Patent Owner's Demonstratives

Comcast Cable Communications, LLC
v.
Promptu Systems Corporation

IPR2018-00342, IPR2018-00343, IPR2018-00344, & IPR2018-00345

Patent Nos. RE44,326 & 7,047,196

Comcast's Challenges

- IPR2018-00342 and -343: Patent No. RE44,326
- IPR2018-00344 and -345: Patent No. 7,047,196
- Secondary Considerations of Nonobviousness

Comcast's Challenges

- **IPR2018-00342 and -343: Patent No. RE44,326**
- IPR2018-00344 and -345: Patent No. 7,047,196
- Secondary Considerations of Nonobviousness

Grounds in Comcast's Petition

- **IPR2018-00342: Claims 1-9, 11-19, and 21 (35 U.S.C. § 103)**

Asserted Grounds		
Reference(s)	**Basis[3]**	**Claims Challenged**
Houser	§ 103(a)	1–7 and 12–17[4]
Houser and Banker or Gordon	§ 103(a)	8, 9, 18, and 19
Houser and Martin or Blahut	§ 103(a)	11 and 21

IPR2018-00342, paper 13 at 12

Grounds in Comcast's Petition

- **IPR2018-00343: Claims 1-9, 11-19, and 21 (35 U.S.C. § 103)**

Asserted Grounds		
Reference(s)	**Basis[3]**	**Claims Challenged**
Murdock	§ 103(a)	1–7 and 12–17
Murdock and Banker or Gordon	§ 103(a)	8, 9, 18, and 19
Murdock and Martin or Blahut	§ 103(a)	11 and 21
Julia	§ 103(a)	1–7 and 12–17[4]
Julia and Banker or Gordon	§ 103(a)	8, 9, 18, and 19
Julia and Martin or Blahut	§ 103(a)	11 and 21

IPR2018-00343, paper 15 at 13-14

Institution Decision

- **IPR2018-00343: Claims 1-9, 11-19, and 21 (35 U.S.C. § 103)**

Asserted Grounds		
Reference(s)	**Basis[3]**	**Claims Challenged**
Murdock	§ 103(a)	1–7 and 12–17
Murdock and Banker or Gordon	§ 103(a)	8, 9, 18, and 19
Murdock and Martin or Blahut	§ 103(a)	11 and 21
Julia	§ 103(a)	1–7 and 12–17[4]
Julia and Banker or Gordon	§ 103(a)	8, 9, 18, and 19
Julia and Martin or Blahut	§ 103(a)	11 and 21

IPR2018-00343, paper 15 at 19-22

Institution Decision – Murdock Grounds

Petitioner relies on Murdock for a number of asserted grounds. *See* Pet. 3. Murdock was filed on November 16, 2000, after the effective filing date of the '326 patent, but claims the benefit of priority to the filing date of Provisional Application No. 60/166,010 (Ex. 1014, the "Murdock Provisional"), which was filed on November 17, 1999. Ex. 1013, at [22], [60]. Petitioner argues that Murdock is 35 U.S.C. § 102(e) prior art to the '326 patent because Murdock is entitled to the benefit of priority to the filing date of the Murdock Provisional. Pet. 12.

IPR2018-00343, paper 15 at 19-20

Institution Decision – Murdock Grounds

1023). "Arguments must not be incorporated by reference from one document into another document." 37 C.F.R. § 42.6(a)(3). Here, the Petitioner cites to 40 paragraphs, spanning just as many pages in the Schmandt Declaration. No reasonable application of 37 C.F.R. § 42.6(a)(3) to the circumstance of this case results in a conclusion that Petitioner complied with the rule.

Accordingly, we disregard all the material improperly incorporated by reference for this issue, which is paragraphs 109–124, 254, 257, 261, 266, 270, 275, 280, 283, 288, 292, 295, 298, 301, 305, 308, 311, 316, 319, 324, 327, 338, 349, 355, and 367 of the Schmandt Declaration, and therefore consider only the two conclusory and general sentences in the Petition with respect to why at least one claim of Murdock is supported by the disclosure of the Murdock Provisional and how the Murdock Provisional provides support for the subject matter relied upon.

IPR2018-00343, paper 15 at 19-20

Institution Decision – Murdock Grounds

> Based on the current record, Petitioner has, therefore, not shown that Murdock is entitled to the benefit of priority of the filing date of the Murdock Provisional. Hence, Petitioner has not shown that Murdock is prior art to the '326 patent. Because each of the Murdock asserted grounds

IPR2018-00343, paper 15 at 20

Murdock Grounds – Petitioner Arguments

Petition

(emphasis in original). Petitioner's expert Christopher Schmandt shows in his supporting declaration that at least claim 1 of Murdock is supported by the disclosure in the provisional application. Schmandt Decl. ¶¶ 109-124. In addition,

Petitioner's expert witness shows that the Murdock provisional application meets this requirement, too. Schmandt Decl. ¶¶ 254, 257, 261, 266, 270, 275, 280, 283, 288, 292, 295, 298, 301, 305, 308, 311, 316, 319, 324, 327, 338, 349, 355, and 367 (showing that the provisional application discloses the same subject matter disclosed in Murdock and cited to herein); *see also, e.g., Cisco Sys., Inc. v. Capella*

Reply

IPR2018-00343, paper 1 at 11-12, paper 33 at 2-9

Independent Claims of the '326 Patent

1. A method [redacted] *for speech directed information delivery*, comprising [redacted]

receiving speech information at a first device, wherein said first device is a wireless device;

transferring said speech information from said first wireless device via a first network path to a speech recognition engine; and

at said speech recognition engine, recognizing said speech information and effecting information delivery to a second device via a second network path.

12. [redacted] *A method for speech directed information delivery* comprising [redacted]

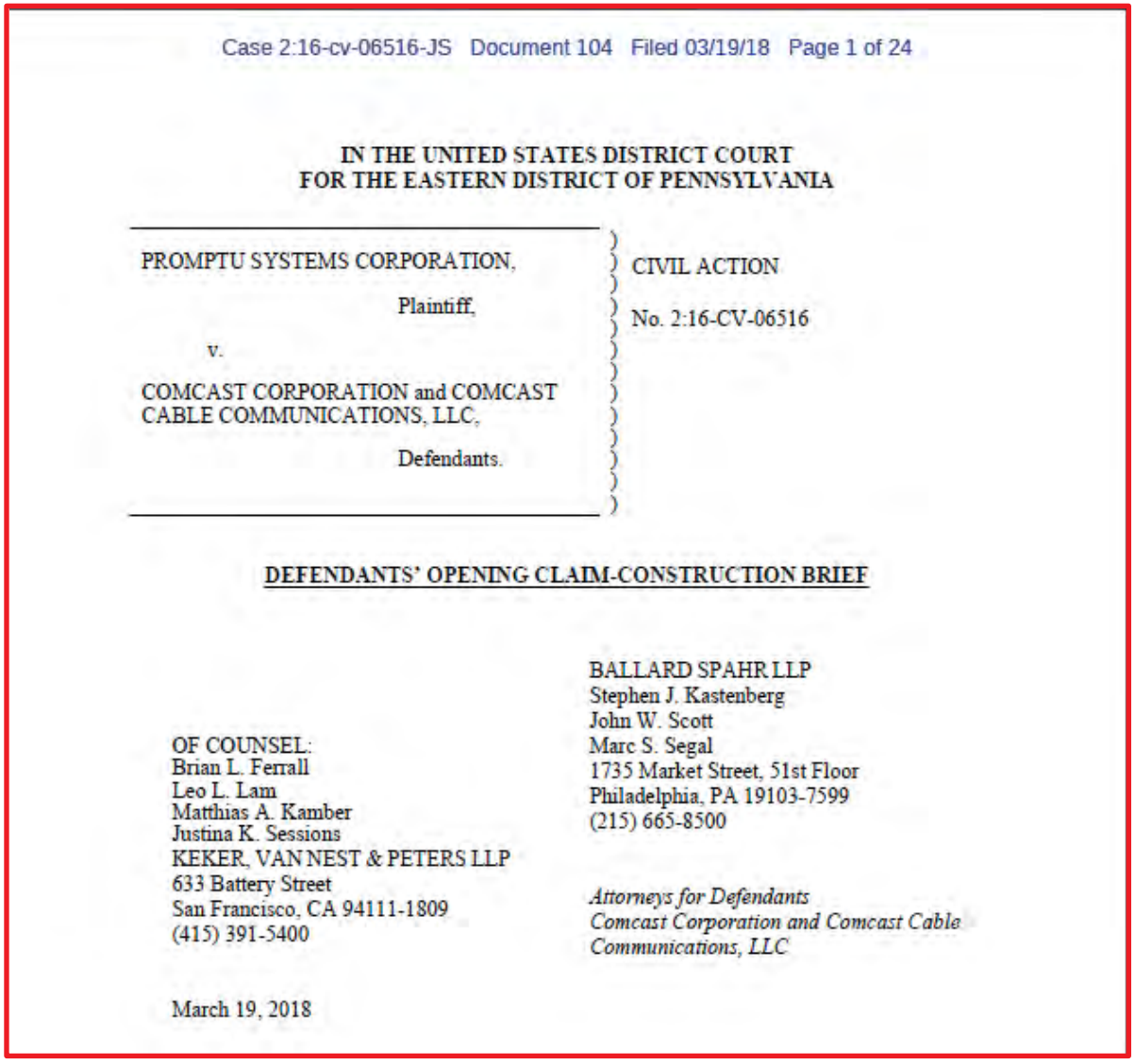
receiving speech information at a first device, wherein said first device is a wireless device;

transferring said speech information in an unrecognized state from said first device via a first network path to a speech recognition engine; and

at said speech recognition engine, recognizing said speech information and effecting information delivery to a second device via a second network path, wherein said second device is capable of displaying electronically coded and propagated moving or still images and playing electronically coded and propagated audio;

wherein said first network path and said second network paths are different.

Network Path



Case 2:16-cv-06516-JS Document 104 Filed 03/19/18 Page 1 of 24

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

PROMPTU SYSTEMS CORPORATION,

Plaintiff,

v.

COMCAST CORPORATION and COMCAST CABLE COMMUNICATIONS, LLC,

Defendants.

CIVIL ACTION

No. 2:16-CV-06516

DEFENDANTS' OPENING CLAIM-CONSTRUCTION BRIEF

BALLARD SPAHR LLP
Stephen J. Kastenberg
John W. Scott
Marc S. Segal
1735 Market Street, 51st Floor
Philadelphia, PA 19103-7599
(215) 665-8500

OF COUNSEL:
Brian L. Ferrall
Leo L. Lam
Matthias A. Kamber
Justina K. Sessions
KEKER, VAN NEST & PETERS LLP
633 Battery Street
San Francisco, CA 94111-1809
(415) 391-5400

Attorneys for Defendants Comcast Corporation and Comcast Cable Communications, LLC

March 19, 2018

Ex. 2036 at 19-20

Network Path

5. "network path" ('326—all claims)

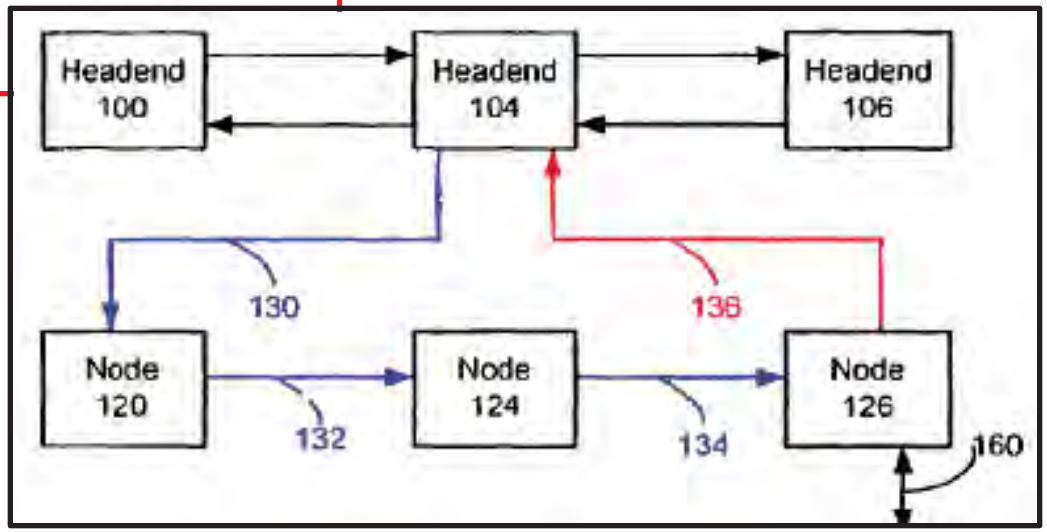
Comcast	Promptu
the physical route a telecommunications signal follows between two nodes in a given network	sequence of network nodes through which data is routed from source to destination

On its face, a "network path" in a cable-TV or video-delivery system entails (1) a "path" or physical route of travel between two nodes (2) within a "network." Comcast's construction of "network path" adheres to these elements, which are set forth in the patent's specification and the extrinsic evidence, and thus should be adopted.

IPR2018-00342, paper 22 at 9 (quoting Ex. 2036 at 19)

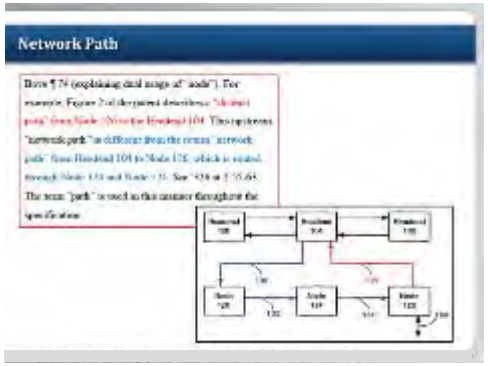
Network Path

Bove ¶ 74 (explaining dual usage of "node"). For example, Figure 2 of the patent describes a "distinct path" from Node 126 to the Headend 104. This upstream "network path" is different from the return "network path" from Headend 104 to Node 126, which is routed through Node 120 and Node 124. *See* '326 at 2:55-63. The term "path" is used in this manner throughout the specification.



IPR2018-00342, paper 22 at 9 (quoting Ex. 2036 at 19-20, Ex. 1001, Fig. 2 (color added))

Julia



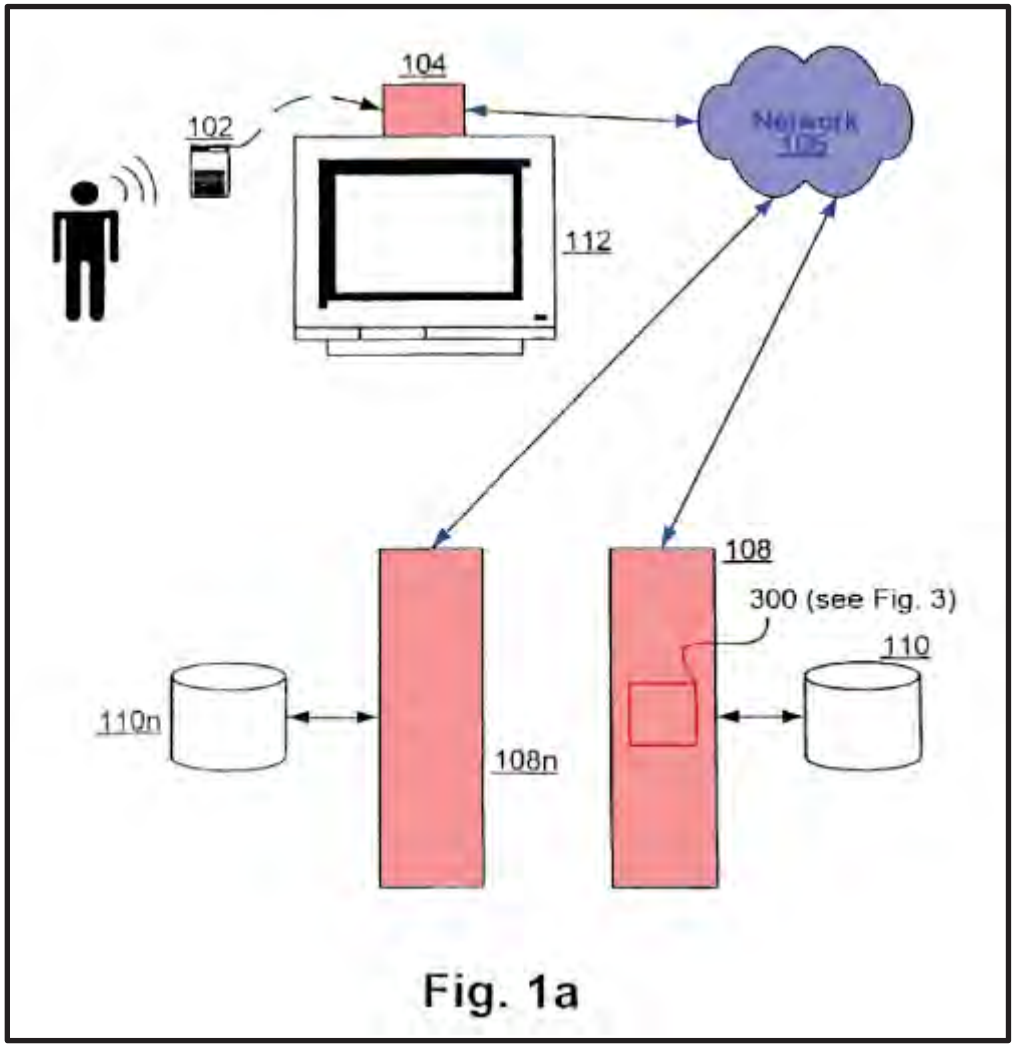
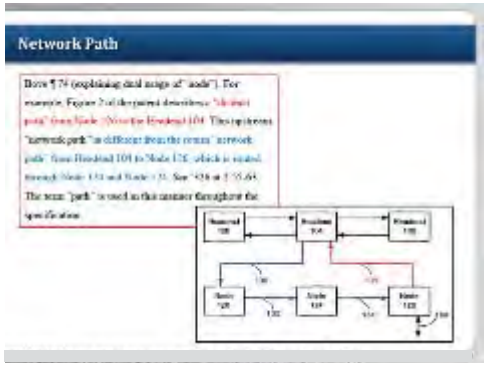
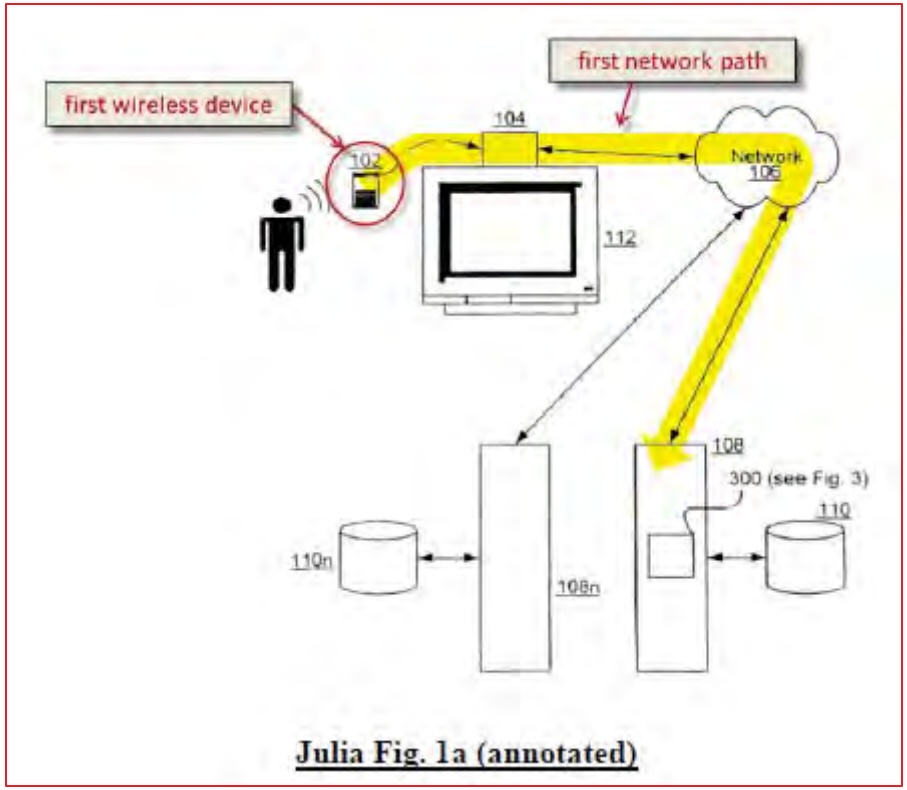


