

Modifications

Promotions

Bundles

Tape Media

# Storage Pricelist for SMB - May 2017

| Hyperconverged Systems     |                            |                     |
|----------------------------|----------------------------|---------------------|
| Hyper Converged 250 system | Hyper Converged 380 system |                     |
| Software Defined Storage   | Service Refined Storage    | Traditional Storage |
| StoreVirtual 4000          | StoreServe 8000            | MSA Storage         |
| StoreVirtual 3200          | StoreServe 7000            | StoreEasy           |
| Virtual Storage appliances |                            |                     |
| StoreOnce Systems          |                            | JBODs               |
| StoreEver                  |                            |                     |
| StoreFabric                |                            |                     |

| HPE Storage Software        |       |
|-----------------------------|-------|
| VMExplorer                  |       |
| StoreEver Archive Manager   |       |
| HPE Complete Program        |       |
| Vision Solutions DoubleTake | Veeam |
| iTernity iCAS               |       |
| Data Protector : TBD        |       |

**Abbreviations overview**

In this pricelist, the first column of every sheet may contain one or more abbreviated messages.

The following table lists all of them, together with a concise explanation of its meaning and possible consequences for the products

|          |  |
|----------|--|
| N        | New product in this pricelist  |
| P-D      | Price has dropped  |
| P-I      | Price has increased  |
| PROMO    | Promotional item. Can be a special configuration @ a special price or an option at a special price |
| EOL      | Product is End of Life: still orderable through till end of stock                                  |
| D/DISTR1 | Product is discontinued and no longer available through HP, but some stock still exists @ distri   |
| PL       | Product Line has changed   |
| C        | Description has changed  |

Warning : Multiple abbreviations may be applied to a part number.  
Eg. P/PROMO : a promotion has dropped in price

**Changes summary**

**Warning**

**Due to a global shortage in supply of SSD drives, All those drives have been put on allocation until further notice. In order to be able to fulfill your customer orders, please consult your distributor for availability**

**1/05/2017**

Main changes :

Added the new low-cost B-series 32Gb Fibre Channel switches  
Added iTenrity iCAS software (part of HPE Complete)  
Heavily modified both the HC250 and 380 to reflect all the latest changes on SSD and supported OS.  
Lots of modifications throughout the pricelist, reshuffling, adding missing items, etc

**1/03/2017**

Main changes :

Modified heavily the 3PAR 8000 series; now with All-inclusive software licensing ! A lot more simplified !

**1/02/2017**

Main changes :

Due to a global cost increase for hard disks, SSD drives and Memory kits and the weak position of the Euro vs the dollar, the majority of prices has been increased. Double check you offers . Be aware that HPE offers are valid for no more than 30 days. also be aware that if you extend an existing OPG, that pricing will be reviewed !

**1/12/2016**

New :

- New : Vision Solutions Doubletake software
- New 10Gbase-T versions for SV3200, support for 8TB hard disks and Mainstream endurance disks added to the SV3200
- New StoreEasy systems with Windows Storage Server 2016
- New expanded capacity licenses for StoreEver Archive Mgr

Product Lifecycle Modifications

| Promotions                                     |   |  |                    |            |
|--|---|--|--------------------|------------|
| Discontinued and no longer available           |   | Replaced by  |                    |            |
| AJ760BT  | LTO920 Internal SAS, w. 5 x media (req. Optional HBA)                           | AP826AT  |                    |            |
| E7W42A   | LTO920 External SAS, w. 5 x media (req. Optional HBA)                           | E7W41A   |                    |            |
| H0HP1A   | SN3000 16Gb SAN Starter kit   | NA   |                    |            |
| AK241B   | 8gb Simple SAN Connection kit   | NA   |                    |            |
| Discontinued and available while supplies last |   | Replaced by  |                    |            |
| K2Q81A   | StoreVirtual 4335 Hybrid SAN Solution   | No direct replacement, switch to SV3200 or VSA Ready nodes | 31/03/2017         |            |
| Bundles  |   |  |                    |            |
| New  |   |  |                    |            |
| Q1H89A   | D3600 120TB Bundle with 12" 10TB 12G SAS MDL SC disks                           |  |                    |            |
| Q1H90A   | HPE D6020 w/35 10TB 12G SAS 7.2K LFF (3.5in) Dual Port Midline HDD 350TB Bundle |  |                    |            |
| Q1H91A   | HPE D6020 w/70 10TB 12G SAS 7.2K LFF (3.5in) Dual Port Midline HDD 700TB Bundle |  |                    |            |
| Discontinued and no longer available           |   | Replaced by  |                    |            |
| C8S05A   | D3700 7.5TB Bundle with 25 x 300GB 6G 15K SAS SC disks                          | K2Q10A   |                    |            |
| B7E38A   | D3700 7.5TB Bundle with 25 x 300GB 6G 10K SAS SC disks                          | M0S83A   |                    |            |
| B7E40A   | D3700 15TB Bundle with 25 x 600GB 6G 10K SAS SC disks                           | M0S84A (10K disks)   | K2Q11A (15K disks) |            |
| B7E41A   | D3700 30TB Bundle with 25 x 1.2TB 6G 10K SAS SC disks                           | M0S86A   |                    |            |
| B7E42A   | D3700 25TB Bundle with 25 x 1TB 6G SAS MDL SC disks                             | M0S88A   |                    |            |
| E7W31A   | D6000 280TB bundle with 70 x 4TB 7.2K rpm MDL SAS disks                         | K2Q25A   |                    |            |
| E7W30A   | D6000 140TB bundle with 35 x 4TB 7.2K rpm MDL SAS disks                         | K2Q24A   |                    |            |
| E7W32A   | D2600 48TB bundle with 12 x 4TB 7.2K rpm MDL SAS disks                          |  |                    |            |
| QK765A   | D2600 36TB bundle with 12 x 3TB 7.2K rpm MDL SAS disks                          |  |                    |            |
| QK766A   | D2600 18TB bundle with 6 x 3TB 7.2K rpm MDL SAS disks                           |  |                    |            |
| BK766A   | D2600 24TB bundle with 12 x 2TB 7.2K rpm MDL SAS disks                          |  |                    |            |
| BV899A   | D2600 12TB bundle with 12 x 1TB 7.2K rpm MDL SAS disks                          |  |                    |            |
| B7E36A   | D3600 24TB Bundle with 12" 2TB 6G SAS MDL SC disks                              | N/A  |                    |            |
| B7E37A   | D3600 36TB Bundle with 12" 3TB 6G SAS MDL SC disks                              | N/A  |                    |            |
| Hyperconverged 380 system                      |   |  |                    |            |
| Discontinued and no longer available           |   | Replaced by  |                    | OBS Date   |
| Q0D51A   | HC-380 3 Node VDI Medium Kit  |  |                    |            |
| 3PAR StoreServ 7000                            |   |  |                    |            |
| Discontinued and no longer available           |   | Replaced by  |                    | OBS Date   |
| C8R59B   | M6710 450GB 6G SAS 10K 2.5in HDD FIPS Encryption                                | N/A  |                    | 31/07/2017 |
| C8R60B   | M6710 900GB 6G SAS 10K 2.5in HDD FIPS Encryption                                | N/A  |                    | 31/07/2017 |
| Discontinued and available while supplies last |   | Replaced by  |                    | OBS Date   |
| H6Z84A   | M6720 2TB 6G FIPS Encryption SAS 7.2K 3.5in NL HDD                              | N/A  |                    | 31/05/2017 |
| BD373A   | 3PAR Reporting Software Suite media kit   | N/A  |                    | 30/04/2017 |
| 3PAR StoreServ 8000                            |   |  |                    |            |
| New  |   |  |                    |            |
| N9Z18A   | HPE 3PAR 8000 4-pt 16Gb/10Gb Combo Adptr  |  |                    |            |
| N9Z19A   | HPE 3PAR 8000 4-pt 10Gb Combo Adapter   |  |                    |            |
| Discontinued and no longer available           |   | Replaced by  |                    | OBS Date   |
| K2P88B   | 3PAR StoreServ 8000 480GB SAS SFF(2.5in) Solid State Drive - no AFC + SW        |  |                    |            |
| StoreOnce Systems                              |   |  |                    |            |
| New  |   |  |                    |            |
| BB941D   | StoreOnce 5500 44TB capacity upgrade kit, 3 year warranty                       |  |                    |            |
| BB933D   | StoreOnce 5500 60TB Drawer + capacity upgrade kit, 3 year warranty              |  |                    |            |
| Discontinued and no longer available           |   | Replaced by  |                    | OBS Date   |
| BB877A   | StoreOnce 2700 8TB backup system  | BB913A   |                    | 30/09/2016 |
| BB910A   | StoreOnce 2900 24TB backup system   | BB922A & BB914A  |                    | 31/12/2016 |
| BB878A   | StoreOnce 4500 24TB Backup system   | BB915A   |                    | 31/12/2016 |
| BB879A   | StoreOnce 4700 26TB Backup system   | BB915A   |                    | 31/12/2016 |
| BB903A   | StoreOnce 4900 60TB Backup system   | BB917A   |                    | 31/01/2017 |
| Discontinued and available while supplies last |   | Replaced by  |                    | OBS Date   |
| BB941A   | StoreOnce 5500 44TB capacity upgrade kit  | BB941D   |                    |            |
| BB933A   | StoreOnce 5500 60TB Drawer + capacity upgrade kit                               | BB933D   |                    |            |
| BB864A   | StoreOnce 4210/4106 6TB capacity upgrade kit                                    | N/A  |                    |            |
| EH995C   | StoreOnce 4420/4220/D2D 4112/ D2D 4312 12TB capacity upgrade kit                | N/A  |                    |            |
| EH986B   | StoreOnce 4430/D2D 4324 24TB capacity upgrade kit                               | N/A  |                    |            |
| StoreVirtual 3200                              |   |  |                    |            |
| New  |   |  |                    |            |
| N9X22A   | HPE SV3200 4x10GBBase-T SFF Storage   |  |                    |            |
| N9X23A   | HPE SV3200 4x10GBBase-T LFF Storage   |  |                    |            |
| Q0F66A   | HPE StoreVirtual 3000 File Controller   |  |                    |            |
| N9X13A   | HPE SV3000 8TB 12G SAS 7.2K LFF MDL HDD   |  |                    |            |
| Q0F83A   | HPE SV3000 400GB 12G SAS W/ LFF CC SSD  |  |                    |            |
| N9X87A   | HPE SV3000 200GB 12G SAS 2.5in W/ SSD   |  |                    |            |
| N9X88A   | HPE SV3000 400GB 12G SAS 2.5in W/ SSD   |  |                    |            |
| N9X89A   | HPE SV3000 800GB 12G SAS 2.5in W/ SSD   |  |                    |            |
| StoreVirtual 4000 Systems                      |   |  |                    |            |
| Discontinued and available while supplies last |   | Replaced by  |                    | OBS Date   |
| B7E16A   | StoreVirtual 4130 2.4TB SAS Node  | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| B7E17A   | StoreVirtual 4330 3.6TB SAS Node  | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| B7E18A   | StoreVirtual 4330 7.2TB SAS Node  | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| B7E19A   | StoreVirtual 4330 8TB MDL SAS Node  | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| B7E20A   | StoreVirtual 4330 7.2TB SAS FC Node   | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| F3J70B   | StoreVirtual 4335 v2 Hybrid Node - new faster and cost reduced version!         | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| B7E25B   | StoreVirtual 4530 5.4TB SAS Node  | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| B7E26B   | StoreVirtual 4530 7.2TB SAS Node  | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| B7E23A   | StoreVirtual 4530 24TB MDL SAS Node   | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| B7E24A   | StoreVirtual 4530 36TB MDL SAS Node   | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| F3J69A   | StoreVirtual 4530 48TB MDL SAS Node   | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| B7E27A   | StoreVirtual 4730 15TB SAS Node   | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| B7E28A   | StoreVirtual 4730 22.5TB SAS Node   | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| B7E29A   | StoreVirtual 4730 FC 22.5TB SAS Node  | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| B7E30A   | StoreVirtual 4630 22.5TB SAS Node   | Switch to SV3200 or Vsa                                    |                    | 30/06/2017 |
| B7E21A   | StoreVirtual 4030 10G BASE-SFF+ Upgrade Kit                                     | NA   |                    | 31/03/2017 |
| K2Q44A   | StorageWorks P4000 G2 Memory Upgrade kit  | NA   |                    | 31/03/2017 |
| Software Defined Storage VSA                   |   |  |                    |            |
| Discontinued and no longer available           |   | Replaced by  |                    | OBS Date   |
| D4T77A   | HP StoreOnce VSA. 3 year license to use, for up to 4TB, includes support        | P9L02A   |                    | 28/02/2017 |

Modifications to the Storage Price List

|        |   |               |            |
|--------|---|---------------|------------|
| TC458A | HP StoreOnce VSA. 3 year license to use, for up to 10TB, includes support | P9L03A        | 28/02/2017 |
| D4U47A | HP StoreOnce VSA. 3 year license to use, for up to 50TB, includes support | P9L05A        | 28/02/2017 |
| D4U49A | HP StoreOnce VSA. 5 year license to use, for up to 4TB, includes support  | P9L02A        | 28/02/2017 |
| D4U62A | HP StoreOnce VSA. 5 year license to use, for up to 10TB, includes support | P9L03A        | 28/02/2017 |
| D4U48A | HP StoreOnce VSA. 5 year license to use, for up to 50TB, includes support | P9L05A        | 28/02/2017 |
| D4U56A | HP StoreOnce VSA Software upgrade 4TB--> 10TB 3yr LTU                     | P9L06A        | 28/02/2017 |
| D4U57A | HP StoreOnce VSA Software upgrade 10TB--> 50TB 3yr LTU                    | P9L07A+P9L08A | 28/02/2017 |
| D4U58A | HP StoreOnce VSA Software upgrade 4TB--> 10TB 5yr LTU                     | P9L06A        | 28/02/2017 |
| D4U59A | HP StoreOnce VSA Software upgrade 10TB--> 50TB 5yr LTU                    | P9L07A+P9L08A | 28/02/2017 |

| MSA Storage                                    |  |                            |            |
|--|--|----------------------------|------------|
| Discontinued and no longer available           |  | Replaced by                | OBS Date   |
| GOM43A   | MSA 900GB 6G SAS 10K SFF(2.5in) Enterprise Self Encrypted 3yr Wty Hard Drive                               | P9M81A (1.2TB)             | 31/10/2016 |
| CBR22A   | MSA 2TB 6G SAS 7.2K LFF(3.5in) MDL Self Encrypted 1yr Wty Hard Drive                                       |                            |            |
| GOM44A   | MSA 4TB 6G SAS 7.2K LFF(3.5in) MDL Self Encrypted 1yr Wty Hard Drive                                       |                            |            |
| StoreEasy                                      |  |                            |            |
| New  |  |                            |            |
| Q0F49A   | HPE StoreEasy 1650 Base System with WSS2016  |                            |            |
| Q0F50A   | HPE StoreEasy 1650 Expanded Storage Base WSS2016   |                            |            |
| Q0F51A   | StoreEasy 1850 Base system WSS 2016 (with 2x120GB SSD for OS in the rear and 25 free slots for data disks) |                            |            |
| Q0F52A   | StoreEasy 3850 Gateway Storage Single Node WSS 2016 (1 or 2 to be added to base)                           |                            |            |
| Q0F53A   | StoreEasy 3850 Gateway Storage Blade WSS 2016  |                            |            |
| Q0F60A   | StoreEasy 40TB LFF Bundle  |                            |            |
| Q0F61A   | StoreEasy 40TB LFF Bundle  |                            |            |
| Q0F62A   | StoreEasy 40TB LFF Bundle  |                            |            |
| Discontinued and available while supplies last |  | Replaced by                |            |
| N9Y58A   | StoreEasy 8TB LFF Bundle   |                            |            |
| Discontinued and no longer available           |  | Replaced by                | OBS Date   |
| M0S97A   | HPE StoreEasy 1650 90TB SATA Storage   |                            |            |
| JBODs  |  |                            |            |
| Discontinued and no longer available           |  | Replaced by                | OBS Date   |
| Q0695A   | D6000 Modular disk system  | K2Q28A                     |            |
| Q0696A   | D6000 Additional I/O module (used for dual domain environments, 1 extra required)                          | K2Q23A                     |            |
| StoreEver                                      |  |                            |            |
| Discontinued and no longer available           |  | Replaced by                | OBS Date   |
| EH847B   | Internal LTO 3 Ultrium 920 - 400/800 GB  | EH919B (LTO4)              |            |
| EH899B   | Internal LTO 5 Ultrium 3280 - 1500/3000 GB   | EH957B (HH drive)          |            |
| EH963A   | Internal LTO 6 Ultrium 6650 - 2500/6250 GB   | EH969A (HH drive)          |            |
| EH848B   | External LTO 3 Ultrium 920 - 400/800 GB  | EH920B (LTO4)              |            |
| BL535B   | LTO 5 Ultrium 3280 FC drive upgrade kit (not for MSL6480, full height)                                     | BL544B                     |            |
| AH199A   | Rackmount to tabletop conversion kit for G2 1/8 autoloader   | No replacement             |            |
| TA739A   | StoreEver MSL8048 48 to 96 slot upgrade kit (required for MSL8048 before adding AQ746A)                    | No replacement             |            |
| StoreFabric                                    |  |                            |            |
| New  |  |                            |            |
| Q1H70A   | HPE SN3600B 32Gb 24/8 FC Switch  |                            |            |
| Q1H71A   | HPE SN3600B 32Gb 24/24 FC Switch   |                            |            |
| Q1H72A   | HPE SN3600B 32Gb 24/24 Pwr Pk+ FC Switch   |                            |            |
| Q1Z10A   | HPE SN3600B 8-port FC Upgrade LTU  |                            |            |
| Q1Z10AAE                                       | HPE SN3600B 8-port FC Upgrade E-LTU  |                            |            |
| Q1Z11A   | HPE SN3600B Power Pack+ Upgrade LTU  |                            |            |
| Q1Z11AAE                                       | HPE SN3600B Power Pack+ Upgrade E-LTU  |                            |            |
| Discontinued and no longer available           |  | Replaced by                | OBS Date   |
| AK242B   | HP 8/20q Fibre Channel Switch (no SFPs, 16 ports enabled, upgradeable to 20 port)                          | No replacement             |            |
| AP769B   | HP 81B 8Gb Single Port (B)   | switch to Qlogic or emulex |            |
| AP770B   | HP 82B 8Gb Dual Port (B)   | switch to Qlogic or emulex |            |
| BK780B   | HP StorageWorks SN6000 Stackable 12-port Single Power Fibre Channel Switch                                 | No replacement             |            |
| AW575B   | HP StorageWorks SN6000 Stackable 24-port Single Power Fibre Channel Switch                                 | No replacement             |            |
| AW576B   | HP StorageWorks SN6000 Stackable 24-port Dual Power Fibre Channel Switch                                   | No replacement             |            |
| AW584A   | HP 8Gb Long Wave 10km Fibre Channel SFP+ 1 Pack Transceiver  | No replacement             |            |
| Discontinued and available while supplies last |  | Replaced by                |            |
| AQ233B   | HP 8/20q Fibre Channel Switch (no SFPs, 8 ports enabled, upgradeable to 20 port)                           | No replacement             |            |
| QK726A   | 10Gb SFP+ Short range Transceiver Kit for SN6000B/SN6500B  | TBD                        | 1/07/2017  |
| QK727A   | 10Gb SFP+ Long Range Transceiver Kit for SN6000B/SN6500B   | TBD                        | 1/07/2017  |
| AJ717A   | 8Gb SFP+ 10km Transceiver Kit for B-series 8Gbit switches  | No replacement             |            |
| AJ715A   | 4Gb SFP-SW Transceiver Kit for B-series 8Gbit switches   | No replacement             |            |
| AW537A   | HP B-series 1GbE Copper SFP 1 Pack   | No replacement             |            |
| StoreEver Archive Manager                      |  |                            |            |
| New  |  |                            |            |
| Q0U66A   | HPE Archive Manager Upgr MSL 500TB LTU   |                            |            |
| Q0U69A   | HPE Archive Manager Upgr MSL 1PB LTU   |                            |            |
| Q0U72A   | HPE Archive Manager Upgr MSL 2PB LTU   |                            |            |
| Q0U67A   | HPE Archive Migratr Upgr MSL 500TB LTU   |                            |            |
| Q0U70A   | HPE Archive Migratr Upgr MSL 1PB LTU   |                            |            |
| Q0U73A   | HPE Archive Migratr Upgr MSL 2PB LTU   |                            |            |
| Q0U68A   | HPE Archive Replic Upgr MSL 500TB LTU  |                            |            |
| Q0U71A   | HPE Archive Replic Upgr MSL 1PB LTU  |                            |            |
| Q0U74A   | HPE Archive Replic Upgr MSL 2PB LTU  |                            |            |
| Veeam  |  |                            |            |
| New  |  |                            |            |
| Q1K09A   | Veeam BU Ess Ent VMw 1yr Maint LTU   |                            |            |
| Q1K10A   | Veeam Add 2yr BU Ess Ent VMw Maint   |                            |            |
| Q2C54A   | Veeam Add 3yr BU Ess Ent VMw Maint   |                            |            |
| Q2C54A   | Veeam Add 3yr BU Ess Ent VMw Maint   |                            |            |
| Q1K21A   | Veeam BU Ess Ent Hyp-V 1yr Maint LTU   |                            |            |
| Q1K22A   | Veeam Add 2yr BU Ess Ent Hyp-V Maint   |                            |            |
| Q2C72A   | Veeam Add 3yr BU Ess Ent Hyp-V Maint   |                            |            |
| Q2C73A   | Veeam Add 4yr BU Ess Ent Hyp-V Maint   |                            |            |
| Q1K11A   | Veeam BU Ess Ent+ VMw 1yr Maint LTU  |                            |            |
| Q1K12A   | Veeam Add 2yr BU Ess Ent+ VMw Maint  |                            |            |
| Q2C57A   | Veeam Add 3yr BU Ess Ent+ VMw Maint  |                            |            |
| Q2C58A   | Veeam Add 4yr BU Ess Ent+ VMw Maint  |                            |            |
| Q1K23A   | Veeam BU Ess Ent+ Hyp-V 1yr Maint LTU  |                            |            |
| Q1K24A   | Veeam Add 2yr BU Ess Ent+ Hyp-V Maint  |                            |            |
| Q2C75A   | Veeam Add 3yr BU Ess Ent+ Hyp-V Maint  |                            |            |
| Q2C76A   | Veeam Add 4yr BU Ess Ent+ Hyp-V Maint  |                            |            |
| Q1Z12A   | HPE Itemity Vol Plus Node LTU  |                            |            |
| Q1Z15A   | HPE Itemity Arch Vol Plus 10TB LTU   |                            |            |
| Q1Z18A   | HPE Itemity Arch Vol Plus 20TB LTU   |                            |            |
| iTermity                                       |  |                            |            |

| <b>New</b>  |   |     |  |
|---|---|-----|--|
| Q1Z21A  | HPE Iternity 1st Server CPU LTU         |     |  |
| Q1Z24A  | HPE Iternity Additional Svr CPU LTU     |     |  |
| Q1Z27A  | iTernity NFS Connector LTU              |     |  |
| Q1Z13A  | HPE Iternity Vol Plus Node 3yr LTU      |     |  |
| Q1Z14A  | HPE Iternity Vol Plus Node 5yr LTU      |     |  |
| Q1Z16A  | iTernity Archive Vol Plus 10TB 3yr LTU  |     |  |
| Q1Z17A  | iTernity Archive Vol Plus 10TB 5yr LTU  |     |  |
| Q1Z19A  | HPE Iternity Arch Vol Plus 20TB 3yr LTU |     |  |
| Q1Z20A  | HPE Iternity Arch Vol Plus 20TB 5yr LTU |     |  |
| Q1Z22A  | HPE Iternity 1st Server CPU 3yr LTU     |     |  |
| Q1Z23A  | HPE Iternity 1st Server CPU 5yr LTU     |     |  |
| Q1Z25A  | HPE Iternity Additional Svr CPU 3yr LTU |     |  |
| Q1Z26A  | HPE Iternity Additional Svr CPU 5yr LTU |     |  |
| Q1Z28A  | iTernity NFS Connector 3yr LTU          |     |  |
| Q2M93A  | iTernity NFS Connector 5yr LTU          |     |  |
| Q1Z29A  | iTernity Consult Service LTU            |     |  |
| Q1Z14A  | HPE Iternity Vol Plus Node 5yr LTU      |     |  |
| Q1Z16A  | iTernity Archive Vol Plus 10TB 3yr LTU  |     |  |
| <b>Media</b>  |   |     |  |
| <b>Discontinued and available while supplies last</b> |   |     |  |
| C7972A  | Ultrium 400GB Data Cartridge            |     |  |
| <b>Discontinued and no longer available</b>           |   |     |  |
| Q2001A  | ultrium 1 bar code label pack           | N/A |  |
| Q2002A  | ultrium 2 bar code label pack           | N/A |  |

# HPE Complete

HPE Complete is a new resource enabling the purchase of best in class third party branded products with the added reliability of Hewlett Packard Enterprise's interop assurance for a complete validated solution, all via one HPE purchase order.

Benefits are:

**One Stop Shop** - Purchase complete solutions from HPE that include best in class third party branded products, all on a single HPE purchase order

**Validated solution** - Confidence of The HPE interop assurance validation for third party branded products that complement HPE Storage & Server solutions

**Customer Experience** - Hewlett Packard Enterprise ensures complete customer satisfaction, by troubleshooting the solution and facilitating third party expertise for the installation, support and warranty of their

**Unique Value** - Minimize risk, complexity and cost when deploying multi-vendor products and technologies into the HPE ecosystem

For more information please refer HPE Complete on HPE.com

## HPE Complete catalog

Already Included in this pricelist :

- VMexplorer
- Veeam
- Doubletake
- iTernity iCAS

Will be added in a future pricelist

- Data Protector
- Storage Optimizer
- Backup Navigator
- Storage Optimizer

Not included in this Pricelist : ask your HPE representative on more info on how to quote/sell these products :

AntemetA 3PAR Vision  
Arscan's Arxview  
Scality Ring  
Ctera  
DropBox business  
Non-OEM Brocade SAN switching  
Virtual Instruments - Virtual Wisdom

## Storage Promotions

|   | PN     | Description  | PROMO REP | Normal List | Customer discount |
|---|--------|--|-----------|-------------|-------------------|
| <b>StoreVirtual 3200 Promo Bundles</b>  |        |  |           |             |                   |
| <b>SV3200 starter kits</b>              |        |  |           |             |                   |
|   |        | <i>ALL new kits ! Fibre channel and 10Gb iSCSI versions require SFP+</i>   |           |             |                   |
| P-I                                     | Q0F22A | HPE SV3200 1Gb iSCSI 6x600 Bndl/TVlite   | 5.859,70  | 7.822,00    | 25%               |
| P-I                                     | Q0F23A | HPE SV3200 10Gb iSCSI 6x900 Bndl/TVlite  | 6.879,40  | 10.019,00   | 31%               |
| P-I                                     | Q0F24A | HPE SV3200 FC Flash no SFP Bndl/TVlite   | 12.201,20 | 16.481,00   | 26%               |
| P-I                                     | Q0F25A | HPE SV3200 FC 6x900 no SFP Bndl/TVlite   | 6.718,80  | 9.281,00    | 28%               |
| <b>MSA Promo bundles</b>                |        |  |           |             |                   |
| <b>MSA1040 Starter kits</b>             |        |  |           |             |                   |
|   |        | <i>NEW : MSA1040 SSD starter kit; includes 2 x 400GB SSD drive and the Advanced Virtualisation license</i>   |           |             |                   |
| P-I                                     | P9R11A | MSA1040 SAN FC SFF Flash Bundle  | 6.326,10  | 9.295,00    | 32%               |
|   |        | <i>2,4TB starter kits containing an MSA1040 SFF Base unit with dual controllers, 4 x 600GB 10K rpm SFF 12G SAS disks.</i>  |           |             |                   |
| P-I                                     | M0T24A | MSA1040 SAN FC SFF 2,4TB Bundle  | 4.901,60  | 7.186,00    | 32%               |
| P-I                                     | M0T22A | MSA1040 SAN 1Gb iSCSI SFF 2,4TB Bundle   | 4.547,40  | 6.446,00    | 29%               |
| P-I                                     | M0T23A | MSA1040 SAN 10Gb iSCSI SFF 2,4TB Bundle  | 5.668,30  | 7.923,00    | 28%               |
|   | P8Y79A | MSA1040 SAS 12Gb SFF 2,4TB Bundle  | 4.856,50  | 7.000,00    | 31%               |
| <b>MSA2040 Starter kits</b>             |        |  |           |             |                   |
|   |        | <i>Disk starter kits contain an MSA2040 SFF Base unit with dual Converged or SAS controllers, and a selection of 12Gb SAS hard disks. SFP's are NOT included and need to be added separately depending on the customer requirements.</i>   |           |             |                   |
| <b>Disk based Starter kits</b>          |        |  |           |             |                   |
| P-I                                     | M0T25A | MSA2040 SAN SFF 3,6TB Bundle (6 x 600GB 10k rpm 12Gb SAS)  | 6.703,40  | 10.644,00   | 37%               |
| P-I                                     | M0T27A | MSA2040 SAS SFF 3,6TB Bundle (6 x 600GB 10k rpm 12Gb SAS)  | 6.938,80  | 10.570,00   | 34%               |
| P-I                                     | M0T26A | MSA2040 SAN SFF 5,4TB Bundle (6 x 900GB 10k rpm 12Gb SAS)  | 7.367,80  | 11.364,00   | 35%               |
| P-D                                     | M0T28A | MSA2040 SAS SFF 5,4TB Bundle (6 x 900GB 10k rpm 12Gb SAS)  | 7.022,40  | 11.290,00   | 38%               |
|   |        | <i>Flash starter kits come in two flavors. Each contain an MSA2040 SFF Base unit with dual Converged or SAS controllers. SFP's are NOT included and need to be added separately depending on the customer requirements.</i><br><i>The Performance tiering kits are supplied with : 4 x 200GB 12Gb SAS SSD drives + 6 x 900GB 10K rpm 12G SAS disks and the MSA2040 Performance tiering License.</i><br><i>The FlashCache kit comes with 2 x 200GB 12Gb SAS SSD drive and 4 x 900GB 10k rpm 12Gb SAS drives, this kit is ideal to setup an SSD caching environment.</i> |           |             |                   |
| <b>Performance tiering Starter kits</b> |        |  |           |             |                   |
| P-I                                     | M0T29A | MSA2040 SAN SFF 6,2TB Performance kit  | 11.977,90 | 20.404,00   | 41%               |
| P-I                                     | M0T31A | MSA2040 SAS SFF 6,2TB Performance kit  | 9.760,96  | 20.330,00   | 52%               |
| <b>SSD Caching Starter kits</b>         |        |  |           |             |                   |
| P-I                                     | M0T30A | MSA2040 SAN SFF 4TB SSD cache kit  | 8.208,20  | 13.156,00   | 38%               |
| P-I                                     | M0T32A | MSA2040 SAS SFF 4TB SSD cache kit  | 8.442,50  | 13.082,00   | 35%               |



## Storage Promotions

|  | PN      | Description   | PROMO REP | Normal List | Customer discount |
|--|---------|---|-----------|-------------|-------------------|
| <b>Tape drive promo bundles</b>  |         |   |           |             |                   |
| P-I  | AP826AT | LTO1760 Internal SAS, w. 5 x media (req. Optional HBA)    | 1.412,40  | 2.174,68    | 35%               |
| P-I  | QR555AT | LTO3000 Internal SAS, w. 5 x media (req. Optional HBA)    | 1.658,80  | 2.459,24    | 33%               |
| P-I  | C8S42AT | LTO6250 Internal SAS, w. 5 x media (req. Optional HBA)    | 2.179,10  | 3.067,00    | 29%               |
| P-I  | P9G74A  | LTO15000 Internal SAS, w. 5 x media (req. Optional HBA)   | 3.809,30  | 5.023,12    | 24%               |
| <b>Tape drive promo bundles withy 5x tape media, external drives</b>       |         |   |           |             |                   |
| P-I  | E7W41A  | LTO1760 External SAS, w. 5 x media (req. Optional HBA)    | 1.549,90  | 2.395,68    | 35%               |
| P-I  | E7W40A  | LTO3000 External SAS, w. 5 x media (req. Optional HBA)    | 1.716,00  | 2.472,24    | 31%               |
| P-I  | E7W39A  | LTO6250 External SAS, w. 5 x media (req. Optional HBA)    | 2.288,00  | 3.269,00    | 30%               |
| P-I  | P9G75A  | LTO15000 external SAS, w. 5 x media (req. Optional HBA)   | 4.038,10  | 5.493,12    | 26%               |
| <b>Tape drive promo bundles withy 5x tape media, Rackmount tape drives</b> |         |   |           |             |                   |
| P-I  | P9B18A  | LTO3000 Rackmount SAS, w. 5 x media (req. Optional HBA)   | 2.184,60  | 2.928,24    | 25%               |
| P-I  | P9B19A  | LTO6250 Rackmount SAS, w. 5 x media (req. Optional HBA)   | 2.734,60  | 3.922,00    | 30%               |
| P-I  | P9G73A  | LTO15000 Rackmount SAS, w. 5 x media (req. Optional HBA)  | 4.393,40  | 5.443,12    | 19%               |
| <b>Tape autoloader and library promo bundles with tape media</b>           |         |   |           |             |                   |
| <b>SAS Based Libraries (require appropriate HBA and SAS cable)</b>         |         |   |           |             |                   |
| P-I  | E7W46A  | 1/8 G2 LTO3000 SAS Autoloader with 8 x tape media         | 3.603,60  | 4.826,48    | 25%               |
| P-I  | E7W45A  | 1/8 G2 LTO6250 SAS Autoloader with 8 x tape media         | 4.404,40  | 5.575,00    | 21%               |
| P-I  | P9G67A  | 1/8 G2 LTO15000 SAS Autoloader with 8 x tape media        | 6.783,70  | 8.586,24    | 21%               |
| P-I  | E7W44A  | MSL2024 LTO3000 SAS Library with 24 x tape media          | 4.461,60  | 7.112,00    | 37%               |
| P-I  | E7W43A  | MSL2024 LTO6250 SAS Library with 24 x tape media          | 6.234,80  | 8.321,00    | 25%               |
| P-I  | P9G69A  | MSL2024 LTO15000 SAS Library with 24 x tape media         | 10.524,80 | 12.175,00   | 14%               |
| P-I  | L4Z52A  | MSL4048 LTO5 3000 SAS Library Tvlite with 24x tape media  | 6.360,20  | 8.951,00    | 29%               |
| P-I  | L4Z54A  | MSL4048 LTO6 6250 SAS Library Tvlite with 24x tape media  | 8.111,40  | 10.160,00   | 20%               |
| P-I  | P9G71A  | MSL4048 LTO6 15000 SAS Library Tvlite with 24x tape media | 12.001,00 | 14.014,00   | 14%               |
| <b>FC Based Libraries (require appropriate FC HBA and FC cable).</b>       |         |   |           |             |                   |
| P-I  | M9A10A  | 1/8 G2 LTO3000 FC Autoloader with 8 x tape media          | 3.484,00  | 6.350,80    | 45%               |
| P-I  | M9A09A  | 1/8 G2 LTO6250 FC Autoloader with 8 x tape media          | 4.524,00  | 7.524,00    | 40%               |
| P-I  | P9G68A  | 1/8 G2 LTO15000 FC Autoloader with 8 x tape media         | 7.854,00  | 10.313,24   | 24%               |
| P-I  | M9A08A  | MSL2024 LTO3000 FC Library with 24 x tape media           | 4.347,00  | 7.785,00    | 44%               |
| P-I  | M9A07A  | MSL2024 LTO6250 FC Library with 24 x tape media           | 6.037,00  | 8.508,00    | 29%               |
| P-I  | P9G70A  | MSL2024 LTO15000 FC Library with 24 x tape media          | 10.833,90 | 12.596,00   | 14%               |
| P-I  | L4Z51A  | MSL4048 LTO5 3000 FC Library Tvlite with 24 x tape media  | 6.624,20  | 9.624,00    | 31%               |
| P-I  | L4Z53A  | MSL4048 LTO6 6250 FC Library Tvlite with 24x tape media   | 8.340,20  | 10.347,00   | 19%               |
| P-I  | P9G72A  | MSL4048 LTO6 15000 FC Library Tvlite with 24x tape media  | 12.309,00 | 14.435,00   | 15%               |

## Storage Promotions

|                                       | PN | Description | PROMO REP | Normal List | Customer discount |
|---------------------------------------|----|-------------|-----------|-------------|-------------------|
| <b>Softbundle - OPG based Promo's</b> |    |             |           |             |                   |

These are all the OPG based promotions. Most of these are softbundles.  
 Meaning : not a single part number bundle, but a list of parts, referenced by a bundle code.  
 OPG number =94840553 valid from May 1st 2017, till July 31st , 2017

Watch out : these prices ARE NOT VISIBLE IN THE FLATFILE

| B-series switch offering for 3PAR Storeserve 7000/8000 series                  |        |  |           |            |     |
|--|--------|--|-----------|------------|-----|
| P-I  | QK753B | SN6000B 24/48 SAN Switch (no SFP's!)   | 11.846,10 | 14.252,00  | 17% |
| P-I  | QR480B | SN6000B 48/48 SAN Switch (no SFP's!)   | 21.204,10 | 28.738,00  | 26% |
| P-I  | QK754B | SN6000B 24/48 SAN Switch with PowerPack+ Software (no SFP's!)  | 17.417,25 | 20.000,00  | 13% |
| P-I  | QR481B | SN6000B 48/48 SAN Switch with PowerPack+ Software (no SFP's!)  | 26.480,99 | 35.047,00  | 24% |
| 3PAR StoreServe 8000 series promotions : watch out bundle references changed ! |        |  |           |            |     |
| 70017320   |        | 3PAR StoreServ 8200c Bundle All Flash Array 3,2TB  | 24.515,75 | 54.257,00  | 55% |
|  |        | 3PAR 8200 base , 8 x 400GB cMLC SSD disks, All-in software !, Installation and startup, 3 years 24x7 Proactive Care included.  |           |            |     |
| 70017207   |        | 3PAR StoreServ 8200 + StoreOnce Complete solution (primary storage, file serving + backup!)  | 40.254,04 | 85.025,00  | 53% |
|  |        | 3PAR 8200 base with 8 x 400GB SSD disks, All-in software, StoreOnce 3540 base unit, with Installation and startup included as well as 3 years 24x7 Proactive Care support.       |           |            |     |
| NEW : StoreOnce promotions   |        |  |           |            |     |
| 99966348   |        | HPE StoreOnce 3520 12TB system   | 14.164,73 | 21.394,00  | 34% |
|  |        | HPE StoreOnce 3520 Base unit with 1 x 16Gb Fibre Channel HBA, Catalyst license, 3 year foundation care NBD, Installation and startup service included.                           |           |            |     |
| 99966349   |        | HPE StoreOnce 3540 24TB system   | 18.240,29 | 27.474,00  | 34% |
|  |        | HPE StoreOnce 3540 Base unit with 1 x 16Gb Fibre Channel HBA, Catalyst license, 3 year foundation care 24x7, Installation and startup service included.                          |           |            |     |
| 99966350   |        | HPE StoreOnce 3540 48TB system   | 23.940,98 | 39.008,00  | 39% |
|  |        | HPE StoreOnce 3540 Base unit + 24TB capacity upgrade, with 1 x 16Gb Fibre Channel HBA, Catalyst license, 3 year foundation care 24x7, Installation and startup service included. |           |            |     |
| 99966351   |        | HPE StoreOnce 5100 48TB system   | 34.951,09 | 70.766,00  | 51% |
|  |        | HPE StoreOnce 5100 Base unit with 1 x 16Gb Fibre Channel HBA, Catalyst license, 3 year foundation care 24x7, Installation and startup service included.                          |           |            |     |
| 99966352   |        | HPE StoreOnce 5100 96TB system   | 55.231,00 | 125.721,00 | 56% |
|  |        | HPE StoreOnce 5100 Base unit + 48TB capacity upgrade, with 1 x 16Gb Fibre Channel HBA, Catalyst license, 3 year foundation care 24x7, Installation and startup service included. |           |            |     |



This page contains all available Storage Bundled products.

Bundles are mostly available on request only.

Bundles offer you the advantage of simplified ordering...1 part number to order...  
However, due to their value and wide choice, these products are not generally stocked by  
distribution, hence delivery times may vary.

