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| <b>(51) International Patent Classification <sup>6</sup>:</b><br><b>G07F 7/10, 19/00</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>A2</b> | <b>(11) International Publication Number:</b> <b>WO 96/23284</b><br><b>(43) International Publication Date:</b> 1 August 1996 (01.08.96)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>(21) International Application Number:</b> PCT/US96/01421<br><b>(22) International Filing Date:</b> 25 January 1996 (25.01.96)<br><br><b>(30) Priority Data:</b><br>08/379,734 27 January 1995 (27.01.95) US<br><br><b>(71) Applicant (for all designated States except US):</b> HYPERCOM, INC. [US/US]; 2851 West Kathleen Road, Phoenix, AZ 85023 (US).<br><br><b>(72) Inventor; and</b><br><b>(75) Inventor/Applicant (for US only):</b> WALLNER, George [US/US]; 14623 North 15th Drive, Phoenix, AZ 85023 (US).<br><br><b>(74) Agent:</b> KELLY, Michael, K.; Snell & Wilmer, One Arizona Center, 400 East Van Buren, Phoenix, AZ 85004-0001 (US).                                                                                                                                                                                                                                                       |           | <b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AZ, BY, KG, KZ, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).<br><br><b>Published</b><br><i>Without international search report and to be republished upon receipt of that report.</i> |
| <b>(54) Title:</b> VIRTUAL POS TERMINAL<br><br><b>(57) Abstract</b><br><br>A system of point of sale (POS) terminals includes a logical module, designated as an Application Processing Front End (APFE), interposed between the POS terminal and a host computer. The APFE may comprise a separate hardware unit or a module within the host computer. The APFE provides for enhanced functionality for interaction with the POS terminals and the host computer, particularly to implement a large volume of sophisticated transactions quickly and efficiently. In particular, messaging capability is suitably resident in the APFE to maintain the relatively simple structure of the POS terminals. Minimal hardware and software is necessary in the POS terminals. By including only minimal components in the POS terminals, such terminals may be made cost-effectively available to low-volume users. |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |