 5.3, AIX 6.1, and AIX 7.1, Electronic Service Agent is designed to automatically and electronically report system failures and utilization issues to IBM, which can result in faster problem resolution and increased availability. System configuration and inventory information collected by the Electronic Service Agent tool also can be viewed on the secure Electronic Support web portal, and used to improve problem determination and resolution by you and the IBM support team. To access the tool main menu,

simply type "smitty esa_main", and select "Configure Electronic Service Agent." In addition, ESA now includes a powerful web user interface, giving the administrator easy access to status, tool settings, problem information, and filters. For more information and documentation on how to configure and use Electronic Service Agent, refer to

<http://www.ibm.com/support/electronic>

The IBM Electronic Support portal is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. This portal enables you to gain easier access to IBM resources for assistance in resolving technical problems. The My Systems and Premium Search functions make it even easier for Electronic Service Agent tool-enabled customers to track system inventory and find pertinent fixes.

Benefits

Increased uptime: The Electronic Service Agent tool is designed to enhance the Warranty or Maintenance Agreement by providing faster hardware error reporting and uploading system information to IBM Support. This can translate to less wasted time monitoring the "symptoms," diagnosing the error, and manually calling IBM Support to open a problem record. Its 24 x 7 monitoring and reporting mean no more dependence on human intervention or off-hours customer personnel when errors are encountered in the middle of the night.

Security: The Electronic Service Agent tool is designed to be secure in monitoring, reporting, and storing the data at IBM. The Electronic Service Agent tool securely transmits either via the Internet (HTTPS or VPN) or modem, and can be configured to communicate securely through gateways to provide customers a single point of exit from their site. Communication is one way. Activating Electronic Service Agent does not enable IBM to call into a customer's system. System inventory information is stored in a secure database, which is protected behind IBM firewalls. It is viewable only by the customer and IBM. The customer's business applications or business data is never transmitted to IBM.

More accurate reporting: Since system information and error logs are automatically uploaded to the IBM Support center in conjunction with the service request, customers are not required to find and send system information, decreasing the risk of misreported or misdiagnosed errors. Once inside IBM, problem error data is run through a data knowledge management system and knowledge articles are appended to the problem record.

Customized support: Using the IBM ID entered during activation, customers can view system and support information in the "My Systems" and "Premium Search" sections of the Electronic Support website at

<http://www.ibm.com/support/electronic>

My Systems provides valuable reports of installed hardware and software using information collected from the systems by Electronic Service Agent. Reports are available for any system associated with the customer's IBM ID. Premium Search combines the function of search and the value of Electronic Service Agent information, providing advanced search of the technical support knowledgebase. Using Premium Search and the Electronic Service Agent information that has been collected from your system, customers are able to see search results that apply specifically to their systems.

For more information on how to utilize the power of IBM Electronic Services, contact your IBM Systems Services Representative, or visit

<http://www.ibm.com/support/electronic>

Terms and conditions

MES discount applicable

No

Field installable feature

Yes

Warranty period

One year.

An IBM part or feature installed during the initial installation of an IBM machine is subject to a full warranty effective on the date of installation of the machine. An IBM part or feature which replaces a previously installed part or feature assumes the remainder of the warranty period for the replaced part or feature. An IBM part or feature added to a machine without replacing a previously installed part or feature is subject to a full warranty effective on its date of installation. Unless specified otherwise, the warranty period, type of warranty service, and service level of a part or feature is the same as the machine it is installed in.

Customer setup

Yes

Machine code

No license terms apply.

Optional features warranty period

- Optional features: One year
- Warranty period: One year
 - When the server is configured with the adapter at the IBM factory, the adapter's warranty takes on the same warranty as the server in which it is installed.
- Service type (IOR/IOE/CCE/CCR): CRU
- Maintenance agreement: No
- Optional upgrade: No

Prices

For current prices, contact IBM at 888-Shop-IBM (746-7426) or visit

<http://www-03.ibm.com/systems/x/>

To locate the web price, search on the feature number in the Search field.

