

**CCJPA RFSOQ201819-04 Questions & Responses - Date Version - Monday, December 03, 2018**

#	Document Section	Document Clause	Question	Response
1	Pre-Submittal Meeting		You have expressed that all station PIDS equipment should be IP-based, but there should be cables out there at the stations now; can future PIDS equipment use the existing cables?	No, the current cables are 2 wire low impedance and designed for RS-485 communication. The daisy chain configuration does not fit into a modern design. We are also experiencing errors due to the age of the cables.
2	Pre-Submittal Meeting		How are you imagining the roll-out process between the new PIDS and the legacy system? Will the two systems need to run concurrently?	Yes, overlap of the new and old system will likely be necessary. One of the first Work Directives of the contract will probably be a study of how CalPIDS will be implemented across stations and corridors.
3	Pre-Submittal Meeting		In this subscription-based service model where the rail agencies don't own equipment, does that also mean that the rail agencies won't own the software? If yes, will source code of software need to be placed into escrow?	Correct, rail agencies do not own the software under this subscription-based service model, and software will likely need to be placed into escrow.
4	Pre-Submittal Meeting		Are you open to having a Linux-based operating system instead of Windows?	Yes. We would prefer that the station equipment run on Linux.
5	Pre-Submittal Meeting		Will the Pro Forma submitted in the proposal be confidential?	Yes. The Public Records copy of the proposal will not include the Pro Forma submittal.
6	Pre-Submittal Meeting		Can you provide more detailed information on how many signs are out there now? This will help us estimate total project budget and costs.	Yes. A spreadsheet with more detailed existing station digital signage will be provided at <a href="http://www.capitolcorridor.org/opportunities">www.capitolcorridor.org/opportunities</a> .
7	Pre-Submittal Meeting		Do you have any design (e.g. as-built) drawings of the stations?	CCJPA staff will look into this.
8	Pre-Submittal Meeting		Who will be responsible to hire installation team for PIDS equipment? Vendor or rail agencies?	Rail agencies will need to procure PIDS equipment installation as part of a public works contract.
9	Pre-Submittal Meeting		Can you describe in more detail how CalPIDS will be expected to interface with OBIS (Onboard Information System)?	There will be no formal interface between OBIS and PIDS, but there will be a business case interface between the on-train announcements with sound emanating from the train via the OBIS system and the PIDS station audio system. We will need to ensure that they are not "talking" at the same time.  More description about the limited interface between OBIS and PIDS: GPS location of trains is currently provided by the on-train Wi-Fi system, and the GPS location is fed to a vendor algorithm associated with PIDS to predict train ETA's. The PIDS train ETA will be the source of truth and fed to OBIS for on-board ETA messages. There is no formal or direct interface between OBIS and PIDS, as all communication will be done via server/API's.
10	Attachment D: Functional Requirements	P8	Do you expect the intrusion detection software to be provided as part of the station controller software?	Yes
11	Attachment D: Functional Requirements	R30	Can you describe how the auto-delay of audio messages would be expected to work?	The auto-delay function would help to balance the audio noise at stations with quiet, for passenger comfort. We imagine having multiple queues for messages (e.g. ETA, general safety, advertising, etc.) and different levels of message priorities so that certain message categories can be delayed for a short period of time.
12	Pre-Submittal Meeting		Do you have any thoughts on the implementation timeline? Are we expected to have a fully-designed solution presented in the submittal?	No, Proposers are not expected to have a fully-designed solution submitted for SOQ submittal; only design for a general station should be presented. At the beginning (post-contract execution), we imagine that we'll need to spend 2-3 months with the selected Vendor to work out the full design details for CalPIDS. After extensive testing, we expect that installation may begin as early as summer 2019.
13	Pre-Submittal Meeting		Do you have any engineer's estimates for this project?	Nothing for now.
14	General		Is the vendor expected to provide on-train equipment? And if so, can you elaborate on where and which features would be required?	No on-train equipment expected from vendor. Data will be used from an online source via on-board GPS/Wi-Fi.
