Specificaţii tehnice

Numărul procedurii de achiziție ocds-b3wdp1-MD-1663329662780 din 26.09.2022
Obiectul achiziției: Echipament informatic

Denumirea bunurilor/serviciilor	Denumirea modelului bunului/serviciului	Țara de origine	Produ-cătorul	Specificarea tehnică deplină solicitată de către autoritatea contractantă	Specificarea tehnică deplină propusă de către ofertant			Standarde de referinţă
1	2	3	4	5	6			7
Bunuri								
Lotul 1 – Server								
Server	DL360 Gen10 Plus 8SFF CTO Server	China/ CZ	HPE	**Server parameters:** **Number of CPU Sockets:** 2 **Form factor (fully configured):** 1U **Form factor chassis:** Rack **Power supply type supported:** 2 x 800W Flex Slot Platinum Hot Plug Power **Power supply installed**: 2 **Installed CPU qty:** 2 **Expansion slots:** 2xPCIe 3.0 **Memory**: Installed Size: 4x32 Gb (two modules for every CPU) RDIMM module Total Memory slots: 24 DIMM slots **Memory type:** DDR4 SmartMemory, Advanced ECC **Memory Form Factor**: RDIMM and LRDIMM **Hard Drive Supported:** 8xSFF drives **Dimensions:** 4.29 x 43.46 x 70.7 cm	Cant.	Part Nr.	Descrierea	
					1	P28948-B21	HPE DL360 Gen10+ 8SFF NC CTO Svr	
					1	P28948-B21#B19#B19	DL360 Gen10 Plus 8SFF CTO Server	
					2	P36924-B21	INT Xeon-G 5318Y CPU for HPE	
					2	P36924-B21#0D1#0D1	Factory Integrated	

					Weight: 13.04 kg minimum, 16.27 kg maximum	4	P06033-B21	HPE 32GB 2Rx4 PC4-3200AA-R Smart Kit		
					Server remote management module specifications:	4	P06033-B21#0D1#0D1	Factory Integrated		
					• Embedded ARM processor core operating at 800 MHz					
					• PCI express based health and remote management ASIC	1	P26431-B21	HPE DL360G10+ 8SFF x1Tmode U.3 BC BP Kit		
					• Firmware upgradeable VIA flash ROM • Video support: 1920 x 1200 (32 bp) • 10/100/1000 Mb/s network interface	1	P26431-B21#0D1#0D1	Factory integrated		
					• HTML5 remote console (No dependency on JAVA or .NET) • Native browser support for Chrome, Firefox, Edge, Internet Explorer, Safari	2	P40430-B21	HPE 300GB SAS 10K SFF BC MV HDD		
					• Keyboard, video, mouse redirection • Virtual media support (VIA URLs) • Support for Online Certificate Status Protocol (OCSP) for CAC/SmartCard/Certificate based authentication	2	P40430-B21#0D1#0D1	Factory Integrated		
					• Support for RSA-PSS certificate signatures • The management processor must obtain its power from the auxiliary power	1	P9D94A	HPE SN1100Q 16Gb 2p FC HBA		
					plane of the server, so it must be always ON when the server is plugged into a power source. If the server provides Redundant Power Supplies (RPS) then the management processor will use	1	P9D94A#0D1#0D1	Factory Integrated		
					redundant power and will continue operation in the event of a power supply failure.	1	P01366-B21	HPE 96W Smart Stg Li-ion Batt 145mm Kit		
					• Monitor and alerting on key internal server components: CPUs, memory, temperatures, fans, Smart Array controllers, hard drives (Including cache modules) and power supplies without installing any driver.	1	P01366-B21#0D1#0D1	Factory Integrated		
					• Ability to put harden management processor module for specific security requirements.	1	P26279-B21	Broadcom MR416i-a Cntrl for HPE Gen10+		

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- Possibility to prevent any possibility of tampering of security signatures throughout the supply-chain.
- The system must give users preview of the system health summary and sub-system details.
- Diagnostics tools/scanners wrapped into one; always on, continuous monitoring; Rich configuration history; health and service alerts; Easy export and upload to service and support.
- Provisioning and configuring the server without any separate media (No Smart Cards or CDs).
- Command line support: SSHv2, RESTful API and Serial port.
- RESTful API options supported: get full inventory, control power and reset, configure BIOS and Smart Array settings, status of server health, fetch event logs.
- Security: runtime firmware validation, CNSA support, security modes, encrypted virtual media.
- Active directory support.
- Management protocols supported: SNMP, IPMI V2.0.
- Possibility to connect to the remote management module trough a USB to ethernet cable.

Some of the features may require additional license.

