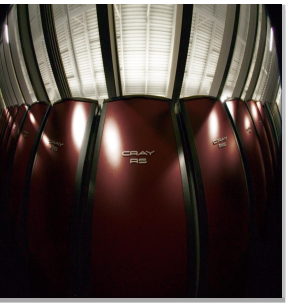

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IO500 and VI4IO Overview

Jay Lofstead, Julian Kunkel, John Bent, George Markomanolis

Scalable System Software
Sandia National Laboratories
Albuquerque, NM, USA
gflofst@sandia.gov

VI4IO and IO-500 BoF at SC 2017

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Short History

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- Virtual Institute for IO (VI4IO) created December 29, 2015
  - Julian Kunkel registered domain name
  - Open, free community for storage and IO related professionals to share knowledge and network
  - Includes catalog of storage systems around the world including benchmark results
  - Slow to gain traction with small motivation for participation
- IO-500 created June 20, 2016
  - John Bent wanted to create the competitive list
  - Natural addition to VI4IO effort adding a competition to the existing effort to motivate participation
- Quickly brought together to leverage effort

VI4IO Goals

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- Document storage system design
  - Offer long-term storage system design archive, including benchmarks
- Share best practices
  - No organized approach, but desired goal
- Build community
  - No barriers to entry to encourage broad participation

- Had some difficulty gaining traction

IO 500 Goals

Sandia National Laboratories

- 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

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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)

Questions?

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- John will talk about IO 500
- Julian will talk about VI4IO
- George will talk about his experiences running the benchmarks