

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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UNIFIED PATENTS INC.,  
Petitioner,

v.

QURIO HOLDINGS, INC.,  
Patent Owner.

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Case IPR2015-01940  
Patent 8,102,863 B1

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Before BARBARA A. BENOIT, KERRY BEGLEY, and  
JASON J. CHUNG, *Administrative Patent Judges*.

CHUNG, *Administrative Patent Judge*.

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

I. INTRODUCTION

Petitioner, Unified Patents Inc., filed a Corrected Petition to institute an *inter partes* review of claims 1–15 and 17–21 (“the challenged claims”) of U.S. Patent No. 8,102,863 B1 (Ex. 1001, “the ’863 patent”). Paper 5

(“Pet.”). Patent Owner, Qurio Holdings, Inc., filed a Preliminary Response pursuant to 35 U.S.C. § 313. Paper 6 (“Prelim. Resp.”).

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314; 37 C.F.R. § 42.4(a). Upon consideration of the Petition and the Preliminary Response, and for the reasons explained below, we determine that the information presented shows a reasonable likelihood that Petitioner would prevail with respect to the challenged claims. *See* 35 U.S.C. § 314(a). Accordingly, we institute an *inter partes* review of the challenged claims.

A. *Related Matters*

The ’863 patent is involved in the following proceedings: *Qurio Holdings, Inc. v. DIRECTV*, Case No. 3:15-cv-01986-HSG (N.D. Cal.); *Qurio Holdings, Inc. v. DISH Network L.L.C.*, Case No. 3:15-cv-00930-HSG (N.D. Cal.); *Qurio Holdings, Inc. v. Comcast Cable Communications, LLC*, Case No. 2:15-cv-03334 (E.D. Pa); *DIRECTV, LLC v. Qurio Holdings, Inc.*, IPR2015-02006; *DISH Network, L.L.C. v. Qurio Holdings, Inc.*, IPR2016-00005; Application Serial No. 14/512,750. Paper 4, 2–3.

*B. The Asserted Grounds*

Petitioner identifies the following as asserted grounds of unpatentability:

References	Basis	Challenged Claims
Chen (Ex. 1003), <sup>1</sup> Karaoguz (Ex. 1004), <sup>2</sup> and Candelore (Ex. 1005) <sup>3</sup>	§ 103(a) <sup>4</sup>	1, 3, 4, 7–15, and 17–21
Chen, Karaoguz, Candelore, and Krishnaswamy (Ex. 1006) <sup>5</sup>	§ 103(a)	2
Margis (Ex. 1007), <sup>6</sup> Chen, and Candelore	§ 103(a)	1, 3–10, 15, and 17–19
Margis, Chen, Candelore, and Krishnaswamy	§ 103(a)	2

*C. The '863 Patent*

The '863 patent is directed to “[a] gateway interconnecting a high speed Wide Area Network (WAN) and a lower speed Wireless Local Area Network (WLAN).” Ex. 1001, Abs. Figure 1 is reproduced below.

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<sup>1</sup> U.S. Patent No. 7,424,024, filed Aug. 12, 2004.

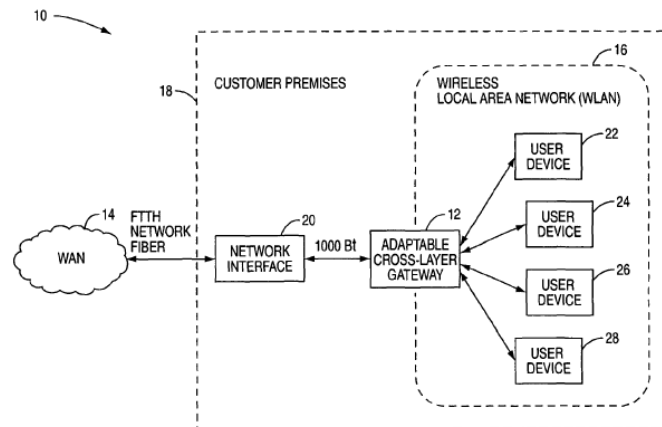
<sup>2</sup> U.S. Patent Application Publication No. 2005/0232284, published Oct. 20, 2005.

<sup>3</sup> U.S. Patent Application Publication No. 2005/0169473, published Aug. 4, 2005.

<sup>4</sup> The relevant sections of the Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112–29, took effect on March 16, 2013. Because the application from which the '863 patent issued was filed before that date, our citations to Title 35 are to its pre-AIA version.

<sup>5</sup> U.S. Patent Application Publication No. 2006/0105764, published May 18, 2006.

<sup>6</sup> U.S. Patent No. 7,945,934, filed June 15, 2005.



**FIG. 1**

The '863 patent discloses that adaptable cross-layer gateway 12, illustrated in Figure 1, “offloads data to data caches in order to take advantage of the high data rate provided by the high speed WAN 14.” *Id.* at 2:48–50. The patent also explains that by “using cross-layering techniques, the gateway 12 improves the performance of the WLAN 16 in order to take further advantage of the high speed WAN 14.” *Id.* at 2:50–53.

In addition, the '863 patent describes Digital Rights Management (“DRM”) rules “may include rules for identifying incoming content to be encoded as a security feature to prevent unauthorized viewing of the specified content by, for example, children within the WLAN 16.” *Id.* at 4:11–14.

