

Eskom Gauteng Cluster Video Management System							
Item	reference Doc	Description	Comments	UoM	Quantity	Rate	Total
VMS Software & Hardware							
1.1	240-91190304	Design a scalable, intelligent enterprise VMS System with software(including anti-virus to Eskom Specs), Hardware, cabinets and all peripherals in accordance to Eskom Standards and as per scope of works including all cyber security requirements including multi-factor authentication requirements and OT/IT integration requirements. Design VMS storage servers to store recording for atleast 30 days for 100 sites with 16 cameras per site. VMS software shall be able to cater for a minimum of 400 sites with 16 camera's per site. Server should be configured to incorporate SMTP protocol to send emails(dashboards and reports) to Eskom Corporate network selected email addresses.		each	1		
1.1.1	240-91190305	VMS AI licence shall include :vehicle licence plate detection , facial recognition, smoke and fire detection, line crossing, tag & Track, human vs animal filtering, object tracking including tag & Track, RFID capabilities, Objects in Area, Object Loitering, Objects Crossing Beam, Object Appears or Enters Area,Object Not Present in Area,Objects Enter Area, Objects Leave Area, Object Stops in Area, Direction Violate Tamper Detection. This should be a fixed once off licence cost!		each	1		
1.2	240-91190304	Supply & Present detail design with presentations, documents, drawings for OT/IT governance approval		each	1		

1.3	240-91190304	Supply a scalable, intelligent enterprise VMS System with software(including -anti-virus), Hardware, cabinets and all peripherals in accordance to Eskom Standards and as per scope of works. VMS shall be able to cater for a minimum of 400 sites with 16 camera's per site. Supply VMS system with AI capabilities as per 1.1.1.Server should be configured to incorporate SMTP protocol to send emails(dashboards and reports) to Eskom Corporate network selected email addresses.		each	1		
1.4	240-91190305	Supply scalable VMS Storage Servers(SSD's) to store footage for 100 sites with 16 camera's per site for a period of 30 days. Storage servers will be installed in the server room.S		each	1		
1.5	240-91190304	Install a scalable, intelligent enterprise VMS System with software, Hardware, cabinets and all peripherals in accordance to Eskom Standards and as per scope of works. VMS system shall be able to cater for a minimum of 400 sites with 16 camera's per site. Install VMS system with AI capabilities as per 1.1.1.Server should be configured to incorporate SMTP protocol to send emails(dashboards and reports) to Eskom Corporate network selected email addresses.		each	1		
1.6	240-91190304	Install scalable VMS Storage Servers(SSD's) to store footage for 100 sites with 16 camera's per site for a period of 30 days. Storage servers will be installed in the server room.		each	1		
1.8		<i>Supply & Install Switches to completed the design- Cisco Catalyst 9200 Switch Series- C9200L-48T-4X with dual power supplies; software required to complete architecture design and complete fixed once off licencing.</i>		<i>each</i>	<i>2</i>		
1.9		<i>Supply, Install, commission & configure Firewalls with DMZ's as per architecture- Cisco Firepower 2120 Master Bundle FPR 2120 NGFW-K9</i>		<i>each</i>	<i>2</i>		

