IBM Spectrum MPI

Accelerating high-performance application parallelization

Highlights

- Support for IBM® POWER® and x86-64 servers
- Accelerates time to results
- Provides a portable configuration based on Open MPI

Optimized performance is a necessity in high-performance computing, especially for parallel processing in a distributed computing environment. Message Passing Interface (MPI) libraries are essential to accelerate applications—and developers are looking for a library that provides:

- Application performance improvement
- Application independence from switch, operating system, CPU type and development tools
- Bulletproof runtime execution
- Broad adoption by independent software vendors for choice of platforms

IBM Spectrum MPI is a high-performance, production-quality MPI implementation designed to accelerate application performance in distributed computing environments. Based on the open-source Open MPI, IBM Spectrum MPI provides a familiar interface that is easily portable. IBM Spectrum MPI, however, incorporates advanced CPU affinity features, dynamic selection of interface libraries, superior workload manager integrations and improved performance that give it an advantage over Open MPI. IBM Spectrum MPI supports a broad range of industry-standard platforms, interconnects and operating systems, helping to ensure that parallel applications can run almost anywhere.

Distinct advantages

IBM Spectrum MPI is a superior choice to obtain high-quality results faster. It offers the following outstanding capabilities:

- Portability: Enables developers to build a single executable that transparently leverages the performance features of any type of interconnect. In this way, it provides applications with optimal latency and bandwidth for each protocol.
- Performance: Delivers consistent performance across multiple platforms in addition to robust tools for application profiling for optimal performance.
- Robustness: Provides production-quality resource cleanup, including support for signal propagation to all ranks and C standard input and output (stdio) processing.

For more information

To learn more about IBM Spectrum MPI, contact your IBM representative or IBM Business Partner, or visit: **ibm.com**/systems/spectrum-computing/products/mpi/

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