Description	Part number
Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x	44T1360
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	94Y5180

Field install only	Plant install only	MES removal	Cables required
N	N	N	N

The following are features already announced for the 2583 machine type:

Description	Model Number	Feature Number	Initial/ MES/ Both/ Support	CSU
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	AC1	A4Z6	Initial	Yes
	MC1		Initial	Yes

The following are features already announced for the 3331 machine type:

Description	Model Number	Feature Number	Initial/ MES/ Both/ Support	CSU
Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x	HC1	A4YQ	MES	Yes
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	HC1	A4Z6	MES	Yes

The following are features already announced for the 5455 machine type:

Description	Model Number	Feature Number	Initial/ MES/ Both/ Support	CSU
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	AC1	A4Z6	Initial	Yes
	MC1		Initial	Yes

The following are features already announced for the 5460 machine type:

Description	Model Number	Feature Number	Initial/ MES/ Both/ Support	CSU
Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x	AC1	A4YQ	Initial	Yes
	MC1		Initial	Yes
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	AC1	A4Z6	Initial	Yes
	MC1		Initial	Yes

The following are features already announced for the 7143 machine type:

Description	Model Number	Feature Number	Initial/MES/Both/Support	CSU
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	AC1	A4Z6	Initial	Yes
	MC1		Initial	Yes

The following are features already announced for the 7147 machine type:

Description	Model Number	Feature Number	Initial/MES/Both/Support	CSU
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	AC1	A4Z6	Initial	Yes
	MC1		Initial	Yes
2U Bracket for Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter	AC1	A52A	Initial	Yes
	MC1		Initial	Yes

The following are features already announced for the 7158 machine type:

Description	Model Number	Feature Number	Initial/MES/Both/Support	CSU
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	AC1	A4Z6	Initial	Yes
	MC1		Initial	Yes
2U Bracket for Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter	AC1	A52A	Initial	Yes
	MC1		Initial	Yes

The following are features already announced for the 7160 machine type:

Description	Model Number	Feature Number	Initial/MES/Both/Support	CSU
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	AC1	A4Z6	Initial	Yes
	MC1		Initial	Yes
2U Bracket for Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter	AC1	A52A	Initial	Yes
	MC1		Initial	Yes

The following are features already announced for the 7382 machine type:

Description	Model Number	Feature Number	Initial/MES/Both/Support	CSU
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for				

IBM System x	AC1	A4Z6	Initial	Yes
	MC1		Initial	Yes

The following are features already announced for the 7383 machine type:

Description	Model Number	Feature Number	Initial/MES/Both/Support	CSU
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	AC1	A4Z6	Initial	Yes
	MC1		Initial	Yes

The following are features already announced for the 7912 machine type:

Description	Model Number	Feature Number	Initial/MES/Both/Support	CSU
Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x	AC1	A4YQ	Initial	Yes
	MC1		Initial	Yes
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	AC1	A4Z6	Initial	Yes
	MC1		Initial	Yes

The following are features already announced for the 7914 machine type:

Description	Model Number	Feature Number	Initial/MES/Both/Support	CSU
Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x	AC1	A4YQ	Initial	Yes
	MC1		Initial	Yes
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	AC1	A4Z6	Initial	Yes
	MC1		Initial	Yes
2U Bracket for Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter	AC1	A52A	Initial	Yes
	MC1		Initial	Yes

The following are features already announced for the 7915 machine type:

Description	Model Number	Feature Number	Initial/MES/Both/Support	CSU
Broadcom NetXtreme 2x10 GbE SFP+ Mezz Adapter for IBM System x	AC1	A4YQ	Initial	Yes
	MC1		Initial	Yes
Broadcom NetXtreme Dual Port 10GbE SFP+ Adapter for IBM System x	AC1	A4Z6	Initial	Yes
	MC1		Initial	Yes
Intel Xeon Processor E5-2603 v2 4C 1.8GHz 10MB 1333MHz 80W(2nd GPU)				