1.9.1		Supply & Install -CON-SNT-FPR21GFN (SNTC-8X5XNBD Cisco Firepower 2120 NGFW Appliance 1U		each	2		
1.9.2		Supply & Install CAB-ACSA (AC Power Cord (South Africa), C13,BS 546, 1.8m)		each	2		
1.9.3		Supply & Install -SF-F2K-TD6.6-K9 (Cisco Firepower Threat Defense software v6.6 for FPR2100		each	2		
1.9.4		Supply & Install -FPR2K-SSD100 (Firepower 2000 Series SSD for FOR-2110-2120		each	2		
1.9.5		FPR2K-SSD-BBLKD (Firepower 2000 Series SSD Slot Carrier		each	2		
1.9.6		L-FPR2120T-TMC= (Cisco FPR2120 Threat Defense Threat, Malware & URL Licence		each	2		
1.9.7		Defense Threat, Malware and URL License)		each	2		
1.9.8		L-FPR2120T-TMC-3Y (Cisco FPR2120 Threat Defense Threat, Malware & URL 3 Y Subscription		each	2		
		1.10- 1.11.21-Supply only					
1.10		Supply- ISA-3000-2C2F-FTD (ISA 3000 2 copper 2 fiber ports FTD Firepower Unified Image- Site Firewall		each	4		
1.10.1		Supply-CON-SNT-ISA3002D (SNTC-8X5XNBD ISA 3000 2 copper 2 fibre ports FTD Vire		each	4		
1.10.2		Supply-ISA-FTD6.6-K9 (Cisco FTD unified software v6.6 for ISA3000		each	4		
1.10.3		IOT-UTILITIES (Utilities Industry Solutions; For tracking only		each	4		
1.10.4		IOT-UTIL-OTHER (Not related to an IoT Utilities Solution; For tracking		each	4		
1.11		Supply-Cisco Catalyst IR8340 Rugged Router [IR8340-K9]		each	3		
1.11.1		SNTC-8X5XNBD Cisco Catalyst IR8340 Rugged Router[CON-SNT-IR8340AK]		each	3		
1.11.2		Cisco DNA Essentials On-Prem Lic 3Y - upto 25M(Aggr,50M)[DNA-P-T0-E-3Y]		each	3		
1.11.3		Solution Support for SW - DNA Essentials OnPrem Lic,T0, 3Y [SVS-PDNA-T0-E3Y]		each	3		
1.11.4		Low DC (24/48VDC) Power Supply [PWR-RGD-LOWDC]		each	6		
1.11.5		ROUTER Optical SFP: GLC-LH-SMD=		each	3		
1.11.6		ASR-903U		each	1		
1.11.7		CON-SNT-ASR903		each	1		

3.1	240-91190304	Relocate existing VMS including hardware & Screens from Eskom Simmerpan to new server room		each	1		
3.2	240-91190304	Install & Commission existing VMS including all Hardware & Screens at the new Alpha Control Server room at EAL to new server room. Screens to be installed facing operators.		each	1		
Commissioning & Testing of VMS System							
4.1	240-91190304	Commission and test new VMS System		each	1		
4.2	240-91190304	Commission and Test integration of existing VMS with new VMS at EAL		each	1		
Server Room							
5.1	240-91190304	Design the server room in accordance to Eskom Standards and SANS Standards including the fire suppression,electrical works, extraction, cooling, cabling, biometric access, cameras, etc		each	1		
5.2	240-91190304	Supply & Install all equipment and material for connecting the cooling, extraction, camera's, equipment, biometric access etc.		each	1		
5.3	SANS Standards	Close off Sprinklers & overhead HVAC . Provide CoC.		each	1		
5.4	SANS Standards	Supply & Install 2 x airconditioners for redundancy together with IED for the control room to monitor the temperature in the room. Temperature in the room to be displayed on the video wall and linked to building BMS.		each	1		
5.5	SANS Standards	Design, Supply and install Biometric access for the server room		each	1		
5.6	240-91190304	Design, Supply and install camera's in the server room.		each	1		
5.7	SANS Standards	Design, Supply & install a separate electrical Distribution Board(DB) in the Server room and cable from the main DB to the new DB. Aircon's, new plug points for servers, plug points for controllers desks and spare desks, access control, video wall, etc to be installed to this new DB. CoC to be supplied.		each	1		
5.8	SANS Standards	Supply & Install the fire suppression system and extraction.CoC to be provided		each	1		