The '863 patent also describes a file format conversion that “may convert the content from a first file format to a second file format having reduced bandwidth requirements, reduce the quality of content, or both.” *Id.* at 4:62–65. The '863 patent discusses an example of this conversion where “a Motion Pictures Experts Group (MPEG) Layer 2 (MPEG-2) video file to a MPEG Layer 4 (MPEG-4) video file, thereby reducing the bandwidth required to transfer the video file over the WLAN 16.” *Id.* at 4:65–5:3.

*D. The Challenged Claims*

Petitioner challenges claims 1–15 and 17–21. Pet. 4. Claim 1 is independent. Claim 1 is illustrative and reproduced below:

1. A gateway interconnecting a Wide Area Network (WAN) to a lower speed Wireless Local Area Network (WLAN) comprising:
  - an adaptable cross-layer offload engine;
  - a data cache associated with the offload engine;
  - a network interface communicatively coupling the offload engine to the WAN and providing a first data rate; and
  - a wireless interface associated with the offload engine and adapted to communicate with a plurality of user devices within the WLAN, the wireless interface providing a second data rate that is less than the first data rate of the network interface;
- wherein the offload engine is adapted to:
  - receive incoming data from the WAN via the network interface at the first data rate;
  - store the incoming data in the data cache; and
  - transmit the incoming data from the data cache to a corresponding one of the plurality of user devices in the WLAN via the wireless interface at the second data rate;
- further wherein the gateway further comprises:
  - a rule check engine adapted to inspect the incoming data from the WAN based upon at least one rule prior to transmitting the incoming data to the corresponding one of the plurality of user devices in the WLAN, the at least one rule comprises at least one Digital Rights Management (DRM) rule and the rule check engine operates to identify data to be processed by a DRM function and initiate the DRM function for the identified data; and

the DRM function initiated by the rule check engine based on the at least one DRM rule, the DRM function being adapted to encode the identified data such that encoded data is transmitted to the corresponding one of the plurality of user devices within the WLAN, and provide license keys for decoding the encoded data to desired ones of the plurality of user devices having permission to consume the encoded data.

## II. ANALYSIS

### A. *Claim Construction*

In an *inter partes* review, we construe claims by applying the broadest reasonable interpretation in light of the specification. 37 C.F.R. § 42.100(b); *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278–79 (Fed. Cir. 2015), *cert. granted sub nom. Cuozzo Speed Techs., LLC v. Lee*, 84 U.S.L.W. 3218 (U.S. Jan. 15, 2016) (No. 15-446). Under the broadest reasonable interpretation standard, and absent any special definitions, claim terms or phrases are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art, in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

In its Petition, Petitioner proposes a construction for “license key” as recited in claims 1 and 17. Pet. 8–9. In response, Patent Owner proposes constructions for the following claim phrases or terms: (1) “license key” (claims 1 and 17); (2) “DRM function” (claims 1 and 17); and (3) “cross-layer,” “cross-layer architecture,” and “cross-layering scheme” (claims 1, 2, and 18). Prelim. Resp. 10–18. We, however, need not assess the parties’ proposed constructions regarding “license key” (claims 1 and 17) and “DRM

function” (claims 1 and 17) because they are not necessary to resolve the dispositive issues discussed below.

We do assess the parties’ proposed constructions regarding “cross-layer,” “cross-layer architecture,” and “cross-layering scheme” (claims 1, 2, and 18). Patent Owner contends that each of these related terms should be construed as “an architecture that permits communication or data sharing between non-adjacent layers in a protocol stack and is adapted to facilitate communication between networks having different data rates.” Prelim.

Resp. 16. To support its assertion, Patent Owner argues the Specification of the ’863 patent discloses

[t]he traditional OSI model allows communication and data exchange only between adjacent layers in the protocol stack. However, as illustrated in FIG. 3, the gateway 12 *enables communication and data exchange between all layers, including non-adjacent layers of the protocol stack.*

*Id.* at 17 (citing Ex. 1001, 5:56–61) (emphasis added by Patent Owner). The cited portions relied on by the Patent Owner, however, do not include a special definition for “cross-layer,” “cross-layer architecture,” and “cross-layering scheme” (claims 1, 2, and 18). In addition, the Specification of the ’863 patent does not include a disavowal for “cross-layer,” “cross-layer architecture,” and “cross-layering scheme” (claims 1, 2, and 18) to exclude communications between adjacent layers in a protocol stack. We, therefore, interpret the scope of “cross-layer,” “cross-layer architecture,” and “cross-layering scheme” (claims 1, 2, and 18) to include communications between “adjacent layers” or “non-adjacent layers” in the protocol stack.

*B. Obviousness of Claims 1, 3, 4, 7–15, and 17–21 in View of Chen, Karaoguz, and Candelore*

*1. Chen (Ex. 1003)*

Chen describes a gateway that connects a wireless network with a WLAN. Ex. 1003, 5:3–13. Figure 4 is reproduced below.

