



Engineering, Installing and Supporting A/V and Broadcast Systems

April 30, 2019

City of Columbus, Ohio
Department of Technology
H. Samuel Orth III
RFQ 012127
Automated Close Captioning System

Dear Mr. Orth,

iVideo Technologies respectfully submits the attached response to RFQ012127, Automated Close Captioning System for CTV. Myself, Mike Sparke, Senior Account Manager for broadcast and production solutions in the central and southern regions of Ohio, was the creator of the design for our submittal. It was reviewed for technical accuracy and for the determination of the labor costs and materials by Paul Spence, Director of Engineering in the corporate office. Contact information is provided at the end of this document. All questions or concerns about the quotation should be submitted to Mike Sparke.

iVideo Technologies is a fifty plus year old Ohio based design, integration and support company providing technology solutions to the broadcast and government CTV organizations.

With corporate offices located in Cleveland, Ohio and regional offices in Columbus and Cincinnati, iVideo Technologies is a privately held LLC with a FEIN number of 27-4267240. iVideo is also a Small Business Enterprise as recognized by the US government.

Our client base includes numerous television broadcast stations, government CATV channels, major universities, professional sports teams and their venues, Houses of Worship and video and film production companies nationwide. We are known for our innovative technology solutions, high quality installation abilities and superior customer service.

iVideo was instrumental in bringing the equipment that is the basis for this RFP. We have provided demonstrations of the hardware and numerous phone and on-site consultations.

iVideo Technologies is proposing the installation of a Link Electronics, ACE-2200 automated speech recognition system that provides over 95% accuracy on average. The unit decodes the audio on either a live broadcast or preproduced video. The technology is not just simple voice to text recognition, but is true speech recognition. It takes into account homonyms such as wear, where and ware by analyzing multiple words before and after the word it is processing.

The Link ACE-2200 meets or exceeds all of the specifications in section 5.5 of the RFP. For additional information about the system you will find an attached manufacturer's Data Sheet. For this RFP we are proposing to in-shop and on-site configuration and installation. The quote is all inclusive of the requirements of the RFP. The ACE-2200 is a mature product that is deployed in numerous broadcast facilities around the country. It was first made available in 2017. iVideo will assist and participate in the manufacturer's training. The training will be provided at no charge via a WebEX/Video Conference format immediately following completion of principal installation.

iVideo Technologies has had a dealer/reseller partnership with Link for over 10 years. It is our belief that the Link Electronics ACE-2200 is the best solution to meet the needs of the City of Columbus.

iVideo has installed or participated in the specification of this system for two clients in the last year. One for the PBS television station at the University of North Carolina and one for the Cleveland Clinic/Case Western Reserve University in Cleveland, Ohio.

iVideo Technologies warrants the installation labor and materials for 30 days after final client acceptance. iVideo will act as an intermediary for continued hardware and software support, facilitating as needed additional representation for the City of Columbus with Link Electronics. Link Electronics offers a one-year parts and labor warranty with software, advance equipment replacement, 24/7/365 tech support via phone and web-based technology. In response to the RFP's required five-year warranty we have provided the cost for the annual service and technical support for years 2-5. The cost of these required additional years of warranty causes the cost to be above the anticipated budget. Support does not have to be purchased at the time of award for years 2-5, it can be purchased at any time while the system is under warranty or under a support contract at the applicable current cost for the extended support.

We appreciate this opportunity to serve the City of Columbus.

Best regards,



Mike Sparke
Senior Account Manager

CONTACT INFORMATION:

iVideo Technologies Staff:

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Middleburgh Heights, OH 44130
440-325-2311 (D)
216-536-8882 (M)
pspence@ivideo.com

Link ACE-2000 Series Clients:

Brad Strom
WUNC
10 T.W. Alexander Dr.
Research Park, NC 27709
919-549-7804 (D)
919-306-1827 (M)
bstrom@unctv.org

Bob Tetzloff
Case Western Reserve University
10620 Cedar Ave.-RM 1
Cleveland, OH 44106
216-368-6587 (D)
bxt111@case.edu

