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VI4IO and IO⁵⁰⁰ Overview

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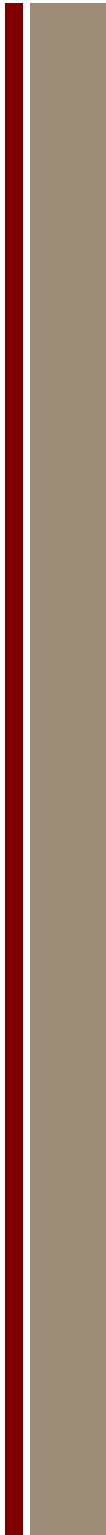
VI4IO and IO-500 BoF at SC 2018

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Agenda

- The status of the IO-500 – Jay Lofstead
- The Virtual Institute for I/O and the High-Performance Storage List – Julian Kunkel
- Benefit and fun providing system details – Glenn Lockwood
- The new IO-500 list – John Bent
- Reproducibility with IO500...and challenges – George Markomanolis
- Community & IO-500 - Alasdair J. King, Shuichi Ihara
- Discussion – Jay, Julian, John, George

VI4IO

- (Julian will talk about this in more detail)
- Serve as a vendor neutral place for storage-related discussions and as a data repository
- Seeks to collect long term storage system descriptions so researchers can see how things work over time
 - Hopefully useful for platform acquisition by seeing what is really achievable for given hardware and software stack
 - Potentially use as an acceptance test criteria

IO 500 Goals

- Competitive list for bragging about storage systems
 - Easier to justify to management compute time to run benchmarks
- Develop Best Practices database through the benchmarks
 - Do things we know are hard and require “easy” things fully end-user configurable.
 - Must reveal how easy tests are done and submit code for any custom tools (e.g., for find)

- Natural match with VI4IO

VI4IO and IO 500 Mission

Mission:

1. Provide a competitive list to justify compute time
2. Gather best practices for different storage system designs
3. Document various storage systems
4. Friendly cooperation and competition

Use accepted benchmarks using generally accepted configurations (for the hard setup)

New for this list

- Challenge: How to encourage submission (i.e., voluntary data submission) for sites that can't compete at the top end?
- Answer: 10 node challenge
 - 10 client nodes of whatever type
 - Whatever storage you can get to
- Very successful with many new entrants. But there is a caveat from this year you'll see shortly.