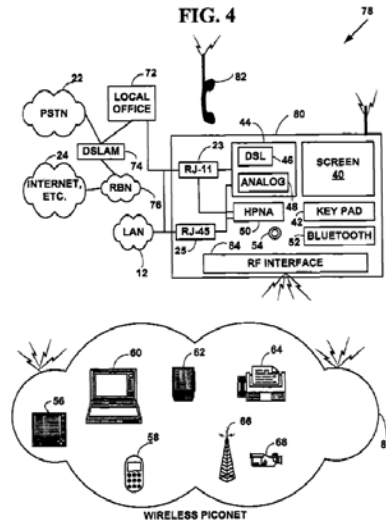
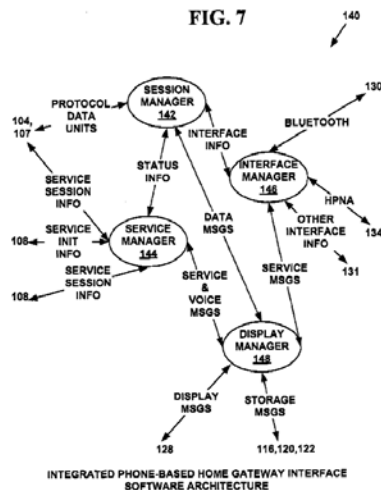


Figure 4 illustrates gateway interface 80 includes RF interface 84, which “is a long-range radio interface (e.g., WAN interface) used for communicating.” *Id.* at 12:49–53. Further, Figure 4 illustrates gateway 80 connects to LAN 12, which is a WLAN. *Id.* at 5:3–13. Figures 7 and 8 are reproduced below.





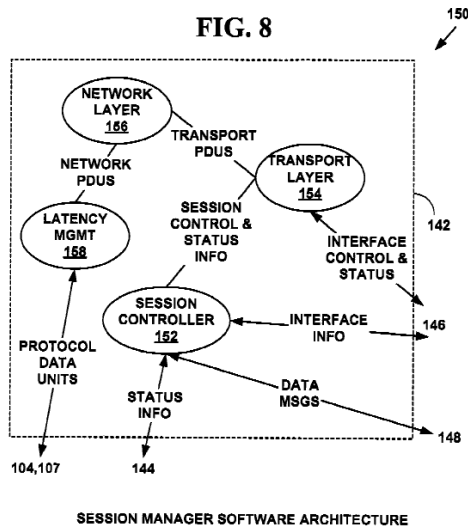
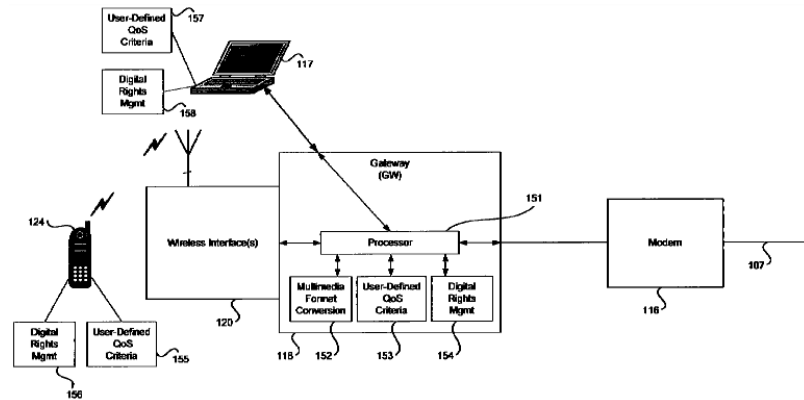


Figure 7 illustrates gateway interface software architecture 140 includes session manager 142. *Id.* at 16:56–60. Figure 8 illustrates session manager 142 that permits communication across transport layer 154 and network layer 156. *Id.* at 17:3–4, 17:14–38. The gateway also can encrypt data sent from, and received using, security module 109. *Id.* at 26:22–44. Security module 109 also includes a firewall for inspecting and filtering incoming data. *Id.* at 25:11–14.

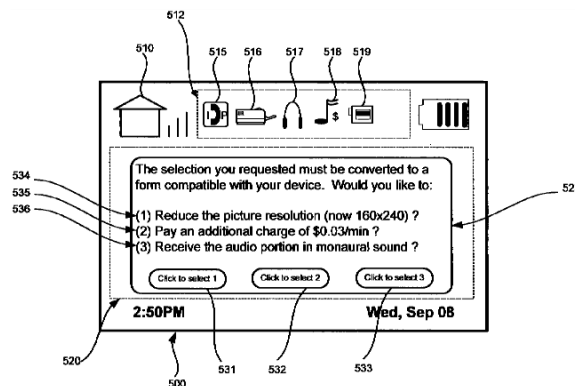
## 2. Karaoguz (*Ex. 1004*)

Karaoguz describes a broadband access gateway that automatically converts multimedia information from a first format to a second format. *Ex. 1004*, Abs. Figure 3C is reproduced below.



**FIG. 3C**

Figure 3C illustrates the gateway using DRM “to regulate access to and the conversion of multimedia information into alternate formats” that are compatible with access devices 117, 124. *Id.* ¶ 83. The gateway automatically detects the format of the multimedia information and if there is a format incompatibility, the gateway converts the format of the multimedia information to a format that is compatible with an access device. *Id.* at Abs. The conversion can be based on “a set of user-defined quality of service criteria.” *Id.* Figure 5 is reproduced below.



**FIG. 5**

Figure 5 illustrates pop-up message 522 that provides the user with alternatives of quality of service when converting the format. *Id.* ¶ 86.

