~~TELEPHONE NUMBER INVESTIGATION~~ DEVICE, ~~TELEPHONE NUMBER INVESTIGATION~~ METHOD, ~~TELEPHONE NUMBER INVESTIGATION~~ PROGRAM, AND ~~TELEPHONE NUMBER INVESTIGATION~~ INFORMATION PROVISION SYSTEM FOR TELEPHONE NUMBER RESEARCH

ABSTRACT

~~To realize research on the usage status of a telephone number in an IMS network, an NGN network, and an IP network without ringing an incoming call by transmitting a specific SIP message that causes call rejection using an IMS interconnection interface or the like for interconnection between carriers. To determine the usage status of telephone numbers regardless of the type of the destination network.~~

~~A telephone number research device (10) is connected via an NGN network to a telephone connected to at least a destination network that is an IMS network or a VoIP network, and comprises a message exchange controller (12) configured to add a first SDP parameter to an INVITE request for the telephone to be researched, send the INVITE request to the destination network selected by the NGN network (20), and receive a first response message from the destination network. The message exchange controller (12) determines that the destination network is the VoIP network when the first response message is "200 OK" or the first SDP parameter has been converted, and determines that the destination network is the IMS network when the first SDP parameter has not been converted and the first response message includes a first error code.~~

According to one embodiment, a telephone number research device researches on the usage status of a telephone number in an IMS network, an NGN network, and an IP network without ringing an incoming call by transmitting a specific SIP message that causes call rejection using an IMS interconnection interface or the like for interconnection between carriers. The telephone number research device is

connected via an NGN network to a telephone connected to a destination network that is an IMS network or a VoIP network. The telephone number research device adds a first SDP parameter to an INVITE request for the telephone before sending the request to the destination network selected by the NGN network and determines the usage status of the telephone number of the telephone based on a response from the destination network regardless of the type of the destination network.

[Figure 2]