



IUSB Chapter
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Lecture Series 2002-2003

High Performance Computing

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Date: Wednesday, April 9th, 2003
Time: 8:30 pm
Place: IUSB campus - Alumni Room - Admin 251B

Abstract

GPFS is a mature, robust, parallel file system available on IBM systems running either AIX or Linux. It supports the simple to use POSIX I/O API in a manner that produces superior performance when it is adroitly used and configured, but also provides extensions to the POSIX API to address selected challenging performance issues. This presentation will examine GPFS features useful to the High Performance Computing (HPC) applications programmer, including coding examples. It will also examine configuration alternatives that yield varying performance profiles and scaling vs cost alternatives. These configurations depend, in part, on hardware and software components external to GPFS and are of particular interest to the system administrator as well as the applications programmer. The results of several benchmark studies will be presented to illustrate these various items. While being product specific, the presentation is technically oriented and illustrates the software and architectural issues associated with any parallel file system.