15	General		Can you describe OBIS in a bit more detail?	OBIS is an on-board information system based off the same train arrival information that PIDS would use, just displayed with different business rules inside the train cars. The system consists of audio and video-based announcements according to different business rules.

16	General		There are, for security and integration with the back-office Amtrak system, good reasons to have a locally-hosted server. Many PID systems now are moving to the cloud, and we wonder if you have any interest in a system that distributes logic between a locally-hosted server, where those functions are appropriate, and the cloud for other functions. A secure connection from the locally-hosted server and the DMZ to a cloud-based server will provide enhanced reliability and improved security, but with the new requirements for public API's, which would be difficult with the DMZ right now, we think that you will get a more cost-efficient, more secure, and more reliable solution if a portion of the functionality runs from the cloud. Is that acceptable?	There will no longer be any DMZ*; server will not reside at Amtrak, it will reside either at BART in California or in the cloud. We are open to a distributed system where can have a locally-hosted server and in the cloud, so we'd like to see proposals that demonstrate both local server and/or cloud-based server experiences and capabilities.  *De-Militarized Zone: a zone separated from a normal server so data cannot pass between the two areas. The current PIDS server is in a DMZ within the Amtrak server.
17	Attachment A: Scope of Services	G. Operations Console and User Interface	It is our understanding that the requirement is that there is a full-featured version with a very rich user experience to include pop-up's and other desired functionalities that would be restricted to certain authorized users and there would also be access to a wider audience of users who would have more restricted rights. Concerning the requirement for a standalone application, if all of this could be accomplished through the browser, would that be acceptable?	Yes, it would.
18	Attachment D: Functional Requirements	R31	Does VOIP equipment already exist or shall the selected vendor supply it at stations?	CCJPA is currently working with AT&T to install VOIP equipment at all stations covered within the scope of this project. The VOIP module should hook into the amplifier, so we would like the station controller to stop announcing and let the amplifier run the VOIP announcement with no overlap of audio announcements. The VOIP connection will allow the operations center to make live announcements at the stations.
19	Attachment A: Scope of Services	K. Station Audio Amplifier	Will AT&T be providing the panic button at the stations also?	No, the panic button will need to be integrated into the system somehow. Pressing the button will trigger a pop-up on the user console alerting the operator to call the station over the VOIP line. We are also exploring direct 911 access panic buttons.
20	General		Regarding full ADA compliance, is there a requirement for a push-to-play audio button whereby a user (presumably visually-impaired) press a button to play the last audio announcement?	There is no requirement in the current FRA/Amtrak ADA guidelines to provide a push-to-play button.
21	General		The RFSOQ specified that there should be some integration from the service-side software with OBIS. How would that be provided, and by who?	There are two elements to this response. First, there is no direct IP-based connection to OBIS with the PIDS system, however the information derived by PIDS will become the source of the truth about train arrival for many business applications, OBIS being just one of them. The second element is a business rule element that we will have to be concerned with making station announcements and that has to do with the external speaker from the OBIS system on the train announcing arrival for station patrons and the PIDS station audio system making an arrival announcement. We will have to be sure to ensure that the audio messages do not play at the same time and thus, we will need to explore the business rules of those two 'at-station' announcements and time them to not conflict.
22	General		Is there any notion of the vendor providing new flat-screen devices (e.g., LCD's, TFT's) for infotainment or other types of rich-media content at the stations? And if so, will the agency be providing quantities or locations?	CCJPA is interested in exploring new digital screens that display train schedules and other rich-media content at stations, but not at the outset of this contract. Any new rich-media digital signs could be discussed as part of a later Work Directive. We're definitely open to seeing rich-media content capabilities in the proposer's submittal.
