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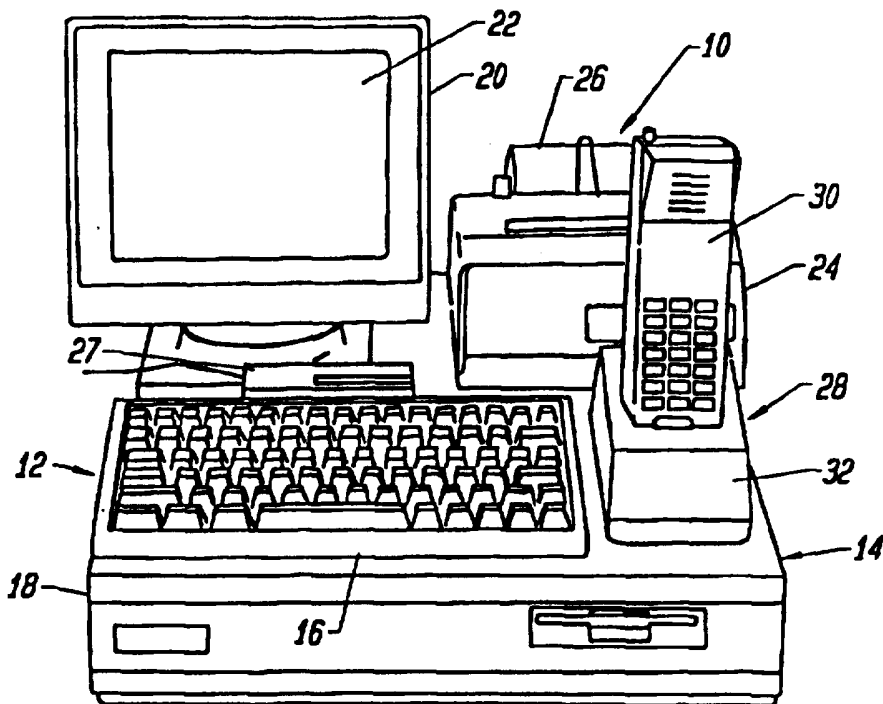
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(54) Title: MOBILE PHONE DISTRIBUTION SYSTEM



(57) Abstract

A mobile telephone programming and accounting system (10) that includes an integrated hardware system (12) interlinking a telephone unit (30), a telephone interlink receiver (28), and a central processing unit (14) connected to the interlink receiver (28).

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## AMENDED CLAIMS

[received by the International Bureau on 16 January 1996 (16.01.96);  
original claims 1-4, 9, 11, 27, 33 and 35-55 amended; new claim 56 added  
remaining claims unchanged (14 pages)]

1. A mobile phone programming and tracking system comprising:

an information processing unit;

interface means for interfacing a mobile phone unit with the information processing unit and communicating data and programming signals between the information processing unit and the mobile phone unit; and,

translation means for establishing protocol relative to data signals and programming signals between the mobile phone unit and the information processing unit, wherein the interface means includes a software program including instructions expressed in the form of data and programming signals that are specific to a select type of mobile phone unit, wherein the mobile phone unit includes a manufacturer's access code for enabling programming of the mobile phone unit, and wherein the software program includes a routine to access the manufacturer's access code and change the code to a new access code preventing further programming of the mobile phone unit without the new access code.

2. The mobile phone programming and tracking system of claim 1 wherein the system includes a credit card swipe for accessing a customer's credit and establishing a customer account.

3. A mobile phone programming and tracking system comprising:

an information processing unit;

interface means for interfacing a mobile

information processing unit and the mobile phone unit; and, translation means for establishing protocol relative to data signals and programming signals between the mobile phone unit and the information processing unit, wherein the interface means includes a software program including instructions expressed in the form of data and programming signals that are specific to a select type of mobile phone unit, wherein the software program includes blocking means for programming a mobile phone unit to conditionally limit the use of a mobile phone unit after interfacing the mobile phone unit with the information processing unit and programming the phone unit with the blocking means.