3. *Candelore (Ex. 1005)*

Candelore describes encrypting digital content received over a cable television network. Ex. 1005, Abs. Candelore further describes a gateway set-top box that receives content in a digital television signal and the set-top box encrypting the content using DRM. *Id.* ¶¶ 47, 51, 52. In addition, Cadelore discusses sending Entitlement Control Messages (“ECMs”) comprising decryption keys for decrypting encrypted content to set-top boxes that have permission to decrypt the content. *Id.* ¶¶ 26, 43. Candelore also discusses digital content sharing between the set-top box and authorized devices using Ethernet or Institute of Electrical and Electronics Engineer (“IEEE”) 1394 connections. *Id.* ¶ 28.

4. *The Parties’ Contentions for Claims 1, 3, 4, 7–15, and 17–21*

Petitioner asserts that the subject matter of claims 1, 3, 4, 7–15, and 17–21 would have been obvious in view of Chen, Karaoguz, and Candelore under 35 U.S.C. § 103(a). Pet. 11–30. Petitioner provides a limitation-by-limitation analysis of where each limitation of claims 1, 3, 4, 7–15, and 17–21 is allegedly taught in Chen, Karaoguz and Candelore. *Id.* Petitioner also relies upon a Declaration of Dr. John Weissman, who has been retained as an expert witness by Petitioner for the instant proceeding. Ex. 1002.

The present record supports the contention that Chen teaches a session manager that permits communication between a transport layer and a network layer and a transceiver buffer, as required in claims 1, 17, and 18. Pet. 21–22, 29 (citing Ex. 1003) (pinpoint citations omitted). The present

record supports the contention that Chen teaches a firewall that inspects and filters incoming data. Pet. 24 (citing Ex. 1003) (pinpoint citations omitted). The present record also supports the contention that Karaoguz teaches a gateway receiving data in a first format from a WAN at a first data rate and offloading the data into storage, as required in claims 1 and 17. Pet. 22–23 (citing Ex. 1004) (pinpoint citations omitted). The present record supports the contention that Karaoguz teaches converting the received data from the first format to a second format at a second data rate that is slower than the first data rate using a DRM function that implements a DRM rule, as required in claims 1 and 17. Pet. 23–24, 29 (citing Ex. 1004) (pinpoint citations omitted). The present record supports the contention that Candelore teaches authorized set-top boxes using ECMs to decrypt digital content, as required in claims 1 and 17. Pet. 19–20, 25 (citing Ex. 1005) (pinpoint citations omitted).

Petitioner relies on Chen’s home gateway interface 18 that connects to networks 24, such as the Internet via fiber optic cable, to teach the limitations of claims 3 and 19. Pet. 25, 29 (citing Ex. 1003, 3:27–33).

Petitioner relies on Karaoguz’s teaching of Institute of Electrical and Electronics Engineer (“IEEE”) 802.11 to teach the limitations of claim 4. Pet. 25 (citing Ex. 1004 ¶ 102).

Petitioner relies on Chen’s firewall that interprets the type of data traffic being sent through it to teach the limitations of claim 7. Pet. 25–26 (citing Ex. 1003, 23:56–59, 25:11–14).

Petitioner relies on Chen’s firewall that determines whether to permit data traffic being sent through it using IP address filtering and MAC/LLC

address filtering to teach the limitations of claim 8. Pet. 26 (citing Ex. 1003, 23:60–67, 25:11–14).

Petitioner relies on Chen’s firewall protecting from hostile attacks to teach the limitations of claims 9 and 10. Pet. 26–27 (citing Ex. 1003, 23:50–59).

Petitioner relies on Karaoguz’s automatic format conversion based on quality of service that converts from a first format at 128 kbps to a second format at 96 kbps to teach the limitations of claims 11–14, 20, and 21. Pet. 27–30 (citing Ex. 1004 ¶ 51, Fig. 5).

Petitioner relies on Chen’s gateway using a communication component and transceiver buffer to teach the limitations of claim 15. Pet. 28–29 (citing Ex. 1003, 7:10–13, 13:38–43).

Petitioner argues that one of ordinary skill in the art would have combined the similar systems of Chen and Karaoguz “to provide functionality to enable encoding data and transmitting it to one of the plurality of user devices in a wireless network.” Pet. 15–18 (citing Exs. 1002, 1004, and 1009) (pinpoint citations omitted). Petitioner also argues that one of ordinary skill in the art would have combined the similar systems of Chen, Karaoguz, and Candelore “to provide license keys for decoding encoded data to devices with permission to accept the encoded data.” Pet. 18–21 (citing Exs. 1002, 1003, and 1005) (pinpoint citations omitted).

Patent Owner argues that Chen, Karaoguz, and Candelore fail to teach “an adaptable cross-layer offload engine” because none of the cited references teach permitting communication or data sharing between non-adjacent layers in a protocol stack. Prelim. Resp. 22–24. Petitioner relies on

Chen's session manager that permits communication between a transport layer and a network layer to teach "an adaptable cross-layer offload engine," as recited in claim 1. Pet. 21–22 (citing Ex. 1003) (pinpoint citations omitted). As discussed *supra* in Part II.A, however, we interpret the scope of "cross-layer" to include communications between adjacent layers. On this record, Petitioner has made a sufficient showing that Chen's session manager that permits communication between adjacent layers, which are the transport layer and network layer, therefore, teaches "an adaptable cross-layer offload engine."

