

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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MOTOROLA SOLUTIONS, INC.,

Petitioner,

v.

STA GROUP LLC,

Patent Owner.

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IPR2023-01293

U.S. Patent No.: 8,489,134 B2

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**PETITIONER'S AUTHORIZED REPLY TO PATENT OWNER'S  
PRELIMINARY RESPONSE**

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### PETITIONER’S EXHIBIT LIST

| Ex[No.] <sup>1</sup> | Description of Documents                                                                                                                                                                                                        |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1001</b>          | U.S. Patent No. 8,489,134 (“’134 patent”)                                                                                                                                                                                       |
| <b>1002</b>          | Declaration of Dr. Sayfe Kiaei in Support of Petition for <i>Inter Partes</i> Review of the ’134 Patent, with CV attached as Appendix A (“Kiaei Decl.”)                                                                         |
| <b>1003</b>          | Prosecution File History of the ’134 Patent (“’134 patent file history”)                                                                                                                                                        |
| <b>1004</b>          | <i>Satellite Earth Stations and Systems (SES); Broadband Satellite Multimedia; IP Interworking over Satellite; Multicasting</i> , ETSI TR 102 156 v1.1.1 (published April 2003) (“ETSI-156”)                                    |
| <b>1005</b>          | ETSI, Publicly Available Specifications (PAS), <a href="https://www.etsi.org/images/files/Brochures/ETSI-Brochure-PAS.pdf">https://www.etsi.org/images/files/Brochures/ETSI-Brochure-PAS.pdf</a> (last accessed August 3, 2023) |
| <b>1006</b>          | <i>Resource ReSerVation Protocol (RSVP) – Version 1 Functional Specification</i> by Braden et. al. (published September 1997) (“RFC-2205”)                                                                                      |
| <b>1007</b>          | U.S. Patent Publication 2006/0268824 (published November 30, 2006) (“Dhesikan”)                                                                                                                                                 |
| <b>1008</b>          | U.S. Patent Publication 2005/0248652 (published November 10, 2005) (“Firestone”)                                                                                                                                                |

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<sup>1</sup> Citations to issued patents (Exhibits 1001, 1030, and 1034) are made by column and line number. Citations to patent application publications (Exhibits 1007-1009, 1026-1027, and 1031) are made by paragraph number. Citations to Exhibits 1002 and 1016 are made by paragraph number. Citations to Exhibits 1004-1006, 1011-1013, 1019-1020, 1022-1025, 1033, 1035, and 1037 are to the original page numbering in the exhibits. Citations to Exhibits 1003, 1010, 1014-1015, 1017-1018, 1021, 1028-1029, 1032, and 1036 are to the page number added by the exhibit label.

| Ex[No.] <sup>1</sup> | Description of Documents                                                                                                                                                                                                                                                                                       |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1009</b>          | U.S. Patent Publication 2007/0036118 (published February 15, 2007) (“Shaffer”)                                                                                                                                                                                                                                 |
| <b>1010</b>          | RFC-Editor, Publication Process, <a href="https://www.rfc-editor.org/pubprocess/">https://www.rfc-editor.org/pubprocess/</a> (last accessed August 3, 2023)                                                                                                                                                    |
| <b>1011</b>          | <i>Satellite Earth Stations and Systems (SES); Broadband Satellite Multimedia; IP Interworking over satellite; Performance, Availability and Quality of Service</i> , ETSI TR 102 157 v1.1.1 (published July 2003) (“ETSI-157”)                                                                                |
| <b>1012</b>          | <i>Satellite Earth Stations and Systems (SES); Broadband Satellite Multimedia; IP over Satellite</i> , ETSI TR 101 985 v1.1.2 (published November 2002) (“ETSI-985”)                                                                                                                                           |
| <b>1013</b>          | <i>RTP: A Transport Protocol for Real-Time Applications</i> by Schulzrinne et al. (published July 2003) (“RFC 3550”)                                                                                                                                                                                           |
| <b>1014</b>          | <i>The BGAN Extension Programme</i> , The European Space Agency (ESA) Bulletin 124 (Nov. 2005) (“BGAN”)                                                                                                                                                                                                        |
| <b>1015</b>          | Web archive for <i>The BGAN Extension Programme</i> , <a href="https://web.archive.org/web/20061009113656/https://www.esa.int/esapub/bulletin/bulletin124/bul124j_rivera.pdf">https://web.archive.org/web/20061009113656/https://www.esa.int/esapub/bulletin/bulletin124/bul124j_rivera.pdf</a> (Oct. 9, 2006) |
| <b>1016</b>          | Declaration of Dr. Sylvia Hall-Ellis                                                                                                                                                                                                                                                                           |
| <b>1017</b>          | ETSI, <i>Technical Committee (TC) Satellite Earth Stations and Systems (SES)</i> , <a href="https://www.etsi.org/committee/1412-ses">https://www.etsi.org/committee/1412-ses</a> (last accessed Aug. 3, 2023)                                                                                                  |
| <b>1018</b>          | Docket Control Order, <i>STA Group LLC v. Motorola Solutions, Inc.</i> , No. 2:22-CV-0381-JRG-RSP, Dkt. 35 (E.D. Tex. Feb. 3, 2023)                                                                                                                                                                            |
| <b>1019</b>          | Sastri L. Kota, <i>Broadband Satellite Networks: Trends and Challenges</i> , IEEE Wireless Communications and Networking Conference, Vol. 3, pp. 1472-78 (2005) (“Kota”)                                                                                                                                       |

