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OCP SUMMIT

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Innovative Next Gen NVMe Features

David Allen /NVMe™ Board Member and Senior Dir. Product Marketing / Seagate
NVMe innovation is driving its growth including its rich feature set and form factors.

Source: Forward Insights, March 2016
New NVMe 1.4 Features

Seagate Nytro® Q-Boost™ features

IO Determinism

Streams
Enable hosts to treat a SSD as many small sub-SSDs and process I/O parallel in each small-sub SSD

- Increase Read I/Ops and reduce max latency
- Read strict QoS profile

**Non I/O Determinism**

- Workload A
- Workload B
- Workload C
- Workload D

**With I/O Determinism**

- Workload A
- Workload B
- Workload C
- Workload D

1TB 1TB 1TB 1TB
Seagate Empowers Customers to Unlock the Bits

New NVMe 1.4 Features

Seagate Nytro® Q-Boost™ features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>IO Determinism</td>
<td>7x</td>
</tr>
<tr>
<td>Reduced average read latency</td>
<td></td>
</tr>
<tr>
<td>Streams</td>
<td>16x</td>
</tr>
<tr>
<td>Reduced max read latency</td>
<td></td>
</tr>
</tbody>
</table>
Streams

Data is grouped according to a stream

- Minimize garbage collection
- Reduced Write Amplification
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New NVMe 1.4 Features
Seagate Nytro® Q-Boost™ features

IO Determinism

4x
Improved WAF & NAND

Streams

Nytro Q-Boost Demo

3x
Faster performance
Future Form Factors
For High Density Flash Expansion

**Modular high density 1U Flash storage platform +**

**M.2 carrier**
Enables flexible and modular design for OCP

**High density NVMe scalability**
High capacity in an extremely small footprint

**Microsoft custom design**
Seagate thought leadership
Questions?

Data is our DNA

Visit us at Booth A14