# *ANNEX II + III:* TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

**Contract title: “Supply of equipment for communicable diseases surveillance and for emergency situations”, IPA 2020**

**Lot 2: “Supply of IT equipment (hardware) for communicable diseases surveillance and for emergency situations”**

**Publication reference:** **NEAR/BEG/2022/EA-OP/0219**

**Columns 1-2 should be completed by the contracting authority**

**Columns 3-4 should be completed by the tenderer**

**Column 5 is reserved for the evaluation committee**

Annex III - the contractor's technical offer

The tenderers are requested to complete the template on the next pages:

* Column 2 is completed by the contracting authority shows the required specifications (not to be modified by the tenderer),
* Column 3 is to be filled in by the tenderer and must detail what is offered (for example the words ‘compliant’ or ‘yes’ are not sufficient)
* Column 4 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation

The eventual documentation supplied should clearly indicate (highlight, mark) the models offered and the options included, if any, so that the evaluators can see the exact configuration. Offers that do not permit to identify precisely the models and the specifications may be rejected by the evaluation committee.

The offer must be clear enough to allow the evaluators to make an easy comparison between the requested specifications and the offeredspecifications.

| **1.**  **Item number** | **2.**  **Specifications required** | **3.**  **Specifications offered** | **4.**  **Notes, remarks,  ref to documentation** | **5.**  **Evaluation committee’s notes** |
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| **2.1.** | **Desktop computer with software for remote support– 100 pieces   Procesor**- Min. 6 cores, 12 threads, 18MB cache, min. turbo processor speed 4.60Ghz, pass mark score min. 19.000 <https://www.cpubenchmark.net/high_end_cpus.html> **Memory**- min. 16GB DDR4 memory module, min two RAM memory slots for memory. Min support for 64GB of memory. **Hard drive**- min. 512GB PCIe NVMe M.2 SSD. Device must have possibility for adding one 3.5" or 2.5" HDD **Graphics**- Integrated **Case**- Tower **Power supply**- min. 270W, max. 300W min 92% efficient, active PFC **Optical drive**- DVD+-RW **Keyboard**- USB, same manufacturer as a computer manufacturer **Mouse-** Optical, same manufacturer as a computer manufacturer **Ports and connectors-**min. 2 x M.2 connectors , 1x full height PCIe x16, 2x full height PCIe x1, 3 x SATA,8 x USB ports of which minimum 4x USB 3.2 (min 2 on front side), min 4x USB 2.0 ports (of which minimum 2x USB 2.0 on front side and minimum 2 with SmartPower On function), 1x display port, 1xHDMI, 1 x RJ-45 (Gigabit), 1 x universal audio jack, 1 x lock slot **Speaker-** Built in speaker minimun 2.5W |  |  |  |
|  | **Operating system**- Windows 10 pro or newer, 64bit. The licence offered must be new, never before used nor activated. Licence for refurbished computers and laptops and similar licence is not acceptable. **Certificates-** Energy star, EPEAT registered, EU RoHS, TPM 2.0 **Warranty**- min. 12+12 months of manufacturers warranty |  |  |  |
|  | **Remote support software**  **Supported platforms-** The software should simultaneously enable remote control on min. following platforms: Windows 10, iOS, Android, Apple Mac, Linux, Chrome OS **Connection options – Windows-** Search, location and connection to all the systems via LAN/WAN or the internet, connection over TCP/IP or HTTP protocols. Software should support 64-bit architecture. It should communicate between the systems located behind different firewalls through the gateway component. Gateway should support min. 6,000 simultaneous client connections per gateway.  Software should allow Wake on LAN command to switched-off devices. Ability to view, share and control screens, keyboards and mice regardless of screen resolution, network protocol or operating system |  |  |  |

