# lightbits

# Optimized, Composable and Disaggregated Software Defined Storage

# a collaboration with inte

## Improving Total Cost of Ownership for Data Center Storage

#### **Traditional DAS**



Trapped disk capacity and performance

#### Scalable NVMe/TCP with Lightbits



All done on existing Ethernet/TCP infrastructure

lightbits

### Optimized Software Defined Storage

Lightbits Labs will optimize its composable disaggregated software-defined storage solution, LightOS, for Intel technologies, creating an optimized software and hardware solution.

Intel products, combined with Lightbits' NVMe/TCP software provides customers with vastly improved storage efficiency and reduces underutilization while maintaining compatibility with existing infrastructure without compromising performance and simplicity.



## Pushing the Boundary in All Categories



- Standard network infrastructure
  - Rich data services
    - Varied configurations

- Optimized for Intel® QLC 3D
  NAND SSD
- Improved flash utilization
- Independent scaling of storage

- Low latency
- High Bandwidth
  - High IOPs

## Optimized Storage Platform



lightbits

# **Reduce TCO + Rich Data Services**



# LightOS enables more use cases for Intel QLC SSDs:

- Improves endurance
- Aggregates writes for higher performance
- Reduces drive overprovisioning
- Reduces \$/GB while maintaining low latency

#### NVMe virtual block devices (NVMe/TCP):

- All volumes thin provisioned
- Line rate compression
- Data protection level per volume
- Volume expansion
- Lower tail latency
- Consistent response time
- Full support for Openstack and Kubernetes





## Lightbits LightOS Use Cases

#### Cloud Native Database

- Single instance database (MySQL, Postgres, MariaDB)
- Distributed/Replicated databases (MongoDB, CockroachDB, Cassandra)

#### • Analytics

- Traditional, FinTech,
- Log processing (ELK, Splunk)
- Apache Kafka streams
- o AI/ML

#### • Private Cloud Infrastructure

- o Virtual
- Container

#### • Service Providers

• IaaS (block storage)

## Highly Available Disaggregated Storage

### Integrated Solution with Intel technologies



# lightbits

# Thank you!

# in collaboration with inte.