



1/5/2021

Technical Requirements

Paratransit Operations RFP

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Key Terms

Agency: The Transit Operations Contractor

Onboard: On the vehicle

Onboard Equipment: All CAD/AVL components and onboard Surveillance system

A.R.: Administrative Regulation

AVL: Automatic Vehicle Locator

APC: Automatic Passenger Counter

CAD: Computer-Aided Dispatch

DVR: Surveillance System (Digital Video Recorder)

CITY: City of Phoenix

PTD: City of Phoenix – Public Transit Department

EA: Emergency Alarm

FDR: Final Design Review

ITS: City of Phoenix- Information Technology Services Department

IVU: In-Vehicle Unit

LMR: Land Mobile Radio

MDU: Mobile Digital Unit

OEM: Original Equipment Manufacture

RMA: Return Merchandize Authorization

SAF: Security Access Form

SOP: Standard Operating Procedures

SIM: Subscriber identification module used to identify authorized user on a cellular network

CONTRACTOR: Agency/Organization or Transit Operations Contractor

URLC: Universal Radio Logic Controller

VLU: Vehicle Logic Unit

General Requirements

1. Overview

The City of Phoenix Public Transit department (PTD)– Technology Services section manages and oversees Transit technology for the City of Phoenix – Transit operations, and Transit contractors. Such technology includes major transit systems like the Computer Aided Dispatch/Automatic Vehicle Locator (CAD/AVL), HASTUS – Scheduling and Dispatch system, Fare Collections, Para Transit Scheduling and Dispatch system (PASS) and other systems required to meet the City’s and region’s operational needs. The PTD collaborates with various vendors and Information Technology Services (ITS) to provide the latest technology for meeting the needs of all system users.

2. Purpose

This document establishes the requirements for CONTRACTORS to use the CITY’s Information Technology Systems and will set forth a framework for maintaining the integrity and security of all CITY data and resources. This guide applies to all CONTRACTORS and Vendors who access CITY resources – network/infrastructure/systems. The CITY requires all CONTRACTOR staff to adhere to the guidelines provided by the CITY. This document addresses CITY standards, technical and performance specifications, problem escalation and oversight.

Due to the continuously evolving nature of technology, this document represents the CITY’s current technology requirements, but is subject to change at the discretion of the CITY. As technology requirements require modifications or updates, the CITY will communicate such changes to its CONTRACTORS to ensure compliance with any new standards. CONTRACTORS are responsible for complying with the technology requirements set forth in this document and any updates, as requested by the CITY.

3. Standards

This section outlines the general CITY standards which apply to the overall usage of any kind of technology that the CITY provides to the CONTRACTOR under this agreement.

All CONTRACTOR employees granted access to CITY systems will be bound by the rules and conduct set forth in CITY Policies and Administrative Regulation(s) (A.R.) 1.63, 1.84, 1.90, 1.91, 1.95, 4.45. A **Maximum Risk background** check is required for any CONTRACTOR/Sub – CONTRACTOR staff who needs access to the CITY applications/infrastructure.

- [A.R. 1.63 Electronic Communications and Internet Acceptable Use](#)
- [A.R. 1.84 Information Security Management](#)
- [A.R. 1.90 Information Privacy and Protection](#)
- [A.R. 1.91 Information Privacy and Protection Supplement – Data Shared with Third Parties](#)
- [A.R. 1.95 PRIVACY PROGRAM](#)
- [A.R. 4.45 Contract Work Background Checks](#)
- Policies and Procedures related to Network devices, external network connections and associated policies for the management of electronic data and devices over the CITY network.
- **Call Escalation Chart for Public Transit Application Support:** The Call Escalation Process chart will be provided after the award of the contract.
- **Standard Operating Procedures (SOPs) for Identity and Password Management:** The CITY has SOPs defined for the proper management of User accounts and Passwords. The SOPs require all CONTRACTOR staff using CITY accounts to log in every 30 days to keep their accounts active. In addition, these standards require CONTRACTOR staff to follow the rules for creating passwords and updating their passwords periodically. CONTRACTOR staff must comply with the guidelines under these standards. The information will be provided to the CONTRACTOR, upon contract award and as accounts are set up. User accounts with no log-ons for 90 days are deactivated and CONTRACTOR staff will need to submit a Security Access Form (SAF) to regain account access.
- **The CONTRACTOR must provide Cyber Security training to its staff with access to transit business applications, network and data on an annual basis. The CITY at any time can require the users accessing CITY network to complete cyber security training provided by the CITY on an annual basis.**

The CITY will provide the CONTRACTOR with the CITY Administrative Regulation(s), standards and policies listed above. The CONTRACTOR shall distribute CITY A.R. (s), policies and standards to every employee who is granted access to transit business applications or data. Requirements may be added or updated in the future depending on the CITY's security standards.

The CONTRACTOR shall direct all employees to read and sign the CITY document "IT Standards and Signature Sheet", to convey receipt, comprehension and intent to comply. The CITY will post any updates to the "IT Standards and Signature Sheet" on its website. The CONTRACTOR shall retrieve from their employees and submit electronically the signed documents to CITY. For audit purposes, signed "IT Standards and Signature Sheet" will be required from the CONTRACTOR and its contractor staff, who access any of the CITY provided network or system access:

1. For all new accounts, CITY document "IT Standard and Signature Sheet" must be attached to the SAF and submitted electronically.

2. For Annual audits, by January 31st every calendar year, for the duration of this agreement.

Improper Use of Systems:

Any CONTRACTOR employee found in violation of CITY A.R.(s), policies or standards for proper system usage will be considered a potential risk and their account will be suspended.

Should any CITY system-wide failure occur because of improperly maintained or unauthorized software installation by a CONTRACTOR employee, the CITY will assess the CONTRACTOR any costs required to restore the network retroactive to its full and healthy condition.

