Embedding Patient Remote Monitoring and Assistive Facilities on Home Multimedia Systems

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Abstract

This paper proposes a new architectural approach of a home-appliances system that (seen in Fig. 1) embeds three different main components: smart home entertainment, remote monitoring and assistive systems. A review of State of the Art of the actual architectures and implementations in the field of e-Heath systems is presented (see Fig. 3). A rational approach for system developing is detailed, starting from a prototype point of view (see Fig. 2) to the new integrated smart home entertainment system. This system shows another perspective about remote and assistive monitoring and its features. The main functionality developed on prototype is illustrated in Fig. 4. A stream-based home entertainment system will provide a friendly and immersive environment facilitating the connection between the technical system and the house residents. Sensors forming a Body Area Network (BAN) will be also integrated with the new smart home entertainment devices.

References