Some bundles offer a better price than build up parts , however do not take this as a general rule.

|                                      | PN     | Description   | REP<br>(in €) |
|--------------------------------------|--------|---|---------------|
| <b>MSA2040 bundles</b>               |        |   |               |
| <b>MSA2040 Capacity Starter kits</b> |        |   |               |
|                                      |        | <i>Kit contents : MSA2040 SFF Energy Star Base unit with dual converged SAN controllers, 24 x 900GB 10K rpm SFF 12Gb SAS disks (no SFP's !)</i>   |               |
| P-I                                  | M0S99A | MSA2040 SAN SFF 21.6TB SAS Bundle - Energy Star   | 19.880,00     |
| P-I                                  | M0T02A | MSA2040 SAS SFF 21.6TB SAS Bundle Energy Star   | 19.810,00     |
|                                      |        | <i>Kit contents : MSA2040 SAS SFF Energy Star Base unit with dual 12Gb SAS controllers, 24 x 1.2TB 10K rpm SFF 12Gb SAS disks (no SFP's !)</i>  |               |
| P-I                                  | M0T00A | MSA2040 SAN SFF 28.8TB SAS Bundle - Energy Star   | 22.760,00     |
| P-I                                  | M0T01A | MSA2040 SAS SFF 28.8TB SAS Bundle - Energy Star   | 22.691,00     |
| <b>StoreFabric Bundles</b>           |        |   |               |
| P-I                                  | C8R08A | StoreFabric SN6000B 16Gb Bundled Fibre Channel switch   | 22.429,00     |
|                                      |        | <i>Kit contents : 16Gb 24/48 FC Switch with 24 active ports; rackmount kit; <b>twenty-four 16Gb optical transceivers</b>, accessory kit (enterprise safety and regulatory information, installation guide, rack-mounting instructions), power cords, serial cable, base software of Advanced Fabric OS, Advanced Web Tools, Brocade EZ Switch, Advanced Zoning, and SAN Network Advisor Professional.</i> |               |

| <b>D-Series JBODs bundles</b>              |        |  |            |
|--|--------|--|------------|
| <b>D3600 JBOD Bundles - 12Gb SAS disks</b> |        |  |            |
| <b>P-I</b>                                 | M0S80A | D3600 48TB Bundle with 12* 4TB 12G SAS MDL SC disks                      | 13.382,00  |
| <b>P-I</b>                                 | M0S81A | D3600 72TB Bundle with 12* 6TB 12G SAS MDL SC disks                      | 16.351,00  |
| <b>P-I</b>                                 | M0S82A | D3600 96TB Bundle with 12* 8TB 12G SAS MDL SC disks                      | 20.408,00  |
| <b>N</b>                                   | Q1H89A | D3600 120TB Bundle with 12* 10TB 12G SAS MDL SC disks                    | 25.103,00  |
| <b>D3700 JBOD Bundles - 12Gb SAS disks</b> |        |  |            |
| <b>P-I</b>                                 | K2Q10A | D3700 7,5TB Bundle with 25 x 300GB 12G 15K SAS SC disks                  | 15.148,00  |
| <b>P-I</b>                                 | K2Q11A | D3700 15TB Bundle with 25 x 600GB 12G 15K SAS SC disks                   | 26.085,00  |
| <b>P-I</b>                                 | M0S83A | D3700 7,5TB Bundle with 25 x 300GB 12G 10K SAS SC disks                  | 10.410,00  |
| <b>P-I</b>                                 | M0S84A | D3700 15TB Bundle with 25 x 600GB 12G 10K SAS SC disks                   | 15.152,00  |
| <b>P-I</b>                                 | M0S85A | D3700 22,5TB Bundle with 25 x 900GB 12G 10K SAS SC disks                 | 18.863,00  |
| <b>P-I</b>                                 | M0S86A | D3700 30TB Bundle with 25 x 1,2TB 12G 10K SAS SC disks                   | 22.780,00  |
| <b>P-I</b>                                 | M0S87A | D3700 45TB Bundle with 25 x 1,8TB 12G 10K SAS SC disks                   | 35.769,00  |
| <b>P-I</b>                                 | M0S88A | D3700 25TB Bundle with 25 x 1TB 12G SAS MDL SC disks                     | 16.596,00  |
| <b>P-I</b>                                 | M0S89A | D3700 50TB Bundle with 25 x 2TB 12G SAS MDL SC disks                     | 29.171,00  |
| <b>D6020 JBOD Bundles</b>                  |        |  |            |
| <b>P-I</b>                                 | K2Q24A | HPE D6020 w/35 4TB 12G SAS 7.2K LFF (3.5in) Dual Port Midline HDD 140TB  | 42.719,00  |
| <b>P-I</b>                                 | K2Q25A | HPE D6020 w/70 4TB 12G SAS 7.2K LFF (3.5in) Dual Port Midline HDD 280TB  | 76.560,00  |
| <b>P-I</b>                                 | K2Q26A | HPE D6020 w/35 6TB 12G SAS 7.2K LFF (3.5in) Dual Port Midline HDD 210TB  | 49.245,00  |
| <b>P-I</b>                                 | K2Q27A | HPE D6020 w/70 6TB 12G SAS 7.2K LFF (3.5in) Dual Port Midline HDD 420TB  | 89.574,00  |
| <b>P-I</b>                                 | P8Y56A | HPE D6020 w/35 8TB 12G SAS 7.2K LFF (3.5in) Dual Port Midline HDD 280TB  | 61.364,00  |
| <b>P-I</b>                                 | P8Y57A | HPE D6020 w/70 8TB 12G SAS 7.2K LFF (3.5in) Dual Port Midline HDD 560TB  | 113.850,00 |
| <b>N</b>                                   | Q1H90A | HPE D6020 w/35 10TB 12G SAS 7.2K LFF (3.5in) Dual Port Midline HDD 350TB | 78.144,00  |
| <b>N</b>                                   | Q1H91A | HPE D6020 w/70 10TB 12G SAS 7.2K LFF (3.5in) Dual Port Midline HDD 700TB | 147.410,00 |

# HyperConverged 250

|  | PN | Description | REP<br>(in €) |
|--|----|-------------|---------------|
| <p>For customers who are looking for a simple, agile and highly available virtualization system, the new Hyper Converged 250 family eliminates complex solution stacks. It combines a powerful Apollo server platform and mature StoreVirtual data services from Hewlett Packard Enterprise into one building block to simplify the delivery of virtualized servers and desktops. The Hyper Converged 250 family now supports VMware and Microsoft virtualization technologies, and continues to provide a turn-key virtualization solution for medium-sized businesses, enterprises, and IaaS providers.</p> <p>Designed from the ground up for the software-defined data center, the HC 250 enables a standardized, appliance approach to virtual server deployment, regardless of whether it is used as a primary virtualization platform in medium-sized businesses or as a dedicated resource pool for specific applications in the enterprise. Unlike other hyper-converged systems on the market, the HC 250 can be customized and ready for virtualized workloads in a few simple clicks.</p> <p>All hardware and software components are pre-installed and pre-integrated by Hewlett Packard Enterprise and quick customization using the OneView InstantOn software enables faster time to value that is unique to the HC 250 family. After the initial installation, IT administrators manage their virtualized environment within VMware vCenter Server and OneView for vCenter, or with Microsoft System Center user interfaces and HPE OneView for System Center management integrations.</p> <p>StoreVirtual technology that is built into the HC 250 matches the high-availability features of the hypervisor (VMware Fault Tolerance, VMware High Availability, or Windows Failover Cluster) from a storage perspective to provide enterprise-level availability for virtualized applications and services. HC 250 provides superior high-availability beyond a single system, with built-in data protection. At the storage component level, StoreVirtual System Clusters are available for VMware and Microsoft environments.</p> <p>New for the VMware version :</p> <ul style="list-style-type: none"> <li>- 2-node configuration support</li> <li>- New disk capacity choices, All flash and hybrid</li> <li>- Lower starting point for networking, with 4 x 1Gb NIC option</li> <li>- single CPU version with Xeon E5-2660V3</li> </ul> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;">  <p><b>vmware®</b></p> </div> <div style="text-align: center;">  <p><b>Microsoft</b></p> </div> </div> <p style="text-align: center; margin-top: 10px;">click on the logo to configure the hyperconverged system of your choice</p> |    |             |               |




| PN   | Description   | REP<br>(in €) |
|--|---|---------------|
| <b>HyperConverged 250 System for VMWare</b>  |   |               |
| <p>The below steps show you how to configure an Convergedsystem 250-HC StoreVirtual<br/>Follow each step carefully and you will end up with a decent budgetary idea.<br/>Be aware : when making an actual order, make sure you make the configuration in SalesBuilder (your distributor can do that for you) . Ordering is CTO only.</p>   |   |               |
| <b>Step 1 : Select your base unit</b>  |   |               |
| <p>Base units contains :</p> <ul style="list-style-type: none"> <li>• 1 x Apollo 2000 Chassis</li> <li>• Dual redundant power supplies</li> <li>• Rack Rail kit, power cords</li> <li>• Redundant Fans</li> <li>• OneView instant-on software</li> <li>• Hardware carries a standard 1 year , 9x5 NBD onsite warranty including parts and labor.</li> <li>• Software carries the 90 day media defect warranty, and 1 year 9x5 software support.</li> </ul> |   |               |
| M0T03B   | HPE HC 250 System for VMware vSphere Sys  | 2.668,00      |
| <b>Step 2 : Add nodes, valid quantities are 2,3 or 4</b>   |   |               |
| <p>Comes with :</p> <ul style="list-style-type: none"> <li>- ProLiant SL170r gen9 server</li> <li>- Smart Array P440 with 4GB BBWC cache</li> <li>- 2 x 1GbE port per node (NOT USED)</li> </ul>   |   |               |
| M0T04B   | HPE Hyper Converged 250 Node  | 2.723,00      |
| <b>Step 3 : Add CPUs. Only the E5-2660 version is supported in a single CPU configuration!</b>   |   |               |
| <p><u>The first CPU is factory configured only And ends with the extension -L21. The second CPU has the same part number but ends with -B21.</u><br/><u>Meaning : always order both CPU's (and count 2x the price !)</u></p>   |   |               |
| 850314-L21   | HPE XL1x0r Gen9 E5-2680v4 FIO Kit   | 2.310,00      |
| 850300-L21   | HPE XL1x0r Gen9 E5-2640v4 FIO Kit   | 1.225,00      |
| 850308-L21   | HPE XL1x0r Gen9 E5-2660v4 FIO Kit   | 1.785,00      |
| EOL  | 793020-L21 HP XL1x0r Gen9 Intel Xeon E5-2640v3 (2.6GHz/8-core/20MB/90W) FIO Processor Kit   | 1.220,00      |
| P-I EOL  | 793024-L21 HP XL1x0r Gen9 Intel Xeon E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit | 1.800,00      |
| P-I EOL  | 793028-L21 HP XL1x0r Gen9 Intel Xeon E5-2680v3 (2.5GHz/12-core/30MB/120W) FIO Processor Kit | 2.315,00      |
| <b>Step 4 : Select the required memory for each node.</b>  |   |               |
| <u>Select 4.8 or 16 DIMMs . Each node must have the same amount of memory.</u>   |   |               |
| <b>for v4 CPU's</b>  |   |               |
| P-I  | 805351-B21 HPE 32GB 2Rx4 PC4-2400T-R Kit  | 610,00        |
| <b>For v3 CPU's</b>  |   |               |
| P-I  | 728629-B21 HPE 32GB (1x32GB) Registered DDR4-2133 PC4-17000 CL15 Dual Rank Memory Kit       | 690,00        |
| <b>Step 5 : Add the Network interfaces, each node requires one kit.</b>  |   |               |
|  | 665243-B21 HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter                                     | 640,00        |
|  | 629135-B22 HPE Ethernet 1Gb 4-port 331FLR Adapter   | 330,00        |

|  | PN         | Description   | REP (in €) |
|--|------------|---|------------|
| <b>Step 6 : Select the disk configuration.</b>   |            |   |            |
| You can choose between four disk configurations : 1x SAS only, 2x Hybrid SSD+SAS or & x All Flash. Each node requires the same configuration !!  |            |   |            |
|  | 781518-B21 | HPE 1,2TB SFF 12G SAS 10k rpm HotPlug SC Enterprise hard drive (2.5")                           | 655,00     |
|  |            | Order 6 x 1.2TB/Node for SAS ; 4 x 1.2TB node for Hybrid configurations.                        |            |
| N  | 872344-B21 | HPE 480GB SATA 6G MU SFF SC DS SSD  | 845,00     |
|  |            | Order 2 x 480GB SSD / Node for hybrid configurations, each disk provides 400GB net capacity     |            |
| N  | 872348-B21 | HPE 960GB SATA 6G MU SFF SC DS SSD  | 1.585,00   |
|  |            | Order 2 x 960GB SSD / Node for hybrid configurations, each disk provides 800GB net capacity     |            |
| N  | 872352-B21 | HPE 1.92TB SATA 6G MU SFF SC DS SSD   | 3.085,00   |
|  |            | Order 6 x 1.92TB SSD / Node for All-Flash configurations, each disk provides 1,6TB net capacity |            |
| <b>Step 7 : Add the required Software Licenses and preloads</b>  |            |   |            |
| <p>Required per (1) HPE Hyper Converged 250 Node, included LTU for StoreVirtual Software and other HPE software components. Pre-integrates VMware vSphere on HC 250 node; valid VMware vSphere and vCenter licenses are required; see note below.</p> <p>VMware vSphere licenses are required and must be purchased for CS 250-HC StoreVirtual. Licenses can be purchased as part of the same order as ConvergedSystem 250-HC StoreVirtual; existing licenses (VMware Enterprise License Agreement (ELA) or VMware vCloud Air Network Program) can be used. supports vSphere Enterprise, vSphere Enterprise Plus or Horizon on the ConvergedSystem 250-HC StoreVirtual. When quoting VMware Horizon for CS 250-HC StoreVirtual, only the vSphere hypervisor components are pre-integrated.</p> <p>Ordering systems automatically add 8x BD715A (vSphere Enterprise Plus 1P 3yr Service and Subscription) and 1x BD723A (VMware vCenter) to a ConvergedSystem 250-HC StoreVirtual order. VMware vSphere licenses are required and must be purchased for CS 250-HC StoreVirtual. Licenses can be purchased as part of the same order as ConvergedSystem 250-HC StoreVirtual; existing licenses (VMware Enterprise License Agreement (ELA) or VMware vCloud Air Network Program) can be used. supports vSphere Enterprise, vSphere Enterprise Plus or Horizon on the ConvergedSystem 250-HC StoreVirtual. When quoting VMware Horizon for CS 250-HC StoreVirtual, only the vSphere hypervisor components are pre-integrated.</p> <p>Ordering systems automatically add 8x BD715A (vSphere Enterprise Plus 1P 3yr Service and Subscription) and 1x BD723A (VMware vCenter) to a ConvergedSystem 250-HC StoreVirtual order.</p> |            |   |            |
| <b>VMware Server Virtualization - including 24x7 support &amp; subscription</b>  |            |   |            |
|  | P9U41AAE   | VMw vCenter Server Std for vSph 3y E-LTU  | 9.125,00   |
|  | P9U42AAE   | VMw vCenter Server Std for vSph 5y E-LTU  | 11.195,00  |
|  | P9A82AAE   | VMware vSphere ROBO Std 25VM 3yr E-LTU  | 4.375,00   |
|  | P9A83AAE   | VMware vSphere ROBO Std 25VM 5yr E-LTU  | 5.360,00   |
|  | P9A85AAE   | VMware vSphere ROBO Adv 25VM 3yr E-LTU  | 6.550,00   |
|  | P9A86AAE   | VMware vSphere ROBO Adv 25VM 5yr E-LTU  | 8.030,00   |
|  | BD711AAE   | VMw vSphere Std 1P 3yr E-LTU  | 1.520,00   |
|  | BD512AAE   | VMw vSphere Std 1P 5yr E-LTU  | 1.920,00   |
|  | BD715AAE   | VMw vSphere EntPlus 1P 3yr E-LTU  | 5.110,00   |
|  | BD514AAE   | VMw vSphere EntPlus 1P 5yr E-LTU  | 6.270,00   |
| You need to add 1 license of vCenter with a choice of 3 or 5 years support   |            |   |            |
| <b>VMware Client Virtualization - including 24x7 support &amp; subscription</b>  |            |   |            |
|  | P9T49AAE   | VMw Horizon Std 10pk 3yr CU E-LTU   | 3.745,00   |
|  | P9T50AAE   | VMw Horizon Std 10pk 5yr CU E-LTU   | 4.595,00   |
|  | P9T55AAE   | VMw Horizon Adv 10pk 3yr CU E-LTU   | 6.000,00   |
|  | P9T56AAE   | VMw Horizon Adv 10pk 5yr CU E-LTU   | 7.360,00   |
|  | P9T61AAE   | VMw Horizon Ent 10pk 3yr CU E-LTU   | 8.630,00   |
|  | P9T62AAE   | VMw Horizon Ent 10pk 5yr CU E-LTU   | 10.585,00  |
| <b>VMware Client Virtualization standalone hypervisor - including 24x7 support &amp; subscription</b>  |            |   |            |
|  | BD501AAE   | VMw vSphere Desktop 100VM 3yr Nm E-LTU  | 10.995,00  |
|  | BD701AAE   | VMw vSphere Desktop 100VM 5yr E-LTU   | 13.285,00  |
| <b>Step 8 : Expand your base warranty with Carepacks : please consult your reseller or distributor.</b>  |            |   |            |

|  | PN         | Description  | REP<br>(in €) |
|--|------------|--|---------------|
| <b>HyperConverged 250 system for Windows Cloud Platform Standard</b>   |            |  |               |
| <p>The below steps show you how to configure an Convergedsystem 250-HC StoreVirtual</p> <p>Follow each step carefully and you will end up with a decent budgetary idea.</p> <p>Be aware : when making an actual order, make sure you make the configuration in SalesBuilder (your distributor can do that for you) . Ordering is CTO only.</p>   |            |  |               |
| <b>Step 1 : Select your base unit</b>  |            |  |               |
| <p>Base units contains :</p> <ul style="list-style-type: none"> <li>• 1 x Apollo 2000 Chassis</li> <li>• Dual redundant power supplies</li> <li>• Rack Rail kit, power cords</li> <li>• Redundant Fans</li> <li>• OneView instant-on software</li> <li>• Hardware carries a standard 1 year , 9x5 NBD onsite warranty including parts and labor.</li> <li>• Software carries the 90 day media defect warranty, and 1 year 9x5 software support.</li> </ul> |            |  |               |
|  | N9X97A     | HPE HC 250 for Microsoft CPS Standard  | 7.122,00      |
| <b>Step 2 : Add nodes, valid quantities are 3 or 4</b>   |            |  |               |
| <p>Comes with :</p> <ul style="list-style-type: none"> <li>- ProLiant SL170r gen9 server</li> <li>- Smart Array P440 with 4GB BBWC cache</li> <li>- 2 x 1GbE port per node (NOT USED)</li> </ul>   |            |  |               |
|  | M0T04B     | HPE Hyper Converged 250 Node   | 4.134,00      |
| <b>Step 3 : Add CPUs. CPUs need to be ordered in pairs : 1 x -L21 + 1 x B21 part number. (same part nr.; same price)</b>   |            |  |               |
|  | 850300-B21 | HPE XL1x0r Gen9 E5-2640v4 Kit  | 1.225,00      |
|  | 850314-B21 | HPE XL1x0r Gen9 E5-2680v4 Kit  | 2.310,00      |
|  | 793020-B21 | HP XL1x0r Gen9 Intel Xeon E5-2640v3 (2.6GHz/8-core/20MB/90W) Processor Kit                           | 1.220,00      |
| P-I  | 793028-B21 | HP XL1x0r Gen9 Intel Xeon E5-2680v3 (2.5GHz/12-core/30MB/120W) Processor Kit                         | 2.315,00      |
| <b>Step 4 : Select the required memory for each node.</b>  |            |  |               |
| <p>Specify the correct quantity of memory modules per node : 4 for 128GB , 8 for 256GB or 16 for 512GB memory.</p> <p>Each node requires the same amount of memory !</p>   |            |  |               |
| <b>for v4 CPU's</b>  |            |  |               |
| P-I  | 805351-B21 | HPE 32GB 2Rx4 PC4-2400T-R Kit  | 610,00        |
| <b>For v3 CPU's</b>  |            |  |               |
| P-I  | 728629-B21 | HPE 32GB (1x32GB) Registered DDR4-2133 PC4-17000 CL15 Dual Rank Memory Kit                           | 690,00        |
| <b>Step 5 : Add the 10Gb Network interfaces, each node requires one kit.</b>   |            |  |               |
| <p>NOTE : IPv6-capable 10GbE networking infrastructure is required.</p> <p>Warning : the network card is equipped with SFP+ ports, but the actual SFP's need to be purchased separately (those depend on the network side used)</p>  |            |  |               |
|  | 665243-B21 | HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter   | 640,00        |
| <b>Step 6 : Select the disk configuration.</b>   |            |  |               |
| <p>You can choose between two disk configurations : SAS only or Hybrid SSD+SAS. Each node requires the same configuration !!</p>   |            |  |               |
|  | 781518-B21 | HPE 1.2TB SFF 12G SAS 10k rpm HotPlug SC Enterprise hard drive (2.5")                                | 655,00        |
| Order 6 x 1.2TB/Node for SAS ; 4 x 1.2TB node for Hybrid configurations.   |            |  |               |
|  | 791034-B21 | HPE 1.8TB SAS 10K SFF SC 512e HDD  | 1.000,00      |
| Order 6 x 1.8TB/Node for SAS ; 4 x 1.8TB node for Hybrid configurations.   |            |  |               |
| N  | 872344-B21 | HPE 480GB SATA 6G MU SFF SC DS SSD   | 845,00        |
| Order 2 x 480GB SSD / Node for hybrid configurations, each disk provides 400GB net capacity  |            |  |               |
| N  | 872348-B21 | HPE 960GB SATA 6G MU SFF SC DS SSD   | 1.585,00      |
| Order 2 x 960GB SSD / Node for hybrid configurations, each disk provides 800GB net capacity  |            |  |               |
| N  | 872352-B21 | HPE 1.92TB SATA 6G MU SFF SC DS SSD  | 3.085,00      |
| Order 6 x 1.92TB SSD / Node for All-Flash configurations, each disk provides 1,6TB net capacity  |            |  |               |
| <b>Step 7 : Add the Software LTU. 1 license per node required. Also contains node image.</b>   |            |  |               |
|  | P8Z24A     | HPE HC 250 SW for Microsoft CPS Std LTU  | 6.641,00      |
| <b>Step 8 : Add the required Windows ROK license</b>   |            |  |               |
| <b>Windows Server 2012 R2 Datacenter Edition 2P : one required for each node !</b>   |            |  |               |
|  | 748922-021 | Microsoft Windows Server 2012 R2 Datacenter Reseller Option Kit en/nl/sv/pt/tr SW                    | 4.600,00      |
|  | 748922-B21 | Microsoft Windows Server 2012 R2 Datacenter Reseller Option Kit Eng/French/Italian/German/Spanish SW | 4.600,00      |
| <b>Step 9 : Expand your base warranty with Carepacks : please consult your reseller or distributor.</b>  |            |  |               |



**HyperConverged 380**

| PN | Description  | REP (in €) |
|----|--|------------|
|    | <p>For customers who are looking for a configurable, scalable, agile and highly available hyper converged virtualization system, the new HPE Hyper Converged 380 (HC 380) delivers a simple solution stack with extended flexibility and manageability. It builds on the powerful, industry standard HPE ProLiant DL 380 Gen9 server platform and is combined with VMware vSphere. Using the new HPE OneView User Experience (UX) to add full lifecycle management, VM provisioning and updates in a single pane of glass provides a unified, global experience. The HPE Hyper Converged 380 delivers a turn-key virtualization solution for medium-sized businesses, enterprises, and IaaS providers.</p> <p>Designed from the ground up for the software-defined data center, the HC 380 enables a standardized approach to virtual server deployment, available in three workload configurations: General Virtualization, CloudSystem and a Virtual Desktop Infrastructure (VDI). VDI is offered as a reference architecture. Unlike many hyper converged systems, the HC 380 can be customized at the time of order and will be ready for virtualized workloads in a few simple clicks.</p> <p>All hardware and software components are pre-installed and pre-integrated by the factory. A quick customization using the HPE OneView User Experience (UX) software enables faster time to value unique to the HC 380. After the initial installation, IT administrators manage their virtualized environment within HPE OneView User Experience (UX) and VMware vCenter Server.</p> <p>What's New</p> <ul style="list-style-type: none"> <li>- Support for Intel Xeon E5-26xxV4 CPU's</li> <li>- Added Full flash storage blocks</li> <li>- NVideo M60 GPU</li> <li>- Added virtualisation and VDI starter kits</li> </ul> <p>- Software : HC380 v1.1 software, now also supports importing VMs created in vCenter, update and patch ESX and local vCenter, support for vDS</p> <p><b>Virtualisation :</b></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  <p><b>VDI</b></p> </div> <div style="text-align: center;">  <p><b>Private Cloud</b></p> </div> </div> |            |

## HyperConverged 380

|   | PN         | Description   | REP<br>(in €) |
|---|------------|---|---------------|
| <b>HyperConverged 380 System for VMWare</b>   |            |   |               |
| <p>The below steps show you how to configure a HyperConverged 380 for Virtualisation<br/>Follow each step carefully and you will end up with a decent budgetary idea.<br/>Be aware : when making an actual order, make sure you make the configuration in<br/>SalesBuilder (your distributor can do that for you) . Ordering is CTO only.</p>   |            |   |               |
| <b>Step 1a : Starty with a base starter kit and expand on that</b>  |            |   |               |
| <p>Base starter kits come ready-to implement, only need to add the support and VMware licenses.</p> <ul style="list-style-type: none"> <li>• DL380 24SFF nodes</li> <li>• Rack Rail kits, power cords</li> <li>• Redundant Fans</li> <li>• Hardware carries a standard 3 year , 9x5 NBD onsite warranty including parts and labor.</li> <li>• Software carries the 90 day media defect warranty, and 1 year 9x5 software support.</li> </ul>  |            |   |               |
|   | Q0D47A     | HPE HC380 2N Virtualization Starter Kit   | 52.510,00     |
|   |            | Contains : 2 x D380 server, each with :<br>- CPU - 2620v3 CPU - 6 Core<br>- Mem - 128 GB/node - 256GB Total<br>- 1 GB Network Configuration<br>- 1 x 3.48TB Hybrid Mixed-Use Storage Kit<br>- Power Supply - 2 x 500W   |               |
|   | Q0D48A     | HPE HC380 3N Virtualization Medium Kit  | 104.232,00    |
|   |            | Contains : 3 x D380 server, each with :<br>- CPU - 2640v3 CPU - 8 Core<br>- Mem - 256 GB/node - 768GB Total<br>- 10 GB Network Configuration<br>- 2 x 3.48TB Hybrid Mixed-Use Storage Kit<br>- Power Supply - 2 x 800W  |               |
|   | Q0D49A     | HPE HC380 4-node Virtualization Full Kit  | 174.020,00    |
|   |            | Contains : 4 x D380 server, each with :<br>- CPU - 2680v3 CPU - 12 Core<br>- Mem - 384 GB/node - 1.5TB Total<br>- 10 GB Network Configuration<br>- 3 x 3.48TB Hybrid Mixed-Use Storage Kit<br>- Power Supply - 2 x 800W |               |
| <b>Step 1b : Select your base unit and the use case personality</b>   |            |   |               |
| <p>Base units contains :</p> <ul style="list-style-type: none"> <li>• 1 x DL380 24SFF Chassis</li> <li>• Rack Rail kit, power cords</li> <li>• Redundant Fans</li> <li>• Hardware carries a standard 3 year , 9x5 NBD onsite warranty including parts and labor.</li> <li>• Software carries the 90 day media defect warranty, and 1 year 9x5 software support.</li> </ul> <p style="color: red; text-align: center;"><b>Make sure to add the correct personality SKU as that will detemrine the factory preloads</b></p> |            |   |               |
|   | P9D74A     | HPE HC380 Cluster Node  | 15.212,00     |
|   | P9D74A#001 | HPE HC380 Cluster Node HPE HC380 General Virtualization SW  | 1,00          |
|   | P9D74A#002 | HPE HC380 Cluster Node HPE HC380 VDI SW   | 1,00          |
|   | P9D74A#003 | HPE HC380 Cluster Node HPE HC380 Cloud SW   | 1,00          |
| <b>Step 2 : Add nodes, valid quantities are 2,3 or 4</b>  |            |   |               |
| <p>Base units contains :</p> <ul style="list-style-type: none"> <li>• 1 x DL380 24SFF Chassis</li> <li>• Rack Rail kit, power cords</li> <li>• Redundant Fans</li> <li>• Hardware carries a standard 3 year , 9x5 NBD onsite warranty including parts and labor.</li> <li>• Software carries the 90 day media defect warranty, and 1 year 9x5 software support.</li> </ul>  |            |   |               |
|   | P9D74A     | HPE HC380 Cluster Node  | 15.212,00     |
|   | P9D74A#101 | HPE HC380 Cluster Node HPE HC380 General Virtualization Nde Exp   | 1,00          |
|   | P9D74A#002 | HPE HC380 Cluster Node HPE HC380 VDI SW   | 1,00          |
|   | P9D74A#003 | HPE HC380 Cluster Node HPE HC380 Cloud SW   | 1,00          |
| <b>Step 3 : Add the HPE base software preload : 1 x per node</b>  |            |   |               |
| <p>This is the base software preload (for non-HPE software, this does not contain not the licenses!<br/>only the actual software bits and pieces):</p> <p>(1) VMware vSphere ESXi 6<br/>(1) VMware vCenter 6 (on HC 380, or use a licensed, existing instance)<br/>(1) HPE Cloud System 9 (Cloud use case only)<br/>(1) HPE OneView User Experience (UX)</p>  |            |   |               |
|   | P9D85A     | HPE HC380 Base SW Image 6.0 FIO Kit   | 1,00          |
|   | E6U64ABE   | HPE iLO Adv incl 3yr TSU E-LTU  | 450,00        |
| <b>Step 4a : Add the required VMWare Licenses</b>   |            |   |               |
| <p>These VMWare License are per physycal CPU. 1 license for each processor<br/>installed in a system (so 2 per node)</p>  |            |   |               |
| <b>VMware vSphere Enterprise Plus 1P - including 24x7 support &amp; subscription</b>  |            |   |               |
|   | BD715AAE   | VMw vSphere EntPlus 1P 3yr E-LTU  | 5.110,00      |
|   | BD514AAE   | VMw vSphere EntPlus 1P 5yr E-LTU  | 6.270,00      |
| You need to add 1 license of vCenter with a choice of 3 or 5 years support  |            |   |               |
| <b>vCenter Server Standard manages an unlimited number of vSphere hosts - including 24x7 support &amp; subscription</b>   |            |   |               |
|   | P9U41AAE   | VMw vCenter Server Std for vSph 3y E-LTU  | 9.125,00      |
|   | P9U42AAE   | VMw vCenter Server Std for vSph 5y E-LTU  | 11.195,00     |

|  | PN         | Description  | REP<br>(in €) |
|--|------------|--|---------------|
| <b>Step 4b : Add the required VMWare Horizon Licenses</b>  |            |  |               |
| <p>VMware Horizon is available in 10 quantity packs for Concurrent Users (CCU) or Named users.</p> <ul style="list-style-type: none"> <li>- VMware Horizon Standard includes VMware Horizon, VMware ThinApp, VMware vSphere Desktop and VMware vCenter Desktop.</li> <li>- VMware Horizon Advanced includes VMware Identity Manager Std, Mirage, Virtual SAN, RDS hosted apps, ThinApp, vSphere Desktop, and vCenter Desktop</li> <li>- VMware Horizon Enterprise components include Mirage, VMware App Volumes, VMware User Environment Manager, VMware Virtual SAN, RDS Hosted Apps, ThinApp, VMware Identity Manager Std, vRealize Operations for Horizon, vSphere Desktop, and vCenter Desktop.</li> </ul> |            |  |               |
| <b>If you ordered the Cloud Solution, please add one of the following as well</b>  |            |  |               |
|  | P9T49AAE   | VMw Horizon Std 10pk 3yr CU E-LTU  | 3.745,00      |
|  | P9T55AAE   | VMw Horizon Adv 10pk 3yr CU E-LTU  | 6.000,00      |
|  | P9T61AAE   | VMw Horizon Ent 10pk 3yr CU E-LTU  | 8.630,00      |
|  | P9T52AAE   | VMw Horizon Adv 10pk 3yr NU E-LTU  | 3.745,00      |
|  | P9T58AAE   | VMw Horizon Ent 10pk 3yr NU E-LTU  | 5.260,00      |
| <b>Step 4c : Add the required HPE Cloud system 9 Licenses</b>  |            |  |               |
| These License are per physical Node. 1 license for each node in a cluster  |            |  |               |
|  | F9D70BAE   | HPE CloudSystem Foundation 1-Server 1yr 24x7 Support E-LTU                               | 1.452,72      |
|  | F9D69BAE   | HPE CloudSystem Enterprise 1-Server 1yr 24x7 Support E-LTU                               | 3.873,93      |
| <b>Step 5 : Add CPUs. Every node requires 2 CPU's !!!</b>  |            |  |               |
| <p><b>The first CPU ends with the extension -L21. The second CPU has the same part number but ends with -B21. Make sure your first CPU on every node ends with -L21.</b><br/> <b>Meaning : always order both CPU's (and count 2x the price !)</b></p> <p><b>Nodes always need to be configured with 2 CPU's !!!</b></p>  |            |  |               |
| <b>Intel Xeon E5-26xx V4 CPUs</b>  |            |  |               |
|  | 817967-B21 | HPE DL380 Gen9 E5-2699v4 Kit   | € 5.700,0     |
|  | 817965-B21 | HPE DL380 Gen9 E5-2698v4 Kit   | € 4.590,0     |
| <b>P-I</b>   | 817955-B21 | HPE DL380 Gen9 E5-2697Av4 Kit  | € 4.140,0     |
|  | 817963-B21 | HPE DL380 Gen9 E5-2697v4 Kit   | € 3.670,0     |
| <b>P-I</b>   | 817961-B21 | HPE DL380 Gen9 E5-2695v4 Kit   | € 3.160,0     |
|  | 817959-B21 | HPE DL380 Gen9 E5-2690v4 Kit   | € 2.805,0     |
|  | 817957-B21 | HPE DL380 Gen9 E5-2687Wv4 Kit  | € 2.755,0     |
|  | 817953-B21 | HPE DL380 Gen9 E5-2683v4 Kit   | € 2.400,0     |
|  | 817951-B21 | HPE DL380 Gen9 E5-2680v4 Kit   | € 2.310,0     |
|  | 817947-B21 | HPE DL380 Gen9 E5-2667v4 Kit   | € 2.685,0     |
|  | 817945-B21 | HPE DL380 Gen9 E5-2660v4 Kit   | € 1.785,0     |
|  | 817943-B21 | HPE DL380 Gen9 E5-2650v4 Kit   | € 1.480,0     |
|  | 817939-B21 | HPE DL380 Gen9 E5-2643v4 Kit   | € 2.090,0     |
|  | 817937-B21 | HPE DL380 Gen9 E5-2640v4 Kit   | € 1.225,0     |
|  | 817933-B21 | HPE DL380 Gen9 E5-2630v4 Kit   | € 910,0       |
| <b>P-I</b>   | 817931-B21 | HPE DL380 Gen9 E5-2630Lv4 Kit  | € 840,0       |
|  | 817927-B21 | HPE DL380 Gen9 E5-2620v4 Kit   | € 645,0       |
| <b>P-I</b>   | 817925-B21 | HPE DL380 Gen9 E5-2609v4 Kit   | € 470,0       |
| <b>Intel Xeon E5-26xx V3 CPUs</b>  |            |  |               |
| <b>P-I</b>   | 781915-B21 | Intel Xeon E5-2699v3 (2.3GHz-45MB/DDR4-2133 18C, 145W) Processor Option Kit (DL380Gen9)  | € 5.590,0     |
|  | 781913-B21 | Intel Xeon E5-2698v3 (2.3GHz-40MB/DDR4-2133 16C, 135W) Processor Option Kit (DL380Gen9)  | € 4.500,0     |
| <b>P-I</b>   | 719054-B21 | Intel Xeon E5-2697v3 (2.6GHz-35MB/DDR4-2133 14C, 145W) Processor Option Kit (DL380Gen9)  | € 3.600,0     |
| <b>P-I</b>   | 762760-B21 | Intel Xeon E5-2695v3 (2.3GHz-35MB/DDR4-2133 14C, 120W) Processor Option Kit (DL380Gen9)  | € 3.100,0     |
| <b>P-I</b>   | 719044-B21 | Intel Xeon E5-2690v3 (2.6GHz-30MB/DDR4-2133 12C, 135W) Processor Option Kit (DL380Gen9)  | € 2.750,0     |
| <b>P-I</b>   | 762768-B21 | Intel Xeon E5-2687Wv3 (3.1GHz-25MB/DDR4-2133 10C, 160W) Processor Option Kit (DL380Gen9) | € 2.800,0     |
| <b>P-I</b>   | 719055-B21 | Intel Xeon E5-2683v3 (2GHz-35MB/DDR4-2133 14C, 120W) Processor Option Kit (DL380Gen9)    | € 2.350,0     |
| <b>P-I</b>   | 762766-B21 | Intel Xeon E5-2680v3 (2.5GHz-30MB/DDR4-2133 12C, 120W) Processor Option Kit (DL380Gen9)  | € 2.265,0     |
| <b>P-I</b>   | 719046-B21 | Intel Xeon E5-2670v3 (2.3GHz-30MB/DDR4-2133 12C, 120W) Processor Option Kit (DL380Gen9)  | € 2.100,0     |
| <b>P-I</b>   | 719056-B21 | Intel Xeon E5-2667v3 (3.2GHz-20MB/DDR4-2133 8C, 135W) Processor Option Kit (DL380Gen9)   | € 2.630,0     |
| <b>P-I</b>   | 762764-B21 | Intel Xeon E5-2660v3 (2.6GHz-25MB/DDR4-2133 10C, 105W) Processor Option Kit (DL380Gen9)  | € 1.750,0     |
| <b>P-I</b>   | 719048-B21 | Intel Xeon E5-2650v3 (2.3GHz-25MB/DDR4-2133 10C, 105W) Processor Option Kit (DL380Gen9)  | € 1.450,0     |
| <b>P-I</b>   | 719059-B21 | Intel Xeon E5-2650Lv3 (1.8GHz-30MB/DDR4-2133 12C, 65W) Processor Option Kit (DL380Gen9)  | € 1.680,0     |
| <b>P-I</b>   | 719057-B21 | Intel Xeon E5-2643v3 (3.4GHz-20MB/DDR4-2133 6C, 135W) Processor Option Kit (DL380Gen9)   | € 2.050,0     |
| <b>P-I</b>   | 719058-B21 | Intel Xeon E5-2640v3 (2.6GHz-20MB/DDR4-1866 8C, 90W) Processor Option Kit (DL380Gen9)    | € 1.330,0     |
| <b>P-I</b>   | 719060-B21 | Intel Xeon E5-2630Lv3 (1.8GHz-20MB/DDR4-1866 8C, 55W) Processor Option Kit (DL380Gen9)   | € 825,0       |
| <b>P-I</b>   | 719051-B21 | Intel Xeon E5-2620v3 (2.4GHz-15MB/DDR4-1866 6C, 85W) Processor Option Kit (DL380Gen9)    | € 630,0       |
| <b>Step 6 : Select the required memory for each node.</b>  |            |  |               |

|   | PN         | Description  | REP<br>(in €) |
|---|------------|--|---------------|
| <p><b>The following memory combinations are supported :</b><br/>           128GB = 8 x 16GB<br/>           256GB = 8 x 32GB<br/>           384GB = 8 x 16GB + 8 x 32GB<br/>           512GB = 16 x 32GB<br/>           768GB = 24 x 32GB<br/>           1024GB = 16 x 64GB<br/>           1536GB = 48 x 64GB</p> <p>Each node must have the same amount of memory !</p> |            |  |               |
| <b>for v4 CPU's</b>   |            |  |               |
| P-I   | 836220-B21 | HPE 16GB 2Rx4 PC4-2400T-R Kit  | 330,00        |
| P-I   | 805351-B21 | HPE 32GB 2Rx4 PC4-2400T-R Kit  | 610,00        |
| P-I   | 805358-B21 | HPE 64GB 4Rx4 PC4-2400T-L Kit  | 1.670,00      |
| <b>for v3 CPU's</b>   |            |  |               |
| P-I   | 726719-B21 | HPE 16GB (1x16GB) Registered DDR4-2133 PC4-17000 CL15 Dual Rank Memory Kit | 315,00        |
| P-I   | 728629-B21 | HPE 32GB (1x32GB) Registered DDR4-2133 PC4-17000 CL15 Dual Rank Memory Kit | 690,00        |
| P-I   | 726724-B21 | HPE 64GB (1x64GB) Load Reduced DDR4-2133 PC4-17000 CL15 Quad Rank Memory   | 1.775,00      |
| <b>Step 7 : Add the Network interfaces, each node requires one kit.</b>   |            |  |               |
|   | 665243-B21 | HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter                               | 640,00        |
|   | 700699-B21 | HPE Ethernet 10Gb 2-port 561FLR-T Adapter                                  | 760,00        |
|   | 629135-B22 | HPE Ethernet 1Gb 4-port 331FLR Adapter                                     | 330,00        |

| PN   | Description   |   | REP<br>(in €) |                               |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
|--|---------------|---|---------------|-------------------------------|----------------|--------|-------|----------------------|--|--|----------------------|--|-------|-------|-------|-------|-------|--------|-------|-------|------------------------------|--|----|--|--|--|--|----|--|------------------------------|--|--|----|--|--|--|--|----|-------------------------|----|--|--|----|--|--|--|--|-------------------------|--|----|--|----|--|--|--|--|------------------------|--|--|----|--|----|--|--|--|-----------------|----|--|--|--|--|--|--|--|-----------------|--|----|--|--|--|--|--|--|-----------------|--|--|----|--|--|--|--|--|----------------------|--|--|--|--|----|--|--|--|-----------------------|--|--|--|--|--|----|--|--|
| <b>Step 8 : Select the disk configuration.</b>   |               |   |               |                               |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| <table border="1"> <thead> <tr> <th rowspan="2">Available disk configurations</th> <th colspan="3">10K SAS disks</th> <th colspan="3">Mixed Use SSDs</th> <th colspan="2">Write Intensive SSDs</th> </tr> <tr> <th>600GB</th> <th>900GB</th> <th>1.2TB</th> <th>480GB</th> <th>800GB</th> <th>1.92TB</th> <th>400GB</th> <th>800GB</th> </tr> </thead> <tbody> <tr> <td>4.9TB Hybrid Write intensive</td> <td></td> <td>6x</td> <td></td> <td></td> <td></td> <td></td> <td>2x</td> <td></td> </tr> <tr> <td>6.8TB Hybrid Write intensive</td> <td></td> <td></td> <td>6x</td> <td></td> <td></td> <td></td> <td></td> <td>2x</td> </tr> <tr> <td>3.84TB Hybrid Mixed Use</td> <td>6x</td> <td></td> <td></td> <td>2x</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4.98TB Hybrid Mixed Use</td> <td></td> <td>6x</td> <td></td> <td>2x</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6.8TB Hybrid Mixed Use</td> <td></td> <td></td> <td>6x</td> <td></td> <td>2x</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4.2TB Hard Disk</td> <td>8x</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6.3TB Hard Disk</td> <td></td> <td>8x</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>8.4TB Hard Disk</td> <td></td> <td></td> <td>8x</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5.6TB SSD Flash only</td> <td></td> <td></td> <td></td> <td></td> <td>8x</td> <td></td> <td></td> <td></td> </tr> <tr> <td>13.4TB SSD Flash only</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>8x</td> <td></td> <td></td> </tr> </tbody> </table> |               |   |               | Available disk configurations | 10K SAS disks  |        |       | Mixed Use SSDs       |  |  | Write Intensive SSDs |  | 600GB | 900GB | 1.2TB | 480GB | 800GB | 1.92TB | 400GB | 800GB | 4.9TB Hybrid Write intensive |  | 6x |  |  |  |  | 2x |  | 6.8TB Hybrid Write intensive |  |  | 6x |  |  |  |  | 2x | 3.84TB Hybrid Mixed Use | 6x |  |  | 2x |  |  |  |  | 4.98TB Hybrid Mixed Use |  | 6x |  | 2x |  |  |  |  | 6.8TB Hybrid Mixed Use |  |  | 6x |  | 2x |  |  |  | 4.2TB Hard Disk | 8x |  |  |  |  |  |  |  | 6.3TB Hard Disk |  | 8x |  |  |  |  |  |  | 8.4TB Hard Disk |  |  | 8x |  |  |  |  |  | 5.6TB SSD Flash only |  |  |  |  | 8x |  |  |  | 13.4TB SSD Flash only |  |  |  |  |  | 8x |  |  |
| Available disk configurations  | 10K SAS disks |   |               |                               | Mixed Use SSDs |        |       | Write Intensive SSDs |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
|  | 600GB         | 900GB   | 1.2TB         | 480GB                         | 800GB          | 1.92TB | 400GB | 800GB                |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| 4.9TB Hybrid Write intensive   |               | 6x  |               |                               |                |        | 2x    |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| 6.8TB Hybrid Write intensive   |               |   | 6x            |                               |                |        |       | 2x                   |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| 3.84TB Hybrid Mixed Use  | 6x            |   |               | 2x                            |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| 4.98TB Hybrid Mixed Use  |               | 6x  |               | 2x                            |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| 6.8TB Hybrid Mixed Use   |               |   | 6x            |                               | 2x             |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| 4.2TB Hard Disk  | 8x            |   |               |                               |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| 6.3TB Hard Disk  |               | 8x  |               |                               |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| 8.4TB Hard Disk  |               |   | 8x            |                               |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| 5.6TB SSD Flash only   |               |   |               |                               | 8x             |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| 13.4TB SSD Flash only  |               |   |               |                               |                | 8x     |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| <p>Order quantities based on the above table for each node. All nodes require identical storage blocks.</p> <p>Max. 3 storage blocks per node.</p>   |               |   |               |                               |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| <b>Hard disk Drives</b>  |               |   |               |                               |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
|  | 781518-B21    | HPE 1.2TB SFF 12G SAS 10k rpm HotPlug SC Enterprise hard drive (2.5") |               | 655,00                        |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
|  | 785069-B21    | 900GB SFF 12G SAS 10K rpm HotPlug SC Enterprise hard drive (2.5")     |               | 600,00                        |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
|  | 781516-B21    | 600GB SFF 12G SAS 10K rpm HotPlug SC Enterprise hard drive (2.5")     |               | 455,00                        |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| <b>SSD Drives</b>  |               |   |               |                               |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| N  | 872344-B21    | HPE 480GB SATA 6G MU SFF SC DS SSD                                    |               | 845,00                        |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| P-I  | 832414-B21    | HPE 480GB SATA MU SFF SC SSD  |               | 730,00                        |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| P-I  | 804625-B21    | HPE 800GB SATA MU SFF SC SSD  |               | 1.000,00                      |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| N  | 872352-B21    | HPE 1.92TB SATA 6G MU SFF SC DS SSD                                   |               | 3.085,00                      |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| P-I  | 804631-B21    | HPE 1.6TB SATA MU SFF SC SSD  |               | 1.870,00                      |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| P-I  | 804665-B21    | HPE 400GB SATA WI SFF SC SSD  |               | 615,00                        |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| P-I  | 804671-B21    | HPE 800GB SATA WI SFF SC SSD  |               | 1.220,00                      |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| <b>Step 9 : Add Graphics accelerators if required. Only valid for VDI configurations</b>   |               |   |               |                               |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| Select one of the below accelerators, max. 2 per node. Always use the same on each node.   |               |   |               |                               |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
|  | J0X21A        | HP NVIDIA Tesla M60 Dual GPU Module                                   |               | 8.990,00                      |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |
| <b>Step 10 : Expand your base warranty with Carepacks : please consult your reseller or distributor</b>  |               |   |               |                               |                |        |       |                      |  |  |                      |  |       |       |       |       |       |        |       |       |                              |  |    |  |  |  |  |    |  |                              |  |  |    |  |  |  |  |    |                         |    |  |  |    |  |  |  |  |                         |  |    |  |    |  |  |  |  |                        |  |  |    |  |    |  |  |  |                 |    |  |  |  |  |  |  |  |                 |  |    |  |  |  |  |  |  |                 |  |  |    |  |  |  |  |  |                      |  |  |  |  |    |  |  |  |                       |  |  |  |  |  |    |  |  |

