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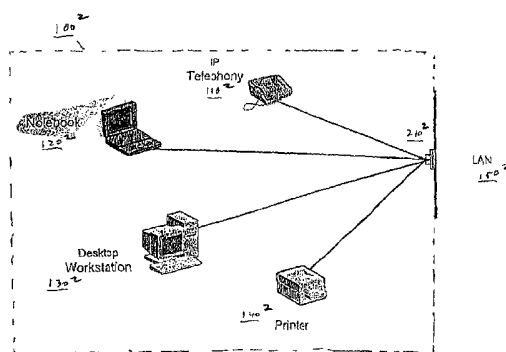
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[Continued on next page]

(54) Title: NETWORK MANAGEMENT DEVICE AND METHOD FOR MANAGING WIRELESS ACCESS TO A NETWORK



(57) Abstract: This disclosure reveals an apparatus for multiplexing signals in a network. The apparatus contains network connection devices and intelligent electronic circuitry for controlling and multiplexing data, voice telephone signals and power for multiple devices connected to the connection devices. The disclosure reveals a power management device for intelligent hardware; that is an intelligent data concentrator. Here a first interface is used to communicatively couple intelligent hardware to the network and a power source and a second interface for communicatively coupling the intelligent device to the plurality of client devices. The device processes and interprets data. The disclosure also reveals a secure network outlet for supporting IP device address assigning functionality and reducing the consumption of global device addresses within a network. The disclosure further reveals a flexible wireless communication network wherein first and second connection interfaces work with a device to concentrate data. The disclosure reveals an intelligent device that can be accessed remotely to reveal status information data. Finally, the disclosure reveals a method for managing access to a wireless personal area network in an intelligent concentrator. In this respect there is firewall protection, checking of an identification code for validity and access to the network and issuing an alert when a code is not valid.



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INTERNATIONAL SEARCH REPORT

International Application No

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04L29/06 H04L12/24 H04L29/12 H04L12/26 H04L12/10
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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 7 H04L

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)

EPO-Internal, INSPEC, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MURTHY U ET AL: "Firewalls for security in wireless networks" SYSTEM SCIENCES, 1998., PROCEEDINGS OF THE THIRTY-FIRST HAWAII INTERNATIONAL CONFERENCE ON KOHALA COAST, HI, USA 6-9 JAN. 1998, LOS ALAMITOS, CA, USA, IEEE COMPUT. SOC, US, 6 January 1998 (1998-01-06), pages 672-680, XP010262834 ISBN: 0-8186-8255-8 abstract page 672, left-hand column, paragraph 1 -page 673, left-hand column, line 10 page 674, left-hand column, last paragraph -page 675, left-hand column, paragraph F; figures 3,4 page 675, right-hand column, paragraph 2.2.2 -page 676, left-hand column, line 3 --- -/--	1-19

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 061 346 A (NORDMAN MIKAEL) 9 May 2000 (2000-05-09) column 2, line 26 - line 59 column 4, line 35 - line 41 column 7, line 52 -column 8, line 42; figures 1,4	1,5,10, 11,13-16
A	---	2-4,6-9, 12,17-19
X	WO 01 17310 A (ERICSSON TELEFON AB L M) 8 March 2001 (2001-03-08) page 4, line 18 - line 26 page 6, line 15 -page 7, line 8 page 8, line 12 - line 17 page 11, line 8 -page 12, line 7; figures 1-3	1,5,10, 11,13-16
A	---	2-4,6-9, 12,17-19
A	US 5 673 322 A (BROCKMAN JAMES JOSEPH ET AL) 30 September 1997 (1997-09-30) column 1, line 65 -column 2, line 17 column 6, line 56 -column 7, line 38; figures 1,2	1-19
A	SAITO T ET AL: "HOME GATEWAY ARCHITECTURE AND ITS IMPLEMENTATION" IEEE TRANSACTIONS ON CONSUMER ELECTRONICS, IEEE INC. NEW YORK, US, vol. 46, no. 4, November 2000 (2000-11), pages 1161-1166, XP001093610 ISSN: 0098-3063 the whole document -----	1-19

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 02/12879

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.:

1-19

Remark on Protest

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

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

Network and method for managing wireless access to a network comprising a firewall for granting access

2. Claims: 20-25

Intelligent concentrator comprising cable connectors, electronic circuitry and a distributed firewall

3. Claims: 26-49

Method and device comprising interfaces and status information provider

4. Claims: 50-59

Multi-configuration network connection point device comprising interfaces to upstream network devices and wireless downstream network devices, and a communication bus

5. Claims: 60-64

Multi-configuration connection point method with a single primary connection point and a plurality of secondary connection points

6. Claims: 65-72

Apparatus for multiplexing signals at a work center, comprising a mountable housing, cabling, power connection devices, and electronic circuitry for multiplexing and demultiplexing of signals

7. Claims: 73-88

Method and system providing network device connection at a work center, sensing a network device identity, determining power requirements, multiplexing data and power signals and monitoring electrical power supply

8. Claims: 89-110

Method an intelligent device for power control of intelligent hardware by obtaining power use data and

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

determining a power mode of intelligent hardware

9. Claims: 111-131

Method and intelligent devices for performing address assignment in intelligent hardware.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 02/12879

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