

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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OPENTV, INC.

Petitioner

v.

CISCO SYSTEMS, INC., CISCO TECHNOLOGY INC., SCIENTIFIC-  
ATLANTA, LLC, SCIENTIFIC-ATLANTA, INC. AND NDS AMERICAS INC.

Patent Owner

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CASE: Unassigned

Patent No. 6,744,892 B2

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**PETITION FOR *INTER PARTES* REVIEW  
OF U.S. PATENT NO. 6,744,892 B2**

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## **EXHIBIT LIST**

- Ex. 1001 U.S. Patent No. 6,744,892 B2 to Akins, III et al. (“the 892 Patent”)
- Ex. 1002 Wasilewski, A. J., “ISO/IEC JTC1/SC20/WG11, Requirements and Method for High-Level Multiplexing of MPEG and Other Digital Service Bitstreams With Universal Transport Layer”, Nov. 1992 (“Wasilewski ’92”)
- Ex. 1003 U.S. Patent No. 5,506,904 to Sheldrick et al. (“Sheldrick”)
- Ex. 1004 U.S. Patent No. 5,432,542 to Thibadeau et al. (“Thibadeau”)
- Ex. 1005 Portions of the prosecution file history of related U.S. Patent No. 6,252,964 B1 (“the 964 Patent”)
- Ex. 1006 Declaration of Alan Young (“Young Declaration”)
- Ex. 1007 Claim charts identifying specific sections of prior art references that support invalidity of claims 1, 12, 20 and 26 of the 892 Patent
- Ex. 1008 U.S. Patent No. 5,870,474 to Wasilewski et al. (“the 474 Patent”)

Pursuant to 35 U.S.C. § 311 and 37 C.F.R. § 42.100, OpenTV, Inc.

(“Petitioner”) petitions for *inter partes* review of claims 1-38 of U.S. Patent No.

6,744,892 B2 (“the 892 Patent,” Ex. 1001), assigned to Scientific-Atlanta, Inc.

Based on information and belief, Scientific-Atlanta, Inc., Scientific-Atlanta, LLC,

5 Cisco Systems, Inc., Cisco Technology Inc., and NDS Americas Inc. (collectively

“Cisco”) each may have, or are represented by Cisco to have, or have had,

ownership interest in the 964 Patent. Accordingly, these entities are collectively

referred to as “Patent Owner” in this Petition.

## **I. INTRODUCTION**

10 This Petition and accompanied evidence show that there is a reasonable  
likelihood that Petitioner will prevail with respect to at least one of the claims 1-38  
of the 892 Patent challenged in this Petition and that claims 1-38 are unpatentable  
on multiple grounds over cited prior art under 35 U.S.C. §102 or §103. The Patent  
Office is respectfully requested to institute a trial for *inter partes* review and to  
15 reject and cancel claims 1-38.

## **II. MANDATORY NOTICES UNDER 37 C.F.R. § 42.8(A)(1)**

### **A. REAL PARTY IN INTEREST**

Petitioner OpenTV, Inc. is the real party in interest and is wholly owned by  
Kudelski, S.A., which is publicly traded on the SIX Swiss Exchange.

### **20 B. RELATED MATTERS**

The 892 Patent and two other U.S. Patent Nos. 6,252,964 B1 and 7,505,592 B2 are being asserted against Petitioner in an on-going patent infringement lawsuit brought by Patent Owner in CISCO SYSTEMS, INC., CISCO TECHNOLOGY, INC., NDS AMERICAS INC. and SCIENTIFIC ATLANTA LLC v. OPENTV, INC. AND NAGRA USA, INC., 5:13-cv-00282 filed in the Northern District of California on January 18, 2013.

In the above litigation, Patent Owner is asserting the claims of the 892 Patent that, as shown in this Petition, were already disclosed by the prior art and that are invalid. Rejection and cancelation of claims 1-38 of the 892 Patent will prevent Patent Owner from claiming technologies in the public domain as its own and from asserting invalid claims to exclude others.

In addition, Petitioner is concurrently filing petitions for *inter partes* review of Patent Owner's U.S. Patent Nos. 6,252,964 B1 and 7,505,592 B2.

### **C. NOTICE OF COUNSEL AND SERVICE INFORMATION**

Pursuant to 37 C.F.R. § 42.8(b)(3) and 42.10(a), Petitioner appoints **Nicholas T. Bauz** (Reg. No. 41,604) as its lead counsel, and **Bing Ai** (Reg. No. 43,312) and **Amy E. Simpson** (Reg. No. 54,688) as its back-up counsel, all at the mailing address of Perkins Coie LLP, 11988 El Camino Real, Suite 200, San Diego, CA 92130, contact numbers of 858-720-5700 (phone) and 858-720-5799 (fax), and the following email for service and all communications:

**opentv-cisco-ipr@perkinscoie.com.**

Pursuant to 37 C.F.R. § 42.10(b), a Power of Attorney executed by OpenTV, Inc. for appointing the above designated counsel is concurrently filed.

### **III. REQUIREMENTS FOR *INTER PARTES* REVIEW**

5        This Petition meets and complies with all requirements under 37 C.F.R. § 42.104 for *inter partes* review of the 892 Patent.

#### **A. GROUND FOR STANDING**

Pursuant to 37 C.F.R. § 42.104(a), Petitioner hereby certifies that the 892 Patent is available for *inter partes* review and that the Petitioner is not barred or  
10    estopped from requesting *inter partes* review challenging the claims of the 892 Patent on the grounds identified herein.

#### **B. IDENTIFICATION OF CHALLENGE**

Pursuant to 37 C.F.R. § 42.104(b), the precise relief requested by Petitioner is that the Patent Trial and Appeal Board invalidate the 892 Patent.

##### **1. Claims Challenged**

15        Claims 1-38 of the 892 Patent are being challenged in this Petition.

##### **2. The Prior Art**

Prior art references in this Petition are Wasilewski '92, Sheldrick and Thibadeau as listed in the Exhibit List.

##### **3. Supporting Evidence Relied upon for the Challenge**

20

Declaration of Alan Young (Ex. 1006) supporting the grounds for claim rejections and other supporting evidence in the Exhibit List are filed herewith.

**4. Statutory Ground(s) of Challenge and Legal Principles**

The review of patentability of claims 1-38 of the 892 Patent requested in this  
5 Petition is governed by statutory provisions under 35 U.S.C. §§102 and 103 that  
were in effect before March 16, 2013. Statutory provisions 35 U.S.C. §§311 to 319  
that took effect on September 16, 2012 govern this *inter partes* review.

**5. Claim Construction under 37 C.F.R. § 42.100(b)**

A claim subject to *inter partes* review shall be given by the Patent Office  
10 “its broadest reasonable construction in light of the specification of the patent in  
which it appears” to one of ordinary skill in the art.

**6. How the Claims are Unpatentable under the Statutory  
Ground Identified in Paragraph (b)(2) of 37 C.F.R. § 42.104**

An explanation of how claims 1-38 of the 892 Patent are unpatentable,  
15 including the identification of where each element of the claim is found in the prior  
art patents or printed publications, is provided in Section VI below.

**IV. OVERVIEW OF THE 892 PATENT**

**A. PRIORITY DATE OF THE 892 PATENT**

The 892 Patent asserts priorities of nine (9) prior patent filings. During the  
20 prosecution, Patent Owner filed a rule 131 declaration alleging a conception date  
of January 1, 1997. However, the earliest description in the 892 Patent and the



prior patent filings that may support claims 1-38 appears in Appl. No. 60/054,575 filed August 1, 1997. Therefore, the earliest priority date of claims 1-38 is no earlier than August 1, 1997.

**B. PERSON OF ORDINARY SKILL AND SECONDARY  
5 CONSIDERATIONS**

The inquiry under 35 U.S.C. § 103 is from the perspective of "a person having ordinary skill in the art." For the purpose of this Petition, such a person having ordinary skill in the art would have had a bachelor's degree in electrical engineering, computer science, or a related field, and a few years of working  
10 experience in the area of installing and supporting pay TV television content distribution and/or broadcasting. This description is approximate and several years' experience designing and/or developing and/or operating blackout switching management systems could make up for less experience installing and supporting pay TV television system, and a lower level of education (see also Ex. 1006,  
15 Paragraphs 29-32).

Petitioner presently is not aware of any secondary considerations at issue concerning the prior art presented here in connection with the 892 Patent. Petitioner reserves the right to present evidence of or rebut arguments relating to secondary considerations in this or other proceedings, as appropriate.

**C. BRIEF DESCRIPTION OF THE 892 PATENT**

The claims and associated description of the 892 Patent relate to limiting access to television programs based on geographic location of the set-top (i.e., receiver) unit. The received program or a service instance is encrypted and can only be decrypted and displayed if the set-top box has proper authorization (or entitlements) (e.g., 2:19-45). According to the 892 Patent, the geographical location of each receiver can be stored as, e.g., an X-Y coordinates (e.g., 36:51-61 and Figs. 26-27). The authorization information that accompanies a TV program can include geographic information that indicates the geographical region within which the program can be viewed (i.e., spotlight regions) or cannot be viewed (i.e., blacked out regions) (e.g., 26:19-27; 38:39-41). The receiver then compares the received geographic information against the stored location information to determine if it is authorized to view the program (e.g., 38:41-49).

#### **D. SUMMARY OF PROSECUTION FILE HISTORY**

The 892 Patent was filed on March 3, 2003 as a continuation application of Application No. 09/493,409, which issued as U.S. Patent No. 6,560,340 (“the 340 Patent”). On March 3, 2003, concurrently with the filing of the 892 Patent, Patent Owner filed a preliminary amendment to amend claims 1-4, 6-14, 16-20, 22-25 and 27-30, to add new claims 31-45, and to submit an affidavit under 37 C.F.R. § 1.131 alleging a conception date of January 1, 1997 to swear behind U.S. Patent No. 6,009,116, which was cited by the Patent Office against the 340 Patent, the parent

of the 892 Patent. In the first Office Action mailed September 25, 2003, claims 20-26 were rejected under 35 U.S.C. § 101 based on statutory-type double patenting and claims 1-19 and 27-45 based on obviousness-type double patenting over the claims of the 340 Patent. Patent Owner, on December 1, 2003, canceled claims 20-26, and filed a Terminal Disclaimer to overcome the obviousness-type double patenting rejections. Notice of Allowability was mailed on February 24, 2004.

The specification and figures of the 892 Patent are identical to those in the related and previously granted U.S. Patent No. 6,252,964 B1 within the same family of patent filings. Patent Owner during the prosecution of the 964 Patent made statements on the record regarding the term “entitlement agent” that also appears in claims of the 892 Patent. These statements were made to overcome claim rejections. Selected portions of the prosecution history of the 964 patent (Ex. 1005) are referenced in the Proposed Claim Construction section of this Petition.