Fig. 1a

IPR2018-00343, paper 43 at 6-7

Julia: Asserted First Network Path

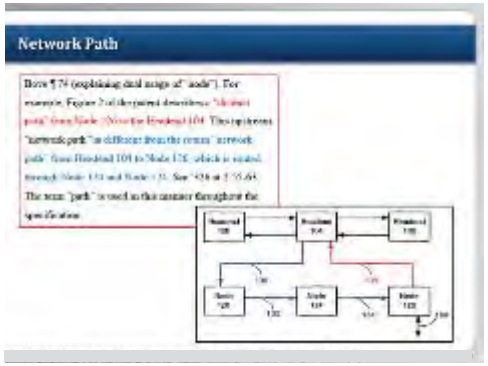


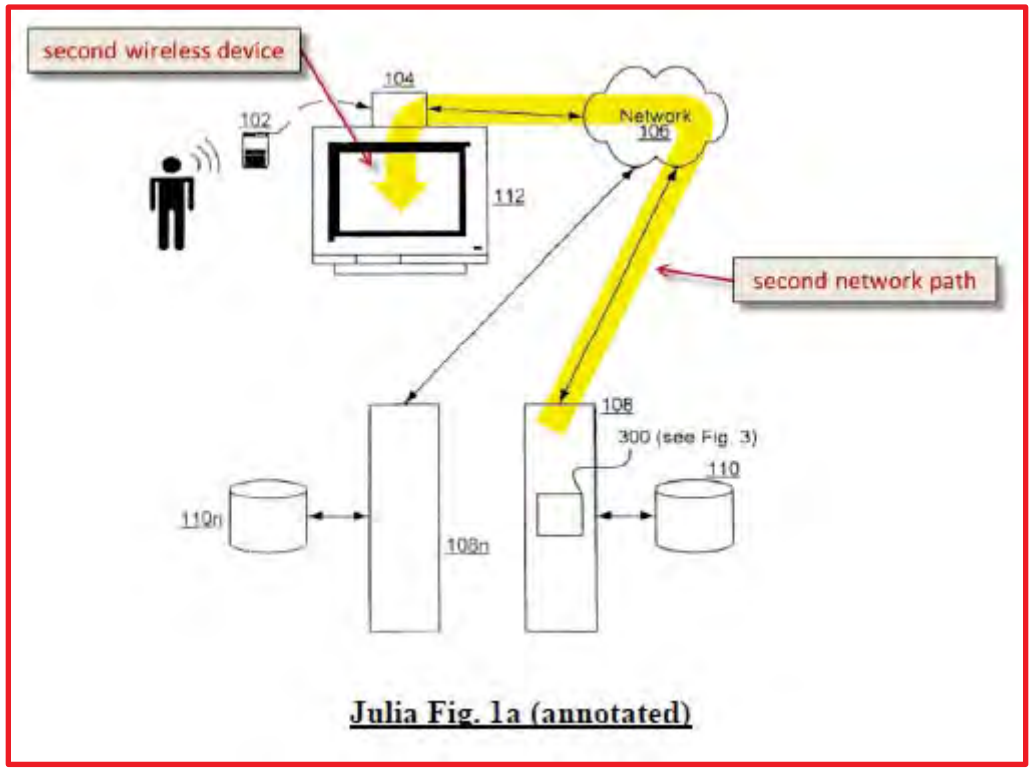


Julia Fig. 1a (annotated)

IPR2018-00343, paper 33 at 13.

Julia: Asserted Second Network Path

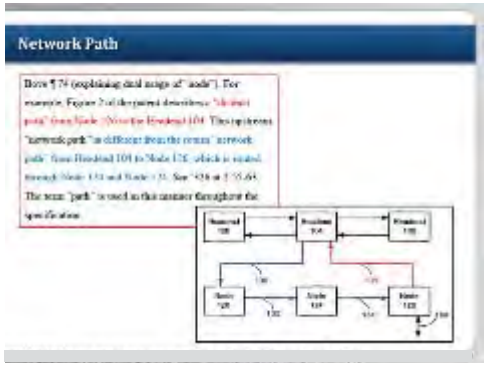


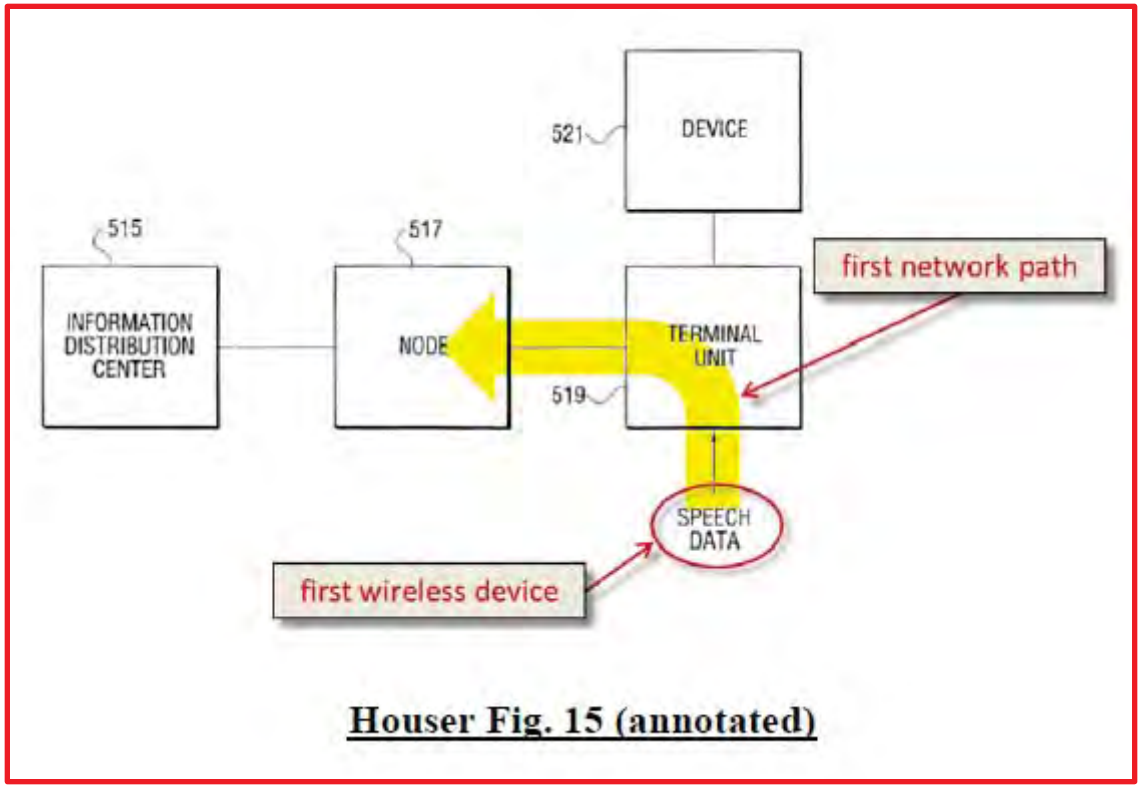


Julia Fig. 1a (annotated)

IPR2018-00343, paper 33 at 13.

Houser: Asserted First Network Path

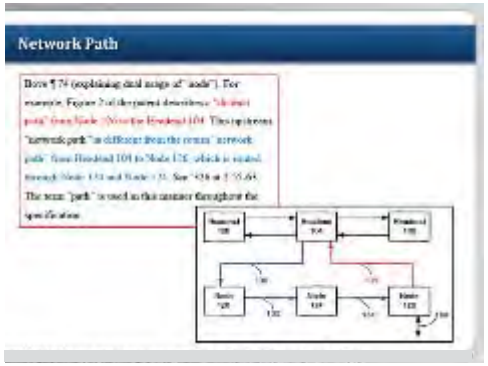


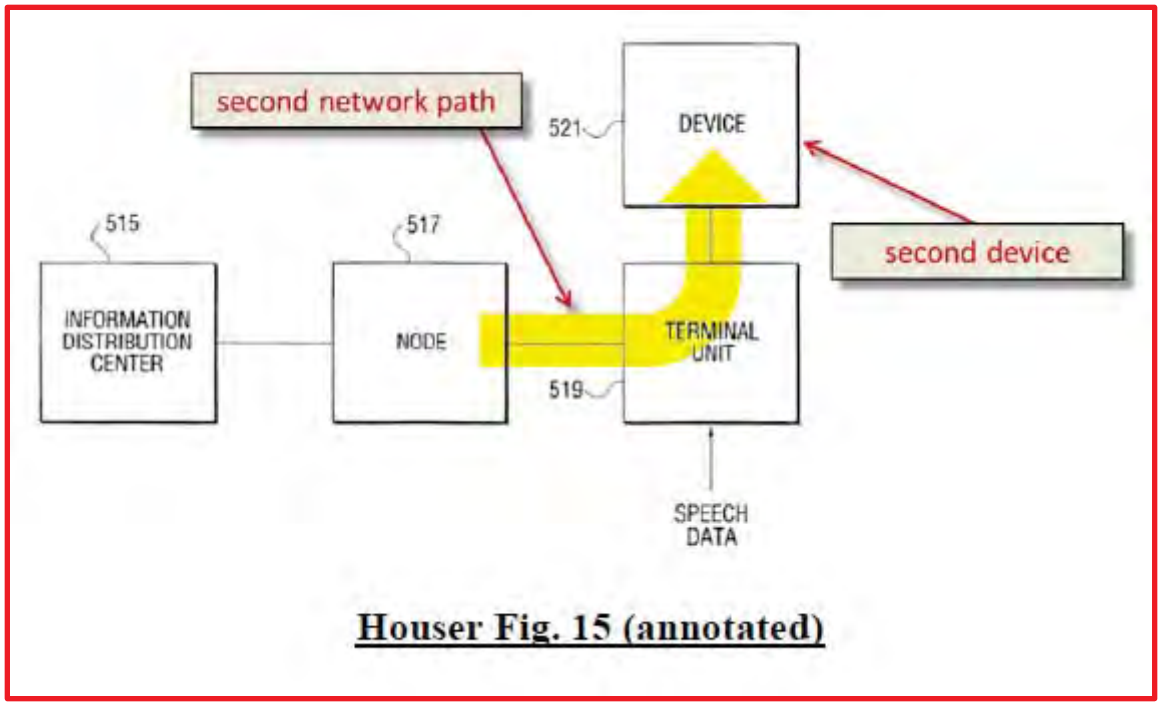


Houser Fig. 15 (annotated)

IPR2018-00342, paper 31 at 6.

Houser: Asserted Second Network Path

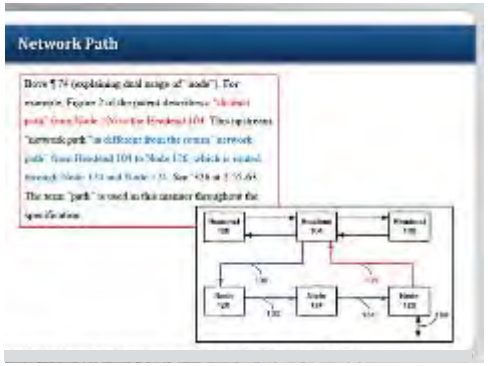


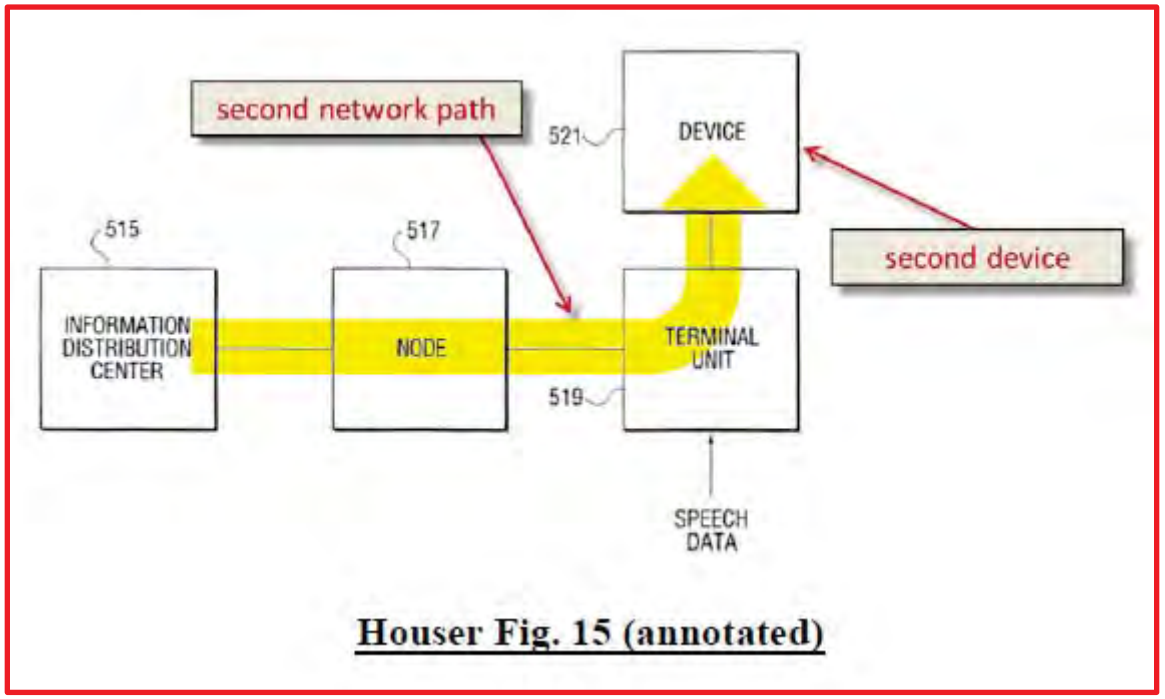


Houser Fig. 15 (annotated)

IPR2018-00342, paper 31 at 9.

Houser: Asserted Second Network Path (Alternative)





Houser Fig. 15 (annotated)

IPR2018-00342, paper 10 at 23.

Dependent Claims of the '326 Patent

7. [redacted] *The method of claim 1, further* comprising *at least one of* the steps of:

[redacted]

determining a user site associated with a user of said first device;

determining said associated user site from said recognized speech;

determining said associated user site from said recognized speech and a speaker identification library;

determining said associated user site from said recognized speech and a speech recognition library; and

determining said associated user site from an identification within said speech channel.

17. The method of claim 12, further comprising at least one of the steps of:

determining a user site associated with a user of said first device;

determining said associated user site from said recognized speech;

determining said associated user site from said recognized speech and a speaker identification library;

determining said associated user site from said recognized speech and a speech recognition library; and

determining said associated user site from an identification within said speech channel.

Dependent Claims of the '326 Patent

9. The method of claim [redacted] *1*, further comprising the steps of:

assessing [redacted] *a* response *to create a financial consequence* identified with a user [redacted] *site; communicating said* financial consequence to said user;

said user confirming said communicated financial consequence to create a financial commitment; and

billing said user based upon said financial [redacted] *commitment.*

19. The method of claim 12, further comprising the steps of:

assessing a response to create a financial consequence identified with a user site;

communicating said financial consequence to said user;

said user confirming said communicated financial consequence to create a financial commitment; and

billing said user based upon said financial commitment.

Dependent Claims of the '326 Patent - Houser

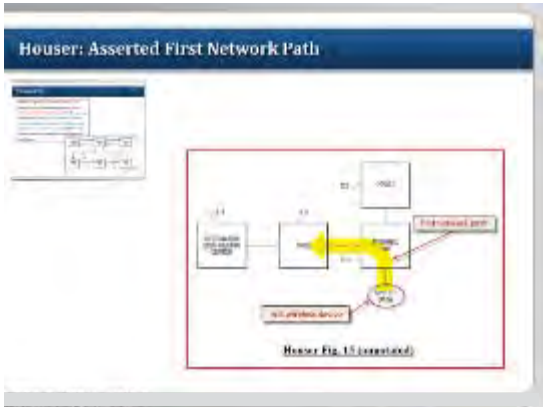
17. The method of claim 12, further comprising at least one of the steps of:

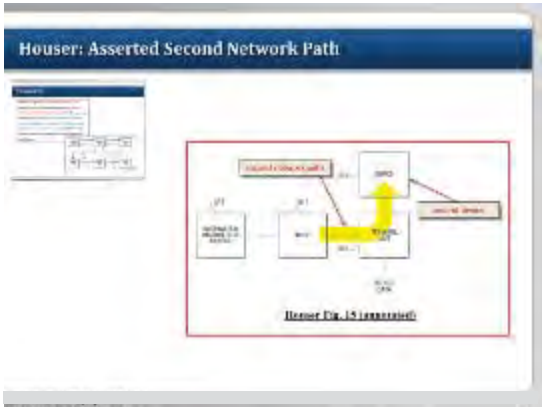
determining a user site associated with a user of said first device;

associated with a user of the first device. *Id.* at 27. In particular, Houser's "remote node [node 517] transmits the recognized command back to the subscriber terminal unit," and in order "[t]o do so, the remote node must determine the 'user site associated with' the user that issued the speech command." *Id.*; *see also* Pet. at 28; Schmandt Decl. ¶¶ 169, 194, 207-209, 224-225. The Board concluded, based on the record then before it, that "Houser teaches determining a user site associated with a user of said first device (remote control), as required by claim 7 and as similarly required by claim 9." Inst. Dec. at 27. The relevant record remains

IPR2018-00342, paper 31 at 11.

Dependent Claims of the '326 Patent - Houser





169. Houser discloses a system in which multiple different users at multiple different locations all access the same remote network node to perform speech recognition processing. Houser states that, with regard to the remote speech recognition embodiment illustrated in Figure 15, "[i]f this arrangement is implemented in a subscription television system, for example, node 517 may be an off-premises device connected to a plurality of subscriber terminal units which access node 517 on a time-sharing basis." Houser at 33:61-67 (Ex. 1012). A person of ordinary skill in the art would know that the remote node (node 517) would have to determine the particular subscriber system issuing a particular voice command so that the recognized command could be transmitted back to the correct subscriber terminal unit. This subscriber system includes the "first device" (remote control 166 in Houser), which the user of the system uses to input spoken commands. Houser at 15:20-24. Thus, Houser discloses determining a user site, and the user site is associated with a user of said first device (remote control).

IPR2018-00342, Ex. 1023 at para. 169.