The CONTRACTOR will be held responsible for properly managing the technical assets provided by the CITY for accessing various systems. In case of any damage caused by the CONTRACTOR to these assets due to misuse, negligence, unauthorized maintenance or vandalism, the CONTRACTOR will be liable for equipment replacement costs, including time and labor costs.

Any system failure that is caused by the CITY and is longer than three (3) hours in duration, the Contractor will not be liable for any possible liquidated damages assessed for on-time performance (Scope of Work 2.32.1), telephone performance (Scope of Work Section 2.32.5), and contractor influenced customer contacts (Section 2.32.4) for the month in which the failure occurred.

4. System Access

For any CONTRACTOR staff who requires access to any CITY supported technical systems and network, the CONTRACTOR shall submit a request using the CITY defined process.

Access Request Process: The CITY will provide access to transit business related systems upon a submitted and approved business justification outlining the need for such access.

- The CONTRACTOR shall designate a primary and a secondary representative who will be responsible for the system access process and will work with the CITY as required for the duration of this agreement.
- The CONTRACTOR designee will be responsible for obtaining approval from the authorized person at their Agency prior to completing SAF requests. The CONTRACTOR shall provide the names of the primary and secondary designees upon the start of this agreement and notify the City of any updates during the term of this agreement.
- All user access requests for applications and data (i.e., Virtual Private Network (VPN), CAD/AVL, City Contractor SharePoint site etc.) will be submitted on-line using the electronic SAF, which is accessible on the CITY Contractor web page.
- All Agency staff members who are given access to city systems are given a Person of Interest (POI) account. To set up POI accounts, ***it is required for the contractor to provide a contact cell phone number, zip code, email address, first and last name,***

and job title for the requested staff on the SAF. Other necessary information based on the type request must be completed on the SAF.

- When submitting a request for a new user account, the “IT Standards and Signature Sheet” must be attached to the SAF.
- The CONTRACTOR shall allow two weeks’ period for the user account creation and account updates.
- The CONTRACTOR shall submit a SAF to inform the CITY of any updates to accounts belonging to employees in the CONTRACTOR’s control.
- Upon receiving access, the CONTRACTOR and the CONTRACTOR staff must register for Self Service Password Registration (SSPR) tool. On the failure to meet this requirement, the account can be inactivated.
- The CONTRACTOR on a monthly basis shall provide a list of all new/current/terminated employees to the CITY, and the list of all users registered for SSPR. If not registered for SSPR, reason must be provided, or the account will be inactivated.
- The CONTRACTOR and the CONTRACTOR staff must login within 30 days of accounts assignment and every 30 days from there on. Account can lead to inactivation on the failure to follow the requirement.
- The CONTRACTOR shall submit a SAF within one (1) business day when a CONTRACTOR employee who is granted the CITY systems access has been terminated or no longer requires access to the system access.
- The CONTRACTOR using the CITY’s systems must provide a monthly report from their HR system denoting all terminated employees/operators.
- The CONTRACTOR shall follow all SAF procedures outlined based on the system for which the access is being requested.
- All access requests must comply with the applicable A.R. requirements.
- The CONTRACTOR shall maintain a list of all active users who access the CITY systems, ensuring that their employees are following background check requirements outlined in the applicable A.R. The CITY can request this information at any time during the term of this agreement for audit purposes.

How to Access?

To access CITY systems, which are not supported through CITY equipment and workstations, the CONTRACTOR shall use the VPN solution that the CITY provides. The CITY only provides a limited number of CAD/AVL and AVTEC work stations. For all other system and access needs, the CONTRACTOR is responsible for providing their own workstations to access the CITY systems through Site-to-Site VPN or VPN software set up. The CONTRACTOR must maintain any network resources that are required to keep the systems operating in an efficient manner without impacting the performance of the systems.

Access requests must be made for each individual user and each user must access the VPN or the system requested with his/her own assigned account. Sharing of accounts is not permitted per CITY policy. The Agency staff must comply with the CITY standards to keep their accounts active.

Site to Site VPN: The CITY - ITS coordinates with the CONTRACTOR to provide a Site-to-Site VPN solution at the CONTRACTOR site, for the convenience of the CONTRACTOR to access the CITY provided technical systems.

Roles and Responsibilities:

CITY: The CITY – ITS team coordinates with the CONTRACTOR to set up the site-to-site VPN solution as necessary. The information needed to complete the set-up is requested to the CONTRACTOR as a request form.

CONTRACTOR: The CONTRACTOR shall provide requested network information and resources needed to set up Site-to-Site VPN.

Virtual Private Network (VPN) Software:

The CITY requires the CONTRACTOR to install VPN software on all desktop computers requiring access to the CITY systems for the duration of this agreement. When Site-to-Site VPN has been set up, the VPN software solution serves as a back-up and can be used if any outage occurs due to issues with Site-to-Site VPN.

Roles and Responsibilities:

CITY: The CITY uses two-factor secure VPN which requires the installation of certificates on desktop computers.

- The CITY will provide guidelines and requirements related to the VPN set up to the CONTRACTOR.
- The CITY will provide telephone support.
- The CITY reserves the right to make changes to the VPN software product, functionality and access requirements.

CONTRACTOR: The CONTRACTOR will keep the VPN environment updated for all the users.

- Certificates need to be installed for each user using a workstation, sharing of profiles between multiple users is not permitted.
- The CONTRACTOR workstation must have Anti-Virus software installed per industry standard.
- The software installed shall meet the CITY’s guidelines for an Anti-Virus solution.
- The CONTRACTOR shall be responsible for supplying all personnel support required for VPN software installation.
- The CONTRACTOR shall be solely responsible for testing VPN software with their desktop computer software environment in advance of widespread distribution within their organization.
- The CITY will not be held liable for any damage or disruption to any desktop computer or to the CONTRACTOR’s data environment because of the installation of VPN software.

