

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ERICSSON INC.,
Petitioner,

v.

KONINKLIJKE KPN N.V.,
Patent Owner.

Case IPR2023-00583
Patent 7,092,705

PATENT OWNER'S PRELIMINARY RESPONSE

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PATENT OWNER'S EXHIBIT LIST

Exhibit	Description
2001	Prosecution History of EP 01203820.4
2002	European Patent 1236458
2003	WO 92/21182
2004	First Amended Docket Control Order in <i>Koninklijke KPN N.V. v. Telefonaktiebolaget LM Ericsson</i> , 22-cv-00282 (E.D. Tex.) (D.I. 101)
2005	United States District Courts – National Judicial Caseload Profile, https://www.uscourts.gov/sites/default/files/data_tables/fcms_na_distprofile0331.2023.pdf
2006	Docket Sheet for <i>Koninklijke KPN N.V. v. Telefonaktiebolaget LM Ericsson</i> , 22-cv-00282 (E.D. Tex.)
2007	Ericsson's P.R. 3-3 Invalidity Contentions in <i>Koninklijke KPN N.V. v. Telefonaktiebolaget LM Ericsson</i> , 22-cv-00282 (E.D. Tex.) (information designated confidential in Texas Action redacted)
2008	Declaration of Regis J. (Bud) Bates, Jr. in Support of Patent Owner
2009	Curriculum Vitae of Regis J. (Bud) Bates, Jr.

I. INTRODUCTION

Patent Owner Koninklijke KPN N.V. (“KPN”) submits this Preliminary Response to the Petition for *Inter Partes* Review filed by Petitioner seeking review of Claims 1-7, 22-26, 28, 29, 31, and 32 (“the Challenged Claims”) of U.S. Patent No. 7,092,705 (EX1001) (“the ’705 Patent”).

The ’705 Patent claims methods and systems for checking parameter settings in a network. The claimed invention uses rules—which include both (i) a technically sufficient parameter setting, and (ii) a deviation from that value where the extent of the deviation is deduced from actual network operation—to check the parameter settings. Using the rules of the ’705 Patent improves the reliability and efficiency of the network. The ’705 Patent has a priority date in July 2001, and will expire in November 2023.

The Petition presents a uniquely deficient case of unpatentability. During examination, KPN overcame rejections based on the same primary references—Madebrink and Djoko—that Petitioner re-asserts in the Petition. The Petition simply recycled the Office’s obviousness rejection over Madebrink and Djoko into four weaker grounds: three proposed obviousness grounds and one proposed anticipation ground. They should be denied on the merits.

Contrary to Petitioner’s arguments, the Challenged Claims each recite limitations—identified by Petitioner as [1pre], [1a], and [1b]—not disclosed, taught,

or suggested by the alleged prior art Madebrink, Djoko, Feuerstein, Shipman, and Sheridan.

With respect to the Petition’s Ground 1 (obviousness over Madebrink and Feuerstein), Madebrink does not teach or suggest [1a].¹ To the contrary, as KPN established years ago during examination, Madebrink uses rules that are solely technical in nature, and not a “rule comprising both a technically sufficient parameter setting requirement and a deviation from the setting requirement based on an operational requirement deduced from use of the radio network” recited in [1a].

Indeed, the Petition admitted that Madebrink “does not explicitly disclose deviating from the technically sufficient parameter settings *before* the parameter is deployed.” Paper 2 (“Pet.”), 18-19.

The Petition nevertheless asserts that optimization in Madebrink teaches [1a]. *Id.* That is incorrect for three reasons. First, Madebrink does not teach or suggest equating optimization with “deviating from the technically sufficient parameter

¹ Limitation [1a] is “before the modified parameter is implemented in the network, checking the modified parameter on the basis of a rule so as to yield a result, said rule comprising both a technically sufficient parameter setting requirement and a deviation from the setting requirement based on an operational requirement deduced from use of the radio network.”

settings.” This false equality is merely assumed by Petitioner without any rationale or explanation. Second, even adopting the equality *arguendo*, Madebrink teaches optimization after the parameter is made active, and not “before the modified parameter is implemented in the network” as recited in [1a]. Third, Madebrink teaches optimization based on live traffic, and not a “rule” as recited in [1a].

Further, Feuerstein does not teach or suggest [1a]. The Petition relies on Feuerstein’s “simulating the modified parameter” for [1a] (Pet., 19), but Feuerstein’s simulation software calculates optimum parameters from scratch, and does not “check[] the modified parameter on the basis of a rule” recited in [1a]. Further, Feuerstein’s simulation software generates ready-to-go (stored ahead of time for possible later use) optimized parameters using network theory, equations representing network operation, and real-time optimization paradigms, and not the “rule” recited in [1a]. And once again, Petitioner—without any attempt at justification—refers to optimization as if it is a given that it equates to “a deviation from the setting requirement based on an operational requirement deduced from the use of the radio network” recited in [1a]. The Petition is also inconsistent about what the “deviation” applies to in [1a].

Madebrink and Feuerstein also do not teach or suggest [1b] because that

limitation includes the “rule” recited in [1a].² In addition, Ground 1 fails because the Petition’s proposed modification of Madebrink with Feuerstein would change a principle of operation of Madebrink. Madebrink and Feuerstein’s simulation do not complement each other—they are different and alternative approaches to parameter management.

The Petition’s Ground 2 (obviousness over Madebrink, Feuerstein, and Shipman) fails for reasons related to Ground 1 and Madebrink and Feuerstein. Further, Ground 2 is nothing more than an argument that Shipman “could be” combined with Madebrink and Feuerstein, which is insufficient for obviousness.

With respect to the Petition’s Ground 3, which the Petition describes as an obviousness ground and later as an anticipation ground, (i) the Petition fails to present any reasoning how Djoko alone renders obvious Claim 1 and (ii) Djoko does not disclose [1pre], [1a], and [1b].³ As KPN demonstrated years ago in examination,

² Limitation [1b] is “if the result indicates that the rule has been obeyed, storing the modified parameter in the network such that subsequent network operation will respond to the modified parameter.”

³ Limitation [1pre] is “A method for verifying a modified parameter obtained from changing an operational parameter of a component of a radio network, the method comprising the steps of.”

Djoko discloses determining new operating parameters, and not “[a] method for verifying a modified parameter” recited in [1pre]. The Petition’s reliance on isolated phrases of Djoko that include “alter,” “adjust,” and “change” omits other description in Djoko, which, when read in context, shows that Djoko’s mention of “alter,” “adjust,” and “change” refers to determining new operating parameters.

Further, Djoko does not disclose [1a]. The Petition alleges that verification by the simulator in Djoko teaches [1a], but that this is incorrect. Simulation is mentioned in Djoko after rules have selected modified parameters. The Petition never alleges how the simulator of Djoko does verification using the “rule” recited in [1a]. That is because the simulator does not do so. Djoko also does not disclose [1b] for the same reasons that it does not disclose the “rule” recited in [1a].

The Petition’s Ground 4 (obviousness over Djoko and Sheridan) is directed only to dependent claims, and the Petition does not cite Sheridan for any of [1pre], [1a], or [1b]. Accordingly, because Djoko and Sheridan do not teach or suggest all limitations of Claim 1, Ground 4 fails.

The Petition makes no separate arguments for independent Claims 22, 26, 28, and 31 that are different from Claim 1. Further, the Petition has failed to establish a reasonable likelihood that any of dependent Claims 2-7, 23-25, 29, and 32 are unpatentable for at least the same reasons that the Petition has failed to establish a reasonable likelihood that Claim 1 is unpatentable.

Further, the Board should deny institution under § 325(d) because the USPTO used Madebrink and Djoko to (initially) reject the claims during examination. The Petition splitting up Madebrink and Djoko into separate grounds does not pass *Advanced Bionics* part 1. Petitioner is now urging the Board to take a contrary position to the Examiner, without demonstrating that the USPTO materially erred—in violation of *Advanced Bionics* part 2. Petitioner and its expert simply disagree with the Examiner’s findings regarding Madebrink and Djoko, which is not enough for an IPR. The Examiner’s treatment of Madebrink and Djoko is supported by the examination of a European application in the same family as the ’705 Patent, in which KPN overcame a similar rejection based on the disclosure of Madebrink and Djoko, with similar arguments accepted by the USPTO.

Finally, the parties are involved in co-pending litigation, *Koninklijke KPN N.V. v. Telefonaktiebolaget LM Ericsson*, 22-cv-00282 (E.D. Tex.) (“Texas Action”), and the Board should deny institution under § 314(a) given the advanced stage of the Texas Action. The *Fintiv* factors weigh in favor of discretionary denial: (1) a stay is unlikely even if IPR was instituted; (2) trial in the Texas Action will occur five-to-six months before a final written decision would be due in an IPR; (3) the district court and the parties have invested substantially in the Texas Action, (4) there is substantial overlap between the issues raised in the Petition and in the Texas Action, and (5) the parties are the same in both proceedings. Further, in view of the

Petition's substantive deficiencies as discussed herein, the Petition has failed to present compelling evidence of unpatentability (and never even asserts that it has done so).

The '705 Patent's November 2023 expiration also supports discretionary denial. Although not dispositive, the upcoming expiration of the '705 Patent highlights that it would be a waste of the Board's resources to adjudicate a trial in this case, particularly given the parallel Texas Action and the Petition's recycling of Madebrink and Djoko.

For at least these reasons, the Board should deny the Petition and not institute trial.

II. THE '705 PATENT

The '705 Patent describes a method and system for checking parameter settings of a radio network. The application that led to the '705 Patent, U.S. Application 10/188,538 ("the '538 Application"), has an asserted priority date over 21 years ago, in July 2001. EX1001, code (60).

To accommodate changes in use of a cellular radio network, a network operator may configure and reconfigure the network. *Id.* 2:6-10. For example, the network operator may temporarily split a cell to deal with an expected increase in traffic. *Id.* 2:13-14. As another example, the network operator may permanently integrate new components into the network. *Id.* 2:15-16.

Configuration and reconfiguration of a network may involve the network operator changing parameter settings of one or more components of the network. *Id.* 2:6-10. Example components of the network include Base Transceiver Stations (BTSs) and Base Station Controllers (BSCs), *id.* 1:39-41, 2:18-19, and example parameter settings that the operator may change include cell type, cell designation, cell direction, signal strength, and signal to noise ratio. *Id.* 2:20-23.

According to the '705 Patent, a network operator needs to be able to configure and reconfigure a network within a limited amount of time and with a high degree of accuracy. *Id.* 2:6-10. But as the complexity of networks increases, configuration and reconfiguration of a network becomes more difficult because parameter settings of the different components of the network affect each other. *Id.* 1:52-56.

For at least these reasons, network operators need methods and systems to (i) administer parameter settings of components of the network, (ii) change the parameter settings, and (iii) check the consistency of the proposed changes before they are implemented in the network. *Id.* 2:16-25.

A. The '705 Patent's Discussion of the Prior Art

The '705 Patent discusses Petitioner's U.S. Patent No. 5,434,798, which is the Madebrink reference asserted in the Petition. EX1005.

The '705 Patent states that Madebrink "describes a reconfiguration method and apparatus." EX1001, 1:56-57. According to the '705 Patent, in Madebrink,

“cell parameters of particular mobile switching centres in a network are copied to a database,” “[a] set of proposed changes to the stored parameters is prepared and the consistency of the proposed changes is verified,” and “the verified set of proposed changes is implemented in the network.” *Id.* 1:58-67.

But in Madebrink’s method, the consistency check of the proposed changes to the parameters uses “rules” that “originate solely from technical requirements derived from cellular network technology.” *Id.* 2:38-40. Thus, Madebrink’s method does “not apply rules derived from operational practice,” and these rules cannot “deviate from technically sufficient parameter setting requirements if operational practice experience reveals a more preferable technical parameter setting.” *Id.* 2:40-45. These limitations of Madebrink’s rules impact the reliability and efficiency of the network. EX1004, at 59, 137.

