



قطاع الأخبار و البرامج السياسية – إدارة هندسة الأخبار

MOI - KUWAIT TV Studio 300 LTO Library and Archive Department Upgrade

MOI invites the specialized bidders to provide their best solutions to upgrade the existing Studio-300 library system including all required components, licenses and services to the existing workflow applied in the department.

The scope that is required in this RFP is to provide the following:

- Supply install, implement and integrate a new higher capacity LTO library to the current Studio 300 news system.
- Replace existing HSM and establish redundant cluster of servers.
- Professional services is a must.
- A detailed BOQ must be provided.
- Including SLA Service.

General Terms and Conditions:

- The site survey is Mandatory.
- Bidders shall follow the below technical specifications taking in mind this RFP is an upgrade to the current existed system and do the implementation as per the requirement.
- The previous experience with such upgrade including the system installation, configuration and commissioning is a must for all bidders. And all bidders shall present a list of similar projects should be provided with the offer.
- The Bidder shall submit his bid in point by point form (Compliance List) whereby he agrees, disagrees, or wishes to modify any of the described clauses or items in the Technical Specifications.
- The Bidder shall include in his proposal a description of the proposed system. This information shall be in the form of drawings, written description of the overall system including details of the purpose, theory and method of operation of various items included, equipment lists, equipment layouts, control and indicator panel layouts, mechanical and technical performance specifications, and any other

information required to enable the MOI to determine the Bidder's intent in meeting the objectives of the Technical Specifications.

- All copies of the Technical Specifications, together with system drawings and its other annexes, remain the property of the Purchaser and must be returned to the Purchaser if requested.
- All services, Software and/or hardware needed to complete the required enhancement shall be provided by the bidder.
- All installation materials required shall be provided by the bidder.
- This is a turnkey project. Any item/work not mentioned in the tender document or BOQ but indispensable for the proper Installation/Implementation/Performance of this project, must be added to the BOQ, priced and described.
- The contractor shall arrange the grounding for equipment within the systems/ installation so that hum resulting from earth loops is eliminated. Whatsoever the arrangement used, he must not compromise the grounding procedure necessary to comply with electrical safety requirements.
- All equipment shall be clearly labeled with an identification relating to the designation of that component on the relevant functional or schematic diagrams.
- Finishes on racks, equipment, control panels, etc., shall be submitted to the Purchaser for approval in relation to color, texture and gloss.
- All cables at source & destinations will be marked with proper labeling equipment or markers, sleeved with color-coded sleeves in par with the schematic diagrams provided.
- All installation materials required shall be provided by the bidder.
- All equipment shall be clearly labeled with an identification relating to the designation of that component on the relevant functional or schematic diagrams.
- Finishes on racks, equipment, control panels, etc., shall be submitted to the Purchaser for approval in relation to color, texture and gloss.
- All cables at source & destinations will be marked with proper labeling equipment or markers, sleeved with color-coded sleeves in par with the schematic diagrams provided.
- Providing all necessary electrical works for the project.
- Specifications are matched with the existing system.
- Responsibility for installation, initial operation and delivery according to specifications.
- The warranty period is **2x Years (two Years Including Hardware and Software Support)**.

Technical Specifications:

Requirements:

1.	LTO Library	Qty-1
	<ul style="list-style-type: none">• LTO Library to replace existing library and re-use the content• 4x LTO-8 FC Drives• Minimum of 120 slots available and activated• 120 LTO-8, capacity 12TB native BaFe MLM Media (Certified)• 4x LTO Cleaning cartridge• Redundant power supply	

- Maximum scale up capacity: 560 slots and 42 drives.

2. HSM System

Content Management middleware is required for the replace the existing Flashnet system (Studio 300). The solution needs to manage a tape library. Archive/restore requests will be sent from an Avid PAM.

- Integration and control of a new Tape library with 120 slots and 4 LTO8 tape drives with permeants license.
- Windows Cluster supporting hot failover is required to host the Content Management software.
- Legacy content on Black Pearl LTFS LTO7 tapes – no migration of the content, the solution must be able to manage the existing tapes as soon as installed.
- Licenses should be reused at no extra cost.
- New content should be written on LTO8 LTFS tapes. SMPTE AXF format is required for the LTFS data partition.
- Direct Avid PAM integration must be supported.
- Multi Cloud support with support for AWS, Azure, Google, Alibaba, Wasabi, Tata IZO required for future usage.
- Web UI for the configuration, control and monitoring of the Archive solution.
- Native API connectors with Popular Video Transcoding Systems.
- REST API including configuration, system status, and commands.

