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**Danieli et al.**

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(54) **USE OF MULTIPLE PLAYER REAL-TIME VOICE COMMUNICATIONS ON A GAMING DEVICE**

(75) Inventors: **Damon V. Danieli**, Clyde Hill, WA (US); **Roxana G. Arama**, Redmond, WA (US)

(73) Assignee: **Microsoft Corporation**, Redmond, WA (US)

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(52) **U.S. Cl.** ..... **463/35; 463/42**

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See application file for complete search history.

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*Primary Examiner*—Mark Sager  
(74) *Attorney, Agent, or Firm*—Ronald M. Anderson

(57) **ABSTRACT**

A game console capable of communicating with other game consoles over a link or network is provided with a headphone and microphone for each player who will engage in voice communication. Verbal communications directed to one or more other players are converted to pulse code modulated (PCM) digital data and are encoded and compressed in real-time, producing data packets that are transmitted to another game console. The compressed data packets are decompressed and decoded, producing PCM data that are converted to an analog signal that drives a headphone of the intended recipient. Players can selectively mute voice communications to and from a specific other player. The PCM data can be encoded in a round-robin fashion that reduces the number of encoders required. A predefined level of computing resources is used for voice communication to avoid adversely affecting the quality of game play.

**35 Claims, 13 Drawing Sheets**