General Client References:

Steve Sobel
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801 Plum St.
Cincinnati, OH 45202
513-352-5308 (D)
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George Hopstetter
WTIU-Indiana University
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1167 Globe Ave.
Mountainside, NJ 07092
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eric@teletimer.com



April 30, 2019

City of Columbus Purchasing
Robin Cook
77 N. Front St., 5th Floor
Columbus, OH 43215

Project: RFQ012127 Closed Captioning
Quote: 0008265
Terms: Net 30
Shipping: FOB Destination

Item	Qty	Manufacturer	Model #	Description	Unit Price	Total Price
1	1	Link Electronics	ACE-2200	ACE-2000 with ACE-2100 in one unit (on & offline systems)	\$ 65,300.00	\$ 65,300.00
2	1	iVideo Technologies	INSTALL SERVICES	Provide in-shop and on-site installation services. Includes materials and travel costs.	\$ 5,970.00	\$ 5,970.00
3	1	Tripp Lite	B021-000-19	Rack Console KVM Cable Kit w/ 19" LCD PS/2 1U TAA GSA - 1 Computer(s) - 19" Active Matrix TFT LCD - 1U Height KEYBOARD USB PS2 KVM SWITCH For control of ACE-2200 in rack room.	\$ 785.00	\$ 785.00
4	4	Link Electronics	ACE-2200 EXTENDEDWARRANTY	ACE-2200 extended warranty- software/ hardware service and maintenance, 2nd through 5th Year as required by the RFP. Can be purchased yearly at the current support cost for the date of purchase.	\$ 7,000.00	\$ 28,000.00

Total Equipment: \$ 100,055.00
Estimated Shipping: \$ 50.00
Sales Tax: \$ -
Total: \$ 100,105.00

iVideo Technologies' Representative:


Mike Sparke, Senior Account Manager

Date: April 30, 2019

Client Representative:

Date:

Purchase Order Number:

Scope of Work

iVideo Technologies' Responsibilities:

- 1.0 The Project Manager will contact client and review and coordinate installation schedule.
- 2.0 Provide installation of components as listed above in accordance with manufacturers' recommendations.
- 3.0 Provide in-shop configuration and testing of equipment prior to installation.
- 4.0 Coordinate on-site installation with customer for 8:00am - 05:00pm, Monday - Friday.
- 5.0 Supply all required low-voltage cabling following NEC requirements.
- 6.0 Supply all required connectors and terminate following AV industry standards.
- 7.0 Test all equipment for proper operation both as individual items and as a complete system.
- 8.0 Provide operational documentation for installed equipment.
- 9.0 Provide written description, drawings or pictures where appropriate confirming proper installation practices.
- 10.0 Provide on-site operational orientation for complete system.
- 11.0 Install server into OFE racks.
- 12.0 Configure system software on OFE computer
- 13.0 Configure system for internet access through OFE computer and OFE network to facilitate system updates and remote diagnostic
- 14.0 Perform basic system operational overview and participate in manufacturer's online training

City of Columbus Purchasing Responsibilities:

