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Paper 13
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

OPENTV, INC.
Petitioner

v.

CISCO TECHNOLOGY, INC.
Patent Owner

Case IPR2013-00328
Patent 6,744,892 B2

Before KALYAN K. DESHPANDE, JUSTIN T. ARBES, and PATRICK M. BOUCHER, *Administrative Patent Judges.*

ARBES, *Administrative Patent Judge.*

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

OpenTV, Inc. filed a Corrected Petition (Paper 7) ("Pet.")[1] to institute an *inter partes* review of claims 1-38 of U.S. Patent No. 6,744,892 B2 (Ex. 1001, "the '892 patent") pursuant to 35 U.S.C. § 311 *et seq*. Patent Owner Cisco Technology, Inc. filed a preliminary response ("Prelim. Resp.") to the Petition. We have jurisdiction under 35 U.S.C. § 314. For the reasons that follow, the Board has determined to institute an *inter partes* review.

I. BACKGROUND

The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a):

> THRESHOLD—The Director may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 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.

Petitioner challenges claims 1-9, 11-31, and 35-38 as anticipated under 35 U.S.C. § 102(b) and claims 5, 6, 9-11, 15, 19, 21, 24, 25, 28, 29, 32-34, 36, and 37 as unpatentable under 35 U.S.C. § 103(a). Pet. 12-59. We grant the Petition as to claims 1-11 and 26-34 on certain grounds of unpatentability as discussed below.

[1] Petitioner's original Petition (Paper 1) exceeded the 60-page limit because it also included a 12-page claim chart as Exhibit 1007. *See* Paper 5; 37 C.F.R. § 42.24(a)(1)(i). In its Corrected Petition, Petitioner removed all references to Exhibit 1007 and requested that Exhibit 1007 not be considered. *See* Paper 6 at 3-4. Exhibit 1007 will be expunged.

A. The '892 Patent (Ex. 1001)

The '892 patent, titled "Method and Apparatus for Geographically Limiting Service in a Conditional Access System," issued on June 1, 2004, based on Application No. 10/377,416, filed March 3, 2003. The '892 patent is a child of a series of applications (continuations and continuations-in-part) ultimately descending from Application No. 08/415,617, filed April 3, 1995.

The '892 patent relates to "systems for protecting information that is transmitted by means of a wired or wireless medium against unauthorized access." Ex. 1001, col. 1, ll. 52-55. For example, a cable television or satellite television company may want to ensure that only certain subscribers can view certain television programs. *Id.* at col. 1, l. 59-col. 2, l. 45.

Figure 1 of the '892 patent is reproduced below:

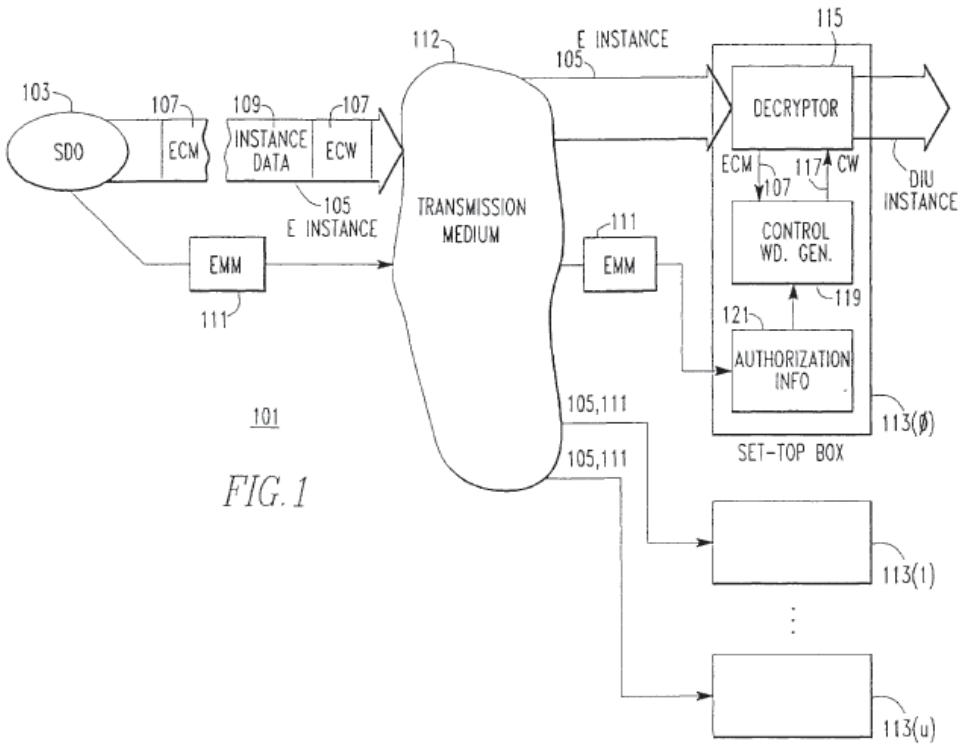

FIG. 1

Figure 1 depicts conditional access system 101 in which service distribution organization (SDO) 103 (e.g., a cable television company) provides service

"instances" to set-top boxes 113 of various subscribers. *Id*. at col. 4, ll. 21-28. For example, the "History Channel" is a "service that provides television programs about history," and "[e]ach program provided by the History Channel is an 'instance' of that service." *Id*. at col. 4, ll. 28-31. Service distribution organization 103 encrypts or scrambles an instance to create encrypted instance 105, which it then broadcasts to subscribers over transmission medium 112 (e.g., cable). *Id*. at col. 4, ll. 31-34, 45-50. As shown in Figure 1 above, encrypted instance 105 includes instance data 109 (information making up the television program) and entitlement control messages (ECMs) 107 (information necessary for the receiving set-top box to decrypt the data). *Id*. at col. 4, ll. 34-39. ECMs may be sent many times per second so that the set-top box has the most current information, and ECMs may be changed every few seconds to prevent piracy. *Id*. at col. 4, ll. 39-44.

