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Pham et al.

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(54) **UTILIZATION OF THE INTERNET
PROTOCOL TO FACILITATE
COMMUNICATION INVOLVING MOBILE
DEVICES**

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patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/347,374**

(22) Filed: **Jul. 6, 1999**

(51) **Int. Cl.**⁷ **H04Q 7/24**

(52) **U.S. Cl.** **370/338; 370/401**

(58) **Field of Search** 370/310, 310.2,
370/328–338, 351–3, 389–402, 431–437,
445, 403–409, 475, 395.2

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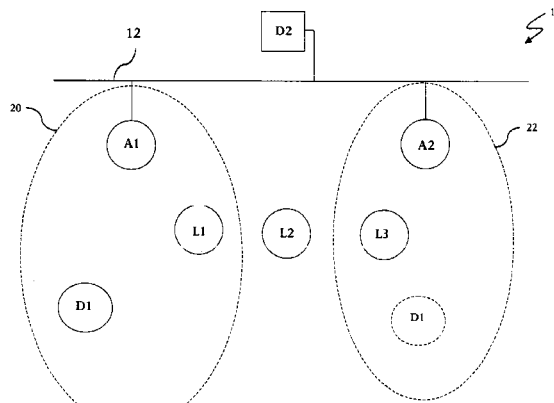
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(57) **ABSTRACT**

A data communication system capable of forwarding
IP-addressed data to devices as such devices move among
networks having different IP addresses is disclosed herein.
The system includes first and second networks containing
first and second pluralities of nodes. At least one of the first
plurality of nodes is adapted to receive data transmissions
from an external IP-based network. Upon joining the first
network, this device is assigned an IP address which remains
with it irrespective of whether it moves beyond the range of
the first network. When this device roams into the vicinity of
the second network, data addressed to the device which is
received at the first network is forwarded via at least one
node of the second network to the device.

16 Claims, 3 Drawing Sheets



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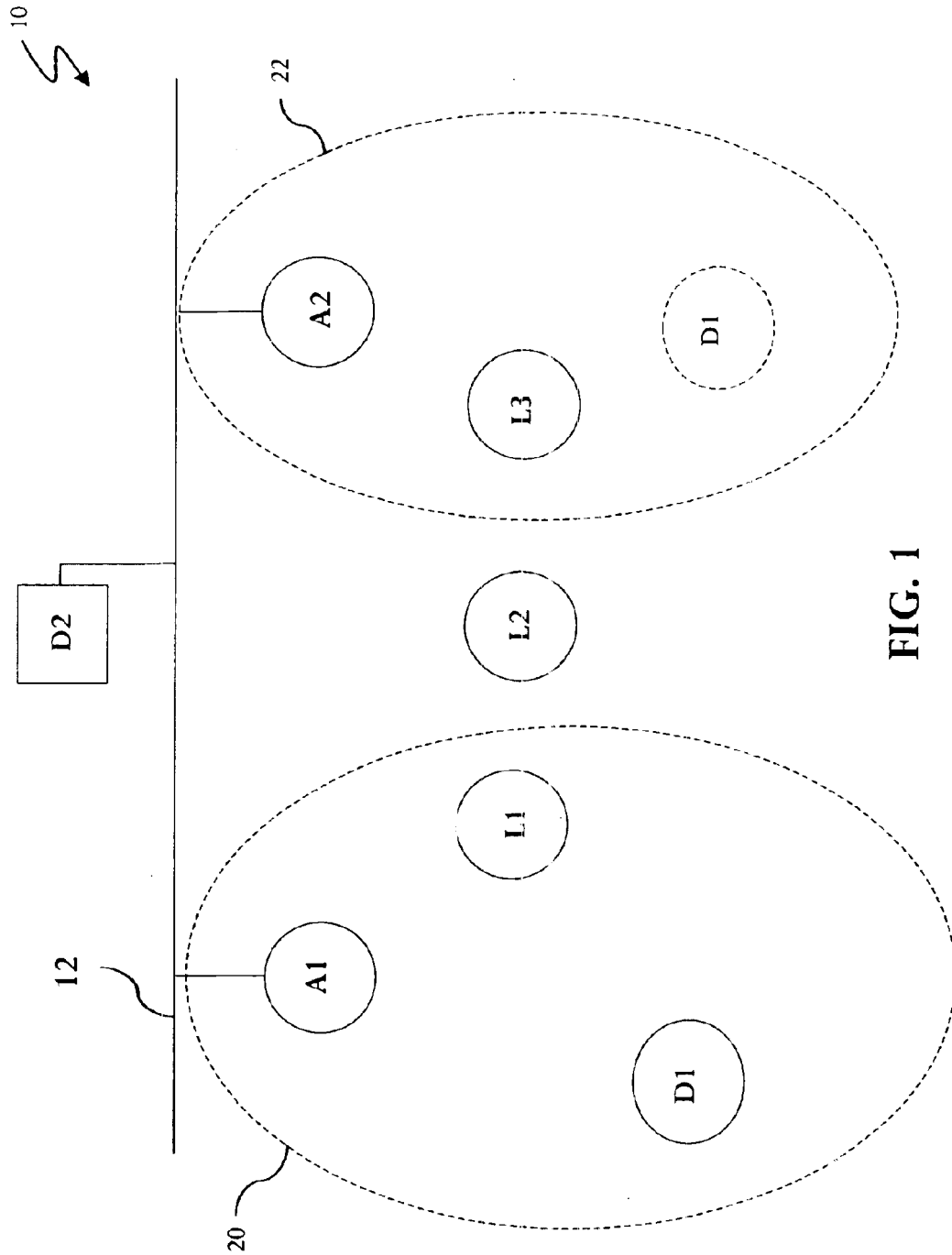