- 1.0 Upon receipt immediately inspect any items drop shipped and inform iVideo of any freight damage within 24 hours of delivery.
- 2.0 Provide proper AC power for all equipment locations and coordinate proper placement with iVideo.
- 3.0 Provide all required outside signal sources including network, phone, antenna, cable and/or satellite.
- 4.0 Coordinate a block of consecutive hours of access for installation from 8:00am - 05:00pm, Monday - Friday.
- 5.0 Provide iVideo with at least 72 hours notice for any changes in installation dates. Any notice within 72 hours or an inability for iVideo to access a site will be charged to a client.
- 6.0 Provide any required rough-in conduits, in-wall boxes and signal path-ways.
- 7.0 Provide any required permits or licensees.
- 8.0 Provide any required special pre-installation structured supports such as in-wall backing.
- 9.0 Review and approve all packing lists and project checklist.
- 10.0 Provide required installation space with proper ventilation (HVAC) for installation of all equipment.
- 11.0 Inspect and confirm good working order of owner-furnished equipment, media, and/or software with iVideo Project Manager.
- 12.0 Understands that all change orders will require written approval from an authorized person.
- 13.0 Will not download and install 3rd party programs / upgrades without contacting iVideo.
- 14.0 Will not download and install software updates without contacting iVideo.
- 15.0 Inspect project and confirm that the complete system is working and has been properly installed within 24 hours of project completion.
- 16.0 Provide complete and timely payment according to terms of project agreement, etc.
- 17.0 Provide a minimum of 6 RUs for server/keyboard/monitor installation
- 18.0 Provide APS for system protection in case of a general system power failure
- 19.0 Provide OFE computer with monitor, keyboard and mouse for system operation and set-up
- 20.0 Provide system input/output video connectivity that includes embedded audio. Installation into an existing SDI router is preferred for the ultimate flexibility
- 21.0 Assist the iVideo installation team with integration of the system into the owner's IT/Network infrastructure.

Note: The Scope of Work represents the work to be performed by iVideo Technologies and City of Columbus Purchasing.

We understand, acknowledge, and accept the above scope of work.

Michael Sparke - iVideo



Date: 4/30/19

Robin Cook - City of Columbus Purchasing

Date:

Terms and Conditions

The following terms and conditions apply to the above quote and the subsequent order. This order means that iVideo Technologies and the purchaser have come to a complete agreement as to the list of materials, the costs and in some cases the labor charges as spelled out in this document.

Payment Terms: All orders are cash on delivery unless credit is approved and an open account is established. Open accounts are a courtesy that is available upon the satisfactory completion and review of a credit application. Accounts cannot be opened until iVideo Technologies has received written responses to its inquiries. Accounts will have credit limits and specific payment terms as determined by iVideo Technologies. An open account is subject to a service charge of 1.5% per month when the payment is 30 or more days past due. iVideo Technologies may close an open account at anytime and at its sole discretion. State and local taxes are the sole responsibility of the purchaser. For purchasers based in the State of Ohio applicable sales taxes will be charged unless the purchaser provides a valid tax exemption certificate prior to the acceptance of the quote by iVideo Technologies.

Condition and Owner Furnished Goods: All goods sold by iVideo Technologies will be new and in factory direct condition. The customer will be informed of any non-new conditioned items such as demo, used, returned or opened products. iVideo Technologies has no liability or responsibility for product compatibility on customer furnished products.

Warranty: iVideo Technologies supports its workmanship for a period of 30 days from the installation completion date. In addition, iVideo will pass along manufacturers' warranties to its client. During iVideo Technologies' 30-day workmanship warranty period it will facilitate and install products covered under the manufacturer's warranty at no charge. All coverage and assistance outside of this 30-day period requires a maintenance agreement and will have a separate charge.

Returns: Any equipment returned to iVideo Technologies must be approved by iVideo Technologies. Standard equipment items returned are subject to a 25% processing fee and may be subject to an additional manufacturer's restocking fee. No item will be accepted for return without complete, original packaging and it must be in good, new condition. All software sales are final. Any custom built cabinetry, cases, carts and items ordered under non-standard manufacturer's specifications are not returnable.

Cancellation: The sales order is non-cancelable once accepted and processed by iVideo Technologies.

Security Agreement: By placing an order the purchaser agrees to iVideo Technologies' continued secured interest in the equipment or system until such time as the purchaser's financial obligation to iVideo Technologies is complete. iVideo Technologies retains the right to reclaim the equipment or system if the purchaser does not complete their financial obligations.

Shipping and Insurance: All orders are freight on board Cleveland, OH. Unless otherwise state shipping charges and insurance are the responsibility of the purchaser. The shipping charges shown in the proposal are estimates and can vary from actual charges billed. iVideo Technologies reserves the right to insure shipments at the purchaser's expense. Upon receipt of the item the purchaser must inspect it for any and all damage incurred during shipping. It is the customer's responsibility to notify iVideo Technologies within 24 hours of any shipping damage. iVideo Technologies takes no responsibility for damages caused in shipment.

