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**Vaziri et al.**

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(54) **MULTI-NETWORK EXCHANGE SYSTEM FOR TELEPHONY APPLICATIONS**

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(52) **U.S. Cl.** ..... **370/401**; 370/353; 370/466;  
370/230

(58) **Field of Classification Search** ..... 370/352,  
370/353, 395.5, 401, 466, 230, 389, 392  
See application file for complete search history.

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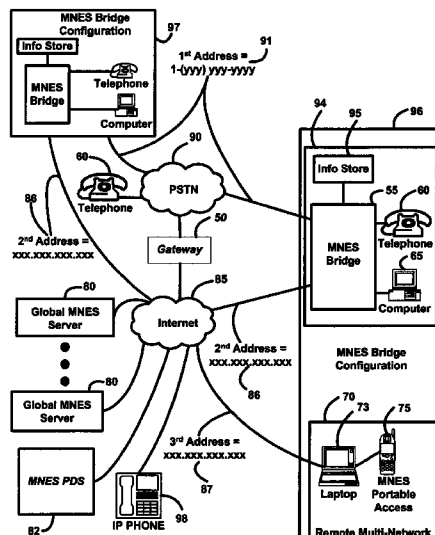
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(57) **ABSTRACT**

A multi-network exchange system has a first type network (PSTN) and a second type network (Internet) and a multi-network exchange bridge in communication with the first and second type networks for the transfer of electronic information signals (telephone calls) between the first and second type networks. The multi-network exchange bridge apparatus facilitates transfer of electronic information signals to a portable access device or a gateway portal in communication with a node of one of second type networks from the first network. The multi-network exchange bridge has at least one multi-network instantiation device that enables the portable access device to function as a remote extension of the multi-network exchange bridge. A fixed address translation device provides conversion of a first address fixedly describing a node of the first type network to a second address or third address virtually describing nodes of the second type network.

**76 Claims, 27 Drawing Sheets**



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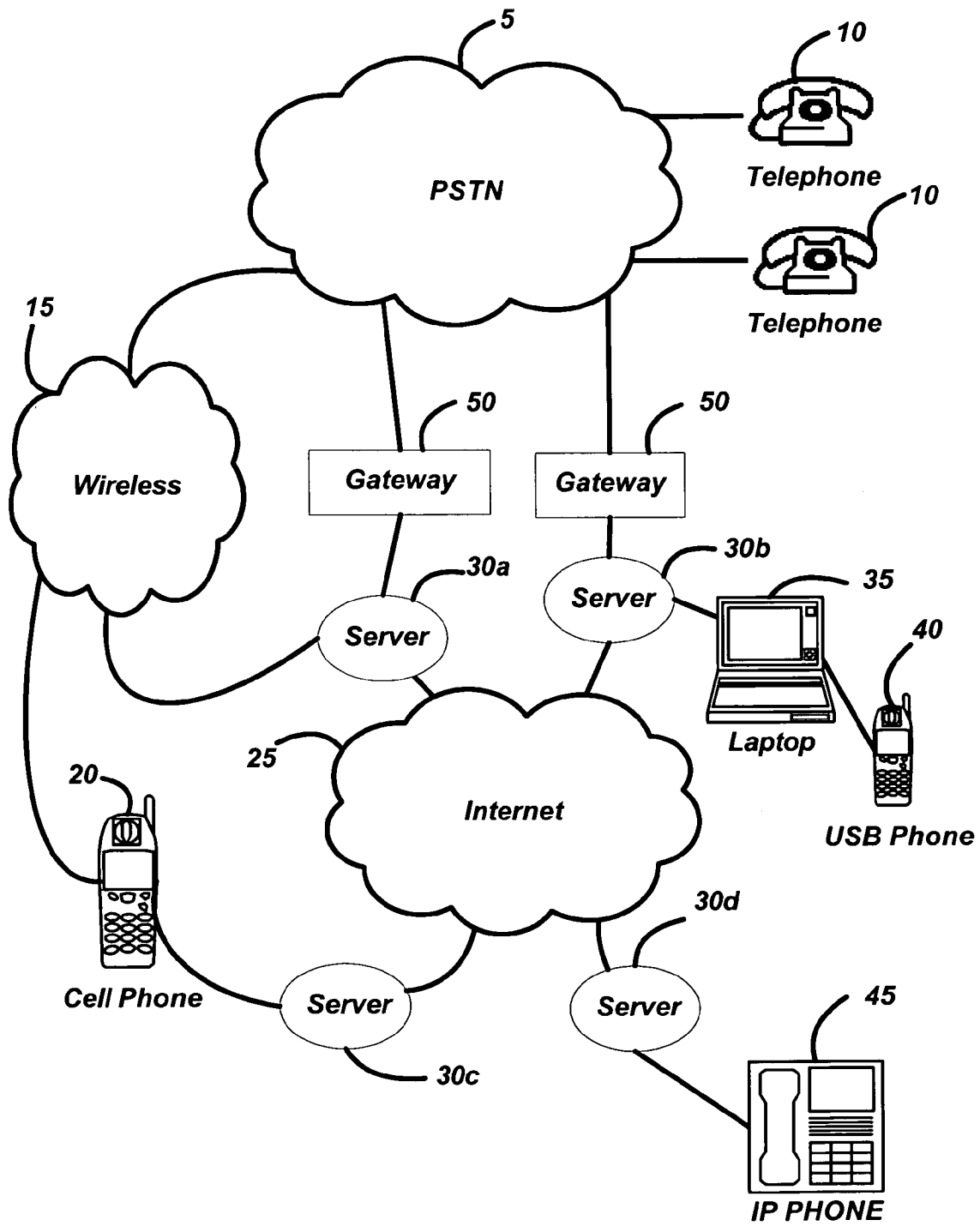