Further, in Madebrink’s method, the consistency check of the proposed changes to the parameters only uses pre-programmed rules, which decreases the flexibility of the system. EX1001, 2:46-50. And in Madebrink’s method, only a limited part of the network hierarchy is checked, which results in a less reliable and efficient control of the network. *Id.* 2:30-35.

B. The ’705 Patent’s Advantages Over the Prior Art

In order to overcome at least these shortcomings, the ’705 Patent discloses embodiments for checking modified parameters of components of a network based

on rules deduced from operational use of the network. *Id.* at Abstract. In this regard, the '705 Patent discloses rules to check parameter settings that have two distinct components: (i) a technically sufficient parameter setting and (ii) a deviation from that value where the extent of the deviation is deduced from actual network operation. *Id.* 6:4-7; EX1004, 58-59. The '705 Patent refers to the disclosed rules as “business rules.” EX1001, 3:11-13 (“These business rules comprise rules related to technically preferable requirements as well as rules derived from operational practice.”).

Figure 3 of the '705 Patent, reproduced below, shows an example process flow for management and control of parameters. *Id.* 3:30-31, 4:27-28.

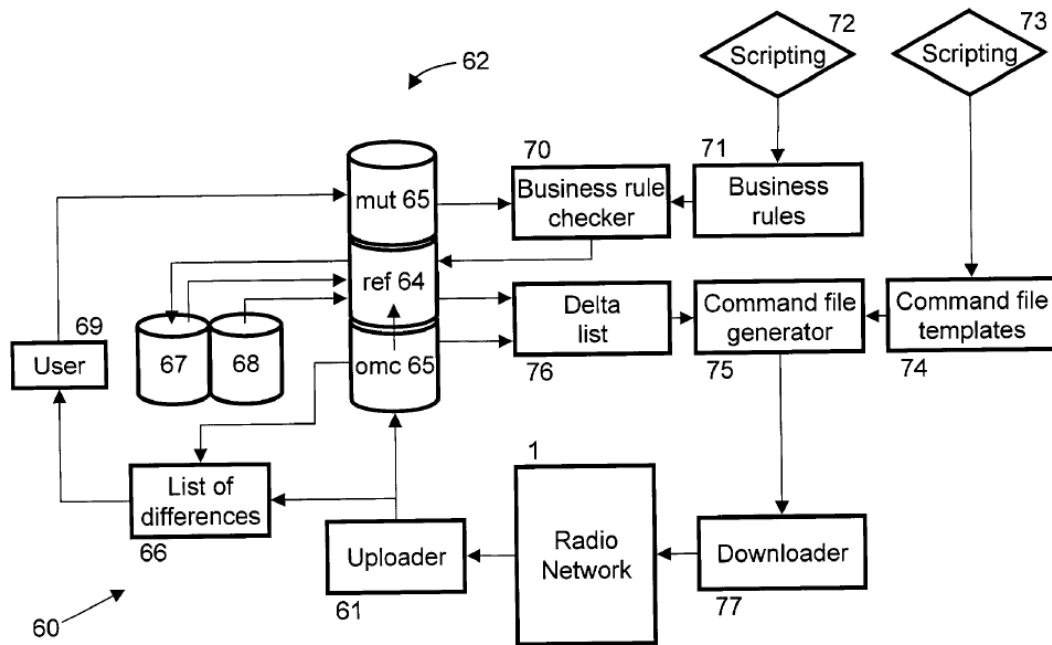


FIG. 3

In Figure 3, parameters from a radio network 1 may be uploaded to a database 62. *Id.* 4:28-31. The database 62 has three parts, an omc 63, a ref 64, and a mut 65. *Id.* 4:34-36. The omc 63 includes operational parameters and values set for the network 1, the ref 64 includes new or changed parameters and values to be implemented in the network 1, and the mut 65 includes parameters and values that are subject to a change proposal from a user 69. *Id.* 4:36-41. The parameter values from the database 62 are implemented in the network 1 by a command file generator 75 and a downloader 77. *Id.* 4:55-57.

In embodiments of the '705 Patent, changes to parameter values are made into the mut 65. *Id.* 4:48-49. The mutated parameters are checked by a business rule

checker 70 and put in the ref 74 if the changed parameters obey the business rules applied to them. *Id.* 4:49-53, 6:31-34, 6:48-52, Fig. 4A, 4B. But if the changed parameters do not obey the business rules, they appear on a generated error list to the user 69. *Id.* 6:34-36, Fig. 4A. In this manner, the business rule checker 70 performs a control function before parameter values are implemented in the network 1. *Id.* 5:54-55.

With respect to the rules used by the business rule checker 70, the '705 Patent describes an example for channel distance:

[I]t is preferable that the bare technically sufficient requirements can be altered according to rules obtained from daily operational use of the radio network. It can, e.g., be technically sufficient to have a channel distance of 20 Hz between different cells. . . . However, in practice it may be that a channel difference of 50 Hz between the cells guarantees more reliable operation. In that case, according to the invention, it is possible to use the preferred channel difference of 50 Hz as obtained from operational practice as a business rule instead of technically sufficient channel distance.

Id. 6:4-15.

The channel distance example of the '705 Patent illustrates that a technical requirement that is theoretically sufficient does not guarantee reliable operation of the network. *See id.*; EX1004, 133.

Using the rules disclosed in the '705 Patent to check changes to parameter

settings before they are implemented in the network improves the reliability and efficiency of the network. EX1004, 59, 137. The '705 Patent's rules—which include both (i) a technically sufficient parameter setting and (ii) a deviation from that value where the extent of the deviation is deduced from actual network operation—increase the likelihood that the changed parameter settings lead to successful operation of the network. *Id.* This results in fewer changes to the parameter settings. *See id.*

Further, in embodiments of the '705 Patent, the rules used to check parameter settings are programmable by the network operator, which improves the flexibility of the system. EX1001, 6:19-22, 3:18-22. And in embodiments of the '705 Patent, changes to parameter settings are checked at all hierarchical levels of the network, which improves control and reliability of the network. EX1001, 5:17-21, 6:26-28, 7:21-32, 2:64-3:4.

C. Prosecution History

The Examiner used the Petition's primary references, Madebrink and Djoko, to reject claims in the '538 Application, which KPN overcame, leading to issuance of the '705 Patent. EX1004, 11-14, 54-67, 87-89, 134-138, 149.

Further, a European Patent Office ("EPO") Examiner also used the disclosure of Madebrink and Djoko to reject the claims in EP 01203820.4 ("the EP820.4 Application"), which is in the same family as the '705 Patent. EX2001, 127-128.

KPN also overcame the rejection, and European Patent 1236458 (EX2002) (“the EP’458 Patent”) issued from the EP820.4 Application. EX2001, 17, 55-57, 96-98.

1. Prosecution History of the ’538 Application

The examination of the ’538 Application involved two office actions. In the first, the Examiner initially rejected most of the pending claims as anticipated by Madebrink. EX1004, 149. In response, KPN amended the claims and argued that Madebrink did not disclose the “business rule comprising . . . deviating from at least one technically sufficient parameter setting requirement,” as recited, for example, in amended Claim 1. EX1004, 123 (amendments), 134-138 (argument).

In the second, the Examiner agreed with KPN and found that “Madebrink fails to teach that the business rule comprising deviating from at least one technically sufficient parameter setting requirement.” *Id.* at 88. The Examiner nevertheless still rejected most of the pending claims as obvious over Madebrink and Djoko. *Id.* at 88-89.

In response, KPN added new claims corresponding to the previously presented claims and argued that Madebrink and Djoko did not teach or suggest most of the limitations recited in Claim 34 (issued Claim 1):

- “verifying a modified parameter obtained from changing an operational parameter of a component of a radio network”;
- “before the modified parameter is implemented in the network,

checking the modified parameter on the basis of a rule so as to yield a result, said rule comprising both a technically sufficient parameter setting requirement and a deviation from the setting requirement based on an operational requirement deduced from use of the radio network”; and

- “if the result indicates that the rule has been obeyed, storing the modified parameter in the network such that subsequent network operation will respond to the modified parameter.”

Id. at 40-41 (amendments), 50-51 (claim chart), 54-67 (argument).

The Examiner then allowed the '538 Application. *Id.* at 11-14.

2. Prosecution History of the EP820.4 Application

The examination of the EP820.4 Application occurred before the examination of the '538 Application.

The EPO Examiner initially rejected the pending claims for lack of inventive step over WO 92/21182 (“WO’182,” EX2003), the published PCT application in the same family as Madebrink, and Djoko. EX2001, 69-71, 127-128.

In response, KPN amended claim 1 to recite the “business rule comprising . . . deviating from technically sufficient parameter setting requirements” and argued that neither WO’182 nor Djoko discloses “a method or system for checking modified parameters or parameter values on the basis of business rules comprising at least one

operational requirement deviating from technically sufficient parameter setting requirements.” EX2001, 55-57, 96-98.

The EPO Examiner then allowed the EP820.4 Application. *Id.* at 17.

D. The Challenged Claims

Of the Challenged Claims, Claims 1, 22, 26, 28, and 31 are independent and the remainder are dependent. Claim 1 recites:

[1pre] A method for verifying a modified parameter obtained from changing an operational parameter of a component of a radio network, the method comprising the steps of:

[1a] before the modified parameter is implemented in the network, checking the modified parameter on the basis of a rule so as to yield a result, said rule comprising both a technically sufficient parameter setting requirement and a deviation from the setting requirement based on an operational requirement deduced from use of the radio network; and

[1b] if the result indicates that the rule has been obeyed, storing the modified parameter in the network such that subsequent network operation will respond to the modified parameter.

EX1001, 8:39-52 (the Petition’s bracket notation of limitations added). EX1004, 133 (“‘preferred technical requirement’ is contrasted with ‘technical sufficient requirements’” (citing EX1001, 6:4-15)).

Claims 22, 26, 28, and 31 recite similar limitations as Claim 1, and the Petition does not distinguish between Claims 1 and Claims 22, 26, 28, and 31. Pet., 33, 35-38 (referring to arguments against Claim 1).

III. THE ALLEGED PRIOR ART

The Petition presents four proposed grounds of unpatentability against the Challenged Claims. Ground 1 alleges obvious of the Challenged Claims over Madebrink and Feuerstein; Ground 2 alleges obviousness of the Challenged Claims over Madebrink, Feuerstein, and Shipman; and Ground 4 alleges obviousness of dependent Claims 2-6, 23-25, 29, and 32 over Djoko and Sheridan. Pet., 15-38 (Ground 1), 38-43 (Ground 2), 52-55 (Ground 4).

The Petition describes Ground 3 against independent Claims 1, 22, 26, 28, and 31 two different ways. In the “Precise Relief Requested And Grounds Raised,” the Petition describes Ground 3 as obviousness over Djoko, but in “Detailed Explanation of Grounds,” the Petition describes Ground 3 as anticipation by Djoko. *Compare* Pet., 13, *with id.* at 43-51.

A. The Petition’s Primary References

1. Madebrink

Madebrink discloses a method and apparatus for reconfiguration of a cellular network. EX1005, Abstract. Figure 4A of Madebrink, reproduced below, illustrates a method of reconfiguring the network. *Id.* 7:7-8, 10:49-54.

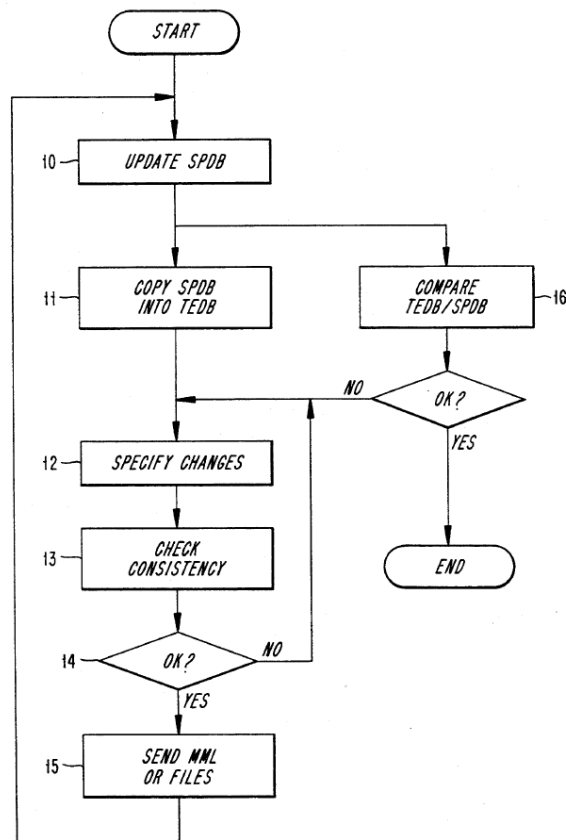
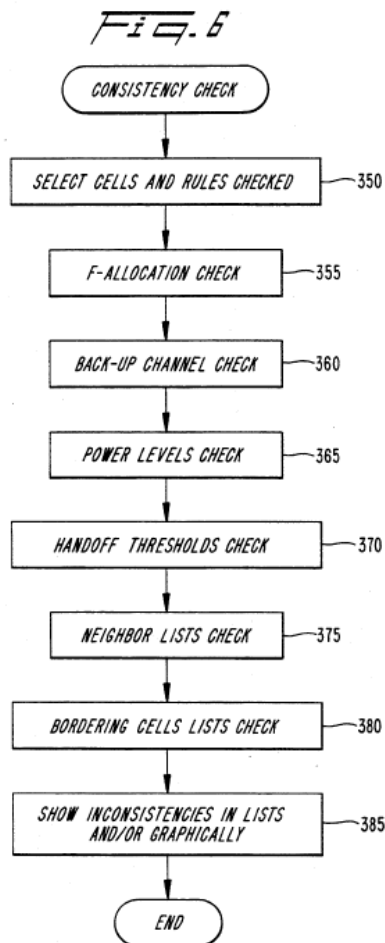


Fig. 4A

At block 12, proposed changes to parameters are specified, and at block 13, a consistency check is performed on the entered changes before they are introduced into the network. *Id.* 11:1-2, 15-18, 64-65.

Figure 6 of Madebrink, reproduced below, illustrates the consistency check routine. *Id.* 7:12-13, 13:16-17.



In Figure 6, step 355 checks frequency allocations, step 360 determines if the cells have backup channel devices, step 365 determines the cells' power level (e.g., base station power level must correspond to the size of the cell), step 370 checks the hand-off and locating thresholds, step 375 checks the relationship between the neighboring cell and adjacent cells, and step 380 checks the inter-exchange handoff relationships. *Id.* 13:31-59.

Further, Madebrink discloses that after the updated parameters are activated in the network, the network operator may optimize the newly changed parameters.

Id. 11:64-67. Madebrink discloses that “live traffic measurements may be taken which may be used to optimize the cell parameters and if necessary, further changes may be implemented responsive to the optimization.” *Id.* 12:1-4.

Madebrink is cited on the face of the '705 Patent and discussed in the '705 Patent specification. EX1001, code (56), 1:54-2:54. The Examiner used Madebrink to reject (initially) pending claims during examination. *Supra* II.C.1.

2. Djoko

Djoko discloses a self engineering system for use with a communication system. EX1007, Abstract. Figure 1 of Djoko, reproduced below, illustrates the self engineering system 100 interfaced with the communication system 102. *Id.* 5:6-9, 5:41-43.

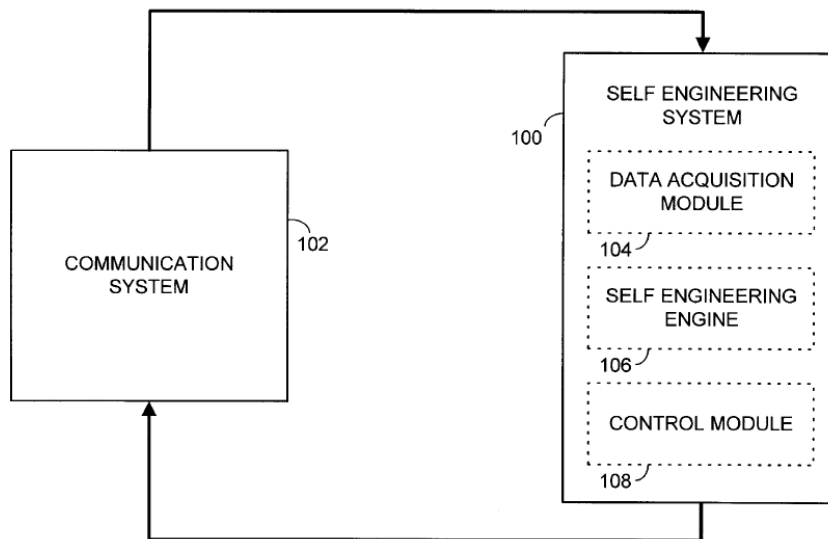


FIG. 1

Djoko discloses that “[t]he self engineering system 100 comprises a data acquisition module 104, a self engineering engine 106, and a control module 108,” and that “[b]ased upon the current operating data and current operating parameters of the communication system 102, the self engineering engine 106 determines new operating parameters of the communication system to improve and enhance operation of the communication system 102.” *Id.* 5:44-46, 6:5-10.

Further, Figure 4 of Djoko, reproduced below, “illustrates a particular construction of the self engineering engine previously described as reference numeral 106 in FIG. 1” and shows that “[t]he self engineering engine comprises an expert system 402.” *Id.* 5:16-18, 10:9-13 (green annotation added).

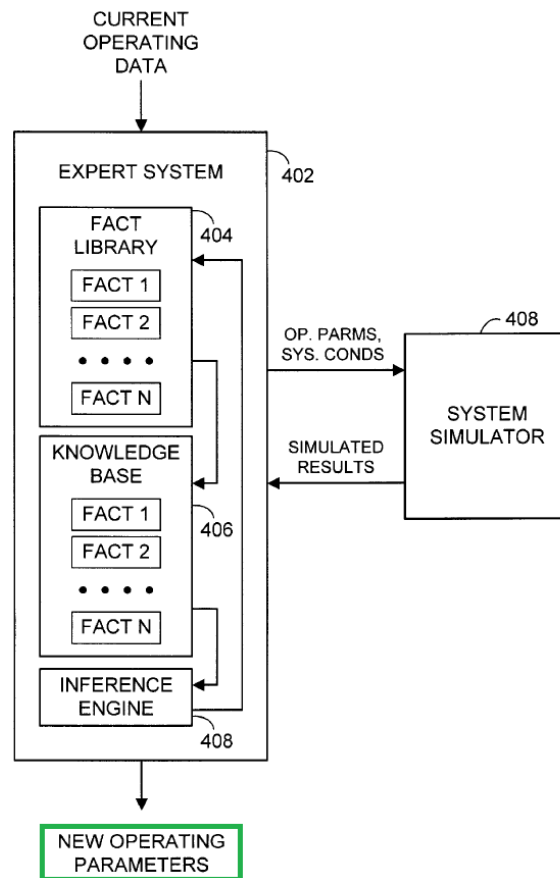


FIG. 4

In Figure 4, the expert system 402 produces “NEW OPERATING PARAMETERS.” In connection with Figure 5, Djoko discloses “new operating parameters are selected by the inference engine 408 at step 514” and “at step 516, the control module implements the new operating parameters in the communication system.” *Id.* 11:28-31.

Further, Figure 6 of Djoko, illustrates operation of the self engineering system having a communication system simulator. *Id.* 5:22-26, 11:32-34 (green annotations added).

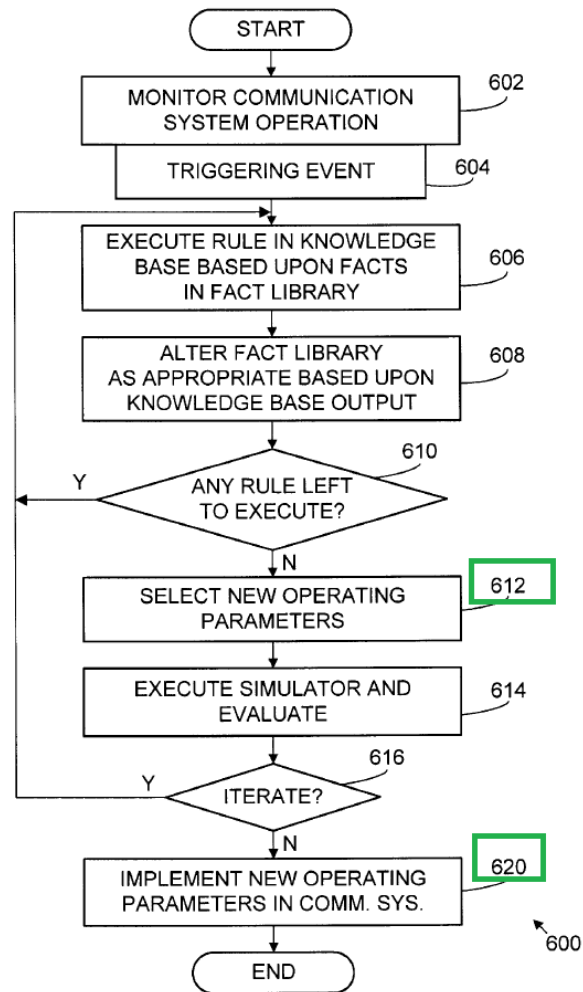


FIG. 6

In Figure 6, at step 612, “new operating procedures are selected,” and, at step 620, “the control module implements the new operating parameters in the communication system.” *Id.* 11:44-45, 11:49-52. In this regard, Djoko discloses that: “[i]f there is any rule left to be executed at step 610, operation proceeds to step 606. Otherwise, operation proceeds to step 612 where new operating parameters are selected. Then, the communication system simulator 408 is executed to evaluate the

proposed operation parameters at 614.” *Id.* 11:41-46. Further, in connection with Figure 4 (reproduced above), Djoko discloses that “[s]hould the system simulator 408 be present, the proposed operating parameters may be evaluated by the system simulator 408 prior to their being deemed the new operating parameters.” *Id.* 10:63-66.

Djoko is cited on the face of the ’705 Patent. EX1001, code (56). The Examiner used Djoko to reject (initially) pending claims during examination. *Supra* II.C.1.

B. The Petition’s Secondary References

1. Feuerstein

Feuerstein discloses systems and methods for providing network parameters to network elements. EX1006, Abstract. For Ground 1, Petitioner proposes to modify Madebrink with simulation of parameters in Feuerstein. Pet., 19.

Figure 2 of Feuerstein, reproduced below, illustrates Feuerstein’s system. EX1006, 7:20-21.

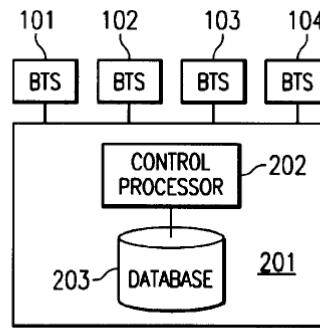


FIG. 2

In Figure 2, a network control system 201 includes a control processor 202 and a database 203. *Id.* 7:45-46. Feuerstein discloses that the database 203 stores network parameters and “[e]ach such set of network parameters is optimized so as to result in desired system behavior when particular communication conditions are determined to exist.” *Id.* 7:57-60. Thus, database 203 stores pre-optimized parameters that may later be selected for use.

Feuerstein discloses “where network parameters are not available which are optimized for particular communication conditions, or where it is otherwise determined advantageous, parameters may be generated, i.e., calculated, which are optimized based on network theory or equations representing network operation.” *Id.* 7:64-8:2. In this regard, Feuerstein discloses that the control processor 202 includes “network simulation software in order to provide network modeling.” *Id.* 12:27-29. The software is “a modeling tool,” which uses “real-time optimization paradigms.” *Id.* 12:29, 33. Feuerstein discloses “network operation simulation is

desirable for use in calculating the optimum network parameters.” *Id.* 12:37-38.

Further, Feuerstein discloses, “in a preferred embodiment of the present invention, optimization of network parameters is accomplished in real-time or near real-time” and “updates to database 203 may be based on real-time measurements of the traffic load or the interference levels on the network.” *Id.* 11:63-67, 9:43-46 (“[T]he present invention may operate to optimize the network parameter sets in real-time.”).

2. Shipman

Shipman discloses an apparatus and method for designing a network. For Ground 2, the Petition proposes to combine Shipman’s “network design rules” with Madebrink and Feuerstein. EX1010, 6; Pet., 42.

Shipman discloses that a network design modifier 205 applies the design rules to add or delete access nodes. EX1010, 16. Further, Shipman discloses a rule generator 203 that “generates rules that are used in the planning of network growth,” which “take account of the demand at a site and the proximity of other nodes.” *Id.* at 14.

Shipman’s example rule, R1, is reproduced below:

If (Demand > X) AND (Distance to Nearest Node > Y)

THEN (ADD an access node)

(R1)

Id.

3. Sheridan

Sheridan discloses a cell network management system. EX1008, Abstract. For Ground 4, the Petition proposes to combine Sheridan's teachings of a data reception and storage system 602, which receives configuration data from a cell site complex 108, with Djoko. Pet., 52-54.

IV. LEVEL OF ORDINARY SKILL IN THE ART

For purposes of this Preliminary Response, KPN does not challenge the qualifications proposed by Petitioner for a person of ordinary skill in the art ("POSITA"). Pet., 12-13.

V. CLAIM CONSTRUCTION

For purposes of this Preliminary Response, KPN submits that the terms recited in the Challenged Claims can each be given its plain and ordinary meaning, and that no express constructions of these terms are needed. 37 C.F.R. § 42.100(b).

VI. GROUND 1: MADEBRINK AND FEURSTEIN DO NOT RENDER OBVIOUS THE CHALLENGED CLAIMS

A. Madebrink Does Not Teach Or Suggest [1a]

KPN's statements about Madebrink in the '705 Patent specification and during examination were correct then and are correct now. EX1001, 2:25-54; EX1004, 54-59, 134-138.

Madebrink’s consistency check does not use any “rule comprising both a technically sufficient parameter setting requirement and a deviation from the setting requirement based on an operational requirement deduced from use of the radio network” recited in [1a]. EX1005, 13:16-59, Fig. 6. To the contrary, as KPN established years ago, Madebrink uses rules that are solely technical in nature, and not the two-part rule recited in [1a]. EX1004, 135 (“The consistency check [of Madebrink] involves checking whether technical requirements for the parameters mentioned are fulfilled.”).

Thus, Madebrink’s consistency check does not teach or suggest “checking the modified parameter on the basis of a rule . . . based on an operational requirement deduced from use of the radio network” recited in [1a] at all, much less the “rule comprising . . . a deviation from the setting requirement based on an operational requirement.” Petitioner does not disagree.

The Petition does not cite Madebrink’s consistency check for the “before the modified parameter is implemented in the network, checking the modified parameter on the basis of a rule . . . said rule comprising both a technically sufficient parameter setting requirement and a deviation from the setting requirement based on an operational requirement deduced from use of the radio network” recited in [1a]. Pet., 18-19. In fact, the Petition admits that “*Madebrink* does not explicitly disclose deviating from the technically sufficient parameter setting requirements *before* the

parameter is deployed when operational practice experience reveals a different, more preferable technical parameter setting.” Pet., 18-19 (emphases in original).⁴

Instead, the Petition asserts that “[a]fter the modified parameter is implemented, then *Madebrink* optimizes the parameter,” and “*Madebrink* explains that ‘live traffic measurements may be taken which may be used to optimize the cell parameters.’” Pet., 17-18 (citing EX1005, 11:64-68, 12:1-14). But the Petition’s reliance on optimization in *Madebrink* in connection with [1a] does not withstand scrutiny for three reasons.

First, the Petition repeatedly equates optimizing a parameter in *Madebrink*, as well as in other references cited in the Petition, with “a deviation from the setting requirement based on an operational requirement deduced from use of the radio network” recited in [1a]. For example, in addition to the citation above to Pet. 17-18, the Petition, referring to *Madebrink*, states “an optimization over the baseline setting for the given network conditions (‘a deviation from the setting requirement based on an operational requirement deduced from use of the radio network’).” *Id.* at 19. And referring to *Feuerstein*, the Petition states “the adjusted/modified parameters, which are optimized from their original settings, are a ‘deviation from the setting requirement based on an operational requirement deduced from use of the

⁴ Unless otherwise noted, emphasis of a reference name is from the Petition.

radio network.”” *Id.* at 24-25. But Petitioner presents no explanation or rationale for equating optimizing with a deviation. Rather, the Petition refers to optimization in *Madebrink* and the other cited references as if an equality of the two terms is a given, requiring no explanation or justification. This is false. EX2008 (“BatesDec”), ¶120. Yet, even adopting the equality, *arguendo*, in the remaining discussion, Petitioner’s assertions that rely on the equality are unsupported.

Second, *Madebrink* teaches optimizing after the parameter is made active, and not “before the modified parameter is implemented in the network” recited in [1a]. EX1005, 11:64-68. Petitioner has conceded that the timing of *Madebrink*’s optimization is different from the timing of “checking the modified parameter” recited in [1a]. Pet., 17-19 (“After the parameter is implemented, then *Madebrink* optimizes the parameter,” and “*Madebrink* does not explicitly disclose deviating from the technically sufficient parameter setting requirements *before* the parameter is deployed.”) (emphases in original).

Third, *Madebrink* teaches optimization based on live traffic, and not a “rule” “comprising ... a deviation from the setting requirement based on an operational requirement deduced from use of the radio network,” as recited in [1a]. The two are different and the ’705 Patent’s example of 50 Hz channel distance being such a “rule” proves the point: *Madebrink*’s optimization based on live traffic can yield an optimal channel distance (e.g., 51 Hz) that violates the 50 Hz rule. BatesDec, ¶122;

EX1001, 6:4-15. Petitioner has not presented any evidence to the contrary.

The Petition’s assertion that a POSITA would have done Madebrink’s optimization before deploying the parameter (Pet., 19) makes no sense. BatesDec, ¶123. Madebrink’s optimization requires deployment of the parameter to happen first. EX1005, 11:64-68. Further, checking against live traffic precludes the optimization to part of a “rule” established prior to deployment, as recited in [1a]. BatesDec, ¶123.

For at least these reasons, Madebrink does not teach or suggest [1a].

B. Feuerstein Does Not Teach Or Suggest [1a]

In an attempt to cure the deficiencies with Madebrink, the Petition alleges that “*Feuerstein* teaches optimizing the parameter *before* deploying it into the network by simulating the modified parameter against real-time traffic information.” Pet., 19 (citing EX1006, 12:29-39) (emphases in original). As with Madebrink, Petitioner assumes without justification an equality between optimizing—now also entailing *simulation*—taught by Feuerstein and “a deviation from the setting requirement based on an operational requirement deduced from use of the radio network” recited in [1a]. But even putting this unsupported assumption aside, the Petition’s reliance on Feuerstein’s discussion of simulation (apparently for determining a theoretical optimization) is misplaced.

First, Feuerstein’s simulation does not teach or suggest “checking the

modified parameter on the basis of a rule” recited in [1a]. To the contrary, Feuerstein teaches “parameters may be generated, i.e., calculated . . . based on network theory or equations representing network operation.” EX1006, 7:67-8:2. Feuerstein’s “network simulation software,” cited by the Petition, “calculat[es] optimum network parameters” from scratch, and does not “check[] the modified parameter on the basis of rule” recited in [1a]. EX1006, 12:27-39; BatesDec, ¶125.

Second, Feuerstein’s simulation software does not use a “rule comprising both a technically sufficient parameter setting requirement and a deviation from the setting requirement based on an operational requirement deduced from use of the radio network” recited in [1a]. To the contrary, as quoted above, Feuerstein teaches that the simulation is “based on network theory or equations representing network operation,” and the simulation software is “a modeling tool,” which uses “real-time optimization paradigms.” EX1006, 8:1-2, 12:33. The simulation software of Feuerstein generates ready-to-go (i.e., preconfigured and stored ahead of time) optimized parameters from permutations of current operating conditions using network theory, equations representing network operation, and real-time optimization paradigms—and not using a “rule comprising both a technically sufficient parameter setting requirement and a deviation from the setting requirement based on an operational requirement deduced from use of the radio network” recited in [1a]. BatesDec, ¶¶126-127.

Petitioner's equation of using simulation to produce optimized parameters in Feuerstein with "a deviation from the setting requirement based on an operational requirement deduced from use of the radio network" that is part of the "rule" recited in [1a] is wrong for similar reasons discussed above with respect Madebrink. *Supra* pp.28-29. Again, optimization and the "rule" recited in [1a] are different, and the '705 Patent's example of 50 Hz channel distance being such a "rule" once again proves the point: Feuerstein's simulation software can yield an optimal channel distance (e.g., 51 Hz) that violates the 50 Hz rule. Petitioner has not presented any evidence to the contrary. BatesDec, ¶128; EX1001, 6:4-15.

Feuerstein teaches that simulation is used "where network parameters are not available which are optimized for particular communication conditions, or where it is otherwise determined advantageous." EX1006, 7:64-67. But in citing simulation in Feuerstein, the Petition improperly cites portions of Feuerstein that relate to different embodiments. Pet., 19-23. As one example, Feuerstein discloses "optimization of network parameters is accomplished in real-time or near real-time" and "updates to database 203 may be based on real-time measurements of the traffic load or the interference levels of the network." EX1006, 11:63-67, 9:44-45 ("[T]he present invention may operate to optimize the network parameter sets in real-time."). Feuerstein's real-time optimization is no different than Madebrink's optimization based on live traffic, and both fail to teach or suggest [1a]. BatesDec, ¶130. The

Petition has not presented any evidence that a POSITA would have combined Feuerstein's different embodiments to arrive at [1a].

For at least these reasons, Feuerstein does not teach or suggest [1a].

C. The Petition Is Inconsistent About What “Deviation” Applies To

Separate and apart from the failure of either Madebrink or Feuerstein, alone or in combination, to teach or suggest [1a], as well as Petitioner's erroneous arguments to the contrary, Petitioner appears confused—or at least inconsistent—about what it is in [1a] that the “deviation” applies to. At page 6, the Petition states:

As detailed herein, however, checking an adjusted parameter based on a technically sufficient rule and a *deviation from that rule* is not innovative and was well known in the art when the application that issued as the '705 Patent was filed.

Pet., 6 (emphasis added). Thus, as early as page 6 the Petition previews its core argument against the '705 Patent is that deviation from a rule was known. But [1a] recites “*a deviation from the setting requirement* based on an operational requirement deduced from use of the radio network” (emphasis added). So Petitioner sets up its argument by grossly misreading at least [1a].

At page 17, the Petition states:

After the modified parameter is implemented, then *Madebrink* optimizes the parameter (i.e., a deviation from the setting requirement based on an operational requirement deduced from the use of the radio

network).

Pet., 17. Here, as discussed above, Petitioner equates optimization of a parameter in Madebrink with “a deviation from the setting requirement based on an operational requirement deduced from the use of the radio network” recited in [1a]. In doing so, Petitioner appears to recognize that deviation refers to a “setting requirement” of a parameter. The Petition includes similar statements equating optimization with deviation from a setting requirement at pages 19 and 25, among others.

But then, in connection with Shipman (discussed *infra* VII), the Petition states “[t]he variable parameter in Shipman’s rules is weighted to generate ‘subtle variations,’ i.e., *deviations, to a **rule***.” Pet., 41 (emphasis added). The Petition again refers to “deviations of those rules ...” at page 42. *Id.* at 42.

