

RFP No. 01/Schools/ATO/KMC/Date: 11-12-2017

**GOVERNMENT OF ANDHRA PRADESH
MUNICIPAL ADMINISTRATION DEPARTMENT**

Package-I

**KADAPA MUNICIPAL CORPORATION
Y.S.R KADAPA DISTRICT**

REQUEST FOR PROPOSAL (RFP)

For

Supply, Installation, Commissioning, and Maintenance of Virtual and Digital Classroom Solution with Interactivity along with Content and Related Software Platform with Analytics for Municipal High Schools, in Kadapa Municipal Corporation, Y.S.R Kadapa District.

Issued By:

**Commissioner,
Kadapa Municipal Corporation,
Railway Station Road, Besides Traffic Police Station,
Kadapa-516001.**

Key Dates

S. No.	Activity	Start Date	Time
1	Bid Calling Date	11-12-2017	10:30 AM
2	Pre-bid Queries: Any Queries related to bid, may be sent to email: apusp11@gmail.com	16-12-2017	10:30 AM
3	Posting of response to queries (Any Corrigendum / reply will be replied to the same email)	16-12-2017	04:00 PM
4	Last date for Physical submission of Bids at O/o Commissioner, Municipal Corporation, Kadapa	30-12-2017	05:00 PM
5	Bid Opening date	03-01-2018	11:00 AM
6	Date of opening of Financial bids	08-01-2018	

Annexure – I – LIST OF SCHOOLS
Package-I (Kadapa Municipal Corporation, Y.S.R Kadapa District)

For Supply, Installation, Commissioning, and Maintenance of Virtual and Digital classroom Solution with Interactivity along with Content and Related Software Platform with Analytics for Municipal High Schools, in the Kadapa Municipal Corporation.

MUNICIPAL ADMINISTRATION DEPARTMENT

Statement showing the information about the requirement of Digital Boards in Municipal High Schools, Kadapa Municipal Corporation, Y.S.R District.

S.No	Name of the District	Name of the ULB	No. of High Schools	No. of Digital Boards Required	Total No. of Digital Boards Required
Package-I					
1	Kadapa	Kadapa Municipal Corporation	8	73	73

SNo	Name of the School	Class Rooms	Digital Boards proposed
1	Mpl.Corp.High school (main)	20	17
2	Mpl.Corp.High school (Gandhi Nagar)	17	14
3	Mpl.Corp.High school ,Nagarajupeta	5	5
4	Mpl.Corp.High school ,Sipeta	5	5
5	Mpl.Corp.High school ,Urdu Girls	15	12
6	Mpl.Corp.High school ,Urdu Boys	13	10
7	Mpl.Corp.High school,Nakash	5	5
8	Mpl.Corp.High school,Salenagaiah	5	5
TOTAL			73

Annexure – II (A) – TECHNICAL SPECIFICATIONS

1.	COMPUTING
CPU:	Core i-3-7100 Processor with 3.2GHz, 6MB Cache, 4cores Intel HD Graphics 530 Intel H110 Chipset Board
Memory:	4GB DDR4-2133 DIMM (1X4GB) expandable upto 32GB
Hard Drive:	1 TB 7200 RPM SATA HDD
Ports:	180W APFC Chassis with 8USB Ports minimum
DVD R/W:	Suitable to the above system DVD R/W
Cabinet :	Mini Tower or higher
Network Port:	Integrated 10/100/1000 Gigabit Ethernet on board integrated
Operating System:	Windows 10 Pro 64bit OS
Keyboard:	104 Keys OEM English Keyboard with USB interface.
Mouse:	Optical Mouse with USB interface
Warranty:	Comprehensive onsite warranty for 2 years followed by 3 years of AMC.
UPS:	1Kv for every unit (Classroom)
Anti-Virus:	Total protection for 3years

2.	NETWORKING SPECIFICATION
LAN Equipment	24 Port Smart Switch with loop back detection, 24 x 1 CAT6 Patch Panel, RJ-45 connector, I/O box, Necessary electrical items and cables to connect and access device/terminal to desktop computer as per requirement.
Make of 24 Port Smart Switch	D-Link/DAX/Cisco/HP/HCL
Warranty	Comprehensive onsite warranty for 2 years followed by 3 years of AMC.

