

## ANNEX 1

<b>1. POE Network Switch - 24 port (Qty: 14) - CA 10, FE 03, GC 01</b>		
	<b>Minimum Requirements</b>	<b>Your brand and Specifications</b>
<b>Ports</b>	24 x 1G RJ45 Ports 2 x SFP ports	
<b>Power Over Ethernet</b>	24W per port	
<b>Manageable</b>	Yes	
<b>Features</b>	Layer 2 switching, VLAN Support, IPv6 support, Rapid Spanning tree Protocol (RSTP) Support, Multiple Spanning tree protocol (MSTP) Support, DHCP snooping, Dynamic Trunking protocol (DTP) Support, Port Security	
<b>Forwarding Rate</b>	60 Mpps	
<b>Flash Memory</b>	128 MB	
<b>RAM</b>	256 MB	
<b>Form Factor</b>	1U Rackmount / Standalone	
<b>Warranty</b>	3 Years basic hardware warranty	
<b>2. POE Network Switch - 8 port (Qty: 08) - FE 05, CA 03</b>		
	<b>Minimum Requirements</b>	<b>Your brand and Specifications</b>
<b>Ports</b>	8 x 1G RJ45 Ports	
<b>Power Over Ethernet</b>	24W per port	
<b>Speed</b>	Gigabit Ethernet	
<b>3. Network Switch - 8 port (Qty: 04) HC</b>		
	<b>Minimum Requirements</b>	<b>Your brand and Specifications</b>
<b>Ports</b>	8 x 1G RJ45 Ports	
<b>Speed</b>	Gigabit Ethernet	
<b>4. Wifi Access Point - Outdoor (Qty: 06) - TC 02, FE 01, CA 03</b>		
	<b>Minimum Requirements</b>	<b>Your brand and Specifications</b>

<b>Controller Compatibility</b>	Unifi Controller	
<b>Environment</b>	Outdoor	
<b>2.4 GHz Speed</b>	450 Mbps	
<b>5 GHz Speed</b>	1300 Mbps	
<b>Ports</b>	(1) Gigabit Ethernet	
<b>PoE Mode</b>	802.3af/A PoE & 24V PoE	
<b>PoE Injector</b>	required	

**5. Wifi Access Point - Indoor (Qty: 11) - CFS 02, CA 03, CFS 02, FE 04**

	Minimum Requirements	Your brand and Specifications
<b>Controller Compatibility</b>	Unifi Controller	
<b>Environment</b>	Indoor	
<b>WiFi Standards</b>	802.11a/b/g Wi-Fi 4/Wi-Fi 5	
<b>Throughput Speeds: 2.4 GHz</b>	450 Mbps	
<b>5 GHz</b>	867 Mbps	
<b>Ports</b>	(1) Gigabit Ethernet	
<b>PoE Mode</b>	802.3af/A PoE & 24V PoE	
<b>PoE Injector</b>	required	

**6. Cat6 Network Cable roll (Qty: 20) - CA 20**

	Minimum Requirements	Your brand and Specifications
<b>Category</b>	UTP/CAT6-4P	
<b>Rip-cord</b>	Yes	
<b>Overall Foil Screen</b>	Yes	
<b>Packaging</b>	Box	
<b>Insulation Material</b>	PVC	
<b>RoHS complaint</b>	Yes	

**7. Power supply unit (Qty: 10) - HC 10**

	Minimum Requirements	Your brand and Specifications
<b>Form Factor</b>	ATX 12V	
<b>Interface Type</b>	24 Pin	
<b>Power Output or Wattage</b>	300W	
<b>Efficiency Rating (minimum )</b>	80 PLUS Bronze	
<b>Protection</b>	Over Voltage Protection, Short Circuit Protection	

<b>8. Enterprise hard drive 10TB 3.5" (Qty: 24) - CA 24</b>		
	<b>Minimum Requirements</b>	<b>Your brand and Specifications</b>
Condition	Brand New	
Interface	SAS III (12 Gb/s)	
Cache	256 MB	
Form Factor	3.5 Inch	
Drive Capacity	10 TB	
Random Write Speed	440 IOPS	
Accessories	3.5" HDD Drive Tray Caddy for Dell Poweredge R740	
Limited Warranty	5 years	
<b>9. HDD tray caddy 2.5" for dell power edge R640 (Qty: 20) - CA 20</b>		
	<b>Minimum Requirements</b>	<b>Your brand and Specifications</b>
Size	2.5"	
Compatible with	dell power edge R640	
<b>10. HDD tray caddy 2.5" for dell power edge R420 (Qty: 4) - CA 04</b>		
	<b>Minimum Requirements</b>	<b>Your brand and Specifications</b>
Size	2.5"	
Compatible with	dell power edge R420	
<b>11. Fiber transceiver single mode huawei (Qty: 02) - HC 02</b>		
	<b>Minimum Requirements</b>	<b>Your brand and Specifications</b>
Interface	LC Duplex	
Data Rate	10Gb/s	
Form Factor	SPF+	
Wavelength	1310 nm	
Compatibility	Dell EMC R640, 740	
<b>12. RAM 8GB DDR3 1600Mhz (Qty: 85) - FA 25, HC 20, SN 40</b>		
	<b>Minimum Requirements</b>	<b>Your brand and Specifications</b>
Memory	8GB DDR3	
Speed	1600Mhz	

<b>13. RAM 8GB DDR4 2333MHz (Qty: 30) - CA 30</b>		
	<b>Minimum Requirements</b>	<b>Your brand and Specifications</b>
<b>Memory</b>	8GB DDR3	
<b>Speed</b>	2333Mhz	
<b>14. SSD Internal Hard Disk 240GB (Qty: 30) - CA 30</b>		
	<b>Minimum Requirements</b>	<b>Your brand and Specifications</b>
<b>Type</b>	SATA SSD	
<b>Storage</b>	240GB	
<b>15. Internal hard disk 500GB (Qty: 20) - HC 20</b>		
	<b>Minimum Requirements</b>	<b>Your brand and Specifications</b>
<b>Type</b>	SATA HDD	
<b>Storage</b>	500GB	
<b>16. Digital network cable tester (Qty: 04) - CA 04</b>		
	<b>Minimum Requirements</b>	<b>Your brand and Specifications</b>
<b>Display</b>	Backlit LCD	
<b>Port</b>	RJ45	
<b>Features</b>	Measures Cable Length, Power over Ethernet, Hub Blink mode	
<b>Remote units</b>	1	

**17. Audio Mixer (Qty: 01) - FE 01**

	<b>Minimum Requirements</b>	<b>Your brand and Specifications</b>
<b>Mic/Line Inputs</b>	8x Line Mono: 1/4" TRS Phone 2x Line Stereo: L/R 1/4" TRS Phone 8x Microphone: 3-pin XLR 1/4" TRS Phone - Mono Inputs, Main Stereo Output	
<b>Power Supply</b>	Integral lightweight switched-mode PS AC mains supply: 85-270 V AC, 50/60 Hz universal input Power Consumption: Less than 20 W	

	Phantom power	
<b>Stereo Line Inputs</b>	2x Stereo: L/R 1/4" TRS Phone	
<b>AUX Sends   AUX Returns</b>	2x Aux Sends	
	No dedicated returns	
<b>Signal-to-Noise Ratio</b>	Noise (22 Hz - 22 kHz measurement bandwidth) Mic EIN @ max gain, 150 ohms source impedance -127 dBu	
	Mix @ max, faders to down <-85 dBu	

**18. SIP Phone (Qty: 30) - CA 30**

	Minimum Requirements	Your brand and Specifications
<b>Ethernet Port</b>	Dual-port Gigabit Ethernet	
<b>POE supported</b>	yes (12V)	
<b>Power Adapter</b>	UK Power Adaptor	
<b>Codec</b>	G.711(A/μ), G.729AB, G.726, iLBC	
<b>Compatible with PBX</b>	Grandstream UMC6510	

**19. UPS (Qty: 01) - NLL 01**

	Minimum Requirements	Your brand and Specifications
<b>Output power capacity</b>	2700W/2200VA	
<b>Nominal Input Voltage</b>	230V	
<b>Rack Mountable</b>	No	
<b>Output Plug type</b>	IEC C13	
<b>Output Connections</b>	4	
<b>Warranty</b>	2 years repair or replace	

**20. NVR 64 Channel (Qty: 02) - FEST 01, FHS 01**

	Minimum Requirements	Your brand and Specifications
<b>Audio/Video Inputs/Outputs</b>		
IP Video Input	64	
Video Interface	HDMI, VGA	
Recording Resolution	1080p	
Output Resolution	1080p/60Hz	
<b>Decoding and Playback</b>		
Decoding Formats	H.264, H.265, H.264+, H.265+	
Synchronous Playback	64-Channel	
<b>HDD</b>		
HDD Included	8 x 8TB SATA (Surveillance Hard Drive)	
<b>Interface</b>		
Network Interface	2 x RJ45 1000M	
<b>Camera Compatibility</b>		

IP Dome camera	DS-2CD1143G0-I	
IP Bullet camera	DS-2CD2043G0-I	

## 21. NVR 16 Channel (Qty: 02) - TC 01, GC 01

	Minimum Requirements	Your brand and Specifications
<b>Audio/Video Inputs/Outputs</b>		
IP Video Input	16	
Video Interface	HDMI, VGA	
Recording Resolution	1080p	
Output Resolution	1080p/60Hz	
<b>Decoding and Playback</b>		
Decoding Formats	H.264, H.265, H.264+, H.265+	
Synchronous Playback	16-Channel	
<b>HDD</b>		
HDD Included	2 x 8TB SATA (Surveillance Hard Drive)	
<b>Interface</b>		
Network Interface	1 x RJ45 1000M	
<b>Camera Compatibility</b>		
IP Dome camera	DS-2CD1143G0-I	
IP Bullet camera	DS-2CD2043G0-I	

## 22. Security Camera Outdoor (Qty 09) - TC 09

	Minimum Requirements	Your brand and Specifications
Sensor	1/3" CMOS/CCD	
Mega Pixel	3MP	
Night Vision	Required	
IR distance	100ft	
Power input	DC12V and PoE (802.3af)	
<b>AUDIO VIDEO ENCODING</b>		
Video Compression	H.264 / MPEG4	
Resolution	Max 20fps@3M(2304x1296) (2048x1536) &25/30fps@1080P(1920 x1080)	
<b>DATA TRANSMISSION AND STORAGE</b>		
Alarm Trigger	Motion detection, tampering alarm, network disconnect , IP address conflict, storage exception	
<b>GENERAL PARAMETERS</b>		
Built-in Micro SD/SDHC/SDXC slot	Support up to 128 GB	
Environmental Casing	Outdoor Use,Weather Proof:IP66	
Features	3DNR, Day/Night(ICR)	