In discussing Djoko (discussed *infra* VIII), Petitioner’s expert states, and the Petition repeats:

While the parameters are initially optimized using rules from human experts, i.e., technically sufficient rules, as “the conditions in the field change, the system will automatically change the relevant parameter values based on the field data, and iteratively evaluate their merits using the simulator.” Ex. 1007, 13:23-32. This is a “*deviation*” from the *technically sufficient rule*.

EX1002, ¶139 (emphasis added). Thus, Petitioner reverts to mis-attribution of what “deviation” applies to in [1a].

The result of Petitioner’s bouncing back and forth as to its interpretation of “deviation” in [1a] further undermines its already flawed arguments regarding all the claims that recite this limitation.

D. Madebrink And Feuerstein Do Not Teach Or Suggest [1b]

The Petition alleges that “[t]he *Madebrink-Feuerstein* combination discloses” [1b]. Pet., 26. That is incorrect.

Limitation [1b] includes the “rule” recited in [1a], namely, “if the result indicates that the rule has been obeyed” Because neither *Madebrink* nor *Feuerstein* teach or suggest the “rule” recited in [1a] for the reasons discussed above in VI.A-B, the *Madebrink-Feuerstein* combination does not teach or suggest “if the result indicates that the rule has been obeyed” recited in [1b].

For at least these reasons, neither *Madebrink* nor *Feuerstein* teach or suggest [1b].

E. The Petition’s Proposed Modification Of Madebrink With Feuerstein Would Change A Principle Of Operation Of Madebrink

The Petition alleges that “it would have been obvious to utilize *Feuerstein*’s optimization and simulation techniques in a system like *Madebrink*’s to ensure optimized parameters will operate as expected before deploying them in a network,” and that “a POSITA would have been motivated to look to *Feuerstein* to complement *Madebrink*’s network parameter optimization and verification techniques.” Pet., 24,

26. But Madebrink and Feuerstein’s simulation do not complement each other—they are different and alternative approaches to parameter management. The Petition’s proposed modification of Madebrink with Feuerstein is based on nothing more than hindsight.

The Board’s case law explains that if the proposed modification would change a basic principle of operation of the reference being modified, “the teachings of the references are insufficient to render the claim obvious.” *Ex parte Rudy*, No. 2022-003071, 2023 WL 2608862, at *3-5 (PTAB Mar. 22, 2023) (citing *In re Ratti*, 270 F.2d 810, 813 (CCPA 1959)). MPEP § 2143.01(VI) similarly states that, “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.” That is the case here.

Modifying Madebrink with the simulation in Feuerstein, as proposed by the Petition, would change a basic principle of operation of Madebrink. BatesDec, ¶139. In Madebrink, changes to parameters are specified, a consistency check on the entered changes is performed before they are introduced into the network, and after the updated parameters are activated in the network, the newly changed parameters may be optimized based on live traffic measurements. *Supra* pp.17-19, 27-29. By contrast, in Feuerstein, simulation generates optimized parameters. *Supra* pp.24-26,

31-32. Madebrink’s pre-deployment consistency check of proposed changes to parameters and post-deployment optimization of the parameters based on live traffic—and Feuerstein’s use of simulation to produce optimized parameters—are different and alternative approaches to parameter management. *Rudy*, 2023 WL 2608862, at *3-5.

The Petition does not explain how Madebrink’s process flow in Figure 4A would be modified with Feuerstein’s simulation. Pet., 19-26. Instead, in connection with [1b], the Petition simply refers to “the CONSISTENCY CHECK/simulation” twice. Pet., 26-27; *see also id.* at 42 (“In *Madebrink* the ‘CONSISTENCY CHECK’ is programmed and has additional checks like *Feuerstein*’s optimization simulation.”). But at best, the Petition’s proposed modification of Madebrink with Feuerstein would result in extra steps to Madebrink’s method of reconfiguration of a network, BatesDec, ¶140, which illustrates the Petition’s reliance on hindsight. *Ex parte Rinkevich*, No. 2007-1317, 2007 WL 1552288, at *4 (BPAI 2007) (a POSITA “would not have reasonably looked to [a second reference] to solve a problem already solved by [a first reference].”).

For at least these reasons, the Petition’s proposed modification of Madebrink with Feuerstein does not render obvious Claim 1.

For the foregoing reasons, Claim 1 recites limitations not taught or suggested

by Madebrink and Feuerstein, and therefore the Petition has failed to establish a reasonable likelihood that Claim 1 is unpatentable over Madebrink and Feuerstein.

Further, the Petition's arguments in Ground 1 against Claims 1, 22, 26, 28, and 31 rise and fall together. Petitioner makes no separate arguments for Claims 22, 26, 28, and 31 that are different from Claim 1. Instead, the Petition refers to the "same reasons" for Claims 22, 26, 28, and 31. Pet., 33, 35-38. Accordingly, the Petition has failed to establish a reasonable likelihood that Claims 22, 26, 28, and 31 are unpatentable over Madebrink and Feuerstein for at least the same reasons that the Petition failed to establish a reasonable likelihood that Claim 1 is unpatentable.

Claims 2-7, 23-25, 29, and 32 depend from Claims 1, 22, 26, 28, and 31, and therefore the Petition has failed to establish a reasonable likelihood that Claims 2-7, 23-25, and 32 are unpatentable over Madebrink and Feuerstein for at least the same reasons that the Petition failed to establish a reasonable likelihood that Claims 1 is unpatentable.⁵

VII. GROUND 2: MADEBRINK, FEUERSTEIN, AND SHIPMAN DO NOT RENDER OBVIOUS THE CHALLENGED CLAIMS

The Petition alleges that if Ground 1 fails because "*Madebrink* in view of *Feuerstein* does not render obvious a rule that includes 'a deviation from the setting requirement based on an operational requirement deduced from use of the radio

⁵ The Petition's first page omits Claim 29 from the list of claims. Pet., 1.

network,” “it would have been obvious to modify the *Madebrink-Feuerstein* combination in view of *Shipman*.” Pet., 38.

But KPN’s arguments against Ground 1 are not limited to the “rule comprising . . . a deviation from the setting requirement based on an operational requirement deduced from use of the radio network” recited in [1a]. As discussed above, the *Madebrink-Feuerstein* combination does not teach or suggest other limitations of [1a], including “before the modified parameter is implemented in the network, checking the modified parameter on the basis of a rule . . . based on an operational requirement deduced from use of the radio network,” and does not teach or suggest “the rule” recited in [1b]. *Supra* VI.A, VI.B., VI.D. And the Petition’s proposed modification of *Madebrink* with *Feuerstein* would also change a principle of operation of *Madebrink*. *Supra* VI.C. The Petition cites only *Shipman* for the “a deviation from the setting requirement based on an operational requirement deduced from use of the radio network” limitation—and not for any of the other limitations of [1a] and [1b] KPN has shown lacking in Ground 1. Pet., 38-43.

In addition, referring to Ground 1 and claims 2-7, 23-25, 29, and 32, Petitioner states “[b]y further modifying *Madebrink* to include *Shipman*’s explicit disclosure of ***using a rule deviation*** in the simulator prior to its deployment, there is no meaningful effect on the [sic] for these *additional* claims.” Pet., 42-43 (bold emphases added, other emphasis in original). Thus, even in its reliance on *Shipman*,

Petitioner confuses what a “deviation” applies to in [1a], further undermining Petitioner’s contentions regarding any combination of Madebrink, Feuerstein, and Shipman.

Accordingly, Claim 1 recites limitations not taught or suggested by Madebrink, Feuerstein, and Shipman for reasons discussed above related to Ground 1, and therefore the Petition has failed to establish a reasonable likelihood that Claim 1 is unpatentable over Madebrink, Feuerstein, and Shipman for the same reasons that the Petition has failed to establish a reasonable likelihood that Claim 1 is unpatentable over Madebrink and Feuerstein. *Supra* VI.

Further, the Petition has failed to establish a reasonable likelihood that Claim 1 is unpatentable over Madebrink, Feuerstein, and Shipman for the additional reason that the Petition merely asserts that it “would have been obvious to modify the *Madebrink-Feuerstein* combination in view of *Shipman*,” without any explanation of why a POSITA would have done so. Pet., 38-43.

The Petition’s failure to identify any reason why a POSITA would have combined Shipman with Madebrink and Feuerstein to arrive at Claim 1 is magnified by the differences between Shipman and Claim 1. Shipman uses rules to add or delete access nodes to a network. EX1012, ¶¶[0036]-[0037], ¶[0043]. By contrast, Claim 1 recites “verifying a modified parameter obtained from changing an operational parameter of a component of a radio network” in [1pre], “before the

modified parameter is implemented in the network, checking the modified parameter on the basis of a rule” in [1a], and “if the result indicates that the rule has been obeyed storing the modified parameter in the network” in [1b]. Nowhere does Shipman mention any “modified parameter” of “a component of a radio network” as recited in [1pre], [1a], and [1b].

Further, Shipman’s example rule, R1, relates to when a modification to the network should be made, namely, when to add or delete an access node. *Id.* ¶¶[0036]-[0037]. Nowhere does Shipman mention (i) using any rule to “verify[] a modified parameter” recited in [1pre], (ii) “before the modified parameter is implemented in the network, checking the modified parameter” recited in [1a], and (iii) “storing the modified parameter in the network” recited in [1b].

At bottom, the Petition’s Ground 2 is nothing more than an argument that Shipman “could be” combined with Madebrink and Feuerstein, which is insufficient for obviousness. *Personal Web Techs., LLC v. Apple, Inc.*, 848 F.3d 987, 993-94 (Fed. Cir. 2017) (such reasoning is “not enough: it does not imply a motivation to pick out those two references and combine them to arrive at the claimed invention.”). The Petition has failed to establish a reasonable likelihood that Claim 1 is unpatentable over Madebrink, Feuerstein, and Shipman for this additional reason.

For Ground 2, the Petition makes no separate arguments for Claims 22, 26, 28, and 31 different from Claim 1. Pet., 38, 42-43. The Petition therefore has failed

to establish a reasonable likelihood that Claims 22, 26, 28, and 31 are unpatentable over Madebrink, Feuerstein, and Shipman for at least the same reasons that the Petition failed to establish a reasonable likelihood that Claim 1 is unpatentable over Madebrink, Feuerstein, and Shipman. Further, Ground 2 relies on Ground 1 for dependent Claims 2-7, 23-25, 29, and 32, Pet., 42-43, and therefore the Petition has failed to establish a reasonable likelihood that these claims are unpatentable over Madebrink, Feuerstein, and Shipman for at least the reasons the Petition failed to establish a reasonable likelihood that Claim 1 is unpatentable over Madebrink and Feuerstein.

VIII. GROUND 3: DJOKO DOES NOT ANTICIPATE CLAIMS 1, 22, 26, 28, AND 31

KPN's statements about Djoko during examination were correct then and are correct now. EX1004, 59-65 ("The Djoko et al patent contains no teachings as to how existing parameters should be verified.").

The Petition's description of Ground 3 as both obviousness and anticipation, *supra* p.17, is a "tell" that Djoko is a weak reference and that Petitioner cannot identify exactly how Djoko allegedly renders Claims 1, 22, 26, 28, and 31 unpatentable. The Petition failed to present any reasoning how Djoko alone renders obvious Claim 1. Pet., 13. Further, as discussed below, Djoko does not disclose [1pre], [1a], and [1b].

A. Djoko Does Not Disclose [1pre]

The Petition alleges that Djoko’s disclosure of “alter operating parameters,” “parameter adjustment,” “adjusts operating parameters,” and “adjustment process” in connection with the self-engineering system 100 is [1pre]’s “[a] method for verifying a modified parameter obtained from changing an operational parameter of a component of a radio network.” Pet., 43-44 (citing EX1007, 5:50-54, 6:21-23, 6:30-34, 6:41-47). That is incorrect.⁶

To the contrary, as KPN established years ago (and reiterated below with comments accompanying a partial reproduction of KPN’s arguments presented during prosecution), Djoko discloses that the self-engineering system 100 “determines new operating parameters”:

Based on current operating data and current operating parameters, as determined by the data acquisition module, the self-engineering module determines new operating parameters which are intended to improve and enhance operation of the system. The control system then receives the new operating parameters from the self-engineering module and implements those parameters within the network.