In addition to encrypted instance 105, service distribution organization 103 sends to a set-top box entitlement management messages (EMMs) 111, which may indicate, for example, what services the subscriber associated with that set-top box has purchased and include a key for a particular service. *Id*. at col. 4, ll. 59-62; col. 5, ll. 1-3. EMMs are used by the set-top box in the authorization process. *Id*. at col. 4, ll. 50-59; col. 5, ll. 1-18. The set-top box stores the information contained in EMMs as authorization information 121, and uses authorization information 121 in combination with ECMs 107 to determine whether the subscriber is entitled to watch encrypted instance 105. *Id*. If the subscriber is entitled to watch the instance, the set-top box decrypts encrypted instance 105 to produce

decrypted instance 123, and sends decrypted instance 123 to the television for viewing. *Id*. at col. 4, ll. 50-53.

The '892 patent describes an embodiment for restricting subscriber access by geographic location. For example, a regional "blackout" may prevent subscribers in a certain region from accessing a particular television program, while a regional "spotlight" may permit only subscribers in a certain region (and no others) from accessing the program. *Id*. at col. 36, ll. 21-24, 39-47. The system does so by including in an ECM (1) x centroid 2239 and y centroid 2241, which together define a point in a geographical coordinate system, and (2) blackout radius 2237, which is "used to determine a square that is centered on the point defined by fields 2239 and 2241." *Id*. at col. 36, ll. 39-47; Fig. 22. The set-top box, otherwise known as a digital home communications terminal (DHCT), receives the ECM, compares the information with the DHCT's assigned x coordinate 1521 and y coordinate 1523 (stored in the DHCT), and determines whether the DHCT is within the square region defined by the centroids and radius. *Id*. at col. 7, ll. 38-41; col. 36, l. 50-col. 37, l. 3; col. 38, ll. 37-49.

Figure 27 of the '892 patent is reproduced below:

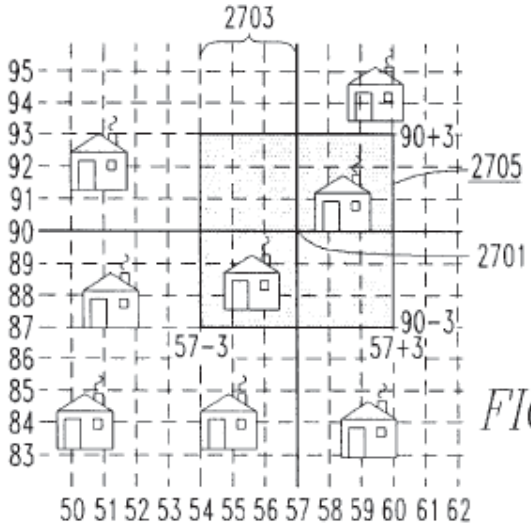

FIG. 27

Figure 27 depicts area 2705 with centroid 2701 comprising an x centroid (57) and y centroid (90), and radius 2703 of three. *Id*. at col. 36, l. 62-col. 37, l. 3. Certain subscribers are shown as within the blackout area, while others are outside the area. *Id*.

B. Exemplary Claim

Claim 1 of the '892 patent is exemplary of the claims at issue:

> 1. A receiver located at a geographic location for receiving and selectively displaying a service instance, the receiver comprising:
>
> a port for receiving an encrypted service instance and entitlement information associated therewith, wherein at least a portion of the entitlement information includes geographic reception information;
>
> a first microprocessor for activating display of the service instance;
>
> a secure element coupled to the first microprocessor, the secure element comprising:
>
> a memory for storing a geographic location indicator indicative of the geographic location of the receiver; and
>
> a second microprocessor for processing the geographic reception information and for using the processed geographic reception information with the geographic location indicator to determine whether the receiver is entitled to the service instance; and
>
> wherein the first microprocessor activates display of the service instance when the secure element determines that the receiver is entitled to the service instance.

C. The Prior Art

Petitioner relies on the following prior art:

1. U.S. Patent No. 5,432,542, filed Aug. 31, 1992, issued July 11, 1995 ("Thibadeau") (Ex. 1004);

2. U.S. Patent No. 5,506,904, filed Dec. 3, 1993, issued Apr. 9, 1996 ("Sheldrick") (Ex. 1003); and

3. Anthony J. Wasilewski, *Requirements and Method for High-Level Multiplexing of MPEG and Other Digital Service Bitstreams With Universal Transport Layer*, International Organization for Standardization: ISO/IEC JTC1/SC2/WG11: Coding of Moving Pictures and Associated Audio (Nov. 1992) ("Wasilewski '92") (Ex. 1002).

D. The Asserted Grounds

Petitioner challenges claims 1-38 of the '892 patent on the following grounds:

Reference(s)	Basis	Claims Challenged
Wasilewski '92	35 U.S.C. § 102(b)	1-4, 7-9, 11-14, 16-18, 20, 22, 23, 26, 27, 30, 31, 35, and 38
Sheldrick	35 U.S.C. § 102(b)	1-8, 12-31, and 35-38
Wasilewski '92 and Sheldrick	35 U.S.C. § 103(a)	5, 6, 10, 15, 19, 21, 24, 25, 28, 29, 36, and 37
Wasilewski '92 and Thibadeau	35 U.S.C. § 103(a)	32-34
Sheldrick and Thibadeau	35 U.S.C. § 103(a)	9-11 and 32-34

E. Claim Interpretation

Consistent with the statute and legislative history of the America Invents Act (AIA), the Board interprets claims using the "broadest reasonable construction in light of the specification of the patent in which [they] appear[]." 37 C.F.R. § 42.100(b); *see also* Office Patent Trial

Practice Guide, 77 Fed. Reg. 48756, 48766 (Aug. 14, 2012). There is a "heavy presumption" that a claim term carries its ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002). However, a "claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history." *Id*. "Although an inventor is indeed free to define the specific terms used to describe his or her invention, this must be done with reasonable clarity, deliberateness, and precision." *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). Also, we must be careful not to read a particular embodiment appearing in the written description into the claim if the claim language is broader than the embodiment. *See In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) ("[L]imitations are not to be read into the claims from the specification.").

