HCI & Storage

STERLING

DELL EMC

ISILON NEXT Generation

The #1 Scale-Out NAS Platform

STERLING

Isilon – The Recognized Leader

- Reflects on both product capabilities (“Completeness of vision”) and company (“Ability to Execute”)
- Based on both Isilon and ECS
- Isilon: well-established, market-leading product: >10 years market growth; >8,500 customers
- ECS: specifically for next-generation apps that demand massive capacity, global access and cloud-scale economics

“Isilon dwarfs all other distributed file system vendors in this Magic Quadrant in terms of revenue. Isilon alone represents nearly 50% of the total revenue in the market covered by this Magic Quadrant, reflecting the product's continued dominance.”
- Gartner Magic Quadrant Report

Gartner Magic Quadrant for Distributed File Systems and Object Storage, Published 17 October 2017

Isilon the #1 Scale-Out NAS

Performance & Scale
Flash, Hybrid, Archive

Scale to 9M IOPS
with over 33PBs
In a Single File System

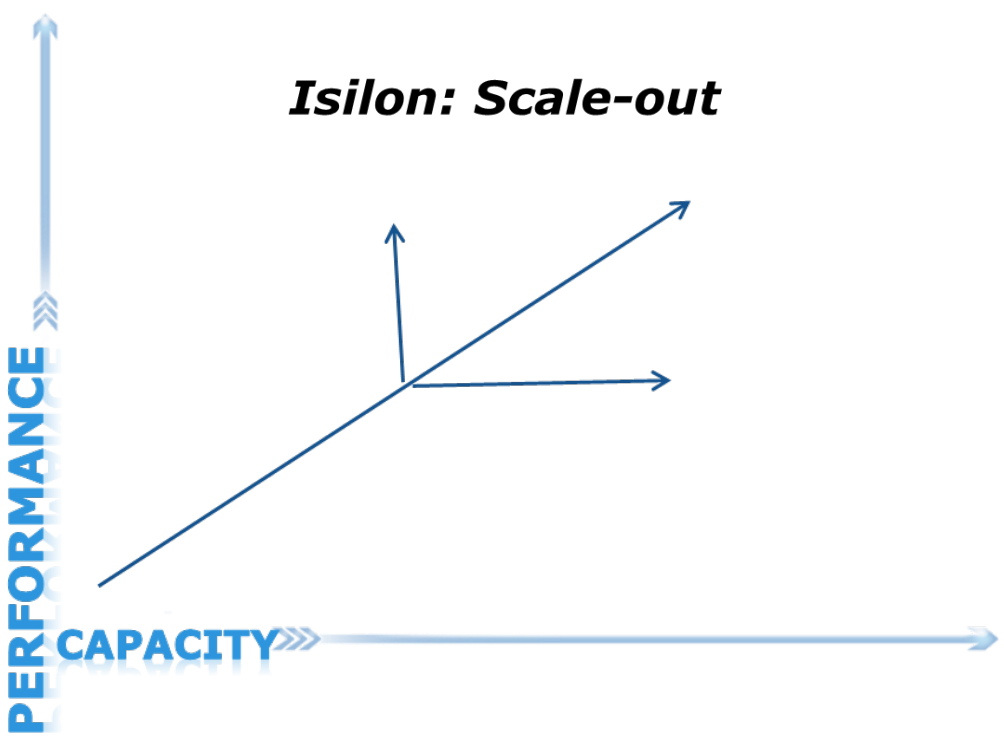
Enterprise Grade
Protection, Security, Compliance

