Exchanging Data between Nodes of Disconnected Networks

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Wireless Networks Don’t Reach Everywhere:
Wireless networks are widespread today. Many people rely on being connected to networks, such as the Internet, to keep in contact and/or to access information.

Despite the ubiquity of these networks at businesses and homes, users who are on the move or in public places often lack cheap and easy access to the Internet. This is particularly the case in subways, tunnels, and areas remote from population centers. Even if a wireless network is within range, connectivity may be limited due to overloading. However, in any of these cases, people still need and desire to send information to and/or receive information from networks.

Node-to-Node Communication Extends Wireless Networks:
This technology provides methods and media for exchanging data between nodes of disconnected networks. The methods involve: performing a search of a cache of the first node based on the query and the query type; converting the query and storing the formatted query document in a database of the first node; retrieving a query document from the database at a predetermined interval and multicasting it to at least a second node; receiving a formatted response document resulting from a search of cache of the second node; converting the response document into a display document and presenting it to a user through the user interface of the first node. Computer-readable media are also described in this technology. The medium stores computer-executable instructions that, when executed by a processor, cause the processor to perform a method for exchanging data between nodes of disconnected networks.

Applications:
• Methods and media for exchanging data between nodes of disconnected networks

Advantages:
• Enables system to e.g. find services and locations without discovery server such as domain name system (DNS) service discovery
• Reduces network loading by sending announcements on exponential back-off schedule
• Enables web server to provide web-based user interface to the system and to work with the proxy server to display local cached-results in the absence of Internet connectivity
• Provides multicast query engine e.g. to exchange information among nodes in the network
• Community extensions can be provided, through which users can create their own objects such as events, calendars, maps, and recipes and share them with other users
• Community extensions can provide users with web-based interface, through which users can enter information for event or another type of object


Licensing Status: Available for Licensing and Sponsored Research Support


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