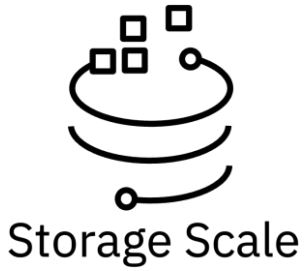
IBM Storage Scale

Storage Scale Strategy Days
Mar 5 2024

Heiko Lehmann
Technical Sales Leader Storage4AI and BigData DACH
Systems Storage

Disclaimer



IBM's statements regarding its plans, directions, and intent are subject to change or withdrawal without notice at IBM's sole discretion. Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.

IBM reserves the right to change product specifications and offerings at any time without notice. This publication could include technical inaccuracies or typographical errors. References herein to IBM products and services do not imply that IBM intends to make them available in all countries.

Agenda

Storage Scale

- licensing

Storage Scale licensing

Storage Scale software licensed per terabyte/petabyte (TiB/PiB)

Data Access Edition (DAE)

- Flat Per TiB/PiB pricing
  - No tiers. Just count all the TiBs/PiBs in all the NSDs in the cluster
  - No charge for clients (in the same cluster or separate cluster), or protocol nodes, or anything else besides NSD capacity
- Based on usable capacity
  - This is the capacity “visible” to Scale, i.e. after applying h/w RAID, h/w mirroring, h/w spares, etc.
  - Equivalent to Usable capacity for traditional thick provisioned block storage
- To verify or audit for compliance, simply run mmlslicense -–capacity --formatted for each cluster
  - or look in the GUI

Data Management Edition (DME)

- All DAE functionality plus:
  - Encryption
  - Asynchronous disaster recovery (AFM-ADR)
  - Transparent Cloud Tiering
  - File audit logging
  - Watch folder

Erasure Code Edition (ECE)

- All DME functionality plus:
  - Deploy on storage rich servers with internal storage, using erasure coding for high durability, space efficiency, and rapid rebuilds

All nodes in a single cluster must be on the same Edition

Storage Scale licensing

For time being existing Storage Scale software customers can remain on Sockets

Standard Edition, licensed per socket

- **Strictly** for existing scale customers on socket.
  - **No** new customers on sockets
  - **No** new cluster at an existing customer to be added on sockets
- Individual licenses for servers, clients, and FPO (“shared nothing”) nodes
- To verify or audit for license compliance, customer must count sockets on each machine (system dependent process) where Scale is deployed

Advanced Edition, licensed per socket

- **Strictly** for existing scale customers on socket.
  - **No** new customers on sockets
  - **No** new cluster at an existing customer to be added on sockets
- Additional functionality
  - Encryption
  - Asynchronous disaster recovery (AFM-ADR)
  - Transparent Cloud Tiering
  - File audit logging
  - Watch folder
  -

Customers can choose to trade up to Capacity licensing, but for time being nobody will be forced to migrate

All nodes in a single cluster must be on the same Edition

Storage Scale licensing

For ESS customers, two Editions with two tiers

Data Access Edition, licensed Per Disk

- Storage Scale RAID license entitlement included
- Two price tiers, HDD and SDD
- Select in eConfig

Data Management Edition, licensed per Disk

- Adds Encryption, AFM-ADR, Transparent Cloud Tiering, File Audit Logging, Watch folder
- Two price tiers, HDD and SDD
- Select in eConfig

If there is Quorum this must be licensed per TiB/PiB !!!

Qorum capacity appers when executing mmlslicense --capacity --formatted

ESS customers can also choose Per TiB/PiB pricing, e.g. for an ELA. Usually it will be more expensive

All nodes in a single cluster must be on the same Edition

Storage Scale (OEM) licensing

Storage Scale can be bought from various companies:

- IBM
- Lenovo
- HPE
- NEC
- Fujitsu
- …

Please note:

Do not mix licenses from different vendors within one storage cluster

It is different legal entities

This also applies to appliances (eg IBM ESS, Lenovo DSS, …

Storage Scale editions and licensing at a glance

Editions have various function levels:

- Data Access edition (DAE) - often used for HPC
- Data Management edition (DME) - adds functions valuable in commercial environments
  - Free Developer edition (DE)
- Erasure Code edition (ECE) - aimed at hyperscale, web-scale service providers

Capacity licensing: built for simplicity

- Easy to purchase, expand, budget, renew
- Entitled to unlimited number of IBM Storage Scale client and server licenses

Existing IBM Storage Scale socket-licensed customers

- Can stay on existing sockets-based licensing for as long as they wish
- Passport Advantage site ID defines boundary

Feature	Data Access or Standard Edition	Data Management, Advanced or Dev. Edition	Erasure Code Edition
Multi-protocol scalable file service with simultaneous access to a common set of data	Yes	Yes	Yes
Facilitate data access with a global namespace, massively scalable file system, quotas and snapshots, data integrity and availability and filesets	Yes	Yes	Yes
Simplify management with GUI	Yes	Yes	Yes
Improved efficiency with QoS and compression	Yes	Yes	Yes
Create optimized tiered storage pools based on performance, locality, or cost	Yes	Yes	Yes
Simplify data management with Information Lifecycle Management (ILM) tools that include policy-based data placement and migration	Yes	Yes	Yes
Enable worldwide data access using AFM asynchronous replication	Yes	Yes	Yes
Immutability (WORM / Write Once Read Many)	Yes	Yes	Yes
Asynchronous multi-site Disaster Recovery		Yes	Yes
Hybrid cloud (Transparent Cloud Tiering)		Yes	Yes
Protect data with native software encryption and secure erase, NIST compliant and FIPS certified		Yes	Yes
File audit logging		Yes	Yes
Watch folder		Yes	Yes
Erasure coding	Scale System only	Scale System only	Yes
IBM Storage Fusion Data Cataloging service		Yes	Yes