For purposes of this decision, we construe certain claim limitations as follows:

1. "Service Instance" and "Instance of Service" (Claims 1, 12, 20, and 26)

Independent claim 1 recites a receiver comprising a "port for receiving an encrypted service instance" and a "first microprocessor for activating display of the service instance" where the "first microprocessor activates display of the service instance when the secure element determines that the receiver is entitled to the service instance." Independent claims 12 and 20 recite similar limitations. Independent claim 26 recites a "receiver for selectively activating display of the service instance" and "determining

whether the receiver is entitled to the instance of service." Petitioner argues that "service instance" should be interpreted to mean "a program or a service." Pet. 8. Patent Owner argues that the term should be interpreted to mean a "digital broadcast or interactive session." Prelim. Resp. 12-13.

We are persuaded that Petitioner's proposed interpretation represents the broadest reasonable interpretation in light of the Specification. The Specification of the '892 patent describes an "instance" as a particular program or service, which can be encrypted and decrypted. *See, e.g.*, Ex. 1001, Abstract ("A cable television system provides conditional access to services. The cable television system includes a headend from which service 'instances,' or programs, are broadcast. . . ."); col. 4, ll. 24-31 ("A service distribution organization 103 . . . provides its subscribers with information from a number of services, that is, collections of certain kinds of information. For example, the History Channel is a service that provides television programs about history. Each program provided by the History Channel is an 'instance' of that service."); col. 2, ll. 7-19. Although Patent Owner cites various portions of the Specification referencing "digital" programs and "interactive sessions," these portions merely describe exemplary instances and do not define explicitly the term "service instance." *See, e.g.*, Prelim. Resp. 12-13 (citing Ex. 1001, col. 2, ll. 58-63, and col. 35, ll. 12-14); *see also In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004) ("Absent claim language carrying a narrow meaning, the PTO should only limit the claim based on the specification or prosecution history when those sources expressly disclaim the broader definition.").

Applying the broadest reasonable interpretation of the claims in light of the Specification, we interpret the terms "service instance" and "instance of service" to mean a particular program or service.

2. "Entitlement Information" and "Geographic Reception Information" (Claims 1, 12, and 20)

Independent claim 1 recites a "port for receiving an encrypted service instance and entitlement information associated therewith, wherein at least a portion of the entitlement information includes geographic reception information." Independent claims 12 and 20 recite similar limitations. The parties' proposed interpretations of "entitlement information" and "geographic reception information" are as follows:

Term	Petitioner's Proposed Interpretation	Patent Owner's Proposed Interpretation
entitlement information	information that is used to assess a receiver's authorization for accessing a program or a service	authorization information for digital broadcast or interactive sessions received from an entitlement agent
geographic reception information	information received at a receiver related to the receiver's authorization for accessing a program or a service within a geographic location or area	geographic area authorization information for digital broadcast or interactive sessions received from an entitlement agent

See Pet. 8-9; Prelim. Resp. 14-15.

We disagree with Patent Owner's proposed interpretations because they include the concept of "digital broadcast[s] or interactive sessions," which we do not determine to be required by the "service instance" language

in the claims, as explained above. *See supra* Section I.E.1. We also note that Patent Owner interprets both pieces of information as being "received from an entitlement agent," but claim 1 does not recite an "entitlement agent" and claims 12 and 20 already recite that the entitlement agent provides the entitlement information. Thus, Patent Owner's proposed interpretations are inconsistent with the surrounding language of the claims.

We disagree with Petitioner's proposed interpretation of "geographic reception information" for similar reasons. Petitioner interprets "geographic reception information" as information received "at a receiver," but claim 1 already recites that the receiver includes a port for receiving entitlement information (of which the geographic reception information is at least a portion), claim 12 recites a set top terminal including such a port, and claim 20 recites receiving entitlement information (from which the geographic reception information is decoded).

Applying the broadest reasonable interpretation of the claims in light of the Specification, we interpret "entitlement information" to mean information used to assess a receiver's authorization for accessing a program or service, and interpret "geographic reception information" to mean information related to a receiver's authorization for accessing a program or service within a geographic area.

3. "Secure Element" (Claims 1 and 12)

Independent claim 1 recites a "secure element coupled to the first microprocessor" comprising a "memory for storing a geographic location indicator indicative of the geographic location of the receiver" and a "second microprocessor for processing the geographic reception information and for

using the processed geographic reception information with the geographic location indicator to determine whether the receiver is entitled to the service instance." Independent claim 12 recites similar limitations. Petitioner does not propose an interpretation for "secure element." Patent Owner argues that the term means "a single tamper-proof element comprising a secure processor and secure memory." Prelim. Resp. 13. As support, Patent Owner cites portions of the Specification describing digital home communications terminal secure element (DHCTSE) 627 as having a memory and microprocessor contained in "tamper-proof packaging." *See id*. (citing Ex. 1001, col. 16, ll. 10-13, and col. 21, ll. 11-21).

The Specification of the '892 patent discloses an exemplary embodiment of a secure element—DHCTSE 627 shown in Figures 6 and 12—and describes how DHCTSE 627 stores information (e.g., keys) securely and processes information (e.g., EMMs and ECMs) securely. The Specification discloses:

> In a preferred embodiment, DHCT 333 is implemented using a combination of general purpose processors, ASICs, and secure elements (which may be implemented discretely or integrated). For purposes of the present discussion, DHCT 333 has three important components: service decryption module 625, security manager 626, and DHCT secure element (DHCTSE) 627. . . . DHCTSE 627 is a secure element for performing security and conditional access-related functions.
>
> . . .
>
> DHCTSE 627 stores keys, interprets EMMs and ECMs, and produces FPMs [forwarded purchase messages]. . . . In addition, DHCTSE 627 provides encryption, decryption, digest, and digital signature services for other applications executing on DHCT 333. Secure element (DHCTSE) 627 includes a microprocessor and memory that only the microprocessor may

> access. Both the memory and the microprocessor are contained in tamper-proof packaging.

Ex. 1001, col. 15, l. 42-col. 16, l. 13; *see also* col. 21, ll. 11-19 ("DHCTSE 627 includes a microprocessor (capable of performing DES [Data Encryption Standard]), specialized hardware for performing RSA encryption and decryption, and secure memory elements."). These two general functions are reflected in the claims, which recite that the secure element comprises a "memory" for storing certain information and a "second microprocessor" for processing certain information. We are not persuaded, however, that the description of the preferred embodiment of DHCTSE 627 in the Specification amounts to an explicit definition of the term "secure element" as requiring "tamper-proof packaging." *See id*. at col. 49, ll. 1-5.

