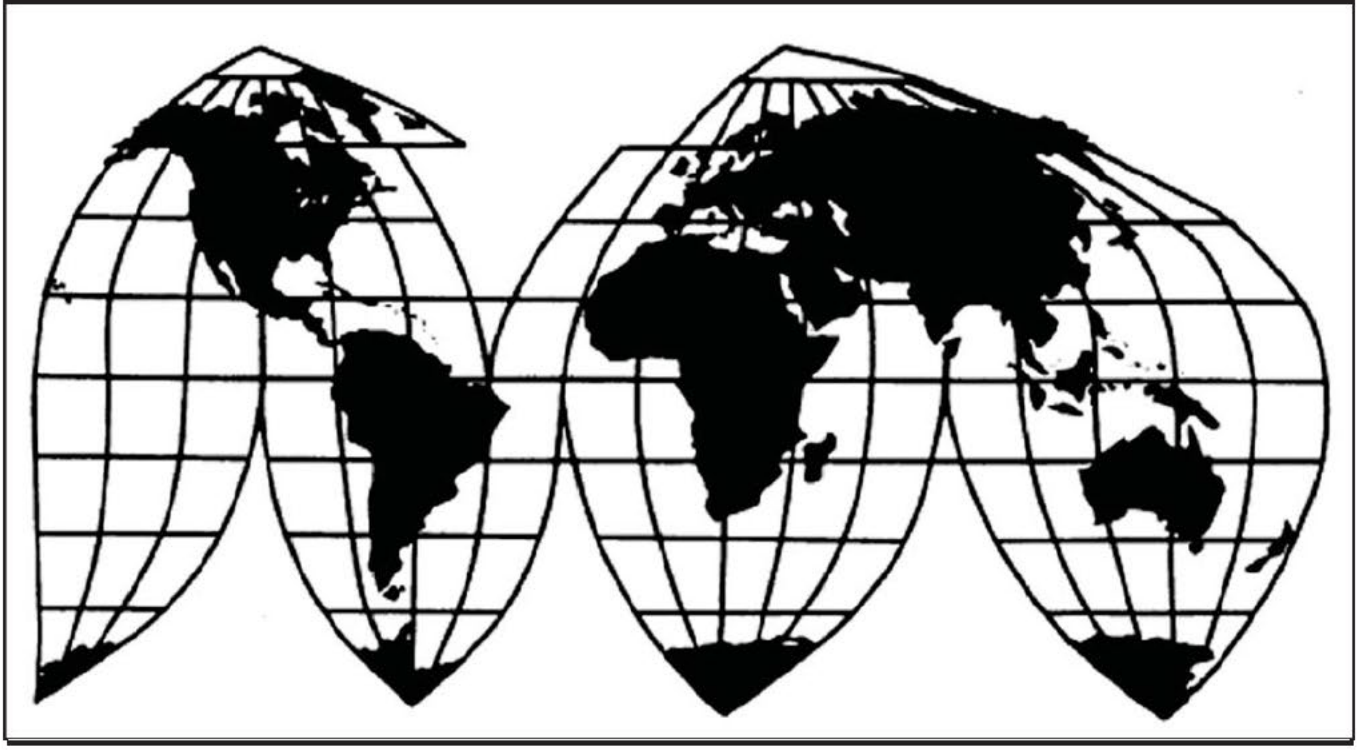
In the Matter of

CERTAIN DIGITAL SET-TOP BOXES AND COMPONENTS THEREOF

Investigation No. 337-TA-712

Publication 4332 **June 2012**

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C. 20436

In the Matter of

CERTAIN DIGITAL SET-TOP BOXES AND COMPONENTS THEREOF

Investigation No. 337-TA-712

NOTICE OF COMMISSION DETERMINATION TO GRANT RESPONDENT'S PETITION FOR RECONSIDERATION OF THE COMMISSION DECISION NOT TO REVIEW A FINAL INITIAL DETERMINATION FINDING A VIOLATION OF SECTION 337; TERMINATION OF THE INVESTIGATION WITH A FINDING OF NO VIOLATION

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission ("the Commission") has determined to reconsider its decision not to review the final initial determination ("ID") issued by the presiding administrative law judge ("ALJ") on May 20, 2011, in the above-captioned investigation, and, on review, to find no violation of section 337 and terminate the investigation.

FOR FURTHER INFORMATION CONTACT: Jean H. Jackson, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street, SW, Washington, D.C. 20436, telephone (202) 205-3104. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, SW, Washington, D.C. 20436, telephone (202) 205-2000. General information concerning the Commission may also be obtained by accessing its Internet server at *http://www.usitc.gov*. The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov*. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205-1810.

SUPPLEMENTARY INFORMATION: This investigation was instituted on April 21, 2010, based on a complaint filed by Verizon Communications Inc. and Verizon Services Corp. (collectively, "Verizon"), alleging a violation of section 337 in the importation, sale for importation, and sale within the United States after importation of certain digital set-top boxes components thereof, that infringe one or more of claim 14 of U.S. Patent No. 5,635,979; claim of U.S. Patent No. 5,666,293; claim 13 of U.S. Patent No. 6,381,748 ("the '748 patent"); claim 14 of U.S. Patent No. 6,367,078; and claim 5 of U.S. Patent No. 7,561,214. 75 *Fed. Reg.* 20861 (2010). Complainant named Cablevision Systems Corp. of Bethpage, New York ("Cablevision")

as the only respondent. *Id.*

On May 20, 2011, the ALJ issued his final ID finding a violation of section 337. Specifically, the ALJ found that a violation of section 337 has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain digital set-top boxes and components thereof that infringe claim 13 of the '748 patent. On July 21, 2011, the Commission determined not to review the ALJ's final ID, and requested that the parties file written submissions on the issues of remedy, the public interest, and bonding. *See* Notice of Commission Determination Not To Review a Final Initial Determination (Dated July 21, 2011). The parties filed timely opening and responsive submissions.

On August 8, 2011, respondent Cablevision filed a petition for reconsideration of the Commission's determination not to review the ALJ's finding of a violation of section 337 based on infringement of claim 13 of the '748 patent. Respondent sought reconsideration of the Commission's determination based on the August 2, 2011, entry of final judgment by the U.S. District Court for the Eastern District of Virginia in *ActiveVideo Networks, Inc. v. Verizon Commc'ns Inc.*, No. 2:10-cv-248 (E.D. Va.) and the previous ruling in that action that claim 13 of the '748 patent is invalid. Complainant Verizon filed an opposition to respondent's petition, whereas the Commission investigative attorney filed a response supporting respondent's petition.

Having examined the record in this investigation, the Commission has determined to grant respondent's petition for reconsideration and waive its requirement that any petition for reconsideration be filed within 14 days of the action taken. Accordingly, the Commission has determined to review the ALJ's final ID and, on review, to find that there is no violation of section 337 in this investigation based on the preclusive effects of the district court's finding of invalidity. The investigation is terminated. A Commission opinion in support of this determination will be issued shortly.

The authority for this action is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), and in sections 201. 4 and 210.45-50 of the Commission's Rules of Practice and Procedure (19 C.F.R. §§ 201.4, 210.45-50).

By order of the Commission.

James R. Holbein
Secretary to the Commission

Issued: September 20, 2011

CERTAIN DIGITAL SET-TOP BOXES AND COMPONENTS THEREOF **Inv. No. 337-TA-712**

PUBLIC CERTIFICATE OF SERVICE

I, James R. Holbein, hereby certify that the attached **NOTICE** has been served by hand upon, the Commission Investigative Attorney, Brian F. Moore, Esq. and the following parties as indicated on **September 20, 2011.**

James R. Holbein, Secretary
U.S. International Trade Commission
500 E Street, SW, Room 112
Washington, DC 20436

On Behalf of Complainant Verizon Communications and Verizon Services Corp:

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On Behalf of Respondent Cablevision Systems Corporation:

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UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of **CERTAIN DIGITAL SET-TOP BOXES AND COMPONENTS THEREOF**	**Investigation No. 337-TA-712**

COMMISSION OPINION

I. PROCEDURAL BACKGROUND

The Commission instituted this investigation under section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337 ("section 337") on April 21, 2010, based on a complaint filed by Verizon Communications Inc. and Verizon Services Corp. (collectively, "Verizon," or "complainant"), alleging a violation of section 337 in the importation, sale for importation, and sale within the United States after importation of certain digital set-top boxes and components thereof, that infringe one or more of claim 14 of U.S. Patent No. 5,635,979; claim 38 of U.S. Patent No. 5,666,293; claim 13 of U.S. Patent No. 6,381,748 ("the '748 patent"); claim 14 of U.S. Patent No. 6,367,078; and claim 5 of U.S. Patent No. 7,561,214. 75 *Fed. Reg.* 20861 (2010). Complainant named Cablevision Systems Corp. of Bethpage, New York ("Cablevision," or "respondent") as the only respondent. *Id.*

On May 20, 2011, the ALJ issued his final initial determination (ID) finding a violation of section 337. Specifically, the ALJ found that a violation of section 337 had occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain digital set-top boxes and components thereof that infringe claim 13 of

the '748 patent. On July 21, 2011, the Commission determined not to review the final ID.[1] The Commission requested that the parties file written submissions on the issues of remedy, the public interest, and bonding. *Id.* at 3. The parties filed timely opening and responsive submissions on August 4 and August 12, 2011, respectively.

On August 8, 2011, respondent Cablevision filed a petition for reconsideration of the Commission's determination not to review the ALJ's finding of a violation of section 337.[2] Cablevision's petition is based on a final judgment of a U.S. district court finding claim 13 of the '748 patent invalid. Cablevision contends that this district court decision has preclusive effect on the Commission's decision, notwithstanding the possibility of an appeal of the district court's invalidity ruling. The Commission investigative attorney (IA) supports respondent's petition.[3] Complainant Verizon opposes respondent's petition.[4]

II. THE DISTRICT COURT LITIGATION

While the Commission's investigation was ongoing, Verizon asserted the '748 patent in the U.S. District Court for the Eastern District of Virginia ("District Court") in a counterclaim against ActiveVideo Networks, the company that created the software used by Cablevision to

[1] Notice of Commission Determination Not To Review a Final Initial Determination (July 21, 2011) ("Commission Notice").

[2] Respondent Cablevision Systems Corporation's Petition for Reconsideration of the Commission's Determination Not to Review the Administrative Law Judge's Finding of a Violation of Section 337 Based on Infringement of Claim 13 of the '748 patent (August 8, 2011).

[3] The Office of Unfair Import Investigations Combined Reply Brief on Remedy, the Public Interest, and Bonding and Response to Respondent's Petition for Reconsideration of the Notice of Commission Determination Not to Review a Final Determination (August 12, 2011).

[4] Complainants' Opposition to Respondent Cablevision Systems Corporation's Petition for Reconsideration of the Commission's Determination Not to Review (August 15, 2011).

provide the services that Verizon accuses of infringing the '748 patent.[5] Shortly before the issuance of the ID in the Commission's investigation, the District Court granted ActiveVideo's motion for partial summary judgment, holding in a non-final order that claim 13 of the '748 patent is invalid as anticipated by prior art.[6] On August 2, 2011, after the Commission had determined not to review the ALJ's ID, the District Court entered its final judgment.[7]

III. STANDARD FOR RECONSIDERATION

Commission Rule 210.47 states in relevant part:

> Within 14 days after service of a Commission determination, any party may file with the Commission a petition for reconsideration of such determination or any action ordered to be taken thereunder, setting forth the relief desired and the grounds in support thereof. Any petition filed under this section must be confined to new questions raised by the determination or action ordered to be taken upon which the petitioner had no opportunity to submit arguments.

19 C.F.R. § 210.47. [8]

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[5] *See ActiveVideo Networks, Inc. v. Verizon Communications Inc.*, No. 2:10-cv-248 (E.D. Va.) ("ActiveVideo Litigation").

[6] *ActiveVideo Litigation*, Docket No. 442, Memorandum Opinion and Order Granting Partial Summary Judgment (May 10, 2011).

[7] *ActiveVideo Litigation*, Docket No. 930, Rule 58 Judgment (Aug. 2, 2011).

[8] Cablevision's petition for reconsideration was filed 18 days after service of the Commission Notice, but no party objected to the petition's late filing. In view of the fact that Cablevision made a timely argument seeking reconsideration in its opening brief on remedy, the public interest and bonding, filed on August 4, 2011, we have determined to waive the requirement that any petitions be filed within 14 days of the Commission determination. *See* 19 C.F.R. § 201.4(b).

IV. DISCUSSION

A. Respondent's Position

Respondent Cablevision seeks reconsideration of the Commission's determination not to review the ALJ's finding of violation based on the August 2, 2011 entry of final judgment by the District Court and the District Court's previous ruling in that action that claim 13 of the '748 patent is invalid. Respondent contends that reconsideration under Commission Rule 210.47 is appropriate because the District Court's final judgment could not previously have been brought to the Commission's attention and thus constitutes a new question upon which Cablevision has had no opportunity to submit argument. Respondent requests the Commission to reconsider its decision not to review the ID and, on review, apply collateral estoppel to find claim 13 of the '748 patent invalid based on the final judgment of the District Court. As a consequence of this finding, Cablevision asks that the Commission terminate the investigation with a finding of no violation. The IA supports Cablevision's petition for reconsideration.

B. Complainant's Position

Complainant Verizon opposes Respondent's petition on four grounds. First, Verizon contends that collateral estoppel should not be applied, arguing that it did not have a full and fair opportunity to litigate the validity of claim 13 of the '748 patent in the District Court litigation. Second, Verizon argues that the petition does not address any new question raised by the Commission's determination not to review the ID. Verizon explains that a pending request by ActiveVideo for an injunction means there is no final judgment in the District Court case. Third, Verizon contends that Cablevision's petition presents the same arguments for applying collateral estoppel that it previously presented to the Commission in its petition for review of the ID and that no new question has been raised by the Commission's determination not to review the ID.

Fourth, Verizon argues that Cablevision waived its affirmative defense of collateral estoppel before the ALJ.

C. Analysis

We have determined to grant respondent's petition for reconsideration. We find that the District Court's final judgment of invalidity meets all the requirements for collateral estoppel set forth by the U.S. Court of Appeals for the Federal Circuit ("Federal Circuit"). Under *Ammex, Inc. v. United States*, 384 F.3d 1368, 1371 (Fed. Cir. 2004), whether collateral estoppel applies depends on whether: (1) the issues decided in the prior litigation are identical to those before the tribunal; (2) those issues were actually litigated in the prior proceeding; (3) the resolution of those issues in the prior litigation was necessary to its resulting judgment; and (4) the party against whom collateral estoppel is asserted had a full and fair opportunity to litigate its position. We find that Verizon's contention that it did not have a full and fair opportunity to litigate its position lacks merit.

Under Federal Circuit law, "[t]he party opposing a plea of estoppel must establish that it did not have a full and fair opportunity to litigate; it must demonstrate that 'without fault of his own the patentee was deprived of crucial evidence or witnesses in the first litigation.'" *Dana Corp.* v. NOK, Inc., 882 F.2d 505, 508 (Fed. Cir. 1989) (*citing Blonder-Tongue v. University of Illinois Foundation*, 402 U.S. 313, 333 (1971)). The record does not indicate that Verizon was denied a full and fair opportunity to litigate at the District Court. The District Court ruling of patent invalidity is based on the record evidence and arguments made by the parties, including Verizon. The District Court issued an extensive twenty one page memorandum opinion and order in which it discusses in detail the merits of the dispute, the arguments of the parties, and the

evidence of record.[9] Verizon filed a 30 page brief in opposition to ActiveVideo's motion for summary judgment of invalidity with declarations and exhibits in support of its position.[10] The record does not show that Verizon was limited by the District Court, or any other extraneous circumstances, in selecting what documents, including expert reports, to file with the District Court in support of its position.

In fact, Cablevision notes, "the District Court afforded several additional safeguards and opportunities to Verizon that normally are not available. . . . [T]he Court granted Verizon leave to file a supplemental submission addressing validity based on the alleged discovery of new evidence before the Court ruled on validity."[11] The District Court denied Verizon's motion for reconsideration of this order, stating that it reposed great confidence in the propriety of its decision to invalidate claims 13 and 20 of the '748 patent.[12]

While Verizon contends that it was denied a full and fair opportunity to litigate because there was no opportunity for oral argument relating to the motion for partial summary judgment, it cites no case that stands for the proposition that the absence of an oral argument indicates a lack of a full and fair opportunity to litigate.[13] Nor has Verizon been denied a full and fair

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[9] *See ActiveVideo Litigation*, Docket No. 442, Memorandum Opinion and Order Granting Partial Summary Judgment (May 10, 2011).

[10] See *ActiveVideo Networks, Inc. v. Verizon Commc'ns Inc.*, No. 2:10-cv-248 (E.D. Va.), Docket No. 258 (Jan. 3, 2011); *id.*, Docket No. 301 (Jan. 19, 2011); *id.*, Docket Nos. 302-3 (Jan. 19, 2011)

[11] *Id.* 5, *citing ActiveVideo Networks, Inc. v. Verizon Commc'ns Inc.*, No. 2:10-cv-248 (E.D. Va.), Docket No. 328 (Jan. 31, 2011)

[12] *ActiveVideo Litigation*, Docket No. 757, Memorandum Order Denying Motion To Reconsider, June 30, 2011 at 4.

[13] Verizon cites *RF Del., Inc. v. Pacific Keystone Techs., Inc.*, 326 F.3d 1255, 1261 (Fed. Cir. 2003), for the proposition that the absence of oral argument "*alone* makes it 'questionable whether the parties were 'fully heard'" on the issue of invalidity. Compl. Opp. at 15 (emphasis

opportunity to litigate merely because the opportunity remains for an appeal of the District Court's decision. "[T]he law is well settled that the pendency of an appeal has no [e]ffect on the finality or binding effect of a trial court's holding. That rule is applicable to holdings of patent invalidity as well." *SSIH Equipment S.A. v. Int'l Trade Comm'n*, 718 F.2d 365, 370 (Fed. Cir. 1983) (citations omitted); *accord Pharmacia & Upjohn Co. v. Mylan Pharms., Inc.*, 170 F.3d 1373, 1381 (Fed. Cir. 1999) ("the established rule in the federal courts [is] ... that a final judgment retains all of its *res judicata* consequences pending decision of the appeal.") (citations omitted).

The application of collateral estoppel here is also consistent with Commission precedent. In *Certain EPROM, EEPROM, Flash Memory, and Flash Microcontroller Semiconductor Devices, and Products Containing Same,* Inv. No. 337-TA-395 ("*EPROMs* "), the Commission considered the preclusive effect of a U.S. District Court for the Northern District of California decision invalidating one of the patents at issue in the Commission investigation,[14] after the presiding ALJ had issued his final ID, but before the Commission concluded the investigation. On final disposition of the investigation, the Commission applied collateral estoppel to find the patent invalid based on the California decision. *See EPROMs,* Inv. No. 337-TA-395, USITC Pub. 3136, Comm'n Op. at 4-6 (October 1998).

Verizon also contends that Cablevision's motion for reconsideration should be denied because it does not comply with Commission Rule 210.47. Thus, Verizon argues that "this is not

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in original). However, unlike the present circumstance, the Federal Circuit's decision in *RF Delaware* turned on the absence of any evidence in the record that the district court had entered a final judgment of invalidity. 326 F.3d at 1261-62.

[14] *See Atmel Corp. v. Information Storage Devices, Inc.*, No. C-95-1987-FMS, 1998 WL 184274 (N.D. Cal. April 14. 1998).

a new question," contending that the District Court's August 2, 2011, judgment is actually not final because ActiveVideo moved for an injunction, based on its asserted patents, on August 12, 2011, after the District Court entered its judgment. Compl. Opp. at 4. Verizon broadly states that "[i]t is established that the pendency of an injunction request deprives a judgment of any finality." *Id.* (*citing PODS, Inc. v. Porta Stor, Inc.*, 484 F.3d 1359, 1365 (Fed. Cir. 2007)) ("*PODS*").

Verizon's argument inaccurately characterizes the *PODS* decision. The Court in *PODS* held that an appeal in that case was premature because a request for injunctive relief was pending at the time the appeal was filed, but that the appeal could be treated as timely filed when the lower court ruled on the claim for injunctive relief. *See PODS* at 1365. The *PODS* court's characterization of a judgment as non-final for the purposes of appeal while a request for a permanent injunction was pending does not support a finding that the judgment entered by the District Court in *ActiveVideo Litigation* is not sufficiently final to have a collateral estoppel effect on the Commission's final determination in this investigation. The District Court's decision that claim 13 of the '748 patent is invalid has become final, and the pendency of ActiveVideo's request for an injunction based on infringement of different patents does not affect the finality of the District Court's decision that claim 13 of the '748 patent is invalid. The District Court's decision on invalidity of claim 13 stands irrespective of whether the District Court eventually decides to grant or deny ActiveVideo's motion for permanent injunction. *Pharmacia & Upjohn*, 170 F.3d at 1381 ("the fact that post-trial motions are pending does not affect the finality of a judgment and thus does not prevent its preclusive effect.").

We also reject Verizon's argument that Cablevision's petition does not raise a new question that it could not have argued in its petition for review of the ID. The District Court's

judgment of invalidity became final after the Commission's notice of its determination not to review the ID was issued, and therefore Cablevision could not have raised this argument in its petition for review of the ID. Cablevision's petition is based on a new development in the District Court litigation, *i.e.*, the entry of the final judgment. Cablevision did not have an opportunity to submit this argument in its petition for review because its petition was filed before the District Court entered its final judgment.

Finally, Verizon argues that Cablevision waived the issue of collateral estoppel. Verizon explains that the ALJ rejected Cablevision's attempt to raise the collateral estoppel issue because Cablevision did not set forth its argument in a manner that comported with the ground rules in the investigation. *See* ALJ Order No. 46. This argument is unavailing because the District Court's final judgment of invalidity became relevant to the Commission's investigation after the ALJ had issued his final ID and had relinquished jurisdiction over the investigation. Cablevision could not have waived an argument that did not exist at the time the ALJ issued Order No. 46.

Accordingly, we grant respondent's motion for reconsideration of our decision not to review the ALJ's ID. On review of the ID, we have determined to apply collateral estoppel based on the final judgment of the District Court that claim 13 of the '748 is invalid. Accordingly, we find no violation of section 337.

By order of the Commission.

James R. Holbein
Secretary to the Commission

Issued: September 23, 2011

PUBLIC CERTIFICATE OF SERVICE

I, James R. Holbein, hereby certify that the attached **COMMISSION OPINION** has been served by hand upon, the Commission Investigative Attorney, Brian F. Moore, Esq. and the following parties as indicated on **September 23, 2011.**

James R. Holbein, Secretary
U.S. International Trade Commission
500 E Street, SW, Room 112
Washington, DC 20436

On Behalf of Complainant Verizon Communications and Verizon Services Corp:

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On Behalf of Respondent Cablevision Systems Corporation:

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UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C. 20436

In the Matter of **CERTAIN DIGITAL SET-TOP BOXES AND COMPONENTS THEREOF**	**Investigation No. 337-TA-712**

NOTICE OF COMMISSION DETERMINATION NOT TO REVIEW A FINAL INITIAL DETERMINATION; AFFIRMING-IN-PART ALJ ORDER NO. 33 GRANTING SUMMARY DETERMINATION THAT COMPLAINANT SATISFIED THE ECONOMIC PRONG OF THE DOMESTIC INDUSTRY REQUIREMENT UNDER 19 U.S.C. § 1337(a)(3); SCHEDULE FOR FILING WRITTEN SUBMISSIONS ON REMEDY, THE PUBLIC INTEREST, AND BONDING

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission ("the Commission") has determined not to review the final initial determination ("ID") issued by the presiding administrative law judge ("ALJ") on May 20, 2011, in the above-captioned investigation; the Commission has also determined to affirm-in-part ALJ Order No. 33 granting summary determination that complainant satisfies the economic prong of the domestic industry requirement.

FOR FURTHER INFORMATION CONTACT: Michael Liberman, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street, SW, Washington, D.C. 20436, telephone (202) 205-3116. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, SW, Washington, D.C. 20436, telephone (202) 205-2000. General information concerning the Commission may also be obtained by accessing its Internet server at *http://www.usitc.gov*. The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov*. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205-1810.

SUPPLEMENTARY INFORMATION: This investigation was instituted on April 21, 2010, based on a complaint filed by Verizon Communications Inc. and Verizon Services Corp. (collectively, "Verizon"), alleging a violation of section 337 in the importation, sale for importation, and sale within the United States after importation of certain digital set-top boxes

and components thereof, that infringe one or more of claim 14 of U.S. Patent No. 5,635,979; claim 38 of U.S. Patent No. 5,666,293; claim 13 of U.S. Patent No. 6,381,748 ("the '748 patent"); claim 14 of U.S. Patent No. 6,367,078; and claim 5 of U.S. Patent No. 7,561,214. 75 *Fed. Reg.* 20861 (2010). Complainant named Cablevision Systems Corp. of Bethpage, New York ("Cablevision") as the only respondent. *Id.*

On September 7, 2010, Verizon moved for summary determination that its activities in the United States concerning its FiOS TV services satisfy the economic prong of the domestic industry requirement under 19 U.S.C. § 1337(a)(3). On September 24, 2010, Cablevision filed an opposition to Verizon's motion. Also on September 24, 2010, the Commission investigative attorney ("the IA") filed a response in support of Verizon's motion. On January 11, 2010, the ALJ issued an ID (Order No. 33) granting Verizon's motion. On January 20, 2011, respondent Cablevision filed a petition for review of the Summary ID. On January 27, 2011, Verizon and the IA each filed a response to the petition for review. On February 11, 2011, the Commission determined to review the Summary ID and requested written submissions from the parties on the issues under review. All of the parties timely submitted their respective initial and reply submissions.

The evidentiary hearing on violation of Section 337 was held from January 24, 2011 through February 1, 2011. On May 20, 2011, the ALJ issued his final ID finding a violation of section 337 as to the '748 patent only. The ID included the ALJ's recommended determination on remedy and bonding. All the parties to the investigation filed timely petitions for review of various portions of the final ID, as well as timely responses to the petitions. On July 1, 2011, Cablevision filed an unopposed motion for leave to file a supplemental submission regarding a district court proceeding. *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, Civil Action No. 2:10cv248. The motion is hereby granted.

Having examined the record in this investigation, including the ALJ's final ID, the petitions for review, and the responses thereto, the Commission has determined not to review the final ID. The Commission has also determined to affirm-in-part the ALJ's Order No. 33, granting Verizon's motion for summary determination that it has satisfied the economic prong of the domestic industry requirement under 19 U.S.C. § 1337(a)(3)(C). In particular, the Commission affirms that Verizon has satisfied the economic prong of the domestic industry requirement based on its investment in the software development and testing, installation, and support associated with the set-top boxes that were alleged to practice the asserted claims of the patents-in-suit because Verizon's investments in those activities are "substantial" within the meaning of Section 337(a)(3)(C). The Commission takes no position on the remainder of the summary determination ID. Specifically, the Commission takes no position on whether Verizon's investments in the FiOS network satisfy the economic prong.

In connection with the final disposition of this investigation, the Commission may (1) issue an order that could result in the exclusion of the subject articles from entry into the United States, and/or (2) issue one or more cease and desist orders that could result in the respondent being required to cease and desist from engaging in unfair acts in the importation and sale of such articles. Accordingly, the Commission is interested in receiving written submissions that address the form of remedy, if any, that should be ordered. If a party seeks exclusion of an article

from entry into the United States for purposes other than entry for consumption, the party should so indicate and provide information establishing that activities involving other types of entry either are adversely affecting it or are likely to do so. For background, see *In the Matter of Certain Devices for Connecting Computers via Telephone Lines*, Inv. No. 337-TA-360, USITC Pub. No. 2843 (Dec. 1994) (Commission Opinion).

If the Commission contemplates some form of remedy, it must consider the effects of that remedy upon the public interest. The factors the Commission will consider include the effect that an exclusion order and/or cease and desist orders would have on (1) the public health and welfare, (2) competitive conditions in the U.S. economy, (3) U.S. production of articles that are like or directly competitive with those that are subject to investigation, and (4) U.S. consumers. The Commission is therefore interested in receiving written submissions that address the aforementioned public interest factors in the context of this investigation.

If the Commission orders some form of remedy, the U.S. Trade Representative, as delegated by the President, has 60 days to approve or disapprove the Commission's action. See Presidential Memorandum of July 21, 2005. 70 *Fed. Reg.* 43251 (July 26, 2005). During this period, the subject articles would be entitled to enter the United States under bond, in an amount determined by the Commission. The Commission is therefore interested in receiving submissions concerning the amount of the bond that should be imposed.

WRITTEN SUBMISSIONS: Parties to the investigation, interested government agencies, and any other interested parties are encouraged to file written submissions on the issues of remedy, the public interest, and bonding. Such submissions should address the recommended determination by the ALJ on remedy and bonding. Complainant and the Commission investigative attorney are also requested to submit proposed remedial orders for the Commission's consideration. Complainant is further requested to provide the expiration date of the '748 patent and state the HTSUS numbers under which the accused articles are imported. The written submissions and proposed remedial orders must be filed no later than the close of business on August 4, 2011. Reply submissions must be filed no later than the close of business on August 12, 2011. No further submissions on these issues will be permitted unless otherwise ordered by the Commission.

Persons filing written submissions must file the original document and 12 true copies thereof on or before the deadlines stated above with the Office of the Secretary. Any person desiring to submit a document (or portion thereof) to the Commission in confidence must request confidential treatment unless the information has already been granted such treatment during the proceedings. All such requests should be directed to the Secretary of the Commission and must include a full statement of the reasons why the Commission should grant such treatment. *See* section 201.6 of the Commission's Rules of Practice and Procedure, 19 C.F.R. § 201.6. Documents for which confidential treatment by the Commission is sought will be treated accordingly. All nonconfidential written submissions will be available for public inspection at the Office of the Secretary.

The authority for this action is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), and in sections 210.42-.46 and .50 of the Commission's Rules of

Practice and Procedure (19 C.F.R. §§ 210.42-.46,.50).

By order of the Commission.

James R. Holbein
Secretary to the Commission

Issued: July 21, 2011

PUBLIC CERTIFICATE OF SERVICE

I, James R. Holbein, hereby certify that the attached **NOTICE** has been served by hand upon, the Commission Investigative Attorney, Brian F. Moore, Esq. and the following parties as indicated on **July 21, 2011.**

James R. Holbein, Secretary
U.S. International Trade Commission
500 E Street, SW, Room 112
Washington, DC 20436

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UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

In the Matter of	
CERTAIN DIGITAL SET-TOP BOXES AND COMPONENTS THEREOF	**Inv. No. 337-TA-712**

INITIAL DETERMINATION ON VIOLATION OF SECTION 337 AND RECOMMENDED DETERMINATION ON REMEDY AND BOND

Administrative Law Judge E. James Gildea

(May 20, 2011)

Appearances:

For the Complainants Verizon Services Corp. and Verizon Communications Inc.:

Mark C. Jansen, Esq., Michael E. Joffre, Esq., Michael K. Kellogg, Esq., Evan Leo, Esq., Wan Kim, Esq., Joseph Hall, Esq., and Kenneth Fetterman, Esq. of Kellogg, Huber, Hansen, Todd, Evans & Figel PLLC of Washington, D.C.

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For the Respondent Cablevision Systems Corporation:

Edward J. DeFranco, Esq. of Quinn Emanuel Urquhart & Sullivan LLP of New York, New York

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For the Commission Investigative Staff:

Lynn I. Levine, Esq., Director; Thomas Fusco, Esq., Supervisory Attorney; and Bryan F. Moore, Esq., Investigative Attorney, of the Office of Unfair Import Investigations, U.S. International Trade Commission, of Washington, D.C.

Pursuant to the Notice of Investigation, 75 Fed. Reg. 20861-62 (April 21, 2010), this is the Initial Determination of the Investigation in the Matter of Certain Digital Set-Top Boxes and Components Thereof, United States International Trade Commission Investigation No. 337-TA-712. *See* 19 C.F.R. § 210.42(a).

With respect to Respondent Cablevision Systems Corp., it is held that no violation of Section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation, of certain digital set-top boxes and components thereof by reason of infringement of claim 38 of United States Patent No. 5,666,293.

With respect to Respondent Cablevision Systems Corp., it is held that no violation of Section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation, of certain digital set-top boxes and components thereof by reason of infringement of claim 14 of United States Patent No. 5,635,979.

With respect to Respondent Cablevision Systems Corp., it is held that a violation of Section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation, of certain digital set-top boxes and components thereof by reason of infringement of claim 13 of United States Patent No. 6,381,748.

With respect to Respondent Cablevision Systems Corp., it is held that no violation of Section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), has occurred in the importation into the United States, the sale for importation, or the sale within the United States

after importation, of certain digital set-top boxes and components thereof by reason of infringement of claim 14 of United States Patent No. 6,367,078.

