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Wesemann et al.

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(54) **VOICE-ENABLED USER INTERFACE FOR VOICEMAIL SYSTEMS**

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Related U.S. Application Data

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(51) **Int. Cl.⁷** **H04M 1/64**

(52) **U.S. Cl.** **379/88.16**; 379/88.01; 379/88.18; 704/231; 704/270.1; 455/563

(58) **Field of Search** 379/88.01, 88.03, 379/88.04-88.09, 88.13-88.25, 93.01, 93.26-93.28, 218.01; 455/79, 563; 704/270.1, 277, 231, 246, 270

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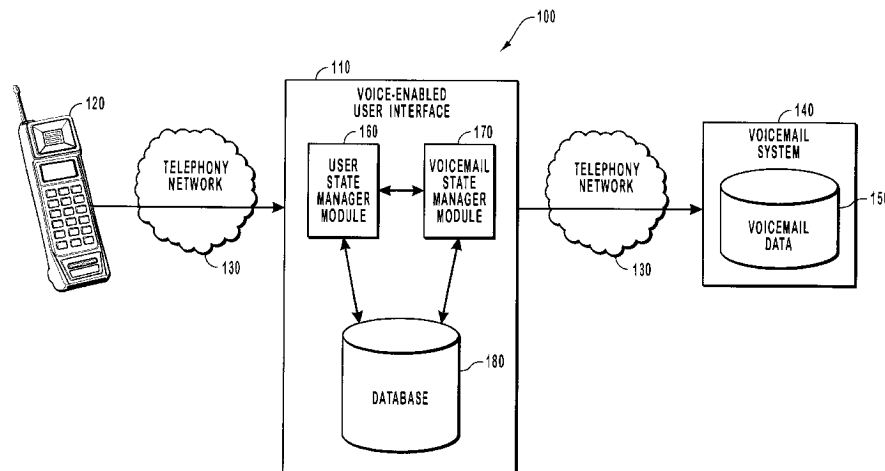
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(57) **ABSTRACT**

A voice-enabled user interface and method for enabling a user that is providing audio and vocal input to access data from telephone service systems that are only responsive to dual tone multi-frequency (“DTMF”) signals. A user access the voice-enabled user interface with a telephone device and provides input that is translated into a DTMF translation that can be recognized by DTMF telephone service system. A template of the voice-enabled user interface maps menu states, prompts, and acceptable inputs of the DTMF telephone service system. The template also monitors the current state of the telephone service system at all times. The invention also enables a user to jump from one menu state to another menu state of the telephone service system without having to enter input for each menu state between the first and the second menu states.