23	General		Can you clarify what what will be provided by the public agencies and what will need to be provided by the vendor in terms of networking infrastructure at all stations?	What will be provided at the stations: fiber optic circuits (probably 5 MB speed), router, switch, VOIP What will need to be provided by vendor: everything connecting to the switch

24	General		The vendor for CalPIDS will be generating the ETA, the predictive algorithm, and the single source of truth for all train system (station messaging, OBIS, etc.), correct?	Correct
25	General		Is there a possibility for the selected vendor to get the onboard GPS feed directly for Capitol Corridor, San Joaquins, and ACE trains? What about for the long-distance Amtrak trains (Zephyr, Starlight)?	Yes, that is very likely to happen for Capitol Corridor, San Joaquins, and ACE trains since we're moving away from Amtrak server and will be utilizing our own server, as provided by the selected vendor. However, for long-distance Amtrak trains, GPS data will still need to be retrieved from the Amtrak ARIES interface. Amtrak will also provide their own predictive arrival algorithm and ETA.
26	General		Is it just the Amtrak buses that would need to be tracked?	It is for now, for the Amtrak Thruway buses that are contracted to link with intercity passenger rail services in Northern California. There may be future opportunities to track local buses that serve CC, SJ, and ACE train stations, as new relationships are currently under development, and they will be explored in subsequent Work Directives.
27	General		To confirm, the Amtrak Thruway buses already have AVL tracking installed and there is a GPS signal that would feed the data to the new CalPIDS server?	Yes.
28	General		Is there an expectation that CalPIDS would provide ETA for buses, or just real-time tracking? If yes, would there be a Google traffic requirement?	We would like to provide predictive arrival information for buses, so we'd like to see how your predictive algorithms may differ between train and bus in your submittals. For possible future local bus tracking, those agencies may already have predictive arrival algorithms, so CalPID could just receive the feed with the ETA from those bus transit agencies.
29	General		How would the selected vendor receive the best run time and track speed information?	We do have track speed limit in chart form, but they're not dynamic day-to-day.
30	General		Is there interest in tracking actual train speed vs limit?	Yes, please provide any such relevant information in the submittal. Capitol Corridor will also be operating with PTC when CalPIDS is implemented, so there may be a feed from PTC that can be incorporated.
31	General		For CalPIDS layout design at stations (e.g. where displays and speakers are located), is that something that the vendor will be doing with the public rail agencies?	Yes.
32	General		You have expressed in the RFSOQ that you want the vendor to provide installation oversight. Do you want installation oversight at all 36 stations, or just a few stations to lower cost?	Installation oversight by the vendor will be on a case-by-case basis, depending on the complexity of the station and how installation is progressing at other stations.
33	General		Can you clarify what the requirements are for Wi-Fi enabled display equipment?	Wi-Fi enabled displays will only be allowed in certain indoor historic station buildings. Displays in outdoor and new station buildings will be connected via fiber optic.
34	General		So the vendor will have to assume all power, all communication to the station controller, as well as all displays and announcers in the scope of services?	Yes
35	General		Would bus drivers or train conductors be consumers of the mobile app train arrival alerts generated by CalPIDS?	No, we do not expect that bus drivers or train conductors will need to receive train arrival alerts, these are only meant for passengers at this time.
36	General		Who will be responsible for the sign layout design?	The vendor and the rail agencies will work together to design the sign layout.
37	General		Do you anticipate the need for outdoor signs at station parking lots?	Yes, we have a few signs in station parking lots already, such as at San Jose and Sacramento. We'd like outdoor signs around areas where intermodal buses stop.
38	General		Can you clarify your needs for visual and audio message translations?	At this time, it's a nice-to-have functionality. We do not think it is something that we're absolutely required to provide, but we're interested in seeing what proposers are capable of in terms of translations (Spanish and Mandarin Chinese) in their submittals.
