Additional POWER8 Resources

Reference Material

Advance

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IBM Systems and Technology Group
2070 Route 52, Bldg. 330
Hopewell Junction, NY 12533-6351

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Revision Log

Each release of this document supersedes all previously released versions. The revision log lists all significant changes made to the document since its initial release. In the rest of the document, change bars in the margin indicate that the adjacent text was modified from the previous release of this document.

Revision Date	Pages	Description
12 December 2014	—	Version 1.1.
	3	Added a revision log.
	5	Updated *Additional IBM POWER8 Resources*.
30 July 2014	—	Version 1.0. Initial release.

Additional IBM POWER8™ Resources

The following table lists some additional resources of interest to the POWER8 development community.

Resource	Abstract and Link
Advance Toolchain for PowerLinux	The IBM Advance Toolchain for PowerLinux is a set of open-source development tools and runtime libraries that gives you the leading-edge advantage of the latest IBM Power Systems™ hardware features on Linux. It includes a compiler, linker, profiler, and so on. https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/W51a7ffcf4dfd_4b40_9d82_446ebc23c550/page/IBM%20Advance%20Toolchain%20for%20PowerLinux%20Documentation?amp%3Bamp%3Bsection=downloads
CAPI Website	The Coherent Accelerator Processor Interface (CAPI) on POWER8 systems enables solution architects to improve system-level performance. CAPI connects a custom acceleration engine to the coherent fabric of the POWER8 chip. The hybrid solution has a simple programming paradigm and delivers performance well beyond today's I/O attached acceleration engines. This website describes CAPI features and benefits and CAPI products. For more information, it provides links to CAPI white papers including the *IBM Data Engine for NoSQL - Power Systems Edition* white paper and the *CAPI Decision Guide and Development Process* document. http://www-304.ibm.com/support/customercare/sas/f/capi/home.html
CAPI Developer Kit	Available through Nallatech, an OpenPOWER Foundation partner, the CAPI Developer Kit enables clients to begin developing CAPI accelerators and applications. The CAPI Developer Kit currently supports a dedicated process model where the accelerator is connected to one application and the field programmable gate array (FPGA) contains a single accelerator function unit (AFU). http://www.nallatech.com/solutions/openpower-capi-developer-kit-for-power-8/
CAPI Developers Community	The CAPI Developers Community enables CAPI Developer Kit users to collaborate on usage questions and issues and to influence the future development direction. https://www.ibm.com/developerworks/community/groups/service/html/communityview?communityUuid=a661532e-1ec6-442f-b753-4ebb2c8f861b
OpenPOWER Resources on GitHub	The OpenPOWER GitHub space includes numerous resources related to the POWER8 system that are available for download and promote collaboration. These resources include, but are not limited, to the On-Chip Controller (OCC), Hostboot, and processor NOR (PNOR) flash memory. https://github.com/open-power
POWER8 Functional Simulator	The IBM POWER8 Functional Simulator is a simulation environment developed by IBM. It provides enough POWER8 processor complex functionality to allow the entire software stack to execute, including loading, booting, and running a Fedora 19 kernel image. This tool enables new application development, and facilitates porting of existing Linux applications to the POWER8 architecture. While the POWER8 Functional Simulator serves as a full instruction set simulator for the POWER8 processor, it might not model all aspects of the POWER8 hardware and thus may not exactly reflect the behavior of the POWER8 hardware. https://www14.software.ibm.com/webapp/set2/sas/f/pwrfs/home.html
Software Developer's Kit for Linux on Power	The IBM Software Development Kit (SDK) for Linux on Power is a free, Eclipse-based integrated development environment (IDE). The SDK integrates C/C++ source development with the Advance Toolchain, Post-Link Optimization, and classic Linux performance analysis tools, including Oprofile, Perf, and Valgrind. https://www14.software.ibm.com/webapp/set2/sas/f/lopdiags/sdklop.html