5.9	SANS Standards	Demolish partitioning between two walls, close of one access door to the new server room by installing drywalling, painting and finishing to match the room colour. Extend painting to entire wall to avoid patches being shown.		each	1		
5.10	SANS Standards	Supply and install raised anti static flooring for the server room.		each	1		
UPS							
6.1	240-91190304; 240-118870219	Design a UPS(4hrs) system, including batteries(lithium ion), in accordance to Eskom Standards to supply the control room, including emergency lighting, and server room to ensure continuity of supply.		each	1		
6.2	240-91190304; 240-118870219	Supply a UPS(4hrs) system, together with batteries(Lithium-ion), in accordance to Eskom Standards to supply the control room and server room to ensure continuity of supply.		each	1		
6.3	240-91190304; 240-118870219	Install a UPS(4hrs) system, together with batteries(Lithium Ion), in accordance to Eskom Standards to supply the control room and server room to ensure continuity of supply.		each	1		
Control Room							
7.1	240-91190304	Design Biometric access and video camera's(inside & outside the room to cover all entrances and exits, the video wall and controllers desk)		each	1		
7.2	240-91190304	Supply Biometric access and video camera's(inside & outside the room to cover all entrances and exits, the video wall and controllers desk)		each	1		
7.3	240-91190304	Install Biometric access and video camera's(inside & outside the room to cover all entrances and exits, the video wall and controllers desk)		each	1		

7.4	240-91190304	Supply & Install all furniture as per proposed layout in accordance to Eskom's standards. Controller's desks(with 5 operators chairs) and 2 x 4 wayseating desks together with all chairs.		each	1		
7.5	240-91190304	Supply all cabling, including electrical cabling; lan cables & plug points, to all equipment & Desks to ensure a fully wired and complete VMS System. This should include the cabling to the screens relocated from Simmerpan.		each	1		
7.6	240-91190304	Install all cabling, including electrical cabling; lan cables & plug points, to all equipment & Desks to ensure a fully wired and complete VMS System. This should include the cabling to the screens relocated from Simmerpan.		each	1		
7.7	240-91190304	Replace doors with emergency exit doors(as per illustration drawing)		each	3		
7.8	240-91190304	Replace the room entry double doors with secure doors.		each	1		
7.9	SANS Standards	Design, supply & Install emergency lighting for the control room and Server room. Emergency lighting should be fed from the UPS and should cater for adequate coverage for continuation of operations.		each	1		
CCTV Surveillance System with Artificial Intelligence Capabilities							
8.1	240-91190304; 240-86738968	Design an intelligent CCTV surveillance system, together with a UPS(12hrs battery capacity with Lithium Ion batteries) for each Substation Site. NVR at station should be able to store atleast 30 days of footage.		each	4		

8.1.1	240-91190304; 240-86738968	CCTV AI Licence shall include licence plate detection for camera at the entrance, facial recognition, smoke and fire detection around the yard, , tag & Track, human vs animal filtering, object tracking including tag & Track, Objects in Area, Object Loitering, Objects Crossing Beam, Object Appears or Enters Area, Object Not Present in Area, Objects Enter Area, Objects Leave Area, Direction Violate & Tamper Detection		each	4		
8.2	240-91190304	Supply and install a 2 way PA system per site and link to control room VMS.			4		
8.3	240-91190304	<i>Separate the security Lighting from the operating lighting and link to the control room VMS to enable the controller to control lights remotely. CoC to be provided</i>		each	4		
8.2	240-91190304; 240-86738968	Supply an intelligent CCTV surveillance system, together with a UPS(12hrs battery capacity with Lithium Ion batteris) for each Substation Site. NVR at station should be able to store atleast 30 days of footage. .		each	4		
8.3	240-91190304; 240-86738968	Install an intelligent CCTV surveillance system, together with a UPS(12hrs battery capacity with Lithium Ion batteris) for each Substation Site. NVR at station should be able to store atleast 30 days of footage. .		each	4		
8.4	240-91190304; 240-86738968	Test & Commission the CCTV systems sites to the Regional Control Centre		each	4		
8.5		Supply & Install a 128GB micro SD memory card per camera.		each	1		
8.6	Regulations	Supply and install adequate warning signs at each site to ensure there is compliance to regulations		each	4		
Warrantee & Training							
9.1	240-91190304	Fixed once of Licence for VMS system and camera's		each	1		
9.2	240-91190304	3 year replacement warrantee on all equipment		each	1		
9.3	240-91190304	3 year maintenance, repairs, support & upgrade on all equipment		each	1		

9.4	240-91190304	Training on CCTV design(4 people); installation, maintenance & Repairs(4);operating(10) and super user(2) for a period of 18 months on an ad-hoc basis.		each	1		
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