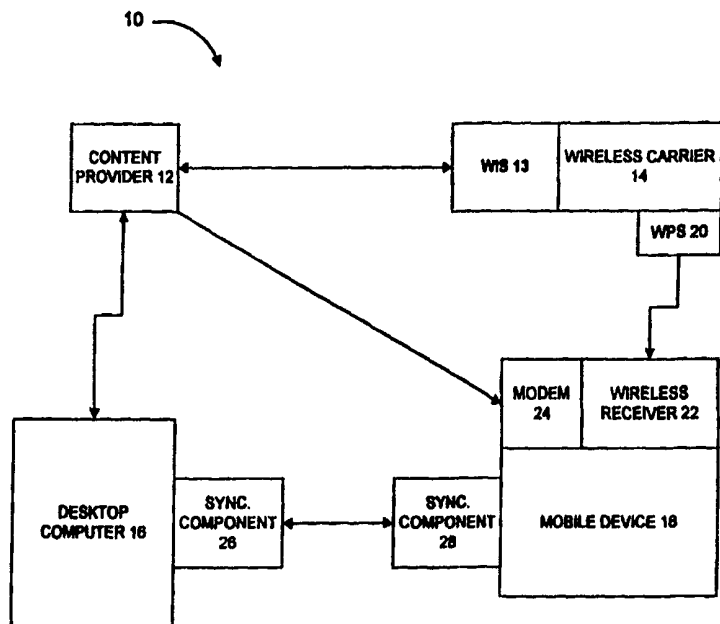




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁶ : H04L 12/28, H04Q 7/12, H04L 29/06, 9/32, 9/08</p>	<p>A3</p>	<p>(11) International Publication Number: WO 99/35591 (43) International Publication Date: 15 July 1999 (15.07.99)</p>
<p>(21) International Application Number: PCT/US99/00325 (22) International Filing Date: 7 January 1999 (07.01.99)</p> <p>(30) Priority Data: 60/070,720 7 January 1998 (07.01.98) US 60/074,236 10 February 1998 (10.02.98) US 60/075,123 13 February 1998 (13.02.98) US 09/108,953 30 June 1998 (30.06.98) US</p> <p>(71) Applicant: MICROSOFT CORPORATION [US/US]; One Microsoft Way, Redmond, WA 98052-6399 (US).</p> <p>(72) Inventors: DEO, Vinay; 16732 N.E. 35th Street, Bellevue, WA 98008 (US). TUNIMAN, David; 23044 N.E. 61st Street, Redmond, WA 98053 (US). GOLDSCHMIDT, Pamela; 3612 E. Union Street, Seattle, WA 98122 (US). O'LEARY, Michael, J.; 22823 N.E. 54th Street, Redmond, WA 98053 (US). KADYK, Don; 20022 34th Avenue S.E., Bothell, WA 98012 (US).</p> <p>(74) Agents: KELLY, Joseph, R. et al.; Westman, Champlin & Kelly, P.A., International Centre, Suite 1600, 900 Second Avenue South, Minneapolis, MN 55402-3319 (US).</p>	<p>(81) Designated States: CA, JP, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p>Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p> <p>(88) Date of publication of the international search report: 2 December 1999 (02.12.99)</p>	

(54) Title: A SYSTEM FOR PROGRAMMING A MOBILE DEVICE IN A PROTOCOL, DEVICE, AND NETWORK INDEPENDENT FASHION



(57) Abstract

The present invention is directed, in one embodiment, to a programming interface which enables device/protocol/network independent transmission of messages to, and programming of, mobile devices (18). In another embodiment, the present invention is directed to data structures maintained on, and supported by, the mobile devices (18). The present invention also, in another embodiment, provides security for programming messages and an acknowledgement channel over which the mobile device (18) can acknowledge receipt of, and successful implementation of, a programming message (288).

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INTERNATIONAL SEARCH REPORT

International Application No PCT/US 99/00325
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A. CLASSIFICATION OF SUBJECT MATTER
 IPC 6 H04L12/28 H04Q7/12 H04L29/06 H04L9/32 H04L9/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 IPC 6 H04L H04Q G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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Y	WO 95 23468 A (MERDAN GROUP INC) 31 August 1995 (1995-08-31) abstract page 1, line 5 - line 33 page 17, line 14 -page 18, line 3 page 46 --- -/--	29, 30

Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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Date of the actual completion of the international search 4 October 1999	Date of mailing of the international search report 25. 10. 99
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Vaskimo, K
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International Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
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INTERNATIONAL SEARCH REPORT

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/US 99/00325

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-19

A programming interface on a mobile device, the interface including a message processing component and a driver component, where said message processing component makes a control call to said driver and informs said driver of a control operation to be performed, the input buffer location, the number of bytes of information in the input buffer, the output buffer location, the maximum number of bytes of information in the output buffer, and the actual number of bytes received from the radio receiver, and where said driver receives said control call and executes said control operation.

2. Claims: 20-44

A data structure on a mobile device and a transmission system, said transmission system comprising an originator including encryption means for encrypting information to be transmitted, and said data structure on said mobile device storing data relating to decryption of received messages.

3. Claims: 45-50

A wireless transmission system for transmitting programming data to a mobile device, said system including an originator, a transmitter, a mobile device, a mobile device synchronization component, a desktop computing device, and a desktop communication component.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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