28 Claims, 5 Drawing Sheets



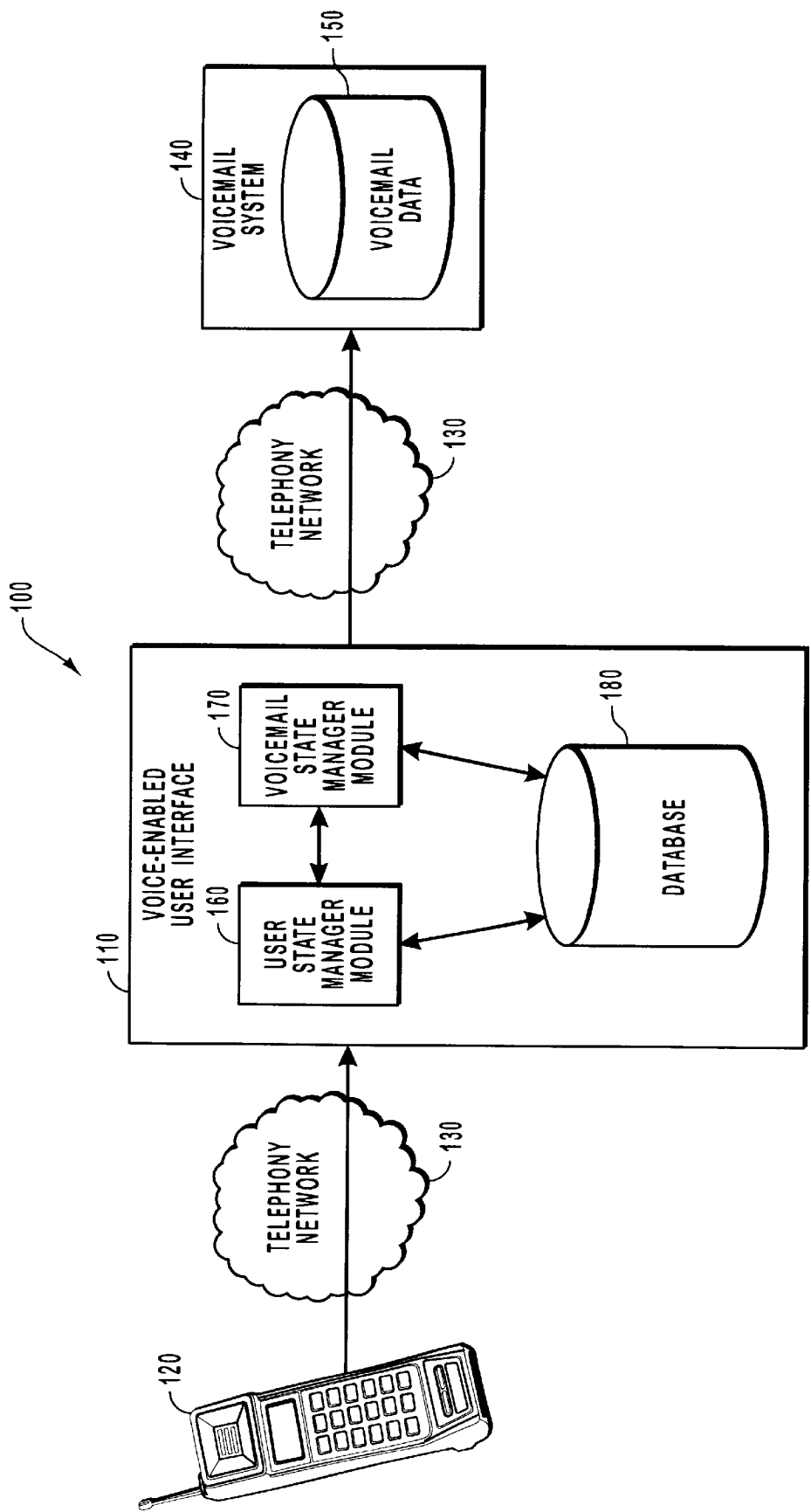


FIG. 1

