



KEMENTERIAN PERTAHANAN RI
DIREKTORAT JENDERAL KEKUATAN PERTAHANAN

Nomor : B/12 /1 /2025/DJKUAT
Klasifikasi : Biasa
Lampiran : Satu berkas
Hal : Harga Perkiraan Sendiri (HPS)
Dan Spesifikasi Teknis.

Jakarta, 2 Januari 2025

Kepada

Yth. Ketua Tim Pokja Pemilihan

di

Jakarta

1. Dasar:

- a. Peraturan Presiden Nomor 12 Tahun 2021 tentang Perubahan atas Peraturan Presiden Nomor 16 Tahun 2018 tentang Pengadaan Barang/Jasa Pemerintah.
- b. Peraturan Kepala LKPP Nomor 12 Tahun 2021 tanggal 13 Mei 2021 tentang Pedoman Pelaksanaan Pengadaan Barang/Jasa Pemerintah melalui Penyedia.
- c. Surat Ketua TIM Pokja Pemilihan Nomor B/4193/XII/2024 tanggal 10 Desember 2024 tentang permohonan Harga Perkiraan Sendiri (HPS) dan Spesifikasi Teknis (Spektek).

2. Sehubungan dengan dasar di atas, dikirimkan Harga Perkiraan Sendiri (HPS) dan Spesifikasi Teknis (Spektek) Pengadaan Pekerjaan Manajemen Pengelolaan Data Terpusat Fasilitas Tanah dan Bangunan Pertahanan Direktorat Fasilitas dan Jasa Ditjen Kuathan Kemhan TA 2025 sebagaimana tersebut dalam lampiran.

3. Demikian untuk menjadikan periksa.

Sekretaris Direktorat Jenderal
Selaku
Pejabat Pembuat Komitmen,



Danto Yuliardi Wirawan, S.T., M.T.
Laksamana Pertama TNI



Tembusan:


- 1. Dirjen Kuathan Kemhan
- 2. Kabag Proglap Set Ditjen Kuathan Kemhan
- 3. Kabag Datin Set Ditjen Kuathan Kemhan
- 4. Kabag Um Set Ditjen Kuathan Kemhan.



SPEKIFIKASI TEKNIS (SPEKTEK)


**MANAJEMEN PENGELOLAAN DATA TERPUSAT FASILITAS DAN BANGUNAN PERTAHANAN
 DIREKTORAT FASILITAS DAN JASA DITJEN KUATHAN KEMHAN TA. 2025**

NO	KOMPONEN	VOL	SATUAN	GAMBAR
1	2	3	4	5
A.	HARDWARE DAN PERANGKAT PENDUKUNG			
1.	<p>Server Utama Aplikasi Spesifikasi : Form Factor 2U Rackmount Model CSE-825TQC-R609WB Processor : Intel Xeon Gold 2.0Ghz RAM/Memory : 128GB DDR4 PC4-3200AA RDIMM Solid Sate Drive : 500GB Storage Drives : 3.5" DB Processing & Storage Connectivity/Storage Computer Nodes Data Warehouse Single Socket supports 2nd Gen. Intel Xeon Scalable processor (Cascade Lake/Skylake) 6 DIMMs; up to 1.5TB 3DS ECC DDR4-2933MHz RDIMM/LRDIMM 4 PCI-E 3.0 x8 (FHFL) slots, 1 PCI-E 3.0 x8 (LP) slot 8 Hot-swap 3.5" SATA3 drive bays 2x 10Gbase-T ports with Intel X772 + X557 1 VGA, 2 COM, 2 USB 3.0, 2 USB 2.0 2 SuperDOM (Disk on Module) ports 2x 500W Redundant Platinum Level power supplies Monitors for CPU Cores, Chipset Voltages, Memory. 4+1 Phase-switching voltage regulator Fans with tachometer monitoring Status monitor for speed control Pulse Width Modulated (PWM) fan connectors Monitoring for CPU and chassis environment Thermal Control for fan connectors Setting & Installasi Tes Komisioning & Uji Fungsi</p>	1	Paket	
2.	<p>Server Backup Aplikasi Spesifikasi : Form Factor 2U Rackmount Model CSE-825TQC-R609WB Processor : Intel Xeon Gold 2.0Ghz RAM/Memory : 128GB DDR4 PC4-3200AA RDIMM Solid Sate Drive : 500GB Storage Drives : 3.5" DB Processing & Storage Connectivity/Storage Computer Nodes Data Warehouse</p>	1	Paket	