4. The mobile phone programming and tracking system of claim 3 wherein the blocking means includes program means for detecting the number of calls made and blocking use of the mobile phone unit when a preset number of calls have been made.

5. The mobile phone programming and tracking system of claim 3 wherein the blocking means includes program means for detecting area code numbers of calls being made and blocking use of the mobile phone unit when predetermined area code numbers are being called.

6. The mobile phone programming and tracking system of claim 3 wherein the blocking means includes program means for detecting time and date and the phone unit includes a real time clock and calendar generating time and date, and the blocking means includes further, program means for blocking use of the mobile phone unit when a preset date is detected.

7. The mobile phone programming and tracking system of claim 6 wherein use of the mobile phone unit is blocked when a preset time and date is detected.

8. The mobile phone programming and tracking system of claim 3 wherein the software program includes credit checking means for accessing a mobile phone user's credit and mobile phone blocking means for programming a mobile phone to block use of the mobile phone when a predetermined credit amount has been expended.

9. The mobile phone programming and tracking system of claim 3 wherein the system includes a credit card swipe for accessing a customer's credit and establishing a customer account.

10. The mobile phone programming and tracking system of claim 3 wherein the blocking means includes program means for detecting the calls made, calculating the charges for the calls and blocking use of the mobile phone unit when a preset value of charges have been made.

11. A programming and distribution tracking system for mobile phone units having a communication port comprising:

an informational processing unit;

a gang platform having a plurality of interlink receiver stations each receiver station having a port terminal constructed to connect with the communication port of a mobile phone unit;

a network controller means for routing data and programming signals selectively to each interlink receiver and port terminal;

a system program operable in the information

processing unit with a program means for operating the network controller means and communicating data and programming signals with at least one selected receiver station having a mobile phone installed therein.

12. The system of claim 11 wherein each receiver station has electronic circuit means compatible with a select type of mobile phone unit for effecting communication of data and programming signals between the mobile phone unit and the information processing unit.

13. The system of claim 12 wherein the terminal port includes terminal connectors configured to connect to the communication port of the mobile phone unit.

14. The system of claim 12 wherein the gang platform comprises a platform module unit with the plurality of receiver stations located in the platform module unit and with each of the plurality of receiver stations having the same electronic circuit means and port terminal compatible with a select type of mobile phone unit, wherein a plurality of the same type of phone units are connectable to the port terminals of the receiver stations for communication with the information processing unit.

15. The system of claim 11 wherein the system program includes programming means for simultaneously communicating data and program signals to two or more of said interlink receiver stations having mobile phone units of the same type installed in the terminal ports thereof.

16. The system of claim 15 wherein the system program includes programming means for selectively communicating data and program signals to discrete mobile

phone units when a plurality of mobile phone units are connected to selected port terminals of the platform module.

17. The system of claim 12 wherein the gang platform comprises a platform module unit with the plurality of receiver stations located in the platform module unit and with the plurality of receiver stations having at least two different electronic circuit means and port terminals compatible with two different types of mobile phone units.

18. The system of claim 17 wherein the system program includes programming means for communicating data and program signals to each of the different types of mobile phone units when the different types of mobile phone units are connected to selected port terminals of receiver stations that are compatible with the phone unit connected.

19. The system of claim 12 wherein the gang platform includes a plurality of platform modules wherein each platform module includes a plurality of receiver stations having electronic circuit means compatible with a select type of mobile phone unit for effecting communication of data and programming signals between the phone unit and the information processor when phone units of that select type are connected to compatible type receiver stations in the platform module.

20. The system of claim 19 wherein the gang platform includes a plurality of platform modules with at least two platform modules having receiver stations having electronic circuit means compatible with two different types of mobile phone units wherein all of the receiver

stations in one of the platform modules is compatible with one type of mobile phone unit and all of the receiver stations in the other platform module is compatible with a different type of mobile phone unit.