**3PAR StoreServ 7000**

|   | PN | Description | REP<br>(in €) |
|---|----|-------------|---------------|
| <p>3PAR StoreServ 7000 Storage extends the innovative 3PAR StoreServ product line to the midrange with industry leading performance and features at the price you need. Spend less time managing storage, get more features for less money, and do it all without sacrificing performance or future scalability. 3PAR StoreServ 7000 Storage provides high performance and guarantees to double your virtual machine density. With hardware assisted thin storage it is the only platform that guarantees a 50% reduction in capacity requirements. 3PAR StoreServ is also the first product family with a common architecture that meets SMB needs and spans to the largest global enterprise giving you access to the same features as the world's largest service providers. You can start small and grow without painful upgrades down the road.</p> <p>3PAR StoreServ 7000 is storage made effortless.</p> |    |             |               |
| <p>The chart plots four storage models based on scalability (y-axis) and performance (x-axis). StoreServ 7200c is at the bottom-left (low scalability, low performance). StoreServ 7400c is in the middle-left (medium scalability, low performance). StoreServ 7440c is at the top-right (high scalability, high performance). StoreServ 7450c All-Flash is in the middle-right (medium scalability, high performance).</p>  |    |             |               |
| <p><b>NEW :</b></p> <ul style="list-style-type: none"> <li>- 7440c : scales up to 4 controllers and up to 960 drives !</li> <li>- 7xxx c controllers : converged controllers, required for adding the new file persona functionality!</li> <li>- full primary storage convergence with built-in file serving persona, deliverign both file and object storage capabilities for the StoreServ Series storage !</li> <li>- New Flat backup for VMWare capability direct from StoreServ to Storeonce systems with Recovery Manager Central for VMWare .</li> </ul>   |    |             |               |

|  | PN     | Description                              | REP (in €) |
|--|--------|--|------------|
| <b>3PAR StoreServ 7000 - Ordering Guidelines - Part 1 : Hardware</b>   |        |  |            |
| <p>The below steps show you how to configure an 3PAR StoreServ 7000 Solution. Follow each step carefully and you will end up with a decent budgetary idea. HOWEVER : a real configuration needs to be created using the Salesbuilder for Windows configurator. The StoreServ 7000 systems CANNOT BE ORDERED WITHOUT PROPER SUPPORT, NOR WITHOUT INSTALLATION SERVICES</p>  |        |  |            |
| <b>Step 1a : Select your base unit</b>   |        |  |            |
| <p>Base units contain :</p> <ul style="list-style-type: none"> <li>- 1 or 2 SFF Drive shelves, each holding 2 x 7000 series controllers.</li> <li>• Dual redundant power supplies</li> <li>• Rack Rail kit, power cords</li> </ul> <p>Controller differences :</p> <ul style="list-style-type: none"> <li>- 7200c controllers cannot be upgraded to 74xxc</li> <li>- 7400c/2 can be upgrade to a 7400c/4 with the appropriate upgrade kit + installation support</li> <li>- 7440c/2 can be upgrade to a 7440c/4 with the appropriate upgrade kit + installation support</li> <li>- 7450c/2 can be upgraded to 7450c/4 by adding the appropriate upgrade kit + installation support</li> <li>- All controller nodes have 2 x 8Gb Fibre Channel, and can be expanded with either 2 x 8Gb fibre channel or 2 x 10Gb iSCSI/FCoE</li> <li>- systems carry a standard 3 year , 24x7, 4hr Response time hardware warranty.</li> <li>- Hard drives carry a 3 year parts only warranty</li> <li>- Software only carries the 90 day media defect warranty.</li> </ul> <p>Total Fibre ports for the net 'c' class controllers : up to 12 x 8Gb ; up to 4 x 16Gb for 7200 , up to 24 x 8gb ; up for 8 x 16Gb for the 74xxc/4</p> <p>Total iSCSI/FCoE ports : up to 4 x 10Gb for the 7200 and up to 8 x 10Gb for the 7400/7450</p> <p>Total up to 4 x 10Gb/s Ethernet ports or up to 8 x 1Gb Ethernet ports for the 7200c; up to 8 x 10Gb/s ethernet or up to 16 x 1Gb on the 74xxc</p> |        |  |            |
| EOL  | E7X65A | HPE 3PAR StoreServ 7200c 2N St Cent Base | 12.975,00  |
| EOL  | E7X71A | HPE 3PAR StoreServ 7400c 2N Fld Int Base | 23.015,00  |
| EOL  | E7X75A | HPE 3PAR StoreServ 7400c 4N Fld Int Base | 47.245,00  |
| EOL  | E7X80A | HPE 3PAR StoreServ 7440c 2N Fld Int Base | 39.845,00  |
| EOL  | E7X86A | HPE 3PAR StoreServ 7440c 4N Fld Int Base | 82.220,00  |
| EOL  | E7X91A | HPE 3PAR StoreServ 7450c 2N Fld Int Base | 39.845,00  |
| EOL  | E7X95A | HPE 3PAR StoreServ 7450c 4N Fld Int Base | 82.220,00  |
| EOL  | QR482A | HPE 3PAR StoreServ 7200 2-N Storage Base | 12.080,00  |
| EOL  | QR483A | HPE 3PAR StoreServ 7400 2-N Storage Base | 21.740,00  |
| EOL  | QR485A | HPE 3PAR StoreServ 7400 4-N Storage Base | 45.000,00  |
| EOL  | C8R35A | HPE 3PAR StoreServ 7450 2N Base          | 35.870,00  |
| EOL  | C8R37A | HPE 3PAR StoreServ 7450 4N Base          | 74.250,00  |
| <b>Step 1b : If you require advanced file share serving , select one or more StoreServe File controllers</b>   |        |  |            |
| <p>NEW : 3PAR StoreServe File Controller v3 multi-node system</p> <ul style="list-style-type: none"> <li>- 2U Base chassis, can house up to 2 nodes in a single 2U chassis.</li> <li>- Dual redundant power supplies</li> <li>- Rack Rail kit, power cords</li> <li>- up to 16 nodes in the file cluster !</li> </ul> <p>Node specifications :</p> <ul style="list-style-type: none"> <li>- Extensive protocol support: SMB (2.0, 2.1, 3.0), NFS (v2, v3, v4.1), WebDAV, HTTP/HTTPS, FTP/FTPS, iSCSI</li> <li>- Data Deduplication (block level with file integration)</li> <li>- DFS namespace integration, DFS-R replication, Active Directory services, etc.</li> <li>- File server extended management : quota management , file screening, file classification, storage reporting</li> <li>- Additional functionality : Print management console, Encryption support, and lots more !</li> <li>- Intel® Xeon® E5-2609v3 (1,9GHz/1-core/15MB/85W) Processor</li> <li>- 32GB RAM, exp. to 512GB (requires replacing the standard 4x8GB DIMMs)</li> <li>- 2 x 1Gb Ethernet, FlexLOM for expansion (see list of options), 1 x PCI-Express slots free : for external FC HBA's to connect to the 3PAR system</li> <li>- Dynamic Smart Array B140i with support for Raid 0, 1, 1+0, 5, 5+0</li> <li>- 2 x 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot SSDs for O/S mirror per 3PAR StoreServ File Controller v3 Single Node</li> </ul>                       |        |  |            |
| P-I  | K2R66A | HPE 3PAR StoreServ File Ctl v3 Sys       | 2.333,00   |
| P-I  | K2R67A | HPE 3PAR StoreServ File Ctl v3 Sngl Node | 6.432,00   |
| <b>Step 2 : Select your additional Host ports adapters (if required)</b>   |        |  |            |
| <p>Each node in a node pair (a node pair is composed of the two controller nodes in a single 2U enclosure) must have the same number and type of adapters. FC and iSCSI/FCoE adapters may not be intermixed in a node pair.</p> <p>The 4 ports of the FC adapter can be individually configured to connect to a host or to a remote array in an RC configuration.</p> <p>The two ports of the iSCSI/FCoE adapter can be individually configured by the user as iSCSI or FCoE (Note: FCoE functionality will be enabled in 2013).</p> <p>Warning : when ordering this , make sure to, add a second line which repeats the part number + "0D1" as this option needs to be integrated in the factory.</p>   |        |  |            |
| <b>HBA's for Block host connect</b>  |        |  |            |
|  | QR486A | HPE 3PAR 7000 4-pt 8Gb/s FC Adapter      | 3.320,00   |
|  | E7X47A | HPE 3PAR 7000 2-pt 16Gb FC Adapter       | 3.490,00   |
|  | QR487A | HPE 3PAR 7000 2-pt 10G iSCSI/FCoE Adptr  | 3.225,00   |
| <b>HBA's for file persona host connect</b>   |        |  |            |
|  | E7X96A | HPE 3PAR 7000 2-pt 10Gb Eth Adapter      | 1.630,00   |
|  | E7X97A | HPE 3PAR 7000 4-pt 1Gb Eth Adapter       | 720,00     |

|   | PN     | Description  | REP<br>(in €) |       |
|---|--------|--|---------------|-------|
| <b>Step 3 : Add expansion shelves if necessary</b>  |        |  |               |       |
| Max. Number of shelves :  |        |  |               |       |
|   | 9      | 18   | 22            | 38    |
|   | 7200   | 7400   | 7400c         | 7440c |
|   | 7200c  | 7450   |               |       |
|   |        | 7450c  |               |       |
|   | QR490A | HPE M6710 2.5in 2U SAS Drive Enclosure<br><i>Kit contents : StoreServ 7000 SFF JBOD. Supports up to 24x 2.5" SFF Hard disks.</i> | 4,425.00      |       |
|   | QR491A | HPE M6720 3.5in 4U SAS Drive Enclosure<br><i>Kit contents : StoreServ 7000 LFF JBOD. Supports up to 24x 3.5" LFF Hard disks.</i> | 4,425.00      |       |
| <b>Step 4 : select the correct SAS cable</b>  |        |  |               |       |
| Connecting StoreServ 7000 controller to a JBOD if a longer cable is desired.  |        |  |               |       |
|   | QR514A | HPE 1 Meter SAS Expansion Cable Kit  | 150.00        |       |
|   | AW566A | HP 2m Expansion Cable Kit  | 210.00        |       |
|   | AP879A | HP 6m Expansion Cable Kit  | 1,005.00      |       |
| <b>Step 5 : Add the correct disk drives for your chassis.</b>   |        |  |               |       |
| <p>A minimum of 8 drives for RAID 1 or RAID 5 is required, for RAID 6 12 drives. When adding drives in a multi-JBOD configuration, be aware to have at least 2 drives per JBOD, and when adding drives always populate every JBOD in pairs !</p> <p>Minimum quantities are 8 for SSD &amp; SAS, 12 for Midline SAS</p> <p>Minimum required capacity must be greater than 1.2TB!</p> |        |  |               |       |
| <b>3.5" LFF SSD disks. (No ProLiant disk drives !!)</b>   |        |  |               |       |
| P-I   | E7Y55A | HPE M6710 480GB Non-AFC SFF SSD  | 4,450.00      |       |
| <b>3.5" LFF Dual port 6G Nearline SAS disk drives. !!! (NO ProLiant LFF disk drives)</b>  |        |  |               |       |
|   | QR499A | HPE M6720 2TB 6G SAS 7.2K 3.5in NL HDD   | 955.00        |       |
|   | H6Z87A | HPE M6720 4TB 6G SAS 7.2K 3.5in HDD  | 1,855.00      |       |
|   | K0F28A | HPE M6720 6TB 6G SAS 7.2K 3.5in NL HDD.  | 2,790.00      |       |
| <b>2.5" LFF SSD disks. (No ProLiant disk drives !!)</b>   |        |  |               |       |
| P-I   | E7Y56A | HPE M6720 480GB Non-AFC LFF SSD  | 4,450.00      |       |
| P-I   | E7W54B | HPE M6710 480GB SFF SSD  | 6,358.00      |       |
| P-I   | E7W24B | HPE M6710 920GB SFF SSD  | 10,929.00     |       |
| P-I   | E7Y57A | HPE M6710 1.92TB SFF SSD   | 15,134.00     |       |
| P-I   | K2Q91A | HPE M6710 3.84TB SFF SSD   | 26,718.00     |       |
| <b>2.5" SFF SAS disks. (No ProLiant disk drives !!)</b>   |        |  |               |       |
|   | QR492A | HPE M6710 300GB 6G SAS 15K 2.5in HDD   | 775.00        |       |
|   | K0F23A | HPE M6710 600GB 6G SAS 15K 2.5in HDD   | 1,380.00      |       |
| EOL   | QR494A | HPE M6710 450GB 6G SAS 10K 2.5in HDD   | 920.00        |       |
|   | C8R72A | HPE M6710 600GB 6G SAS 10K 2.5in HDD   | 895.00        |       |
| EOL   | QR496A | HPE M6710 900GB 6G SAS 10K 2.5in HDD   | 1,250.00      |       |
|   | E7X49A | HPE M6710 1.2TB 6G SAS 10K 2.5in HDD   | 1,640.00      |       |
|   | K0F26A | HPE M6710 1.8TB 6G SAS 10K 2.5in HDD   | 3,015.00      |       |
| <b>2.5" SFF Dual port 6G Nearline SAS disk drives. !!! (NO ProLiant LFF disk drives)</b>  |        |  |               |       |
|   | QR498A | HPE M6710 1TB 6G SAS 7.2K 2.5in HDD  | 735.00        |       |
|   | M0S91A | HPE M6710 2TB 6G SAS 7.2K 2.5in NL HDD   | 1,905.00      |       |
| <b>2.5" SFF SSD encryption disk drives. !!! (NO ProLiant SFF disk drives).</b>  |        |  |               |       |
| Watch out : selecting encryption disk drives also requires the encryption licenses. Encryption is switched on per array , once encrypted all disks must be SED disks)   |        |  |               |       |
| P-I   | E7Y52A | HPE M6710 920GB SFF FE SSD   | 11,475.00     |       |
| P-I   | K0F27A | HPE M6710 1.92TB SFF FE SSD  | 15,891.00     |       |
| P-I   | M0T67A | HPE M6710 3.84TB SFF FE SSD  | 28,054.00     |       |
| <b>3.5" LFF FIPS Encryption Nearline SAS disk drives. !!! NO ProLiant LFF disk drives, same remarks as for SSD SED drives )</b>   |        |  |               |       |
| EOL   | H6Z84A | HPE M6720 2TB 6G SAS 7.2K 3.5in FE HDD   | 1,085.00      |       |
|   | K0F29A | HPE M6720 6TB 6G SAS 7.2K LFF NL FE HDD  | 2,990.00      |       |
| <b>2.5" SFF FIPS Encryption SAS disk drives. !!! NO ProLiant LFF disk drives, same remarks as for SSD SED drives )</b>  |        |  |               |       |
|   | K0F24A | HPE M6710 600GB 6G SAS 15K 2.5in FE HDD  | 1,450.00      |       |
|   | K0F25A | HPE M6710 1.2TB 6G SAS 10K 2.5in FE HDD  | 1,730.00      |       |
| <b>2.5" SFF FIPS Encryption Nearline SAS disk drives. !!! NO ProLiant LFF disk drives, same remarks as for SSD SED drives )</b>   |        |  |               |       |
| <b>Step 6: Choose the Service Processor implementation</b>  |        |  |               |       |
| With the Base OS software, a Virtual Service Processor is included that can run as a VM on VMWare or Hyper-V. However, if you need to manage multiple StoreServ 7000 systems, a physical Service Processor is recommended.  |        |  |               |       |
|   | K2R28A | 3PAR Service Processor   | 3,910.00      |       |



|   | PN     | Description  | REP<br>(in €) |
|---|--------|--|---------------|
| <b>3PAR StoreServ 7000 - Ordering Guidelines - Part 2 : Software</b>  |        |  |               |
| StoreServ 7000 Software is divided into 2 separate types :<br>- Software add-ons for external applications (VMWare, Oracle, SQL, etc). Those are licensed per StoreServ 7000 system. E.g. No matter how many VMWare systems you have, the software only needs to be paid once.<br>- Software that controls the advanced functionality of the StoreServ 7000 arrays : Thin Provisioning, Snapshots, Replication, Automatic Tiering, etc. These license are payable per physical disk drive in the system. It does not matter what disk drive.  |        |  |               |
| <b>Step 1 : Add the required Base OS software (without this your array does not function...)</b>  |        |  |               |
| The StoreServ 7000 OS Suite contains the following functionality : <ul style="list-style-type: none"> <li>• 3PAR Thin Provisioning</li> <li>• 3PAR Thin Conversion</li> <li>• 3PAR Thin Persistence</li> <li>• 3PAR Thin Copy Reclamation</li> <li>• 3PAR Autonomic Rebalance</li> <li>• 3PAR System Tuner</li> <li>• 3PAR Management Console</li> <li>• EVA to 3PAR Online Import**</li> <li>• EMC VNX &amp; CX4 to 3PAR Online Import**</li> <li>• 3PAR Host Explorer</li> <li>• 3PAR SmartStart*</li> <li>• 3PAR Virtual Service Processor*</li> <li>• 3PAR Multipath Software for Windows 2003</li> </ul> For the SSD drives only : <ul style="list-style-type: none"> <li>• 3PAR Thin deduplication and Thin Clones</li> </ul> |        |  |               |
| <b>Physical Media Kit</b>   |        |  |               |
|   | BD363A | HPE 3PAR OS Suite Latest Media                         | 150,00        |
| <b>For electronic versions, just add the letters 'AE' to the end of the part number.</b>  |        |  |               |
| <b>Physical Licenses (valid for c and non-C controllers)</b>  |        |  |               |
|   | BC745B | HPE 3PAR 7200 OS Suite Base LTU                        | 955,00        |
|   | BC746A | HP 3PAR 7200 Operating System Software Suite Drive LTU | 100,00        |
|   | BC773B | HPE 3PAR 7400 OS Suite Base LTU                        | 2.025,00      |
|   | BC774A | HP 3PAR 7400 Operating System Software Suite Drive LTU | 415,00        |
|   | BD374A | HP 3PAR 7440c OS Suite Base LTU                        | 2.560,00      |
|   | BD381A | HP 3PAR 7440c OS Suite Drive LTU                       | 520,00        |
|   | BC890B | HP 3PAR 7450 OS Suite Base LTU                         | 2.560,00      |
|   | BC891A | HP 3PAR 7450 OS Suite Drive LTU                        | 520,00        |
| <b>Step 2 : Add the optional Replication Suite</b>  |        |  |               |
| The StoreServ 7000 Replication Suite contains the following functionality : <ul style="list-style-type: none"> <li>• 3PAR Virtual Copy</li> <li>• 3PAR Remote Copy</li> <li>• 3PAR Peer Persistence</li> </ul>  |        |  |               |
| <b>For electronic versions, just add the letters 'AE' to the end of the part number.</b>  |        |  |               |
| <b>Physical Licenses</b>  |        |  |               |
|   | BC747A | HP 3PAR 7200 Replication Software Suite Base LTU       | 1.165,00      |
|   | BC748A | HP 3PAR 7200 Replication Software Suite Drive LTU      | 115,00        |
|   | BC775A | HP 3PAR 7400 Replication Software Suite Base LTU       | 1.285,00      |
|   | BC776A | HP 3PAR 7400 Replication Software Suite Drive LTU      | 255,00        |
|   | BD382A | HP 3PAR 7440c Replication Suite Base LTU               | 1.860,00      |
|   | BD383A | HP 3PAR 7440c Replication Ste Drive LTU                | 370,00        |
|   | BC892A | HP 3PAR 7450 Repl Suite Base LTU                       | 1.860,00      |
|   | BC893A | HP 3PAR 7450 Repl Suite Drive LTU                      | 370,00        |

|   | PN     | Description  | REP<br>(in €) |
|---|--------|--|---------------|
| <b>Step 3 : Add the optional Data Optimization Suite</b>  |        |  |               |
| <p>The StoreServ 7000 Data Optimization Suite V2 contains the following functionality :</p> <ul style="list-style-type: none"> <li>• 3PAR Priority Optimization = Application Quality of service</li> <li>• 3PAR Adaptive Optimization = Block Level tiering</li> <li>• 3PAR Dynamic Optimization = Volume Level Tiering</li> <li>• 3PAR Peer Motion = System Level Tiering (Federation)</li> </ul>   |        |  |               |
| <b>For electronic versions, just add the letters 'AE' to the end of the part number.</b>  |        |  |               |
| <b>Physical Licenses</b>  |        |  |               |
|   | BD268A | HP 3PAR 7200 Data Optimization Software Suite V2 Base LTU  | 1.400,00      |
|   | BD269A | HP 3PAR 7200 Data Optimization Software Suite V2 Drive LTU | 140,00        |
|   | BD270A | HP 3PAR 7400 Data Optimization Software Suite V2 Base LTU  | 2.205,00      |
|   | BD271A | HP 3PAR 7400 Data Optimization Software Suite V2 Drive LTU | 440,00        |
|   | BD404A | HP 3PAR 7440c Data Opt St v2 Base LTU                      | 3.080,00      |
|   | BD405A | HP 3PAR 7440c Data Opt St v2 Drive LTU                     | 615,00        |
|   | BD272A | HP 3PAR 7450 Data Optimization Software Suite V2 Base LTU  | 3.080,00      |
|   | BD273A | HP 3PAR 7450 Data Optimization Software Suite V2 Drive LTU | 615,00        |
| <b>Step 4 : Add the optional File Persona Suite</b>   |        |  |               |
| <p>The 3PAR File Persona Software Suite enables a rich set of file protocols and core file data services on a 3PAR StoreServ system. As a feature of the 3PAR OS, the File Persona inherits the industry leading architecture and Block Persona benefits of 3PAR StoreServ. It extends the spectrum of primary storage workloads natively addressed by 3PAR StoreServ from virtualization, databases, and applications via the Block Persona to also include client workloads such as home directory consolidation, group/department shares, and corporate shares via the File Persona – all with truly Converged Controllers, truly agile capacity, and truly unified management.</p> <p>The File Persona is supported on the 3PAR StoreServ 7000c Series. It requires the installation of 1GbE or 10GbE network cards. Licenses are TB based, one license is for 1TB of file storage.</p> |        |  |               |
| <b>For electronic versions, just add the letters 'AE' to the end of the part number.</b>  |        |  |               |
| <b>Physical Licenses</b>  |        |  |               |
|   | BD408A | HPE 3PAR 7200c File Persona Ste 1TB LTU                    | 130,00        |
|   | BD409A | HPE 3PAR 7400c File Persona Ste 1TB LTU                    | 160,00        |
|   | BD410A | HPE 3PAR 7440c File Persona Ste 1TB LTU                    | 275,00        |
|   | BD411A | HPE 3PAR 7450c File Persona Ste 1TB LTU                    | 275,00        |
| <b>Step 5 : Add the optional Security Software Suite</b>  |        |  |               |
| <p>The StoreServ 7000 Security Software Suite contains the following functionality :</p> <ul style="list-style-type: none"> <li>• 3PAR Virtual Domains (segregation of the array into multiple domains)</li> <li>• 3PAR Virtual Lock (lock volumes and snapshots AKA WORM like)</li> </ul>  |        |  |               |
| <b>For electronic versions, just add the letters 'AE' to the end of the part number.</b>  |        |  |               |
| <b>Physical Licenses</b>  |        |  |               |
|   | BC751A | HP 3PAR 7200 Security Software Suite Base LTU              | 435,00        |
|   | BC752A | HP 3PAR 7200 Security Software Suite Drive LTU             | 45,00         |
|   | BC779A | HP 3PAR 7400 Security Software Suite Base LTU              | 900,00        |
|   | BC780A | HP 3PAR 7400 Security Software Suite Drive LTU             | 180,00        |
|   | BD384A | HP 3PAR 7440c Security Suite Base LTU                      | 1.310,00      |
|   | BD385A | HP 3PAR 7440c Security Suite Drive LTU                     | 265,00        |
|   | BC908A | HP 3PAR 7450 Security St Base LTU                          | 1.310,00      |
|   | BC909A | HP 3PAR 7450 Security Suite Drv LTU                        | 265,00        |

|   | PN       | Description  | REP<br>(in €) |
|---|----------|--|---------------|
| <b>Step 6 : Add the optional Encryption licenses</b>  |          |  |               |
| <ul style="list-style-type: none"> <li>• A data encryption license (LTU) is required to enable encryption on the array. One encryption license is required for each encrypted array.</li> <li>• Once an Array is encrypted, the whole array must be encrypted. You cannot mix unencrypted disks with encrypted disks in the same array.</li> </ul>  |          |  |               |
| <b>For electronic versions, just add the letters 'AE' to the end of the part number.</b>  |          |  |               |
| <b>Physical Licenses</b>  |          |  |               |
|   | BC983A   | HP 3PAR 7200 Data Encryption LTU   | 3.615,00      |
|   | BC984A   | HP 3PAR 7400 Data Encryption LTU   | 7.300,00      |
|   | BD406A   | HP 3PAR 7440c Data Encryption LTU  | 9.125,00      |
|   | BC985A   | HP 3PAR 7450 Data Encryption LTU   | 9.125,00      |
| <b>Step 7 : Reporting suite - was separate host based, now included in SSMC (1 license per system!)</b>   |          |  |               |
| <p>The Reporting Module contains performance and capacity management tools<br/>           StoreFront analytics for VMWare vCenter Operations Manager is a tool to manage storage performance in a VMWare environment, linked to vCops. available as electronic license only !</p>   |          |  |               |
| <b>Physical Media SKU's</b>   |          |  |               |
| <b>EOL</b>  | BD373A   | HP 3PAR Reporting Suite Media  | 85,00         |
| <b>For electronic versions, just add the letters 'AE' to the end of the part number.</b>  |          |  |               |
| <b>Physical Licenses</b>  |          |  |               |
|   | BC767B   | HP 3PAR 7200 Reporting Suite LTU   | 3.595,00      |
|   | BC795B   | HP 3PAR 7400 Reporting Suite LTU   | 7.280,00      |
|   | BD375A   | HP 3PAR 7440c Reporting Suite LTU  | 9.105,00      |
|   | BC914B   | HP 3PAR 7450 Reporting Suite LTU   | 9.105,00      |
| <b>Electronic Licenses</b>  |          |  |               |
|   | D4T81AAE | HP StoreFront Analytics for VMWare vRealize Operations and 3PAR StoreServ Software E-LTU | 1.015,00      |
| <b>Step 8a : Application Support suites</b>   |          |  |               |
| <p>The following Application software suites contain add-on tools for use with specific OS's and applications :</p> <p>The VMWare suite contains : Recovery Manager for VMWare, VASA Plug-in, Management Plugin for vCenter, Host Eplorer for vCenter - Watch out : Recovery manager for VMWare is superceded by Recovery Manager Central for VMWare ! See chapter 9b!</p> <p>The Microsoft Exchange suite contains : Recovery Manager for Exchange and the VSS Hardware provider</p> <p>The SQL suite has the Recovery Manager for SQL and its VSS hardware provider</p> <p>The Oracle suite contains the Recovery manager for Oracle.</p> |          |  |               |
| <b>Physical Media SKU's</b>   |          |  |               |
|   | BD372A   | HPE 3PAR App Suite for VMWare Media  | 85,00         |
|   | BD369A   | HPE 3PAR App Suite for Hyper-V Media   | 85,00         |
|   | BD368A   | HPE 3PAR App Suite for Exchange Media  | 85,00         |
|   | BD371A   | HPE 3PAR App Suite for SQL Media   | 85,00         |
|   | BD370A   | HPE 3PAR App Suite for Oracle Media  | 85,00         |
| <b>For electronic versions, just add the letters 'AE' to the end of the part number.</b>  |          |  |               |
| <b>Physical Licenses</b>  |          |  |               |
|   | BC767B   | HP 3PAR 7200 Reporting Suite LTU   | 3.595,00      |
|   | BD178B   | HP 3PAR 7200 App Suite Hyper-V LTU   | 3.595,00      |
|   | BC769B   | HP 3PAR 7200 App Suite Exchange LTU  | 3.595,00      |
|   | BC771B   | HP 3PAR 7200 App Suite Oracle LTU  | 3.595,00      |
|   | BD179B   | HP 3PAR 7400 App Suite Hyper-V LTU   | 7.280,00      |
|   | BC797B   | HP 3PAR 7400 App Suite Exchange LTU  | 7.280,00      |
|   | BC799B   | HP 3PAR 7400 App Suite Oracle LTU  | 7.280,00      |
|   | BD380A   | HP 3PAR 7440c App Suite Hyper-V LTU  | 9.105,00      |
|   | BD377A   | HP 3PAR 7440c App Suite Exchange LTU   | 9.105,00      |
|   | BD379A   | HP 3PAR 7440c App Suite Oracle LTU   | 9.105,00      |
|   | BD190B   | HP 3PAR 7450 App Suite Hyper-V LTU   | 9.105,00      |
|   | BC916B   | HP 3PAR 7450 App Suite Exchange LTU  | 9.105,00      |
|   | BC918B   | HP 3PAR 7450 App Suite Oracle LTU  | 9.105,00      |

|   | PN     | Description             | REP<br>(in €) |
|---|--------|-------------------------|---------------|
| <b>Step 8b : StoreOnce Recovery Manager Central</b>   |        |                         |               |
| <p>StoreOnce RMC for VMware enables RMC customers to protect VMware Virtual Machine Disks (VMDKs) and data stores using application-consistent snapshots for rapid online recovery. At the same time, the Express Protect feature (enabled by the StoreOnce Catalyst license) offers a second-tier of data protection by facilitating direct backup from 3PAR StoreServ to StoreOnce. Backups to StoreOnce are self-contained volumes, deduplicated to save space, and can be used to recover back to the original or a different 3PAR StoreServ array, even if the original base volume is lost. VMware administrators can access all of this functionality from within the familiar VMware vCenter management console</p> |        |                         |               |
| <b>Physical Media SKU's</b>   |        |                         |               |
| P-J   | D4U76A | HPE StoreOnce RMC Media | 79,00         |
| <b>For electronic versions, just add the letters 'AE' to the end of the part number.</b>  |        |                         |               |
| <b>Base License - 1 required per Storeonce</b>  |        |                         |               |
| P-J   | D4U75A | HPE StoreOnce RMC LTU   | 935,00        |
| <b>For electronic versions, just add the letters 'AE' to the end of the part number.</b>  |        |                         |               |
| <b>Array License - 1 required per 3Par 7xxxx array</b>  |        |                         |               |
| P-J   | D4U64A | HP RMC-V 72xx/82xx LTU  | 2.336,00      |
| P-J   | D4U66A | HP RMC-V 74xx/84xx LTU  | 5.607,00      |
| <b>Step 10 : Expand your base warranty with Carepacks : please consult your reseller or distributor.</b>  |        |                         |               |

| PN   | Description   | REP (in €) |
|--|---|------------|
|  | <p>3PAR StoreServ 8000 Storage is the follow on to the successful 7000-series and continues to build on the innovative 3PAR StoreServ product line to the midrange with industry leading performance and features at the price you need. Spend less time managing storage, get more features for less money, and do it all without sacrificing performance or future scalability. 3PAR StoreServ 8000 Storage provides high performance and guarantees to double your virtual machine density. With hardware assisted thin storage it is the only platform that guarantees a 50% reduction in capacity requirements. 3PAR StoreServ is also the first product family with a common architecture that meets SMB needs and spans to the largest global enterprise giving you access to the same features as the world's largest service providers. You can start small and grow without painful upgrades down the road.</p> <p>3PAR StoreServ 8000 continues to be storage made effortless.</p> |            |
|  | <p>NEW :</p> <ul style="list-style-type: none"> <li>- New functionality on the 8000 series : Enhanced Deduplication, Compression; now up to 4:1 data reduction guaranteed.</li> <li>- New : All inclusive licensing. No more complicated and separate software listings, all arrays come with all capabilities enabled. Only exception are the replication and multi-site capabilities. Those still require a license, but this is now a 'name based' license , rather than disk based.</li> <li>- watch out all base systems and hard disk part numbers have changed to reflect this !</li> </ul>  |            |
| <b>3PAR StoreServ 8000 - Ordering Guidelines - Part 1 : Hardware</b> |   |            |

The below steps show you how to configure an 3PAR StoreServ 8000 Solution.  
Follow each step carefully and you will end up with a decent budgetary idea.  
**HOWEVER :** a real configuration needs to be created using the HP Salesbuilder for Windows configurator. The StoreServ 8000 systems **CANNOT BE ORDERED WITHOUT PROPER SUPPORT, NOR WITHOUT HP INSTALLATION SERVICES**

|   | PN     | Description                              | REP<br>(in €) |
|---|--------|--|---------------|
| <b>Standard Configurations</b>  |        |  |               |
| <b>Step 1a: Select your base unit for block level storage - Field Integrated (BTO only)</b>   |        |  |               |
| <p><b>Warning</b> ordering 3PAR 8000 series can be done in four ways :</p> <ul style="list-style-type: none"> <li>- Factory integrated in an HP Rack</li> <li>- Factory Integrated in an HP Rack in a Storage Centric configuration</li> <li>- Fully Field integrated (everything ordered as separate parts..lots of boxes)</li> <li>- Field integrated with minimal factory integration : disks preinstalled...a lot less boxes..</li> </ul> <p>The SKU's listed below are for Field Integration. If you want to use the 'minimal' factory integration, then for each item you order, you need to add an additional line, that repeats the quantity ordered and the partnumber with the suffix '#OD1'</p> <p>eg. Line 1 = 1 x K2Q36A 3PAR 8200 Base ; Line 2 becomes : 1 x K2Q36A#OD1</p> <p>ALL OTHER FACTORY CONFIGURED UNITS CAN ONLY BE ORDERED USING SALESBUILDER FOR WINDOWS</p> <p>Base units contain :</p> <ul style="list-style-type: none"> <li>- 1 or 2 SFF Drive shelves, each holding 2 x 8000 series controllers.</li> <li>- Dual redundant power supplies</li> <li>- Rack Rail kit, power cords</li> </ul> <p>Controller differences :</p> <ul style="list-style-type: none"> <li>- 8200 controllers cannot be upgraded to 84xx</li> <li>- 8400/2 can be upgrade to a 8400/4 with the appropriate upgrade kit + installation support</li> <li>- 8440/2 can be upgrade to a 8440/4 with the appropriate upgrade kit + installation support</li> <li>- 8450/2 can be upgraded to 8450/4 by adding the appropriate upgrade kit + installation support</li> <li>- All controller nodes have 2 x 16Gb Fibre Channel, and can be expanded with either 4 x 16Gb fibre channel, 2 x 10Gb iSCSI/FCOE or Ethernet or 4 x 1Gb Ethernet</li> <li>- 3 Year, On-site Warranty Service for hardware components. 7x24 4-hour remote response with next business day on-site response.</li> <li>- The warranty on all 3PAR StoreServ 8000 Solid State Drives is 5 years, parts only. Please refer to the 3PAR StoreServ 8000 Drives section for the complete list of SSD SKUs. The warranty on all other 3PAR StoreServ 8000 drives (SAS performance and Nearline SAS) is 3 years, parts only. HP warrants only that the Software media will be free of physical defects for a period of ninety (90) days from delivery.</li> </ul> <p>Total Fibre ports for the 8000 series controllers : up to 12 x 16Gb for 8200 , up to 24 x 16Gb for the 84xx/4<br/>           Total iSCSI/FCOE ports : up to 4 x 10Gb for the 7200 and up to 8 x 10Gb for the 7400/7450<br/>           Total up to 4 x 10Gb/s Ethernet ports or up to 8 x 1Gb Ethernet ports for the 8200; up to 8 x 10Gb/s ethernet or up to 16 x 1Gb on the 84xx</p> |        |  |               |
| N   | K2Q36B | HPE 3PAR 8200 2N+SW Storage Field Base   | 13,983,00     |
| N   | H6Y96B | HPE 3PAR 8400 2N+SW Storage Field Base   | 15,114,00     |
| N   | H6Z02B | HPE 3PAR 8400 4N+SW Storage Field Base   | 43,548,00     |
| N   | H6Z07B | HPE 3PAR 8440 2N+SW Storage Field Base   | 50,283,00     |
| N   | H6Z13B | HPE 3PAR 8440 4N+SW Storage Field Base   | 98,692,00     |
| N   | H6Z18B | HPE 3PAR 8450 2N+SW Storage Field Base   | 50,283,00     |
| N   | H6Z24B | HPE 3PAR 8450 4N+SW Storage Field Base   | 98,692,00     |
| <b>Step 1b: If you require advanced file sharing serving , select one or more StoreServ File controllers</b>  |        |  |               |
| <p><b>NEW</b> : 3PAR StoreServ File Controller V3 multi-node system</p> <ul style="list-style-type: none"> <li>- 2U Base chassis, can house up to 2 nodes in a single 2U chassis.</li> <li>- Dual redundant power supplies</li> <li>- Rack Rail kit, power cords</li> <li>- up to 16 nodes in the file cluster !</li> </ul> <p>Node specifications :</p> <ul style="list-style-type: none"> <li>- Extensive protocol support: SMB (2.0, 2.1, 3.0), NFS (v2, v3, v4.1), WebDAV, HTTP/HTTPS, FTP/FTPS, iSCSI</li> <li>- Data Deduplication (block level with file integration)</li> <li>- DFS namespace integration, DFS-R replication, Active Directory services, etc.</li> <li>- File server extended management : quota management , file screening, file classification, storage reporting</li> <li>- Additional functionality : Print management console, Encryption support, and lots more !</li> <li>- Intel® Xeon® E5-2609v3 (1.9GHz/1-core/15MB/85W) Processor</li> <li>- 32GB RAM, exp. to 512GB (requires replacing the standard 4x8GB DIMMs)</li> <li>- 2 x 1Gb Ethernet, FlexLOM for expansion (see list of options), 1 x PCI-Express slots free : for external FC HBA's to connect to the 3PAR system</li> <li>- Dynamic Smart Array B140i with support for Raid 0,1,1+0,5,5+0</li> <li>- 2 x 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot SSDs for O/S mirror per 3PAR StoreServ File Controller v3 Single Node</li> </ul>  |        |  |               |
| P-I   | K2R66A | HPE 3PAR StoreServ File Ctl v3 Sys       | 2,333,00      |
| P-I   | K2R67A | HPE 3PAR StoreServ File Ctl v3 Sngl Node | 6,432,00      |

