

NATO UNCLASSIFIED  
RELEASABLE FOR INTERNET TRANSMISSION

**INTEGRATED AIR AND MISSILE DEFENCE  
CENTRE OF EXCELLENCE**



**IFB FINCON 21-03**

**“Supply of windows server licenses,  
UPS devices, and servers”**

**PART III**

**SPECIAL PROVISIONS & TECHNICAL SPECIFICATIONS  
(STATEMENT OF WORK)**

*December 2021*

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### 1. Statement of Work (SOW)

1.1 The current Statement of Work (SOW) covers the special provisions and technical specifications that shall be covered by the Contractor for the supply of the requested hardware/software.

### 2. General Specifications

2.1 All the hardware shall be new.

2.2 All the software shall be original.

### 3. Technical Specifications

#### 3.1 Server Licenses

3.1.1 Requested quantity: Two (2).

3.1.2 Edition: Windows Server 2022 Standard.

3.1.3 Feature: For 16 core licenses.

#### 3.2 UPS

3.2.1 Requested quantity: Two (2) UPS devices.

3.2.2 The 1<sup>st</sup> UPS (for rack - server) shall have at least the specifications as APC SMART UPS X LINE INTERACTIVE 3000VA 2700W as follows:

Output	
Output power capacity	2.7kWatts / 3.0kVA
Max Configurable Power (Watts)	2.7kWatts / 3.0kVA
Nominal Output Voltage	230V
Output Voltage Distortion	Less than 5 %
Output Frequency (sync to mains)	50/60 Hz +/- 3 Hz Sync to mains
Other Output Voltages	208 V, 220 V, 240 V
Load Crest Factor	3 : 1
Topology	Line interactive
Waveform type	Sine wave
Output Connections	(2) IEC 320 C19 (2) IEC Jumpers (8) IEC 320 C13
Transfer Time	6 ms typical : 10 ms maximum

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Input	
Nominal Input Voltage	208V, 230V
Input frequency	50/60 Hz +/- 3 Hz Auto-sensing
Input Connections	BS1363A British, IEC 320 C20, Schuko CEE 7 / EU1-16P
Cord Length	1.8meters
Input voltage range for main operations	140 - 280V
Number of Power Cords	1
Other Input Voltages	220 V, 240 V

Batteries & Runtime	
Battery type	Lead-acid battery
Typical recharge time	3hour(s)
Expected Battery Life (years)	3 - 5
RBC Quantity	1
Battery Charge Power (Watts)	245 Watts
Extendable Run Time	1

Communications & Management	
Interface Port(s)	RJ-45 Serial, SmartSlot
Control panel	LED status display with on line : on battery : replace battery and overload indicators, Multifunction LCD status and control console
Audible Alarm	Alarm when on battery : distinctive low battery alarm : configurable delays
Emergency Power Off (EPO)	Yes
Available SmartSlot™ Interface Quantity	1

Surge Protection and Filtering	
Surge energy rating	645Joules
Filtering	Full time multi-pole noise filtering : 0.3% IEEE surge let-through : zero clamping response time : meets UL 1449

Environmental	
Operating Temperature	0 - 40 °C
Operating Relative Humidity	0 - 95 %
Operating Elevation	0 - 3048meters
Storage Temperature	-15 - 45 °C
Storage Relative Humidity	0 - 95 %
Storage Elevation	0 - 15240meters
Audible noise at 1 meter from surface of unit	55.0dBA
Online thermal dissipation	184.0BTU/hr

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3.2.3 The 2<sup>nd</sup> UPS (for desktop) shall have at least the specifications as APC SMART 750VA 500W UPS LINE INTERACTIVE as follows:

