

# **ATTACHMENT F**

## **INFORMATION SYSTEMS MANAGEMENT**

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### **F.1 GENERAL**

- A. The Section is classified into four (4) major areas: hardware, software, communications, and data. Information and data related to the performance of the Contract Services shall be the sole property of VRE.
- B. The Contractor shall request VRE's written approval for any additional Information Systems related to the performance of the Contract Services, which are not addressed within this Section.

### **F.2 HARDWARE**

#### **F.2.1 WORKSTATIONS**

- A. The Contractor shall provide, maintain and support all workstations necessary for the performance of the Contract Services.
- B. All workstations must have the latest Windows operating system.
- C. All workstations shall have the latest general release firmware, security and critical operating system patch updates.

#### **F.2.2 PRINT SCAN AND FAX DEVICES**

The Contractor shall provide, maintain and support multifunction print, scan and fax devices necessary for the performance of the Contract Services.

#### **F.2.3 MOBILE DEVICES**

- A. The Contractor shall provide, maintain and support all mobile devices necessary for the performance of the Contract Services, including cell phones and radios.
- B. Mobile devices, specifically cell phones for T&E crews, shall be dual sim compatible to leverage multi-carrier service along the VRE service territory.
- C. Mobile device service subscription costs shall be paid for by the Contractor.
- D. At a minimum, the mobile devices used by conductors and assistant conductors shall be equipped with a camera to allow for future mobile app enhancements related to fare collections.

#### **F.2.4 NETWORK**

VRE shall provide, maintain and support all necessary networking equipment at all VRE-owned facilities, including the Crossroads and Broad Run MSF. This equipment is used to provide non-exclusive Internet access at all VRE-owned facilities. VRE provided networking equipment includes network switches and wireless access points.

#### **F.2.5 CONTRACTOR SUPPLIED HARDWARE**

- A. The Contractor may use hardware to perform administrative functions not specifically required by VRE but used in support of the Contract Services. Hardware provided by the Contractor for the sole purpose of performing these non-specified administrative functions shall remain the property of the Contractor.
- B. The Contractor shall provide and maintain an asset inventory of all Contractor supplied hardware.
- C. The Contractor shall provide and maintain asset tags for all Contractor supplied hardware. Asset tags must be included in the asset inventory for tracking purposes.

#### **F.2.6 COMPLIANCE**

All Contractor provided hardware shall be maintained in compliance with VRE's Cybersecurity-related policies.

### **F.3 SOFTWARE**

#### **F.3.1 VRE SOFTWARE**

- A. VRE shall provide, at a minimum, the following software:
  - 1. Enterprise Asset Management (EAM)
  - 2. Tyler Technologies Enterprise Resource Planning
  - 3. Positive Train Control (PTC)
  - 4. Positive Train Control (PTC) Training Simulator
  - 5. VRE Mobile Inspector
  - 6. Q-Tron Universal Analysis/Download Software (QUADS)
  - 7. Envitech Vehicle Announcement Manager (V.A.M.)
  - 8. TTProDiag
  - 9. DCDesk 2000
  - 10. (CAT ET)
  - 11. DAS III

INFORMATION SYSTEMS MANAGEMENT

12. WinDas
  13. LDRS-V\_Restricted Client
  14. LDRS-V+\_Restricted Client
  15. Infodev DiagNoseKit
  16. TeraTerm
  17. D-bug client
  18. CDU Viewer
  19. Winscp
- B. VRE reserves the right to replace Contractor-provided software and/or software as a service (SaaS) used to carry out the Contract Services and reporting requirements. As needed, the Contractor shall assist VRE in transitioning from Contractor-provided software to software maintained and supported by VRE.

### **F.3.2 CONTRACTOR SUPPLIED SOFTWARE / SOFTWARE AS A SERVICE (SAAS)**

- A. The Contractor shall provide, maintain and support software and/or SaaS necessary to carry out the Contract Services, including all reporting and record keeping requirements. The Contractor shall provide VRE with access to all data related to the Contract Services using application program interface (API) integrations to VRE owned software and/or SaaS applications.
- B. The Contractor shall provide, maintain and support software and/or SaaS to perform administrative functions not specifically required by VRE but used in support of the Contract Services. Software and/or SaaS provided by the Contractor for the sole purpose of performing these non-specified administrative functions shall remain the property of the Contractor.
- C. The Contractor shall provide and maintain an asset inventory of all Contractor supplied software.
- D. All Contractor supplied software and/or SaaS subscription costs shall be paid for by the Contractor.

### **F.3.3 COMPLIANCE**

All Contractor supplied software shall be maintained in compliance with VRE's Cybersecurity-related policies.

## **F.4 COMMUNICATIONS**

### **F.4.1 INTERNET**

VRE shall provide non-exclusive Internet at VRE-owned facilities to be used for VRE related business purposes only. Internet traffic shall be subject to restrictions imposed and set by VRE.

### **F.4.2 PHONE AND FAX LINES**

- A. VRE shall provide digital phone and fax lines at all VRE-owned facilities to be used for VRE related business purposes only.
- B. The Contractor shall provide VRE with a written request for additional phone and fax lines with at least thirty (30) calendar days advance notice. The request is subject to approval by VRE and shall include the service location (building number, office number and port number on the wall jack), required service activation date, service capabilities (incoming or outgoing or both), and description of the intended use.

### **F.4.3 EMAIL**

- A. The Contractor shall use a corporate email service when corresponding with VRE and for all VRE-related email communication. Personal and free Internet email services such as Gmail and email services using domains other than .com, .org and .gov shall not be used by the Contractor for security reasons.
- B. The Contractor shall provide VRE with a written request for all other domains to be added to its allowed list. Requests are subject to approval by VRE.

### **F.4.4 COMPLIANCE**

All Contractor provided communication services shall comply with VRE's Cybersecurity-related policies.

## **F.5 DATA**

- A. All information systems data used in the performance of the Contract Services shall be owned by VRE.
- B. The Contractor shall provide VRE with real-time access to all data deemed necessary to the performance of the Contract Services.
- C. VRE reserves the right to request any data which is not managed or controlled by VRE or which is not stored on the VRE network but which is deemed necessary for the performance of the Contract Services. The Contractor must respond to such a request from VRE within twenty-four (24) hours or as otherwise agreed upon by VRE and the Contractor.