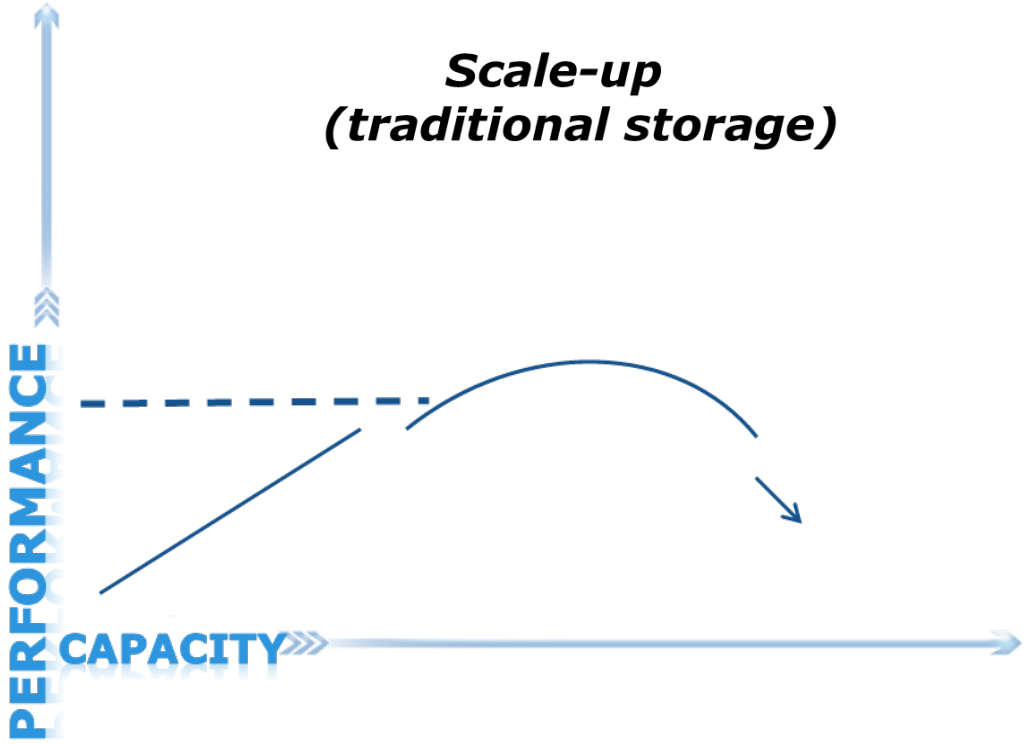
Seamless Cloud
Public, Private, Hosted

Analytics
Deliver New Insights

Lowest TCO
Automated Tiering

Scalability & Performance





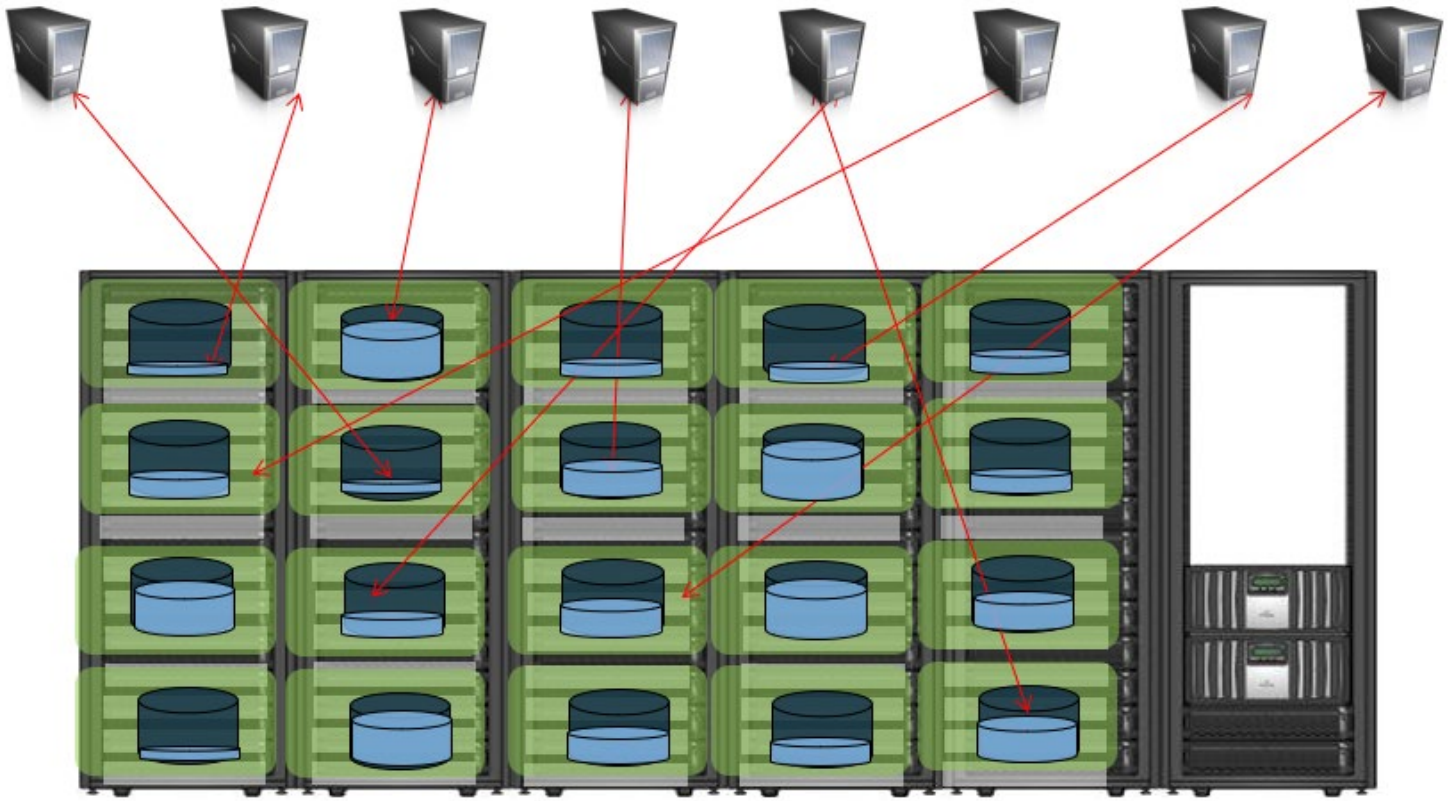
	OneFS	*TRADITIONAL NAS*
Scalability	• Scale-out • Performance, Capacity, Both	• Scale-up • Capacity only
Performance	• True linear predictability	• Degradation at scale

