bwForCluster Helix
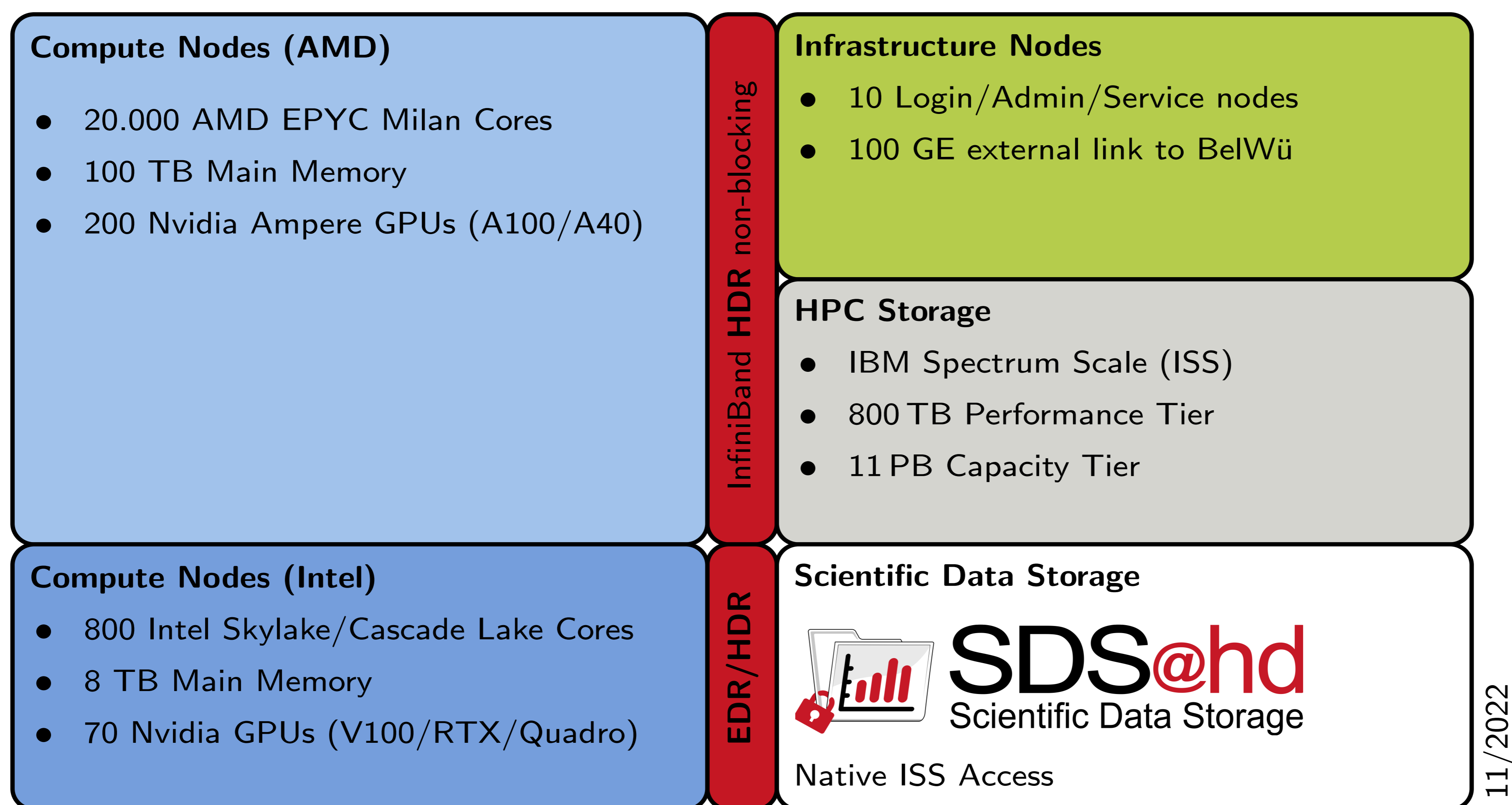
bwHPC compute resource for structural and systems biology, medical science, soft matter and computational humanties

https://wiki.bwhpc.de/e/Helix

Hardware and Architecture

Compute Nodes (AMD)

- 20.000 AMD EPYC Milan Cores
- 100 TB Main Memory
- 200 Nvidia Ampere GPUs (A100/A40)

Compute Nodes (Intel)

- 800 Intel Skylake/Cascade Lake Cores
- 8 TB Main Memory
- 70 Nvidia GPUs (V100/RTX/Quadro)

InfiniBand **HDR** non-blocking

EDR/HDR

Infrastructure Nodes

- 10 Login/Admin/Service nodes
- 100 GE external link to BelWü

HPC Storage

- IBM Spectrum Scale (ISS)
- 800 TB Performance Tier
- 11 PB Capacity Tier

Scientific Data Storage

SDS@hd
Scientific Data Storage

Native ISS Access

11/2022

Access and related Services

bwIDM

BelWü
Landeshochschulnetz Baden-Württemberg

Web interface for interactive applications

Command line interface
Batch system for compute jobs

various access protocols:
nfs, smb, sftp

Remote Visualisation

bwVisu

Apps run on

HPC System

bwForCluster Helix

Native Access

Storage Service

SDS@hd
Scientific Data Storage