3.	INTERACTIVE WHITE BOARD/WHITE BOARD WITH INTERACTIVE DEVICE/WHITE BOARD WITH INTERACTIVE PROJECTOR (WITH MOUNTING KIT)
Active Size	Minimum 77/78" diagonal or above
Technology	Infrared or latest technology*
Board surface	Scratch resistant, Solid surface; maintenance free, Compatible with ink marker.
Aspect Ratio	4:3 or 16:9 or 16:10
Writing Tools	Pen/ stylus (rechargeable)
Tracking Speed	60-70 FPS (Extrapolated upto 200 FPS)
System Calibration	Automatic Calibration
Operating system compatibility	Compatible with Windows 10 or Equivalent operating system
Computer Interface	Standard one USB
Power	Through USB Port

Annotation software	Annotation software shall include features like draw, pens, annotate, erase, colour, shapes, sizes, text, edit, fonts, stamp, move, capture picture, video, save, rotate, undo, image gallery, print, floating key-board and background etc.
Warranty	Comprehensive onsite warranty for 2 years followed by 3 years of AMC.

4.	PROJECTOR SYSTEM - SHORT THROW	
Projection System	LCD or any technology - Short Throw Projector (with throw ratio: 0.48)	
Native Resolution	WXGA(1280 x 800)	
Brightness	3200 ANSI Lumens (colour light output and white light output each)	
Contrast Ratio	13000:1	
Aspect Ratio	4:3, 16:9, 16:10 and other prominent Aspect Ratios	
Lamp Life(Normal/Economic Mode)	4500/6000 hours	
Remote Control	Full Function remote control unit for projector (To be supplied along with the projector)	
Interface	Computer in (D-sub 15pin) x 2 (Shared with component) Monitor out (D-sub 15pin) x 1 HDMI x 1 Audio in (Mini Jack) x 1 Audio out (Mini Jack) x 1 Speaker 2W x 1 USB (Type mini B) x 1 RS232 (DB-9pin) x 1 IR Receiver x 1 (Front & back), speaker as 10W or higher	
Video compatibility	PAL, SECAM, NTSC, HDTV.	
Warranty	Comprehensive onsite warranty for 2 years and an additional 3 years AMC.	

5.	Webcam for Virtual Classroom and Microphone	
	USB3.0 super speed output or higher 12MP optical lens, 4xdigital zoom or higher 108-degree field of viewing or higher 720p30 FPS high definition or higher WDR, 3DNR, BLC, Anti-flicker feature UVC control (via USB3.0 port) Over all Warranty For entire equipment for 2 years (Warranty that including AMC) and additional 3 years of AMC	

6.	Details of Audio System
Digital Signal Processor	The DSP should have a 100% Full Duplex Echo Cancelling-no attenuation during full-duplex.
	The system should be Acoustic echo cancellation- >40 dB High-end performance
	The system should be Noise suppression- >10dB
	The system should have De-reverb filtering feature
	Should be Bandwidth of 20-7500 kHz for speech processing maintains the soundcard bandwidth
	The DSP should have USB port for integrating with Unified Software solutions like Skype, Lync, etc.
Wireless Microphone Features	2 no. of wireless Microphones should be supplied along with DSP from day one or more.
	The Microphone should have Frequency band of UHF 610MHz - 680MHz or better.
	The system should be Microphone Frequency Response- 80Hz~18KHz
	The system should have the facility to control the gain of microphone.
	The system should have LED indicator for status.
Amplifier Features	The system having inbuilt digital amplifier.
	The Amplifier should consist of a 100 Watts (50 WattsX2) at 8 Ohms.
	The Amplifier should have S/N Ratio of >80dB.
I/O Ports	USB voice interface X 1 or more
	XLR Balance In X 2(individual gain control) or more
	Aux port X 1 or more
	Amplifier L/R speaker out X 2 or more
Wall Mount Speakers	The System should come up with 2 Wall Mount Speakers. The Speakers should come with 4.25 Inches Driver and .75 inch or more High Frequency Driver. The speakers should have a frequency range of 80Hz to 20KHz or better. The Speaker should have a 30 Watts or more continues peak power. The speaker should have a maximum SPL of 100dB or more. The speakers should be ROHS and UL certified.
Form Factor	The system should be standard 19 inches Rack Mountable or better.