Applying the broadest reasonable interpretation of the claims in light of the Specification, we interpret "secure element" to mean an element capable of storing information securely and capable of processing information securely.

4. "Entitlement Agent" (Claims 12, 20, and 26)

Independent claim 12 recites an "entitlement agent coupled to the plurality of receivers for providing the encrypted service instance and the entitlement information." Independent claim 20 recites a similar limitation. Independent claim 26 recites an "entitlement agent for selectively entitling the receiver to display the service instance" and a "two dimensional grid [that] represents entitlements granted by the entitlement agent for an instance of service." Petitioner argues that "entitlement agent" means:

> any one, or a combination of, a program or service provider, an entity or function that is located outside of the receiver and acts

> on behalf of a program or service provider, or an entity or function that is located outside of the receiver that has the right to provide the receiver access authorization to one or more programs or services.

Pet. 10-12. As support, Petitioner cites statements made by the applicants during the prosecution of related U.S. Patent No. 6,252,964 B1 ("the '964 patent") that an entitlement agent is what provides specific instances of service.[2] *Id.* (citing Ex. 1005 at 17, 53-54). Petitioner also argues that the Specification of the '892 patent describes an entitlement agent as "an entity or function that resides outside of a receiver and gives or authorizes access rights or entitlements to a program or service through remote message, and in some instances, on behalf of a program or service provider." *Id*. at 11-12. The portions of the Specification cited by Petitioner, however, do not support the proposed definition above and, in any event, merely describe exemplary "entitlement agents" rather than defining the term.

Patent Owner's proposed interpretation of "entitlement agent" is "an entity that provides digital broadcast or interactive session entitlement information to receivers." Prelim. Resp. 17-20. Patent Owner points out that claims 12 and 20 explicitly require the entitlement agent to provide both the encrypted service instance *and* the entitlement information, and the Specification similarly describes the entitlement agent as providing both things. *Id.* at 17-19 (citing Ex. 1001, Figs. 3, 7, and 22, and col. 18, ll. 46-50). According to Patent Owner, Petitioner's proposed interpretation is incorrect because it allows for a service provider to be an entitlement agent "even if it provides no entitlements whatsoever, as long as entitlements are

[2] The '892 patent and '964 patent both descend from Provisional Application No. 60/054,575.

provided by some other entity." *Id*. at 19. We agree with Patent Owner as to the potential breadth of Petitioner's proposed interpretation, but disagree to the extent Patent Owner's proposed interpretation recites "digital broadcast or interactive session" entitlement information. As explained above, a "service instance" is a particular program or service, not a "digital broadcast or interactive session." *See supra* Section I.E.1.

Applying the broadest reasonable interpretation of the claims in light of the Specification, we interpret "entitlement agent" to mean an entity that provides program or service entitlement information to receivers.

5. Other Terms

For purposes of this decision, all other terms in claims 1-38 are given their ordinary and customary meaning as would be understood by one with ordinary skill in the art.

II. DISCUSSION

We turn now to Petitioner's asserted grounds of unpatentability and Patent Owner's arguments in its preliminary response to determine whether Petitioner has met the threshold standard of 35 U.S.C. § 314(a).

A. Asserted Grounds Based on Wasilewski '92

Petitioner contends that (1) claims 1-4, 7-9, 11-14, 16-18, 20, 22, 23, 26, 27, 30, 31, 35, and 38 are anticipated by Wasilewski '92 under 35 U.S.C. § 102(b); (2) claims 5, 6, 10, 15, 19, 21, 24, 25, 28, 29, 36, and 37 are unpatentable over Wasilewski '92 and Sheldrick under 35 U.S.C. § 103(a); and (3) claims 32-34 are unpatentable over Wasilewski '92 and Thibadeau

under 35 U.S.C. § 103(a). Pet. 28-39, 49-55. To support its assertions, Petitioner relies on the declaration of Mr. Alan Young (Ex. 1006). We are persuaded that Petitioner has established a reasonable likelihood of prevailing on its assertion that claims 1-4, 7-9, 11, 26, 27, and 30-34 are unpatentable for the reasons explained below.

1. Wasilewski '92 (Ex. 1002)

Wasilewski '92 is directed to a digital broadcast system, such as a cable television system, that provides conditional access by multiplexing programs and entitlement information in a Moving Picture Experts Group (MPEG) bitstream. Ex. 1002 § 1. Figure 2 of Wasilewski '92 is reproduced below:

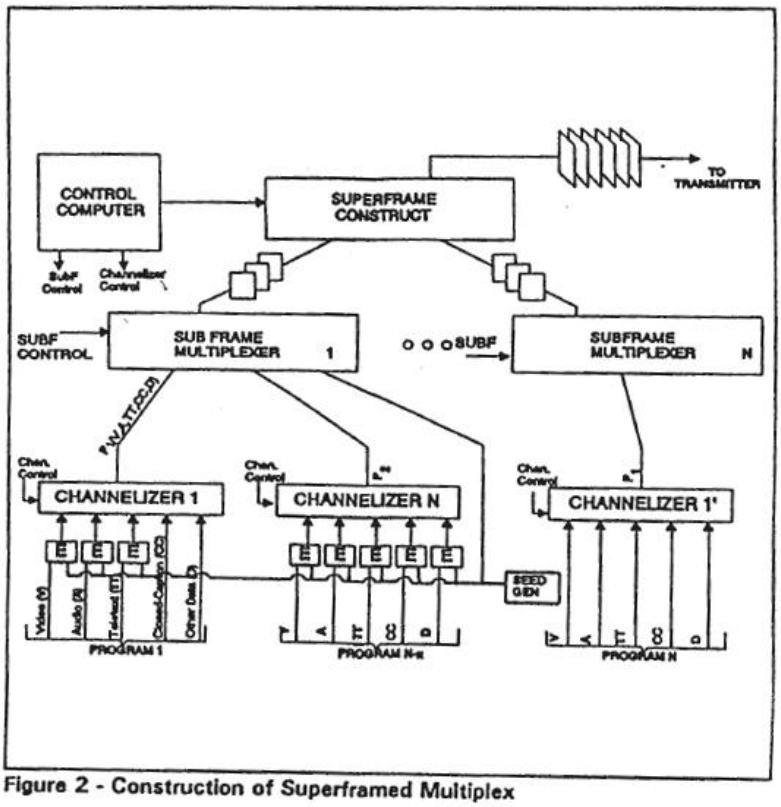

Figure 2 depicts Programs 1-N components (video, audio, etc.) being encrypted, combined, and multiplexed for transmission to decoders (e.g., set-top boxes). *Id*. § 4. Along with the program data, information (e.g., multi-session keys, broadcast keys) is provided to decoders to enable them to decrypt programs as warranted. *Id*. §§ 5.5, 6, Fig. 11. One such type of information is blackout information for restricting set-top boxes in a certain area from viewing a program, such as a sporting event. *Id*. § 6.7. The control computer shown in Figure 2 above "assigns both a group blackout code and a geographic (x, y) coordinate blackout code to each decoder. The system data packet then carries the group code and/or a geographic centroid (x, y) and radius (r) for the blackout zone." *Id*. Each decoder uses an "internally-stored location coordinate," stored in "secure non-volatile memory" of the decoder, to determine whether it is in the blackout zone. *Id*. If so, the decoder is not authorized to decode the program and the program will not be shown to the user. *Id*.

Figure 13 of Wasilewski '92 is reproduced below:

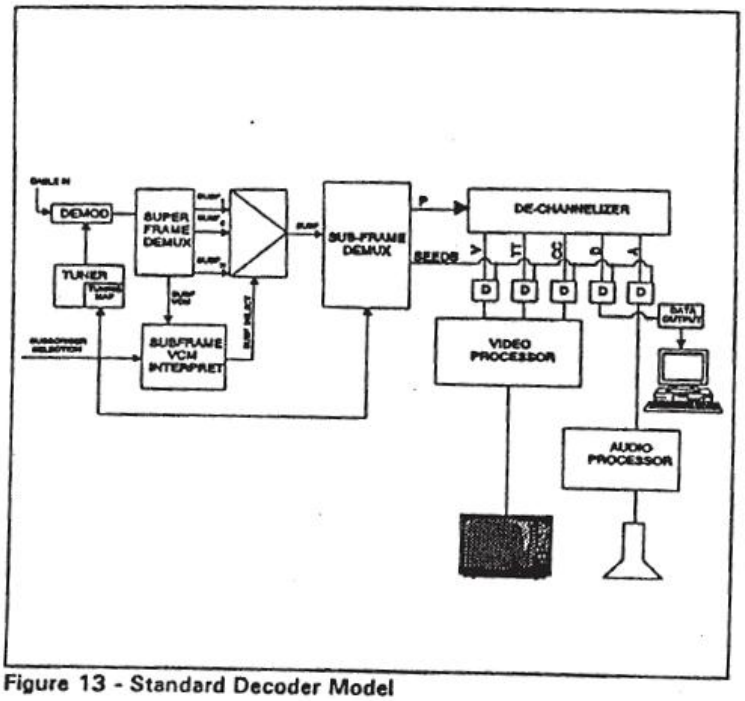

Figure 13 - Standard Decoder Model

Figure 13 depicts a decoder having an input, video processor, and output to a display device. *Id*. §§ 6-6.7.

2. Anticipation

Claims 1-4, 7-9, 11, 26, 27, 30, and 31

Petitioner contends that Wasilewski '92 discloses all of the limitations of claims 1-4, 7-9, 11, 26, 27, 30, and 31. Pet. 28-39. For example, with respect to independent claim 1, Petitioner argues that Wasilewski '92 discloses a "receiver" (decoder shown in Figure 13) comprising a "port" (input to the demodulator of the decoder) for receiving an "encrypted service instance" (program) and "entitlement information" (blackout information), at least a portion of which includes "geographic reception information" (geographic centroid and radius of the blackout zone). *Id*. at 28-29;

see Ex. 1006 at 63-64. Petitioner further argues that Wasilewski '92 discloses a "first microprocessor" (video processor of the decoder) that activates display of the program and a "secure element" comprising a "memory" (secure non-volatile memory) that stores a "geographic location indicator" (internally-stored location coordinate) and a "second microprocessor" (secure microprocessor of the decoder shown in Figure 12) that determines whether the decoder is entitled to the program. Pet. 30-31; *see* Ex. 1006 at 64-66. Petitioner asserts that the video processor activates display of the program when the secure element determines the receiver is entitled to access it (e.g., when the decoder is outside the blackout zone). Pet. 31; *see* Ex. 1006 at 66. Based on the current record and claim interpretations set forth above, we are persuaded that Petitioner has made a threshold showing that Wasilewski '92 discloses all of the limitations of claim 1.

Patent Owner argues that Wasilewski '92 does not disclose a "secure element," as required by independent claims 1 and 12, because it does not disclose that the secure memory and secure microprocessor are contained in tamper-proof packaging. Prelim. Resp. 22-24. Patent Owner's argument is premised on its proposed claim interpretation of "secure element," with which we do not agree. *See* Section I.E.3. As explained above, we interpret "secure element" to mean an element capable of storing information securely and capable of processing information securely. Petitioner has shown sufficiently that the secure memory and secure microprocessor in Wasilewski '92 are such an element.

Upon review of Petitioner's analysis and Mr. Young's declaration, we are persuaded that Petitioner has made a threshold showing that claim 1, as

well as claims 2-4, 7-9, 11, 26, 27, 30, and 31, are anticipated by Wasilewski '92.

Claims 12-14, 16-18, 20, 22, 23, 35, and 38

Independent claim 12 recites an "entitlement agent coupled to the plurality of receivers for providing the encrypted service instance and the entitlement information." Independent claim 20 similarly recites "receiving an encrypted service instance and entitlement information from the entitlement agent." Thus, in both claims, the entitlement agent must provide both the encrypted service instance *and* the entitlement information. As explained above, we interpret "entitlement agent" to mean an entity that provides program or service entitlement information to receivers.