- The CONTRACTOR shall support updates to the software and certificates as requested by the CITY in a timely manner.
- To ensure system security for the systems supported by the CITY, the CONTRACTOR and its contractor staff may be asked to complete the CITY provided Security Awareness Training. If the Agency has its own annual Security Awareness Training for their employees, the Agency can be asked to provide a letter from their Human Resources department providing the details of the training and the names of staff who successfully completed the training during the year. Once put in place, this requirement will need to be met every calendar year.

5. Computer Desktops Requirements

The CONTRACTOR is required to provide desktop computers to their employees for non-CITY applications. The CITY only provides limited number of CAD/AVL and AVTEC work stations to meet transit operational needs. For all other system and access needs, the CONTRACTOR is responsible for providing the necessary workstations.

6. CITY - Network Infrastructure

The CITY extends the network and infrastructure at support sites for making the required systems accessible for the users at those sites. The Network infrastructure is comprised of the following components and various parts.

Structured Cabling: A structured cabling system is defined as the complete collective configuration of cabling and associated hardware at a given site that has been installed to provide a comprehensive telecommunications infrastructure. This infrastructure is intended to serve a wide range of usage, such as to provide telephone service or computer networks, and should not be device dependent.

Roles and Responsibilities:

CITY - ITS:

- Interior and exterior telecommunications system facilities
- The associated backbone cabling
- Telecommunications cabling pathway
- The infrastructure necessary to support the horizontal and riser cabling systems
- The necessary infrastructure to interconnect buildings: including routes, conduit, manholes, pull boxes and building entrances, cables, splices, D-marc points.
- All wiring from the telecommunications closets through the risers and out to the walls are the responsibility of the CITY's ITS.

CONTRACTOR: Any requests for repairs or additions to the current telecommunications wiring within the facility must be made in writing. This request must include the following information:

- Facility Address (support site location)
- Building (within the support site)
- Floor
- Office Location
- Jack Number
- Problem Description

This information must be submitted to the Public Transit, Technology Services Section at 302 North 1st Avenue, 9th floor, Phoenix, Arizona 85003. This information will be logged and submitted to the CITY's Information Technology Services Department. All work and materials shall be performed and provided by the CITY's Information Technology Services Department and in full accord with the requirements of the Arizona Administrative Code, the State Fire Marshall, the Division of Industrial Safety, the National Electric Code and other applicable City and state laws or regulations. Nothing in the specifications shall be construed to permit work not conforming to these codes and orders. The CONTRACTOR will be responsible for all expenses related to additional jacks which will be based on estimates received at the time of request.

If the CONTRACTOR does not comply with the structured cabling guidelines and fails to take immediate action to correct any violations, the CITY may terminate this agreement for default. Additionally, should wiring be found to be installed without notification to the CITY, the CONTRACTOR will be assessed those costs required to restore the infrastructure to its previous condition and correct any damages.

Telecommunications Circuits: Telecommunications circuits are defined as a dedicated, private or leased line on which information is transmitted. The application of standards and guidelines for telecommunications circuits will remain facility sensitive. The size, architecture, location and intended use of a facility will significantly affect the design of the telecommunications circuits for a building or campus.

Roles and Responsibilities:

CITY- ITS: The CITY will provide related information required by the CONTRACTOR that falls within the scope and is not restricted.

CONTRACTOR:

- The details for the specific voice and data circuits are the responsibility of the CONTRACTOR.
- The CONTRACTOR is responsible for obtaining its own telecommunications circuit. These circuits will be allowed to run over existing CITY structured cabling. This will allow the CONTRACTOR to

use existing wiring from the telecommunications closets (block and patch panels) out to the wall jacks.

- The CONTRACTOR is responsible for providing onsite technical support. Support personnel will be responsible for all day-to-day issues related to the voice and data communications network and will act as a liaison to the CITY for any break fix or additional connectivity requests.

7. Communication:

The CONTRACTOR shall provide the CITY with an Internet email address capable of reaching all CONTRACTOR staff. This information will be used to communicate critical CITY system information as needed. The contact email address shall be provided within 30 days after the agreement is signed. The CONTRACTOR shall provide to the CITY the following contact information and communicate changes within one (1) business day for the duration of this contract:

- Local Information Technology Specialist
- Local CONTRACTOR Operations contact and/or Management contact.

Roles and Responsibilities:

CONTRACTOR: Local Information Technology contact will be the technical contact for any technical coordination between the CITY and the CONTRACTOR.

INFORMATION TECHNOLOGY SPECIALIST: The CONTRACTOR's Information Technology (IT) Specialist will be responsible for providing onsite technical support and resolving all issues related to CITY network access. The IT Specialist will act as the CONTRACTOR's representative and work directly with the CITY to address any technical issues as they arise for the duration of the contract. The IT Specialist shall be knowledgeable, experienced and capable to provide first level support for Network and Application needs addressed under this scope of work. The IT Specialist must be assigned to the Phoenix Para Transit site being addressed under this contract and must be physically available onsite as required to address the issues and work with the users directly. Maintain technical service level requirements as prescribed by the CITY by establishing and enforcing CITY IT standards. The IT Specialist must have computer/network administration privileges on the CONTRACTOR infrastructure to assist the users without any delays as required.

8. System Maintenance:

The CITY reserves the right to establish and communicate specific dates and times to perform system maintenance. CITY will provide the CONTRACTOR at least a one-week notice in

advance of non-emergency scheduled or planned system outage. For routine maintenance, the schedule will be provided after contract award.

In the event of emergency maintenance, the CONTRACTOR will be notified; however, notification may not occur in advance.