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|  | -Monitor the screens of all connected systems with real-time thumbnails. Mouse over a selected PC zooms the view. -Scan multiple systems, cycle through one or multiple workstations displaying their screens on your Control console. -Show your screen, a selected monitor/s or selected applications to any number of connected computers for real-time instruction. -Annotate your screen with a range of drawing tools during a Remote Control session or Show session to highlight areas of focus for an end user or to aid in your presentation or training. -A two-way chat session between any number of selected users in either text or full audio mode. -Audio conversations during a remote control session. -Capture screenshots during a session for future reference. -Record screen activity to a video “replay file” for training or security. -To aid both training and the effectiveness of support, a Whiteboard feature is also provided from within a chat session. By means of visual tools, User can draw or mark parts of the screen important for operation. -Collecting hardware-software inventory from client PCs. -Getting a list of details on all the patches installed on client PCs. -Remote exchange of registry during a remote session -Commands: - local command prompt from the remote system on your PC; - PowerShell window for the execution of commands on the selected client. |  |  |  |
|  | -Remote power on/off, log in/log out, restart of client PCs -Help request – user can send help requests to all available operators, or direct it to specific operators based on user-defined accounts. -Help request – user can send help requests to all available operators, or direct it to specific operators based on user-defined accounts. -Identification of an approximate location of each remote device. Devices are automatically grouped by region for easier management. -Moving files between the control PC and the client PCs, folder synchronisation, drag and drop file distribution from the control PC to any number of connected systems in a single action. -Identification of and access to folders in use on client PCs by means of File Transfer Tree view. -Remote start of applications on remote PCs -Recognition of and redirection of print demands to the control PC. -Copying clipboard content between the control PC and client PCs. -PIN connection that allows instant location of users by inserting the same PIN code over the central PIN server module. -Tool that uses scripts and schedule to automate tasks. -Automatic grouping of remote systems based on pre-defined criteria such as operating system, geolocation, or client version. -User interface to be used via Windows tablets, including portrait and landscape view. |  |  |  |