With respect to Respondent Cablevision Systems Corp., it is held that no violation of Section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation, of certain digital set-top boxes and components thereof by reason of infringement of claim 5 of United States Patent No. 7,561,214.

It is further held that a domestic industry exists that practices U.S. Patent No. 6,381,748, and that a domestic industry does not exist that practices U.S. Patent Nos. 5,666,293, 5,635,979, 6,367,078, and 7,561,214.

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The following abbreviations may be used in this Initial Determination:

JX	Joint exhibit
CX	Complainants' exhibit
CDX	Complainants' demonstrative exhibit
CPX	Complainants' physical exhibit
CFF	Complainants' proposed findings of fact
CCL	Complainants' proposed conclusions of law
CBr.	Complainants' initial post-hearing brief
CORFF	Complainants' objections to Respondent's proposed findings of fact
COSFF	Complainants' objections to Staff's proposed findings of fact
CRBr.	Complainants' reply post-hearing brief
RX	Respondent's exhibit
RDX	Respondent's demonstrative exhibit
RPX	Respondent's physical exhibit
RFF	Respondent's proposed findings of fact
RCL	Respondent's proposed conclusions of law
RBr.	Respondent's initial post-hearing brief
ROCFF	Respondent's objections to Complainants' proposed findings of fact
ROSFF	Respondent's objections to Staff's proposed findings of fact
RRBr.	Respondent's reply post-hearing brief
SFF	Staff's proposed findings of fact
SCL	Staff's proposed conclusions of law
SBr.	Staff's initial post-hearing brief
SOCFF	Staff's objections to Complainants' proposed findings of fact
SORFF	Staff's objections to Respondent's proposed findings of fact
SRBr.	Staff's reply post-hearing brief
Tr.	Hearing transcript

I. BACKGROUND.

A. Institution and Procedural History of this Investigation.

By publication of a Notice of Investigation in the *Federal Register* on April 21, 2010, pursuant to subsection (b) of Section 337 of the Tariff Act of 1930, as amended, the Commission instituted Investigation No. 337-TA-712 with respect to U.S. Patent No. 5,666,293 (the "'293 patent"), U.S. Patent No. 5,635,979 (the "'979 patent"), U.S. Patent No. 6,381,748 (the "'748 patent"), U.S. Patent No. 6,367,078 (the "'078 patent"), and U.S. Patent No. 7,561,214 (the "'214 patent") to determine the following:

> whether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain digital set-top boxes and components thereof that infringe one or more of claim 38 of U.S. Patent No. 5,666,293; claim 14 of U.S. Patent No. 5,635,979; claim 13 of U.S. Patent No. 6,381,748; claim 14 of U.S. Patent No. 6,367,078; and claim 5 of U.S. Patent No. 7,561,214 and whether an industry in the United States exists as required by subsection (a)(2) of section 337[.]

75 Fed. Reg. 20861 (2010).

Verizon Communications Inc. and Verizon Services Corp. are named in the Notice of Investigation as the Complainants. *Id.* The Respondent named in the Notice of Investigation is Cablevision Systems Corp. of Bethpage, New York. *Id.* at 2062. The Commission Investigative Staff of the Commission's Office of Unfair Import Investigations is also a party in this Investigation. *Id.*

On January 11, 2011, the Administrative Law Judge issued an initial determination granting Complainants' amended motion for summary determination that the economic domestic industry requirement has been satisfied. (*See* Order No. 33.) The Commission has determined to review the order. (*See* Notice of Commission Decision to Review an Initial Determination

Granting Complainant's [sic] Motion for Summary Determination that It Has Satisfied the Economic Prong of the Domestic Industry Requirement, dated February 10, 2011.)

The evidentiary hearing on the question of violation of Section 337 began on January 24, 2011, and ended on February 1, 2011. Complainants Verizon Communications Inc. and Verizon Services Corp. (collectively, "Verizon"), Respondent Cablevision Systems Corp. ("Cablevision"), and Staff were represented by counsel at the hearing.

Throughout the hearing and shortly after the hearing, the private parties submitted various written objections to demonstrative exhibits. (*See e.g.,* Verizon's Written Objections to Certain Cablevision Markman Slides[1]; Respondent Cablevision's Renewed Objections to Certain Testimony and Slides of Verizon's Expert Anthony Wechselberger.[2]) As the parties did not move any demonstrative exhibits into the record, the bulk of the private parties' objections are considered to be moot. To the extent that the objections may have a bearing on hearing testimony of record, the Administrative Law Judge has considered these in making a final initial determination even if no further comment on them has been made in said determination.

On February 4, 2011, the Administrative Law Judge issued an initial determination extending the target date in this Investigation to September 13, 2011. (*See* Order No. 42.) The Commission determined not to review the order. (*See* Notice of Commission Decision Not to Review an Initial Determination Extending the Target Date for Completion of the Investigation, dated February 17, 2011.)

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[1] The motion for leave to file a reply to the Markman slide objections (Motion Docket No. 712-038) is hereby DENIED.

[2] Even though Cablevision did not file a motion pursuant to Ground Rule 2, Cablevision asks that certain portions of testimony be stricken. (*See* Renewed Objections at 2.) The Administrative Law Judge has considered Cablevision's objections but declines to strike any portion of Mr. Anthony Wechselberger's hearing testimony. Cablevision was given adequate opportunity to cross examine Mr. Wechselberger with respect to the testimony at issue.

On March 17, 2011, Verizon submitted a request to submit supplemental post-hearing briefing. (Motion Docket No. 712-041.) This motion is addressed in Section V.C. below.

On April 21, 2011, the private parties submitted a letter attaching an order from an ongoing case before the U.S. District Court for the Eastern District of Virginia ("District Court Action") construing various claim language in the '748 and '214 patents. The Administrative Law Judge takes note of the attached order, but finds, *inter alia*, that because the litigation in Virginia has not been fully resolved, no preclusive effect should be given to the district court's interim opinions. *Certain Semiconductor Integrated Circuits Using Tungsten Metallization and Products Containing Same*, Inv. No. 337-TA-648, Comm'n Op. at 1-3 (U.S.I.T.C., Feb. 18, 2009); *Innovad Inc. v. Microsoft Corp.*, 260 F.3d 1326, 1334 (Fed. Cir. 2001).

On May 6, 2011, the Administrative Law Judge issued an initial determination extending the target date in this Investigation to September 20, 2011. (*See* Order No. 45.)

On May 12, 2011, Cablevision submitted a letter requesting that the '748 patent be terminated from the Investigation, raising various arguments with respect to an order in the District Court Action finding the '748 patent invalid. The Administrative Law Judge determined not to consider Cablevision's eleventh hour arguments. (Order No. 46.) It is noted that the order in the District Court Action relies on a non-final claim construction finding, and therefore the Administrative Law Judge declines to consider it at this time.

B. The Parties.

1. Complainants Verizon Communications Inc. and Verizon Services Corp.

Verizon Communications Inc. is a Delaware corporation having its principal place of business in New York, New York. (*See* CBr. at 7; CFF 6 (undisputed).) Verizon Communications Inc. is a holding company with subsidiaries that are providers of

"communications services under the 'Verizon' brand to mass market, business, government, and wholesale customers, which include a range of voice, video, and data services to residential and business customers in the United States." (*Id.*)

Verizon Services Corp. is a corporation organized under the laws of Delaware, having its principal place of business in Arlington, Virginia. (*See* CBr. at 6-7; CFF 7 (undisputed).) Verizon Services Corp. is wholly owned subsidiary of Verizon Communications Inc. (*Id.*)

2. Respondent Cablevision Systems Corp.

Cablevision is a Delaware corporation with its principal place of business in Bethpage, New York. (RBr. at 6; CFF 10 (undisputed in material part).) Cablevision provides "customers in the New York metropolitan area with domestic digital cable TV, high-speed Internet, and digital voice service" over a communications network. (RBr. at 6.)

C. Overview of the Technology.

At issue are certain digital set-top boxes and components thereof. 75 Fed. Reg. 20861 (2010). These digital set-top boxes may be used to receive television programs, as well as other services such as video on demand, games, and interactive channels.

D. The Patents at Issue.

U.S. Patent No. 5,666,293.

This Investigation concerns the '293 patent entitled "Downloading Operating System Software through a Broadcast Channel," which resulted from U.S. Patent Application No. 08/498,265 filed on July 3, 1995. (*See* JX-4 at VZ VID 19.) The '293 patent is a continuation in part of U.S. patent application Ser. No. 08/380,755 filed on January 31, 1995 and U.S. patent application Ser. No. 08/250,791 (the '979 patent) filed on May 27, 1994. (*Id. See also id.* at VZ VID 30.) The '293 patent issued on September 9, 1997 and names Erik C. Metz, Henry G.

Hudson, Jr., and John W. Darr, Jr. as the inventors. (*Id.* at VZ VID 19.) The '293 patent was assigned to Bell Atlantic Network Services, Inc., a predecessor in interest to Complainant Verizon Services Corp. (*Id.*; Amended Complaint at 8-9; *id.*, Ex. 10.) The '293 patent was later jointly assigned to both Verizon Services Corp. and Verizon Communications Inc. (*Id.*)

The '293 patent provides methods, systems and terminal device structures for downloading operating system software to programmable set-top terminal devices through a broadcast channel. (Id. at 4:39-43; VIZ VID 31.) Independent claim 38, which is the only claim of the '293 patent asserted in this Investigation, reads as follows:

> **38.** A set-top terminal device comprising:
>
> a network interface module adapted to couple the terminal to a communication network for receiving at least selected ones of a plurality of broadcast digital broadband channels at least one of which carries audio/video program information in compressed, digital form in packets of a standardized format and at least one of which carries cyclically repetitive transmissions of operating system software in packets of the standardized format; and
>
> a digital entertainment terminal comprising:
>
> (a) an audio/video processor for processing the compressed, digital audio/video program information;
>
> (b) an operating system memory;
>
> (c) a random access memory;
>
> (d) means for receiving inputs from a user; and
>
> (e) a control processor controlling operations of the set-top terminal, wherein
>
> said control processor captures said operating system software from one of the selected digital broadband channels within a transmission cycle, loads the captured operating system software into the operating system memory and begins operation in accord with the operating system software loaded into the operating system memory,
>
> said control processor captures application software received through the network interface module, stores captured application software in the random access memory and executes the stored application software under control of the captured copy of the operating system, and
>
> said control processor controls the network interface module and the audio/video processor in accord with the operating system software loaded in said operating system memory, and controls at least some responses to the user inputs with the application software.

(JX-4 at 47:7-43.)

U.S. Patent No. 5,635,979.

This Investigation concerns the '979 patent entitled "Dynamically Programmable Digital Entertainment Terminal Using Downloaded Software to Control Broadband Data Operations," which resulted from U.S. Patent Application No. 250,791 filed on May 27, 1994. (*See* JX-5 at VZ VID 1.) The '979 patent issued on June 3, 1997 and names Bruce Kostreski, Eugene L. Lew, Henry G. Hudson, Jr., and Daniel O'Callaghan as the inventors. (*Id.*) The '979 patent was assigned to Bell Atlantic Corporation, which merged with Verizon Communications Inc. (*Id.*; Amended Complaint at 10; *id.*, Ex. 11.)

The '979 patent discloses a dynamically programmable digital entertainment terminal that uses downloaded software to control a variety of services. (*Id.*) Independent claim 14, which is the only claim of the patent asserted in this Investigation, reads as follows:

> **14.** A digital entertainment terminal comprising:
>
> a network interface module for coupling the terminal to a communication network for receiving a digital broadband channel and providing two-way control signaling communication between the terminal and the network;
>
> a control processor controlling operations of the terminal and sending and receiving control signals over the two-way control signaling channel through the network interface module;
>
> means for receiving inputs from a user and providing corresponding signals to the control processor;
>
> system memory for storing software executable by the control processor, the system memory comprising non-volatile memory storing an operating system for the control processor and random access memory storing application software executable by the control processor, at least a portion of the application software having been received over the communication network; and
>
> an audio/video processor responsive to compressed, digital audio and video information received over the digital broadband channel through the network interface module and controlled by the control processor during execution of said software, the audio/video processor comprising:

(a) an audio/video decoder for decompressing the compressed, digital information received over the broadband channel to produce a decompressed video signal and a decompressed audio signal;
(b) a graphics overlay controller, controlled by the control processor during execution of said software, for generating graphic display information; and
(c) means for combining the graphic display information with the decompressed video signal, to produce a signal for driving a video display device.

(JX-5 at 21:57-22:23.)

U.S. Patent No. 6,381,748.

This Investigation concerns the '748 patent, entitled "Apparatus and Methods for Network Access Using a Set Top Box and Television," which resulted from U.S. Patent Application No. 08/853,035, filed on May 2, 1997. (*See* JX-3 at VZ VID 0000072.) The '748 patent issued on April 30, 2002. (*Id.*) The '748 patent names Eric Lin and Howard S.K. Wan as the inventors. (*Id.*) The '748 patent was assigned to GTE Main Street Incorporated, then Verizon Patent and Licensing Inc., and subsequently to Verizon Communications Inc. (*Id.*; Amended Complaint at 12; *id.*, Ex. 12.)

The '748 patent discloses apparatus and methods for accessing a network, such as the internet, using a television and a set-top box. (JX-3 at 1:7-10, 1:64-66.) Figures 6 and 7, flow charts showing processing activities performed in accordance with disclosed embodiments, are shown below. (*Id.* at 2:48-54.)

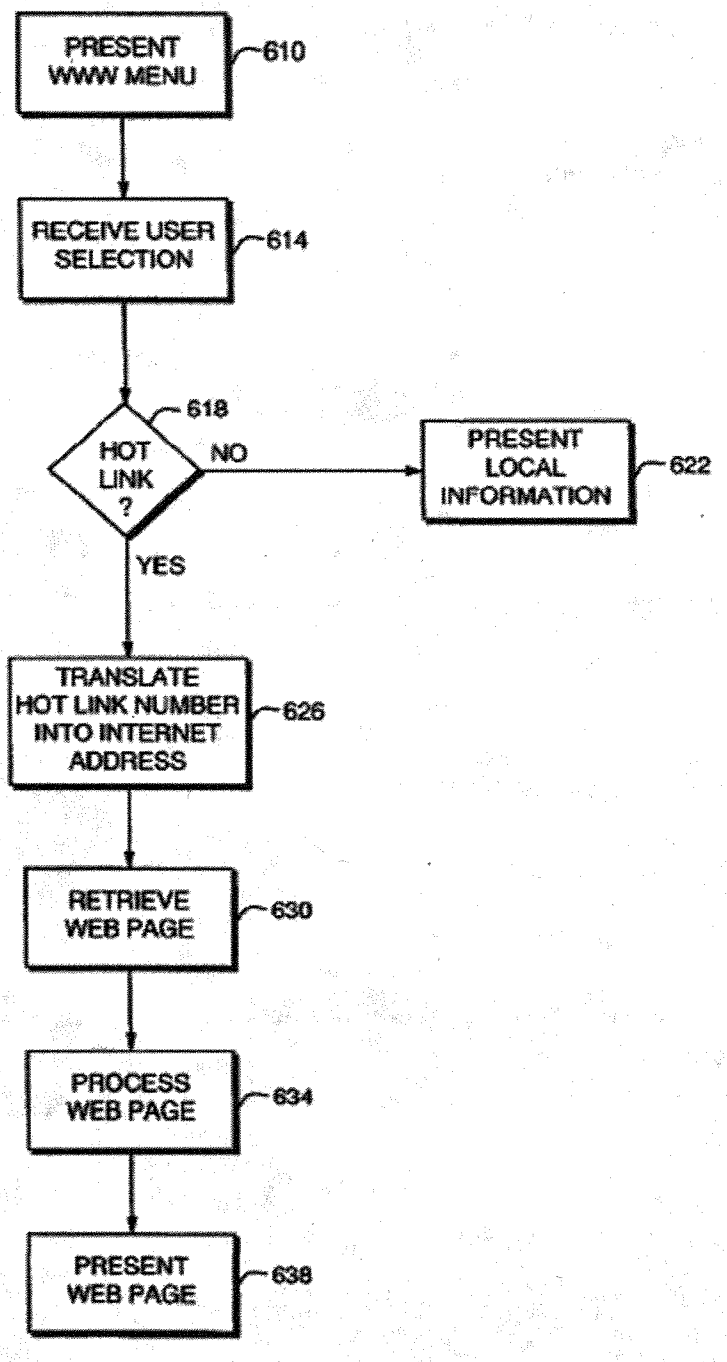


FIG. 6

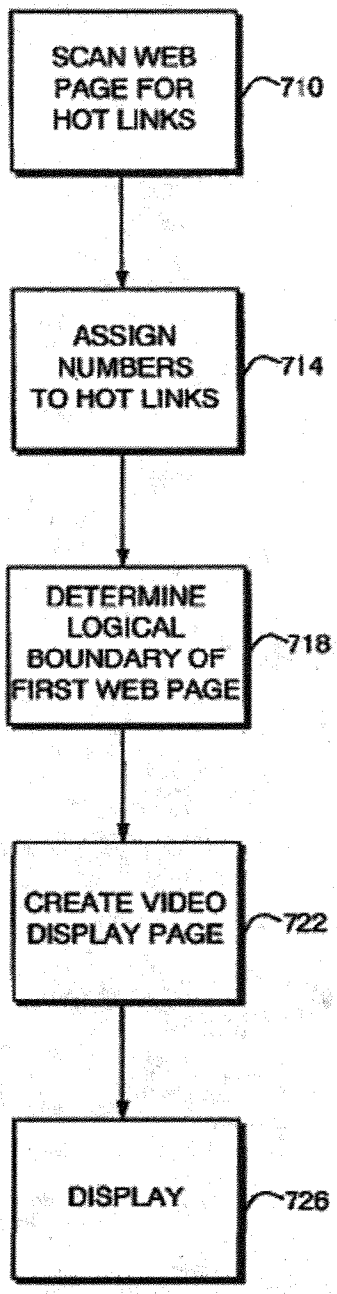


FIG. 7

(*Id.* at Figs. 6, 7.)

The '748 patent has one asserted method claim, which reads as follows:

13. A method of retrieving and retransmitting data processing network information in response to a user selection request, comprising:

transmitting first selection information to be displayed on a television;

receiving a user selection request based on the transmitted first selection information;

retrieving data processing network information, in a network format, corresponding to the user selection request;

transforming the data processing network information from the network format having a first interactive element to a television format having a second interactive element; and

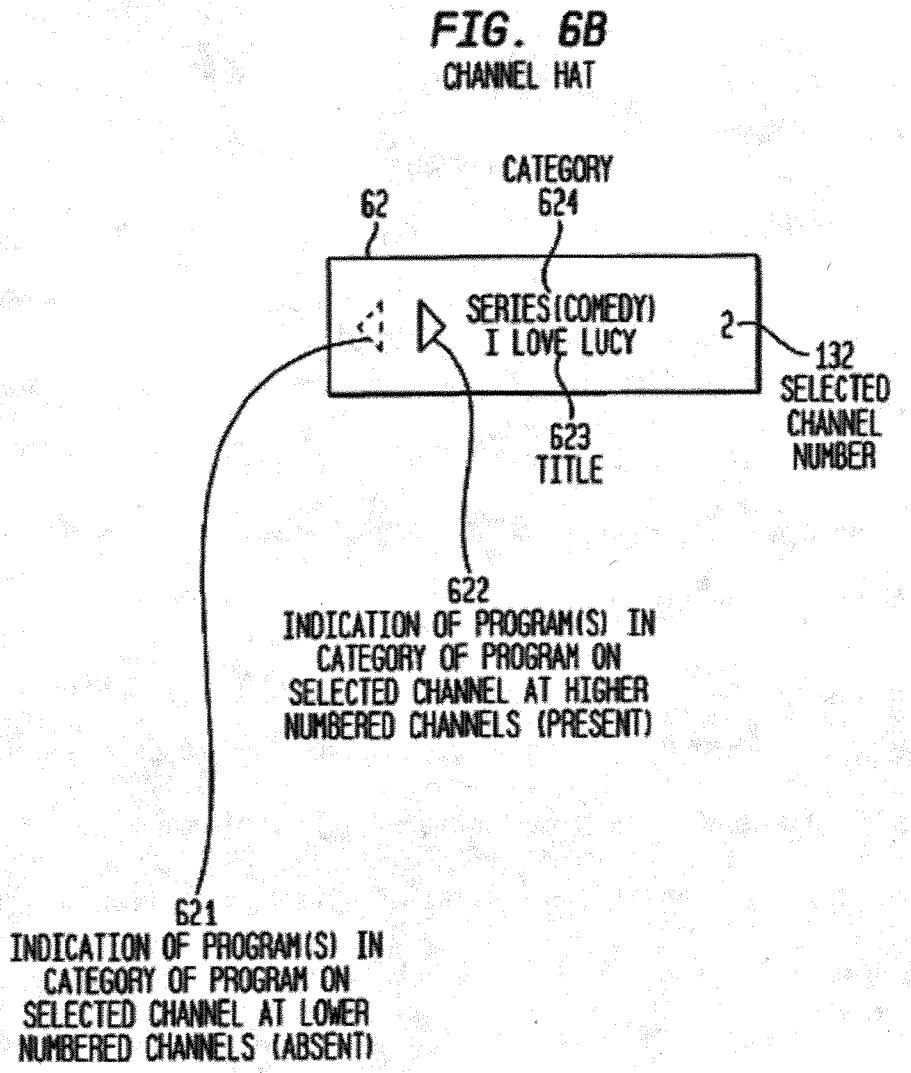
transmitting the data processing network information in the television format to the television.

(JX-3 at 9:43-58.)

U.S. Patent No. 6,367,078.

This Investigation concerns the '078 patent, entitled "Electronic Program-Guide System with Sideways-Surfing Capability," which resulted from U.S. Patent Application No. 08/990,210, filed on December 12, 1997. (*See* JX-1 at VZ VID 0000054.) The '078 patent issued on April 2, 2002. (*Id.*) The '078 patent names Michael Lasky as the inventor. (*Id.*) The '078 patent was assigned to NPB Partners Ltd. d/b/a Tele-TV Systems LP, then to Bell Atlantic Video Services Company, which then merged into Bell Atlantic Entertainment and Information Services Group, Inc., which subsequently assigned the '078 patent to Verizon Communications Inc. (Am. Compl. at 13; *id.*, Ex. 14.)

The '078 patent discloses an electronic program guide that allows a user to "surf" sideways from a television program "in a particular category," such as movies, sports, or specials, to "another program in the same category." (JX-1 at Abstract, 4:12-13.) In one embodiment, a television program viewer may "surf to the next higher or lower-numbered channel carrying another program in the same category as the program he or she is currently watching by pushing the right or left-arrow key, respectively." (*Id.* at 4:28-31.)



(*Id.* at Fig. 6B.)

The '078 patent has one asserted claim, which reads as follows:

14. An apparatus for providing channel selection, the apparatus comprising:

a receiver operative to receive a plurality of channels, wherein the receiver is further operative to indicate if there are at least two channels having a content in the same category;

an apparatus configured to receive a first channel control switch for providing a numerically sequential navigation of said plurality of channels; and

an apparatus configured to receive a second channel control switch, different from the first channel control switch, for providing a content based navigation of the at least two channels having the same content.

(JX-1 at 12:1-15.)

U.S. Patent No. 7,561,214.

This Investigation concerns the '214 patent, entitled "Two-Dimensional Navigation of Multiplexed Channels in a Digital Video Distribution System," which resulted from U.S. Patent Application No. 08/963,944, filed on November 4, 1997. (*See* JX-2 at VZ VID 0000085.) The '214 patent issued on July 14, 2009. (*Id.*) The '214 patent names Daniel O'Callaghan as the inventor. (*Id.*) The '214 patent was assigned to NPB Partners, Ltd. d/b/a Tele-TV Systems L.P., then to Bell Atlantic Tele-TV Holdings, Inc., then to Bell Atlantic Entertainment and Information Services Group, Inc., and subsequently to Verizon Communications Inc. (*Id.*; Am. Compl. at 15-15; *id.*, Ex. 15.)

The '214 patent generally discloses forms of two-dimensional channel navigation, permitting a television viewer to sequence, for example, vertically through the "anchor channels" of a video distribution system and horizontally through "multiplex channels" associated with a selected anchor channel. (JX-2 at Abstract, 4:9-20.)

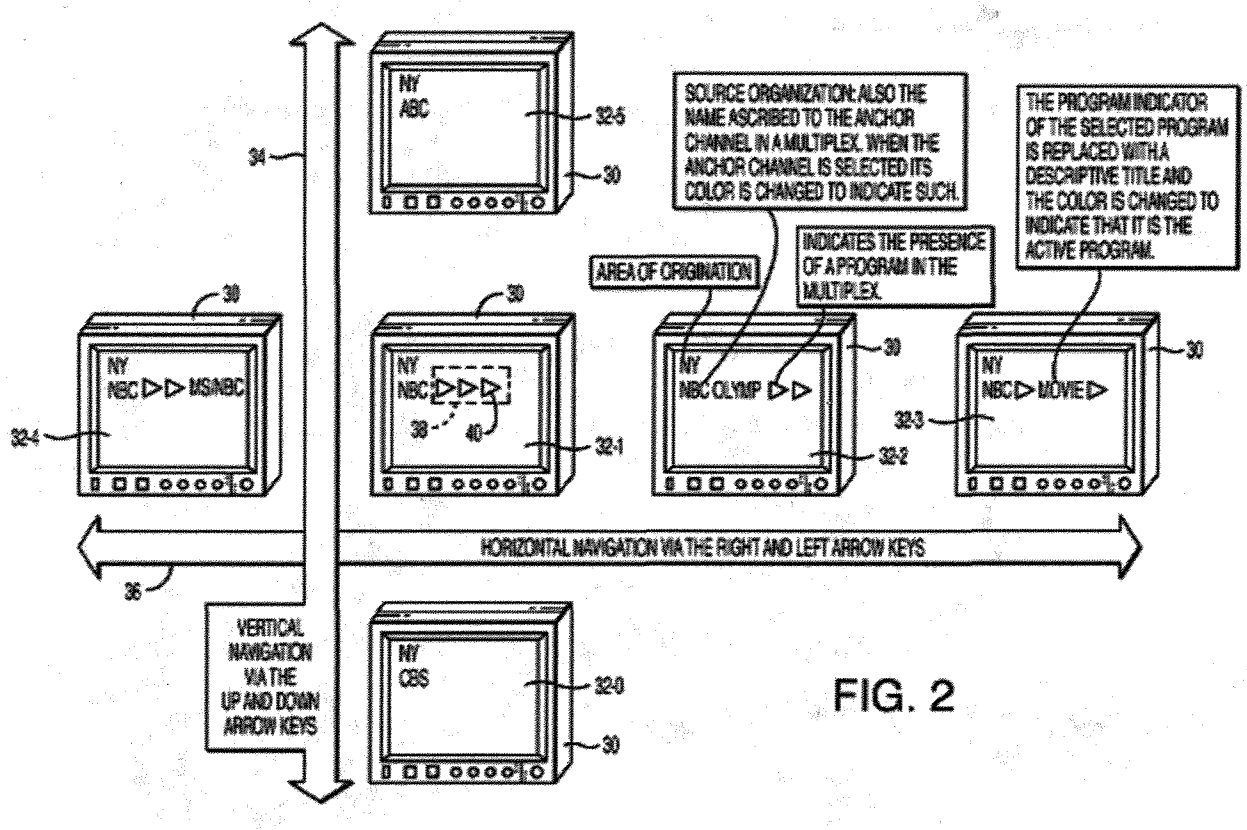


FIG. 2

(*Id.* at Fig. 2.)

The '214 patent has one asserted claim, which reads as follows:

5. An apparatus for providing channel selection, the apparatus comprising:

a receiver operative to receive a plurality of anchor channels, with at least one of the anchor channels having at least one multiplexed channel associated therewith, wherein the receiver is further operative to provide an indication whether a selected anchor channel has at least one multiplex channel associated therewith;

wherein the indication is superimposed over a display of a channel;

the apparatus configured to receive a first channel control switch signal for sequential navigation of the plurality of anchor channels; and

the apparatus configured to receive a second channel control switch signal for sequential navigation of the at least one multiplexed channel.

(JX-2 at 10:24-39.)

E. The Products at Issue.

Verizon accuses five Cablevision products in this Investigation: the SMT-C5320 and the Explorer 4200, 4250, 8300, and { } (collectively, the "Accused Products"). (CBr. at 9; RBr. at 11.)

II. JURISDICTION AND IMPORTATION.

In order to have the power to decide a case, a court or agency must have both subject matter jurisdiction, and jurisdiction over either the parties or the property involved. *See Certain Steel Rod Treating Apparatus and Components Thereof*, Inv. No. 337-TA-97, Commission Memorandum Opinion, 215 U.S.P.Q. 229, 231 (U.S.I.T.C., 1981). For the reasons discussed below, the Administrative Law Judge finds the Commission has jurisdiction over this Investigation.

Respondent Cablevision has responded to the Complaint and Notice of Investigation and has fully participated in the Investigation by, among other things, participating in discovery, participating in the evidentiary hearing, and filing pre-hearing and post-hearing briefs. Accordingly, the Administrative Law Judge finds that Cablevision has submitted to the personal jurisdiction of the Commission and that the Commission has in rem jurisdiction over the Accused Products. *Certain Cloisonné Jewelry*, Inv. No. 337-TA-195, Initial Determination at 40-43 (U.S.I.T.C., March, 1985) (unreviewed).

Section 337 declares to be unlawful "[t]he importation into the United States, the sale for importation, or the sale within the United States after importation by the owner, importer, or consignee,[3] of articles" that infringe a valid and enforceable United States patent if an industry

[3] The Commission has expressly held that the "owner, importer, or consignee" requirement applies only to the "sale within the United States after importation" portion of the statute. *Certain Cigarettes and Packaging Thereof*, Inv. No. 337-TA-643, Comm'n Op. at 9-10 (U.S.I.T.C., Oct. 1, 2009) ("*Certain Cigarettes*").

relating to the articles protected by the patent exists or is in the process of being established in the United States. *See* 19 U.S.C. §§ 1337(a)(1)(B)(i) and (a)(2). Pursuant to Section 337, the Commission shall investigate alleged violations of the Section and hear and decide actions involving those alleged violations.

The Commission does not distinguish between importation and re-importation for purposes of establishing the jurisdictional requirement. *See Certain Sputtered Carbon Coated Computer Disks and Products Containing Same, Including Disk Drives* ("*Carbon Coated Disks*"), Inv. No. 337-TA-350, Comm'n Op. at 5-6 (U.S.I.T.C., October 27, 1993) (Section 337 covers all importations of infringing articles into the U.S., including goods that have been re-imported). To meet its burden of proof with respect to the importation element of Section 337, "[a] complainant need only prove importation of a single accused product. . . ." *Certain Purple Protective Gloves*, Inv. No. 337-TA-500, Order No. 17 at 5 (U.S.I.T.C., Sept. 23, 2004)) (unreviewed) ("*Protective Gloves*") (citing *Certain Integrated Circuits, Processes for Making Same, and Products Containing Same*, Inv. No. 337-TA-450, Order No. 15 at 6 (U.S.I.T.C., November 2, 2001)). "Sufficient involvement" in the importation of accused products has been found adequate to establish jurisdiction. *Certain Cigarettes*, at 8 (Commission has jurisdiction to act "if there is some nexus between a respondent's activities and the importation of the products accused of infringement").

Cablevision argues that because it is not the importer of record of the Accused Products and because the alleged infringement does not occur until after importation, the Commission lacks jurisdiction over Cablevision. (RBr. at 1, 11, 14.) The Administrative Law Judge finds that Cablevision is incorrect, for the reasons discussed below.

Here, the undisputed facts show that Cablevision has purchased { } from Cisco. (CFF 72 (undisputed). *See also* Tr. at 1475 (Durden).) The Cisco STBs were manufactured { } (CFF 73 (undisputed).) { } (CFF 75 (undisputed).) Thus Cablevision caused the manufacture and importation of the Cisco STBs to occur.

Furthermore, Cablevision admits that the Cisco STBs were { } (RBr. at 16; JX-76 at 83:15-19, 94:12-95:11 (White Depo). *See also* JX-58C; RFF II.A.12 (undisputed); Tr. at 1478:20-23 (Durden).) { } (RBr. at 16.) { } (JX-76 at 152:4-153:25.) Based on these facts, the Administrative Law Judge finds that Cablevision was sufficiently involved in the manufacture and importation of the Cisco STBs to meet the importation requirement, even if Cisco (RFF II.A.1 (undisputed)) was the importer of record. *Certain Cigarettes*, at 8.

