Highlights

- ZFS on Linux works reliable and as good as on Solaris

- Huge performance increase with ZFS observed compared to xfs/ext4
  - Especially for parallel read/write access

- Real data protection by using block level checksums

- Compression can be used with WLCG data on typical storage systems and without performance reduction

- Large reductions in rebuild times of degraded systems possible

- Possibility to build systems with 3 redundancy disks (raidz3, similar to raid7)
  - important with increasing disk sizes that make raid6 unusable
• Cost reductions possible
  – No need for hardware raid controllers
  – Systems build on ZFS can be upgraded by software updates and not through expensive hardware controllers
  – Compression saves disk space
  – Using raidz3 instead of multiple raid6 uses less disks for redundancy and hot spares in total but increases overall data protection