9. Technical Support

There are common areas where technical issues may arise:

- VPN log-in
- Software Applications

Information Technology Support Processes and Procedures

Problem	CONTRACTOR Operations Staff	Local CONTRACTOR IT Contacts
Cannot access the internet	Local CONTRACTOR Information Technology (IT)	To be determined by CONTRACTOR
Cannot log into VPN	Local CONTRACTOR IT	COP Enterprise Help Desk
Cannot log into the CAD/AVL workstation	Local CONTRACTOR IT	Follow the Call Escalation Process
Problem within the CITY Provided Application Software	Local CONTRACTOR IT	Follow the Call Escalation Process

For issues with configuration, application access and function, CONTRACTOR should:

- (1) Contact their Local IT
- (2) Follow the Call Escalation Chart for Public Transit Application Support

The CONTRACTOR is responsible for providing first level maintenance and support to CITY provided equipment. First level hardware support to CITY provided equipment includes, but is not limited to:

- (1) Ensuring appropriate provisions are taken to keep equipment clean and operational
- (2) Diagnosing workstation connectivity issues and escalate as needed
- (3) Validating power to desktop equipment
- (4) Validating application functionality as requested by the CITY
- (5) Coordinating and responding to CITY staff as needed to resolve issues

10. Data Requirements

The CONTRACTOR must provide any CITY-related data from the systems maintained and managed by the CONTRACTOR. The CITY may request such information in an acceptable format (text or Excel) at any time.

11. Internet Requirements

The CONTRACTOR shall use a minimum of 50 MB bandwidth internet connection at their location for the use of their staff, which can allow them to use the CITY provided systems/resources in an efficient manner. Internet Service Provider (ISP) must be a well know ISP like Cox or Lumen. Associated network equipment must not be over an age of 5 years and must have the equipment under support to apply necessary updates as necessary. The CONTRACTOR must maintain an inventory of the network equipment and replace the network equipment before it reaches 5 years mark. The CITY can request a report of the inventory maintenance at any time.

12. Transit Application Plan

The CITY manages the Transit applications used for Transit business. Access to applications requires the CONTRACTOR to follow a written plan for maintaining account access to Transit applications. The CONTRACTOR must fully comply with the security standards associated with access to Transit applications. Additionally, the CONTRACTOR is required to have a formal written plan for maintaining account access to Transit applications and submit the plan to CITY annually for review.

At a minimum, the plan must be updated annually and shall:

- Identify and define goals and objectives and provide tangible evidence of how they are achieved;
- Address and be specific to the current Transit applications to be accessed by the CONTRACTOR;
- Outline procedures for maintaining accounts, including but not limited to, all on-board systems;
- Describe account maintenance procedures;
- Adhere to application vendor's requirements for data integrity and application use as indicated in vendor provided System Administrator, Data Administrator and User manual(s);
- Be updated annually to account for industry changes;
- Be submitted to the CITY annually in electronic format.

13. Training

The CONTRACTOR is responsible for providing comprehensive training to their personnel for operation, administration, and primary troubleshooting of the City provided system software. When the CITY allows the CONTRACTOR to provide any additional modules or its preferred

application, the CONTRACTOR will be responsible for providing the CITY staff responsible training on the components and parts in the application. Training may be conducted by the CONTRACTOR, the CONTRACTOR's subcontractors, third-party software suppliers, and/or Original Equipment Manufacturers (OEMs). Additional training requests can be accommodated from the CONTRACTOR based on available resources, at the CONTRACTOR's expense.

The CITY also coordinates the training at the time of system upgrades. The CONTRACTOR is responsible for coordinating their staff's participation at such training.

14. Procedures to operate a City maintained Software

Software supported and maintained by the CITY will require the CONTRACTOR to maintain and provide general level Standard Operating Procedures for essential and critical job duties. The amount of detail and length of which would need to be coordinated by end-users and Technology Services. At a minimum, procedures for critical or essential job duties using the CITY software should be clear and concise enough so that other individuals can understand and follow these instructions, should the main individuals performing these tasks be unavailable temporarily or long-term, or through turnover.

Examples of such essential/critical procedures include, but are not limited to:

- CAD/AVL operational procedures.
- AVTEC operational procedures
- Trapeze PASS scheduling and dispatching procedures

All data, applications, and reports (electronic and hard copy) are the property of the CITY. Transmittal of any electronic or hard copy data, applications and/or reports to any party not directly contracted with or otherwise approved by the CITY is strictly prohibited. Any system documentation request must be submitted in writing to the CITY for review and approval prior to the dissemination of information.

The CITY shall have immediate and unrestricted access to all CITY provided hardware and software and will conduct audits on a regular basis. Any hardware and software deficiencies identified (i.e., items not found to be following the CITY's information technology policies, procedures and/or A.R.s must be corrected within five (5) business days of inspection).

The CITY must comply with federal and internal auditing requirements as part of the system funding requirements. CONTRACTORS shall assist the CITY in maintaining compliance with all Federal and internal auditing requirements such as inventory and providing information related to CITY assets, as needed.

CAD/AVL Communications System

The regional Transit Communications System is comprised of various parts, including dispatch equipment, onboard equipment, cellular routes, radio communication equipment, associated infrastructure at the garages and backend infrastructure. In addition, the system includes various software associated with these various parts. The CITY is the host of this regional system and coordinates with its CONTRACTORS to optimize system utilization.

The CITY has a sixteen-year agreement (#144644) with Clever Devices to provide system support and maintenance. Any support from Clever Devices is based on the CITY's agreement with Clever Devices and any associated Change Orders. The CITY is limited to providing the support and maintenance outlined in this agreement.

Dispatch Equipment

The regional CAD/AVL system utilizes dispatch consoles to communicate via voice and data between dispatch and bus operators. The CITY supplies the dispatch console equipment that is comprised of two physical workstations with monitor and associated keyboard and mouse. The CONTRACTOR shall not relocate dispatch consoles and/or hardware without prior approval from the CITY. The CITY provides one dispatch console for smaller sites, the agency is responsible to determine if an additional console is required for redundancy purposes and to shorten the down time in case of hardware failures for the one console provided.

