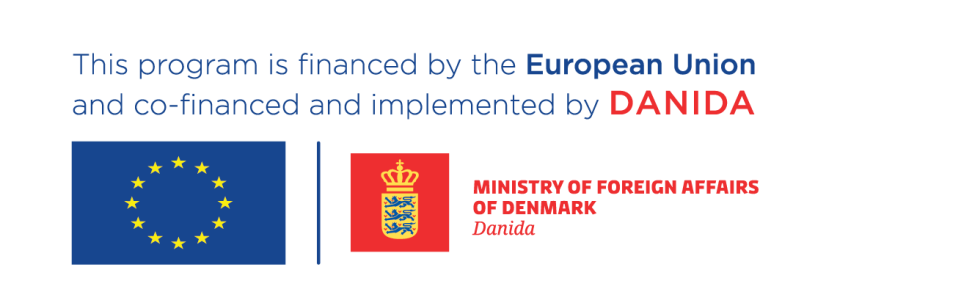


**TERMS OF REFERENCE**

**Request for Bid**

**for the Supply and Delivery of Computer Equipment in Support of the City Councils of the Integrity Cities**

January 2020



# BACKGROUND AND CONTEXT

* 1. **General Overview**

Support of anti-corruption efforts in Ukraine is a high priority for Denmark and the European Union.

The European Union Anti-Corruption Initiative in Ukraine (EUACI) is supported by the EU and Denmark and implemented by the Ministry of Foreign Affairs of Denmark. The overall objective of the EUACI is to improve implementation of anti-corruption policy in Ukraine, thereby ultimately contributing to a reduction in corruption.

Under its Component 3 the EUACI supports corruption prevention actions at the local level through developing and establishing mechanisms to ensure transparency and accountability, engaging CSOs and citizens in oversight of the local government, strengthening civil society to sustain this engagement, and supporting investigative journalists to enhance accountability in municipalities.

A key element of Component 3 is the application of the concept of Integrity City in five Ukrainian municipalities: Chernivtsi, Chervonohrad (Lviv Oblast), Mariupol (Donetsk Oblast), Nikopol (Dnipropetrovsk Oblast) and Zhytomyr, hereinafter referred to as the “Integrity Cities”.

Geographical Information System, hereinafter referred to as the “GeoPortal” or “GeoPortal tool”, is one of the integral tools that the EUACI and the municipalities implement under the Integrity City concept.

The GeoPortal provides information about different spheres of city infrastructure in a comprehensive and user-friendly manner for both citizens and businesses. On the front-end, Geoportal consists of the map with layers including urban cadastre, crucial social infrastructure such as schools, kindergartens, hospitals, investment objects, communal property available for rent, etc. The Geoportal’s back end is a Central Data Base that stores a vast amount of data produced by the municipality, including digitalized paper documents. In excess of storing capacity, the Data Base allows to generate analytical reports, track the internal business processes, and switch to electronic document management.

* 1. **Contracting Authority**

The contracting authority is the Ministry of Foreign Affairs of Denmark, hereinafter referred to as the “EUACI”.

* 1. **Beneficiary**

The Beneficiaries are the City Councils and Executive Committees of the Integrity Cities.

# OBJECTIVE

The objective of this request for bid is to empower the Integrity Cities by providing computer equipment required to operate and sustain the GeoPortal tool by each municipality.

