

4.1 Summary

A detailed study of data security for the different hardware, software, and communication for PENS application system was completed. The primary data security concerns for the AFS computer systems were identified as privacy, access fraud, personnel tracking, and computer viruses. It is recommended that the AFS data should be secured at the system access, transmission process, and storage locations.

The ASIs will use their PENS notebook computers at the office and in remote locations. These computers will be used in a stand-alone situation or connected over a communications network (phone line or, in the near future, wireless) back to their home office or a national database. Therefore, two parts of data security, data storage security and data transmission security, will be addressed. Data storage security will be the security system at the server and the database system. Data transmission security will be the security features from a wired and wireless network. In addition, the security of accessing a network system will also be addressed.

The available data security technologies and standards are discussed at the first section. Those technologies and standards that are recommended to protect the data of PENS application system as identified at the end of this chapter.