With respect to the Samsung STBs, { } (RBr. at 16; JX-77 at 194:7-9, 194:17-195:9, 198:2-05, 199:6-15, 205:14-18, 212:12-25 (White Depo).) Samsung { } (JX-77 at 215-216.) However, Verizon identifies little other evidence to characterize Cablevision's relationship with Samsung to enable the

Administrative Law Judge to determine {

}

With respect to repair of the STBs, the undisputed evidence shows that Cablevision has { } of STBs each year that need repair. (CFF 80 (undisputed).) Cablevision contracts { } (CFF 79 (undisputed by Staff); ROCFF 79; JX-77 at 225:17-226:5, 226:16-22, 289-91 (White Depo).) At all times during the repair, Cablevision { } (CFF 83 (undisputed); JX-77 at 286.) {

} Thus, the re-importation may be attributed to Cablevision. Based on these facts, the Administrative Law Judge finds that Cablevision's STB repair activities in { } and subsequent re-importation of the Accused Products { } are sufficient to meet the importation requirement. *Carbon Coated Disks*, Comm'n Op. at 5-6.

Having found two grounds establishing jurisdiction, the Administrative Law Judge declines to address Verizon's other arguments. (CBr. at 17.)

As for Cablevision's argument that there is no jurisdiction because the alleged infringement does not occur until after importation (RBr. at 11, 21), Cablevision is already aware that this argument is incorrect as a matter of law. (*See* Order No. 30.[4]) As was stated in Order

[4] *See also Certain Set-Top Boxes and Components Thereof*, Inv. No. 337-TA-454, Initial Determination at 7-8 (U.S.I.T.C., Nov. 8, 2002) (in instance where set-top boxes were imported with hardware and/or software that enabled the later downloading of software alleged to infringe, the administrative law judge rejected respondent's arguments that it did not import an infringing article and found that all of the accused set-top boxes alleged to be part of an infringing system or process met the importation requirement) (unreviewed in relevant part) ("*Set-Top Boxes*"). "Direct infringement does not have to precede importation for an exclusion order to reach components that contribute to the infringement of the patents-in-issue." (*Id.* at 304.) Here, as with the accused set-top boxes in the 454 Investigation, the Accused Products are designed and enabled (at the time of importation) to automatically download software that implements the features accused of infringing the '748 and '214 patents. (JX-76C at 47-52 (White); Tr. at 1288-89, 1302 (Labelson); CX-464C at 50-52.) *See also* the pertinent infringement discussions in Section IV below.

No. 30 earlier in this Investigation, jurisdiction does not need to be "determined by reference to the site of first infringement." *See Carbon Coated Disks*, Comm'n Op. at 7. Furthermore, it is noted with respect to Cablevision's arguments relating exclusively to the '214 and '748 patents, that Cablevision does not argue that all of the accused STBs lack the software that enables the accused functionalities when they are sent to { } for repair and then re-imported. It would be less than credible that of the { } Accused Products returned by customers to Cablevision for repair that not one of those customers ever tuned to the channels that would cause the pertinent software to be automatically downloaded. Cablevision's remaining arguments with respect to the Accused Products in relation to optional software, to the extent they have a basis in law and are relevant, will be discussed with respect to infringement below. (RBr. at 21 et seq.)

With respect to the asserted patents, the Administrative Law Judge concludes that the importation or sale requirement of Section 337 establishing subject matter jurisdiction as to the Accused Products has been met. Accordingly, the Administrative Law Judge finds that Cablevision sells for importation, imports, or sells after importation into the United States, articles that are accused in this Investigation.

III. CLAIM CONSTRUCTION.

A. Applicable Law.

At this stage, the Investigation concerns five utility patents. (*See* 75 Fed. Reg. 20861-62 (2010).)

Any finding of infringement requires a two-step analysis. First, the asserted patent claims must be construed as a matter of law to determine their proper scope.[5] Second, a factual determination must be made whether the properly construed claims read on the accused devices. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (*en banc*), *aff'd*, 517 U.S. 370 (1996).

Claim construction begins with the language of the claims themselves. Claims should be given their ordinary and customary meaning as understood by a person of ordinary skill in the art, viewing the claim terms in the context of the entire patent. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005). In some cases, the ordinary meaning of claim language is readily apparent and claim construction will involve little more than "the application of the widely accepted meaning of commonly understood words." *Id.* at 1314. In other cases, claim terms have a specialized meaning and it is necessary to determine what a person of ordinary skill in the art would have understood disputed claim language to mean by analyzing "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, as well as the meaning of technical terms, and the state of the art." *Id.* (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004)).

The claims themselves provide substantial guidance as to the meaning of disputed claim language. *Id.* at 1314. "[T]he context in which a term is used in the asserted claim can be highly instructive." *Id.* Likewise, other claims of the patent at issue, regardless of whether they have

[5] Only claim terms in controversy need to be construed, and then only to the extent necessary to resolve the controversy. *Vanderlande Indus. Nederland BV v. Int'l Trade Comm.*, 366 F.3d 1311, 1323 (Fed. Cir. 2004); *Vivid Tech., Inc. v. American Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

been asserted against respondents, may show the scope and meaning of disputed claim language. *Id.*

With respect to claim preambles, a preamble may limit a claimed invention if it (i) recites essential structure or steps, or (ii) is "necessary to give life, meaning, and vitality" to the claim. *Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003) (citations omitted). The Federal Circuit has explained that a "claim preamble has the import that the claim as a whole suggests for it. In other words, when the claim drafter chooses to use both the preamble and the body to define the subject matter of the claimed invention, the invention so defined, and not some other, is the one the patent protects." *Id.* (quoting *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620 (Fed. Cir. 1995)). When used in a patent preamble, the term "comprising" is well understood to mean "including but not limited to," and thus, the claim is open-ended. *CIAS, Inc. v. Alliance Gaming Corp.*, 504 F.3d 1356, 1360 (Fed. Cir. 2007). The patent term "comprising" permits the inclusion of other unrecited steps, elements, or materials in addition to those elements or components specified in the claims. *Id.*

In cases where the meaning of a disputed claim term in the context of the patent's claims remains uncertain, the specification is the "single best guide to the meaning of a disputed term." *Phillips,* 415 F.3d at 1321. Moreover, "[t]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id.* at 1316. As a general rule, however, the particular examples or embodiments discussed in the specification are not to be read into the claims as limitations. *Id.* at 1323.

The prosecution history may also explain the meaning of claim language, although "it often lacks the clarity of the specification and thus is less useful for claim construction

purposes." *Id.* at 1317. The prosecution history consists of the complete record of the patent examination proceedings before the U.S. Patent and Trademark Office, including cited prior art. *Id.* It may reveal "how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Id.*

If the intrinsic evidence is insufficient to establish the clear meaning of a claim, a court may resort[6] to an examination of the extrinsic evidence. *Zodiac Pool Care, Inc. v. Hoffinger Industries, Inc.*, 206 F.3d 1408, 1414 (Fed. Cir. 2000). Extrinsic evidence may shed light on the relevant art, and consists of all evidence external to the patent and the prosecution history, "including expert and inventor testimony, dictionaries, and learned treatises." *Phillips,* 415 F.3d at 1317. In evaluating expert testimony, a court should disregard any expert testimony that is conclusory or "clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent." *Id.* at 1318. Furthermore, expert testimony is only of assistance if, with respect to the disputed claim language, it identifies what the accepted meaning in the field would be to one skilled in the art. *Symantec Corp. v. Computer Associates International, Inc.*, 522 F.3d 1279, 1290-91 (Fed. Cir. 2008). Testimony that recites how each expert would construe the term should be accorded little or no weight. *Id.* An inventor's subjective understanding of the invention is irrelevant to claim construction. *Howmedica Osteonics Corp. v. Wright Medical Technology, Inc.*, 540 F.3d 1337, 1346-47 (Fed. Cir. 2008). Extrinsic evidence is inherently "less reliable" than intrinsic evidence, and "is unlikely to result in a reliable interpretation of

[6] "In those cases where the public record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996).

patent claim scope unless considered in the context of the intrinsic evidence." *Phillips*, 415 F.3d at 1318-19.

B. Objections to Markman Slides

As noted above in Section I.A., the bulk of the private parties' objections to the Markman slides are considered to be moot. To the extent that the objections may have a bearing on hearing testimony of record, the Administrative Law Judge has considered these in making a final initial determination even if no further comment on them has been made in said determination.

C. '293 Patent, Claim 38; and '979 Patent, Claim 14

1. Level of Skill in the Art.

Verizon proposes that a person of ordinary skill in the art of both the '979 and the '293 patents would have been a person having at least a Bachelor of Science in electrical engineering plus at least two to three years of experience in digital television systems. (CBr. at 23 and 63.) Cablevision suggests that a person of ordinary skill in the relevant art would have been someone having a bachelor's degree in electrical or computer engineering or computer science, or with equivalent experience, and one or two years' experience in microcomputer-based systems for video technology. (RBr. at 28.) Staff suggests it would have been someone having an undergraduate degree in electrical engineering or computer science, or equivalent experience, and one or more years' work experience in consumer video systems, cable television, direct broadcast satellite or some other closely related field. (SBr. at 18.)

The Administrative Law Judge concludes that a person of ordinary skill in the art related to these two patents is someone with at least a bachelor's degree in either electrical engineering or computer science and at least two years' experience involving digital television systems.

2. *"Network Interface Module"*

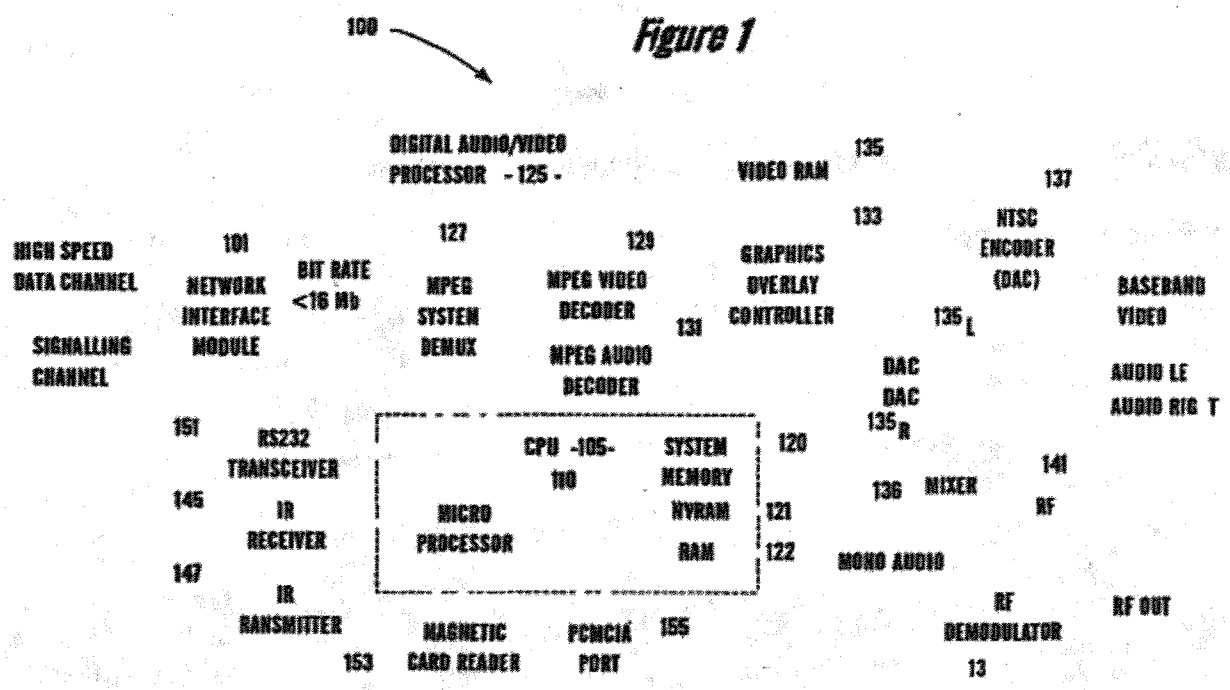
Claim 14 of the '979 patent and claim 38 of the '293 patent include the disputed term "network interface module" (JX-4 at 47:8; JX-5 at 21:58), and the parties agree that this term should be construed the same way for both patents. (CBr. at 24; RBr. at 27-28; SBr. at 22, 43.)

Verizon and Staff propose the following construction: "electronic circuitry for physically connecting the terminal device to a particular communication network[.]" (CBr. at 24; SBr. at 22, 43.) Cablevision proposes instead this construction: "a plug in unit of circuitry tailored to receive signals for a particular physical network with defined interfaces to the digital entertainment terminal." (RBr. at 28.)

Verizon notes that, because "network interface module" is not included in any engineering dictionary and is not shown to have had a common industry usage, the patents' specifications are paramount for interpreting the term. (CBr. at 25.) Verizon says that the Abstract of the '979 patent describes a network interface module that couples the terminal to a specific type of communication network, citing JX-5 at Abstract, VZ VID 1. (*Id.*) Verizon points to the fact that the disclosure of the '979 patent mentions that the module "couples the terminal to a communication network for receiving a digital broadband channel and providing two-way control signaling communication between the terminal and the network." (*Id.* (citing JX-5 at 4:1-4).) In addition, according to Verizon, the "best mode" section of the '979 patent explains the network interface module "provid[es] the actual physical connection to the particular type of network" by "performing any format conversion necessary between signal formats utilized by the network and signal formats used within the DET"[7] and by "provid[ing] two-way signal conversion and formatting for at least a control signaling channel." (*Id.* at 25-26

[7] DET means digital entertainment terminal. (JX-5 at Abstract, VZ VID 1.)

(citing JX-5 at 6:22-26, 32-34).) Verizon quotes its expert witness Professor Girod, who testified that Figure 1 of the '979 patent, reproduced below, shows that "it is clearly electronic circuitry" and therefore supports Verizon's claim construction. (*Id.* at 26 (citing Tr. at 287 (Girod)).)



(JX-5 at Fig. 1.) According to Verizon, "[e]ach description supports a construction of NIM[8] to mean 'electronic circuitry for physically connecting the terminal device to a particular communication network.'" (CBr. at 26.)

Verizon argues that, in the same way, the '293 patent specification supports Verizon's and Staff's claim construction, noting that, according to JX-4 [the '293 patent], at 4:47-48, it is stated that the network interface module "couples the terminal to a communication network[,]" and in the preferred embodiment, "the NIM **101** performs the channel selection and conversion back to a data transport stream…from the physical layer protocol utilized on the network." (*Id.*)

[8] NIM means network interface module. (CBr. at 24.)

These excerpts, according to Verizon, describe "electronic circuitry for physically connecting the terminal device to a particular communication network." (*Id.*)

Verizon criticizes Cablevision's proposed construction as unfounded, noting that Cablevision's expert Professor Schonfeld supported Cablevision's proposed claim construction by seizing on the word "module" and arguing that "[a] module is something which is a plug-in unit [of circuitry]." (*Id.* (citing Tr. at 1725 (Schonfeld)).) Verizon says that it is improper, for purposes of claim construction, to isolate one word from the context in which the patent consistently employs that word, and Verizon points out that Professor Schonfeld conceded during his testimony that a leading engineering dictionary, consistent with Verizon's and Staff's proposed construction, includes in its definitions of the word "module" the following: "a collection of circuitry that is designed to perform a specific operation." (*Id.* at 27 (citing Tr. at 1767 (Schonfeld)).)

Verizon argues that Cablevision's proposed construction rests on the false premise that connecting a set-top box to multiple networks was a key part of the invention and that the whole point of the patents is to have a plug-in unit of circuitry so that the network interface module can work with different networks. (*Id.* (citing Tr. at 78 (Verhoeven)).) Verizon says that Professor Schonfeld opined that the ability to have a network interface module that is able to connect to different networks was a very important part of the '293 and '979 patents, even though, according to Verizon, this supposition finds no support in either patent. (*Id.* (citing Tr. at 1719 (Schonfeld)).) Verizon says that the '979 patent describes the network interface module as connecting the terminal to a specific type of communication network rather than to multiple networks. (*Id.* (citing JX-5 at Abstract).) According to Verizon, not a single claim of the '979

patent requires the set-top box to connect to multiple networks, and, likewise, the '293 patent says nothing about such a requirement. (*Id.* at 27-28.)

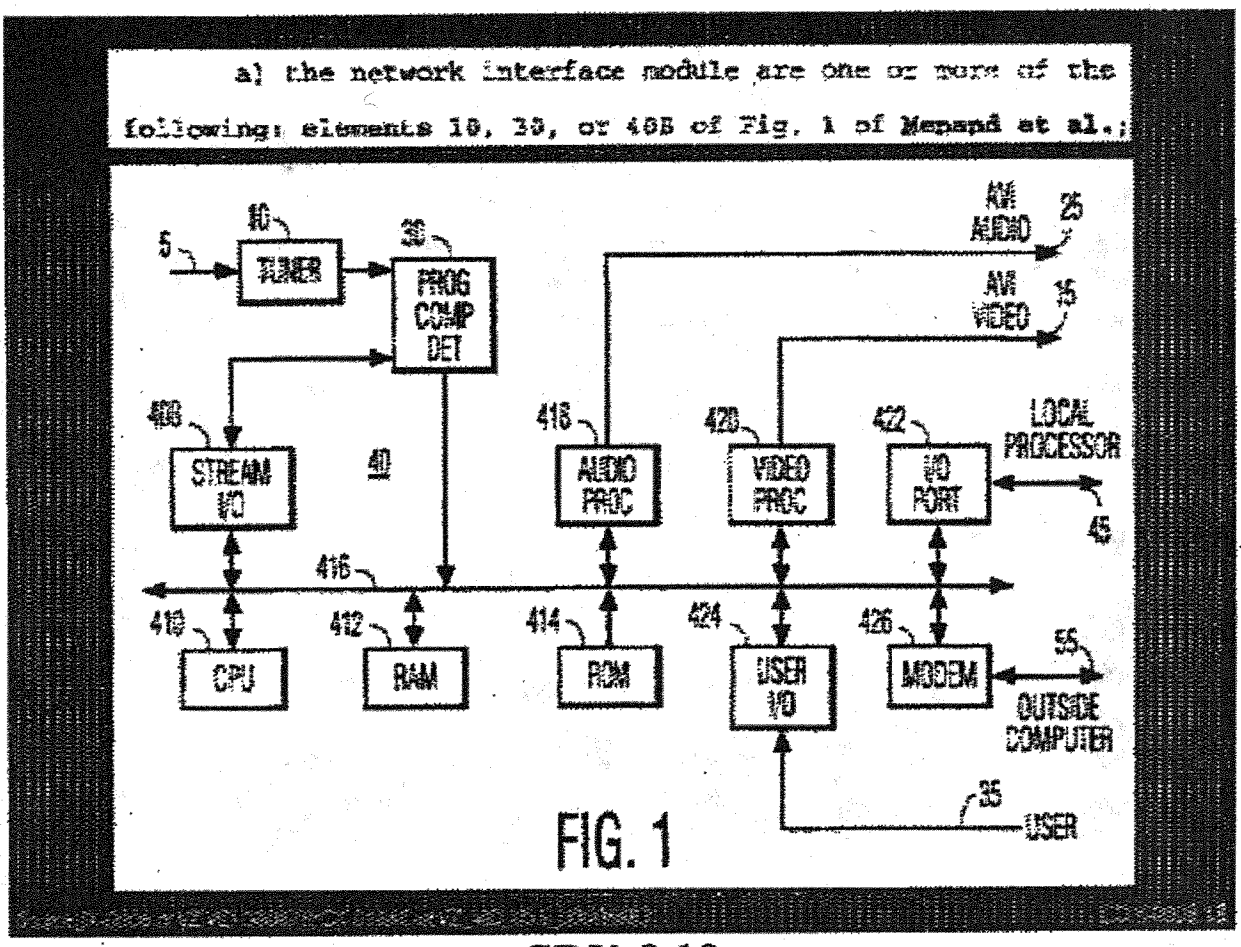
Verizon argues that the '979 and '293 patents, instead, focus on the functionality of downloading software to a set-top box, a fact that is confirmed by the prosecution histories of the two patents. (*Id.* at 28 (citing Tr. at 542 (Girod), 1730-3, 1748-49 (Schonfeld); JX-6 at VZ VID 478, 512).) Verizon says that the network interface module is not discussed at all in the prosecution history of the '979 patent, and this fact corroborates Professor Girod's view that that subject was neither a unique nor a key part of the invention. (*Id.*) Even though the subject was discussed in the prosecution history of the '293 patent, argues Verizon, it was done so in a way that strongly confirms Professor Girod's view that the network interface module is "electronic circuitry for physically connecting the terminal device to a particular communication network." (*Id.*)

Verizon says that Cablevision's contention that the network interface module must be a plug-in unit of circuitry is at odds with the specifications of both patents and, as testified by Professor Girod, a person of ordinary skill in the relevant art would have understood that a plug-in unit of circuitry is something that can be unplugged and physically detached from something else, and afterwards can be put back or replaced by something else. (*Id.* at 28-29 (citing Tr. at 290 (Girod)).) Verizon says it is not disputed that a network interface module can possibly be a plug-in unit of circuitry; however, one embodiment expressly depicts a network interface module that is not physically replaceable and, therefore, is not a "plug-in" unit of circuitry. (*Id.* at 29.) According to Verizon, Cablevision's proposed construction would improperly exclude a specific embodiment disclosed in the patents' specifications and violate the Federal Circuit's admonishment "not to confuse exemplars or preferred embodiments in the specification that

serve to teach and enable the invention with limitations that define the outer boundaries of the claim scope." (*Id.* (quoting *Intervet Inc. v Merial, Ltd.*, 617 F.3d 1282, 1287 (Fed. Cir. 2010)).)

Verizon maintains that Cablevision's proposed claim construction violates the doctrine of claim differentiation because unasserted claim 15 of the '979 patent specifically recites "[a] digital entertainment terminal as in claim 14, wherein the network interface module is a replaceable module detachably coupled to the digital audio/video processor and the control processor." (*Id.* (citing JX-5 at 22:25-28).) Verizon argues that if the network interface module of claim 14 were already a plug-in unit of circuitry, as Cablevision contends, then claim 15, which provides for a replaceable module that is detachably coupled, would have no meaning, as it would have the same scope as claim 14. (*Id.* (citing Tr. at 290 (Girod)).)

With respect to Cablevision's criticism of Professor Girod's identification of multiple components of electronic circuitry making up the network interface module, Verizon responds that the prosecution history of the '293 patent makes clear that both the patent examiner and the inventors had the same understanding, as evidenced by the fact that the examiner initially rejected certain claims as being "unpatentable over Menand et al. ('648) in view of either Kauffman et al. ('591) or Bacon et al. ('632)." (*Id.* at 29-30 (quoting JX-6 at VZ VID 477 ('293 patent prosecution history)).) Verizon says that the patent examiner plainly understood the network interface module to be a combination of different components of electronic circuitry, such as a tuner, a program component detector, and a stream input/output adapter. (*Id.* (citing JX-6 at VZ VID 478).) Verizon points to Figure 1 of the Menand patent (shown below) as evidence that the patent examiner had concluded that the network interface module consisted of multiple components, arguing that element 30 of that figure is a functional depiction of at least two separate components of electronic circuitry. (*Id.* at n. 36.)



CDX-8.18

(*Id.*) Verizon argues that the inventors, in a 14-page response to the patent examiner's statement about multiple components of the network interface module, according to the Menand prior art, never challenged the examiner's conclusion in that respect but, rather, distinguished their invention by pointing out to the examiner that Menand did not suggest downloading of operating system hardware. (*Id.* at 31.)

Verizon argues that Cablevision's proposed construction is also defective because it requires the network interface module to have defined interfaces to the digital entertainment terminal, whereas, according to claim 14, the network interface module is actually a part of the digital entertainment terminal. (*Id.* (citing JX-5 at Fig. 1 (the '979 patent)).) Verizon says, citing

Professor Girod, Figure 1 makes clear that "[t]here are not interfaces to a digital entertainment terminal that's [sic] outside of the network interface module[,]" and "[t]hese are not separate." (*Id.* (quoting Tr. at 288-289 (Girod)).) To this argument, Cablevision responds that Verizon's position ignores the fact that the network interface module and the digital entertainment terminal are separate elements of the set-top terminal device, according to claim 38 of the '293 patent, and, thus, Verizon's argument is not consistent with respect to the two asserted claims of the subject patents. (RRBr. at 13. *See also* JX-4 at 47:6-25.) Cablevision contends that the network interface module in claim 14 of the '979 patent is also a separately claimed element and must include defined interfaces to the rest of the digital entertainment terminal, which Cablevision says is plainly disclosed in Figure 1 of the patent. (*Id.*)

Cablevision says that at the time of the invention[9] the term "network interface module" had no ordinary or customary meaning (RBr. at 29 (citing Tr. at 1565 (Schonfeld), 565-566 (Girod))) and, therefore, the specification is the best evidence as to how that term should be defined. (*Id.*) Cablevision argues that a primary objective of the invention was to create an adaptable terminal device that would not require different set-top boxes for accessing different networks and services. (*Id.*) Quoting from JX-5 at 3:37-57, Cablevision argues that the inventors perceived a problem with the prior art insofar as it required subscribers of television services to purchase different set-top boxes in order to access different services from different video information providers. (*Id.*) One of the ways the inventors came up with to accomplish this was to enable a set-top box to download updated software that would reprogram the system so as to allow additional functionality. (*Id.* (citing JX-5 at 3:60-65).) However, contrary to

[9] Cablevision combines both patents '979 and '293 in its discussion of claim construction regarding "network interface module" (RBr. at 27) and presumably refers to the '979 patent, the first one to be filed, when it mentions the "time of the invention[.]"

Verizon's assertions, says Cablevision, downloading updated software is not the only aspect of the claimed invention thought of by the inventors, who also conceived of a network interface module that would be adaptable to interacting with different networks. (*Id.* at 29-30 (citing Tr. at 1554-55 (Schonfeld); JX-5 at 6:20-24, 17:6-8).)

Cablevision argues that the word "module" had a well-understood meaning in the relevant art when the application for the '979 patent was filed, which is consonant with the use of that term in the patent's specification. (*Id.* at 30 (citing Tr. at 409-410, 423 (Girod), 1565 (Schonfeld)).) Cablevision says that Professor Girod testified that, in the context a designed electronic circuit, a "module" is a unit of circuitry that is as independent as possible from the rest of the electronic circuitry that makes up the device. (*Id.* (citing Tr. at 410 (Girod)).) Professor Schonfeld, argues Cablevision, testified to an almost identical understanding by saying that the module means a "stand alone unit that is replaceable and modifiable in some fashion, either in hardware or software systems." (*Id.* (quoting Tr. at 1565 (Schonfeld)).)

Cablevision quotes several technical dictionaries—the Academic Press Dictionary of Science and Technology (1992), the McGraw-Hill Dictionary of Scientific and Technical Terms (1994), and the Illustrated Dictionary of Electronics (1997)—that include the words "plug in" in their definitions of the word "module." (*Id.*) Cablevision says that these dictionary definitions are consistent with the intrinsic evidence and that, under *Phillips*, 415 F.3d at 1322-23, judges are free to make use of such dictionaries to better understand the underlying technology and may rely on these definitions when construing claim terms, provided the dictionary definitions do not contradict what is expressed in the patent documents. (*Id.* at 30, n. 10.)

Cablevision says that "[t]hroughout the specification[s] the inventors described the function and form of the network interface module in a way that is consistent with the well

established understanding of a 'module' in the relevant art[,]" such as the statement in the '979 specification that "[f]or each different type of network, the [STB][10] will include a network interface module 101 providing the actual physical connection to the particular type of network." (*Id.* at 31 (quoting JX-5 at 6:21-23 (the '979 specification), which elsewhere (*id.* at 17:6-9) describes how "the same [STB] can be used in a variety of different networks, with only a substitution of a different network interface module to adapt the [STB] to each particular network.").) Cablevision says figures shown in the patents, such as Figure 6 of the '293 patent, show the network interface module as a modular component that is distinct from the digital entertainment terminal. (*Id.*; JX-4 at Fig. 6 (shown below).)

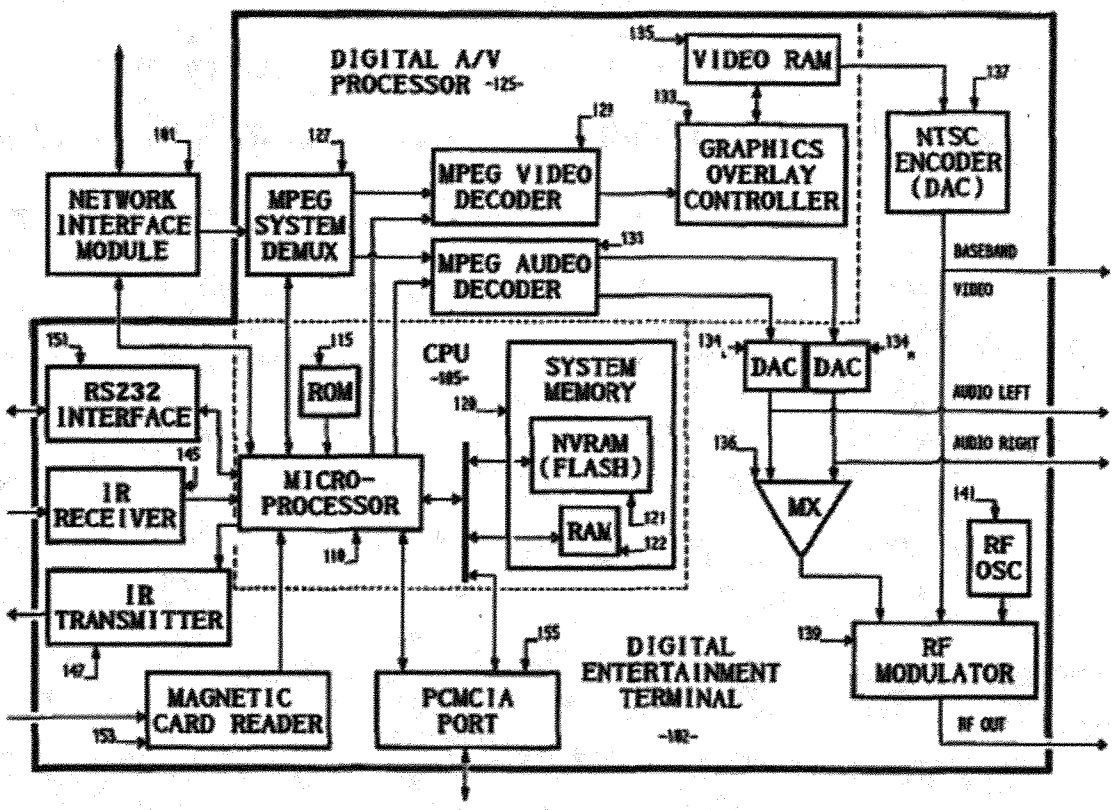


FIGURE 6

[10] As previously mentioned, "STB" refers to set-top box, either singular or plural, according to the context in which it found.

(JX-4 at Fig. 6.) According to Cablevision, this figure, as well as other figures from the respective patents and the descriptions pertaining to them, underscore the inventors' conception of the network interface module as being a replaceable component for adapting the terminal to different networks without having to replace the set-top box. (*Id.* at 31-32.) Cablevision says that Verizon's opening post-hearing brief, at pages 32-37, fails to mention the explicit description in the specification of the programmable software embodiment as being a form of "plug in module," and Cablevision says that a proper understanding of the software plug in embodiment removes any claim differentiation concerns. (RRBr. at 12 (citing JX-5 at 6:67-7:19 (the '979 patent); JX-4 at 17:28-38 (the '293 patent); Tr. at 1577-79 (Schonfeld)).)

Cablevision says that the '979 and '293 specifications expressly say that the network interface module "takes the form of a plug in module." (*Id.* at 32 (citing JX-5 at 6:55-56 (the '979 patent); JX-4 at 17:16-17 (the '293 patent)).) According to Cablevision, the phrase that is quoted constitutes a "global definition" because it is not limited to any particular embodiment; therefore, it must generally limit what a network interface module is because

> [b]y stating–in global terms and without reference to any embodiment—that the network interface module 'takes the form of a plug in module' the patents establish the form of the network interface module and eliminate the need to repeat it throughout the specification and claims.

(*Id.* at 32-3 (quoting *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1369 (Fed. Cir. 2003) as support for this proposition).)

Verizon argues that the three embodiments mentioned in the '979 specification (*see* JX-5 at 6:55-7:4) include a "daughter board or option card" that can be plugged into a back plane of a personal computer, "a user replaceable cartridge type network interface module similar to a video game cartridge[,]" and a "software plug in module" which would allow the digital signal

processor to execute different software from memory in a similar way as a software plug in for a web browser. (*Id.* at 34.)

