IBM PurePower System Solution improvements deliver an ideal platform for private cloud and analytics workloads

At a glance

IBM(R) PurePower System(TM) Solution is a complete, flexible cloud converged infrastructure platform designed with built-in expertise. It offers these enhancements:

- The ability to scale up to eight racks in a single management plane, delivering a scalable infrastructure platform for private cloud
- The ability to build your private cloud quickly and manage it seamlessly with IBM PowerVC V1.3.1 Cloud Edition
- Support for SUSE Linux(TM) Enterprise Server 11 SP4, offering more operating system choice and flexibility than ever
- Support for IBM PurePower Integrated Manager V1.2, delivering functional improvements to the firmware updating process and other enhancements
- Support for optional internal solid-state drives (SSD) in the IBM Storwize(R) V7000 storage system to accelerate time-to-value for key data and analytics workloads
- Updated code levels for system firmware and operating system software

Overview

PurePower System Solution, built with IBM POWER8(R) technology, is designed to be the most secure, quick-to-deploy converged infrastructure for IBM AIX(R), IBM i, and Linux workloads.

Built on POWER8 technology, PurePower System Solution is a complete, flexible cloud converged infrastructure platform designed with built-in expertise. This offering seamlessly integrates and optimizes all compute, storage, and networking resources to deliver ready-to-deploy infrastructure out of the box. PurePower System Solution can be deployed in hours versus days or weeks and features built-in workload elasticity, automated workload scalability, and a single point of management and support, that helps to simplify and streamline operations across the entire IT environment.

The enhancements to PurePower System Solution, which will be available on June 10, 2016, help accelerate and simplify infrastructure deployment, and provide increased flexibility to meet changing configuration needs.

Key prerequisites

A supported AIX, Linux, or IBM i operating system. For details and additional information, see the Software requirements section.

Planned availability date

June 10, 2016

Description

The IBM PurePower System Solution is an integrated offering that is classified as a flexible time-to-value offering. This classification means it will be preassembled, preconfigured, and pretested, but it does not have a machine type/model (MTM) associated with it. A unique MTM will be assigned to the management nodes in the system that can be used to uniquely identify the system as a converged infrastructure for the purpose of service, support, and support entitlement.

The PurePower configuration and how to support it is limited to IBM preconfigured solutions as deployed by IBM from systems manufacturing. Altering the hardware configuration from IBM factory settings would end "how-to" support on the modified solution. PurePower Software support is limited to the software version and configuration as shipped by IBM manufacturing. Altering the software version or configuration other than as prescribed by IBM would end software support of the PurePower solution. Clients are free to integrate additional hardware into the system as long as they don't modify the installed hardware.

Virtualization capabilities are provided by IBM PowerVC, which leverages IBM Cloud OpenStack Services and PowerVM$^{(R)}$. The system supports AIX, Linux (Red Hat Enterprise and SUSE), and IBM i. Monitoring of all system hardware and, optionally, Linux VMs will be provided by Nagios open source monitoring. The system includes a management network to provide management access to all the components within the offering from a single control point.

A major new enhancement is the ability to expand the cluster to include up to a maximum of eight racks with compute nodes. Additionally, up to eight storage overflow racks may be included.

PurePower VM firmware includes the ability to download system firmware updates from Fix Central. Installation of firmware updates is not provided by the system and remains the responsibility of the client.

Reference information

For more information on Lab Services PurePower features, refer to Services Announcement AS15-0011, dated May 11, 2015.

Product number

New features available June 10, 2016

The following are newly announced features on the specific models of the IBM Power Systems™ 7014, 7120, and 8831 machine types.

Description	Machine type	Model	Feature number
10m (30.3-ft), IBM Passive QSFP+ MTP Optical Cable	8831	NF2	EB2J

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30m (90.3-ft), IBM Passive QSFP+ MTP Optical
Cable                                              8831   NF2    EB2K
0.6m (2.0-ft), Blue CAT5 Ethernet Cable            8831   NF2    ECB0
40g-base LR4 QSFP+ Transceiver                     8831   NF2    ECBF
7m (23.1-ft), IBM Passive QSFP+ to QSFP+ Cable
(DAC)                                              8831   NF2    ECBP
End Of Row Switch Indicator                        7120   48E    EHKP
                                                   8831   NF2
Expansion Rack Indicator                           7014   B42    ER2E
Storage Rack Overflow Indicator                    7014   B42    ER2F
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Publications

IBM Power Systems hardware documentation provides clients with the following topical information:

- Licenses, notices, and safety and warranty information
- Planning for the system
- Installing and configuring the system
- Troubleshooting, service, and support
- Installing, configuring, and managing consoles, terminals, and interfaces
- Installing operating systems
- Creating a virtual computing environment
- Enclosures and expansion units
- Glossary

IBM Knowledge Center provides access to the PurePower System Solution documentation at the POWER8 systems information web page.