21. The system of claim 11 wherein the information processing unit includes a database and the database includes parameters for programming mobile phone units with phone numbers and recording data related to programming of mobile phone units with phone numbers.

22. The system of claim 21 wherein the database includes storage means for storing recorded data including a mobile phone unit identification number assigned to the phone unit by a manufacturer and the programmed phone number.

23. The system of claim 21 wherein the database includes further, means for storing recorded data including mobile phone service provider identification and customer identification.

24. The system of claim 21 wherein the database includes further, means for storing a history of programming mobile phone units.

25. The system of claim 11 wherein the information processing unit is a central information processing unit and communicates with a plurality of other networked processing units.

26. The system of claim 11 wherein each mobile phone unit installed in the receiver station is installed in a port terminal of such receiver station.

27. The system of claim 11 wherein the program means for communicating data and programming signals



includes phone numbers and instructions which assign phone numbers to a selected mobile phone unit.

28. The system of claim 27 wherein the program means for communicating data and programming signals includes instructions which assign specific phone numbers to specific mobile phone units.

29. The system of claim 27 wherein the program means for communicating data and programming signals includes instructions which activate for use a selected mobile phone unit to which a phone number has been assigned.

30. The system of claim 28 wherein the program means for communicating data and programming signals includes instructions which activate for use selected mobile phone units which have been assigned phone numbers.

31. The system of claim 11 including further, at least one remote interlink receiver station removed from the gang platform wherein the remote interlink receiver station has a port terminal constructed to connect with the communication port of a mobile phone unit and includes a program means for communicating data and programming signals to a mobile phone unit installed in the terminal port of the remote interlink receiver station, wherein the program means of the remote receiver station includes phone numbers and instructions which assign a selected phone number to a selected mobile phone unit installed in the port terminal of the remote interlink receiver station.

32. The system of claim 31 wherein the program means of the remote interlink receiver station includes instructions which activate for use the selected mobile

phone unit to which a phone number has been assigned.

33. The system of claim 31 wherein the remote interlink receiver station includes a plurality of port terminals constructed to be connected with a plurality of mobile phone units installed in the port terminals wherein the program means of the remote interlink receiver station includes instructions which assign selected phone numbers to selected mobile phone units installed in port terminals of the remote interlink receiver station.

34. The system of claim 33 wherein the program means of the remote interlink receiver station includes instructions which activate selected mobile phone units to which phone numbers have been assigned.

35. A mobile telephone with internal call accounting controls, the telephone comprising:

a unitary, hand-held telephone unit, the telephone unit having:

transceiver means for communicating to a communication network of discrete mobile phone service areas, each mobile phone service area having a corresponding area identification code, said mobile telephone unit being moveable from one service area to another when communicating to the network, and at least one of the network and said telephone unit being capable of establishing a call communication session between the communication network and said mobile telephone unit;

an internal microprocessor with a process control program;

a manufacturer's access for enabling programming of the mobile phone unit;

a read/write memory;  
an electronic time clock having a clock output which is representative of the time of said clock; and,  
a manufacturer's programming access for enabling programming of the mobile phone unit.

wherein the transceiver means includes receiver means responsive to a call communication session being established between the network and said mobile telephone for receiving the area identification code of the service area in which said mobile telephone in the session is located; wherein the process control program includes process control means for automatic storing in said read/write memory the received area identification code and the clock output of said time clock representative of the timing of the call communication session and wherein on transferring the contents of said read/write memory, the stored area identification codes and the clock outputs are transferred to the external device; and, wherein the process control program includes a routine to allow access of the manufacturer's access code and change of the code to a new access code preventing further programming of the mobile phone unit without the new access code.

36. The mobile telephone of claim 35 wherein at least one of the communication network and said mobile telephone has switch means for terminating said call communication session, and wherein said process control means further includes storing means for storing the clock output of said clock in said read/write memory in response to the establishment of the call communication session and in response to the termination of said call communication

session.

37. The mobile telephone of claim 35 wherein said electronic clock further comprises a real time clock that provides a representation of the current day at its clock output.

