

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EXPEDIA, INC.; HOMEAWAY.COM, INC.; HOTELS.COM L.P.;
HOTWIRE, INC.; ORBITZ WORLDWIDE, INC.,
ORBITZ, LLC, and TRAVELSCAPE LLC,

Petitioner,

v.

INTERNATIONAL BUSINESS MACHINES CORPORATION,
Patent Owner.

Case IPR2019-00404
Patent 7,631,346 B2

Before DAVID C. McKONE, BEVERLY M. BUNTING, and
MICHELLE N. WORMMEESTER, *Administrative Patent Judges*.

McKONE, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

A. Background

Expedia, Inc., Homeaway.com, Inc., Hotels.com L.P., Hotwire, Inc., Orbitz Worldwide, Inc., Orbitz, LLC, and Travelscape LLC (collectively “Petitioner”) filed a Petition (Paper 1, “Pet.”) to institute an *inter partes* review of claims 3 and 12–14 of U.S. Patent No. 7,631,346 B2 (Ex. 1001, “the ’346 patent”). International Business Machines Corp. (“Patent Owner”) filed a Preliminary Response (Paper 7, “Prelim. Resp.”).

We have authority to determine whether to institute an *inter partes* review. *See* 35 U.S.C. § 314; 37 C.F.R. § 42.4(a). The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” Under the circumstances of this case, for the reasons explained below, we decline to institute *inter partes* review of the challenged claims of the ’346 patent.

B. Related Matters

The parties state that the ’346 patent was asserted in several lawsuits in the United States District Court for the District of Delaware, including *International Business Machines Corp. v. Expedia, Inc.*, Case No. 1:17-cv-01875-LPS (D. Del.). Pet. 2, Paper 6, 1.

A subset of the Petitioners challenged claims 1–2, 4–11, and 15–20 of the ’346 patent in *Expedia, Inc. v. International Business Machines Corp.*, Case IPR2018-01685 (PTAB) (“the 1685 IPR”). Pet. 2; Paper 6, 2. On

April 11, 2019, we denied institution in that case. IPR2018-01685, Paper 10 (“1685 DDI”).

The ’346 patent was challenged in additional *inter partes* reviews involving different petitioners in Cases IPR2016-00608, IPR2016-00609, and IPR2017-01158 (collectively referred to as “the earlier IPRs”). Pet. 2, Paper 6, 1–2. On April 1, 2019, the Court of Appeals for the Federal Circuit remanded IPR2018-00608 back to the Board for further consideration and reversed the Board’s decision in IPR2018-00609. *See Int’l Bus. Machs. Corp. v. Iancu*, No. 2018-1065, slip op. at 17 (Fed. Cir. April 1, 2019) (“IBM”).

C. The ’346 Patent

According to the ’346 patent, when a user navigates domains within the Internet by accessing resources at the different domains, the user may be subjected to multiple user authentication requests, which can slow the user’s navigation. Ex. 1001, 8:1–6. The ’346 patent describes a federated computing environment in which entities may provide a user with a single-sign-on (SSO) experience, doing away with the frustration of having to authenticate to multiple domains for a single transaction. *Id.* at 10:14–16, 24–26. The ’346 patent describes the federation itself as

a set of distinct entities, such as enterprises, organizations, institutions, etc., that cooperate to provide a single-sign-on, ease-of-use experience to a user; a federated environment differs from a typical single-sign-on environment in that two enterprises need not have a direct, pre-established, relationship defining how and what information to transfer about a user.

Id. at 10:62–11:1. Entities within the federation provide services, which require authenticating users, accepting authentication assertions, and vouching for users. *Id.* at 11:2–7.

An SSO process, according to one embodiment of the '346 patent, starts with an identity provider sending a user an offer to provide access to federated resources. *Id.* at 31:21–23. In this case, the identity provider has already authenticated the user, meaning the user currently has a valid session with the identity provider. *Id.* at 31:6–10. The user then selects a federated resource, which is provided at a service provider. *Id.* at 31:29–31. If the user does not yet have a federated identity for use with a federated SSO operation, then the identity provider creates an alias (information that authenticates a user identity) for the user. *Id.* at 31:34–36. The identity provider sends to the service provider a message that requests access to the selected resource and includes the alias information for the user. *Id.* at 31:36–47, 31:58–32:3. Upon receipt of the message, the service provider retrieves the alias information. *Id.* at 32:4–7. In the event the service provider determines that it does not have a local account for the user that links with a user account at the identity provider, the service provider creates a new account for the user based on the alias information, so that the user has an active session at the service provider. *Id.* at 32:16–19, 41–46. After creating the linked user account, the service provider performs the requested resource access. *Id.* at 33:4–5.