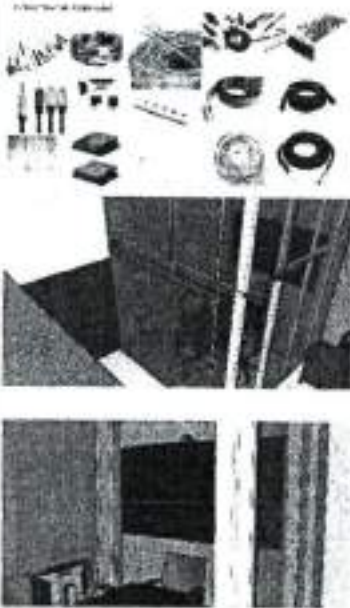
1	2	3	4	5
	<p>Single Socket supports 2nd Gen. Intel Xeon Scalable processor (Cascade Lake/Skylake) 6 DIMMs; up to 1.5TB 3DS ECC DDR4-2933MHz RDIMM/LRDIMM 4 PCI-E 3.0 x8 (FHFL) slots, 1 PCI-E 3.0 x8 (LP) slot 8 Hot-swap 3.5" SATA3 drive bays 2x 10Gbase-T ports with Intel X772 + X557 1 VGA, 2 COM, 2 USB 3.0, 2 USB 2.0 2 SuperDOM (Disk on Module) ports 2x 500W Redundant Platinum Level power supplies Monitors for CPU Cores, Chipset Voltages, Memory. 4+1 Phase-switching voltage regulator Fans with tachometer monitoring Status monitor for speed control Pulse Width Modulated (PWM) fan connectors Monitoring for CPU and chassis environment Thermal Control for fan connectors Setting & Instalasi Tes Komisioning & Uji Fungsi</p>			
3.	<p>Server Storage Database Utama Spesifikasi : Chassis 1U Rackmount Chassis Tipe Prosesor AMD Ryzen V1500B (4-core 2.2 GHz) Bays Provided 4 x 3.5" SATA HDD/2.5" SATA SSD Slot 1 x Gen3 x8 slot (x4 link) Memori Standar 8GB DDR4 Maks. Memori 32GB Storage Cloud 32TB Power Supply 100 V to 240 V AC Antarmuka / Interface 2x USB 3.2 Gen 1 Port 1x eSATA Port Jaringan 4 x RJ-45 1GbE LAN Port Cooling System 40 mm x 40 mm x 3 pcs Weight Produk 6.4 kg Dimension 44 mm x 480 mm x 492.6 mm (HxWxD) Hardware Encryption Engine (AES-NI) Hot Swappable Drive Scheduled Power On / Off Wake on LAN / WAN Cloud Support Setting & Instalasi Tes Komisioning & Uji Fungsi</p>	1	Paket	
4.	<p>Server Storage Database Backup Spesifikasi : Chassis 1U Rackmount Chassis Tipe Prosesor AMD Ryzen V1500B (4-core 2.2 GHz) Bays Provided 4 x 3.5" SATA HDD/2.5" SATA SSD Slot 1 x Gen3 x8 slot (x4 link) Memori Standar 8GB DDR4 Maks. Memori 32GB Storage Cloud 32TB</p>	1	Paket	

1	2	3	4	5
	<p>Power Supply 100 V to 240 V AC Antarmuka / Interface 2x USB 3.2 Gen 1 Port 1x eSATA Port Jaringan 4 x RJ-45 1GbE LAN Port Cooling System 40 mm x 40 mm x 3 pcs Product Weight 6.4 kg Dimension 44 mm x 480 mm x 492.6 mm (HxWxD) Hardware Encryption Engine (AES-NI) Hot Swappable Drive Scheduled Power On / Off Wake on LAN / WAN Cloud Support Setting & Instalasi Tes Komisioning & Uji Fungsi</p> <p>5. UPS Server Utama & Backup Spesifikasi : Online Sinewave Rackmount Capacity : 3000 VA / 2700 W INPUT Rated voltage : 200 / 208 / 220 / 230 / 240Vac Voltage range : 110 ~ 300Vac (depend on load percentage) Frequency range : 40 ~ 70Hz (auto detect) Power factor : ≥ 0.99 Bypass voltage range : Bypass high voltage point Setting in LCD from 230Vac to 264Vac (Default: 264Vac) Bypass low voltage point Setting in LCD from 170Vac to 220Vac (Default: 170Vac) Generator input : Support Battery voltage : 72Vdc Typical recharge time : 4 hours (to 90% of full capacity) Backup time : Estimated remaining time displayed on the LCD Charging current (max.) : 1A Output voltage : 200 / 208 / 220 / 230 / 240Vac Power factor : 0.9 Voltage regulation : $\pm 1\%$ Frequency line mode : 45 ~ 55Hz (for 50Hz) or 55 ~ 65Hz (for 60Hz) Frequency bat. Mode : 50 / 60 ($\pm 0.01\%$)Hz Crest factor : 3 : 1 Harmonic distortion (THDv) : $\leq 3\%$ with linear load; $\leq 6\%$ with non-linear load Waveform : Pure sinewave Efficiency (AC mode full load) : $> 90\%$ Transfer time : Utility to Battery: 0ms; Utility to Bypass: $< 4\text{ms}$ Overload (Line Mode) : Load $\leq 110\%$: last 10min; $\leq 130\%$: last 1min; $\leq 150\%$: last 5S; $> 150\%$ turn to bypass mode (1 ~ 3kVA) Load $\leq 110\%$: last 60min;</p>	2	Paket	