3. Redundant Server Platform for Content Management Middleware Qty-2

Complete set includes the following:

- SFF Rackmount Server 2.3GHz 12C Xeon-G Kit
- 16GB 1Rx4 PC4-2666V-R
- 800W Redundant Power Supply Kit
- 9.5mm SATA DVD-RW Optical Drive
- 800GB x2 SATA 6G WI SFF (2.5 in) SC SSD
- Ethernet 1Gb 4-port adapter
- 16Gb 2p FC HBA
- SFP+ Transceiver 16Gbps x2
- Ethernet x2 10Gb 2-port 562SFP+ Adapter, Intel X710, No SFPs
- 10G SFP+ SR Transceiver x2
- Win Svr Std 2019 with 16 Core & 5 CAL license

4. SAN Storage with SAS Dual Controller

SAS Dual Controller SFF Storage

4.1 12x 4TB 12G SAS 10K 2.5in 512e HDD Qty-12

4.2 4x 600GB 12G SAS 15K 2.5in ENT HDD Qty-4

5. Portable LTO Drive Read/Write Qty-1

Magstor Dual LTO-8 SAS 8644 External Tape Drive

- 2 x LTO-8 6G SAS Tape Drives
- 12TB Tape Capacity (Native)
- 12G SAS SFF-8644 Connection
- LTFS and TAR compatible
- 30-Year LTO Media Archive Life

5.1 Server Platform for Portable LTO Drive Read/Write Qty-1

- Connections to LTO library Portable SFF-8644 12 Gb/s SAS ports
- Operating System: Microsoft Windows 10, Professional Edition.
- Processor: 4-Core Xeon E-Processor.
- RAM: 16GB.
- Managed Local Disk Cache 3.84 TB SSD
- System Disk: 480GB SSD
- LCD Monitor, Mouse and Keyboard

6. NLE Avid Media Composer Software, Perpetual License Qty-1

- Work with SD, HD, 4K, 8K, 16K, HDR, stereo 3D, IMAX, and other media ›
- Edit and finish with total color precision with the 32-bit floating point pipeline ›
- Get full color, effects, titling, and audio tools
- Share projects, media, and bins and collaborate with other editors ›
- Work with Avid NEXIS storage

6.1 PC Platform for NLE Software Suite, Minimum Specifications Qty-1

- Windows 10 Pro for Workstations (downgrade rights from Windows 11 Pro for Workstations)
- last generation of Intel® Gold Processor (2.5 GHz, up to 4.1 GHz w/Boost, 37.5 MB cache, 4800MHz, 16 core, 185W) or higher
- ENERGY STAR Qualified Configuration
- 64 GB (4 x 16 GB) DDR5-4800 DIMM ECC Registered Memory
- Operating System Load to M.2
- 1 TB Turbo PCIe 4x4 OPAL 2 Self-Encrypted
- 2X 8 TB 7200 RPM SATA Enterprise 3.5" HDD
- NVIDIA Quadro RTX (16 GB GDDR6 ECC, 4 x DisplayPort 1.4; FH)
- Type-A SuperSpeed USB 5Gbps Front IO v2 Entry Module
- color-coded text and icon keys for shortcuts and other commands
- Logitech MX Master Mouse with Mouse Pad
- 27-inch monitors for the creative professional
Color Edge CS27 16:9 Wide Gamut 4K IPS Monitor
Plane Switching (IPS) Panel

6.2 I/O Box for NLE Workstation Qty-1

- Capture and play back SD, HD, Ultra HD, 2K, and 4K media
- Work with Media Composer, DaVinci Resolve, Final CutPro & Adobe Premiere Pro
- 4x Sets of 4x SDI Connectors, 4x in & 4x loop
- 4x Out, 4x Repeated out, supporting up to 12Gb/s via single, Dual & Quad Link

- Supporting 2x Optical I/O Supporting 3Gb/s & 6Gb/s, 12Gb/s (modules not included)
- HDMI 2.0 I/O
- Analog video I/O—component and composite
- Balanced analog audio—4 XLR inputs, 4 XLR outputs
- AES/EBU—2 channels in, 2 channels out
- Stereo RCA input for consumer audio devices
- XLR mic input with 48V phantom power on front panel with level control
- Stereo headphone output with level control
- Monitor media ingest and output conveniently using the front-panel HD LCD display
- Select video, audio, and timecode inputs, or control decks, using front panel controls
- Connect to the latest generation computers using Thunderbolt 3 or PCIe connections
- Remotely control up to two external devices
- Redundant power supplies

7. NLE Eduis Software

Qty-1

- Superior 4K HDR workflow
- Edit media files with different resolutions — from 24x24 to 4Kx2K
- Fast, flexible user interface, including unlimited video, audio, title and graphics tracks
- Support for the latest file formats — Sony XAVC
- (Intra/Long GOP)/ XAVC S, Panasonic AVC-Ultra/AVC-Intra 422, AVC-Intra LT/LT 2K and Canon XF-AVC (import only), Sony RAW, Canon Cinema RAW/Cinema RAW Light, RED RAW, ProRes (Import only), DNxHD/HR (option), still image RAW
- Project import/export as EDL, AAF, FCP 7 XML (import only)
- OFX support for Magic Bullet and Sapphire plug-ins
- Support for high-resolution displays
- New video scope supporting HDR
- 60/50p timecode display