Cablevision argues that Verizon's approach to construction of the disputed term ignores numerous portions of the specification that describe in detail the plug in feature of the network interface module and the inventors' desire for the set-top box to connect to different networks in order to accommodate different service providers. (RRBr. at 11.) Cablevision maintains that Professor Girod is in agreement with Professor Schonfeld in concluding that the third embodiment provides for a network interface module whereby new software is added to hardware already designed to accommodate all known digital broadband networks in order to adapt the terminal for use with different networks. (RBr. at 33-34 (citing Tr. at 458, 531-533 (Girod)).) Cablevision says that the only difference between the opinions offered by these two experts is that Professor Schonfeld understands the third embodiment to describe a "***software based*** plug in module" (emphasis in the original), while Professor Girod claims it is not a plug in module at all. (*Id.* (citing Tr. at 1577-79, 1580-82 (Girod)).) According to Cablevision, Professor Girod's testimony in this respect is based on his misunderstanding of how the term "plug in" is used in the specification, because he erroneously believes that that phrase means something that can be physically removed from the set-top box. (*Id.* at 34-35 (citing Tr. at 530 (Girod)).)

Cablevision argues that this false interpretation by Professor Girod was simply tailored to support Verizon's claim differentiation argument that dependent claim 15, which provides that the network interface module according to claim 14, is "a replaceable module detachably coupled to the digital audio/video processor the control processor." (*Id.* at 35.) Cablevision says that the specifications of both the '979 and the '293 patents contradict Professor Girod on this

point, quoting JX-5 at 6:55-7:9 and JX-4 at 17:16-38. (*Id.*) Cablevision contends that all three of the embodiments mentioned in these sections of the specifications of the two patents describe a third alternative implementation of a plug in module to a set-top box having a digital signal processor that operates on software that can be replaced with downloads from a network. (*Id.*)

Therefore, according to Cablevision, Professor Girod's understanding of the phrase "plug in" is inconsistent with the patents' specifications because they describe software that is replaced, or "plugged in," rather than hardware that is necessarily replaceable. (*Id.* at 36 (citing Tr. at 1580-81 (Schonfeld)).) According to Cablevision, once this software is included in the definition of "plug in," as the specifications provide, Verizon's argument about claim differentiation falls away. (*Id.*) Cablevision says that Professor Girod tried to explain away this inconsistency between the patent specifications and his use of the phrase "plug in" by saying that the third embodiment mentioned in the patents is not a plug in at all, which Cablevision alleges is a circular argument based on a faulty definition of the term "plug in" that requires physically detachable hardware. (*Id.*) Furthermore, argues Cablevision, this notion is inconsistent with the language from the specifications that states that the last embodiment is a "further alternative" to the daughter board and replaceable cartridge types of "plug in" modules and therefore has to be another variant of a "plug in module" as encompassed in the patents. (*Id.*) Cablevision argues that Professor Girod wrongly faults the grammar employed by the patents' inventors in concluding that the software alternative mentioned in the specifications cannot be construed as a "plug in module." (*Id.*)

Contrariwise, argues Cablevision, Professor Schonfeld accurately explained that the software alternative was consistent with the "plug in" features of the "daughter board" and "replaceable cartridge" in the sense that associated hardware could also, but would not

necessarily have to, be detachable. (*Id.* at 37 (citing Tr. at 1577-80 (Schonfeld)).) Applying this understanding, says Cablevision, claim 14 would cover all three embodiments (physical as well as software plug ins) but claim 15 would only apply to physical plug ins. (*Id.* (citing Tr. at 1759 (Schonfeld)).) Thus, says Cablevision, Verizon's differentiation argument rests on an improper definition of the term "plug in" that is inconsistent with the embodiments of a plug in module according to the specifications. (*Id.*)

Cablevision argues that Verizon's proposed claim construction reads the term "module" out of the claims, saying that Professor Girod testified that, under Verizon's construction, the term "network interface module" would be interchangeable with the term "network interface circuitry." (*Id.* (citing Tr. at 437-438 (Girod)).) Cablevision argues that merely replacing the claim term "network interface module" with the term "electronic circuitry" (reading out "module") is unhelpful in defining the disputed term and actually removes an explicit limitation. (RRBr. at 9.) To the extent Professor Girod says that a "module" can be a functional block of circuitry, and that it does not matter how the physical elements are laid out, Cablevision argues that his opinion is inconsistent with the use of that term in the specifications, as well as with the dictionary definitions cited by Cablevision referred to above. (*Id.*) Cablevision says "module" cannot be construed simply according to how it functions, as Professor Girod suggests but, instead, is described in the specifications and asserted claims according to the form of the network interface. (*Id.* at 38.)

Staff's proposed claim construction is the same as Verizon's. (SBr. at 22.) Staff agrees with the private parties that the term "network interface module" did not have an ordinary and customary meaning to a person of ordinary skill in relevant art at the time of the invention and, therefore, the specification has to be consulted for an understanding of the disputed term. (*Id.*)

Staff disagrees with Cablevision's argument that the network interface module has to be a plug in unit, noting that the specification of the '979 patent includes downloaded operating system software for use with a digital signal processor in the digital entertainment terminal. (*Id.* at 22-23.) Staff says that Professor Schonfeld concedes that, based on specifications of the '979 patent, the network interface module need not be physically detachable from the rest of the set-top terminal. (*Id.* at 23 (citing Tr. at 1760-61 (Schonfeld)).) Staff says that the third embodiment mentioned in the specification for the '979 patent enables connectivity to different types of networks through software downloaded to the set-top box and is executed by its control processor. (*Id.*)

Verizon responds that Cablevision's proposed construction erroneously attempts to import limitations from certain embodiments in the specifications and fails to explain how its term "a plug-in unit of circuitry" applies. (CRBr. at 12-13.) Instead, argues Verizon, Cablevision in its post-hearing brief has simply shifted its position to say that the network interface module must be a "plug-in module[.]" (*Id.* at 13 (citing CX-56C at VZ VID 055 261, 263 (Claim Construction Comparison Chart)).) Verizon says that Cablevision has to be bound by the claim construction it originally proposed at the time of the joint submission of disputed claim terms, pursuant to Order No. 2 at page 3. (*Id.*) Verizon says that the third embodiment of the network interface module mentioned in both patents' specification (downloaded software) is not a physically removable "plug-in" unit. (*Id.*) According to Verizon, Cablevision has not explained how a "plug-in unit of circuitry"—as expressed in its originally proposed construction—is compatible with the subject patents' description of circuitry that is not removable but, rather, is upgradeable by software. (*Id.*) Verizon contends that the third

(software related) embodiment discussed in the specifications is not consistent with a plug-in unit of circuitry. (*Id.*)

Verizon says that Cablevision's argument that the network interface module must allow for the set-top boxes to connect to different types of networks without necessitating a different set-top box in the process is a new position that was not previously advocated by Cablevision and contrariwise, its originally proposed construction only requires that the network interface module have the capability of receiving signals for a particular physical network. (*Id.* at 13-14 (citing CX-56C at VZ VID 055 263 (Claim Construction Comparison Chart)).) Verizon says that Cablevision has shifted from its position at the time of the hearing, that the ability to connect a single set-top box to multiple networks is the whole point of the subject patents (citing Tr. at 78 (Verhoeven)), to a different position where it is now a primary objective. (*Id.* at 14.) Verizon says that even this new position is untenable because the source relied upon by Cablevision (JX-5 at 3:37-57) says nothing about connecting a set-top box to multiple networks but, instead, describes a set-top box that can be adapted to receive multiple services, potentially from different service providers. (*Id.*) Verizon argues that the patents make abundantly clear that all of the services referred to are provided over a single network. (*Id.* (citing JX-5 at 5:41-44).)

Verizon argues that both the '979 and the '293 patents consistently describe set-top boxes that connect to a [single] communication network (*id.* at 15) and that the Federal Circuit has consistently rejected attempts to limit claims in light of the perceived purpose served by the invention, citing *E-Pass Techs., v. 3Com Corp.*, 343 F.3d 1364, 1370 (Fed. Cir. 2003). (*Id.*) Thus, argues Verizon, even if connecting to multiple networks was one objective of the inventions, it is, nevertheless, improper to construe the claim term "network interface module" on that basis alone. (*Id.*)

Verizon says that Cablevision's "alternative tack" of focusing on the word "module," rather than construing the disputed claim term as a whole, is impermissible and Cablevision cannot selectively cite dictionary definitions. Verizon points to the testimony of Professor Girod who, in rejecting Cablevision's use of dictionary definitions of "module," explained that the term happens to refer to the "functional delineation of that circuitry." (*Id.* (citing Tr. at 428 (Girod)) (emphasis omitted).)

Cablevision rejoins that the Federal Circuit has endorsed the practice of referring to dictionary definitions of single words to aid in construing a phrase, provided the definitions are consistent with the intrinsic evidence. (RRBr. at 10 (citing *Symantec Corp., v. Computer Assocs. Int'l,* 522 F.3d 1279, 1290-91 (Fed. Cir. 2008); *ERBE Elecktromedia GmbH v. Int'l Trade Comm'n,* 566 F.3d 1028, 1036 (Fed. Cir. 2009)).) Cablevision argues that a proper construction of *network interface module* must give meaning to the "plug-in" aspect of the concept modularity. (*Id.*) Cablevision says that the cases cited by Verizon with respect to this issue do not oppose the use of dictionary definitions but simply apply the well-accepted principle that such extrinsic evidence cannot contradict what is reflected in the intrinsic evidence. (*Id.* at 10-11.)

Verizon says that "network interface module" was not a term of art at the time but was coined by the inventors for purposes of the '979 invention. (*Id.* at 15-16.) According to Verizon, the record evidence shows that the inventors understood this coined term to mean something other than what Cablevision contends. (*Id.* at 16.) Verizon argues that the prosecution history of the '293 patent reveals that the patent examiner believed that one or more of three different components of a patent issued to Menand ("the '648 patent") were exactly the same as the network interface module of the '293 patent, even though those three components were not "independent" units of circuitry that could be removed or replaced without altering the rest of the

device, a contention that the inventors never disputed. (*Id.*) Verizon says that Cablevision has made no attempt to reconcile the '293 patent examiner's understanding of the network interface module with Cablevision's substantially different interpretation of what characteristics a module must have. (*Id.*)

Cablevision rejoins that Verizon's argument is misplaced because the fact that the '293 inventors did not specifically address the examiner's distinction does not mean that the inventors agreed with the examiner's remarks. (RRBr. at 12-13 (citing *DeMarini Sports, Inc. v. Worth Inc.*, 239 F.3d 1314, 1326-27 (Fed. Cir. 2001); *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1364, 1373-74 (Fed. Cir. 2003)).) Cablevision says that the inventors amended their original claims, added new claims, and argued other distinctions between the new claims and the prior art. (*Id.* at 13.) Therefore, without someone's having made specific inquiries of the inventors as to their actions at that time, Cablevision says that it is impossible for anyone to ascertain why the inventors addressed certain other limitations at issue with the patent examiner but not the network interface module and, consequently, the evidence does not demonstrate that they had agreed with the examiner. (*Id.* at 13.) Cablevision says that Verizon cannot argue an inference in its favor based on evidence within its control that it chose not to submit. (*Id.* (citing *A.B. Dick Co. v. Burroughs Corp.*, 798 F.2d 1392, 1400, n. 9 (Fed. Cir. 1986)).)

The '979 patent, which is the first of the two asserted patents under discussion here that was issued by the patent office, states that "[t]he network interface module **101** takes the form of a plug in module." (JX-5 at 6:55-56.) The next sentence says, "In the preferred embodiment, the module **101** would be similar to a daughter board or option card which can be plugged into a back pane of a personal computer (PC)." (*Id.* at 6:56-59.) Thus, the "preferred embodiment" is not a plug in module but, rather, a plug in module similar to a daughter board etc. which can be

plugged into a personal computer. It remains a fact, however, that the network interface module **101** itself always takes the form of a plug in module, as the first sentence quoted says, in a very general and universal way. This can be understood and appreciated by following the other embodiments mentioned in the '979 specification.

The specification goes on to state: "Alternative implementations may use a user replaceable cartridge type network interface module, similar to a video game cartridge, which may include memory in the module for storage of the communication control." (*Id.* at 6:64-67.) Note here that although the alternative implementation is different from the daughter board or option card, it is still a plug in device, consistent with the first sentence declaring the network interface module to take the form of a plug in module.

The third embodiment mentioned in the '979 specification is described thusly: "As a further alternative, the network interface module could include a digital signal processor controlled by the CPU of the DET and input/output connections compatible with all the digital broadband networks currently available." (*Id.* at 6:67-7:4.) Thus, according to this passage, the network interface module, which was previously declared by the inventors to take the form of a plug in module, could include the addition of digital signal processor that is controlled by the CPU and input/output connections compatible with digital broadband networks. Nevertheless it remains a fact that, even in the case of the third alternative, the network interface module is a plug in device and presents no deviation to the declaration in the first sentence of the paragraph that states that the network interface module is a plug in module. All of what has just been discussed is consistent with the statement in the '979 specification that "[f]or each different type of network, the DET **100** will include a network interface module **101** providing the actual physical connection to the particular type of network." (*Id.* at 6:21-23.) Therefore, the software

that is discussed in the final sentence of the paragraph that describes the three embodiments does not itself constitute the network interface module but merely conveys information that a plug in module enhanced with a digital signal processor that is controlled by input/output connections that are compatible with digital broadband networks is a further option.

Therefore, the Administrative Law Judge finds that the proposed claim constructions offered by Verizon and Staff fail to include the "plug in" feature of the invention. Even though the section of the specification that declares that the network interface module to be a plug in module is found in the section with the heading "Best Mode For Carrying Out The Invention," this does not lead to the conclusion that the plug in feature is merely a best mode. The inventors declare, generally and universally, that the network interface module takes the form of a plug in module before describing the preferred embodiments, all of which are plug in devices, as just described.

The specification of the '979 patent states: "The network interface module **101** takes the form of a plug in module." (JX-5 at 6:55-56.) This is a statement in the indicative, not in the subjunctive. It does not say that the network interface module "may" or "can" take the form of a plug in module; rather, it states that it does take the form of a plug in module. The quoted statement explains the inventors' conception and teaching for accomplishing their objective that "[f]or each different type of network, the DET **100** will include a network interface module **101** providing the actual physical connection to the particular type of network." (*Id.* at 6:21-23.) This overcomes the need for the subscriber "to purchase and connect up a different terminal device for each different service subscribed to." (*See id.* at 3:48-50.) It provides a "method" and a terminal device "structure" for dynamically programming a digital/video terminal. (*See id.* at 3:60-62.)

The Administrative Law Judge finds that Professor Schonfeld's opinion that the third embodiment provides for a network interface module whereby new software is downloaded to hardware already designed to accommodate all extant digital broadband networks in order to adapt the terminal for use with different networks is consistent with the intrinsic evidence (*see* Tr. at 1577-79 (Schonfeld)), whereas Professor Girod's testimony that the third embodiment is not a plug in module at all (*see* Tr. at 532-533 (Girod)) does not comport with the language of the patent's specification as discussed above, in the second preceding paragraph to this one. For this reason, the Administrative Law Judge rejects Verizon's argument that one embodiment of the '979 patent (the third one) depicts a network interface module that is not physically replaceable and, therefore, is not a "plug in" unit of circuitry (*see* CBr. at 29). Although Professor Schonfeld opined that it is the updated software itself that constitutes the "plug in module" (Tr. at 1577-79), whereas, the language of the claim more precisely indicates that one form of plug in module *could* include a digital signal processor that is controlled by downloaded operating system software stored in system memory, this does not alter the fact that all of the disclosed embodiments in the patent take the form of a plug in module.

As for Verizon's argument that Cablevision improperly emphasized the word "module" by resorting to dictionary definitions, the Administrative Law Judge finds that such extrinsic evidence is not necessary, in light of the intrinsic evidence, and therefore does not rely on them to construe the phrase "network interface module."

As for the private parties' respective arguments about whether the ability to connect a set-top box to multiple networks is a factor to be considered in construing the asserted claims, the Administrative Law Judge finds that the claims do not dictate such a feature and therefore that does not have to be taken into account in construing the asserted claims.

With respect to Verizon's claim differentiation argument that claim 15 of the '979 patent, which adds a limitation for a "replaceable module detachably coupled...." (*see* JX-5 at 22:24-27), evidences that claim 14 therefore does not involve a plug in module, the argument presented by Verizon overlooks that precise language of claim 15. What it says is that the network interface module is a replaceable module detachably coupled to the *digital audio/video processor and controller*, which is a component, or components, of the digital entertainment terminal and not the communication network to which the network interface module is coupled according to the first element of claim 14 (*see id.* at 21:58-65). Verizon's argument that claims 14 and 15 are overlapping under Cablevision's proposed claim construction does not adequately examine and discuss the actual language of claim 15, bearing in mind that the specification, in describing the third embodiment as noted above, says that the network interface module itself could include a digital signal processor (*see id.* at 6:67-7:4). In that case, claim 15 may not be overlapping, as there would be no such detachment occasioned by a replacement of the module.[11] Verizon's claim differentiation argument, in light of the intrinsic evidence as a whole, is too hastily arrived at because it conflates coupling of the network interface module to the audio/video processor, as mentioned in claim 15, with the coupling of the network interface module to a communication network as mentioned in the first element of claim 14.

The Administrative Law Judge rejects Cablevision's proposed construction insofar as it includes a requirement that the network include "defined interfaces to the digital entertainment

[11] While it cannot be definitively determined from the evidence whether the term "digital audio/video processor" is being expressed in the '979 patent conjunctively (one processor for both audio and video) or, alternatively, disjunctively (separate processors for each), because of the virgule (which is a grammatical punctuation mark that separates alternatives, usually representing the words "or" or "and/or" (*see Merriam-Webster Collegiate Dictionary* at 1608, 11th Ed.), or whether "digital signal processor" is synonymous therewith. Figure 1 of the '979 patent only mentions two processors: the micro processor and the digital audio/video processor. The '979 specification states: "A digital audio/video processor **125**, controlled by the CPU **105**, produces digital uncompressed audio and video signals from the audio and video MPEG encoded packets received from the network through the interface module **101**. (JX-5 at 7:18-21). Thus, it appears probable that the term "digital signal processor" refers to either or both a digital audio or a video processor.

terminal." The term "defined interfaces" adds an unknown and unspecified limitation, the basis for which is not adequately explained by Cablevision. The fact that the network interface module is a plug in module, according to the '979 specification as discussed above, is an adequate statement for an understanding by a person of ordinary skill in the art that there is at least a physical connection established between the network interface module and the digital entertainment terminal. But saying that this connection is by way of "defined interfaces" does not serve to emendate the disputed term; rather, it imparts a further ill-defined limitation, which in the context of the rest of Cablevision's proposed construction, is ambiguous. It is a limitation that is not necessarily inherent in the term "network interface module" and it anticipates the phrase "for coupling" that succeeds the disputed term by describing *how* the coupling occurs, which is not reflected in the claims.

The discussion in the preceding paragraph is not to suggest that the Administrative Law Judge accepts Verizon's argument against this portion of Cablevision's proposed construction as a basis for rejecting Cablevision's use of the term "defined interfaces" (*see* CBr. at 31). Professor Girod's statement that Figure 1 of the '979 patent fails to depict an interface does not lead to the conclusion that it was a purpose or intention of Figure 1 to illustrate such information as that. Figure 1 is a high-level functional diagram, and one cannot draw the conclusion that merely because the figure does not depict the manner in which the network interface module is incorporated within the digital entertainment terminal, the network interface module is therefore inseparable from the digital interface module. Likewise, Cablevision's contrary argument based on Figure 1 is also rejected for the same reason. (*See* RRBr. at 13.)

The Administrative Law Judge concludes that the term "network interface module" as mentioned in claim 14 of the '979 patent and in claim 38 of the '293 patent, to a person of

ordinary skill in the art means the following: "a plug in unit of electronic circuitry to a digital entertainment terminal for connecting to a communication network."

3. Agreed Terms.

The parties have jointly agreed to the following constructions for the respective terms. (CBr. at 31; CFF 116-21.)

a. *digital entertainment terminal*—"electronic circuitry contained in the set-top terminal device for the purpose of providing digital audio/video entertainment to the user." (Revised Joint Claim Constr. at 4.)

b. *two-way control signal communication*—"sending and receiving of control signals over the two-way control signaling channel." (*Id.*)

c. *two-way control signaling channel*—"channel for sending and receiving of control signals." (*Id.)*

d. *means for receiving inputs from a user and providing corresponding signals to the control processor*—(1) the function is "receiving inputs from a user and providing corresponding signals to the control processor; and (2) the structure is an infrared receiver. (*Id.*)

e. *means for combining the graphic display information with the decompressed video signal, to produce a signal for driving a video display device*—(1) the function is " combining the graphic display information with the decompressed video signal to produce a signal for driving a video display device." (*Id.*)

The Administrative Law Judge adopts the foregoing claim constructions where they are applicable herein.

D. '748 Patent, Claim 13

1. Level of Skill in the Art.

Verizon argues that one of ordinary skill in the art would have had an undergraduate degree in electrical engineering or computer science and three to five years of experience in the digital television field. (CBr. at 122.)

Cablevision argues that a person of ordinary skill in the art would have had an undergraduate degree in electrical engineering, computer engineering, or an equivalent field, and one or more years of experience in the field of remote interactive communication for video system technology. (RBr. at 117.)

According to Staff, the level of skill in the art for all asserted patents would have been "an undergraduate degree in electrical engineering, computer science (or equivalent experience) and one or more years working in a relevant field of interest such as consumer video systems, cable television, direct broadcast satellite, or a closely related field." (SFF 5 (undisputed). *But see* COSFF 5.)

The Administrative Law Judge finds that a person of ordinary skill in the art at the time the '748 patent was filed would have had an undergraduate degree in electrical engineering, computer engineering, or an equivalent field, and at least two years of experience in the digital television field that includes experience with cable systems or other remote interactive communication systems.

2. *"Data Processing Network Information"*

Verizon and Staff argue that the language "data processing network information" should mean "information from a network that must be transformed for display on a television." (CBr. at 122; SBr. at 83.) Cablevision does not set forth a position with respect to this claim term in its

initial post-hearing brief, and appears to have abandoned its previous proposed construction. (RBr. at 117-124. *See also* Ground Rule 10.1.) Thus it is undisputed that a person of ordinary skill in the art would understand that the language "data processing network information" should mean "information from a network that must be transformed for display on a television."

3. *"First Interactive Element"*

Verizon argues that "first interactive element" does not need to be construed, or alternatively, that one of skill in the art would understand it to mean "an element for user selection." (CBr. at 125.)

Cablevision argues that "first interactive element" should mean "an interactive element (such as a hyperlink) for user selection not suitable for display on a television." (RBr. at 118.)

Staff agrees for the most part with Cablevision that "first interactive element" means "an interactive element for user selection not suitable for display on a television." (SBr. at 84.)

It is not disputed that "first interactive element," at a minimum, means "an element for user selection." However, the parties disagree as to whether the language "user selection" sufficiently conveys interactivity, and whether a person of ordinary skill in the art would understand that the first interactive element must be in a format unsuitable for television display.

The disputed language appears in claim 13 of the '748 patent as follows:

> **13.** A method of retrieving and retransmitting data processing network information in response to a user selection request, comprising:
>
> transmitting first selection information to be displayed on a television;
>
> receiving a user selection request based on the transmitted first selection information;
>
> retrieving data processing network information, in a network format, corresponding to the user selection request;
>
> transforming the data processing network information from the network format having a first interactive element to a television format having a second interactive element; and

transmitting the data processing network information in the television format to the television.

(JX-3 at 9:43-58 (emphasis added).) A review of the disputed language in context shows that the claimed method includes the steps of transmission of user selection information to the television display, receipt of the user's choice from the displayed selection information, retrieval of data processing network information corresponding to the user's request, transformation of the data processing network information from network format to television format, and transmitting the data processing network information in the television format to the television for display to the user. Within the claimed transformation step is the limitation that the network format of the data has a first interactive element and that the television format has a second interactive element.

One of ordinary skill in the art viewing claim 13 as a whole would understand that user interaction within the claimed method involves user selection, for example through buttons on a remote, in order to make any of the user's choices known. Thus "an element for user selection" sufficiently conveys interactivity without the inclusion of the word "interactive." Furthermore, the claim language does not limit "first interactive element" to an element "not suitable for display on a television" and thus does not support Cablevision and Staff's proposed language. Instead, other language relating to the transformation step expressly limits the "first interactive element" to being in network format. The distinction here is that the "first interactive element" may, for example, be a menu, hyperlink, or text insertion box to a user accessing the internet, provided that it is in network format. The "second interactive element" may also be a menu, selectable link, or text insertion box to a television user, provided that it is in television format. As this distinction is conveyed by the language "from a network format"[12] and "to a television

[12] As Staff points out, the parties already agree that the term "network format" should mean "format for communications within the network not suitable for display on a television." (SBr. at 83.) Thus, if the language

format" *already in* claim 13, it does not need to be appended in some form to the construction of "first interactive element" or "second interactive element." Accordingly, a person of ordinary skill in the art would understand "first interactive element" as claimed in claim 13 of the '748 patent to mean "an element for user selection."

The specification confirms this finding. The background in the specification shows that known forms of user requests on a network, such as the internet, included selection of an item from a "hotlist" (bookmark menu), entry of addresses typed by hand, and activation of hyperlinks, all effected by a user's manipulation of a mouse or keyboard. (JX-3 at 1:35-48.) Thus a "first interactive element" could include without limitation, a menu, text insertion box, or hyperlink. As for the "second interactive element," the specification teaches with respect to the preferred embodiment that the user may interact with the claimed system by using an infrared remote control device **116**, also known within the art. (*Id.* at 3:28-34.) It further explains that network information from, e.g., an HTML page, may appear on the television display as hyperlinks that have additional visual indicia, such as assigned numbers, symbols, or scroll bars, that may then be selected using the remote control. (*Id.* at 6:12-7:18.) Thus a "second interactive element" could include without limitation, a menu, input of text or other keys, scrolling (with arrow keys), or selection of a link (with arrow, number, or other keys), with the understanding that this element would involve a device such as a remote control for a user interface, as opposed to such devices as a mouse and keyboard.

"not suitable for display on a television" were added to the claim construction for "first interactive element," the whole phrase "from the network format having a first interactive element" would nonsensically read: "[transforming the data processing network information] from the format for communications within the network not suitable for display on a television having an element for user selection not suitable for display on a television [to a television format]. . . ." One of skill in the art would be more likely to understand the entire phrase to mean "[transforming the data processing network information] from the format for communications within the network not suitable for display on a television having an element for user selection [to a television format] . . . [.]"

The specification further confirms that the focus of the translation step as claimed in claim 13 of the '748 patent is on a change in format from network (internet or intranet[13]) to television. With respect to the preferred embodiment, which relates to use of the internet, the specification teaches that:

> If the user selects a WWW page, the user Web page selection is translated into an Internet address (step **626**). Server 110 retrieves the Web page associated with the translated Internet address (step **630**). The Web page is then processed to transform the Web-based format into signals suitable for display on television **114** (step **634**). The processed Web page is then transmitted to television **114** via set top box **112** and displayed to the user (step **638**).
>
> Alternatively, the Web-based information could be delivered directly to set top box **112** for conversion into television signals at the set top box **112**. This would relieve the load of server **110**, but require much greater processing power in the set top box **112**.
>
> FIG. **7** is a flow chart showing the processing performed in transforming a Web page into a table of information which is used to develop signals appropriate for display on television **114** (FIG. **6**, step **634**). The Web page is first scanned to determine the hyperlinks in the page (step **710**). For example, in the WWW environment, which typically utilizes HyperText Markup Language (HTML), the Web page is scanned for tags indicating references to hyperlinks.
>
> If a hyperlink is detected, information such as a number, letter or symbol, is inserted into the HTML page near the hyperlink, thus assigning numbers or other symbols to hyperlinks (step **714**). When the HTML page is later converted into RGB computer graphics, and subsequently into NTCS format, the inserted information will also be translated into visual indicia corresponding to the hyperlink. For example, when the first hyperlink is detected a "1" might be inserted into the HTML document near the first hyperlink. When the second hyperlink is detected a "2" is inserted into the HTML document. Therefore, the original contents of the HTML document are augmented with additional visual indicia corresponding to each hyperlink.

[13] (*See* JX-3 at 1:66-2:3.)

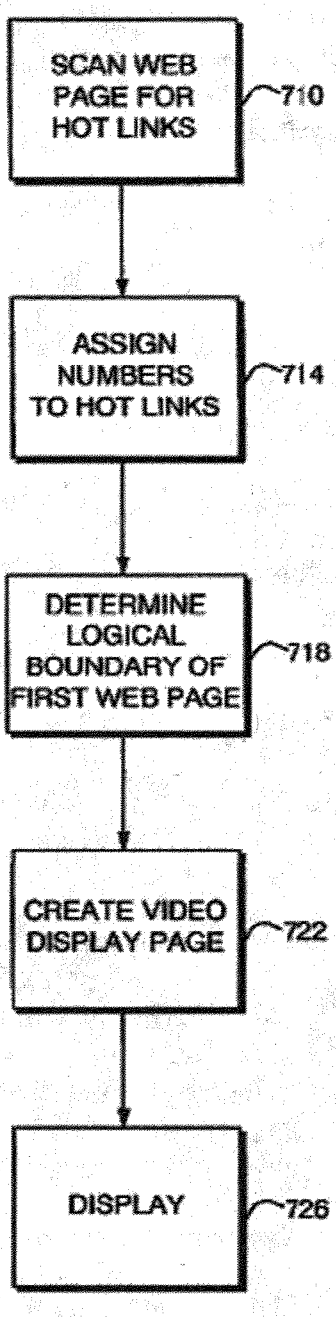


FIG. 7

The information developed from the scan of the Web page is also used to form a table that contains the correspondence between the inserted information and the associated hyperlink. The table is used to translate requests received from the user into hyperlink information.

The HTML document is then converted into RGB computer graphics, and subsequently translated into NTSC format, as is understood in the art. This

> process may include translation of graphics information into a format suitable for display on the television. For example, fonts and font sizes may be translated.

(JX-3 at Fig. 7, 5:57-6:36 (figure inserted, emphasis added).) Thus the specification explains how the translation step, as claimed in claim 13 of the '748 patent, would function: the network format, normally displayed to a computer user in HTML with tags indicating references to hyperlinks, is converted to RGB computer graphics and then, for television display to a user, to NTSC format with numeric visual indicia corresponding to what had been hyperlink references. The specification does not limit its language to only the portion of the translation step concerning the "first interactive element," but instead discusses the translation function as a whole. A person of ordinary skill in the art reviewing the specification would therefore understand "first interactive element" as claimed in claim 13 of the '748 patent to mean "an element for user selection."

This finding is not contradicted by the '748 patent file history. The examiner, in allowing the '748 patent claims to issue, commented that the prior art does not require transformation of the interactive elements. (JX-10 at VZ VID 0000751.) For example, the examiner noted that the Field et al. reference teaches away from translation of HTML code to a television format. (*Id.*) Just as with the specification, the examiner did not limit his remarks to only the portion of the translation step concerning the "first interactive element," but instead discussed the translation function as a whole. The Administrative Law Judge concludes that a person of ordinary skill in the art reviewing the entire intrinsic record would therefore understand "first interactive element" as claimed in claim 13 of the '748 patent to mean "an element for user selection."

The Administrative Law Judge declines to consider the extrinsic evidence (expert testimony) submitted by the parties. (CBr. at 126; RBr. at 122-23.) Neither expert testified that the disputed language has any special meaning in the art (Tr. at 987 (Wechselberger) (agreeing

with Verizon's proposed construction), 1696 (Schonfeld) (offering belief that Cablevision's proposed construction is "correct")). *See General Protecht Group, Inc. v. International Trade Comm'n*, 619 F.3d 1303, 1310-11 (Fed. Cir. 2010) (expert's subjective understanding irrelevant).

4. *"Second Interactive Element"*

Verizon argues that "second interactive element" does not need to be construed, or alternatively, that one of skill in the art would understand it to mean "an element different from the first interactive element, for user selection." (CBr. at 127.)

Cablevision argues that "second interactive element" means "an interactive element (such as a hyperlink) for user selection in a television format." (RBr. at 123.)

Staff argues that "second interactive element" means "an interactive element for user selection not suitable for display on a television." (SBr. at 85.) The Administrative Law Judge notes that the other parties represent Staff's position as different. (CBr. at 127; RBr. at 123.) However, as Staff provides no analysis with respect to Staff's proposed construction other than to refer back to Staff's analysis for "first interactive element" (SBr. at 85), it is not clear whether Staff is setting forth a previously undisclosed proposed construction in violation of Order No. 2 and the Ground Rules, or whether Staff has made a mistake. Staff's reply post-hearing brief is equally uninstructive, and therefore Staff's proposed construction for "second interactive element" will be disregarded. (SRBr. at 13-16.)

For the reasons discussed above with respect to "first interactive element," the Administrative Law Judge rejects Cablevision's proposed language "an interactive element (such as a hyperlink) . . . in a television format" as redundant. Likewise, the Administrative Law Judge rejects Verizon's proposed language "different from" because other language in the transformation step indicates that the "second interactive element" is in television format while

the "first interactive element" is in network format. The Administrative Law Judge concludes that a person of ordinary skill in the art would find that "second interactive element" means "another element for user selection."

