



IOTTA TWG

2024 Review and 2025 Plans

Presented by Geoff Kuenning (IOTTA TWG Co-Chair)

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IOTTA TWG 2024 Accomplishments

- Input/Output Traces, Tools, and Analysis (IOTTA) Technical Work Group
- Primary focus:
 - Create/maintain worldwide repository for storage-related I/O trace files, associated tools, and other related information
 - Trace types: Block I/O, System Call, Key-Value Stores, Static Snapshots, Parallel, Reliability, and others
 - IOTTA Repository website: iotta.snia.org
 - Additional information: iotta.snia.org/faqs/aboutIOTTATWG/
- Recent Work
 - ‘Synthetic parallel traces’ donated by Google added to the IOTTA Repository website
 - Website updates (e.g., added recent citations of the IOTTA Repository)

IOTTA TWG Work Items

- Continued support of the repository
 - Posting of new traces
 - Solicitation of additional traces
 - Repository website maintenance and improvements
- SNIA Compute, Memory, and Storage Community (CMSC) collaboration
 - Stay abreast of CMSC related activities (e.g., Computational Storage)

IOTTA TWG Membership as of January 2025

- TWG roster includes 45 members
- Company affiliations include:
 - AMD, Broadcom, Cisco Systems, Dell, FADU, HPE, Huawei, IEIT Systems, Intel, Lenovo, Magnition, Marvell, Micron, Microsoft, Phison, Samsung, Seagate, SMART Modular, Solidigm, Western Digital, Yangtze Memory Technologies
- Educational Institutions:
 - Harvey Mudd College (HMC)
 - Stony Brook University
 - Rutgers University
- Additional support from Ulsan National Institute of Science and Technology (UNIST) and Stony Brook University

IOTTA TWG Participation

- **Industry Impact of the IOTTA Repository:**
 - Provides a *common facility* through which a *broad community* can avail themselves of a variety of storage-related I/O traces (especially *contemporary I/O traces*)
 - “One-Stop Shop” with currently over 765 [citations](#) in research publications
- **All repository content available for free download and unrestricted use:**
 - Storage research and development communities in both academia and industry
 - General public
- **Why you should join and participate in the IOTTA TWG**
 - Help improve the IOTTA Repository, including vote on future directions
 - Monitor upcoming changes to the repository (e.g., the addition of new traces)
- **Contact chairs for additional information:**
 - Co-Chairs: Geoff Kuenning (HMC), Tom West (hyperI/O LLC)
 - Contact at: iottatwg-chair@snia.org