

IBM Hyperconverged Systems powered by Nutanix

*High-performance enterprise infrastructure & private
cloud platform*



Highlights

- Full-stack infrastructure & platform services
 - One-click simplicity for public cloud-like automation
 - Endlessly scales as your infrastructure needs grow
 - Run Linux and AIX workloads on the same system
 - The only hyperconverged platform built from the ground up for data and high performance workloads
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The agility and simplicity of the public cloud capabilities delivered in your datacenter for mission critical workloads. That's what IBM® Hyperconverged Systems powered by Nutanix provide on day one. These 1U and 2U POWER-based appliances (CS821 and CS822) are the only hyperconverged solution to combine unmatched performance with the one-click simplicity of the Nutanix Enterprise Cloud Platform software solution. Nutanix is synonymous with technological and market share leadership in the hyperconverged private cloud space.

Hyperconvergence is a type of infrastructure system with a software-centric architecture that tightly integrates compute, storage, storage networking and virtualization resources and other technologies pre-integrated in a scale-out server. Individual servers (called nodes) are then clustered together in a scale-out topology managed by the Nutanix software stack. Internal physical storage resources from each node are pooled into one large, virtualized distributed file system. Additional servers can easily be added to increase compute or storage capacity dynamically with single-click simplicity.

Scale-out Linux workloads like IBM WebSphere® Application Server (WAS), NGINX, and NoSQL/open source databases (OSDB) like EDB Postgres & MongoDB are a good fit for IBM Hyperconverged Systems powered by Nutanix. IBM customers will have the freedom to run a variety of virtualized Linux applications with Nutanix's built-in AHV hypervisor.



**IBM Systems
Data Sheet**

AIX 7.2 running on IBM Hyperconverged Systems powered by Nutanix enables clients to run select AIX applications like IBM Websphere Application Server and Db2 on a hyperconverged private cloud for the first time. With Nutanix providing a virtualized scale-out cloud environment, clients can experience the simplicity of a public cloud-like experience but with the security and control of an on-premises solution.

IBM Hyperconverged Systems powered by Nutanix enables clients to greatly simplify operations and significantly reduce costs as they consolidate homegrown apps, dev/test workloads,

and IBM middleware running on AIX on a hyperconverged private cloud fabric. Even more, IBM clients can run AIX workloads side by side, not only with Linux on Power, but even with x86 workloads running on other clusters, managed all from the single pane of glass Nutanix Prism Central console. This eases the administrative burden on IT infrastructure staff, and simplifies the data center environment, while reducing the cost of operations by 60 percent compared to traditional infrastructure¹.

	1N1U Platform	1N2U Platform
		
Workloads	High density virtualization/middleware applications: WebSphere Liberty Application Server, test and development, private cloud	High performance workloads: Enterprise DB, MongoDB, WebSphere Application Server, Business Applications, DBaaS
IBM Model	CS821	CS822
Base Platform	S821LC	S822LC
Server Compute	Two 10- core 2.09 GHz POWER8® processors with 8 hardware threads per core	Two 11- core 2.89 GHz POWER8 processors with 8 hardware threads per core
Memory	128 GB or 256 GB per system using 16 x DDR4 DIMMs with total of 64MB L4 cache	256 GB or 512 GB per system using 16 x DDR4 DIMMs with total of 64MB L4 cache
Network connection	4 port 10 G BaseT Ethernet Add on: PCIe3 2-port 10 GbE SFP+ Adapter, based on Intel X710 Chipset / Driver	4 port 10 G BaseT Ethernet Add on: PCIe3 2-port 10 GbE SFP+ Adapter, based on Intel X710 Chipset / Driver
Min total Ethernet ports	8	8
Boot device	1x64 GB SATADOM	1x64 GB SATADOM
SAS Controller	PCIe Gen3 SAS Controller, based on LSI 3008L	PCIe Gen3 SAS Controller, based on LSI 3008L

	1N1U Platform	1N2U Platform
Storage	Samsung SM863a [480 GB, 960 GB or 1.92 TB]—all flash configuration	Samsung SM863a [480 GB, 960 GB, 1.92 TB or 3.8 TB]—all flash configuration
Drive Type	4 x 2.5" SSD	8 x 2.5" SSD, 12 x 2.5" SSD
Hypervisor	Nutanix AHV	
Software License Options	Acropolis Pro or Ultimate License Prism Starter or Pro License (includes Prism Central)	
Software Maintenance & Support	3-year or 5-year Software Maintenance & Support	
Warranty Service	9 hours per day, Monday through Friday, excluding holidays, next business day response* 24 hours per day, 7 days a week, 4 hour average response, same day*	

“Simplicity Meets Performance. Finally.”

Why IBM?

IBM Hyperconverged Systems powered by Nutanix combine Nutanix Enterprise Cloud Platform software with IBM Power Systems™. The integrated solution targets your most demanding transactional and cognitive analytics workloads with an infrastructure that is easy to manage and simple to scale. IBM Power Servers² Deliver 80 percent More Performance Per Dollar on average than x86-Based³ Servers. Don't rip and replace your existing infrastructure to transform your business—just put your most data intensive workloads on the servers that were born to run them.

Why Nutanix?

Clients are adopting hyperconverged infrastructure (HCI) solutions because they allow organizations to greatly simplify operations in the datacenter as well as realize CAPEX reductions in most use cases. HCI increases IT agility and allows operations organizations to adopt a public cloud-like approach to deploying and provisioning resources. Rather than building and managing storage, server, and software components separately, everything is managed by a centralized, “single-pane-of-glass” management tool called Prism. This also eliminates the need for specialized IT skills to build and operate cloud-driven infrastructure.

For more information

To learn more about the IBM and Nutanix HyperConverged Enterprise Cloud Platform, please contact your IBM representative or IBM Business Partner, or visit the following website:

ibm.com/us-en/marketplace/hyperconverged-systems

Additionally, IBM Global Financing provides numerous payment options to help you acquire the technology you need to grow your business. We provide full lifecycle management of IT products and services, from acquisition to disposition.

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IBM Systems
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Produced in the United States of America
March 2018

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* Warranty service levels vary by location. Consult your IBM representative for details

¹ IDC White Paper, sponsored by Nutanix, "Nutanix Delivering Strong Value as a Cost-Effective, Efficient, Scalable Platform for Enterprise Applications", August 2017

² CS821 and CS822 are based on Power S821LC and Power S822LC respectively. Actual performance and price-performance of the CS821 and CS822 may vary.

³ 80% price-performance advantage is based on the average of IBM internal measurements of Power System S822LC for Big Data relative to comparable x86 E5-2600v4 (Broadwell) 2-socket offerings across multiple open source databases including MongoDB, EnterpriseDB, and MariaDB. Comparisons utilize current pricing as of August 24, 2016. More details can be found at ibm.com/developerworks/linux/perfcol/index.html



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