SSD Trends for Film Production in the Cloud

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At SanDisk, Chris leads the communication of the SanDisk Data Center portfolio to enterprises, cloud & social media providers, and OEMs. He highlights how these types of organizations can leverage SanDisk to accelerate applications and manage vast volumes of data.

Chris has over 20 years of experience in Silicon Valley with enterprise systems integrators, Internet co-location facilities, application development tool vendors, and enterprise storage vendors, including BlueArc and Hitachi Data Systems.

SSD Capacity Points

- 4TB, 8TB, and 16TB SSDs in cloud service provider environments for video services
  - Density: dual-socket server with 24 drive bays
  - Different capacity points, varying:
    - write/read IOPS, latency, UBER, sustained throughput, and power protection (capacitors)
    - Larger capacity points may be for read-intensive workloads

DWPD (Endurance) Trends

- <1 DWPD (Drive Write per Day) is now standard
  - Over-provisioning for write-intensive SSDs
  - Lower over-provisioning for read-intensive SSDs

Monetizing Video Traffic

- For every video/media read operation, there are ensuing write operations

  - *Analytics <u>accelerated </u>through flash storage*

    - Consumer behavior, pre-rolls, recommendation engines, and other demographic data gathering
    - NoSQL-based solutions, predictive analytics

  - Coalescing NoSQL writes and random reads

  - In-memory databases require persistent stores