Traditional Architecture

File System (Islands) & Utilization Rates

- Utilization rates vary across islands
- QOS headroom
- Performance considerations

= Net Utilization
50% - 65%



File System

Volume

Aggregate
(Max 16-100+TB)

RAID

InSANity: Doing the same thing over and over again and expecting different results.
-Albert Einstein

Isilon Architecture

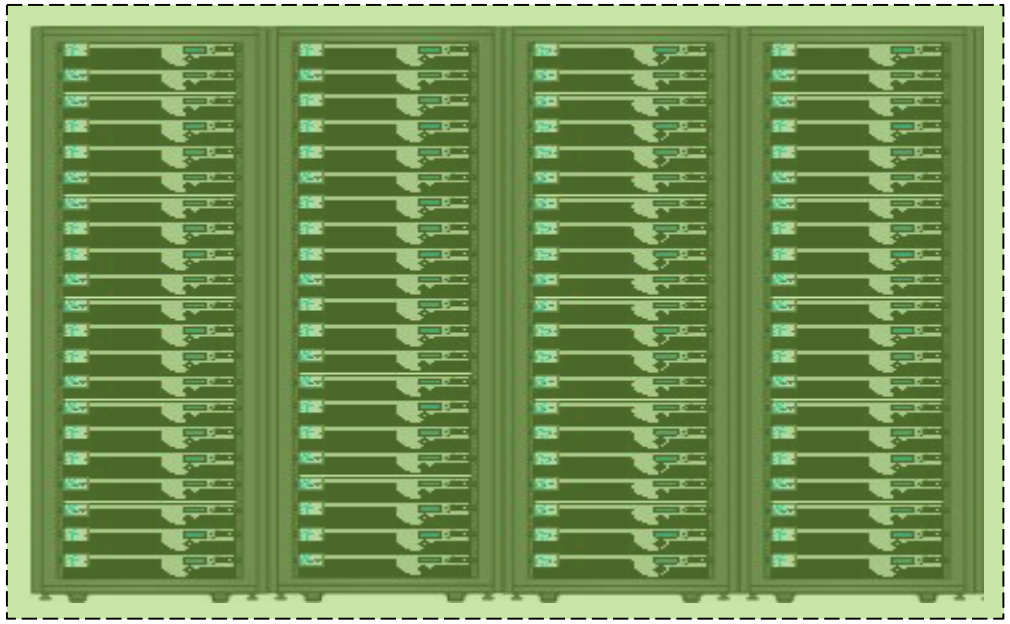
FILE SYSTEM

VOLUME MANAGER

RAID

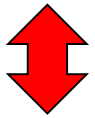
STERLING

Isilon Architecture



OneFS™

Isilon Architecture

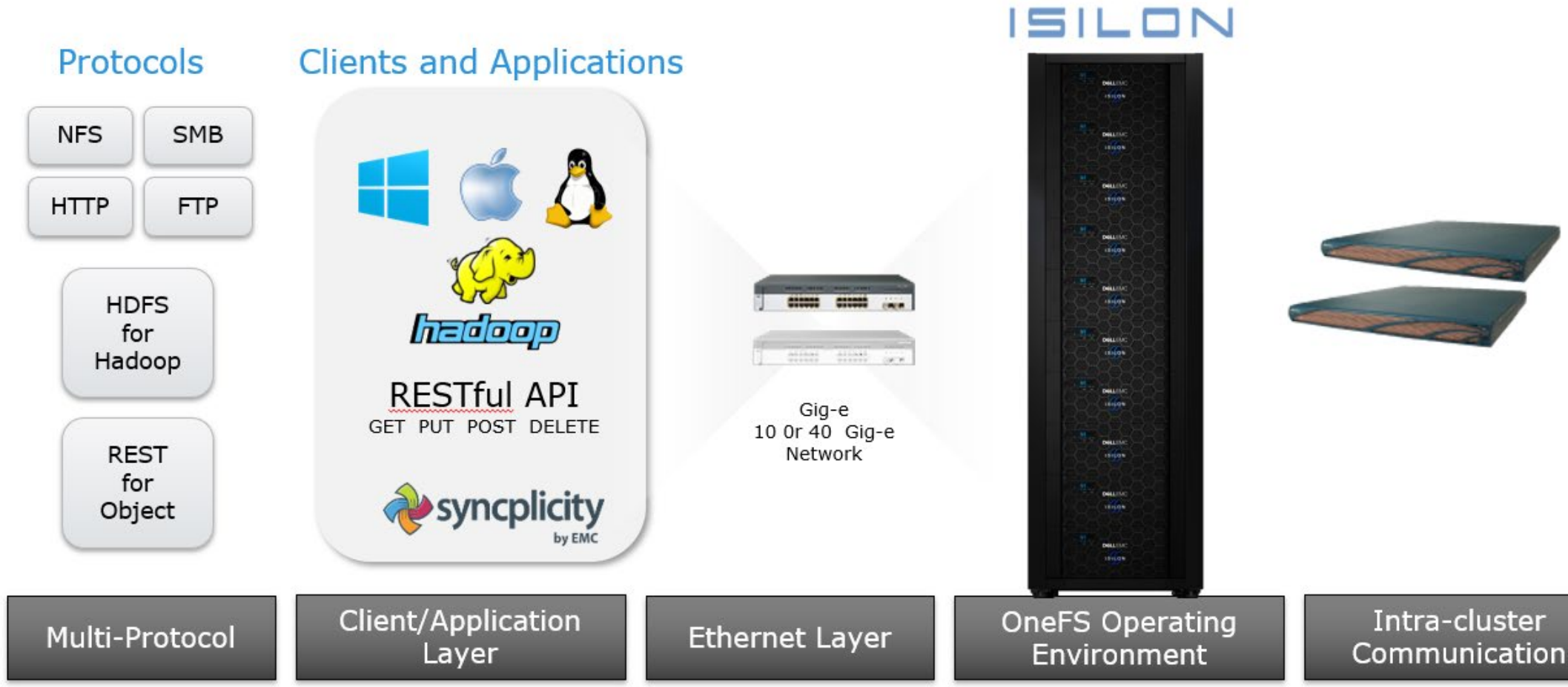


Isilon Utilization across single file system/volume inherently optimized

= 80%+

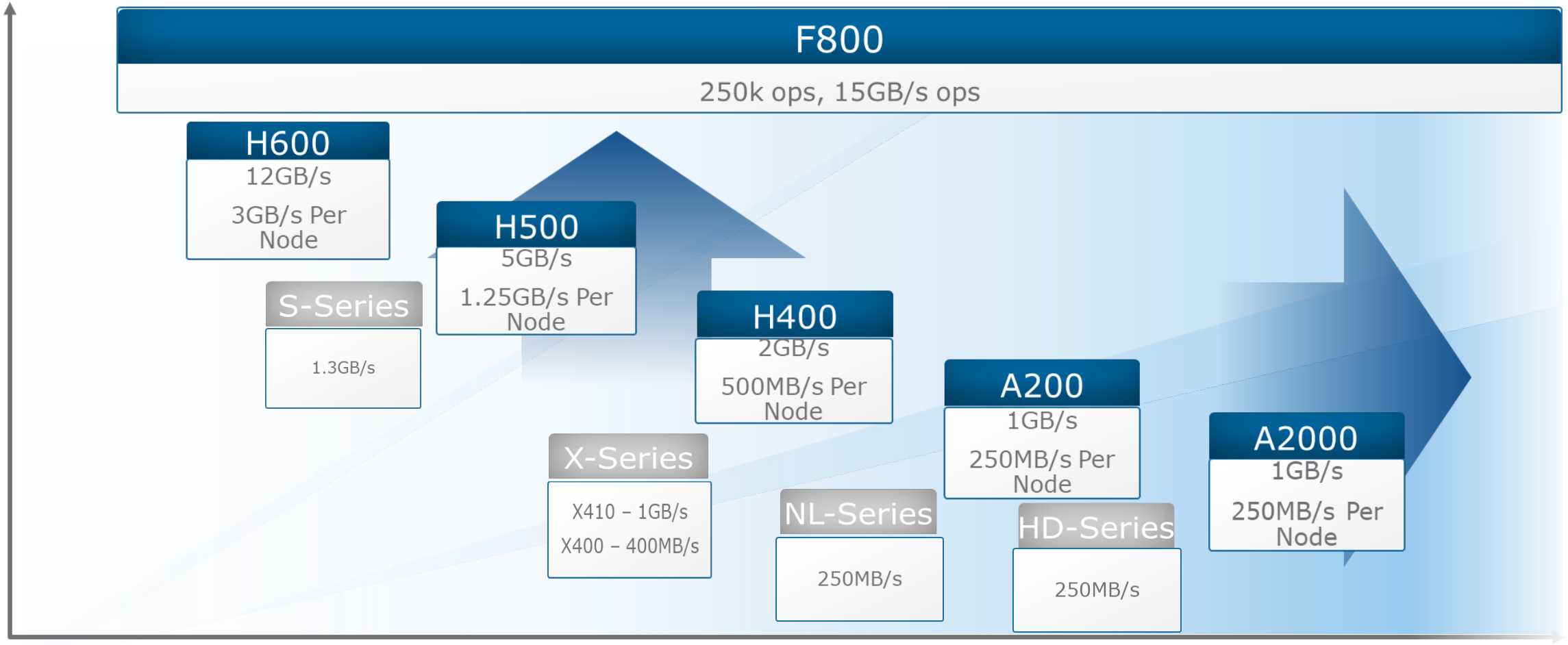