39	General		Can you expand a bit further into what your preferences and appetite are for the capital/service financing models for this RFSOQ?	We'd like to see as much of the hardware as possible be under the service model. As a general rule, the rail agencies do not want to own the hardware, but there may be exceptions for especially-expensive hardware. The pro forma is designed to allow the vendor to have a replacement plan for different hardware, depending on the lifespans of each hardware component. Where we do see more of an argument for capital model application is for a design phase, because it's a one-time thing.
40	General		What is your expectations for OSS monitoring of the system and service level agreements? Should the vendor be providing that kind of information in their submittals?	Yes, we are expecting proposers to explain how they will provide OSS monitoring and what the service level commitments are.
41	Attachment D: Functional Requirements	C2	When does the "Not Stopping" message begin playing for a bypassing train?	When the train is within 2 minutes of the station, same rules as with regular train arrival messages.

42	Attachment D: Functional Requirements	D13	What kind of management is expected for non-WiFi equipped trains?	Currently, ACE trains are non-WiFi equipped but have cellular modems that connect their GPS to the existing PIDS gateway. The current system helps manage that connection. When CalPIDS is implemented, it will need to manage that connection as well.
43	Attachment D: Functional Requirements	D16	How often would the vendor be allowed to query the Amtrak ARIES and Arrow systems for updated arrival times?	Currently, the request is every 30 seconds. We could explore the possibility of increasing the frequency. It should be noted that the information isn't updated very frequently in the Amtrak systems, as they're only updated every time a train passes a station. In regards to the GPS signal on the Amtrak long distance trains, one query per minute is the Amtrak policy.
44	Attachment D: Functional Requirements	D20	Please explain what is meant by train runtime tables. Are train schedules to be modified while a trip is underway?	Train runtime is the fastest time that a train can travel between two stations, following allowed track speed limits. Train runtime schedules are not expected to be modified while a trip is in progress, only updated as frequently in the system as it is updated on the administrative side.
45	Attachment D: Functional Requirements	D25	Please give an example and explain how this geofencing is expected to function.	Example: there are two tracks going into Martinez station, and passengers don't know which track the train will be arriving on. With the geofence, an operator will receive a pop-up notification on their console for train arriving into Martinez within a geofence, and the operator will be able to push out a message on the station displays letting passengers know which track the train will be arriving on. The geofence is not expected to influence whether certain messages are played or not.
46	Attachment D: Functional Requirements	E4	Please give an example and explain how this requirement will function. Are train numbers and special schedules created in advance and assigned later as required?	Example: there is a special train that will be serving a late evening football game, it will be a new train with a new schedule and new train number. The system operator will be able to create the schedule for that special train in the console and have the system track the train. The special schedule and train numbers will be created in advance.
47	Attachment D: Functional Requirements	F1	From a system perspective, what happens when a train enters a delay mode?	First, the console will create a pop-up, warning the operators that there is a train stopped for unknown reasons. If the operator does not enter any information or does not see the pop-up, a message is automatically created and sent out "Train XXX is delayed, Please standby for additional information". All ETA's for that train are stopped at all downline stations and replaced with the train delay message.
48	Attachment D: Functional Requirements	R10 & R11	Will messages be displayed if a train is operating during the "blackout" period at a station or stations?	No. Cities that have the light pollution ordinances do not currently have late trains serving their stations.
49	Attachment D: Functional Requirements	R25	What is the expected use of the schedules at the station controller level?	There is an error in this requirement: schedule should be removed from the sentence. CCJPA will revise Attachment D accordingly. Messages should still be downloaded to the station controller.
50	Attachment D: Functional Requirements	V5	Please explain this functionality.	Example: a passenger on a late train goes to sleep, normally he/she would be notified of arrival according to the scheduled time, however, since this train is late, we want the mobile app to alert the passenger when the train actually enters a geofence of perhaps one station before his/her arrival station. Different passengers should have the abilities to customize the amount of time in advance for their arrival notification.