

SNIA DEVELOPER CONFERENCE



By Developers FOR Developers

Hyatt Regency Santa Clara, CA
September 15-17, 2025

A decorative graphic consisting of a series of dots forming a wave pattern that flows from left to right across the middle of the slide. The dots transition in color from purple on the left to yellow in the middle, and then to light blue on the right.

OCP Storage Project Update

Ross Stenfort, Meta, Storage Project Co-Lead

Lee Prewitt, Microsoft, Storage Project Co-Lead

www.sniadeveloper.org

OCP Storage Roadmap of Success

2023

NVMe HDD rev. 1.0	[spec]	Microsoft, Seagate, Western Digital
Datacenter SAS-SATA Device rev. 1.0	[spec]	HPE, Meta, Microsoft
Datacenter NVMe SSD rev. 2.5	[spec]	Dell, Google, HPE, Meta, Microsoft
NVMe Telemetry Scripts	[scripts]	Samsung
2 nd Annual OCP Storage Tech Talk	[virtual]	May 2023

2024

Meta and Google Open-Source SSD Test Cases	Current	OCP Test Framework (Meta) , OCP Storage Test Cases (Meta) , ocp-diag-ssd-qual (Google)
3 rd Annual OCP Storage Tech Talk	[virtual]	May 2024
EDSFF SSD Reference Design	[spec]	ScaleFlux PCIe Gen 5 EDSFF NVMe SSD Reference Design
Datacenter NVMe SSD rev. 2.6	[spec]	Dell, Google, HPE, Meta, Microsoft
L.O.C.K. rev. 0.5	[spec]	Google, Kioxia, Microsoft, Samsung, Solidigm
HDD Dynamics Common Language and Tools Phase 2	[link]	Dell, IEIT Systems, Lenovo, Seagate, WD, ZT Systems
HDD Dynamics Combined Acoustic & Vibration Surrogate	[white paper]	Dell, IEIT Systems, Lenovo, Seagate, WD, ZT Systems