38. A mobile telephone of claim 35 wherein said receiving means receives the area identification code of each subsequent mobile phone service area which said mobile telephone enters during said call communication session, and wherein said process control means includes additional storing means for storing each subsequent received area identification code.

39. The mobile telephone of claim 38 wherein said storing means is further for storing the output of said clock near the time each said subsequent service area code was received.

40. The mobile telephone of claim 35 further comprising a readable memory for storing a home service area identification code.

41. The mobile telephone of claim 35 in combination with an external programming unit having program means for accessing the manufacturer's access code and changing the code to a new access code preventing further programming of the mobile phone unit without the new access code.

42. The mobile telephone of claim 35 in combination with an external device that receives the contents of said read/write memory, said external device having translating means for processing the received contents of said read/write memory.

43. The mobile telephone of claim 35 further comprising transmitting means for transmitting to the network a telephone number for establishing a call communication session, and wherein said process control means includes additional storing means for storing the transmitted telephone number in said read/write memory.

44. The mobile telephone of claim 35 wherein said read/write memory cumulatively stores a plurality of received service area identification codes at one time.

45. The mobile telephone unit of claim 35 wherein said read/write memory comprises a non-volatile memory.

46. The mobile telephone of claim 35 wherein said receiver means includes receiving means for receiving a most recently received area identification code, and readable memory means for retaining the most recently received area identification code, and wherein said process control means includes retrieval means for reading the most recently received area identification code retained in the readable memory means of said receiver means.

47. The mobile telephone of claim 35 further comprising reset means for clearing said read/write memory of stored area identification codes and stored clock output.

48. A mobile telephone with internal call accounting controls, the telephone comprising:

a hand-held unitary telephone unit having transceiver means for communicating to a communication network, said network having discrete mobile phone service areas, each mobile phone service area having a corresponding area identification code, said mobile

telephone being moveable from one mobile phone service area to another when communicating with the communications network, and at least one of the communication network and said mobile telephone having communication means for establishing a call communication session between the communication network and said mobile telephone, said mobile telephone having:

receiver means responsive to a call communication session being established between the communication network and said mobile telephone for receiving the area identification code of the mobile phone service area in which said mobile telephone is located during the call communication session;

a read/write memory means for cumulatively storing a plurality of received area identification codes at one time;

storing means for storing in said read/write memory each area identification code received by said receiver means;

an electronic time clock having a clock output;

an internal microprocessor with a process control program wherein the process control program has control means for controlling the cumulative storage of received area identification codes and the storage of the clock output at the time each area identification code is received; and wherein the process control program has calculating means for calculating cumulative charges of all communication sessions and blocking means for blocking use of the mobile telephone when a preset value of cumulative charges has been reached.

49. The mobile telephone of claim 48 wherein said read/write memory comprises a non-volatile memory.

50. The mobile telephone of claim 48 wherein said receiver means includes processing means for processing a most recently received area identification code and a readable memory for retaining the most recently received area identification code, and wherein said storing means comprises means for reading the readable memory of said receiver means.

51. The mobile telephone of claim 35 further comprising reset means for clearing said read/write memory of stored area identification codes.

52. The mobile telephone of claim 48 further comprising transmitter means for transmitting to the communications network a telephone number for establishing a call communications session, wherein said control means cumulatively stores a plurality of transmitted telephone numbers in said read/write memory at one time.

53. The mobile telephone of claim 52 wherein said read/write memory comprises a non-volatile memory.

54. The mobile telephone of claim 52 wherein said receiver means includes processing means for processing a most recent received area identification code and a readable memory for retaining the most recently received area identification code, and wherein said storing means comprises means for reading the readable memory of said receiver means.

55. The mobile telephone of claim 52 further comprising reset means for clearing said read/write memory of stored area identification codes and transmitted

telephone numbers.

56. The mobile telephone of claim 48 comprising further memory output means for transmitting the stored contents of said read/write memory to an external device.