Delays: iVideo Technologies is not liable fiscally or otherwise for delays caused by acts of weather, union strikes, civil disturbances, war, manufacturer's product availability, or other issues. iVideo Technologies will make its best efforts to make the purchaser aware of any delays. Delays during installation may cause additional labor charges. If an installation is delayed due to conditions outside the control of iVideo Technologies the purchaser will be invoiced for items specifically ordered for the installation and are yet installed.

Installation: Unless otherwise noted in the quote, installation is the responsibility of the purchaser. For quotes that include installation there will be an additional document Scope of Work that will indicate iVideo Technologies and the purchaser's specific responsibilities to the completion of the installation. The Scope of Work is to be signed by the purchaser before the order for installation is processed. Any changes from the Scope of Work requires a Change Order which may cause additional charges to the purchaser.

Business Insurance: All iVideo Technologies installation technicians are covered under workman's compensation insurance for the State of Ohio. iVideo Technologies is also a Drug Free Workplace. If required iVideo Technologies will supply the purchaser with proof of insurance. Any insurance that is required by the purchaser and is not of a type or value currently held by iVideo Technologies, the cost of that insurance will be the responsibility of the purchaser.

Validity: The quote is valid for a period of thirty days. After that time iVideo Technologies reserves the right to adjust any pricing. For install projects, if the Scope of Work or products purchased changes, iVideo Technologies retains the right to adjust the quote accordingly.

Intellectual Property: The list of materials that constitute a "system" as spelled out in the quote is the intellectual property of iVideo Technologies. The quote can not be shared with persons not employed by the proposed purchaser. By requesting iVideo Technologies to provide a quote the proposed purchaser enters into an agreement to bargain and negotiate in good faith. Providing details of the quote with parties outside of iVideo Technologies and the proposed purchaser's organization will constitute a breach of the agreement.



ACE 2000

Automatic Captioning Engine

Features:

- RS 232 Captioning
- IP Captioning
- Remote GUI
- Event Scheduler
- AES Input
- Analog Audio Input
- SDI Embedded Audio Input
- HDMI Embedded Audio Input
- 2 thru 4 Line Roll-up Captions
- Selectable Caption Location



The ACE-2000 is an Automated Captioning Engine that will receive audio containing speech and send out captioning data to be encoded by a closed captioning encoder. The unit uses a cutting-edge computational linguistics program to convert speech to text and then sends that text out with captioning data. The captioning data and text can be sent out by either RS 232 (Serial) or TCP/IP.

SDI, HDMI, AES, or Analog Audio Input

The ACE-2000 can receive audio input from one of several sources. It can de-embed the first two channels of audio from an SDI input or an HDMI input. Balanced AES or balanced analog audio are other sources that the system can receive audio from. The system can receive streaming audio using http, tcp, udp, mmsh, and most types of rtp and rtsp, supporting the most commonly used codecs. The Link Audio over IP (AoIP) Player can also be used as an audio source. *The player is available on the Link Electronics web site www.linkelectronics.com*

Remote GUI and Event Scheduler

The ACE-2000 has a web based Graphical User Interface (GUI) that allows remote control of the system. The GUI contains an event scheduler that allows you to use different audio inputs and caption outputs at different times. The unit comes preset with standard audio and caption data outputs for Link encoders making the setup for this device simple. A keyboard, mouse, and monitor are required to change the settings from the standard setup. The ACE-2000 will be configured to run (plug and play) by default. The configuration may be adjusted at customer request.

The ACE-2000 is also available in two convenient bundles. The SCE-492 superior caption encoder, and the AIP-494 caption encoder and audio over IP are the bundle options for a complete automated captioning and encoding solution.

Exceptional Technical Support

The ACE-2000 is backed by Link Electronics 1-year warranty and 24/7 free customer support. It meets the innovative, high performance, flexibility, and reliability requirements of all Link Electronics products.