Annexure – II (B) - SPECIFICATION OF SOFTWARE AND DIGITAL CONTENT

1.	Should support about 6000 smart classes on same call simultaneously with two-way interactivity between teacher and students.
2.	Should be able to stream video seamlessly at more than 20% packet loss
3.	Teacher or admin should be able to schedule classes from a cloud hosted application which supports features such as lesson planning, assessments, analytics, customizable reports etc.
4.	Comprehensive lesson planning: The lesson planning tool should enable teachers to create effective lesson plans in a very short span of time and push the relevant resources to students in a scheduled manner by integrating the Multi-level curriculum mapped content and additional external content into the lesson plan.
5.	Multi-level curriculum mapped content: Interactive multimedia content that is mapped to the curriculum and helps teach complex topics in a very simple manner should be provided.
6.	Student monitoring: Teachers should be able to keep track of students activity log and guide them carefully through the learning process
7.	Assessment/assignment for CCE: Should have question bank of over 1,00,000 questions through which teachers can continuously assess
8.	Report generation: Assessments conducted digitally should be graded automatically and reports should be generated automatically cutting down on time spent by teachers on these tasks.
9.	State/District/Mandal/Student level analytics: The platform should generate report/ analytics that help teachers and policy makers to take important decision by deriving trends from the generated reports and the data available in the system
10.	Operating System: Software compatible with Windows
11.	Contents are mapped as per AP State Govt Curriculum for class I to X Contents should be available in English as well as Telugu.
12.	The multimedia educational contents should be mapped as per class wise, subject wise, chapter wise and topic wise.
13.	Standard lesson plans as per AP State Govt Education Syllabus for class I to X. Facility to customized lesson plans by the teacher.
14.	Size of font for easy viewing from back benchers and quality of audible voice should be sound.
15.	A blend of Videos, Interactive material, pictures, flowcharts and text that unfolds all the concepts in a layered, structured and hierarchical format.
16.	Inclusion of multimedia content based on story lines, minimum 2D animation, interactive games, live coverage, real life examples, music and riddles etc.
17.	Facility to incorporate own multimedia contents and contents from other resources like Computer Aided Learning (CAL), Directorate Of Education.
18.	Provision to incorporate E-books especially of AP State Govt School Education Syllabus.
19.	Availability of virtual lab.
20.	Gallery/Galleries of well-known websites.
21.	AP State Govt (SCERT) Syllabus specific MCQs, Quizzes, Chapter wise Question with answer, Higher order Thinking based questions (HoTs), Model Summative Assessment question papers and Value based Question (VBQ)
22.	Practice material for OTBA (Open Text Based Assessment)
23.	Practice material for CCE based assignment.
24.	Facility to change platform of digital contents from English to Telugu and vice versa.

25.	Echo free intelligent audio system.
26.	Facility to generate administrative reports as regard usage of software by the individuals in the smart classroom; preferred: subject wise, class wise and teacher wise usage report and printable thereof.
27.	There should be proper security features to protect the system from misuse within the class and online
28.	Support Manual (to include Installation academic content, Administration Manual and operational, instructional User Reference etc.) in English/Telugu.
29.	Educational digital content should be as per Subjects, Medium and syllabus as stated in table in Annexure- II (B).

Note:

- All the hardware related to server, bandwidth etc., and software infrastructure required for the solution should be handled by the bidder.
- **OEM MAF mentioning the RFP reference needs to be attached along with the technical bid.**