FIG. 1

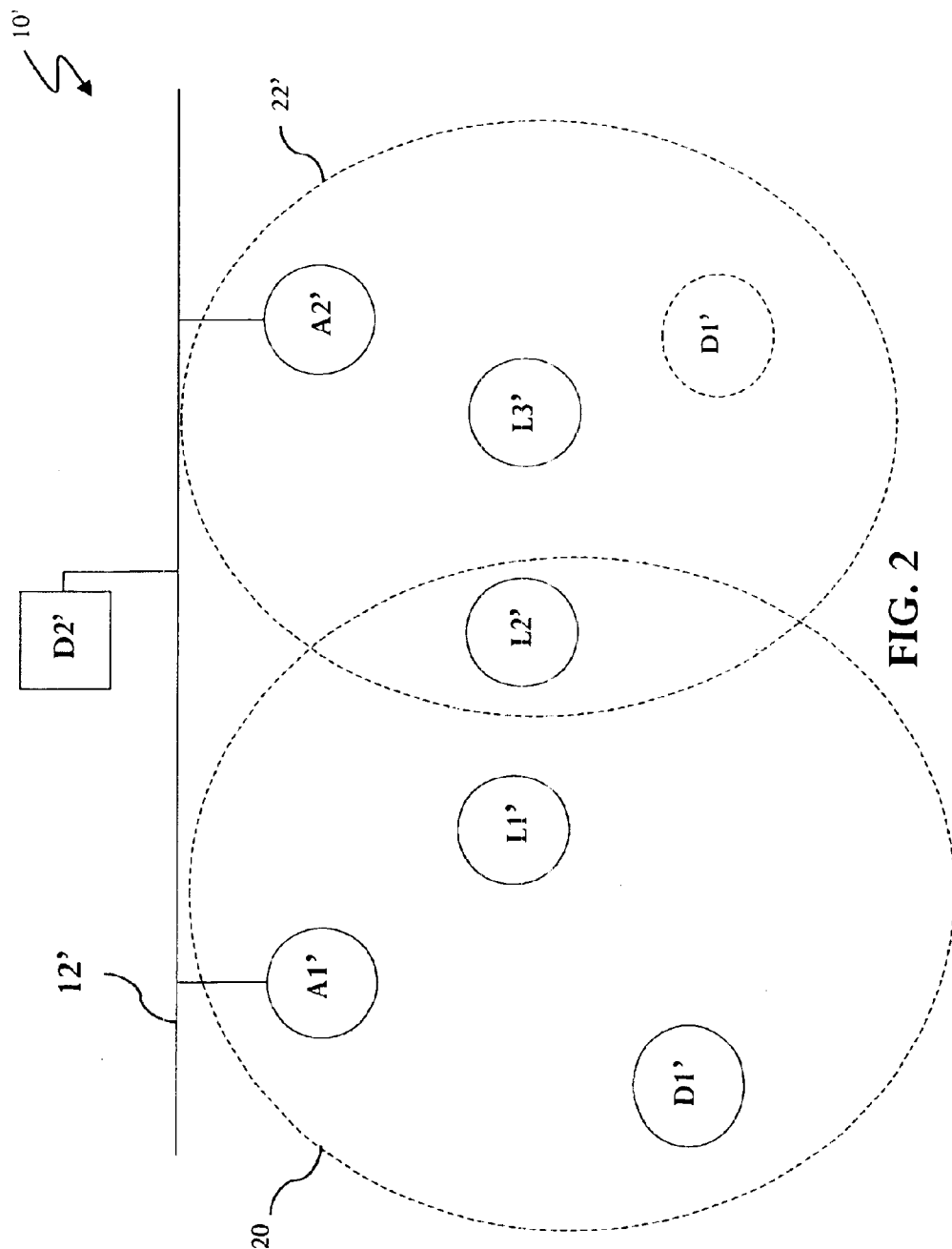


FIG. 2

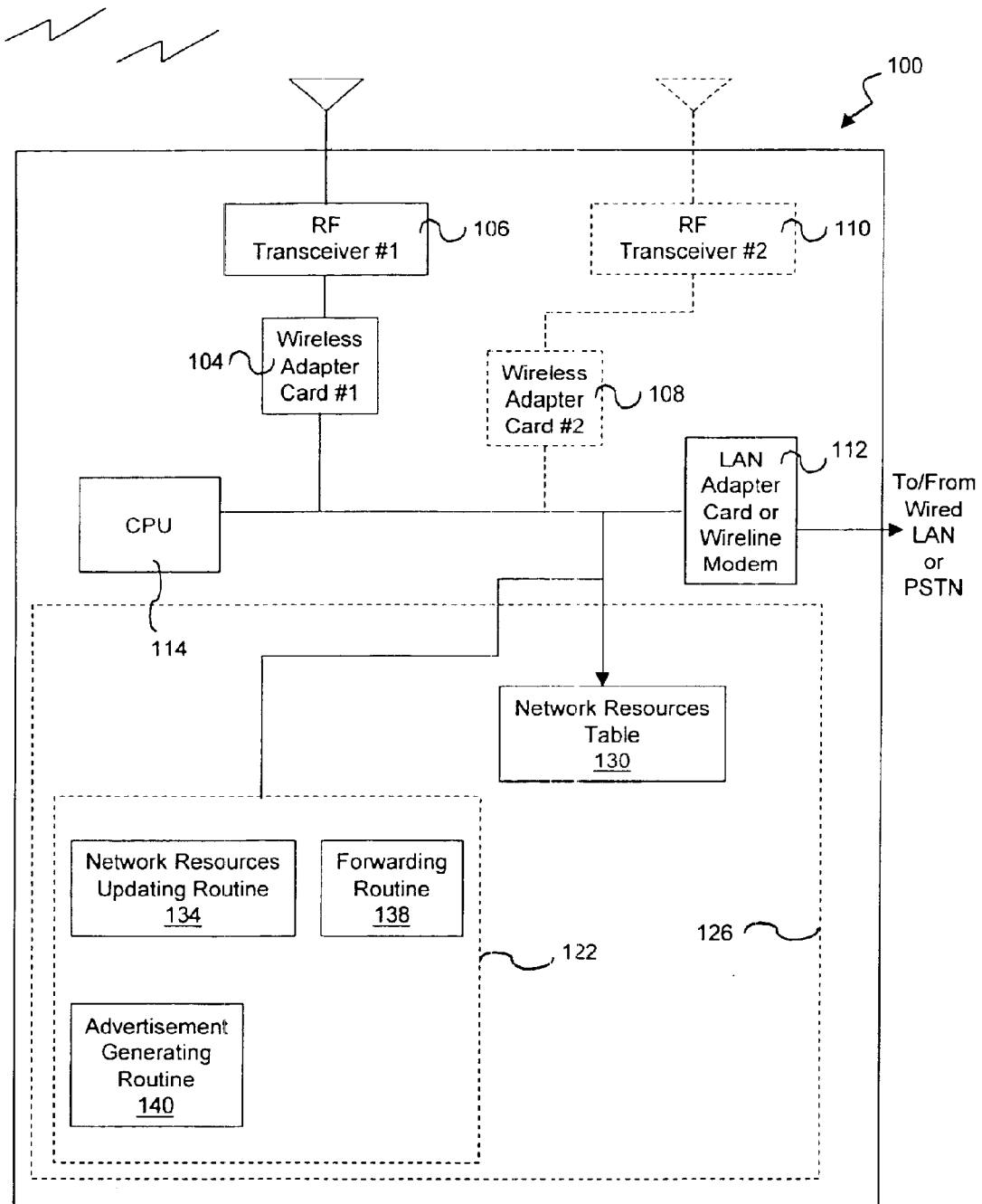


FIG. 3

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