| PN   | Description  | REP (in €)     |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
|--|--|----------------|-----------------------------|------|---|-------------|----|-------------|----|-------------|---|-------------|----|-------------|----|-------------|----|--|
| <b>Step 2 : Select your additional Host ports adapters (if required)</b>   |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <p>Each node in a node pair (a node pair is composed of the two controller nodes in a single 2U enclosure) must have the same number and type of adapters. Different adapter types may not be intermixed in a node pair.</p> <p>The 4 ports of the FC adapter can be individually configured to connect to a host or to a remote array in an RC configuration.</p> <p>The two ports of the iSCSI/FCoE adapter can be individually configured by the user as iSCSI or FCoE</p> <p>The Ethernet ports can be used only with the 3PAR File Persona Software Suite for File services connectivity.</p> |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <b>HBA's for Block host connect</b>  |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| H6Z00A   | HPE 3PAR 8000 4-pt 16Gb FC Adapter   | 4.560,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| H6Z10A   | HPE 3PAR 8000 2-pt 10Gb iSCSI/FCoE Adptr   | 2.930,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <b>HBA's for file persona host connect</b>   |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| E7Y70A   | HPE 3PAR 8000 2-pt 10Gb Eth Adapter  | 1.485,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| H6Z05A   | HPE 3PAR 8000 4-pt 1Gb Eth Adapter   | 655,00         |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <b>Combo HBA's ! Can be used for both Block and File Persona</b>   |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | N9Z18A HPE 3PAR 8000 4-pt 16Gb/10Gb Combo Adptr  | 3.818,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | N9Z19A HPE 3PAR 8000 4-pt 10Gb Combo Adapter   | 2.972,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <b>Step 3 : Add expansion shelves if necessary</b>   |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <table border="1"> <thead> <tr> <th>3PAR Base Unit</th> <th>Max Number of drive shelves</th> </tr> </thead> <tbody> <tr> <td>8200</td> <td>9</td> </tr> <tr> <td>8400 2-node</td> <td>11</td> </tr> <tr> <td>8440 2-node</td> <td>19</td> </tr> <tr> <td>8450 2-node</td> <td>9</td> </tr> <tr> <td>8400 4-node</td> <td>22</td> </tr> <tr> <td>8440 4-node</td> <td>38</td> </tr> <tr> <td>8450 4-node</td> <td>18</td> </tr> </tbody> </table>   |  | 3PAR Base Unit | Max Number of drive shelves | 8200 | 9 | 8400 2-node | 11 | 8440 2-node | 19 | 8450 2-node | 9 | 8400 4-node | 22 | 8440 4-node | 38 | 8450 4-node | 18 |  |
| 3PAR Base Unit   | Max Number of drive shelves  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| 8200   | 9  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| 8400 2-node  | 11   |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| 8440 2-node  | 19   |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| 8450 2-node  | 9  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| 8400 4-node  | 22   |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| 8440 4-node  | 38   |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| 8450 4-node  | 18   |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| E7Y71A   | HPE 3PAR 8000 SFF(2.5in) Fld Int Dr Encl<br><i>Kit contents : StoreServ 8000 SFF JBOD. Supports up to 24x 2.5" SFF Hard disks.</i> | 4.030,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| E7Y72A   | HPE 3PAR 8000 LFF(3.5in) Fld Int Dr Encl<br><i>Kit contents : StoreServ 8000 LFF JBOD. Supports up to 24x 3.5" LFF Hard disks.</i> | 4.030,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <b>SAS Active Optical Cables : for connecting StoreServ 8000 controller to a JBOD in an adjacent rack</b>  |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| P-I  | E7V95A HPE 10m Mini SAS HD Active Optical Cable  | 2.617,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| P-I  | E7V96A HPE 25m Mini SAS HD Active Optical Cable  | 3.084,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <b>Step 4 : Add the correct disk drives for your chassis.</b>  |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <p>For each drive type installed in the array, the minimum recommended initial quantity is eight (8) drives per node pair for SSD and SAS performance HDDs, and twelve (12) drives per node pair for Nearline HDDs.</p> <p>Minimum upgrade quantity is 4 drives per node pair or 2 drives per enclosure, whichever is larger.</p> <p>Best practice is to run Autonomic Rebalance (also known as tunesys) after adding the drives.</p>  |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <b>3.5" LFF 12G Nearline SAS disk drives.</b>  |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2P95B HPE 3PAR 8000 2TB+SW 7.2K LFF HDD   | 929,00         |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2P87B HPE 3PAR 8000 4TB+SW 7.2K LFF HDD   | 1.595,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2P96B HPE 3PAR 8000 6TB+SW 7.2K LFF HDD   | 2.109,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | P9B44B HPE 3PAR 8000 8TB+SW 7.2K LFF HDD   | 2.531,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <b>2.5" SFF 12G SAS SSD disks.</b>   |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | N9Y06B HPE 3PAR 8000 400GB+SW SFF SSD  | 2.661,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2P89B HPE 3PAR 8000 1.92TB+SW SFF SSD   | 9.308,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2P91B HPE 3PAR 8000 3.84TB+SW SFF SSD   | 17.291,00      |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | P9L83B HPE 3PAR 8000 7.68TB+SW SFF SSD   | 29.866,00      |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | P9M59B HPE 3PAR 8000 15.36TB+SW SFF SSD  | 50.480,00      |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <b>2.5" SFF SAS disks. (No ProLiant disk drives !!)</b>  |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2P97B HPE 3PAR 8000 300GB+SW 15K SFF HDD  | 1.411,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2P98B HPE 3PAR 8000 600GB+SW 15K SFF HDD  | 1.261,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2P99B HPE 3PAR 8000 600GB+SW 10K SFF HDD  | 817,00         |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2P93B HPE 3PAR 8000 1.2TB+SW 10K SFF HDD  | 1.396,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2P94B HPE 3PAR 8000 1.8TB+SW 10K SFF HDD  | 1.733,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | M0S92B HPE 3PAR 8000 2TB+SW 7.2K SFF HDD   | 1.807,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <b>2.5" SFF SSD FIPS encryption disk drives. Watch out : selecting encryption disk drives also requires the encryption license. Encryption is switched on per array , once encrypted all disks must be SED disks.</b>  |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2P90B HPE 3PAR 8000 920GB+SW SFF FE SSD   | 5.431,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2R27B HPE 3PAR 8000 1.92TB+SW SFF FE SSD  | 10.425,00      |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | M0T66B HPE 3PAR 8000 3.84TB+SW SFF FE SSD  | 19.020,00      |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | P9L84B HPE 3PAR 8000 7.68TB+SW SFF FE SSD  | 32.852,00      |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | P9M60B HPE 3PAR 8000 15.36TB+SW SFF FE SSD   | 55.528,00      |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <b>3.5" LFF FIPS Encryption Nearline SAS disk drives. !!! same remarks as for SSD SED drives !</b>   |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | N9Y05B HPE 3PAR 8000 4TB+SW 7.2K LFF FE HDD  | 1.755,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2P86B HPE 3PAR 8000 6TB+SW 7.2K LFF FE HDD  | 2.362,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | P9B45B HPE 3PAR 8000 8TB+SW 7.2K LFF FE HDD  | 2.784,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <b>2.5" SFF FIPS Encryption Nearline SAS disk drives. !!! NO HP ProLiant LFF disk drives, same remarks as for SSD SED drives )</b>   |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2P92B HPE 3PAR 8000 600GB+SW 15K SFF FE HDD   | 1.412,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| N  | K2P85B HPE 3PAR 8000 1.2TB+SW 10K SFF FE HDD   | 1.564,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <b>Step 5: Choose the Service Processor implementation</b>   |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| <p>The physical Service Processor is a dedicated storage appliance located within the storage rack providing close proximity to the 3PAR StoreServ 8000 Storage. The physical Service Processor is fully supported and maintained by HP Services. The physical Service Processor has serial port connectivity that provides maintenance access for trouble shooting capabilities.</p>  |  |                |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |
| K2R28A   | 3PAR StoreServ Service Processor   | 3.910,00       |                             |      |   |             |    |             |    |             |   |             |    |             |    |             |    |  |

| PN  | Description | REP<br>(in €)                            |           |
|---|-------------|--|-----------|
| <b>3Par StoreServ 8000 - Ordering Guidelines - Part 2 : Software</b>  |             |  |           |
| There are three HP StoreServ 8000 Software bundles available :<br>- Functionality for replication : peer motion, remote copy, peer persistence, etc.<br>- Activation of the encryption disks.   |             |  |           |
| <b>Step 6 : Need to connect to another system?</b>  |             |  |           |
| HPE 3PAR All-inclusive Multi-system software contains the following functionality :   |             |  |           |
| <ul style="list-style-type: none"> <li>• 3PAR Remote Copy</li> <li>• 3PAR Peer Persistence</li> <li>• 3PAR Cluster Extension (CLX)</li> <li>• 3PAR Peer Motion</li> </ul>   |             |  |           |
| For electronic versions, just add the letters 'AE' to the end of the part number.   |             |  |           |
| Frame license ( 1 required for support entitlement)   |             |  |           |
| N   | L7E69A      | HPE 3PAR 8200 All-in Multi-system SW LTU | 4,664,00  |
| N   | L7E70A      | HPE 3PAR 8400 All-in Multi-system SW LTU | 22,535,00 |
| N   | L7E71A      | HPE 3PAR 8440 All-in Multi-system SW LTU | 38,799,00 |
| N   | L7E72A      | HPE 3PAR 8450 All-in Multi-system SW LTU | 38,799,00 |
| <b>Step 7 : need to encrypt your 3PAR?</b>  |             |  |           |
| HPE 3PAR Encryption licenses; Required to activate FIPS based encryption on FIPS SED Drives   |             |  |           |
| For electronic versions, just add the letters 'AE' to the end of the part number.   |             |  |           |
| Frame license ( 1 required for support entitlement)   |             |  |           |
|   | L7B67A      | HPE 3PAR 8200 Data Encryption LTU        | 3,285,00  |
|   | L7B91A      | HPE 3PAR 8400 Data Encryption LTU        | 6,635,00  |
|   | L7C15A      | HPE 3PAR 8440 Data Encryption LTU        | 8,295,00  |
|   | L7C39A      | HPE 3PAR 8450 Data Encryption LTU        | 8,295,00  |
| <b>Step 8 : Require a comprehensive control on the support traffic for your 3PAR ?</b>  |             |  |           |
| HPE 3PAR Policy Server works to implement customer-configurable remote service access policies. Installed on a customer-provided host, Policy Server provides the customer with ultimate flexibility and control to allow or deny outbound communication or remote service connections to and from an HPE 3PAR StoreServ Storage system. Policy Server also serves as the centralized point for collecting and storing audit logs of all diagnostic data transfers and authorized remote service connections to and from all configured HPE 3PAR Storage systems. |             |  |           |
| For electronic versions, just add the letters 'AE' to the end of the part number.   |             |  |           |
| Frame license ( 1 required for support entitlement)   |             |  |           |
|   | TE400B      | 3PAR Policy Manager software LTU         | 13,635,00 |
| <b>Step 9 : Expand your base warranty with Support Services : please consult your reseller or distributor.</b>  |             |  |           |



| PN | Description | REP (in €) |
|----|-------------|------------|
|----|-------------|------------|

Does data growth leave you struggling with complex, distributed, and costly data protection? Keep pace with StoreOnce Backup systems, disk-based data protection with StoreOnce deduplication.

StoreOnce Backup systems reduce the amount of backup data you need to store by up to 95%, so with our scale-out architecture you can pay-as-you-grow to retain up to 10 petabytes of data in a single pool. They provide automated backup and DR operations with all the features you'd expect from dedicated disk backup, and some you can only get from HP.

StoreOnce Catalyst delivers industry-leading backup speeds of up to 100 TB/hour to meet shrinking backup windows, plus Federated Deduplication across the enterprise so you can dedupe data anywhere to suit your configuration. Based on HP's single deduplication technology, StoreOnce, managing the movement of data between remote offices and enterprise data centers has never been easier.

Seamlessly integrating with your current backup applications, StoreOnce Backup systems provide flexible integration for both SAN and virtualized environments. With the StoreOnce 6500, Autonomic restart means a more resilient solution at a price/performance point that is up to 75% better than the leading competitor.

\*Actual performance is dependent upon configuration data set type, compression levels, number of data streams, number of devices emulated and number of concurrent tasks, such as housekeeping or replication.

**The New HPE StoreOnce Systems family includes:**

- A new StoreOnce 3100 system ; 1U solution with 5.5 TB of usable\*\*\* capacity (8 TB RAW) , With speeds of up to 6.4 TB/hour\* using HPE StoreOnce Catalyst.
- A new StoreOnce 3520 system, scalable 2U solution with 7.5 to 15.5 TB of usable\*\*\* capacity (12-24 TB RAW) , With speeds of up to 12.7 TB/hour\* using HPE StoreOnce Catalyst.
- A new StoreOnce 3540 system, scalable 2U solution with 15.5 TB to 31.5 TB of usable\*\*\* capacity (24-48 TB RAW) ,With speeds of up to 12.7 TB/hour\* using HPE StoreOnce Catalyst.
- A new StoreOnce 5100 system, scalable 2U - 12U solution with 36 TB to 216 TB of usable\*\*\* capacity (48-288 TB RAW) , With speeds of up to 26.7 TB/hour\* using HPE StoreOnce Catalyst.
- A new StoreOnce 5500 system, scalable 7U - 22U solution with 36 TB to 864 TB of usable\*\*\* capacity (60TB -1PB RAW) , With speeds of up to 37.7 TB/hour\* using HPE StoreOnce Catalyst.

**The HPE StoreOnce Backup family features:**

- Flexible choice for number and types of connectivity, 10GbE-T, 10GbE, or 8Gb FC, on StoreOnce 3520, 3540 and 5100, Additionally 16Gb FC for the StoreOnce 5500
- Initial licenses for StoreOnce 3000-5000 family pre-installed in the factory
- IPv6 support for NFS and VT iSCSI interfaces
- Addition of a simple network wizard
- Gen9 Catalyst over Fibre Channel support on IBM AIX platforms
- Centralized Encryption Key Management support

| StoreOnce Backup systems - Ordering Guidelines - Part 1 : hardware units  |        |  |            |
|---|--------|--|------------|
| <b>StoreOnce 3000 and 5000 Series Base Units</b>  |        |  |            |
| P-I   | BB913A | HPE StoreOnce 3100 8TB System  | 7.593,00   |
|   |        | Supports up to 24 backup streams, 4 x gigabit connection, 4 x 2TB hard disk, Hardware raid 5. 8TB Raw capacity, 5.5TB net capacity, iSCSI and NAS only   |            |
| <p>For 3520 and higher systems : please do not forget to add the necessary connectivity!<br/>           These new systems now offer flexible I/O configurations, up to 4 HBA's can be added. See next paragraph for choices.<br/>           Also, when ordered together with the Base units, the I/O card licenses will also be pre-installed at the factory.</p> |        |  |            |
| - Both 3520 and 3540 systems come preloaded with 12 x 2 or 4TB disks. However only 50% of capacity is activated. In order to activate the total capacity, an upgrade license needs to be added to the system. Please refer to the upgrade options section for details.  |        |  |            |
| P-I   | BB922A | HPE StoreOnce 3520 12TB System   | 10.406,00  |
|   |        | Supports up to 96 backup streams, 4x gigabit connection, 12 x 2TB hard disk (see remark above), Hardware raid 5. 12TB Raw capacity, 7.5TB net capacity. See the Connectivity section for I/O options.  |            |
| P-I   | BB914A | HPE StoreOnce 3540 24TB System   | 14.019,00  |
|   |        | Supports up to 96 backup streams, 4x gigabit connection, 12 x 4TB hard disk (see remark above), Hardware raid 5. 24TB Raw capacity, 15.5TB net capacity. See the Connectivity section for I/O options. |            |
| P-I   | BB915A | HPE StoreOnce 5100 48TB System   | 43.364,00  |
|   |        | Supports up to 96 backup streams, 4x gigabit connection, 12 x 4TB hard disk (see remark above), Hardware raid 5. 24TB Raw capacity, 15.5TB net capacity. See the Connectivity section for I/O options. |            |
| N P-I EOL   | BB917A | HPE StoreOnce 5500 60TB System   | 109.346,00 |
|   |        | Supports up to 50 source streams, 4 x gigabit connection, 2 x 900GB 10K SAS in base unit for OS, Expansion shelf with 15 x 4TB hard disk, Hardware raid 6. Net capacity 36TB, Expandable to 864TB Net. |            |
| N   | BB917D | HPE StoreOnce 5500 60TB System   | 109.346,00 |

|  | PN     | Description  | REP (in €) |
|--|--------|--|------------|
|  |        | NEW : now with 3 year, on-site, NBD Warranty !<br>Supports up to 50 source streams, 4 x gigabit connection, 2 x 900GB 10K SAS in base unit for OS, Expansion shelf with 15 x 4TB hard disk, Hardware raid 6. Net capacity 36TB, Expandable to 864TB Net. |            |
| <b>StoreOnce 3000-5000 series connectivity options</b>   |        |  |            |
| Up to 4 Cards can be added in any combination  |        |  |            |
| P-I  | BB926A | HPE StoreOnce 10GbE Network Card   | 2.336,00   |
| P-I  | BB927A | HPE StoreOnce 10GbE-T Network Card   | 2.336,00   |
| P-I  | BB928A | HPE StoreOnce 8Gb Fibre Channel Card   | 2.804,00   |
| P-I  | BB929A | HPE StoreOnce 16Gb Fibre Channel Card  | 4.673,00   |
| Always add the corresponding activation SKU !!!  |        |  |            |
|  | BB949A | HPE StoreOnce 10GbE Netwrk Exp LTU   | 1,00       |
|  | BB950A | HPE StoreOnce 10GbE-T Netwrk Exp LTU   | 1,00       |
|  | BB951A | HPE StoreOnce 8Gb Fibre Channel Card LTU   | 1,00       |
|  | BB952A | HPE StoreOnce 16Gb Fibrechannel Card LTU   | 1,00       |
| <b>StoreOnce 3000-5000 Capacity upgrades</b>   |        |  |            |
| <b>StoreOnce 35x0</b>  |        |  |            |
| Max. Capacity for 3520= 15,5TB usable capacity ; for 3540 = 36TB usable capacity   |        |  |            |
| P-I  | BB944A | HPE StoreOnce 3520 12TB Capacity Upg LTU   | 4.673,00   |
| P-I  | BB943A | HPE StoreOnce 3540 24TB Capacity Upg LTU   | 9.112,00   |
| <b>StoreOnce 5100</b>  |        |  |            |
| The StoreOnce 5100 can have up to 5 extra capacity upgrades.<br>Max. Capacity for 5100 = 216TB Net Capacity  |        |  |            |
| P-I  | BB916A | HPE StoreOnce 5100 48TB Capacity Upg Kit   | 37.383,00  |
|  |        | Allows customers to upgrade their 5100 with an extra 36TB usable capacity. Includes - 1 x D3650 with 12 x 4TB disk , Capacity expansion license entitlement document and installation guide  |            |
| <b>StoreOnce 5500</b>  |        |  |            |
| Capacity upgrades can be done in two ways : adding more disks in the base disk drawer or adding an addition disk drawer.<br><br>The base unit can hold up to 5 extra capacity expansion kits, after that just add up to three additional disk drawers each with 36TB net and another 5 expansion kits per drawer, for a maximum of 864TB net capacity!   |        |  |            |
| N  | BB941D | HPE StoreOnce 5500 44TB Cap Upg Kit  | 46.729,00  |
|  |        | Allows customers to upgrade their 5500 with an extra 32TB usable capacity. Includes - 11 x 4TB MDL SAS Disks, Capacity expansion license entitlement document and installation guide. NEW : 3 year warranty, on-site, NBD                                |            |
| N  | BB933D | HPE StoreOnce 5500 60TB Drwr/Cap Upg Kit   | 58.178,00  |
|  |        | Allows customers to upgrade their 5500 with an extra 36TB usable capacity. Includes - 1 x D6000 JBOD + 15 x 4TB MDL SAS Disks, Capacity expansion license entitlement document and installation guide. NEW : 3 year warranty, on-site, NBD               |            |
| N P-I EOL  | BB941A | HPE StoreOnce 5500 44TB Cap Upg Kit  | 46.729,00  |
|  |        | Allows customers to upgrade their 5500 with an extra 32TB usable capacity. Includes - 11 x 4TB MDL SAS Disks, Capacity expansion license entitlement document and installation guide   |            |
| N P-I EOL  | BB933A | HPE StoreOnce 5500 60TB Drwr/Cap Upg Kit   | 58.178,00  |
|  |        | Allows customers to upgrade their 5500 with an extra 36TB usable capacity. Includes - 1 x D6000 JBOD + 15 x 4TB MDL SAS Disks, Capacity expansion license entitlement document and installation guide  |            |
| <b>StoreOnce Backup systems - Ordering Guidelines - Part 2 : Software</b>  |        |  |            |
| StoreOnce systems support a variety of capability enhancements through software licenses :<br>- Catalyst : an object store and API to enhance the integration with backup software and applications<br>- Encryption license<br>- Replication license (for VTL/NAS, not needed for Catalyst)  |        |  |            |
| <b>StoreOnce Catalyst Licenses</b>   |        |  |            |
| The StoreOnce Catalyst license enables StoreOnce Catalyst backup and copy; there is no need to purchase an additional replication license when using StoreOnce Catalyst backup targets. However, if you are employing VTL or NAS backup targets alongside StoreOnce Catalyst backup targets on the same StoreOnce Backup System, additional replication licenses will be required for the target appliance.<br><br>These licenses are also valid for older models that use the Version 3.x software. |        |  |            |
| For electronic versions, just add the letters 'AE' to the end of the part number.  |        |  |            |
| P-I  | BB887A | HPE StoreOnce 2000/3000 Catalyst LTU   | 304,00     |
| P-I  | BB888A | HPE StoreOnce 4500/5100 Catalyst LTU   | 2.991,00   |

|   | PN     | Description  | REP<br>(in €) |
|---|--------|--|---------------|
| P-I   | BB889A | HPE StoreOnce 4400/4700 Catalyst LTU   | 6.729,00      |
| P-I   | BB906A | HPE StoreOnce 4900/5500 Catalyst LTU   | 29.089,00     |
| <b>StoreOnce Replication Licenses</b>   |        |  |               |
| For electronic versions, just add the letters 'AE' to the end of the part number.                             |        |  |               |
|   |        | <b>Needed on each machine that will be a target for StoreOnce replication.</b>   |               |
| P-I   | BB884A | HPE StoreOnce 2000/3000 Replication LTU  | 607,00        |
| P-I   | BB885A | HPE StoreOnce 4500/5100 Replication LTU  | 3.738,00      |
| P-I   | BB886A | HPE StoreOnce 4700 Replication LTU   | 5.607,00      |
| P-I   | BB905A | HPE StoreOnce 4900/5500 Replication LTU  | 50.421,00     |
| <b>StoreOnce Encryption Licenses</b>  |        |  |               |
| For electronic versions, just add the letters 'AE' to the end of the part number.                             |        |  |               |
|   |        | <b>An StoreOnce Security Pack license (2600, 2700, 4200, 4500, 4400, 4700) is required for each appliance . This license contains both the Data-at-rest encryption and the secure erase functionality.</b> |               |
| P-I   | BB891A | HPE StoreOnce 2000/3000 Sec Pack LTU   | 304,00        |
| P-I   | BB892A | HPE StoreOnce 4500/5100 Sec Pack LTU   | 1.495,00      |
| P-I   | BB893A | HPE StoreOnce 4400/4700 Security Pk LTU  | 5.234,00      |
| P-I   | BB907A | HPE StoreOnce 4900/5500 Sec Pack LTU   | 9.696,00      |
| <b>StoreOnce Backup systems - Ordering Guidelines - Part 3 : Upgrades for legacy D2D and StoreOnce system</b> |        |  |               |

|  | PN     | Description  | REP<br>(in €) |
|--|--------|--|---------------|
| <b>StoreOnce 2000-4000 series Capacity upgrades</b>  |        |  |               |
| <b>StoreOnce 2900</b>  |        |  |               |
| <b>Max. Capacity for 2900 = 31,5TB usable capacity</b>   |        |  |               |
| P-I  | BB911A | HPE StoreOnce 2900 24TB Capacity Upgrade   | 9.112,00      |
| <b>StoreOnce 4500/4700</b>   |        |  |               |
| <p>The StoreOnce 4500 can have up to 3 extra capacity upgrades, the 4700 can handle up to 7 capacity upgrades.</p> <p><b>Max. Capacity for 4500 = 124TB, 4700 = 160TB Net capacity</b></p>   |        |  |               |
| P-I  | BB881A | HPE StoreOnce 4500/4700 24TB Upgrade Kit   | 28.411,00     |
|  |        | Allows customers to upgrade their 4430/4500/4700 with an extra 20TB usable capacity. Includes - 1 x D2600 with 12 x 2TB disk , Capacity expansion license entitlement document and installation guide                    |               |
| P-I  | BB909A | HPE StoreOnce 4500 48TB Upgrade Kit  | 52.336,00     |
|  |        | Allows customers to upgrade their 4500 with an extra 36TB usable capacity. Includes - 1 x D2600 with 12 x 4TB disk , Capacity expansion license entitlement document and installation guide                              |               |
| <b>StoreOnce 4900</b>  |        |  |               |
| <p>Capacity upgrades can be done in two ways : adding more disks in the base disk drawer or adding a second disk drawer.</p> <p>The base unit can hold up to 5 extra capacity expansion kits, after that just add the second Disk drawer for another 36TB net and another 5 expansion kits</p> |        |  |               |
| P-I  | BB908A | HPE StoreOnce 4900 44TB Cap Upgrade Kit  | 58.178,00     |
|  |        | Allows customers to upgrade their 4900 with an extra 32TB usable capacity. Includes - 11 x 4TB MDL SAS Disks, Capacity expansion license entitlement document and installation guide                                     |               |
| P-I  | BB904A | HPE StoreOnce 4900 60TB Drw/Cap Upg Kit  | 65.935,00     |
|  |        | Allows customers to upgrade their 4900 with an extra 36TB usable capacity. Includes - 1 x D6000 JBOD + 15 x 4TB MDL SAS Disks, Capacity expansion license entitlement document and installation guide                    |               |
| <b>StoreOnce Gen3 Series</b>   |        |  |               |
| <b>StoreOnce Capacity upgrades</b>   |        |  |               |
| P-I EOL  | BB864A | HP StoreOnce 4210 Upgrade Kit  | 14.019,00     |
|  |        | Allows customers to upgrade their 4210 from 4 to 9TB Net capacity. Includes - 1 x D2600 with 12 x 500GB disk , Capacity expansion license entitlement document and installation guide (can also be used for D2D4106)     |               |
| P-I EOL  | EH995C | HP StoreOnce 4220/4420 Upgrade Kit   | 25.701,00     |
|  |        | Allows customers to upgrade their 4120 from 8 to 18TB Net capacity. Includes - 1 x D2600 with 12 x 1TB disk , Capacity expansion license entitlement document and installation guide (can also be used for D2D4112/4312) |               |
| P-I EOL  | EH986B | HP StoreOnce 4430 Upgrade Kit  | 46.729,00     |
|  |        | Allows customers to upgrade their 4430 from 16 up to 76TB of usable capacity. Includes - 1 x D2600 with 12 x 2TB disk , Capacity expansion license entitlement document and installation guide (also for D2D4324)        |               |
| <b>Support Services</b>  |        |  |               |
| For Services , please consult the CarePack Central Website   |        |  |               |

|  | PN | Description | REP<br>(in €) |
|--|----|-------------|---------------|
|--|----|-------------|---------------|

|  | PN | Description | REP<br>(in €) |
|--|----|-------------|---------------|
|--|----|-------------|---------------|

## Low-cost, next-gen storage that scales with you

The HPE StoreVirtual 3200 Storage system is a new dual-controller active/active architecture designed to provide host connectivity via the industry's latest host interconnects: 8/16Gb Fibre Channel, 10GbE iSCSI, and 1GbE iSCSI.

Coupled with rich data services and a new Web-based management interface, this new array is also focused on driving entry storage to very aggressive entry price points.

The StoreVirtual inherits a lot of its functionality from the legacy Lefthand OS : thin provisioning, reservationless snapshots, Network RAID, application managed snapshots and clones, adaptive optimization and Remote Copy.

However some major differences are : instead of a pure scale-out solution, the SV3200 is a scale-up solution, much like the MSA series. The SV3200 can scale from 4 up to 100 disks and contrary to the 4000 series, this means only adding disks and if needed JBODs ! It is only the first entry level array that really can claim up to five 9's, due to the built-in network RAID functionality (which comes on top of standard controller based disk raid !)

| Technical specifications      |  |
|-------------------------------|--|
| Controllers                   | 6-core 64-bit CPU<br>8GB NVDIMM Cache per controller, Battery backed (for moving the data from RAM to flash)   |
| Max. Drives                   | Up to 200 SFF or 96 LFF drives in a scale out configuration  |
| Expansion                     | Up to six SFF and/or LFF 2U drive enclosures with scale out  |
| Drive types, 12G SAS :        |  |
| SFF SSDs                      | 400GB, 800GB, 1.6TB, 3.2TB   |
| LFF SSDs                      | 400GB, 800GB   |
| SFF HDDs                      | 15,000 RPM: 300GB, 600GB<br>10,000 RPM: 300GB, 600GB, 900GB, 1.2TB, 1.8TB<br>7,200 RPM SAS-MDL: 2.0TB  |
| LFF HDDs                      | 7,200 RPM SAS-MDL: 2TB, 4TB, 6TB, 8TB  |
| Max Capacity :                | 768TB maximum including expansion  |
| Storage expansion options     | HPE StoreVirtual 3200 LFF Drive Enclosures (2U)<br>HPE StoreVirtual 3200 SFF Drive Enclosure (2U)<br>Up to three drive enclosures supported per controller pair.   |
| Host interfaces :             | 8/16Gb Fibre Channel (Four ports, speed determined by SFP+ module)<br>1GbE iSCSI (Four or eight ports)<br>10GbE iSCSI with SFP+ or 10Gbase-T (Four ports)  |
| Compatible operating systems  | The HPE StoreVirtual 3200 supports a wide variety of operating systems. For a complete list of supported operating systems, visit HPE Storage SPOCK at <a href="https://h20272.www2.hpe.com/spock/">https://h20272.www2.hpe.com/spock/</a> |
| Form factor                   | 2U base array, 2U LFF, or SFF drive enclosures   |
| Warranty (parts-labor-onsite) | 3-0-0  |

### New for February 2017 :

- scale-out to two iSCSI based systems, effectively doubling the capacity and performance overnight !
- Multi-site capability for iSCSI systems : now you can do sync replication with your SV3200 between two sites.  
Requires a third site for FOM, also requires advanced data services license for each site.
- DSM for Windows ! Increases performance in a multipathing environment.
- StoreVirtual OS site bundle : for environments where no external downloads are possible, updates all firmware. etc in a single pack.

### New for December 2016 :

- New lower cost 10Gb Controllers with 10Gbase-T
- Support for 8TB MDL SAS disk drives
- Added Write Intensive SSD drives, both in LFF and SFF. These drives offer higher resilience compared to the Mixed use drives.
- New functionality :  
Introduction of the StoreVirtual 3000 file controller : add low-cost file serving to your StoreVirtual 3200, with an integrated management experience !  
Based on the newest Windows Storage Server 2016 Standard Edition, with built-in quota management, deduplication, usage reporting (eg. for intra departement invoicing !)  
Clusterable out-of-the box for superior high availability

## StoreVirtual 3200 Base Units

Base units, always come with 2 controllers

|     |        |                                      |          |
|-----|--------|--------------------------------------|----------|
| P-I | N9X16A | HPE SV3200 4x1GbE iSCSI SFF Storage  | 5.356,00 |
| P-I | N9X17A | HPE SV3200 4x1GbE iSCSI LFF Storage  | 5.356,00 |
| P-I | N9X18A | HPE SV3200 8x1GbE iSCSI SFF Storage  | 6.279,00 |
| P-I | N9X19A | HPE SV3200 8x1GbE iSCSI LFF Storage  | 6.279,00 |
| P-I | N9X20A | HPE SV3200 4x10GbE iSCSI SFF Storage | 6.833,00 |
| P-I | N9X21A | HPE SV3200 4x10GbE iSCSI LFF Storage | 6.833,00 |

## StoreVirtual 3200 SAN Array

|  | PN         | Description   | REP<br>(in €) |
|--|------------|---|---------------|
| P-I  | N9X22A     | HPE SV3200 4x10GBase-T SFF Storage  | 5.799,00      |
| P-I  | N9X23A     | HPE SV3200 4x10GBase-T LFF Storage  | 5.799,00      |
| P-I  | N9X24A     | HPE SV3200 4x16Gb FC SFF Storage  | 6.095,00      |
| P-I  | N9X25A     | HPE SV3200 4x16Gb FC LFF Storage  | 6.095,00      |
| <b>SFP+ for the fibre channel and 10Gb iSCSI base units</b>                                |            |   |               |
| P-I  | N9X01A     | HPE SV3000 8Gb 2-pack FC SFP+ XCVR  | 174,00        |
| P-I  | N9X02A     | HPE SV3000 16Gb 2-pack FC SFP+ XCVR   | 695,00        |
| P-I  | N9X03A     | HPE SV3000 10Gb 2-pack iSCSI SFP XCVR   | 651,00        |
| <b>StoreVirtual 3200 File Controller</b>   |            |   |               |
| <b>File controller unit</b>  |            |   |               |
| P-I  | Q0F66A     | HPE StoreVirtual 3000 File Controller   | 3.972,00      |
|  |            | <i>Kit contents : SV3000 file controller, based on ProLiant DL120. Intel E5-2603v4 CPU; 8GB Ram, 2x 120GB SATA SSD for OS; 4 x 1Gb Ethernet NIC, 900W redundant power supplies and fans and Windows Storage Server 2016 Standard Edition. This version can be clustered , that requires a minimum of 2 SV3000 file controller nodes; up to maximum of 16 nodes.</i> |               |
| <b>File controller expansions</b>  |            |   |               |
| P-I  | 805347-B21 | HPE 8GB 1Rx8 PC4-2400T-R Kit  | 260,00        |
| <b>StoreVirtual 3200 Expansion</b>   |            |   |               |
| <b>JBODs</b>   |            |   |               |
| P-I  | N9W99A     | HPE SV3000 LFF Drive Enclosure  | 2.832,00      |
|  |            | <i>Kit contents : SV3200 Base JBOD; Supports up to 12x 3.5" LFF SV3200 Hard disks. Supports the addition of up to 3 extra SV3200 LFF JBOD</i>   |               |
| P-I  | N9X00A     | HPE SV3000 SFF Drive Enclosure  | 2.832,00      |
|  |            | <i>Kit contents : SV3200 Base JBOD; Supports up to 25x 2.5" SFF SV3200 Hard disks. Supports the addition of up to 3 extra SV3200 SFF JBOD</i>   |               |
| <b>SAS cables</b>  |            |   |               |
| <b>Connecting SV3200 controller to JBOD or JBOD to JBOD, if a longer cable is desired.</b> |            |   |               |
|  | 716195-B21 | HP External 1.0m (3ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable   | 100,00        |
|  | 716197-B21 | HP External 2.0m (6ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable   | 130,00        |
| <b>StoreVirtual 3200 Software</b>  |            |   |               |
|  |            | <i>SV3200 Advanced data services contain the necessary software license to activate the following features :</i><br>- Adaptive Optimization (Auto-tiering)<br>- Remote Copy (application consistent snapshot replication)   |               |
| P-I  | N9Y66A     | HPE SV3200 Advanced Data Services LTU   | 2.869,00      |
| P-I  | N9Y66AAE   | HPE SV3200 Advanced Data Services E-LTU   | 2.869,00      |
|  |            | <i>SV3200 Migration manager facilitates the migration from legacy StoreVirtual arrays. Minimum Lefthand OS level required is 12.5. allows Imigrating from both StoreVirtual VSA as well as 4xxx series arrays.</i>  |               |
| P-I  | P9V08A     | HPE SV3200 Migration Manager LTU  | 83,00         |
| P-I  | P9V08AAE   | HPE SV3200 Migration Manager E-LTU  | 83,00         |

# StoreVirtual 3200 SAN Array

|   | PN     | Description                              | REP (in €) |
|---|--------|--|------------|
| <b>StoreVirtual 3200 disk drives</b>  |        |  |            |
| <b>3.5" LFF 12G 7,2K rpm MDL SAS disk drives. These are 512e drives</b>                           |        |  |            |
| P-I   | N9X10A | HPE SV3000 2TB 12G SAS 7.2K LFF MDL HDD  | 539,00     |
| P-I   | N9X11A | HPE SV3000 4TB 12G SAS 7.2K LFF MDL HDD  | 710,00     |
| P-I   | N9X12A | HPE SV3000 6TB 12G SAS 7.2K LFF MDL HDD  | 930,00     |
| P-I   | N9X13A | HPE SV3000 8TB 12G SAS 7.2K LFF MDL HDD  | 1.182,00   |
| <b>3.5" LFF SSD 12G SAS drives. Write Intensive SSD drives! Higher Resilience than Mixed Use.</b> |        |  |            |
| P-I   | Q0F83A | HPE SV3000 400GB 12G SAS WI LFF CC SSD   | 2.418,00   |
| P-I   | Q0F84A | HPE SV3000 800GB 12G SAS WI LFF CC SSD   | 4.681,00   |
| <b>3.5" LFF SSD 12G SAS drives. Mixed Use.</b>  |        |  |            |
| P-I   | N9Z14A | HPE SV3000 400GB 12G SAS 3.5in MU CC SSD | 1.731,00   |
| P-I   | N9Z15A | HPE SV3000 800GB 12G SAS 3.5in MU CC SSD | 3.291,00   |
| <b>2.5" SFF SSD 12G SAS drives. New Write Intensive SSD drives ! Higher Resilience.</b>           |        |  |            |
| P-I   | N9X87A | HPE SV3000 200GB 12G SAS 2.5in WI SSD    | 1.353,00   |
| P-I   | N9X88A | HPE SV3000 400GB 12G SAS 2.5in WI SSD    | 2.090,00   |
| P-I   | N9X89A | HPE SV3000 800GB 12G SAS 2.5in WI SSD    | 3.911,00   |
| <b>2.5" SFF SSD 12G SAS drives. New Mixed Use SSD drives !</b>                                    |        |  |            |
| P-I   | N9X84A | HPE SV3000 400GB 12G SAS 2.5in MU SSD    | 1.731,00   |
| P-I   | N9X85A | HPE SV3000 800GB 12G SAS 2.5in MU SSD    | 3.291,00   |
| P-I   | N9X86A | HPE SV3000 1.6TB 12G SAS 2.5in MU SSD    | 6.225,00   |
| P-I   | N9Z13A | HPE SV3000 3.2TB 12G SAS 2.5in MU SSD    | 10.843,00  |
| <b>2.5" SFF 12G 15K rpm SAS disk drives.</b>  |        |  |            |
| P-I   | N9X14A | HPE SV3000 300GB 12G SAS 15K SFF HDD     | 411,00     |
| P-I   | N9X15A | HPE SV3000 600GB 12G SAS 15K SFF HDD     | 598,00     |
| <b>2.5" SFF 12G 10K rpm SAS disk drives.</b>  |        |  |            |
| P-I   | N9X04A | HPE SV3000 300GB 12G SAS 10K SFF HDD     | 258,00     |
| P-I   | N9X05A | HPE SV3000 600GB 12G SAS 10K SFF HDD     | 411,00     |
| P-I   | N9X06A | HPE SV3000 900GB 12G SAS 10K SFF HDD     | 531,00     |
| P-I   | N9X07A | HPE SV3000 1.2TB 12G SAS 10K SFF HDD     | 657,00     |
| P-I   | N9X08A | HPE SV3000 1.8TB 12G SAS 10K SFF HDD     | 959,00     |
| <b>2.5" SFF 12G 7,2K rpm MDL SAS disk drives.</b>   |        |  |            |
| P-I   | N9X09A | HPE SV3000 2TB 12G SAS 7.2K SFF MDL HDD  | 807,00     |



## StoreVirtual 3200 SAN Array

|  | PN | Description        | REP<br>(in €) |
|--|----|--------------------|---------------|
| Fibre Channel switches & HBA's :   |    | <b>StoreFabric</b> |               |
| iSCSI : please refer to the Networking catalogue   |    |                    |               |
| Expand your base warranty with Carepacks : please consult the Carepack central website ! |    |                    |               |

# StoreVirtual 4000 Series

|  | PN | Description | REP (in €) |
|--|----|-------------|------------|
|--|----|-------------|------------|

**The StoreVirtual 4000 scalable storage solutions key features :**

- Highly scalable, easy to use storage solution with superior HA and DR capabilities
  - Consolidate storage for Windows, Linux and VMWare environments,
  - Rack mount chassis form factor
  - Based on Lefthand OS
  - Models with SAS or Midline SAS drives
  - Software included support for
    - Network RAID 10,5 or 6 (RAID 10= Synchronous Replication ) with online RAID level migration
    - Snapshots, Volume Clones etc
    - Remote Copy : Asynchronous Replication with Bandwidth Throttling
    - Multi-Site HA/DR Synchronous Replication
    - Peer Motion for data tiering, non-disruptive upgrades, data migration, etc
    - Online Software Upgrades
    - Self-Healing Storage
  - Storage Controllers: minimum of 2 per SAN, a cluster of 3 Storage systems provides triple redundancy
  - Network RAID Levels (per volume)
    - RAID 10 ; 10+1; 10+2 protect against double disk, system, and site failures
    - Network RAID 5 : protects against single disk or single controller outages
    - Network RAID 6 : protects against double disk or double controller outages
  - Hardware RAID Levels 10, 5, 6 per storage system
  - Hardware Availability features
    - o Hot-plug hard drives, redundant hot plug power supplies and fans
    - o ECC memory
    - o Integrated Smart Array P420 w/ 2GB Flash-backed cache
    - o Hyper-redundant clustered storage
- Remote management through iLO4 advanced  
 Fibre Channel Gateway support : allows for VMotion between iSCSI & Fibre Channel SAN !