# BIDDING DETAILS (INSTRUCTION TO BIDDERS)

The subject of the tender is the supply and delivery of the following equipment for the Integrity Cities:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item**  **#** | **Description** | **Qty** | **Department** | **Beneficiary** |
|  | 6-Port Gigabit Router with 1 SFP Port | 1 | Executive committee | Chervonohrad City Council (Lviv Oblast) |
|  | 8-Port Web Managed Gigabit Switch | 1 | Urban planning and architecture department |
|  | Desktop PC | 1 |  |
|  | Monitor 24" | 1 |  |
|  | Desktop PC | 1 | Economy department |
|  | Monitor 24" | 1 |  |
|  | Desktop PC | 1 | Land department |
|  | Monitor 24" | 1 |  |
|  | Desktop PC | 1 | Financial department |
|  | Monitor 24" | 1 |  |
|  | 6-Core Tower Server | 1 | Executive committee | Chernivtsi City Council |
|  | HDD for server 2TB | 1 |  |
|  | 28-Port L2+ Managed Gigabit Switch | 1 |  |
|  | UPS 3000 VA/3000 W for the Switch | 1 |  |
|  | 24-Port L3 Managed Gigabit Switch | 3 |  |
|  | UPS 2000 VA/2000 W for the Switches | 3 |  |
|  | Desktop PC | 1 | Agreement department | Mariupol City Council (Donetsk Oblast) |
|  | Monitor 24" | 1 |  |
|  | Desktop PC | 1 | Privatization department |
|  | Monitor 24" | 1 |  |
|  | Desktop PC | 2 | Socio-economic development department |
|  | Monitor 24" | 2 |
|  | 6-Core Tower Server | 1 | Executive committee | Nikopol City Council (Dnipropetrovsk Oblast) |
|  | Server rack 16U | 1 |  |
|  | HDD for server 2TB | 1 |  |
|  | UPS 1500 VA/1500 W for servers | 3 |  |
|  | 24-Port Unmanaged Gigabit Switch | 8 | Urban planning and architecture department |
|  | Desktop PC | 2 | Land department |
|  | Desktop PC | 1 | City cadastre department |
|  | Monitor 24" | 1 |  |
|  | Desktop PC | 3 | Privatization department |
|  | 8-Core Rackmount Server | 1 | Executive committee | Zhytomyr City Council |
|  | Server RAM 16GB | 2 |  |

Technical specification of the equipment is provided in Annex 1.

The financial bid shall be submitted in the format provided in Annex 2. Prices must be quoted in EUR, including costs of delivery to the place of destination, all duties and taxes applicable, and excluding VAT.

The financial bid must be accompanied by filled out tables provided in Annex 1, describing technical specification / manufacturers / particular models of the equipment offered by the Supplier.

The equipment configuration proposed by the Supplier must be included in the bid and must provide at least the minimum requirements described in Annex 1.

**Payments**

All the payments under the Contract shall be made in UAH (Ukrainian Hryvnias) according to the official the National Bank of Ukraine exchange rate published on the business day of the invoice issuance by the Supplier.

The Supplier may request 60% of the payment on signing the contract and the remaining 40% will be paid when the entire assignment will be completed. Please be informed that the EUACI has a VAT exemption as an international technical assistance program. Hence, the Suppliers invoices shall not include VAT.

**Terms of delivery**

* Delivery of the equipment accordingly to:
  + Chervonohrad City Council, 19 Shevchenko Ave., Chervonohrad, Lviv Oblast 80100 Ukraine;
  + Chernivtsi City Council, 1 Tsentralna Square, Chernivtsi 58002 Ukraine;
  + Mariupol City Council, 39 Mytropolytska Street, Mariupol, Donetsk Oblast 87500 Ukraine;
  + Nikopol City Council, 3 Elektrometalurhiv Street, Nikopol, Dnipropetrovsk Oblast 53200 Ukraine;
  + Zhytomyr City Council, 4/2 Korolova Square, Zhytomyr 10002 Ukraine.
* Delivery timeframe: during 30 days after signing the contract.
* The specific schedule for delivery to each city is a subject for negotiations between the EUACI and Supplier and shall be agreed upon after contract signing.

**How to apply**

The proposals shall be submitted in electronic format only within the below deadline to Senior Programme Manager, Mr. Torben Ulsted, to the email: [tulsted@ukraine-aci.com](mailto:tulsted@ukraine-aci.com).

Deadline for submitting proposals is January 30, 2020, 18:00 Kyiv time.

**Questions**

Technical questions should be addressed to IT Expert, Mr. Oleh Pasko, to the email: [olepas@ukraine-aci.com](mailto:olepas@ukraine-aci.com) no later than January 27, 2020, 18:00 Kyiv time.