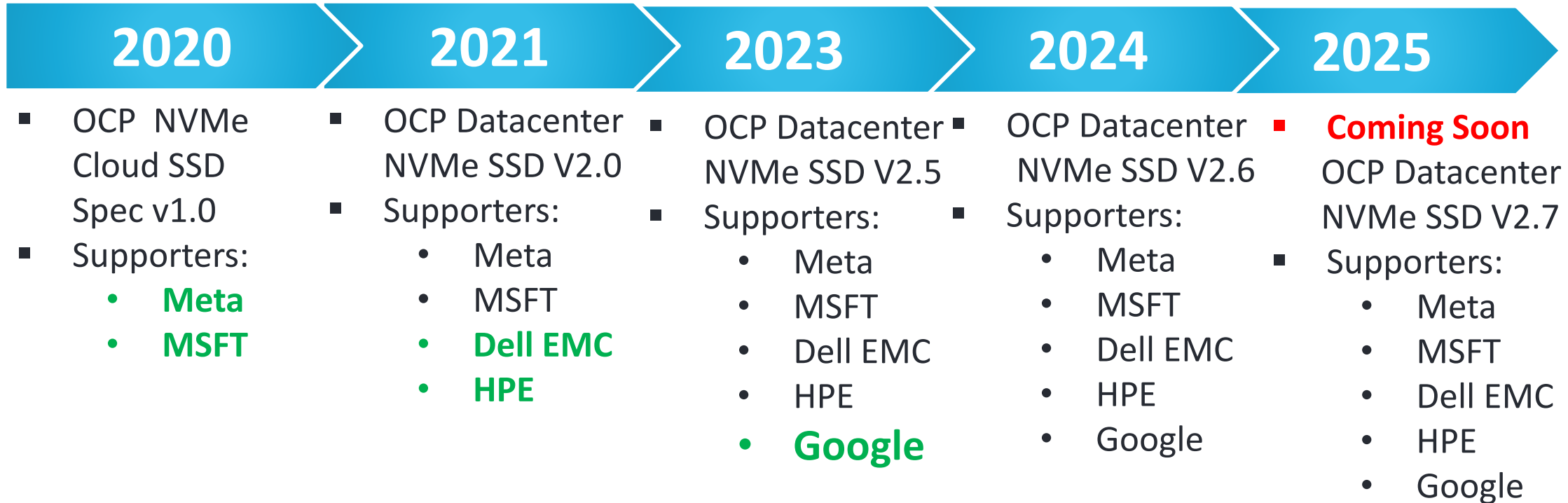
2025

OCP Marketplace (Products/Storage)	[link]	20+ SSDs and 5 SSD Testing Services
Datacenter SAS-SATA Device rev. 1.5	[spec]	HPE, Dell, Meta, Microsoft
Datacenter NVMe SSD rev. 2.7	Coming Soon	Dell, Google, HPE, Meta, Microsoft
L.O.C.K. rev. 1.0	Coming Soon	Google, Kioxia, Microsoft, Samsung, Solidigm
4 th Annual OCP Storage Tech Talk	[link]	May 2025

OCP Marketplace Storage Summary

- ❖ 140+% increase YoY in total views
- ❖ 32 listings and growing
- ❖ 20+ SSD's and Storage Testing Solutions
- ❖ Two SSDs in the Top 20 Most Viewed on Marketplace
 - For more information reach out to: Steve Helvie (steve@opencompute.org)
 - Link to OCP Marketplace: <https://www.opencompute.org/marketplace>

OCP Datacenter NVMe SSD Specification



OCP Datacenter NVMe SSD Enables:
More Features, Better Quality and Faster

Key Features for Managing and Deploying at Scale (1 of 2)

- ❖ **OCP Health Information Extended Log**
 - Telemetry Metrics based on deployments at scale
- ❖ **OCP Latency Monitoring Feature**
 - Isolates, monitors, debugs latency spikes at scale
- ❖ **OCP Formatted Telemetry for Human Readable Logs**
 - Customer usable telemetry with improved security
- ❖ **Open-Source OCP NVMe CLI**
 - Open-Source Tooling
- ❖ **DSSD Power State Support**
 - Simplifies power state control

*Improvements
Based
On Deployment
@Scale*

Key Features for Managing and Deploying at Scale (2 of 2)

❖ **Hardware Component Log**

- Hardware manufacturing information is available to customer

❖ **Device Self Test Improvements**

- Failing Segment codes is universal rather than supplier/product dependent

❖ **Device Self-Reported Power**

- Device Power measurements are simplified in qualification and at scale

OCP Datacenter SAS/SATA Device Specification

- Authors: Microsoft, Meta, HPE, Dell
- Specification is contributed
 - [Link to Datacenter SAS-SATA Specification V1.5](#)



OPEN
Compute Project

Datacenter SAS-SATA Device Specification

Version 1.5 (062725)

Author: Ross Stenfort, Meta
Author: Lee Prewitt, Microsoft
Author: Paul Kaler, HPE
Author: David Black, Dell Technologies

OCP Datacenter SAS-SATA Device Spec: Telemetry

- Ported Telemetry format and structures from Datacenter NVMe SSD V2.5
 - Enables human readable debug logs
- Reworked transport mechanisms for SAS/SATA protocols
 - Supports SATL translation: SCSI → ATA (SATA)
- Added HDD-specific debug information and structured metrics and divided them into common device metrics, SSD only metrics and HDD only metrics
- Added replacements for ATA (SATA) SMART attributes that the spec author companies use

OCP Datacenter SAS-SATA Device Spec: TCG Configuration and History Logs

- Ported NVMe TCG Configuration Log from OCP Datacenter NVMe SSD Specification V2.5
- Added TCG History Events

OCP Datacenter SAS-SATA Device Spec: Security

- Updated security section to be consistent with OCP Datacenter NVMe SSD Spec V2.6

Feedback CLA Process

❖ OCP has implemented feedback CLA process

- This enables:
 - Authors of a specification to use feedback from non-authors on a specification
 - It is authors discretion on how to use the feedback
 - Feedback on specifications before contribution

❖ For more information

- See Mike Allison, Samsung
 - OCP Datacenter NVMe SSD Specification
 - OCP LOCK Specification
- See Dave Landsman, WDC
 - OCP Datacenter SAS/SATA Specification

Other

➤ Project Meeting

- 2nd Monday of the month
- Link to calendar: [Storage » Open Compute Project](#)

➤ OCP Storage Project Meeting topics

- Have a topic to discuss in storage project meeting?
 - [Reach out to Ross or Lee.](#)



Thank you for attending!

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<http://sniadeveloper.org/conference>