Patent Owner argues that Chen, Karaoguz, and Candelore fail to teach

a rule check engine adapted to inspect the incoming data from the WAN based upon at least one rule prior to transmitting the incoming data to the corresponding one of the plurality of user devices in the WLAN, the at least one rule comprises *at least one Digital Rights Management (DRM) rule and the rule check engine operates to identify data to be processed by a DRM function and initiate the DRM function for identified data*

Prelim. Resp. 24–25 (emphasis added by Patent Owner). In support of its assertion, Patent Owner argues Chen's firewall inspecting and filtering incoming data fails to teach a DRM function and a DRM rule. *Id.* at 25–27. Petitioner argues Chen teaches a firewall that inspects and filters incoming data and Karaoguz teaches converting the received data from a first format to a second format at a second data rate that is slower than the first data rate using a DRM function that implements a DRM rule. Pet. 24 (citing Exs. 1003 and 1004) (pinpoint citations omitted).

We disagree with Patent Owner's argument because one cannot show nonobviousness "by attacking references individually" where the rejections

are based on combinations of references. *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (citing *In re Keller*, 642 F.2d 413, 426 (CCPA 1981)). On the present record, we are persuaded by Petitioner's showing that Chen's firewall teaches "a rule check engine" and Karaoguz's digital rights management functionality 154 teaches a "DRM rule" that is processed by a "DRM function." Pet. 24 (citing Exs. 1003 and 1004) (pinpoint citations omitted).

Patent Owner argues that Chen, Karaoguz, and Candelore fail to teach

DRM function initiated by the rule check engine based on the at least one DRM rule, the DRM function being adapted to encode the identified data such that encoded data is transmitted to the corresponding one of the plurality of user devices within the WLAN.

Prelim. Resp. 27–28. In support of its assertion, Patent Owner argues Chen's gateway encrypting data sent from and received via wireless module 107 does not teach this limitation because Chen fails to teach a "DRM rule" and a "DRM function." *Id.* at 28–29. In addition, Patent Owner contends Karaoguz's DRM functionality 154 merely teaches converting content from one format into a second format, rather than encrypting content to restrict or allow content viewing. *Id.* at 30–36.

At the outset, the Specification of the '863 patent does not provide a definition for the verb "encode," as recited in claim 1. Moreover, one definition of the verb "encode" (and similarly the gerund "encoding," as recited in claim 17) is "encrypt," which means "[t]o encode (scramble) information in such a way that is unreadable to all but those individuals possessing the key to the code." Ex. 3001 (MICROSOFT COMPUTER DICTIONARY (5th. ed. 2002)), 192. Chen teaches encrypting information

received from a WAN before sending it to client devices. Pet. 14–15. (citing Ex. 1003) (pinpoint citations omitted).

Another definition of the verb “encode” (and similarly the gerund “encoding”) is “to put something into code, which frequently involves changing the form—for example, changing a decimal number to binary-coded form.” Ex. 3001 (MICROSOFT COMPUTER DICTIONARY (5th. ed. 2002)), 192. Karaoguz teaches DRM functionality 154 converting a DVD multimedia quality stream format to a lower quality version format, which comports with this definition of the verb “encode.” Pet. 24 (citing Ex. 1004 ¶ 83). Therefore, on this record, Petitioner has made a sufficient showing that either Chen or Karaoguz, alone or in combination, teaches “encode” as recited in claim 1.

Patent Owner argues that it is not obvious to combine Chen and Karaoguz because modifying Karaoguz’s quality-of-service and format conversion with Chen’s encryption requires significant redesign that would render the device inoperable. Prelim. Resp. 37–38. Petitioner argues that one of ordinary skill in the art would have combined the similar systems of Chen and Karaoguz “to provide functionality to enable encoding data and transmitting it to one of the plurality of user devices in a wireless network.” Pet. 15–18 (citing Exs. 1002, 1004, and 1009) (pinpoint citations omitted).

On this record, we disagree with Patent Owner because as explained *supra*, in the discussion of Chen and Karaoguz, Petitioner has identified adequately a teaching to combine or modify components. Thus, at this stage of the proceeding, Petitioner has provided sufficiently articulated reasoning with rational underpinnings to support the motivation to combine the



teachings of Chen and Karaoguz. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

We have reviewed the proposed ground of obviousness over Chen, Karaoguz, and Candelore against claims 1, 3, 4, 7–15, and 17–21, and we are persuaded, at this juncture of the proceeding, that Petitioner has established a reasonable likelihood of prevailing in its challenge to claims 1, 3, 4, 7–15, and 17–21 on this ground.

*C. Obviousness of Claim 2 in View of Chen, Karaoguz, Candelore, and Krishnaswamy*

*1. Krishnaswamy (Ex. 1006)*

Krishnaswamy describes a wireless communication device that stores network information and enables communications between non-adjacent layers of a protocol stack. Ex. 1006 ¶¶ 13, 14, 28, 29.

*2. The Parties' Contentions for Claim 2*

Petitioner asserts that the subject matter of claim 2 would have been obvious in view of Chen, Karaoguz, Candelore, and Krishnaswamy under 35 U.S.C. § 103(a). Pet. 30–33. Petitioner provides a limitation-by-limitation analysis of where each limitation of claim 2 is allegedly taught in Chen, Karaoguz, Candelore, and Krishnaswamy. *Id.*

The present record supports Petitioner's contention that Krishnaswamy teaches storing network information and enabling communications between non-adjacent layers to teach the limitations of claim 18. *Id.* (citing Ex. 1006) (pinpoint citations omitted). Petitioner concludes that one of ordinary skill in the art would have combined Chen,

Karaoguz, Candelore, and Krishnaswamy “to communicate network information between non-adjacent layers of a protocol stack.” Pet. 32.

