

TF-Storage TCO calculator

introduction

Storage TCO - introduction



Can I make it all
better, cheaper,
safer?



NREN

Storage TCO calculator - aims

Sharing is caring...

- NRENs need to understand the **real** cost of operating the low-cost storage infrastructure
- the aim of the tools is to help system designers to analyse and plan:
 - investments in hardware and software
 - operation aspects and costs

Storage TCO calculator - scope

- TCO helps in calculating costs:
 - calculating the CAPEX: servers, HDDs, SSD, network
 - calculating the OPEX: power, DC, maintenance
- TCO helps in planning the hardware/software config:
 - calculates the basics parameters: RAW capacity, RUs
 - simulates the performance: MB/s, IOPS etc.
- Focused on disk servers-based storage, more to come

Storage TCO calculator - how to use

- For now it is an excel file, online tool considered
- .xls available at the TERENA wiki
 - <https://wiki.geant.org/display/Storage/Total+Cost+of+Ownership+Calculator>
 - Wiki includes also explanation of aims, scope, status...
 - There is also a low-cost storage building/purchasing howto
- Several tabs, where you can:
 - choose among 'predefined components'
 - specify your local cost factors: workforce cost, energy costs
 - define parameters such your data center PDU etc.
 - remaining tabs present calculations



Storage TCO calculator - demo

Storage TCO calculator - next steps

- Improvement the scope of information analysed for disk servers:
 - use real-life values instead of catalog ones wherever possible - **your input needed!**
 - develop models for simulating the power usage, MB/s and IOPS,
 - based on the existing heuristics
 - supported by real life observations collected by NRENs
 - improve analysing storage software-related aspects (e.g. impact of Ceph/Swift on performance etc.)
 - add network port costs to the model
- Consider traditional storage systems (e.g. disk arrays, tapes) and enable comparing TCO of these vs low-cost storage plat

Storage TCO calculator - participate!

- Sharing is caring!
- **We need contribution!**
- Provide your feedback through:
 - TF-Storage mailing list: storage@terena.org
 - on the video-conferences (every 2-4 weeks)

TCO calculator - acknowledgements!

- All TF-Storage members!
- Especially those who contributed most time to this tool:
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