

2017 Jan/Feb Power Hardware Announcement Update

Quick Summary

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Power S812



8284-21A

- Entry price server
 - 1-core server for IBM i
 - 4-core server for AIX
- Single partition
- no virtualization
- no Linux partition
- Simpler memory & I/O options



Design & Offering Criteria

➤ Target:

Develop an offering for non-compute intense / non-memory intense workloads for small businesses or larger scale out deployments for AIX and IBM i customers. Create an attractive offering for backlevel customers.

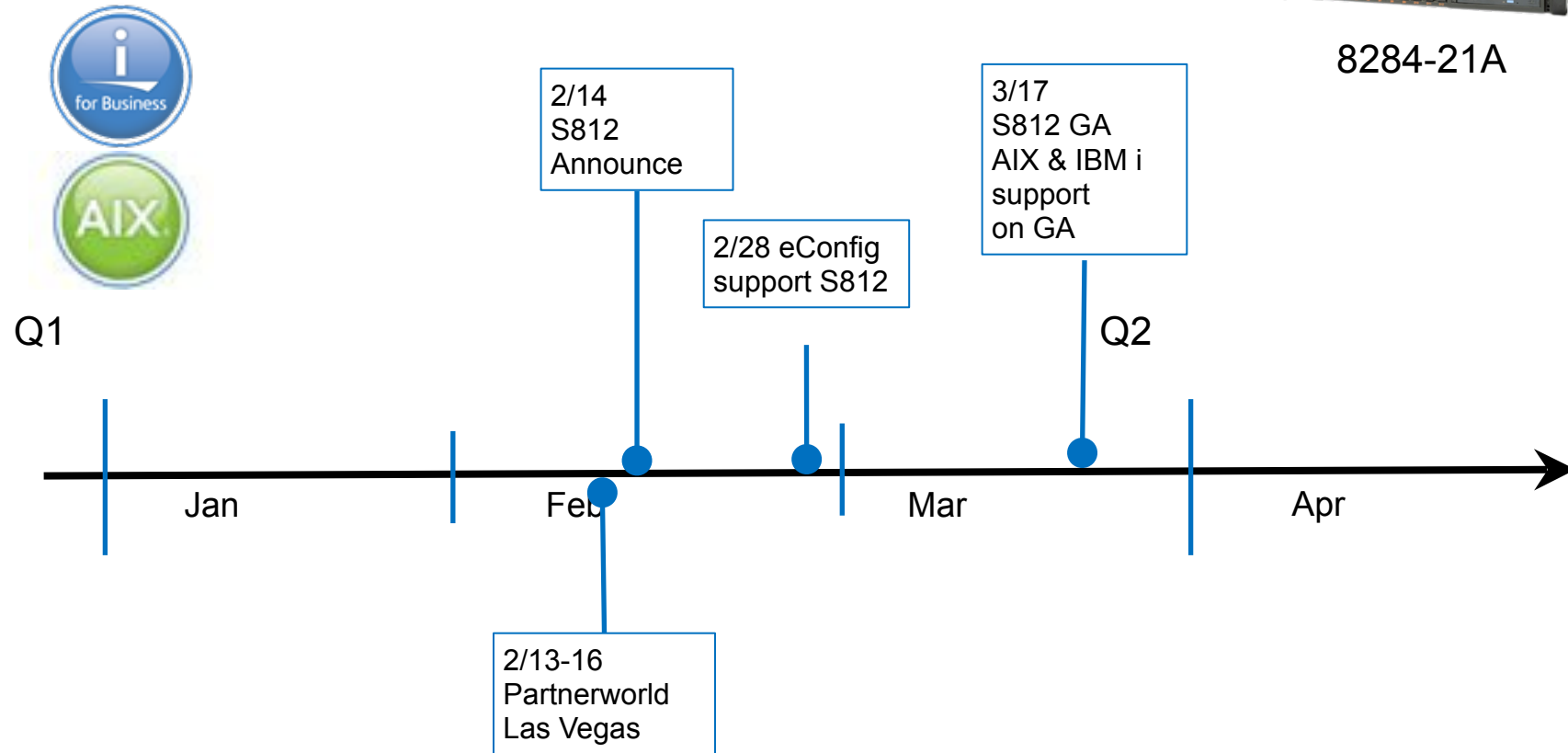
➤ Offering:

- AIX & IBM i only
- based on the existing S812L model
- no virtualization
- user limit for IBM i
- restrictions on memory, cores and I/O options

➤ Pricing:

Meet an attractive price point at a 20% lower price compared to S814/S822 entry models

GA Plan S812



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Power S812 1-core entry server



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CPW = 9880

	Power System S812
POWER8 Processor	3.02 GHz
Cores	1
Maximum Memory	64 GB
System unit PCIe slots	6* PCIe Gen3 (low profile)
“Base” Ethernet PCIe adapter	4-port 1 Gbt required
SAS bays in system unit	8 SFF-3 bays
Integrated write cache	Optional (Strongly urged for HDD)
Bay for DVD in system unit	Yes
Bay for tape in system unit	No
Bay for RDX in System unit	No
VIOS or PowerVM	No
HMC	Single partition, rarely needed
Max number of partitions	1
PCIe Gen3 I/O Drawer	No
EXP24S or EXP24SX	No
Footprint	2U in rack
IBM i tier	P05 max 25 users
IBM i prerequisite	7.2 TR6 or 7.3 TR2 or later
Dual power supply	900W = 110V or 220V

* 5 PCIe slots when SAS backplane with write cache used

Power S812 4-core entry server



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rPerf = 66.9 (SMT8)

	Power System S812
POWER8 Processor	3 GHz
Cores	4
Maximum Memory	128 GB
System unit PCIe slots	6* PCIe Gen3 (low profile)
“Base” Ethernet PCIe adapter	1 Gb or 10 Gb
SAS bays in system unit	8 or 12 SFF-3 bays
Split backplane	Optional
Integrated write cache	Optional
Bay for DVD in system unit	Yes
Bay for tape in system unit	No
Bay for RDX in System unit	No
VIOS or PowerVM	No
HMC	Single partition, rarely needed
Max number of partitions	1
PCIe Gen3 I/O Drawer	No
EXP24S or EXP24SX	Max 3 (up to 72 add'l drives)
System unit footprint	2U in rack
AIX tier	small
AIX prerequisite	AIX 6.1 / 7.1 / 7.2
Dual power supply	900W = 110V or 220V

* 5 PCIe slots when SAS backplane with write cache used

Power E880C Virtual Solution Edition for SAP HANA



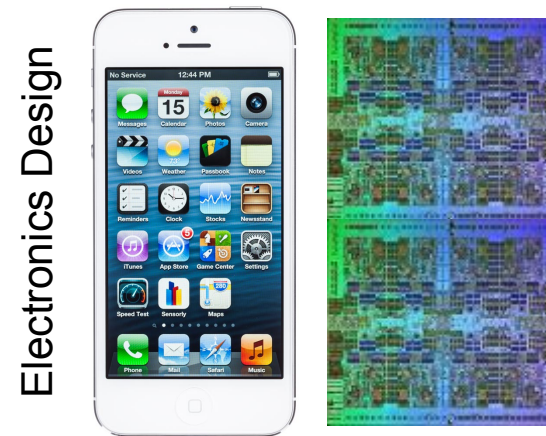
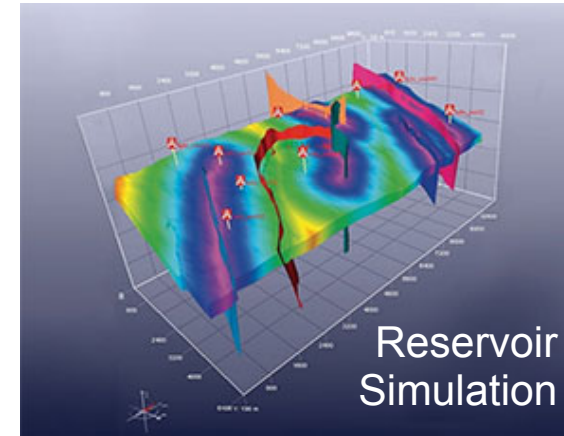
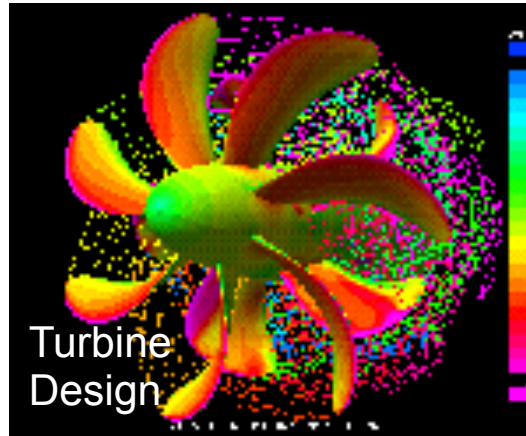
9080-MHE