Patent Owner argues that the combination of Chen, Karaoguz, Candelore, and Krishnaswamy would not have been obvious for at least the same reasons that the combination of Chen, Karaoguz, and Candelore would not have been obvious. Prelim. Resp. 40–41. On this record, we are not persuaded by this argument for the same reasons discussed *supra* in Part II.B.4.

We have reviewed the proposed ground challenging claim 2 as obvious over Chen, Karaoguz, Candelore, and Krishnaswamy, and we are persuaded, at this stage of the proceeding, that Petitioner has established a reasonable likelihood of prevailing in its challenge to claim 2 on this ground.

*D. Obviousness of Claims 1, 3–10, 15, and 17–19 in View of Margis, Chen, and Candelore*

*1. Margis (Ex. 1007)*

Margis describes content distribution system 400 that enables bidirectional communication between content sources 300 and portable media devices 100. Ex. 1003, Fig. 7. Figure 7 is reproduced below.

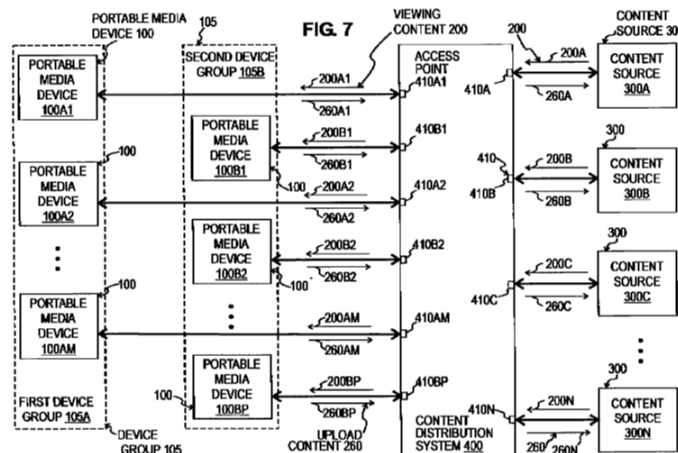


Figure 7 illustrates content distribution system 400, which Margis explains can be provided as a conventional wired and/or wireless communication network, including WAN and WLAN. *Id.* at 21:4–16. Exemplary WLAN networks include IEEE 802.11. *Id.* Portable media devices 100, content sources 300, and content distribution system 400 comprise high speed Ethernet such as 100Base-X and/or 100Base-T. *Id.* at 21:17–31. Content 200 is encrypted or protected using DRM techniques. *Id.* at 6:49–54.

2. *The Parties' Contentions for Claims 1, 3–10, 15, and 17–19*

Petitioner asserts that the subject matter of claims 1, 3–10, 15, and 17–19 would have been obvious in view of Margis, Chen, and Candelore under 35 U.S.C. § 103(a). Pet. 33–50. Petitioner provides a limitation-by-limitation analysis of where each limitation of claims 1, 3–10, 15, and 17–19 allegedly is taught in Margis, Chen, and Candelore. *Id.* Petitioner also relies upon the Declaration of Dr. John Weissman. Ex. 1002.

The present record supports Petitioner's contention that Margis teaches content distribution system 400 can be provided as a conventional wired and/or wireless communication network, including WAN and WLAN. Pet. 33–34 (citing Ex. 1002 ¶ 55; Ex. 1007, 21:4–31). Dr. Weissman testifies that “portable media devices 100 may be connected to content distribution system 400 using wireless networks such as IEEE 802.11” and “[c]ontent sources 300 may be connected to content distribution system 400 using a wired network technology such as 1000Base-X or 1000Base-T Ethernet,” which is faster than an IEEE 802.11 network, which supports Petitioner's contention that Margis teaches the limitations of claims 1, 17,

and 18. Ex. 1002 ¶ 55. The present record supports the contention that Margis teaches DRM controls encrypting content 200, which teaches or suggests the relevant limitations of claims 1 and 17. Pet. 45–46, 49 (citing Ex. 1007) (pinpoint citations omitted). The present record supports the contention that Chen teaches a session manager that permits communication between a transport layer and a network layer and a transceiver buffer, as required in claims 1, 17, and 18. Pet. 41–42, 49–50 (citing Ex. 1003) (pinpoint citations omitted). The present record supports the contention that Chen teaches a firewall that filters incoming data. Pet. 45 (citing Ex. 1003) (pinpoint citations omitted). The present record supports the contention that Candelore teaches authorized set-top boxes using ECMs to decrypt digital content, and therefore teaches or suggests the relevant limitations of claims 1 and 17. Pet. 46, 50 (citing Ex. 1005) (pinpoint citations omitted).

Petitioner relies on Chen’s home gateway interface 18 that connects to networks 24, such as the Internet via fiber optic cable, to teach the limitations of claims 3 and 19. Pet. 46, 50 (citing Ex. 1003, 3:27–33).

Petitioner relies on Margis’s teaching regarding IEEE 802.11 to teach the limitations of claim 4. Pet. 46–47 (citing Ex. 1007, 21:4–16).