Product documentation is also available on DVD (SK5T-7087).

The following information is shipped with the 8247-22L, 8284-22A, and 7316-TF4:

- Power[R] Hardware Information DVD (SK5T-7087)
- Installing the 8247-22L, 8284-22A, 7316-TF4
- Important Notices
- Warranty Information
- License Agreement for Machine Code

For hardware documentation such as installation instructions, user's information, and service information, available to download or view, go to the IBM Support Portal website.

IBM Knowledge Center provides access to the Linux on IBM systems documentation at the Linux information for IBM systems web page.

IBM Knowledge 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.

To access the IBM Publications Center Portal, go to the IBM Publications Center website.

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. A large number of publications are available online in various file formats, which can currently be downloaded.

Services

IBM Systems Lab Services

IBM Systems Lab Services offers a wide array of services available for your enterprise. It brings expertise on the latest technologies from the IBM development community and can help with your most difficult technical challenges.

IBM Systems Lab Services exists to help you successfully implement emerging technologies so as to accelerate your return on investment and improve your satisfaction with your IBM systems and solutions. Services examples include initial implementation, integration, migration, and skills transfer on IBM systems solution capabilities and recommended practices. IBM System Lab Services and Training is one of the for-fee services organizations of IBM's world-renowned IBM Systems Group development labs.

For details on available services, contact your IBM representative or visit the IBM Systems Lab Services website.

Technical information

Specified operating environment

Software requirements

IBM Power System S822 (8284-22A) requires one of the following operating systems:

- AIX V7.2 with the 7100-00 Technology Level and Service Pack 1
- Red Hat Enterprise Linux 7.2 (LE) (5639-RLE)
- SUSE Linux Version 11 with Service Pack 4
- IBM i 7.1 TR11, or later
- IBM i 7.2 TR3, or later
- IBM i 7.3, or later

Power System S822 also requires the following software:

- PowerVC V1.3.1 Standard Edition (5765-VCS)
- VIOS 61e 2.2.4.10

Limitations

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Planning information

Cable orders

No additional cables are required.

Security, auditability, and control

This product uses the security and auditability features of host software and application software.

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

IBM has transformed its delivery of hardware and software support services to help you achieve higher system availability. Electronic Services is a web-enabled solution that offers an exclusive, no-additional-charge enhancement to the service and support available for IBM servers. These services are designed to provide the opportunity for greater system availability with faster problem resolution and preemptive monitoring. Electronic Services comprises two separate, but complementary, elements: Electronic Services news page and Electronic Services Agent.

The Electronic Services news page is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. The news page enables you to gain easier access to IBM resources for assistance in resolving technical problems.

The Electronic Service Agent™ is no-additional-charge software that resides on your server. It monitors events and transmits system inventory information to IBM on a periodic, client-defined timetable. The Electronic Service Agent automatically reports hardware problems to IBM. Early knowledge about potential problems enables IBM to deliver proactive service that may result in higher system availability and performance. In addition, information collected through the Service Agent is made available to IBM service support representatives when they help answer your questions or diagnose problems. Installation and use of IBM Electronic Service Agent for problem reporting enables IBM to provide better support and service for your IBM server.

To learn how Electronic Services can work for you, go to the IBM Electronic Support website.

Terms and conditions

MES discount applicable

Equal to the volume commitment discount

Field-installable feature

Yes

Warranty period

This feature assumes the same warranty or maintenance terms as the machine in which they are installed for the full warranty or maintenance period announced for such machine.

Customer setup

Yes

Machine code

Same license terms and conditions as base machine

Prices

For all local charges, contact your IBM representative.

AP distribution

Country/Region	Announced
AP IOT	
ASEAN *	Yes
India/South Asia **	Yes
Australia	Yes
Hong Kong	Yes
Macao SAR of the PRC	Yes
Mongolia	Yes
New Zealand	Yes
People's Republic of China	Yes
South Korea	Yes
Taiwan	Yes
Japan IOT	
Japan	Yes

* Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Philippines, Singapore, Thailand, Timor-Leste, and Vietnam

** Bangladesh, Bhutan, India, Maldives, Nepal, and Sri Lanka

Not Currently supported due certification at Rack not supported by OEM: Vietnam

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