

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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ARRIS GROUP, INC.,  
Petitioner,

v.

C-CATION TECHNOLOGIES, LLC,  
Patent Owner.

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Case IPR2015-00635  
Patent 5,563,883

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Before BARBARA A. BENOIT, LYNNE E. PETTIGREW, and  
MIRIAM L. QUINN, *Administrative Patent Judges*.

PETTIGREW, *Administrative Patent Judge*.

DECISION  
Institution of *Inter Partes* Review  
37 C.F.R. § 42.108

I. INTRODUCTION

Petitioner, ARRIS Group, Inc., filed a Petition for *inter partes* review of claims 1, 3, and 4 of U.S. Patent No. 5,563,883 (Ex. 1001, “the ’883 patent”). Paper 2 (“Pet.”). Patent Owner, C-Cation Technologies, LLC,

IPR2015-00635  
Patent 5,563,883

filed a Preliminary Response. Paper 16 (“Prelim. Resp.”).<sup>1</sup> Institution of an *inter partes* review is authorized by statute when “the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a); *see* 37 C.F.R. § 42.108. Upon consideration of the Petition and the Preliminary Response, we conclude the information presented shows there is a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of claims 1, 3, and 4 of the ’883 patent.

#### A. Related Matters

The parties indicate that Patent Owner has asserted the ’883 patent against Petitioner and other defendants in *C-Cation Technologies, LLC v. Time Warner Cable Inc.*, No. 2:14-cv-00059 (E.D. Tex.) (filed Feb. 4, 2014). Pet. 2; Paper 5, 1. The ’883 patent also was asserted in *C-Cation Technologies, LLC v. Cable One, Inc.*, No. 2:11-cv-00030 (E.D. Tex.) (filed Jan. 25, 2011; terminated Jan. 21, 2014). Pet. 2; Prelim. Resp. 6.

The ’883 patent has been the subject of other petitions for *inter partes* review. In *Cisco Systems, Inc. v. C-Cation Technologies, LLC*, Case IPR2014-00454 (PTAB Aug. 29, 2014) (Paper 12), the Board denied institution of *inter partes* review. In *ARRIS Group, Inc. v. C-Cation Technologies, LLC*, Case IPR2014-00746 (PTAB Nov. 24, 2014) (Paper 22), the Board instituted *inter partes* review, and subsequently granted Patent

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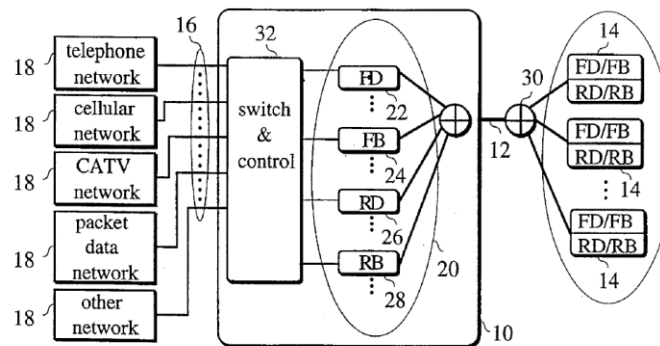
<sup>1</sup> Patent Owner filed a Motion to Seal its Preliminary Response and Certain Associated Exhibits. Paper 17. Along with the Motion to Seal, Patent Owner filed a redacted version of the Preliminary Response to be available to the public. Paper 18.

Owner's request for adverse judgment (Paper 28). Another petition, filed on April 13, 2015, is pending. See *Unified Patents Inc. v. C-Cation Techs., LLC*, Case IPR2015-01045 (Paper 2).

### B. The '883 Patent

The '883 patent "pertains generally to methods and apparatus for facilitating the two-way multi-media communication based on a shared transmission media such as coaxial cable-TV network, and more specifically to methods and apparatus for signalling channel management and protocol." Ex. 1001, 1:7–12.

Figure 1 of the '883 patent is reproduced below:



**Figure 1**

Figure 1 illustrates a multiple access communication system architecture comprising central controller 10, shared transmission media 12, and a plurality of remote terminals 14. *Id.* at 5:8–11. Central controller 10 interfaces with wide area networks 18 via a pool of communication channels 16. *Id.* at 5:12–14. Communication channels 20—including forward signalling channels 22, forward traffic bearer channels 24, reverse signalling channels 26, and reverse traffic bearer channels 28—support communications between central controller 10 and remote terminals 14. *Id.* at 5:15–21.

The '883 patent describes a method for dynamic signalling channel allocation, assignment of remote terminals to signalling channels, and terminal reassignment. *Id.* at 2:38–51. Figure 6 is a logic flow diagram illustrating terminal registration, channel allocation, terminal assignment, and reassignment processes. *Id.* at 8:16–18. In a preferred embodiment, the central controller receives a registration message from a remote terminal and, if the remote terminal is newly registering and authorized, checks for available signalling channels. *Id.* at 8:18–23. Some factors for determining signalling channel availability include “the number of remote terminals using the signalling data channel, the traffic requirements, past collision count, channel error status, and bandwidth of the signalling data channel.” *Id.* at 8:35–39. “At any time, the central controller can initiate the terminal re-assignment process if deemed appropriate for the varying traffic demand or other system dynamics.” *Id.* at 8:32–34.

### *C. Illustrative Claim*

Independent claim 1 of the '883 patent is illustrative of the subject matter of the challenged claims:

1. In a multiple access communication system comprising a central controller, a shared transmission means for signalling data and user information, and a plurality of remote terminals, a method of allocating signalling data channels between said central controller and said plurality of remote terminals from a plurality of communication channels and of assigning remote terminals comprising the steps of:

(a) establishing communications between said central controller and said plurality of remote terminals via a plurality of signalling data channels, each of said remote terminals being initially assigned to a pair of predetermined signalling data channels;

(b) monitoring the status of a plurality of the signalling data channels in use between said central controller and said plurality of remote terminals for the usability of said signalling data channels;

(c) determining whether one of said plurality of remote terminals needs to be reassigned to a different signalling data channel other than said predetermined signalling data channel;

(d) determining whether a different and suitable signalling data channel is available other than said predetermined channel; and

(e) reassigning by said central controller said remote terminal to a different and suitable signalling data channel for communication henceforward.

Ex. 1001, 14:27–53.

*D. Asserted Grounds of Unpatentability*

Petitioner contends that claims 1, 3, and 4 of the '883 patent are unpatentable based on the following specific grounds (Pet. 19–60):

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