

RED HAT SOLUTIONS FOR IBM POWER SYSTEMS

DATASHEET

“With less hardware to manage, our IT team benefits from a reduced administrative burden, freeing up several man-hours every month that can be used for more strategic tasks.”

KEITH JINRIGHT
DATACENTER MANAGER,
ENERGEN CORPORATION

RED HAT ENTERPRISE SOFTWARE AND IBM POWER SYSTEMS – A PERFECT MATCH

As IT evolves, businesses need to find ways to control costs and increase customer satisfaction while still satisfying service-level agreements (SLAs). Linux® is expanding more rapidly than traditional operating systems and brings the flexibility, innovation, and low cost businesses need to meet those challenges. All this – combined with the robustness, performance, and scalability of IBM Power Systems – lets organizations integrate solutions, avoid vendor lock in, and achieve business results faster.

PUT DATA TO WORK WITH POWER SCALE-OUT SYSTEMS

First-generation Power scale-out systems push the physical and virtual boundaries of datacenter technology. This innovation is designed to drive faster, more efficient, data-centric applications required for today's smarter enterprise. Running Linux on IBM Power Systems offers a competitive advantage and unique benefits to organizations – open technology, performance, portability, and scalability.

With new innovations, Power scale-out systems provide the ability to:

- Deliver 47% lower system costs and over 2X the throughput compared to commodity servers.¹
- Gain faster insights with the POWER8 processor and coherent accelerator processor interface (CAPI) technologies such as accelerators for key datacenter workloads.
- Move data into and out of systems more quickly with twice the memory and I/O expansion.
- Achieve greater speed and efficiency for database, transactional, and other highly multi-threaded applications with transactional memory supported by 50% more cores and twice the number of simultaneous threads per core.

Power Systems servers with up to two sockets running Red Hat Enterprise Linux for Power are a solid foundation for scale-out big data and cloud deployments. The ability to add lower-capacity servers helps you manage the cost of handling workload growth as demand increases.



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¹ Data provided by IBM

RED HAT AND IBM IN THE FASHION INDUSTRY

The Fashion Institute of Design & Merchandising needed a reliable, flexible, and scalable platform to serve as the foundation for new student and alumni portals and other critical applications. The solution was to implement two IBM Power servers running IBM i and Linux. The main system is divided into 12 partitions running IBM i and Red Hat Enterprise Linux.

The school runs a number of business-critical applications on the IBM Power platform, including web portals with more than 17,000 active users.

“With IBM Power, we get the equivalent of 12 boxes, but it can be managed ‘round the clock by only two administrators,” said Roxanne Reynolds-Lair, CIO of Fashion Institute of Design and Merchandising.

POWER INTEGRATED FACILITY FOR LINUX

For scale-up scenarios, the IBM Power Integrated Facility for Linux (IFL) is a lower cost-per-processor core activation for Linux-only workloads on IBM Power Systems. It brings Linux flexibility and lower cost to enterprise IBM Power Systems infrastructures. It’s an industry-leading scale and performance solution with improved cost efficiency that also reduces complexity and the number of points of failure associated with x86/VM sprawl. IBM Power IFL helps IT organizations:

- Streamline application access and accelerate deployment of new applications and services.
- Let applications and data confidently co-exist with proven, secure virtualization and the high reliability, availability, and serviceability (RAS) of enterprise-class IBM Power servers.
- Add capacity without interruption and accelerate response to changing priorities.
- Share bandwidth and dynamically balance and tune system resources to maximize utilization and lower costs.
- Consolidate operations, reduce overhead, and re-use existing production and disaster recovery infrastructure.

Enterprise Power Systems, combined with Power IFLs, offer the capacity to consolidate or integrate Linux applications with AIX and IBM i applications and data in large enterprises because:

- It is easy to add Linux workload capacity to an Enterprise Power server via the capacity upgrade on demand (CUoD) activation option.
- It is scalable to 32 sockets via 4- core, 32GB memory bundles.
- It is an ideal fit for scale-up scenarios.
- It is enterprise-class RAS and quality of service with the benefit of Linux cost efficiency.

BENEFIT FROM THE IBM POWER ARCHITECTURE, COST-EFFECTIVELY

Power IFL-based systems are not the only way to handle growing demands on computing resources.

TAKE THE NEXT STEP IN VIRTUALIZATION

Enterprise organizations with mission-critical workloads on IBM Power System servers running Red Hat Enterprise Linux can confidently virtualize unlimited Red Hat Enterprise Linux guests on Red Hat Enterprise Virtualization for Power. Red Hat Enterprise Virtualization for Power inherits the characteristics of Linux including unparalleled performance, scalability, security, and flexibility, while significantly reducing costs.

Managing virtualization resources is simplified with Red Hat Enterprise Virtualization Manager. The management platform, included within Red Hat Enterprise Virtualization for Power, allows virtualization administrators to centrally control all the underlying dependencies including storage, networking, and general infrastructure resources. Red Hat Enterprise Virtualization for Power supports running a large number of virtual machines on a single, scale-out Linux server. With the combination of Red Hat Enterprise Virtualization for Power and IBM Power scale-out Linux servers, organizations can significantly run more workloads faster on fewer machines, and address the requirements of multiple Linux workloads.

Preparing for the future is key for IT organizations. Red Hat Enterprise Virtualization for Power provides enterprise virtualization features that enable organizations to maximize their investments while preparing for a future that is open, reliable and can easily integrate in their existing infrastructures.

DEVELOP AND DEPLOY ON POWER WITH A RED HAT JAVA EE PLATFORM

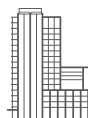
You need to rapidly deliver new products and services to your customers and partners to stay competitive. But with limited resources and assets across hybrid cloud environments, you struggle to both meet new requirements and efficiently maintain existing systems. Red Hat solutions for Power include Red Hat JBoss® Enterprise Application Platform (EAP), a market-leading, fully certified Java™ EE platform. It gives you a single platform to quickly develop and deploy applications anywhere-on-premise, in virtualized environments, or in the cloud. You can accelerate application development while maintaining enterprise-class performance, security, and scalability.

NEXT STEPS

Red Hat® Enterprise Linux for Power, available in big endian and little endian modes, is built for the modern datacenter.

To evaluate it and try out our world-class support services, contact your Red Hat sales representative. Or download a 30-day self-supported evaluation of both big endian and little endian modes at access.redhat.com.²

² <https://access.redhat.com/products/red-hat-enterprise-linux/evaluation>



ABOUT RED HAT

Red Hat is the world's leading provider of open source solutions, using a community-powered approach to provide reliable and high-performing cloud, virtualization, storage, Linux, and middleware technologies. Red Hat also offers award-winning support, training, and consulting services. Red Hat is an S&P company with more than 80 offices spanning the globe, empowering its customers' businesses.



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