- October 2015 : Lefthand OS 12.5**
- 2-node Quorum, ideal for ROBO organisations
  - Split Network configurations, both Physical (NICs) as logical (VLANs)
    - KVM support for Red Hat, CentOS and OpenStack linux
  - OpenSSL vulnerabilities patched

- June 2015: Lefthand OS 12.0**
- T10-Unmap for reclaiming unused space on host systems. Supported on Windows 2012/2012 R2 ; VMWare 5.1 or higher. Linux support TBD.
  - Warning : P4000 G2 systems based on MDL SAS drives, wanting to use to this feature require a memory upgrade (see below in the upgrade section)
  - VMWare Multi-Path extension module ("intelligent multipathing), increased VSA I/O performance up to 15% !
  - Enhanced REST functionality for Cloud integration , third party management integration (API + manuals now available for developers)

| StoreVirtual Appliances - Models Overview |        |  |          |
|---|--------|--|----------|
| StoreVirtual 4130                         |        |  |          |
|   |        | 4 SFF SAS drives, 600GB, 6G SAS 10,000 RPM<br>Single CPU - Intel Xeon Hex core 5500/ 5600 series at 2.0 GHz<br>8 GB RAM<br>Redundant hot swap power supplies (460W CS Platinum Plus Hot Plug)<br>2GB Flash backed write cache<br>Support for RAID 5, 6, 10<br>Quad port 1Gbit NIC<br>iLO4 Management - iLO Advanced Pack<br>Smart Array Advanced Pack 2.01 |          |
| <b>P-I EOL</b>                            | B7E16A | HP StoreVirtual 4130 600GB SAS Storage   | 9.439,00 |

|                                      | PN     | Description   | REP (in €) |
|--------------------------------------|--------|---|------------|
| <b>StoreVirtual 4330</b>             |        |   |            |
|                                      |        | 8 SFF 6G SAS or MDL SAS drives<br>Single CPU - Intel Xeon Hex core 5500/ 5600 series at 2.0 GHz<br>32 GB RAM<br>Redundant hot swap power supplies (460W CS Platinum Plus Hot Plug)<br>2GB Flash backed write cache<br>Support for RAID 5, 6, 10<br>Quad port 1Gbit NIC<br>iLO4 Management - iLO Advanced Pack<br>Smart Array Advanced Pack 2.01                 |            |
| <b>P-I EOL</b>                       | B7E17A | HP StoreVirtual 4330 450GB SAS Storage  | 12.710,00  |
|                                      |        | 1 x 4330 Controller, with 8 x 450GB 10K rpm SFF SAS disks   |            |
| <b>P-I EOL</b>                       | B7E18A | HP StoreVirtual 4330 900GB SAS Storage  | 21.028,00  |
|                                      |        | 1 x 4330 Controller, with 8 x 900GB 10K rpm SFF SAS disks   |            |
| <b>P-I EOL</b>                       | B7E19A | HP StoreVirtual 4330 1TB MDL SAS Storage  | 12.710,00  |
|                                      |        | 1 x 4330 Controller, with 8 x 1TB 7,2K rpm SFF MDL SAS disks  |            |
| <b>P-I EOL</b>                       | B7E20A | HP StoreVirtual 4330FC 900GB SAS Storage  | 23.364,00  |
|                                      |        | 1 x 4330 Controller, with 8 x 900GB 10K rpm SFF SAS disks, 2 x 8Gb Fibre Channel ports & 2 x 10Gb Ethernet Ports  |            |
| <b>StoreVirtual 4335 Hybrid Node</b> |        |   |            |
|                                      |        | 3 x 400GB SSD and 7 x 900GB SAS Drives<br>Intel E5-2640 V2, 2,0GHz (2.5GHz Turbo), 8 core<br>32 GB RAM<br>Redundant hot swap power supplies (460W CS Platinum Plus Hot Plug)<br>2GB Flash backed write cache<br>Disk Raid 5 preconfigured.<br>Quad port 1Gb NIC and dual port 10Gb NIC<br>iLO4 Management - iLO Advanced Pack<br>Smart Array Advanced Pack 2.01 |            |
| <b>P-I EOL</b>                       | F3J70B | HP StoreVirtual 4335 Hybrid Storage   | 31.098,00  |
|                                      |        | 1 x 4335 v2 Controller, with 3 x 400GB SSD disk and 7 x 900GB 10K rpm SFF SAS disks   |            |
| <b>StoreVirtual 4530</b>             |        |   |            |
|                                      |        | 12 LFF 6G SAS or MDL SAS drives<br>Intel E5-2620 2.0Ghz, six core<br>64 GB RAM<br>Redundant hot swap power supplies (750W CS Platinum Plus Hot Plug)<br>2GB Flash backed write cache<br>Support for RAID 5, 6, 10 (MDL SAS, no RAID 5)<br>Quad port 1Gbit NIC<br>Dual port 10Gb NIC<br>iLO4 Management - iLO Advanced Pack<br>Smart Array Advanced Pack 2.01    |            |
| <b>P-I EOL</b>                       | B7E25B | HP StoreVirtual 4530 450GB SAS Storage  | 25.701,00  |
|                                      |        | 1 x 4530 Controller, with 12 x 450GB 15K rpm SFF SAS drives in a LFF carrier  |            |
| <b>P-I EOL</b>                       | B7E26B | HP StoreVirtual 4530 600GB SAS Storage  | 28.037,00  |
|                                      |        | 1 x 4530 Controller, with 12 x 600GB 15K rpm SFF SAS drives in a LFF carrier  |            |
| <b>P-I EOL</b>                       | B7E23A | HP StoreVirtual 4530 2TB MDL SAS Storage  | 24.860,00  |
|                                      |        | 1 x 4530 Controller, with 12 x 2TB 7,2K rpm SFF MDL SAS disks   |            |
| <b>P-I EOL</b>                       | B7E24A | HP StoreVirtual 4530 3TB MDL SAS Storage  | 29.907,00  |
|                                      |        | 1 x 4530 Controller, with 12 x 3TB 7,2K rpm SFF MDL SAS disks   |            |
| <b>P-I EOL</b>                       | F3J69A | HP StoreVirtual 4530 4TB MDL SAS Storage  | 37.383,00  |
|                                      |        | 1 x 4530 Controller, with 12 x 4TB 7,2K rpm SFF MDL SAS disks   |            |

|  | PN       | Description   | REP (in €) |
|--|----------|---|------------|
| <b>StoreVirtual 4730</b>                                   |          |   |            |
|  |          | 25 SFF 6G SAS SAS drives<br>Single CPU - Intel Xeon Hex core 5500/ 5600 series at 2.0 GHz<br>64 GB RAM<br>Redundant hot swap power supplies (750W CS Platinum Plus Hot Plug)<br>2GB Flash backed write cache<br>Support for RAID 5, 6, 10<br>Quad port 1Gbit NIC<br>Dual port 10Gb NIC<br>iLO4 Management - iLO Advanced Pack<br>Smart Array Advanced Pack 2.01                         |            |
| <b>P-I EOL</b>   | B7E27A   | HP StoreVirtual 4730 600GB SAS Storage  | 42.991,00  |
|  |          | 1 x 4730 Controller, with 25 x 600GB 10K rpm SFF SAS disks  |            |
| <b>P-I EOL</b>   | B7E28A   | HP StoreVirtual 4730 900GB SAS Storage  | 52.336,00  |
|  |          | 1 x 4730 Controller, with 25 x 900GB 10K rpm SFF SAS disks  |            |
| <b>P-I EOL</b>   | B7E29A   | HP StoreVirtual 4730FC 900GB SAS Storage  | 54.206,00  |
|  |          | 1 x 4730 Controller, with 25 x 900GB 10K rpm SFF SAS disks  |            |
| <b>StoreVirtual 4630 BladeSystem</b>                       |          |   |            |
|  |          | BL460 Gen8 base platform<br>D2700 JBOD with 25 SFF 6G SAS SAS drives<br>dual CPU - Intel Xeon Hex core 5500/ 5600 series at 2.0 GHz<br>64 GB RAM<br>2GB Flash backed write cache<br>Support for RAID 5, 6, 10<br>On-board FlexFabric 10Gb 2-port 554FLB FlexibleLOM<br>iLO4 Management - iLO Advanced Pack<br>Smart Array Advanced Pack 2.01  |            |
| <b>P-I EOL</b>   | B7E30A   | HP StoreVirtual 4630 900GB SAS Storage  | 57.944,00  |
|  |          | 1 x 4630 Controller and 1 x D2700 JBOD with with 25 x 900GB 10K rpm SFF SAS disks   |            |
| <b>StoreVirtual additional VMWare integration software</b> |          |   |            |
|  |          | The StoreFront Analytics software, an adapter for vCenter Operations Manager from VMware, relates virtual machines and datastores to volumes from 3PAR StoreServ and StoreVirtual storage systems. Administrators using StoreFront Analytics are able to visualize and analyze data from their 3PAR StoreServ or StoreVirtual storage array directly within vCenter Operations Manager. |            |
| <b>P-I</b>   | D4T80AAE | HP StoreFront Analytics for VMware vRealize Operations and StoreVirtual Software E-LTU  | 187,00     |
| <b>StoreVirtual Upgrades</b>                               |          |   |            |
| <b>StoreVirtual 4330 options</b>                           |          |   |            |
| <b>P-D EOL</b>   | B7E21A   | HP StoreVirtual 4030 10G BASE-SFP+ Kit  | 1.402,00   |
|  |          | Use this kit to upgrade StoreVirtual 4330 to 10 GbE, and connect to a 10 GbE iSCSI network. It has 2 x 10GbE SFP+ ports per kit. One kit is required for each node in the StoreVirtual Cluster.   |            |
| <b>Legacy P4000 G2 Upgrade Options and Spare parts</b>     |          |   |            |
| <b>P4000 G2 Options</b>                                    |          |   |            |
| <b>P-I EOL</b>   | K2Q44A   | HP StoreVirtual P4000 G2 Memory Upgrade   | 121,00     |
|  |          | Use this kit to upgrade StorageWorks P4000 G2 Storage Systems running Lefthand OS 11.5 or higher, whenever the CMC shows 90% or higher memory usage. Also required for upgrades to next releases of Lefthand OS.  |            |



|  | PN | Description | REP<br>(in €) |
|--|----|-------------|---------------|
|--|----|-------------|---------------|

[HP StoreVirtual VSA : scalable, clustered iSCSI SAN](#)  
[HP StoreOnce VSA : deduplication 2.0 for Backup and fast restores](#)

**The HP StoreVirtual VSA Clustered Storage series key features :**

- *Highly scalable, easy to use storage solution with superior HA and DR capabilities*
- *Consolidate storage for Windows, Linux and VMWare environments.*
- *Supplied as a VMWare, Hyper-V or KVM virtual machine*
- *Based on HP Lefthand OS*
- *Full independence of the underlying hardware : use your own choice of external arrays, JBODs, SSD, SAS, MDL SAS, SATA or even IOAccelerator cards !*
- *Software included support for*
  - *Network RAID 10,5 or 6 (RAID 10= Synchronous Replication ) with online RAID level migration*
  - *Snapshots, Volume Clones etc*
  - *Remote Copy : Asynchronous Replication with Bandwidth Throttling*
  - *Multi-Site HA/DR Synchronous Replication*
  - *Peer Motion for data tiering, non-disruptive upgrades, data migration, etc*
  - *Online Software Upgrades*
  - *Self-Healing Storage*
- *Storage VSA's required: minimum of 2 per SAN, a cluster of 3 Storage systems provides triple redundancy, maximum 16 nodes per cluster, 32 per management group.*
- *Network RAID Levels (per volume)*
  - *RAID 10 : 10+1; 10+2 protect against double disk, system, and site failures*
  - *Network RAID 5 : protects against single disk or single controller outages*
  - *Network RAID 6 : protects against double disk or double controller outages*
- *Hardware RAID Levels : whatever the underlying storage system supports.*

*may2010 : Lefthand OS 12.0*

*Hewlett-Packard Enterprise branding has been made to the software and documentation.*

• *HPE StoreVirtual VSA KVM for Red Hat Enterprise Linux 6.7, 7.0, CentOS 6.7, 7.0, and Ubuntu 14.04.*

• *The Network Diagnostics utility, which provides ping, traceroute, and IPERF functions to collect diagnostics, was added.*

• *The createSnapshotSet and rollBackVolume action object models were added to the REST API. The createManagementGroup API was also added.*

• *If an upgrade fails, you can now restart the upgrade without assistance from Hewlett Packard Enterprise Support. The upgrade partition is automatically unmounted if the storage system is unreachable. If there is an unrecoverable error, a message displays instructing you to restart each affected storage system.*

• *The jumbo frame option has been re-enabled for StoreVirtual VSAs.*

• *If a volume gets into the Unrecoverable IO state, support personnel now have the ability to clear this volume state by overwriting the affected pages or blocks with zeros. This may help in certain data recovery scenarios.*

• *A new event has been added to the CMC to track retransmit rates over network ports. If the retransmit rate exceeds 0.5%, an event is generated. Increased retransmit rates can affect network performance.*

~~• *Continuous code improvements throughout 12.x versions to fix memory leaks*~~

*Octobre 2015 : Lefthand OS 12.5*

• *2-node Quorum, ideal for ROBO organisations*

• *Split Network configurations, both Physical (NICs) as logical (VLANs)*

• *KVM support for Red Hat, CentOS and OpenStack linux*

• *OpenSSL vulnerabilities patched*

**HP StoreVirtual VSA series nodes**

|  | PN | Description | REP<br>(in €) |
|--|----|-------------|---------------|
|--|----|-------------|---------------|

[HP StoreVirtual VSA : scalable, clustered iSCSI SAN](#)  
[HP StoreOnce VSA : deduplication 2.0 for Backup and fast restores](#)

**The HP StoreVirtual VSA Clustered Storage series key features :**

- Highly scalable, easy to use storage solution with superior HA and DR capabilities
- Consolidate storage for Windows, Linux and VMWare environments.
- Supplied as a VMWare, Hyper-V or KVM virtual machine
- Based on HP Lefthand OS
- Full independence of the underlying hardware : use your own choice of external arrays, JBODs, SSD, SAS, MDL SAS, SATA or even IOAccelerator cards !
- Software included support for
  - Network RAID 10,5 or 6 (RAID 10= Synchronous Replication ) with online RAID level migration
  - Snapshots, Volume Clones etc
  - Remote Copy : Asynchronous Replication with Bandwidth Throttling
  - Multi-Site HA/DR Synchronous Replication
  - Peer Motion for data tiering, non-disruptive upgrades, data migration, etc
  - Online Software Upgrades
  - Self-Healing Storage
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may2010 : Lefthand OS 12.0

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- A new event has been added to the CMC to track retransmit rates over network ports. If the retransmit rate exceeds 0.5%, an event is generated. Increased retransmit rates can affect network performance.

Continuous code improvements throughout 12.x versions to fix memory leaks

Octobre 2015 : Lefthand OS 12.5

- 2-node Quorum, ideal for ROBO organisations
- Split Network configurations, both Physical (NICs) as logical (VLANs)
  - KVM support for Red Hat, CentOS and OpenStack linux
- OpenSSL vulnerabilities patched

The HP StoreVirtual virtual SAN appliance comes in three flavors :

- a 4TB entry level version : limited to three nodes; No Adaptive Optimization supported
- a 10TB version
- a 50TB version.

The 10TB & 50TB versions can be clustered with up to 16 nodes.

All nodes come with the Lefthand OS with all its features included.

In order to create an active/active configuration, two identical nodes must be selected.

ALL VSA licenses come with a full 3 or 5 year software support. Two license types are available : - time limited (3 or 5 years, all versions) or perpetual (only for 10TB a 50TB versions)

| HP StoreVirtual VSA 2014 with Lefthand OS 12,5 |        |  |          |
|--|--------|--|----------|
| P-I  | TC485A | HPE SV VSA 2014 4TB 3pk 3yr Stock LTU  | 2.804,00 |
| P-I  | D4U02A | HPE SV VSA 2014 4TB 3pk 5yr Stock LTU  | 4.673,00 |
|  |        | Includes copy of Lefthand OS media and documentation. This is the LTU as stocked by distri.<br>This is a 3-node package, supporting Up to 4TB capacity per node. No auto-tiering supported.  |          |
| P-I  | Q0J77A | HPE SV VSA 2014 10TB LTU   | 5.604,00 |
|  |        | • Not stockable by the channel, must order as drop ship and have single end-user quantities represented on the order<br>• Installation media and documentation downloadable from <a href="http://hpe.com/storage/downloads/storevirtual">hpe.com/storage/downloads/storevirtual</a><br>• Includes 3 years of software support for each license |          |
| P-I  | TC487A | HPE SV VSA 2014 10TB 3yr Stock LTU   | 3.271,00 |
| P-I  | D4U04A | HPE SV VSA 2014 10TB 5yr Stock LTU   | 5.453,00 |
|  |        | Includes copy of Lefthand OS media and documentation. This is the LTU as stocked by distri.<br>This is a single node, supporting Up to 10TB capacity. Minimum 2 nodes are required to create a cluster. Supports auto-tiering  |          |
| P-I  | Q0J78A | HPE SV VSA 2014 50TB LTU   | 9.614,00 |
|  |        | • Not stockable by the channel, must order as drop ship and have single end-user quantities represented on the order<br>• Installation media and documentation downloadable from <a href="http://hpe.com/storage/downloads/storevirtual">hpe.com/storage/downloads/storevirtual</a><br>• Includes 3 years of software support for each license |          |
| P-I  | TC500A | HPE SV VSA 2014 50TB 3yr Stock LTU   | 5.607,00 |
| P-I  | D4U08A | HPE SV VSA 2014 50TB 5yr Stock LTU   | 9.346,00 |
|  |        | Includes copy of Lefthand OS media and documentation. This is the LTU as stocked by distri.<br>This is a single node, supporting Up to 50TB capacity. Minimum 2 nodes are required to create a cluster. Supports auto-tiering  |          |

| PN | Description | REP<br>(in €) |
|----|-------------|---------------|
|----|-------------|---------------|

[HP StoreVirtual VSA : scalable, clustered iSCSI SAN](#)  
[HP StoreOnce VSA : deduplication 2.0 for Backup and fast restores](#)

**The HP StoreVirtual VSA Clustered Storage series key features :**

- Highly scalable, easy to use storage solution with superior HA and DR capabilities
- Consolidate storage for Windows, Linux and VMware environments.
- Supplied as a VMware, Hyper-V or KVM virtual machine
- Based on HP LeftHand OS
- Full independence of the underlying hardware : use your own choice of external arrays, JBODs, SSD, SAS, MDL SAS, SATA or even IOAccelerator cards !
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  - Network RAID 10,5 or 6 (RAID 10= Synchronous Replication ) with online RAID level migration
  - Snapshots, Volume Clones etc
  - Remote Copy : Asynchronous Replication with Bandwidth Throttling
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**Octobre 2015 : LeftHand OS 12.5**

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| HP StoreVirtual VSA 2014 upgrades                      |          |   |          |
|--|----------|---|----------|
| P-I  | TC504A   | HPE SV VSA 2014 Upg 4-10TB 3yr Stock LTU  | 2.571,00 |
| P-I  | D4U12A   | HPE SV VSA 2014 Upg 4-10TB 5yr Stock LTU  | 4.285,00 |
| P-I  | TC506A   | HPE SV VSA 2014 Upg 4-50TB 3yr Stock LTU  | 5.140,00 |
| P-I  | D4U14A   | HPE SV VSA 2014 Upg 4-50TB 5yr Stock LTU  | 8.565,00 |
| P-I  | TC508A   | HPE SV VSA 2014 Upg 10-50TB 3yr Stck LTU  | 2.571,00 |
| P-I  | D4U16A   | HPE SV VSA 2014 Upg 10-50TB 5yr Stck LTU  | 4.285,00 |
| HP StoreVirtual additional VMware integration software |          |   |          |
|  |          | The HP StoreFront Analytics software, an adapter for vCenter Operations Manager from VMware, relates virtual machines and datastores to volumes from HP 3PAR StoreServ and StoreVirtual storage systems. Administrators using HP StoreFront Analytics are able to visualize and analyze data from their HP 3PAR StoreServ or StoreVirtual storage array directly within vCenter Operations Manager. |          |
| P-I  | D4T80AAE | HP StoreFront Analytics for VMware vRealize Operations and StoreVirtual Software E-LTU  | 187,00   |



| PN | Description | REP (in €) |
|----|-------------|------------|
|----|-------------|------------|

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## HP StoreOnce Series

Does data growth leave you struggling with complex, distributed, and costly data protection? Keep pace with HP StoreOnce Backup systems, disk-based data protection with StoreOnce deduplication.

HP StoreOnce Backup systems reduce the amount of backup data you need to store by up to 95%, so with our scale-out architecture you can pay-as-you-grow to retain up to 10 petabytes of data in a single pool. They provide automated backup and DR operations with all the features you'd expect from dedicated disk backup, and some you can only get from HP.

HP StoreOnce Catalyst delivers industry-leading backup speeds of up to 100 TB/hour to meet shrinking backup windows, plus Federated Deduplication across the enterprise so you can dedupe data anywhere to suit your configuration. Based on HP's single deduplication technology, StoreOnce, managing the movement of data between remote offices and enterprise data centers has never been easier.

Seamlessly integrating with your current backup applications, StoreOnce Backup systems provide flexible integration for both SAN and virtualized environments. With the HP StoreOnce 6500, Autonomic restart means a more resilient solution at a price/performance point that is up to 75% better than the leading competitor.

\*Actual performance is dependent upon configuration data set type, compression levels, number of data streams, number of devices emulated and number of concurrent tasks, such as housekeeping or replication.

| PN | Description | REP<br>(in €) |
|----|-------------|---------------|
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[HP StoreVirtual VSA : scalable, clustered iSCSI SAN](#)  
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New for March 2017

StoreOnce VSA 32TB license and licenses to scale up capacity from 20TB to 32TB and 32TB to 50TB  
Mixed couplet support within the StoreOnce 6600, customers can now add a 6600 couplet to an existing StoreOnce 6500 appliance  
StoreOnce 5500 and 6600, now with 3 year warranty

New features and benefits:

Catalyst Copy over Fibre Channel.

- Expands upon the current Catalyst release to utilize Fibre Channel as a protocol to transmit copies in addition to backup.

- For customers that may not want to expand their Ethernet capacity or have Fibre Channel only environments that want to utilize, or have utilized Catalyst, and the ability to copy completes their backup solution.

Support for IVMR (Instantaneous Virtual Machine Recovery) and other vPower NFS features in Veeam Backup and Replication in conjunction with backup to Catalyst  
Reporting Central improvements, including email notifications, threshold alerts, and increased granularity in graphical reporting and customized history data retention.

Enhanced StoreOnce Remote Support enablement for StoreOnce systems  
Remote data collection enablement for StoreOnce VSA

|  | PN | Description | REP<br>(in €) |
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|--|----|-------------|---------------|

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| <b>HP StoreOnce VSA</b>   |        |                                   |           |
|---|--------|-----------------------------------|-----------|
| For electronic versions, just add the letters 'AE' to the end of the part number. |        |                                   |           |
| P-I   | P9L02A | HPE StoreOnce VSA 4TB LTU         | 2.617,00  |
| P-I   | P9L03A | HPE StoreOnce VSA 10TB LTU        | 6.542,00  |
| P-I   | P9L04A | HPE StoreOnce VSA 20TB LTU        | 13.084,00 |
| N   | Q0Q47A | HPE StoreOnce VSA 32TB LTU        | 20.935,00 |
| P-I   | P9L05A | HPE StoreOnce VSA 50TB LTU        | 32.710,00 |
| <b>HP StoreOnce VSA upgrades</b>  |        |                                   |           |
| For electronic versions, just add the letters 'AE' to the end of the part number. |        |                                   |           |
| P-I   | P9L06A | HPE StoreOnce VSA Upg 4-10TB LTU  | 3.925,00  |
| P-I   | P9L07A | HPE StoreOnce VSA Upg 10-20TB LTU | 6.542,00  |
| N   | Q0Q48A | HPE StoreOnce VSA Upg 20-32TB LTU | 7.850,00  |
| N   | Q0Q49A | HPE StoreOnce VSA Upg 32-50TB LTU | 10.467,00 |
| P-I   | P9L08A | HPE StoreOnce VSA Upg 20-50TB LTU | 19.626,00 |

|  | PN     | Description   | REP<br>(in €) |
|--|--------|---|---------------|
| <p>The MSA1040 and 204x are the 4th generation of the successful MSA product family. The MSA204x brings a whole performance level to the entry level SAN array world, while the MSA1040 takes over the budget friendly crown from its predecessor the P2000 G3 MSA.</p> <p>The MSAx040 is a 2U storage area network (SAN) solution designed for small to medium size deployments or remote locations. The MSAx040 also remains loyal to the MSA family legacy and still offers flexible configuration capabilities. with the MSA2040 you start out with a base chassis, and add controllers depending on the usage model of the customer. eg. you can create a basic single controller model for low initial cost with the ability to upgrade later; the MSA1040 always comes with the two controllers integrated into the base chassis. Both models offer new enhanced controllers, optimized for high speed.</p> <p><b>Main functionality for MSA204x (optional on MSA1040) :</b></p> <ul style="list-style-type: none"> <li>- Wide striping, all volumes make use of all the disks in a virtual pool</li> <li>- volume size, now max. 128TiB up from 64TiB</li> <li>- More hosts supported : up to 512 hosts</li> <li>- Thin provisioning with soft &amp; hard thresholds, overprovisioning alerting, thin space reclamation (T10-Unmap)</li> <li>- New improved snapshot engine with redirect on write, multi-level snapshots (up to 3x performance improvement on snapshots)</li> <li>- up to 3 level tiering (SSD-&gt;SAS-&gt;MDLSAS). Performance tier (with SSD) is optional</li> <li>- SSD Read cache</li> </ul> <p><b>NEW , June 2016: firmware GL220P008 adds :</b></p> <ul style="list-style-type: none"> <li>- MSA1040 support for SSD drives ! *</li> <li>- Volume Copy for virtualized pools</li> <li>- Snapshot management GUI with scheduler</li> <li>- Remote Copy for virtualised pools</li> <li>- Volume Tier Affinity : 'QOS' for volumes, indicate a preferred tier for a given volume.</li> <li>- Large Pool capacity support, up to 1PiB per virtual pool !</li> </ul> <p><b>NEW , August 2016:</b></p> <ul style="list-style-type: none"> <li>- MSA2042, the fastest member of the MSA family. With standard 2 x 400GB SSD read cache; includes licenses for : Performance tiering, Remote Copy and maximum snapshots.</li> <li>- Support for LFF SSD drives on all models (400/800GB)</li> </ul> <p><b>NEW , September 2016:</b></p> <ul style="list-style-type: none"> <li>- A new release of the MSA2042, this time using the 400GB Enterprise Mainstream SSD drives. These SKU's have been created to cope for the industry wide shortage of NAND chips (used in all the Mixed use drives). No other changes of the functionality of the MSA2042.</li> <li>- Additional LFF SSD drives, based on Enterprise Mainstream SSDs.</li> <li>- Larger MDL SAS drives : 10TB ...allowing the MSA204x to grow up to 960TB of raw storage !!</li> </ul> |        |   |               |
| <b>MSA 2042 base configurations</b>  |        |   |               |
| Base Units always with 2 controllers   |        |   |               |
|  |        | Kit contents : MSA2042 Energy Star Base Unit with dual MSA2040 Converged SAN controllers + 2 x 400GB Mixed Use SSD, Advanced Data Services suite (No SFP's, no cables, no switches, no HBA)             |               |
| P-I  | Q0F05A | HPE MSA 2042 SAN DC LFF Storage   | 9.157,00      |
| P-I  | Q0F06A | HPE MSA 2042 SAN DC SFF Storage   | 9.157,00      |
|  |        | Kit contents : MSA2042 Energy Star Base Unit with dual MSA2040 SAS controllers + 2 x 400GB Mixed Use SSD, Advanced Data Services suite (No SFP's, no cables, no switches, no HBA)                       |               |
| P-I  | Q0F07A | HPE MSA 2042 SAS DC LFF Storage   | 9.081,00      |
| P-I  | Q0F08A | HPE MSA 2042 SAS DC SFF Storage   | 9.081,00      |
|  |        | Kit contents : MSA2042 Energy Star Base Unit with dual MSA2040 Converged SAN controllers + 2 x 400GB Enterprise Mainstream SSD, Advanced Data Services suite (No SFP's, no cables, no switches, no HBA) |               |
| P-I  | Q0F72A | HPE MSA 2042 SAN DC ME SFF Stor   | 10.545,00     |
| P-I  | Q0F74A | HPE MSA 2042 SAN DC ME LFF Storage  | 10.545,00     |
|  |        | Kit contents : MSA2042 Energy Star Base Unit with dual MSA2040 SAS controllers + 2 x 400GB Enterprise Mainstream SSD, Advanced Data Services suite (No SFP's, no cables, no switches, no HBA)           |               |
| P-I  | Q0F73A | HPE MSA 2042 SAS DC ME SFF Storage  | 10.457,00     |
| P-I  | Q0F75A | HPE MSA 2042 SAS DC ME LFF Storage  | 10.457,00     |
| <b>MSA 2040 base configurations</b>  |        |   |               |
| Base Units always with 2 controllers   |        |   |               |
|  |        | Kit contents : MSA2040 Energy Star Base Unit with dual MSA2040 Converged SAN controllers (no switch, no HBA's, no cables, no SFP's !)   |               |
| P-I  | K2R79A | HPE MSA 2040 ES SAN DC LFF Storage  | 7.882,00      |
| P-I  | K2R80A | HPE MSA 2040 ES SAN DC SFF Storage  | 8.178,00      |
|  |        | Kit contents : MSA2040 energy Star Base Unit with dual MSA2040 SAS controllers (no HBA's, no cables)  |               |

|  | PN       | Description  | REP (in €) |
|--|----------|--|------------|
| P-I  | K2R83A   | HPE MSA 2040 ES SAS DC LFF Storage   | 7.808,00   |
| P-I  | K2R84A   | HPE MSA 2040 ES SAS DC SFF Storage   | 8.104,00   |
| <b>MSA 1040 base configurations</b>  |          |  |            |
| <b>Base units, always come with 2 controllers</b>  |          |  |            |
| P-I  | K2Q90A   | HPE MSA 1040 2Prt SAS DC LFF Strg  | 5.172,00   |
| P-I  | E7W03A   | HPE MSA 1040 2Prt 10G iSCSI DC LFF Strg  | 6.095,00   |
| P-I  | E7W01A   | HPE MSA 1040 2Prt 1G iSCSI DC LFF Strg   | 4.618,00   |
| P-I  | E7V99A   | HPE MSA 1040 2Prt FC DC LFF Strg   | 5.356,00   |
| P-I  | K2Q89A   | HPE MSA 1040 2Prt SAS DC SFF Strg  | 5.356,00   |
| P-I  | E7W04A   | HPE MSA 1040 2Prt 10G iSCSI DC SFF Strg  | 6.279,00   |
| P-I  | E7W02A   | HPE MSA 1040 2Prt 1G iSCSI DC SFF Strg   | 4.802,00   |
| P-I  | E7W00A   | HPE MSA 1040 2Prt FC DC SFF Strg   | 5.541,00   |
| <b>MSA2040 a la carte</b>  |          |  |            |
| <b>Step 1 : select your base disk shelf</b>  |          |  |            |
| P-I  | K2R82A   | HPE MSA 2040 ES LFF Chassis<br><i>Kit contents : MSA2040 Base JBOD, without controllers. Supports up to 12x 3.5" LFF P2000/MSA2040 Hard disks. Supports the addition of up to 7 extra MSA2040 LFF JBOD</i>   | 2.031,00   |
| P-I  | K2R81A   | HPE MSA 2040 ES SFF Chassis<br><i>Kit contents : MSA2040 Base JBOD, without controllers. Supports up to 24x 2.5" SFF MSA2040 Hard disks or SSD's. Supports the addition of up to 7 extra D2700 SFF JBODs</i> | 2.327,00   |
| <b>Step 2a : add 1 or 2 MSA2040 Controllers</b>  |          |  |            |
| <b>Watch out : you can not mix two different controllers in the same base chassis.</b>   |          |  |            |
| P-I  | C8R09A   | HPE MSA 2040 SAN Controller  | 2.926,00   |
| P-I  | C8S53A   | HPE MSA 2040 SAS Controller  | 2.881,00   |
| <b>Step 2b : If you selected the MSA2040 Converged Storage controller above, please select the necessary SFP kits. 1 kit required per controller. Mixing is possible !</b> |          |  |            |
| P-I  | C8S75A   | HPE MSA 2040 1Gb SW iSCSI SFP 4 Pk   | 434,00     |
| P-I  | C8R25A   | HPE MSA 2040 10Gb SW iSCSI SFP 4 Pk  | 1.302,00   |
| P-I  | C8R23A   | HPE MSA 2040 8Gb SW FC SFP 4 Pk  | 347,00     |
| P-I  | C8R24A   | HPE MSA 2040 16Gb SW FC SFP 4 Pk   | 1.389,00   |
| <b>Step 2C : Add optional capabilities to your array.</b>  |          |  |            |
| P-I  | D4T78A   | HPE MSA 1040 Adv Virtualized Upg LTU   | 292,00     |
| P-I  | D4T78AAE | HPE MSA 1040 Adv Virtualized Upg E-LTU   | 292,00     |
| <b>New : Advanced data services license : bundles : performance tiering+Snapshot 512+Remote Snap in a single license at a much better price !</b>                          |          |  |            |
| P-I  | Q0H99A   | HPE MSA Advanced Data Services LTU   | 2.869,00   |
| P-I  | Q0H99AAE | HPE MSA Advanced Data Services E-LTU   | 2.869,00   |
| P-I  | D4T79A   | HPE MSA 2040 Perf Auto Tiering LTU   | 3.332,00   |
| P-I  | D4T79AAE | HPE MSA 2040 Perf Auto Tiering E-LTU   | 3.332,00   |
| P-I  | TC462A   | HP MSA 512-Snapshot Software LTU   | 3.332,00   |
| P-I  | TC462AAE | HP MSA 512-Snapshot Software E-LTU   | 3.332,00   |
| P-I  | TC463A   | HP MSA Remote Snap Software LTU  | 2.917,00   |

# MSA SAN Array

|  | PN         | Description  | REP<br>(in €) |
|--|------------|--|---------------|
| <b>MSA x040 expansion options</b>  |            |  |               |
| <b>JBODs</b>   |            |  |               |
| P-I  | M0S96A     | HPE MSA 2040 ES LFF Disk Enclosure<br><br><i>Kit contents : MSAx040 Base JBOD, without controllers. Supports up to 12x 3.5" LFF P2000/MSAx040 Hard disks. Max. 7 extra JBODs behind the MSA2040 controllers, Max 3 JBODs behind MSA1040 controllers.</i><br><br><i>NEW : can also be used to expand P2000 G3 systems !</i>   | 2.917,00      |
| P-I  | AJ941A     | HPE D2700 Disk Enclosure<br><br><i>Kit contents : D2700Base Unit with redundant power supplies, redundant fans and dual domain I/O. No SAS cable !</i><br><i>Watch out : when connecting the D2700, disk drives need to be specific for MSAx040, do not use ProLiant Disk drives !</i><br><i>- max. 7 JBODs behind MSA2040 controllers, Max. 3 JBODs behind MSA1040 controllers.</i> | 2.832,00      |
| <b>SAS cable</b>   |            |  |               |
| <b>Connecting MSA2040 controller to MSA2040 or D2700 JBOD if a longer cable is desired.</b>  |            |  |               |
| P-I  | 407337-B21 | HP External Mini SAS 1m Cable ALL  | 69,00         |
| P-I  | 407339-B21 | HP External Mini SAS 2m Cable  | 97,00         |
| <b>12Gb SAS Drive options : 7,2k rpm MDL ; 10K &amp; 15K SAS ; SSD ; SSD drives are supported on MSA1040 with FW GL220R005 or higher</b> |            |  |               |
| <b>3.5" LFF 12G SAS SSD drives. 2.5" disk drives in a 3.5" convertor</b>   |            |  |               |
| P-I  | P9M79A     | HPE MSA 400GB 12G SAS MU LFF CC SSD  | 1.731,00      |
| P-I  | P9M80A     | HPE MSA 800GB 12G SAS MU LFF CC SSD  | 3.291,00      |
| P-I  | Q0F76A     | HPE MSA 400GB 12G SAS ME LFF CC SSD  | 2.418,00      |
| P-I  | Q0F77A     | HPE MSA 800GB 12G SAS ME LFF CC SSD  | 4.681,00      |
| <b>3.5" LFF 12G 15K rpm SAS disk drives. 2.5" disk drives in a 3.5" convertor</b>  |            |  |               |
| P-I  | J9V68A     | HPE MSA 300GB 12G SAS 15K 3.5in CC HDD   | 411,00        |
| P-I  | J9V69A     | HPE MSA 450GB 12G SAS 15K 3.5in CC HDD   | 591,00        |
| P-I  | J9V70A     | HPE MSA 600GB 12G SAS 15K 3.5in CC HDD   | 598,00        |
| <b>3.5" LFF 12G 7,2K rpm MDL SAS disk drives.</b><br><b>These are 512n drives.</b>   |            |  |               |
| P-I  | N9X93A     | HPE MSA 2TB 12G SAS 7.2K 3.5in 512n HDD  | 539,00        |
| P-I EOL  | N9X94A     | HPE MSA 4TB 12G SAS 7.2K 3.5in 512n HDD  | 790,00        |
| <b>3.5" LFF 12G 7,2K rpm MDL SAS disk drives.</b><br><b>These are 512e drives, Require FW GL200P002 or higher on MSA1040/2040.</b>       |            |  |               |
| P-I  | P9M82A     | HPE MSA 10TB 12G SAS 7.2K LFF 512e HDD   | 1.699,00      |
| P-I  | M0S90A     | HPE MSA 8TB 12G SAS 7.2K 3.5in 512e HDD  | 1.182,00      |
| P-I  | J9F43A     | HPE MSA 6TB 12G SAS 7.2K 3.5in MDL HDD   | 930,00        |
| P-I  | K2Q82A     | HPE MSA 4TB 12G SAS 7.2K 3.5in MDL HDD   | 710,00        |
| <b>2.5" SFF SSD 12G SAS drives. Write Intensive SD drives</b>  |            |  |               |
| P-I  | J9F37A     | HP MSA 400GB 12G SAS ME 2.5in EM SSD   | 2.204,00      |
| P-I  | J9F38A     | HP MSA 800GB 12G SAS ME 2.5in EM SSD   | 4.124,00      |
| P-I  | J9F39A     | HP MSA 1.6TB 12G SAS ME 2.5in EM SSD   | 6.995,00      |
| <b>2.5" SFF SSD 12G SAS drives.</b>  |            |  |               |
| P-I  | N9X95A     | HPE MSA 400GB 12G SAS MU 2.5in SSD   | 1.731,00      |
| P-I  | N9X96A     | HPE MSA 800GB 12G SAS MU 2.5in SSD   | 3.291,00      |
| P-I  | N9X91A     | HPE MSA 1.6TB 12G SAS MU 2.5in SSD   | 6.225,00      |
| P-I  | N9X92A     | HPE MSA 3.2TB 12G SAS MU 2.5in SSD   | 10.843,00     |
| <b>2.5" SFF SSD 12G SAS drives.</b>  |            |  |               |
| P-I  | K2Q45A     | MSA 200GB 12G ME SAS 2.5in Ent SSD   | 1.427,00      |
| <b>2.5" SFF 12G 15K rpm SAS disk drives.</b>   |            |  |               |
| P-I  | J9F40A     | HPE MSA 300GB 12G SAS 15K 2.5in ENT HDD  | 411,00        |
| P-I  | J9F41A     | HPE MSA 450GB 12G SAS 15K 2.5in ENT HDD  | 591,00        |
| P-I  | J9F42A     | HPE MSA 600GB 12G SAS 15K 2.5in ENT HDD  | 598,00        |
| <b>2.5" SFF 12G 10K rpm SAS disk drives. Watch out : only the list below is supported !</b>  |            |  |               |
| P-I  | J9F49A     | HPE MSA 1.8TB 12G SAS 10K 2.5in 512e HDD   | 959,00        |
| P-I  | J9F48A     | HPE MSA 1.2TB 12G SAS 10K 2.5in ENT HDD  | 657,00        |
| P-I  | J9F47A     | HPE MSA 900GB 12G SAS 10K 2.5in ENT HDD  | 531,00        |
| P-I  | J9F46A     | HPE MSA 600GB 12G SAS 10K 2.5in ENT HDD  | 411,00        |
| P-I  | J9F44A     | HPE MSA 300GB 12G SAS 10K 2.5in ENT HDD  | 258,00        |
| <b>2.5" SFF 12G 7,2K rpm MDL SAS disk drives. Watch out : only the list below is supported !</b>   |            |  |               |
| P-I  | J9F50A     | HPE MSA 1TB 12G SAS 7.2K 2.5in 512e HDD  | 445,00        |
| P-I  | J9F51A     | HPE MSA 2TB 12G SAS 7.2K 2.5in 512e HDD  | 807,00        |
| <b>MSA204x only : Self Encrypting Drives</b>   |            |  |               |
| P-I  | P9M81A     | HPE MSA 1.2TB 12G SAS 10K SFF ENT SED  | 708,00        |

|  | PN         | Description  | REP<br>(in €) |
|--|------------|--|---------------|
| <b>Fibre Channel switches &amp; HBA's :</b>  |            |  |               |
| <b>StoreFabric</b>   |            |  |               |
| <b>SAS infrastructure</b>  |            |  |               |
| <b>Connecting P2000 G3 SAS controller to G6/G7 and Gen8 SAS HBA's</b>                                    |            |  |               |
| P-I  | 407339-B21 | HP External Mini SAS 2m Cable                                  | 97,00         |
| P-I  | 432238-B21 | HP External Mini SAS 4m Cable                                  | 123,00        |
| <b>Connecting MSA1040 SAS controller to G6/G7 and Gen8 SAS HBA's, or P2000 G3 to Gen9 SAS HBA's</b>      |            |  |               |
| P-I  | K2R02A     | HPE MiniSAS HD to MiniSAS FO 1M Cbl                            | 226,00        |
| P-I  | K2R03A     | HPE MiniSAS HD to MiniSAS FO 2M Cbl                            | 291,00        |
| P-I  | K2R04A     | HPE MiniSAS HD to MiniSAS FO 4M Cbl                            | 451,00        |
| <b>Connecting MSA1040 SAS controller to Gen9 SAS HBA's</b>   |            |  |               |
| P-I  | K2Q99A     | HPE MiniSAS HD to MiniSAS HD FO 1M Cbl                         | 226,00        |
| P-I  | K2R00A     | HPE MiniSAS HD to MiniSAS HD FO 2M Cbl                         | 291,00        |
| P-I  | K2R01A     | HPE Mini SAS HD to MiniSAS HD FO 4M Cbl                        | 451,00        |
| <b>Connecting MSA2040/2042 SAS controller to G6/G7 and Gen8 SAS HBA's, or P2000 G3 to Gen9 SAS HBA's</b> |            |  |               |
|  | 716189-B21 | HP 1.0m External Mini SAS High Density to Mini SAS Cable       | 65,00         |
|  | 716191-B21 | HP 2.0m External Mini SAS High Density to Mini SAS Cable       | 90,00         |
|  | 716193-B21 | HP 4.0m External Mini SAS High Density to Mini SAS Cable       | 140,00        |
| <b>Connecting MSA2040/2042 SAS controller to Gen9 SAS HBA's</b>  |            |  |               |
|  | 716195-B21 | HP External 1.0m (3ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable  | 100,00        |
|  | 716197-B21 | HP External 2.0m (6ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable  | 130,00        |
|  | 716199-B21 | HP External 4.0m (13ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable | 190,00        |
| <b>ProLiant Gen 9 SAS HBA's</b>  |            |  |               |
|  | 726911-B21 | HP H241 12Gb 2-ports Ext Smart Host Bus Adapter                | 270,00        |
| <b>ProLiant Gen 8 SAS HBA's</b>  |            |  |               |
|  | 698531-B21 | HP Smart Array P431/2GB FBWC 12Gb 2-ports Ext SAS Controller   | 940,00        |
| EOL  | 729552-B21 | HP H221 PCIe 3.0 SAS Host Bus Adapter                          | 260,00        |
| <b>Bladesystem Gen 9 SAS HBA's - MSA204x/1040 only</b>   |            |  |               |
|  | 726782-B21 | HP Smart Array P741m/2G Controller                             | 1.200,00      |
| <b>Bladesystem SAS switches</b>  |            |  |               |
| P-D  | BK764A     | HPE 6Gb SAS BL Switch Dual Pack                                | 4.578,00      |
| <b>iSCSI : please refer to the Networking catalogue</b>  |            |  |               |
| <b>Expand your base warranty with Carepacks : please consult the Carepack central website !</b>          |            |  |               |

|  | PN | Description   | REP<br>(in €) |
|--|----|---|---------------|
|  |    | <p><i>The StoreEasy products are part of the Converged Storage Initiative</i></p> <ol style="list-style-type: none"> <li>1. <i>Based on x86 architecture : market leading ProLiant servers !</i></li> <li>2. <i>Scale Out software : up to 64 nodes can be clustered !</i></li> <li>3. <i>Converged Management of both File and block level services through the Windows Server Manager !</i></li> </ol> <p><i>Do not forget all the other benefits of windows storage server standard 2012 !</i></p> <ol style="list-style-type: none"> <li>1. <i>Easy to buy &amp; install : unpack, connect cables, power up, create users</i></li> <li>2. <i>Advanced features pre-installed , no hidden costs :</i> <ul style="list-style-type: none"> <li>- <i>Multi-protocol : iSCSI for Block storage, HTTP &amp; FTP, SMB 3.0 and NFS 4.1</i></li> <li>- <i>Snapshots, Cloning, Advanced User quota management, storage reporting, file sweeping , etc</i></li> <li>- <i>file Classification Infrastructure for active archiving, data .....</i></li> </ul> </li> <li>3. <i>Additional built-in features include :</i> <ul style="list-style-type: none"> <li>- <i>Printer services, FAX services, DHCP</i></li> <li>- <i>iSCSI and SMB 3.0 application data storage out of the box</i></li> <li>- <i>Block Level deduplication</i></li> <li>- <i>Thin provisioning aware ; ODX support with StoreServe arrays</i></li> </ul> </li> </ol> <p><i>DFS-R Replication built-in !</i><br/> <i>DFS-N : single name space !</i></p> <p>• <i>New StoreEasy with Windows Storage Server 2016 !!! Only available for base units.</i></p> |               |



| PN   | Description | REP (in €)                        |          |
|--|-------------|-----------------------------------|----------|
| <b>StoreEasy 1000 series - Ordering Guidelines</b>   |             |                                   |          |
| <b>StoreEasy 1450</b>  |             |                                   |          |
| <p>Common specifications :</p> <p>One (1) Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) Processor standard; second processor optional</p> <p>8GB (1 x 8GB DDR4-2133 DIMM); Ethernet 1Gb 2-port i350 Adapter with optional FlexibleLOM on riser</p> <p>Smart Array P440/4GB FBWC 12Gb 1-port Internal SAS Controller</p> <p>2 x PCIe3 slots standard(one slot used by SA P440); optional third PCIe3 slot (requires adding 2nd CPU and riser)</p> <p>ILo4 advanced</p> <p>optional DVD-RW drive for OS quickrestore</p> <p>1U Rackmount chassis</p> <p>4 x LFF Hot Plug drive bay; 120GB RAID 1 LUN spread across the 4 disks for OS.</p> <p>550 hot plug power supply, Optional Redundant Power supply</p> <p>1 fan standard, optional; 2nd redundant fan</p> <p>Warranty : 3-1-1 : 3 year parts, 1 year on-site next business day response, 1 year labor</p> <p>For options please consult the ProLiant (DL160 Gen9) pricelist; for carepacks please consult the Carepack pricelist</p> <p>warning : a version exists with Windows Storage Servers 2016, but only for CTO. this can be configured using Salesbuilder for Windows. If you cannot do this, please consult your distributor.</p> |             |                                   |          |
| <b>Ready to use units</b>  |             |                                   |          |
| <b>P-I</b>   | K2R12A      | HPE StoreEasy 1450 4TB SATA Strg  | 5.118,00 |
| <b>P-I</b>   | K2R13A      | HPE StoreEasy 1450 8TB SATA Strg  | 5.828,00 |
| <b>P-I</b>   | K2R14A      | HPE StoreEasy 1450 16TB SATA Strg | 7.062,00 |