Dependent Claims of the '326 Patent - Houser

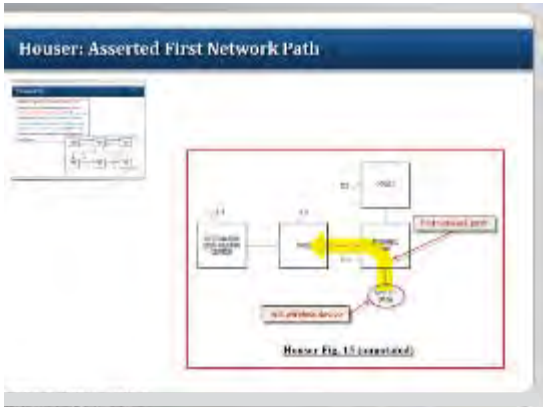
19. The method of claim 12, further comprising the steps of:

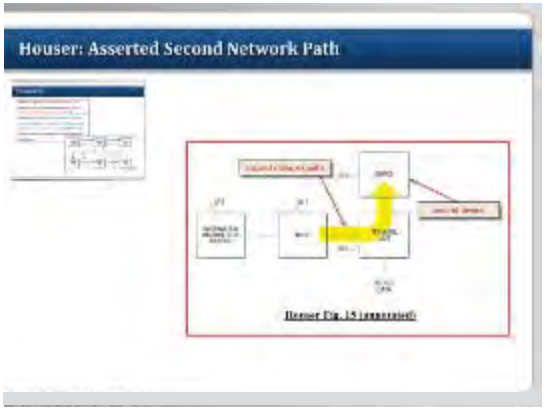
assessing a response to create a financial consequence identified with a user site;

associated with a user of the first device. *Id.* at 27. In particular, Houser's "remote node [node 517] transmits the recognized command back to the subscriber terminal unit," and in order "[t]o do so, the remote node must determine the 'user site associated with' the user that issued the speech command." *Id.*; *see also* Pet. at 28; Schmandt Decl. ¶¶ 169, 194, 207-209, 224-225. The Board concluded, based on the record then before it, that "Houser teaches determining a user site associated with a user of said first device (remote control), as required by claim 7 and as similarly required by claim 9." Inst. Dec. at 27. The relevant record remains

IPR2018-00342, paper 31 at 11.

Dependent Claims of the '326 Patent - Houser





169. Houser discloses a system in which multiple different users at multiple different locations all access the same remote network node to perform speech recognition processing. Houser states that, with regard to the remote speech recognition embodiment illustrated in Figure 15, "[i]f this arrangement is implemented in a subscription television system, for example, node 517 may be an off-premises device connected to a plurality of subscriber terminal units which access node 517 on a time-sharing basis." Houser at 33:61-67 (Ex. 1012). A person of ordinary skill in the art would know that the remote node (node 517) would have to determine the particular subscriber system issuing a particular voice command so that the recognized command could be transmitted back to the correct subscriber terminal unit. This subscriber system includes the "first device" (remote control 166 in Houser), which the user of the system uses to input spoken commands. Houser at 15:20-24. Thus, Houser discloses determining a user site, and the user site is associated with a user of said first device (remote control).

IPR2018-00342, Ex. 1023 at para. 169.

Dependent Claims of the '326 Patent - Julia

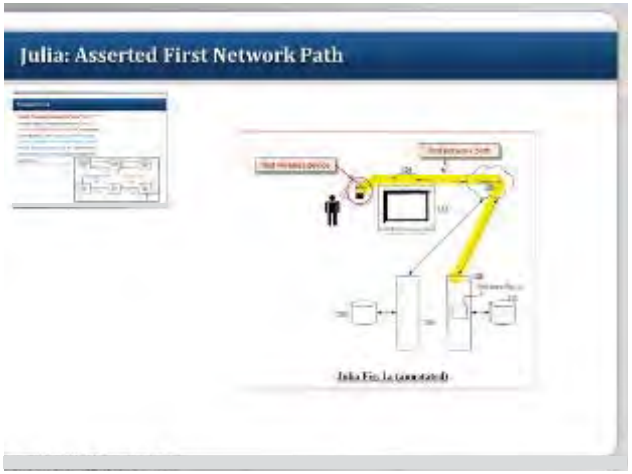
17. The method of claim 12, further comprising at least one of the steps of:

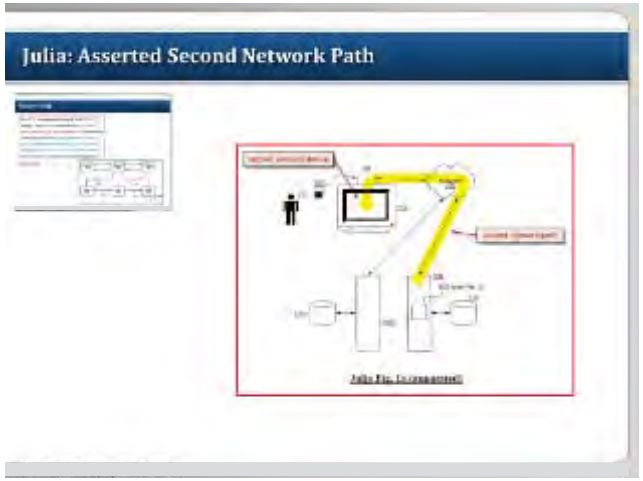
determining a user site associated with a user of said first device;

Julia states that "multiple users, each having their own client input device, may issue requests, simultaneously or otherwise, for navigation" of the remote data source. Julia at 6:12-16. Once the Julia system identifies and recognizes a user's voice command, the remote server retrieves the desired information from the data source and transmits the information to the user's communications box and client display device. *Id.* at 4:18-20 ("Once the desired information has been retrieved from data source 110, it is electronically transmitted via network 106 to the user for viewing on client display device 112."), 4:24-30. To do so, the remote server must determine the "user site associated with" the user that issued the speech command using "said first device" (i.e., voice input device 102). *Id.* at 3:45-54; Schmandt Decl. ¶ 420. Thus, Julia discloses "determining a user site associated with a user of said first device," as recited in claim 7.

IPR2018-00343, paper 12 at 55.

Dependent Claims of the '326 Patent





perform speech recognition processing. Julia states that "multiple users, each having their own client input device, may issue requests, simultaneously or otherwise, for navigation of data source 210." Julia at 6:12-16 (noting that the above statement applies to the embodiments in Figures 1a and 1b as well as Figure 2) (Ex. 1015). A person of ordinary skill in the art would know that the remote server would have to determine the particular communications box issuing a particular voice command so that the recognized command could be transmitted back to the correct communications box. That communications box has an associated "first device" (i.e., voice input device 102), which the user of the system uses to input spoken commands. Julia at 3:45-54. Thus, Julia discloses determining a user site, and the user site is associated with a user of said first device (voice input device).

IPR2018-00343, Ex. 1023 at para. 420.

Dependent Claims of the '326 Patent

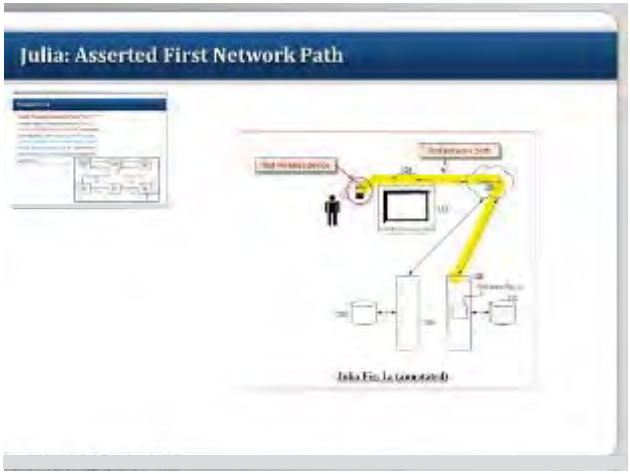
19. The method of claim 12, further comprising the steps of:

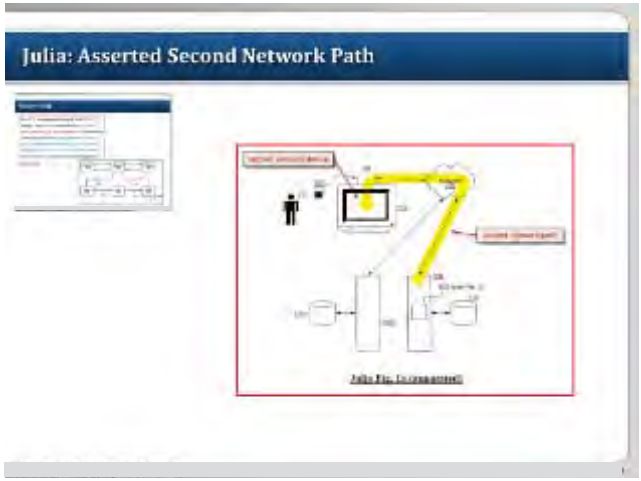
assessing a response to create a financial consequence identified with a user site;

Julia discloses this limitation. Schmandt Decl. ¶ 458. As discussed in connection with claim 8, Julia discloses "assessing said speech response" (i.e., assessing the content requested by the user) identified with a particular "user site" (i.e., the location of the communications box 104) to "create a financial consequence" (i.e., payment for a movie-on-demand movie), as recited in the claim. Schmandt Decl. ¶ 458. In addition, as discussed in connection with claim 8 and Murdock, both Banker and Gordon also disclose "assessing" a response to "create a financial consequence." *See* Section VII.B.1, above. The combination of Julia with Banker or Gordon thus also discloses this limitation. Schmandt Decl. ¶¶ 459-461.

IPR2018-00343, paper 12 at 61-62.

Dependent Claims of the '326 Patent





providing responsive content. A person of ordinary skill would also understand that pay-per-view and video-on-demand functionality, such as that provided by the Diva system, would require a purchase, resulting in a bill. Thus, Julia discloses "assessing a response" (i.e., assessing the recognized voice command) associated with a particular "user device" (i.e., voice input device or communications box) to "create a financial consequence" (i.e., purchase of a movie-on-demand movie), as recited in the claim.

IPR2018-00343, Ex. 1023 at para. 458.

Comcast's Challenges

- IPR2018-00342 and -343: Patent No. RE44,326
- **IPR2018-00344 and -345: Patent No. 7,047,196**
- Secondary Considerations of Nonobviousness

Grounds at Issue

- **IPR2018-00344: Claims 1-2, 4-6, 12-13, 27-28, 30-32, and 38-42 (35 U.S.C. § 103)**

Asserted Grounds		
Reference(s)	**Basis**	**Claims Challenged**
Murdock alone	§ 103(a)	1, 2, 4-6, 12, 13, 27, 28, 30-32, and 38-42
Murdock and Nazarathy or Quigley	§ 103(a)	1, 2, 4-6, 12, 13, 27, 28, 30-32, and 38-42
Murdock alone or Murdock and Nazarathy or Quigley and Banker or Gordon	§ 103(a)	5, 6, 31, and 32
Julia and Nazarathy or Quigley	§ 103(a)	1, 2, 4-6, 12, 13, 27, 28, 30-32, and 38-42*
Julia and Nazarathy or Quigley and Banker or Gordon	§ 103(a)	5, 6, 31, and 32

*Excluding claims 5, 6, 31, and 32

IPR2018-00344, Paper 1 at 3; -00344, Paper 10 at 16, 24-27, 42-45

Grounds at Issue

- **IPR2018-00345: Claims 14-15, 17-19, 25-26, 53-55, 61-62, and 64-66 (35 U.S.C. § 103)**

Asserted Grounds		
Reference(s)	**Basis**	**Claims Challenged**
Murdock alone	§ 103(a)	14, 15, 17-19, 25, 26, 53-55, 61, 62, and 64-66
Murdock and Nazarathy or Quigley	§ 103(a)	14, 15, 17-19, 25, 26, 53-55, 61, 62, and 64-66
Murdock alone or Murdock and Nazarathy or Quigley and Banker or Gordon	§ 103(a)	18, 19, 55, and 65
Julia alone	§ 103(a)	14, 15, 17-19, 25, 26, 53-55, 61, 62, and 64-66
Julia and Nazarathy or Quigley	§ 103(a)	14, 15, 17-19, 25, 26, 53-55, 61, 62, and 64-66*
Julia and Nazarathy or Quigley and Banker or Gordon	§ 103(a)	18, 19, 55, and 65

*Excluding claims 18, 19, 55, and 65

IPR2018-00345, Paper 1 at 3; -00345, Paper 10 at 15-16, 24-27, 37-40

Comcast Failed to Show Obviousness of Several Claim Features

- **Receiving said back channel to create a received back channel (1 and 27)**
- **Partitioning said received back channel into a multiplicity of received identified speech channels (1 and 27)**
- **Processing a/said multiplicity of received identified speech channels to create a multiplicity of identified speech content (1, 14, 27, and 53)**
- **Speech recognition system coupled to a wireline node (14, 27, and 53)**
- **Create a financial consequence (5, 6, 18, 19, 31, 32, 55, and 65)**
- **Processing said received speech channels from said user site based upon natural language for said user site (13, 26, 39, and 62)**

IPR2018-00344, Paper 20 at 8-21, 24-27; -00344, Paper 38 at 1-4, 9-10; -00344, Ex. 2033, ¶¶ 31-47; IPR2018-00345, Paper 20 at 8-14, 16-21; -00345, Paper 38 at 1-4, 9-10; -00345, Ex. 2033, ¶¶ 32- 36

Receiving said Back Channel to Create a Received Back Channel

- Receiving limitation requires two parts:
  - **"receiving"** a first element (**"said back channel**") **"to create"** a second element (**"a received back channel"**)

said back channel ≠ **a received back channel**

Comcast's Construction and Mapping

Comcast's proposed claim construction:

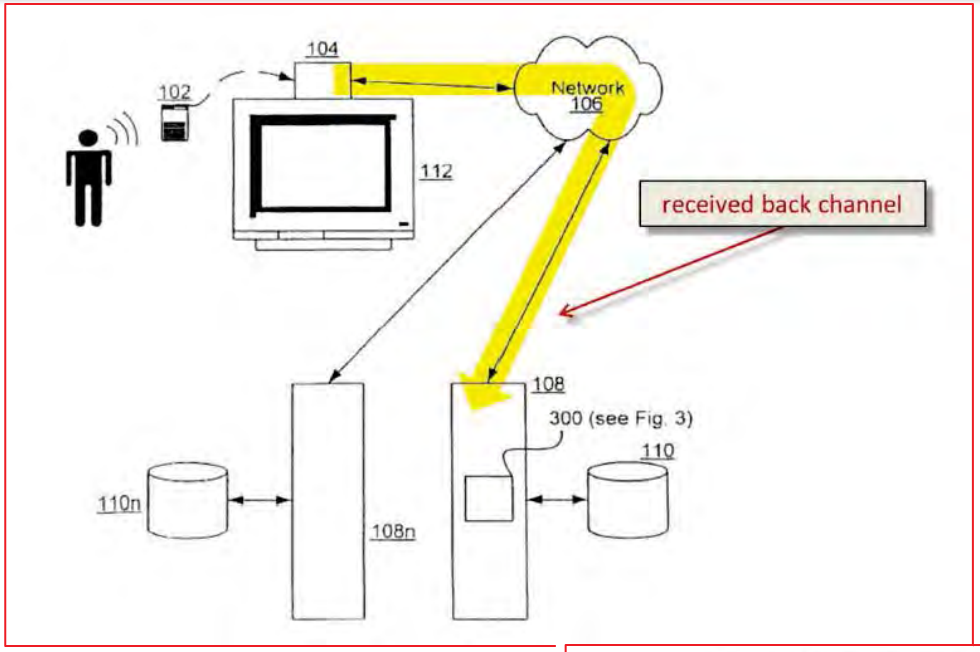
- back channel – "upstream communication ***channel*** delivering signals from multiple user sites to a central wireline node"

Comcast's proposed mapping:

- back channel → "the upstream ***channel*** of network 106"
- received back channel → "the ***data*** coming in from the multiple network users from via network 106"

IPR2018-00344, Paper 20 at 10-14; -00344, Ex. 2033, ¶¶ 33-37; -00344, Paper 1 at 7-8, 43-45; -00344, Ex. 1019 at ¶¶ 82-83, 307, 311

Comcast's Mapping



-00344, Comcast's Petition at 45;
-00344, Schmandt Decl., ¶ 312

-00344, Schmandt Decl., ¶ 311

311. Julia discloses this element. As explained above, the "back channel" is the upstream communication channel of network 106. Julia discloses that a

* * *

simultaneously through network 106 to remote server 108. The network server 108 therefore "receives" the back channel to "create a received back channel" (the data coming in from the multiple network users from via network 106).

Comcast's Mapping Changes from its Petition to its Reply

311. Julia discloses this element. As explained above, the "back channel" is the upstream communication channel of network 106. Julia discloses that a

* * *

simultaneously through network 106 to remote server 108. The network server 108 therefore "receives" the back channel to "create a received back channel" (the data coming in from the multiple network users from via network 106).

-00344, Schmandt Decl., ¶ 311

≠

Schmandt Reply Decl. ¶ 9. In Julia, the "received back channel" is created when the remote server receives voice data on the network back channel. Pet. at 44-45; Schmandt Decl. ¶¶ 311-312; Schmandt Reply Decl. ¶ 9.

-00344, Comcast's Reply at 10

Partitioning said Received Back Channel into a Multiplicity of Received Identified Speech Channels

a received back channel = **said received back channel**

But Comcast improperly maps "a received back channel" differently than "said received back channel"

"the ***data*** coming in from the multiple network users from via network 106" ≠ "an upstream ***channel***"

IPR2018-00344, Paper 20 at 10-17; -00344, Ex. 2033 at ¶¶ 33-43; -00344, Paper 1 at 44-47; -00344, Ex. 1019 at ¶¶ 311-321

Comcast's Mapping Inconsistent in Petition

311. Julia discloses this element. As explained above, the "back channel" is the upstream communication channel of network 106. Julia discloses that a

* * *

simultaneously through network 106 to remote server 108. The network server 108 therefore "receives" the back channel to "create a received back channel" (the data coming in from the multiple network users from via network 106).

-00344, Schmandt Decl., ¶ 311

But . . .

Nazarathy and Quigley both disclose techniques for "partitioning" an upstream data channel carrying multiple user signals at a central cable headend.

