

# **MOBILE SERVICES ACROSS WIRELESS NETWORKS**

Xerox Corporation

## Initial Bidding Guidance: High 6 Figures to Low 7 Figures

With early priority dates from 1998, this portfolio provides improvements to devices and services operable using wireless networks, including:

- A method for determining the proximity of mobile devices in a wireless network. This method
  provides solutions for the stability and orientation problems associated with WiFi triangulation
  by use of inexpensive sensors in the mobile device (e.g., for motion detection and signal
  calibration). Also, a proximity sensing method is provided that allows two or more devices
  to determine proximity in a peer-to-peer fashion, across a wireless network, by exchanging
  network characteristics observed in real time. [7,042,391 & 7,129,891]
- 2. An e-mail method that allows users to selectively send emails with attachments to a primary recipient while concurrently directing a copy ("CC"), without attachments, to additional recipients, thus decreasing the amount of storage space that an e-mail consumes on an e-mail server while increasing the speed and efficiency of an e-mail provider. [6,628,306]
- 3. A method for operating a document device (e.g., printer, scanner, display) using vehicle telematics installed in a car. An instruction is wirelessly transmitted to a document device and the document device prints image data. *[6,748,306]*
- 4. A system for performing document services using mobile computing devices whereby devices of the system receive document references transmitted over integrated wireless and wire-based communication services. Each mobile computing device holds a user's personal collection of document references that can be received, transmitted, and stored. A user interface at the mobile computing devices provides a user with fast and easy access to proximate document services. [6,421,716]
- 5. A method for wirelessly updating document devices, such as printers and copiers, which allows the devices' option features and capabilities to be altered. Options include: device/ machine speed, machine stand alone mode, or network connected mode, scanning enabled; scan to email; scan to Internet Fax; immediate job overwrite, etc. System option updates and reconfiguration are provided without the need for a field service call. [7,197,633; 7,321,966; 7,334,261]
- 6. An apparatus for wireless data communication with multiple memory devices within a document device that reduces the need for separate sets of hardware to communicate with each of the memory devices, and can enable communication between different modules of a document device. An interface antenna may be provided for increasing the distance over which a tag (e.g., RFID tag) can communicate with a reader (e.g., RFID reader) without increasing the size of the antenna on the tag. [7,307,531 & 7,504,951]

**Forward Citing Companies:** Abbott Laboratories, Advanced Navigation Positioning Corp, Aegis Mobility, Apple, Asustek, AT&T, Avaya, Black Hills Corp, Blackberry, Blue Coat Systems, Brother Industries, Canon, Canopus Bioscience, Cantor Fitzgerald, Casio, Caterpillar, Cisco Systems, Datawind Net Access Corp, Deep River Systems, Fujifilm, Google, Hewlett-Packard, Intellectual Ventures, IBM, Konica Minolta, Kyocera, LG, Microsoft, Motorola Solutions, NEC, Nippon Telegraph & Telephone, Panasonic, Qualcomm, Ricoh, Samsung, Siemens AG, Silverbrook Research, Skyhook Wireless, Sony, Toshiba, Trend Micro, Unwired Planet, Whirlpool, Xone Inc.

## TECHNOLOGY

MOBILE COMPUTING; WIRELESS NETWORKS; TELEMATICS

#### NOVELTY

WIRELESS COMMUNICATION SYSTEMS TO PROVIDE IMPROVED DOCUMENT SERVICES

#### **IMPORTANCE**

A VALUABLE PORTFOLIO FOR COMPANIES PROVIDING WIRELESS SOLUTIONS, DOCUMENT DEVICES, AND DOCUMENT SERVICES

NUMBER OF ASSETS

#### US PATENTS (28)

US 6.421.716 US 6,628,306 US 6,748,306 US 7,042,391 US 7,129,891 US 7.197.633 US 7,307,531 US 7,321,966 US 7,334,261 US 7,504,951 CA 2487477 CN 200410046454.9 CN 200410055955.3 CN 200410058763.8 CN 200410095235.X DE 602004006703.2 DE 602004008555.3 EP 1534037 EP 1542492 FR 1534037 FR 1542492 GB 1534037 GB 1542492 JP 3953898 JP 4791026 JP 4822679 MX 253098 MX 258989

#### **APPLICATIONS (4)**

BR PIO401860-5 BR PIO405085-1 EP 04254490.8 EP 04254510.3



Priority Date: 09-30-1998

## Representative Claim: US 7,129,891 - Claim #8

A method for determining device proximity in a wireless network, comprising: characterizing at a first device any detected wireless network radio signals; receiving any broadcast network characteristics from at least one other device on the network; comparing the first device network characteristics with the received network characteristics from the at least one other device on the network, wherein the comparing step comprises: measuring the distance in radio space of the respective network characteristics, wherein distance in radio space is determined by measuring the sum of the cap in signal strength and noise level for each channel; if the network characteristics are within a predetermined relationship, the first device and the at least one other device are in proximity with one another.

### Contact:

For more information on the assets available for sale in this portfolio, contact Paul Greco.

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