

**2012-1297  
(Reexamination No. 90/010,017)**

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**UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT**

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**IN RE TELES AG INFORMATIONSTECHNOLOGIEN and SIGRAM SCHINDLER  
BETEILIGUNGSGESELLSCHAFT MBH**

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Appeals from the United States Patent and Trademark Office,  
Board of Patent Appeals and Interferences.

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**AMENDED REPLY BRIEF FOR PLAINTIFFS-APPELLANTS**

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FEBRUARY 25, 2013

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CASE NO. 2012-1297

**CERTIFICATE OF INTEREST**

Counsel for Plaintiffs-Appellants, certifies the following.

1. The full name of every party or amicus represented by me is:

Teles AG Informationstechnologien, and Sigram Schindler  
Beteiligungsgesellschaft mbH.

2. The name of the real party in interest (if the party named in the  
caption is not the real party in interest) represented by me is:

Teles AG Informationstechnologien and  
Sigram Schindler Beteiligungsgesellschaft mbH.

3. All parent corporations and any publicly held companies that own 10  
percent or more of the stock of the party or amicus curiae represented by me are:

None

4. The names of all law firms and the partners or associates that  
appeared for the party now represented by me in the trial court or agency or are  
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**Fried, Frank, Harris, Shriver & Jacobson LLP** and its attorneys: James W.  
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**Novak Druce + Quigg LLP** and its attorney: Vincent M. DeLuca.

Date: February 25, 2013

Signature of Counsel /s/ George E. Quillin

Printed name of counsel: George E. Quillin

## TABLE OF CONTENTS

<b>CERTIFICATE OF INTEREST .....</b>	<b>i</b>
<b>TABLE OF AUTHORITIES .....</b>	<b>iv</b>
<b>I. INTRODUCTION .....</b>	<b>1</b>
<b>II. ARGUMENT.....</b>	<b>2</b>
<b>A. The Plain Language of 35 U.S.C. § 306 Should Not Be Ignored. ....</b>	<b>2</b>
<b>B. The BPAI’s Construction of Claim 35 was Legal Error. ....</b>	<b>3</b>
<b>1. The BPAI’s Erroneous Construction of Claim 35 Failed to Evaluate or Appreciate the Actual Invention Made and Disclosed, and then Defined in Claim 35. ....</b>	<b>3</b>
<b>2. In Reaching Its Erroneous Construction of Claim 35, The BPAI Failed to Apply the Proper Claim Construction Standard.....</b>	<b>6</b>
<b>3. The Claim Construction of Four Terms of Claim 35 Was Legally Erroneous Because the Limitations on These Terms Provided in the Specification Were Not Adopted by the BPAI. ....</b>	<b>10</b>
<b>i) The ‘453 Specification Limitations Were Improperly Not Adopted in Construing the Term “Telephone Call”. ....</b>	<b>11</b>
<b>ii) The ‘453 Specification Limitations Were Improperly Not Adopted in Construing the Term “Packet-Switching Network”.....</b>	<b>13</b>
<b>iii) The ‘453 Specification Limitations Were Improperly Not Adopted in Construing the Term “Control Signal”. ....</b>	<b>14</b>
<b>iv) The ‘453 Specification Limitations Were Improperly Not Adopted in Construing the Term “Quality of the Data Transfer”. ....</b>	<b>16</b>
<b>C. The BPAI’s Conclusion that Claim 35 of the ‘453 Patent was Obvious under 35 U.S.C. § 103(a) was Legal Error.....</b>	<b>17</b>
<b>1. The BPAI Failed to Consider the Differences Between Claim 35 and the Prior Art.....</b>	<b>17</b>
<b>i) The White Reference. ....</b>	<b>18</b>
<b>ii) The Jonas Reference. ....</b>	<b>19</b>
<b>iii) The Farese Reference. ....</b>	<b>22</b>
<b>2. The BPAI’s <i>Prima Facie</i> Case is Legally Erroneous. ....</b>	<b>24</b>
<b>3. The BPAI’s View on Claim 35 is Legally Erroneous.....</b>	<b>26</b>

**III. CONCLUSION AND STATEMENT OF RELIEF REQUESTED..... 32**

**CERTIFICATE OF SERVICE**

**CERTIFICATE OF COMPLIANCE**

## TABLE OF AUTHORITIES

	<i>PAGE(S)</i>
 <b>FEDERAL CASES</b>	
<i>Ass’n for Molecular Pathology v. Myriad Genetics, Inc.</i> , 133 S. Ct. 694 (2012).....	5
<i>Bancorp Servs., L.L.C. v. Sun Life Assurance Co.</i> , 687 F.3d 1266 (Fed. Cir. 2012) .....	8
<i>CLS Bank Int’l v. Alice Corp. Pty. Ltd.</i> , 484 Fed. Appx. 559 (Fed. Cir. 2012).....	5
<i>Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.</i> , 381 F.3d 1111 (Fed. Cir. 2004) .....	9
<i>KSR Int’l Co. v. Teleflex Inc.</i> , 550 U.S. 398 (2007).....	5
<i>Mayo Collaborative Servs. v. Prometheus Labs., Inc.</i> , 132 S. Ct. 1289 (2012).....	<i>Passim</i>
<i>Montclair v. Ramsdell</i> , 107 U.S. 147 (1883).....	2
<i>Marine Polymer v. Hemcon</i> , 672 F.3d 1250 (Fed. Cir. 2012) (en banc) .....	7
<i>Noah Systems, Inc. vs. Intuit, Inc.</i> , 675 F.3d 1302 (Fed. Cir. 2012) .....	27
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005) (en banc) .....	<i>Passim</i>
<i>Sigram Schindler Beteiligungsgesellschaft MbH v. Cisco Sys.</i> , 726 F. Supp. 2d 396 (D. Del. 2010).....	10
<i>TRW Inc. v. Andrews</i> , 534 U.S. 19 (2001).....	2

<i>United States v. Price</i> , 361 U.S. 304 (1960).....	3
<i>United States v. Borden</i> , 308 U.S. 188 (1939).....	2
<i>United States v. Menasche</i> , 348 U.S. 528 (1955).....	2
<i>Wood v. United States</i> , 41 U.S. (16 Pet.) 342 (1842).....	2
<b>FEDERAL STATUTES</b>	
35 U.S.C. § 103(a) .....	3, 17
35 U.S.C. § 112, ¶ 2.....	3, 14
35 U.S.C. § 145.....	2
35 U.S.C. § 306.....	2
35 USC § 112.....	1, 8
<b>NON-PERIODICAL PUBLICATIONS</b>	
Andrew H. Hirshfeld, <i>2012 Interim Procedure for Subject Matter Eligibility Analysis of Process Claims Involving Laws of Nature</i> .....	7

## I. INTRODUCTION

In this Reply Brief, Sigram Schindler Beteiligungsgesellschaft mbH (“SSBG”)<sup>1</sup> responds to the Director’s argument addressing the jurisdictional issue.<sup>2</sup> But the primary issue in this Reply Brief is whether the BPAI’s construction of claim 35 was legally correct.

The Director’s arguments on the claim construction issue in his Responsive Brief almost immediately begin by contending that substantial evidence supports the BPAI’s claim construction – without even mentioning the precedential case law concerning the testing of a claim construction under 35 USC § 112, namely, this Court’s *Phillips* decision (*Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc)) and, more recently, the Supreme Court’s *Mayo* decision (*Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012)). Contrary to the Director’s assertions (Resp. at 56), under a construction of claim 35 according to these two decisions, the BPAI’s decision that the claim is rendered obvious in view of the prior art is not supported by substantial evidence.

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<sup>1</sup> In their Principal Brief, Appellants primarily referred to Teles AG Informationstechnologien (“Teles”). However, the ‘453 Patent is assigned to SSBG. Accordingly, this Reply Brief refers to SSBG throughout.

<sup>2</sup> Citations to the Director’s Responsive Brief are denoted as “Resp. at \_\_\_\_” and citations to SSBG’s Principal Brief are denoted as “SSBG Br. at \_\_\_\_.”

## II. ARGUMENT

### A. The Plain Language of 35 U.S.C. § 306 Should Not Be Ignored.

SSBG relies primarily on the arguments in its Principal Brief for why the district court was incorrect to deny SSBG's right to seek court review of the BPAI's decision regarding the '453 Patent.<sup>3</sup> SSBG Br. at 4-28.

The plain language of 35 U.S.C. § 306 provides the patent owner with the right to seek "court review under the provisions of sections 141-145 of this title." The Director would have the Court vitiate the rights provided to SSBG under 35 U.S.C. § 145. Resp. at 19-20. The Director's position also contravenes long-standing Supreme Court precedent that a statute should not be construed to render any word or clause superfluous. *TRW Inc. v. Andrews*, 534 U.S. 19, 31 (2001); *United States v. Menasche*, 348 U.S. 528, 538-539 (1955); *Montclair v. Ramsdell*, 107 U.S. 147, 152 (1883). The Director's argument that the right to a civil action under Section 145 was repealed by implication, even before the deletion of Section 145 from the explicit language of Section 306 in 2011 (Resp. at 35-36), should be rejected. Other Supreme Court precedent is instructive, that a statutory construction resulting in repeal by implication is disfavored. *United States v. Borden*, 308 U.S. 188, 198 (1939); *Wood v. United States*, 41 U.S. (16 Pet.) 342,

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<sup>3</sup> Amicus has filed a brief in support of Appellants' position. Appellants note that, on some points, Amicus provides an alternative basis or support for reversing the district court's decision.



362, 363 (1842). Congress's action in 2011 should not be inferred as the intent of an earlier Congress. *United States v. Price*, 361 U.S. 304, 313 (1960). Thus, and for the reasons in SSBG's Principal Brief, the district court's ruling should be reversed.

**B. The BPAI's Construction of Claim 35 was Legal Error.**

**1. The BPAI's Erroneous Construction of Claim 35 Failed to Evaluate or Appreciate the Actual Invention Made and Disclosed, and then Defined in Claim 35.**

Clarification as to the actual invention made, disclosed, and described, and then defined in claim 35 is appropriate, because the Director's Response (at 51-56) clearly demonstrates that the Director, like the BPAI and Examiner below, does not appreciate the main "inventive concepts" of the '453 Patent.

In reaching its legally untenable claim construction, the BPAI failed to appreciate and consider what Professor Schindler<sup>4</sup> "regards as his invention." 35 U.S.C. § 112, ¶ 2. As a result, the BPAI erroneously determined that claim 35 encompasses *other* subject matter than what Professor Schindler regards as his invention. A1421-25; A1434-35. As properly construed, claim 35 should not encompass this *other* subject matter and, therefore, can in no way be deemed to be obvious over White in view of Jonas or White in view of Farese under Section 103(a).

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<sup>4</sup> Prof. Sigram Schindler, one of the inventors of the '453 Patent, should be recognized for his significant contributions to this Brief.

During reexamination, SSBG explicitly stated that claim 35 pointed to structure described in column 9, lines 36-42 of the '453 Patent Specification, which recites the following:

Alternatively [*sic*], it can also be possible for the change-over control device 711 to monitor the bandwidth of a transfer and on understepping or exceeding a certain bandwidth and/or in the event of a time delay when forwarding IP data packets to automatically release a control command to change over to the relevant other type of transfer.

A228. This description relates directly to the following explicit language set forth in claim 35: “said control signal being produced automatically when demands on the quality of the data transfer are understepped or exceeded.” A231 at col. 15, ll. 8-10. Claim 35 requires that a change-over control signal is issued in response to a changing condition within the particular transfer at issue. In other words, while a telephone call itself never requires additional bandwidth, the communications connection between two end terminals for that particular telephone call may encounter insufficiently low bandwidth or unacceptably high time delay. *See* A225 at col. 3, ll. 15-29. Thus, claim 35 particularly addresses the Quality of Service (“QoS”) problem that plagued the Internet Protocol (“IP”) telephony systems at the time of the invention. A1096. This QoS problem manifested itself by two major problems: i) the establishment of IP telephony communications connections often totally failed and/or ii) during established calls, delays and/or

jitter in the voice data transfer was unacceptably high. *See, e.g.*, A1245 at col. 3, ll. 34-42.

In order to fully appreciate the claimed invention, the Supreme Court’s *Mayo* decision requires that the “inventive concepts” embodied by the claimed invention be identified as part of construing claims. 132 S. Ct. at 1294. The “inventive concepts” also provide a basis for clarifying the inventivity/creativity of the ‘453 invention, where “creativity,” as implicitly asked for by the Supreme Court’s *KSR* decision (*KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007)), is synonymous with the more recent term “inventivity,” represented by the inventive concepts asked for by the *Mayo* decision.

Four inventive concepts **(a)-(d)** are embodied by the claim 35 invention,<sup>5</sup> and their related disclosures in the Specification have been identified and explained in detail by the corollary section in SSBG’s recent brief in the companion case (Case No. 12-1513) involving the ‘902 Patent. The ‘902 Patent appeal was

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<sup>5</sup> The claimed ‘453 invention includes several other inventive concepts which are not addressed in detail, but which are important: (e) “it is always initiated over the Internet” (*see, e.g.*, A225 at col. 3, ll. 25-29; *id.* at col. 4, ll. 18-22; A227 at col. 7, l. 63—col. 8, l. 4); (f) “it has always the same bandwidth and urgency requirements” (*see, e.g.*, A4224 at col. 2, ll. 7-14); and (g) “it always requires a claimed switch at the called party” (*see, e.g.*, A225 at col. 3, ll. 38-48). This complete analysis would have to be applied if the ‘453 invention would also be made subject to the “non abstract idea” test that SSBG suggested in its Amicus Briefs to this Court in *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 484 Fed. Appx. 559 (Fed. Cir. 2012) and to the Supreme Court in *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 694 (2012).

identified as a companion case with this ‘453 Patent appeal perhaps due to in part that the two patents share a common specification. The inventive concepts described concerning the ‘902 Patent also apply to the determination of the interpretation of claim 35 of the ‘453 Patent, which embodies these four ‘902 inventive concepts **(a)-(d)**.

The Director’s Response failed to recognize at least these four main inventive ‘453 concepts. *See* Resp. at 51, 53-56.

**2. In Reaching Its Erroneous Construction of Claim 35, The BPAI Failed to Apply the Proper Claim Construction Standard.**

The BPAI’s construction of claim 35 was unreasonable and legally erroneous because the construction contradicts express disclosures in the ‘453 Patent specification and the inventor’s explicit statements during prosecution and in reexamination.

SSBG respectfully submits that the BPAI’s/Director’s understanding of the “broadest reasonable construction” standard is not proper. The BPAI’s understanding of that standard was not appropriate, because the inventor has clearly stated what “he regards as his invention” and would be bound by such statements in litigation. While prior decisions of this Court have stated that a claim’s construction in reexamination proceedings may differ from that in infringement proceedings, it has not stated that a claim’s construction in

reexamination proceedings may overrule and contradict such explicit statements by the inventor. It does not appear that this principle has been revisited since the Court's *en banc* decision in *Marine Polymer v. Hemcon*, 672 F.3d 1250 (Fed. Cir. 2012) (*en banc*). SSBG respectfully submits that this principle should be revisited and reconsidered by the Court.

Additionally, the BPAI's incorrect construction of claim 35 did not comply with **a)** this Court's *en banc* decision in *Phillips v. AWH Corp.*, 415 F.3d 1303, **b)** the Supreme Court's decision in *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, and **c)** even its own directives outlined in the USPTO's "Interim Procedure" guidance to the Examining Corps<sup>6</sup> on how to apply *Mayo*.

For example, the *Phillips* decision (and the USPTO's "Interim Procedure") clearly states that claim interpretation has to be performed using the understanding of a person of pertinent ordinary skill in the light of the specification. *Phillips*, 415 F.3d at 1313.

Nevertheless, the BPAI performed the layman's "broadest possible reasonable interpretation" of claim 35, which, thus, did not apply the skilled person's reasonable understanding of its terms, as they indispensably embody the

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<sup>6</sup> Andrew H. Hirshfeld, *2012 Interim Procedure for Subject Matter Eligibility Analysis of Process Claims Involving Laws of Nature*: "Claim analysis begins by identifying and evaluating each claim limitation. . . .", USPTO, 2 (July 3, 2012), [http://www.uspto.gov/patents/law/exam/2012\\_interim\\_guidance.pdf](http://www.uspto.gov/patents/law/exam/2012_interim_guidance.pdf).

four “inventive concepts” (a)-(d):

- (a) “Communications connection of a Telephone Call”;
- (b) “Proactive Signal”;
- (c) real-time quality preserving “Change-Over of an Individual Communications Connection”; and
- (d) “Practicable on any Packet- and any Line-switching Network”.

The BPAI’s interpretation of the terms related to these inventive concepts diametrically contradicts the meanings of these four inventive concepts, which necessarily must be interpreted by the skilled person. *See* A1419-25.

Due to its claim construction that contradicts the *Phillips* decision, the *Mayo* decision, and the “Interim Procedure,” the BPAI arrived at an overly broad scope of the ‘453 claims that comprises numerous prior art data transfer techniques. The overly broad scope even comprises all those data transfer techniques explicitly excluded by the Specification. *See id.* Such layman-minded ‘453 claim constructions contradict the skilled person’s understanding of the ‘453 invention.

This Court confirmed its *Philips* decision implicitly in its *Bancorp* decision<sup>7</sup> by emphasizing that, as a rule, a Section 112 test should be performed prior to a

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<sup>7</sup> *Bancorp Servs., L.L.C. v. Sun Life Assurance Co.*, 687 F.3d 1266 (Fed. Cir. 2012).

Section 101 determination.<sup>8</sup> This rule should have been used by the BPAI, thereby providing an objective baseline for claim interpretation. *See Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004).

Once the BPAI neglected the requirement to clarify the inventive concepts embodied by the claimed invention, the BPAI was drawn into concluding the claims were invalid as obvious. *See* A1425-36. The BPAI's claim construction did not adopt the decisive limitations of the Specification that enable the '453 invention to provide its innovative – sophisticated but real-time QoS preserving – data transfer technique for Internet Protocol (“IP”) telephone calls. As a result, the BPAI incorrectly determined that all kinds of prior art data transfer techniques could be combinable – even though the prior art does not meet this real-time QoS preserving requirement.

The correct claim interpretation according to the *Phillips* decision (the *Mayo* decision bars circumvention of *Phillips*) makes a “night and day” difference to the obviousness issue. Under the layman interpretation, the prior art references might appear to make claim 35 obvious. However, under the interpretation by the person of pertinent ordinary skill, none of the prior art references, alone or in combination,

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<sup>8</sup> “It will ordinarily be desirable -- and often necessary -- to resolve claim construction disputes prior to a § 101 analysis, for the determination of patent eligibility determines a full understanding of the basic character of the claimed subject matter.” *Bancorp*, 687 F.3d at 1273-74.

addresses claim 35. Notably, neither Jonas nor Farese even mentions a telephone call, and White never mentions a change-over of an established telephone call or a change-over while establishing a telephone call!<sup>9</sup>

The BPAI's construction of claim 35 is contradicted by the USPTO's recent granting to Professor Schindler three more patents (US 7,483,431 B1, US 7,963,751 B2; and, US 8,175,083 B2), all including the same common specification and claims directed to related subject matter. The USPTO, fully aware of the BPAI's and the Delaware court's decisions, continues to issue related patents.<sup>10</sup>

**3. The Claim Construction of Four Terms of Claim 35 Was Legally Erroneous Because the Limitations on These Terms Provided in the Specification Were Not Adopted by the BPAI.**

Claim 35 requires “a telephone call,” “means for establishing a connection through a packet-switching network,” “means responsive to a control signal changing-over,” and “said control signal being produced automatically when demands on the quality of the data transfer are understepped or exceeded.” A230-31 at col. 14, l. 49—col. 15, l. 10.

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<sup>9</sup> White only addresses network selection prior to establishing a communications connection.

<sup>10</sup> *Sigram Schindler Beteiligungsgesellschaft MbH v. Cisco Sys.*, 726 F. Supp. 2d 396 (D. Del. 2010).



The Director/BPAI committed legal error by associating meanings with the four ‘453 terms *telephone call*, *a packet-switching network*, *control signal*, and *quality of the data transfer* that do not adopt most of the limitations disclosed in the Specification for the meaning of these terms. *See Phillips*, 415 F.3d at 1313. Due to this error, the Director/BPAI incorrectly concluded the prior art inventions of White, Jonas, and Farese disclosed these four terms of claim 35. For each of these four terms, Sections **i)-iv)** below conclude by stating which of these three prior art references the Director/BPAI drew an incorrect conclusion about.

**i) The ‘453 Specification Limitations Were Improperly Not Adopted in Construing the Term “Telephone Call”.**

Like the BPAI, the Director fails to recognize that the claimed invention is directed to a specific type of data transfer – a telephone call. The Director only briefly mentions that one of the prior art references discloses a telephone call (Resp. at 52), and fails to recognize that data transfer for IP telephony poses problems, which for many years could not be brought under control and made the market refuse its acceptance (SSBG Br. at 31-34). For Example, a “telephone call” on the Internet must not use more than approximately 8 kbit/s bandwidth and only tolerates a time delay of utmost 0.5 seconds. SSBG Br. at 30. As explained in SSBG’s Principal Brief, the claimed invention comprises monitoring the quality of the data transfer in any telephone call communications connection – bandwidth and

delay – while the prior art monitors characteristics of data traffic not relevant to a telephone call (e.g., “topological delay” or the result of an active transmission or “ping”). *Id.* at 46-47.

The limitations the ‘453 Specification imposes on its data transfers suitable for IP telephony are embodied by inventive concept (a), being a “communications connection of a telephone call.” *See* A224 at col. 2, ll. 8-14.

In interpreting the term “telephone call” of claim 35, the Director/BPAI improperly did not adopt the commonly-known limitations the ‘453 Specification imposes on it. In particular, the BPAI failed to give weight to the following disclosure:

With Internet telephony, a cost-conscious caller uses the normal Internet with approximately 8 kbit/s bandwidth and a time delay of 0.5 seconds.

*Id.* Accordingly, the term “telephone call” of claim 35 must be interpreted to exclude data transmissions not meeting those limitations, as being unsuitable for Internet telephony.

Even more importantly, the Specification limits the data transfer of a telephone call to take place in a “communications connection” as needed for a conversation between telephone partners, which necessarily implies an end-terminal-to-end-terminal data transfer – as opposed to a data transfer only over a network or only between routers. *Id.*

The BPAI did not adopt these limitations of the term “telephone call” when it construed the meaning of claim 35. Their notion of this term, therefore, does not embody the inventive concept “communications connection of a telephone call.” As a result of this legal error, the BPAI considered prior art data documents not contemplating or disclosing end-terminal-to-end-terminal data transfers of bandwidth of approximately 8 kbit/sec and a delay of maximally 0.5 seconds – as is the case with White, Jonas, and Farese.

**ii) The ‘453 Specification Limitations Were Improperly Not Adopted in Construing the Term “Packet-Switching Network”.**

The ‘453 invention is directed to an IP telephone call that is changed-over in real time between a packet-switching network and a line-switching network. SSBG Br. at 32. The invention concerns VOIP and IP/PSTN fallback. *Id.* at 33.

The limitations the Specification imposes on the term “packet-switching network” are embodied by the above inventive concept (**(d)**), which require that the ‘453 invention is “practicable on any packet- and any line-switching network.” *See* A226 at col. 6, ll. 42-45.

In interpreting the term “packet-switching network” of claim 35, the BPAI did not adopt the limitations the ‘453 Specification imposes on this commonly known term. In particular, the BPAI failed to give weight to the disclosure of the ‘453 Specification emphasizing that the claimed invention is subject to the

limitation that it must be particularly usable on the Internet. *See, e.g.*, A224 at col. 1, ll. 55-60; A225 at col. 3, ll. 38-48; A226 at col. 6, ll. 42-45.

The Director/BPAI failed to appreciate this limitation whenever they refer to a prior art data transfer, the usability of which does not support using the Internet – as definitively is the case with Farese and White. *See Resp.* at 52.

**iii) The ‘453 Specification Limitations Were Improperly Not Adopted in Construing the Term “Control Signal”.**

Regarding the limitations imposed by the term “control signal”, the BPAI failed to adopt what Prof. Schindler “regards as his invention.” 35 U.S.C. § 112, ¶2. The BPAI failed to construe the meaning of the term “control signal” of claim 35 as limited to the disclosed structure (and equivalents) that monitors the data transfer in the communications connection at issue and releases a control signal automatically when the demands of quality are understepped or exceeded. SSBG Br. at 37, 41. Instead, the BPAI incorrectly interprets claim 35 to cover any structure that switches-over a call – although the ‘453 Specification discloses no such structure and its algorithm (missing with any end terminal, or other switch) (*see, e.g.*, *Resp.* at 51), but explicitly emphasizes excluding such other potential structures from automatically releasing a control signal by using the term, “Alternatively”. The Director misinterprets the term “Alternatively” as a nonexclusive “or” (*see id.* at 54) – while it clearly can stand only for an exclusive

“or”. None of the three prior art documents discloses such a ‘453 structure.

In addition to this Section 112, ¶ 6 argument showing the Director’s legal error as to this ‘453 signal, this error may also be shown by using the “inventive concept” analysis, as follows:

The limitations the Specification imposes on the ‘453 Control Signal are embodied by the above inventive concept **(b)**, such that the invention is “proactive” (*see, e.g.*, A228 at col. 9, ll. 36-42), emphasizing that the claimed ‘453 invention’s signal is automatically released as soon as the monitoring of the data transfer of the communications connection of the telephone call indicates that in a point monitored – e.g., a buffer in a switch – a defect in this data transfer is detected. The ‘453 control signal is proactive, as it does not wait to release the change-over command until a loss of the quality of the telephone call has actually occurred, but proactively releases the change-over command as soon as some monitoring of the data transfer for the telephone call detects somewhere therein – *i.e.*, in the communications connection at issue – only a threat of loss of quality, as if there is a problem with its bandwidth or packet forwarding.

The Director/BPAI did not adopt this limitation when they construed the meaning of the term “control signal” in claim 35. Resp. at 54. Instead, this term’s meaning should embody the “proactive” inventive concept of the ‘453 invention – which indispensably needs this limitation. Neither Jonas nor Farese nor White

disclose such a proactive '453 signal, as it diametrically contradicts their respective inventive concepts. Indeed, they all are teaching away from it, and such a proactive control signal could not be **added** to any of the references without changing the principle of operation of one of them.

**iv) The '453 Specification Limitations Were Improperly Not Adopted in Construing the Term “Quality of the Data Transfer”.**

The limitations the Specification imposes on the claimed “quality of the data transfer” are embodied by inventive concept (c), which requires the invention perform a “real-time quality preserving change-over of an individual communications connection.” *See, e.g.*, A228 at col. 9, ll. 43-51. The Specification emphasizes the invention is able to:

- at anytime, instantly change-over from a packet-switching to a line-switching network (in particular without necessarily first establishing another hand-shaking protocol, e.g., X.25, TCP, VT.100) between the connected end-terminals or systems the communications connection traverses, and
- change-over only the individual communications connection at issue, *i.e.*, without forcing by its change-over another communications connection also to change-over.

The Director/BPAI did not adopt this limitation of the term “quality of the

data transfer” of claim 35, representing the inventive concept “real-time quality preserving change-over of an individual communications connection,” when they refer to prior art inventions with change-overs first establishing a hand-shaking protocol or unable to be performed only on an individual communications connection. The former holds for Farese and White, the latter for Jonas.

**C. The BPAI’s Conclusion that Claim 35 of the ‘453 Patent was Obvious under 35 U.S.C. § 103(a) was Legal Error.**

**1. The BPAI Failed to Consider the Differences Between Claim 35 and the Prior Art.**

As discussed in the preceding section and as explained in more detail in SSBG’s Principal Brief (at 37-50), the BPAI’s incorrect claim construction permitted it to interpret the scope of claim 35 such as to (improperly) include:

- any structure that “produc[es] a control signal automatically when the demands of quality are understepped or exceeded”. A1435.
- any data transfer, regardless of whether it meets the limitations of an Internet telephone call, and regardless of whether the system monitors characteristics of data traffic that are actually relevant to a telephone call.

*See* SSBG Br. at 30; 46-47.

The scope of both statements contradicts explicit disclosures of the ‘453 Specification that clearly limit the ‘453 structure as well as the ‘453 data transfer and, hence, this Court’s *Phillips* decision.

Consequently, the BPAI's *prima facie* case of obviousness is legally incorrect.

Additionally, this alleged *prima facie* case postulates, without any substantial evidentiary support, modifications of White's invention to encompass the teachings of Jonas/Farese. But, as a matter of fact, such modifications are technically impossible within the framework in White.

For these reasons, the Court should overturn the BPAI's conclusion that claim 35 is obvious over White in view of Jonas or Farese. *See* A1403.

**i) The White Reference.**

White discloses a system permitting a caller to set-up and carry-out a telephone call between two telephones over the Internet or PST. A261 at Abstract.

The BPAI rightly determined that White does not disclose the change-over of an individual communications connection **during** an existing telephone call, as required by claim 35. *See* A1426. In other words, White's alleged change-over only occurs **before** starting the establishment of the communications connection, *i.e.*, **prior to its existence**. A1426; A273-74 at col. 6, l. 57—col. 7, l. 44. This is undisputed.

The fact that White only contemplates this quite different kind of change-over shows White did not try to resolve the '453 QoS problem – whether White recognized it or not – that prevented widespread adoption and use of Internet



telephony in 1996 (*see* SSBG Br. at 31-32; A1004-06 at ¶¶ 1-9) and that White much less proposed the specific solution to the ‘453 QoS problem provided by claim 35 (*see* SSBG Br. at 34; A1007).

Thus, White fails to disclose the inventive concepts **(b)-(d)**: control signal, change-over, and practicability of the invention on any packet-switching network, especially the Internet. And, as explained next, a combination of White with Jonas and/or Farese is in no way evident – as a combination is even excluded by both of them.

**ii) The Jonas Reference.**

*(1) Jonas fails to disclose a ‘453 telephone call.*

The BPAI incorrectly determined Jonas teaches an apparatus capable of sustaining “real-time applications.” A1430; *see* A1413-17 at FF14-FF20. The BPAI’s decision is based on the Examiner’s Answer to the BPAI rejecting the Declaration provided by SSBG and then arguing that a telephone call is not more than Jonas’ “interactive and time-critical application.” A1430, A1305-06. Instead of substantial evidence, the Examiner provided his personal view that SSBG had not disproved an “interactive and time-critical application” equates to a telephone call. Indeed, the Declaration of Mr. Paetsch submitted by SSBG disproves the Examiner’s theory. *See* A1020-22.

By adopting the Examiner’s view, the BPAI disregarded the objective

evidence of one skilled in the art as provided by the Paetsch Declaration. In doing so, the BPAI legally inadmissibly extended the scope of the Jonas reference to encompassing telephony – not claimed by Jonas to be supported by his invention though it is the by-far most important network application!

Rather, Jonas targets the transfer of “secret and/or critical data traffic” between “computer users.” *See* A288 at col. 3, ll. 30-38. Jonas’ remark about data traffic “with minimal delay time” (A288 at col. 3, ll. 16-21) discloses none of the limitations imposed by the ‘453 Specification on a claim 35 telephone call – *e.g.*, the limitations the data transfer occurs with a delay time of less than 0.5 seconds between two end-terminals. *See* A224 at col. 2, ll. 8-14.

*(2) Jonas fails to disclose the ‘453 control signal.*

Jonas does not disclose the proactive and automatically produced control signal based on monitoring the quality of the data transfer in the communications connection at issue. Instead, Jonas discloses two methods for producing a control signal: (1) a pre-designated indication in the data packet headers (A288 at col. 4, ll. 41-52) and (2) a detection of the delay of the packet-switched network based on circumstantial information, such as topological delay time and/or the number of gateways through which some other data transfers may pass and/or ping-roundtrip messages (A289 at col. 5, l. 57—col. 6, l. 3) – all of which are totally insignificant for an individual communications connection’s QoS provided to a telephone call

and not monitored by Jonas. Rather Jonas monitors the data “traffic” of the system as a whole. Therefore, the teachings of Jonas clearly contradict the teachings of the ‘453 Patent, where a change-over signal is released automatically if a problem of the data transfer of the individual communications connection at issue is detected. A228 at col. 9, ll. 35-53.

*(3) Jonas fails to disclose the ‘453 change-over.*

Jonas does not disclose an instant change-over preserving the real-time QoS of a data transfer of the communications connection, on detecting a signal therein. On detecting some (non-‘453) signal, Jonas just establishes a bypass connection for all time-critical applications to be routed in the future but does nothing with the applications routed already. Indeed, Jonas does not perform an instant change-over of an already routed application, *i.e.*, potential communications connection, but instead reroutes all future “certain applications” between the routers at issue (until detecting another non-‘453 signal). A289 at col. 5, ll. 56-60.

Thus, Jonas is not a proper secondary reference, as its data transfer technique cannot be used in combination with White’s virtually unchangeable (see below) technique:

- White discloses nothing for detecting a delay of a packet-switched data transfer;

- Jonas' routing of all future time-critical applications over the bypass (just after its establishment) even contradicts White, in which the initiator of a communications connection determines what network it is going to use (except the PSTN operator decides otherwise, not the Internet operator as in Jonas).

**iii) The Farese Reference.**

*(1) Farese fails to disclose a '453 telephone call.*

While Farese does briefly mention the transmission of “voice and other delay sensitive traffic” (A310 at col. 9, ll. 58-60), Farese does not disclose a ‘453 telephone call over a packet-switching network, *i.e.*, a data transfer with approximately 8 kbit/s bandwidth, which bandwidth never changes, and tolerating at most 0.5 seconds of time delay. By contrast, Farese’s data transfer technique is focused on communications connections with changing bandwidth requirements. *See* A306 at col. 2, ll. 18-25. Thus, Farese’s disclosure does not contemplate ‘453 telephone calls.

*(2) Farese contradicts using the Internet.*

As a result of not clarifying the meaning of the ‘453 term “Packet-Switching Network,” the BPAI erred as a matter of law in finding Farese discloses “a connection through a packet-switching network.” *See* A1430-32. The Court should have interpreted the meaning of this ‘453 term to require the usability of the

claimed invention on any packet-switching Network, *i.e.*, also on the Internet, as required by the ‘453 Specification. A226 at col. 6, ll. 42-45.

Farese does not teach or disclose the use of his invention over the Internet as well as a PSTN. Farese only uses the B and D channels of an ISDN network and, hence, excludes the use of any pair of a packet- and a line-switching network. *See* A1430. Thus, Farese’s disclosure does not contemplate the use of the Internet.

*(3) Farese fails to disclose the ‘453 signal.*

Farese also does not disclose the proactive signal produced by the first ‘453 switch based on the monitoring of the quality of the data transfer. Farese teaches that a host computer’s application issues a change-over command based on its upcoming bandwidth needs, not based on an already detected potential threat of its QoS. Thus, the Farese “signal” generation is subject to totally different limitations than those of the ‘453 signal generation.

*(4) Farese fails to disclose a ‘453 change-over.*

Farese does not disclose the QoS preserving change-over of a ‘453 Internet call. Farese actually teaches away from it by teaching that certain, less time-critical types of data transfers are to be routed through an ISDN D channel, while other types of data are to be routed over an ISDN B channel. A307 at col. 4, ll. 38-42; A308 at col. 6, l. 68—col. 7, l. 4. Indeed, Farese teaches “voice and other delay sensitive traffic” / “highly interactive delay-sensitive host tasks” (the only

potential “telephone call” disclosed by Farese) should be routed solely over the line-switching network, avoiding change-overs. *See* A310 at 9:58-60; 10:13-18.

Thus, Farese discloses it does not contemplate ‘453 change-overs for preserving the real-time QoS provided to the communications connection at issue. Accordingly, Farese is not a proper secondary reference, as its data transfer technique cannot be used in combination with White’s virtually unchangeable technique:

- White discloses nothing that, after initiating an Internet call, could make Farese’s first switch automatically generate a ‘453 signal;
- Farese even contradicts White, as it undisputedly does not support a change-over once the establishment of a ‘453 communications connection is initiated.

Notably and finally, the BPAI did not quote Farese as a secondary reference to render claim 35 obvious – hence, these elaborations are in principle superfluous.

## **2. The BPAI’s *Prima Facie* Case is Legally Erroneous.**

In addition to the fact that the BPAI built its *prima facie* case on a legally erroneous interpretation of the ‘453 invention, the former is untenable as there is absolutely no substantial evidence supporting its key allegation “that it would have been obvious to one of ordinary skill in the art to modify the switching apparatus

**of White** to permit dynamic change from a packet-switching to a line-switching connection during an existing transfer.” Resp. at 53 (emphasis added).

The switching apparatus of White is a Central Office System of a Local Exchange Carrier (“LEC”). A274 at col. 7, ll. 51-56. A LEC and its Central Office Systems are, within the framework set by White, integral parts of one of the most complex software systems in the world, namely of an Advanced Intelligent Network (“AIN”). See A272 at col. 4, ll. 58-60. Conversely, the systems of Jonas, Farese, and ‘453 switches are “free-standing”. Hence their routers, PCs/Hosts, switches are by orders of magnitude simpler than the LECs’ Central Office Systems of an AIN. In other words, to “*modify the switching apparatus of White,*” only in some technical software detail is an extremely complicated process. And, it is extremely unlikely that White is at all modifiable so far as to combine it with the free-standing, router-based data transfer technique of Jonas; nobody has ever heard of the integration of free-standing routers into an AIN or its LECs. See A1021-22.

Being aware of the extreme complexity of modifying any detail of the software system of an AIN, White stresses that his invention has the decisive advantage of “[eliminating] a need for extensive use of a common channel signaling network. . . .” A273 at col. 5, ll. 1-4. In other words, White indicates that his particular interconnection between a PSTN and the Internet may get along

with absolutely no change of its switching apparatus, as it avoids extensive use of a common channel signaling network, *i.e.*, it uses only its very basic functions. *See id.*

In conclusion – and as explained by the preceding subsection – modifications of White’s switching apparatus technique were indispensable for expanding it by change-overs during telephone calls, *i.e.*, for combining White’s and Jonas’ techniques. However, there is absolutely no evidence, let alone substantial evidence, that this modification would have been evident to the person of ordinary skill. As mentioned above, this integration is technically not even possible, within the basic standards of a common channel signaling network, as confirmed by White. Accordingly, the BPAI failed to carry its burden in demonstrating a *prima facie* case of obviousness.

### **3. The BPAI’s View on Claim 35 is Legally Erroneous.**

But even if the above *prima facie* case were legally correct, it would apply only to claim 34, as it does not yet take into account the limitations of claim 35 – which by “claim differentiation” are additional to those of claim 34. Thus, the Director’s Responsive Brief tries to construe in Sections V.C.2.-3. that claim 35 as such is legally ill-defined (at 53-56) and/or obvious by an allegedly legally sharpened *prima facie* case (at 56-57). Both allegations are legally erroneous, as shown next.



The legally ill-defined allegation builds on the incorrect assumption that the change-over means of claim 35, *i.e.*, the change-over construct 711 of the Specification, is not at all or only partially limited by an algorithm. The contrary is true: The algorithm limiting the functionality of the ‘453 change-over construct 711 is disclosed by the ‘453 specification at col. 9, ll. 35-51 and clearly and completely reflects the functionality of the change-over means of claim 35 – as this Court determined necessary in *Noah Systems, Inc. vs. Intuit, Inc.*, 675 F.3d 1302, 1319 (Fed. Cir. 2012).

The Director/BPAI maintain this algorithm is legally inappropriate by presenting it incompletely or confusingly. Examples are:

- In the middle of page 54 the Director’s Brief incorrectly says that SSBG’s Principal Brief had argued that “*demands on the quality of the data transfer*” is limited to transfer bandwidth, only. This argument leaves away what the second part of this algorithm’s definition in the ‘453 specification says, namely “*and/or in the event of a time delay when forwarding IP data packets*”. Then, in the lower half of this page 54, the Director’s Brief correctly states that the change-over device 711 of claim 35 “*automatically produces a control signal when demands on the quality of the data transfer – not limited to transfer bandwidth – are understeped or exceeded.*” (emphasis added). In other words, the

Director argues that in claim 35 the change-over device 711 encompasses an additional functionality to that disclosed by the above-referred-to algorithm of the ‘453 Specification. The Director’s Brief goes on alleging, the functionality of the change-over device 711 is not limited by this disclosed algorithm and no such limiting algorithm is disclosed at all by the ‘453 Specification. Hence, the Director takes the position (at 55) that “the broadest reasonable standard applies,” which means that the disclosed ‘453 algorithm was inappropriately defined for providing this limitation of the change-over device 711 (for short: “legally ill-defined”). But, both of the Director’s statements about the ‘453 Patent – its specification and its claim 35 – together do not show the ‘453 algorithm is legally ill-defined: They only show that the above recognition of the algorithm by the Director’s Brief is incomplete. The complete ‘453 algorithm is well-defined, as it limits the functionality of device 711 to exactly that of the change-over means of claim 35.

- At the beginning of the second paragraph on page 55, the Director’s Brief recites SSBG’s description of this algorithm – in less technical words than in the ‘453 specification (as quoted above at 4), which common sense immediately recognizes – and criticizes that “[t]his argument was not raised before the Board, and therefore the Board never had an

*opportunity to consider it.”* This is not true! This less technical description of the algorithm is not a new argument, and this algorithm was clearly raised several times before the Board in all briefs submitted by SSBG. *See, e.g.,* A1104; A1319.

- On the same page 55, a few lines further down, the Director’s Brief correctly states that the ‘453 specification “*does not teach that change-over control unit 711 monitors only the particular transfer at issue.*”  
Actually, it is supposed to control any particular transfer at issue, i.e. any data transfer supported by the claim 35 protected data transfer technique. But this does not mean that the algorithm limiting the functionality of the change-over control unit 711 is legally ill-defined. For any claim 35 transfer, this algorithm is legally well-defined.
- On the same page, the next reference – to col. 9, ll. 60-61 – addresses a limitation of the change-over control unit 711, which has nothing to do with claim 35, namely, whether, after a change-over of the communications connection to a line-switching network has been completed, its data transfer should take place packetized or non-packetized. In other words, the claim 35 functionality and, hence, the limitation of the functionality of the change-over control unit 711 and the

algorithm exerting this limitation have absolutely nothing to do with this reference.

- On the same page 55, by the end, and on page 56, at its beginning, the PTO brief alleges that the '453 Specification does not “*indicate that the control unit is responsive to all potential causes of delay*” and that it does not “*disclose that control unit 711 acts instantly and only independently of user or host messages.*”. By these statements, the Director's Brief postulates the person of pertinent ordinary skill has not only no ordinary skill and no ordinary creativity, but also lacks any common sense.

In total, the Director's Brief has not provided any substantial evidence that the algorithm limiting the functionality of the change-over control unit 711, as disclosed by the '453 Specification (A228 at col. 9, ll. 35-51) is legally ill-defined.

The obviousness allegation of the PTO brief as to claim 35 is:

- on page 56 based on simply repeating the *prima facie* case concerning claim 34 that has been shown above to be incorrect. The discussion above not only showed that the Director's Brief failed to provide substantial evidence for its sustainability, but also showed that there is significant evidence that modifying *the switching apparatus of White*, i.e. the AIN, such as to comprise at least the change-over technique of Jonas would be a

non-evident complex activity, as confirmed by White – if such a combination would be achievable at all.

- on page 57 based on simply repeating the incorrect argument that the ‘453 algorithm of the change-over control unit 711 is legally ill-defined: But here in a pinpointed form. Here, the Director bluntly declares that “. . . *the corresponding structure disclosed in the specification of the ‘453 patent (i.e. the change-over control unit 711) was not limited to a particular algorithm.*” In other words, here, the Director’s Brief not “suitably abbreviates this ‘453 algorithm” when quoting it, thus, making it legally ill-defined; here it even finds there is no particular ‘453 algorithm, at all, limiting the change-over unit 711. Resp. at 56, last paragraph. This surprising insight relies on established patent precedents referred to by SSBG’s Principal Brief (at 41, bottom lines). But, the Director does not become specific about this new legal insight, instead, returning (at 57) to his earlier argument that the ‘453 algorithm is legally ill-defined and, hence, irrelevant.

### **III. CONCLUSION AND STATEMENT OF RELIEF REQUESTED**

The district court should be reversed and the case remanded for determination of the merits. Alternatively, the Court should find claim 35 patentable over the combination of White in view of Jonas or Farese, and the Director be directed to confirm claim 35.

Respectfully Submitted,

February 25, 2013

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**CERTIFICATE OF SERVICE**

I certify that on this 25<sup>th</sup> day of February, 2013, in accordance with Fed. R. App. Pro. 25(c)(1)(D) and Federal Circuit Rule 25(a), the foregoing **AMENDED REPLY BRIEF FOR PLAINTIFFS-APPELLANTS** is being served electronically on counsel for appellee via the court's CM/ECF system.

Upon acceptance by the Court of the e-filed document, six paper copies will be filed with the Court within the time provided in the Court's rules. Paper copies will also be dispatched to counsel for Appellee at the time paper copies are sent to the Court.

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**CERTIFICATE OF COMPLIANCE**

I certify that the foregoing **AMENDED REPLY BRIEF FOR PLAINTIFFS-APPELLANTS** complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B). The brief contains 6,982 words, excluding the parts of the brief exempted by Federal Circuit Rule 32(b) and Federal Rule of Appellate Procedure 32(a)(7)(B)(iii), as measured by the word processing software used to prepare this brief.

I further certify that the foregoing **AMENDED REPLY BRIEF FOR PLAINTIFFS-APPELLANTS** complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6). The brief has been prepared in a proportionally spaced typeface using Microsoft Word 2003 in 14 point Times New Roman font.

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