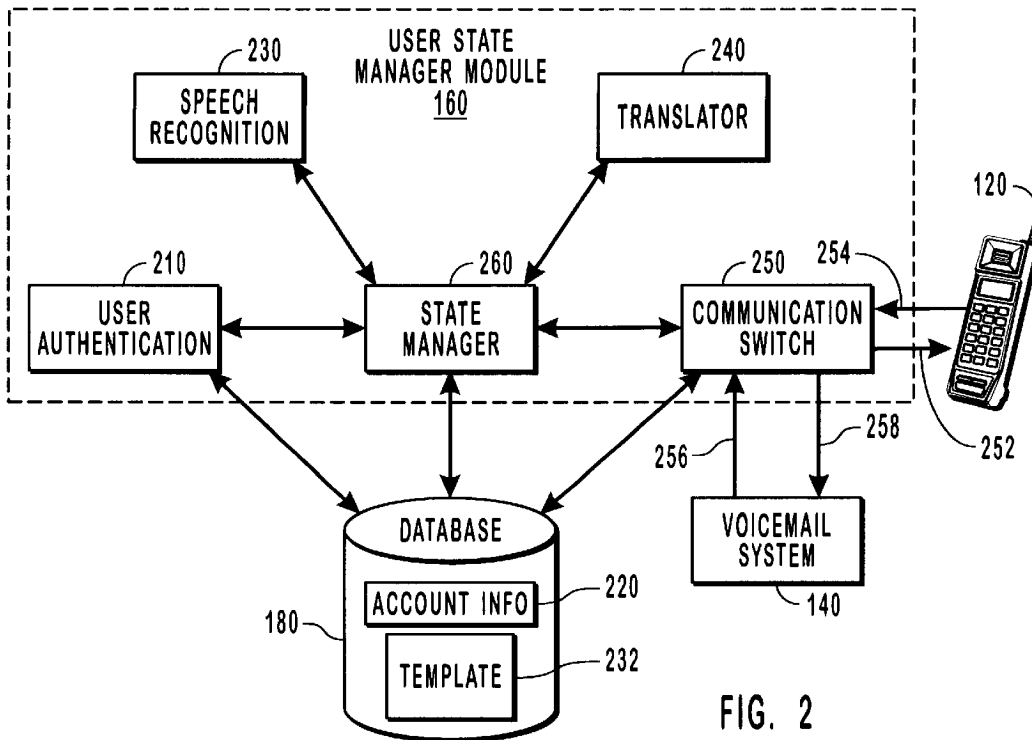


FIG. 2

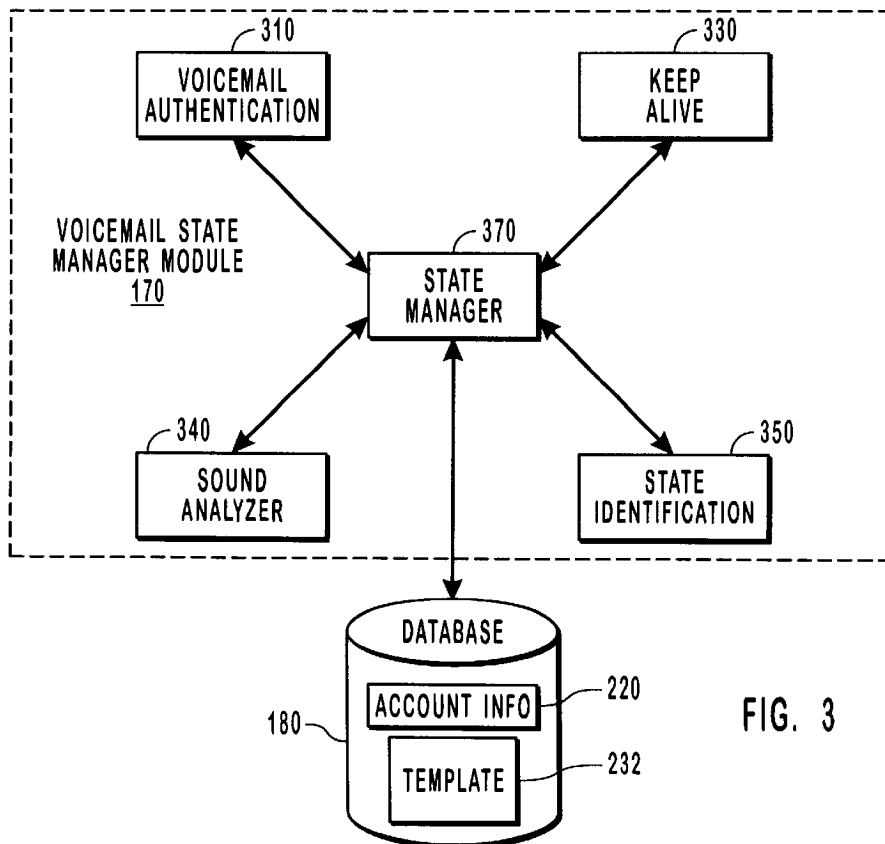