- Attractively priced,
- Optimized 48-core system
- 4.02 GHz processors
- 2 TB memory
- PowerVM Enterprise

Miscellaneous updates

HPC Touches Our Everyday Lives

HPC is a critical element of product development, research, discovery and breakthrough science



IBM Power Systems HPC Cluster 5146-S24

IBM offers an integrated HPC cluster consisting of compute, storage, networking, management, and foundational software: MTM 5146-S24

HPC Cluster features:

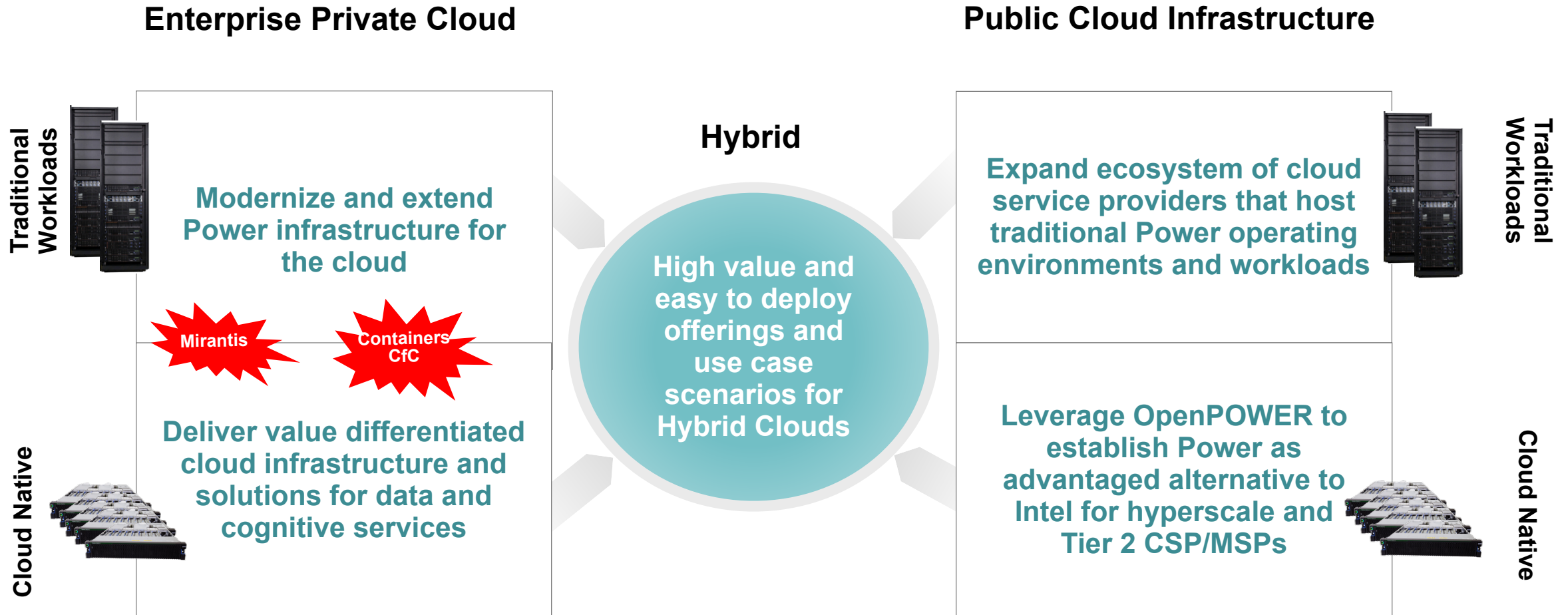
- Scalable from 5 to 64 nodes in standard configs
- S822LC (8335-GTB aka Minsky) Compute / Login Nodes
- IB EDR interconnect
- ESS storage
- S822LC management nodes
- Preloaded RHEL 7.3
- IBM Power HPC Stack V1.1
 - The Power HPC Stack is the default/mandatory software stack for the cluster solution offering