5. Agreed Terms

The parties agree that the term "network format" should mean "format for communications within the network not suitable for display on a television." (SBr. at 83.) The parties agree that "television format" should mean "format for display on a television. (*Id.* at 84.)

E. '078 Patent, Claim 14

1. Level of Skill in the Art.

Verizon argues that one of ordinary skill in the art would have had a "Bachelors of Science in computer science and two years' experience in [] user interfaces for consumer electronics or equivalent experience." (CBr. at 81.)

Cablevision argues that a person of ordinary skill in the art would have had "a Bachelor's degree in electrical engineering, computer engineering, computer science (or equivalent experience) and one or two years of experience in a relevant field, such as in user interfaces for video systems technology." (RBr. at 74.)

According to Staff, the level of skill in the art for all asserted patents would have been "an undergraduate degree in electrical engineering, computer science (or equivalent experience) and one or more years working in a relevant field of interest such as consumer video systems, cable television, direct broadcast satellite, or a closely related field." (SFF 5 (undisputed). *But see* COSFF 5.)

The Administrative Law Judge finds that a person of ordinary skill in the art at the time the '078 patent was filed would have had an undergraduate degree in computer science,

computer engineering, or an equivalent field, and approximately two years of experience in user interfaces for consumer electronics or other related user interface experience.

2. *"First Channel Control Switch"*

Verizon argues that "first channel control switch" does not require construction, or alternatively, that it should mean "signal(s) for navigation between channels." (CBR. at 75.)

Cablevision argues that the term should mean "a signal for serially changing by number from one channel to another channel." (RBr. at 75.) Staff agrees. (SBr. at 52.)

While the parties agree that "channel control switch" should mean a "signal," they disagree as to whether the "channel control switch" should control navigation between channels (browsing) or should only control changes from one channel to another. The Administrative Law Judge finds that claim 14 of the '078 patent does not limit the "channel control switch" to only changing channels, as discussed below.

The disputed language appears in claim 14 of the '078 patent as follows:

> **14.** An apparatus for providing channel selection, the apparatus comprising:
>
> a receiver operative to receive a plurality of channels, wherein the receiver is further operative to indicate if there are at least two channels having a content in the same category;
>
> an apparatus configured to receive a first channel control switch for providing a numerically sequential navigation of said plurality of channels; and
>
> an apparatus configured to receive a second channel control switch, different from the first channel control switch, for providing a content based navigation of the at least two channels having the same content.

(JX-1 at 12:1-15 (emphasis added).) Claim 14 essentially describes an apparatus that allows a user to choose channels, including a set-top box (receiver[14]) for receiving a number of channels and identifying channel categories, and that includes an apparatus able to receive channel control signals that permit user navigation of available channels by content or in numerical sequence.

[14] (SBr. at 50-51.)

There is no language in the claim that requires that the "first channel control switch" must implement channel navigation only by changing channels. The Administrative Law Judge finds that a person of ordinary skill in the art would understand a "channel control switch" to mean a "signal for navigation between channels" and a "first channel control switch" to mean "a first type of signal for navigation between channels."

The claims dependent on claim 14 support this finding. *Phillips*, 415 F.3d at 1314. Claim 15[15] adds the limitation that the content-based navigation (provided by the second "channel control switch") "occurs without an intervening command." (JX-1 at 12:16-18.) This claim would suggest to one of ordinary skill in the art that claim 14 is broad enough to allow intervening commands, such as to allow navigation through content-based channel choices or a mode change prior to actual channel selection. *SRI Int'l v. Matsushita Elec. Corp. of America*, 775 F.2d 1107, 1122 (Fed. Cir. 1985) (en banc). This interpretation is consistent with the "comprising" language of the claim 14 preamble, which is well understood to mean the claim is open-ended and permits the inclusion of other unrecited steps, elements, or materials in addition to those elements or components specified therein. *CIAS,* 504 F.3d at 1360.

Likewise dependent claim 18 adds the limitation that the apparatus will display a same-content channel after the user *repeats* the second "control switch." (*Id.* at 12:25-27.) This narrower claim appears to require that the content-based control switch be activated more than once before the television will be changed to a same-content channel, which would mean some form of menu or guide (or other user option) may appear during the first activation of the second control switch and a user's channel selection would occur after the second activation of said

[15] Dependent claims 15 and 18 are not at issue in this Investigation, and therefore the Administrative Law Judge is not making any determinations with respect to the scope of these claims other than for the limited purpose of determining how one of ordinary skill in the art would understand the disputed language of claim 14.

switch. This claim also supports a finding that claim 14 is not limited to channel control switches that only change channels (which would imply a single activation of the control switch[16]), because otherwise claim 18 would be devoid of meaning. Claim constructions should be harmonized, to the extent possible, with the intrinsic record. *Lexion Medical v. Northgate Tech*, --F.3d --, 2011 WL 1518895 at *3 (Fed. Cir. 2011).

A review of some of the other independent and dependent claims is also instructive here. For example, claims 7 and 10[17] read as follows:

> **7**. An apparatus for providing channel selection, the apparatus comprising:
>
> a receiver operative to receive a plurality of channels, to display a first channel, and indicate if there is one or more content-related channels having content in a same category as a content of the first channel;
>
> a first channel control switch configured to provide numerically sequential navigation of said plurality of channels; and
>
> a second channel control switch, different from said first channel control switch configured to provide a navigation of the one or more content-related channels.
>
> **10**. The apparatus of claim **7** wherein a second control-related channel of said at least one content-related channel is displayed after a first content-related channel of said at least one content-related channel in response to said second channel control switch.

(JX-1 at 10:56-67, 11:7-11 (emphasis added).) Both of these unasserted claims also use the language "first" and "second" "channel control switch" at issue in asserted claim 14. *Phillips*, 415 F.3d at 1314 (claim terms normally used consistently throughout patent). In independent claim 7, just as in claim 14, the "channel control switch" effects channel navigation. However, in narrower claim 10, the channel control switch effects a change in the channel that is displayed.

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[16] Verizon objects to Cablevision's briefing to the extent that it raises claim construction arguments deemed untimely. (CRBr. at 43; Order No. 37 at 2.) However, in analyzing the scope of the disputed claim language, the Administrative Law Judge finds that Cablevision's arguments on this topic, regardless of whether or not they were untimely raised, must also be rejected based upon the intrinsic record.

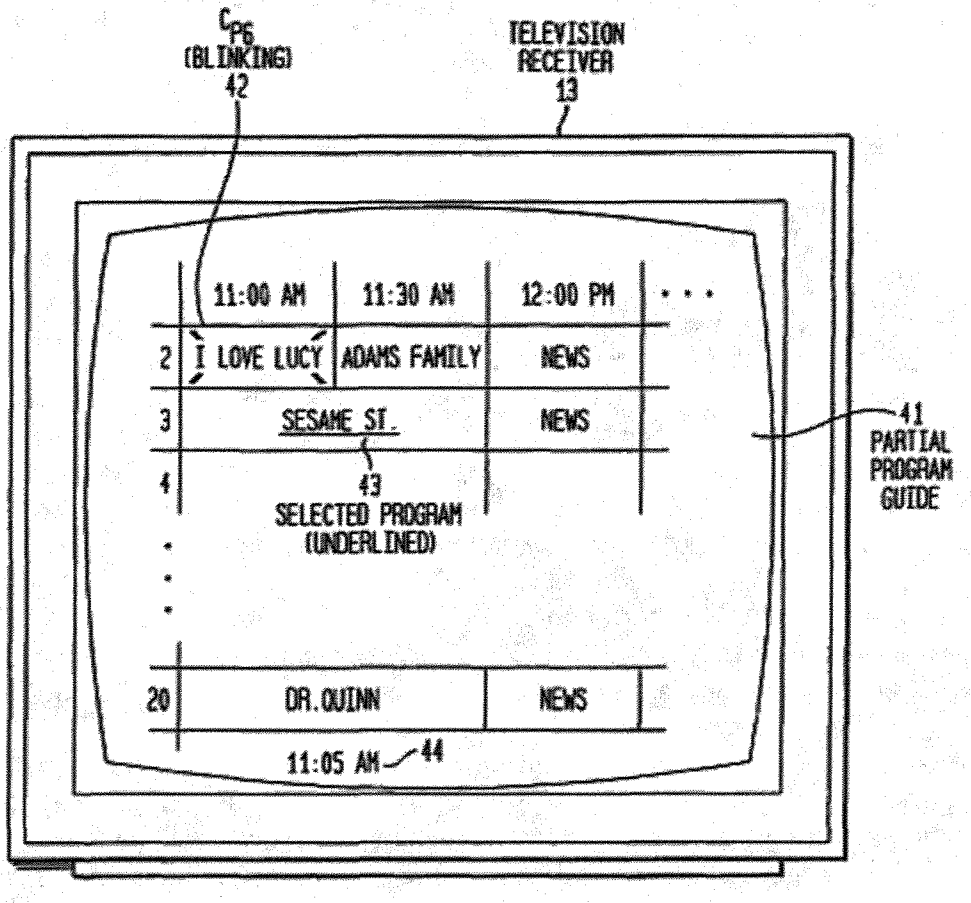
[17] Claims 7 and 10 are not at issue in this Investigation, and therefore the Administrative Law Judge is not making any determinations with respect to the scope of these claims other than for the limited purpose of determining how one of ordinary skill in the art would understand the disputed language of claim 14.

Therefore with respect to claim 14, if the patentee had wanted to claim a "channel control switch" that causes another channel to be displayed, patentee could have done so using language similar to that found in claim 10. Instead, patentee selected the broader language "navigation" in connection with "channel control switch" for both claims 7 and 14. The Administrative Law Judge finds that a person of ordinary skill in the art reviewing the disputed language in the context of the other '078 patent claims would understand a "channel control switch" to mean a "signal for navigation between channels" and a "first channel control switch" to mean "a first type of signal for navigation between channels."

The specification does not contradict this finding. First the specification describes in detail a prior art electronic program guide system that permits a user to move between television and program guide mode through the push of a "PG/TV" button. (JX-1 at 2:48-3:61.) In the prior art system described, the program guide appears as a spreadsheet, and the user may move from one cell to another cell in the spreadsheet by using arrow keys on the remote control. (*Id.*) When a user has moved to a cell, the user-interface unit identifies that cell to the user by "blinking the program title in that cell." (*Id.*) A user may select a cell, or multiple cells, by pressing a select key on the remote, causing the program title in the selected cell to be underlined. (*Id.*)

FIG. 4

PROGRAM GUIDE DISPLAYED ON A TELEVISION RECEIVER



(*Id.* at Fig. 4.) Then the user may toggle (PG/TV button) back to television mode, causing the processor to carry out the viewer's selection(s) depending on the program time slot(s) involved. (*Id.* at 2:48-3:61.) Patentee explained that this type of system was disadvantageous because users had to base their decisions on "program titles that they read off the television screen" and titles were often truncated to fit in the cells of the guide spreadsheet. (*Id.* at 3:62-4:1.)

Patentee then specifically incorporated the prior art system into the description of the invention to help explain the how the described invention fits into and improves upon an existing system with an interactive program guide:

> [i]llustratively, the inventive EPG[18] system can be loaded into a user-interface unit of the prior-art electronic program-guide system, and all defined operations in the program guide (PG) and television (TV) modes will continue to work. However, previously undefined inputs at the remote control are made meaningful in the inventive EPG system. The program guide in the inventive EPG system includes a category for each program, and the new functionality relates to choosing programs based on their categories.

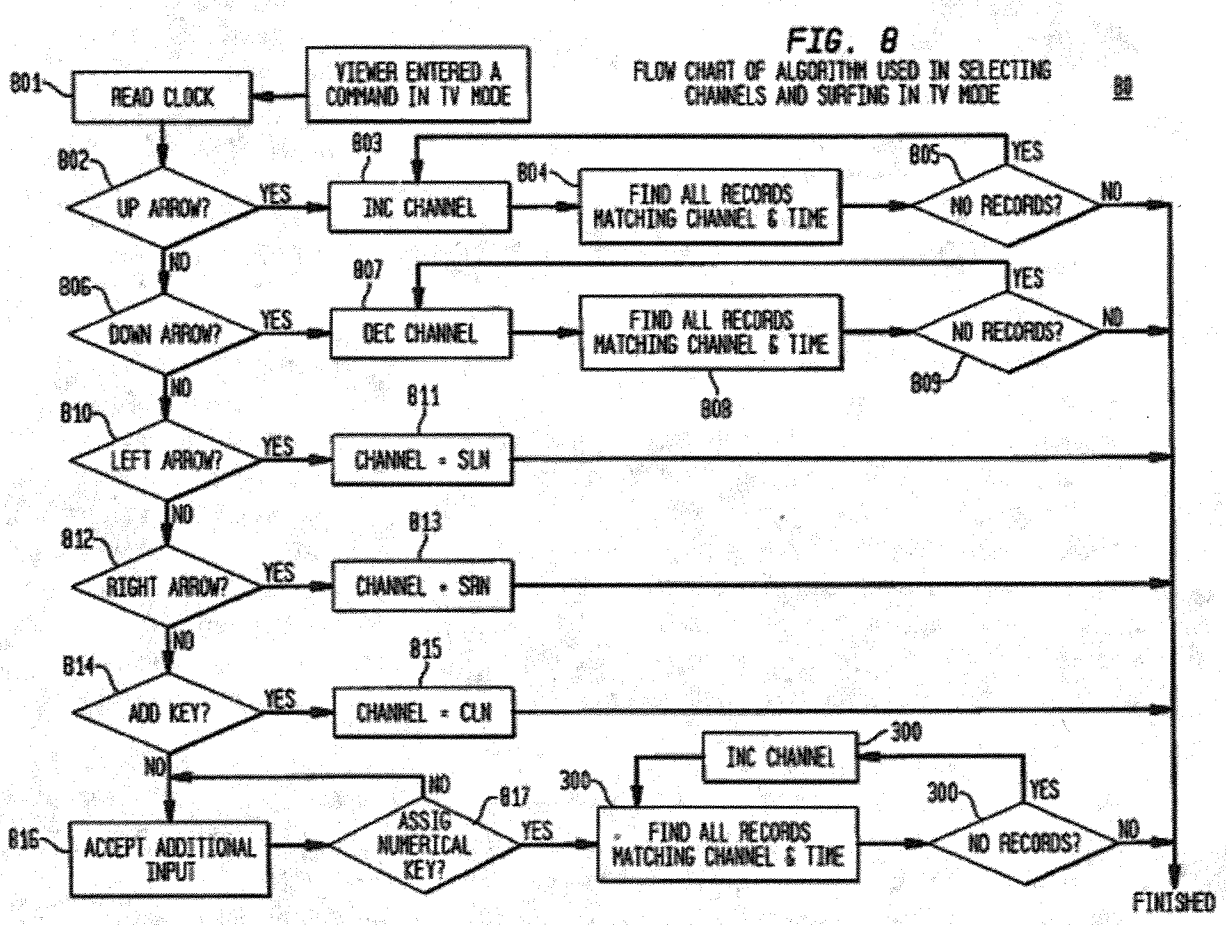
(*Id.* at 4:15-24. *See also* 5:47-63.) The specification then goes on to describe two different types of embodiments. In the first type of embodiment,

> In TV mode, the EPG system responds to up and down-arrow keys **353** and **354** by incrementing the channel from which the user-interface unit **30** takes the television program that it sends to the television receiver. The new channel will be the next higher or lower channel on which the television-distribution network **10** carries scheduled programs. The viewer can also select a channel by number by pressing keys on the numeric-key pad **352** of the remote-control device **35**. When the channel is changed, a channel hat **62** (or other icon) is superimposed for a few seconds at the top of the displayed video in TV mode.
>
> As shown in FIG. **6B**, the channel hat **62** (or other icon) comprises at least an indication of the channel number **132** just selected and of the existence of other channels carrying programs in the same category as the program on the selected channel. The presence of an arrow **621** pointing to the left indicates the existence of such programs at lower-numbered channels. The viewer can find a program that may be of interest by surfing sideways to the left, which the viewer accomplishes by pressing the left-arrow key **355**. An arrow **622** pointing to the right indicates that the viewer can surf to such a program at a higher-numbered channel by pressing the right-arrow key **356**. If the viewer has reached the highest channel in that category, pressing the right-arrow key **356** preferably brings the user to the lowest channel currently running a program in the desired category. Similarly, if the viewer has reached the lowest channel in the category, pressing the left-arrow key **621** preferably brings the user to the highest channel currently running a program in the desired category.

(*Id.* at 6:19-49 (emphasis added).) Thus, with respect to this embodiment, the specification teaches that in television mode, the user may use the up and down arrow keys on a remote to select channels numerically by the next higher or lower channel on which the television-distribution network carries scheduled programs. Likewise, based on the desired program

[18] EPG means electronic program guide.

category being watched by the user at the time, the user is also able to use the left and right arrow keys to select channels by the next higher or lower channel that has content in the same category. In this embodiment, use of the arrow keys in TV mode results in a channel change if there is more than one channel of the corresponding type (number or category). Yet the arrow keys are not the only way a user may select a content-based program in TV mode.



(JX-1 at Fig. 8.) According to the specification,

> **FIG. 6C** lists other variables that the control program **51** maintains to support sideways surfing in TV mode. In particular, binary variables SLE **63** and SRE **65** are set when surfing to the left and right are enabled, respectively. The control program passes these variables to the hat-data module, which shows the left arrow **621** if SLE is set and the right arrow **622** if SRE is set. The control program also maintains channel number SLN **64**, which will be selected if the viewer presses the left-arrow key, and channel number SRN, which will be selected if the viewer presses the right-arrow key. Finally, the control program in the first embodiment

maintains a channel number NCN **67**, which is the number of the first channel carrying a program in the next category after the category **624** of the program on the newly selected channel. Channel NCN will be selected if the viewer presses the select key **357**.

* * *

When the EPG system **50** is in TV mode and the viewer presses keys on the remote-control device **35**, the control program **51** performs method **800** shown in **FIG. 8** [shown above]. Method **800** compares the input with the allowed inputs and determines the newly selected channel number accordingly. At step **801**, method **800** uses the clock I/O module **58** to determine the current time. At step **802**, method **800** tests whether the viewer pressed the up-arrow key **353**. If the result is positive, method **800** branches to step **803**, where the channel number is incremented. At step **804** the set of all records that match the incremented channel at the current time are accessed in the program-guide database **52**. At step **805** the set is tested, and if the set is empty, method **800** branches back to step **803**. Thus steps **803**, **804** and **805** form a loop that is repeated until a channel is found that is carrying a program at the current time, and then method **800** is completed.

If the up-arrow key was not pressed, method **800** next tests the input again at step **806**. If the down-arrow key **354** was pressed, method **800** decrements the channel number at steps **807**, **808** and **809** until a channel is found that is carrying a scheduled program. The channel number being determined, method **800** is completed. If the down-arrow key was not pressed, method **800** proceeds to step **810**. At step **810**, the input is tested again, and if the left-arrow key **355** was pressed, method **800** branches to step **811**, where the channel number is set to SLN **64**, and method **800** is completed. SLN is the channel number that the hat-update method **900** determined to be available for sideways surfing to the left after the previous channel selection was made.

If the left arrow was not pressed, method **800** proceeds to step **812**, where the input is tested again, and if the right-arrow key **356** was pressed, method **80** proceeds to step **813**. At step **813**, the channel number is set to SRN **65**, which is the channel number that the hat-update method **900** last determined to be available for sideways surfing to the right. After performing step **813**, method **800** is completed.

If the right-arrow key was not pressed, method **800** branches to step **814**, where the input is tested again. If the select key **357** was pressed, method **800** branches to step **815**. At step **815** the channel number is set to NCN **67**, which is the first channel number in the next category at which a program is scheduled for the current time. After step **815** is performed, method **800** is completed. If the select key was not pressed, it means that a key on the numeric-key pad **352** was pressed, and method **800** proceeds to step **816**. Method **800** then accepts zero or more additional digits specifying a channel number by testing the input at step **817** and repeating step **816** until a non-numeric key is pressed. When the viewer has

> indicated that the channel number is complete by pressing one of the arrow keys **or the select key**, method **800** tests the channel at steps **818** and **819** to see if it is scheduled to carry a program at the current time. Otherwise the channel number is incremented at step **820**, and steps **818**, **819** and **820** are repeated until a channel is found that is not empty. When the channel number has been finally determined, method **800** is completed.

(*Id.* at 6:66-18, 7:60-49 (emphasis added).) Thus if none of the arrow keys was pressed, method **800** branches to step **814** to determine if the select key **357** was pressed. If it was, the channel number is set to the first channel number in the next category (NCN **67**), which the specification explains is the "next category after the category **624** of the program on the newly selected channel." "[N]ewly selected channel" here refers the channel most recently selected by the user. (*See generally id.* at 6:20-65.) Thus, with respect to this first type of embodiment, the specification discloses additional content-based navigation using the select key. It is noted that in this embodiment, use of the arrow keys or select key in television mode effects a change of the channel. However, the Administrative Law Judge finds that there is no language in the above cited portions of the specification to suggest that patentee intended to limit claim 14 to this embodiment, nor do these passages of the specification specifically define, let alone mention, the term "channel control switch." *See e.g., Gemstar-TV Guide Intern., Inc. v. International Trade Comm'n*, 383 F.3d 1352, 1368-69 (Fed. Cir. 2004) (finding no basis to import "regular movement" limitation from preferred embodiment into a claim absent an express disavowal of "irregular movement" in the specification); *Phillips*, 415 F.3d at 1316 (Claims are given "their broadest reasonable construction in light of the specification as it would be interpreted by one of ordinary skill in the art.").

In the second type of embodiment,

> there is also a PG mode and a TV mode, and the viewer can cause the EPG system **50** to toggle back and forth between these modes by pressing the TV/PG key **351**. The PG mode of the second embodiment is also unchanged from the

> prior-art system. Furthermore, the viewer can select channels in a normal TV mode using the numeric-key pad **352** and up and down-arrow keys **353** and **354** as in prior-art systems. However, by pressing the select key **357**, the viewer can cause the EPG system **50** to toggle back and forth between normal TV mode and a category-surfing TV mode. In category-surfing TV mode, the EPG system responds to the left and right-arrow keys as described in the first embodiment. However, by pressing the up-arrow key, the viewer can select the first available channel NCN **67** of the next category in which a program is showing. This function was assigned to the select key in the first embodiment. In the second embodiment, a previous category channel number PCN **68** would be selected by the down-arrow key.

(JX-1 at 9:47-65 (emphasis added).) The specification teaches that this embodiment employs a third mode in addition to television mode and program guide mode. In this "category-surfing TV mode," a user may employ the arrow keys to navigate through and select from multiple categories of programming. This embodiment also permits channel selection in TV mode using the up and down arrow keys. Just as with the first embodiment, there is no language in this description to suggest to a person of ordinary skill in the art that patentee intended to limit claim 14 to this embodiment, nor does this portion of the specification specifically define the term "channel control switch." *Laryngeal Mask Co. Ltd. v. Ambu*, 618 F.3d 1367, 1372 (Fed. Cir. 2010); *Phillips*, 415 F.3d at 1316. The Administrative Law Judge finds that a person of ordinary skill in the art reviewing the disputed language of claim 14 in light of the specification would understand a "channel control switch" to mean a "signal for navigation between channels" and a "first channel control switch" to mean "a first type of signal for navigation between channels."

The prosecution history of the '078 patent further supports this finding. The examiner initially rejected all claims submitted with the '078 patent application, noting that they were unpatentable over the Davis reference. (JX-8 at VZ VID 0000605-612.) Applicant cancelled all the rejected claims and submitted new application claims 9 through 26, which became issued claims 1 through 18. (*Id.* at VZ VID 0000634-8.) In the remarks submitted with the amendment,

applicant traversed the examiner's rejection, noting that the Davis reference teaches a system in which a user may press a content-specific button on the controller causing a filter to screen out all programs outside the selected category. (*Id.* at VZ VID 0000639-40.) For each category of programming, the user was required to press a different button in order to navigate through the channels containing that category. (*Id.* at VZ VID 0000640.) In addition, applicant noted that for the Davis system, the user was limited to using only the up and down arrow keys to navigate through the content-specific programming. (*Id.*) Applicant explained that, unlike application claim 9 (issued claim 1), as well as similar application claims 15, 19, and 22 (issued claim 14) and the claims dependent on them, the Davis reference

> does not show displaying "the at least one content-related channel in response to a second control signal, wherein the second control signal is different from the first control signal." In Davis, all channel navigation, whether content-specific, or numerically sequential, is done using the same signal received from the same channel-navigation arrow keys. A Davis controller may also have many content-specific buttons. However, these buttons are not used for channel navigation.
>
> * * *
>
> New dependent claim 12 [issued claim 4] also contains patentable subject matter. Claim 12 requires that the step of "displaying the at least one content-related channel in response to a second control signal . . . occurs without an intervening command." Davis requires a user to enter a specific mode, in which regular channel navigation is restricted. The user must then exit the content specific mode before resuming normal sequential surfing of all available channels. While in the content specific mode, all channels with dissimilar content are unavailable to the user through the channel navigation arrows. A Davis user who wishes to transition from the content-restricted mode to a normal mode must press an intervening key to shift modes. The key either activates or de-activates the filter. This key does not provide a navigational signal.
>
> Therefore, it is respectfully submitted that Davis does not suggest or describe new dependent claim 12. As new dependent claims 13, 17, 20, 23, and 24 [issued claim 16] contain similar limitations as new claim 12, it is respectfully submitted that they are also in a condition for allowance.

(*Id.* at VZ VID 0000640-41 (emphasis added).) In response to the amendment and applicant remarks, the examiner allowed all the new application claims to issue. (*Id.* at VZ VID 0000649.)

The file history confirms that applicant did not expressly define the language "channel control switch" of application claim 22 (issued claim 14) or otherwise limit that language to serially changing channels.[19] On the contrary, the file history indicates that applicant was focused on a broader form of navigation, except with respect to narrower, dependent application claims 12, 13, 17, 20, 23, and 24 [issued claim 16], which have the added limitation "without an intervening command." In light of the intrinsic record, the Administrative Law Judge concludes that a person of ordinary skill in the art would understand a "channel control switch" to mean a "signal for navigation between channels" and a "first channel control switch" to mean "a first type of signal for navigation between channels."

The Administrative Law Judge declines to consider the extrinsic evidence (expert testimony) submitted by the parties. Neither expert testified that the disputed language has any special meaning in the art (*see, e.g.,* Tr. at 615, 618, 622 (Myers), 1620 (Schonfeld)), but instead each of them tried to set forth their own subjective understanding with respect to claim construction. *General Protecht*, 619 F.3d at 1310-11 (expert's subjective understanding irrelevant).

3. *"Numerically Sequential Navigation"*

Verizon argues that "numerically sequential navigation" means "navigation between the next higher or lower numbered channel." (CBr. at 84.) Cablevision argues that this disputed language means "serially changing by number from one channel to another channel." (RBr. at 76.) Cablevision explains that its construction is intended to encompass the language in the specification that refers to "using the up and down arrow keys for incrementing the next higher

[19] The Administrative Law Judge notes that this does not mean that other features were not disclaimed in applicant's remarks. However, such an evaluation is beyond the scope of this disputed claim term.

or lower channels." (*Id.*) Staff does not set forth a proposed construction in either of Staff's initial or responsive post-hearing briefs. (SBr. at 50-57; SRBr. at 7-10.)

Verizon and Cablevision are in agreement that with respect to claim 14, "numerically sequential" refers to "the next higher or lower numbered channel." At issue is whether "navigation" is limited to changing the channel, or instead permits broader activity, such as browsing or "scrolling within the program listings of an interactive program guide." (CBr. at 84; RBr. at 76-77.) For the reasons discussed above in detail with respect to "first channel control switch," the Administrative Law Judge finds that "navigation" as used in claim 14 of the '078 patent is not limited to changing the channel. Therefore, the Administrative Law Judge concludes that a person of ordinary skill in the art would find that "numerically sequential navigation" means "navigation between the next higher or lower numbered channel."

4. *"Second Channel Control Switch"*

The Administrative Law Judge found above in subsection 2, that a person of ordinary skill in the art would understand a "channel control switch" to mean a "signal for navigation between channels" and a "first channel control switch" to mean "a first type of signal for navigation between channels." Consistent with that finding and for the reasons discussed above in subsection 2, the Administrative Law Judge finds that a person of ordinary skill in the art would understand that "second channel control switch" means "a second type of signal for navigation between channels."

5. *"Content Based Navigation"*

Verizon argues that "content based navigation" should mean "navigation between channels based on content." (CBr. at 85.) Cablevision argues that its proposed construction, "changing from one channel to another channel based on content," is similar to Verizon's except

to the extent that Verizon submits that the disputed language is not limited to changing channels. (RBr. at 80.) Staff agrees with Cablevision. (SBr. at 57.)

For the reasons discussed above in detail with respect to "first channel control switch," the Administrative Law Judge finds that "navigation" as used in claim 14 of the '078 patent is not limited to changing the channel. Therefore, the Administrative Law Judge concludes that a person of ordinary skill in the art would find that "content based navigation" means "navigation between channels based on content."

6. Agreed Terms.

The parties agree that "receiver" should mean "set-top box." (SBr. at 50-51.) The parties further agree that "having the same content" should mean "having programs with content in the same category." (SBr. at 57.)

F. '214 Patent, Claim 5

1. Level of Skill in the Art.

Verizon says that the parties are in agreement that the level of skill for the '214 patent should be the same as that of the '078 patent because both patents are "directed generally to viewing and selecting among a large number of available television programs." (CBr. at 100-101.) Verizon argued with respect to the '078 patent that one of ordinary skill in the art would have had a "Bachelors of Science in computer science and two years' experience in [] user interfaces for consumer electronics or equivalent experience." (CBr. at 81.)

Cablevision argues that a person of ordinary skill in the art of the '214 patent would have had "a Bachelor's degree in electrical engineering, computer engineering, computer science (or equivalent experience) and one or two years of experience in a relevant field, such as in user interfaces for video systems technology." (RBr. at 103.)

According to Staff, the level of skill in the art for all asserted patents would have been "an undergraduate degree in electrical engineering, computer science (or equivalent experience) and one or more years working in a relevant field of interest such as consumer video systems, cable television, direct broadcast satellite, or a closely related field." (SFF 5 (undisputed). *But see* COSFF 5.)

The Administrative Law Judge finds that a person of ordinary skill in the art at the time the '214 patent was filed would have had an undergraduate degree in computer science, computer engineering, or an equivalent field, and approximately two years of experience in user interfaces for consumer electronics or other related user interface experience.

2. *"Anchor Channel"*

Verizon argues that "anchor channel" should mean "a channel of a video distribution system which has at least one other channel associated therewith." (CBr. at 101.) Staff agrees. (SBr. at 70.) Cablevision argues that "anchor channel" should mean "a channel assigned to the primary content of a broadcast provider and has at least one other associated channel from that broadcast provider and serves to preserve the brand identity of the broadcast provider." (RBr. at 103.)

The language "anchor channel" appears in claim 5 as follows:

5. An apparatus for providing channel selection, the apparatus comprising:

a receiver operative to receive a plurality of anchor channels, with at least one of the anchor channels having at least one multiplexed channel associated therewith, wherein the receiver is further operative to provide an indication whether a selected anchor channel has at least one multiplex channel associated therewith;

wherein the indication is superimposed over a display of a channel;

the apparatus configured to receive a first channel control switch signal for sequential navigation of the plurality of anchor channels; and

> the apparatus configured to receive a second channel control switch signal for sequential navigation of the at least one multiplexed channel.

(JX-2 at 10:24-39 (emphasis added).) Essentially, claim 5 claims an apparatus for choosing channels that includes a receiver able to receive a number of anchor channels and at least one associated multiplex channel. The receiver functions to superimpose over a channel display an indicator that a selected anchor channel has associated multiplex channel(s). The apparatus is also configured to receive channel control switch signals for navigation of the anchor channels and multiplexed channel(s). The specification further sets forth a specific definition of "anchor channel": "The term 'anchor channel' as used herein refers generally to a channel of a video distribution system which has at least one other channel associated therewith." (*Id.* at 4:17-20.) A person of ordinary skill in the art would understand "anchor channel" to have the meaning expressly defined by the patentee. *Phillips*, 415 F.3d at 1321.