#### **E. PROPOSED CLAIM CONSTRUCTION**

Petitioner’s proposed constructions and supporting evidence for construed claim terms are set forth below pursuant to the broadest reasonable interpretation standard. Petitioner's proposed claim constructions are offered only to comply with 37 C.F.R. §§ 42.100(b) and 42.104(b)(3) and for the sole purpose of this Petition, and thus do not necessarily reflect appropriate claim constructions to be used in litigation and other proceedings where a different claim construction standard

applies. The proposed claim constructions are not binding upon Petitioner beyond this *inter partes* review.

**1. “Service Instance”**

The proposed claim construction for this term is “a program or a service.”

5 The Abstract of the 892 Patent defines a service instance as a television program that is received by a receiver in a cable television system: “The cable television system includes a headend from which service “instances”, or programs, are broadcast and a plurality of set top units for receiving the instances and selectively decrypting the instances for display to system subscribers.”

10 **2. “Entitlement Information”**

The proposed claim construction for this term is “information that is used to assess a receiver’s authorization for accessing a program or a service.” The basis in the 992 Patent for the proposed construction includes, e.g., 10:19-23; 24:48-57; 29:55-67 and 37:6-14. The 892 Patent further describes that: “[i]n interpreting  
15 EMMs, DHCTSE 627 acquires and stores keys and entitlement information; in interpreting ECMs, DHCTSE 627 uses the entitlement information to determine whether DHCT 333 receiving the ECM has an entitlement for the instance of the service which the ECM accompanies” (16:13-18).

**3. “Geographic Reception Information”**

20 The proposed claim construction for this term is “information received at a receiver related to the receiver’s authorization for accessing a program or a service

within a geographic location or area.” The 892 Patent recites this term in claims only and does not explicitly recite this term in the description or drawings.

Regarding messages received at the receiver including blackout/spotlight information related to geographic reception information, the 892 Patent provides

5 the following description (38:37-49):

Where further restrictions apply to an entitlement, DHCTSE 627 searches for that information as well in entitlement agent information 1333. For example, if blackout/spotlight field 2223 of the ECM indicates that a blackout applies to the service, DHCTSE 627 uses  
 10 blackout/spotlight information 2236 to determine whether the location specified by x coordinate 1521 and y coordinate 1523 is within the square specified by blackout/spotlight information 2236; if so, DHCTSE 627 does not decrypt control word 2235. When a spotlight applies, the procedure is of course the opposite: DHCTSE 627  
 15 decrypts the control word only if x coordinate field 1521 and y coordinate field 1523 specify a location within the square.

#### **4. “Geographic Location Indicator”**

The proposed claim construction for this term is “information conveying  
 20 location of a receiver.” The 892 Patent recites this term in claims only and does not describe it in the description or drawings. In relation to determining a receiver’s location using an X-Y coordinate system, the 892 Patent describes: “X coordinate 1521 and Y coordinate 1523 define a location of DHCT 333 in a coordinate system

established by the entitlement agent. The coordinate system may be geographic and may, for example, be used to determine whether the DHCT 333 is in an area which is to be blacked out in a broadcast” (38:37-49).

## **5. “Entitlement Agent”**

5 The proposed claim construction for this term is “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.”

10 On the “a program or service provider” aspect of the above proposed construction, in the original examination of the related 964 Patent, which claims priority to the same provisional Application No. 60/054,575 as the 892 Patent and includes the identical 29 figures and detailed description as the 892 Patent, Patent Owner represented to the Office that “Entitlement agents provide different  
15 instances of service to the conditional access system, and specific instances of service for each entitlement agent are provided to customers of the conditional access systems” (Ex. 1005, p. 17, 2nd full paragraph). Patent Owner also stated that “As a matter of law, Applicants are allowed to be their own lexicographer, and in the specification at page 3, lines 4-11, instances of services include programs  
20 provided by program sources (Entitlement Agents)” (Ex. 1005, p. 53, 2nd

paragraph) and further declared that “entitlement agents, as claimed by the Applicants, include entities that provide the claimed instances of service provided to the service distribution organization, and consequently, the secure chip of Arnold cannot be the Applicants claimed entitlement agent” (Ex. 1005, p. 54, 1st  
5 paragraph).

The 892 Patent also relates an “entitlement agent” (EA) to 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. See, e.g., 8:23-26 and Figs.  
10 20 and 24 illustrating an EA as part of the conditional access system and Figs. 3, 4, 20 and 24 showing an EA outside a receiver or DHCT. “In the case of an RSA digital signature, the private key which is used to make the signature belongs to *the entitlement agent within service distribution organization 103 responsible for authorizing the associated service*” (emphasis added; 7:6-10). “In the case of pay-  
15 per-view events, the customer orders the event from the entitlement agent, and *the agent responds by sending an EMM that contains the necessary entitlement information*” (emphasis added; 31:1-4). Fig. 3 illustrates a key “SP Kr” as the private key of the entitlement agent (8:23-26) where “SP” stands for a “Service Provider which provides the video, audio, interactive games and the like” per  
20 Patent Owner’s definition in an earlier U.S. Patent No. 5,870,474 from which the

892 Patent claims a CIP relationship in its chain of priority claims (the 474 Patent in Ex. 1008, 1:46-47).

**V. THERE IS A REASONABLE LIKELIHOOD THAT AT LEAST ONE CLAIM OF THE 892 PATENT IS UNPATENTABLE**

5           **A. IDENTIFICATION OF THE REFERENCES AS PRIOR ART**

Prior art references in this Petition disclose, inter alia, systems and methods for providing access to program or information that is broadcast to one or more receivers based on geographical location of the receiver.

**1. Wasilewski '92**

10           Wasilewski '92 (Ex. 1002) was published in November 1992, more than one year before the earliest effective priority date of August 1, 1997 for the claims of the 892 Patent. Therefore, Wasilewski '92 qualifies as prior art under 35 U.S.C. § 102(b) with respect to the 892 Patent. Wasilewski '92 was submitted in an information disclosure statement during the prosecution of the 892 Patent, but was  
15           not otherwise discussed on the record, and was not relied upon by the Examiner.

                  Wasilewski '92 describes a broadcast system, such as a cable television system, capable of multiplexing various programs and associated data using a standardized MPEG stream. A multiplex MPEG stream can carry multiple channelized services, security, conditional access and system data that are provided  
20           to the set-top box receivers (Sec. 3.1, par. 4). The "blackout" information can be transmitted to, and received by, set-top boxes to selectively prevent viewing of



programs (such as sporting events) by a subset of such set-top boxes (Sec. 6.7).

Therefore, Wasilewski '92 is within the same specific technical field, and relates to the claimed subject matter, of the 892 Patent.

Generation of an encrypted service instance: Wasilewski '92 describes a

5 Digital Compression Services Delivery System (DCSDS) that constructs a superframed multiplex that can include a plurality of encrypted service instances.

An overview of this process is shown in Fig. 2.

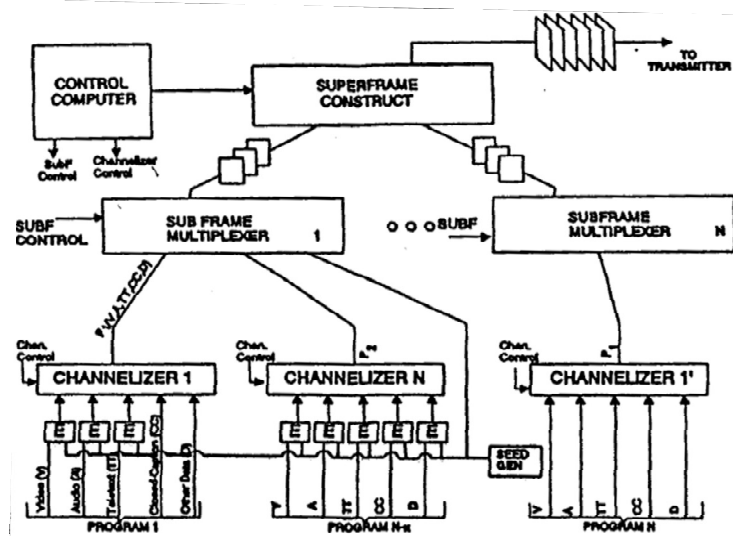


Figure 2 – Construction of Superframed Multiplex

First, individual program (Fig. 2, Programs 1-N) components (video, audio,  
 10 data) are compressed and encrypted (Fig. 2; blocks labeled “E”). The encrypted components are combined by a channelization element into a self-synchronized bitstream (Sec. 4, par. 4). The output of several channelizers are combined, and control and sync information are incorporated by the subframe multiplexer (*Id.*). Multiple subframes are then merged by a superframe constructor (*Id.*).

Entitlement information associated with encrypted service instances:

Wasilewski '92 describes each subframe in DCSDS has its own transport layer that carries system encryption and frame control information (Sec. 5, par. 1). All information needed for routing, demultiplexing, service selection/tuning, decryption, packet error correction, and conditional access of an individual subframe is handled by the transport layer (*Id.*). The DCSDS supports service- and programmer-specific encryption and multiple non-interfering conditional access data streams (Sec. 3.19). Signals received and decoded at the subscriber may have *originated from dozens or more service providers and each provider can have total end-to-end security and conditional access control of its service bitstreams* which are being transmitted over a common physical network or networks (*Id.*).

Wasilewski '92 describes that a large number of receive sites are broadcast to in a multi-drop fashion from a smaller number of transmit sites (Sec. 3.20, par. 1). The receive sites each have a unique address by which they may be given entitlement, tuning and other information (*Id.*).

In the system encryption structure in FIG. 11, Addressable Data Packets (ADPs) carry information bound for specific decoders (Sec. 5.5, titled "Addressable Data Packets"), are encrypted by the ADP Encrypt block and include various keys and information (e.g., multi-session keys, broadcast keys, serial numbers).