IBM Systems Lab Services available for migration, integration, and implementation.
Objective: Easy to order 1-4 racks of cluster enabled compute ready to go at install.

Validated, Tested, Complete



Power Cloud Strategic Focus Areas



New!

Mirantis OpenStack Support for Power



Sold through Mirantis

<https://www-01.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=POV03347USEN>

"Soft GA" 3/14/17

Mirantis Highlights

- #1 pure-play OpenStack company
- Delivers all the technology, integration, training and support required for companies to succeed with production-grade OpenStack-based open source cloud
- 400+ open source infrastructure experts helped make it one of top 5 contributors to OpenStack's upstream codebase



Mirantis on Power - Advantages

- ✓ Proven delivery of large scale, mission critical, production OpenStack clouds
- ✓ Mirantis additional value to the stack: High Availability, defect fixes, premium projects, certified partner drivers/integrations, OpenStack improvements/fixes committed back upstream
- ✓ Option for Services deployment, Training, Education or fully Managed Service
- ✓ Provisions to KVM VMs on Power: Ubuntu, SUSE or RHEL Oss (from x86 control plane)
- ✓ Download code directly from Mirantis
- ✓ Engage Mirantis sales team where Mirantis already exists in large heterogeneous data centers

Ready-to-Deploy Apps Automation scripts in Murano Catalog

- | | |
|---------------------|-----------------------------|
| ✓ MongoDB | ✓ Node.js |
| ✓ Postgres / EDB | ✓ Kubernetes |
| ✓ Redis | ✓ Jenkins |
| ✓ MySQL | ✓ Nexus |
| ✓ DashDB | ✓ Maven |
| ✓ Apache | ✓ Travis CI client |
| ✓ Tomcat | ✓ Hortonworks Data Platform |
| ✓ WebSphere Liberty | ✓ Stacklight / Nagios |
| ✓ NGINX | |

IBM Spectrum Conductor for Containers

Call for Early Adopters!

Community Edition v0.3 (Tech Preview) – Available Now!

<http://ibm.biz/ConductorForContainers>

Paid Support Option – “Soft GA” 3/14/17

Offering Highlights

- On premises platform for managing containerized applications
- Provides centralized graphical user interface to deploy, manage, monitor and scale applications
- Manages resources for hybrid environments that contain both containerized and non-containerized applications as well as mixed hardware architecture
- Leverages IBM’s robust resource manager, the Kubernetes orchestrator and Apache Mesos

CfC Advantages

1. The Best of Developer Productivity and Operational Efficiency

- With Kubernetes to speed creation, testing and deployment of micro-service based apps
- With Mesos-based multi-tenancy, resource utilization, scalability and HA

2. The Broadest Class of Workloads on the Most Hardware Platforms

- Web, Big Data Analytics, Machine Learning/Deep Learning, HPC, Heterogeneous Architecture - Runs on x86 & Power Linux (System Z plans being explored)

3. The Easiest to Administer and Manage

- Proven architecture at extreme scale, with enterprise class service and workload management, monitoring, reporting, and security capabilities



IBM Value-adds

- ✓ Client unique registry available on premises
- ✓ Security readiness guidance via the Vulnerability Advisor
- ✓ Build-in applications of popular open source projects and IBM enterprise products in App Store
- ✓ Balance workload between on-and off-prem
- ✓ Deployment choice of openPOWER and x86_64
- ✓ Integrated monitoring & logging
- ✓ Elasticity to grow storage & container needs
- ✓ Integrated CI/CD flow
- ✓ Life-cycle management of containers and data volumes

Support for Docker OSS on Power available from IBM - 5639-DKR