1	2	3	4	5
	<p>≤125%: last 10min; ≤150%: last 1S; >150% turn to bypass mode (6 ~ 10kVA) Short circuit : Hold whole system Overheat : Line mode: Switch to Bypass; Backup Mode: Shutdown UPS immediately Battery low : Alarm and switch off EPO (optional) : Shutdown UPS immediately Audible & visual alarm : Line failure; Battery Low, Overload, System Fault Communication interface : USB (or RS232), SNMP card / relay card (optional) Dimension W x H x D (mm) : 440 x 86.5 x 600 (2U) Setting & Instalasi Tes Uji Komisioning & Uji Fungsi</p>			
6.	<p>Rak Server Utama dan Backup Spesifikasi : Type : 42U Standing Close Rack Depth 900mm Perforated Door 19" Product ID : IR9042P Height : 42U (2070mm) Width : 600mm Depth : 900mm Weight : ±190kg Max Beban: 800kg Noted: 1U = 44.45mm Each unit rack complete with: 1 Unit Vertical Power Distribution 12 Outlet with switch, 16A (with surge protection, cable 3m, SNI) Bracket Fan Modular with 4 Fan 1 set Adjustable Foot of 4, 1 set Castor set of 4, 1 pcs Fixed Shelf (FS90), 1 pcs Top Brush Panel, 1 set Cable Ring, 100 Set Cagenuts and Screws Setting & Instalasi Tes Uji Komisioning & Uji Fungsi</p>	1	Paket	
7.	<p>Perangkat Komputer Pendukung Operasional Spesifikasi : Processor: Intel® Core™ i7 Processor 1.7 GHz (12M Cache, up to 5 GHz, 10 cores) Integrated GPU : Intel® Graphics Display : 23.8-inch, FHD (1920 x 1080) 16:9, Wide view, Anti-glare display, LED Backlit, 250nits, Memory: 8GB DDR5 SO-DIMM Storage : 512GB M.2 NVMe™ PCIe® 4.0 SSD Wireless Network : Wi-Fi 6(802.11ax) (Dual band) 2*2 + Bluetooth 5.2 OS : Windows 11 Home + Office Home Student 2021 + Microsoft 365 Personal 1-year included Keyboard & Mouse: Wired gray keyboard, Wired optical mouse</p>	5	Paket	

1	2	3	4	5
	<p>Camera: 720p HD cameras Audio: Built-in speaker, SonicMaster, Built-in microphone Interface / Interface: 1x DC-in 1x RJ45 Gigabit Ethernet 1x HDMI in 1.4 1x HDMI out 1.4 1x USB 2.0 Type-A 1x USB 3.2 Gen 1 Type-C 3x USB 3.2 Gen 1 Type-A Weight: 5.4 kg Dimensions: 53.9 x 42.3 x 1.5 ~ 16.5 cm (21.22" x 16.65" x 0.59" ~ 6.50") Power Supply: 90 W Power adapter Setting & Instalasi Tes Uji Komisioning & Uji Fungsi</p>			
8.	<p>Printer dan Scanner Pendukung Operasional Spesifikasi : Fitur Produk Print/Scan/Copy Included Tinta 003 (BCMY) Print Method: On-demand inkjet (Piezoelectric) Nozzle:180 x 1 nozzles Black, 59 x 1 nozzles per Colour (Cyan, Magenta, Yellow) Max Resolution:5760 x 1440 dpi Print Speed: Draft, A4 (Black / Colour):Up to 33.0 ppm / 15.0 ppm*2 ISO 24734, A4 Simplex (Black / Colour):Up to 10.0 ipm / 5.0 ipm*2 Copying: Max Resolution:600 x 600 dpi ISO 29183, A4 Simplex (Black / Colour):Up to Up to 7.7 ipm / 3.8 ipm Scann: Sensor Type:CIS Optical Resolution:1200 x 2400 dpi Scan Speed: Flatbed (Black / Colour):200dpi: Up to 11 sec / Up to 28 sec Epson Connect Features: Epson iPrint, Epson Email Print, Remote Print Driver Other Mobile Solutions: Epson Smart Panel Operating System: Windows XP / XP Professional / Vista / 7 / 8 / 8.1 / 10 Windows Server 2003 / 2008 / 2012 / 2016 / 2019 Mac OS X 10.6.8 or later Setting & Instalasi Tes Uji Komisioning & Uji Fungsi</p>	5	Paket	