Isilon Workload Consolidation

Isilon Scale-Out NAS Architecture



Isilon Family

Introducing Isilon Gen 6



Isilon New Generation Benefits

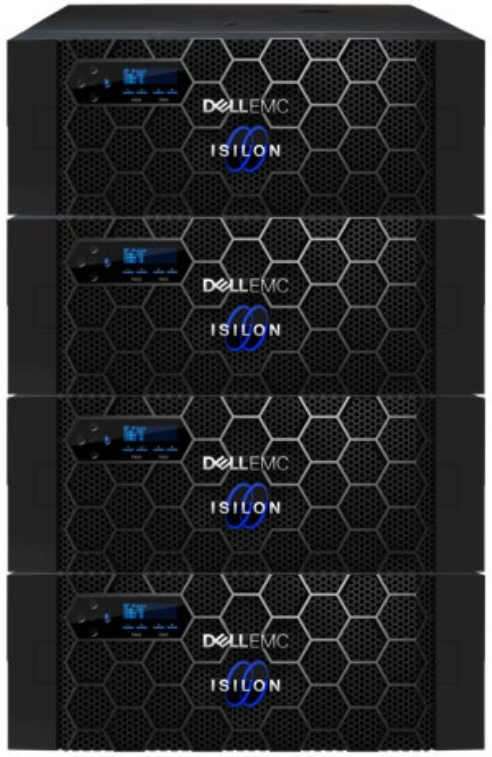
Unconstrained Scale and Performance

Unconstrained Scale

Push-Button Linear Scaling

Under 60 Seconds

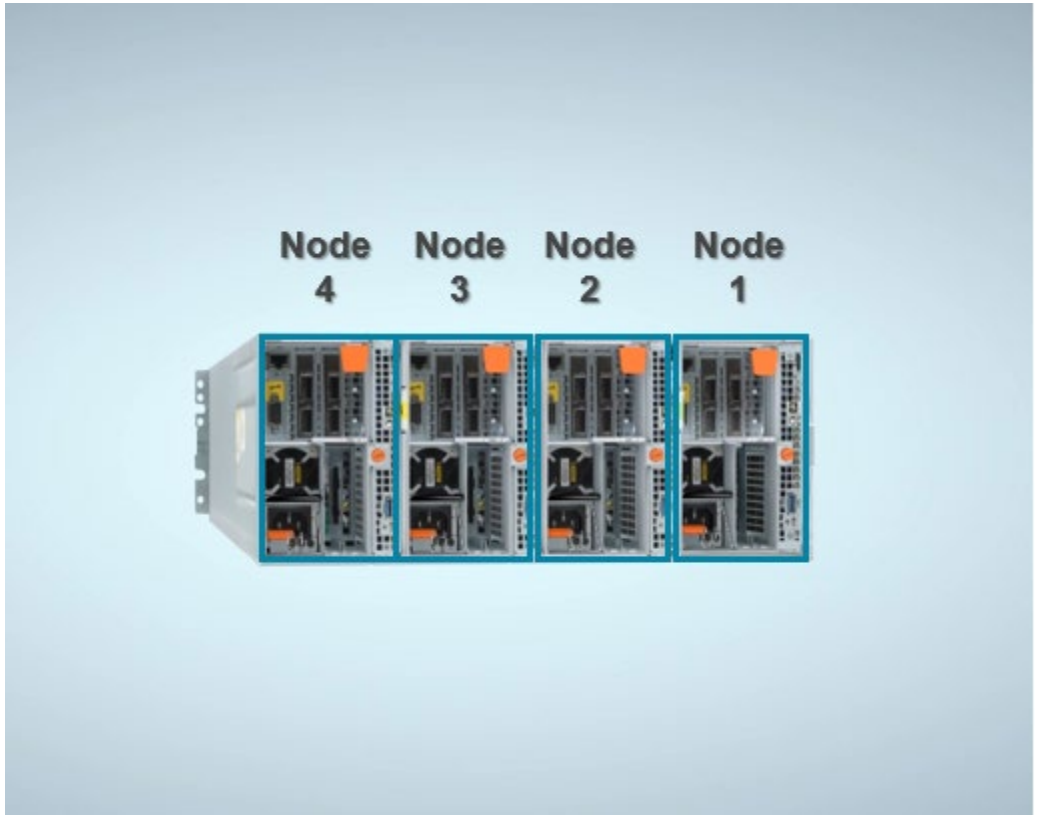
Transparent to Users and Applications



