

Missouri Department of Transportation

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ADDENDUM 003

REQUEST FOR PROPOSAL SL15-018-RW VIDEO FEED SHARE

Bidders shall acknowledge receipt of Addendum 003 (THREE) by signing and including it with original bid. The due date for receipt of this bid **does not change** by this Addendum 003. Accordingly, the following clarifications, additions/deletions, questions and answers are believed to be of general interest to all potential bidders. All other terms and conditions remain unchanged and in full force.

Name and Title of Signer (Print or type)	Name and Title of Department Authority Teresa (Terri) Mount Sr. Procurement Agent
Bidder Signature/ Company <input type="text"/>	Department of Transportation <i>Terri Mount</i> <input type="text"/>
Date Signed:	Date Signed: 10/8 /14

MoDOT response to submitted questions to date.

**PLEASE NOTE, ALL MISSOURI STATE AGENCIES WILL BE CLOSED
OCTOBER 13, 2014.**

THIS PAGE MUST BE SIGNED AND RETURNED WITH ORIGINAL RFB.



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delights our customers and promotes a prosperous Missouri.*

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QVISION QUESTIONS REGARDING MoDOT Video Sharing RFP

October 6, 2014

QVISION Question #1: Where do the various feeds come into? Are they coming into one central location or several?

MoDOT Response: All video feeds come into the SL District TMC.

QVISION Question #2: Are the analog cameras already using encoders to make them IP addressable or are encoders part of the RFP?

- a) If there are already encoders in use, what brand and models are they?
- b) Is there a plan to replace the analog cameras? If so what is the schedule and what make and model of camera will be purchased?

MoDOT Response: Yes, the analog cameras using encoders to make them IP addressable.

- a) Cornet iVDO, Cornet CDX350, Cornet CDX350C, iMPath iVolutioni14, Teles MPC-E4, Teles MPC-E2, Teles MPC-E1CC and Teles Encoder-IPE.
- b) Due to our current funding status, we do not have an immediate plan to replace the existing analog cameras with H.264 cameras. However, we like to consider it when funding become available.

QVISION Question #3: What are the makes and models of current digital cameras?

MoDOT Response: Current camera models are Cohu 3925SD and Cohu 3920SD. Digital cameras will be Cohu 3124HD.

QVISION Question #4: Can you clarify the requirement in the RFP that states, "The solution must allow for complete and full administrative authority for the local Traffic Management Center." Please define full administrative authority.

MoDOT Response: MoDOT needs to be able to selectively turn off any camera feed to the external partners/public at any given time.

QVISION Question #5: Will this new system be providing the primary video feed to the TMC?

MoDOT Response: No.

QVISION Question #6: Can you please provide details about the following requirement, "Should have ability to accept video feeds from mobile emergency response vehicle." And "Wireless independently placed mobile dynamic video inputs."

- a. Video feeds from what types of cameras?
- b. How many of these cameras are required for the RFP?
- c. Are these mobile device cameras? Are you expecting to process mobile device videos from all major makers, ie. iPhone, Android, MS, Google, etc.?
- d. Are these cameras permanently mounted on the dash or are they hand held or vest mounted?

MoDOT Response: Under desired options MoDOT indicates a wish to add internal MoDOT dash cams on MoDOT's Motorist Assist vehicles with live feed in the future. This would involve about 50 cameras connected through cellular wireless. This is not required in the proposal, but if available MoDOT would like to consider it.

QVISION Question #7: Per the requirement of “Must allow video recording capabilities on all inputs” please advise re:

- a. Expected number of concurrent video channels being recorded.
- b. Expected number of total minutes recorded per day.
- c. How long will recordings be available for instant viewing?
- d. Will these recordings be archived for long term?

MoDOT Response: The following requirements on page 19 are not specific requirements. They were intended to be desired options associated with the video dash cameras. The options were meant to allow for accessing the dash cameras on demand so they do not continually use cellular data while they are not being monitored, and to allow recording of the camera video streams on demand.

- Must allow video recording capabilities on all inputs
- Video on demand

QVISION Question #8: Regarding the requirement of “Video on demand”, who will be using this feature? How many concurrent viewers per camera? Can you give more details about this feature?

MoDOT Response: Please see reply to Question #7.

QVISION Question #9: For distribution to internal and external customers, 30 frames per second at 1024 x 768 requires tremendous bandwidth. This is essentially broadcast video. Can you give some guidance on the requirements for the individual customer groups:

- a. TMC – number of concurrent users of any given video stream at one time?
- b. External agencies
 - i. Expected number of concurrent users looking at the same video at one time?
 - ii. What will they be looking for in these videos? Can they utilize commonly acceptable resolutions and frames per second that are lower than 30 frames per second and 1024 x 768?
- c. Traveler Information Videos
 - i. Expected maximum number of concurrent users looking at the same camera?
 - ii. Expected maximum number of users viewing various streams at one time?
 - iii. For traveler videos there are new technologies recently available that provide high quality video clips that utilize only 5 – 10% of the bandwidth of live streaming video and overall cost 60 – 80% less to implement. Is the MoDOT open to this new technology? With this new technology there is almost no possibility of crashing the system in the case of weather incident or natural disaster when it is most needed. This would then give the TMC and outside agencies much more bandwidth to ensure the system is not impacted by extreme demands.

