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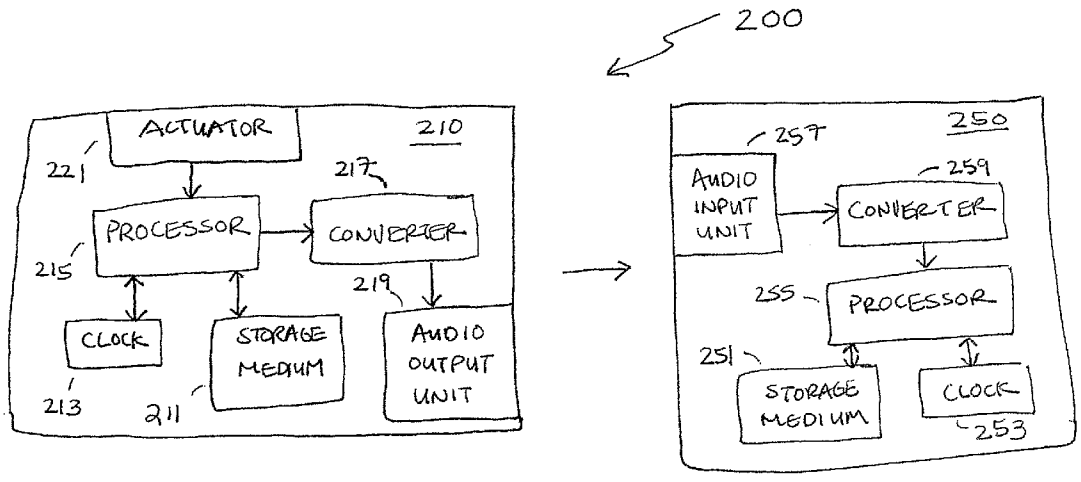
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[Continued on next page]

(54) Title: DIGITAL AUTHENTICATION OVER ACOUSTIC CHANNEL



(57) Abstract: Method and apparatus for controlling access to a secure network, system or application is disclosed. In one embodiment, an apparatus for requesting authentication (210) includes a storage medium (211) that stores a cryptographic key, a processor (215) that generates an access code using the cryptographic key, a converter (217) that converts the access code into sound waves, and an audio output unit (219) that outputs the sound waves encoded with the access code for authentication. An apparatus for granting authentication (250) includes a storage medium (251) that stores a cryptographic key, an audio input unit (257) that receives sound waves encoded with a access code, a converter that recovers the access code from the sound waves, and a processor (255) that generates a second access code using the cryptographic key and grants authentication if the access code corresponds to the second access code.

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