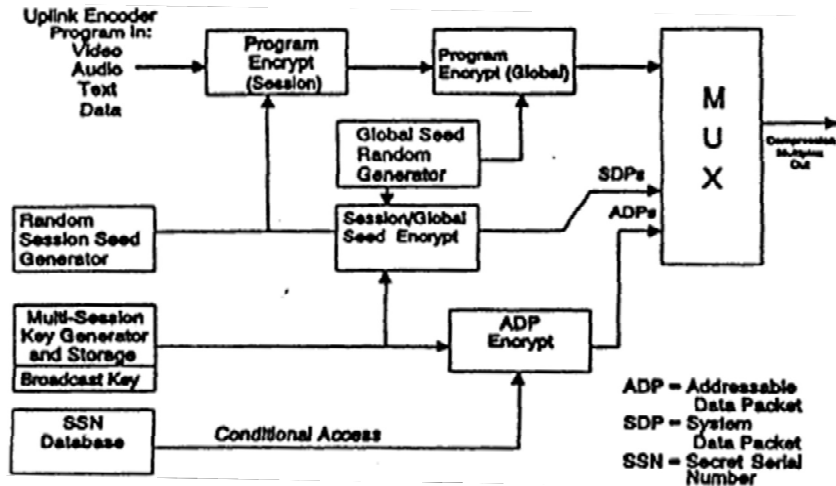


Figure 11 – System Encryption Architecture

Entitlement information includes geographic reception information:

Wasilewski '92 describes that its conditional access system utilizes *blackout* information to restrict access to certain subscribers that are usually located in a common geographic area (Sec. 6.7, pars. 1-2). To enable blackout control, a control computer assigns group codes to decoders (i.e., receivers or set-top boxes) and transmits the group code the decoders using addressable data packets (ADPs) (Sec. 6.7, par. 2). When a receiver receives the broadcast bitstream, which also includes a blackout code, the receiver compares the received code with its own, and will not authorize the service if there is a match (*Id.*).

Wasilewski '92 also describes a geographic-coordinate-based method of blackout control in which the control computer makes the blackout assignments and assigns both a group blackout code and a geographic (x,y) coordinate blackout code to each decoder (Sec. 6.7, par. 3). The system data packet carries the group

code and/or a geographic centroid (x,y) and radius (r) for the blackout zone (*Id.*).

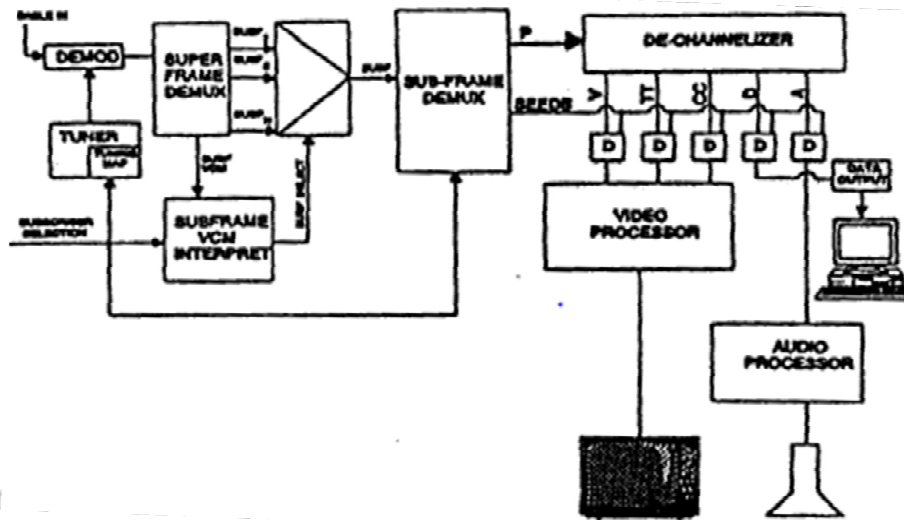
Each decoder uses an internally-stored location coordinate to calculate whether it is within the blackout zone and will not authorize if it is (*Id.*).

Delivering encrypted service instance and associated entitlements:

5 Wasilewski '92 describes that each set-top box is assigned a unique secret serial number (SSN) at manufacture time, stored in a protected non-volatile memory (NVM) within the die of a secure microprocessor. A control computer (Encoder Management Computer) maintains an SSN database , and the encoder multiplexing unit encrypts all addressed packets (ADPs) bound for a specific decoder. For  
10 example, the Multi-session keys (MSKs) used to encrypt the session (service) seeds are delivered in this fashion, as are the entitlements (Sec. 5.9.2, par. 1-2).

Decryption of encrypted service instance and activation of display:

Wasilewski '92 describes a standard decoder (set-top box) with a video processor that receives output from service decryptors (D). A block diagram of a "standard"  
15 superframe decoder is shown in Fig. 13. The decoder obtains programming by adjusting its tuner to a user specified channel (or frequency). After data sync is obtained, the superframe multiplex map is interpreted. This allows the decoder to select the correct subframe for demultiplexing (Sec. 5.1, par. 2).



**Figure 13 – Standard Decoder Model**

Once the subframe is acquired, the multiplex map is interpreted and the appropriate channelized program bitstream is extracted by interpreting the virtual channel map. The encrypted service seeds are likewise obtained from the transport layer and are decrypted in the secure microprocessor using the proper pre-stored broadcast key and/or MSK. The service decryptors (D) are initialized with their seeds and produce the clear bitstreams to the video processor (Sec. 6.1, par. 3).

Use of entitlements to determine if a receiver is entitled to a program:

Wasilewski '92 describes entitlements that include geographical restriction information to selectively deny/allow access to the received programming. When a programming that includes geographic restriction information is received, each decoder uses an internally-stored location coordinate to calculate whether it is within the blackout zone and will not authorize if it is (Sec. 6.7, pars. 2-3).

## 2. Sheldrick

Sheldrick (Ex. 1003) was issued as U.S. Patent No. 5,506,904 to Patent Owner on April 9, 1996, more than one year before the earliest effective priority date of August 1, 1997 for the claims of the 892 Patent. Therefore, Sheldrick  
5 qualifies as prior art under 35 U.S.C. § 102(b) with respect to the 892 Patent. Sheldrick was submitted as part of an information disclosure statement during the prosecution of the 892 Patent, but otherwise was not discussed, and was not relied upon, by the Examiner.

Sheldrick describes a broadcast system (e.g., a cable or satellite system) for  
10 providing programming to converters (e.g., receivers in a subscription service). Sheldrick's broadcast system includes blackout/spotlight information to allow only a subset of receivers to decode broadcast programs based on their geographic locations.

Transmission of authorization codes: Sheldrick discloses that a converter  
15 receives authorization codes (e.g., blackout and or spotlight codes) before the converter is authorized to convert (i.e., decrypt) encrypted entitled content (e.g., a television program). Authorization codes are transmitted to the converter within fields of data frames in order for authorization to be implemented (4:3-43).

Decryption by a Security Element: Sheldrick discloses that after encrypted  
20 entitlement or authorization information is received by the converter, the content is

sent to the converter's digital compression in-board security element (DISE) and demultiplexer (7:2-40). The DISE and the demultiplexer assist with decrypting the entitlement information, based on whether the converter received the appropriate authorization code (as explained below) (*Id.*).

5        Blackout and Spotlight Regions: According to Sheldrick, authorization codes can include at least blackout codes and spotlight codes. Blackout and spotlight codes specify a region in terms of a center latitude, a center longitude, and a radius. Each decoder receives a code and, based on content in the code, stores its location in terms of longitude and latitude (4:20-43).

10        Blackout Authorization: Sheldrick discloses a blackout region whereby one or more services are denied to a user. For example, broadcasters may be prohibited by contract from broadcasting a sporting event to users within a fixed distance from a stadium or arena where the sporting event takes place in order to protect ticket revenues (2:46-52). The blackout location may be sent in data frames that  
15        include a radius of a circular region, and a latitude/longitude of the center location. The provider network can then send, a list of counties which are to be blacked out, or an entire state except for one county, for example (12:51-62).

As shown in Fig. 8 (below), an operator can blackout a service to an area (e.g., blackout circle #1) as well as to a region (e.g., the region with blackout code  
20        #5) by entry of an appropriate instruction set in a control computer 120. The DISE

at the converter calculates whether the decoder is within the blackout circle #1 and whether it is within the blackout region defined by blackout code #3. Decoders within circular blackout region #1 or the region corresponding to blackout code #5 will not be authorized. Decoders in other areas, e.g. blackout areas #2 and #3 and the region corresponding to blackout code #10, will be authorized (18:11-33).

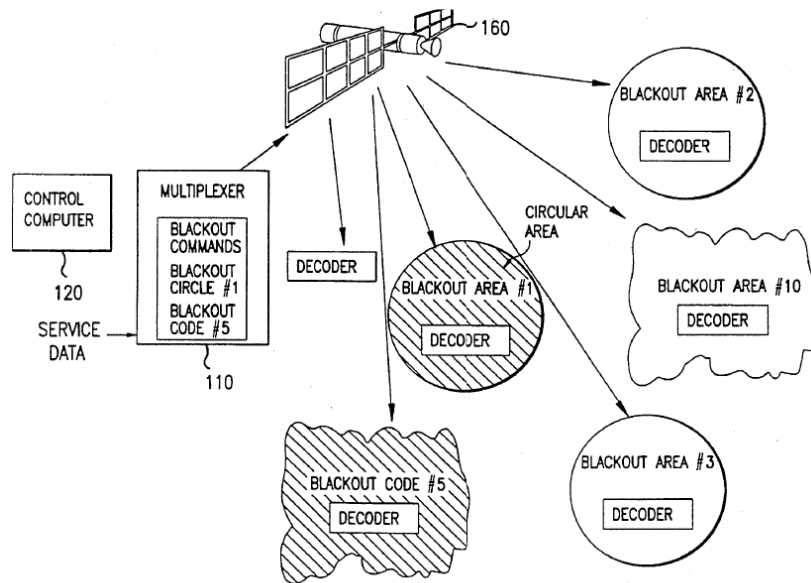


FIG.8

Spotlight Authorization: Sheldrick discloses a spotlight authorization. If the decoder's location is within a spotlight region, the decoder is set to "authorized" regardless of any previous state, assuming all higher priority authorization conditions are satisfied. The spotlight location is transmitted, e.g., in data frames similar to the frames described for blackouts. FIG. 9 (below) illustrates use of spotlight authorization (12:42 to 13:4).



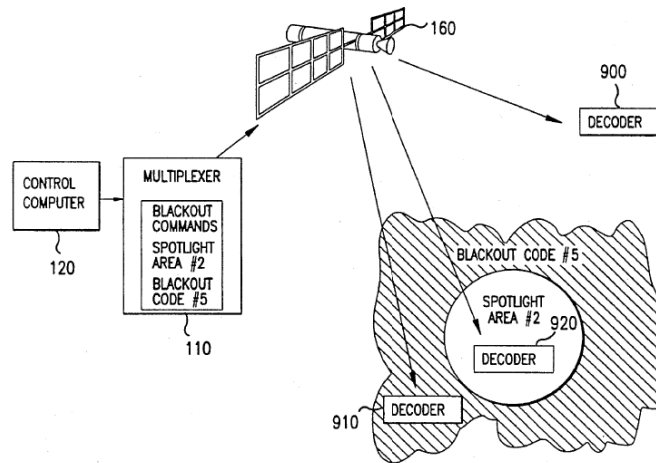


FIG. 9

Geographic Location: Sheldrick discloses a flexible system and method for delivering authorization information to a decoder based on the decoder's location (e.g., a neighborhood, city, municipality, state, nation, and/or international location)

(13:5-18; 3:46-48). Each decoder can be in one location, defined as a location on the surface of the Earth (e.g., using longitude and latitude) (12:51 to 13:4).