MoDOT Response: The 30 frames per second at 1024x768 resolution is in the desired options portion, so it is not a required feature. Also, MoDOT’s HD cameras will be capable of 720p video, so the listed resolution is incorrect. This item can be clarified as follows:

- System can allow for 1 to 30 frames per second video distribution with a resolution of 1280 x 720.

a. TMC video is handled by TransCore server.

b. **External Agencies**

- i. External agencies fall into two major categories: media partners and emergency responders. There are expected to be 4-6 media partners utilizing video streams. The media partners will

want a higher quality stream for broadcast purposes. MoDOT has not yet approached all emergency responders about video, but would expect a maximum of about 30 viewers at once.

- ii. The media will expect a higher quality of video for broadcast purposes. Emergency responders just need enough resolution and frames to be able to discern what is happening during an incident, which will be a lower quality of video. The proposer may suggest resolutions and frames per second which are lower than the stated quality target.

c. **Traveler Information Videos**

- i. The expected number of concurrent users looking at the same camera is unknown. MoDOT keeps records of how many visitors access the websites, but not what they access while on the website. We would estimate that if there is an incident on a major freeway the maximum would be roughly 60% of the total video users.
- ii. The peak number of users viewing various streams at once is also difficult to estimate. On the statewide Traveler Information Map, the biggest recorded peak was 700-1000 simultaneous users for a 5 hour period. MoDOT estimates 50-75% of the users accessed traffic camera images while on the site. An average day will produce 30-50 simultaneous users. As this is a statewide map, only a portion of the users will be accessing the St. Louis district cameras at any given time. On the Gateway Guide site, the highest number of total users recorded in one day is approximately 10,000. There is no information on the maximum number of simultaneous users or how many users accessed the roadway cameras.
- iii. MoDOT encourages innovation and new technologies which will provide an equivalent or better result. Any method which can improve costs or results will be welcomed.

Skyline Technology Solutions

RFP SL15-018-RW VIDEO FEED SHARE
RFP Question Submittal on 10/6/2014

Skyline Question #1: Page 10 – Itemized Bid Form: There is no location for Year 1 and Year 2 O&M costs. Where do you want these costs entered on the pricing form?

MoDOT Response: 1st & 2nd year O&M (Operation & Maintenance) cost should be included to the original contract cost.

Skyline Question #2: Page 10 – Itemized Bid Form, Option 3a and 3aa: the wording of this option differs from the same option presented on page 18. Does the 20 camera increment pertain only to the 300 analog cameras as mentioned on page 18, paragraph A.3?

MoDOT Response: You are correct. The revised pay item Option 3a and 3aa should read as:

“Cost for Analog MPEG2/4 formats for minimum 20 camera increments”

Skyline Question #3: Page 12 – Termination at will: circuit contracts often come in year or multiple year durations. In the unlikely event that a cancelation of contract occurs, will MoDOT be responsible for the remaining months/years on the internet provider contract?

MoDOT Response: Yes, MoDOT will be responsible for the remaining months/years on the internet provider contract cost, if MoDOT terminates the Video Sharing vendor contract, **and if funding is available.** With this, we are requesting all interested vendors to include such an internet provider cost breakdown and contract terms with their proposal.

Skyline Question #4: Page 18 – Section B Specific Requirements – 300 analog cameras: Are all analog cameras already encoded into MPEG2/MPEG4? If so, are the encoders centrally installed or are they roadside dispersed?

MoDOT Response: Yes, 300 plus existing analog cameras are encoded into MPEG2/MPEG4 format and they are roadside dispersed.

Skyline Question #5: Page 18 – “Proposal shall include pricing on an annual basis for a 4 year life cycle” : Does this refer to the contract period or something else? Please explain.

MoDOT Response: “The pricing on annual basis for a 4 year life cycle” statement on page 18 is referring to this RFP Contract Term of initial 2 years with two 1 year optional extension.

Skyline Question #6: Is it preferred to pick up all feeds from Jefferson City or is it an option to pick up the feeds from the St. Louis TMC?

MoDOT Response: We prefer to pick up the video feeds from SL TMC.

Skyline Question #7: What are the size of the individual camera feeds coming from each of the 250 h.264 cameras and the 300 analog cameras?

MoDOT Response: Typical video image bandwidths for both analog and H.264 video format are 2 MB but we have used 384 KB to 3 MB in special circumstances.

TrafficLand.com Video Sharing RFP questions

Submitted on Oct 6, 2014

TrafficLand Question #1: Would MoDOT be amenable to considering a proposal that utilizes a staged approach to the deployment of an offerer's proposed video solution - beginning with the provision of video at a rate of one (1) frame per second via the website and mobile apps, while providing streams for media and first responders. Then, transitioning to streaming video at the end of year one (1) of the initial maintenance period scheduled to run through March 9, 2017 ? Please advise.

MoDOT Response: Yes, MoDOT is willing to consider any proposal that ultimately meets the requirements of the RFP. If there are specific schedules that save money, produce better results, or extend or reduce the timeframe, like any other item they will be scored according to their benefit or detriment to MoDOT.

TrafficLand Question #2: Given that new materials (i.e., the "Existing Gateway Guide Network Video Flow" Diagram) that will serve as a key component in the development of a fully responsive proposal were only distributed this morning as part of Addendum #1, we request that one (1) additional week be provided for submission of proposals - shifting the closing date from 10/14/2014 to 10/21/2014. Please advise.

MoDOT Response: Please see Addendum 002 for the revised RFP schedule.