

## 1.4 Wireless Communications Summary

Several general statements can be made regarding the issue of data transmission over any of the wireless technologies either evaluated or researched. First, transmitting large files, such as multimedia and video applications, over the wireless services available today or in the near future is not a viable option. None of the services offered will support the multi-megabyte data rates required by these applications. For the foreseeable future, these types of applications will require CD-ROM or wired connections through high-speed landline networks.

Second, all of the wireless networks described in the previous sections will have 40% - 50% less performance than the published data rates. This is due to the protocol overhead and long packet latencies.

Third, there is currently no interoperability between the various service providers at this time. Until this occurs, a different suite of modems and air-link protocols will be required for each service provider if a user moves between locations serviced by different wireless communication providers.

Fourth, re-engineering client/server applications may be required to minimize the amount of data sent over the air, since most wireless networks charge on a per-packet or per -kilobyte basis.

Fifth, most of the hardware required to use wireless services are currently too large, require too much power, and are too heavy to be convenient for most users. This will change in the next year as PCMCIA versions of the different types of modems will be offered to the market.

Finally, we are confident that wireless connectivity will prove to be a benefit for AFS ASIs but it is not time to commit to any one technology yet. Transmission costs are currently higher than landline connections and complete nationwide coverage is not available, but these situations will change in the next year or two. The growth of the wireless market is very rapid and there is no way to know how the industry will shake out in the next few years. We will keep up with this technology and make specific recommendations when appropriate.