The Administrative Law Judge rejects Cablevision's proposed language "a channel assigned to the primary content of a broadcast provider and has at least one other associated channel from that broadcast provider and serves to preserve the brand identity of the broadcast provider." Cablevision relies on general statements with respect to the object of the invention to support this proposed language. (RBr. at 103-04.) Such statements, without more, do not serve to limit claim 5 of the '214 patent. *See Ventana Medical Systems, Inc. v. BioGenex Labs., Inc.*, 473 F.3d 1173, 1180 (Fed. Cir. 2006) (rejecting argument that general statements made in the specification such as "it was an object of the invention to provide…" served as a limitation of claim scope). Furthermore, the Administrative Law Judge finds that Cablevision's argument, that patentee defined "by implication" the term "anchor channel" to have the meaning proposed by Cablevision (RBr. at 104), is unpersuasive. Cablevision does not explain how this implied definition may override patentee's express definition, noted above. Cablevision also overlooks

the fact that claim 5 does not refer to a "broadcast provider" and further overlooks other relevant language in the specification that contradicts Cablevision's position. Right after specially defining "anchor channel," the specification continues to explain that:

> The other channel or channels associated with a given anchor channel are referred to herein as "multiplex channels." An anchor channel and its corresponding multiplex channels may originate from a common broadcast provider. The term "broadcast provider" is intended to include a broadcaster, a television network, a network affiliate station or set of stations, a cable or satellite television station or stations, as well as any other entity or group which generates a set of programs for delivery to viewers over multiplexed channels. The term "receiver" as used herein is intended to include not only television receivers, but also computers, set top boxes or any other video signal processing and display device. The invention is suitable for use with video signals in a variety of formats, including HDTV systems which utilize MPEG for video and Dolby AC-3 for audio, and digital video broadcast (DVB), which utilizes MPEG for both audio and video.

(*Id.* at 4:20-36.) The specification specifically states that the anchor and multiplex channels "may" originate from a common broadcast provider. There is no language in the intrinsic record to support Cablevision's proposed construction of "anchor channel" that would *require* it to originate from a common broadcast provider or that would require it to preserve the brand identity of a broadcast provider.

The Administrative Law Judge concludes that a person of ordinary skill in the art would understand "anchor channel," as claimed in claim 5 of the '214 patent, to mean "a channel of a video distribution system which has at least one other channel associated therewith."

3. *"Multiplexed Channel Associated Therewith"*

Verizon argues that "multiplexed channel associated therewith" should mean "a channel associated with an anchor channel." (CBr. at 104.) Staff agrees. (SBr. at 70-71.) Cablevision argues that the disputed language should mean "a channel originating from the same broadcast provider as its anchor channel and combined into one signal over a shared medium when transmitted by the broadcast provider." (RBr. at 103.)

The language "multiplexed channel associated therewith" appears in claim 5 as follows:

> **5.** An apparatus for providing channel selection, the apparatus comprising:
>
> a receiver operative to receive a plurality of anchor channels, with at least one of the anchor channels having at least one multiplexed channel associated therewith, wherein the receiver is further operative to provide an indication whether a selected anchor channel has at least one multiplex channel associated therewith;
>
> wherein the indication is superimposed over a display of a channel;
>
> the apparatus configured to receive a first channel control switch signal for sequential navigation of the plurality of anchor channels; and
>
> the apparatus configured to receive a second channel control switch signal for sequential navigation of the at least one multiplexed channel.

(JX-2 at 10:24-39 (emphasis added).) A person of ordinary skill in the art reading the disputed language in the context of the claim would understand that at least one of multiple anchor channels has at least one multiplexed channel associated with it. The specification specially defines "multiplex channels" to mean "[t]he other channel or channels associated with a given anchor channel." (JX-2 at 4:20-22.) Thus the Administrative Law Judge concludes that a person of ordinary skill in the art would understand "multiplexed channel" to mean "[t]he other channel or channels associated with a given anchor channel" and "(at least one) multiplexed channel associated therewith" to have its plain and ordinary meaning, that is, the "at least one" other channel corresponding to said "at least one of the anchor channels."

The Administrative Law Judge rejects Cablevision's arguments with respect to its proposed "broadcast provider" language for the reasons discussed above with respect to "anchor channel." The Administrative Law Judge further rejects Cablevision's argument (RBr. at 105-106) that the definition of the term "multiplexed" cannot overlap with other language of claim 5. The remaining language of the phrase "associated therewith" at issue in claim 5 serves to show to which anchor channel of the plurality of anchor channels the "at least one multiplexed

channel" corresponds. This is consistent with the specification, which refers to multiplex channels in isolation, but identifies relationships between anchor/multiplex channels using language such as "associated" or "corresponding" when there is no other explaining indicator, such as a figure. (*See e.g.* JX-2 at 2:11-14, 6:16-21, 6:27-34 (multiplex used in isolation); 2:49-51 (identifying multiplex channel association with "a given anchor channel"; 2:63-64, 3:1-3, 3:30-33 (identifying multiplex channels corresponding to "currently-selected anchor channel"); 5:20-22 (identifying horizontally-integrated multiplex channels associated with a particular provider of an anchor channel); 7:27-32 and Fig. 3 (shown)

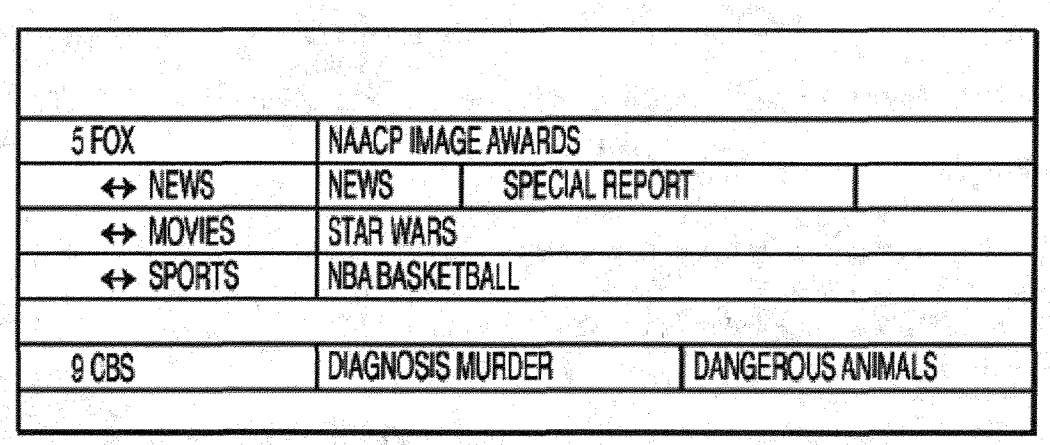


FIG. 3

(using, e.g., Figure 3 to identify the association of multiplex channels to the FOX anchor channel).)

4. *"Sequential Navigation"*

Verizon argues that "sequential navigation" should mean "navigation between channels in a sequence." (CBr. at 103.) Cablevision and Staff argue that "sequential navigation" should mean "changing from one channel to the next channel in a first predefined sequence." (RBr. at 106; SBr. at 71.)

The language "sequential navigation" appears in claim 5 as follows:

> **5.** An apparatus for providing channel selection, the apparatus comprising:
>
> a receiver operative to receive a plurality of anchor channels, with at least one of the anchor channels having at least one multiplexed channel associated therewith, wherein the receiver is further operative to provide an indication whether a selected anchor channel has at least one multiplex channel associated therewith;
>
> wherein the indication is superimposed over a display of a channel;
>
> the apparatus configured to receive a first channel control switch signal for sequential navigation of the plurality of anchor channels; and
>
> the apparatus configured to receive a second channel control switch signal for sequential navigation of the at least one multiplexed channel.

(JX-2 at 10:24-39 (emphasis added).) It is noted that the preamble of claim 5 uses the language "comprising," which is well understood to mean the claim is open-ended and permits the inclusion of other unrecited steps, elements, or materials in addition to those elements or components specified therein. *CIAS,* 504 F.3d at 1360. A review of the disputed language in the context of the entire claim indicates that the channel selection apparatus receives two channel control switch signals for sequential navigation of multiple anchor channels and the multiplexed channel(s), respectively.

The specification generally explains that the patent sets forth a technique for two-dimensional navigation of channels, describing how a viewer may vertically key through anchor channels and horizontally sequence though multiplex channels associated with a selected anchor channel. (JX-2 at Abstract, 2:44-51.) The specification further teaches embodiments that explain how a viewer may use the channel up or down keys to sequence through the available anchor channels and the channel left or right keys to sequence through the available multiplex channels associated with a selected anchor channel in order to choose channels. (*See, e.g., id.* at 2:52-3:13, 4:46-59, 5:3-41, 6:43-46, 7:62-67, 9:12-17, Figs. 1-2 (below), Figs. 4, 7.)

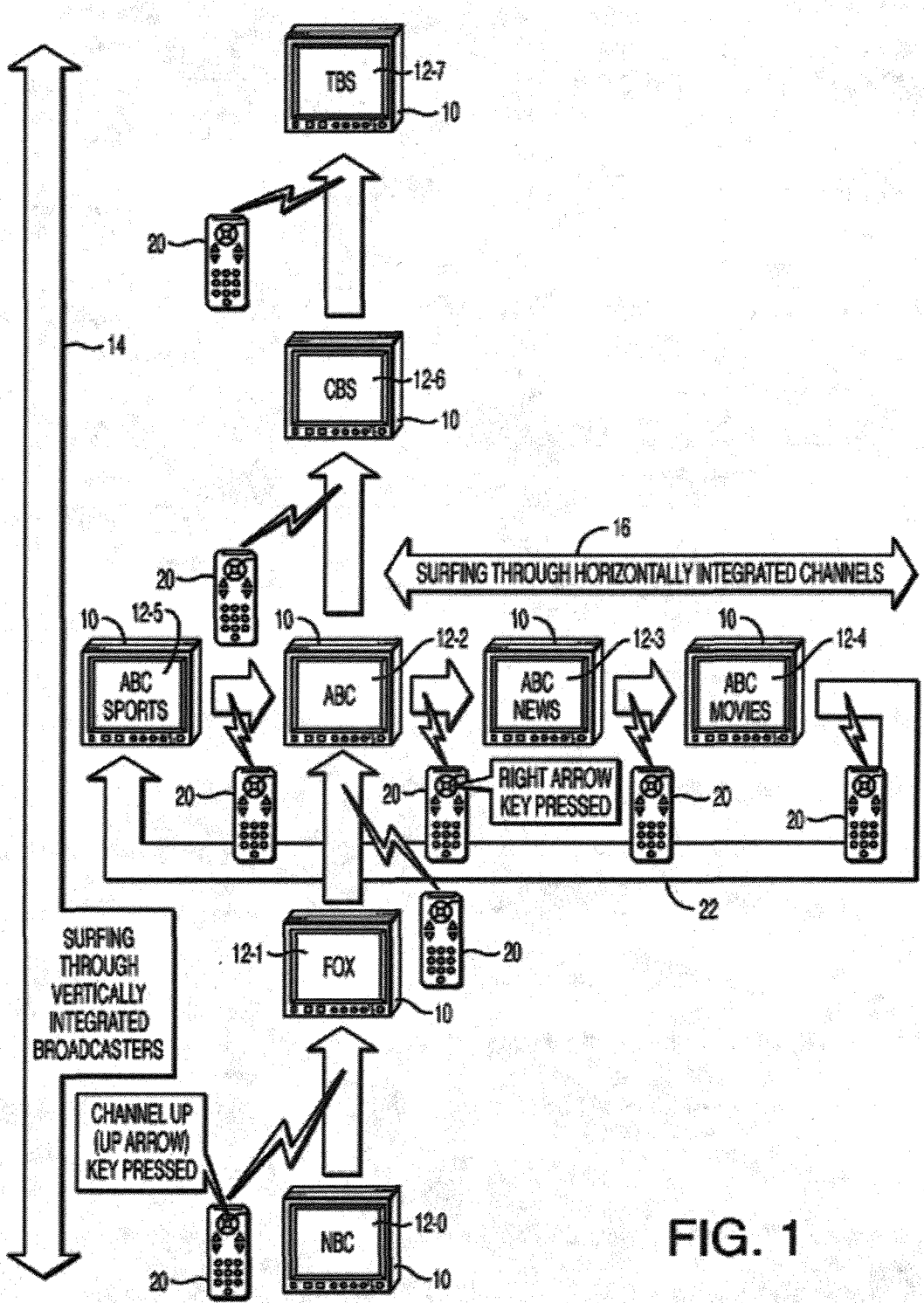

TBS
12-7
10
20
14
CBS
12-6
10
16
SURFING THROUGH HORIZONTALLY INTEGRATED CHANNELS
20
10
12-5
ABC SPORTS
10
ABC
12-2
10
ABC NEWS
12-3
10
ABC MOVIES
12-4
20
20
RIGHT ARROW KEY PRESSED
20
20
22
SURFING THROUGH VERTICALLY INTEGRATED BROADCASTERS
12-1
FOX
10
20
CHANNEL UP (UP ARROW) KEY PRESSED
NBC
12-0
10
20

FIG. 1

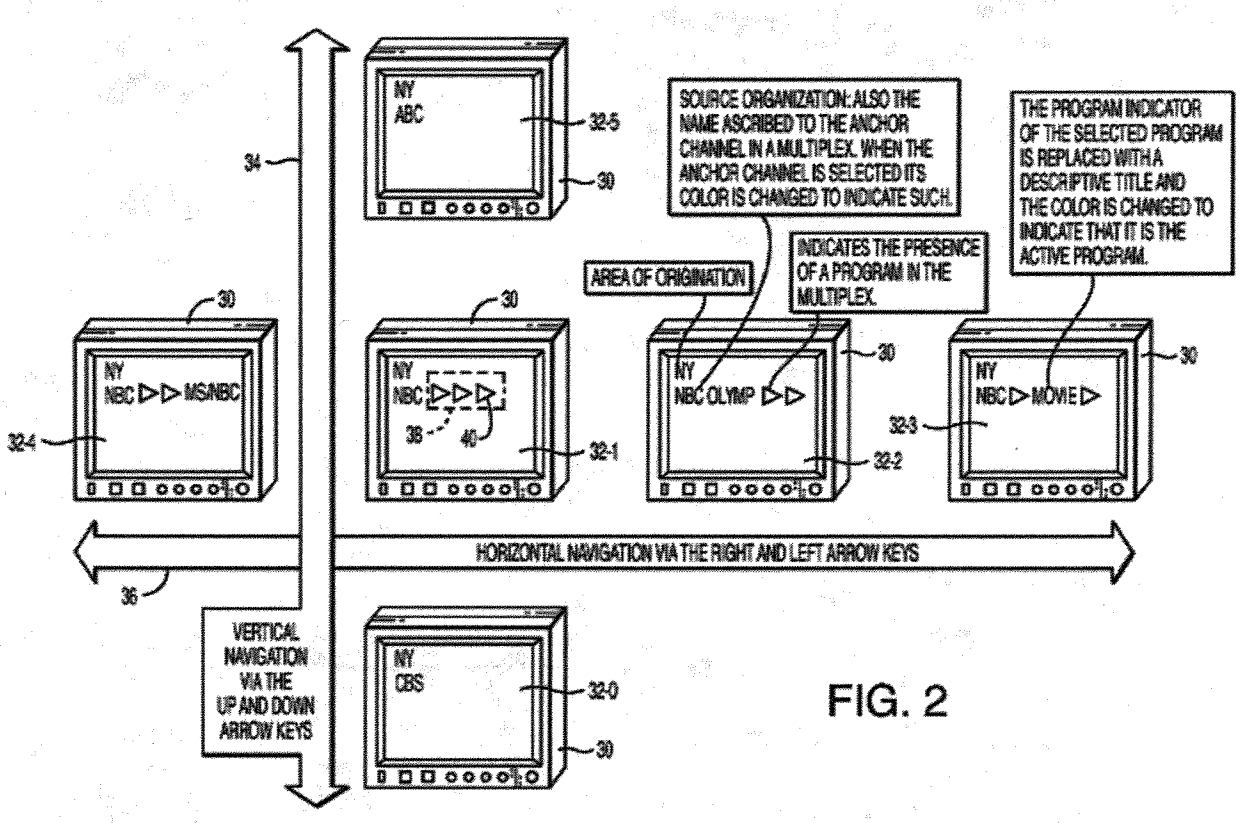


FIG. 2

(*Id.* at Figs. 1-2.) Specifically, with respect to one embodiment, the specification states that "[t]he viewer moves through the vertically integrated channels by pressing channel up or down keys on a remote control **20**, and moves through the horizontally integrated channels by pressing channel right or left keys on the remote control **20**." (*Id.* at 4:64-5:1.) The specification further teaches that when a user selects a multiplex channel, for example, using the channel right key, the icon **40** for the multiplex indicator **38** will change to reflect the selected channel. (*Id.* at 6:58-67.)

The specification sets forth an additional technique for showing multiplex channels through the use of an electronic program guide (EPG), explaining how such a guide would look if a user toggles a key on the remote and how a user might be able to use "sort key[s]" to organize information in the guide, but not disclosing how or whether a user would be able to

select anchor and multiplex channels from *within* the EPG. (*Id.* at 7:21-52, Fig. 3.) Another description discusses how a "minimal channel navigation on-screen" display of the type depicted in Figure 5 will appear if a viewer presses the channel right key two times. (*Id.* at 7:67-8:5.)

The file history is also instructive here in determining how one of skill in the art would understand the scope of "sequential navigation" as claimed in claim 5. The examiner rejected application claims 1 through 27 as unpatentable over the prior art and noted that dependent claim 28 would be allowable if rewritten in independent form. (JX-9 at VIZ VID 0000904-913.) Applicant responded by cancelling application claims 1 through 28 and adding new application claims 29 through 32. (*Id.* at VIZ VID 0000892.) In that amendment, new application claim 31 (issued claim 5[20]) contained the "sequential navigation" limitation and read as follows:

> **31.** (New) An apparatus for providing channel selection, the apparatus comprising:
>
> a receiver operative to receive a plurality of anchor channels, with at least one of the anchor channels having at least one multiplexed channel associated therewith, wherein the receiver is further operative to indicate if a selected anchor channel has at least one multiplex channel associated therewith;
>
> the apparatus configured to receive a first channel control switch signal for sequential navigation of the plurality of anchor channels; and
>
> the apparatus configured to receive a second channel control switch signal for sequential navigation of the at least one multiplexed channel.

(*Id.* at VIZ VID 0000893.) In the remarks to the amendment, applicant stated that new application claim 29, as well as new independent application claims 30 through 32, which contain similar limitations, is patentable over the Eyer reference because it requires *display* of a multiplex channel corresponding to a selected anchor channel after a first command and *display* of the next anchor channel in the sequence of anchor channels after a different command is used. (*Id.* at VIZ VID 0000896.) In contrast, applicant remarked, "[i]n Eyer, a single command, provided by the channel navigation arrows, are [sic] used to *view* all channels, whether

[20] This application claim was later amended to match claim 5 in its issued form. (JX-9 at VIZ VID 0000797.)

associated or otherwise. The user has to *navigate* through all associated channels, even the ones that the user may have no interest in *viewing*." (*Id.* (emphasis added).) This passage suggests that applicant understood the patent application claims to refer to display of a new channel (effectively a change in channel) after using one of the two types of commands, in contrast to the prior art reference Eyer, which applicant notably characterized by using "navigate" and "view[]" in a synonymous manner.

A further review of the file history shows that examiner rejected application claims 29 through 32 as unpatentable over the prior art reference Schneidewend. (JX-9 at VIZ VID 0000854-857.) In response to this office action, applicant cancelled application claim 29, left application claims 30 through 32 pending as they were, and added additional application claims 33 though 47. (*Id.* at VIZ VID 0000816-821.) In the remarks supporting the amendment, applicant traversed the rejection relating to the Schneidewend reference, arguing that

> Claim 32 recites "a first channel control switch to navigate sequentially a first sequence of anchor channels; and a second channel control switch to navigate one or more channels multiplexed with an anchor channel." Thus, each "control switch" of claim 32 is used to "navigate sequentially a . . . sequence of . . . channels." At a minimum, Schneidewend nowhere teaches or suggests that "a . . . sequence of . . . channels" is navigated.
>
> The Examiner asserted that Schneidewend discloses the subject matter of claims 30-32 because the reference discloses channel control switches. However, the cited portions of Schneidewend all discuss at most switching between columns and rows of a program guide table. (See Schneidewend, Figs. 11-13, col. 11, line 64 - col. 12, line 34.) Schneidewend's program guide is plainly no more than a table of information, and does not in any way include actual channels. (Schneidewend, Figs. 12-13.) Moreover, Schneidewend does not at all teach or suggest any mechanism to "navigate sequentially a . . . sequence of . . . channels." Further, Schneidewend cannot, therefore, teach or suggest the recited "first channel control switch" and "second channel control switch."
>
> For at least the foregoing reasons, claim 32 is patentable over Schneidewend. For similar reasons, claims 30-31 are also patentable over Schneidewend.

(*Id.* at VIZ VID 0000822 (emphasis in original).) In the above quote, applicant expressly stated that application claim 32, as well as application claims 30 and 31 (issued claim 5), does not

involve navigation through the columns and rows of a program guide table, or table of information, but instead involves sequential navigation using "channel control switch[es]" through a sequence of "actual channels." Thus it is necessary to exclude a claim interpretation of "sequential navigation" that is so broad as to include navigation through a program guide that uses a table of information. *Phillips*, 415 F.3d at 1317.

As further support for this finding, it is noted that examiner rejected applicant's remarks with respect to application claims 30 through 32 in a further office action (JX-9 at VIZ VID 0000810), and applicant responded by amending application claims 30 through 32 to what has become their issued form. (*Id.* at VIZ VID 0000796-98.) In the remarks, applicant made additional disclaimers with respect to the scope of the amended claims:

> Claim 30 was rejected as allegedly anticipated by Schneidewend. However, Schneidewend teaches at most displaying an electronic program guide (Schneidewend, Figs. 12-13) of channel identifiers (Schneidewend, col. 2, lines 6-13), and navigating the fields of the program guide containing the channel identifiers. (Schneidewend, col. 11, line 37 col. 12, line 19.) From the program guide, a user may select a minor channel for viewing (Schneidewend, Fig. 11, steps 1120 and 1150). After the user selects a minor channel for viewing, the corresponding minor channel is displayed (Schneidewend, Fig. 11, step 1125) and the Schneidewend process ends (Schneidewend, Fig. 11, step 1900). Schneidewend does not teach or suggest displaying any form of program guide while a program channel is displayed. Schneidewend also does not teach or suggest viewing the major channels, and in fact teaches that, within the program guide, selecting a major channel results only in expansion of the program guide to display the minor channel indicators (Schneidewend, Fig. 11, steps 1140 and 1145).
>
> Accordingly, Schneidewend does not teach or suggest "an indication selectively superimposed over a display of a channel" because Schneidewend teaches a display of an electronic program guide of channel identifiers (Schneidewend, col. 1, line 66 - col. 2, line 13), not a display of the channels themselves. At most, Schneidewend teaches that a channel may be selected from the program guide for display (Schneidewend, Fig. 11). However, once a channel is displayed, Schneidewend's program guide display process ends (Schneidewend, Fig. 11, step 1900). Neither Schneidewend's program guide nor the associated channel identifiers are ever "superimposed" over any channel, nor indeed do they appear to be associated with a display of a channel in any manner whatsoever.

> Therefore, Schneidewend cannot teach or suggest "an indication selectively superimposed over a display of a channel of the plurality of channels."
>
> Moreover, Schneidewend does not teach or suggest to "navigate the plurality of channels." As discussed above, Schneidewend at most teaches to navigate through channel indications in a program guide, not to "navigate the plurality of channels," and also not to "navigate said at least one multiplexed channel."
>
> For at least these reasons, claim 30 is patentable over Schneidewend. For similar reasons, independent claim 31 is also patentable over Schneidewend.

(*Id.* at VIZ VID 0000803-04 (emphasis in original).) Thus, according to applicant, Schneidewend differs from both application claim 30 and application claim 31 (issued claim 5) because it teaches a display of "an electronic program guide of channel identifiers . . . not a display of the channels themselves." Furthermore, applicant noted that Schneidewend differs from the two application claims because it, at most, teaches to navigate through channel *indications* in a program guide, not to navigate *channels*. These remarks reiterate that applicant understood application claim 31 (issued claim 5) to involve navigation of channels, not the navigation of channel information in a program guide.

In view of the intrinsic record, the Administrative Law Judge finds that a person of ordinary skill in the art would understand that "sequential navigation" should mean "changing from one channel to the next available channel."

The Administrative Law Judge rejects the language "in a first predefined sequence" proposed by Cablevision and Staff. Cablevision does not explain its rationale for this language in its brief. (RBr. at 106-7.) Staff points to general passages in the specification to support the proposed construction. (SBr. at 72-73.) However, the specification and file history, discussed in detail above, do not contain express definitions or disclaimers that would suggest that "sequential navigation" should be so limited. *Laryngeal Mask*, 618 F.3d at 1372; *Phillips*, 415 F.3d at 1316.

5. *"First Channel Control Switch Signal"*; and *"Second Channel Control Switch Signal"*

Verizon proposes that "first channel control switch signal" should not be construed, or alternatively, that it should mean a "signal for navigation between channels." (CBr. at 105.) Verizon also believes that "second channel control switch signal" does not need to be construed, but alternatively argues that it means "signal, different from the first channel controls switch, for navigation between channels." (*Id.*) Cablevision and Staff argue that "first channel control switch signal" means "a signal which results in navigation from one channel to the next channel in a first predefined sequence." (RBr. at 107-8; SBr. at 73.) Staff adds a comma after "signal." (SBr. at 73.) With respect to "second channel control switch signal," Cablevision and Staff argue that it means "a signal, different from the first channel control switch, which results in navigation from one channel to the next channel in a second pre-defined sequence, different from the first predefined sequence." (RBr. at 108; SBr. at 75.)

The language at issue appears in claim 5 of the '214 patent as follows:

> **5.** An apparatus for providing channel selection, the apparatus comprising:
>
> a receiver operative to receive a plurality of anchor channels, with at least one of the anchor channels having at least one multiplexed channel associated therewith, wherein the receiver is further operative to provide an indication whether a selected anchor channel has at least one multiplex channel associated therewith;
>
> wherein the indication is superimposed over a display of a channel;
>
> the apparatus configured to receive a <u>first channel control switch signal for sequential navigation</u> of the plurality of anchor channels; and
>
> the apparatus configured to receive a <u>second channel control switch signal for sequential navigation</u> of the at least one multiplexed channel.

(JX-2 at 10:24-39 (emphasis added).) As noted above with respect to "sequential navigation" the channel selection apparatus receives two channel control switch signals for sequential navigation of multiple anchor channels and the multiplexed channel(s), respectively. The Administrative

Law Judge determined above that "sequential navigation" means "changing from one channel to the next available channel." Thus, when viewed in context, a person of ordinary skill in the art would find that "[a] first channel control switch signal [for sequential navigation of the plurality of anchor channels]" should be given its plain and ordinary meaning, that is, a first type of signal for changing from one of the plurality of anchor channels to the next available anchor channel. Likewise, a person of ordinary skill in the art would find that "[a] second channel control switch signal [for sequential navigation of the at least one multiplexed channel]" should also be given its plain and ordinary meaning, that is, a second type of signal for changing from the at least one multiplexed channel to the next available multiplexed channel.

The Administrative Law Judge finds, for the reasons discussed in detail above with respect to "sequential navigation" that there is nothing in the intrinsic record to contradict this finding. The Administrative Law Judge further rejects the language "in a first predefined sequence" proposed by Cablevision and Staff for the reasons discussed above with respect to "sequential navigation." The Administrative Law Judge further rejects the language "signal which results in navigation from one channel to the next channel" proposed by Cablevision and Staff as redundant in light of the construction of "sequential navigation."

The Administrative Law Judge further rejects Verizon's argument that the first and second control switch signals may provide for navigation that includes "browsing by channel." (CBr. at 105.) To the extent that Verizon means browsing by channel within a program guide table, Applicant made clear and unmistakable disclaimers of this form of activity during prosecution of the '214 patent application. (*See* discussion of "sequential navigation" above. *See also* JX-9.)

The Administrative Law Judge further rejects Cablevision's argument with respect to "multiple independent signals" (RBr. at 109) to the extent that Cablevision is asserting that the "channel control switch signal" must be limited to a single keypress. As noted above, claim 5 of the '214 patent is open ended and may include other unrecited steps. Furthermore, even though applicant made disclaimers in the file history with respect to navigation between channels (*see* discussion above), there are no equivalent disclaimers to support a finding that claim 5 is not open ended. (JX-9.)

IV. INFRINGEMENT DETERMINATION

A. Applicable Law

1. Direct Infringement.

"Determination of infringement is a two-step process which consists of determining the scope of the asserted claim (claim construction) and then comparing the accused product . . . to the claim as construed." *Certain Sucralose, Sweeteners Containing Sucralose, and Related Intermediate Compounds Thereof*, Inv. No. 337-TA-604, Comm'n Op. at 36 (U.S.I.T.C., April 28, 2009) (citing *Litton Sys., Inc. v. Honeywell, Inc.*, 140 F.3d 1449, 1454 (Fed. Cir. 1998) "*Litton*"). An accused device literally infringes a patent claim if it contains each limitation recited in the claim exactly. *Litton*, 140 F.3d at 1454. Each patent claim element or limitation is considered material and essential. *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991). In a Section 337 investigation, the complainant bears the burden of proving infringement of the asserted patent claims by a preponderance of the evidence. *Enercon GmbH v. Int'l Trade Comm'n,* 151 F.3d 1376, 1384 (Fed. Cir. 1998).

If the accused product does not literally infringe the patent claim, infringement might be found under the doctrine of equivalents. The Supreme Court has described the essential inquiry

of the doctrine of equivalents analysis in terms of whether the accused product or process contains elements identical or equivalent to each claimed element of the patented invention. *Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 40 (1997). Under the doctrine of equivalents, infringement may be found if the accused product or process performs substantially the same function in substantially the same way to obtain substantially the same result. *Valmont Indus., Inc. v. Reinke Mfg. Co.*, 983 F.2d 1039, 1043 (Fed. Cir. 1993).

2. Indirect Infringement.

Induced Infringement.

"Whoever actively induces infringement of a patent shall be liable as an infringer." 35 U.S.C. § 271(b). A patentee asserting a claim of inducement must show (i) that there has been direct infringement and (ii) that the alleged infringer "knowingly induced infringement and possessed specific intent to encourage another's infringement." *Minnesota Mining & Mfg. Co. v. Chemque, Inc.*, 303 F.3d 1294, 1304-05 (Fed. Cir. 2002). The specific intent requirement for inducement necessitates a showing that the alleged infringer was aware of the patent, induced direct infringement, and that he knew or should have known that his actions would induce actual direct infringement. *DSU Medical Corp. v. JMS Co., Ltd.*, 471 F.3d 1293, 1305 (Fed. Cir. 2006) (en banc in relevant part). The intent to induce infringement may be proven with circumstantial or direct evidence and may be inferred from all the circumstances. *Id.* at 1306; *Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 699 (Fed. Cir. 2008).

Contributory Infringement.

35 U.S.C. § 271(c) sets forth the rules for contributory infringement:

> Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially

> made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

35 U.S.C. § 271(c). Specifically with respect to Section 337 investigations, the Federal Circuit has held that "to prevail on contributory infringement in a Section 337 case, the complainant must show inter alia: (1) there is an act of direct infringement in violation of Section 337; (2) the accused device has no substantial non-infringing uses; and (3) the accused infringer imported, sold for importation, or sold after importation within the United States, the accused components that contributed to another's direct infringement." *Spansion, Inc. v. International Trade Comm'n*, 629 F.3d 1331, 1353 (Fed. Cir. 2010).

B. Analysis of the Accused Products with Respect to the '293 patent.

1. Literal Infringement.

Claim 38 reads as follows:

> **38.** A set-top terminal device comprising:
>
> a network interface module adapted to couple the terminal to a communication network for receiving at least selected ones of a plurality of broadcast digital broadband channels at least one of which carries audio/video program information in compressed, digital form in packets of a standardized format and at least one of which carries cyclically repetitive transmissions of operating system software in packets of the standardized format; and
>
> a digital entertainment terminal comprising:
>
> (a) an audio/video processor for processing the compressed, digital audio/video program information;
>
> (b) an operating system memory;
>
> (c) a random access memory;
>
> (d) means for receiving inputs from a user; and
>
> (e) a control processor controlling operations of the set-top terminal, wherein
>
> said control processor captures said operating system software from one of the selected digital broadband channels within a transmission cycle, loads the captured operating system software into the operating system memory and begins operation in accord with the operating system software loaded into the operating system memory,

said control processor captures application software received through the network interface module, stores captured application software in the random access memory and executes the stored application software under control of the captured copy of the operating system, and

said control processor controls the network interface module and the audio/video processor in accord with the operating system software loaded in said operating system memory, and controls at least some responses to the user inputs with the application software.

(JX-4 at 47:7-43.)

Verizon says that each of the Accused Products meets every limitation of claim 38 of the '293 patent under the construction of the term "network interface module" proposed by Verizon and Staff. (CBr. at 64 (citing Tr. at 324 (Girod)).) Verizon also contends that these products infringe the patent under Cablevision's proposed claim construction by reason of the doctrine of equivalents. (*Id.* (citing Tr. at 347 (Girod)).)