# BIDS EVALUATION CRITERIA

Bids will be evaluated in accordance with criteria provided below:

|  |  |  |
| --- | --- | --- |
| **#** | **Criteria** | **Weight** |
| 1 | Price | 100% |

# Annex 1. Technical Specification of the Equipment

* + - 1. 6-Port Gigabit Router with 1 SFP Port

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | Performance | 3.4 million pps | *To be filled out by Supplier* |
|  | CPU count | 4 | *To be filled out by Supplier* |
|  | Core Frequency | 1 GHz | *To be filled out by Supplier* |
|  | PoE Support | 5x 24V passive 2-pair/4-pair PoE | *To be filled out by Supplier* |

* + - 1. 8-Port Web Managed Gigabit Switch

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | Case | Metal | *To be filled out by Supplier* |
|  | Key Features | Auto MDI/MDI-X, Store and Forward, Full Duplex Capability, Flow Control | *To be filled out by Supplier* |
|  | Hardware | 10/100/1000 Mbps Ethernet Ports (8) | *To be filled out by Supplier* |
|  | Switching Capacity | 16 Gbps | *To be filled out by Supplier* |
|  | MAC Address | 4K | *To be filled out by Supplier* |
|  | Memory Buffer | 192 KB | *To be filled out by Supplier* |
|  | Jumbo Frames | Up to 9 KB | *To be filled out by Supplier* |
|  | System Features | Web GUI, 802.3x Flow Control, DHCP Client, 802.1Q VLAN, WRR Priority QoS, Port-based QoS, 802.1p CoS, Broadcast Storm Control, Loop Detection /Prevention, IGMP Snooping v1/v2/and v3 Compatible, Link Aggregation, Port Mirroring | *To be filled out by Supplier* |
|  | Green Features | Fanless, Power Saving by Detecting Link Status & Cable Length | *To be filled out by Supplier* |
|  | Input voltage | 5V DC/1A | *To be filled out by Supplier* |
|  | Maximum power consumption (watt) | 4.37 | *To be filled out by Supplier* |
|  | Operating Environmental Specifications | Temperature: 0°C to 40°C/32°F to 104°F; Humidity: 10% to 90% (non-condensing) | *To be filled out by Supplier* |

Item Nos. 3, 5, 7, 9, 17, 19, 21, 28, 29, 31

Desktop PC

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | CPU | 6-core Intel Core i5-8400 (2.8 - 4.0 GHz) | *To be filled out by Supplier* |
|  | RAM size | 16 GB | *To be filled out by Supplier* |
|  | Memory type | DDR4-2666 MHz (2 slots, maximum 32 GB) | *To be filled out by Supplier* |
|  | HDD capacity | HDD: 2 TB; SSD: 240 GB | *To be filled out by Supplier* |
|  | Type of video card and video memory | Integrated, Intel UHD 630 | *To be filled out by Supplier* |
|  | Motherboard chipset | Intel H310 | *To be filled out by Supplier* |
|  | Preinstalled software | No OS | *To be filled out by Supplier* |
|  | Ports | USB 3.0  Headphone output  Microphone input  2 x PS / 2 for mouse / keyboard  1 x HDMI  1 x LAN (RJ-45) | *To be filled out by Supplier* |
|  | Warranty | 36 months | *To be filled out by Supplier* |

Item Nos. 4, 6, 8, 10, 18, 20, 22, 30

Monitor 24"

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | Screen Size | 23.5 inch (59.8 cm) | *To be filled out by Supplier* |
|  | Resolution | 1920 x 1080 | *To be filled out by Supplier* |
|  | Panel Type | PLS | *To be filled out by Supplier* |
|  | Matrix reaction time | 4 ms | *To be filled out by Supplier* |
|  | Aspect Ratio | 16:9 | *To be filled out by Supplier* |
|  | Refresh Rate | 60Hz | *To be filled out by Supplier* |
|  | Colour Support | 16.7M | *To be filled out by Supplier* |
|  | Brightness | 200cd/m2 (250cd/m2 Typical) | *To be filled out by Supplier* |
|  | Contrast Ratio Static | 700:1 (1000:1 Typical) | *To be filled out by Supplier* |
|  | Viewing Angle | 178°/178° (H/V) | *To be filled out by Supplier* |
|  | Interfaces | HDMA, VGA | *To be filled out by Supplier* |
|  | Power consumption | 25 W; Standby: 0.3 W | *To be filled out by Supplier* |
|  | Warranty | 24 months | *To be filled out by Supplier* |