USB3.0 support: 1 front port, 2 x rear ports and 2 x internal ports

Power On/Standby button and system power LED

UID button/LED

MicroSD Card slot

Warranty: 3/3/3 - Server Warranty includes three years of parts, three years of labor, three years of onsite support coverage.

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1	P26279-B21#0D1#0D1	Factory Integrated
1	P10097-B21	BCM 57416 10GbE 2p BASE-T OCP3 Adptr
1	P10097-B21#0D1#0D1	Factory Integrated
1	339778-B21	HPE Raid 1 Drive 1 FIO Setting
1	P26477-B21	HPE DL36x Gen10+ High Perf Fan Kit
1	P26477-B21#0D1#0D1	Factory integrated
2	P38995-B21	HPE 800W FS Plat Ht Plg LH Pwr Sply Kit
2	P38995-B21#0D1#0D1	HPE 800W II FS Plat HtPlg Pwr Supply Kit
1	BD505A	HPE iLO Adv 1-svr Lic 3yr Support
1	BD505A#0D1#0D1	Factory Integrated
1	867998-B21	HPE 1U Gen10 Bezel Kit

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					Not refurbished (Certificat/document care ar confirma că echipamentul nu este refurbished)	1	867998-B21#0D1#0D1	Factory Integrated	
					Non End of Sales or End of Support **Networking:** 2x10Gbps Base-T adapters 802.1Q VLAN support Jumbo Frames: 9000KB Network adapter teaming	1	875519-B21	HPE Bezel Lock Kit	
						1	875519-B21#0D1#0D1	Factory Integrated	
					CPU Parameters: **CPU Cache:** 35 MB **CPU Clock Speed:** 3 GHz **CPU socket:** FCLGA3647	1	P13771-B21	HPE Gen10 Plus TPM BR Module Kit	
					Max Turbo Speed: 4 GHz **Number of Cores:** 24-core **Number of Threads:** 48 threads **Thermal Design Power:** 205 W	1	P13771-B21#0D1#0D1	Factory Integrated	
					Lithography: 14nm **Max Memory Size**: 1TB **Memory Type:** DDR4-2933	1	P14604-B21	HPE Gen10+ Intrusion Detection Kit	
					Instruction Set Extensions: Intel® SSE4.2, Intel® AVX, Intel® AVX2, Intel® AVX-512	1	P14604-B21#0D1#0D1	Factory Integrated	
					Hyper-Threading Technology: Yes **Execute Disable Bit:** Yes **Security:**	2	P26479-B21	HPE DL360 Gen10+ High Perf Heat Sink Kit	
					• UEFI Secure Boot and Secure Start support • Immutable Silicon Root of Trust	2	P26479-B21#0D1#0D1	Factory integrated	
					• FIPS 140-2 validation • Common Criteria certification • Configurable for PCI DSS compliance	1	P26485-B21	HPE DL300 G10+ 1U SFF Easy Inst Rail Kit	
					• Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser	1	P26485-B21#0D1#0D1	Factory integrated	

| | | | | | • Smart card (PIV/CAC) and Kerberos based 2-factor Authentication
• Secure Recovery – recover critical firmware to known good state on detection of compromised FW
• Ability to rollback firmware
• Secure erase of NAND
• TPM (Trusted Platform Module) 1.2 option
• TPM (Trusted Platform Module) 2.0 option
• Bezel Locking Kit
• Chassis Intrusion detection option

Industry Standard Compliance:
    • ACPI 6.1 Compliant
    • PCIe 3.0 Compliant
    • WOL Support
    • Microsoft® Logo certifications
    • PXE Support
    • USB 3.0 Compliant
    • USB 2.0 Compliant (only on optional Universal Media Bay)
    • SMBIOS 3.1
    • UEFI 2.6 (Unified Extensible Firmware Interface Forum)
    • Secure Digital 4.0
    • TPM 1.2 and 2.0 support
    • Advanced Encryption Standard (AES)
    • Triple Data Encryption Standard (3DES)
    • SNMP v3
    • TLS 1.2
    • ASHRAE A3/A4

UEFI Capabilities: | | |

1	HU4B2A3	HPE 3Y Tech Care Basic SVC
1	HU4B2A3#Z SA#ZSA	HPE Proliant DL360 Gen10+ Support

Descrierea detaliata va fi atasata la licitatie (datasheet).

| | | | | | • Secure Boot and Secure Start enable for enhanced security
• Operating system specific functionality
• Support for > 2.2 TB (using GPT) boot drives
• USB 3.0 Stack
• Embedded UEFI Shell
• PXE boot support for IPv6 networks
• Workload Profiles for simple performance optimization

UEFI Boot mode only:
• TPM 2.0 Support
• NVMe Boot Support
• Platform Trust Technology (PTT) can be enabled
• iSCSI Software Initiator Support.
• HTTP/HTTPs Boot support as a PXE alternative
• Boot support for option cards that only support a UEFI option ROM