1	2	3	4	5
9.	<p>Media Interaktif Monitoring Pendukung Operasional Spesifikasi : Size: 98 inch Display Area Size: 215.8 x 121.4 cm Apect Ratio: 16:9 Resolution: 1080P Up to UHD 3840 X 2160 (4K) Response Time: ≤4ms Backlight Type: DLED Brightness: 350 cd/m Refresh Frequency: 60 Hz Color Gamut 85% NTSC (Typ) View Angle: 178°/178° Life Time: ≥50000h Speakers: (8Ω 15W)*2 Stereo Networks: WiFi 6, 802.11 a/b/g/n/ac 2.4GHz/5GHz, LAN, Bluetooth I/O Port: Front USB 3.0 (Type A) x3, Front USB Type C 1x, Front HDMI IN 1x, Front Touch USB (Type B) x1, Public USB 3.0 (Type A) x2, RJ45 In x1, RJ45 Out x1, Type C x1, HDMI Out x1, HDMI In x2, Touch Out USB (Type B) x2, RS232 x1, OTG-USB 2.0 x1, VGA In x1, Earphone x1 Camera Pixel: 48 Million Pixels Microphone Array Pick up Distance: ≥10 Meters Microphone Quantity: 8-Arrays Touch Technology: Infared Touch Points: 40 points Inductive Object: Finger, Stylus Touch Resolution: 32768*32768 System Support: Windows10/Windows8/Windows7/Windows XP/Android/Linux/Mac OS X/Chrome Touch Panel Glass: Zero-bonding technology and 4mm Anti Glare Glass Other Function: Fast page sharing by scanning QR-Code, Wireless screen sharing, Voter Optional OPS PC Spec: Core I7 8GB RAM 256GB SSD Dual OS System Setting & Installasi Tes Uji Komisioning & Uji Fungsi</p>	3	Paket	
10.	<p>Webcam Tracking Pendukung Operasional Merek : Mixray Type : Webcam HD Spesifikasi : Resolution: Full HD Upto 4K Ultra HD</p>	3	Paket	

1	2	3	4	5
	<p>Image Sensor: 1/2.8 Inch High Quality HD CMOS Sensor Zoom: 12X Optical Zoom, 15x Digital Zoom Viewing Angle: H: 6.5° (N) - 70.9° (W) Iris: F1.6 - F2.8 +- 5% Minimum Illumination: 0.5Lux(F1.8,AGC ON) DNR: 2D & 3D Focus: Auto / Manual / One Push Shutter Speed: 1/25 - 1/2000 Interfaces: USB3.0 x 1, DC x 1, HDMI x 1, RS232 input x 1, RS232 output x 1, RS485 Compatible RS422 x 1, Line In x 1, PoE x 1, SDI x 1, Power Switch on/off x 1, Rotary Dip Switch x 1 Video Output: HDMI, SDI, LAN, USB 3.0 Video Compression Format: USB 3.0: MJPG, H264, YUY2, NV12 Power Supply: DC12V Power Adapter: Input: AC110V - AC220V ; Output: DC12V/2.5A Input Voltage: DC12V Input: Less than 1A Consumption: Less than 12W AI auto framing and auto tracking AI Function Real Time Tracking: The longest tracking distance up to 6 to 7 meters, can support the speaker to walk at 3 to 4mph Zone Tracking: Support setting 4 tracking areas, and the areas is set within -170° ~ +170° in horizontal and -30° ~ +90° in vertic Support IP control, SDI Port, HDMI Port, USB3.0 Port Setting & Instalasi Tes Uji Komisioning & Uji Fungsi</p>			
11.	<p>Infrastruktur & Interior Pendukung</p> <ul style="list-style-type: none"> - Desain Ruang Monitoring Pengelolaan Data Terpusat Fasilitas Tanah & Bangunan Pertahanan Ditfasjas - Renovasi Ruang Monitoring Pengelolaan Data Terpusat Fasilitas Tanah & Bangunan Pertahanan Ditfasjas - Internal Acces with Face Id - Air Conditioner - Microphone Omnidirectional Pendukung - Meja Rapat Pendukung - Kursi Rapat Pendukung - Kabel Lan Jaringan 1 Lot - Kabel Listrik 1 Lot - Kabel Hdmi Fiber - Terminal Listrik - Connector Lan - Mcb Listrik Panel - Switch Hub - Router Jaringan 	3	Paket	