Roles and Responsibilities:

The CONTRACTOR shall assign an IT representative to provide first level support to dispatch console(s) equipment. The CONTRACTOR is responsible for retaining knowledgeable staff that can provide first level support for the system.

Dispatch console training will be offered at the CITY's discretion and CONTRACTOR staff participation is mandatory.

CONTRACTOR first level dispatch workstation support expectations are as follows:

DISPATCH CONSOLE MAINTENANCE AND SUPPORT REQUIREMENTS	
	OVERVIEW
	The CONTRACTOR shall maintain all CITY provided dispatch equipment operational throughout the life of this agreement.
	The CONTRACTOR shall ensure power availability to equipment.
	The CONTRACTOR is responsible for providing 1 st level supporting to dispatch workstation as required by the CITY.

	The CONTRACTOR shall power off units and restart console equipment as needed by the CITY during upgrades and/or resolving system issues.
	The CONTRACTOR shall verify that cables are connected per instructions provided by the CITY.
	First level support documentation, provided by CITY, is subject to change at the CITY's discretion.
	The CONTRACTOR shall perform system login, as requested by the CITY, to validate if system is functional.
	The CONTRACTOR shall utilize the CITY's SOP to request second level support.
	The CONTRACTOR shall escalate technical issues that are not resolved by first level support to the CITY.
	The CONTRACTOR shall properly fasten all equipment cables to prevent damage.
	<p>The CONTRACTOR is responsible for replacing dispatch equipment that is damaged due to neglect. Examples of neglect described below:</p> <ol style="list-style-type: none"> 1. Water damage 2. Physical damage 3. Breaking or Removing Vendor seal 4. Opening Proprietary Components 5. Graffiti 6. Removing serial/model information from unit <p>The CITY will make all final determinations about equipment damage. All replacement components shall be replaced according to the vendor provided hardware compatibility equipment list.</p>
	The CITY will determine optimal dispatch equipment lifecycles.
	<p>Dispatch radio equipment under the service and support contract is as follows:</p> <ol style="list-style-type: none"> 1. Avtec Scout Plus Media Tower 2. Single PTT footswitch 3. Headset Jack box 4. PTT desk microphone 5. Dual Scout speakers
	<p>Dispatch workstation equipment under the service and support contract is as follows:</p> <ol style="list-style-type: none"> 1. Clever Workstation 2. AVTEC Workstation 3. Dell 43in Monitor 4. Keyboard & Mouse 5. KVM

	CONTRACTOR shall not install any printer devices without prior authorization from the CITY.
	CITY shall provide printer options if requested by its CONTRACTOR.
	CONTRACTORS are responsible for all printer device costs.
	CONTRACTORS shall provide all printer device support and maintenance to support their printing needs.
	The City reserve the right to change hardware provided as needed to accommodate Equipment upgrades and/or support needs.

Onboard Equipment

The regional CAD/AVL system utilizes onboard equipment to communicate between dispatch and bus operators as well as provide for other communications such as monitoring vehicle performance and vehicle tracking. This equipment is specialized and requires multiple technical teams to ensure that the system is optimally calibrated and operational.

The CONTRACTOR is required to assign an Electronic Technician to provide first level support to onboard electronic equipment. The CONTRACTOR is responsible for retaining knowledgeable staff that can provide first level onboard equipment support. Onboard equipment training will be offered at the CITY's discretion and the CONTRACTOR attendance is mandatory.

Roles and Responsibilities:

The CONTRACTOR first level support expectation for onboard equipment is as follows:

ON-BOARD SYSTEM SUPPORT REQUIREMENTS	
OVERVIEW	
	The CONTRACTOR is responsible for maintaining, diagnosing, and repairing all onboard equipment throughout the life of this agreement.

	<p>Onboard equipment to be maintained and supported includes, but is not limited to, the following components:</p> <ul style="list-style-type: none"> • Terminal Control Head (TCH) GH7 • Universal Radio Logic Controller (URLC4) • Mobile Radio • Radio Handset & Speaker • Covert Microphone • Mobile Gateway Router • Emergency Alarm Switch • Antennas: Radio and 6-band (WLAN/Cellular/GPS)
	<p>The CONTRACTOR is responsible for understanding all aspects of onboard equipment maintenance and repair.</p>
	<p>The CONTRACTOR shall ensure onboard components are maintained to OEM specifications.</p>
	<p>The CONTRACTOR is responsible for participation in ongoing training for onboard equipment maintenance.</p>
	<p>The CONTRACTOR shall coordinate with the CITY prior to installing third party equipment that may compromise CAD/AVL onboard communications systems.</p>
	<p>The CONTRACTOR shall use only CAD/AVL vendor approved hardware when replacing cables, wire harnesses, and/or additional onboard components.</p>
	<p>The CONTRACTOR shall maintain all system wire fasteners and/or clamps as installed by CAD/AVL vendor.</p>
	<p>The CONTRACTOR shall maintain vehicle's electrical systems in operational condition to support all onboard components' power requirements.</p>
	<p>CITY and CONTRACTORS determine the layout of all fonts, key assignments, menu structures, colors, and screen layouts. Future changes to existing GreyHawk display may be possible. If the CONTRACTOR requests fixed end menu TCH layout modifications, the CONTRACTOR will be responsible for any cost incurred, if any.</p>
	<p>The CONTRACTOR shall maintain and not remove any protection mechanisms in place to guard against Radio Frequency Interference (RFI) and Electromagnetic Interference (EMI) emission sources as well as internal conductive or inductive emissions.</p>
	<p>The CONTRACTOR shall not use wire splices to repair onboard system communication issue. The CONTRACTOR shall repair damaged wire by replacing the entire cable.</p>