| Ex[No.] <sup>1</sup> | Description of Documents                                                                                                                                                                                                                                                |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1020</b>          | Eylem Ekici et al., <i>A Multicast Routing Algorithm for LEO Satellite IP Networks</i> , IEEE/ACM Transactions on Networking, Vol. 10, No. 2, pp. 183-92 (2002) (“Ekici”)                                                                                               |
| <b>1021</b>          | Jiangchuan Liu et al., <i>Adaptive Video Multicast over the Internet</i> , IEEE MultiMedia, Vol. 10, No. 1, pp. 22-33, (2003) (“Liu”)                                                                                                                                   |
| <b>1022</b>          | Plaintiff’s First Amended Disclosure of Asserted Claims and Infringement Contentions and Document Production Accompanying Disclosure Pursuant to P.R. 3-1 & 3-2, <i>STA Group LLC v. Motorola Solutions, Inc.</i> , No. 2:22-CV-0381-JRG-RSP (E.D. Tex. June 15, 2023). |
| <b>1023</b>          | <i>Host Extensions for IP Multicasting</i> by Deering (published August 1989) (“RFC-1112”)                                                                                                                                                                              |
| <b>1024</b>          | <i>Internet Group Management Protocol, Version 3</i> by Cain et al. (published October 2002) (“RFC-3376”)                                                                                                                                                               |
| <b>1025</b>          | <i>Protocol Independent Multicast – Sparse Mode (PIM-SM): Protocol Specification (Revised)</i> by Fenner et al. (published August 2006) (“RFC-4601”)                                                                                                                    |
| <b>1026</b>          | U.S. Patent Publication 2005/0047582 (published March 3, 2005) (“Shaffer”)                                                                                                                                                                                              |
| <b>1027</b>          | U.S. Patent Publication 2005/0086302 (published April 21, 2005) (“Aggarwal”)                                                                                                                                                                                            |
| <b>1028</b>          | Celestri Multimedia LEO System, Federal Communications Commission Filing (June 1997) (“Celestri”)                                                                                                                                                                       |
| <b>1029</b>          | Iridium System Application, Federal Communications Commission Filing (December 3, 1990) (“Iridium”)                                                                                                                                                                     |
| <b>1030</b>          | U.S. Patent 6,104,925 (issued August, 15, 2000) (“Grube”)                                                                                                                                                                                                               |
| <b>1031</b>          | U.S. Patent Publication 2005/0021726 (published January 27, 2005) (“Denoual”)                                                                                                                                                                                           |
| <b>1032</b>          | <i>Comparisons of Conventional and Trunked Systems</i> , Public Safety Wireless Network, May 1999                                                                                                                                                                       |
| <b>1033</b>          | <i>Satellite Earth Stations and Systems (SES); Broadband Satellite Multimedia; Part 1: Survey on Standardization Objectives</i> , ETSI TR 101 374-1 v1.2.1 (published October 1998) (“ETSI-374”)                                                                        |
| <b>1034</b>          | U.S. Patent No. 6,477,150 (issued Nov. 5, 2002) (“Maggenti”)                                                                                                                                                                                                            |