For claim 5, Petitioner relies on Margis’s teaching 1000Base-X and 1000Base-T Ethernet. Pet. 34 (citing Ex. 1002 ¶ 55). Dr. Weissman testifies that “1000Base-X and 1000Base-T Ethernet operate at 1 gigabit per second,” which supports Petitioner’s contention that Margis teaches the limitations of claim 5. Ex. 1002 ¶ 55.

As to claim 6, Petitioner relies on Margis’s teaching regarding IEEE 802.11. Pet. 34 (citing Ex. 1002 ¶ 55). Dr. Weissman testifies that “[a]n 802.11b network (a type of 802.11 network) may operate at, for

example, 11mbps,” which supports Petitioner’s argument that Margis teaches the limitations of claim 6. Ex. 1002 ¶ 55.

Petitioner relies on Chen’s firewall that interprets the type of data traffic being sent through it to teach the limitations of claim 7. Pet. 47–48 (citing Ex. 1003, 23:56–59, 25:11–14).

Petitioner relies on Chen’s firewall that determines whether to permit data traffic being sent through it using IP address filtering and MAC/LLC address filtering to teach the limitations of claim 8. Pet. 48 (citing Ex. 1003, 23:60–67, 25:11–14).

Petitioner relies on Chen’s firewall protecting from hostile attacks to teach the limitations of claims 9 and 10. Pet. 48–49 (citing Ex. 1003, 23:50–59).

Petitioner relies on Margis’s portable media devices 100 uploading content to content distribution system 400 and portable media device supports bi-directional communications with content source 300 to teach the limitations of claim 15. Pet. 49 (citing Ex. 1007) (pinpoint citations omitted).

Petitioner argues that one of ordinary skill in the art would have combined the similar systems of Margis and Chen “to inspect incoming data based upon at least one rule, like the security module 109 in Chen.” Pet. 35–37 (citing Exs. 1002, 1003, and 1007) (pinpoint citations omitted).

Petitioner also argues that one of ordinary skill in the art would have combined the similar systems of Margis, Chen, and Candelore “to enable it to provide license keys for decoding encoded data to devices with permission to consume the encoded data.” Pet. 37–41 (citing Exs. 1002, 1005, and 1007) (pinpoint citations omitted).

Patent Owner argues that Chen, Karaoguz, and Candelore fail to teach “an adaptable cross-layer offload engine” because none of the cited references teach permitting communication or data sharing between non-adjacent layers in a protocol stack. Prelim. Resp. 42–44. As discussed *supra* in Part II.B.4, however, at this stage of the proceeding, Petitioner has made a sufficient showing that Chen’s session manager that permits communication between adjacent layers, which are the transport layer and network layer, teaches “an adaptable cross-layer offload engine.”

Patent Owner argues that Petitioner takes Margis out of context because Margis merely teaches connecting networks of the same data rates rather than a gateway connecting networks of different rates. Prelim. Resp. 44–47. Petitioner contends Margis teaches content distribution system 400 can be provided as a conventional wired and/or wireless communication network, including WAN and WLAN. Pet. 33–34 (citing Ex. 1002 ¶ 55; Ex. 1007, 21:4–31).

On this record, we disagree with Patent Owner because paragraph 55 of Dr. Weissman’s testimony, which we credit at this stage of the proceeding, explains that “portable media devices 100 may be connected to content distribution system 400 using wireless networks such as IEEE 802.11” and “[c]ontent sources 300 may be connected to content distribution system 400 using a wired network technology such as 1000Base-X or 1000Base-T Ethernet,” which is faster than an IEEE 802.11 network, which supports Petitioner’s contention that Margis teaches the limitations of claims 1 and 17. Ex. 1002 ¶ 55.

Patent Owner argues that Margis, Chen, and Candelore fail to teach

a rule check engine adapted to inspect the incoming data from the WAN based upon at least one rule prior to transmitting the incoming data to the corresponding one of the plurality of user devices in the WLAN, the at least one rule comprises *at least one Digital Rights Management (DRM) rule and the rule check engine operates to identify data to be processed by a DRM function and initiate the DRM function for identified data*

Prelim. Resp. 47 (emphasis added by Patent Owner). In support of its assertion, Patent Owner argues Chen's firewall inspecting and filtering incoming data fails to teach a DRM function and a DRM rule. *Id.* at 47–48. In addition, Patent Owner contends Margis's encryption using DRM techniques fails to remedy Chen's deficiencies because Margis's DRM techniques are performed at content source 300 rather than Margis's content delivery system 400, which Petitioner alleges corresponds to the recited gateway. *Id.* at 48–50. Petitioner argues Chen teaches a firewall that inspects and filters incoming data and Margis teaches encrypting content 200 using DRM techniques. Pet. 45 (citing Exs. 1003 and 1007) (pinpoint citations omitted).

We disagree with Patent Owner's argument because one cannot show nonobviousness “by attacking references individually” where the rejections are based on combinations of references. *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (citing *In re Keller*, 642 F.2d 413, 426 (CCPA 1981)). On the record presently before us, Petitioner has made an adequate showing that Chen's firewall teaches “a rule check engine” and Margis's encrypting content 200 using DRM techniques teaches a “DRM rule” that is processed by a “DRM function.” Pet. 45 (citing Exs. 1003 and 1007) (pinpoint citations omitted).