Item Nos. 11, 23

6-Core Tower Server

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | Processor | Intel Xeon E-2136 6-Core 3.3GHz 12MB CPU, Turbo up to 4.5GHz (or similar) | *To be filled out by Supplier* |
|  | Motherboard | P11C-M / 4L | *To be filled out by Supplier* |
|  | Chipset | Intel C242 (or similar) | *To be filled out by Supplier* |
|  | RAM | 32 GB ECC DDR4-2666MHz (max. 64 GB), 4 memory slots | *To be filled out by Supplier* |
|  | HDD | HDD: 2 x 2 TB; SSD: 2 x 480 GB | *To be filled out by Supplier* |
|  | Controller | SAS/SATA Intel Rapid Storage Support Raid | *To be filled out by Supplier* |
|  | CPU cooling | BOX+ type | *To be filled out by Supplier* |
|  | Power Characteristics | 550 W | *To be filled out by Supplier* |
|  | Warranty | 38 months | *To be filled out by Supplier* |

Item Nos. 12, 25

HDD for server 2TB

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | Drive capacity | 2 TB | *To be filled out by Supplier* |
|  | Form factor | 3.5 inch | *To be filled out by Supplier* |
|  | Interface | SATA 6 Gb/s (SATAIII) | *To be filled out by Supplier* |
|  | RPM | 7200 rpm | *To be filled out by Supplier* |
|  | Buffer size | 128 MB | *To be filled out by Supplier* |
|  | Average latency | 4.2 ms | *To be filled out by Supplier* |
|  | Data transfer rate | 600 MB/s | *To be filled out by Supplier* |
|  | Maximum noise level | 28 dB | *To be filled out by Supplier* |
|  | Maximum power consumption | 8.1 watts | *To be filled out by Supplier* |
|  | Usage | For enterprise-class storage | *To be filled out by Supplier* |
|  | Warranty | 60 months | *To be filled out by Supplier* |

13. 28-Port L2+ Managed Gigabit Switch

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | Interfaces | 20 10/100/1000BASE-T ports,  4 Combo 10/100/1000BASE-T/SFP ports, 4 SFP+ ports,  Alarm Port, SD Card Slot | *To be filled out by Supplier* |
|  | Console Port | RJ-45 | *To be filled out by Supplier* |
|  | Management Port | 10/100BASE-T | *To be filled out by Supplier* |
|  | Switch Fabric | 128 Gbps | *To be filled out by Supplier* |
|  | Packet Forwarding Rate | 95.24 Mpps | *To be filled out by Supplier* |
|  | Packet Buffer | 2 MB | *To be filled out by Supplier* |
|  | MAC Address Table | 16K Entries | *To be filled out by Supplier* |
|  | IP v4/v6 Routing Table | 1K/512 Entries | *To be filled out by Supplier* |
|  | Max Power Consumption | 50.8 watts | *To be filled out by Supplier* |

1. UPS 3000 VA/3000 W for the Switch

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | Capacity | 3000 VA / 3000 W | *To be filled out by Supplier* |
|  | Energy Saving | ECO Mode Efficiency > 94% | *To be filled out by Supplier* |
|  | Voltage | 208 / 220 / 230 / 240 Vac | *To be filled out by Supplier* |
|  | Voltage Range | 120 - 276 Vac, < 25% Load  140 - 276 Vac, < 50% Load  160 - 276 Vac, < 75% Load  180 - 276 Vac, < 100% Load | *To be filled out by Supplier* |
|  | Frequency Range | 50 / 60 Hz (Auto Sensing) | *To be filled out by Supplier* |
|  | Power Factor | > 0.97 | *To be filled out by Supplier* |
|  | Cold Start | Yes | *To be filled out by Supplier* |
|  | Batteries | 6 x 12V 9Ah | *To be filled out by Supplier* |
|  | Typical Recharge Time | 4h to 90% | *To be filled out by Supplier* |
|  | Audible Noise | Less than 40 dB | *To be filled out by Supplier* |
|  | Heat Dissipation | 1024 BTU/h | *To be filled out by Supplier* |
|  | Warranty | 24 months | *To be filled out by Supplier* |