D. Illustrative Claim

All of the challenged claims depend, directly or indirectly, from claim 1. Claim 1, reproduced below, is illustrative of the challenged claims:

1. A method for managing user authentication within a distributed data processing system, wherein a first system and a second system interact within a federated computing environment and support single-sign-on operations in order to provide access to protected resources, at least one of the first system and the second system comprising a processor, the method comprising;

triggering a single-sign-on operation on behalf of the user in order to obtain access to a protected resource that is hosted by the second system, wherein the second system requires a user account for the user to complete the single-sign-on operation prior to providing access to the protected resource;

receiving from the first system at the second system an identifier associated with the user; and

creating a user account for the user at the second system based at least in part on the received identifier associated with the user after triggering the single-sign-on operation but before generating at the second system a response for accessing the protected resource, wherein the created user account supports single-sign-on operations between the first system and the second system on behalf of the user.

E. Evidence Relied Upon

Petitioner relies on the following prior art references (Pet. 1):

Reference	Patent/Printed Publication	Date	Exhibit
Barriga-Caceres	U.S. Patent Pub. No. 2003/0163733 A1	Aug. 28, 2003	1004
Sunada ¹	Japanese Pub. No. Tokkai 2004-302907A	Oct. 28, 2004	1006
Mellmer	U.S. Patent No. 7,680,819 B1	Mar. 16, 2010	1008

Petitioner supports its challenge with the testimony of its declarant, Trevor Smedley, Ph.D. (Ex. 1003).

F. Asserted Grounds of Unpatentability

Petitioner challenges the '346 patent based on the following grounds of unpatentability (Pet. 1):

References	Basis²	Claims Challenged
Barriga-Caceres and Sunada	§ 103	3 and 12–14
Barriga-Caceres and Mellmer	§ 103	3 and 12–14

¹ All citations are to the English language translation, Exhibit 1006.

² The relevant sections of the Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112–29, 125 Stat. 284 (Sept. 16, 2011), took effect on March 16, 2013. Because the '346 patent was filed before that date, our citations to Title 35 are to its pre-AIA version.

II. ANALYSIS

A. Claim Construction

For petitions such as this one, filed after November 13, 2018, we construe claims “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b).³ *See also Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

In the earlier IPRs, we construed “federated computing environment,” recited in claim 1, to mean “an environment having a loosely coupled affiliation of entities that adhere to certain standards of interoperability; the federation provides a mechanism for trust among those entities with respect to certain computational operations for the users within the federation.” IPR2016-00608, Paper 67, at 9. We noted that “[b]ased on our construction, the scope of this term encompasses enterprises, but is not limited to enterprises.” *Id.* We also construed this term, which appears in the preamble of claim 1, to be limiting. *Id.* at 7–8. Petitioner acknowledges our construction, but does not challenge it or offer an alternative. Pet. 14–15.

³ On October 11, 2018, the USPTO revised its rules to harmonize the Board’s claim construction standard with that used in federal district court. Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018) (to be codified at 37 C.F.R. pt. 42). This rule change applies to petitions filed on or after November 13, 2018. *Id.*

After the Petition was filed and before the Preliminary Response was filed, the Federal Circuit revised this construction, holding that “federated computing environment” must be “construed to require a plurality of enterprises.” *IBM*, slip op. at 8–9. Accordingly, the Federal Circuit concluded “that a ‘federated computing environment’ requires a plurality of distinct enterprises.” *Id.* at 11. The Federal Circuit did not overturn our conclusion in the earlier IPRs that the disputed phrase is limiting despite its appearance in the preamble of claim 1. *Id.* at 7 n.1. In the 1685 IPR, we proceeded under the Federal Circuit’s construction. 1685 DDI 9–10.

Patent Owner argues that we should adopt the Federal Circuit’s construction in this proceeding. Prelim. Resp. 13–15. In the earlier IPRs and the 1685 IPR, we applied the broadest reasonable interpretation standard to claim construction. 608 IPR, Paper 67, at 6; 1685 DDI 7–8. As noted above, in this proceeding, we apply the *Phillips* standard. Patent Owner contends that the Federal Circuit’s construction is nevertheless the correct construction under the *Phillips* standard. Prelim. Resp. 14–15. Patent Owner argues that the *Phillips* construction should not be broader than the broadest reasonable interpretation and, therefore, that we should not construe “federated computing environment” more broadly to include distinct entities, generally, rather than require the more specific distinct enterprises of the Federal Circuit’s construction. *Id.* We agree with Patent Owner and proceed under the Federal Circuit’s construction. Petitioner does not argue that we should apply a broader construction. Pet. 14–15.

Petitioner notes that the Board construed the term “federated computing environment” in the preamble of claims 1, 15, and 18 as limiting, and construed “single sign-on operation” in the earlier IPRs. Pet. 14–15.