Petitioner argues that any one of the program providers shown in Figure 2 of Wasilewski '92 as providing Programs 1-N is an "entitlement agent," and the system provides "parallel entitlement data streams for carrying entitlement information." Pet. 32; *see* Ex. 1006 at 72-73, 76-77. Patent Owner contends that the claims are not anticipated because the program providers provide the encrypted content but not blackout information. Prelim. Resp. 24-27 (citing Ex. 1002 § 6.7). Therefore, the program providers do not provide both an encrypted service instance *and* entitlement information, as required by the claims. *Id*. Patent Owner's argument is persuasive. Petitioner has not pointed to sufficient and credible evidence indicating that a program provider, which Petitioner cites as the alleged "entitlement agent" in Wasilewski '92, also provides blackout information. Therefore, Petitioner has not demonstrated a reasonable likelihood of prevailing on its argument that independent claims 12 and 20,

as well as dependent claims 13, 14, 16-18, 22, 23, 35, and 38, are anticipated by Wasilewski '92.

3. Obviousness

Petitioner also contends that claims 5, 6, 10, 15, 19, 21, 24, 25, 28, 29, 36, and 37 are unpatentable over Wasilewski '92 and Sheldrick, and claims 32-34 are unpatentable over Wasilewski '92 and Thibadeau, under 35 U.S.C. § 103(a). Pet. 49-55. Upon review of Petitioner's analysis and Mr. Young's declaration, we are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing as to claims 32-34, but not as to the other challenged claims.

Wasilewski '92 and Sheldrick

Petitioner argues that Wasilewski '92 and Sheldrick together teach all of the limitations of challenged claims 5, 6, 10, 15, 19, 21, 24, 25, 28, 29, 36, and 37, relying on the analysis of Mr. Young. Pet. 49-53 (citing Ex. 1006 ¶¶ 73-82 and Table 2). Petitioner further contends that the two references "address the same technical issues and disclose closely related subject matter," namely limiting subscriber access to content based on geographic information received at the set-top box and processed along with locally stored information. *Id*. at 49-50. Therefore, according to Petitioner, a "person of ordinary skill in the art would have been motivated to combine the teachings of Wasilewski '92 and Sheldrick to render [the challenged claims] obvious." *Id*.

The mere fact that Wasilewski '92 and Sheldrick describe similar conditional access systems is not, by itself, a sufficient rationale for a person

of ordinary skill in the art to have made the asserted combination. Rather, Petitioner must show "'some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (citation omitted). Petitioner has not done so.

To illustrate, dependent claim 5 recites the limitation that "the blackout/spotlight field indicates whether the service instance is geographically limited, and, if so, whether the service instance is limited to within a particular geographic region or to without the particular geographic region." Petitioner points to Wasilewski '92's coordinate-based blackout control (i.e., authorization "without" a geographic region) and Sheldrick's disclosure of a spotlight area (i.e., authorization "within" a geographic region), and asserts that the references in combination teach all elements of the claim. Pet. 50-51; *see* Ex. 1006 at 67-68 (citing portions of Wasilewski '92 and Sheldrick). Petitioner, however, does not provide a sufficient reason *why* a person of ordinary skill in the art would have modified the blackout control system of Wasilewski '92 to incorporate the spotlighting feature of Sheldrick. Similarly, dependent claim 24 recites that "when the geographic location information intersects the geographic region then the receiver is entitled to the instance of service." Petitioner cites Wasilewski '92 as teaching the limitations of the base claims and Sheldrick as teaching the intersection feature, but does not explain *why* a skilled artisan would have incorporated the intersection feature into the Wasilewski '92 system. *See* Pet. 52; Ex. 1006 at 79. Petitioner's analysis as to the other challenged dependent claims is similarly deficient. *See* Pet. 51-53; Ex. 1006 at 68-84.

Further, as explained above, we are not persuaded that Wasilewski '92 teaches all of the limitations of independent claims 12 and 20. *See supra* Section II.A.2. Petitioner does not assert that the "entitlement agent" limitations missing from Wasilewski '92 are taught by Sheldrick. *See* Pet. 49-53. Thus, Petitioner also has not made a sufficient showing as to dependent claims 15, 19, 21, 24, 25, 36, and 37 on this basis.

Wasilewski '92 and Thibadeau

As to claims 32-34, Petitioner argues that Wasilewski '92 and Thibadeau collectively teach all of the limitations of the claims. Pet. 54-55 (citing Ex. 1006 ¶¶ 73-82 and Table 2). Petitioner further asserts that Wasilewski '92 is directed to a system for providing conditional access to a receiver based on its geographic location and Thibadeau describes providing programming "based on the geographic location of the set top boxes within a region of specific shape" (i.e., a rectangle with minimum and maximum coordinate values). *Id.* According to Petitioner, "such coordinates describe particular boundaries," such as a rectangle, which are "useful for cable providers to regulate access to the protected content." *Id*. at 54. Patent Owner does not rebut Petitioner's arguments with respect to claims 32-34 in its preliminary response. Based on the current record, we are persuaded that Wasilewski '92 and Thibadeau teach the limitations of the challenged claims and that Petitioner has provided a sufficient rationale for a person of ordinary skill in the art to have combined the teachings of the references.

4. Summary

Based on the information presented in the Petition and accompanying declaration, we conclude that Petitioner has established a reasonable likelihood of prevailing on its assertion that claims 1-4, 7-9, 11, 26, 27, 30, and 31 are anticipated by Wasilewski '92 under 35 U.S.C. § 102(b), but has not done so with respect to claims 12-14, 16-18, 20, 22, 23, 35, and 38. Further, Petitioner has established a reasonable likelihood of prevailing on its assertion that claims 32-34 are unpatentable over Wasilewski '92 and Thibadeau under 35 U.S.C. § 103(a), but has not established a reasonable likelihood of prevailing on its assertion that claims 5, 6, 10, 15, 19, 21, 24, 25, 28, 29, 36, and 37 are unpatentable over Wasilewski '92 and Sheldrick under 35 U.S.C. § 103(a).

B. Asserted Grounds Based on Sheldrick

Petitioner contends that (1) claims 1-8, 12-31, and 35-38 are anticipated by Sheldrick under 35 U.S.C. § 102(b); and (2) claims 9-11 and 32-34 are unpatentable over Sheldrick and Thibadeau under 35 U.S.C. § 103(a), relying on the analysis of Mr. Young. Pet. 39-48, 56-59 (citing Ex. 1006). We are persuaded that Petitioner has established a reasonable likelihood of prevailing on its assertion that claims 1-11 and 26-34 are unpatentable for the reasons explained below.

