**Results**

- CSDs expand Server functionality
  - Low-power & low-cost capacity expansion via CSD hardware compute engines (HCE)
  - Improved thermal management from distributed computing
  - No added physical footprint since the HCE is integrated directly into the SSD

- Optimized Edge SW addresses system constraints & management
  - Brings HCI capabilities to the Edge
  - Remote management of 1000s of sites
  - Reduced CPU power to meet SLAs
  - Reduced Server costs via lower-grade CPUs, less DRAM, and smaller form factors

**Challenges**

- No true on-site data center
  - Limited environmental controls & floorspace
  - Low-power Servers to help with thermals
  - Low cost per Server to scale to 1000s of locations

- Software suite for centralized management

**Solutions**

- Computational Storage Drives
- Low-overhead Edge Computing SW
Companies must protect against mis-use of data

Generated in 10s, 100s, or 1000s of Edge locations

And transferred to the Core or Cloud for processing

**Challenges**
- Each movement of data creates an exposure opportunity
  - Man-in-the-middle intercept
  - Unintended inferencing / model training

**Solutions**
- Computational Storage Drives
- Data Transformation Application

**Results**
- Original data never leaves the drive, *only a representation* of the data is transferred
- CSDs running Data Transformation enhance data security
  - Original data protected from man-in-the-middle malicious actors
  - Transformations minimize the potential for mis-use of data for unintended inference/model training while enabling the intended task to be performed

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THANK YOU

JB Baker, VP Product Management & Marketing

ScaleFlux