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|  | **Connection options – Apple Mac**  -Connection via TCP/IP or HTTP protocols. Communication via LAN/WAN, the internet, or mobile connection. -Collecting hardware-software inventory from client computers. -Remote power on/off, log in/log out, restart of client computers -Watch, Share or Control the screen, keyboard and mouse of a remote workstation. -Monitor the screens of all connected systems with real-time thumbnails -Moving files between the control PC and the client PCs -Show your screen to any number of connected computers for real-time instruction -A two-way chat session between any number of selected users in either text or full audio mode. -Help request – user can send help requests to all available operators, or direct it to specific operators based on user-defined accounts -Possibility of complete security configuration by switching or off all the options. -Possibility of configuring data encryption from 56 bit DES to 256 bit AES |  |  |  |
|  | **Connection options – Linux**  -Search and identification of systems in own network -Full remote control of Linux systems -Scan multiple systems, simultaneously -monitoring up to 16 systems. -PIN connection that allows instant location of users by inserting the same PIN code over the central PIN server module -Moving files between the control computer and the client computers. -A two-way chat session in text mode between the control computer and the client computers -Sending messages to single, multiple selected or all client systems -Remote power on/off, log in/log out, restart of Linux systems. -Monitor the screens of all connected systems with real-time thumbnails -Displays the Linux client system control screen -Remote start of scrips or applications on remote Linux systems. -Collecting hardware-software inventory from client Linux computers so as to aid problem solving. -Connection over TCP/IP or HTTP protocols via Internet Gateway -Configuration of data encryption from 56 bit DES to 256 bit AES. -Connection restrictions by IP addresses, user names and passwords. -Possibility of complete security configuration by switching on or off all the options. -Powerful diagnostic tool providing all relevant system information in need of help. |  |  |  |
|  | **Connection options – Chrome OS**  -Single control overview of all client Chrome OS systems thumbnails. -Client screen in watch mode or real time control share mode. -Real time instructions or presentations to client Chrome OS shown on control screen (Windows or Mac) in browser tab or in full screen mode. Client can see the application running on control computer. -Support for multi-monitor Chrome OS systems that support the function. -Client mouse and keyboard can be remotely locked -Chrome OS client can join the chat initiated on the control computer. -Chrome OS client can receive messages send from control computer. -Help request – user can send help requests to the control computer. -PIN connection that allows instant location of users by inserting the same PIN code over the central PIN server module. -User confirmation – client can authorize all connection requests. |  |  |  |
|  | **Connection options – mobile phone platforms (Android, iOS)**  -Identifying clients by searching local network. -PIN connection that allows instant location of users by inserting the same PIN code on both ends. -Overview of thumbnails of all connected client computers. -Simultaneous selection, connection and interaction with multiple clients (only on Android systems). -The list of all previously connected clients; the list of recently connected clients -Widgets on start screen for fast connection to frequently visited client systems (only on Android systems). -Remote control – watching, sharing (both ends can participate and watch) or controlling (remote screens and keyboards are locked). -View a remote PC using pinch, pan and zoom techniques -Touch mode or cursor mode options for greater precision in controlling client systems. -The choice of full colour range, 256, 16 or just 2 colours for document reading during the remote session. -Chat communication with the remote user -Sending messages to remote users with the option of delayed messaging - Generating full hardware inventory of a remote device on request. - Overview of current status of wireless networks and battery consumption of clients (only for Android systems). - Powerful compression for reducing big data transmission. -64, 128 or 256-bit encryption for every session. - Multi-screen overview support. - Unique security keys for providing access to own clients only. - One-click CTRL+ALT+DELETE command for remote logging or PC management. - Software interface in Serbian (subject to proof by the certificate of the official distributor of the software for the territory of the Republic of Serbia). License has to be perpetual, new and unused license. - Remote control software must have a certificate of the manufacturer or the official distributor in the territory of the Republic of Serbia proving that the bidder is an eligible and qualified partner for the remote control software (application) in the territory of the Republic of Serbia. The warranty certificate must be issued on the Purchaser, with reference to the said procurement announcement. |  |  |  |
| **2.2.** | **Monitor for computers– 100 pieces**  Screen size- min. 23.8", max. 24" Panel Type- IPS, Antiglare Resolution- min. 1920x1080 Aspect ratio- 16:9 Response time- max. 5ms in normal or fast mode Contrast ratio (static)- min. 1000:1 Brightness- min. 250 cd/m² Viewing angle- min. 178/178(H/V) Connectors- min. 1xHDMI, 1xDisplayPort, 1xVGA, 5xUSB 3.2 Adjustability- min. Tilt ( -5° to 21°), swivel ( -45° to 45°), pivot ( -90° to 90°), Height-adjustable stand: min 150mm, Security lock slot, VESA mount (100mm x 100mm) Environmental- Energy star, Epeat gold, TCO, RoHS, Arsenic free glass Power Consumption- max. 12w (on mode), 48W (max. Consumption)  Warranty- min. 12+12 months of manufacturers warranty |  |  |  |
| **2.3.** | **Notebook with software for remote support – 30 pieces**  -Display- min. diagonal 13.9", max. 14.1", 1920 x 1080, anti-glare, contrast ratio min 700:1, luminance min. 250 nits -Processor- Min. 10 cores, 12 threads, 12MB cache, min. turbo processor speed 4.40Ghz, pass mark score min. 12.000 <https://www.cpubenchmark.net/high_end_cpus.html> -Memory- min. 8GB DDR4 memory module, min two RAM memory slots for memory. Min support for 64GB of memory. -Hard drive- min. 256GB M.2 NVMe SSD -Graphics- integrated -Network- Wifi 802.11a/b/g, WiFi 802.11ax, 64bit/128bit encryption, Bluetooth 5.2 Ports and connectors- min. 2 x USB 3.2 Gen1 ports ( min one with PowerShare function), 2 x Thunderbolt 4 type-C port, SD card reader, HDMI port 2.0, universal audio port, Security cable slot, smartcard reader -Speakers- Yes, stereo, min 2.5W peak output per channel -Microphone- Yes, dual-array -Camera- min. FHD IR camera -Fingerprint reader- yes -Keyboard- With backlit -Battery- min. 4 cell, 58WHr with possibility to charge the battery for 80% within one hour -Power adapter- min. 90W Type C adapter -Operating system- Windows 10 pro or newer, 64bit. The license offered must be new, never before used nor activated. License for refurbished computers and laptops and similar license is not acceptable. -Warranty- min. 12+12 months of manufacturers warranty |  |  |  |
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| **2.4.** | **Server – 3 pieces** -Processor- Min. 8 cores, 16 threads, 12MB cache, min. turbo processor speed 3.60Ghz, pass mark score min. 17.500 https://www.cpubenchmark.net/high\_end\_cpus.html. Server must have possibility for adding one more processor -Memory- min. 32GB DDR4 included, 2400MHz,minimum 16 memory slots available Hard drive- min. 2x 8TB HDD and 600GB SAS, min. 8 x 3.5" bays for Hot Plug discs -Graphics- integrated -Case- Tower -Power supply- min. 2 x 600W hot plug, redundant -Ports and connectors- front side: min. 1 x dedicated USB for software controller for remote access 1 x USB 2.0, 1 x USB3.0; rear side: min.1 x dedicated USB for software controller for remote access, 1 x USB 3.0, 1x USB2.0, 1 x VGA -Network connectors- min. 2 x 1GbE -RAID controller- min. Hardware RAID controller with the support for an internal SATA + SAS solution that supports 6Gbps SATA and 12Gbps SAS hard drives.  Support for minimum RAID levels 0, 1 and RAID spans 10.  The Raid controller must have a minimum of 2 internal SAS/Mini SAS connectors, with the ability to drive support a minimum of 32. -Remote control- It is essential that the server has an integrated remote access controller that has the task of remote server administration without the need to install additional agents locally.  No additional installation of any software that would perform this role is allowed, as well as any additional software.  The functionality of detecting faulty, unreliable BIOS images when trying to boot and the ability to recover to a reliable BIOS image is required.  The functionality of quick check whether the LOM and the controller are connected to the correct switches and ports via GUI or command line is necessary.   * The controller must support the following options and functionalities: Serial Redirection,  WSMAN, * Shared NIC, * VLAN tagging, * SSL encryption, * Secure UEFI boot -certificate management, * Quick Sync 2.0 - add mobile device number to LCL, System Erase of internal storage devices, * Power control, * Boot control, * Real-time power meter, * Temperature monitoring, * Full agent-free monitoring, * Predictive failure monitoring, * SNMPv1, v2, and v3 (traps and gets), * Fan monitoring, * Power Supply monitoring, * Memory monitoring, * CPU monitoring, * RAID monitoring, * NIC monitoring, * HD monitoring (enclosure), * Quick Sync 2.0, Service Module (iSM) embedded, * System Event Log, * Lifecycle Log   - Additional options- The device requires a hardware module from the device manufacturer (cannot be a third-party solution) that supports server communication with the mobile device (Supported operating systems on Android and IOS mobile devices required) using Bluetooth or wireless technology.  The module must be able to assign an IP address, change the password to access the main monitoring module, manage the server and change the BIOS settings.  The module must provide insight into the hardware and software inventory of the server, operating status, network data and logs. -Operating system- Windows server standard 2019 or newer. The license offered must be new, never before used or activated. -Warranty- min. 12+12 months of manufacturers warranty |  |  |  |