Output	
Output power capacity	500 Watts / 750VA
Max Configurable Power (Watts)	500 Watts / 750VA
Nominal Output Voltage	230V
Output Voltage Distortion	Less than 5 % at full load
Output Frequency (sync to mains)	47 - 53 Hz For 50 Hz nominal Sync to mains, 57 - 63 Hz For 60 Hz nominal Sync to mains
Other Output Voltages	220 V, 240 V
Topology	Line interactive
Waveform type	Sine wave
Output Connections	(2) IEC Jumpers (6) IEC 320 C13
Transfer Time	4 ms typical : 8 ms maximum
Input	
Nominal Input Voltage	230V
Input frequency	50/60 Hz +/- 3 Hz Auto-sensing
Input Connections	IEC 320 C14
Cord Length	1.8meters
Input voltage range for main operations	151 - 302 Adjustable, 160 - 280V
Number of Power Cords	1
Other Input Voltages	220 V, 240 V
Batteries & Runtime	
Battery type	Lead-acid battery
Typical recharge time	3hour(s)
Expected Battery Life (years)	3 - 5
RBC Quantity	1
Battery Charge Power (Watts)	49 Watts
Runtime	View Runtime Graph (Available in Technical Tab on site)
Efficiency	View Efficiency Graph (Available in Technical Tab on site)
Communications & Management	
Interface Port(s)	SmartSlot, USB
Control panel	Multifunction LCD status and control console
Audible Alarm	Alarm when on battery : distinctive low battery alarm : configurable delays
Emergency Power Off (EPO)	Optional
Available SmartSlot™ Interface Quantity	1

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Surge Protection and Filtering	
Surge energy rating	540Joules
Filtering	Full time multi-pole noise filtering : 0.3% IEEE surge let-through : zero clamping response time : meets UL 1449
Environmental	
Operating Temperature	0 - 40 °C
Operating Relative Humidity	0 - 95 %
Operating Elevation	0 - 3048meters
Storage Temperature	-15 - 45 °C
Storage Relative Humidity	0 - 95 %
Storage Elevation	0 - 15240meters
Audible noise at 1 meter from surface of unit	40.0dBA
Online thermal dissipation	90.0BTU/hr

### 3.3 Servers

3.3.1 Requested quantity: Two (2) servers (all the same type and specifications).

3.3.2 The servers shall have at least the specifications as DELL Server PowerEdge R540 2U [Xeon Silver 4208 | 16GB | 600GB SAS | H730P+ 2GB | 2 PSU | 5Y] as follows:

- 3.3.2.1 Brand: DELL Technologies;
- 3.3.2.2 OS: No;
- 3.3.2.3 Type: Rack;
- 3.3.2.4 Rack height: 2U;
- 3.3.2.5 Processor - chipset: Intel Xeon Silver 4208 (2.10GHz);
- 3.3.2.6 Chipset: Intel C62X Series;
- 3.3.2.7 Memory type: DDR4 3200MHz - 16 GB;
- 3.3.2.8 Disk: 600GB / 10000rpm / 3.5" SATA;
- 3.3.2.9 Hot swap: Yes;
- 3.3.2.10 Network connectivity: 2x Ethernet 10 / 100 / 1000;
- 3.3.2.11 Supply: 2x 495W.



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3.3.3 Memory and disk parts for servers:

3.3.3.1 Requested quantity - brand: Four (4) memories and six (6) disks (all the same type and specifications) - DELL Technologies.

3.3.3.2 The memories shall have at least the specifications as Dell memory NPOS - 32GB 2Rx4 DDR4 RDIMM 3200 MHz, for server T440/R440/R540.

3.3.3.3 The disk drives shall have at least the specifications as Dell HDD NPOS - 480 GB SSD SATA Read Intensive 6Gbps 512e 2.5" in 3.5" Hybrid Carrier S4510, for Server R240/R340/R540.

#### 4. **Guarantee**

4.1 The requested UPS devices, servers, memories and disk drives shall have at least a 24-months guarantee from the date of the purchase, for operating conditions and use based on the official instructions of the manufacturer.

#### 5. **Shipping costs**

5.1 The bidder's offer - price proposal shall include dispatching cost to the Centre's facilities, but neither any computer - equipment installation costs for configuration/control nor system training services.

#### 6. **Contractor's Standards**

6.1 The Contractor shall establish, document and implement a Quality Management System with procedures that satisfy the ISO 9001 requirements.

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