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ABSTRACT OF THE DISCLOSURE

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DEVICE FOR DATA COMMUNICATIONS BETWEEN WIRELESS APPLICATION PROTOCOL TERMINAL AND WIRELESS APPLICATION SERVER, AND METHOD THEREOF

A device for data communications between a Wireless Application Protocol (WAP) terminal and a WAP server, and a data communication method thereof. The data communications device includes: a plurality of WAP terminals each having a protocol stack in which a Circuit Switch Data service (CSD) protocol layer is laid under a Wireless Transaction Protocol (WTP) layer and a Wireless Datagram Protocol (WDP) layer, for generating WAP data which is service request data; a plurality of WAP servers each having a protocol stack in which a Transmission Control Protocol (TCP) layer and an Internet Protocol (IP) layer are laid under a WTP layer and a WDP layer, for providing the WAP terminals with WAP server data according to the WAP data; and an interworking function (IWF) unit having a CSD protocol layer connected to the CSD protocol layers of each WAP terminal, and a TCP layer and an IP layer which are connected to the TCP and IP layers of each WAP server, for mapping the WAP terminals to the corresponding WAP servers, wherein each WAP terminal communicates with the IWF unit through a single Internet Protocol/Peer-to-Peer Protocol (IP/PPP) layer included in its own CSD protocol layer, and the IWF unit communicates through the Internet with each WAP server. Because there is no redundancy of IP/PPP protocol layers in the WAP terminal, overhead is considerably reduced. Also, the IWF unit is directly connected through the Internet to the WAP server, not through the PSTN and the ISP, so that connection time and costs can be reduced.

Fig. 6