Storage Spaces Direct

Use Case @ Ferranti IT

Piet Van Kerckhove
Shared Service Manager

FERRANTI
computer systems

Ferranti IT history

<2012: HP

- HP EVA 8000 & EVA 8400, with extension racks
- Performance deep dive report:
  - Controller(s) bottleneck
  - Queue dept
  - #Disks ⇔ #Controllers
- Conclusion: Design error

2012: Dell Equalogic

- Tiering (SSD, SAS, Nearline SAS)
- Disk Extension = Extra controller
- Ready for future
- 10 Gig
- Today 6,5 year and
  still performing well!

Business Case 2017

Start development Ms Dynamics 365

Resource Requirement	**4 CPU Cores, 64 Gb RAM, 500 SSD For each developer**
Cost / Azure	**2,5 until 4 times cheaper**
Ease of refresh	**Every month new template**

2017: Requirements

- Eql End-of-life
- Meet performance requirements
- Disk Extension = Extra controller
- Ready for future
- 10 Gig

Why S2D?

- Partneships within Ferranti:
  - Dell
  - Microsoft
- Ferranti is always an early adopter of new technology
- Grow as you need

First S2D cluster (2017)

- 6 Nodes
- Nodes:
  - 2x 18c (13th Generation)
  - 768 Gb RAM
  - 11x800Gb SSD
  - 6x10Gb Melanox

2017 experiences with S2D

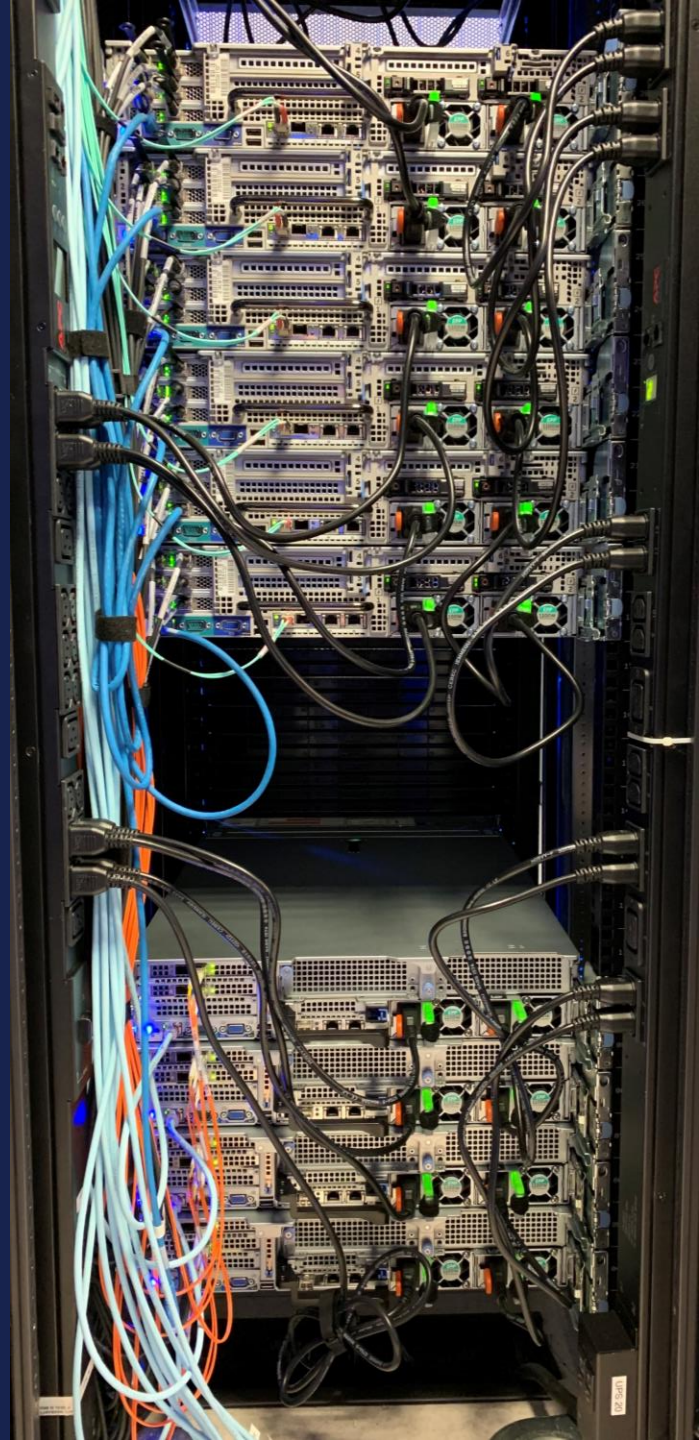
- Difficult configuration.
- Early adopting =
  less documentation,
  less experience within Supplier
- Complex setup,
  especially networking
- But when it was setup ➔
  great performance,
  ease of maintenance