-00344, Comcast's Petition at 46

IPR2018-00344, Paper 20 at 10-17; -00344, Ex. 2033 at ¶¶ 33-43; -00344, Paper 1 at 44-47; -00344, Ex. 1019 at ¶¶ 311-321

Comcast's Mapping Ignores Claim Elements

said back channel ≠ **said received back channel**

But Comcast fails to distinguish between the claimed "back channel" and the claimed "received back channel"

"the upstream ***channel*** of network 106" = "an upstream ***channel***"

IPR2018-00344, Paper 20 at 10-17; -00344, Ex. 2033 at ¶¶ 33-43; -00344, Paper 1 at 44-47; -00344, Ex. 1019 at ¶¶ 311-321

Processing a/said Multiplicity of said Received Identified Speech Channels to Create a Multiplicity of Identified Speech Content

Comcast continues to conflate "channel" and "data"

processing said multiplicity of said received identified speech channels to create a multiplicity of identified speech content; and

-00344, Ex. 1001 at 51:5-7

≠

Julia explains that "[a]t remote server 108, the voice data is ***processed*** by request processing logic 300 in order to understand the user's request and construct an appropriate query or request for navigation of remote data source 110 …." Julia

-00344, Comcast's Petition at 47

IPR2018-00344, Paper 38 at 1-2; -00344, Paper 20 at 17-18; -00344, Ex. 2033, ¶ 44; -00344, Ex. 1001 at 50:62-51:10, 55:9-36, -00344, Paper 1 at 47; -00344, Ex. 1019, ¶¶ 322-329; IPR2018-00345, Paper 20 at 11-14; -00345, Ex. 2033, ¶ 35; -00345, Ex. 1001 at 52:65-53:21, 58:12-45, -00345, Paper 1 at 44-46; -00345, Ex. 1019, ¶¶ 274-284

A Speech Recognition System Coupled to a Wireline Note

speech recognition system ≠ **wireline node**

IPR2018-00344, Paper 38 at 3-4; -00344, Paper 20 at 20-21; -00344, Ex. 2033, ¶ 47; -00344, Paper 1 at 53; -00344, Ex. 1019, ¶¶ 373-376; IPR2018-00345, Paper 38 at 1-3; -00345, Paper 20 at 10-11; -00345, Ex. 2033, ¶ 34; -00345, Paper 1 at 44; -00345, Ex. 1019 , ¶¶ 271-273

Both of Comcast's Mappings Fail: Petition

speech recognition system ≠ **wireline node**

373. Julia discloses this element. As discussed above, the "speech recognition system" is the remote server 108, which includes processing logic 300. The remote server 108 is also a "wireline node" as that term is used in the '196

-00344, Schmandt Decl., ¶ 373

remote server 108 ≠ **speech recognition system & wireline node**

IPR2018-00344, Paper 38 at 3-4; -00344, Paper 20 at 20-21; -00344, Ex. 2033, ¶ 47; -00344, Paper 1 at 53; -00344, Ex. 1019, ¶¶ 373-376; IPR2018-00345, Paper 38 at 1-3; -00345, Paper 20 at 10-11; -00345, Ex. 2033, ¶ 34; -00345, Paper 1 at 44; -00345, Ex. 1019 , ¶¶ 271-273

Comcast's Mapping Changes from its Petition to its Reply

373. Julia discloses this element. As discussed above, the "speech recognition system" is the remote server 108, which includes processing logic 300. The remote server 108 is also a "wireline node" as that term is used in the '196

-00344, Schmandt Decl., ¶ 311

≠

system coupled to a wireline node" as recited in claim 27. Julia's remote server 108 constitutes a wireline node and within it (i.e., coupled to it) is processing logic 300 (a speech recognition system). Pet. at 53; Schmandt Decl. ¶¶ 371, 373. The

-00344, Comcast's Reply at 12

IPR2018-00344, Paper 38 at 3-4; -00344, Paper 20 at 20-21; -00344, Ex. 2033, ¶ 47; -00344, Paper 1 at 53; -00344, Ex. 1019, ¶¶ 373-376; -00344, Paper 29 at 12-13; IPR2018-00345, Paper 38 at 1-3; -00345, Paper 20 at 10-11; -00345, Ex. 2033, ¶ 34; -00345, Paper 1 at 44; -00345, Ex. 1019 , ¶¶ 271-273; -00345, Paper 29 at 9-11

Both of Comcast's Mappings Fail: Reply

Each of the challenged independent claims, claims 14 and 53, requires "a speech recognition system coupled to a wireline node in a network." To explain away the Petition's inconsistencies, Petitioner presents a new argument that the speech recognition system is "processing logic 300" not the "remote server 108" of Julia. Paper 29 at 9-10. This new argument is not only improper because it attempts to make Petitioner's case in chief in the Reply, as explained below, but also fails to address the relationship of speech recognition system (now mapped to processing logic 300) to the elements in the claim that require specific relationships between the speech recognition system, the wireline node, and the other claim elements. For example, claim 14 recites:

-00345, Promptu's Sur-Reply at 1

-00344, Promptu's Sur-Reply at 3

For claim 27, Petitioner presents a new argument that the speech recognition system in claim 27 is the "processing logic 300." Paper 29 at 12. This new argument is not only improper because it attempts to make Petitioner's case in chief in the Reply, as explained below, but also because it fails to address the relationship of the speech recognition system (now mapped to processing logic 300) to the elements the claim requires the speech recognition system to comprise:

IPR2018-00344, Paper 38 at 3-4; -00344, Paper 20 at 20-21; -00344, Ex. 2033, ¶ 47; -00344, Paper 1 at 53; -00344, Ex. 1019, ¶¶ 373-376; IPR2018-00345, Paper 38 at 1-3; -00345, Paper 20 at 10-11; -00345, Ex. 2033, ¶ 34; -00345, Paper 1 at 44; -00345, Ex. 1019 , ¶¶ 271-273

Both of Comcast's Mappings Fail: Reply

14. A program system controlling at least part of a speech recognition system coupled to a wireline node in a network, said program system comprising the program steps of:

processing a multiplicity of received identified speech channels to create a multiplicity of identified speech content; and

responding to said identified speech content to create an identified speech content response that is unique to each of said multiplicity of identified speech contents;

wherein said speech recognition system is provided said multiplicity of received identified speech channels based upon a received back channel at said wireline node from a multiplicity of user sites coupled to said network;

wherein each of said program steps reside in memory accessibly coupled to at least one computer included in said speech recognition system;

wherein said at least one computer communicatively couples through said wireline node to said multiplicity of user sites; … .

-00345, Promptu's Sur-Reply at 2

IPR2018-00344, Paper 38 at 3-4; -00344, Ex. 1001 at 55:9-36; IPR2018-00345, Paper 38 at 1-3; -00345, Ex. 1001 at 52:65-55:21, 58:12-29

"Video-On-Demand" Systems Do Not "Create a Financial Consequence"

- Julia's disclosure of "video-on-demand" systems does not equate to "pay-per-view" systems that "create a financial consequence"
  - Ex. Video-on-demand systems such as Netflix allow users to watch as many videos on demand as then please without having to pay per view.

> Patent Owner argues that "Petitioner cannot equate 'video-on-demand' with 'pay-per-view' because they are not the same thing. For example, . . . Netflix subscribers can watch as many videos on-demand as they please; they do not need to pay per view." Prelim. Resp. 30. In order words, according to Patent Owner, "video-on-demand" does not necessary "create a financial consequence." We agree and are not sufficiently persuaded that a person of ordinary skill in the art would have known that the "Diva Systems video-on-demand system" (*see* Ex. 1012, 6:47–59) provides "pay-per-view functionality" as Petitioner's expert opines (Ex. 1019 ¶ 345). Petitioner's expert does not point to any persuasive evidence to support his position that the Diva video-on-demand system provides "pay-per-view functionality" or that a person of ordinary skill in the art would have known that the Diva video-on-demand system would "require a purchase, resulting in a bill" in response to a request for a video-on-demand content. *Id*.

-00344, Institution Decision at 43-44

IPR2018-00344, Paper 10 at 42-45; -00344, Paper 20 at 24-27; -00344, Paper 38 at 9-10; IPR2018-00345, Paper 10 at 37-40; -00345, Paper 20 at 16-21; -00345, Paper 38 at 9-10

"Video-On-Demand" Systems Do Not "Create a Financial Consequence"

- Petitioner's reliance on secondary references is based on the premise that Julia discloses the "creat[ing]" step.

447. Patent Owner, however, argues that "Petitioner appears to premise any combination of Banker or Gordon with Julia on Julia already disclosing the "creat[ing]" step. Prelim. Resp. 29. In other words, according to Patent Owner, Petitioner is not relying on the combination with either Banker or Gordon for the "creating a financial consequence" limitation. We have reviewed the record and, on the record before us, we agree with Patent Owner that Petitioner appears to be relying on Julia for teaching the "creating a financial consequence" limitation (Pet. 62–63; Ex. 1019 ¶ 345) and as discussed above, Petitioner has not persuaded us that Julia teaches the limitation at issue. We are therefore not persuaded that Petitioner has established a reasonable likelihood that it would prevail in showing unpatentability of claims 5, 6, 31, and 32 over (10) Julia, Nazarathy, and Banker; (11) Julia, Nazarathy, and Gordon; (12) Julia, Quigley, and Banker; or (13) Julia, Quigley, and Gordon.

-00344, Institution Decision at 44-45

IPR2018-00344, Paper 10 at 42-45; -00344, Paper 20 at 24-27; -00344, Paper 38 at 9-10; IPR2018-00345, Paper 10 at 37-40; -00345, Paper 20 at 16-21; -00345, Paper 38 at 9-10

Comcast's Improper New Arguments in its Reply Also Fail

- Comcast adds improper new arguments in its Reply regarding how Gordon and Banker allegedly disclose the "assessing" step that includes "creat[ing] a financial transaction."
  - As the Board acknowledges, these arguments were not in the Petition.
  - Patent Owner did not dispute these arguments in its Response because they were not in the Petition.
  - Testimony from the founder of Diva (the company) does not prove that Julia discloses a "pay-per-view" system.

IPR2018-00344, Paper 10 at 42-45; -00344, Paper 20 at 24-27; -00344, Paper 38 at 9-10; -00344, Paper 29 at 14-16; IPR2018-00345, Paper 10 at 37-40; -00345, Paper 20 at 16-21; -00345, Paper 38 at 9-10; -00345, Paper 29 at 13-16

Claim Requirement – Natural Language for Said User Site

- Claims 13, 26, 39, and 62 recite:
  - "processing said received speech channel(s) from said user site **based upon natural language <u>for said user site</u>** to create said speech content identified as to said user site"
- Petitioner only addressed the following limitations (based on claims 12 and 25):
  - "processing said received speech channels from said user site **based upon natural language** to create said speech content identified as to said user site"

IPR2018-00344, Paper 20 at 26-27; -00344, Paper 38 at 4; -00344, Paper 29 at 17-18; IPR2018-00345, Paper 20 at 20-21; -00345, Paper 38 at 4; -00345, Paper 29 at 17-18

Comcast's Petition Fails to Address This Limitation

> Dependent claim 13 is the same as the "processing" step of claim 2 but additionally recites that the speech recognition is "based upon natural language." '196 Patent at 51:28-30, 52:52-55. As discussed above, Julia expressly discloses "a data navigation system driven by spoken ***natural language*** input …." Julia at 3:37-39; see also id. at 1:16-20, 7:1-8:32. Thus, Julia discloses "processing said received speech channels from said user site based upon natural language for said user site to create said speech content identified as to said user site," as recited in claim 13. Schmandt Decl. ¶¶ 368-369; *see* Sections VIII.A.1.d and VIII.A.2, above.

-00344, Comcast's Petition at 52-53

IPR2018-00344, Paper 1 at 52-53; -00344, Paper 20 at 26-27; -00344, Paper 38 at 4; -00344, Paper 29 at 17-18; IPR2018-00345, Paper 1 at 28-29; -00345, Paper 20 at 20-21; -00345, Paper 38 at 4; -00345, Paper 29 at 17-18

Comcast's Petition Fails to Address This Limitation

identified as to said user site." *Id.* at 52:52-55 (emphasis added). Thus, these claims differ because claim 13 includes an additional requirement that the natural language is specific to a user site. But the petition never addresses this additional requirement. Instead, it copies the claim 12 analysis with just the claim number and claim text updated. Pet. 52-53. Accordingly, the petition fails to establish that claim 13 is unpatentable.

-00344, Promptu's Response at 27

IPR2018-00344, Paper 1 at 52-53; -00344, Paper 20 at 26-27; -00344, Paper 38 at 4; -00344, Paper 29 at 17-18; IPR2018-00345, Paper 1 at 28-29; -00345, Paper 20 at 20-21; -00345, Paper 38 at 4; -00345, Paper 29 at 17-18

Challenged Claims of the '196 Patent

1. A method of using a back channel containing a multiplicity of identified speech channels from a multiplicity of user sites presented to a speech processing system at a wireline node in a network supporting at least one of cable television delivery and video delivery, comprising the steps of:

receiving said back channel to create a received back channel;

partitioning said received back channel into a multiplicity of received identified speech channels;

processing said multiplicity of said received identified speech channels to create a multiplicity of identified speech content; and

responding to said identified speech content to create an identified speech content response that is unique, for each of said multiplicity of identified speech contents.

2. The method of claim **1**,

wherein at least one of said identified speech channels has an associated user site; and

wherein the step partitioning said received back channel is further comprised of the step of:

partitioning said received back channel into a multiplicity of said received identified speech channels from said associated user site;

wherein the step processing said multiplicity of said received identified speech channels is further comprised the step of:

processing said multiplicity of said received identified speech channels from said associated user site to create a multiplicity of said identified speech contents; and

wherein the step responding to said identified speech content is further comprised the step of:

responding to said identified speech content from said associated user site to create said identified speech content response for said associated user site.

Challenged Claims of the '196 Patent

4. The method of claim **2**,
wherein the step responding to said identified speech contents from said associated user site is comprised of the steps of:
processing said identified speech content response to create said identified user site response; and
sending said identified user site response to said identified user site.

5. The method of claim **2**,
wherein the step responding to said identified speech contents from said associated user site is comprised of the steps of:
assessing said speech content response identified as to said user site to create a financial consequence identified as to said user site; and
billing said user site based upon said financial consequence.

6. The method of claim **2**,
wherein the step responding to said identified speech contents from said associated user site is comprised of the steps of:
assessing said speech response to create a financial consequence identified with said user site;
displaying said financial consequence to create a displayed financial consequence at said user site;
confirming said displayed financial consequence from said user site to create a financial commitment; and
billing said user site based upon said financial commitment.

12. The method of claim **2**,
wherein the step responding to said identified speech content from said associated user site is further comprised of the step of:
responding to said speech content identified as to said user site based upon natural language to create a speech content response of said speech content identified with said user site.

13. The method of claim **2**,
wherein the step processing said multiplicity of said received speech channels is further comprised for at least one of said user sites is further comprised of the step of:
processing said received speech channels from said user site based upon natural language for said user site to create said speech content identified as to said user site.

Challenged Claims of the '196 Patent

14. A program system controlling at least part of a speech recognition system coupled to a wireline node in a network, said program system comprising the program steps of:

processing a multiplicity of received identified speech channels to create a multiplicity of identified speech content; and

responding to said identified speech content to create an identified speech content response that is unique to each of said multiplicity of identified speech contents;

wherein said speech recognition system is provided said multiplicity of received identified speech channels based upon a received back channel at said wireline node from a multiplicity of user sites coupled to said network;

wherein each of said program steps reside in memory accessibly coupled to at least one computer included in said speech recognition system;

wherein said at least one computer communicatively couples through said wireline node to said multiplicity of user sites; and

wherein said network supports at least one of the collection comprising: cable television delivery to said multiplicity of user sites; and video delivery to said multiplicity of user sites.

15. The program system of claim **14**,

wherein at least one of said identified speech channels has an associated user site; and

wherein the program step processing said multiplicity of said received identified speech channels is further comprised of the program step of:

processing said multiplicity of said received identified speech channels from said associated user site to create a multiplicity of said identified speech content; and

wherein the program step responding to said identified speech content is further comprised of the program step of:

responding to said identified speech content from said associated user site to create said identified speech content response for said associated user site.

Challenged Claims of the '196 Patent

17. The program system of claim **15**,
wherein the program step responding to said identified speech content from said associated user site is comprised of the program steps of:
processing said identified speech content response to create said identified user site response; and
sending said identified user site response to said identified user site.

18. The program system of claim **15**,
wherein the program step responding to said identified speech content from said associated user site is comprised of the program steps of:
assessing said speech content response identified as to said user site to create a financial consequence identified as to said user site; and
billing said user site based upon said financial consequence.

19. The program system of claim **15**,
wherein the program step responding to said identified speech content from said associated user site is comprised of the program steps of:
assessing said speech response to create a financial consequence identified as to said user site;
displaying said financial consequence to create a displayed financial consequence at said user site;
confirming said displayed financial consequence from said user site to create a financial commitment; and
billing said user site based upon said financial commitment.

25. The program system of claim **15**,
wherein the program step responding to said identified speech content from said associated user site is comprised, for at least one of said user sites, of the program step of:
responding to said speech content identified as to said user site based upon natural language to create a speech content response of said speech contents identified as to said user site.

26. The program system of claim **15**,
wherein the program step processing said multiplicity of said received speech channels is further comprised, for at least one of said user sites, of the program step of:
processing said received speech channels from said user site based upon natural language for said user site to create said speech content identified as to said user site.

Challenged Claims of the '196 Patent

27. A system supporting speech recognition in a network, said system comprising:

a speech recognition system coupled to a wireline node in said network for receiving a back channel from a multiplicity of user sites coupled to said network, further comprising

a back channel receiver, for receiving said back channel to create a received back channel;

a speech channel partitioner, for partitioning said received back channel into a multiplicity of received identified speech channels; and

a processor network executing a program system comprised of program steps residing in memory accessibly coupled to at least one computer in said processor network;

wherein said program system is comprised of the program steps of:

processing said multiplicity of said received identified speech channels to create a multiplicity of identified speech content;

responding to said identified speech content to create an identified speech content response, for each of said multiplicity of said identified speech contents; and

wherein said network supports at least one of the collection comprising: cable television delivery to said multiplicity of user sites; and video delivery to said multiplicity of user sites.

28. The system of claim **27**,

wherein at least one of said identified speech channels has an associated user site; and

wherein partitioning said received back channel is further comprised of:

partitioning said received back channel into a multiplicity of said received identified speech channels from said associated user site;

wherein the program step processing said multiplicity of said received identified speech channels is further comprised of the program step of:

processing said multiplicity of said received identified speech channels from said associated user site to create a multiplicity of said identified speech content; and

wherein the program step responding to said identified speech content is further comprised of the program step of:

responding to said identified speech content from said associated user site to create said identified speech content response for said associated user site.

Challenged Claims of the '196 Patent

30. The system of claim **28**,
wherein the program step responding to said identified speech contents from said associated user site is comprised of the program steps of:
processing said identified speech content response to create said identified user site response; and
sending said identified user site response to said identified user site.

31. The system of claim **28**,
wherein the program step responding to said identified speech contents from said associated user site is comprised of the program steps of:
assessing said speech content response identified as to said user site to create a financial consequence identified as to said user site; and
billing said user site based upon said financial consequence.

32. The system of claim **28**,
wherein the program step responding to said identified speech content from said associated user site is comprised of the program steps of:
assessing said speech response to create a financial consequence identified as to said user site;
displaying said financial consequence to create a displayed financial consequence at said user site;
confirming said displayed financial consequence from said user site to create a financial commitment; and
billing said user site based upon said financial commitment.

38. The system of claim **28**,
wherein the program step responding to said identified speech content from said associated user site is comprised, for at least one of said user sites, of the program step of:
responding to said speech content identified as to said user site based upon natural language to create a speech content response of said speech contents identified as to said user site.

39. The system of claim **28**,
wherein the program step processing said multiplicity of said received speech channels is further comprised, for at least one of said user sites, of the program step of:
processing said received speech channels from said user site based upon natural language for said user site to create said speech content identified as to said user site.

40. The system of claim **28**,
wherein said network includes a wired residential broadband network servicing at least part of said multiplicity of user sites.

41. The system of claim **40**,
wherein said wired residential broadband network is a fiber-to-the-curb residential broadband network.

42. The system of claim **40**,
wherein said wired residential broadband network is a fiber-to-the-home residential broadband network.

Challenged Claims of the '196 Patent

53. A method of operating at least part of a speech recognition system coupled to a wireline node in a network, comprising the steps of:

processing a multiplicity of received identified speech channels to create a multiplicity of identified speech content; and

responding to said identified speech content to create an identified speech content response that is unique to each of said multiplicity of identified speech contents;

wherein said speech recognition system is provided said multiplicity of received identified speech channels based upon a received back channel at said wireline node from a multiplicity of user sites coupled to said network;

wherein said network supports at least one of the collection comprising: cable television delivery to said multiplicity of user sites; and video delivery to said multiplicity of user sites.