Future-Proof, Modular Chassis

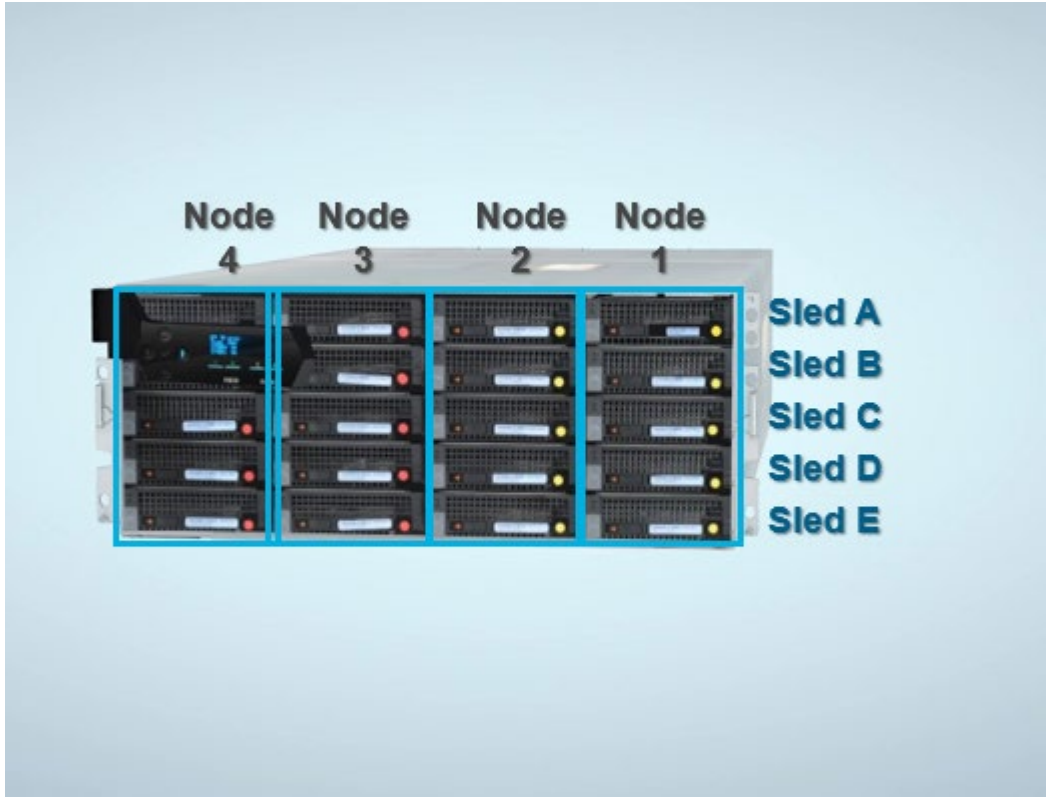
75% Reduction in Floor Space

Isilon Next Gen Platform: Compute



Features
• 4 Nodes in 4U Chassis
• 4:1 Reduction in RU
• Up to 6 TB Cache per Node
• No Single Points of Failure
• Networking Flexibility: 10GbE/40GbE (depends on node model and configuration)