2018 S2D cluster

- 4 Nodes cluster
- Nodes:
  - 2x 20c (14th Generation)
  - 768 Gb RAM
  - BOSS controller card
  - 12x800Gb SSD
  - 2x 25Gb Melanox
- Ready nodes

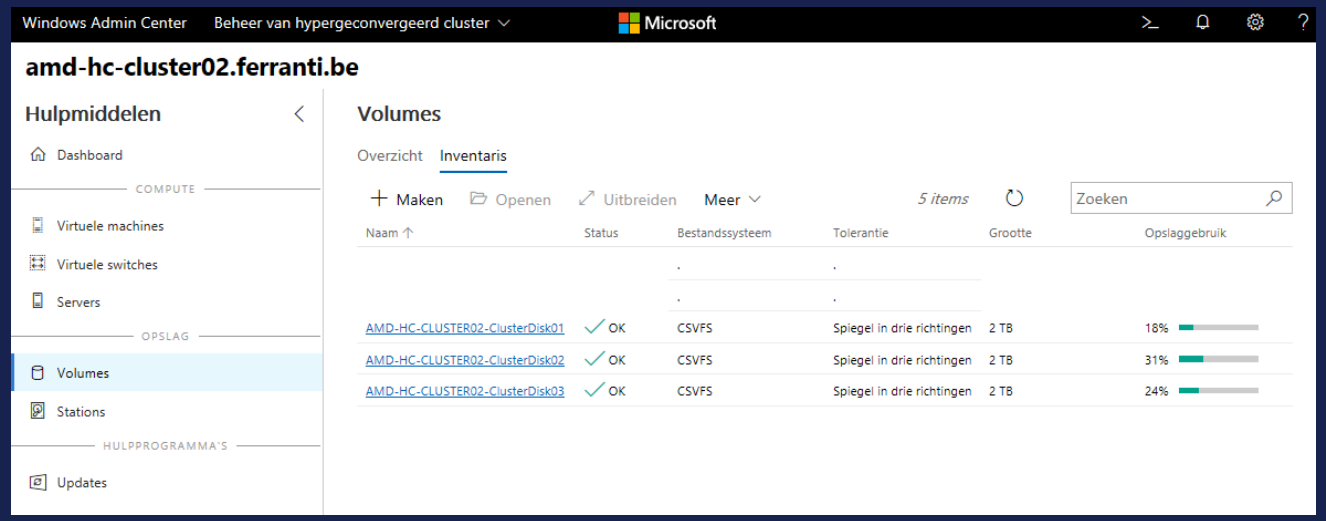
2018 experiences with S2D

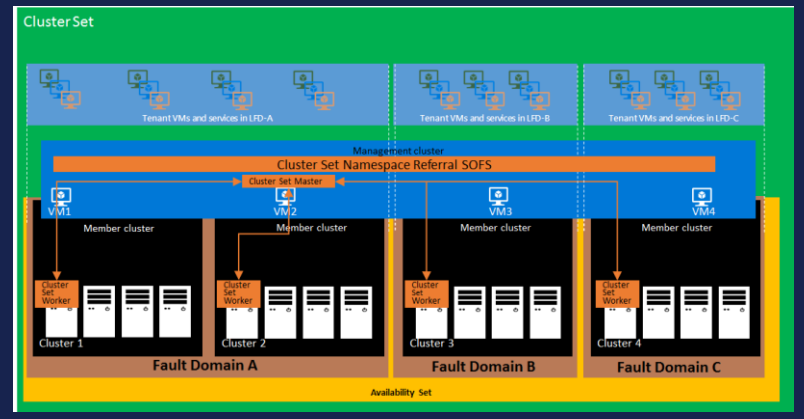
- Ready nodes where a big step
- Well documented, smoothly setup
- Even better performance



What's next?

- Extension 14th gen cluster
- Windows Server 2019 with cluster sets
- Replacement Poweredge/Eql (mid 2019)
- Windows admin Center (fka Honolulu)






FERRANTI
computer systems

Thank you!