**Audio Inputs (one at a time):**

AES: One Balanced XLR Female
Analog: Two Balance XLRs Female (Left and Right)
SDI Embedded: One 75 Ω BNC
HDMI Embedded: One Type A Receptacle

Caption Data Outputs (one at a time):

RS 232: DE-9 (DB9) Male
Ethernet: TCP/IP

Internal:

CPU: Intel I7 6th Generation
RAM: DDR4
Drive: SATA 3 (6 Gb/s) Solid State Drive
Operating System: Windows 10 IoT Enterprise LTSB (Windows 10 Embedded)
Power: ATX 500W Switching Power Supply (Redundant Optional)

Rear Panel:

USB 3.1: Two Type A & C
USB 3.0: Four Type A
USB 2.0: Two Type A
Ethernet: RJ-45, Intel Gigabit LAN
Monitor (not included): VGA, HDMI, DVI-D, DisplayPort
Keyboard & Mouse (not included): One PS/2 or USB
Rack Mount Monitor, Keyboard, and Mouse: Optional
Rack Mount Sliding Rails: Optional

Front Panel:

USB 2.0: Two Type A
Power Switch: Rocker
Reset: Push Button
Power indication: Blue LED
Drive Activity: Red LED
Lock: Limit Access to Switches and USB

Environment:

Ambient: 0° C to 60° C
Relative Humidity: <95% non-condensing

Mechanical:

Height: 3.5 Inches (2 RU)
Width: 17.5 Inches
Depth: 19.0 Inches
Weight: 26.5 Lbs

The manufacture reserves the right to change specifications without notice

APPENDIX A
COMPANY/PRODUCT QUESTIONNAIRE
1.0 General Questions

1.1 Company name and address:

Corporate Headquarters:
iVideo Technologies
6779 Engle Rd Suite G
Middleburg Heights, OH 44130
440-891-9440

Regional Office:

iVideo Technologies
659C Lakeview Plaza
Columbus, OH 43085
614-509-2360

Direct Project Contact:

Mike Sparke
513-317-8732
msparke@ivideo.com

1.2 Total number of years in business, **50 years**

1.3 Total number of years providing the business/service requested, **50 years**

1.4 Total number of employees **30**

1.5 Total number of employees dedicated to the type of business/services requested, **15**

1.6 Total number of current clients (all services) **Do not disclose**

1.7 Current number of clients for this type of business/service. **Do not disclose**

1.8 Public Corporation Y/N; **No, LLC**

1.9 Is your most recent annual report available online? **No**

1.10 Duns Number **05-837-4919**

1.11 Total Revenues. **Do not disclose**

1.12 **Cleveland Clinic/Case Western Reserve University**
American Teletimer
WUNC, University of North Carolina

1.13 Is your company a "Minority Business Enterprise (MBE)?" **No**

1.14 Please describe any existing or pending business arrangements your firm may have with City or any of its personnel **None**

1.15 Do you use sub-contractors and/or 3rd party companies in your implementation or installations? **No**

2.0 Licensing Methods, Pricing and Costs

2.1 Please list the different ways that you license your hardware solution along with the standard pricing applicable for each type. **All licensing is through the manufacturer and is part of the pricing for the unit's first year. The extended 5 year warranty covers years 2nd-5th and is priced per year when purchased as part of the initial purchase and is 4 times the cost of a single year's support and licensing.**

2.2 Is there any 3rd party software required? **No**

2.3 Please give pricing for your technical support. (Must be 24/7 support) **See 2.1 and pricing on submitted quotation.**

2.4 Provide information on pricing for yearly support and/or maintenance. **See 2.1 and pricing submitted on quotation.**

2.4 cont'd. What services and software does the yearly support and/or maintenance include? **The Link ACE-2200 Closed Captioning Server System, both hardware and software**

2.5 Please provide a soft copy of your standard, Software License Agreement, Maintenance Services Agreement and Service Level Agreements, **Software and hardware are covered for the first year. Each additional year is an additional charge. The charge is currently \$7000 per year and is subject to change. Multiple years of continued support are available to be purchased at any time during the first year of support.**