Spotlight and blackout authorization can work independently of each other or they may interact to form a combination of geographically based classification schemes (13:5-13). For example, a decoder can detect that it is within each of a blackout

and a spotlight region. This may be useful, e.g., when a network provider of a sports-related entitlement program wants to center a blackout around a stadium and then explicitly spotlight nearby countries (13:13-18).

Fig. 9 of Sheldrick illustrates an example of the interaction of overlapping blackout and spotlight commands. Data packets that include geographical

restriction information are multiplexed into a sequence of frames together with service data. The frames are transmitted to various decoders via a satellite to effect blackout/spotlight of the transmitted programs. In the example provided in Fig. 9, the spotlight circle #2 defines a circle within the blackout area that has code #5.

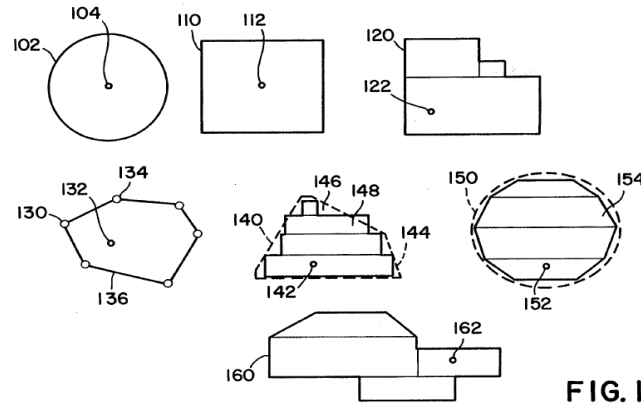
5 Decoders outside of this blackout (e.g., decoder 900) are authorized. Decoders within the blackout region (e.g., decoders 910, 920) are initially be deauthorized. However, decoders within spotlight circle #2 (e.g., decoder 920) can be authorized when the spotlight information is processed by the decoder (9:34-48).

### 3. Thibadeau

10 Thibadeau (Ex. 1004) was issued as U.S. Patent No. 5,432,542 on July 11, 1995, more than one year before the earliest priority date of August 1, 1997 for the claims of the 892 Patent. Therefore, Thibadeau qualifies as prior art under 35 U.S.C. § 102(b) with respect to the 892 Patent. Thibadeau was submitted as part of an information disclosure statement during the prosecution of the 892 Patent, but  
15 otherwise was not discussed, and was not relied upon, by the Examiner.

Thibadeau's disclosure relates to broadcast and reception of programming and messages at set top boxes that operate, for example, in a cable television network (Abstract; 1:7-19). The transmitted signals contain information targeted to geographical groups of users or regions and include codes that enable decoding of  
20 such signals by set-top boxes located within those specific geographic locations

(Abstract, 1:7-12; 8:10-19). Therefore, Thibadeau is within the same specific technical field, and closely relates to the claimed subject matter, of the 892 Patent.



**FIG. 1**

Geographic reception information can define a square geographic region:

5 Thibadeau describes that the geographic reception information can include a point (i.e., an x centroid and a y centroid) and a radius value (i.e., radius) that together define a square geographic region within the coordinate system (8:20-40, Fig. 1).

Fig. 1 illustrates a two dimensional coordinate system based on latitude and longitude, where the representation of a region is the square/rectangle 110, and

10 where the center of the square is at 112 (i.e., point). Thibadeau describes geographic regions may be represented by a simple closed geometric shape such as, a point and a radius to define a circular region, or an arbitrary region comprised of the union of a set of shapes, such as rectangles, circles, trapezoids, or other polygons, or combinations such as chords or segments thereof (7:29-44).

15 Geographic subportions with minimum and maximum values: Thibadeau describes that geographical regions can include various sub-portions having

absolute or relative coordinate values (9:22-56). For example, Fig. 2 of Thibadeau illustrates a subportion of a rectangular shaped area, having minimum and maximum X and Y values (e.g., x min of 320, y max of 550, y min 50 and y max of 100) in a an X-Y coordinate system (9:22-56; Fig. 2).

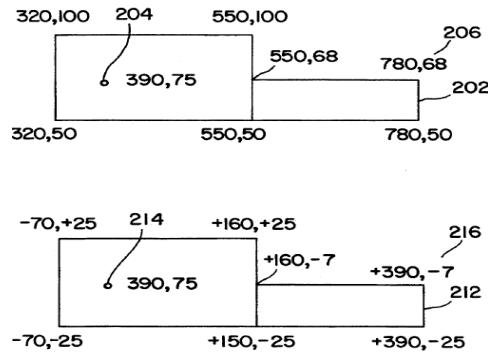


FIG. 2

## B. SUMMARY OF INVALIDITY POSITIONS

The prior art references cited in this Petition disclose all limitations of claims 1-38 of the 892 Patent and demonstrate that subject matter of claims 1-38 was well known and thus is not patentable.

Specifically, Wasilewski '92 and Sheldrick references each describe receiving geographic indicators at the receiver and using location information at the receiver to determine, and implement, selective geographic viewing of the broadcast programs based on geographic location of the receiver. Each of Wasilewski '92 and Sheldrick references anticipate all independent claims, as well as some dependent claims, of the 892 Patent.

Thibadeau provides further detailed teachings as to how selective reception of programming can be implemented within geographic reception regions with various shapes (e.g., squares, circles, trapezoids, etc.). Thibadeau's teachings, when combined with those of Wasilewski '92 or Sheldrick, render the remaining  
5 dependent claims of the 892 Patent obvious and thus unpatentable.

Additionally, the Declaration by Alan Young (Ex. 1006), an expert with considerable knowledge and practical experience in this technical field, confirms the Petitioner's invalidity positions based on the above prior art references. The Declaration also provides further details as to how the alleged invention in the 892  
10 Patent was well-known and implemented as a matter of routine in the conditional access systems that were in existence many years prior to the August 1, 1997, priority date of the 892 Patent.

**C. DIFFERENT INVALIDITY POSITIONS AGAINST EACH CLAIM ARE INDEPENDENT, DISTINCTIVE AND NOT REDUNDANT**

15 This Petition uses only three references (1) Wasilewski '92, (2) Sheldrick and (3) Thibadeau for forming independent and distinctive invalidity positions against each of claims 1-38. For reasons stated below, Petitioner requests the Board to institute the trial by adopting all proposed invalidity positions.

**1. Cited References Are Distinctive and Non-Cumulative**

20 The cited three prior art references are selected because of their distinctive teachings that cover different aspects of the technical field of the 892 Patent and

provide the Office and the public with a fuller view of the state of the prior art prior to the filing of the 892 Patent that was not discussed during the original examination.

These references do not constitute cumulative teachings. Wasilewski '92, submitted to an MPEG Standardization Committee, provides a general framework for delivering encrypted programs in a conditional access system based on geographical location restrictions. Sheldrick, on the other hand, describes a blueprint for implementing geographical restriction in a conditional access system using particular parameters and values beyond the general framework in Wasilewski '92. Thibadeau provides particular shapes of geographical regions that supplement the teachings in Wasilewski '92 and Sheldrick.

Therefore, the three references provide independent, distinctive and non-cumulative contributions to the prior art landscape that is relevant to unpatenability of claims 1-38.

## **2. Different Invalidity Positions Are Distinctive and Non-Redundant**

The two primary references Wasilewski '92 and Sheldrick provide, respectively, two distinctively different views into the prior art landscape of the 892 Patent where Wasilewski '92 provides a lens based on a system-level conditional access framework while Sheldrick provides a different lens based on practical implementation of geographical restriction in conditional access.

### 3. Just and Speedy Resolution of Unpatentability of Claims 1-38

To facilitate “just, speedy and inexpensive resolution” in the spirit of 35 C.F.R. § 42.1(b) and under the mandates of 35 U.S.C. § 326(b), Petitioner made due diligence in minimizing both the number of references, out of myriad highly relevant prior art references uncovered by Petitioner, and the number of invalidity positions against a relative large number of 38 claims. The requirements of the speedy and inexpensive resolution are duly met by this Petition.

Rule 35 C.F.R. § 42.1(b) also requires the just resolution of the unpatentability issues raised in this Petition. In this consideration, Petitioner respectfully reminds of the Office that the original examination of the 892 Patent lacked recognition and discussion of the substantive technical information in the cited prior art references that is pertinent to the specifics in claims 1-38, which is the chief reason that led to the issuance of invalid claims 1-38 which are being asserted by Patent Owner in patent litigation. For instance, Wasilewski '92 was authored by one of the inventors of the 892 Patent and was available to public in the form of a publication several years before the priority date of the 892 Patent. Similarly, both Sheldrick and Thibadeau were issued as a U.S. patents before the priority date of the 892 Patent. As demonstrated by the these references and invalidity positions based thereon, claims 1-38 fail to meet the statutory

requirements for patentability on multiple grounds for multiple reasons and from different aspects of the prior art teachings in the three cited references.

This Petition is a remedial measure for correcting the mistake in the original examination and is necessitated by Patent Owner's improper enforcement of the invalid claims. Therefore, Petitioner respectfully submits that the just resolution of the unpatentability issues raised in this Petition urges the full adoption of all proposed invalidity positions in this Petition.

## **VI. DETAILS OF GROUNDS FOR UNPATENTABILITY**

### **A. ANTICIPATION UNDER 35 U.S.C. § 102(b)**

#### **1. Ground 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**

Wasilewski '92, describes a conditional access system having a receiver (e.g., set top box) configured to receive an encrypted service instance and selectively decrypt and display the service instance based on associated entitlement information. Claims 1-4, 7-9, 11-14, 16-18, 20, 22-23, 26-27, 30-31, 35 and 38 are anticipated by Wasilewski '92 (see also Ex. 1006, paragraphs 73-82 and Table 2).

Claim 1: Each limitation of claim 1 is disclosed by Wasilewski '92. The standard decoder shown in Fig. 13 of Wasilewski '92 corresponds to the claimed "receiver" recited in the 892 Patent (Sec. 6.1, pars. 1-3; Fig. 13). The decoder is located at a geographic location (Sec. 2.7, par. 1; Sec. 6.7, pars. 2-4) for receiving and selectively displaying (*see generally*, Sec. 6: Conditional Access) a service



instance, such as digital services including video, audio, and data (Abstract; Sec. 2.4, pars. 2-4; Sec. 2.7, par. 1; Figs. 1-2, 11-12 and corresponding text) from any one of various domains (e.g., cable television (CATV), direct broadcast satellite (DBS), etc.) (Abstract; Sec. 2: Application Domains). For at least these reasons,

5 Wasilewski '92 discloses "[a] receiver located at a geographic location for receiving and selectively displaying a service instance," as recited by claim 1.