1. Sheldrick (Ex. 1003)

Sheldrick is directed to a conditional access system where "[a]uthorization information, such as blackout and spotlight regions," is transmitted to decoders (e.g., set-top boxes) so that only decoders in certain

regions can access a program. Ex. 1003, Abstract. Figure 1 of Sheldrick is reproduced below:

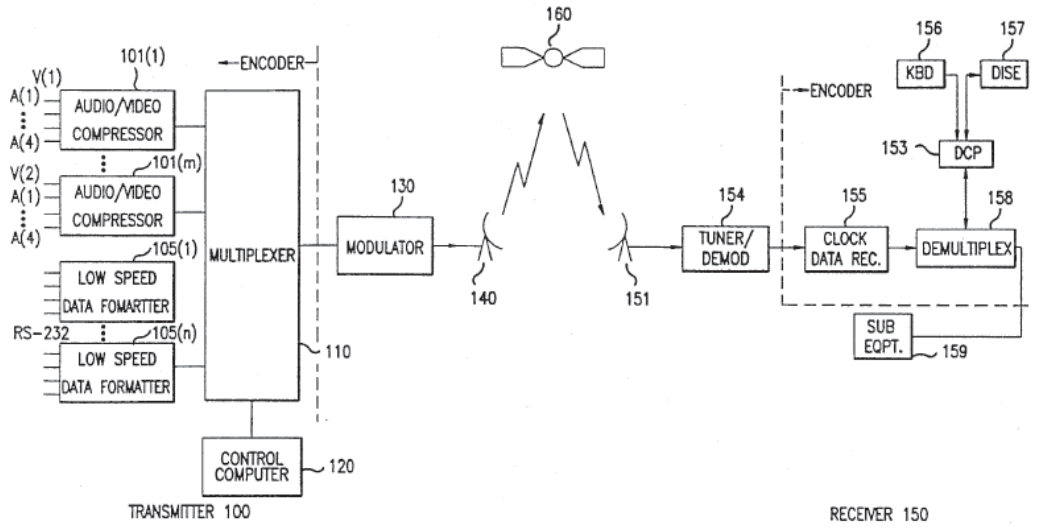

FIG.1

Figure 1 depicts (1) audio/video compressor circuits 101 that receive program content from "a plurality of programmers," (2) control computer 120 that "supplies control information, preferably as data packets, to the multiplexer 110," and (3) receiver 150 comprising tuner/demodulator 154, display control processor (DCP) 153, and digital compression in-board security element (DISE) 157. *Id*. at col. 6, ll. 1-4, 15-16; col. 6, l. 64-col. 7, l. 14.

DISE 157 comprises a "secure microprocessor including on-board read only memory (ROM) and random access memory (RAM)," and is responsible for "determin[ing] whether the decoder is authorized to receive the selected channel" based on incoming authorization information. *Id*. at col. 6, l. 64-col. 7, 1. 14. Specifically, control computer 120 provides authorization information, such as "blackout/spotlight codes specify[ing] a circular region in terms of a center latitude, a center longitude, and a radius," multiplexed with program data. *Id*. at col. 4, ll. 29-32; col. 13, ll. 20-32; col.

18, ll. 14-23. DISE 157 stores its own latitude and longitude, and uses that information in combination with the blackout/spotlight codes to determine whether it is inside the specified circular region and, therefore, authorized to decode the content. *Id*. at col. 18, ll. 14-33.

Figure 8 of Sheldrick is reproduced below:

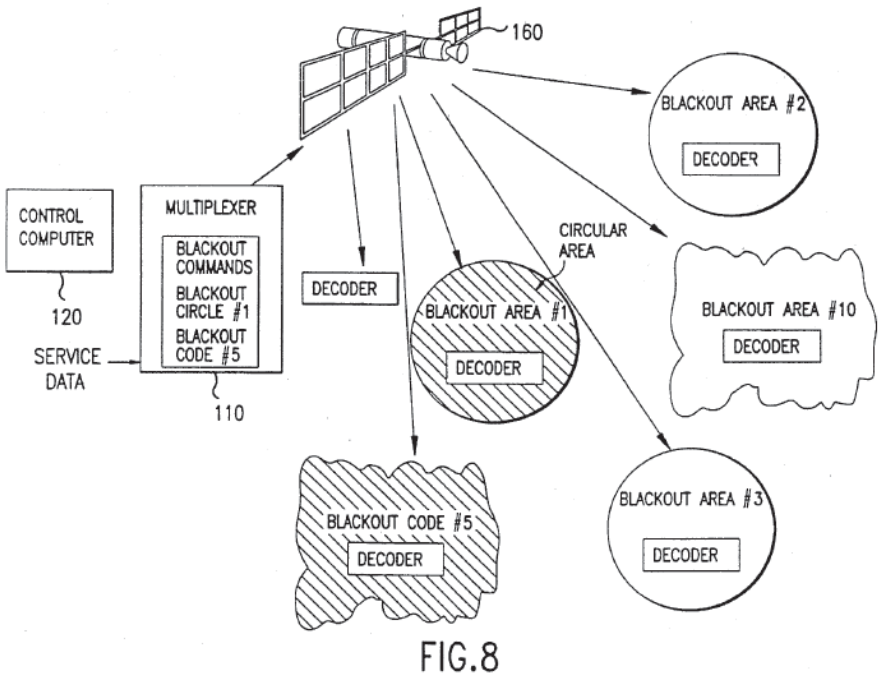

FIG.8

Figure 8 depicts control computer 120, multiplexer 110, and a plurality of blackout areas where decoders are located. *Id*. at col. 17, l. 66-col. 18, l. 33.