FIG. 3

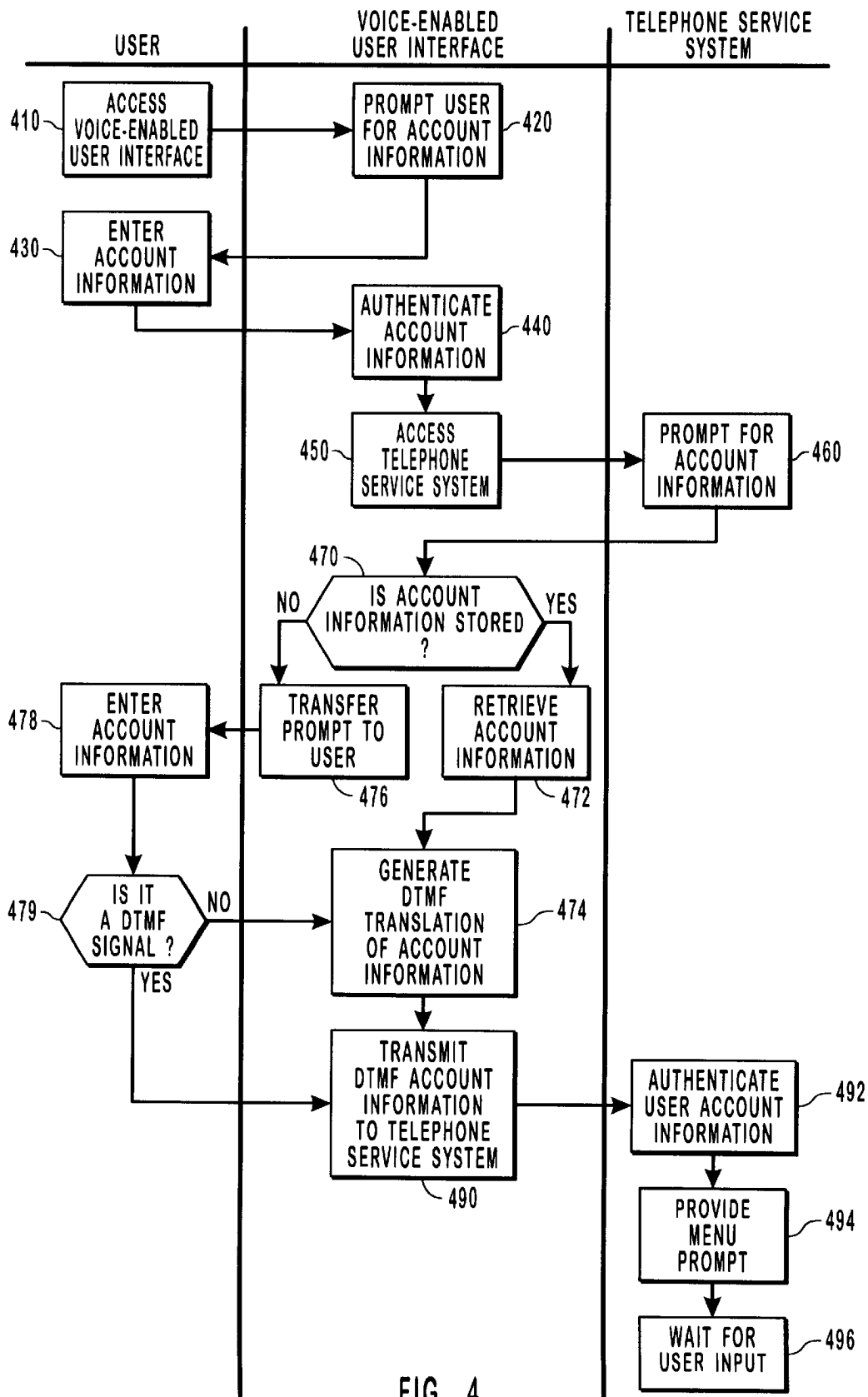


FIG. 4