| Ex[No.] <sup>1</sup> | Description of Documents                                                                                                                                                                    |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1035                 | Wayback Machine capture of <i>Resource ReSerVation Protocol (RSVP) – Version 1 Functional Specification</i> by Braden et. al. (published September 1997) (“RFC-2205”) from October 10, 2004 |
| 1036                 | Parties’ Local P.R. 4-2 Disclosure of Preliminary Proposed Constructions of Claim Terms and Preliminary Identification of Extrinsic Evidence                                                |
| 1037                 | Katherine K. Vidal, <i>Memorandum: Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation</i> (June 21, 2022)                    |
| 1038                 | Amended Docket Control Order, STA Group LLC v. Motorola Solutions, Inc., No. 2:22-CV-0381-JRG-RSP, Dkt. 196 (E.D. Tex. Dec. 1, 2023)                                                        |
| 1039                 | Email from Katharine.Burke@BakerBotts.com (Dec. 27, 2023)                                                                                                                                   |

## I. PO'S *FINTIV* ARGUMENTS ARE MOOT

Petitioner's *Sotera* stipulation moots Patent Owner's ("PO") *Fintiv* arguments. *See* Ex[1039]; Ex[1037], 3.

## II. THE BOARD SHOULD REJECT PO'S IMPLIED NARROW CONSTRUCTION OF "TRANSCODING" IN GROUND I

As described in the Petition, the plain meaning of "transcoding" is straightforward and includes "changing codec type[s]" or other methods of coding previously encoded data. Petition at 40; Ex[1002] ¶¶43-44, 82-85. Petitioner's interpretation is consistent with the Board's prior construction of "transcoding" to mean "converting from one video format to another." *Twitter, Inc. v. Vidstream LLC*, IPR2017-01133, Paper 68 at 8, n1 (P.T.A.B. Jan. 23, 2019) (applying *Phillips* and *BRI*). Under the Petition's proper interpretation, PO itself **concedes** that the prior art discloses changing coding types—*i.e.*, transcoding. *E.g.*, Ex[2001], ¶43 ("there is no doubt that ETSI-157 teaches a system that may request additional coding or **request a change to existing coding**") (emphasis added). To try to distinguish the prior art, PO is left with irrelevant extrinsic evidence and an unduly narrow interpretation of "transcoding"—one that reads in a specific process of first "decod[ing] from one coding format" and then "re-encod[ing] into another alternative format," with both formats at the so-called "same encoding level" in a purportedly illustrative coding hierarchy. POPR at 10, 14-16 (emphasis added). PO's interpretation lacks any support in the intrinsic record and, even if adopted, cannot distinguish the prior art.

First, PO's narrow reading departs from the claims and specification. The challenged claims merely recite "select a transcoding" without requiring any specific method, much less an intermediate decoding step between a first codec and a second codec at the same level of an unrecited coding hierarchy. As for the specification, the term "transcoding" is used once outside the claims—and simply refers to adjusting or ramping down a codec, consistent with Petitioner's interpretation:

[D]ynamic trunking elements 50 and 52 (in cooperation with the endpoints) automatically configure the system to select **transcoding** based on the available bandwidth. As a result, the endpoints are dynamically configured to **ramp down the codec on the SatCom link, based on the available bandwidth** over the SatCom link. Note that each SatCom link may **adjust its codec** according to the specific bandwidth it is able to reserve.

Ex[1001], 4:25-32 (emphasis added). The '134 patent never refers to, let alone requires, the specific intermediate decoding and re-encoding method PO advocates or ever even uses the terms "decode" or "re-encode" at all. *See generally* Ex[1001].

Second, PO's expert declaration, the sole source of PO's interpretation of "transcoding," fails to justify PO's narrow limitations. POPR, 15-19. The conclusory declaration cites no evidence—extrinsic or intrinsic—for limiting "transcoding" to a specific decode/re-encode operation at a single "level" of the illustrated coding

hierarchy.<sup>2</sup> *E.g.*, Ex[2001], ¶40. Rather, PO’s declaration appears to **contradict** the specification’s description of transcoding as covering “adjust[ing]” a codec or “ramp[ing] down” a codec, Ex[1001], 4:25-32, and instead **excludes** such adjusting (*e.g.*, substituting) or ramping down (*e.g.*, compressing). *See, e.g.*, Ex[2001], ¶44 (distinguishing transcoding from “substituting one codec for another”), ¶43 (distinguishing transcoding from changing compression types for a codec). This type of conclusory declaration that contradicts the specification and parrots the POPR’s arguments without “any additional supporting evidence” is “entitled to little weight.” *Xerox Corp. v. Bytemark, Inc.*, IPR222-00624, Paper 9 at 15 (P.T.A.B. Aug. 24, 2022) (precedential); *see also Phillips v. AWH Corp.*, 415 F.3d at 1318 (Fed. Cir. 2005) (“[A] court should discount any expert testimony that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history....” (citations omitted)).