7.1 PC Platform for NLE Software Suite, Minimum Specifications

Qty-1

- High-Performance Online Editing, delivers the ultimate productive post workflow.
- last generation of Intel® Gold Processor (2.5 GHz, up to 4.1 GHz w/Boost, 37.5 MB cache, 4800MHz, 16 core, 185W) or higher
- System Memory 64GB DDR4-2666 REG ECC
- GPU Memory GDDR6 48 error-correcting code (ECC)
- Display Ports 4x DisplayPort 1.4
- NVLink 2-way low profile (2-slot and 3-slot bridges)
- NVIDIA vPC/vApps, NVIDIA RTX Virtual Workstation
- Primary System Storage 1.0TB SSD NVMe/PCIe 4.0
- Secondary Storage 2X 12TB 7200 RPM SATA Enterprise 3.5" HDD
- Edius color-coded text and icon keys for shortcuts and other commands
- Logitech MX Master Mouse with Mouse Pad

7.2 I/O Card for NLE Workstation

Qty-1

- High-Quality Video and Loudness Monitoring with 3G/HD/SD SDI
 - Automatic input format detection
 - Supports 525i, 625i, 720p, 1080i and 1080p video resolutions
 - Multiple frame rate support including 23.98p/PsF, 24p/PsF, 25p/PsF, 50i, 50p, 59.94i and 59.94p
 - Built-in scaler/deinterlacer
 - Connector: 3.5 mm (0.138 in.) stereo jack
 - Signal: IEC 60958
 - Embedded HDMI 8ch audio output for high-quality audio monitoring
 - Video/Audio output stays perfectly in sync with editing
 - Professional I/O Conectitv SDI & stereo jack
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- 8. A Pair of Active Speakers – Minimum 20W Qty-2**
- A Pair of 2-Way 100W Active Studio Monitor with 9000A Stereo Volume Control
 - Frequency Response 54 Hz to 20 kHz \pm 2 dB
 - Audio I/O 3-Pin Balanced Input
 - AC Input Power 100 to 240 VAC, 50/60 Hz
- 9. A Pair of Headphones Qty-2**
- Pro 250 ohm Over-Ear Studio Headphones For Mixing, Mastering, and Editing – Black
- 10. Equipment Rack with shelves Qty-1**
- Equipment rack need to be considered with minimum 42U to Accommodate all 4x Existing VTR's with MOI including the Addition of the following items:
- 11. 9" Monitor Rack Mount Type Dual LCD Qty-2**
- 2 x 9" or 4 x 5" True 8 bit LED Panel
 - 3Gb/s ready
 - 12 Bit Color Processing
 - 178 Viewing Angle Display
 - 3G SDI, RGB, YUV, Y/C, Composite, UXGA, DVI & HDMI (HDCP)
 - Display Advanced Waveform & Vector Scope simultaneously with line select
- 12. 21" Monitor Rack Mount Type For PGM Qty-1**
- 21" Rack-mountable Monitor
 - 3Gb/s ready – 1080/60P
 - 2 x Auto-detect HD-SDI, SDI with active loops (3Gb/s / 1.485Gb/s / 270Mb/s)
 - Dual HD SDI YPbPr 4:2:2 – Dual HD SDI YPbPr/RGB 4:4:4 & 2K
 - RGB, YUV, Y/C, Composite, UXGA, DVI(DHCP) & HDMI(DHCP)
- 13. 24" 4K Monitor for NLE Units Qty-2**
- 24" 4K – UHD Panel 2x 12G/3G/1.5G or 1x Quad 3G-SDI (2SI/SQ) input ports
 - 2 x 12G/3G/1.5G or 1 x Quad 3G-SDI (2SI / SQ) output ports