54. The method of claim **53**,

wherein at least one of said identified speech channels has an associated user site; and

wherein the step processing said multiplicity of said received identified speech channels is further comprised of the step of:

processing said multiplicity of said received identified speech channels from said associated user site to create a multiplicity of said identified speech content; and

wherein the step responding to said identified speech content is further comprised of the step of:

responding to said identified speech content from said associated user site to create said identified speech content response for said associated user site.

55. The method of claim **54**,

wherein the step responding to said identified speech content from said associated user site is comprised of the steps of:

assessing said speech response to create a financial consequence identified as to said user site;

displaying said financial consequence to create a displayed financial consequence at said user site;

confirming said displayed financial consequence from said user site to create a financial commitment; and

billing said user site based upon said financial commitment.

Challenged Claims of the '196 Patent

61. The method of claim **54**,
wherein the step responding to said identified speech content from said associated user site is comprised, for at least one of said user sites, of the step of:
responding to said speech content identified as to said user site based upon natural language to create a speech content response of said speech contents identified as to said user site.

62. The method of claim **54**,
wherein the step processing said multiplicity of said received speech channels is further comprised, for at least one of said user sites, of the step of:
processing said received speech channel from said user site based upon natural language for said user site to create said speech content identified as to said user site.

64. The method of claim **54**,
wherein the step responding to said identified speech content from said associated user site is comprised of the steps of:
processing said identified speech content response to create said identified user site response; and
sending said identified user site response to said identified user site.

65. The method of claim **54**,
wherein the step responding to said identified speech content from said associated user site is comprised of the steps of:
assessing said speech content response identified as to said user site to create a financial consequence identified as to said user site; and
billing said user site based upon said financial consequence.

66. The method of claim **54**,
wherein each of said identified speech channels has an associated user site.

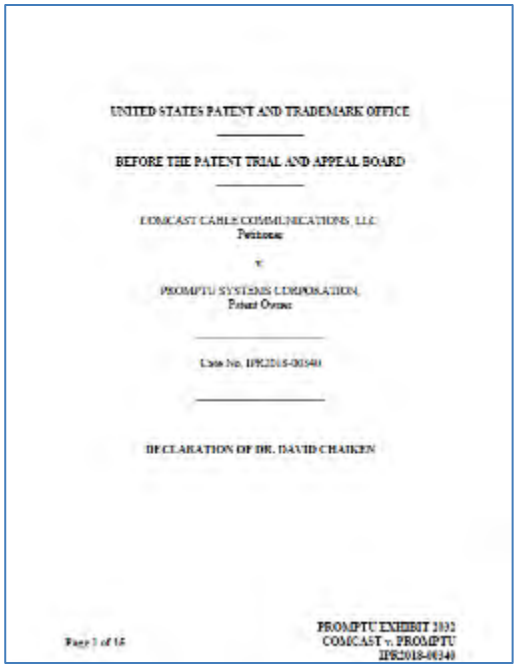
Comcast's Challenges

- IPR2018-00342 and -343: Patent No. RE44,326
- IPR2018-00344 and -345: Patent No. 7,047,196
- **Secondary Considerations of Nonobviousness**

USPQ 871, 879 (Fed.Cir.1983). Indeed, the litigation argument that an innovation is really quite ordinary carries diminished weight when offered by those who had tried and failed to solve the same problem, and then promptly adopted the solution that they are now denigrating.

Heidelberger v. Hantscho, 21 F.3d 1068, 1072 (Fed. Cir. 1994)

Dr. David Chaiken



UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

v.

PROMPTU SYSTEMS CORPORATION
Patent Owner

Case No. IPR2018-00340

DECLARATION OF DR. DAVID CHAIKEN

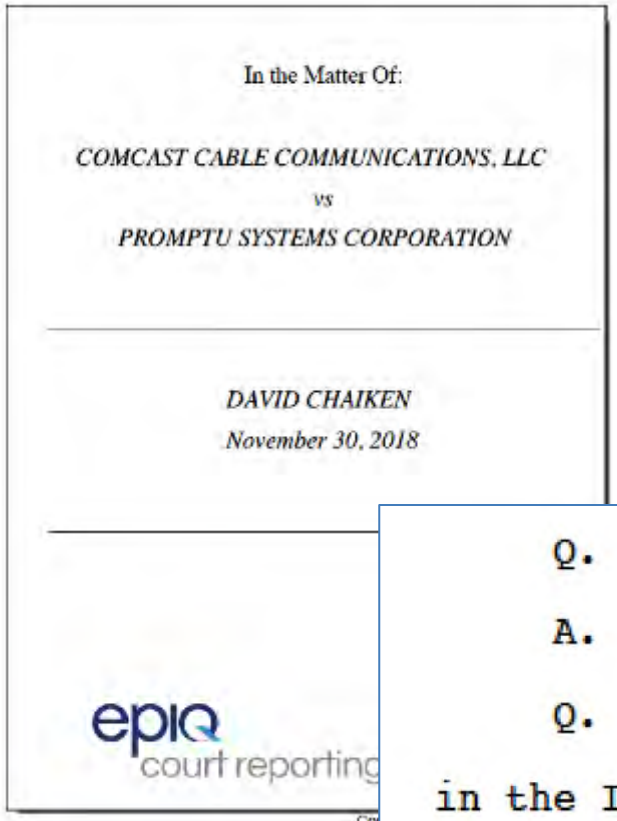
Page 1 of 15

PROMPTU EXHIBIT 2032
COMCAST v. PROMPTU
IPR2018-00340

Dr. David Chaiken:

- Ph.D. from MIT in EE/CS
- Previous Research Manager at AT&T
- History at Promptu:
  - 2000: VP/Chief Software Architect
  - 2004: VP/Chief Technology Officer
  - 2006: Left Promptu

Dr. David Chaiken


In the Matter Of:

COMCAST CABLE COMMUNICATIONS, LLC

vs

PROMPTU SYSTEMS CORPORATION

DAVID CHAIKEN

November 30, 2018

epiq court reporting

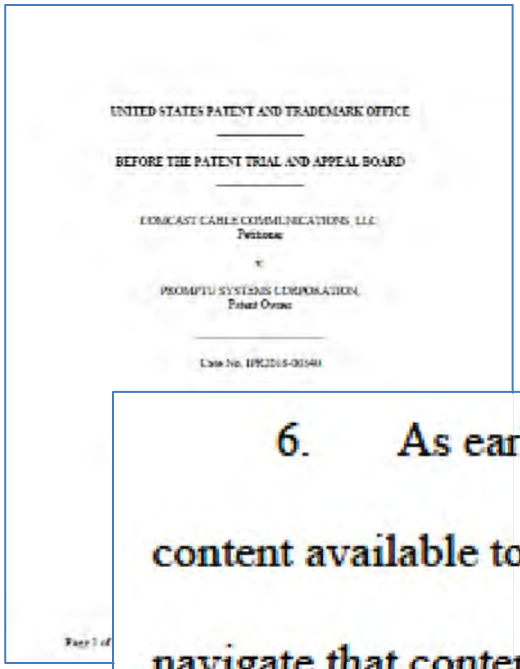
Q. Okay. Are you being paid today to testify?

A. No.

Q. Were you paid for providing any declarations in the IPRs underlying this matter?

A. No.

State of the Art


UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

v.

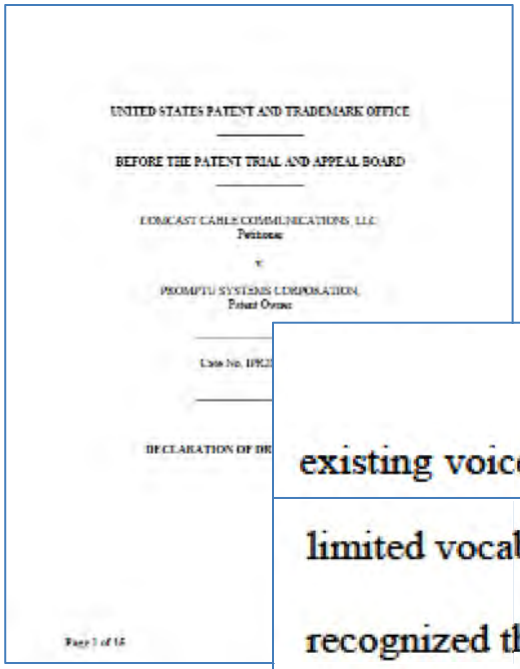
PROMPTU SYSTEMS CORPORATION
Patent Owner

Case No. IPR2015-01540

6. As early as 2000, AgileTV recognized that as the amount of digital content available to cable subscribers continued to increase, the existing tools to navigate that content were impractical. It had been known for years in the industry that manually navigating a large volume of content using an electronic program guide was unwieldy and required excessive keystrokes on the remote control.

Exhibit 2032

State of the Art


UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

v.

PROMPTU SYSTEMS CORPORATION
Patent Owner

Case No. IPR2

DECLARATION OF DR

Page 1 of 15

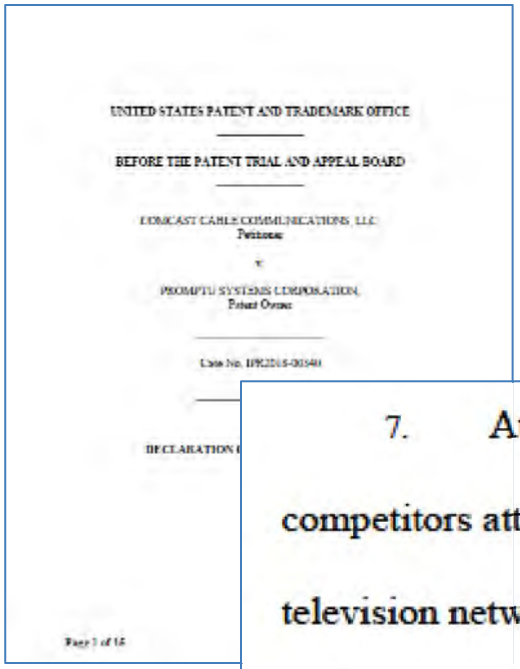
And

existing voice recognition technology suffered several disadvantages, including limited vocabulary, low accuracy, and awkward navigation. AgileTV further recognized that, given the increasing amount of content that cable television network companies were offering, traditional remote control devices and cable infrastructure to access television content were inefficient. By using speech recognition technology, one of AgileTV's objectives was to simplify users' ability to find and view desired television programming on the cable television network.

Exhibit 2032

-342 (Paper 22 at 28-29), -343 (Paper 24 at 27-28), -344 (Paper 20 at 34), -345 (Paper 20 at 27-28)

State of the Art

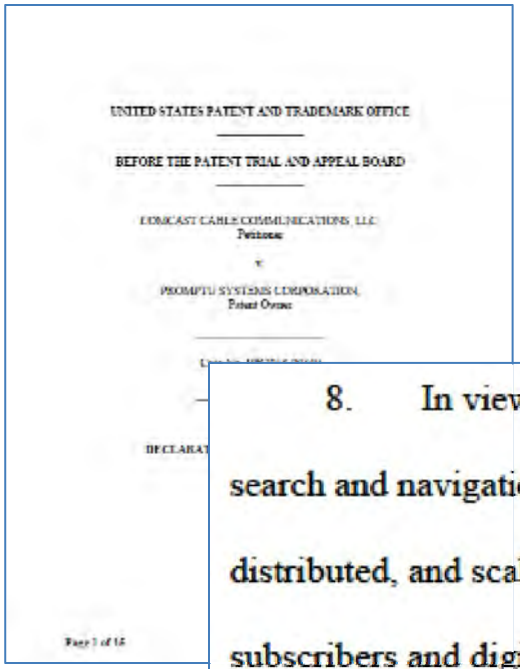

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

7. At the time I joined AgileTV in 2000, there were not any known competitors attempting to incorporate voice recognition technology into cable television network systems for accessing digital content, such as television programs or videos on demand. I recall our closest competitor in the early 2000s was a company called Integra5, which had demonstrated a product requiring an out-of-band telephone call to request digital content from the cable television network. To my knowledge, Integra5's solution was not successful.

Exhibit 2032

State of the Art


UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

v.

PROMPTU SYSTEMS CORPORATION
Patent Owner

8. In view of the existing problems, AgileTV created a voice-enabled search and navigation solution for the cable industry that was large-scale, distributed, and scalable, and intended to accommodate millions of cable subscribers and digital-content choices. Before AgileTV's solution, no one had addressed speech recognition for the cable industry from a comprehensive, system-wide perspective: from microphone, through transport and to the server-side speech recognition engine.

Exhibit 2032

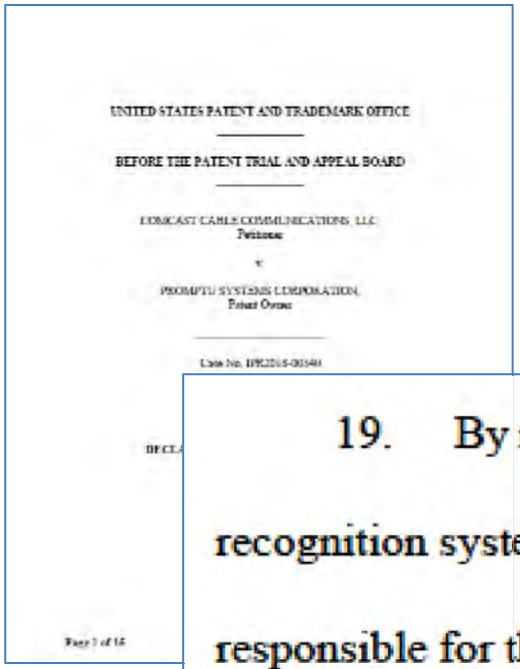
-342 (Paper 22 at 28-29), -343 (Paper 24 at 27-28), -344 (Paper 20 at 34), -345 (Paper 20 at 27-28)

Relationship between Comcast and Promptu

- Timeline of events:
  - 2001: Comcast expressed an interest in Promptu's capability of implementing voice recognition feature into Comcast's cable network system
  - Comcast SVP: "Comcast believes that [Promptu's] speech recognition technology enabling the control and navigation of cable services on the television via voice commands has the potential to be an attractive service that could have a significant benefit to cable subscribers."
  - 2003: Comcast requested Promptu to deploy, and Promptu did deploy, the AgileTV system into Comcast's cable television network

-342 (Paper 22 at 31; Paper 43 at 2-3), -343 (Paper 24 at 30; Paper 45 at 2-3), -344 (Paper 20 at 36; Paper 44 at 2-3), -345 (Paper 20 at 30; Paper 44 at 2-3)

Relationship between Comcast and Promptu


UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

v.

PROMPTU SYSTEMS CORPORATION
Patent Owner

Case No. IPR2015-01540

19. By mid-2003, Comcast requested that AgileTV deploy its voice recognition system into portions of Comcast's cable television network. I was responsible for these early installations. This technology was deployed into Comcast's New Media Department ("NMD"), which I understand was assigned the responsibility to test new technologies and make recommendations to Comcast's management.

Exhibit 2032

Relationship between Comcast and Promptu

Exhibit 2012, 2032 ¶ 19

Relationship between Comcast and Promptu

From: "David Chaiken" <chaiken@agile.tv>

Subject: Comcast success
Date: Thu, 25 Sep 2003 10:31:04 -0400

Our demo is now in the Comcast NMD living room. Check out this karma...

Charlie Cerino (VP, head of NMD) walks in and says, "Is it working?"

Mark Francisco (NMD manager) says "yes," and does a few successful utterances.

Charlie picks up the remote, does "scan cooking" and "scan sports." Both work. Charlie then says, "I could fall in love with this."

Just then, Mark Coblitz (Sr. VP of Strategy) walks by the living room and says to Charlie, "What's that?"

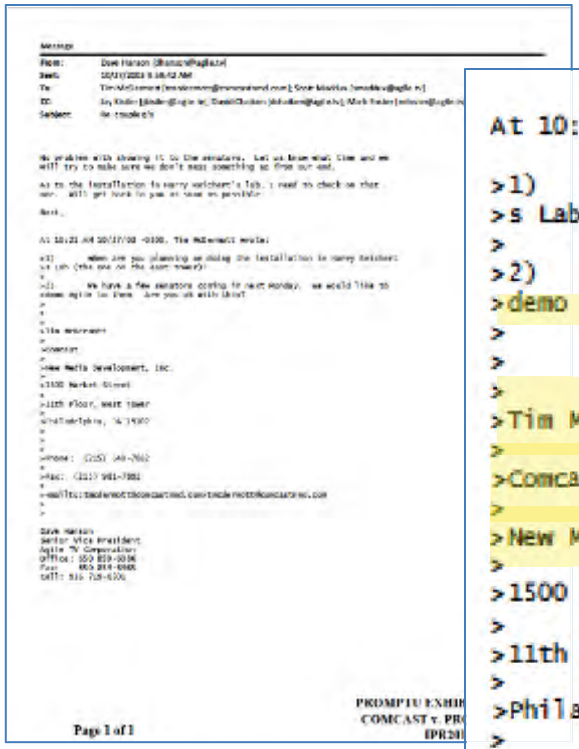
Charlie says, "AgileTV."

Mark says, "Oh, yes. I know you can fall in love with that."

One minute later, in the hallway, Mark says, "Everybody loves this toy. The only question is the economics."

Exhibit 2011

Relationship between Comcast and Promptu

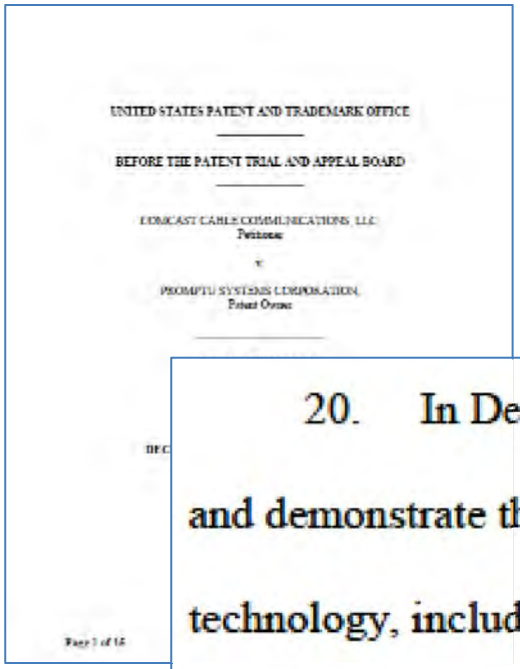


At 10:21 AM 10/27/03 -0500, Tim McDermott wrote:

>1) when are you planning on doing the installation in Harry Reichert
>s Lab (the one on the east tower)?
>
>2) We have a few senators coming in next Monday. We would like to
>demo Agile to them. Are you ok with this?
>
>
>
>Tim McDermott
>
>Comcast
>
>New Media Development, Inc.
>
>1500 Market Street
>
>11th Floor, West Tower
>
>Philadelphia, PA 19102
>
>
>
>Phone: (215) 640-7082
>
>Fax: (215) 981-7891
>
><mailto:tmcdermott@comcastnmd.com>tmcdermott@comcastnmd.com

Exhibit 2013

Relationship between Comcast and Promptu


UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

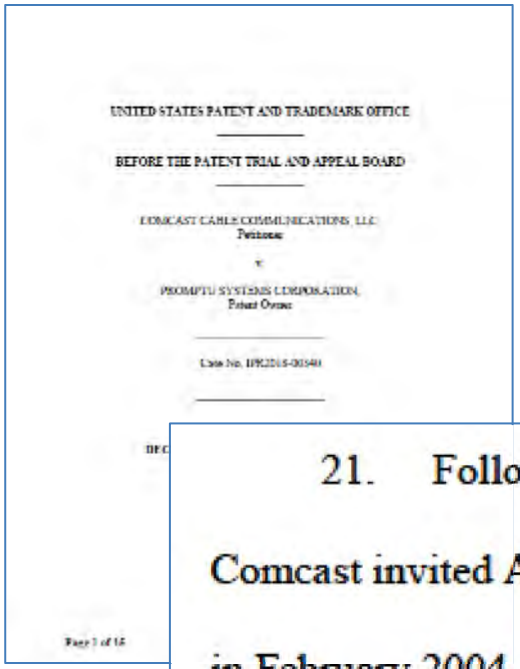
v.