In addition, we disagree with Patent Owner that Margis's DRM techniques are performed at content source 300 rather than Margis's content delivery system 400 because, on this record, Margis does not limit itself to performing the disclosed DRM techniques to content 200 at a specific location. In particular, as shown *supra* in Part II.D.1, Figure 7 of Margis illustrates that content 200 is also provided from content distribution system 400 to portable media devices 100. Further, Margis teaches using DRM techniques to encrypt content 200 and streaming encrypted content 200 to portable media devices 100. Ex. 1007, 6:49–53.

Patent Owner argues that it is not obvious to combine Margis and Chen because there is not a reasonable likelihood of success modifying Margis's content delivery system without different data rates with Chen's lack of a DRM rule. Prelim. Resp. 50–51. Petitioner argues that one of ordinary skill in the art would have combined the similar systems of Margis and Chen “to inspect incoming data based upon at least one rule, like the security module 109 in Chen.” Pet. 35–37 (citing Exs. 1002, 1003, and 1007) (pinpoint citations omitted).

On this record, we disagree with Patent Owner because as explained *supra*, in the discussion of Margis and Chen, Petitioner has identified an adequate teaching to combine or modify components. Thus, Petitioner has provided sufficiently articulated reasoning with rational underpinnings to support the motivation to combine the teachings of Margis and Chen. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

We have reviewed the proposed ground of obviousness over Margis, Chen, and Candelore against claims 1, 3–10, 15, and 17–19, and we are persuaded, at this juncture of the proceeding, that Petitioner has established a



reasonable likelihood of prevailing in its challenge to claims 1, 3–10, 15, and 17–19 on this ground.

*E. Obviousness of Claim 2 in View of Margis, Chen, Candelore, and Krishnaswamy*

Petitioner asserts that the subject matter of claim 2 would have been obvious in view of Margis, Chen, Candelore, and Krishnaswamy under 35 U.S.C. § 103(a). Pet. 50–53. Petitioner provides a limitation-by-limitation analysis of where each limitation of claim 2 is allegedly taught in Margis, Chen, Candelore, and Krishnaswamy. *Id.*

The present record supports Petitioner’s contention that Krishnaswamy teaches storing network information and enabling communications between non-adjacent layers to teach the limitations of claim 2. *Id.* (citing Ex. 1006) (pinpoint citations omitted). Petitioner concludes that one of ordinary skill in the art would have combined Margis, Chen, Candelore, and Krishnaswamy “to communicate network information between non-adjacent layers of a protocol stack.” Pet. 52.

Patent Owner argues that the combination of Margis, Chen, Candelore, and Krishnaswamy would not have been obvious for at least the same reasons as the combination of Margis, Chen, and Candelore would not have been obvious. Prelim. Resp. 54. On this record, we are not persuaded by this argument for the same reasons discussed *supra* in Part II.D.2.

We have reviewed the proposed ground challenging claim 2 as obvious over Margis, Chen, Candelore, and Krishnaswamy, and we are persuaded, at this stage of the proceeding, that Petitioner has established a reasonable likelihood of prevailing in its challenge to claim 2 on this ground.

*F. Redundancy Arguments*

We have considered Patent Owner's arguments that the Petition improperly presents vertically and horizontally redundant grounds, and as such, the Board only should consider one challenge. Prelim. Resp. 55–57. Based on the record before us, having concluded that Petitioner has shown a reasonable likelihood of success on all asserted grounds, we exercise our discretion to institute review based on all of the asserted grounds advanced by Petitioner. *See, e.g.*, Pet. 4; 37 C.F.R. § 42.108(a).

*G. Real Parties-in-Interest*

Patent Owner argues that Petitioner Unified Patents is a non-practicing entity that was formed for the purpose of filing *inter partes* review on behalf of its paying members, who Patent Owner believes to include Comcast, a party to a related district court case ongoing for more than one year before the present Petition was filed. Prelim. Resp. 57–59. According to Patent Owner, Unified Patents provides insufficient proof that it is the only real party-in-interest as indicated in the Petition, and therefore, the Petition should be denied for failure to name all real parties in interest under 35 U.S.C. § 312(a)(3). *Id.* On this record, we disagree with Patent Owner's arguments because Patent Owner's arguments amount to mere speculation that Comcast is a real-party-in-interest rather than actual proof that Comcast exerted control over the Petition.

III. CONCLUSION

For the foregoing reasons, based on the information presented in the Petition and the Preliminary Response, we determine that there is a

reasonable likelihood that Petitioner would prevail in showing the unpatentability of the challenged claims of the '863 patent.

At this stage of the proceeding, we have not made a final determination on the patentability of the challenged claims.

#### IV. ORDER

Accordingly, it is

ORDERED that, pursuant to 35 U.S.C. § 314, an *inter partes* review of U.S. Patent No. 8,102,863 B1 is hereby instituted on the grounds that claims 1, 3, 4, 7–15, and 17–21 are asserted to be unpatentable under 35 U.S.C. § 103(a) in view of Chen, Karaoguz, and Candelore; claim 2 is asserted to be unpatentable under 35 U.S.C. § 103(a) in view of Chen, Karaoguz, Candelore, and Krishnaswamy; claims 1, 3–10, 15, and 17–19 are asserted to be unpatentable under 35 U.S.C. § 103(a) in view of Margis, Chen, and Candelore; claim 2 is asserted to be unpatentable under 35 U.S.C. § 103(a) in view of Margis, Chen, Candelore, and Krishnaswamy; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial; the trial commences on the entry date of this decision.

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