The distribution list of beneficiary health institutions of IT equipment, IPA 2020, Pub. Ref: 48-00-3/2022-28

1. Institute of Public Health of Serbia “Dr Milan Jovanovic Batut”, Dr Subotica 5, 11000 Belgrade
2. Institute of Public Health of Vojvodina, Futoska 121, 21000 Novi Sad
3. Public Health Institute Belgrade, Bulevar Despota Stefana 54a, 11000 Belgrade
4. Institute of Public Health Nis, Bulevar dr Zorana Djindjica 50, 18000 Nis
5. Institute of Public Health Kragujevac, Nikole Pasica 1, 34000 Kragujevac
6. Public Health Institute Pozarevac, Jovana Serbanovica14, 12000 Pozarevac
7. Public Health Institute Cuprija, Miodraga Novakovica 78, 35230 Cuprija
8. Public Health Institute “Timok” Zajecar, Sremska 13, 19000 Zajecar
9. Public Health Institute Uzice, Marinkovic Veselina 4, 31000 Uzice
10. Public Health Institute Cacak, Veselina Milekica 7, 32000 Cacak
11. Public Health Institute Kraljevo, Slobodana Penezica16ž, 36000 Kraljevo
12. Public Health Institute Krusevac, Vojvode Putnika 2, 37000 Kruševac
13. Public Health Institute Leskovac, Maksima Kovacevica 11, 16000 Leskovac
14. Public Health Institute Vranje, Jovana Jankovica Lunge 1, 17500 Vranje
15. Public Health Institute Sabac, Jovana Cvijica 1, 15000 Sabac
16. Public Health Institute Valjevo, Vladike Nikolaja 5, 14000 Valjevo
17. Public Health Institute Pirot, River bank, 18300 Pirot
18. Public Health Institute Novi Pazar, Generala Zivkovica 1, 36300 Novi Pazar
19. Public Health Institute Subotica, Zmaj Jovina 30, 24000 Subotica
20. Public Health Institute Zrenjanin, Dr. Emila Gavrila 15, 23000 Zrenjanin
21. Public Health Institute Pancevo, Pasterova br. 2, 26000 Pancevo
22. Public Health Institute Sombor, Vojvodjanska 47, 25000 Sombor
23. Public Health Institute Sremska Mitrovica, Stari Sor 47, 22000 Sremska Mitrovica
24. Public Health Institute Kikinda, Kralja Petra 70, 23000 Kikinda
25. Clinical Center of Serbia, Belgrade, Pasterova 2, 11000 Belgrade
26. Clinical Center of Vojvodina, Hajduk Veljkova 1-9, Novi Sad 21000
27. Clinical Center Nis, Bulevar dr Zorana Djindjica 48, 18000 Nis
28. Clinical Center Kragujevac, Zmaj Jovina 30, 34000 Kragujevac
29. Institute of Virology, Vaccines and Sera "Torlak", Vojvode Stepe 458, 11152 Belgrade
30. Institute for Biocides and Medical Ecology, Trebevicka 16, 11000 Belgrade
31. Polyclinic, Clinical Center of Serbia - “Fire Eye”, Visegradska 26, 11000 Beograd
32. Directorate for National Reference Laboratories, Batajnicki drum 7, Belgrade, Batajnica