|   | PN     | Description  | REP (in €) |
|---|--------|--|------------|
| <b>StoreEasy 1550</b>   |        |  |            |
| <p>Common specifications :</p> <p>Tower based chassis with up to 8 internal LFF hard drive bays (4 std)<br/>           intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) Processor<br/>           8GB RAM, 2 x Gigabit ports<br/>           SA-P440/4GB FBWC 1-pot internal SAS controller.<br/>           iLo4 advanced<br/>           DVD-RW drive for OS quickrestore<br/>           4 x Hot Plug drive bays std, upgrade to 8 available.<br/>           standard 750W PSU, optional redundant(add 2nd PSU for redundancy)</p> <p>Remark : in a 4-drive configuration, standard RAID level will always be RAID6. This is because of the very long rebuild times of large disks.<br/>           For options please consult the ProLiant (options for ML110 Gen9) pricelist; for carepacks please consult the Carepack pricelist</p> <p>warning : a version exists with Windows Storage Servers 2016, but only for CTO. this can be configured using Salesbuilder for Windows. If you cannot do this, please consult your distributor.</p>   |        |  |            |
| <b>Ready to use units</b>   |        |  |            |
| P-I   | K2R63A | HPE StoreEasy 1550 4TB SATA Strg   | 4.582,00   |
| P-I   | K2R64A | HPE StoreEasy 1550 8TB SATA Strg   | 5.293,00   |
| P-I   | K2R65A | HPE StoreEasy 1550 16TB SATA Strg  | 6.526,00   |
| <b>StoreEasy 1650</b>   |        |  |            |
| <p>Common specifications :</p> <p>2U rack mount<br/>           WSS2012 R2 version : One (1) Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) Processor standard; optional 2nd processor<br/>           Windows 2016 version : One (1) Intel® Xeon® E5-2609v4 (1.7GHz/8-core/20MB/85W) Processor standard; optional 2nd processor<br/>           16GB (2 x 8GB)<br/>           Embedded 1Gb Ethernet 4-port 331i Adapter, plus optional Flexible LOM<br/>           3 x PCIe3 slots standard; optional 3 x PCIe3 slots (requires adding 2nd CPU and 3 slot PCIe riser). Slot 2 of first PCIe riser consumed by optional PCIe riser<br/>           Flexible Smart Array P440ar/2GB FBWC<br/>           120GB RAID 1 LUN on 2 x 120GB 6G SATA Value Endurance SFF Boot SSDs in rear<br/>           12 x LFF hot-plug HDD slots in front, 2 x SFF hot-plug HDDs in rear;<br/>           optional DVD-ROM or DVD-RW<br/>           2 x 800W power supply, redundant<br/>           6 High efficiency fans standard, redundant<br/>           iLO4<br/>           Warranty : 3-3-3 : 3 year parts, 3 year on-site next business day response, 3 year labor</p> |        |  |            |
| <b>Base units, only OS disks</b>  |        |  |            |
| P-I   | Q0F49A | HPE StoreEasy 1650 WSS2016 Strg  | 6.311,00   |
| P-I   | K2R15A | HPE StoreEasy 1650 Strg  | 6.311,00   |
|   |        | <b>These base units contain no data disks and are available for fully custom configurations.</b> |            |
| <b>Ready to use units</b>   |        |  |            |
| P-I   | K2R16A | HPE StoreEasy 1650 16TB SAS Strg   | 9.931,00   |
| P-I   | K2R17A | HPE StoreEasy 1650 32TB SAS Strg   | 12.398,00  |
| P-I   | K2R18A | HPE StoreEasy 1650 48TB SAS Strg   | 15.987,00  |
| P-I OBS   | M0S97A | HPE StoreEasy 1650 90TB SATA Storage   | 24.204,00  |

|  | PN     | Description  | REP (in €) |
|--|--------|--|------------|
| <b>StoreEasy 1650 Extended Capacity</b>  |        |  |            |
| <p>Common specifications :</p> <p>2U rack mount</p> <p>WSS 2012 R2 version : One (1) Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) Processor standard; optional 2nd processor</p> <p>Windows 2016 version : One (1) Intel® Xeon® E5-2609v4 (1.7GHz/8-core/20MB/85W) Processor standard; optional 2nd processor</p> <p>16GB (2 x 8GB DDR4-2133 DIMM)</p> <p>Embedded 1Gb Ethernet 2-port Adapter, plus optional Flexible LOM</p> <p>2 x PCIe3 slots standard; 3 additional with 2nd CPU installed.</p> <p>Flexible Smart Array P840ar/4GB FBWC</p> <p>120GB RAID 1 LUN on 2 x 120GB 6G SATA Value Endurance SFF Boot SSDs in rear</p> <p>12 x LFF hot-plug HDD slots in front, 12 x LFF hot-plug HDDs in middle, 4 x LFF hot-plug HDDs in rear; optional DVD-ROM or DVD-RW</p> <p>2 x 800W power supply, redundant</p> <p>9 High efficiency fans standard, redundant</p> <p>iLO4</p> <p>Warranty : 3-3-3 : 3 year parts, 3 year on-site next business day response, 3 year labor</p> <p><i>For options please consult the Product pricelist (Appendix A200 options) for</i></p> |        |  |            |
| <b>Base units, only OS disks</b>   |        |  |            |
| P-I  | Q0F50A | HPE StoreEasy 1650 Exp WSS2016 Strg  | 7.516,00   |
|  |        | <b>This base unit contains no data disks and is available for fully custom configurations.</b> |            |
| P-I  | N9Y08A | HPE StoreEasy 1650 E Strg  | 7.516,00   |
|  |        | <b>This base unit contains no data disks and is available for fully custom configurations.</b> |            |
| <b>Ready to use units</b>  |        |  |            |
| P-I  | N9Y09A | HPE StoreEasy 1650 E 32TB SAS Strg   | 13.603,00  |
| P-I  | N9Y10A | HPE StoreEasy 1650 E 48TB SAS Strg   | 17.192,00  |
| P-I  | N9Y11A | HPE StoreEasy 1650 E 64TB SAS Strg   | 19.804,00  |

|  | PN     | Description                        | REP<br>(in €) |
|--|--------|------------------------------------|---------------|
| <b>StoreEasy 1850</b>  |        |                                    |               |
| <p>Common specifications :</p> <p>2U form factor</p> <p>Windows 2012 R2 version : One (1) Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) Processor standard; optional 2nd processor</p> <p>Windows 2016 version : One (1) Intel® Xeon® E5-2609v4 (1.7GHz/8-core/20MB/85W) Processor standard; optional 2nd processor</p> <p>16GB RAM (2 x 8GB DDR4-2133 DIMM)</p> <p>Embedded 1Gb Ethernet 4-port 331i Adapter, plus optional Flexible LOM</p> <p>3 x PCIe3 slots standard; optional 3 x PCIe3 slots (requires adding 2nd CPU and 3 slot PCIe riser). Slot 2 of first PCIe riser consumed by optional PCIe riser</p> <p>Flexible Smart Array P440ar/2GB FBWC</p> <p>120GB RAID 1 LUN on 2 x 120GB 6G SATA Value Endurance SFF Boot SSDs in rear</p> <p>24 x SFF hot-plug HDD slots in front, 2 x SFF hot-plug HDDs in rear; optional DVD-ROM or DVD-RW</p> <p>2 x 800W power supply, redundant</p> <p>6 High efficiency fans standard, redundant</p> <p>iLO4</p> <p>Warranty : 3-3-3 : 3 year parts, 3 year on-site next business day response, 3 year labor</p> <p>Supports all options for ProLiant DL380 Gen9 , for carepacks, please consult the Carepack pricelist</p> |        |                                    |               |
| <b>Base units, only OS disks</b>   |        |                                    |               |
| P-I  | Q0F51A | HPE StoreEasy 1850 WSS2016 Strg    | 6.761,00      |
| P-I  | K2R19A | HPE StoreEasy 1850 Strg            | 6.761,00      |
| <b>Ready to use units</b>  |        |                                    |               |
| P-I  | K2R20A | HPE StoreEasy 1850 9.6TB SAS Strg  | 13.557,00     |
| P-I  | K2R21A | HPE StoreEasy 1850 14.4TB SAS Strg | 16.548,00     |

|  | PN     | Description  | REP (in €) |
|--|--------|--|------------|
| <b>StoreEasy 3000 series - Ordering Guidelines</b>   |        |  |            |
| <b>StoreEasy 3000 Gateway Storage system</b>   |        |  |            |
| <p>StoreEasy 3850 Gateway Storage is a new breed of optimized, efficient, secure, and highly available storage to address the file storage challenges of customers' medium to large business and branch office SAN environments. StoreEasy 3850 Gateway Storage, built on industry leading ProLiant DNA and Microsoft Windows Storage Server, integrates easily into new and existing SAN environments with a straightforward, consistent management experience for IT generalists or storage administrators.</p> <p>The StoreEasy 3850 Gateway system consists of 2 parts : a base chassis containing a 24 disk JBOD (split in two halves, 12 drive bays for each node); redundant power supplies and fans; and room to accommodate up to 2 3850 StoreEasy nodes. Order a base chassis first and then add 1 or 2 nodes depending on your requirements. For connection to an external Storage array, you can add Fibre channel HBA's; SAS HBA's or additional Ethernet Adapters.</p> |        |  |            |
| P-I  | K2R69A | HPE StoreEasy 3850 Gateway System  | 2.333,00   |
| P-I  | Q0F52A | HPE StoreEasy 3850 WSS2016 Gtwy Sng Node   | 4.729,00   |
| P-I  | K2R70A | HPE StoreEasy 3850 Gateway Sngl Node   | 4.729,00   |
|  |        | The 3850 node comes with :<br>- Intel Xeon E5-2609v3 (1.9GHz/6-core/15MB/85W) Processor<br>- 32GB Ram (4 x 8GB)<br>- 2 NIC ports (1Gb)<br>- Dynamic Smart Array B140i (for the OS disks only)<br>- 2 x 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot SSDs for O/S mirror |            |
| <b>StoreEasy 3850 Gateway Blade Storage</b>  |        |  |            |
| <p>specifications :</p> <p>Based on BL460 Gen9 Bladesystem server.<br/>           Intel® Xeon® E5-2609V3 (1.90GHz/6-core/15MB/85W) Processor<br/>           32GB RAM, Embedded Dual Port 1GbE Adapter, optional FlexLOM adapter<br/>           2 x 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot SSDs for O/S mirror<br/>           iLO4 Advanced</p>  |        |  |            |
| <b>Base units, only OS disks</b>   |        |  |            |
| P-I  | Q0F53A | HPE StoreEasy 3850 WSS2016 Gtwy Bld Strg   | 5.464,00   |
| P-I  | K2R72A | HPE StoreEasy 3850 Gateway Blade Strg  | 5.464,00   |

|   | PN         | Description   | REP (in €) |
|---|------------|---|------------|
| <b>options for StoreEasy series</b>   |            |   |            |
| The options listed below are the specific options for these StoreEasy models. Other upgrade options can be found in the quickspecs/ Servers pricelist for their base server counterparts : StoreEasy 1450 : DL160 gen9 ; StoreEasy 1650/1850 : DL380 gen9.                              |            |   |            |
| <b>OS Upgrades</b>  |            |   |            |
| <b>Upgrade from WSS 2012 R2 to WSS 2016</b>   |            |   |            |
| P-I   | Q0F57A     | HPE WSS2016 Std Ed Upgd Kit   | 654,00     |
| <b>CPU upgrades</b>   |            |   |            |
| <b>Processor upgrade for 1450</b>   |            |   |            |
| P-I   | 763235-B21 | Intel Xeon E5-2603v3 (1.6GHz-15MB/DDR4-1600 6C, 85W) Processor Option Kit (DL160Gen9) | 355,00     |
| <b>Processor upgrade for 1650/1850</b>  |            |   |            |
| P-I   | 719052-B21 | Intel Xeon E5-2609v3 (1.9GHz-15MB/DDR4-1600 6C, 85W) Processor Option Kit (DL380Gen9) | 490,00     |
| <b>Processor upgrade for 1650 E</b>   |            |   |            |
| P-I EOL   | 803303-B21 | HP Apollo 4200 Gen9 Intel Xeon E5-2609v3 (1.9GHz/6-core/15MB/85W) Processor Kit       | 490,00     |
| <b>Memory expansion for 1450/1650/1650E/1850</b>  |            |   |            |
| Max. Memory using this upgrade kit : StoreEasy 1550: 64GB; 1450 : 128GB; 1650/1650E/1850: 192TB; Max. OS supported is 2TB, Please refer to the following quickspecs for other memory configurations : 1450 = DL160 Gen9; 1550 = ML110 Gen9; 1650/1860 = DL380 Gen9; 1650E = Apollo 4200 |            |   |            |
| P-I   | 726718-B21 | HPE 8GB (1x8GB) Registered DDR4-2133 PC4-17000 CL15 Single Rank Memory Kit            | 225,00     |
| <b>Security options</b>   |            |   |            |
|   | 488069-B21 | HP Trusted Platform Module Option   | 40,00      |
| <b>I/O expansion options (warning these kits require the second processor to be installed)</b>  |            |   |            |
|   | 725586-B21 | HP DL160 Gen9 Low Profile PCIe CPU2 Riser Kit   | 45,00      |
|   | 719073-B21 | HP DL380 Gen9 Secondary 3 Slot GPU Ready Riser Kit                                    | 95,00      |
| <b>Power options for 1450</b>   |            |   |            |
|   | 775595-B21 | HPE 900W AC 240VDC Power Input Module   | 150,00     |
| <b>Power options for 1550</b>   |            |   |            |
|   | 512327-B21 | HP 750W Common Slot Gold Hot Plug Power Supply (92% efficiency)                       | 250,00     |
| <b>Optical disk drives for 14xx/15xx</b>  |            |   |            |
|   | 726536-B21 | HP 9.5mm SATA DVD-ROM JackBlack Gen9 Optical Drive                                    | 90,00      |
|   | 726537-B21 | HP 9.5mm SATA DVD-RW JackBlack G9 Optical Drive                                       | 130,00     |
| <b>Recommended Smart Array for external expansion</b>   |            |   |            |
|   | 726903-B21 | HP Smart Array P841/4GB FBWC 12Gb 4-ports Ext SAS Controller                          | 1.390,00   |
|   | 726825-B21 | HP Smart Array P441/4GB FBWC 12Gb 2-ports Ext SAS Controller                          | 820,00     |
| <b>Recommended SAS HBA for external tape connectivity</b>   |            |   |            |
|   | 726911-B21 | HP H241 12Gb 2-ports Ext Smart Host Bus Adapter                                       | 270,00     |

|  | PN         | Description   | REP (in €) |
|--|------------|---|------------|
| <b>StoreEasy Capacity expansion for 1450/1550/1650/1650E (1650E, only in external JBOD)</b>  |            |   |            |
| <b>Warning : for a complete coverage of supported hard disks for the StoreEasy systems, please refer to the quickspecs of the respective servers (ProLiant DL160 gen9 / DL380 Gen9/ML110 Gen9 / Apollo 4200) or the D3600 JBOD</b> |            |   |            |
| <b>2nd Drive Cage for 1550</b>   |            |   |            |
|  | 784584-B21 | HP ML110 Gen9 4LFF Hot Plug Drive Cage Kit<br><i>Kit contents : ML110 G9 2nd drive cage for an additional 4 x 3.5" LFF disks</i>              | 130,00     |
| <b>JBODs</b>   |            |   |            |
| P-I  | QW968A     | HPE D3600 Enclosure<br><i>Kit contents : D3600Base Unit with redundant power supplies, redundant fans and dual domain I/O. No SAS cable !</i> | 2.951,00   |
| <b>StoreEasy disk bundles (smart carrier !)</b>  |            |   |            |
| P-I  | E7W88A     | HP StoreEasy 4TB SAS LFF SC 4 HDD<br><i>4 x 1TB LFF 7.2K rpm disk drive</i>   | 1.379,00   |
| P-I  | E7W89A     | HP StoreEasy 8TB SAS LFF SC 4 HDD<br><i>4 x 2TB LFF 7.2K rpm disk drive</i>   | 2.277,00   |
| P-I  | E7W90A     | HPE StoreEasy 12TB SAS LFF SC 4 HDD<br><i>4 x 3TB LFF 7.2K rpm disk drive</i>   | 2.950,00   |
| P-I  | E7W91A     | HPE StoreEasy 16TB SAS LFF SC 4 HDD<br><i>4 x 4TB LFF 7.2K rpm disk drive</i>   | 3.735,00   |
| P-I  | K2R22A     | HPE 24TB SAS LFF SC 4-pk HDD Bndl<br><i>4 x 6TB LFF 7.2K rpm disk drive</i>   | 4.781,00   |
| P-I  | N9Y12A     | HPE 32TB SAS LFF SC 4-pk HDD Bndl<br><i>4 x 8TB LFF 7.2K rpm 12G SAS disk drive</i>   | 6.239,00   |
| P-D  | Q0F60A     | HPE 40TB SAS LFF SC 4-pk HDD Bndl<br><i>4 x 10TB LFF 7.2K rpm 12G SAS disk drive</i>  | 8.333,00   |
| <b>StoreEasy disk bundles fro 1650 Expanded : Low Profile Smart Carriers</b>   |            |   |            |
| P-D  | N9Y58A     | HPE 8TB SAS LFF LP 4pk HDD Bndl<br><i>4 x 2TB LFF 7.2K rpm 6G SAS disk drive</i>  | 2.202,00   |
| P-I  | N9Y43A     | HPE 16TB SAS LFF LP 4-pk HDD Bndl<br><i>4 x 4TB LFF 7.2K rpm 6G SAS disk drive</i>  | 3.660,00   |
| P-I  | N9Y44A     | HPE 24TB SAS LFF LP 4-pk HDD Bndl<br><i>4 x 6TB LFF 7.2K rpm 6G SAS disk drive</i>  | 4.707,00   |
| P-I  | N9Y45A     | HPE 32TB SAS LFF LP 4-pk HDD Bndl<br><i>4 x 8TB LFF 7.2K rpm 6G SAS disk drive</i>  | 6.164,00   |
| P-D  | Q0F61A     | HPE 40TB SAS LFF LP 4-pk HDD Bndl<br><i>4 x 10TB LFF 7.2K rpm 12G SAS disk drive</i>  | 8.333,00   |
| P-I  | N9Y46A     | HPE 32TB SATA LFF LP 4-pk HDD Bndl<br><i>4 x 8TB LFF 7.2K rpm 6G SATA disk drive</i>  | 5.940,00   |
| P-D  | Q0F62A     | HPE 40TB SATA LFF LP 4-pk HDD Bndl<br><i>4 x 10TB LFF 7.2K rpm 6G SATA disk drive</i>   | 8.034,00   |
| <b>StoreEasy Capacity expansion for 1850</b>   |            |   |            |
| <b>Warning : for a complete coverage of supported hard disks for the StoreEasy systems, please refer to the quickspecs of the ProLiant DL380 Gen9 or the D3700 JBOD</b>  |            |   |            |
| <b>JBODs</b>   |            |   |            |
| P-I  | QW967A     | HPE D3700 Enclosure<br><i>Kit contents : D3700Base Unit with redundant power supplies, redundant fans and dual domain I/O. No SAS cable !</i> | 2.951,00   |
| <b>StoreEasy disk bundles (smart carrier !)</b>  |            |   |            |
| P-I  | E7W92A     | HPE StoreEasy 3.6TB SAS SFF SC 4 HDD<br><i>4 x 900GB SFF 10K rpm disk drive</i>   | 2.837,00   |
| P-I  | E7W93A     | HPE StoreEasy 4.8TB SAS SFF SC 4 HDD<br><i>4 x 1.2TB SFF 10K rpm disk drive</i>   | 3.308,00   |
| P-I  | K2R23A     | HPE 7.2TB SAS SFF SC 4-pk HDD Bndl<br><i>4 x 1.8TB SFF 10K rpm disk drive</i>   | 4.893,00   |

| PN | Description | REP<br>(in €) |
|----|-------------|---------------|
|----|-------------|---------------|

## D3000 , D6020 & D2200sb series

The smart Carrier JBOD family contains both 6G SAS and 12G SAS JBODs. The the D2220sb is 6Gb SAS, the new D3000 series is 12Gb. they both support the new ProLiant SmartCarrier 6G/12G SAS, 6G MDL SAS & 6G SATA drives AND the new 12G SAS SSD drives !  
The Dx000 series come standard with dual domain capability.

Please note that these JBODs are only supported with Gen8 or higher ProLiant servers.

**NEW : D6020 12Gb SAS JBOD ; scalable to 140 LFF hard disks, now also supports SSD drives !**

| Base Units  |            |   |          |
|---|------------|---|----------|
| <b>D6020 - 12G SAS JBODs - Dual Domain - only for ProLiant Gen9 or higher</b> |            |   |          |
|   |            | Supported servers : ProLiant Gen8/9 servers , Bladesystem Gen8/9! Not supported as JBOD for MSA !   |          |
| P-I   | K2Q28A     | HPE D6020 Enclosure with Dual IO Modules  | 7.944,00 |
|   |            | Kit contents : D6020Base Unit with redundant power supplies, redundant fans and dual domain I/O. No SAS cable !   |          |
| P-I   | K2Q23A     | HPE D6020 Dual I/O Module Option Kit  | 1.402,00 |
|   |            | Remark : Add K2Q23A option kit to K2Q28A when using dual-ported SAS drives to create a dual domain environment.   |          |
| <b>D3000 - 12G SAS JBODs - Dual Domain</b>                                    |            |   |          |
|   |            | Supported servers : ProLiant Gen8/9 servers , Bladesystem Gen8/9! Not supported as JBOD for MSA !   |          |
| P-I   | QW968A     | HPE D3600 Enclosure   | 2.951,00 |
|   |            | Kit contents : D3600Base Unit with redundant power supplies, redundant fans and dual domain I/O. No SAS cable !   |          |
| P-I   | QW967A     | HPE D3700 Enclosure   | 2.951,00 |
|   |            | Kit contents : D3700Base Unit with redundant power supplies, redundant fans and dual domain I/O. No SAS cable !   |          |
| <b>D2220sb - 6G SAS JBODs - Dual Domain for Bladesystem Gen8/9</b>            |            |   |          |
| P-D   | QW917A     | HP D2220sb Storage Blade BTO  | 2.149,00 |
|   |            | Base Unit. Room for 12 x SFF Smart-Carrier SAS or SATA disks, P420i Smart array with 2GB Flash backed cache. Connects to adjacent Blade through the Blade Enclosure PCI-Express backplane. Watch out : requires Smart Carrier disks |          |
| <b>Controllers and Adapters</b>   |            |   |          |
| <b>ProLiant Gen9</b>  |            |   |          |
|   | 726903-B21 | HP Smart Array P841/4GB FBWC 12Gb 4-ports Ext SAS Controller  | 1.390,00 |
|   | 726825-B21 | HP Smart Array P441/4GB FBWC 12Gb 2-ports Ext SAS Controller  | 820,00   |
|   | 726911-B21 | HP H241 12Gb 2-ports Ext Smart Host Bus Adapter   | 270,00   |
| <b>ProLiant Gen8</b>  |            |   |          |
| EOL   | 631867-B21 | HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller   | 620,00   |
|   | 698531-B21 | HP Smart Array P431/2GB FBWC 12Gb 2-ports Ext SAS Controller  | 940,00   |
|   | 698532-B21 | HP Smart Array P431/4GB FBWC 12Gb 2-ports Ext SAS Controller  | 1.020,00 |
| EOL   | 729552-B21 | HP H221 PCIe 3.0 SAS Host Bus Adapter   | 260,00   |
| <b>Bladesystem Gen 9</b>  |            |   |          |
|   | 726782-B21 | HP Smart Array P741m/2G Controller  | 1.200,00 |
| <b>SAS Switches for Bladesystem</b>   |            |   |          |
| P-D   | BK763A     | HPE 6Gb SAS BL Switch Single Pack   | 2.336,00 |
| P-D   | BK764A     | HPE 6Gb SAS BL Switch Dual Pack   | 4.578,00 |
| <b>SAS cable Options</b>  |            |   |          |
| <b>For connecting D3000 &amp; D6020 to Smart array 421/822</b>                |            |   |          |
|   | 691971-B21 | HP 0.5m External Mini SAS High Density to Mini SAS Cable  | 55,00    |
|   | 716189-B21 | HP 1.0m External Mini SAS High Density to Mini SAS Cable  | 65,00    |
|   | 716191-B21 | HP 2.0m External Mini SAS High Density to Mini SAS Cable  | 90,00    |
|   | 716193-B21 | HP 4.0m External Mini SAS High Density to Mini SAS Cable  | 140,00   |
| <b>For connecting D3000 &amp; D6020 to Smart array P431/P441/P841</b>         |            |   |          |
|   | 716195-B21 | HP External 1.0m (3ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable   | 100,00   |
|   | 716197-B21 | HP External 2.0m (6ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable   | 130,00   |
|   | 716199-B21 | HP External 4.0m (13ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable  | 190,00   |



|  | PN         | Description   | REP<br>(in €) |
|--|------------|---|---------------|
| <b>Large Form Factor Smart Carrier Hard Drives for D6020</b>     |            |   |               |
| <b>12G SAS Enterprise 15K rpm - 3 yr warranty for D6020 Only</b> |            |   |               |
|  | 737390-B21 | 300GB LFF 12G SAS 15K rpm HotPlug CC Enterprise hard drive (3.5") | 445,00        |
|  | 737396-B21 | 600GB LFF 12G SAS 15K rpm HotPlug CC Enterprise hard drive (3.5") | 790,00        |
| <b>12G SAS MDL 7.2K rpm - 1 yr warranty - for D6020 Only</b>     |            |   |               |
|  | 869347-B21 | HPE 10TB SAS 7.2K LFF ST He 512e HDD                              | 1.335,00      |
|  | 858384-B21 | HPE 8TB SAS 7.2K LFF ST 512e HDD                                  | 1.265,00      |
| <b>EOL</b>   | 793697-B21 | HPE 6TB SAS 7.2K LFF ST He 512e HDD                               | 920,00        |
|  | 826074-B21 | HPE 4TB SAS 7.2K LFF ST HDD                                       | 635,00        |
|  | 826072-B21 | HPE 2TB SAS 7.2K LFF ST HDD                                       | 470,00        |
| <b>12G SAS mixed Use SSD - D6020 only</b>                        |            |   |               |
| <b>P-I</b>   | P8Y58A     | HPE D6020 400GB 12G SAS MU LFF CC SSD                             | 2.075,00      |
| <b>P-I</b>   | P8Y55A     | HPE D6020 800GB 12G SAS MU LFF CC SSD                             | 3.943,00      |
| <b>P-I</b>   | P8Y54A     | HPE D6020 1.6TB 12G SAS MU LFF CC SSD                             | 7.457,00      |
| <b>Large Form Factor Smart Carrier Hard Drives for D3600</b>     |            |   |               |
| <b>12G SAS Enterprise 15K rpm - 3 yr warranty</b>                |            |   |               |
|  | 737261-B21 | 300GB LFF 12G SAS 15K rpm HotPlug SC Enterprise hard drive (3.5") | 460,00        |
|  | 737394-B21 | 450GB LFF 12G SAS 15K rpm HotPlug SC Enterprise hard drive (3.5") | 710,00        |
|  | 765424-B21 | 600GB LFF 12G SAS 15K rpm HotPlug SC Enterprise hard drive (3.5") | 805,00        |
| <b>12G SAS MDL 7.2K rpm - 1 yr warranty</b>                      |            |   |               |
|  | 857644-B21 | HPE 10TB SAS 7.2K LFF SC He 512e DS HDD                           | 1.805,00      |
| <b>P-D</b>   | 861590-B21 | HPE 8TB SAS 7.2K LFF SC He 512e DS HDD                            | 1.280,00      |
| <b>N</b>   | 861754-B21 | HPE 6TB SAS 7.2K LFF SC 512e DS HDD                               | 890,00        |
|  | 846514-B21 | HPE 6TB SAS 7.2K LFF SC DS HDD                                    | 930,00        |
| <b>EOL</b>   | 793699-B21 | HPE 6TB SAS 7.2K LFF SC He 512e HDD                               | 930,00        |
| <b>EOL</b>   | 793669-B21 | 4GB LFF 6G SATA 7.2K rpm HotPlug SC Midline hard drive (3.5")     | 620,00        |
|  | 818367-B21 | HPE 4TB SAS 7.2K LFF SC HDD                                       | 620,00        |
| <b>EOL</b>   | 765257-B21 | 4TB LFF 12G SAS 7.2K rpm HotPlug SC Midline hard drive (3.5")     | 620,00        |
|  | 818365-B21 | HPE 2TB SAS 7.2K LFF SC HDD                                       | 465,00        |
|  | 846528-B21 | HPE 3TB SAS 7.2K LFF SC DS HDD                                    | 650,00        |
|  | 846524-B21 | HPE 1TB SAS 7.2K LFF SC DS HDD                                    | 320,00        |
| <b>6G SATA 7.2Krpm - 1 yr warranty</b>                           |            |   |               |
|  | 857648-B21 | HPE 10TB SATA 7.2K LFF SC He 512e DS HDD                          | 1.675,00      |
| <b>EOL</b>   | 793683-B21 | HPE 6TB SATA 7.2K LFF SC He 512e HDD                              | 870,00        |
| <b>EOL</b>   | 765255-B21 | 6TB LFF 6G SATA 7.2K rpm HotPlug SC Midline hard drive (3.5")     | 825,00        |
|  | 861693-B21 | HPE 3TB SATA 7.2K LFF SC DS HDD                                   | 490,00        |
| <b>EOL</b>   | 658079-B21 | 2TB LFF 6G SATA 7.2K rpm HotPlug DP SC MDL hard drive (3.5")      | 390,00        |
|  | 861691-B21 | HPE 1TB SATA 7.2K LFF SC DS HDD                                   | 230,00        |

|  | PN         | Description   | REP<br>(in €) |
|--|------------|---|---------------|
| <b>Large Form Factor Smart Carrier Solid State Drives for D3600 - 3yr warranty</b> |            |   |               |
| <b>12G SAS Enterprise Value SSD</b>  |            |   |               |
| P-I EOL  | 762272-B21 | 1.6TB LFF 12G SAS SSD HotPlug SC Enterprise hard drive (3.5") | 6.940,00      |
| P-I EOL  | 762270-B21 | 800GB LFF 12G SAS SSD HotPlug SC Enterprise hard drive (3.5") | 3.600,00      |
| <b>6G SATA Write Intensive SSD</b>   |            |   |               |
| P-I  | 804680-B21 | HPE 1.2TB SATA WI LFF SCC SSD                                 | 2.480,00      |
| P-I  | 804674-B21 | HPE 800GB SATA WI LFF SCC SSD                                 | 1.220,00      |
| P-I  | 804668-B21 | HPE 400GB SATA WI LFF SCC SSD                                 | 615,00        |
| P-I  | 804642-B21 | HPE 200GB SATA WI LFF SCC SSD                                 | 360,00        |
| <b>6G SATA Read Intensive SSD</b>  |            |   |               |
| P-I EOL  | 816923-B21 | HPE 1.92TB SATA RI LFF SCC SSD                                | 2.720,00      |
| P-I EOL  | 804602-B21 | HPE 800GB SATA RI LFF SCC SSD                                 | 800,00        |
| <b>6G SATA Mixed Use SSD</b>   |            |   |               |
| P-I  | 804634-B21 | HPE 1.6TB SATA MU LFF SCC SSD                                 | 2.270,00      |
| P-I EOL  | 804602-B21 | HPE 800GB SATA RI LFF SCC SSD                                 | 800,00        |
| P-I  | 832417-B21 | HPE 480GB SATA MU LFF SCC SSD                                 | 730,00        |
| P-I  | 804616-B21 | HPE 200GB SATA MU LFF SCC SSD                                 | 310,00        |

|  | PN         | Description   | REP<br>(in €) |
|--|------------|---|---------------|
| <b>Small Form Factor Smart Carrier Hard Drives for D3700 and D2220sb</b> |            |   |               |
| <b>12G SAS Enterprise 15K rpm - 3 yr warranty</b>                        |            |   |               |
| N  | 870753-B21 | HPE 300GB SAS 15K SFF SC DS HDD                                       | 455,00        |
|  | 759208-B21 | 300GB SFF 12G SAS 15K rpm HotPlug SC Enterprise hard drive (2.5")     | 455,00        |
|  | 759210-B21 | 450GB SFF 12G SAS 15K rpm HotPlug SC Enterprise hard drive (2.5")     | 700,00        |
|  | 759212-B21 | 600GB SFF 12G SAS 15K rpm HotPlug SC Enterprise hard drive (2.5")     | 795,00        |
| N  | 870757-B21 | HPE 600GB SAS 15K SFF SC DS HDD                                       | 795,00        |
| N  | 870763-B21 | HPE 600GB SAS 15K SFF SC 512e DS HDD                                  | 795,00        |
| N  | 870759-B21 | HPE 900GB SAS 15K SFF SC DS HDD                                       | 885,00        |
| N  | 870765-B21 | HPE 900GB SAS 15K SFF SC 512e DS HDD                                  | 900,00        |
| <b>12G SAS Enterprise 10K rpm - 3 yr warranty</b>                        |            |   |               |
| N  | 872481-B21 | HPE 1.8TB SAS 10K SFF SC 512e DS HDD                                  | 1.000,00      |
|  | 791034-B21 | HPE 1.8TB SAS 10K SFF SC 512e HDD                                     | 1.000,00      |
|  | 781518-B21 | HPE 1,2TB SFF 12G SAS 10k rpm HotPlug SC Enterprise hard drive (2.5") | 655,00        |
|  | 785069-B21 | 900GB SFF 12G SAS 10K rpm HotPlug SC Enterprise hard drive (2.5")     | 600,00        |
|  | 781516-B21 | 600GB SFF 12G SAS 10K rpm HotPlug SC Enterprise hard drive (2.5")     | 455,00        |
|  | 785067-B21 | 300GB SFF 12G SAS 10K rpm HotPlug SC Enterprise hard drive (2.5")     | 245,00        |
| <b>12G SAS Midline 7.2K rpm - 1 yr warranty</b>                          |            |   |               |
| P-D  | 765466-B21 | 2TB SFF 12G SAS 7.2K rpm HotPlug SC hard drive (2.5")                 | 770,00        |
|  | 765464-B21 | 1TB SFF 12G SAS 7.2K rpm HotPlug SC hard drive (2.5")                 | 385,00        |
| <b>6G SATA Midline 7.2K rpm - 1 yr warranty</b>                          |            |   |               |
|  | 655710-B21 | 1TB SFF 6G SATA 7.2K rpm HotPlug DP SC MDL hard drive (2.5")          | 370,00        |
| P-D  | 765455-B21 | HPE 2TB SATA 7.2K SFF SC 512e DS HDD                                  | 760,00        |

|  | PN         | Description  | REP<br>(in €) |
|--|------------|--|---------------|
| <b>Small Form Factor Smart Carrier Solid state Drives for D3700 and D2220sb 3Yr Warranty</b> |            |  |               |
| <b>12G SAS MixedUse SSD</b>  |            |  |               |
| P-I  | 822567-B21 | HPE 3.2TB SAS MU SFF SC SSD  | 9.225,00      |
| P-I  | 822563-B21 | HPE 1.6TB SAS MU SFF SC SSD  | 5.880,00      |
| P-I  | 822559-B21 | HPE 800GB SAS MU SFF SC SSD  | 3.100,00      |
| P-I  | 822555-B21 | HPE 400GB SAS MU SFF SC SSD  | 1.350,00      |
| <b>12G SAS Write Intensive SSD</b>   |            |  |               |
| EOL  | 802586-B21 | 800GB SFF 12G SAS SSD rpm HotPlug SC Write Intensive hard drive (2.5")       | 7.080,00      |
| EOL  | 802582-B21 | 400GB SFF 12G SAS SSD rpm HotPlug SC Write Intensive hard drive (2.5")       | 3.740,00      |
| EOL  | 779176-B21 | 1.6TB SFF 12G SAS SSD rpm HotPlug EM Enterprise Mainstream hard drive (2.5") | 9.380,00      |
| EOL  | 779172-B21 | 800GB SFF 12G SAS SSD rpm HotPlug EM Enterprise Mainstream hard drive (2.5") | 4.930,00      |
| EOL  | 779168-B21 | 400GB SFF 12G SAS SSD rpm HotPlug EM Enterprise Mainstream hard drive (2.5") | 2.580,00      |
| EOL  | 779164-B21 | 200GB SFF 12G SAS SSD rpm HotPlug EM Enterprise Mainstream hard drive (2.5") | 1.360,00      |
| <b>12G SAS Read Intensive SSD</b>  |            |  |               |
| EOL  | 802891-B21 | 1.92TB SFF 12G SAS SSD rpm HotPlug SC Read Intensive hard drive (2.5")       | 5.410,00      |
| P-I EOL  | 762263-B21 | 1.6TB SFF 12G SAS SSD HotPlug SC Enterprise hard drive (2.5")                | 6.940,00      |
| P-I EOL  | 762261-B21 | 800GB SFF 12G SAS SSD HotPlug SC Enterprise hard drive (2.5")                | 3.600,00      |
| P-I  | 816562-B21 | HPE 480GB SAS RI SFF SC SSD  | 1.430,00      |
|  | 816568-B21 | HPE 960GB SAS RI SFF SC SSD  | 2.860,00      |
| P-I  | 816572-B21 | HPE 1.92TB SAS RI SFF SC SSD   | 5.600,00      |
| P-I  | 816576-B21 | HPE 3.84TB SAS RI SFF SC SSD   | 9.000,00      |
| <b>6G SATA Mixed Use SSD</b>   |            |  |               |
| P-I  | 804631-B21 | HPE 1.6TB SATA MU SFF SC SSD   | 1.870,00      |
| P-I  | 804625-B21 | HPE 800GB SATA MU SFF SC SSD   | 1.000,00      |
| P-I  | 804613-B21 | HPE 200GB SATA MU SFF SC SSD   | 310,00        |
| <b>6G SATA Write Intensive SSD</b>   |            |  |               |
| P-I  | 804677-B21 | HPE 1.2TB SATA WI SFF SC SSD   | 2.480,00      |
| P-I  | 804671-B21 | HPE 800GB SATA WI SFF SC SSD   | 1.220,00      |
| P-I  | 804665-B21 | HPE 400GB SATA WI SFF SC SSD   | 615,00        |
| P-I  | 804639-B21 | HPE 200GB SATA WI SFF SC SSD   | 355,00        |

|  | PN | Description | REP<br>(in €) |
|--|----|-------------|---------------|
|--|----|-------------|---------------|

## D-2000/6000 series

*The previous generation of JBODs is no longer available. Exception is the D2700 (see the MSA sheet) that will remain available during the lifetime of the current MSA family, but only for connection to an MSA ! For connection to a ProLiant Gen8 or Gen9, please use the D3000 or D6020 products.*

### D2000 and D6000 series JBODs Supported Controllers and Adapters

| ProLiant Gen9                |            |   |          |
|------------------------------|------------|---|----------|
|                              | 726903-B21 | HP Smart Array P841/4GB FBWC 12Gb 4-ports Ext SAS Controller          | 1.390,00 |
|                              | 726825-B21 | HP Smart Array P441/4GB FBWC 12Gb 2-ports Ext SAS Controller          | 820,00   |
|                              | 726911-B21 | HP H241 12Gb 2-ports Ext Smart Host Bus Adapter                       | 270,00   |
| ProLiant Gen8                |            |   |          |
| EOL                          | 631667-B21 | HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller | 620,00   |
|                              | 698531-B21 | HP Smart Array P431/2GB FBWC 12Gb 2-ports Ext SAS Controller          | 940,00   |
|                              | 698532-B21 | HP Smart Array P431/4GB FBWC 12Gb 2-ports Ext SAS Controller          | 1.020,00 |
| EOL                          | 729552-B21 | HP H221 PCIe 3.0 SAS Host Bus Adapter                                 | 260,00   |
| Bladesystem Gen 9            |            |   |          |
|                              | 726782-B21 | HP Smart Array P741m/2G Controller                                    | 1.200,00 |
| SAS Switches for Bladesystem |            |   |          |
| P-D                          | BK763A     | HPE 6Gb SAS BL Switch Single Pack                                     | 2.336,00 |
| P-D                          | BK764A     | HPE 6Gb SAS BL Switch Dual Pack                                       | 4.578,00 |

|   | PN         | Description  | REP<br>(in €) |
|---|------------|--|---------------|
| <b>Large Form Factor Drives (for MDS600, D6000,D2600)</b>   |            |  |               |
| <b>12G SAS Enterprise 3.5" LFF hot plug HDD Dual Port - 2.5" disks in a 3.5" converter</b>  |            |  |               |
|   | 737390-B21 | 300GB LFF 12G SAS 15K rpm HotPlug CC Enterprise hard drive (3.5")            | 445,00        |
|   | 737396-B21 | 600GB LFF 12G SAS 15K rpm HotPlug CC Enterprise hard drive (3.5")            | 790,00        |
| <b>Small Form Factor Drives (for D2700 and D2200sb), only to be used when configuring for connection to a ProLiant Smart array, not for MSA storage !</b> |            |  |               |
| <b>12G Enterprise SAS 2.5" SFF hot plug HDD 15K rpm</b>   |            |  |               |
|   | 785099-B21 | 300GB SFF 12G SAS 15K rpm HotPlug DP Enterprise hard drive (2.5")            | 440,00        |
|   | 785101-B21 | 450GB SFF 12G SAS 15K rpm HotPlug DP Enterprise hard drive (2.5")            | 720,00        |
|   | 785103-B21 | 600GB SFF 12G SAS 15K rpm HotPlug DP Enterprise hard drive (2.5")            | 780,00        |
| <b>12G Enterprise SAS 2.5" SFF hot plug HDD 10K rpm</b>   |            |  |               |
| P-D   | 785079-B21 | 1.2TB SFF 12G SAS 10K rpm HotPlug Enterprise hard drive (2.5")               | 640,00        |
|   | 785075-B21 | 900GB SFF 12G SAS 10K rpm HotPlug Enterprise hard drive (2.5")               | 585,00        |
|   | 785073-B21 | 600GB SFF 12G SAS 10K rpm HotPlug Enterprise hard drive (2.5")               | 440,00        |
|   | 785071-B21 | 300GB SFF 12G SAS 10K rpm HotPlug Enterprise hard drive (2.5")               | 240,00        |
| <b>12G Mainstream SAS SSD SFF SSD 2.5" SFF hot plug H2</b>  |            |  |               |
| EOL   | 779170-B21 | 800GB SFF 12G SAS SSD rpm HotPlug EM Enterprise Mainstream hard drive (2.5") | 4.950,00      |
| EOL   | 779166-B21 | 400GB SFF 12G SAS SSD rpm HotPlug EM Enterprise Mainstream hard drive (2.5") | 2.600,00      |
| EOL   | 779162-B21 | 200GB SFF 12G SAS SSD rpm HotPlug EM Enterprise Mainstream hard drive (2.5") | 1.380,00      |

|   | PN         | Description  | REP<br>(in €) |
|---|------------|--|---------------|
| <b>SAS cable Options for D2000 and D6000</b>  |            |  |               |
| <b>For connecting D2000 &amp; D6000 to Smart array. (all except P431/P441/P841)</b> |            |  |               |
| P-I   | 407339-B21 | HP External Mini SAS 2m Cable                            | 97,00         |
| P-I   | 432238-B21 | HP External Mini SAS 4m Cable                            | 123,00        |
| P-I   | 432239-B21 | HP External Mini SAS 6m Cable                            | 195,00        |
| <b>For connecting D2000 to Smart array 431,441,841</b>                              |            |  |               |
|   | 691971-B21 | HP 0.5m External Mini SAS High Density to Mini SAS Cable | 55,00         |
|   | 716189-B21 | HP 1.0m External Mini SAS High Density to Mini SAS Cable | 65,00         |
|   | 716191-B21 | HP 2.0m External Mini SAS High Density to Mini SAS Cable | 90,00         |
|   | 716193-B21 | HP 4.0m External Mini SAS High Density to Mini SAS Cable | 140,00        |
| <b>For connecting D6000 to Smart array P431/P441/P841</b>                           |            |  |               |
|   | 716189-B21 | HP 1.0m External Mini SAS High Density to Mini SAS Cable | 65,00         |
|   | 716191-B21 | HP 2.0m External Mini SAS High Density to Mini SAS Cable | 90,00         |
| <b>Carepacks : please consult the Support Services Pricelist</b>                    |            |  |               |

| PN | Description | REP<br>(in €) |
|----|-------------|---------------|
|----|-------------|---------------|

**StoreEver - Ultrium Tape Drives**

**WARN ING : INTERNAL TAPE DRIVES ARE ONLY FOR servers with internal half heigth or full height drive bays or rackmount tape chassis.**

The family of LTO Ultrium tape drives is HP's premier line of backup devices. Based on the LTO Ultrium format, an open standard with a well-defined eight-generation roadmap, LTO Ultrium tape drives offer customers the best choice for investment protection. With ultimate reliability and ease of use in mind, even at 100% duty cycles, HP's rugged design builds on superior LTO technology and adds advanced features like hardware data encryption to create a new level of data protection. The tape drives employ dynamic data rate matching to adjust to the speed of the host, reducing wear and tear on both drive and media and increasing performance, even on slower hosts. HP's ultra-durable soft-load feature automatically positions the data cartridge together with the highly reliable leader-capture mechanism make your backup and restore operations more reliable. Support for One-Button Disaster Recovery provides the easiest way to restore data in the event of a disaster.