	The CONTRACTOR shall maintain, at its own expense, a spare ratio of CAD/AVL RMA warrantied components.
	The CONTRACTOR shall maintain, at its own expense, a spare ratio of all non-warrantied CAD/AVL RMA components such as cables, antennas, wire harnesses, fasteners, and fuses per OEM specifications.
	Onboard components failure, resulting from the CONTRACTOR's neglect is not covered under the RMA process. Examples of neglect are described as follows: <ol style="list-style-type: none"> 1. Water damage 2. Physical damage 3. Breaking or Removing Vendor seal 4. Opening Proprietary Components 5. Graffiti 6. Removing Serial/Model information from unit <p>The CONTRACTOR will be responsible for replacing any components damaged due to neglect, at its own expense.</p>
	The CONTRACTOR shall follow SOP and understands that first level onboard support documentation, provided by the CITY, is subject to change at the CITY's discretion.
	The CONTRACTOR shall not tighten cable ties to cause indentation and damage to the insulation.
	The CITY requires its CAD/AVL vendor to deliver all onboard equipment with component cables to be clearly indexed, labeled and schematically identifiable. The CONTRACTOR will maintain an active role in ensuring onboard component cabling is maintained as delivered by the CAD/AVL vendor.
	The CONTRACTOR shall maintain an active role in ensuring onboard component cabling repairs remain insulated and protected as delivered by CAD/AVL vendor.
	The CONTRACTOR shall be available to address onboard equipment issues during CITY business hours.

Return Merchandise Authorization (RMA) Process

The CITY contracts with the CAD/AVL vendor to provide a comprehensive onboard extended warranty coverage package for certain components. The covered components are described in this section. The term “covered” means that components will be either be repaired or replaced by the CAD/AVL vendor.

The CONTRACTOR is required to assign an Electronic Technician to provide first level support for onboard electronic equipment. The CONTRACTOR must use the RMA process and manage all aspects of repair and replacement requests. The CONTRACTOR is responsible for retaining knowledgeable staff who can properly utilize the RMA process.

Roles and Responsibilities:

The expectation from the CONTRACTOR for the RMA process is as follows:

RETURN MERCHANDISE AUTHORIZATION (RMA) REQUIREMENTS

	The CONTRACTOR is responsible for shipping costs of the warranty parts to CAD/AVL vendor. CAD/AVL vendor is responsible for return shipping costs back to the CONTRACTOR.
	The shipping cost for all non-warranty repairs/replacement will be the responsibility of the CONTRACTOR.
	The CONTRACTOR can contact the vendor at any time during the RMA process to check on the status of equipment.
	The CONTRACTOR shall properly follow shipping instructions so that the vendor does not mix COP and CONTRACTOR equipment during RMA repairs.
	<ul style="list-style-type: none"> • Terminal Control Head (TCH) GH7 • Universal Radio Logic Controller (URLC4) • Mobile Radio • Radio Handset & Speaker • Covert Microphone • Mobile Gateway Router MG90 • Emergency Alarm Switch • Antennas: Radio and 6-band (WLAN/Cellular)
	The CONTRACTOR, at their own expense, shall maintain a local pool of spare parts to repair failed components.
	The CONTRACTOR shall return defective components to the CAD/AVL vendor using the RMA process.
	The CONTRACTOR shall understand that no components will be accepted without a Return Merchandise Authorization (RMA) number.
	Equipment not installed on retrofitted service vehicles by Clever Devices is not covered under the RMA warranty.
	The CAD/AVL vendor shall respond to RMA number request within 30 business days. RMA numbers can be obtained from the vendor's customer service department.
	CONTRACTOR shall only send warranty RMA component to the CAD/AVL vendor. CONTRACTOR shall be responsible for all shipping costs related to parts sent that are not covered under the RMA warranty coverage.
	CONTRACTOR shall have assigned personnel, who will oversee and manage the RMA process. The person(s) will be responsible to maintain all RMA related data and send the report to the CITY on monthly basis. The report will help the CITY to monitor the performance of CAD/AVL vendor.

Mobile Device

The regional CAD/AVL system allows for a mobile device option to enhance communications for field personnel. The CITY maintains a secure APN for mobile device network access into the CAD/AVL backend systems. All CAD/AVL mobile devices must reside on this secure APN to utilize the CAD/AVL mobile applications.

Roles and Responsibilities:

The CITY shall be responsible for activation service and performing the initial provision of the tablet device. The CITY shall be responsible for SIM activation and will require the CONTRACTOR to fill out a Security Access Form for device activation. The CITY will oversee the management of SIM service and will run regularly scheduled auditing reports.

The CONTRACTOR shall have an IT representative who will communicate all CAD/AVL application tablet issues or relevant Mobile Device Manager (MDM) requests to the CITY. The CONTRACTOR's IT representative will be responsible to provide all first level tablet device support. This includes, but not limited to, local password issues, hardware failure, data backups, damage to the device, warranty related issues, and third-party application support.

The expectation of the CONTRACTOR for the mobile device is as follows:

MOBILE DEVICE REQUIREMENTS	
	The CONTRACTOR shall utilize the CITY's process to request for access of the mobile device CAD/AVL applications.
	The CONTRACTOR is responsible for purchasing the mobile device and any warranty.
	The CONTRACTOR is responsible for cellular services fees.
	The CONTRACTOR shall follow standard operation procedure as recommended by the CITY for support and maintenance of the tablet devices.
	The CONTRACTOR understands that the CITY reserves the right to revoke access to the mobile applications for any reason such as network security noncompliance.
	The CONTRACTOR understands that only approved mobile devices will be supported.
	The CONTRACTOR is responsible for maintaining, diagnosing, and repairing all tablet equipment.
	The CONTRACTOR's IT representative will escalate only CAD/AVL system related mobile application issues to the CITY.
	The CONTRACTOR understands that the CITY reserves the right to remove all software and lock any tablet device which can potentially compromise the CITY network.