- 1 x HDMI 2.0a
 - 10 bit panel color depth
 - Supports up to 4096 x 2160 resolutions
 - HDR (High Dynamic Range) capabilities
 - PQ (SMPTE ST 2084) & HLG (Hybrid Log Gamma)
 - RGB 12 bit Digital Signal Processing
 - 178 degree Viewing Angle Display
- 14. 65" 4K UHD Monitor for Multiviewer Output with adjustable wall packet Qty-1**
- 65" 4K UHD Monitor for Multiviewer Output
 - Professional High Grade is required. Commercial type is not accepted.
 - Minimum 3x HDMI 2.0a Input
 - Min Resolution: 3840 x 2160
 - Min Contrast Ration 1200:1
 - 178 Degree Viewing Angle Display
- 15. Video Router Qty-1**
- 16x16 Single Link 3G HD serial digital video router 1RU Size
- 16. Multiviewer Unit Qty-1**
- 16x Input Single Head Multiviewer in 1RU
 - Single frame of processing delay in genlock mode
 - Accepts 16 3G (Level A)/HD/SD-SDI Inputs
 - Decode and display embedded Audio
 - Output Resolution up to 1920x1080P@50/59.94 Hz
 - Built-in CATx Extender
 - Ultimate level of layout flexibility, with unlimited signal repetition and sizing
 - Sophisticated on-screen alarm displays for clear operator alerts. Supports multicolor and blinking statuses based on severity, latching and status message
 - Analog audio monitoring
 - Hot swappable redundant power supplies
- 17. Technical Furniture for Archive Room Qty-3**
- A Broadcast Console to fit all the equipment related to archiving operations (VTRs, NLE, monitoring, etc.) is required to provide an efficient and ergonomic workspace specifically designed with a range of modular 19"equipment pods. It has to be manufactured in high quality contemporary materials by the Manufacturer with references in delivering technical furniture for broadcast control rooms in ME region.
- Each 19" bay features a continuous works surface brush strip for keyboard, mic & table cables and can be equipped with one of 20 plus 19" rack mount equipment pods of varying sizes. At the rear of each bay a hinged lift up flap provides access to a metal cable tray which includes 2U rack mount sections to mount power strips. In the base of each bay there is a 3U rack mount facility for

small form factor PC's & other control equipment which is accessible via front and rear removable panels.

- Each console bay shall incorporate a drop down to allow for system displays to be mounted on purpose designed monitor arms. Flat screen mounting arms are to be supplied suitable for both 75 and 100 mm Vesa mounts.
- Continuous horizontal cable management is provided in all 19" console bays and across the console for ease of wiring at installation and for future maintenance and equipment changes. In addition the console legs are hollow and feature removable access panels for ease of wiring and to provide fully concealed vertical cable management.
- Console bays and console profiles will be fabricated in solid black core 18mm MDF;
- Console end panels will be fabricated in 12 mm and 18 mm compact laminate;
- Console rear removable panels, lift up hinged cable access panels and 19" equipment pods will be fabricated in 12 mm compact laminate;
- Steel Powder Coated Cable Tray, with fabricated 19" rack mount section black powder coat.
- Each console to be 4x 19" bay width and fitted with two 4U angled desktop pods, and two monitor arms.

18. LTO-8 BaFe MLM Media 12TB Native with barcode Qty-10

19. ROI-SDI 3G-SDI to HDMI/3G-SDI Scan Converter Qty-1

20. V2Digital Analog to HD/SD-SDI Mini-Converter Qty-1

21. 24-PORT LAYER 3 MANAGED SWITCH Qty-1

- 24-port 10/100/1000 gigabit switch
- 4x gigabit SFP ports (2x combo)
- 24 ports support 802.3af PoE, 802.3at PoE+ and 802.3xx 60w PoE
- 1U rackmount
- Internal power supply

END OF SPECIFICATIONS

Bill of Quantity (BOQ)

Item	Description	Qty	Unit Price (KD)	Total Price (KD)
1	LTO Library	1		
2	HSM System	1		
3	Redundant Server Platform	2		
4	SAN Storage	1		
5	Portable LTO Drive Read/Write	1		
5.1	Server Platform for Portable LTO Drive Read/Write	1		
6	NLE Media Composer	1		

6.1	PC Platform for NLE Software Suite	1		
6.2	I/O Box for NLE Workstation	1		
7	NLE Equis Software	1		
7.1	PC Platform for NLE Software Suite	1		
7.2	I/O Card for NLE Workstation	1		
8	A Pair of Active Speakers	2		
9	A Pair of Headphones	2		
10	Equipment Rack	1		
11	9" Monitor Rack Mount Type Dual LCD	2		
12	21" Monitor Rack Mount Type For PGM	1		
13	24" 4K Monitor for NLE Units	2		
14	65" 4K UHD Monitor for Multiviewer Output	1		
15	Video Router	1		
16	Multiviewer Unit	1		
17	Technical Furniture for Archive Room	3		
18	LTO-8 BaFe MLM Media 12TB Native with barcode	10		
19	ROI-SDI 3G-SDI to HDMI/3G-SDI Scan Converter	1		
20	V2Digital Analog to HD/SD-SDI Mini-Converter	1		
21	24-PORT LAYER 3 MANAGED SWITCH	1		
	GRAND TOTAL - KD			

رئيس قسم الأرشيف الرقمي الأخبائي

مرفق CD .