Figure 1



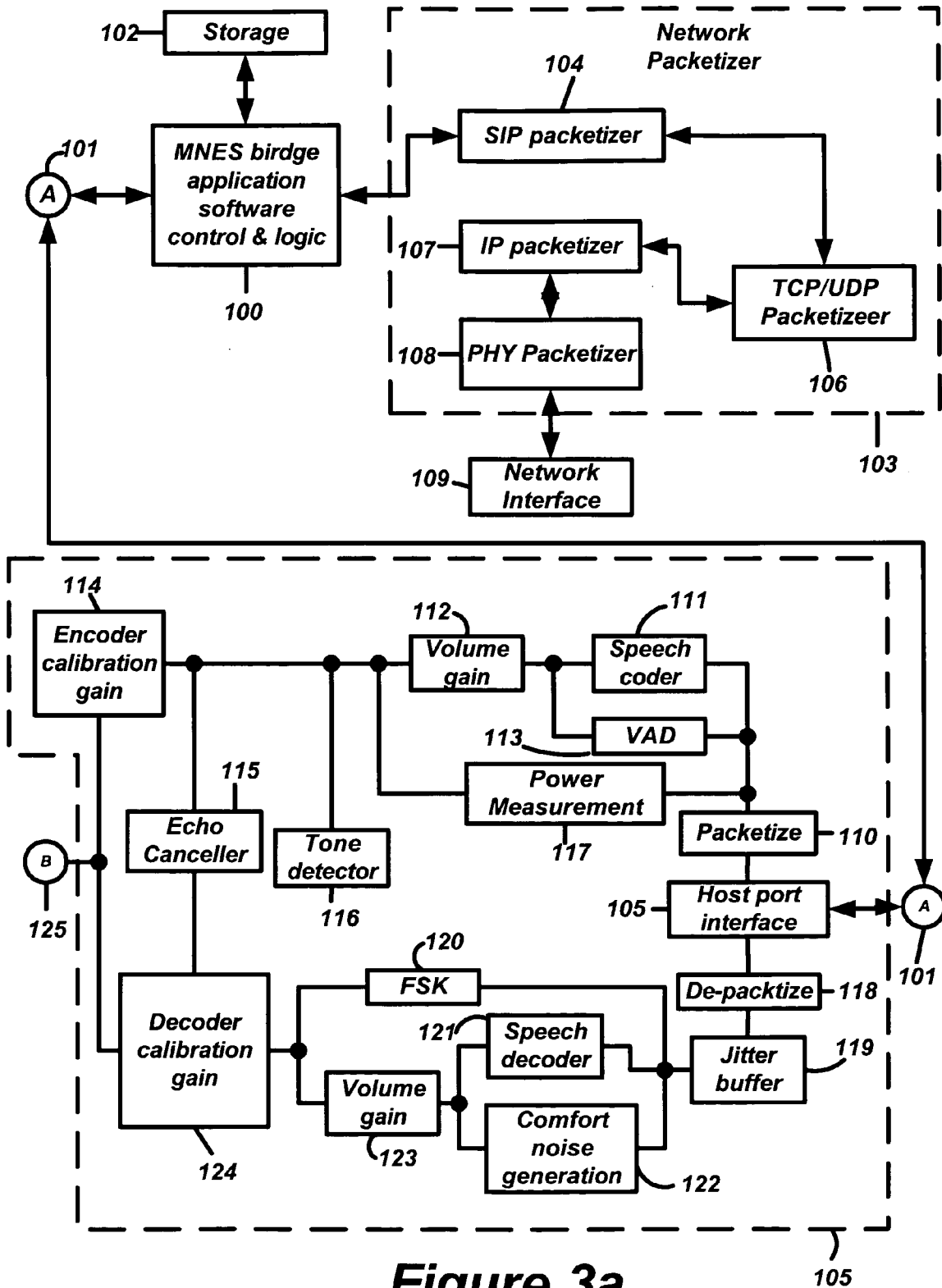


Figure 3a

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