PROMPTU SYSTEMS CORPORATION
Patent Owner

20. In December 2003, I attended the Comcast Christmas party to deploy and demonstrate the AgileTV system to Comcast executives to show off the technology, including Comcast's CEO Brian Roberts and other executives, including Steve Burke (EVP & President). Mr. Roberts, in particular, commented favorably regarding the AgileTV system following this deployment and demonstration. *See, e.g.*, Exhibit 2014.

Exhibit 2032

Relationship between Comcast and Promptu


UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

v.

PROMPTU SYSTEMS CORPORATION
Patent Owner

Case No. IPR2015-01540

21. Following that demonstration of the AgileTV system in 2003, Comcast invited AgileTV to deploy its system in a company-wide strategy meeting in February 2004. I was responsible for deploying the AgileTV technology into the Comcast network to function at this meeting in Phoenix, Arizona, where the AgileTV system was demonstrated to many of Comcast's senior managers. In my

Exhibit 2032

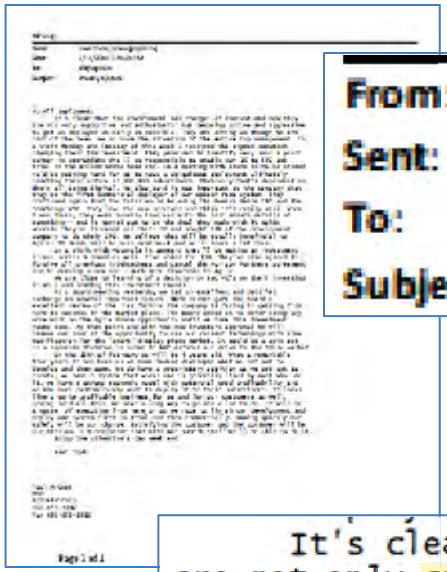
Comcast Corp. chief executive Brian L. Roberts

Roberts said at a management conference in Phoenix last week with 550 Comcast executives, "one of my favorite" new pieces of technology was a TV remote control that includes a speech recognition feature. Customers would use it to switch stations by saying "Go to ESPN" or "Go to Channel 4," and could call up on their TV screen a listing of all the John Wayne movies available through the on-demand service by saying "John Wayne movies."

"It's still very early in the process, but it could be available sometime in 2005," said Comcast spokeswoman

Exhibit 2016

Relationship between Comcast and Promptu

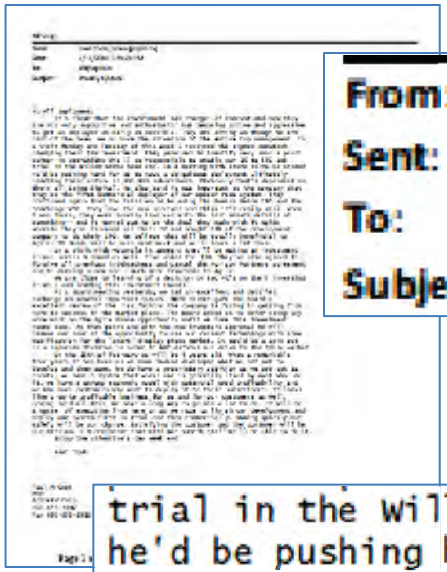


From: Paul Cook [pcook@agile.tv]
Sent: 2/13/2004 3:20:24 PM
To: all@agile.tv
Subject: Weekly Update

It's clear that the environment has changed at Comcast and now they are not only supportive and enthusiastic but becoming active and aggressive to get us deployed as early as possible. They are acting as though we are part of the team. We do have the attention of the entire top management. In a visit Monday and Tuesday of this week I received the signed document pledging their $2M investment. They promised to identify very soon a point person in operations who'll be responsible to enable our 10 to 500 sub trial in the Willow Grove head end. In a meeting with Steve Silva he stated

Exhibit 2015

Relationship between Comcast and Promptu



From: Paul Cook [pcook@agile.tv]
Sent: 2/13/2004 3:20:24 PM
To: all@agile.tv
Subject: Weekly Update

trial in the Willow Grove head end. In a meeting with Steve Silva he stated he'd be pushing hard for us to have a ubiquitous deployment ultimately reaching their entire 21,000,000 subscribers. Obviously that's dependent on their all being digital. He also said it was important to the company that they be the first commercial deployer of our speech reco system. They confirmed again that the trial would be using the Source Guide IPG and the Seachange VOD. They love the new receiver and think it's really cool. When

Exhibit 2015

Relationship between Comcast and Promptu

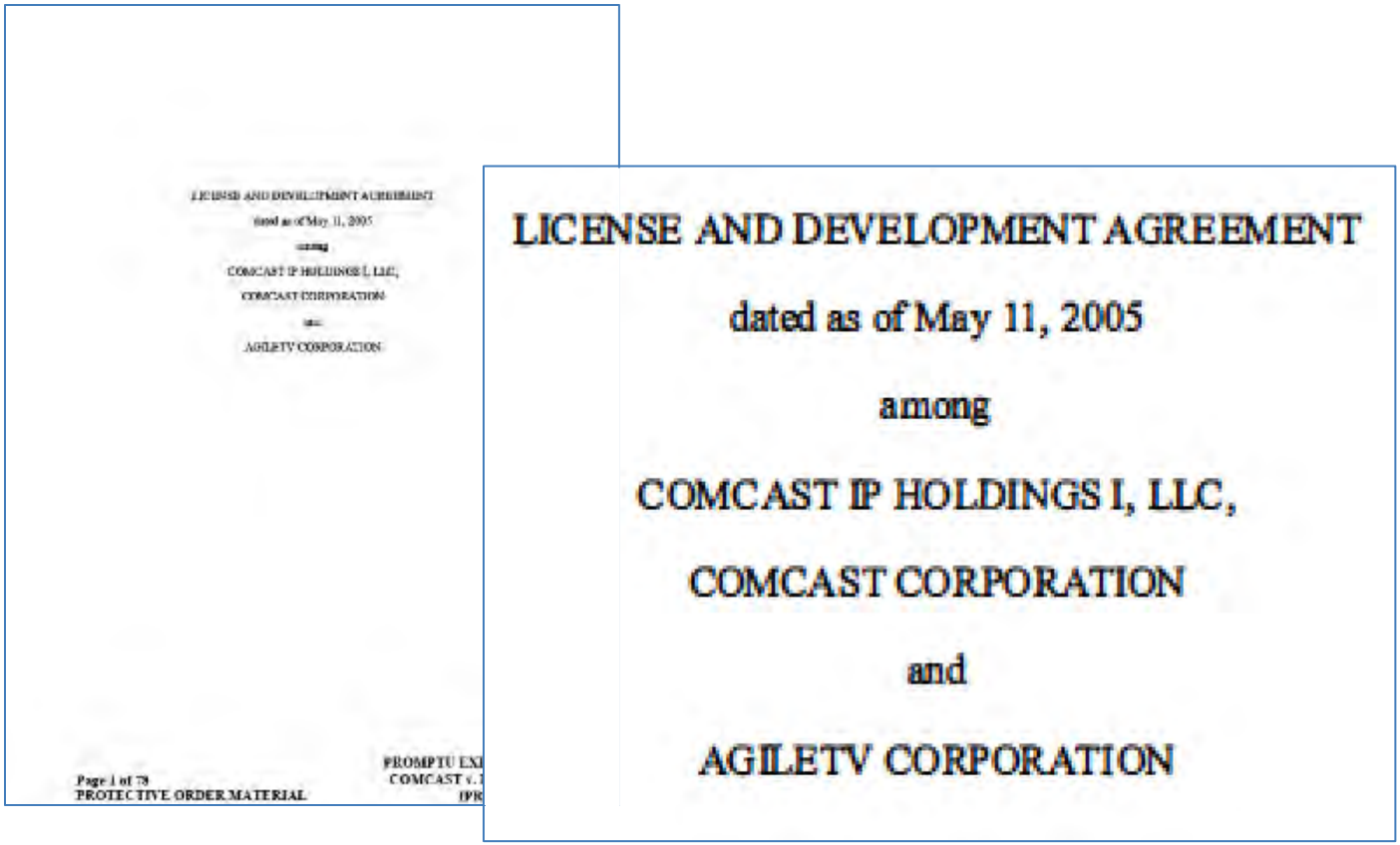
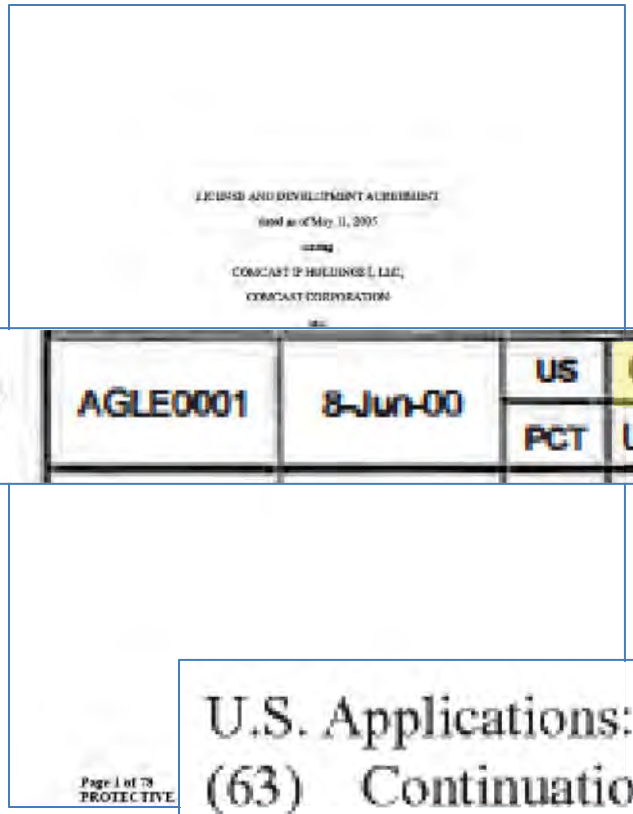


Exhibit 2022

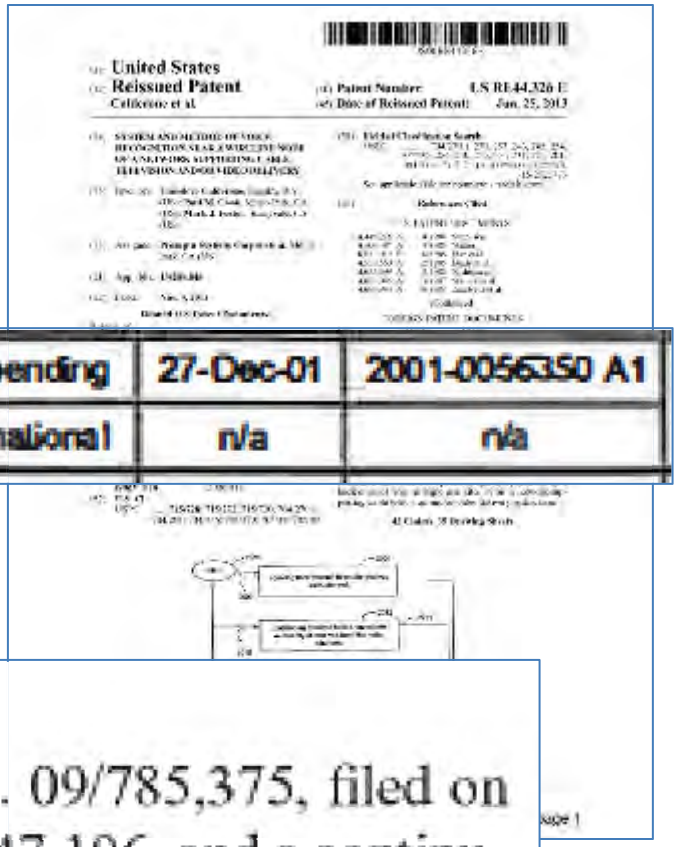
Relationship between Comcast and Promptu


LICENSE AND DEVELOPMENT AGREEMENT

COMCAST IP HOLDINGS I, LLC,

COMCAST CORPORATION

Page 1 of 78
PROTECTIVE


(12) United States
(12) Reissued Patent
Calderone et al.

(10) Patent Number: US RE44,326 E
(45) Date of Reissued Patent: Jun. 25, 2013

1	AGLE0001	8-Jun-00	US	09/785,375	16-Feb-01	pending	27-Dec-01	2001-0056350 A1
			PCT	US01/14760	7-May-01	national	n/a	n/a

U.S. Applications:

(63) Continuation of application No. 09/785,375, filed on Feb. 16, 2001, now Pat. No. 7,047,196, and a continuation-in-part of application No. 09/679,115, filed on

Exhibit 2022

Exhibit 1001

Relationship between Comcast and Promptu

1	AGLE0001	8-Jun-00	US	09/785,375	16-Feb-01	pending	27-Dec-01	2001-0056350 A1
			PCT	US01/14760	7-May-01	national	n/a	n/a

AGILETV CORPORATION

OA1(22-Mar-05); allowed with minor formal revisions; in progress.

Appl. No.: 09/785,375

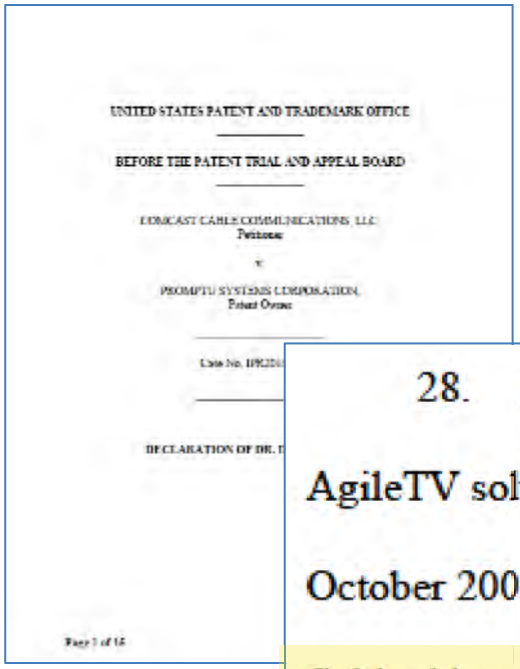
Filed: Feb. 16, 2001

Page 1 of 78
PROTECTIVE ORDER MATERIAL

Exhibit 2022

Exhibit 1001

Relationship between Comcast and Promptu


UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

v.

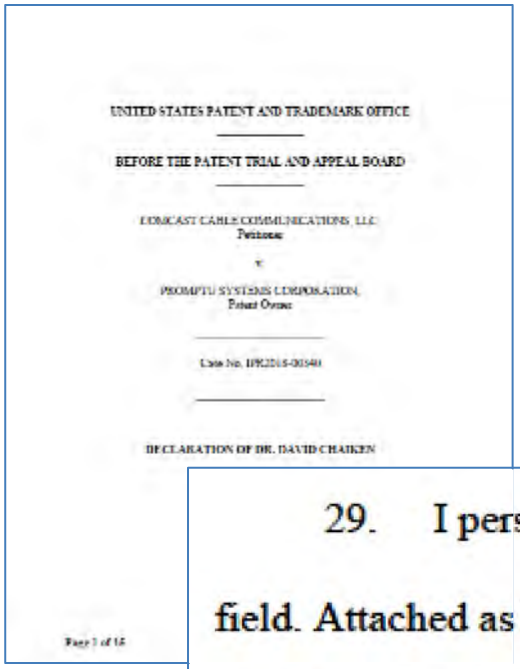
PROMPTU SYSTEMS CORPORATION
Patent Owner

DECLARATION OF DR.

28. After Comcast and AgileTV entered the agreements above, the AgileTV solution was successfully deployed and tested in the Comcast system. By October 2005, for example, AgileTV's search service, Promptu, had been in the field with various cable operators for three years, including Comcast's Torresdale (sometimes referred to as "Willow Grove") headend for a year and half, Insight Communications and Sunflower Broadband. Exhibit 2024, "A Voice in the Navigation Wilderness," dated Oct. 27, 2005.

Exhibit 2032

Relationship between Comcast and Promptu



UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

v.

PROMPTU SYSTEMS CORPORATION
Patent Owner

Case No. IPR2015-01540

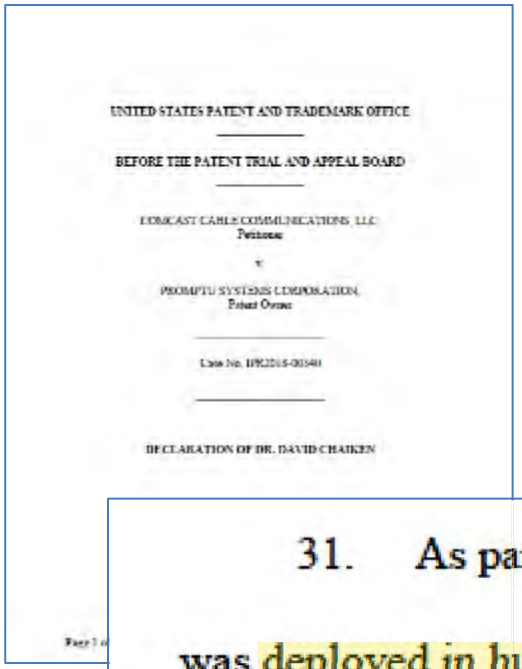
DECLARATION OF DR. DAVID CHAIKEN

Page 1 of 15

29. I personally supervised the installation of the AgileTV solution in the field. Attached as Exhibit 2025 is a video of me supervising a successful installation of the AgileTV solution in a Comcast employee's home around 2004-05.

Exhibit 2032

Relationship between Comcast and Promptu



UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

v.

PROMPTU SYSTEMS CORPORATION
Patent Owner

Case No. IPR2015-01540

DECLARATION OF DR. DAVID CHAIKEN

31. As part of AgileTV's relationship with Comcast, the AgileTV solution was deployed in hundreds of households. I was specifically involved with ensuring the installation into these households was done correctly and that the deployment was successful.