		AC1	A4ZB	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2609	v2 4C 2.5GHz 10MB				
1333MHz 80W(2nd GPU)					
		AC1	A4ZC	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2637	v2 4C 3.5GHz 15MB				
1866MHz 130W(2nd GPU)					
		AC1	A4ZD	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2620	v2 6C 2.1GHz 15MB				
1600MHz 80W(2nd GPU)					
		AC1	A4ZE	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2630	v2 6C 2.6GHz 15MB				
1600MHz 80W(2nd GPU)					
		AC1	A4ZF	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2650	v2 8C 2.6GHz 20MB				
1866MHz 95W(2nd GPU)					
		AC1	A4ZG	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2660	v2 10C 2.2GHz 25MB				
1866MHz 95W(2nd GPU)					
		AC1	A4ZH	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2640	v2 8C 2.0GHz 20MB				
1600MHz 95W(2nd GPU)					
		AC1	A4ZJ	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2670	v2 10C 2.5GHz 1866MHz				
115W(2nd GPU)					
		AC1	A4ZK	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2680	v2 10C 2.8GHz 1866MHz				
115W(2nd GPU)					
		AC1	A4ZL	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2643	v2 6C 3.5GHz 25MB				
1866MHz 130W(2nd GPU)					
		AC1	A4ZM	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2667	v2 8C 3.3GHz 25MB				
1866MHz 130W(2nd GPU)					
		AC1	A4ZN	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2695	v2 12C 2.4GHz 1866MHz				
115W(2nd GPU)					
		AC1	A4ZP	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2697	v2 12C 2.7GHz 1866MHz				
130W(2nd GPU)					
		AC1	A4ZQ	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2630L	v2 6C 2.4GHz 15MB				
1600MHz 60W(2nd GPU)					
		AC1	A4ZR	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2690	v2 10C 3.0GHz 1866MHz				
130W(2nd GPU)					
		AC1	A4ZS	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2628L	v2 8C 1.9GHz 20MB				
1600MHz 70W(2nd GPU)					
		AC1	A4ZT	Initial	Yes
		MC1		Initial	Yes
Intel Xeon Processor E5-2648L	v2 10C 1.9GHz 1866MHz				
70W(2nd GPU)					
		AC1	A4ZU	Initial	Yes
		MC1		Initial	Yes
Addl Intel Xeon Processor E5-2603	v2 4C 1.8GHz 80W				
w/Fan(2nd GPU)					
		AC1	A4ZV	Initial	Yes
		MC1		Initial	Yes

Add Intel Xeon Processor E5-2609 v2 4C 2.5GHz 80W w/Fan(2nd GPU)	AC1 MC1	A4ZW	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2637 v2 4C 3.5GHz 130W w/Fan(2nd GPU)	AC1 MC1	A4ZX	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2620 v2 6C 2.1GHz 80W w/Fan(2nd GPU)	AC1 MC1	A4ZY	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2630 v2 6C 2.6GHz 80W w/Fan(2nd GPU)	AC1 MC1	A4ZZ	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2650 v2 8C 2.6GHz 95W w/Fan(2nd GPU)	AC1 MC1	A500	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2660 v2 10C 2.2GHz 95W w/Fan(2nd GPU)	AC1 MC1	A501	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2640 v2 8C 2.0GHz 95W w/Fan(2nd GPU)	AC1 MC1	A502	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2670 v2 10C 2.5GHz 115W w/Fan(2nd GPU)	AC1 MC1	A503	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2680 v2 10C 2.8GHz 115W w/Fan(2nd GPU)	AC1 MC1	A504	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2643 v2 6C 3.5GHz 130W w/Fan(2nd GPU)	AC1 MC1	A505	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2667 v2 8C 3.3GHz 130W w/Fan(2nd GPU)	AC1 MC1	A506	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2695 v2 12C 2.4GHz 115W w/Fan(2nd GPU)	AC1 MC1	A507	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2697 v2 12C 2.7GHz 130W w/Fan(2nd GPU)	AC1 MC1	A508	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2650L v2 10C 1.7GHz 70W w/Fan(2nd GPU)	AC1 MC1	A509	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2630L v2 6C 2.4GHz 60W w/Fan(2nd GPU)	AC1 MC1	A50A	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2690 v2 10C 3.0GHz 130W w/Fan(2nd GPU)	AC1 MC1	A50B	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2628L v2 8C 1.9GHz 70W w/Fan(2nd GPU)	AC1 MC1	A50C	Initial Initial	Yes Yes
Add Intel Xeon Processor E5-2648L v2 10C 1.9GHz 70W w/Fan(2nd GPU)	AC1 MC1	A50D	Initial Initial	Yes Yes
Intel Xeon Processor E5-2650L v2 10C 1.7GHz 1600MHZ 70W(2nd GPU)				

AC1	A51w	Initial	Yes
MC1		Initial	Yes

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