Isilon Next Gen Platform: Storage



Features

- From 72TBs to 801TBs in 4U
- 5 Drive Sleds per Node. 3 to 6 Drives per Sled
- Front Aisle, Hot Swap Sleds and Drives
- Media Flexibility: Flash or Spinning Disk (defined by model)

F800 All Flash – Massive Performance

- 1.6 TB, 3.2 TB and 15.4 TB Flash
- 60 drives. Up to 924 TB per chassis
- 250K IOPs per chassis

Faster Time to Results
Enable New Workloads

Hybrid Nodes – Performance, Capacity and Value

H600

- 600 GB and 1.2 TB SAS drives
- 120 drives and up to 144 TB per chassis
- 117K IOPs per chassis

H500, H400

- 2, 4, 8 TB SATA drives
- 60 drives and up to 480 TB per chassis

Cost-Optimized Workload Consolidation

Archive Nodes – Massive Capacity, High Density

A200

- 2, 4, 8TB SATA drives
- 60 drives chassis
- 480TB per chassis

A2000

- 10TB SATA drives
- 80 drives per chassis
- 800TB per chassis

Data Center Efficiency
Economical, Long-Term Retention

TCO Optimization: Simplicity and Ease of Use

Single File System Spans All Nodes

Automation:

NO manual intervention

NO reconfiguration

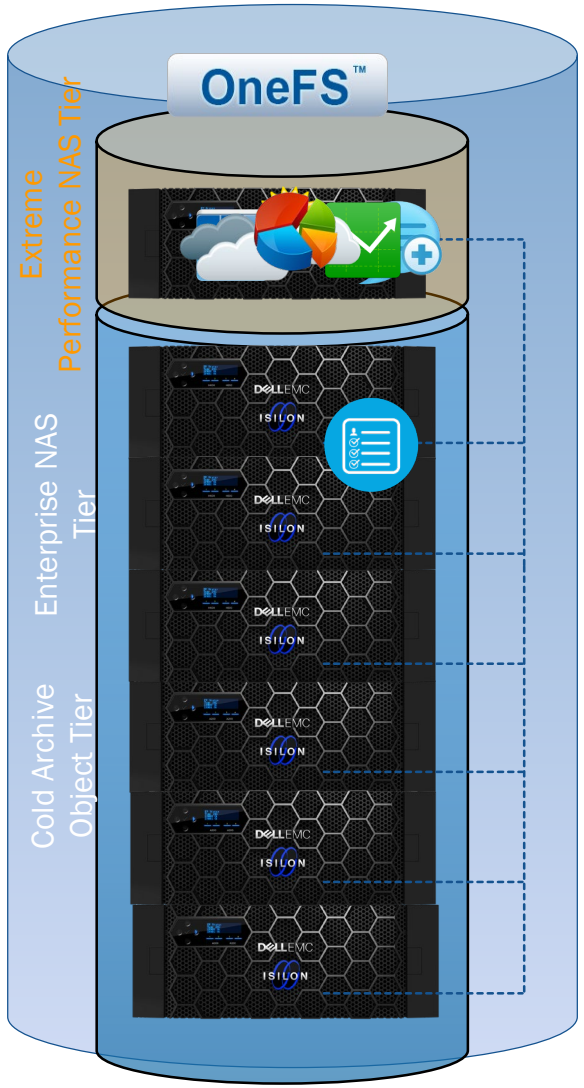
NO server or client mount point or application changes

NO data migrations

NO RAID

Directories and Files Striped Across Cluster
Delivers Over 80% Storage Utilization

TCO Optimization: Policy Based Automated Tiering



Highest Performance / Lowest TCO

- Tier Between Performance, Enterprise and Archive Nodes
- Transparent to Users and Applications
- Smartpools Transparently Moves Selected Data to New Nodes
- Seamless and Transparent to Namespace Operations with no impact to users or apps

Just Enough Flash

Enterprise Grade Features (Some Require Licensing)

Data Protection & Efficiency

SnapshotIQ (included-basic bundle)
Fast, Efficient Data Backup And Recovery

SyncIQ (enterprise advanced bundle)
Fast And Flexible Asynchronous Replication For DR

SmartConnect Basic (basic bundle)
Round-Robin IP Client Failover to Load Balance connections

SmartLock (optional ala carte)
Policy-based Compliance and WORM Data Protection

SmartDedupe (optional ala carte)
Data Deduplication to reduce storage costs

Data Management

SmartConnect Adv (enterprise bundle)
Advanced Policy IP Client Failover, i.e. NFS Failover IP