15. 24-Port L3 Managed Gigabit Switch

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | Interfaces | 20 10/100/1000BASE-T,  4 Combo 10/100/1000BASE-T/SFP, 2 10G CX4 (Uplink),  DPS-200 Redundant Power Supply, SD Card Slot | *To be filled out by Supplier* |
|  | Console Port | RJ-45 | *To be filled out by Supplier* |
|  | Switching Capacity | 88 Gbps | *To be filled out by Supplier* |
|  | 64-Byte Packet Forwarding Rate | 65.48 Mpps | *To be filled out by Supplier* |
|  | Packet Buffer Memory | 2 MB | *To be filled out by Supplier* |
|  | Flash Memory | 32 MB | *To be filled out by Supplier* |
|  | MAC Address Table | 16K Entries | *To be filled out by Supplier* |
|  | ACL | Supports up to 1.5K Ingress access rules | *To be filled out by Supplier* |
|  | Maximum Heat Dissipation | 121.1 BTU/h | *To be filled out by Supplier* |
|  | Maximum Power Consumption | 35.5 W | *To be filled out by Supplier* |
|  | MTBF | 344,511.6 hours | *To be filled out by Supplier* |
|  | Warranty | 12 months | *To be filled out by Supplier* |

16. UPS 2000 VA/2000 W for the Switches

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | Capacity | 2000 VA / 2000 W | *To be filled out by Supplier* |
|  | Output Power Factor | 1.00 | *To be filled out by Supplier* |
|  | Input Voltage Range | Voltage Range Low Line Transfer 110-160VAC ± 5% Voltage Range Low Line Comeback 125-175VAC ± 5% Voltage Range High Line Transfer 300VAC ± 5%  Voltage Range High Line Comeback 290VAC ± 5VAC | *To be filled out by Supplier* |
|  | Frequency Range | 40Hz - 70Hz | *To be filled out by Supplier* |
|  | Recharge Time | 3h to 90% | *To be filled out by Supplier* |
|  | Batteries | 6 x 12V/7Ah | *To be filled out by Supplier* |
|  | Load Crest Ratio | 3:1 | *To be filled out by Supplier* |
|  | Noise Level | < 50dB | *To be filled out by Supplier* |
|  | Warranty | 24 months | *To be filled out by Supplier* |

24. Server rack 16U

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | Rack type | Two-frame | *To be filled out by Supplier* |
|  | Hight | 16U | *To be filled out by Supplier* |
|  | Depth | 790 | *To be filled out by Supplier* |
|  | Construction | 19" | *To be filled out by Supplier* |
|  | Equipment | upper shelf, adjustable legs | *To be filled out by Supplier* |

26. UPS 1500 VA/1500 W for servers

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | Capacity | 1500 VA / 1500 W | *To be filled out by Supplier* |
|  | Input Voltage Range | 110-160 V ± 5%,  125-175 V ± 5%,  300 V ± 5%,  290 V ± 5 V | *To be filled out by Supplier* |
|  | Operating time at full load | 2.96 min | *To be filled out by Supplier* |
|  | Recharge Time | 3h to 90% | *To be filled out by Supplier* |
|  | Batteries | 3 x 12V/9Ah | *To be filled out by Supplier* |
|  | Warranty | 24 months | *To be filled out by Supplier* |

27. 24-Port Unmanaged Gigabit Switch

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | Ports | 24 x Gigabit Ethernet (10/100/1000 Mbps) | *To be filled out by Supplier* |
|  | Switching Capacity | 48 Gbps | *To be filled out by Supplier* |
|  | Max. Packet Forwarding Rate | 35.712 Mpps | *To be filled out by Supplier* |
|  | Maximum Power Consumption | 13.5 watts | *To be filled out by Supplier* |
|  | Maximum Heat Dissipation | 46.035 BTU/h | *To be filled out by Supplier* |
|  | MTBF | 247,291 hours | *To be filled out by Supplier* |
|  | Packet Buffer Size | 512 KB | *To be filled out by Supplier* |
|  | Jumbo Frame | 9,216 Bytes | *To be filled out by Supplier* |
|  | MAC Address Table | 16K Entries | *To be filled out by Supplier* |
|  | Warranty | 36 months | *To be filled out by Supplier* |