Wasilewski '92 also discloses a port (Sec. 6.1, pars. 1-3; Fig. 13: Input to DEMOD) for receiving an encrypted service instance (Sec. 3.19, pars. 1-3; Sec. 4.6 par. 2-4; Sec. 4.7, par. 3; Sec. 4.9, par. 1, Sec. 5.3, par. 3; Sec. 5.9, pars. 1-4; Fig.

10 2: blocks E, Fig. 11: System Encryption Architecture and corresponding text) and entitlement information (Sec. 1: Abstract, Sec. 3.19, pars. 2-3, *see generally*, Sec. 6: Conditional Access), as recited in claim 1. For example, the blackout information described in Wasilewski '92 corresponds to the claimed "entitlement information." The channelized bitstream associated with [or carrying] the blacked-

15 out program [also] carries the blackout code (Sec. 6.7, par. 2). Further, at least a portion of the entitlement information includes geographic reception information (Sec. 6.7, par. 3). For example, the geographic (x,y) coordinate blackout code and/or the geographic centroid (x,y) and radius (r) for the blackout zone correspond to the claimed "geographic reception information."

Wasilewski '92 discloses a first microprocessor for activating display of the service instance (Sec. 6.1, pars. 1-3, Fig. 13), as recited by claim 1. Fig. 13 depicts a Video Processor that receives program signals from the service decryptors (D) and outputs the program data to a television for display.

5        Wasilewski '92 discloses a secure element coupled to the first microprocessor (Sec. 5.9.2, par. 1: "secure microprocessor;" Sec. 6.1, par. 3; Fig. 12: "secure microprocessor"). The secure microprocessor and/or the secure memory in Wasilewski '92 corresponds to the claimed "secure element."

Wasilewski '92 discloses that the secure element includes:

10        1) a memory ("protected non-volatile memory" - Sec. 5.9.2, par. 1; Sec. 6.4, par. 1; Sec. 6.7, par. 3-4) for storing a geographic location indicator indicative of the geographic location of the receiver. The control computer assigns blackout codes and coordinates to decoders via ADPs. The decoder must store the coordinates in secure non-volatile memory." (Sec. 6.7, par. 4); and

15        2) a second microprocessor ("secure microprocessor" - Sec. 5.9.2, par. 1; Sec. 6.1, par. 3; Fig. 12: Secure Microprocessor in CATV Decoder) for processing the geographic reception information (e.g., receiving data packet and extracting geographic (x,y) coordinates and/or codes) (Sec. 6.7, pars. 3-4) and for using the processed geographic reception information (i.e., the geographic (x,y) coordinate  
20        blackout code and/or the geographic centroid (x,y) and radius (r) for the blackout

zone) with the geographic location indicator (i.e., decoder coordinates stored in secure non-volatile memory) to determine whether the receiver is entitled to the service instance (Sec. 6.7, par. 3). Each decoder uses an internally-stored location coordinate to calculate whether it is within the blackout zone and will not authorize if it is (*Id.*).

Wasilewski '92 discloses the first microprocessor activates display (Sec. 6.7, par. 3; Fig. 13: "Television set") of the service instance when the secure element determines that the receiver is entitled to the service instance. Each decoder uses an internally stored location coordinate to calculate whether it is within the blackout zone and will not authorize if it is" (*Id.*). Additionally, the output of the decryptors (D) (i.e., secure element) are connect to the video processor (i.e., first microprocessor), which is connected to a television set (Fig. 13). Thus, the video processor will activate display of the service instance on the television set when the decryptors (D) determine that the receiver is entitled to the service instance and decrypt the received programming (Sec. 6.1, par. 3).

Therefore, Wasilewski '92 teaches every limitation of claim 1 (see also Ex. 1007, Table 1, for a listing of relevant sections of Wasilewski '92).

Claim 12: Claim 12 includes various features that are identical to those in claim 1. Regarding added features of claim 12 beyond those in claim 1,

Wasilewski '92 discloses a conditional access system DCSDS that contains a

plurality of set top terminals. Fig.1 shows multiple homes receiving a broadcast signal and Fig. 9 shows two set-top boxes receiving the broadcast programs that are subject to conditional access control (see also Sec. 5.9, par. 3, and Fig.12).

Wasilewski '92 also describes an entitlement agent coupled to receivers for providing the encrypted service instance and the entitlement information. The disclosed broadcasting system accommodates many programmers, and in particular, a broadcast key associated with the generation and encryption of the MSKs, which allow a differentiated encryption on a network shared by *many programmers* (Sec. 5.9.6, par. 1). The received programs may have originated from dozens or more service providers (Sec. 3.19, par. 1; see also Fig. 2: source of program 1 to N). Wasilewski '92 further describes the provision of parallel entitlement data streams for carrying entitlement information (Sec. 3.19, par. 3).

Therefore, Wasilewski '92 teaches every limitation of claim 12 (see also Ex. 1007, Table 2, for a listing of relevant sections of Wasilewski '92).

Claim 20: Claim 20 includes several features that are substantially similar to those in claims 1 and 12. Regarding the added features of claim 20 beyond those in claims 1 and 12, Wasilewski '92 discloses decoding geographic reception information from entitlement information. The blackout information (Sec. 6.7, pars. 2-3) is the "entitlement information" recited in the claims. Wasilewski '92 discloses that "[t]he channelized bitstream associated with [or carrying] the

blacked-out program [also] carries the blackout code,” and that “t[h]e control computer assigns blackout codes and coordinates to decoders via ADPs” (Sec. 6.7, par. 3), which can be encrypted (Fig.11: ADP Encrypt and corresponding text).

As noted in connection with claim 1, Wasilewski '92 describes decoding  
5 geographic reception information from the received entitlement information, determining from the decoded geographic reception information a geographic region, and determining from the geographic region and a geographic location indicator whether the receiver is entitled to display the service instance. For example, the blackout codes are carried via addressable data packets (ADPs) to the  
10 receiver (Sec. 6.7, par. 2), where the received codes are compared to the internally stored codes in the receiver to determine if the programs is authorized (or blacked out) (*Id.*). When the receiver receives geographical (x,y) coordinates and a radius (r), the receiver uses an internally-stored location coordinate to calculate whether the receiver is located within the blackout zone, and if so the program will not be  
15 authorized to be displayed (Sec. 6.7, par. 3).

Regarding the final limitation of claim 20, Wasilewski '92 describes decrypting, when the receiver is entitled to display the service instance, the encrypted service instance. For example, service decryptors (D) are initialized with their seeds and produce the clear bitstreams to the decoding elements (Sec. 6.1,  
20 par. 3; Fig. 13: “decryptors (D)”).

Therefore, Wasilewski '92 teaches every limitation of claim 20 (see also Ex. 1007, Table 3, for a listing of relevant sections of Wasilewski '92).

Claim 26: Claim 26 includes several features that are substantially similar to those in claims 1, 12 and 20. Regarding the features of claim 26 that are not in claims 1, 12, and 20, Wasilewski '92 discloses a blackout region comprising a two-dimensional grid (i.e., a geographic (x,y) coordinate blackout code - Sec. 6.7, par. 3) that represents entitlements (e.g., conditional access rights such as blackouts - Abstract, Sec. 3.19, par. 3; Sec. 6.7, pars. 2-3) granted by the entitlement agents ("service provider" - Sec. 3.19, par. 1; "programmers" - Sec. 2.4, par. 2; Sec. 3.19, par. 1; Sec. 5.9.6, par. 1). In addition, Wasilewski '92 discloses determining whether the receiver is entitled to an instance of service using the two dimensional grid and a receiver entitlement indicator (Sec. 6.7, pars. 2-3). For example, each decoder uses an internally stored location coordinate to calculate whether it is within the blackout zone and will not authorize if it is (Sec. 6.7, par. 3). Wasilewski '92 further describes that receiver entitlement indicator is associated with a point in the two dimensional grid. For example, the decoder calculates to determine whether the decoder is located at a point inside of a circle defined by a geographic (x,y) centroid coordinate and a radius (r) (*Id.*).

Therefore, Wasilewski '92 teaches every limitation of claim 26 (see also Ex. 1007, Table 4, for a listing of relevant sections of Wasilewski '92).

Claims 2, 13, 25, 29 and 34: Wasilewski '92 discloses that when a receiver is not entitled to receive an encrypted service instance, the service is not decrypted for display. For example, the channelized bitstream associated with the blacked-out program carries the blackout code. The decoders compare that code with their own  
5 and will not authorize the service if they are a member [i.e., within the blacked out region] “(Sec. 6.7, par. 2), or that each decoder uses an internally stored location coordinate to calculate whether it is within the blackout zone and will not authorize if it is” (Sec. 6.7, par. 3).

Claims 3 and 16: Wasilewski '92 discloses that the memory of the secure  
10 element is accessible only to the second processor. For example, each decoder is assigned a unique SSN at manufacture time which is stored in a protected NVM within the die of a secure processor (Sec. 5.9.2, par. 1; *see also* Sec. 6.7, par. 4).

Claims 4 and 14: Wasilewski '92 discloses that the geographic reception information comprises a blackout/spotlight field indicative of how the geographic  
15 reception information is used by the receiver. For example, a geographic-coordinate-based blackout control is disclosed in which a control computer makes the blackout assignments and assigns a group blackout code and a geographic (x,y) coordinate blackout code (i.e., blackout/spotlight field) to each decoder (Sec. 6.7, pars. 2-4). A system data packet carries the group code and/or a geographic  
20 centroid (x,y) and radius (r) for the blackout zone and each decoder uses an

internally-stored location coordinate to calculate whether it is within the blackout zone and, if so, the decoder will not authorize the service instance (*Id.*). Thus, geographic (x,y) coordinate blackout code (i.e., blackout/spotlight field) is indicative of how the geographic reception information is used by the receiver.

5        Claims 7 and 11: Wasilewski '92 discloses that the geographic reception information is indicative of a geographical region (first element of claim 7), e.g., a geographic (x,y) coordinate-based blackout and/or the geographic centroid (x,y) and radius (r) for the blackout zone (Sec. 6.7, par. 3) that represent a circular region. Wasilewski '92 further describes a decryptor for decrypting the service  
10 instance when the geographic location indicator is not within the geographic region (second element of claim 7 and claim 11). For example, decryptors (Sec. 6.1, par. 3; Fig. 13: Decryptors (D)) are disclosed for decrypting the service instance. Decoders determine whether or not they are authorized to provide the decrypted programming by, for example, using an internally-stored location coordinate to  
15 calculate whether it is within the blackout zone (Sec. 6.7, par. 3).