EX1004, 61 (emphasis in original).

⁶ The Petition assumed [1pre] is limiting, and did not provide any argument that [1pre] is not. Pet., 15.

The parameters determined by the self-engineering module are not just new, but are based on network configuration data and historical operating conditions that are stored, not on “an operational parameter of a component of a radio network” as in [1pre]:

As discussed in col. 6, line 41 et seq, the self-engineering module contains a core unit, which may be an expert system or a neural network, and an optional unit which is simulator. FIG. 4, as discussed in col. 10, line 9 et seq, shows one implementation of the self-engineering engine. Here, the engine contains expert system 402, fact library 404, knowledge base 406 and inference engine 408. The inference engine, given network configuration data and historical operating data both stored in the fact engine, and rules (specifically condition-action pairs) stored in knowledge base 406, produces, inter alia, proposed new operating parameters. Once these proposed new parameters are produced, they are evaluated through simulator 408 prior to their being deemed ‘new operating’ parameters suitable for actual network use. See also, col. 11, lines 41-47.

Id. at 61-62 (emphasis in original).

Even to the extent that field conditions are considered, their potential effects on the new parameters are evaluated through simulation:

As indicated in col. 13, line 29-34, the rules are used in setting initial values for various parameters. As field conditions change, the system automatically modifies affected new parameter values based on field data, i.e., operating data, and will then iteratively, through the simulator,

evaluate merits of those new parameters. Once a stable set of new parameters is achieved, the results are implemented in the wireless system and set in place for re-evaluations by the self-engineering system. The effects of these parameters on field operation are then observed and used to calibrate both the simulator and the rules in the expert system.

Id. at 62.

Similarly, rules are used for producing new parameters; they are not applied to operational parameters:

As is clearly evident from FIG. 6 particularly blocks 606-614, as discussed in col. 11, lines 37-47, the rules are used, in conjunction with the knowledge base, to produce new operating parameters, but not verifying, checking or simulating any existing parameters. Specifically, block 612 expressly recites the operation of ‘SELECT NEW OPERATING PARAMETERS.’ This block is performed, as expressly stated in col. 11, lines 41-45:

‘If there is any rule left to be executed at step 610, operation proceeds to step 606. Otherwise, operation proceeds to *step 612 where new operating parameters are selected.*’ [emphasis added].

Id. at 62 (emphasis in original).

Again, new parameters are evaluated via simulation:

Once all the new parameters are selected, then their use is evaluated, via block 614, through simulation by simulator 408:

‘Then, the communication system simulator 408 is executed to evaluate the proposed operation parameters at step 614.’

Thereafter, via execution of block 620, these proposed, new and now

simulated parameters, are implemented, via control module 108, in the communications system. Hence, simulation is only performed on the new parameters, and seemingly nothing else. Specific simulation functions are discussed in col. 14, line 57 - column 15, line 3.

Id. at 63.

Djoko's teaches operations for creating an inventory of new parameters for possible future use, not for modifying operational parameters:

Given this, it should be quite clear that the rule-based processing and simulation shown in FIG. 6 is not used for any parameters that have already been implemented in the communication system, i.e., existing parameters. However, not only will changed network operating conditions, oftentimes necessitate additional, i.e., new, network parameters, invariably such changes will affect certain existing parameters. These latter parameters too must be changed if the communication system, in light of these changed conditions, is to efficiently and reliably operate. Teaching that rule-based processing is just used to fabricate new parameters, without more, completely ignores the fact that some existing network parameters must also be changed as well. Thus, the approach taught by the Djoko et al patent, while beneficial, is quite inadequate in practice as is it oblivious to any changes necessary to the existing network parameters already in service.

Id. at 63-64 (emphasis in original).

Thus, as KPN demonstrated years ago:

This glaring omission is a fundamental deficiency inherent in the Djoko et al patent -- a deficiency which the present invention

advantageously overcomes.

Thus, it has remained for the Applicants and only the Applicants to teach, through their present invention, a rule-based approach for verifying proposed values for network parameters that are already in use in a communication system.

Id. at 64.

The Petition's reliance on isolated phrases of Djoko to allegedly disclose [1pre] is misplaced. First, by quoting Djoko as stating: "the self-engineering system 100 interacts with the communication system 102 to alter operating parameters of the communication system 102," EX1007, 5:50-52, the Petition omits other description of the self-engineering system 100 and Figure 1. When read in context, Djoko's mention of "alter operating parameters" refers to the self-engineering system 100 determining new operating parameters, and not "verifying a modified parameter" recited in [1a]. BatesDec, ¶158.

Figure 1, again reproduced below, illustrates the self engineering system 100 interfaced with the communication system 102. EX1007, 5:6-9, 5:41-43.

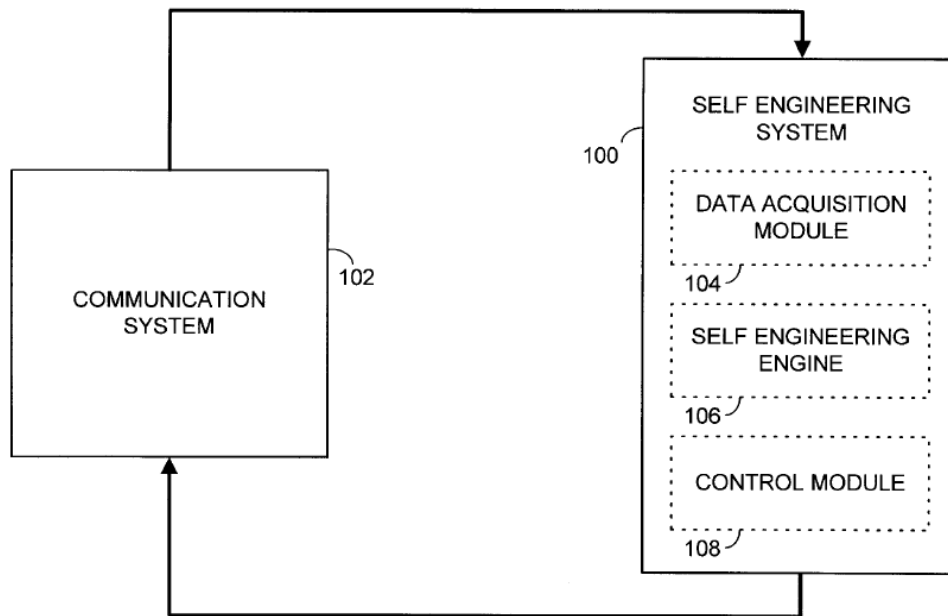


FIG. 1

In this regard, Djoko discloses that “[t]he self engineering system 100 comprises a data acquisition module 104, a self engineering engine 106, and a control module 108,” and that “[b]ased upon the current operating data and current operating parameters of the communication system 102, the self engineering engine 106 determines new operating parameters of the communication system to improve and enhance operation of the communication system 102.” *Id.* 5:44-46, 6:5-10. Nowhere does Djoko describe the self engineering system 100 “verifying a modified parameter” recited in [1a]. BatesDec, ¶160.

Second, the Petition’s quotation of “[f]unctions of the self-engineering system 100 include . . . parameter adjustment,” “[i]n adjusting operating parameters, the self-engineering system 100 analyzes operational measurements against predefined

system performance metrics and adjusts operating parameters to achieve optimal network performance,” and “[a] role of the simulator is to aid fast system parameter adjustment process” fares no better. Again, the Petition omits Djoko’s other description of the self-engineering system 100 and Figure 1 quoted above, and, when read in context, Djoko’s mention of “parameter adjustment,” “adjusting operating parameters,” and “parameter adjustment process” refers to the self-engineering system 100 determining new operating parameters, and not “verifying a modified parameter” recited in [1pre].

Further, citing column 13 of Djoko, the Petition alleges that “the system proposes changes to the existing parameters [sic] values based on the field data from the actual usage of the network,” and that “[t]he proposed changes to the *existing* parameter values are iteratively evaluating using the simulator.” Pet., 45 (citing EX1007, 13:29-32) (emphasis in original). That is wrong.

Djoko never uses the term “existing”—much less “existing parameter[s] values.” BatesDec, ¶163. To the contrary, the “change” phrase of Djoko cited by the Petition actually states: “[a]s the conditions in the field change, the system will automatically change the relevant parameter values based on the field data, and iteratively evaluate their merits using the simulator.” EX1007, 13:29-32.

The full paragraph in which the “change” phrase is included discloses the expert system 402 and simulator 408:

Handoff parameter optimization is performed by experienced engineers and does not lend itself to easy automation. Thus, the expert system 402, simulator 408 and interface to the wireless operational measurements and logs from the wireless communication system allow handoff to be optimized and simulated by the self engineering system. The expert system 402 has many rules regarding parameter assignments under different handoff types and plausible conditions. The expert system 402 initially obtains the knowledge or rules of parameter optimization from human experts. These rules are utilized to set initial values for different parameters. *As the conditions in the field change, the system will automatically change the relevant parameter values based on the field data, and iteratively evaluate their merits using the simulator.* Once a stable assignment has been achieved the results are implemented in the wireless communication system and set in place for reevaluations by the self engineering system. The effects on the field are observed and used to calibrate both the simulator and the rules in the expert system.

EX1007, 13:18-37 (emphasis added to the “change” phrase cited in the Petition).

Similar to the Petition’s reliance on “alter” and “adjustment” in Djoko, the Petition’s citation of Djoko’s “change” phrase omits other description in Djoko of the expert system 402 and Figure 4. When properly read in context, Djoko’s mention of “change the relevant parameter values” refers to the expert system 402 determining new operating parameters, and not “[a] method of verifying a modified parameter” recited in [1a]. BatesDec, ¶165.

Djoko discloses that “FIG. 4 illustrates a particular construction of the self

engineering engine previously described as reference numeral 106 in FIG. 1” and “[t]he self engineering engine comprises an expert system 402.” EX1007, 5:16-17, 10:9-12. Figure 4, again reproduced below, illustrates the expert system 402 (green annotation added).

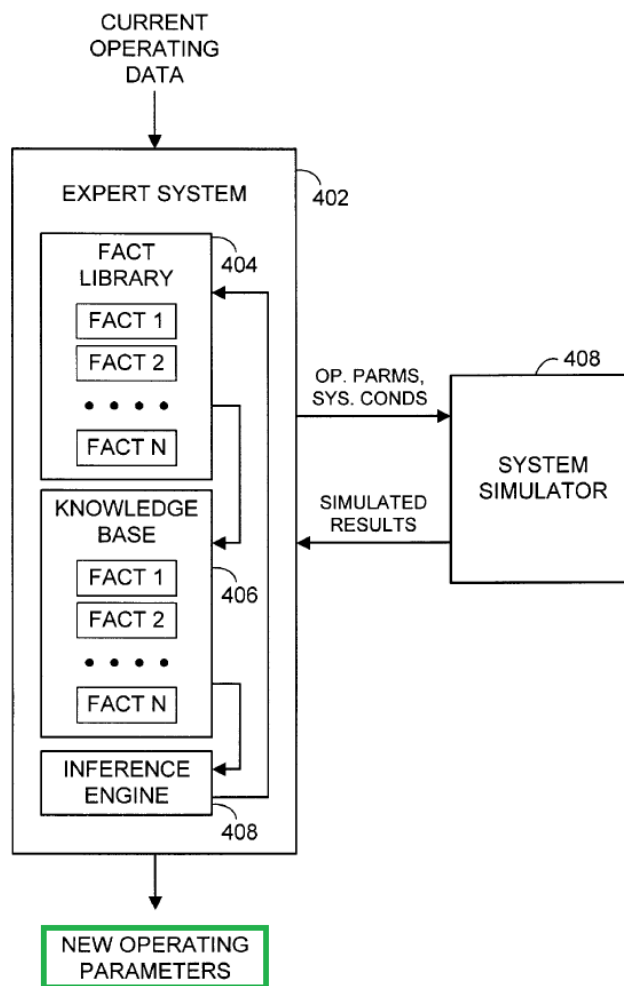


FIG. 4

In Figure 4, the expert system 402 produces “NEW OPERATING PARAMETERS.” Accordingly, Djoko’s reference to “change the relevant

parameter values” means the expert system 402 determines new operating parameters, and not “verifying a modified parameter” recited in [1pre]. Nowhere does Djoko disclose the expert system 402 “verifying a modified parameter” recited in [1pre]. BatesDec, ¶167.