Exhibit 2032

Relationship between Comcast and Promptu

Ex. 2026 (Pt. 1)
- 0:00 – 0:10
- 0:21 – 0:42
- 1:07 – 1:46
- 2:21 – 2:42

Ex. 2026 (Pt. 2)
- 3:16-3:40

Exhibit 2026

Relationship between Comcast and Promptu

Exhibit 2026

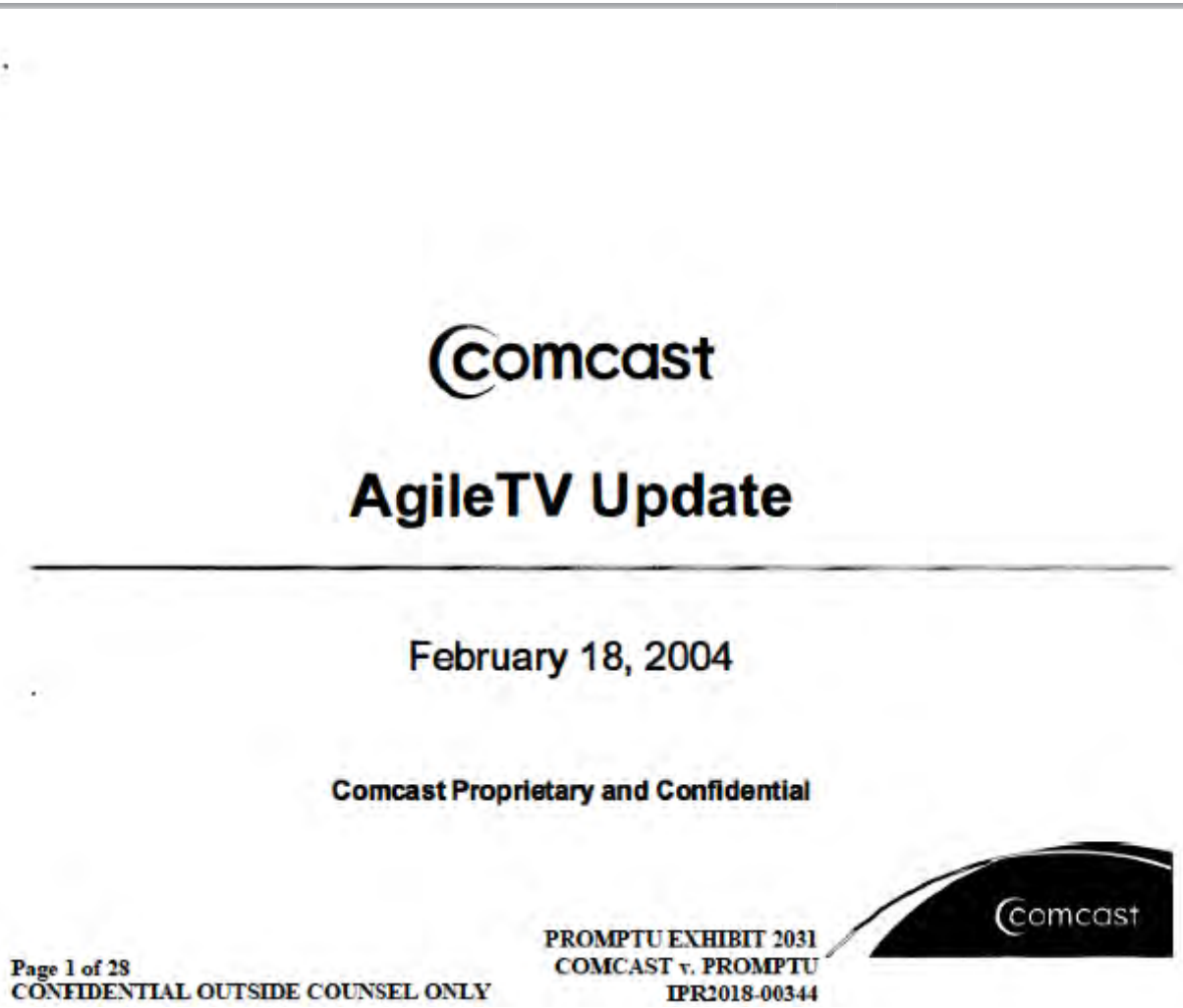
Relationship between Comcast and Promptu

Exhibit 2028

Relationship between Comcast and Promptu

Exhibit 2026

Comcast's Internal View of Promptu



comcast

AgileTV Update

February 18, 2004

Comcast Proprietary and Confidential

Page 1 of 28
CONFIDENTIAL OUTSIDE COUNSEL ONLY

PROMPTU EXHIBIT 2031
COMCAST v. PROMPTU
IPR2018-00344

comcast

Exhibit 2031

Comcast's Internal View of Promptu


Comcast

AgileTV Update

Potential Vendor–Partners for VR Development

Role: Cable integration

AGILETV

Rationale: Only vendor that has focused on VR over cable plant, has more knowledge than anyone else

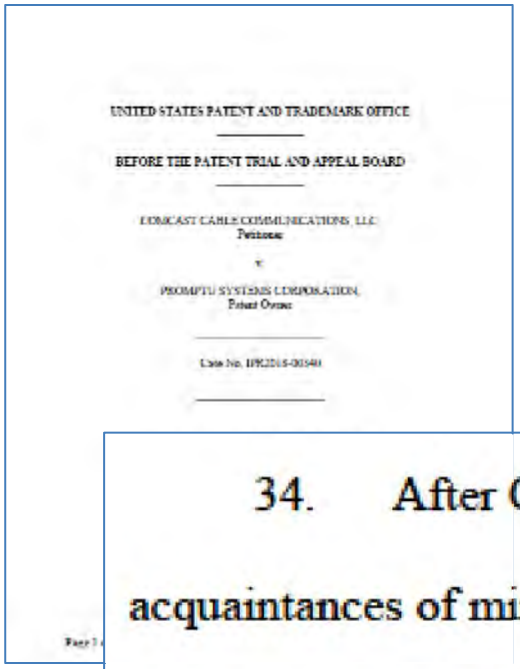
Status: Trial in progress, investment in progress

Customers: No revenue generating customers to date

Alternate Vendors: None

Exhibit 2031

Fast forward ten years . . .


UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

v.

PROMPTU SYSTEMS CORPORATION
Patent Owner

Case No. IPR2015-01540

34. After Comcast released its speech recognition functionality in 2015, acquaintances of mine who were aware of the scope of my work at AgileTV told me they confused Comcast's functionality with the AgileTV solution I had developed and deployed in 2005 in connection with my employment at AgileTV.

Exhibit 2032

Fast forward ten years . . .

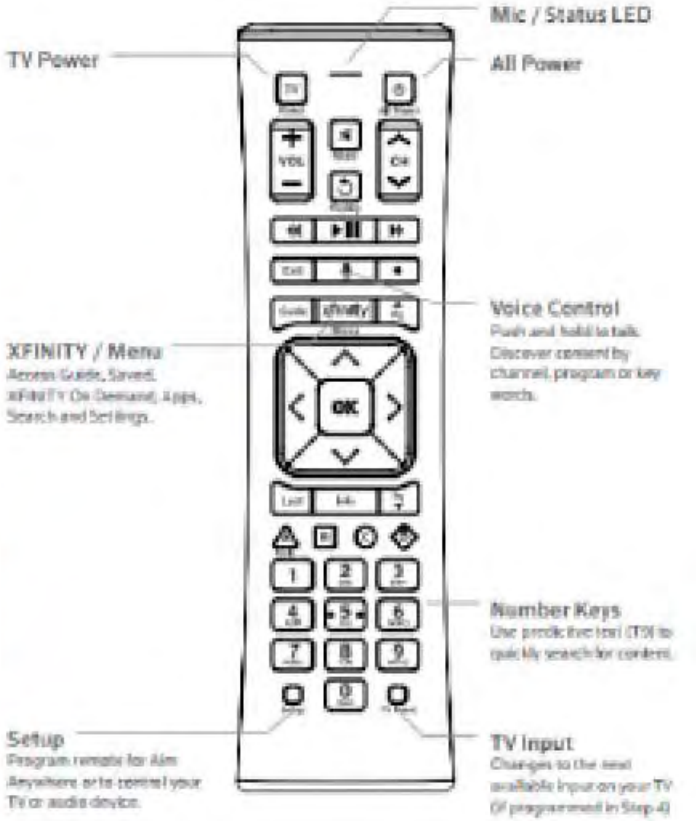


Exhibit 2026, Exhibit 1020 at 28

Presumption of Nexus

[10, 11] As WBIP correctly argues, there is a presumption of nexus for objective considerations when the patentee shows that the asserted objective evidence is tied to a specific product and that product "is the invention disclosed and claimed in the patent."[3] *J.T. Eaton & Co. v. Atl. Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997); *Crocs, Inc. v. Int'l Trade Comm'n*, 598 F.3d 1294, 1310–11 (Fed. Cir. 2010); *Brown & Williamson Tobacco Corp. v. Philip Morris, Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000); *Demaco*, 851 F.2d at 1392–93.

WBIP, LLC v. Kohler Co., 829 F.3d 1317, 1329 (Fed. Cir. 2016)

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

v.

PROMPTU SYSTEMS CORPORATION
Patent Owner

Case No. IPR2018-00342

DECLARATION OF DR. DAVID CHAIKEN

Page 1 of 15

PROMPTU EXHIBIT 2032
COMCAST v. PROMPTU
IPR2018-00342

14. The embodiments described in the '326 patent describe the foundations of the design of the AgileTV solution. The '326 patent describes the initial architecture of the AgileTV solution, which was subsequently extended and improved by AgileTV.

Exhibit 2032

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

v.

PROMPTU SYSTEMS CORPORATION
Patent Owner

Case No. IPR2018-00342

DECLARATION OF DR. DAVID CHA

Page 1 of 15

15. By 2003, the AgileTV system architecture used a first network path to transfer speech information to a speech recognition engine, which recognized the speech information and affected what is delivered via a second network path. For example, a user could send a voice command, such as "Find CNN," using a first upstream network path from the user's set-top box to the cable headend to request the digital content. The AgileTV system would process the voice command and deliver the requested content (e.g., CNN) back to the user's set-top box via a second downstream network path.

Exhibit 2032

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

v.

PROMPTU SYSTEMS CORPORATION
Patent Owner

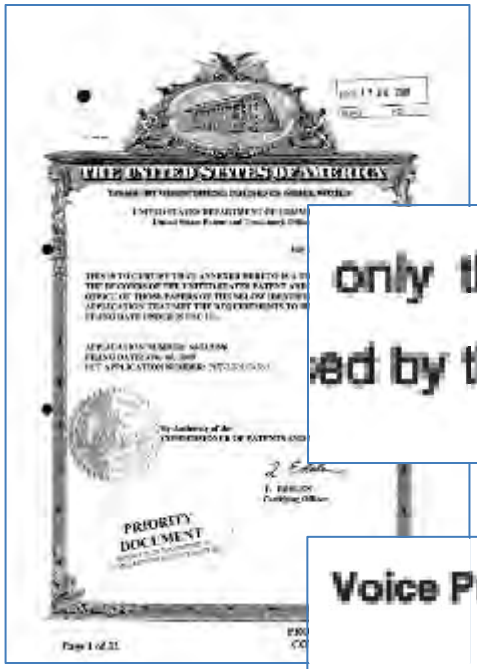
Case No. IPR2018-00

DECLARATION OF DR. DAV

Page 1 of 15

16. In view of the above, my experience working on the AgileTV solution in the early 2000s, the architecture and solution described in the '326 patent accurately reflect the AgileTV solution by 2003. Although the AgileTV solution evolved during my time at Promptu to add new features and capabilities, the architecture and solution described in the '326 patent also describes the AgileTV system from that time throughout my time at Promptu including the AgileTV solution that was successfully installed in Comcast's cable network system.

Exhibit 2032



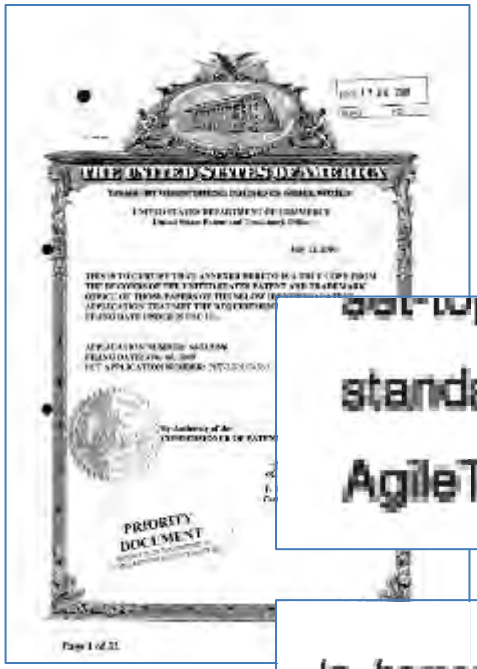
only the voice commands and address information from the

ved by the AgileTV Voice Recognition Engine in the headend.

Voice Processing Engine description

Upstream signals **1510** are received at the Agile Voice Processor Unit (AVPU)

Exhibit 2006 at 11



set-top appliance then the upstream data received in the fiber

standalone unit designed to receive only voice command

AgileTV's set-top appliance in the subscriber's home.

In homes with "heavy" set-top boxes, the VoiceLink will transmit this voice information to the set-top box, which will then transmit it to the headend as a series of packets.

Exhibit 2006 at 11, 14

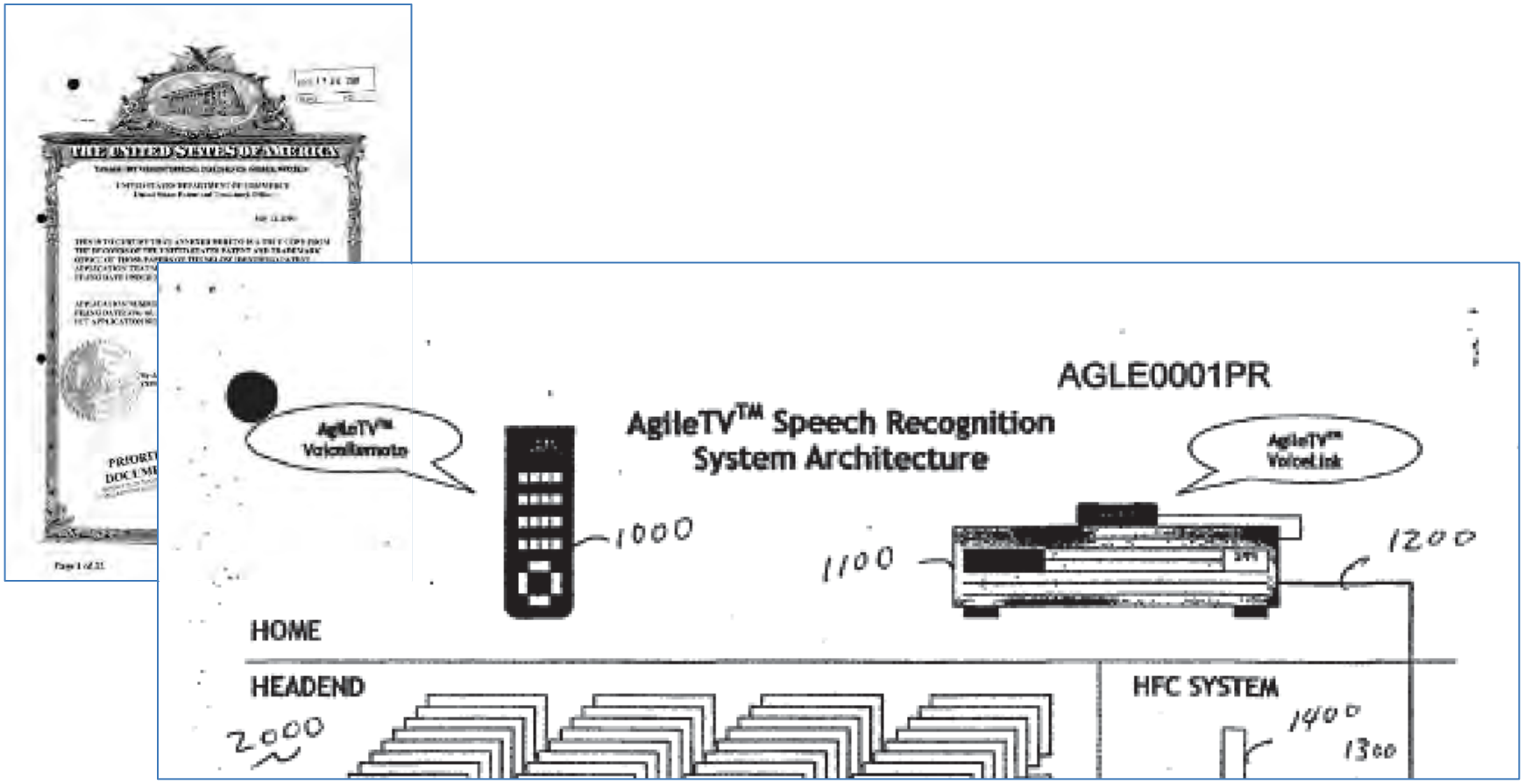
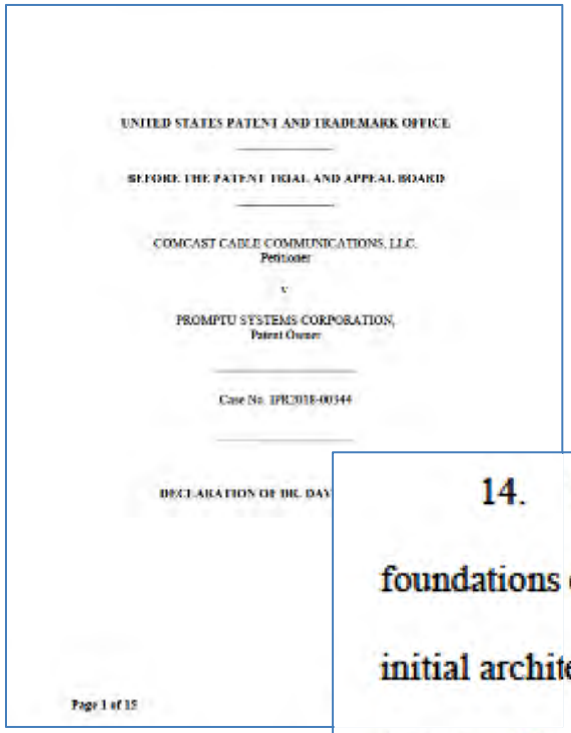


Exhibit 2006 at 29



UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC,
Petitioner

v.

PROMPTU SYSTEMS CORPORATION,
Patent Owner

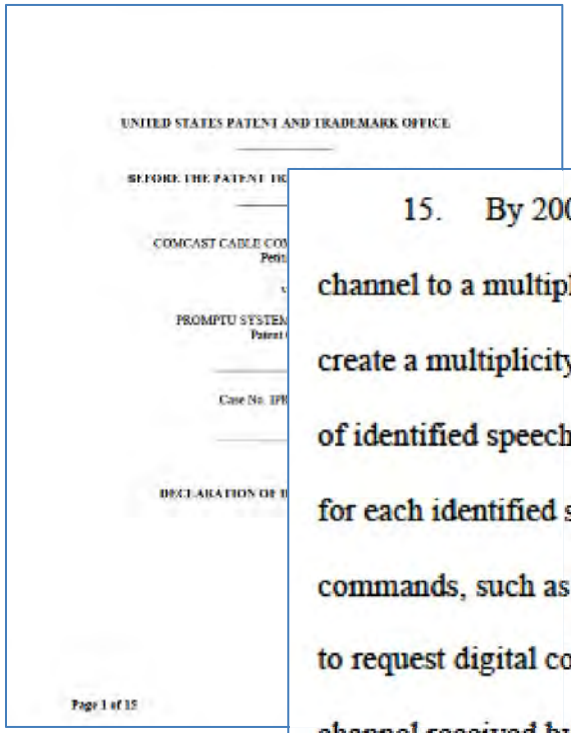
Case No. IPR2018-00344

DECLARATION OF DR. DAV

Page 1 of 15

14. The embodiments described in the '196 patent describe the foundations of the design of the AgileTV solution. The '196 patent describes the initial architecture of the AgileTV solution, which was subsequently extended and improved by AgileTV.