	The CONTRACTOR is responsible to ship mobile devices to the CITY for activation or CAD/AVL specific application support.
	The CONTRACTOR understands that the mobile devices reside on the CITY's secure APN for hosting business CAD/AVL approved mobile applications. Any other third-party applications may not work due to network security restrictions.
	The CONTRACTOR understands that the CITY must authorize all third-party mobile application requests prior to use on the APN.
	The CONTRACTOR understands that first level mobile support documentation, provided by CITY, is subject to change at CITY's discretion.
	The CONTRACTOR shall be available to address mobile device equipment issues during CITY work hours.

Out of Scope Onboard Integration with Third Party Vendor

The CITY hosts the backend system and is responsible for the integrity of the entire CAD/AVL system and any modifications, additions and upgrades must be authorized by the CITY. Any system that will connect directly or indirectly with the CAD/AVL system must be approved by the City prior to commencing work.

THIRD PARTY INTERACTION	
	The CONTRACTOR will coordinate with the CITY to ensure there are no system conflicts with new third-party system integration projects.
	The CONTRACTOR shall not proceed with any integration work until the CITY has reviewed and provided authorization.
	The CONTRACTOR understands that failure to notify the CITY of third-party integration projects can result in charges to remediate any issues that arise.
	The CONTRACTOR shall not install equipment on the vehicle that can interfere with the existing CAD/AVL communications system.

RADIO

The regional CAD/AVL system utilizes an onboard radio for voice and data communications. This device has administrative and hardware elements that must be managed properly to ensure the device is optimized to meet the CITY's functional and asset management requirements.

Roles and Responsibilities:

The CONTRACTOR shall utilize the CITY's established escalation procedure to request support for radio issues. The CONTRACTOR's staff shall perform first level troubleshooting of the radio. The CONTRACTOR should have experience with commercial Land Mobile Radio (LMR) technology. The CONTRACTOR is responsible for retaining knowledgeable staff who can provide first level onboard mobile router device issues.

CONTRACTOR expectations for radio maintenance and support is as follows:

Radio Support Requirements	
	The CONTRACTOR shall not install any onboard technology that will negatively impact radio communications.
	The CONTRACTOR shall notify the CITY when production radio device is relocated.
	The CONTRACTOR shall follow radio support and configuration programming as defined by the CITY.
	The CONTRACTOR understands that first level radio support documentation, provided by CITY, is subject to change at the CITY's discretion.
	The CONTRACTOR shall be available to address radio issues during CITY work hours.
	The CONTRACTOR is responsible for ancillary components, including their support and maintenance.
	The CONTRACTOR shall follow vendor RMA procedures for repairing radios.
	The CONTRACTOR shall follow CAD/AVL vendor procedures for providing maintenance and support.
	The CONTRACTOR shall supply their own handheld radios and hardware support.
	The CONTRACTOR shall be provided with radio software support for up to 10 handheld radios by the CITY.
	The CONTRACTOR shall submit all new radio equipment purchase requests to the CITY prior to ordering equipment. All radio equipment must be on the CITY's minimum radio hardware compatibility list to ensure that the equipment will function properly.
	The CONTRACTOR shall be available to address radio device equipment issues during CITY work hours from 8:00 AM – 5:00 PM.

Mobile Router

The regional CAD/AVL system uses an onboard mobile router for voice and data communications. This device has administrative and hardware elements that must be managed properly to ensure device is optimized to meet the CITY's functional and asset management requirements.

The CONTRACTOR shall utilize the CITY's established escalation procedure to request support for mobile router issues. The CONTRACTOR's staff shall perform first level troubleshooting of the mobile router device. The CONTRACTOR should have a background in the information network field. The CONTRACTOR is responsible for retaining knowledgeable staff that can provide first level onboard mobile router device issues.

CONTRACTOR responsibilities for the mobile router are as follows:

Mobile Router	
	The CONTRACTOR shall not install any onboard technology that will negatively impact the CAD/AVL system mobile router.
	The CONTRACTOR shall notify the CITY prior to relocating onboard mobile router(s).
	The CONTRACTOR understands that first level mobile router support documentation, provided by CITY, is subject to change at CITY's discretion.
	The CONTRACTOR shall be available to address mobile router issues during the CITY work hours.
	The CONTRACTOR shall follow the CITY's standard operating procedures for SIM card management.
	The CONTRACTOR shall follow the CAD/AVL vendor's procedures for replacing mobile router device.
	The CONTRACTOR shall follow the CAD/AVL vendor's procedures for providing mobile router maintenance and support.

New Vehicle Builds

For new vehicles, the CAD/AVL onboard equipment comes with a 1-year repair or replacement warranty from the vehicle manufacturer. The CONTRACTOR shall submit failed onboard components through the established RMA process.

Fleet Manager

The CAD/AVL Fleet Manager application supports the overall CAD/AVL system by keeping an inventory of existing vehicles and their associated specifications. Any vehicle with onboard CAD/AVL hardware must be recorded within Fleet Manager. This application allows for custom attributes, enabling the tracking of components on each vehicle. Additional attributes can be added by request.

Roles and Responsibilities:

Fleet Manager performs a crucial role in the daily operation of the CAD/AVL system. Due to its close integration with CAD/AVL, the ability to access the system as well as the ability to perform updates, shall be limited to key personnel. The CONTRACTOR must have training to use the system before being granted access.

