

# Petitioner's Exhibit CSC 1012

*The*  
Wireless  

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Data  

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Handbook

*Fourth Edition*

James F. DeRose

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# THE WIRELESS DATA HANDBOOK

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FOURTH EDITION

James F. DeRose


JFD Associates



A WILEY-INTERSCIENCE PUBLICATION

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concourse is such a spot), you might as well buy a sandwich while you wait to read your mail.

It is also extremely tedious to delete a received message: (READ, ACT, sending))))), DELETE, sending))))), OK, sending))))), message deleted, OK, sending))))). Any one of the sending)))) sequences are vulnerable to "network/gateway not responding" responses, forcing a retry. After a while I simply gave up deleting messages and then gave up the phone.

### 16.4.3 Data Devices Swallow the Radio

Data-centric devices containing the radio transceiver fall into three categories:

1. External radio modems for connection to the serial input-output (I/O) port of the terminal or PC.
2. PC Card radio modems for laptops, PDAs, and custom devices. Except in high-transmit-power applications, the PC Card radio modems have largely driven out their external predecessors.
3. Integrated units hidden under the covers of laptops or custom products. These are becoming increasingly popular in high-production-run, application-specific devices.

An advantage often claimed for CDPD over competing alternatives is that there are many multivendor radio modems to choose from.<sup>22</sup> In truth, with the demise of Cincinnati Microwave and PCSI, the steady withdrawal of Coded Communications, Ericsson, IBM, and Motorola (for CDPD, for now), and the increasing marginalization of suppliers such as Uniden, the total number of radio modem suppliers for all carriers is remarkably small. It is likely that six to eight manufacturers account for 95% of all shipments to date. Of these, just seven vendors, four of them Canadian, dominate all current, in production, alternatives:

1. *Dataradio*: Has augmented its private radio offerings with its purchase of the Motorola R-net line in February 1993.<sup>23</sup>
2. *Megahertz*: Provides PC Card radio modems for BSWD.
3. *Metricom*: Manufactures a line of external modems for cable connection to hand-held and notebook PC devices. The modems are designed in Richmond, British Columbia, by ex-Motorola (MDI) engineers.
4. *Motorola*: The only U.S. vendor, it offers a full line of radio modems—external, PC Card, other equipment manufacturer (OEM) modules—for RD-LAP/MDC4800 (ARDIS) and Mobitex (BSWD).
5. *NovAtel*: Concentrates on small external devices and OEM modules for CDPD.
6. *RIM*: Specializes in integrated solutions, from OEM modules to custom products, for ARDIS and BSWD.

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