Claim 8: Wasilewski '92 discloses that a geographic location indicator includes x and y coordinates of a coordinate system. For example, a geographic (x,y) coordinate blackout code can be assigned to each decoder (Sec. 6.7, par. 3).

Claim 9: Wasilewski '92 discloses the geographic reception information  
20 comprises an x centroid, a y centroid, and a radius value. For example, Wasilewski



'92 describes a geographic (x,y) coordinate-based blackout and/or the geographic centroid (x,y) and radius (r) for the blackout zone (Sec. 6.7, par. 3). It is also inherent from the description of Wasilewski '92 that x, y and radius values can be used to define a square geometric region. Constructing a square using a center  
5 coordinates and a radius is a simple geometry exercise that would necessarily flow from the disclosure of Wasilewski '92, and a person of ordinary skill would have immediately recognized that a center coordinate and a radius can define a square (see also Ex. 1006, paragraphs 10 and 82 and Table 2, Claim 9).

Claims 17, 23 and 31: Wasilewski '92 discloses entitlement information that  
10 includes geographic reception information in the form of x and y centroids, and a radius value (or area indicator) for defining an entitlement region. For example, the system data packet carries the group code and/or a geographic centroid (x,y) and radius (r) for the blackout zone (Sec. 6.7. par. 3). Wasilewski '892 further describes processing the geographic reception information, e.g., entitlement  
15 information containing the geographical indicators and received via addressable data packets (ADP) to recover the coordinates and the radius (Sec. 6.7, pars. 2-3).

Claim 18: Wasilewski '92 discloses a conditional access system comprising additional entitlement agents for sending additional entitlement information that can be different for each entitlement agent and different for each service instance.

20 For example, the disclosed broadcasting system accommodates many

programmers, and in particular, a broadcast key associated with the generation and encryption of the MSKs, which allow a differentiated encryption on a network shared by *many programmers* (Sec. 5.9.6, par. 1). Programs received at a decoder may have originated from dozens or more service providers, where each provider or entitlement agent can have *total end-to-end security and conditional access control* (e.g., entitlements) of its service bitstreams or programs that are being transmitted (Sec. 3.19, par. 1). Wasilewski '92 further describes the provision of parallel entitlement data streams for carrying entitlement information (Sec. 3.19, par. 3).

Claim 22, 28, 33 and 35: Wasilewski '92 discloses the step of determining that the receiver is entitled when the geographic location indicator is *not within* (i.e., without) the represented unentitled geographic region (e.g., blackout region). For example, the geographic decoder coordinates (and/or codes) stored in secure non-volatile memory are used to determine whether or not the receiver is entitled to the service instance (“each decoder uses an internally-stored location coordinate to calculate whether it is within the blackout zone and will not authorize if it is”) (Sec. 6.7, pars. 2-3).

Claims 27 and 30: Wasilewski '92 discloses that determining whether the receiver is entitled to the instance of service by using the two dimensional grid and a receiver entitlement indicator includes determining a subportion of the

represented two dimensional grid, the subportion being a blackout/spotlight field. For example, when geographic-coordinate-based blackout control is implemented, the control computer sends a system data packet that carries a geographic centroid (x,y) and radius (r) for the blackout zone. Each decoder uses an internally-stored  
5 location coordinate to calculate whether it is within the blackout zone and the receiver will not authorize the associated program if the receiver is within the blackout zone (Sec. 6.7, par. 3). The geographic region or area represented by centroid (x,y) and radius (r) for the blackout zone corresponds to the claimed "subportion" recited in the 892 Patent. The radius, r, defines an area around the  
10 given point (i.e., centroid (x,y)).

Claim 38: Wasilewski '92 discloses that the geographic location indicator is stored in a memory at the receiver. For example, the control computer assigns blackout codes and coordinates to decoders via ADPs. The decoder must store the coordinates in secure non-volatile memory (Sec. 6.7, par. 4).

15                   **2.     Ground 2: Claims 1-8, 12-31 and 35-38 Are Anticipated by Sheldrick**

Sheldrick discloses a cable television system that provides conditional access to services based on a receiver/converter's (e.g., a set top device) geographic location (Abstract). Geographic blackout and spotlight regions limit and permit,  
20 respectively, services to authorized converters (13:5-32; Figs. 7-8 and

corresponding text). As shown below, claims 1-8, 12-31 and 35-38 are anticipated by Sheldrick (see also Ex. 1006, paragraphs 54-72 and Table 1).

Claim 1: All features in claim 1 are disclosed by Sheldrick. For example, the receiver/converter (“converter”) (150) shown in Fig. 1 corresponds to the claimed "receiver" recited in Atkins. Sheldrick also discloses that the converter is located at a geographic location (3:46-48; 2:48-63) and receives and selectively displaying a service instance, such as a cable TV program (2:46-52; 3:61-64; 6:61-63; Figs. 7-8 and corresponding text). For at least these reasons, Sheldrick discloses “[a] receiver located at a geographic location for receiving and selectively displaying a service instance,” as recited by claim 1 of the 892 Patent.

Sheldrick also discloses a port (7:22-28; Fig. 1 and corresponding text) for receiving an encrypted service instance (6:34-36; claim 18) and entitlement information (3:46-48; 3:65 to 4:20; 6:47-49; Fig. 5 and corresponding text), as recited in claim 1 of the 892 Patent. Sheldrick describes that the tuner/demodulator (154) has an input port for receiving broadcast channels (e.g., an encrypted TV program) from a provider (160). (id.) Alternatively, the demultiplexer (158) has a port to receive the encrypted channels (id.). The demultiplexer (158) decrypts the channels and provides the decrypted information to various output ports to the decoder (7:22-28; Fig. 1 and corresponding text). Further, Sheldrick discloses that

at least a portion of the entitlement information includes geographic reception information (3:65 to 4:20; 4:28-36; 12:42 to 13:20; 18:1-24).

Additionally, Sheldrick discloses a first microprocessor for activating display of the service instance (6:59 to 7:11; 2:55-61; 4:28-36; 12:42 to 13:4; Fig. 1 and corresponding text), as recited by claim 1. Fig. 1 depicts a display control processor (153) that is a first microprocessor that receives channel selection information based on a subscriber's selection of a TV station (6:59 to 7:11).

Sheldrick also discloses a secure element coupled to the first microprocessor (6:59 to 7:11; Fig. 1 and corresponding text). For example, digital compression in-board security element (DISE) (157) is a secure element that receives information from the DCP (153) (i.e., the first processor). The secure element includes:

1) a memory ("random access memory" - 7:12-15) for storing a geographic location indicator indicative of the geographic location (e.g., "blackout codes" and or "spotlight codes") of the receiver (16:14-27; 4:28-32; 12:33-48); and

2) a second microprocessor ("secure microprocessor" - 7:12-15) for processing the geographical reception information (16:29-37) and for using the processed geographic reception information with the geographic location indicator to determine whether the receiving is entitled to the service instance (7:4-11; 12:33-48). Sheldrick discloses that the secure microprocessor is used to compare

blackout and spotlight geographical codes to determine whether a decoder is “not authorized” or “authorized” to convert an encrypted program. (id.).

Sheldrick describes that the first microprocessor activates display (6:61-63) of the service instance when the secure element determines that the receiver is  
 5 entitled to the service instance (7:4-11; 16:29-37).

Therefore, Sheldrick teaches every limitation of claim 1 (see also Ex. 1007, Table 5, for a summary listing of relevant sections of Sheldrick).

Claim 12: Claim 12 includes various features that are identical to those in claim 1. Regarding added features of claim 12 beyond those in claim 1, Sheldrick  
 10 discloses a conditional access system (“conditional access system” - 10:37-49) that contains a plurality of set top terminals (“home terminal equipment” - 4:54-67; Figs. 8-9 and associated text) in which entitlement agents (“service programmers” - 5:65 to 6:4 “plurality of programmers”; Fig.1 and its text) send service data and entitlement information (3:14-29; 3:46-48; 3:65 to 4:3; 10:19-36;12:33-41).

15 Therefore, Sheldrick teaches every limitation of claim 12 (see also Ex. 1007, Table 6, for a listing of relevant sections of Sheldrick).

Claim 20: Claim 20 includes several features that are substantially similar to those in claims 1 and 12. Regarding the added features of claim 20 beyond those in claims 1 and 12, Sheldrick discloses decoding geographic reception information  
 20 from entitlement information (3:65 to 4:20; 7:22-28; 7: 4-11; 6:34-49; Claim 1).

For example, DISE (157) demultiplexes (i.e., extracts), and decrypts data streams if the converter is “authorized” (i.e., it’s spotlighted) and not “unauthorized” (i.e., it’s blacked out) (7:4-11; 7:22-28; 12:42 to 13:4). Sheldrick describes determining from the decoded geographic reception information a geographic region. For example, the decoder determines if decoder is within the region that is within, e.g., circular, blackout or spotlight region (4:28-36; 12:42 to 13:4). Based on such determination, it is determined whether or not the receiver is authorized (7:4-11; 12:42-46; 12:50-54). Once the conditional access system determines that a converter is authorized, the service instance is decrypted for display to the subscriber (Id.; 6:59 to 7:11; 20:31-39).

Therefore, Sheldrick teaches every limitation of claim 20 (see also Ex. 1007, Table 7, for a listing of relevant sections of Sheldrick).

Claim 26: Claim 26 includes several features that are substantially similar to those in claims 1, 12 and 20. Regarding the added features of claim 26 not in claims 1, 12 and 20, Sheldrick describes a blackout/spotlight region comprises a two-dimensional grid in terms of longitude/latitude (4:28-36; Figs. 8-9) that represents entitlements (e.g., access rights such as blackout or spotlight authorizations; 12:42: 13:4; Fig. 5) provided to the subscribers by entitlement agents (5:65 to 6:4 “plurality of programmers”; Fig. 1 and its text) as to whether or not a spotlight/blackout conditional access is to be effectuated (12:42 to 13:4).

Sheldrick describes by using a receiver entitlement indicator (e.g., “the stored geographical location information; 6:59-7:11; 12:42-46; 12:63-67) and the received blackout codes/commands, determining that a receiver is located at a point within the spotlighted/blacked out region and to thereby allow or prohibit

5 access to the program (Id.; 18:14-48 and Figs. 8-9 and corresponding text).

Therefore, Sheldrick teaches every limitation of claim 26 (see also Ex. 1007, Table 8, for a listing of relevant sections of Sheldrick).