The CONTRACTOR's responsibilities for Fleet Manager support are as follows. Some of these tasks are being handled by the CITY at this time, however, long term goal is to provide the CONTRACTOR with a way to manage and perform the tasks:

Fleet Manager Support Requirements

	The CONTRACTOR shall refer any requests for additional specifications/attributes to the CITY. The CITY is responsible for creation of all attributes.
	When requested from the CONTRACTOR, The CONTRACTOR shall enter any data into the system for their own vehicles.
	The CONTRACTOR shall not create, delete, or modify any vehicle that do not fall within their purview. All CITY vehicles are the responsibility of the CITY.
	The CONTRACTOR shall enter all vehicle updates pertaining to garage movements prior to performing the physical move.
	The CONTRACTOR shall ensure data normalization standards are kept for all vehicles.
	The CONTRACTOR shall request access only for those individuals responsible for their respective fleet.
	No person shall be allowed access to perform updates within the system without the express permission and agreement by both the CONTRACTOR and the CITY.
	The CONTRACTOR shall report any data discrepancies or other issues immediately to the CITY and CAD/AVL vendor.

Communications System Software

Along with various hardware components, the Communications system comprises of various software interfaces.

System Access: Along with access requirements specified under the General Requirements section, there are additional requirements for CAD/AVL components access. The SAF procedure includes these requirements as well. The SAF has a specific procedure for submitting the “Employee Feed” file for employee access. The SAF also includes a section for reports access. The Agency staff is required to follow the defined SAF procedure and complete the SAF correctly and completely to gain the required access to the system. Additional details related to system access and Employee Feed file will be available in the system documentation.

Roles and Responsibilities:

CONTRACTOR: The following functions are the responsibility of CONTRACTOR local IT staff:

CAD/AVL related operation functions: (examples below, this is not an exhaustive list)

- Modifying AVL configuration views and Non-CAD/AVL functions
- Saving print screen images to an external data storage device (i.e. USB drive)
- First level troubleshooting for the issues reported by the CONTRACTOR staff
- Providing support during any system outages
- Providing resources, administrative permissions, necessary tools to assist with efficient and timely system troubleshooting activities

CAD/AVL and other City supported system user manuals are accessible on the CITY CONTRACTOR and Regional CONTRACTOR’s web page.

CITY: The City is responsible for resolving any CAD/AVL or Communications System-related issues, that stay unresolved after the First level efforts by CONTRACTOR IT staff. Such issues should be reported by the CONTRACTOR IT staff, with all pertinent details to help in the process of further troubleshooting the issue(s).

Automated Scheduling and Dispatch Software (PASS and PASS-MON currently)

Automated Scheduling and Dispatch software is an important and required component for running paratransit operations. The CONTRACTOR shall utilize the CITY managed software for scheduling, recording trip requests, routing and dispatching functions for the Phoenix Dial-a-Ride service throughout the term of the contract.

The CITY currently owns and supports Trapeze - PASS and PASS-MON for paratransit operations. Trapeze – PASS and PASS-MON are hosted on the CITY owned infrastructure and the current version of the software is 19.0.6.0. PASS-MON allows integration with Clever Devices CAD/AVL system.

The CITY also has a web portal for passengers, which is based on Trip Spark software and integrates with PASS. The CITY plans to set up a Notifications system in the coming months which shall allow text or phone notifications to the customers. As the project moves forward, the CONTRACTOR is expected to participate in any project related tasks if necessary, at the time. Then necessary system manuals and user guides will be made available on the CITY portal for information sharing. The CONTRACTOR staff approved to use the system will be provided required access to the CITY portal.

The CONTRACTOR shall assist the CITY with ensuring any future upgrades to the current software or migration to different software are successfully implemented in an effective and timely manner. The CONTRACTOR staff is expected to assist with any required testing during the upgrade. The CITY reserves the right to establish and communicate specific dates and times to perform system maintenance. CITY shall provide CONTRACTOR at least a two week notice in advance of a non-emergency scheduled or planned system outage. For routine maintenance the schedule will be provided after contract is awarded with electronic reminder. In the event of emergency, CONTRACTOR will be notified; however, notification may not occur in advance.

All data in the system is owned by the CITY and the access will be restricted to the approved CONTRACTOR staff only. Any third-party tool integration and access to the data, if planned

by the CONTRACTOR, that can be of benefit to provide the services to the CITY, must be approved by the CITY.

Any third-party application that the CONTRACTOR requires to be set up in their environment, and the application needs access and/or integration with CITY owned applications, databases or installation of a software in provision of paratransit service, will be reviewed and approved by the CITY. The proposed application which the CONTRACTOR wants to use and requires additional hardware/software/network resources or alteration in the CITY owned infrastructure, will not be approved by the CITY. The CONTRACTOR will coordinate with the CITY to install the necessary software and software updates as necessary in the CITY environment. The CONTRACTOR won't be provided with Admin permissions to set up the software on CITY's infrastructure and application environment. The CONTRACTOR will be responsible for oversight and management of the CONTRACTOR owned software and provided by the CONTRACTOR to be deployed in the CITY's environment. The CONTRACTOR can be asked to provide necessary software license information for audit purposes at any time. Any issues faced by the CONTRACTOR in the third-party application that the CONTRACTOR is using and is owned by the CONTRACTOR, will fall under the CONTRACTOR's responsibility to resolve. The CITY manages the necessary Operating System (OS) updates on the monthly basis and the CONTRACTOR is responsible to stay informed of the OS updates, test their software as necessary.



City of Phoenix

City of Phoenix
Public Transit Department
Technology Services Section
Operations, Technology and Planning division

ITD Administrative Regulation(s) 1.63, 1.84, 4.45.

Acknowledgement Letter

In compliance with the City of Phoenix, Information Technology Department Administrative Regulation(s) 1.63, 1.84 the undersigned agrees that they have received, read and will comply with these Information Technology security standards.

The undersigned person agrees to follow city's security standards and not share account/password information, city data with any other third parties.

Per city security requirements, the undersigned is background checked to the **Maximum** risk level as specified in Administrative Regulation 4.45.

A signed copy of this letter is required for requesting and maintaining the remote access to the City of Phoenix network and systems.

Employee Name (Please Print)

POI Number

Employee Signature

COP Contract Manager Signature

Date

C: Copy to individual member of the City Workforce
Electronic copy to TransitSupport@phoenix.gov