The family of tape drives also features support for Library and Tape Tools which provides TapeAssure health monitoring, diagnostics, and performance optimization. Included with the LTO Ultrium tape drives is the option to download Yosemite Server Backup Basic backup and recovery software providing a backup application to protect a single server. If data is critical to your business, protect it with an LTO Ultrium tape drive.

All tape drives are shipped with one data cartridge. Full height LTO drives also ship with a cleaning cartridge.



New : introducing the brand new LTO7 format : up to 15TB on a single tape cartridge !!!

| Internal Tape Drives                    |        |   |          |
|---|--------|---|----------|
| <b>Half Heigth Versions - SAS</b>       |        |   |          |
| P-I                                     | BB873A | HPE LTO-7 Ultrium 15000 Int Tape Drive                | 4.376,00 |
| P-I                                     | EH969A | HP LTO-6 Ultrium 6250 Int Tape Drive                  | 2.883,00 |
| P-I                                     | EH957B | HP LTO-5 Ultrium 3000 SAS Internal Tape Drive         | 2.310,00 |
| P-I                                     | EH919B | HP LTO-4 Ultrium 1760 SAS Internal WW Tape Drive      | 1.976,00 |
| <b>External Tape Drives</b>             |        |   |          |
| <b>Half Heigth Versions - SAS</b>       |        |   |          |
| P-I                                     | BB874A | HPE LTO-7 Ultrium 15000 Ext Tape Drive                | 4.846,00 |
| P-I                                     | EH970A | HP LTO-6 Ultrium 6250 Ext Tape Drive                  | 3.085,00 |
| P-I                                     | EH958B | HP LTO-5 Ultrium 3000 SAS External Tape Drive         | 2.323,00 |
| P-I                                     | EH920B | HP LTO-4 Ultrium 1760 SAS External Tape Drive         | 2.197,00 |
| <b>Full Heigth Versions - SAS</b>       |        |   |          |
| <b>Rackmount Tape Drives</b>            |        |   |          |
| P-I                                     | C0L99A | HP LTO-6 Ultr 6250 Tape DR 1U Rackmount               | 3.738,00 |
| P-I                                     | EJ014B | HP LTO-5 Ultrium 3000 SAS Tape Drive in 1U Rack-mount | 2.779,00 |
| P-I                                     | EH946C | HP LTO-4 Ultrium 1760 SAS (1) in 1U Rack-mount Kit    | 2.803,00 |
| <b>Rackmount enclosures and options</b> |        |   |          |
| P-I                                     | AE459B | HP StorageWorks 1U SAS Rack Mount Kit                 | 420,00   |
| P-I                                     | A8007B | HP StorageWorks 1U USB Rack-mount Kit                 | 326,00   |



| PN | Description | REP<br>(in €) |
|----|-------------|---------------|
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**StoreEver - Autoloaders**

The StoreEver 1/8 G2 Tape Autoloader provides a cost-effective, easy-to-install, unattended backup that is ideal for an entry-level or remote office automated backup solution. The 1/8 G2 autoloader combines incredible storage density and tape library features into a compact 1U form factor. Capable of up to 24TB of compressed capacity in only a 1U form factor, the autoloader is well equipped to offer room for uncertain data growth. Web-based remote management offers the capability to quickly and easily access, configure, monitor, and troubleshoot the autoloader that will reduce dependencies on local IT staff while allowing multiple sites to be supported centrally. Protect confidential business information with native encryption, ensuring that if a tape is lost or stolen your data is protected from unauthorized access. Proactively monitor utilization, operational performance, as well as life and health information for both the drive and media with TapeAssure.



| <b>StoreEver 1/8 G2 Autoloaders</b> |          |   |          |
|-------------------------------------|----------|---|----------|
| <b>Ready to use units</b>           |          |   |          |
| P-I                                 | N7P34A   | HPE 1/8 G2 LTO-7 FC Tape Autoloader   | 9.019,00 |
| P-I                                 | C0H19A   | HP 1/8 G2 LTO-6 Ultr 6250 FC Autoloader   | 7.156,00 |
| P-I                                 | BL541B   | HP 1/8 G2 LTO-5 3000 FC Autoloader  | 6.249,00 |
| P-I                                 | N7P35A   | HPE 1/8 G2 LTO-7 SAS Tape Autoloader  | 7.292,00 |
| P-I                                 | BL536B   | HP 1/8 G2 LTO-5 3000 SAS Autoloader   | 5.207,00 |
| P-I                                 | AK377B   | HP 1/8 G2 LTO-4 Ultr 1760 SAS Autoloader  | 4.528,00 |
| <b>Autoloader Options</b>           |          |   |          |
| P-I                                 | AH167A   | HP StorageWorks 1/8 G2 Right Magazine Kit   | 204,00   |
| P-I                                 | AH862A   | HP StorageWorks 1/8 G2 Tape Autoloader Left Magazine Kit                              | 226,00   |
| P-I                                 | AH166A   | HP StorageWorks 1/8 G2 Tape Autoloader Rack Kit                                       | 126,00   |
| P-I                                 | AM495A   | HP 1/8 G2 Autoloader/MSL Encryption Kit and MSL2024/MSL4048/MSL8096 Tape Library LTO- | 2.336,00 |
| <b>Autoloader Software</b>          |          |   |          |
| P-I                                 | TC407A   | HPE StoreEver AL TapeAssure Adv LTU   | 1.358,00 |
| P-I                                 | TC407AAE | HPE StoreEver AL TapeAssure Adv E-LTU   | 1.358,00 |

| PN   | Description | REP (in €) |
|--|-------------|------------|
| <b>StoreEver - MSL 2024/4048 Libraries</b> |             |            |

The StoreEver MSL Tape Libraries meet demanding storage requirement of businesses needing unattended backup, disaster recovery, or archive capability. The MSL Libraries offer a broad choice of storage capacity and technology including LTO-6, LTO-5, or LTO-4, Ultrium tape drives. Web-based remote management makes the MSL Libraries easily managed from across the room or across the globe, eliminating the need for remote office IT staff. Quickly and simply manage the tape media both in and out of the library with the standard bar code reader, configurable mail slots, and multiple removable magazines. If a tape were lost or stolen, protect important business data from unauthorized access with data encryption options. MSL library investment protection and uncertain data growth are easily managed within the MSL library portfolio.



| MSL2024 & 4048                            |          |   |          |
|---|----------|---|----------|
| <b>MSL 2024/4048 Base Units</b>           |          |   |          |
| P-I                                       | AK379A   | HP StorageWorks MSL2024 0-Drive Tape Library  | 2.451,00 |
| P-I                                       | AK381A   | HP StorageWorks MSL4048 0-Drive Tape Library  | 4.290,00 |
| <b>SAS based drive kits</b>               |          |   |          |
| P-I                                       | N7P37A   | HPE MSL LTO-7 SAS Drive Upgrade Kit   | 5.841,00 |
| P-I                                       | C0H27A   | HP MSL LTO-6 Ultr 6250 SAS Drive Upg Kit  | 4.766,00 |
| P-I                                       | BL540B   | HP MSL LTO-5 Ultrium 3000 SAS Drive Kit   | 3.766,00 |
| P-I                                       | AK383B   | HP MSL LTO-4 Ult 1760 SAS Drive Kit   | 3.064,00 |
| <b>FC based drive kits</b>                |          |   |          |
| P-I                                       | N7P36A   | HPE MSL LTO-7 FC Drive Upgrade Kit  | 6.262,00 |
| P-I                                       | C0H28A   | HP MSL LTO-6 Ultr 6250 FC Drive Upg Kit   | 4.953,00 |
| P-I                                       | BL544B   | HP MSL LTO-5 Ultrium 3000 FC Drive Kit  | 3.926,00 |
| <b>MSL2024/4048/8096 Magazine Options</b> |          |   |          |
|   | AG119A   | HP MSL2024 Ultrium Left Mag Kit   | 333,00   |
|   | AG120A   | HP StorageWorks MSL Ultrium Right Magazine Kit  | 306,00   |
|   | AG330A   | HP StorageWorks MSL4048 Ultrium Lower Left Magazine                                   | 389,00   |
| <b>MSL Security options</b>               |          |   |          |
| P-I                                       | AM495A   | HP 1/8 G2 Autoloader/MSL Encryption Kit and MSL2024/MSL4048/MSL8096 Tape Library LTO- | 2.336,00 |
| P-I                                       | TC468A   | HPE MSL2024/4048/8096 KMIP Encryp LTU   | 5.434,00 |
| <b>MSL4048/8096 power options</b>         |          |   |          |
| P-I                                       | AH220A   | HP StorageWorks MSL8096 Redundant Power Supply  | 701,00   |
|   | AF568A   | HP 1.83m 10A C13 Power Cord   | 30,00    |
| <b>MSL Management Software</b>            |          |   |          |
| P-I                                       | TC406A   | HPE StoreEver MSL TapeAssure Adv LTU  | 2.265,00 |
| P-I                                       | TC406AAE | HPE StoreEver MSL TapeAssure Adv E-LTU  | 2.265,00 |

| PN   | Description | REP<br>(in €) |
|--|-------------|---------------|
| <b>StoreEver - MSL 6480 Scalable Libraries</b> |             |               |

Are your ever expanding data storage, protection and retention needs getting out of hand?

The HP StoreEver MSL6480 Tape Library is the gold standard for mid-range tape automation, delivering best-in-class scalability, density, and performance to meet your short-term backup and disaster recovery data protection needs, as well as long-term archival requirements. Keep pace with data growth by seamlessly scaling up to 7 modules -without disrupting daily data protection. You also save expensive space, as the MSL6480 provides the highest tape drive density per module of any mid-range tape library.



The MSL6480 Tape Library reduces the time and resources needed to achieve enterprise-class manageability, equipping you with proactive monitoring on single pane of glass control. Competitively priced, the MSL6480 Tape Library offers an outstanding return on your storage investment.

| <b>MSL6480</b>   |          |  |           |
|--|----------|--|-----------|
| <b>MSL 6480 Base Unit and Expansion Module</b>   |          |  |           |
| Start with a Base Module, with 80 slots and up to 6 tape drives and grow up to 560 slots and 42 tape drives in a single 42U Rack ! |          |  |           |
| P-I  | QU625A   | HP MSL6480 Scalable Base Module          | 22.322,00 |
| P-I  | QU626A   | HP MSL6480 Scalable Expansion Module     | 12.019,00 |
| <b>SAS based drive kits</b>  |          |  |           |
| P-I  | N7P37A   | HPE MSL LTO-7 SAS Drive Upgrade Kit      | 5.841,00  |
| P-I  | C0H27A   | HP MSL LTO-6 Ultr 6250 SAS Drive Upg Kit | 4.766,00  |
| P-I  | BL540B   | HP MSL LTO-5 Ultrium 3000 SAS Drive Kit  | 3.766,00  |
| <b>FC based drive kits</b>   |          |  |           |
| P-I  | N7P36A   | HPE MSL LTO-7 FC Drive Upgrade Kit       | 6.262,00  |
| P-I  | C0H28A   | HP MSL LTO-6 Ultr 6250 FC Drive Upg Kit  | 4.953,00  |
| P-I  | BL544B   | HP MSL LTO-5 Ultrium 3000 FC Drive Kit   | 3.926,00  |
| <b>MSL6480 Base Software</b>   |          |  |           |
| P-I  | TC444A   | HPE StoreEver MSL6480 CVTL LTU           | 1.358,00  |
| P-I  | TC444AAE | HPE StoreEver MSL6480 CVTL E-LTU         | 1.358,00  |
| <b>MSL6048 high availability software</b>  |          |  |           |
| P-I  | P9H33A   | HPE MSL6480 LTO-7 Path Failover LTU      | 5.434,00  |
|  | TC359A   | HPE MSL6480 LTO-5/6 Ctrl Failover LTU    | 2.718,00  |
|  | TC360A   | HPE MSL6480 LTO-5/6 Data Failover LTU    | 2.718,00  |
| <b>MSL Security software</b>   |          |  |           |
| P-I  | TC469A   | HPE StoreEver MSL6480 ESKM Encryp LTU    | 5.434,00  |
| P-I  | D4T75A   | HPE MSL6480 Secure Manager LTU           | 1.811,00  |
| P-I  | D4T75AAE | HPE MSL6480 Secure Manager E-LTU         | 1.811,00  |
| P-I  | D4T76A   | HPE MSL6480 KMIP 1.2 Key Manager LTU     | 13.586,00 |
| P-I  | D4T76AAE | HPE MSL6480 KMIP 1.2 Key Manager E-LTU   | 13.586,00 |
| <b>MSL Management Software</b>   |          |  |           |
| P-I  | TC445A   | HPE StoreEver MSL6480 TapeAssure Adv LTU | 3.170,00  |
| P-I  | TC445AAE | HPE StoreEver MSL6480 TapeAssu Adv E-LTU | 3.170,00  |

|  | PN | Description | REP (in €) |
|--|----|-------------|------------|
|--|----|-------------|------------|

## Connectivity options for Tape Backup Solutions

| <b>SAS &amp; SCSI HBA's</b>  |            |   |          |
|--|------------|---|----------|
| <b>Serial Attached SCSI (SAS) Host Bus Adapters (for ProLiant Gen9 Servers)</b>        |            |   |          |
|  | 726911-B21 | HP H241 12Gb 2-ports Ext Smart Host Bus Adapter                       | 270,00   |
|  | 726907-B21 | HP H240 12Gb 2-ports Int Smart Host Bus Adapter                       | 230,00   |
|  | 726825-B21 | HP Smart Array P441/4GB FBWC 12Gb 2-ports Ext SAS Controller          | 820,00   |
|  | 726821-B21 | HP Smart Array P440/4GB FBWC 12Gb 1-port Int SAS Controller           | 820,00   |
|  | 726736-B21 | HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int SAS Controller        | 560,00   |
|  | 726903-B21 | HP Smart Array P841/4GB FBWC 12Gb 4-ports Ext SAS Controller          | 1.390,00 |
| <b>Serial Attached SCSI (SAS) Host Bus Adapters (for ProLiant Gen8 Servers)</b>        |            |   |          |
| EOL  | 631667-B21 | HP Smart Array P222/512 FBWC 6Gb 1-port Int/1-port Ext SAS Controller | 620,00   |
|  | 631670-B21 | HP Smart Array P420/1GB FBWC 6Gb 2-ports Int SAS Controller           | 820,00   |
|  | 631671-B21 | HP Smart Array P420/2GB FBWC 6Gb 2-ports Int SAS Controller           | 940,00   |
|  | 698531-B21 | HP Smart Array P431/2GB FBWC 12Gb 2-ports Ext SAS Controller          | 940,00   |
| <b>SAS Cables for Gen8 servers</b>   |            |   |          |
| <b>For External and Rackmount Tape drives and Autoloaders (1 tape drive per cable)</b> |            |   |          |
|  | AE470A     | HP SAS Min-Min 1x-2M Cable Assembly Kit                               | 86,00    |
|  | AE465A     | HP StorageWorks SAS MIN-MIN 1X-4M Cable Assembly Kit                  | 143,00   |
| <b>For MSL Libraries - up to 4 drives per cable</b>                                    |            |   |          |
|  | AN975A     | HP StorageWorks 2m External Mini-SAS to 4x1 Mini-SAS Cable            | 267,00   |
|  | AN976A     | HP StorageWorks 4m External Mini-SAS to 4x1 Mini-SAS Cable            | 350,00   |
| <b>SAS Cables for Gen9 servers</b>   |            |   |          |
| <b>For External and Rackmount Tape drives and Autoloaders (1 tape drive per cable)</b> |            |   |          |
|  | 716191-B21 | HP 2.0m External Mini SAS High Density to Mini SAS Cable              | 90,00    |
|  | 716193-B21 | HP 4.0m External Mini SAS High Density to Mini SAS Cable              | 140,00   |
| <b>For MSL libraries (4 tape drives per cable)</b>                                     |            |   |          |
| P-I  | K2R09A     | HP Mini SAS HD 1 to-4 Mini SAS FO 2M Cbl                              | 295,00   |
| P-I  | K2R10A     | HP Mini SAS HD 1 to 4 mini SAS FO 4M Cbl                              | 413,00   |

|  | PN | Description | REP (in €) |
|--|----|-------------|------------|
|--|----|-------------|------------|

## Converged Network Adapters and Fibre Channel HBA's

The HP Dual Port Converged Network Adapters (CNAs) are dual port adapters that provide Ethernet, iSCSI, and Fibre Channel (FC) connectivity over 10GbE using both Fibre Channel over Ethernet (FCoE) and Converged Enhanced Ethernet (CEE) standards. By consolidating Ethernet, iSCSI, and Fibre Channel onto a converged network adapter, HP CNAs reduce the number of separate adapters and cables required for your datacenter and also reduce operational, power and cooling costs while preserving existing Ethernet and Fibre Channel infrastructure. HP CNAs have been thoroughly tested with HP ProLiant servers and HP Top of Rack (ToR) and End of Row (EoR) switches to ensure an optimal HP FCoE solution for your datacenter

| Converged Network Adapters for ProLiant Servers |        |  |          |
|---|--------|--|----------|
| Supported OS                                    |        | <a href="http://www.hp.com/go/productbulletin">see the adapter quickspecs on : www.hp.com/go/productbulletin</a> |          |
| P-I   | QW990A | HPE CN1100R 2P Converged Network Adapter   | 1.336,00 |
| P-I   | E7Y06A | HPE StoreFabric CN1200E 10Gb CNA   | 1.336,00 |
| N   | N3U52A | HPE StoreFabric CN1100R-T 10Gb CNA   | 1.402,00 |
| P-I   | N3U51A | HPE StoreFabric CN1200E-T 10Gb CNA   | 1.682,00 |
| Fibre Channel HBA's                             |        |  |          |
| 32 Gb Fibre Channel HBA                         |        |  |          |
| Supported OS                                    |        | <a href="http://www.hp.com/go/productbulletin">see the adapter quickspecs on : www.hp.com/go/productbulletin</a> |          |
| P-I   | Q0L11A | HPE SN1600E 32Gb 1p FC HBA   | 2.477,00 |
| P-I   | Q0L12A | HPE SN1600E 32Gb 2p FC HBA   | 3.841,00 |
| P-I   | P9M75A | HPE SN1600Q 32Gb 1p FC HBA   | 2.477,00 |
| P-I   | P9M76A | HPE SN1600Q 32Gb 2p FC HBA   | 3.841,00 |
| 16 Gb Fibre Channel HBA                         |        |  |          |
| Supported OS                                    |        | <a href="http://www.hp.com/go/productbulletin">see the adapter quickspecs on : www.hp.com/go/productbulletin</a> |          |
| P-I   | P9D93A | HPE SN1100Q 16Gb 1p FC HBA   | 1.681,00 |
| P-I   | P9D94A | HPE SN1100Q 16Gb 2p FC HBA   | 2.616,00 |
| P-I   | QW971A | HPE SN1000Q 16Gb 1P FC HBA   | 1.681,00 |
| P-I   | QW972A | HPE SN1000Q 16Gb 2P FC HBA   | 2.616,00 |
| P-I   | Q0L13A | HPE SN1200E 16Gb 1p FC HBA   | 1.681,00 |
| P-I   | Q0L14A | HPE SN1200E 16Gb 2p FC HBA   | 2.616,00 |
| P-I   | C8R38A | HPE SN1100E 16Gb 1P FC HBA   | 1.681,00 |
| P-I   | C8R39A | HPE SN1100E 16Gb 2P FC HBA   | 2.616,00 |
| P-I   | P9D99A | HPE StoreFabric SN1100E 4p 16Gb FC HBA   | 5.513,00 |
| 8 Gb Fibre Channel HBA                          |        |  |          |
| Supported OS                                    |        | <a href="http://www.hp.com/go/productbulletin">see the adapter quickspecs on : www.hp.com/go/productbulletin</a> |          |
| P-I   | AK344A | HPE 81Q PCI-e FC HBA   | 1.093,00 |
| P-I   | AJ764A | HPE 82Q 8Gb Dual Port PCI-e FC HBA   | 1.728,00 |
| N   | P9D91A | HPE StoreFabric 84Q 4p 8Gb FC HBA  | 3.644,00 |
| P-I   | AJ762B | HPE 81E 8Gb SP PCI-e FC HBA  | 1.093,00 |
| P-I   | AJ763B | HPE 82E 8Gb Dual-port PCI-e FC HBA   | 1.728,00 |
| N   | E7Y63A | HPE StoreFabric 84E 4-port 8Gb FC HBA  | 3.644,00 |

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**B-Series SAN Switches (Brocade)**

To remain competitive, IT organizations must keep pace with ever-increasing workloads without a similar increase in their budgets or resources. While virtualization has provided some relief by enabling the benefits of faster deployment and consolidation, it also tends to put additional stress on data center networks. In addition, the move toward cloud computing, which promises greater efficiency and a more service-oriented business model, means that these networks will face even greater demands.

The B-series Fibre channel switches meet the demands of hyper-scale, private cloud storage environments by delivering market-leading Fibre Channel technology and capabilities that support highly virtualized environments. Designed to enable maximum flexibility and investment protection, B-series switches are available in 12-24 port up to 96-port variants, in an efficiently designed 1U or 2U package. They also provide a simplified deployment process and a point-and-click user interface-making them both powerful and easy to use. The B-series SAN switches offers low-cost access to industry-leading Storage Area Network (SAN) technology while providing "pay-as-you-grow" scalability to meet the needs of an evolving storage environment.

New : SN3600B 32Gb entry level Fibre channel switch from Brocade !!

**B-Series 32 Gb SAN Switches (Brocade)**

| SN3600B                    |          |  |           |
|----------------------------|----------|--|-----------|
| Base units - no SFP's      |          |  |           |
| N                          | Q1H70A   | HPE SN3600B 32Gb 24/8 FC Switch          | 5.607,00  |
| N                          | Q1H71A   | HPE SN3600B 32Gb 24/24 FC Switch         | 14.952,00 |
| N                          | Q1H72A   | HPE SN3600B 32Gb 24/24 Pwr Pk+ FC Switch | 21.494,00 |
| options                    |          |  |           |
| N                          | Q1Z10A   | HPE SN3600B 8-port FC Upgrade LTU        | 6.075,00  |
| N                          | Q1Z10AAE | HPE SN3600B 8-port FC Upgrade E-LTU      | 6.075,00  |
| N                          | Q1Z11A   | HPE SN3600B Power Pack+ Upgrade LTU      | 8.523,00  |
| N                          | Q1Z11AAE | HPE SN3600B Power Pack+ Upgrade E-LTU    | 8.523,00  |
| N                          | N9Y63A   | HPE B-series 4G USB Drive                | 326,00    |
| SN6600B                    |          |  |           |
| Base units - no SFP's      |          |  |           |
| P-I                        | Q0U54A   | HPE SN6600B 32Gb 48/24 FC Switch         | 18.691,00 |
| P-I                        | Q0U55A   | HPE SN6600B 32Gb 48/24 Pwr Pk+ FC Switch | 25.233,00 |
| P-I                        | Q0U56A   | HPE SN6600B 32Gb 48/48 FC Switch         | 37.382,00 |
| P-I                        | Q0U57A   | HPE SN6600B 32Gb 48/48 Pwr Pk+ FC Switch | 44.859,00 |
| Bundled units - with SFP's |          |  |           |
| P-I                        | Q0U58A   | HPE SN6600B 32Gb 48/24 24p SFP+FC Switch | 22.430,00 |
| P-I                        | Q0U59A   | HPE SN6600B 32Gb 48/24PP+ 24pSFP+ Switch | 30.841,00 |
| P-I                        | Q0U60A   | HPE SN6600B 32Gb 48/48 48p SFP+FC Switch | 45.794,00 |
| P-I                        | Q0U61A   | HPE SN6600B 32Gb 48/48PP+ 48pSFP+ Switch | 51.402,00 |
| options                    |          |  |           |
| P-I                        | Q0T76AAE | HPE SN6600B 12-port FC Upgrade E-LTU     | 13.084,00 |
| P-I                        | Q0T77AAE | HPE SN6600B 16-port 4xQSFP Upgrade E-LTU | 21.495,00 |
| P-I                        | Q0T78AAE | HPE SN6600B Power Pack+ Upgrade E-LTU    | 11.215,00 |
| P-I                        | N9Y63A   | HPE B-series 4G USB Drive                | 326,00    |

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| <b>B-Series 16 Gb SAN Switches (Brocade)</b> |          |  |           |
|--|----------|--|-----------|
| <b>B-series 16Gbit Bladesystems switches</b> |          |  |           |
| P-D  | C8S45A   | Brocade 16Gb/16c Embedded SAN Switch     | 9.251,00  |
| P-D  | C8S46A   | Brocade 16Gb/28c Embedded SAN Switch     | 12.149,00 |
| P-I  | C8S47A   | Brocade 16Gb/28c PP+ Embedded SAN Switch | 17.097,00 |
| P-D  | T5517AAE | Brocade 8/16Gb FC Switch 12-pt Upg E-LTU | 4.438,00  |
| P-D  | T5517A   | Brocade 8/16Gb FC Switch 12-pt Upgr LTU  | 4.438,00  |
| P-I  | T5521A   | HPE B-series 8-24 Port Pwr Pk+ Upg LTU   | 7.873,00  |
| P-I  | T5521AAE | HPE B-series 8-24 Port Pwr Pk+ Upg E-LTU | 7.873,00  |
| <b>SN3000B 16Gbit switches</b>               |          |  |           |
| P-I  | QW938A   | HPE SN3000B 24/24 FC Switch              | 13.364,00 |
| P-I  | QW937A   | HPE SN3000B 24/12 FC Switch              | 7.617,00  |
| P-I  | TC391A   | HPE SN3000B SAN Switch 12-port Upg LTU   | 7.318,00  |
| P-I  | TC391AAE | HPE SN3000B SAN Switch 12-port Upg E-LTU | 7.318,00  |
| P-I  | QW939A   | HPE SN3000B Optional Power Supply        | 3.738,00  |
| P-I  | T5521A   | HPE B-series 8-24 Port Pwr Pk+ Upg LTU   | 7.873,00  |
| P-I  | T5521AAE | HPE B-series 8-24 Port Pwr Pk+ Upg E-LTU | 7.873,00  |
| <b>SN6000B 16Gbit switches</b>               |          |  |           |
| P-I  | QK753B   | HPE SN6000B 16Gb 48/24 FC Switch         | 14.252,00 |
| P-I  | QR480B   | HPE SN6000B 16Gb 48/48 FC Switch         | 28.738,00 |
| P-I  | QK754B   | HPE SN6000B 16Gb 48/24 Pwr Pk+ FC Switch | 20.000,00 |
| P-I  | QR481B   | HPE SN6000B 16Gb 48/48 Pwr Pk+ FC Swch   | 35.047,00 |
| P-I  | TC356A   | HPE SN6000B SAN Switch 12-port Upg LTU   | 12.271,00 |
| P-I  | TC356AAE | HPE SN6000B SAN Switch 12-port Upg E-LTU | 12.271,00 |
| P-I  | T5528A   | HPE B-series 24-40p Integr Routing LTU   | 17.700,00 |
| P-I  | T5528AAE | HPE B-series 24-40p Integr Routing E-LTU | 17.700,00 |
| P-I  | T5522A   | HPE B-series 24-40p Pwr Pk+ Upg LTU      | 14.855,00 |
| P-I  | T5522AAE | HPE B-series 24-40p Pwr Pk+ Upg E-LTU    | 14.855,00 |
| P-I  | N9Y63A   | HPE B-series 4G USB Drive                | 326,00    |
| <b>SN6500B 16Gbit switches</b>               |          |  |           |
| P-I  | C8R45A   | HPE SN6500B 96/48 FC Switch              | 49.084,00 |
| P-I  | C8R43A   | HPE SN6500B 96/96 FC Switch              | 87.710,00 |
| P-I  | C8R44A   | HPE SN6500B 96/48 PowerPack+ FC Switch   | 67.290,00 |
| P-I  | C8R42A   | HPE SN6500B 96/96 PowerPack+ FC Switch   | 94.393,00 |
| P-I  | TC440A   | HPE SN6500B SAN Switch 24-port Upg LTU   | 24.065,00 |
| P-I  | TC440AAE | HPE SN6500B SAN Switch 24-port Upg E-LTU | 24.065,00 |
| P-I  | TC441A   | HPE SN6500B SAN Switch Power Pack+ LTU   | 16.206,00 |
| P-I  | TC441AAE | HPE SN6500B SAN Switch Power Pack+ E-LTU | 16.206,00 |
| N  | N9Y63A   | HPE B-series 4G USB Drive                | 326,00    |

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## B-Series 8Gb SAN Switches (Brocade)

### B-series 8Gbit Bladesystems switches

|     |          |  |           |
|-----|----------|--|-----------|
| P-I | AJ820C   | Brocade 8/12c SAN Switch for BladeSystem | 5.659,00  |
| P-I | AJ821C   | Brocade 8/24c SAN Switch for BladeSystem | 8.678,00  |
| P-I | AJ822C   | Brocade 8/24c Power Pk+ SAN Swch for BL  | 13.392,00 |
| P-D | T5517A   | Brocade 8/16Gb FC Switch 12-pt Upgr LTU  | 4.438,00  |
| P-D | T5517AAE | Brocade 8/16Gb FC Switch 12-pt Upg E-LTU | 4.438,00  |

### B-series Entry Level switches

|     |  |  |          |
|-----|--|--|----------|
|     | The following parts are the replacements for the 8Gb SAN switches. Part number changes are necessary for ROHS directive reasons. No change in cost nor functionality |  |          |
| P-I | AM866C   | HPE 8/8 Base (0) E-port Enabled SAN Swch | 3.270,00 |
| P-I | AM867C   | HPE 8/8 Base 8-port Enabled SAN Switch   | 4.111,00 |
| P-I | AM868C   | HPE 8/24 Base 16-port Enabled Switch     | 6.448,00 |
| P-I | T4261A   | HPE B-series Full Fab Switch LTU         | 1.494,00 |
| P-I | T5518A   | HPE 8/8 and 8/24 SAN Switch 8p Upg LTU   | 3.449,00 |
| P-I | T5518AAE   | HPE 8/8 and 8/24 SAN Switch 8p Upg E-LTU | 3.449,00 |
| P-I | T5521A   | HPE B-series 8-24 Port Pwr Pk+ Upg LTU   | 7.873,00 |
| P-I | T5521AAE   | HPE B-series 8-24 Port Pwr Pk+ Upg E-LTU | 7.873,00 |
| P-I | T5527A   | HPE B-series 8-24 Port ISL Trunking LTU  | 4.907,00 |
| P-I | T5527AAE   | HPE B-ser 8-24 Port ISL Trunking E-LTU   | 4.907,00 |
| P-I | N9Y63A   | HPE B-series 4G USB Drive                | 326,00   |

### B-series 8 Gb Midrange switches - upgrade options only.

#### 8/40 SAN Switch

|     |          |  |           |
|-----|----------|--|-----------|
| P-I | T5519A   | HPE 8/40 SAN Switch 8Gb 8-port Upg LTU   | 5.683,00  |
| P-I | T5519AAE | HPE 8/40 SAN Switch 8Gb 8-port Upg E-LTU | 5.683,00  |
| P-I | T5522A   | HPE B-series 24-40p Pwr Pk+ Upg LTU      | 14.855,00 |
| P-I | T5522AAE | HPE B-series 24-40p Pwr Pk+ Upg E-LTU    | 14.855,00 |
| P-I | T5528A   | HPE B-series 24-40p Integr Routing LTU   | 17.700,00 |
| P-I | T5528AAE | HPE B-series 24-40p Integr Routing E-LTU | 17.700,00 |

#### 8/80 SAN Switch

|     |          |  |           |
|-----|----------|--|-----------|
| P-I | T5520A   | HPE 8/80 SAN Switch 8Gb 16p Upg LTU      | 17.547,00 |
| P-I | T5520AAE | HPE 8/80 SAN Switch 8Gb 16p Upg E-LTU    | 17.547,00 |
| P-I | T5523A   | HPE B-series 48-80p Pwr Pk+ Upg LTU      | 27.569,00 |
| P-I | T5523AAE | HPE B-series 48-80p Pwr Pk+ Upg E-LTU    | 27.569,00 |
| P-I | T5529A   | HPE B-series 48-80p Integr Routing LTU   | 25.707,00 |
| P-I | T5529AAE | HPE B-series 48-80p Integr Routing E-LTU | 25.707,00 |
| P-I | TC320A   | HPE 80-port SAN Switch FICON CUP LTU     | 6.349,00  |

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## B-Series Software options

**Electronic licenses. For Physical licenses remove the 'AE' extension to the part number**

| HPE Intelligent Infrastructure Analyzer                               |            |   |           |
|---|------------|---|-----------|
| P-I   | TC472AAE   | HPE Intelligent Inft Analyzer SW v2 E-LTU | 934,00    |
| HPE Network Advisor   |            |   |           |
| P-I   | TC352BAE   | HPE B-ser SAN Network Adv Ent SW E-LTU    | 66.198,00 |
| P-I   | TC353BAE   | HPE B-ser SAN Ntwk Adv Pro PI SW E-LTU    | 26.479,00 |
| P-I   | TC354BAE   | HPE B-ser SAN Ntwk Adv Pro PI Upg E-LTU   | 41.433,00 |
| HPE Smart SAN for 3PAR -  |            |   |           |
| P-I   | L7D48AAE   | HPE Smart SAN for HPE 3PAR 7xxx E-LTU     | 374,00    |
| P-I   | L7D49AAE   | HPE Smart SAN for HPE 3PAR 8xxx E-LTU     | 374,00    |
| P-I   | L7D50AAE   | HPE Smart SAN for HPE 3PAR 10xxx E-LTU    | 748,00    |
| P-I   | L7D51AAE   | HPE Smart SAN for HPE 3PAR 20xxx E-LTU    | 748,00    |
| Midrange and high end 8/16/32Gb B-series switches - software upgrades |            |   |           |
| Electronic Licenses   |            |   |           |
| P-I   | J4V62AAE   | HPE B-ser Mid/High End Fabric Wtch E-LTU  | 5.664,00  |
| P-I   | J4V60AAE   | HPE B-ser Mid/High Adv Perf Mon E-LTU     | 6.215,00  |
| P-I   | J4V61AAE   | HPE B-ser Mid/High ISL Trunking E-LTU     | 4.953,00  |
| P-I   | J4V63AAE   | HPE B-ser Mid/High End Extd Fabric E-LTU  | 3.897,00  |
| P-I   | T5528AAE   | HPE B-series 24-40p Integr Routing E-LTU  | 17.700,00 |
| P-I   | TA748AAE   | HPE 8/40 and 1606 Swtch FICON CUP E-LTU   | 6.431,00  |
| Physical Licenses   |            |   |           |
| P-I   | 313454-B21 | HPE B-series 32-64 Fab Watch Switch LTU   | 5.607,00  |
| P-I   | 313450-B21 | HPE B-series 32-64 Adv Perf Mon LTU       | 6.168,00  |
| P-I   | 313452-B21 | HPE B-series 32-64 ISL Trnk Switch LTU    | 4.907,00  |
| P-I   | 313458-B21 | HPE B-series 32-64 Extd Fab Switch LTU    | 3.855,00  |
| P-I   | T5528A     | HPE B-series 24-40p Integr Routing LTU    | 17.700,00 |
| P-I   | TA748A     | HPE 8/40 and 1606 Swtch FICON CUP LTU     | 6.728,00  |
| Fibre Channel transceivers for B-series switches                      |            |   |           |
| 32Gb Fibre Channel Transceiver kits                                   |            |   |           |
| P-I   | Q0U62A     | HPE B-series 4x32Gb 4-pack SW4 QSFP XCVR  | 8.645,00  |
| P-I   | P9H32A     | HPE B-series 32Gb SFP+ SW 1-pack XCVR     | 1.307,00  |
| N P-I   | P9H29A     | HPE B-Series 32Gb SFP+ LW 1-pack XCVR     | 5.701,00  |
| 16Gb Fibre Channel Transceiver kits                                   |            |   |           |
| P-I   | QK724A     | HPE B-series 16Gb SFP+SW XCVR             | 379,00    |
| P-I   | QK725A     | HPE B-series 16Gb SFP+LW 10km XCVR        | 3.178,00  |
| P-I EOL   | QK726A     | HPE B-series 10Gb SFP+SR XCVR             | 1.644,00  |
| P-I EOL   | QK727A     | HPE B-series 10Gb SFP+LR XCVR             | 3.550,00  |
| 8Gb Fibre Channel Transceiver kits                                    |            |   |           |
| P-I   | AW538A     | HPE B-series 8Gb LW 25km FC SFP 1 Pack    | 5.977,00  |
| P-I   | AJ717A     | HPE 8Gb LW B-series 10km FC SFP+ 1 Pack   | 1.589,00  |
| P-I   | AJ716B     | HPE 8Gb Short Wave B-Series SFP+ 1 Pack   | 168,00    |
| P-I EOL   | AJ715A     | HPE 4Gb Short Wave B-series FC SFP 1 Pk   | 186,00    |
| Copper transceiver kits for CEE/FCIP switches                         |            |   |           |
| P-I EOL   | AW537A     | HPE B-series 1GbE Copper SFP 1 Pack       | 298,00    |
| For CarePacks please consult the HP Carepack pricelist                |            |   |           |

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## C-Series SAN Switches (Cisco)

The SN6010C 16Gb Fabric Switch (MDS 9148S) is a high-performance, flexible, cost-effective platform providing high-density, line-rate 16-Gbps ports for storage networking deployments in small, medium-sized, and large enterprise environments. The SN6010C switch offers outstanding value by providing high-availability, security, and ease of use at a cost-effective price in a compact one-rack-unit (1RU) form factor. With the flexibility to expand from 12 to 48 ports in 12-port increments, the SN6010C offers the densities required to scale from an entry-level departmental switch to top-of-rack switch to edge connectivity in enterprise SANs. The SN6010C delivers a non-blocking architecture, with all 48 16-Gbps ports operating at line rate concurrently.

The SN6010C supports the C-series Device Manager quick configuration wizard, which allows it to be deployed quickly and easily in networks of any size. Powered by C-series MDS 9000 NX-OS Software, it includes advanced storage networking features and functions and is compatible with C-series SN8000C (MDS 9500) and SN8500C (MDS 9700) Series Multilayer Directors and C-series MDS 9100 and 9200 Series Multilayer Fabric Switches, providing transparent, end-to-end service delivery in core-edge deployments.