For at least these reasons, Djoko does not disclose [1pre].

B. Djoko Does Not Disclose [1a]

The Petition alleges that “verification by the simulator utilizing current operating data of the communication network is a verification that the altered parameters ‘will improve operation of the communication system,’” and “[t]his verification is performed by considering a multipronged rule, such as the one claimed by the ’705 Patent.” Pet., 47-48 (quoting EX1007, 3:40-46). But nowhere does Djoko disclose verification by the simulator uses any rules, much less a “rule comprising both a technically sufficient parameter setting requirement and a deviation from the setting requirement based on an operational requirement deduced from use of the radio network” recited in [1a]. BatesDec, ¶168.

To the contrary, simulation is mentioned in Djoko after rules have selected modified parameters. *Id.* ¶169. As one example, in connection with Figure 4, Djoko discloses that “[s]hould the system simulator 408 be present, the proposed operating parameters may be evaluated by the system simulator 408 prior to their being deemed the new operating parameters.” EX1007, 10:63-66. As another example,

in connection with Figure 6, Djoko discloses that: “[i]f there is any rule left to be executed at step 610, operation proceeds to step 606. Otherwise, operation proceeds to step 612 where new operating parameters are selected. Then, the communication system simulator 408 is executed to evaluate the proposed operation parameters at 614.” *Id.* 11:41-47. Thus, in Djoko, parameters are modified based on rules, and subsequently the simulator verifies the parameters. BatesDec, ¶169.

Tellingly, the Petition’s mapping of [1a] on pages 47-51 only mentions the simulator on page 47: “the system *simulator* verifies (‘checks’) the adjusted parameter before it is implemented into the system,” and “[t]he verification by the *simulator* utilizing current operating data of the communication network is a verification that the altered parameters ‘will improve operation of the communication system.’” Pet., 47 (quoting EX1007, 13:18-37, 3:40-46) (emphases added). In the rest of the mapping of [1a], the Petition never alleges how the simulator does the verification using the “rule” recited in [1a]. Pet., 48-51. That is because the simulator does not do so.

For at least these reasons, Djoko does not disclose [1a].

C. Djoko Does Not Disclose [1b]

The Petition alleges that Djoko discloses [1b]. Pet., 51. That is also incorrect. As noted above with respect to Ground 1, limitation [1b] includes the “rule” recited in [1a], namely, “if the result indicates that the rule has been obeyed” *Supra*

VI.D. Because Djoko does not disclose the “rule” recited in [1a] for the reasons discussed above in VIII.B, Djoko does not disclose “if the result indicates that the rule has been obeyed” recited in [1b].

For at least these reasons, Djoko does not disclose [1b].

For the foregoing reasons, Claim 1 recites limitations not disclosed by Djoko, and therefore the Petition has failed to establish a reasonable likelihood that Claim 1 is unpatentable over Djoko.

Further, the Petition’s arguments in Ground 3 against Claims 1, 22, 26, 28, and 31 rise and fall together. Petitioner makes no separate arguments for Claims 22, 26, 28, and 31 that are different from Claim 1. Instead, the Petition refers to the “reason discussed above for claim 1” for Claims 22, 26, 28, and 31. Pet., 51. Accordingly, the Petition has failed to establish a reasonable likelihood that Claims 22, 26, 28, and 31 are unpatentable over Djoko for at least the same reasons that the Petition failed to establish a reasonable likelihood that Claim 1 is unpatentable.

IX. GROUND 4: DJOKO AND SHERIDAN DO NOT RENDER OBVIOUS CLAIMS 2-6, 23-25, 29, AND 32

The Petition admits that “Djoko does not teach ‘copying’ of operational parameters from the network into its ‘fact library’ (database)” and cites Sheridan to attempt to remedy this deficiency of Djoko. Pet., 52-53. The Petition cites Sheridan

only for dependent Claims 2-6, 23-25, 29, and 32, and not for any limitations recited in independent Claims 1, 22, 26, 28, and 31. *See id.* at 52-55.

As discussed above, Djoko does not teach or suggest [1pre], [1a], and [1b]. *Supra* VIII. But again, the Petition does not cite Sheridan for any of these limitations. *See* Pet., 52-55. Accordingly, because Djoko and Sheridan do not teach or suggest all limitations of Claim 1, the Petition has failed to establish a reasonable likelihood that Claims 2-6 are unpatentable over Djoko and Sheridan.

Further, Ground 3 relies on its arguments against Claim 1 for Claims 22, 26, 28, and 31. *Supra* p.55. Thus, Djoko and Sheridan do not teach or suggest all limitations of Claims 22, 26, 28, and 31 for the same reasons that Djoko and Sheridan do not teach or suggest Claim 1, and because Djoko and Sheridan do not teach or suggest all limitations of Claims 22, 26, 28, and 31, the Petition has failed to establish a reasonable likelihood that Claims 23-25, 29, and 32 are unpatentable over Djoko and Sheridan.

X. DISCRETIONARY DENIAL OF INSTITUTION IS WARRANTED

A. The Board Should Deny Institution Under § 325(d)

The Petition does not satisfy the two-part test of *Advanced Bionics, LLC v. Med-El Elektromedizinische Gerate GMBH*, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential) in light of Madebrink and Djoko being used in rejections by the USPTO during examination of the '538 Application.

1. *Advanced Bionics* Part 1: The Art and Arguments Are The Same

Turning to part one of the *Advanced Bionics* test, Madebrink and Djoko were cited by the USPTO in rejections during prosecution of the '538 Application. *Supra* p.13 (citing EX1004, 54-67, 87-89, 134-138, 149). KPN overcame the rejections. *Supra* pp.14-16 (citing EX1004, 11-14).

With respect to Madebrink, the Examiner found that “Madebrink fails to teach that the business rule comprising deviating from at least one technically sufficient parameter setting requirement.” *Supra* p.14 (citing EX1004, 88). And in the last response before the '538 was allowed by the Examiner, KPN argued that Madebrink and Djoko do not teach or suggest:

- “verifying a modified parameter obtained from changing an operational parameter of a component of a radio network” recited in [1pre];
- “before the modified parameter is implemented in the network, checking the modified parameter on the basis of a rule so as to yield a result, said rule comprising both a technically sufficient parameter setting requirement and a deviation from the setting requirement based on an operational requirement deduced from use of the radio network” recited in [1a]; and
- “if the result indicates that the rule has been obeyed, storing the modified parameter in the network such that subsequent network operation will

respond to the modified parameter” recited in [1b].

Supra pp.14-15 (citing EX1004, 54-67).

The Petition, now, attempts to directly refute these positions. Pet., 61 (arguing that Madebrink discloses “optimizing parameters and adjustable thresholds for the rules”); *id.* at 43-51 (arguing that Djoko discloses [1pre], [1a], and [1b]). Accordingly, both “the same art” and “the same arguments” were considered by the USPTO during examination (and rejected). *Advanced Bionics*, IPR2019-01469, Paper 6 at 8.

The Petition’s reliance on a pre-*Advanced Bionics* case, *Oticon Medical AB v. Cochlear Limited*, IPR2019-00975, Paper 15 (PTAB Oct. 16, 2019) (precedential as to II.B and II.C), is misplaced. In *Oticon*, the Board found that the petitioner asserted a non-cumulative reference that was not considered by the USPTO during examination. *Oticon*, at 20. Unlike *Oticon*, however, Petitioner has split the Madebrink and Djoko combination considered by the USPTO during examination into four weaker grounds. The Board should exercise its discretion under § 325(d) to decline to adjudicate them.

For Ground 1, the Petition replaces Djoko with Feuerstein, but Feuerstein teaches using simulation to optimize pre-determined parameters the same as Djoko. Bates, ¶¶106-107. In this regard, the Petition cited Feuerstein’s simulation software, which generates new parameters, similar to the Examiner’s citation of Djoko’s generation of new parameters. Pet., 19 (citing EX1006, 12:29-39); EX1004, 88-89.

It would be an inefficient use of the Board's resources to adjudicate Feuerstein's cumulative teachings regarding simulation.

For Ground 3, the Petition isolates Djoko into an anticipation ground, but that does not absolve the Petition of *Advanced Bionics* step 1. *Oticon*, cited by the Petition, did not involve recycling a reference used by the Examiner in an obviousness rejection into an anticipation ground. *Oticon*, Paper 15 at 10-20.

Djoko discloses far less of Claim 1 than the Examiner found lacking in the reference during examination in the context of an obviousness rejection over Madebrink and Djoko. *Supra* VIII (Djoko does not disclose [1pre], [1a], and [1b]). It would be an inefficient use of the Board's resources to re-assess Djoko under anticipation, where the USPTO already used Djoko in an obviousness rejection and KPN overcame the rejection. As noted by the Federal Circuit, "anticipation is the epitome of obviousness." *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983).

Further, Grounds 2 and 4 do not pass *Advanced Bionics* part 1. In Ground 2, the Petition asserts a POSITA would combine Shipman's rules to add or delete access nodes to Madebrink and Feuerstein, without any explanation why a POSITA would have done so. *Supra* pp.41-42. It would be an inefficient use of the Board's resources to adjudicate the Petition's "could be" reasoning, which is insufficient for obviousness. *Personal Web Techs.*, 848 F.3d at 993-94. Ground 2 also fails *Advanced*

Bionics part 1 because of the Petition’s inconsistent interpretation of what the “deviation” applies to in [1a] for Shipman and other references. *Supra* p.40-41. And Ground 4 (Djoko and Sheridan) is only directed to dependent Claims 2-6, 23-25, 29, and 32. Pet., 52-55. Thus, Sheridan adds little, if anything, to the § 325(d) analysis given the deficiencies of Djoko with respect to independent Claims 1, 22, 26, 28, and 31. *Supra* VIII.

For these reasons, the Petition fails *Advanced Bionics* part 1.

2. *Advanced Bionics* Part 2: Petitioner Has Demonstrated No Error

Turning to part two of the *Advanced Bionics* test, Petitioner fails to demonstrate that the USPTO materially erred. Petitioner’s argument that the Examiner did not fully consider Madebrink and Djoko is wrong. Pet., 10-11, 60-61. There was no “silence” during examination (Pet., 11); KPN presented significant argument regarding these references during examination. EX1004, 54-59, 135-138 (Madebrink); EX1004, 59-65 (Djoko).

Further, Petitioner’s argument that the Examiner was incorrect in finding that “Madebrink fails to teach that the business rule comprising deviating from at least one technically sufficient parameter setting requirement,” EX1004, 88, and Madebrink and Djoko do not teach or suggest [1pre], [1a], [1b] is wrong. Pet., 5, 10-11, 60-61. KPN’s expert, Mr. Bates, has presented testimony that the Examiner’s findings on

Madebrink and Djoko are correct. BatesDec, ¶¶72, 79-80. And KPN has demonstrated *supra* VI-IX, that Madebrink, Djoko, and Petitioner’s proposed modifications or combinations do not anticipate or render obvious the Challenged Claims.