Exhibit 2032


UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TR

COMCAST CABLE CO

PROMPTU SYSTE

Case No. IP

DECLARATION OF

Page 1 of 15

15. By 2003, the AgileTV system architecture partitioned a received back channel to a multiplicity of received identified speech channels, processed those to create a multiplicity of identified speech content, and responded to the multiplicity of identified speech content to create a unique identified speech content response for each identified speech content. For example, users could send different voice commands, such as "Find CNN" and "Find ESPN," upstream to the cable headend to request digital content. The user voice commands were multiplexed on a back channel received by the AgileTV voice processing system, which would partition the different voice commands from the back channel, process those commands to identify the users' respective requested content (e.g., CNN or ESPN), and respond with a unique response for each user with the appropriate requested content.

Exhibit 2032

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC,
Petitioner

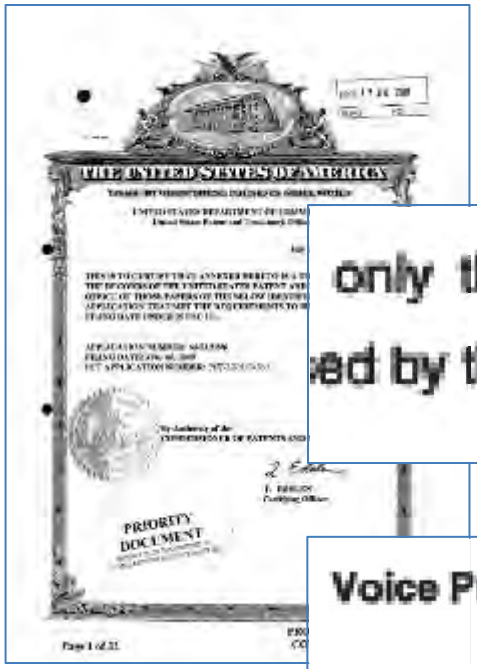
v.

PROMPTU SYSTEMS CORPORATION,
Patent Owner

Page 1 of 15

16. In view of the above, my experience working on the AgileTV solution in the early 2000s, the architecture and solution described in the '196 patent accurately reflect the AgileTV solution by 2003. Although the AgileTV solution evolved during my time at Promptu to add new features and capabilities, the architecture and solution described in the '196 patent also describes the AgileTV system from that time throughout my time at Promptu including the AgileTV solution that was successfully installed in Comcast's cable network system.

Exhibit 2032



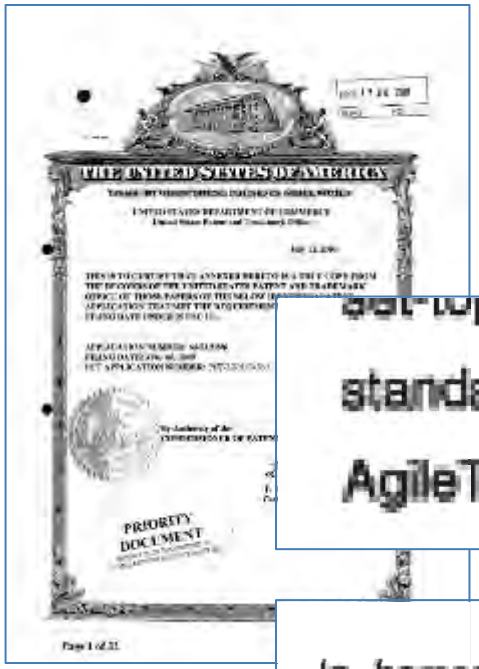
only the voice commands and address information from the

ved by the AgileTV Voice Recognition Engine in the headend.

Voice Processing Engine description

Upstream signals **1510** are received at the Agile Voice Processor Unit (AVPU)

Exhibit 2006 at 11



set-top appliance then the upstream data received in the fiber

standalone unit designed to receive only voice command

AgileTV's set-top appliance in the subscriber's home.

In homes with "heavy" set-top boxes, the VoiceLink will transmit this voice information to the set-top box, which will then transmit it to the headend as a series of packets.

Exhibit 2006 at 11, 14

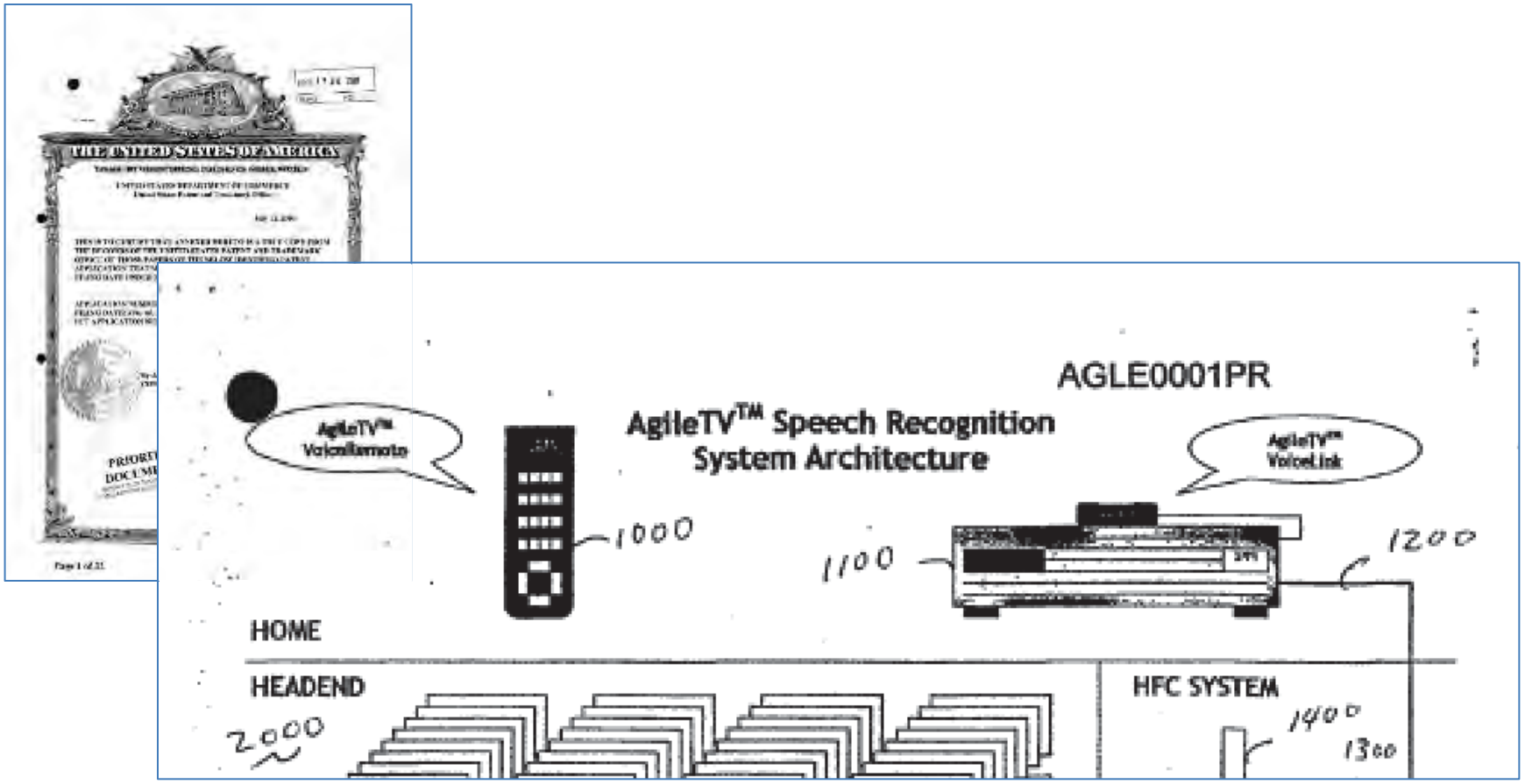


Exhibit 2006 at 29

Petitioner must provide *evidence* to rebut the presumption

features"). However, a patent challenger cannot successfully rebut the presumption with argument alone—it must present evidence. *Broom & Williamson*, 229 F.3d at 1130 (citing *Demaco*, 851 F.2d at 1393).

WBIP, LLC v. Kohler Co., 829 F.3d 1317, 1329 (Fed. Cir. 2016)

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE

(Exhibit E); Cook Dep. at 450:25-452:19. There is no evidence that this limited license was anything but a prudent effort to avoid infringement claims based on Comcast's trial of the AgileTV system. *See, e.g., Bosch Auto. Serv. Solutions, LLC*

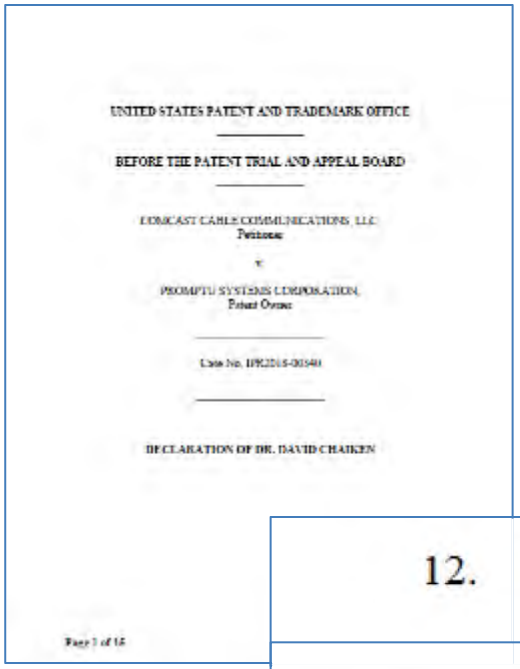
Petitioner's Reply

Nexus for combination patents

[14] Kohler's argument relies on an incorrect interpretation of our case law. We have held that "[w]hile objective evidence of nonobviousness lacks a nexus if it exclusively relates to a feature that was 'known in the prior art,' the obviousness inquiry centers on whether 'the claimed invention as a whole' would have been obvious." *Rambus Inc. v. Rea*, 731 F.3d 1248, 1257 (Fed. Cir. 2013) (citation omitted). Where the allegedly obvious patent claim is a combination of prior art elements, we have explained that the patent owner can show that it is the claimed combination as a whole that serves as a nexus for the objective evidence; proof of nexus is not limited to only when objective evidence is tied to the supposedly "new" feature(s). *Id.* at

WBIP, LLC v. Kohler Co., 829 F.3d 1317, 1330 (Fed. Cir. 2016)

Promptu developed its own speech recognition



UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC
Petitioner

v.

PROMPTU SYSTEMS CORPORATION
Patent Owner

Case No. IPR2015-01540

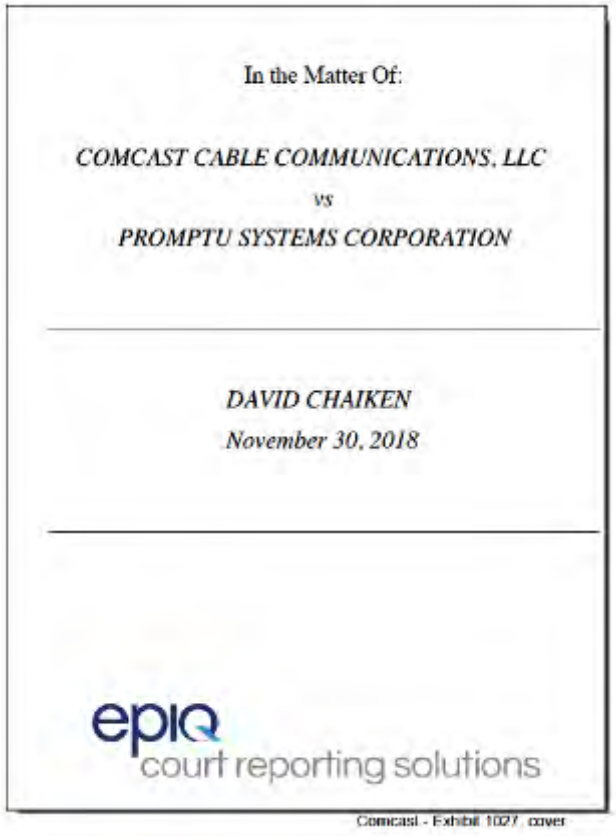
DECLARATION OF DR. DAVID CHAIKEN

Page 1 of 15

12. For most solutions using the AgileTV technology, the voice recognition functionality was implemented in an AgileTV platform (referred to as the "Agile engine," which was initially envisioned as being powered by a super computer and later powered using X86 processors).

Exhibit 2032

Promptu developed its own speech recognition



In the Matter Of:

COMCAST CABLE COMMUNICATIONS, LLC

vs

PROMPTU SYSTEMS CORPORATION

DAVID CHAIKEN

November 30, 2018

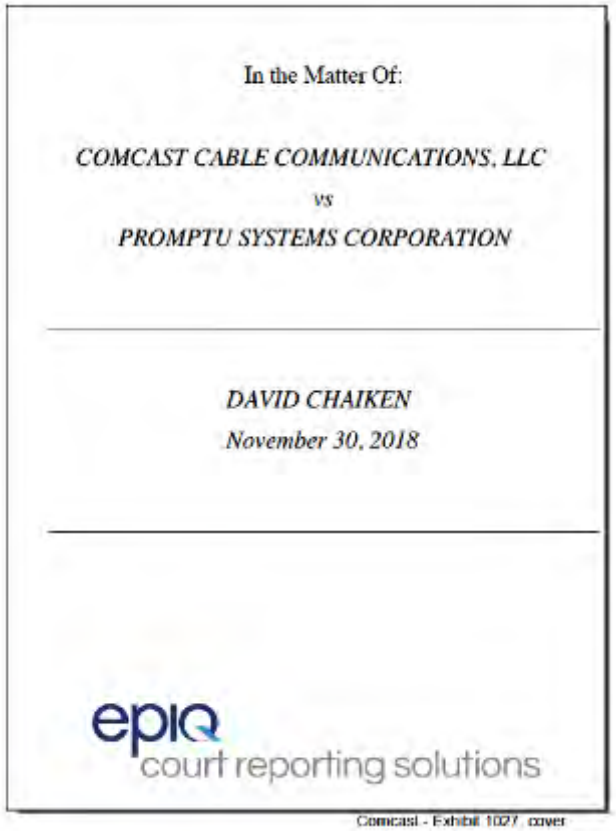
epiq court reporting solutions

Comcast - Exhibit 1027, cover

Q. And I'm curious as to, was that a commercial voice recognition package? Was it software that Agile developed itself?

So the -- it was a complicated set of different interoperating software systems, almost entirely written by AgileTV or by Promptu. The core software that actually took a -- ultimately a form of that audio and converted it into an understanding of the words that the -- that the human says, that was from a company called SpeechWorks.

Promptu developed its own speech recognition



In the Matter Of:

COMCAST CABLE COMMUNICATIONS, LLC

vs

PROMPTU SYSTEMS CORPORATION

DAVID CHAIKEN

November 30, 2018

epiq court reporting solutions

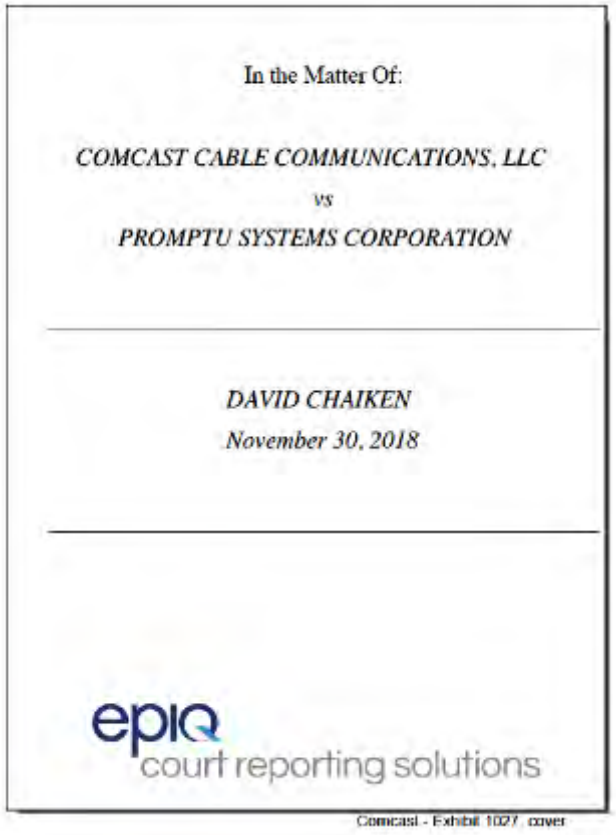
Comcast - Exhibit 1027 - cover

Exhibit 1027

Q. And I'm curious as to, was that a commercial voice recognition package? Was it software that Agile developed itself?

So there was a lot of software that was written by AgileTV to kind of convert the understanding of what the human said into something that would be appropriate to understand what to send to the set-top box ultimately. All the way in the middle of this, there was a core of the speech recognition technology that was sourced from another company.

Promptu developed its own speech recognition



In the Matter Of:

COMCAST CABLE COMMUNICATIONS, LLC

vs

PROMPTU SYSTEMS CORPORATION

DAVID CHAIKEN

November 30, 2018

epiq court reporting solutions

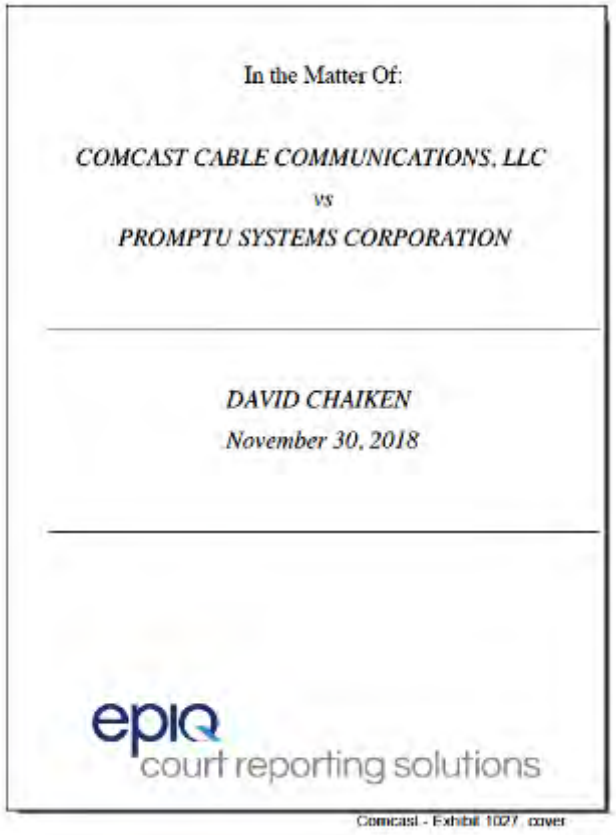
Comcast - Exhibit 1027 - cover

The one thing that I do remember is SpeechWorks was willing to work with us on developing that -- that software. So although the core of the software that recognized the speech was from SpeechWorks, there was the -- kind of the very core of that software that -- that we thought that we could optimize for the systems that we were running.

And so that was a factor in the partnership.

Exhibit 1027

Promptu developed its own speech recognition



In the Matter Of:

COMCAST CABLE COMMUNICATIONS, LLC

vs

PROMPTU SYSTEMS CORPORATION

DAVID CHAIKEN

November 30, 2018

epiq court reporting solutions

Comcast - Exhibit 1027 - cover

We spent a lot of time with the SpeechWorks guys and spent a lot of time making that software work. I just don't remember deploying on the Agile engine anybody else's software.

Exhibit 1027

Kudlow and Cramer

CRAMER: Isn't that great?

KUDLOW: It's unbelievable. It's unbelievable.

Exhibit 2018, 2019