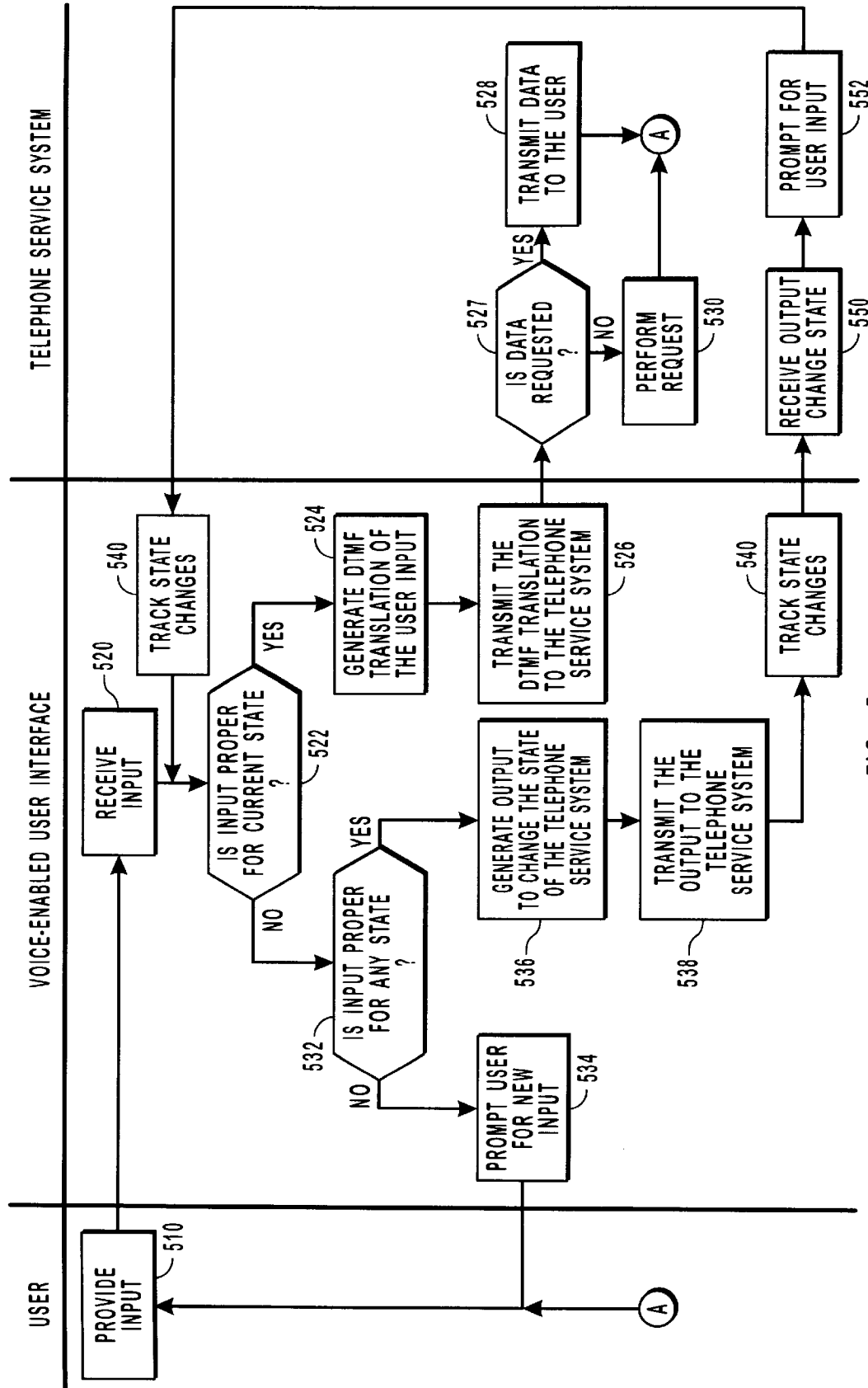


FIG. 5

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