Staff agrees, generally, that all of the Accused Products infringe claim 38 of the '293 patent, but does not frame its reasoning for doing so in terms of a particular claim construction, an element-by-element analysis, or the doctrine of equivalents but, instead, limits its discussion to some of the terms that Cablevision argues are not met by the Accused Products, such as "within one operating cycle" (SBr. at 25) and "operating system memory" (*id.* at 26).

Although the Administrative Law Judge has not adopted any of the specific claim constructions proposed by the parties, nevertheless, the claim construction that has been arrived at is sufficiently similar to the one that was proposed by Cablevision to allow for an evaluation of Verizon's infringement arguments regarding literal infringement, as well as infringement under the doctrine of equivalents.

Insofar as the issue of literal infringement is concerned, Verizon concedes that none of the Accused Products meets the "plug in unit of circuitry" of claim 38 under Cablevision's

proposed construction. (CBr. at 65.) For that reason, and by virtue of the lack of any evidence demonstrating that fact, the Administrative Law Judge concludes that none of the Accused Products meets that element of the claim.

With respect to the remaining elements of the asserted claim, Verizon contends that each of the Accused Products meets all of these elements, as discussed below.

First, Verizon says that each of the Accused Products meets the preamble of the claim, which recites: "A set-top terminal device comprising[.]" (*Id.* at 64 (citing Tr. at 325, 346 (Girod)).) Verizon states that Cablevision offered no evidence to the contrary. (*Id.*) Although Cablevision denies that any of the Accused Products infringes the '293 patent, it does so, principally, for the reason that none of them includes a "network interface module," and does not dispute Verizon with respect to the preamble of claim 38. (*See* RBr. at 38-41.)

Based on the undisputed testimony of Professor Girod cited above, the Administrative Law Judge concludes that the preponderance of the evidence shows that the preamble of claim 38 is satisfied by each of the Accused Products.

Verizon says that each of the Accused Products literally meets the following language of the first element of claim 38: "a network interface module adapted to couple the terminal to a communication network for receiving at least selected ones of a plurality of broadcast digital broadband channels[.]" (CBr. at 64-65 (citing Tr. at 328-329, 346-347 (Girod)).) Verizon says that under its and Staff's constructions of the term "network interface module" the Accused Products literally satisfy this language because, according to Professor Girod, each contains electronic circuitry for coupling the terminal to a communication network. (*Id.* at 65 (citing Tr. at 293-294 (Girod)).) Verizon argues that {

} (*Id.* (citing Tr. at 294 (Girod)).) Verizon

says that { } in the Accused Products includes { } each with a corresponding { } that allows the set-top boxes { } (*Id.* (citing Tr. at 294 (Girod)).) Verizon says that Cablevision has offered no evidence that the Accused Products do not include a network interface module under the constructions of that term proposed by it and Staff but, instead, challenged that construction with respect to whether electronic circuitry can physically connect a set-top box to a communication network. (*Id.* (citing Tr. at 1590 (Schonfeld)).)

Since the Administrative Law Judge has concluded that the term "network interface module" means "a plug in unit of electronic circuitry to a digital entertainment terminal for connecting to a communication network," which Verizon has conceded is not met by the Accused Products, the Administrative Law Judge finds that this limitation is not literally satisfied by any of the Accused Products.

Verizon contends that each of the Accused Products literally meets the following language of the first element of claim 38: "at least one of which carries audio/video program information in compressed digital form in packets of a standardized format." (*Id.* at 65-66.) According to Verizon, this limitation has not been disputed by Cablevision and is supported by testimony of Professor Girod who said that the Accused Products receive numerous digital broadband channels that carry "audio/video program information in compressed digital form in packets of a standardized format. (*Id.*) Verizon says that, under the preferred embodiment of the '293 patent, { } in Cablevision's network is { } (*Id.* (citing Tr. at 330 (Girod),

1492 (Durden)).) Verizon also says that Cablevision offered no contrary evidence on this point. (*Id.*)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 38, bearing in mind, however, that they still do not meet the "network interface module" portion of the first element of claim 38, for reasons already given.

Verizon argues that each of the Accused Products satisfies the following language from the first element of claim 38: "and at least one of which carries cyclically repetitive transmissions of operating system software in packets of the standardized format; and[.]" (*Id.* at 66.) Verizon says that Cablevision did not dispute this fact at the Hearing and that Professor Girod testified that Cablevision's set-top boxes {

} to the set-top boxes. (*Id.* (citing Tr. at 330-331 (Girod)).)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 38, bearing in mind, however, that despite satisfying this language of the claim, they still do not meet the "network interface module" portion of the first element of claim 38, for reasons already given. This exception regarding the Accused Products' failure to satisfy the "network interface module" term of the patent applies as well to each of the

following discussions that address the remaining portions of claim 38 of the '293 patent and therefore will not be repeated.

Verizon argues that each of the Accused Products satisfies the following language of the second element of claim 38: "a digital entertainment terminal comprising" and that Cablevision did not dispute this fact at the Hearing. (*Id.*) Verizon says that all of the parties agree that the just-quoted term means "electronic circuitry contained in the set-top terminal device for the purpose of providing digital audio/video entertainment to the user." (*Id.*) Verizon says that Professor Girod testified that Cablevision's set-top boxes contain electronic circuitry for providing digital audio/video entertainment to a Cablevision user. (*Id.* (citing Tr. at 331-332, 346 (Girod)).)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 38.

Verizon says that each of the Accused Products satisfies the following language from the second element of claim 38 of the '293 patent: "(a) an audio/video processor for processing the compressed, digital audio/video program information[.]" Verizon points to testimony given by Professor Girod (Tr. at 333, 346 (Girod)) and says that each of Cablevision's accused set-top boxes {

} over Cablevision's network {

} (CBr. at 67.) Verizon says that Cablevision offered no evidence to the contrary. (*Id.*)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 38.

Verizon says that each of the Accused Products satisfies the following language from the second element of claim 38 of the '293 patent: "(b) an operating system memory[.]" (*Id.*) Verizon says that all of the parties have agreed that the term "operating system memory" means "memory storing operating system." (*Id.* (citing Revised Joint Claim Constr. at 2).) Verizon, in support of this argument, points to the testimony of Professor Girod, who said that each of the Accused Products contains memory for storing an operating system for the terminal. (*Id.* (citing Tr. at 346 (Girod)).) Verizon says that Cablevision has not provided any evidence to the contrary. (*Id.*)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 38.

Verizon says that each of the Accused Products satisfies the following language from the second element of claim 38 of the '293 patent: "(c) a random access memory[.]" (*Id.*) Each of the Accused Products contains { } says Verizon, pointing to testimony of Professor Girod. (*Id.* (citing Tr. at 334, 346 (Girod)).)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law

Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 38.

Verizon says that each of the Accused Products satisfies the following language from the second element of claim 38 of the '293 patent: "(d) means for receiving inputs from a user[.]" (*Id.*) Verizon says that all of the parties have agreed that this is a means-plus-function limitation and that the function is "receiving inputs from a user." (*Id.* at 67-68 (citing Revised Joint Claim Constr. at 2).) According to Professor Girod, each of the Accused Products includes an infrared receiver that receives inputs from a user's remote control. (Tr. at 335, 346 (Girod).)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 38.

Verizon says that each of the Accused Products satisfies the following language from the second element of claim 38 of the '293 patent: "(e) a control processor controlling operations of the set-top terminal wherein[.]" (*Id.* at 68.) Verizon says that this fact is undisputed by Cablevision and is supported by testimony of Professor Girod. (*Id.* (citing Tr. at 335, 346 (Girod)).)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 38.

Verizon contends that each of the Accused Products satisfies the following language from the second element of claim 38 of the '293 patent: "said control processor captures said

operating system software from one of the selected digital broadband channels within a transmission cycle[.]" (*Id.*) According to Verizon, satisfaction of this limitation was not disputed by Cablevision and the evidence shows that { } in each of the Accused Products { } (*Id.*) Pointing to testimony of Professor Girod, Verizon argues that software code for the Accused Products { } (*Id.* (citing Tr. at 337, 550-552 (Girod)).) According to Verizon, Greg Durden, an engineer for Cisco, { } the Accused Products { } (*Id.* at 68-69.) Verizon says that Cablevision does not dispute Verizon's allegation regarding this element. (*Id.* at 69.)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 38.

Verizon argues that each of the Accused Products satisfies the following language of the third limitation of claim 38 of the '293 patent: "loads the captured operating system software into operating system memory and[.]" (*Id.*) According to Verizon, Cablevision has not disputed this alleged fact and Professor Girod explained during his testimony that, { } in the Accused Products are { } (*Id.* (citing Tr. at 337, 346 (Girod)).)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 38.

Verizon says that each of the Accused Products satisfies the following language of the third element of claim 38 of the '293 patent: "begins operation in accord with the operating system software loaded into the operating system memory[.]" (*Id.*) According to Verizon, {

}

in each of the Accused Products {

} (*Id.* (citing Tr. at 337-338, 346 (Girod)).) Professor Girod, says Verizon, testified that the accused set-top boxes will {

} (*Id.* (citing Tr. at 337-338 (Girod)).) Verizon again points to the testimony of Mr. Durden, who testified that {

} (*Id.* at 69-70 (citing Tr. at 1495 (Durden)).)

Verizon argues that Professor Schonfeld, Cablevision's expert, erroneously concluded that this limitation was not met because the '293 specification includes an embodiment that describes storing a downloaded operating system into operating system memory and executing out of the same operating system memory after rebooting. (*Id.* at 70 (citing Tr. at 1606-07 (Schonfeld)).) According to Verizon, Professor Schonfeld claims that Cablevision's set-top boxes do not infringe claim 38 because {

} (*Id.* (citing Tr. at 1609

(Schonfeld)).) This is unsound, says Verizon, because {

} argues Verizon, the accused set-top boxes satisfy the claim limitation. (*Id.*) Verizon says that the "in accord with" language that is at the center of Professor Schonfeld's statement of non-infringement can be met in different ways under the patent, including {

} (*Id.* at 70-71.)

Moreover, says Verizon, Cablevision's reading of this claim limitation is at odds with other elements of the claim, referencing the following passage: "stor[ing] captured application software in the random access memory and *execut[ing]* the stored application software under the control of the captured copy of the operating system." (*Id.* at 71 (referring to JX-4 at 47:34-38) (interpolations and emphasis supplied by Verizon).) Thus, according to Verizon, the '293 patent inventors were aware of the meaning of the word "execution" in relation to the use of operating software, and when in the course of expressing claim 38, they used the words "in accord with operating system software," they simply meant that the terminal operations begin by using the new operating system software regardless of where it is fetched. (*Id.*)

In response, Cablevision says that Verizon's argument conflicts with the specification of the '293 patent. (RRBr. at 16.) According to Cablevision, the '293 specification confirms that the *operating system* software is stored in and executed from the "operating system memory" (*id.* (citing JX-4 at 38:27-38)), which, Cablevision says, explains in detail that the operating system software cannot be simply "executed" once it has been downloaded into operation system

memory; instead, it must follow a special upgrade procedure. (*Id.* (citing JX-4 at 37:60-39:36).) In contrast, says Cablevision, *application* software does not require this upgrade procedure and can be executed upon being downloaded. (*Id.* (citing JX-4 at 34:18-39).) This distinction between operating system software and application software, says Cablevision, explains the difference between the words "in accord with" (used in respect to operating system software) and "executes" (used with respect to application software) in claim 38; the '293 specification requires the operating system software to be executed out of the memory where it is stored, but not so application software. (*Id.*) Furthermore, argues Cablevision, Verizon's argument would render the claim language "loaded into operating system memory" superfluous if all that the claim requires is that "the control processor begins operation in accord with the operating system software" regardless of where that software is executed, because in that case there would be no reason for reciting where the specified operating system is loaded. (*Id.*)

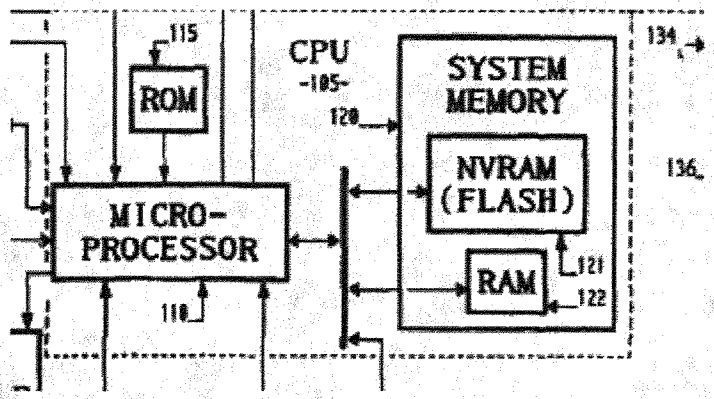
The Administrative Law Judge concludes that the evidence is more supportive of Cablevision's than Verizon's position on this point. The language in the third element of claim 38, as pertinent here, states: "said control processor…loads the captured operating system software into the operating system memory and begins operation in accord with the operating system software loaded into the operating system memory[.]" (JX-4 at 47:26-32.) The parties have not proposed a claim construction with respect to whether the operating system memory is non-volatile. The language of this claim, to the extent that any of the words cannot be understood in light of their usual and ordinary meanings, should be construed in the context of the entire patent, including the specification. *Phillips,* 415 F.3d at 1313. The '293 specification states:

> Once the operating system is fully loaded into the sectors of the flash memory, then the microprocessor executes another checksum operation (step S9). If the

> checksum operation produces a "valid" result indicating no errors are present in the operating system now loaded into flash memory **121**, the operating system has been successfully loaded, and the microprocessor **110** therefore initiates a reboot routine (step S**10**). As a result of the reboot, the microprocessor begins running the new operating system from the flash memory, and the upgrade procedure is complete.

(JX-4 [the '293 patent] at 38:27-37.) Flash memory, as identified at JX-4 at 38:21 and depicted at item 121 in Figure 6 of the patent, is non-volatile random access memory, as confirmed by the words of the specification. (JX-4 at 17:50.) Once the operating system has been successfully loaded and the microprocessor has initiated a reboot routine, the microprocessor then begins running the new operating system from flash memory, and the upgrade procedure is complete, according to the specification at col. 38, ll. 27-37. This procedure is illustrated in Figure 9 (below) which shows the extraction of new operating system data (**S5**) to RAM (**122**)[21] which is then copied to NVRAM (**121**)[22] at step **S8**, and once the new operating system data is validated, as shown at step **S9**, the operating system reboots, whereupon the microprocessor begins running the new operating system from flash memory, NVRAM (**121**), but not from RAM (**122**).

[21] Shown in Figure 6.



(JX-4 at Fig. 6 (detail).)

[22] Shown in Figure 6.

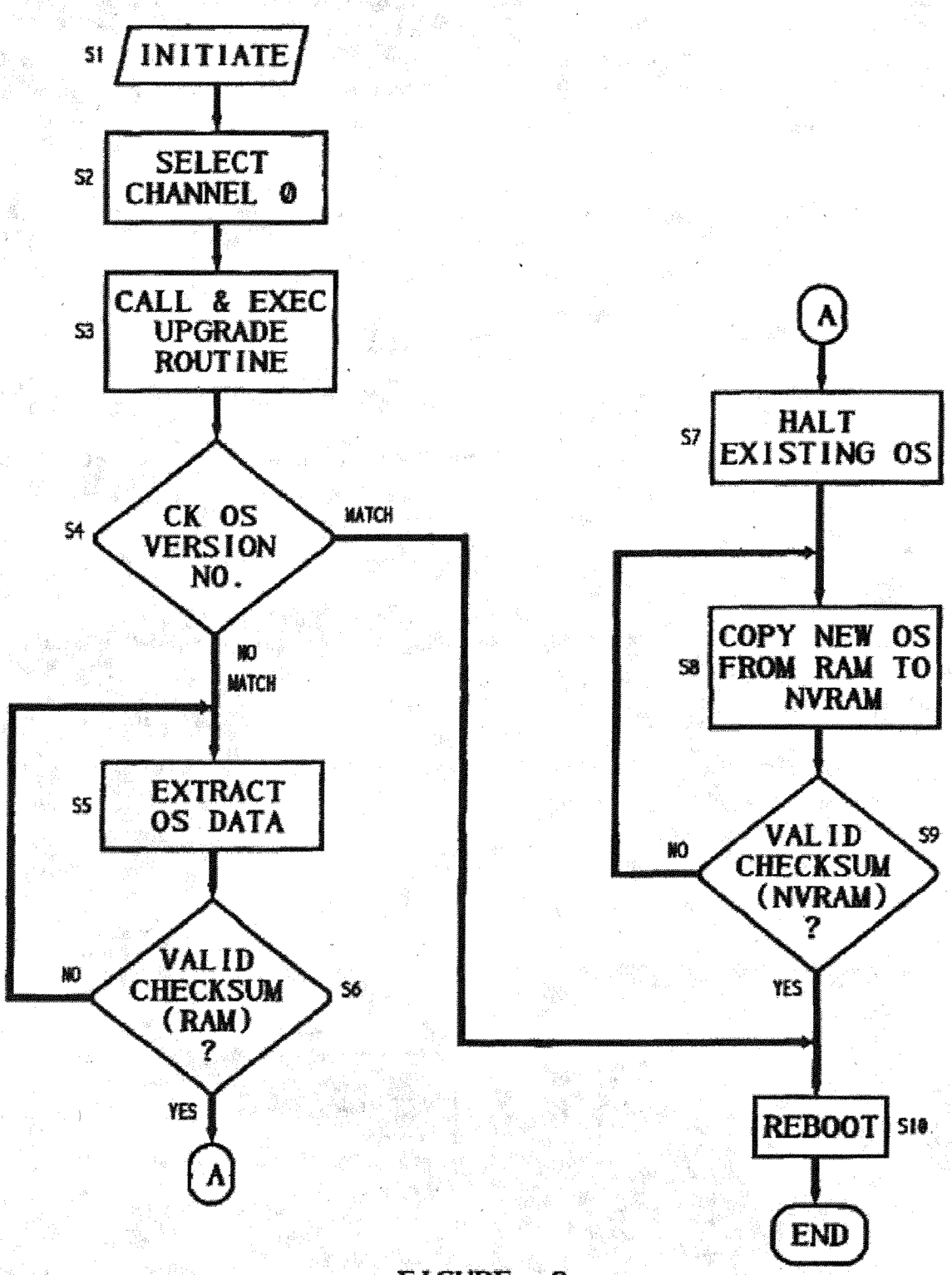

S1
INITIATE
S2
SELECT CHANNEL 0
S3
CALL & EXEC UPGRADE ROUTINE
S4
CK OS VERSION NO.
MATCH
NO MATCH
S5
EXTRACT OS DATA
S6
VALID CHECKSUM (RAM) ?
NO
YES
A
A
S7
HALT EXISTING OS
S8
COPY NEW OS FROM RAM TO NVRAM
S9
VALID CHECKSUM (NVRAM) ?
NO
YES
S10
REBOOT
END

FIGURE 9

(JX-4 at Fig. 9.) This is consistent with Professor Schonfeld's conclusion that the Accused Products, all of which {

} do not perform the third element of claim 38 in accordance with the limitation as it is there described. (Tr. at 1603-14 (Schonfeld).)

Verizon's argument that the patent at col. 47, ll. 34-38 contravenes Cablevision's contentions fails, as Cablevision points out in its response, because there is a distinction between the third and fourth elements of claim 38 with respect to how new operating software is handled and how new application software is handled. (*See* RRBr. at 16.) Verizon's fails to reconcile its rejoinder to Cablevision's argument—that "in accord with" is a broad term that does not mean "executed from" (CRBr. at 38) —with the specification language that states, "[a]s a result of the reboot, the microprocessor begins running the new operating system *from* the flash memory...." (JX-4 at 38:35-37 (emphasis added).) Verizon's argument, rather than reading the claim language in light of the context of the entire patent, simply argues that the word "accord" is a broader word than "executes," but in the process of doing so, fails to overcome Professor Schonfeld and Cablevision's point.

Therefore, the Administrative Law Judge concludes that none of the Accused Products satisfies the third element of claim 38 of the '293 patent.

Verizon says that each of the Accused Products satisfies the following language of the fourth element of claim 38 of the '293 patent: "said control processor captures application software received through the network interface module[.]" (CBr. at 71.) According to Verizon, this limitation has not been disputed by Cablevision and, according to Professor Girod, each of the Accused Products {

} (*Id.* (citing Tr. at 339, 346 (Girod)).)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 38.

Verizon says that each of the Accused Products satisfies the following language of the fourth element of claim 38 of the '293 patent: "stores captured application software in the random access memory and[.]" (*Id.* at 72.) Verizon points to testimony of Professor Girod saying that {

}of the Accused Products { } (*Id.* (citing Tr. at 339, 346 (Girod)).) Verizon says that this assertion of fact has not been contradicted by Cablevision. (*Id.*)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 38.

Verizon says that each of the Accused Products satisfies the following language of claim 38 of the '293 patent: "executes the stored application software under control of the captured copy of the operating system, and[.]" (*Id.*) According to Professor Girod, {

} in each of the Accused Products {

} (*Id.* (citing Tr. at 342-343, 346 (Girod)).) Verizon says that Cablevision offered no evidence to the contrary. (*Id.*)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 38.

Verizon says that each of the Accused Products satisfies the following language of the fifth element of claim 38 of the '293 patent: "said control processor controls the network interface module and the audio/video processor in accord with the operating system software loaded in said operating system memory, and[.]" (*Id.*) According to Professor Girod, {

} in the Accused Products {

} (*Id.* at 72-73 (citing Tr. at 344-346 (Girod)).) Verizon says that Cablevision offered no evidence to the contrary. (*Id.* at 73.)

Cablevision offered on evidence in contradiction to this allegation and therefore has waived the issue by reason of Ground Rule 10.1.

Verizon says that each of the Accused Products satisfies the following language of the fifth element of claim 38: "controls at least some responses to the user inputs with the application software[.]" (*Id.*) According to Professor Girod, when a Cablevision user {

} (*Id.* (citing Tr. at 345-346 (Girod)).) Verizon says that Cablevision offered no evidence to the contrary. (*Id.*)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 38.

Therefore, in light of the preceding analysis, the Administrative Law Judge concludes that none of the Accused Products infringes claim 38 of the '293 patent.

2. Infringement under the Doctrine of Equivalents.

Verizon concedes that under Cablevision's proposed construction none of the Accused Products infringe claim 38 because none of them includes a "plug in unit of circuitry." (CBr. at 65.) Verizon argues that each of the Accused Products infringes claim 38 of the '293 under the doctrine of equivalents. (*Id.* (citing Tr. at 347).) Verizon here adopts its argument with respect to the term "plug in unit of circuitry" that Verizon had made regarding claim 14 of the '979 patent in relation to the application of "network interface module." (*Id.* (referring to CBr. at 33-34).)

Similarly, Cablevision submits the same response to Verizon's infringement assertion that the Accused Products infringe claim 38 of the '293 patent under the doctrine of equivalents as it did on that issue as it related to claim 14 of the '979 patent. (*See* RBr. at 41-43; RRBr. at 14-15.) Inasmuch as the '293 patent is a continuation of the '979 patent (JX-4 at VZ VID 0000019; JX-5 at VZ VID 1), it is appropriate for purposes of analysis and discussion of infringement of claim 38 of the '293 patent under the doctrine of equivalents to adopt and incorporate here the analysis and discussion given below (Section IV.C.2.) on the issue of infringement under the doctrine of equivalents with respect to claim 14 of the '979 patent.

As explained in Section IV.C.2., for the reasons recounted by Professor Schonfeld, the Administrative Law Judge concludes that the Accused Products do not perform substantially the same function in substantially the same way to achieve substantially the same result as the network interface module described in claim 38 of the '293 patent. (Tr. at 1587-89 (Schonfeld).)

C. Analysis of the Accused Products with Respect to the '979 patent.

1. Literal Infringement.

Verizon argues that the Accused Products meet all of the limitations of claim 14 of the '979 patent with respect to Verizon's and Staff's proposed constructions. (CBr. at 32 (citing Tr. at 281 (Girod)).) Verizon also contends that those products also infringe the patent under Cablevision's proposed claim construction by reason of the doctrine of equivalents. (*Id.* (citing Tr. at 323 (Girod)).)

Staff agrees, generally, that all of the Accused Products infringe claim 14 of the '979 patent, but does not frame its rationale for doing so in terms of a particular claim construction, an element-by-element analysis, or the doctrine of equivalents. Instead, Staff's discussion is limited to whether the Accused Products meet the "system memory" requirement, concluding that they do. (SBr. at 46-47.)

Although the Administrative Law Judge has not adopted any of the specific claim constructions proposed by the parties, nevertheless, the claim construction that has been arrived at is sufficiently similar to the one that was proposed by Cablevision to allow for an evaluation of Verizon's infringement arguments regarding literal infringement, as well as infringement under the doctrine of equivalents.

Claim 14 reads as follows:

14. A digital entertainment terminal comprising:

a network interface module for coupling the terminal to a communication network for receiving a digital broadband channel and providing two-way control signaling communication between the terminal and the network;

a control processor controlling operations of the terminal and sending and receiving control signals over the two-way control signaling channel through the network interface module;

means for receiving inputs from a user and providing corresponding signals to the control processor;

system memory for storing software executable by the control processor, the system memory comprising non-volatile memory storing an operating system for the control processor and random access memory storing application software executable by the control processor, at least a portion of the application software having been received over the communication network; and

an audio/video processor responsive to compressed, digital audio and video information received over the digital broadband channel through the network interface module and controlled by the control processor during execution of said software, the audio/video processor comprising:

(a) an audio/video decoder for decompressing the compressed, digital information received over the broadband channel to produce a decompressed video signal and a decompressed audio signal;

(b) a graphics overlay controller, controlled by the control processor during execution of said software, for generating graphic display information; and

(c) means for combining the graphic display information with the decompressed video signal, to produce a signal for driving a video display device.

(JX-5 at 21:57-22:23.)

Insofar as the issue of literal infringement is concerned, Verizon concedes that none of the Accused Products meets the "plug in unit of circuitry" of the claim under Cablevision's proposed construction. (CBr. at 34.) For that reason, and by virtue of the lack of any evidence demonstrating that fact, the Administrative Law Judge concludes that none of the Accused Products literally meets that element of the asserted claims.

With respect to the remaining elements of the asserted claims, Verizon contends that each of the Accused Products meets all of these elements.

Verizon contends that each of the Accused Products constitutes a "digital entertainment terminal" as the parties have agreed that term should be construed. (*Id.* (citing Revised Joint Claim Construction at 4; Tr. at 123-124 (Girod)).) Although Cablevision denies that any of the Accused Products infringes the '979 patent, it does so for the reason that none of them includes a "network interface module," but does not dispute Verizon with respect to this element of claim 14.

Based on the undisputed testimony of Professor Girod, the Administrative Law Judge concludes that the preponderance of the evidence shows that this element of claim 14 is met by the Accused Products.

Verizon says that each of the Accused Products includes { } in accordance with the second element of claim 14. (*Id.* at 35 (citing Tr. at 297-298, 316-320 (Girod)).) Cablevision does not dispute this allegation and the testimony of Professor Girod has not been rebutted. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 14.

Verizon says that the { } mentioned in the preceding paragraph also meet the second limitation of claim 14 with respect to "sending and receiving control signals over the two-way control signaling channel through the network interface module[.]" (*Id.* (citing Tr. at 297 and 316-320 (Girod)).) Verizon says that all parties agree that that "two-way control signaling channel" mentioned in claim 14 should be construed as a "channel for sending and receiving of control signals." (*Id.*) Verizon notes that Professor Girod testified { } in each of the Accused Products { } (*Id.*)

Cablevision does not dispute this allegation, and the testimony of Professor Girod has not been rebutted. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 14.

Verizon says that each of the Accused Products meet the third limitation of claim 14, which reads, "means for receiving inputs from a user and providing corresponding signals to the control processor." Verizon maintains that none of the parties disputed this fact at the Hearing. Verizon says this element of claim 14 is a means-plus-function limitation and that all parties agree that the function involved is "receiving inputs from a user and providing corresponding signals to the control processor." (*Id.* at 34-35.) Further, says Verizon, all parties agree that the corresponding structure is an infrared receiver. (*Id.* at 35 (citing to Revised Joint Claim Constr. at 4).) Verizon notes that Professor Girod testified that each of the accused set-top boxes includes an infrared receiver that receives inputs from a user's remote control device {

} (*Id.* (citing Tr. at 299, 318, 320 (Girod)).)

Cablevision does not dispute this allegation, and the testimony of Professor Girod has not been rebutted. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 14.

Verizon says that the Accused Products satisfy the fourth element of claim 14, maintaining the there was no disputing evidence put forth at the Hearing. (*Id.* at 36-37.) Verizon says that each of the Cablevision set-top boxes that has been accused contains a "system memory for storing software executable by the control processor," which is {

} (*Id.* at 36 (citing Tr. at 300 (Girod)).) Furthermore, says Verizon, Professor Girod explained that each of the Accused Products contains {

} (*Id.* (citing Tr. at 301 (Girod)).) According to Verizon, {

} of the Accused Products is "received over the communication network" thereby "dynamically updating the functionality of the terminal by downloading application software." (*Id.* (citing Tr. at 300 (Girod)).) Verizon argues that {

} in the Accused Products {

} (*Id.* at 36-37.) Verizon says that Cablevision offered no evidence to the contrary and its expert Professor Schonfeld agreed with Professor Girod that the Accused Products {

} Cablevision's network. (*Id.* at 37 (citing Tr. at 1781 (Schonfeld)).)

Cablevision has not refuted this allegation, and the testimony of Professor Girod is not rebutted. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 14.

Verizon says that the Accused Products satisfy the first portion of the fourth element of claim 14 beginning with the words "an audio/video processor" and ending with "the audio/video processor comprising:". (*Id.*) Verizon refers to the testimony of Professor Girod (Tr. at 306-307, 316-318, 320) for this contention and states that Cablevision offered no evidence to the contrary. (*Id.*)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been rebutted. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 14.

Verizon argues that part (a) of the fourth element claim 14 of the '979 patent is literally met by the Accused Products, according to the testimony of Professor Girod who said that each includes "an audio/video decoder for decompressing the compressed, digital information received over the broadband channel to produce a decompressed video signal and a

decompressed audio signal" and, specifically, that these include {

}

(*Id.* at 38 (citing Tr. at 309-310, 318 (Girod)).) Verizon says that Cablevision has offered no contrary evidence. (*Id.*)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been rebutted. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 14.

Verizon says that each of the Accused Products satisfies part (b) of the fourth element of claim 14 of the '979 patent in that { } identified by Professor Girod included a {

} (*Id.* (citing Tr. at 312, 316-317 (Girod)).) According to Verizon, Professor Girod explained that {

} each of the Accused Products {

}

(*Id.* (citing Tr. at 311-312 (Girod)).) Verizon says that {

} of the Accused Products, {

} (*Id.* (citing Tr. at 297-298 (Girod)).) Verizon states that Cablevision did not offer any evidence to the contrary. (*Id.*)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 14.

Verizon argues that each of the Accused Products satisfies part (c) of the fourth element of claim 14 of the '979 patent. (*Id.* at 39.) According to Verizon, all of the parties agree that this is a means-plus-function limitation and that the function involved is "combining the graphic display information with the decompressed video signal to produce a signal for driving a video display device." (*Id.* (citing Revised Joint Claim Constr. at 5).) Verizon says that all of the parties agree that { } and that in each of the Accused Products { } that were identified by Professor Girod include {

} (*Id.* (citing Tr. at 314, 316-320 (Girod)).)

Cablevision has not refuted Verizon on this point, and the testimony of Professor Girod has not been contradicted by any countervailing evidence. Therefore, the Administrative Law Judge finds that the preponderance of the evidence shows that each of the Accused Products literally satisfies this element of claim 14.

Recapitulating the foregoing, the Administrative Law Judge finds that the preponderance of the evidence fails to demonstrate that any of the Accused Products literally infringes claim 14 of the '979 patent because none of them satisfies the first element of the claim: "a plug in unit of electronic circuitry for connecting a digital entertainment terminal to a communication network." But, to the extent recounted above, the Accused Products are found to literally satisfy other limitations of claim 14.

[23] Although the words that make up this acronym, unlike some of the other acronyms that are mentioned in the patents, are not identified, this acronym does not require any explanation, as it is so commonly used in everyday language as to be readily understood: random access memory. (*See, for example, Merriam-Webster's Dictionary*, 11th Ed., which traces the origination of the acronym to 1957, well before the date of the patents in issue.)

2. Infringement under the doctrine of equivalents.

Verizon contends that the Accused Products infringe claim 14 of the '979 patent under Cablevision's proposed construction by reason of the doctrine of equivalents. As noted above in Section 1, even though Cablevision's proposed claim construction has not been adopted, it is sufficiently similar to the Administrative Law Judge's construction to make Verizon's arguments applicable to that construction as well.[24] Verizon bases its doctrine of equivalents argument on the function, way, result method of analysis and points to testimony of Professor Girod who, in summary, said that the "function of a network interface module," according to his analysis of the patent, "is to couple the [digital entertainment] terminal to a communication network" through "channel selection, demodulation, and protocol processing[,]" thereby achieving the result of "receiving at least selected ones of a plurality of broadcast digital broadband channels." (CBr. at 34 (quoting Tr. at 322-323 (Girod)).) Verizon argues that Professor Schonfeld, Cablevision's expert on infringement issues, did not dispute Professor Girod's analysis but, instead, raised a red herring by claiming that there is no infringement because the Accused Products {

} (*Id.* (citing Tr. at 1588-89 (Schonfeld)).)