The examination of the EP820.4 Application also supports the Examiner’s finding that “Madebrink fails to teach that the business rule comprising deviating from at least one technically sufficient parameter setting requirement,” EX1004, 88, and Madebrink and Djoko do not teach or suggest [1pre], [1a], and [1b]. Limitations [1pre] and [1a] of the ’705 Patent recite similar subject matter as Claim 1 of the EP’458 Patent:

’705 Patent	EP’458 Patent
[1pre] A method for verifying a modified parameter obtained from changing an operational parameter of a component of a radio network, the method comprising the steps of	Method for checking at least one modified parameter (BS_TX_PWR_MAX) and/or value obtained from changing at least one operational parameter and/or value
[1a] before the modified parameter is implemented in the network, checking the modified parameter on the basis of a rule so as to yield a result, said rule comprising both a technically sufficient parameter setting requirement and a deviation	of an at least one component of a radio network, characterized in that said checking is performed on the basis of at least one business rule comprising at least one operational requirement deduced

'705 Patent	EP'458 Patent
from the setting requirement based on an operational requirement deduced from use of the radio network	from operational use of the radio network and deviating from technically sufficient parameter setting requirements

EX1001, 8:39-49; EX2002, 6 (emphasis in original).

The EPO Examiner initially rejected the EP820.4 Application for lack of inventive step over WO'182, the PCT application in the same family as Madebrink, and Djoko. *Supra* II.C.2 (citing EX2001, 69-71, 127, 128). In response, KPN presented arguments that “neither [WO'182] nor [Djoko] discloses a method or system for checking modified parameters or parameter values on the basis of business rules comprising at least one operational requirement deviating from technically sufficient parameter setting requires,” and these EPO arguments are similar to the arguments KPN presented on Madebrink and Djoko to the USPTO. *Compare* EX2001, 56-57, *with* EX1004, 54-67, 134-138. BatesDec, ¶¶80, 83-84.

At bottom, Petitioner and its expert simply disagree with the Examiner's findings regarding Madebrink and Djoko. But as the Board noted in *Advanced Bionics*, that is not enough for an IPR: “[i]f reasonable minds can disagree regarding the purported treatment of the art or arguments, it cannot be said that the Office erred in a manner material to patentability.” *Advanced Bionics*, at 9.

For at least these reasons, the Petition fails *Advanced Bionics* part two.

Accordingly, KPN has shown that the Petition fails both parts of the two-part *Advanced Bionics* test, and the Board should deny institution.

B. The Board Should Deny Institution Under § 314(a)

Institution of trial would be an inefficient use of the Board’s resources in view of the advanced state of the parallel Texas Action. *Apple v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 13-14 (PTAB Mar. 20, 2020) (precedential).

Each of the *Fintiv* factors, as clarified by the *Interim Procedure For Discretionary Denials in AIA Post-Grant Proceedings With Parallel District Court Litigation*, at 3-4 (Jun. 21, 2022) (“Interim Procedure”), and subsequent authority, weigh in favor of discretionary denial of the Petition. Further, because the Challenged Claims recite limitations not disclosed, taught, or suggested by the asserted references for the reasons discussed above, the Petition has not presented compelling evidence of unpatentability. *Interim Procedure*, at 3-5; *Commscope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23 at 5 (PTAB Feb. 27, 2023) (precedential).⁷

Post-Interim Procedure, the Board has denied petitions under § 314(a) from this Petitioner and should do so here as well. *Ericsson Inc. v. Collision Communications*,

⁷ The Petition did not cite the Interim Procedure or any subsequent authority on discretionary denials. Pet., 56-58 (addressing *Fintiv* factors).

Inc., IPR2022-01233, Paper 12 (PTAB Jan. 19, 2023) (“*Collison*”); *Ericsson Inc. v. Godo Kaisha IP Bridge 1*, IPR2022-00725, Paper 10 (PTAB Nov. 2, 2022) (“*Godo*”).⁸

1. Factor 1: A Stay Is Unlikely Even If IPR Were Instituted

The parallel Texas Action has not been stayed. Petitioner has not even moved for a stay; and there is no indication that, even if the IPR was instituted, the district court would grant a stay given the advanced stage of that case.

District courts in the Eastern District of Texas, where the Texas Action is pending, traditionally do not grant a stay until after an IPR is instituted. The deadline for institution of an IPR in this proceeding is mid-September 2023—around 6.5 months before trial is scheduled to begin in the district court in April 2024, with a pretrial conference occurring as early as February 20, 2024, per the district court’s Docket Control Order. EX2004, 2. Even if the Board were to institute in mid-September and Petitioner moved for a stay, there is no indication that the district court would grant Petitioner’s motion.

⁸ On the same day that *Godo* was decided, the Board denied two other petitions from this Petitioner under § 314(a). *Ericsson Inc. v. Godo Kaisha IP Bridge 1*, IPR2022-00726, Paper 11 (PTAB Nov. 2, 2022); *Ericsson Inc. v. Godo Kaisha IP Bridge 1*, IPR2022-00755, Paper 9 (PTAB Nov. 2, 2022).

The Board has recognized that the Eastern District of Texas and Judge Gilstrap (presiding judge in the Texas Action), in particular, generally do not grant a stay pending an IPR. *Samsung Elecs. Co., Ltd. et al., v. Clear Imaging Rsch., LLC*, IPR2020-01402, Paper 7 at 13-21 (PTAB Mar. 4, 2021) (discussing Judge Gilstrap). Indeed, in another case involving the same parties before Judge Gilstrap, the district court denied Petitioner's motion to stay after IPRs were instituted. *Koninklijke KPN N.V. v. Telefonaktiefbolaget LM Ericsson*, 21-cv-00113-JRG, 2022 WL 17484264, at *1-3 (E.D. Tex. July 7, 2022).

The first *Fintiv* factor thus favors denying institution.

**2. Factor 2: Trial In The Texas Action Will Occur Before
The Board's Final Written Decision**

The Petition should be denied because trial in the Texas Action will occur five-to-six months before a final written decision would be due in an IPR. *Fintiv*, Paper 11 at 6; Interim Procedure, at 3. Trial in the Texas Action is set to start on April 1, 2024. Pet., 56; EX2004, 1. Further, under the median-time-to-trial statistics for the Eastern District of Texas, the trial would be expected to start on February 25, 2024. EX2005, 35 (19 months for civil trials); EX2006, 7 (complaint filed on July 25, 2022).⁹ By contrast, the Board's anticipated one-year statutory deadline for issuing

⁹ EX2005 is available through <https://www.uscourts.gov/statistics-reports/analysis->

a final written decision here would be September 2024. Accordingly, trial in the Texas Action would commence at least five months before the expected date of the Board’s final written decision.

The second *Fintiv* factor also favors denying institution.

3. Factor 3: The District Court and The Parties Have Invested Substantially In The Texas Action

The Petition also should be denied because the parties and the district court have already invested—and will continue to invest—significantly in the Texas Action. *Fintiv*, Paper 11 at 10. Claim construction briefing will be complete on September 12, 2023 (which would be before the expected mid-September institution decision), the *Markman* hearing is scheduled for early October, fact discovery is scheduled to close in October, and expert discovery is scheduled to close in December. EX2004, 3-4.

The time for evaluating investment in the proceeding is the time when institution would occur in this IPR. Although Petitioner argued that, at the time it filed its Petition, “virtually nothing substantive has happened,” (Pet., 57), the district court’s Docket Control Order establishes that significant investment by parties in claim construction and discovery very likely will have occurred by the

reports/federal-court-management-statistics. Interim Procedure, 3 n.4.

time the institution decision is entered. EX2004, 3-4.

Further, to date, many substantive events have occurred in the Texas Action, including:

- KPN has served both initial and supplemental infringement contentions;
- Petitioner has served invalidity contentions;
- Each party has served interrogatories and requests for production, to which the other has responded;
- KPN has served requests for admissions, to which Petitioner has responded;
- Petitioner has deposed KPN's Chief Intellectual Property Officer;
- Each party has produced a large volume of documents;
- KPN has conducted several hundred hours of source code review; and
- The *Markman* briefing process has started at the end of May.

The third *Fintiv* factor favors denying institution.

4. Factor 4: There Is Substantial Overlap Between Issues In The Petition And The Texas Action

The Petition should also be denied because Petitioner's invalidity contentions in the Texas Action include the same references that it relies upon in its Petition: Madebrink, Djoko, Feuerstein, Shipman, and Sheridan. *See* EX2007, 9, 20-28. The Board in *Fintiv* stated that "weighing the degree of overlap is highly fact dependent." *Fintiv*, IPR2020-00019, Paper 11 at 13. Here, the facts are heavily in KPN's favor,

because the prior art that Petitioner intends to assert in the Texas Action includes all of the references asserted in the Petition.

Petitioner's stipulation that "it will not pursue invalidity of the '705 Patent in district court based on any instituted IPR grounds in this proceeding," Pet., 57, is similar to the "limited" *Sand Revolution*-type stipulation Petitioner filed in the *Godo* IPR. *Godo*, Paper 11 at 12-13. In that case, the Board found the stipulation was "unlikely to significantly prevent [the Board's] duplication of work that the District Court will have completed by the time a final written decision would be due in this proceeding." *Id.* at 12-13; Interim Procedure, at 7-8. The same reasoning applies equally here: Petitioner's *Sand Revolution*-type stipulation in this case does not save the Petition from discretionary denial.

The fourth *Fintiv* factor favors denying institution. (At best for Petitioner, this factor is neutral).

5. Factor 5: The Parties Are The Same In Both Proceedings

The parties in the Texas Action and this case are the same. Accordingly, this factor favors denying institution. *Fintiv*, Paper 15 at 15.

6. Factor 6: The Merits Of The Petition Are Weak

In view of the Petition's substantive deficiencies, as set forth herein, the Petition has failed to establish a reasonable likelihood that any of the Challenged Claims is unpatentable. Accordingly, the Petition has also failed to present compelling evidence

of unpatentability, which is a higher standard than reasonable likelihood for institution. Interim Procedure, at 4-5; *Commscope*, Paper 23 at 5.

The Petition did not even assert that it has presented compelling evidence of unpatentability. Pet., 57. Instead, the Petition states it has “strong grounds,” which is not the correct standard. *Compare id.*, with Interim Procedure, at 3, *Commscope*, Paper 23 at 3. In any case, KPN’s arguments and evidence have raised substantial issues with the Petition, which shows Petitioner’s evidence is not compelling, namely, would not “plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.” Interim Procedure, at 3-4; *Commscope*, Paper 23 at 3.

The *Fintiv* factors favor discretionary denial, and the Petition has failed to present compelling evidence of unpatentability. Accordingly, similar to the post-Interim Procedure cases in which the Board has denied this Petitioner’s petitions (*Collision* and *Godo*), the Board should deny institution under § 314(a).

C. The ’705 Patent’s Upcoming Expiration Supports Denial

The ’705 Patent will expire in November 2023, which is around ten months before the expected date of the Board’s final written decision. EX1001, code (22), (*); 35 U.S.C. § 154.

Although not dispositive, the upcoming expiration of the ’705 Patent highlights that it would be a waste of the Board’s resources to adjudicate a trial in

this case, particularly given the parallel Texas Action and the Petition's recycling of Madebrink and Djoko, which the Examiner used in rejections during examination.

XI. CONCLUSION

Because the Challenged Claims recite limitations not disclosed, taught, or suggested by the proposed grounds of unpatentability, Petitioner has not established a reasonable likelihood that the Challenged Claims are unpatentable. Further, discretionary denial of institution is warranted.

For these reasons, KPN respectfully requests that the Board deny the Petition and not institute trial.

Dated: June 17, 2023

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITS

The undersigned certifies pursuant to 37 C.F.R. § 42.24 that the foregoing Patent Owner's Preliminary Response, excluding any table of contents, mandatory notices under 37 C.F.R. § 42.8, certificates of service or compliance, or appendix of exhibits, contains 13,750 words according to the word-processing program used to prepare this document (Microsoft Word).

/Bradley J. Hulbert/

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Lead Counsel for Patent

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KPN N.V.

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I hereby certify that on June 17, 2023 the foregoing Patent Owner's Preliminary Response is being served electronically by agreement of the parties, by email to the following counsel of record.

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