However, Petitioner does not challenge those constructions or assert that any other claim terms require construction. *Id.* Patent Owner asserts that “protected resource” also requires construction. Prelim. Resp. 15–17. Nevertheless, based on the record before us, we do not find it necessary to provide any other express claim constructions. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (noting that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

B. Discretionary Denial of Institution

Patent Owner argues that we should exercise our discretion under 35 U.S.C. § 325(d) to deny institution because we previously considered the same challenge to claim 1⁴, by the same petitioner⁵, in the 1685 IPR. Prelim. Resp. 49–55. We agree with Patent Owner.

Section 325(d) states that “[i]n determining whether to institute . . . the Director may take into account whether . . . the same or substantially the same prior art or arguments previously were presented to the Office.” In

⁴ Because the challenged claims depend directly or indirectly from claim 1, our analysis must include the limitations of claim 1.

⁵ In addition to the petitioners named in the 1685 IPR, the instant Petition names Orbitz Worldwide, Inc., and Travelscape LLP. These additional petitioners, however, were listed as real parties in interest by the named 1685 IPR petitioners. 1685 IPR, Paper 1, at 1–2. Petitioner treats the petitioning entities as the same in this proceeding and the 1685 IPR, and we do so as well. *See id.* at 2 (“Petitioners have filed a previous petition for IPR on this patent, challenging Claims 1–2, 4–11, and 15–20.”).

evaluating whether to exercise our discretion under Section 325(d), we consider several non-exclusive factors, such as:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
- (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
- (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art;
- (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and
- (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Becton, Dickinson and Co. v. B. Braun Melsungen AG, Case IPR2017-01586, slip op. at 17–18 (PTAB Dec. 15, 2017) (Paper 8) (informative) (formatting supplied); *see also NHK Spring Co., Ltd. v. Intri-Plex Techs., Inc.*, Case No. IPR2018-00752, 2018 WL 4373643 (PTAB Sept. 12, 2018) (precedential) (exercising discretion under § 325(d)). Although *Becton* and *NHK* decided discretion in the context of the original prosecution, rather than a prior AIA proceeding, the factors nevertheless provide instructive guidance.

As to factors (a) and (b), in the 1685 IPR, Petitioner alleged two grounds of unpatentability directed to claim 1 of the '346 patent: a combination of Barriga-Caceres and Sunada, and a combination of Barriga-

Caceres and Mellmer. 1685 IPR, Paper 1 (“1685 Pet.”), at 1. In the instant proceeding, Petitioner asserts the same two combinations against the limitations of claim 1, from which each of the challenged claims depends. Pet. 1. Thus, the prior art asserted in this proceeding is identical to the prior art asserted in the 1685 IPR. As to factor (c), the same two combinations are the only grounds on which the limitations of claim 1 are challenged in both this proceeding and the 1685 IPR. 1685 Pet. 1; Pet. 1. We considered the substance of Petitioner’s arguments at length in the 1685 IPR before ruling that Petitioner failed to show a reasonable likelihood that claim 1 is unpatentable. 1685 DI 14–22. Factors (a) through (c) weigh in favor of denial.

Factor (d) asks us to evaluate the extent of the overlap between the arguments made during the earlier proceeding and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art in the current proceeding. As to claim 1, Petitioner states that “Petitioners have separately challenged Claim 1 in IPR2018-01685 as being obvious over Barriga-Caceres in view of Sunada. However, because the claims challenged in this Petition depend from Claim 1, Petitioners again present an analysis for Claim 1 in this Petition.” Pet. 19. Petitioner makes a similar statement for its combination of Barriga-Caceres and Mellmer. *Id.* at 48. Thus, Petitioner implies that the arguments it made in this Petition are substantially the same as those it made in the 1685 IPR, at least for claim 1. Patent Owner argues that, with the exception of a footnote (which we discuss below) and a single sentence, Petitioner’s two presentations for claim 1 and the reasons to combine are word-for-word identical. Prelim. Resp. 51–52. We have compared the petitions for claim 1, and find the

presentations in both to be very similar. *Compare* Pet. 15–29, 44–52, with 1685 Pet. 19–32, 64–72.

In the 1685 IPR, we concluded that Petitioner did not establish a reasonable likelihood of success regarding claim 1 due to our adoption of the Federal Circuit’s construction of “federated computing environment,” a limitation Petitioner did not show in Barriga-Cacerres. 1685 DDI 15–21. As noted above, this proceeding differs from the 1685 IPR in that we construe the claims using the *Phillips* standard rather than under the broadest reasonable interpretation. As also noted above, however, under either standard, we proceed under the Federal Circuit’s construction of “federated computing environment.” Thus, the difference in claim construction standards, by itself, is not a persuasive reason to revisit Petitioner’s allegations in this proceeding.