32. 8-Core Rackmount Server

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | Form factor | 2U Rackmount | *To be filled out by Supplier* |
|  | Processor | 8-core Intel Xeon Silver 4110 (2.1 - 3.0 GHz) (or similar) | *To be filled out by Supplier* |
|  | Motherboard | Z11PA ‑ U12 | *To be filled out by Supplier* |
|  | Chipset | Intel C621 (or similar) | *To be filled out by Supplier* |
|  | RAM | 64 GB DDR4-2666 MHz ECC REG | *To be filled out by Supplier* |
|  | Controller | SAS/SATA Intel Rapid Storage Support Raid | *To be filled out by Supplier* |
|  | RAID levels | 0/1/5/10 | *To be filled out by Supplier* |
|  | CPU cooling | BOX | *To be filled out by Supplier* |
|  | HDD | HDD: 2 x 2 TB; SSD: 2 x 500 GB | *To be filled out by Supplier* |
|  | Body | CSV 2U-LC 6HDD | *To be filled out by Supplier* |
|  | Warranty | 38 months | *To be filled out by Supplier* |

33. Server RAM 16GB

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Item** | **Minimum requirement** | **Specifications offered** |
|  | **Manufacturer’s name:** |  | *To be filled out by Supplier* |
|  | **Product type, model:** |  | *To be filled out by Supplier* |
|  | Capacity | 16 GB | *To be filled out by Supplier* |
|  | Type | DDR4 SDRAM Server memory | *To be filled out by Supplier* |
|  | Supply voltage | 1.2 V | *To be filled out by Supplier* |
|  | Memory frequency | 2666 MHz | *To be filled out by Supplier* |
|  | Effective bandwidth | 21300 MB/s | *To be filled out by Supplier* |
|  | Memory Timing Scheme | CL19 | *To be filled out by Supplier* |
|  | Buffering | Registered | *To be filled out by Supplier* |
|  | ECC | Yes | *To be filled out by Supplier* |
|  | Warranty | 60 months | *To be filled out by Supplier* |

# Annex 2. Format for the Financial Bid

**Chervonohrad City Council**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Description** | **Qty** | **Rate per unit, EUR (excl. VAT)** | **Total amount, EUR (excl. VAT)** |
|  | 6-Port Gigabit Router with 1 SFP Port | 1 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | 8-Port Web Managed Gigabit Switch | 1 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | Desktop PC | 4 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | Monitor 24" | 4 | *To be filled out by Supplier* | *To be filled out by Supplier* |

**Chernivtsi City Council**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Description** | **Qty** | **Rate per unit, EUR (excl. VAT)** | **Total amount, EUR (excl. VAT)** |
|  | 6-Core Tower Server | 1 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | HDD for server 2TB | 1 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | 28-Port L2+ Managed Gigabit Switch | 1 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | UPS 3000 VA/3000 W for the Switch | 1 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | 24-Port L3 Managed Gigabit Switch | 3 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | UPS 2000 VA/2000 W for the Switches | 3 | *To be filled out by Supplier* | *To be filled out by Supplier* |

**Mariupol City Council**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Description** | **Qty** | **Rate per unit, EUR (excl. VAT)** | **Total amount, EUR (excl. VAT)** |
|  | Desktop PC | 4 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | Monitor 24" | 4 | *To be filled out by Supplier* | *To be filled out by Supplier* |

**Nikopol City Council**

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| **#** | **Description** | **Qty** | **Rate per unit, EUR (excl. VAT)** | **Total amount, EUR (excl. VAT)** |
|  | 6-Core Tower Server | 1 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | Server rack 16U | 1 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | HDD for server 2TB | 1 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | UPS 1500 VA/1500 W for servers | 3 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | 24-Port Unmanaged Gigabit Switch | 8 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | Desktop PC | 6 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | Monitor 24" | 1 | *To be filled out by Supplier* | *To be filled out by Supplier* |

**Zhytomyr City Council**

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| **#** | **Description** | **Qty** | **Rate per unit, EUR (excl. VAT)** | **Total amount, EUR (excl. VAT)** |
|  | 8-Core Rackmount Server | 1 | *To be filled out by Supplier* | *To be filled out by Supplier* |
|  | Server RAM 16GB | 2 | *To be filled out by Supplier* | *To be filled out by Supplier* |