Verizon says that on both of these counts (single network connectivity and irreplaceability) Professor Schonfeld is wrong because nothing in Cablevision's proposed claim construction requires that the network interface module connect a set-top box to multiple networks but, on the contrary, "simply requires that the network interface module to be 'tailored to receive signals for *a particular* physical network.'"[25] (*Id.* (emphasis in original).) Verizon says that Professor Schonfeld's requirement that network interface module be replaceable simply

[24] Verizon is focused on the "plug-in unit of circuitry" aspect of the proposed construction, which is also included in the adopted construction. (*See* CBr. at 34.)

[25] The term "particular physical network" that is part of Cablevision's proposed construction is not included in the Administrative Law Judge's claim construction and therefore this argument is not entirely relevant, but it will be considered insofar as it is found to apply to that construction as well.

rehashes the literal infringement argument under Cablevision's proposed construction and does not address the function-way-result analysis of Professor Girod. (*Id.* at 35.)

Cablevision responds that the "plug in unit of circuitry" aspect of its proposed construction denotes adaptability for different networks. (RBr. at 41 (citing JX-5 at 6:21-24, 10:15-18, 17:69); RRBr. at 14 (citing JX-5 at 6:55-7:9; JX-4 at 17:16-38).) As regards Verizon's second point, Cablevision argues that Professor Girod did not consider replacement and reprogramming of the network interface module for use with different networks in the course of his function-way-result analysis but only considered the isolated function of connecting the digital entertainment terminal to a network and ignored the other functions of the network interface module described in the specification. (*Id.* at 15.)

Cablevision says that Professor Girod defined the function as simply "to couple the terminal to a communication network" and, without further support, concluded it performed this misstated function in the same way to achieve the same result. (CBr. at 41.) According to Cablevision, Professor Schonfeld testified that the function involved in applying the doctrine of equivalents analysis is different from what Professor Girod proposed because {

} (*Id.* at 41-42 (citing Tr. at 1588 (Schonfeld)).)

Cablevision argues that the "way" aspect of the function-way-result analysis is not satisfied because claim 14 requires a module that can be replaced either physically, through detachable hardware, or through reprogramming by "plugging in" different software, while the Accused Products contain {

} (*Id.* at 42 (citing Tr. at 1588 (Schonfeld)).)

Cablevision says that the "result" aspect of the function-way-result analysis is also not satisfied because the claimed modular network interface module can easily be replaced in order to connect the terminal to different networks, whereas the Accused Products {

} (*Id.* (citing Tr. at 1589 (Schonfeld)).)

The Administrative Law Judge concludes that the evidence does not demonstrate to a preponderate degree that any of the Accused Products satisfies claim 14 of the '979 patent under the doctrine of equivalents. The "plug in" feature of the network interface module allows a digital entertainment terminal to "offer a variety of functionally different broadband services" by use of "a network interface module which couples the terminal to a specific type of communication network...." (JX-5 at Abstract, VZ VID 1.) The patent also says that "[t]he terminal includes a network interface module which couples the terminal to a specific type of communication network for receiving a digital broadband channel and providing two-way control signaling communication between the terminal and the network." (*Id.*) The patent also states: "a need exists in the art for set-top terminal devices which process compressed, broadband digital audio video information and are readily adaptable to perform a variety of related functionalities, as needed to facilitate a range of audio/video and interactive services offered by a large number of providers. (*Id.* at 3:51-57.)

The '979 specification faults the prior art because certain services that may be offered by a video information provider may correspond to a particular terminal device and different VIPs may have different terminal requirements, wherefore the subscriber may be required to

"purchase and connect up a different terminal device for each different service subscribed to." (*Id.* at 3:44-50.)

According to these passages from the patent, the network interface module connects to a "specific type of communication network" and this addresses the need of subscribers using set-top terminal devices to be able to access different functionalities offered by one or more video information providers without having to use different terminal devices for each different service subscribe to. Hence the reason for a plug in module for permitting a set-top terminal to access services that would not otherwise be obtainable. This is accomplished by a plug in unit of electronic circuitry to a digital entertainment terminal for connecting to a communication network. It is the module that is plugged into a set-top terminal, for providing connectivity to a particular network, and the services it offers for set-top terminals, thus dispensing with the need to replace the terminal itself, that represents the invention as claimed in claim 14. Professor Girod's testimony does not demonstrate how the Accused Products accomplish this function, which for lack of a better word, may be described as adaptability. All Professor Girod's testimony regarding the doctrine of equivalents shows is that the accused set-top boxes are able to connect to a particular communication network and therefore contain network interface modules. Professor Schonfeld and Greg Durden, a Cisco employee, testified that the Accused Products {

} contrary to the invention. (Tr. at 1586-87 (Schonfeld), 1445-52 (Durden).)

Furthermore, Professor Girod's testimony regarding the doctrine of equivalents does not adequately explain the modularity aspect of the network interface module. All his testimony shows that the Accused Products include various components placed in different locations on a

motherboard constitute electronic circuitry that is functionally involved in connecting the terminal to a communication network and therefore make up a network interface module. (*See* RBr. at 39-41; Tr. at 488-493 (Girod), 1586-87, 1592-94 (Schonfeld).) A "network interface module" has been construed to mean "a plug in unit of circuitry…" whereas Professor Girod's testimony does not explain in what manner the electronic circuitry he identifies within the Accused Products constitutes a plug in unit. On the contrary, they appear not to satisfy either the "unit" or the "plug in" aspects of the term.

Rather, the evidence supports the testimony of Professor Schonfeld that none of the Accused Products satisfies any of the function, way, result elements. First, the functions are different with the Accused Products being limited to one network whereas the patent allows digital entertainment terminals to be connected to different communication networks. Second, the ways are different, with the patent employing a replaceable unit, or module, of electronic circuitry for connecting the terminal to a network and the Accused Products {

} Third, the results are different because, in the case of the accused set-top terminals, communication is limited to one network, whereas, in the case of claim 14 of the patent, plug in modules extend the reach of a set-top terminal to more than one communication network. (Tr. at 1588-89 (Schonfeld).)

For these reasons, the Administrative Law Judge concludes that the evidence fails to demonstrate that the Accused Products infringe claim 14 of the '979 patent by reason of the doctrine of equivalents.

D. Analysis of the Accused Products with Respect to the '748 patent.

Verizon asserts that for the Accused Products identified in Section I.E. above, Cablevision's iO Photos, Optimum Autos/Homes, MSG Varsity, and News 12 services (the "Accused Services") infringe claim 13 of the '748 patent. (CBr. at 127.) The Accused Services are "optional features that Cablevision provides to its customers." (RBr. at 22.) { } the Accused Services { } to the Accused Products { } (Tr. at 1288-89, 1302 (Labelson[26]); CX-464C at 50-52.) For purposes of considering infringement of claim 13, the differences in features between the five set-top box models of Accused Products are not relevant: the set-top boxes may be treated as identical. (Tr. at 939:3-9 (Wechselberger).)

Claim 13 reads as follows:

> **13.** A method of retrieving and retransmitting data processing network information in response to a user selection request, comprising:
>
> transmitting first selection information to be displayed on a television;
>
> receiving a user selection request based on the transmitted first selection information;
>
> retrieving data processing network information, in a network format, corresponding to the user selection request;
>
> transforming the data processing network information from the network format having a first interactive element to a television format having a second interactive element; and
>
> transmitting the data processing network information in the television format to the television.

(JX-3 at 9:43-58.) The Administrative Law Judge found in Section III.D. above, that a person of ordinary skill in the art would understand that the language "data processing network information" should mean "information from a network that must be transformed for display on

[26] Mr. Adam Labelson is Cablevision's director of product development. (Tr. at 1347.)

a television." Additionally, the Administrative Law Judge found that a person of ordinary skill in the art would understand "first interactive element" as claimed in claim 13 of the '748 patent to mean "an element for user selection." The Administrative Law Judge also concluded that a person of ordinary skill in the art would find that "second interactive element" means "another element for user selection."

According to Verizon, the testimony of its expert Anthony Wechselberger shows that each of the Accused Services infringes claim 13 of the '748 patent. (CBr. at 127.[27])

Cablevision argues that the Accused Services do not include the "first interactive element" or "second interactive element" of the transforming limitation of claim 13. (RBr. at 124-129.) Cablevision further argues that Verizon has failed to prove indirect infringement, even though Verizon makes no assertion of indirect infringement for this patent in its initial post-hearing brief. (*Id.* at 130.)

Staff agrees with Cablevision that the Accused Products do not meet all of the elements of claim 13 of the '748 patent because they do not meet the transforming limitation. (SBr. at 86.)

A review of the evidence shows that the accused iO Photos service is designed to allow Cablevision users to access photos stored on their Facebook[28] accounts. Mr. Wechselberger explained that in order to store photos on Facebook, a person must establish a user account with Facebook. (Tr. at 944 (Wechselberger).) He explained how a Facebook user uploads photos on the Facebook website, showing a video at the hearing. (*Id.*) He further explained that a Facebook user can click on "albums" or individual "photos" and then view photos that have been uploaded. (*Id.* at 945:8-10, 948:16-17.) When a Facebook user accesses the photos and text

[27] It is noted that Verizon cites to demonstrative exhibits, including videos that were shown at the hearing, which were never offered into evidence or admitted into the record. (See, *e.g.*, CFF 592, CFF 594.) These cites will be disregarded, except to the extent that the references underlying them are described in relevant testimony.
[28] http://www.facebook.com

comments relating to them, the user is viewing them in JPEG (photo) and HTML (comment) formats—formats which the user could not view on a television. (*Id.* at 1357:13-24 (Labelson).)

Cablevision users who have an existing Facebook account may then go to a Cablevision website (optimum.net/photos) to enter their Facebook usernames and passwords. (Tr. at 1350:15-1351:23 (Labelson).) Alternatively, Cablevision users are allowed to enter their Facebook email address and passwords on the Cablevision set-top box, essentially causing { } --to Facebook." (CX-464 at 245:20-246:18 (Labelson).) The first time a Cablevision user tunes to the iO Photos channel (640), { } to the Cablevision set-top box. (CX-464C at 50-52 (Labelson Depo); Tr. at 1349, 1351:19-23 (Labelson).) At that point, the Cablevision user is given a choice with respect to the user's Facebook photo access: "you either choose your friends or choose your albums." (Tr. at 947:8-13 (Wechselberger), 1352:5-8 (Labelson).) If the Cablevision user selects the user's own albums, the user will see how many albums are available. (*Id.* at 948:5-24 (Wechselberger).) If a user selects a friend, and then chooses a friend's album, the user will see a display with a "list of the photos within that album." (*Id.* at 943:2-7 (Wechselberger), 1352:8-11 (Labelson).) A user may subsequently use arrow and select keys on the remote control to select a particular photo to view. (*Id.* at 1352:12-18 (Labelson).) To obtain, for example, a selected photo and any related text concerning it, { } (*Id.* at 949:9-17 (Wechselberger), 1300, 1352:19-1353:22, 1369:4-16 (Labelson).) {

} And that's what ultimately is sent to the set-top box." (*Id.* at 1381:10-14 (Labelson).)

Thus the above evidence shows that the Accused Products, in conjunction with the accused iO Photos service, perform a method of retrieving and retransmitting data processing network information in response to a user selection request, by transmitting first selection information to be displayed on a television (request for entry of user Facebook password, choice between user's friends or own albums, choice of album, etc.); receiving a user selection request based on the transmitted first selection information (user tunes to channel, or enters Facebook password, or chooses between user's friends or own albums, or selects an album, etc.); retrieving data processing network information, in a network format, corresponding to the user selection request {

} transforming the data processing network information from the network format having a first interactive element (element requiring Facebook user to enter Facebook password, click on own photo albums versus friend's photo albums at Facebook website, etc.) to a television format having a second interactive element (creating choice between user's friends or own albums, choice between albums, etc.); and transmitting the data processing network information in the television format to the television { } of choice between user's friends or own albums, choice between albums, etc., for user to select using the remote control). (Tr. at 943:2-7, 944, 945:8-10, 947:8-13, 948:5-24, 949:9-17 (Wechselberger), at 1349, 1350:15-1351:23, 1352:5-1353:22, 1357:13-24, 1369:4-16 (Labelson); CX-464C at 50-52, 245:20-246:18 (Labelson Depo). *See also* Tr. at 939:13-24, 950-2, 961-985, 990-94, 1024-1029 (Wechselberger), 1302, 1308, 1384 (Labelson), 1401, 1417-33, 1436 (Brown[29]); CX-215C;

[29] Mr. Gregory Brown is an ActiveVideo employee.

CX-233C at 21, 35-37; CX-305C; CX-313C; CFF 600 (undisputed in relevant part); CFF 613 (undisputed in relevant part); CFF 621 (undisputed in relevant part); CFF 628 (undisputed in relevant part); CFF 660 (undisputed in relevant part).) The Administrative Law Judge concludes that the Accused Products, in conjunction with the accused iO Photos service, infringe claim 13 of the '748 patent.

With respect to the accused Optimum Autos and Optimum Homes services, just as with iO Photos, the first time a Cablevision user tunes to the Optimum Autos or Optimum Homes channels (605, 606), { } to the Cablevision set-top box. (CX-464C at 50-52 (Labelson Depo); Tr. at 1302, 1327-28 (Labelson), 1423 (Brown).) The Optimum Autos and Optimum Homes services are designed to allow Cablevision users to access information about cars and homes for sale that would be found on the internet sites accessible at http://www.optimumautos.com and http://www.optimumhomes.com, respectively. (Tr. at 995 (Wechselberger), 1300:6-21, 1320-21, 1369 (Labelson); CX-311C; RFF I.E.20 (undisputed).) Both the Optimum Autos and Optimum Homes services allow users to interact with the listings on the internet and on a television. (CX-160; CX-164; CX-302; CX-303; CX-304; CX-309.) According to the Reference Manual for Optimum Autos, users "browse seamlessly through the web or on their TV set through a large selection of new and used car listings, review information about specific cars, and get in touch with local dealers and private owners. . . . Autos is responsible for downloading car information and car listings from a variety of sources, maintaining a database of that content[], and making that content available to both TV and web Optimum Auto users." (CX-309 at 6.) The Optimum Autos and Optimum Homes websites contain interactive elements such as tabs, buttons, and menus. (CX-160; CX-164; CX-302; CX-303; CX-304.) The Cablevision Optimum Autos and Optimum Homes television

channels also contain interactive elements such as buttons that a user may select to, e.g., choose "find a car," select between new or pre-owned cars, shop by make, and so on. (Tr. at 996 (Wechselberger), 1302:20-1303:14, 1327, 1329, 1331 (Labelson).) Just as with iO Photos, {

} (*Id.* at 997 (Wechselberger), 1300, 1303, 1311-13, 1316-17, 1332:7-14, 1362, 1369 (Labelson); CX-310C; CX-311C.) "Every time the button, select button is exercised, {

} (Tr. at 997 (Wechselberger). *See also* Tr. at 1303-4, 1308, 1311-13, 1362 (Labelson), 1419:12-22:5 (Brown); CX-233 at 35-37; CX-311C; CFF 600 (undisputed in relevant part); CFF 613 (undisputed in relevant part); CFF 621 (undisputed in relevant part); CFF 628 (undisputed in relevant part); CFF 660 (undisputed in relevant part).)

Thus the above evidence shows that the Accused Products, in conjunction with the accused Optimum Autos and Optimum Homes services, perform a method of retrieving and retransmitting data processing network information in response to a user selection request, by transmitting first selection information to be displayed on a television (Cablevision user tunes to channel 605 or 606, or pushes a button such as "find a car"); receiving a user selection request based on the transmitted first selection information (e.g., user chooses "find a car," selects between new or pre-owned cars, shop by make, etc.); retrieving data processing network information, in a network format, corresponding to the user selection request (set-top box uses {

}; transforming the data processing network information from the network format having a first interactive element (tabs, buttons, and menus that a user of the Optimum Autos and Optimum Homes websites may select) to a television format having a second interactive element (buttons that a Cablevision television user may select to, e.g., choose "find a car," select between new or pre-owned cars, shop by make, etc.); and transmitting the data processing network information in the television format to the television {

} of options, such as choice between new or pre-owned cars, etc., for user to select using the remote control). (Tr. 995-97 (Wechselberger), 1300, 1302-1304, 1308, 1311-13, 1316-17, 1320-21, 1327-29, 1331, 1332:7-14, 1362, 1369 (Labelson), 1419:12-22:5, 1423 (Brown); CX-160; CX-164; CX-233; CX-302; CX-303; CX-304; CX-309; CX-310C; CX-311C; CX-464C at 50-52 (Labelson Depo). *See also* Tr. at 939:13-24, 998-999, 1008-9, 1031-32 (Wechselberger), 1403:18-1406:14 (Brown).) The Administrative Law Judge concludes that the Accused Products, in conjunction with the accused Optimum Autos and Optimum Homes services, infringe claim 13 of the '748 patent.

Mr. Wechselberger also testified that the MSG Varsity and News 12 services also infringe. (Tr. at 939 (Wechselberger).) MSG Varsity permits a user to obtain videos, pictures, and other information associated with local high school sports on another channel (614) {

} (Tr. at 999, 1005-6 (Wechselberger), 1349-50 (Labelson); CX-71; CX-219C; CX-222C.) According to the {

} (CX-232C at AVNW-ITC00001546. *See also id.* at AVNW-ITC00001547-54.) Users may also access the data on the MSG Varsity website using their personal computers, interacting by selecting options such as a location, photographs in the area of interest, etc. (Tr. at 1000-01,

1005, 1007 (Wechselberger).) Mr. Wechselberger testified that the News 12 service (channel 612) is similar to MSG Varsity, except that it is used to collect information about news and weather rather than high school sports. (Tr. at 1008 (Wechselberger). *See also* CX-229C.) Mr. Brown described News 12 as follows: {

} (Tr. at 1415 (Brown).)

Based on the above evidence and for the reasons and evidence discussed above with respect to the iO Photos, Optimum Autos, and Optimum Homes services, the Administrative Law Judge finds that the Accused Products, in conjunction with the accused MSG Varsity and News 12 services, perform a method of retrieving and retransmitting data processing network information in response to a user selection request, by transmitting first selection information to be displayed on a television; receiving a user selection request based on the transmitted first selection information; retrieving data processing network information, in a network format, corresponding to the user selection request; transforming the data processing network information from the network format having a first interactive element to a television format having a second interactive element; and transmitting the data processing network information in the television format to the television. (Tr. at 939, 999-1001, 1005-9 (Wechselberger), 1349-50 (Labelson), 1415 (Brown); CX-219C; CX-222C; CX-229C; CX-232C. *See also* CX-233C; CFF 600 (undisputed in relevant part); CFF 612 (undisputed in relevant part); CFF 613 (undisputed in relevant part); CFF 621 (undisputed in relevant part); CFF 628 (undisputed in relevant part); CFF 660 (undisputed in relevant part); JX-21C.) The Administrative Law Judge concludes that the Accused Products, in conjunction with the accused MSG Varsity and News 12 Services, infringe claim 13 of the '748 patent.

[30] An RSS feed is a type of web feed.

The Administrative Law Judge rejects Cablevision's (and Staff's[31]) argument (RBr. at 128) that "the raw data files used in the accused applications" have to be in a form selectable by a user of the network when they are retrieved over the network[32] in order to meet the "first interactive element limitation." This is too narrow a reading of the '748 patent, which specifically teaches, for example, an embodiment in which the user selection is translated into an internet address, and then the server **110** retrieves the web page associated with the translated address. (JX-3 at 4:58-61. *See also id.* at Fig. 6.) The specification does not state that the server **110** must retrieve the selected web page from a user-interactive web browser. Instead, it uses the internet address to retrieve the page. This is no different than the process Mr. Labelson described, {

} (Tr. at 1343, 1353, 1381:10-14 (Labelson); CBr. at 129; CRBr. at 68.) There is no limitation in claim 13 or in the other portions of the intrinsic record to require that the data must be in a user interactive form at the time it is retrieved over the network for transformation and display on a television, only that it must be in a user interactive form when the network user interacts with it—such through the use of a home computer with a web browser and a mouse or keyboard, as described in column 1 of the '748 patent. Using the same iO Photos example, it is noted that when the Facebook user's photo albums are displayed on the Facebook website as intended by Facebook, a user may select one of the albums by clicking on it (Tr. at 945:8-10, 948:16-17 (Wechselberger)) with a mouse; thus, it is interactive--in effect, an element for user selection. This is sufficient to meet the limitations of claim 13 as construed in Section III.D. above.

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[31] (SBr. at 90.)

[32] This is essentially an indirect reiteration of an untimely claim construction position deemed waived. (CRBr. at 61; Order No. 37.)

E. Analysis of the Accused Products with Respect to the '078 patent.

1. Direct Infringement.

Verizon asserts that all of the Accused Products identified in Section I.E. above, which have a "browse by theme" feature, infringe claim 14 of the '078 patent. (CBr. at 87.) Cablevision and Staff argue that the Accused Products do not infringe claim 14 because they do not meet the "second channel control switch limitation," which requires "an apparatus configured to receive a second channel control switch, different from the first channel control switch, for providing a content based navigation of the at least two channels having the same content." (RBr. at 81; SBr. at 58.) Cablevision and Staff do not dispute infringement of any other claim limitations in their briefing. (RBr. at 81-86; RRBr. at 46-47; SBr. at 58-59; SRBr. at 7-12. *See also* CFF 370 (undisputed); CFF 376 (undisputed); CFF 378 (undisputed).) Cablevision further argues that it practices the prior art (Davis) that patentee had traversed in the file history. (RBr. at 83.)

For purposes of evaluating infringement, the Accused Products all operate in the same manner. (*Id.*; RBr. at 81, n.26; CFF 367 (undisputed in relevant part); RFF IV.B.4; CORFF IV.B.4.) Claim 14 reads as follows:

> **14.** An apparatus for providing channel selection, the apparatus comprising:
>
> [a] a receiver operative to receive a plurality of channels, wherein the receiver is further operative to indicate if there are at least two channels having a content in the same category;
>
> [b] an apparatus configured to receive a first channel control switch for providing a numerically sequential navigation of said plurality of channels; and
>
> [c] an apparatus configured to receive a second channel control switch, different from the first channel control switch, for providing a content based navigation of the at least two channels having the same content.

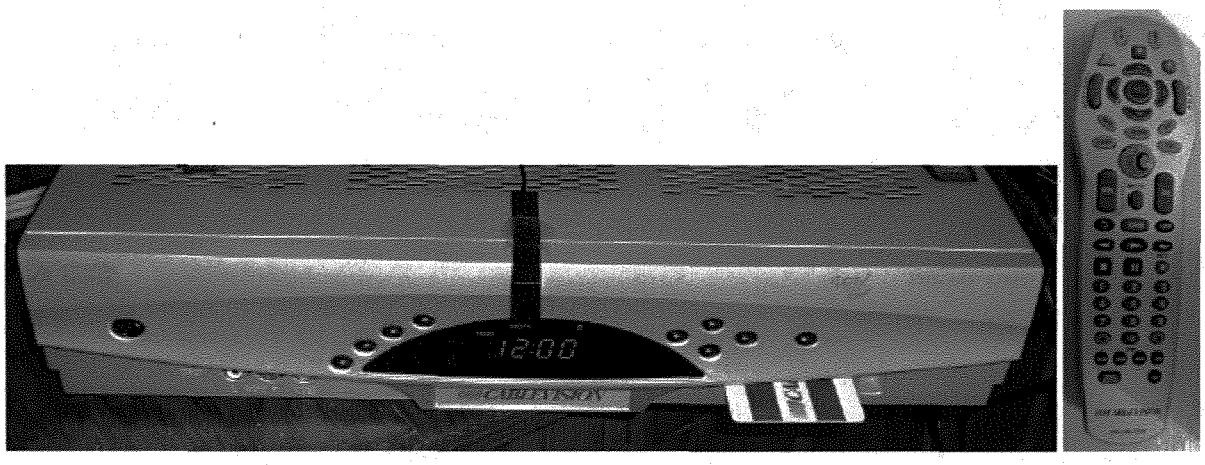
(JX-1 at 12:1-15.) The Administrative Law Judge found in Section III.E. above, that claim 14 is open-ended and permits the inclusion of other unrecited steps, elements, or materials in addition to those elements or components specified. The Administrative Law Judge further found above that a person of ordinary skill in the art would understand a "channel control switch" to mean a "signal for navigation between channels" and a "first channel control switch" to mean "a first type of signal for navigation between channels." In addition, the Administrative Law Judge found that a person of ordinary skill in the art would understand that "second channel control switch" means "a second type of signal for navigation between channels." The Administrative Law Judge further found above that a person of ordinary skill in the art would find that "numerically sequential navigation" means "navigation between the next higher or lower numbered channel." The Administrative Law Judge also concluded in Section III.E. above, that a person of ordinary skill in the art would find that "content based navigation" means "navigation between channels based on content."

The evidence shows that each of the Accused Products, including its accompanying remote control, is a set-top box apparatus for channel selection that receives a large number of cable channels through the coaxial input. (CFF 368 (undisputed[33]); CFF 371 (undisputed); CX-

[33] Cablevision's objections that Professor Myers only provided detailed testimony about one representative product, the Cisco 8300 set-top box, are meaningless in light of Cablevision's agreement that the Accused Products operate in the same way for purposes of evaluating whether they infringe claim 14 of the '078 patent. (RBr. at 81, n.26; RFF IV.B.4.) Thus all of Cablevision's pro forma objections to this effect, *see e.g.* ROCFF 368, ROCFF 371, will be disregarded. It is further noted that these objections are not directly responsive to the content of the proposed findings of fact, and do not provide rebuttal facts (as opposed to argument) or state the portions of the proposed fact finding that are undisputed as required by the Ground Rules. (*See* Order No. 14, Ground Rule 10.4.) Ground Rule 10.4 warns that the Administrative Law Judge has discretion to deem proposed findings of fact that are not specifically rebutted to be admitted. Such is the case here.

With respect to Cablevision's other objection, that the proposed finding states a legal conclusion (ROCFF 368), the Administrative Law Judge disagrees. A legal conclusion would have involved a proposed finding that said, for example, "the Accused set-top boxes meet the preamble of the claim." (*See e.g.,* CFF 382.) The sentence "Each of the Accused STBs—together with their accompanying remote controls—is an apparatus for providing channel selection" states only proposed fact findings. Cablevision's other such objections to this effect, to the extent they are unsupported, will be disregarded without further comment. (*See* Order No. 14, Ground Rule 10.4.)

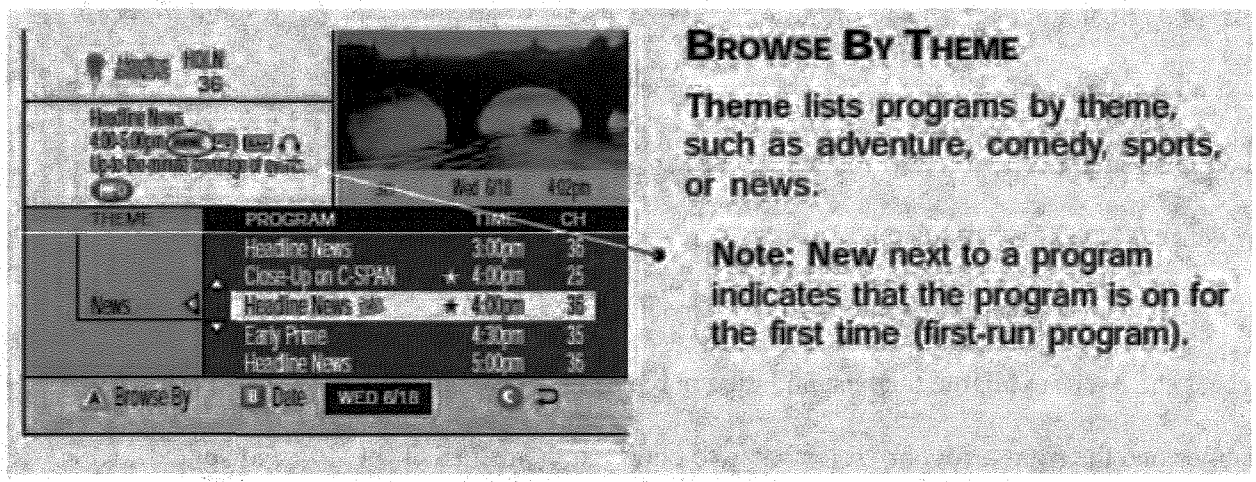
57.) The remote controls for the Accused Products have a variety of buttons, including numeric keys, arrow buttons, a select button, and a channel up or down button, that send infrared commands to the set-top box receivers to select channels. (CFF 369 (undisputed).)



(CX-57.) The Administrative Law Judge concludes that each of the Accused Products is an apparatus for providing channel selection such that the preamble of claim 14 of the '078 patent is met, and that each of the Accused Products has "a receiver operative to receive a plurality of channels" such that the first portion of element 'a' of the claim is also met. (*See also* Tr. at 586-94, 608-612 (Myers); CX-59; CX-257 at 2-3, 10, 12; CX-258 at 7-8, 14, 21; JX-18.)

The evidence further shows that the Accused Products are able to indicate that at least two channels share a common theme. (CFF 372 (undisputed); RFF IV.B.7 (unopposed); CX-61.) The Administrative Law Judge concludes that each of the Accused Products has a receiver that is "operative to indicate if there are at least two channels having a content in the same category" such that the second portion of element 'a' of the claim is met. (*See also* Tr. at 586-94, 598-99, 612-613 (Myers); JX-18 at 10.)

The "browse by theme" feature in the Accused Products (the "Accused Feature") lists program content, using themes such as adventure, comedy, sports, or news. (RFF IV.B.7 (unopposed); CX-61.)



(*Id.* (depicting detail of JX-18C at 11).) It is undisputed that to access the Accused Feature, a Cablevision customer ("user") presses the "guide" key on a remote control. (RFF I.E.10 (undisputed); RFF IV.B.8 (undisputed); CFF 373 (undisputed).) This brings up a general channel guide, but the channel the user had been watching prior to pressing the "guide" key also continues to play in the right hand corner of the screen. (Tr. at 601-602 (Myers); JX-18C at CV_ITC000027279.) Once in the interactive program guide, the user then must press the "A" key to display the options to browse by title, channel, or theme. (RFF I.E.10 (undisputed); RFF IV.B.8-9 (undisputed); CFF 374 (undisputed); JX-18; CX-61.) To highlight the "browse by theme" mode, a user must use up or down arrow keys; then the user may enter the theme mode by pressing the "select key." (*Id.*) Once in the theme mode, a user may still numerically navigate from one channel to the next by using the channel up and down buttons. (Tr. at 604:10-605:1 (Myers).) For example, if the television is tuned to channel 25 (still playing in the top right corner of the screen) and the user presses the channel up button, the channel picture is

changed to 26. (*Id.*) This change to the next available numbered channel happens regardless of the theme of the channels: channel 25 could be news, channel 26 could be science. (*Id.*) Thus the channel up and down buttons operate as the first channel control switch. The Administrative Law Judge concludes that each of the Accused Products is "an apparatus configured to receive a first channel control switch for providing a numerically sequential navigation of said plurality of channels" such that element 'b' is met. (*See also* Tr. at 586-94, 598-99, 608, 613, 618-20 (Myers); CFF 377-81 (undisputed).)

It is undisputed that while still in theme mode, the user must use the left arrow key to access the list of available themes, and then may use the up or down arrow keys to browse themes and the right arrow or "select" key to choose a theme. (RFF I.E.10 (undisputed); RFF IV.B.10-11 (undisputed); CFF 375 (undisputed).) The undisputed evidence further shows that after this, the user may use the up or down arrow keys to scroll through available programs in the designated theme, and the "select" key to change to a highlighted channel. (RFF I.E.10 (undisputed); RFF IV.B.12 (undisputed); CFF 386 (undisputed in relevant part).) Thus the arrow keys, which are different from the channel up/down button, serve as the second channel control switch. The Administrative Law Judge finds that each of the Accused Products is "an apparatus configured to receive a second channel control switch, different from the first channel control switch, for providing a content based navigation of the at least two channels having the same content" such that element 'c' of claim 14 of the '078 patent is met. (*See also* Tr. at 586-94, 598-99, 600:12-607, 621, 629-30, 778-85, 788 (Myers); JX-18 at 10-11; *id.* at CV_ITC000027264, 309.)

Cablevision and Staff object because the Accused Feature requires a user to press several buttons before accessing the content-specific mode and before being able to tune to a desired