1	2	3	4	5
B.	SOFTWARE/APLIKASI			
1.	Modul Login : Design UI/UX Captcha	1	Paket	
2.	Modul Beranda Design UI/UX Statistik Bar Data Tanah Statistik Pie Data Tanah Statistik Bar Status Rumah Sakit Statistik Pie Status Rumah Sakit Statistik Bar Status Aset Rumah Sakit Statistik Pie Status Aset Rumah Sakit	1	Paket	
3.	Modul Data Tanah / Bangunan Design UI/UX Data Tanah - Tambah Data - Ubah Data - Hapus Data Pengelolaan Data Pemanfaatan - Tambah Data - Ubah Data - Hapus Data Pengelolaan Data Pemindah Tangan - Tambah Data - Ubah Data - Hapus Data Pengelolaan Data Permasalahan - Tambah Data - Ubah Data - Hapus Data Migrasi Data	1	Paket	
4.	Modul Daerah Latihan Design UI/UX Aksi Data - Tambah Data - Ubah Data - Hapus Data Migrasi Data	1	Paket	
5.	Modul Fasilitas dan Pangkalan Design UI/UX Data Rumah Sakit - Tambah Data - Ubah Data - Hapus Data Data Rumah Negara - Tambah Data - Ubah Data - Hapus Data	1	Paket	

1	2	3	4	5
	Data Pangkalan Satuan - Tambah Data - Ubah Data - Hapus Data Migrasi Data			
6.	Modul Mapping Design UI/UX Pengelolaan Data - Pencarian Data	1	Paket	
7.	Data Master Angkatan Design UI/UX Pengelolaan Data - Tambah Data - Ubah Data - Hapus Data	1	Paket	
8.	Data Master Unit Kerja Design UI/UX Pengelolaan Data - Tambah Data - Ubah Data - Hapus Data	1	Paket	
9.	Laporan Data Tanah Design UI/UX Download data	1	Paket	
10.	Laporan Rekapitulasi Data Tanah Design UI/UX Download data	1	Paket	
11.	Laporan Data Daerah Latihan Design UI/UX Download data	1	Paket	
12.	Laporan Rekapitulasi Daerah Latihan Design UI/UX Download data	1	Paket	
13.	Laporan Data Pangkalan Satuan Design UI/UX Download data	1	Paket	
14.	Laporan Data Rumah Negara Design UI/UX Download data	1	Paket	
15.	Laporan Data Rumah Sakit Design UI/UX Download data	1	Paket	

1	2	3	4	5
16.	Laporan Rekapitulasi Rumah Sakit Design UI/UX Download data	1	Paket	
17.	Log Activities -Design UI/UX -laporan data harian -laporan data bulanan -laporan data tahunan	1	Paket	
18.	Menu Design UI/UX Pengelolaan Data - Tambah Data - Ubah Data - Hapus Data	1	Paket	
19.	User Group Design UI/UX Pengelolaan Data - Tambah Data - Ubah Data - Hapus Data	1	Paket	
20.	User Manajemen Design UI/UX Pengelolaan Data - Tambah Data - Ubah Data - Hapus Data	1	Paket	
21.	Setting Web Design UI/UX Pengelolaan Data - Ubah Data	1	Paket	
22.	User Profil Design UI/UX Ubah Profil Ubah Kata Sandi Ubah Foto	1	Paket	

Sekretaris Direktorat Jenderal
 Selaku
 Pejabat Pembuat Komitmen,



Danto Yulardi Wirawan, S.T., M.T.
 Laksamana Pertama TNI