As noted above, Petitioner’s presentation in the instant proceeding differs from that of the 1685 IPR in that Petitioner includes a footnote stating the following:

Petitioners note that the Patent Owner has argued that “federated computing environments have multiple enterprises” and that the PTAB’s construction of “federated computing environment” is erroneous. Ex. 1015, 46. While Petitioners do not agree with the Patent Owner, Barriga-Caceres discloses a “federated computing environment” under the Patent Owner’s construction because the SP and MNOs are separate enterprises. Ex. 1004, [0066], [0077]–[0078]; Ex. 1003, ¶¶ 37, 49.

Pet. 20 n.6. As to the evidence cited in this argument, Petitioner advanced, and we considered, paragraphs 66, 77, and 78 of Barriga-Caceres in the 1685 IPR. 1685 Pet. 23; 1685 DDI 14–18. As to Petitioner’s expert testimony (Ex. 1003 ¶¶ 37, 49), this testimony copies paragraphs 43 and 55 of

Dr. Smedley's testimony in the 1685 IPR (Exhibit 1003). We considered that testimony as well, and found it unpersuasive. 1685 DDI 14–18. In any case, Dr. Smedley testifies that “[t]he MNOs and SPs are separate entities” because of a signed business agreement, but does not testify that the MNOs and SPs are separate enterprises. Ex. 1003 ¶ 49. Thus, Petitioner's evidence does not support its argument and does not provide a persuasive reason to revisit that argument in this proceeding.

We recognize that different claims are challenged in this proceeding, as compared to the 1685 IPR. Nevertheless, the dispositive issue in the 1685 IPR was whether Barriga-Caceres teaches a federated computing environment, recited in claim 1, an issue we resolved in favor of Patent Owner. 1685 DDI 21. Although claim 1 is not challenged in this proceeding directly, Petitioner acknowledges that it must show claim 1 to have been obvious in order to prove its case for the challenged claims, which all depend from claim 1. Pet. 19, 48. The dispositive issue in this case is identical and we considered it fully in the 1685 IPR. Petitioner does not present any arguments or evidence in its analysis of claims 3 and 12–15 that would suggest that our conclusion as to claim 1 in the 1685 IPR was incorrect. Pet. 29–43, 53–60. Factor (d) weighs in favor of denial.

As to factor (e), Petitioner does not allege in the Petition that we erred in the 1685 DDI. As to factor (f), Petitioner does not advance additional

evidence not marshalled in the 1685 IPR.⁶ As explained above, the only material difference between its respective presentations for claim 1 is footnote 6 of the Petition, and we fully considered the same evidence in the 1685 IPR. Factors (e) and (f) weigh in favor of denial.

In sum, each of the factors listed in *Becton, Dickinson and Co.* favors denial, and none favors institution. Petitioner does not raise any additional considerations. Petitioner's arguments in this case, including those directed to the dispositive issue, are almost completely redundant to those raised in the 1685 IPR. Petitioner offers no justification for why we should nevertheless expend Board resources to revisit those arguments and we see none. Upon weighing all of the factors, we exercise our discretion to deny the Petition.

⁶ As to factors (e) and (f), we recognize that Petitioner has requested rehearing in the 1685 IPR (Paper 11), arguing that we should have reformulated its evidence and arguments to fit the Federal Circuit's claim construction prior to our denial of the 1685 Petition. We are denying that request concurrently, as Petitioner's arguments were not presented in the 1685 Petition, Petitioner did not show persuasively that we should have *sua sponte* rewritten that petition, and Petitioner made no attempt to seek relief prior to our statutory deadline. Petitioner has not sought relief (and has not made its 1685 IPR rehearing arguments) in the instant proceeding, despite its awareness of the Federal Circuit's claim construction and our denial of the 1685 Petition on substantially the same evidence and argument as presented in the instant Petition. We do not consider those arguments here, as they are not raised. Nevertheless, had Petitioner sought such relief, it still would have had to explain why it has staggered in time two substantially similar petitions, both of which follow similar petitions in the earlier IPRs, and persuasively address the concerns over evolving arguments in serial petitions expressed in *General Plastic Industrial Co., Ltd. v. Canon Kabushiki Kaisha*, Case IPR 2016-01357 (PTAB Sept. 6, 2017) (Paper 19) (precedential). On this point, the Petition is silent.

III. CONCLUSION

For the foregoing reasons, we exercise our discretion under 35 U.S.C. § 325(d) to deny the Petition. We, therefore, do not institute an *inter partes* review.

IV. ORDER

For the reasons given, it is
ORDERED that the Petition is *denied* as to all challenged claims, and
no trial is instituted.

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