The Virtual Institute of I/O

Limitless Storage
Limitless Possibilities

https://hps.vi4io.org

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Introduction

Goals of the Virtual Institute for I/O

- Provide a platform for I/O enthusiasts for exchanging information
- Foster training and collaboration in the field of high-performance I/O
- Track and encourage the deployment of large storage systems
  - Hosting information about high-performance
  - Supporting the IO-500 and the Data Center List

https://www.vi4io.org
Open Organization

- The organization uses a wiki as central hub
  - Everybody (registered users) can edit the content
  - Major changes should be discussed (see below)
  - The wiki uses tag clouds to link between similar entities

- Supported by mailing lists
  - Call-for-papers
  - Announce list for relevant information
  - Contribute list to discuss and steer organizational issues

- Major changes should be discussed on the contribute mailing list

- Members can vote for changes

*Everybody is welcome to participate*
Outline

1. Overview
2. Comprehensive Data Center List (CDCL)
Comprehensive Data Center List (CDCL)

The CDCL contains system characteristics for sites, supercomputer and storage.

System Model

- Based on an extensible JSON schema, optimized editor
- Supports now (all) logical components and subcomponents
- Characteristics and peak values
- Measured values *-500

Components with characteristics

- Site, supercomputer, online storage, tape archives
- Compute nodes, storage nodes, local storage, accelerators, ...
- Supporting: e.g., CPU type, memory available, ...
CDCL Storage List 2019

Features

- Table view with selectable columns
- Flexible metrics and aggregation

Capacity grouped by country

Capacity grouped by vendor
Overview

Comprehensive Data Center List (CDCL)

Status

New: Unified data center representation for webpages

- Provide a HTML stub for embedding into any data center web page
  - Towards a **standardized presentation** of systems!
  - Allowing the site to describe and visualize their system
  - Hosted by the site directly
  - Allowing a simple export into VI4IO data center list

- Editor: [https://www.vi4io.org/hpsl/addpage](https://www.vi4io.org/hpsl/addpage)

Others

- CDCL: form to create stubs for pages: [https://www.vi4io.org/cdcl-add](https://www.vi4io.org/cdcl-add)