Claims 2, 13, 25, 29: Sheldrick discloses that when a receiver is not entitled to receive an encrypted service instance, the service is not decrypted for display.

10 For example, regarding claims 2, 13 and 25, Sheldrick describes that if a decoder receives a blackout code matching a corresponding value stored in the decoder, the decoder is set to "not authorized" (12:33-36; 16:30-36).

Regarding claim 29, Sheldrick further provides description and associated diagrams that show, e.g., decoders in areas #1 and #5 of Fig. 8 (‘within a blackout

15 field’), as well as decoder 910 of Fig. 9 (‘without a spotlight field’) will not be authorized (17:66 to 18:48).

Claims 3 and 16: Sheldrick discloses that a secure element memory is accessible only to the second processor. For example, the “secure microprocessor” is located on the digital compression in-board security element (DISE) (157) (7:12-



15). Fig. 1 depicts DISE (157) as a component separate from and only connected to a display processor (153).

Claims 4-5 and 14-15: Sheldrick discloses a blackout/spotlight field

indicative of how a decoder uses geographic reception information. For example,

5 blackout/spotlight codes specify a circular region in terms of a center latitude, a center longitude, and a radius (4:28-36). If decoder is within a blackout region, the decoder is set to "not authorized" regardless of any previous state. (12:42 to 13:4).

If the decoder's location is within a spotlight region, the decoder is set to

"authorized." (i.d.). Sheldrick further provides diagrams that illustrate, e.g.,

10 decoders in areas #1 and #5 of Fig. 8 ('within a blackout field') and decoder (910) in Fig. 9 will not be authorized, whereas decoder (920) in Fig. 9 ('within a spotlight field') is authorized (17:66 to 18:48).

Claims 6, 21: Sheldrick discloses that geographical reception information is

indicative of a geographical region and that the receiver/decoder includes a

15 decryptor for decrypting the service instance when the geographic location

indicator is within a spotlight region or outside of a blackout region. For example,

the decoders are initialized to implement both regional and circular authorization control (18:11-13; 13:19-32). DCP supplies encrypted control information to the

DISE (157). DISE (157) decrypts the control information and determines whether

20 the decoder is authorized to receive the selected channel (7:4-11). If the control

information describes a spotlight region, the DISE (157) supplies to the demultiplexer (158) via DCP (153) decryption information for decrypting the data corresponding to the selected channel and information concerning the location of the selected channel data in the multiplexed data (Id.; 12:42 to 13:4).

5        Claim 7: Sheldrick discloses that the geographical reception information is indicative of a geographical region and that the receiver includes a decryptor for decrypting the service instance (7:4-11) when the geographic location indicator is not within the geographic region, or within the blackout area, based on the geographic reception information (12:42 to 13:4). For example, Fig. 9 illustrates an  
10    example where the spotlight circle #2 defines a circle within the area defined by blackout code #5. Decoder 900 (not within blackout area) will be authorized (18:34-48; 12:42 to 13:4; Fig. 9 and corresponding text).

Claim 8: Sheldrick discloses that a geographical location indicator includes x and y coordinates of a coordinate system. For example, each of the blackout and  
15    spotlight regions are defined by a latitude (i.e., x-coordinate), a longitude (i.e., y-coordinate), and a radius (12:42 to 13:4; 4:28-36).

Claims 17, 23 and 31: Sheldrick discloses entitlement information includes geographic reception information in the form of an x centroid, a y centroid, and a radius value for defining an entitlement region. For example, blackout/spotlight  
20    locations are sent in codes that include latitude, longitude, and a radius that define

a geometric region; if such an area matches a corresponding values stored in the receiver, then blackout/spotlight is implemented (12:42 to 13:4).

Claim 18: Sheldrick discloses a conditional access system comprising additional entitlement agents for sending additional entitlement information that  
5 can be different for each entitlement agent and different for each service instance.

For example, a variety of program services are used to send programing to the subscribers (4:54-67; see also 18:56-57). Further, when such a variety of services are transmitted, it is desirable for system operators to exert various forms of authorization control over the services, such as to provide different prices for  
10 different service packages (2:37-40; 3:21-23). Such entitlement information can be different for each service instance (e.g., blackout for certain sporting events - 2:48-52) and for each program provider (2:37-40).

Claims 19 and 36: Sheldrick discloses that a receiver is entitled to an instance of service when the geographic indicator of the given receiver is within  
15 the entitlement region. For example, if the decoder's location is within a spotlight region, the decoder is set to "authorized" (12:42 to 13:4).

Claim 22: Sheldrick discloses the step of determining that the receiver is entitled when the geographic location indicator is not within the represented unentitled geographic region. For example, Fig. 8 illustrates a blackout circle #1  
20 ('unentitled region'). The DISE calculates if a decoder is within blackout circle #1,

and decoders that are not within blackout circle #1 (e.g., decoders in clear or in blackout circle #2) are authorized (18:24-33).

Claim 24: Sheldrick discloses that when the geographic location information intersects the geographic region then the receiver is entitled to the instance of service. For example, Fig. 9 illustrates an example of the interaction of overlapping blackout and spotlight commands. In this example, the spotlight circle #2 defines a circle within the area defined by blackout code #5 such that since the geographic location of decoder 920 falls within the spotlight area, decoder 920 is authorized (18:34-48; Fig. 9 and corresponding text).

Claim 27 and 30: Sheldrick discloses prior to the determining step, the receiver receives a message having at least one subportion indicator, the subportion being a blackout/spotlight field. For example, Fig. 9 illustrates that the spotlight area #2 is a subportion of the larger blackout region with code #5, as signaled by blackout location and spotlight location commands that are received at the receiver (12:51 to 13:4; 18:34-48).

Claim 28, 35 and 37: Sheldrick discloses that a given receiver is entitled to an instance of service when the geographic location indicator of the given receiver is not within the entitlement region, without the entitlement region, within a spotlight area, or without the blackout area. For example, in Fig. 9, decoder 900 outside of blackout area with code #5 (not within the entitlement region, without

the entitlement region, or without the blackout area), as well as decoder 920 (within a spotlight area) will be authorized (18:34-44).

Claim 38: Sheldrick discloses that geographic location indicator is stored in a memory at the receiver. For example, Sheldrick describes the control computer transmitting the blackout codes and decoder location for storage in DISE of each decoder (18:1-3; Fig. 9 and corresponding text).

## **B. OBVIOUSNESS UNDER 35 U.S.C. § 103(A)**

### **1. Ground 3: Claims 5-6, 10, 15, 19, 21, 24-25, 28-29, and 36-37 Are Obvious over Wasilewski '92 In View of Sheldrick**

Claims 5-6, 10, 15, 19, 21, 24-25, 28-29, and 36-37 of the 892 Patent are unpatentable under 35 U.S.C. § 103(a) as being obvious over Wasilewski '92 in view of Sheldrick .

As described in Sections V-A-1 and V-A-2 above, Wasilewski '92 and Sheldrick each describe a content distribution system (such as a cable TV network) for enabling set-top boxes to conditionally access the broadcast programming that is broadcast to them (Wasilewski '92, Sec. 6.7; Sheldrick, Abstract; 2:46 to 3: 2). Both Wasilewski '92 and Sheldrick describe limiting the viewing of certain content (such as sporting programs) based on geographic information that is received at a set-top box, and processed with the aid of locally stored information, to determine whether or not the set-top box is located within an authorized geographic area, and

accordingly, whether or not to allow access to the broadcast content (Wasilewski '92, Sec. 6.7; Sheldrick; 2:46-53; 18:1-48; Figs. 8-9).

Therefore, both Wasilewski '92 and Sheldrick address the same technical issues and disclose closely related subject matter prior to the filing of the 892 Patent. Further, Wasilewski '92 is cited on the front page of Sheldrick under "References Cited." A person of ordinary skill in the art would have been motivated to combine the teachings of Wasilewski '92 and Sheldrick to render claims 5-6, 10, 15, 19, 21, 24-25, 28-29, and 36-37 obvious, as described in further detail below (see also Ex. 1006, paragraphs 73-82 and Table 2).

Claims 5 and 15 (depend from claims 4 and 14, respectively): As noted previously, Wasilewski '92 teaches all the limitations of base claims 4 and 14. Further, Wasilewski '92 teaches that the geographic reception information includes a blackout/spotlight field indicative of how the geographic reception information is to be used by the receiver. For example, Wasilewski '92 discloses a geographic-coordinate-based blackout control in which a control computer makes the blackout assignments and assigns a group blackout code and a geographic (x,y) coordinate blackout code (i.e., blackout/spotlight field) to each decoder (Sec. 6.7, par. 2-3). A system data packet then carries the group code and/or a geographic centroid (x,y) and radius (r) for the blackout zone and each decoder uses an internally-stored location coordinate to calculate whether it is within the blackout zone and, if so,

the decoder will not authorize the service instance (*Id.*). Thus, the geographic (x,y) coordinate blackout code (i.e., blackout/spotlight field) indicates how the geographic reception information is to be used by the receiver.

With respect to spotlighting where the received program is authorized only within the spotlighted region, Sheldrick discloses authorizing only receivers within a spotlighted region to view the broadcast programs. For example, blackout/spotlight codes specify a circular region in terms of a center latitude, a center longitude, and a radius (4:28-36). If a decoder's location is within a blackout region, the decoder is set to "not authorized" regardless of any previous state. If the decoder's location is within a spotlight region, the decoder is set to "authorized" (12:42 to 13:4). Sheldrick further provides diagrams that illustrate, e.g., decoders in areas #1 and #5 of Fig. 8 ('within a blackout field') and decoder 910 in Fig. 9 will not be authorized, whereas decoder 920 in Fig. 9 ('within a spotlight field') will be authorized (17:66 to 18:48).

Accordingly, the combination of Wasilewski '92 and Sheldrick teaches that the service instance is limited to *within* the particular geographic region or *without* the particular geographic region.

Claims 6, 10 and 21 (depend from claims 1, 9 and 20, respectively): As noted previously, Wasilewski '92 teaches all the limitations of base claims 1, 9 and 20. Further, Wasilewski '92 discloses that geographical reception information is

indicative of a geographical region (i.e., blackout region) and that the receiver includes a decryptor (i.e., decryptors (D)) for decrypting the service instance (Sec. 6.1, par. 3, Fig. 13: decryptors “D”).

Sheldrick further teaches that spotlighting is another type of authorization control where one or more services are provided only to a predetermined class of users, and thus, spotlighting may be considered as the inverse of blackout (Sheldrick, 2:66-2; Fig. 9: Decoder 920). Accordingly, Sheldrick teaches decrypting the service instance when the geographic location indicator is *within* the geographic region indicated by the geographic reception information.