3.0 Product Background

3.1.1 Partnerships **None**

3.1.2 Industry Partners **None**

3.1.3 Consulting Partners **None**

3.1.4 Market Position **Industry Leader**

3.1.5 Number of Installations in production **62**

3.1.6 Approximate market share **50-60%**

3.1.7 Approximate market share last year **50-60%**

4.0 Product Maturity

4.1.1 How long has the product been available? **3 years**

4.1.2 Describe the history of the product's code base **N/A**

4.1.3 How many outstanding defects exist against the current version? **0**

4.1.4 Describe the strategic direction for the product line including any planned major enhancements? Include product roadmap for the duration of warranty and product life with life cycles of all equipment provided. **To Continue adding addition language and upgrade to enhance the experience for the hearing impaired.**

4.1.5 Provide the product patch and upgrade frequency **Daily**

4.1.6 Industry Awards, Articles, Third Party Evaluations **N/A**

4.1.7 Please attach a copy of any articles or third-party evaluations of your product **N/A**

5.0 Dependencies on other technologies

5.1.1 Identify those products that are not included with your product but are required for normal operation and functionality (e.g. VMWare NSX, Dark Fiber Infrastructure, etc.) **N/A**

5.1.2 Please indicate any technology that is bundled with your solution but is made by a third party

6.0 Third Party Offerors Integration

6.1.1 Indicate any offerors and their products that integrate or provide add-on functionality to your product **System can work with other third party encoders**

6.1.2 OEM Relationships **None**

6.1.3 Indicate any offerors and the related product lines that are currently integrating your products into their solution offerings **N/A**

7.0 Product Architecture Overview

Offeror should provide an architectural solution overview, including:

7.1.1 Specify the key physical operating characteristics of the device models proposed, including size, height, weight, airflow, power consumption, operating temperature and overall mean time between failure (MTBF) of the entire device. **The unit itself is 2rus in height (3.5”) and operates in an environment that ranges from 0-60 degrees Celsius with minimum heat output. It is recommended that there is a vented panel (1ru) above and below unit.**

7.1.2 Specify the expandability of the devices — are they modular or upgradable from an interface and/or fabric perspective. **Unit is self-contained and not designed for expansion other than the addition of a second unit.**

7.1.3 Describe the cabling supported and required for the devices (e.g., copper, Fiber) and any transceivers required. **Requires a single HDSDI cable with embedded audio. It also requires an ethernet connection for internet and access for updates, normal RJ45.**

7.1.4 Describe the CPU and memory of the devices, if not provided in the specifications literature.

7.1.5 Describe any “green” initiatives or solutions included in the proposal.

7.1.6 Describe any differentiating or highly innovative hardware capabilities compared with leading competitors.

7.1.7 Define power and cooling requirements.

8.0 Support

8.1.1 Describe the local technical support options available and the related cost structure **Operational/software/hardware support is handled through the manufacturer. Local support is limited to issues with the installation and would be addressed to the primary contact. See 2.1 for more info.**

8.1.2 Do you have any local technical support resources? **See 8.1.3 for Link Electronics support contact info.**

8.1.3 Describe how the City will obtain direct access to the offeror's standard Tier-II or Tier-III resources when needed. ***For product support, call 573-334-4433. For installation support contact Mike Sparke at 513-317-8732***

8.1.4 Describe offeror's helpdesk availability during normal and extended business hours, and whether the City's Staff will have access to dedicated offeror support resources when the offeror's helpdesk is closed, and network or implementation related incidents occur. ***See 8.1.3***

9.0 Ctv Playback Facility

9.1 Provide the physical dimensions of the proposed equipment and/or the Rackspace required to house the equipment for all sites. ***6 ru as designed***

9.1.1 Provide all power requirements, including any special conditioning or grounding requirements. ***It is recommended that the server is attached to an UPS provided by Columbus DOT. The equipment itself requires 1 20amp circuit.***

9.1.2 Provide all equipment Airflow directions and BTU outputs. ***N/A***

SYSTEM BLOCK DIAGRAM AND RACK ELEVATION