Supported Operating Systems:
• Windows Server 2019: Essentials, Standard, Datacenter
• Windows Server 2016: Essentials, Standard, Datacenter
• Windows Server 2012 R2: Essentials, Standard, Datacenter
• Microsoft Hyper-V Server: 2012 R2, 2016 & 2019
• VMware vSphere: 6.0 U3, 6.5 U2 through U.3 & 6.7 U1 through U3, 7.0
• ClearOS: 7.6; ClearVM: 2.0
• Red Hat Enterprise Linux (RHEL): 7.6 w/ Kbase **, 8.0 | | |

| | | | | | SUSE Linux Enterprise Server (SLES): 12 SP3, 15 (includes Xen) Ubuntu: 18.04 LTS (4.15.0) Oracle Linux: Oracle Linux 7.6 UEK Release 5 Update 2; Oracle VM 3.4.6 (UEK Release 4 Update 7) Citrix: Hypervisor: 8,0, 8.1, 8.2; XenServer 7.1, 7.4, 7.5, 7.6 **HDD:**
2x300 Gb SAS 12G Enterprise 10K SFF(2.5 in) hot swap.

HBA Parameters:
16 Gb Dual Port Fibre Channel Host Bus Adapter
Backward compatible with 8 and 4Gb FC environment.
SFPs and optical cables included

Raid Controller parameters:
Storage interface (SAS/SATA):
8 SAS lanes across 2x4 internal Mini-SAS ports
12 Gb/s SAS, 6 Gb/s SATA technology
Mix-and-match SAS and SATA drives to the same controller
Support for SAS tape drives
2GB FBWC

PCI Express 3.0 x8 link

RAID 0, 1, 5, 6, 10, 50, 60, 1 Advanced Data Mirroring (ADM), 10 ADM

Mixed mode (RAID logic drives and HBA physical drives simultaneously)

Legacy and UEFI boot operation

UEFI System Utilities (Storage configuration)

Up to 238 physical drives | | |

					Up to 64 logical drives		
					Smart Array SR SmartCache (Optional license)		
					Smart Array SR Secure Encryption (Optional license)		
					SSD Smart Path		
					Rapid Parity Initialization (RPI)		
					Rapid rebuild		
					Drive sanitize		
					Performance optimization degraded reads and read coalescing		
					Raid controller Performance:		
					12 Gb/s SAS (1200 MB/s theoretical bandwidth per SAS lane)		
					6 Gb/s SATA (600 MB/s theoretical bandwidth per SAS lane)		
					PCI Express 3.0 x8 link width		
					2GB 72-bit wide DDR4-2100 FBWC provides up to 16.8 GB/s maximum cache bandwidth		
					Read ahead caching		
					Write-back caching		
					Array configuration features:		
					Expand Array		
					Heal Array		
					Move Drives		
					Re-Mirror Array		
					Shrink Array		
					Spare Management		
					Split Mirrored Array		

					Logical drive configuration features:		
					Extend Logical Drive		
					Instant Secure Erase		
					Migrate RAID/Stripe Size		
					Modifying Cache Write Policy		
					Move Logical Drive		
					Re-enable Failed Logical Drive		
					Fault prevention features:		
					Predictive drive failure detects possible drive failure before it occurs, allowing replacement ofthe component before failure occurs		
					Background surface scan checks drives during inactive periods and automatically remaps badsectors, ensuring data integrity		
					Smart SSD Wear Gauge reports the amount of lifetime remaining on users SSDs		
					Fault recovery:		
					• **Recovery ROM:** This feature protects the user from a firmware image corruption by storing aredundant copy of the firmware image. If the active firmware image becomes corrupt, the controller will use the redundant firmware image and continue operating.		
					• **On-Line Spares:** There is no limit to the number of spare drives that can be installed prior todrive failure. If a failure occurs, recovery begins with an On-Line Spare and data is reconstructed automatically		

				• DRAM ECC detects and corrects data bit errors. SSD Smart Path feature included in the Smart Array software stack improves Solid State Disk (SSD) read performance by up to 4x. Smart Path chooses the optimum path to the SSD and accelerates reads for all RAID levels and RAID 0 writes. **Operating systems support:** • Microsoft Windows Server • Microsoft Windows Hyper-V Server • VMware vSphere ESXi • Red Hat Enterprise Linux (RHEL) • SUSE Linux Enterprise Server (SLES) • Oracle Solaris • Oracle Linux • Clear OS • Cent OS • Citrix XenServer **Raid controller management software available** Sau echivalent: HPE ProLiant DL360 Gen10 (SKU # P24743-B21)		

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