Claim 19 and 36 (depend from claims 17 and 12, respectively): As noted previously, Wasilewski ‘92 teaches all the limitations of base claim 12 and 17. Sheldrick discloses that a given receiver is entitled to an instance of service when the geographic indicator of the given receiver is within the entitlement region (i.e., spotlight). For example, a receiver is entitled to an instance of service when the geographic indicator of the given receiver is within the entitlement region, and if the decoder's location is within a spotlight region, the decoder is set to "authorized" (Sheldrick, 12:42 to 13:4).

Claim 24 (dependent from claim 23): As noted previously, Wasilewski ‘92 teaches all the limitations of base claim 23. Further, Sheldrick discloses that when the geographic location information intersects the geographic region then the



receiver is entitled to the instance of service. For example, Fig. 9 illustrates an example of the interaction of overlapping blackout and spotlight commands. In this example, the spotlight circle #2 defines a circle within the area defined by blackout code #5 such that since the geographic location of decoder 920 falls within the  
5 spotlight area, decoder 920 is authorized (18:34-48; Fig. 9).

Claim 25 (dependent from claim 23): As noted previously, Wasilewski '92 teaches all the limitations of base claim 23. Further, Sheldrick discloses that if the geographic location information does not intersect the geographic region, then the receiver is not entitled to the instance of service. For example, Sheldrick describes  
10 that if a decoder receives a blackout code matching a corresponding value stored in the decoder, the decoder is set to "not authorized" (12:33-36; 16:30-36).

Claims 28 and 29 (both depend from claim 23): As noted previously, Wasilewski '92 teaches all the limitations of base claim 23. Further, Sheldrick discloses that a given receiver is entitled to an instance of service when the  
15 geographic location indicator of the given receiver is not within the entitlement region, without the entitlement region, within a spotlight area, or without the blackout area. For example, with reference to Fig. 9, Sheldrick describes that decoder 900 outside of the region defined by blackout area #5 (not within the entitlement region, without the entitlement region, or without the blackout area), as  
20 well as decoder 920 (within a spotlight area) will be authorized (18:34-44).

Claim 37 (dependent from claim 12): As noted previously, Wasilewski '92 teaches all the limitations of base claim 12. Further, Sheldrick discloses that a given receiver is entitled to an instance of service when the geographic indicator of the receiver is without the entitlement region. For example, with reference to Fig. 9, Sheldrick describes that decoder 900 outside of the region defined by blackout area #5 (i.e., "without the entitlement region") will be authorized (18:34-44).

## **2. Ground 4: Claims and 32-34 Are Being Obvious over Wasilewski '92 In View of Thibadeau**

Claims 32-34 of the 892 Patent are unpatentable under 35 U.S.C. § 103(a) as being obvious over Wasilewski '92 in view of Thibadeau.

Wasilewski '92 describes methods and systems for delivery of encrypted programs to a plurality of receivers, and among other functionalities, provides conditional access to the encrypted programs based on geographic location of the receivers. Thibadeau also describes providing programming and messages to authorized set top boxes based on the geographic location of the set top boxes within a region of specific shape. Therefore, one of ordinary skill in the art would have been motivated to combine Wasilewski '92 and Thibadeau and have recognized that a geographic region have subportions with minimum and maximum coordinate values, since such coordinates describe particular boundaries useful for cable providers to regulate access to the protected content. As such, the combination of Wasilewski '92 and Thibadeau renders claims 32-34 of the 892

Patent obvious, as described in further detail below (see also Ex. 1006, paragraphs 73-82 and Table 2).

Claim 32 (dependent from claim 31): As noted previously, Wasilewski '92 teaches all limitations of claim 31. Thibadeau discloses a 2-dimensional grid with subportions x min, x max, y min, and y max. For example, Thibadeau describes a rectangular shaped subportion, expressed in absolute coordinate values, with minimum and maximum X and Y values (e.g., x min of 320, y max of 550, y min 50 and y max of 100) in a an X-Y coordinate system (Thibadeau, 9:22-56; Fig. 2).

Claims 33-34 (dependent from claim 32): As noted above, the combination of Wasilewski '92 and Thibadeau teaches all limitations of claim 32. Wasilewski '92 also discloses that the receiver is entitled to the instance of service when the receiver entitlement indicator is without the blackout area (claim 33), and that the receiver is not entitled to the instance of service when that the receiver entitlement indicator is within the blackout area (claim 34). For example, Wasilewski '92

discloses that “[t]he channelized bitstream associated with the blacked-out program carries the blackout code. The decoders compare that code with their own and will not authorize the service if they are a member” (Wasilewski '92, Sec. 6.7, par. 2) or that “each decoder uses an internally stored location coordinate to calculate whether it is within the blackout zone and will not authorize if it is” (Wasilewski '92, Sec. 6.7, par. 3). Therefore, Wasilewski '92 teaches that the programming will

not be authorized if the decoder is located within the blacked out area, and will be authorized if the decoder is not located within the blacked out area.

**3. Ground 5: Claims 9-11, and 32-34 Are Obvious over Sheldrick In View of Thibadeau**

Claims 9-11 and 32-34 of the 892 Patent are unpatentable under 35 U.S.C. § 103(a) as being obvious over Sheldrick in view of Thibadeau.

Sheldrick and Thibadeau each describe sending programming and messages to an authorized set top box, based on geographic location of the set top box within a region. Therefore, one of ordinary skill in the art would have been motivated to combine Sheldrick and Thibadeau and 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. As described in further detail below, the combination of Sheldrick and Thibadeau renders claims 9-11 and 32-34 of the 892 Patent obvious (see also Ex. 1006, paragraphs 54-72 and Table 1).

Claims 9: Both Sheldrick and Thibadeau describe geographic reception information can include an x centroid, a y centroid, and a radius value (Sheldrick, 4:28-36 and 12:51-62; Thibadeau, 7:37-44; 8:20-30 and 10:-33). Sheldrick is not relied upon to disclose that geographic reception information can be the basis for defining a *square geographic region* (emphasis added), however, Thibadeau discloses this feature. For example, Thibadeau describes a geographic region can

be in a variety of regular and irregular shapes, including a square-shaped region (Thibadeau, 8:20-40; 9:12-15; Fig. 1 and corresponding text). Thibadeau further describes having subportions with X-min/max and Y-min/max values (Thibadeau 9:22-56; Fig. 2), as recited in claim 32 of the 892 patent.

5        Claim 10 (dependent from claim 9): As noted above, all limitations of claim 9 are described by the combination of Sheldrick and Thibadeau. Sheldrick further discloses a decryptor for decrypting the service instance when the geographic location indicator is within the square geographic region. For example, Sheldrick describes that the encrypted control information is provided to the DISE (157),  
10        which decrypts the control information and determines whether the decoder is authorized to receive the selected channel (7:4-11). If the control information describes a spotlight region, the DISE (157) supplies to the demultiplexer (158) via DCP (153) decryption information for decrypting the data corresponding to the selected channel and information concerning the location of the selected channel  
15        data in the multiplexed data (Id.; 12:42 to 13:4). Therefore, all features of claim 10 are described by the combination of Sheldrick (7:4-11; 12:42 to 13:4) and Thibadeau (8:20-40; 9:12-15; Fig. 1 and corresponding text).

Claim 11 (dependent from claim 9): As noted above, all limitations of claim 9 are described by the combination of Sheldrick and Thibadeau. Sheldrick further  
20        discloses a decryptor for decrypting the service instance when the geographic

location indicator is not within the square geographic region. For example, Sheldrick describes a digital compression in-board secure element (DISE) decrypts the content (7:4-11). The decryption occurs when, as shown in Fig. 9, decoder 900 is not within the blackout area and is, therefore, authorized (18:34-48; 12:42 to 13:4; Fig. 9 and corresponding text). As such, all features of claim 11 are described by the combination of Sheldrick (7:4-11; 18:34-48; 12:42 to 13:4; Fig. 9 and corresponding text) and Thibadeau (8:20-40; 9:12-15; Fig. 1).

Claim 32 (dependent from claim 31): As noted above, all limitations of base claim 31 are described by Sheldrick. Thibadeau further discloses that the blackout/spotlight area defines a subportion of the two dimensional grid having a subportions x min, x max, y min, and y max. For example, Thibadeau describes having a rectangular shaped subportion, expressed in absolute coordinate values, with minimum and maximum X and Y values (e.g., x min of 320, y max of 550, y min 50 and y max of 100) in an X-Y coordinate system (9:22-56; Fig. 2 and corresponding text). As such, all features of claim 32 are described by the combination of Sheldrick (as applied to base claim 31) and Thibadeau.

Claim 33 (dependent from claim 32): As noted above, all limitations of base claim 32 are described by the combination of Sheldrick and Thibadeau. Sheldrick further discloses that the receiver is entitled to the instance of service when the receiver entitlement indicator is within the spotlight area or without the blackout

area. For example, Sheldrick describes that a given receiver is entitled to an instance of service when the geographic location indicator of the given receiver is not within the entitlement region, without the entitlement region, within a spotlight area, or without the blackout area. With reference to Fig. 9, Sheldrick describes that decoder (900) outside of the region defined by blackout area #5 (not within the entitlement region, without the entitlement region, or without the blackout area), as well as decoder (920) (within a spotlight area) will be authorized (18:34-44; Fig. 9).

Claim 34 (dependent from claim 32): As noted above, all limitations of base claim 32 are described by the combination of Sheldrick and Thibadeau. Sheldrick further discloses that the receiver is not entitled to the instance of service when the receiver entitlement indicator is without the spotlight area or within the blackout area. For example, Sheldrick describes decoders in areas #1 and #5 of Fig. 8 (‘within a blackout field’), as well as decoder (910) of Fig. 9 (‘without a spotlight field’) will not be authorized (17:66 to 18:48; Figs. 8-9 and corresponding text).

## VII. CONCLUSION

The evidence in this Petition demonstrates that there is a reasonable likelihood that Petitioner will prevail in its challenge of patentability for claims 1-38 of the 892 Patent. It is respectfully requested that a trial for *Inter Partes* Review of the 892 Patent be instituted and claims 1-38 be rejected and canceled. Rejection and cancellation of claims 1-38 would prevent Patent Owner from asserting the 892 Patent for technologies that were already known in the prior art.

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Respectfully submitted,

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## **CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a true copy of the foregoing  
PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 6,744,892 B2  
and supporting materials (Exhibits 1001-1008 and Power of Attorney) have been  
served in its entirety this 4th day of June, 2013, by EXPRESS MAIL® on the  
Patent Owner at the official correspondence address for the attorney of record for  
the 892 Patent shown in USPTO PAIR and the attorneys of record for Plaintiff in  
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