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<sup>2</sup> None of PO’s new implied constructions were foreseen as PO has not proposed or implied such constructions in district court. *E.g.*, Joint Claim Construction Chart, Exhibit C, *STA Group LLC v. Motorola Solutions, Inc.*, No. 2:22-CV-0381-JRG-RSP, Dkt. 187-3 (E.D. Tex. Nov. 27, 2023); Complaint, Exhibit F, *STA Group LLC v. Motorola Solutions, Inc.*, No. 2:22-CV-0381-JRG-RSP, Dkt. 1-7 (E.D. Tex. Sept. 30, 2022) (infringement chart without reference to new interpretations).

Finally, PO's interpretation, even if adopted, also fails to distinguish the prior art. According to PO's declaration, transcoding appears to cover at least decoding an MPEG video signal and re-encoding it into another codec type. Ex[2001], ¶42. Petitioner's expert, Dr. Kiaei, identifies that *same* type of video conversion in the Ground 1 prior art. *E.g.*, Ex[1002], ¶150 (ETSI-157 discloses changing one MPEG format to another, lower bit rate, MPEG format). Dr. Kiaei also cites background art (e.g., Denoual) that discloses conversion using a decoding/re-encoding process. Ex[1031], ¶¶0142-0143 (MPEG-4 decoding and re-encoding); Ex[1002], ¶84 (citing Denoual). As Dr. Kiaei explains, it would have been obvious to combine such known processes with the other claim elements with "predictable results." Ex[1002], ¶86.

### **III. THE BOARD SHOULD REJECT PO'S IMPLIED CONSTRUCTION OF "AUTOMATICALLY CONFIGURED TO SELECT A TRANSCODING"**

PO resorts again to an improperly narrow interpretation to try to distinguish ETSI-157 from the claimed "transcoding" step—this time interpreting the phrase "automatically configured to select" as requiring a selection that cannot be "denied." POPR at 23-24; Ex[2001], ¶52. Again, PO cites no support for its blatant rewriting of the claim and, regardless, its new interpretation does not distinguish the reference.

The plain claim language merely recites "automatically configured to select a transcoding," and does not support reading in an extra limitation that the selection has no potential for denial. And the specification in fact contradicts PO's interpretation, specifically disclosing that after selecting a transcoding, the "SatCom

link *may* adjust its codec”—not that it must adjust it, or that the selection has no potential for denial. Ex[1001], 4:25-32 (emphasis added). Since PO concedes that ETSI-157 at least “requests” “additional encoding or the substitution of a codec”—*i.e.*, selects or chooses a potential transcoding regardless of potential for denial—there can be no dispute that ETSI-157 discloses the claimed selection under the term’s plain meaning. POPR at 19-20; Ex[1002], ¶¶148-149.

Moreover, even under PO’s interpretation, ETSI-157 discloses “automatically configured to select a transcoding.” PO argues that the ETSI-157 system only allows for a request to change Codec Type but not a “decision without the possibility of denial.” POPR at 23-24. But PO cites and analyzes only a portion of the Petition. *See* POPR at 20 (truncating Petition). The immediate prior and subsequent sentences explain that a new Codec Type is definitively selected and *must* be implemented so that the CRM can “reduce the rate” and “continue with degraded performance” specifically because the system encounters low-bandwidth scenarios and “*cannot allocate bandwidth that does not exist.*” Pet., 39-40 (citing Ex[1011], pp.25, 32, §7.3.2.3.3) (emphasis added); Ex[1002], ¶¶147-149. In these scenarios, the new codec type must change because there is not sufficient bandwidth to support a higher fidelity encoding, Ex[1002], ¶¶147-149—just as required by PO’s interpretation.

Respectfully Submitted,

January 18, 2024

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**CERTIFICATE OF SERVICE**

In accordance with 37 C.F.R. §42.6(e), the undersigned certifies that on January 18, 2024, a complete and entire copy of the **PETITIONER'S AUTHORIZED REPLY TO PATENT OWNER'S PRELIMINARY RESPONSE** was served on Patent Owner via email at the following correspondence addresses:

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