2. Anticipation

Claims 1-8 and 26-31

Petitioner contends that Sheldrick discloses all of the limitations of claims 1-8 and 26-31. Pet. 39-48. For example, with respect to independent claim 1, Petitioner argues that Sheldrick discloses a "receiver" (converter) comprising a "port" (input port of tuner/demodulator 154 shown in Figure 1) for receiving an "encrypted service instance" (program) and "entitlement

information" (authorization information), at least a portion of which includes "geographic reception information" (blackout-spotlight code specifying a center latitude, center longitude, and radius). *Id*. at 40-41; *see* Ex. 1006 at 33-36. Petitioner further argues that Sheldrick discloses a "first microprocessor" (DCP 153) that activates display of the program and a "secure element" (DISE 157) comprising a "memory" (random access memory) that stores a "geographic location indicator" (stored location) and a "second microprocessor" (secure microprocessor) that determines whether the decoder is entitled to the program. Pet. 41; *see* Ex. 1006 at 36-38. Petitioner asserts that DCP 153 activates display of the program when the secure element determines the receiver is entitled to access it (e.g., when the converter is within a spotlight zone or outside a blackout zone). Pet. 42; *see* Ex. 1006 at 38. Based on the current record and claim interpretations set forth above, we are persuaded that Sheldrick discloses all of the limitations of claim 1.

Similar to its argument with respect to Wasilewski '92, Patent Owner argues that DISE 157 in Sheldrick is not a "secure element" because the reference does not describe it as being tamper-proof. Prelim. Resp. 27-28. We disagree with Patent Owner's proposed claim interpretation of "secure element" for the reasons explained above, *see* Section I.E.3, and are persuaded based on the current record that DISE 157 is a "secure element" as recited in the claims.

Upon review of Petitioner's analysis and Mr. Young's declaration, we are persuaded that Petitioner has made a threshold showing that claim 1, as well as claims 2-8 and 26-31, are anticipated by Sheldrick.

Claims 12-25 and 35-38

With respect to independent claims 12 and 20, Petitioner argues that the "service programmers" in Sheldrick are each an "entitlement agent." Pet. 42; *see* Ex. 1006 at 46-47, 50. Similar to its argument with respect to Wasilewski '92, Patent Owner argues that the claims require the entitlement agent to provide both the encrypted service instance *and* the entitlement information, and the service programmers in Sheldrick do not provide entitlement information. Prelim. Resp. 28-30. Specifically, as shown in Figure 1 above, service programmers provide content, but control computer 120 provides the blackout/spotlight codes that are multiplexed with the content. *See* Ex. 1003, col. 6, ll. 15-16; col. 18, ll. 1-3, 18-21. We are persuaded that the service programmer in Sheldrick, relied upon by Petitioner, is not an "entitlement agent" that provides both an encrypted service instance and entitlement information. Therefore, Petitioner has not demonstrated a reasonable likelihood of prevailing on its argument that independent claims 12 and 20, as well as dependent claims 13-19, 21-25, and 35-38, are anticipated by Sheldrick.

3. Obviousness

Petitioner also contends that claims 9-11 and 32-34 are unpatentable over Sheldrick and Thibadeau under 35 U.S.C. § 103(a). Pet. 56-59. Similar to its obviousness analysis based on Wasilewski '92 and Thibadeau, *see supra* Section I.A.3, Petitioner argues that Sheldrick and Thibadeau together teach all of the limitations of the challenged claims and a person of ordinary skill in the art would have had reason to combine them. Pet. 56-59 (citing Ex. 1006 ¶¶ 54-72 and Table 1). According to Petitioner, both

references describe providing conditional access to a receiver based on its geographic region and "one of ordinary skill in the art would have been motivated to combine Sheldrick and Thibadeau and [would] have recognized that a geographic region can be defined as a circle, rectangle, or square useful for cable providers to regulate access to the protected content within a particularly shaped region." *Id.* at 56. In particular, Petitioner cites Thibadeau's use of square-shaped geographic regions. *Id*. at 56-58. Patent Owner does not rebut Petitioner's arguments with respect to claims 9-11 and 32-34 in its preliminary response. Based on the current record, we are persuaded that Sheldrick and Thibadeau teach the limitations of the challenged claims and that Petitioner has provided a sufficient rationale for a person of ordinary skill in the art to have combined the teachings of the references.

4. Summary

Based on the information presented in the Petition and accompanying declaration, we conclude that Petitioner has established a reasonable likelihood of prevailing on its assertion that claims 1-8 and 26-31 are anticipated by Sheldrick under 35 U.S.C. § 102(b), but has not done so with respect to claims 12-25 and 35-38. Further, Petitioner has established a reasonable likelihood of prevailing on its assertion that claims 9-11 and 32-34 are unpatentable over Sheldrick and Thibadeau under 35 U.S.C. § 103(a).

C. Conclusion

We conclude that Petitioner has demonstrated a reasonable likelihood of prevailing on the following grounds of unpatentability asserted in the Petition:

Claims 1-4, 7-9, 11, 26, 27, 30, and 31 under 35 U.S.C. § 102(b) as anticipated by Wasilewski '92;

Claims 1-8 and 26-31 under 35 U.S.C. § 102(b) as anticipated by Sheldrick;

Claims 32-34 under 35 U.S.C. § 103(a) as unpatentable over Wasilewski '92 and Thibadeau; and

Claims 9-11 and 32-34 under 35 U.S.C. § 103(a) as unpatentable over Sheldrick and Thibadeau.

The Board, however, has not made a final determination under 35 U.S.C. § 318(a) with respect to the patentability of the challenged claims.

III. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is granted as to claims 1-11 and 26-34 of the '892 patent;

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), *inter partes* review of the '892 patent is hereby instituted commencing on the entry date of this Order, and 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;

FURTHER ORDERED that the trial is limited to the grounds identified under the heading "Conclusion" above, and no other grounds set

forth in the Petition as to claims 1-11 and 26-34 of the ’892 patent are authorized;

FURTHER ORDERED that an initial conference call with the Board is scheduled for 2:00 PM Eastern Time on December 18, 2013. The parties are directed to the Office Patent Trial Practice Guide, 77 Fed. Reg. 48756, 48765-66 (Aug. 14, 2012), for guidance in preparing for the initial conference call, and should come prepared to discuss any proposed changes to the Scheduling Order entered herewith and any motions the parties anticipate filing during the trial; and

FURTHER ORDERED that Exhibit 1007 is expunged from the record of this proceeding.

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