### HP StoreFabric SN6010C 16Gb FC Switch

|     |        |                                   |           |
|-----|--------|-----------------------------------|-----------|
| P-I | K2Q16A | HP SN6010C 12-port 16Gb FC Switch | 5.047,00  |
| P-I | K2Q17A | HP SN6010C 48-port 16Gb FC Switch | 20.187,00 |

### SN6010C Options

|     |        |  |          |
|-----|--------|--|----------|
| P-I | D4U60A | HP SN6010C 12-port 16Gb FC Upgrade LTU | 5.047,00 |
| P-I | TC364A | HP SN6000C DCNM LTU                    | 8.937,00 |
| P-I | A7515A | Cisco MDS 9100 Enterprise Package RTU  | 6.376,00 |

### HP StoreFabric 6500C

*New : The HP StoreFabric SN6500C 16Gb Multi-service Switch (MDS 9250i) brings the most flexible storage networking capability available in the fabric switch market today. Sharing a consistent architecture with the MDS 9700 (SN8500C) Directors, the HP SN6500C 16Gb Multi-service Switch integrates both Fibre Channel and IP Storage Services in a single system to allow maximum flexibility in user configurations.*

|     |        |   |           |
|-----|--------|---|-----------|
| P-I | E7Y64A | HP SN6500C 16Gb Multi-service Switch  | 80.373,00 |
|     |        | BASE switch with 20 x 16Gb ports activated, expandable to 40; 2 x 10Gb ports for FCIP or iSCSI; 8 x 10Gb ports for FCOE |           |

### SN6500C Options

|     |        |   |           |
|-----|--------|---|-----------|
| P-I | D4U17A | HP StoreFabric SN6500C 20-pt FC Upg LTU | 21.494,00 |
| P-I | TC365A | HP SN6500C DCNM LTU                     | 8.937,00  |
| P-I | A7516A | Cisco MDS 9200 Enterprise Package RTU   | 10.278,00 |

### Options for legacy C-series switches

#### Cisco MDS 9124 SAN Switch options

|     |        |                                |          |
|-----|--------|--------------------------------|----------|
| P-I | T5171A | HP MDS 9124 8-port Upgrade RTU | 2.626,00 |
|-----|--------|--------------------------------|----------|

#### HPE B-series 1GbE Copper SFP 1 Pack

|     |        |                                       |          |
|-----|--------|---------------------------------------|----------|
| P-I | A7515A | Cisco MDS 9100 Enterprise Package RTU | 6.376,00 |
|-----|--------|---------------------------------------|----------|

### Fibre Channel Transceivers for C series switches

#### HP StoreFabric 16Gb Transceivers for SN6500C, SN6010C

|     |        |   |          |
|-----|--------|---|----------|
| P-I | C8S72A | HP C-series 16Gb FC SW SFP+ Transceiver | 373,00   |
| P-I | C8S73A | HP C-series 16Gb FC LW SFP+ Transceiver | 4.579,00 |

#### HP StoreFabric 8Gb Transceivers for MDS 8/12c/8/24c, SN6000C, SN6500C & SN6010C

|     |        |   |          |
|-----|--------|---|----------|
| P-D | AJ906A | HP MDS 9000 8Gb FC SFP+ Short Range Transceiver | 417,00   |
| P-D | AJ907A | HP MDS 9000 8Gb FC SFP+ Long Range Transceiver  | 2.706,00 |

#### Cisco 4Gb Transceivers (SFP's) (not for MDS9120/9140, not for SN6xxx series))

|     |        |  |        |
|-----|--------|--|--------|
| P-D | AE379A | HPE MDS9000 4Gb FC SFP 4pk Shrt Rge XCVR | 636,00 |
|-----|--------|--|--------|

### Ethernet Transceivers for SN6500C

|     |        |   |          |
|-----|--------|---|----------|
| P-I | AP783A | HP C-series 10GbE Short Range SFP+ XCVR | 1.864,00 |
| P-I | E7Y65A | HP C-series 10GbE LR SFP+ Transceiver   | 4.298,00 |

For CarePacks please consult the HP Carepack pricelist

N – New / P – Price Decrease / PI – Price Increase / D – Discontinued and Available While Supply lasts

Price List

## Storage Protocol Routers

### B-series extension SAN series

Storage administrators want to replicate large amounts of data quickly, reliably, and simply while minimizing operational and capital expenses. To address this challenge, the B-series Extension SAN switches Switch with Brocade Fabric Vision technology deliver unprecedented performance, continuous availability, and simplified management to handle the unrelenting growth of data traffic between data centers. The B-series extension SAN switches are purpose-built data center extension solutions that maximizes performance and scalability for large, complex environments, allowing IT organizations to future-proof their storage extension infrastructure by adding more throughput capacity as their needs grow. They are robust platforms for large scale, multi-site data center environments implementing disk and tape data protection solutions

#### SN4000B Extension SAN Switch

|     |   |  |           |
|-----|---|--|-----------|
|     | The following parts are the replacements for the 1606 extension SAN switches. Part number changes are necessary for ROHS directive reasons. No change in cost nor functionality |  |           |
| P-I | E7Y73B  | HPE SN4000B Pwr Pk+ SAN Extension Switch   | 87.617,00 |
|     |   | 24 x 16Gb FC ports (4/8/16); 16 x 1/10Gb SFP+ Ethernet ports; 2 x 40Gb Ethernet ports, compatible with QSFP transceivers. One 10/100/1000 Mgt LAN port; 1 x USB Port. Standard functionality includes : Fabric Vision, Extension Trunking, Adaptive Rate Limiting, ISL Trunking, IPsec, Compression, Open Systems Tape Pipelining (OSTP), Fast Write, Adaptive Networking and Extended Fabric. |           |
| P-I | D4U29AAE  | HPE SN4000B FICON Accelerator E-LTU  | 75.234,00 |
| P-I | D4U27AAE  | HPE SN4000B 10Gb WAN Rate Upgrade E-LTU  | 38.318,00 |
| P-I | D4U28AAE  | HPE SN4000B 40Gb WAN Rate Upgrade E-LTU  | 61.682,00 |

#### B-series 1606 Extension SAN Switch

|     |   |   |           |
|-----|---|---|-----------|
|     | The following parts are the replacements for the 1606 extension SAN switches. Part number changes are necessary for ROHS directive reasons. No change in cost nor functionality |   |           |
| P-I | AP864C  | HPE 1606 Extension SAN Pwr Pack+ Switch | 57.868,00 |
| P-I | AP863C  | HPE 1606 Extension SAN Full Switch      | 47.326,00 |
| P-I | AP862C  | HPE 1606 Extension SAN Base Switch      | 13.550,00 |
| P-I | TA746A  | HPE 1606 Switch Base to Full Upg LTU    | 39.850,00 |
| P-I | TA749A  | HPE 1606 Swtch FICON CUP Actr LTU       | 37.036,00 |

#### Fibre Channel Transceivers for B series extension SAN switches

##### 16Gb Fc Transceivers (not for 1606)

|     |        |  |          |
|-----|--------|--|----------|
| P-I | QK724A | HPE B-series 16Gb SFP+SW XCVR            | 379,00   |
| P-I | QK725A | HPE B-series 16Gb SFP+LW 10km XCVR       | 3.178,00 |
| P-I | H6Z29A | HPE B-series 16Gb LW 25k FC SFP 1Pk XCVR | 6.608,00 |

##### 8Gb Fc Transceivers

|     |        |   |          |
|-----|--------|---|----------|
| P-I | AJ716B | HPE 8Gb Short Wave B-Series SFP+ 1 Pack | 168,00   |
| P-I | AJ717A | HPE 8Gb LW B-series 10km FC SFP+ 1 Pack | 1.589,00 |
| P-I | AW538A | HPE B-series 8Gb LW 25km FC SFP 1 Pack  | 5.977,00 |

##### 4Gb Fc Transceivers

|         |        |   |        |
|---------|--------|---|--------|
| P-I EOL | AJ715A | HPE 4Gb Short Wave B-series FC SFP 1 Pk | 186,00 |
|---------|--------|---|--------|

#### Ethernet Transceivers for B series extension SAN switches

##### 1Gb Ethernet Transceivers

|         |        |                                      |          |
|---------|--------|--------------------------------------|----------|
| P-I     | E7Y74A | HPE B-series 1GbE LX SFP Transceiver | 1.051,00 |
| P-I EOL | AW537A | HPE B-series 1GbE Copper SFP 1 Pack  | 298,00   |

##### 10Gb Ethernet Transceivers

|  |        |  |          |
|--|--------|--|----------|
|  | AP823A | HPE 10GbE SR B-series SFP+ Transceiver | 1.644,00 |
|  | AP824A | HPE 10GbE LR B-series SFP+ Transceiver | 3.550,00 |

##### 40Gb Ethernet Transceivers

|     |        |   |           |
|-----|--------|---|-----------|
| P-I | E7Y76A | HPE B-series 40GbE SR QSFP+ Transceiver | 7.047,00  |
| P-I | E7Y75A | HPE B-series 40GbE LR QSFP+ Transceiver | 30.860,00 |

N = New / P = Price Decrease / PI = Price Increase / D = Discontinued and Available While Supply lasts

Price List

REP = Recommended End-User Price

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## Patch cables

### Copper Cables

#### Cat 6 RJ45 Copper Cables for 10 Gb-T

|     |        |                                     |       |
|-----|--------|-------------------------------------|-------|
| P-I | AF594A | HP 0.9M,Blue,CAT6 STP,Cable Data    | 5,00  |
| P-I | AF595A | HP 3.0M,Blue,CAT6 STP,Cable Data    | 8,00  |
| P-I | AF596A | HP 10.0M,Blue,CAT6 STP , Cable Data | 21,00 |

#### Cat 5e RJ45 Copper Cables for 1 GbE iSCSI and MGMT ports

|  |        |  |       |
|--|--------|--|-------|
|  | C7533A | HP 1.2m/4ft CAT5 RJ45 M/M Ethernet Cable   | 5,00  |
|  | C7535A | HP 2.1m/7ft CAT5 RJ45 M/M Ethernet Cable   | 5,00  |
|  | C7536A | HP 4.3m/14ft CAT5 RJ45 M/M Ethernet Cable  | 10,00 |
|  | C7537A | HP 7.6m/25ft CAT5 RJ45 M/M Ethernet Cable  | 10,00 |
|  | C7542A | HP 15.2m/50ft CAT5 RJ45 M/M Ethernet Cable | 15,00 |

### Fibre Cables

#### PremierFlex OM4 cable

|     |        |                                       |        |
|-----|--------|---------------------------------------|--------|
| P-I | QK732A | HPE Premier Flex LC/LC OM4 2f 1m Cbl  | 79,00  |
| P-I | QK733A | HPE Premier Flex LC/LC OM4 2f 2m Cbl  | 84,00  |
| P-I | QK734A | HPE Premier Flex LC/LC OM4 2f 5m Cbl  | 107,00 |
| P-I | QK735A | HPE Premier Flex LC/LC OM4 2f 15m Cbl | 151,00 |
| P-I | QK736A | HPE Premier Flex LC/LC OM4 2f 30m Cbl | 203,00 |
| P-I | QK737A | HPE Premier Flex LC/LC OM4 2f 50m Cbl | 248,00 |

#### OM3 cable

|     |        |                                       |        |
|-----|--------|---------------------------------------|--------|
| P-I | AJ833A | HPE .5m Multi-mode OM3 LC/LC FC Cable | 61,00  |
| P-I | AJ834A | HPE 1m Multi-mode OM3 LC/LC FC Cable  | 65,00  |
| P-I | AJ835A | HPE 2m Multi-mode OM3 LC/LC FC Cable  | 70,00  |
| P-I | AJ836A | HPE 5m Multi-mode OM3 LC/LC FC Cable  | 89,00  |
| P-I | AJ837A | HPE 15m Multi-mode OM3 LC/LC FC Cable | 126,00 |
| P-I | AJ838A | HPE 30m Multi-mode OM3 LC/LC FC Cable | 177,00 |
| P-I | AJ839A | HPE 50m Multi-mode OM3 LC/LC FC Cable | 215,00 |

N = New / P = Price Decrease / PI = Price Increase / D = Discontinued and Available While Supply lasts

REP = Recommended End-User Price

Price List

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# VM Explorer

|  | PN   | Description   | REP<br>(in €)        |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
|--|--|---|----------------------|--------------------|------------------------|--|--|---------------------------------------|--|-----------------------------|-------------|-----------------------------------|----------------------------------|--|-----------------|--|-----------------|---------------------|----------------|-------------------|---------------------------------|--|-------------------------------------|--|---|--|--------------------|--|---|--|--|
|  |  | <p><b>Vision Solutions and Double Take are the leading providers of IT Modernization Solutions with near-zero downtime—migration, high availability, disaster recovery, cloud and data sharing</b></p> <p>HPE VM Explorer is a low-cost, easy-to-use and reliable backup solution for VMware vSphere and Microsoft Hyper-V environments. Within minutes you can start centrally managing your backups to disk, tape and cloud through an intuitive and easy-to-navigate web interface.</p> <p>Advanced backup capabilities include incremental backups and replication, snapshot integration and native cloud support for leading Cloud platforms. With instant VM recovery, direct file level restore from the cloud, encryption, and verification, VM Explorer delivers resiliency, efficiency and agility in your virtual environments.</p> <p><b>Key product highlights</b></p> <p><b>Centrally managed</b> backup and replication for virtual environments: protects both VMware vSphere and Microsoft Hyper-V, built-in replication</p> <p><b>Easy to install and operate:</b> quick installation and configuration and easy administration through an easy to navigate web interface</p> <p><b>Secure and reliable:</b> worry-free data protection with automated backup verification, encryption, and active directory integration</p> <p><b>Fast and efficient backup:</b> server-to-server fast copy, snapshot integration, dynamic compression, and Changed Block Tracking (CBT) support</p> <p><b>Advanced VM recovery options:</b> includes VM restore, VM power on directly from the backup and restore through vMotion, and granular file-level restore</p> <p><b>Choice of backup targets</b> with automated storage-tiering: public and private cloud, disk-based options, and tape enables cost-effective backup and recovery that is just right for your environment</p> |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
|  |  | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Professional Edition</th> <th style="width: 50%;">Enterprise Edition</th> </tr> </thead> <tbody> <tr> <td>Powerful Web Interface</td> <td>All the functionality of the Professional Edition plus :</td> </tr> <tr> <td>Backup &amp; incremental backup for ESX/ESXi and Hyper-V</td> <td>Instant VM recovery (IMVR) for VMware</td> </tr> <tr> <td>Replication and incremental replication for ESX/ESXi and Hyper-V</td> <td>Support for vMotion on IMVR</td> </tr> <tr> <td>Tape backup</td> <td>File-level restore from the cloud</td> </tr> <tr> <td>Automated backup test for VMware</td> <td>Automated test on cloud backups for VMware</td> </tr> <tr> <td>File date check</td> <td>Multi-user interface with Active Directory integration</td> </tr> <tr> <td>Partition check</td> <td>VMware vSAN support</td> </tr> <tr> <td>Heartbeat test</td> <td>Encrypted backups</td> </tr> <tr> <td>Public and private cloud backup</td> <td></td> </tr> <tr> <td>vCenter and Hyper-V cluster support</td> <td></td> </tr> <tr> <td>Application-consistent backup using Windows VSS</td> <td></td> </tr> <tr> <td>File-level restore</td> <td></td> </tr> <tr> <td>Backup report and status via email notification</td> <td></td> </tr> </tbody> </table>   | Professional Edition | Enterprise Edition | Powerful Web Interface | All the functionality of the Professional Edition plus : | Backup & incremental backup for ESX/ESXi and Hyper-V | Instant VM recovery (IMVR) for VMware | Replication and incremental replication for ESX/ESXi and Hyper-V | Support for vMotion on IMVR | Tape backup | File-level restore from the cloud | Automated backup test for VMware | Automated test on cloud backups for VMware | File date check | Multi-user interface with Active Directory integration | Partition check | VMware vSAN support | Heartbeat test | Encrypted backups | Public and private cloud backup |  | vCenter and Hyper-V cluster support |  | Application-consistent backup using Windows VSS |  | File-level restore |  | Backup report and status via email notification |  |  |
| Professional Edition   | Enterprise Edition                                       |   |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
| Powerful Web Interface   | All the functionality of the Professional Edition plus : |   |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
| Backup & incremental backup for ESX/ESXi and Hyper-V             | Instant VM recovery (IMVR) for VMware                    |   |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
| Replication and incremental replication for ESX/ESXi and Hyper-V | Support for vMotion on IMVR                              |   |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
| Tape backup  | File-level restore from the cloud                        |   |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
| Automated backup test for VMware                                 | Automated test on cloud backups for VMware               |   |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
| File date check  | Multi-user interface with Active Directory integration   |   |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
| Partition check  | VMware vSAN support                                      |   |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
| Heartbeat test   | Encrypted backups  |   |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
| Public and private cloud backup                                  |  |   |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
| vCenter and Hyper-V cluster support                              |  |   |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
| Application-consistent backup using Windows VSS                  |  |   |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
| File-level restore   |  |   |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |
| Backup report and status via email notification                  |  |   |                      |                    |                        |  |  |                                       |  |                             |             |                                   |                                  |  |                 |  |                 |                     |                |                   |                                 |  |                                     |  |   |  |                    |  |   |  |  |

# VM Explorer

|   | PN          | Description  | REP<br>(in €) |
|---|-------------|--|---------------|
| <b>Vmexplorer</b>   |             |  |               |
| <p>The below steps show you how to configure the VMexplorer software<br/>Follow each step carefully and you will end up with a decent budgetary idea.<br/>Be aware : when making an actual order, make sure you make the configuration in SalesBuilder (your distributor can do that for you) . Ordering is CTO only.</p> |             |  |               |
| <b>Step 1 : Select your base License</b>  |             |  |               |
|   |             | <p>HPE VM Explorer is licensed by physical CPU sockets within hypervisor hosts that contain VMs to be backed-up. Each instance must be licensed with a Starter Pack, and additional CPU sockets can be purchased to meet your environment.</p> <p>HPE VM Explorer Professional Edition Starter Pack includes the license to use (LTU) for 4 (four) CPU sockets.</p> <p>HPE VM Explorer Enterprise Edition Starter Pack includes the license to use (LTU) for 6 (six) CPU sockets.</p> <p>Either HPE VM Explorer Professional Edition Starter Pack or HPE VM Explorer Enterprise Edition Starter Pack is obligatory. Individual CPU Socket additions are applied on top of Starter Packs.</p> |               |
| <b>VMExplorer starter packs</b>   |             |  |               |
| P-D   | P9U55AAE    | HPE VMexplorer Professional starter pack   | 653,00        |
| P-D   | P9U57AAE    | HPE VMexplorer Enterprise starter pack   | 1.681,00      |
| <b>Step 2 : Add additional socket licenses</b>  |             |  |               |
| P-D   | P9U56AAE    | HPE VMexplorer Professional 1 Additional CPU Socket  | 279,00        |
| P-D   | P9U58AAE    | HPE VMexplorer Enterprise 1 Additional CPU Socket  | 420,00        |
| <b>Step 3 : Upgrade an existing installation from Professional to Enterprise</b>  |             |  |               |
| P-D   | P9U59AAE    | HPE VMexplorer Professional starter kit to Enterprise upgrade.   | 1.027,00      |
| P-D   | P9U60AAE    | HPE VMexplorer Professional 1 Additional CPU Socket upgrade to Enterprise  | 139,00        |
| <b>Step 4 : Add the required support. Minimum is 1 year. Orders without support will be refused.</b>  |             |  |               |
| <b>Support for the professional starter pack</b>  |             |  |               |
|   | HM611A1#XJC | Support 9*5 1Year  | 110,00        |
|   | HM611A3#XJC | Support 9*5 3Year  | 330,23        |
|   | HM611A4#XJC | Support 9*5 4Year  | 440,31        |
|   | HM611A5#XJC | Support 9*5 5Year  | 550,38        |
|   | HM610A1#XJC | Support 24*7 - 1Year   | 110,00        |
|   | HM610A3#XJC | Support 24*7 - 3Year   | 330,23        |
|   | HM610A4#XJC | Support 24*7 - 4Year   | 440,31        |
|   | HM610A5#XJC | Support 24*7 - 5Year   | 550,38        |
| <b>Support for the Enterprise starter pack</b>  |             |  |               |
|   | HM611A1#XJD | Support 9*5 1Year  | 281,64        |
|   | HM611A3#XJD | Support 9*5 3Year  | 844,93        |
|   | HM611A4#XJD | Support 9*5 4Year  | 1.126,57      |
|   | HM611A5#XJD | Support 9*5 5Year  | 1.408,21      |
|   | HM610A1#XJD | Support 24*7 - 1Year   | 328,58        |
|   | HM610A3#XJD | Support 24*7 - 3Year   | 985,75        |
|   | HM610A4#XJD | Support 24*7 - 4Year   | 1.314,33      |
|   | HM610A5#XJD | Support 24*7 - 5Year   | 1.642,91      |
| <b>Support for the Professional additional CPU sockets</b>  |             |  |               |
|   | HM611A1#XJE | Support 9*5 1Year  | 47,31         |
|   | HM611A3#XJE | Support 9*5 3Year  | 141,94        |
|   | HM611A4#XJE | Support 9*5 4Year  | 189,25        |
|   | HM611A5#XJE | Support 9*5 5Year  | 236,56        |
|   | HM610A1#XJE | Support 24*7 - 1Year   | 55,20         |
|   | HM610A3#XJE | Support 24*7 - 3Year   | 165,59        |
|   | HM610A4#XJE | Support 24*7 - 4Year   | 220,79        |
|   | HM610A5#XJE | Support 24*7 - 5Year   | 275,99        |
| <b>Support for the Enterprise additional CPU sockets</b>  |             |  |               |
|   | HM611A1#XJF | Support 9*5 1Year  | 70,57         |
|   | HM611A3#XJF | Support 9*5 3Year  | 211,71        |
|   | HM611A4#XJF | Support 9*5 4Year  | 282,28        |
|   | HM611A5#XJF | Support 9*5 5Year  | 352,85        |
|   | HM610A1#XJF | Support 24*7 - 1Year   | 82,33         |
|   | HM610A3#XJF | Support 24*7 - 3Year   | 246,99        |
|   | HM610A4#XJF | Support 24*7 - 4Year   | 329,33        |
|   | HM610A5#XJF | Support 24*7 - 5Year   | 411,66        |
| <b>Support for the Professional starter kit upgrade to Enterprise</b>   |             |  |               |
|   | HM611A1#XJG | Support 9*5 1Year  | 172,68        |
|   | HM611A3#XJG | Support 9*5 3Year  | 518,04        |
|   | HM611A4#XJG | Support 9*5 4Year  | 690,72        |
|   | HM611A5#XJG | Support 9*5 5Year  | 863,41        |
|   | HM610A1#XJG | Support 24*7 - 1Year   | 201,46        |
|   | HM610A3#XJG | Support 24*7 - 3Year   | 604,38        |
|   | HM610A4#XJG | Support 24*7 - 4Year   | 805,85        |
|   | HM610A5#XJG | Support 24*7 - 5Year   | 1.007,31      |

**VM Explorer**

|  | PN          | Description          | REP (in €) |
|--|-------------|----------------------|------------|
| <b>Support for the Professional additional CPU sockets upgrade to Enterprise</b> |             |                      |            |
|  | HM611A1#WBS | Support 9*5 1Year    | 24,05      |
|  | HM611A3#WBS | Support 9*5 3Year    | 72,16      |
|  | HM611A4#WBS | Support 9*5 4Year    | 96,22      |
|  | HM611A5#WBS | Support 9*5 5Year    | 120,27     |
|  | HM610A1#WBS | Support 24*7 - 1Year | 28,06      |
|  | HM610A3#WBS | Support 24*7 - 3Year | 84,19      |
|  | HM610A4#WBS | Support 24*7 - 4Year | 112,25     |
|  | HM610A5#WBS | Support 24*7 - 5Year | 140,32     |

|  | PN | Description  | REP<br>(in €) |
|--|----|--|---------------|
|  |    | <p>HPE StoreEver Archive Manager software allows creation of a tape archive by virtualizing one or more StoreEver LTO Tape Libraries and presenting the archive as a network share or mount point. The tape archive is presented as a file system using standard network protocols, thus operators and users can easily search, find, and retrieve data directly from the archive, without the need for administrator intervention. HPE StoreEver Archive Manager easily integrates cost-efficient and reliable LTO tape technology into data workflow where data must be stored for long periods of time but requires minimal access.</p> <p>Options include:</p> <ul style="list-style-type: none"> <li>- HPE StoreEver Archive Migrator software that allows for development of custom policies to identify data that can be moved to the StoreEver Archive Manager target.</li> <li>- HPE StoreEver Archive Replicator creates a duplicate copy of data in a secondary tape library for local or remote replication of the archived data.</li> <li>- HPE StoreEver Technology Migration Tool allows for transfer of data from prior tape generations (e.g. LTO-5, LTO-6) to current higher-capacity tape (e.g. LTO-7) for more efficient media management.</li> </ul> <p>Key Features</p> <ul style="list-style-type: none"> <li>- Create a mount point on the network to transfer data from primary storage to HPE StoreEver Tape Libraries.</li> <li>- Easily integrate LTO tape into a storage workflow that requires a long-term and cost-efficient data store.</li> <li>- Develop customized policies to identify and move/stub data from primary storage to a tape library archive.</li> <li>- Replicate data on the network, on- or off-site for creation of duplicate data stores.</li> <li>- Migrate data from legacy tape technologies to higher-capacity LTO to increase tape management efficiency.</li> </ul> |               |



|  | PN     | Description   | REP<br>(in €) |
|--|--------|---|---------------|
| <b>StoreEver Archive Manager</b>   |        |   |               |
| <b>Step 1 : Select your base License + expansion capacity (expansion adds up, for 250TB use 1 x 50+ 2 x 200TB)</b> |        |   |               |
| <b>Archive Manager</b>   |        |   |               |
| P-J  | P9P70A | HPE Archive Manager Base MSL 50TB LTU   | 9.510,00      |
| P-J  | P9P71A | HPE Archive Manager Upgr MSL 200TB LTU  | 24.456,00     |
| P-J  | Q0U66A | HPE Archive Manager Upgr MSL 500TB LTU  | 38.044,00     |
| P-J  | Q0U69A | HPE Archive Manager Upgr MSL 1PB LTU  | 63.406,00     |
| P-J  | Q0U72A | HPE Archive Manager Upgr MSL 2PB LTU  | 87.863,00     |
| <b>Archive Migrator</b>  |        |   |               |
| P-J  | P9P72A | HPE Archive Migratr Base MSL 50TB LTU   | 9.240,00      |
| P-J  | P9P73A | HPE Archive Migratr Upgr MSL 200TB LTU  | 19.927,00     |
| P-J  | Q0U67A | HPE Archive Migratr Upgr MSL 500TB LTU  | 29.892,00     |
| P-J  | Q0U70A | HPE Archive Migratr Upgr MSL 1PB LTU  | 49.819,00     |
| P-J  | Q0U73A | HPE Archive Migratr Upgr MSL 2PB LTU  | 69.747,00     |
| <b>Archive Replicator</b>  |        |   |               |
| P-J  | P9P74A | HPE Archive Replic Base MSL 50TB LTU  | 4.982,00      |
| P-J  | P9P75A | HPE Archive Replic Upgr MSL 200TB LTU   | 12.228,00     |
| P-J  | Q0U68A | HPE Archive Replic Upgr MSL 500TB LTU   | 19.022,00     |
| P-J  | Q0U71A | HPE Archive Replic Upgr MSL 1PB LTU   | 31.703,00     |
| P-J  | Q0U74A | HPE Archive Replic Upgr MSL 2PB LTU   | 43.931,00     |
| <b>Technology Migration tool</b>   |        |   |               |
| P-J  | P9P76A | HPE StoreEver technology Migration tool for MSL LTU                           | 27.174,00     |
| <b>Step 2 : Add the required support. Minimum is 3 year. Orders without support will be refused.</b>               |        |   |               |
| <b>Foundation Care</b>   |        |   |               |
| P-J  | H2HA3E | HPE 5 Year Foundation Care 24x7 MSL Archive Manager Base Service              | 13.511,00     |
| P-J  | H2HA2E | HPE 5 Year Foundation Care Next Business Day MSL Archive Manager Base Service | 9.319,00      |

**Vision Solutions Doubletake**

|  | PN | Description  | REP<br>(in €) |
|--|----|--|---------------|
|  |    | <p>Today's businesses are under constant pressure to increase revenue, maximize efficiency, reduce risks and drive down costs. This means no tolerance for downtime or data loss. If mission-critical data, applications or servers are unavailable, you can lose revenue, forfeit customers, miss opportunities, rack up fines and suffer brand damage.</p> <p>Vision Solutions Double-Take Availability and Move offers exceptional application and data protection in virtual, cloud, and physical computing environments</p> <p>Vision Solutions Double-Take Availability is a proven, simple, scalable high availability solution for Windows and Linux that defends your business' profitability and reputation by providing protection from data loss and downtime. Double-Take Availability's real-time, asynchronous byte level replication efficiently and securely replicates entire servers or select data to another server located anywhere on the planet or in the cloud so that your business can quickly and easily recover from an outage. Network independence and bandwidth efficiency allow Double-Take Availability to be run on any network without the need for dedicated resources or special hardware. Hardware independence also enables replication between any physical, virtual or cloud server or storage type so that you can choose the infrastructure that meets your needs. Easy to manage and designed to scale to even the most complex server environments, Double-Take Availability keeps your business running 24x7 at a price you can afford.</p> <div> <p>The diagram illustrates the Double-Take Availability architecture. It shows a central 'Application Cluster' running on 'ESX' virtual machines. This cluster is connected to 'Physical Servers' and a 'Private Cloud on Converged Infrastructure'. A 'Firewall' and 'WAN' link connect this private infrastructure to a 'Remote Data Center' and a 'Public Cloud'. The 'Double-Take AVAILABILITY' logo is prominently displayed in the center of the diagram.</p> </div> <p>The Vision Solutions doubletake products are part of the HPE complete program.</p> <p>HPE Complete is a resource enabling the purchase of best in class third party branded products with the added reliability of Hewlett Packard Enterprise's interop assurance for a complete validated solution, all via one HPE purchase order.</p> <p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>--&gt; One Stop Shop - Purchase complete solutions from HPE that include best in class third party branded products, all on a single HPE purchase order</li> <li>--&gt; Validated solution - Confidence of The HPE interop assurance validation for third party branded products that complement HPE Storage &amp; Server solutions</li> <li>--&gt; Customer Experience - Hewlett Packard Enterprise ensures complete customer satisfaction, by troubleshooting the solution and facilitating third party expertise for the installation, support and warranty of their products</li> <li>--&gt; Unique Value - Minimize risk, complexity and cost when deploying multi-vendor products and technologies into the HPE ecosystem</li> </ul> <p><u>For more information please refer HPE Complete on HPE.com</u></p> |               |

## Vision Solutions Doubletake

|   | PN     | Description                             | REP<br>(in €) |
|---|--------|---|---------------|
| <b>Doubletake</b>   |        |   |               |
| <b>Doubletake Move : a tool for migrating data to a new platform (Linux and windows hosts or VM data)</b> |        |   |               |
| P-J   | Q1C01A | VS DT Move Windows Migr 60-day LTU      | 257,00        |
| P-J   | Q1C02A | VS DT Move Linux Migr 60-day LTU        | 257,00        |
| P-J   | Q1C03A | VS DT Move SQL per User Migr 60-day LTU | 467,00        |
| P-J   | Q1C04A | VS DT Move Win Cluster Migr 60-day LTU  | 467,00        |
| <b>Doubletake Availability : high availability without shared storage or a SAN !</b>                      |        |   |               |
| P-J   | Q1C05A | VS DT Avail Win Virtual Ed 1yr LTU      | 1.023,00      |
| P-J   | Q1C06A | VS DT Avail Win Foundation Ed 1yr LTU   | 1.864,00      |
| P-J   | Q1C07A | VS DT Avail Win Standard Ed 1yr LTU     | 3.734,00      |
| P-J   | Q1C08A | VS DT Avail Win Advanced Ed 1yr LTU     | 5.136,00      |
| P-J   | Q1C09A | VS DT Avail Win Datacenter Ed 1yr LTU   | 8.528,00      |
| P-J   | Q1C10A | VS DT Avail Linux Virtual Ed 1yr LTU    | 1.023,00      |
| P-J   | Q1C11A | VS DT Avail Linux 1yr LTU               | 3.079,00      |
| <b>Support</b>  |        |   |               |

|  | PN | Description   | REP<br>(in €) |
|--|----|---|---------------|
|  |    | <p>HPE Complete - Veeam Software</p> <p>Today's businesses are under constant pressure to increase revenue, maximize efficiency, reduce risks and drive down costs. This means no tolerance for downtime or data loss. If mission-critical data, applications or servers are unavailable, you can lose revenue, forfeit customers, miss opportunities, rack up fines and suffer brand damage.</p> <p>The HPE Complete - Veeam software delivers a superior data protection and availability solution that meets SLAs for recovery time (RTO) and point objectives (RPO) of &lt;15mins for VMs, guest OS, data and mission critical applications. The integration of Veeam's Availability solutions with flash-optimized HPE 3PAR StoreServ and HPE StoreVirtual Storage, coupled with HPE StoreOnce Systems with Catalyst and StoreEver Tape for data protection, provides unmatched data and application availability. Users are able to leverage storage snapshots and utilize industry-leading recovery capabilities to minimize data loss and downtime while implementing a more cohesive data backup, recovery and disaster recovery strategy.. The result delivers maximum application uptime, enables dramatically faster item and VM-level recoveries, increases IT efficiencies and bridges the gap to achieving Availability for the Always-On Enterprise.</p> <p>Veeam's Availability for the Always-On Enterprise provides organizations with 6 key capabilities:</p> <p>High-Speed Recovery: Rapid recovery of what you want, the way you want it<br/>           Data Loss Avoidance: Low RPOs and RTOs to streamline VM recovery and disaster recovery<br/>           Verified Recoverability: Guaranteed recovery of every file, application or virtual server, every time<br/>           Leveraged Data: Low-risk deployment with a isolated test environment using production images<br/>           HPE storage integration: enables advanced data Availability features for HPE's ecosystem<br/>           Complete Visibility: Proactive monitoring and alerting of issues before operational impact</p> |               |

|  | PN     | Description                           | REP<br>(in €) |
|--|--------|---------------------------------------|---------------|
| <b>Veeam</b>   |        |                                       |               |
| <b>Veeam Backup Essentials - Enterprise edition</b>      |        |                                       |               |
| <b>N P-D</b>   | Q1K09A | Veeam BU Ess Ent VMw 1yr Maint LTU    | 1.450,00      |
| <b>N P-D</b>   | Q1K10A | Veeam Add 2yr BU Ess Ent VMw Maint    | 710,50        |
| <b>N</b>   | Q2C54A | Veeam Add 3yr BU Ess Ent VMw Maint    | 1.044,00      |
| <b>N</b>   | Q2C54A | Veeam Add 3yr BU Ess Ent VMw Maint    | 1.044,00      |
| <b>N P-D</b>   | Q1K21A | Veeam BU Ess Ent Hyp-V 1yr Maint LTU  | 1.450,00      |
| <b>N P-D</b>   | Q1K22A | Veeam Add 2yr BU Ess Ent Hyp-V Maint  | 710,50        |
| <b>N</b>   | Q2C72A | Veeam Add 3yr BU Ess Ent Hyp-V Maint  | 1.044,00      |
| <b>N</b>   | Q2C73A | Veeam Add 4yr BU Ess Ent Hyp-V Maint  | 1.348,50      |
| <b>Veeam Backup Essentials - Enterprise Plus edition</b> |        |                                       |               |
| <b>N P-D</b>   | Q1K11A | Veeam BU Ess Ent+ VMw 1yr Maint LTU   | 2.200,00      |
| <b>N P-D</b>   | Q1K12A | Veeam Add 2yr BU Ess Ent+ VMw Maint   | 1.078,00      |
| <b>N</b>   | Q2C57A | Veeam Add 3yr BU Ess Ent+ VMw Maint   | 1.584,00      |
| <b>N</b>   | Q2C58A | Veeam Add 4yr BU Ess Ent+ VMw Maint   | 2.046,00      |
| <b>N P-D</b>   | Q1K23A | Veeam BU Ess Ent+ Hyp-V 1yr Maint LTU | 2.200,00      |
| <b>N P-D</b>   | Q1K24A | Veeam Add 2yr BU Ess Ent+ Hyp-V Maint | 1.078,00      |
| <b>N</b>   | Q2C75A | Veeam Add 3yr BU Ess Ent+ Hyp-V Maint | 1.584,00      |
| <b>N</b>   | Q2C76A | Veeam Add 4yr BU Ess Ent+ Hyp-V Maint | 2.046,00      |
| <b>Veeam Availability suite - Enterprise edition</b>     |        |                                       |               |
|  | Q1K13A | Veeam Avail Ent VMw 1yr Maint LTU     | 1.600,00      |
|  | Q1K14A | Veeam Add 2yr Avail Ent VMw Maint     | 784,00        |

|  | PN | Description   | REP<br>(in €) |
|--|----|---|---------------|
|  |    | <p>iTernity Compliant Archive Software</p> <p>Most businesses today are storing and archiving information digitally. Whether tax data, e-mail correspondence, patient or research data, images or video files: Unstructured, file-based application data use up growing storage space, and have to comply with many regulatory requirements. A trend which is increasing exponentially and which you can only face with effective, intelligent archiving infrastructures. To manage this balancing act, you require high-performance, consolidated, and flexible archiving solutions to reduce to a minimum the business risk of data loss or inadequate proof of justification.</p> <p>The HPE Complete iTernity Compliant Archive Software (iCAS) is a storage middleware that enables compliant archiving by providing WORM functionality, protecting against silent data corruption and securing long-term data integrity. The solution compiles archive data and documents with its corresponding meta data in archive containers, which remain verifiable and can be stored on any storage medium.</p> <p>The HPE Complete iCAS is certified for 100+ business applications and can be used as the central platform for various applications. It supports unrestricted growth up to the Petabyte range. Combined with HPE Storage, iTernity iCAS provides an open, flexible, and expandable long-term archiving solution for securing and protecting your business data. The solution addresses regulatory compliance requirements enabling simplified and cost-efficient archiving.</p> <div> <p>The diagram illustrates a three-tier architecture. At the top is a blue box labeled 'Business Applications' containing 'ECM, ERP, PACS, RecordsManagement, Voice, E-Mail, customer specific systems etc.'. Below it is a green box labeled 'iCAS for Data-Management and Protection' containing 'Encryption, Integrity-Checks, Self-Healing, Compression, Retention, WORM-Function'. At the bottom is a grey box labeled 'Storage Infrastructure' containing 'Onsite / Hybrid / Cloud / Object-Storage'. Bidirectional arrows connect each layer to the one below it.</p> </div> |               |

|  | PN     | Description                         | REP<br>(in €) |
|--|--------|-------------------------------------|---------------|
| <b>Veeam</b>   |        |                                     |               |
| <b>HPE iTernity iCAS - Volume Plus licenses</b>  |        |                                     |               |
| Every server running iCAS needs an individual node license, and a license for the capacity you want to manage.<br>Do NOT forget : It is mandatory to purchase the regarding support article.   |        |                                     |               |
| N  | Q1Z12A | HPE iTernity Vol Plus Node LTU      | 4.486,00      |
| N  | Q1Z15A | HPE iTernity Arch Vol Plus 10TB LTU | 13.458,00     |
| N  | Q1Z18A | HPE iTernity Arch Vol Plus 20TB LTU | 22.430,00     |
| <b>HPE iTernity iCAS - CPU socket based licenses</b>   |        |                                     |               |
| Alternative licensing model : CPU socket based. Every server running iCAS needs a license for the number of sockets in it. No need for additional capacity licenses!<br>Do NOT forget : It is mandatory to purchase the regarding support article. |        |                                     |               |
| N  | Q1Z21A | HPE iTernity 1st Server CPU LTU     | 53.832,00     |
| N  | Q1Z24A | HPE iTernity Additional Svr CPU LTU | 26.916,00     |
| <b>HPE iTernity iCAS - extensions</b>  |        |                                     |               |
| NFS connector is a NFS implementation for windows servers. It provides a NFS share for the iCAS server. NFS connector is cluster able by Microsoft Cluster services.<br>Do NOT forget : It is mandatory to purchase the regarding support article. |        |                                     |               |
| N  | Q1Z27A | iTernity NFS Connector LTU          | 1.684,00      |

| PN | Description | REP<br>(if C) |
|----|-------------|---------------|
|----|-------------|---------------|

## RDX product family - Removable disk Backup Systems

*HPE RDX Removable Disk Backup System is a disk-based back up and recovery solution with critical security layers, unmatched portability, fast recovery and easy integration into any small business environment. Its also rugged, removable, easy-to-use, and cost effective for remote or branch office locations, small offices or home offices with little or no IT resources. HPE RDX works exceptionally well in harsh work environments where businesses need to protect, manage, transport or capture large amounts of data in less than ideal locations.*

*Yosemite Server Backup offers enhanced security, with automatic scheduling and software data encryption. Download information enclosed in the box.*

**NEW :**

*- 3TB bundles and 3TB cartridges, fully backward compatible !*

| <b>RDX units</b>   |        |  |        |
|--|--------|--|--------|
| <b>Bundled Units, Include a cartridge with designated capacity</b>                                     |        |  |        |
|  | B7B64A | RDX Removable disk Backup system, internal with 500GB media      | 736,30 |
|  | B7B66B | RDX+ Removable disk Backup system, external with 500GB media     | 608,03 |
|  | B7B67A | RDX Removable disk Backup system, internal with 1TB media        | 801,46 |
|  | B7B69B | RDX+ Removable disk Backup system, external with 1TB media       | 678,12 |
|  | E7X52A | RDX Removable disk Backup system, internal with 2TB media        | 974,66 |
|  | E7X53B | RDX+ Removable disk Backup system, external with 2TB media       | 728,23 |
|  | P9L71A | RDX Removable disk Backup system, internal with 3TB media        | 855,02 |
|  | P9L72A | RDX+ Removable disk Backup system, external with 3TB media       | 863,76 |
| <b>RDX bare units, Docking station with software and cables, will accept any capacity of cartridge</b> |        |  |        |
|  | C8S06A | RDX internal docking station                                     | 260,86 |
|  | C8S07B | RDX+ External docking station, USB3 , powered by USB connector ! | 206,09 |
| <b>RDX Cartridges</b>  |        |  |        |
|  | Q2042A | RDX 500GB Cartridge  | 217,73 |
|  | Q2044A | RDX 1TB Cartridge  | 278,73 |
|  | Q2046A | RDX 2TB Cartridge  | 517,91 |
|  | Q2047A | RDX 3TB Cartridge  | 523,14 |



## Tape technology - Cartridges , cleaning cartridges and label packs for LTO - Ultrium.

With unbroken market leadership stretching back more than ten years (according to Santa Clara Consulting Group) HPE is the most popular LTO Ultrium media in the world. That's because HPE tapes offer outstanding quality and reliability for every tape drive and every backup and archiving scenario. In 2011, HPE carried out over 2.6 million hours of testing, covering all aspects of tape usage; from full volume backups and archiving to rigorous environmental interchange tests. Backed by this uncompromising media qualification process, HPE Ultrium data cartridges support all HPE StoreEver Ultrium and non HPE Ultrium tape devices. Assuming 2.5:1 compression, the latest seventh Generation products minimize interruption to network and SAN backup by being capable of protecting 2.7TB/hour of data and storing up to 15 TB on one piece of media (9x greater capacity than HP LTO-4 Ultrium tapes)

| Ultrium Tape Cartridges    |         |   |        |
|----------------------------|---------|---|--------|
| Read/Write Tape Cartridges |         |   |        |
| <b>P-D</b>                 | C7977A  | Ultrium 15TB RW data cartridge          | 161,78 |
| <b>P-D</b>                 | C7976A  | Ultrium 6,25TB RW data cartridge        | 46,00  |
| <b>P-D</b>                 | C7976B  | Ultrium 6,25TB BaFe RW data cartridge   | 57,51  |
|                            | C7975A  | Ultrium 3,0TB RW data cartridge         | 37,31  |
|                            | C7974A  | Ultrium 1,6TB RW data cartridge         | 49,67  |
|                            | C7973A  | Ultrium 800GB RW data cartridge         | 47,67  |
| <b>EOL</b>                 | C7972A  | Ultrium 400GB Data Cartridge            | 57,85  |
| WORM Tape Cartridges       |         |   |        |
| <b>P-D</b>                 | C7977W  | Ultrium 15TB WORM data cartridge        | 162,97 |
| <b>P-D</b>                 | C7976W  | Ultrium 6,25TB MP WORM data cartridge   | 54,57  |
| <b>P-D</b>                 | C7976BW | Ultrium 6,25TB BaFe WORM data cartridge | 69,67  |
|                            | C7975W  | Ultrium 3,0TB WORM data cartridge       | 44,24  |
|                            | C7974W  | Ultrium 1,6TB WORM data cartridge       | 62,70  |
|                            | C7973W  | Ultrium 800GB WORM data cartridge       | 59,73  |
| Cleaning cartridge         |         |   |        |
|                            | C7978A  | ultrium universal cleaning cartridge    | 155,79 |
| Barcode Label Packs        |         |   |        |
| <b>OBS</b>                 | Q2001A  | ultrium 1 bar code label pack           | 168,78 |
| <b>OBS</b>                 | Q2002A  | ultrium 2 bar code label pack           | 168,78 |
|                            | Q2007A  | ultrium 3 RW bar code label pack        | 168,78 |
|                            | Q2008A  | ultrium 3 WORM bar code label pack      | 168,78 |
|                            | Q2009A  | ultrium 4 RW bar code label pack        | 168,78 |
|                            | Q2010A  | ultrium 4 WORM bar code label pack      | 168,78 |
|                            | Q2011A  | ultrium 5 RW bar code label pack        | 168,78 |
|                            | Q2012A  | ultrium 5 WORM bar code label pack      | 168,78 |
|                            | Q2013A  | ultrium 6 RW bar code label pack        | 168,78 |
|                            | Q2014A  | ultrium 7 RW bar code label pack        | 168,78 |

N = New / P = Price Decrease / PI = Price Increase / D = Discontinued and Available While Supply lasts

REP = Recommended End-User Price