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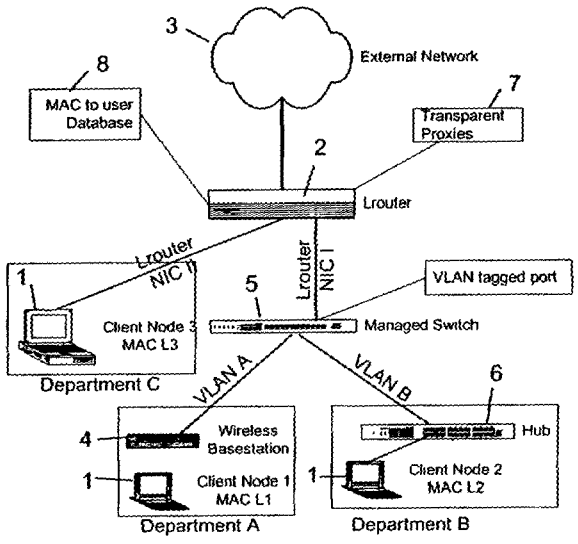
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(54) Title: COMPUTER NETWORKS



(57) Abstract: A computer network is described in which the data link layer address, e.g. MAC address, of the network cards of client nodes are used to uniquely identify the nodes in the provision of network to application layer services. A link layer aware router may determine the MAC address of a client node from a data packet transmitted by the client node, and determines the services to provide to the user, e.g. a proxy redirect of the packet, based on a database of client node MAC addresses to user attributes. By determining MAC addresses, the router can also identify unregistered MAC addresses, and can forward a HTTP request by an unregistered user to a remote configuration web page for registering the user or to a security warning web page. The router may also support Network Address Translation an Domain Name System services using the MAC addresses, with a fully qualified domain name, hostname or the like being assigned to the MAC addresses.

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