SmartPools (enterprise advanced bundle)
Policy-Based Automated Tiering

SmartQuotas (enterprise bundle)
Quota Management And Thin Provisioning

InsightIQ (included-basic bundle)
Performance Monitoring And Reporting

CloudPools (optional ala carte)
Cloud-scale Capacity

Enterprise Grade Features

Data Protection & Efficiency

- Iron clad data protection, N+1 to N+4 redundancy
- NFS/SMB automatic failover & load balancing
- Push-Button DR Failover

Data Management

- Secure Access Zones
- Roles-Based Access
- SEC 17a-4 WORM
- Encryption

Meet Regulator and Compliance Mandates

Software Defined OneFS Integration

All OneFS Data Services & Protocols

Redefining the Edge

- VMware ESX Hypervisor
- Full vCenter Integration
- Backend Virtual SAN integration:
  - VSAN and VxRAIL
- Dell PowerEdge Support

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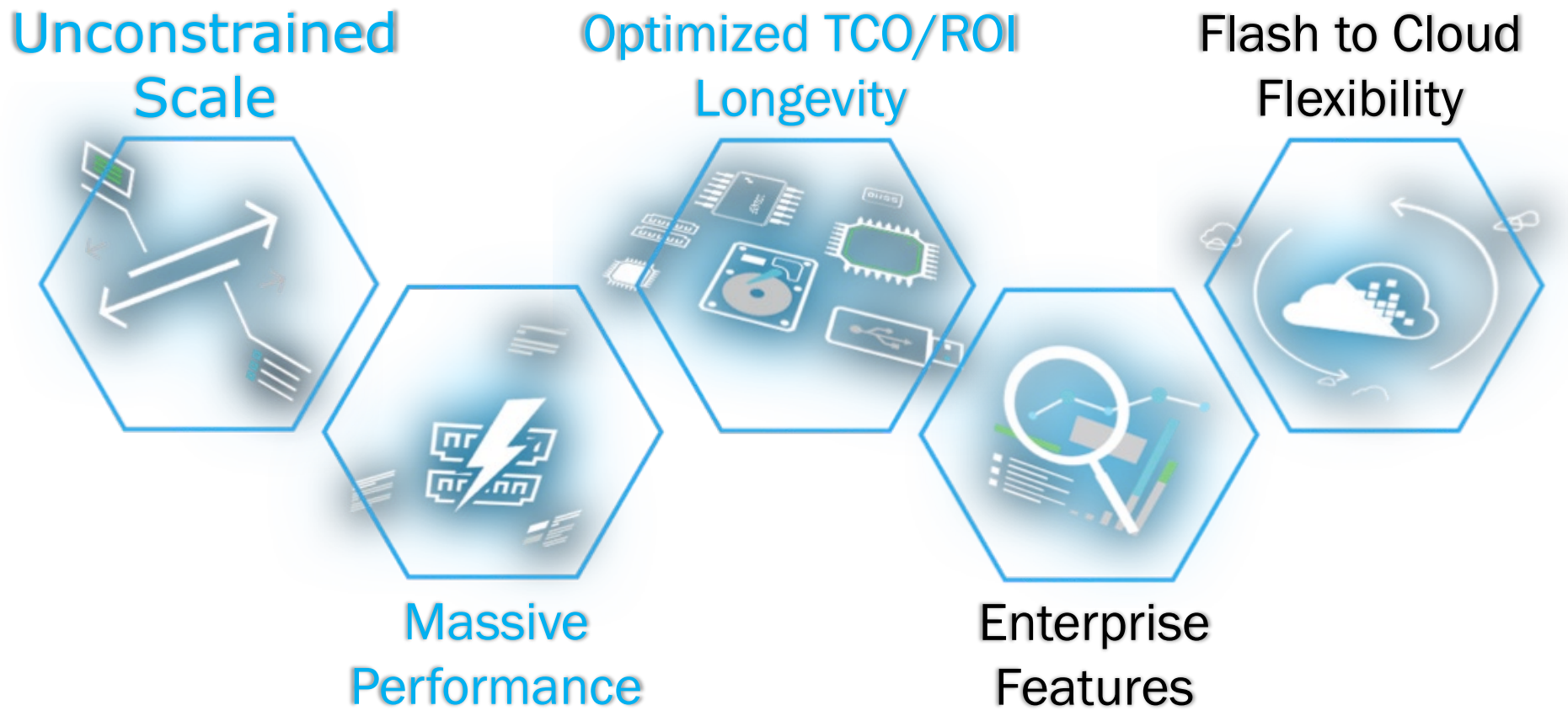

At Any Scale

STERLING