United States Court of Appeals for the Federal Circuit

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INTERNATIONAL BUSINESS MACHINES CORPORATION,
Plaintiff-Appellant

v.

BOOKING HOLDINGS INC., FKA PRICELINE GROUP INC., KAYAK SOFTWARE CORPORATION, OPENTABLE, INC., PRICELINE.COM LLC,
Defendants-Appellees

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2018-1574

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Appeal from the United States District Court for the District of Delaware in No. 1:15-cv-00137-LPS, Chief Judge Leonard P. Stark.

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Decided: May 22, 2019

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KARIM ZEDDAM OUSSAYEF, Desmarais LLP, New York, NY, argued for plaintiff-appellant. Also represented by JOHN M. DESMARAIS, LAURIE STEMPLER.

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Before LOURIE, O'MALLEY, and TARANTO, *Circuit Judges.*

Opinion for the court filed by *Circuit Judge* LOURIE.

Dissenting opinion filed by *Circuit Judge* TARANTO.

LOURIE, *Circuit Judge.*

International Business Machines Corp. ("IBM") ap-
peals from the United States District Court for the District
of Delaware's grant of summary judgment that the as-
serted claims of U.S. Patent 7,072,849 ("the '849 patent")
were not infringed. *See Int'l Bus. Machs. Corp. v. The
Priceline Grp. Inc.*, 271 F. Supp. 3d 667, 683 (D. Del. 2017).
Because we conclude that the district court did not err, we
affirm.

BACKGROUND

IBM owns the '849 patent directed to a "method for pre-
senting advertising in an interactive service provided on a
computer network." '849 patent Abstract. According to
conventional methods, the advertising data interferes with
normal application traffic and competes for network com-
munication resources. *See id.* col. 2 ll. 26–30. The inven-
tors recognized the problem and sought to minimize the
potential interference between application and advertising
traffic. *See id.* col. 2 ll. 54–58. They achieved this by hav-
ing "the user reception system" include a "facility for stor-
ing and managing the advertising so that it can be pre-
fetched from the network and staged at the reception sys-
tem in anticipation of being called for presentation." *Id.*
col. 3 ll. 16–21. The technique of storing content locally to
eliminate the need to make repeated requests for the same
content is called caching. *See* Appellant's Br. 7.

IBM sued The Priceline Group Inc., which subsequently changed its name to Booking Holdings Inc., Kayak Software Corp., OpenTable, Inc., and priceline.com LLC (collectively "Booking Holdings"), alleging that Booking Holdings' web applications and mobile applications (Priceline, Kayak, and OpenTable) infringed claims 1, 4, 6, 8, and 12 of the '849 patent. *See* Appellee's Br. 3. It asserted that the accused websites are coded in HTML and use an HTTP "cache control" header that contains an explicit directive to store or cache the associated content, in violation of the claims of the patent. *See* Appellant's Br. 8–10. Also, it alleged that the accused mobile applications contain source code with the cache control directives. *See id.* at 11–12.

Representative claim 1 of the '849 patent reads as follows:

> 1. A method for presenting advertising obtained from a computer network, the network including a multiplicity of user reception systems at which respective users can request applications, from the network, that include interactive services, the respective reception systems including a monitor at which at least the visual portion of the applications can be presented as one or more screens of display, the method comprising the steps of:
>
> > a. structuring applications so that they may be presented, through the network, at a first portion of one or more screens of display; and
> >
> > b. structuring advertising in a manner compatible to that of the applications so that it may be presented, through the network, at a second portion of one or more screens of display concurrently with applications, wherein structuring the advertising includes configuring the advertising as objects that include advertising data and;

> c. *selectively storing advertising objects at a store established at the reception system.*

Id. col. 39 ll. 43–61 (emphasis added). The district court construed the "selectively storing advertising objects at a store established at the reception system" (the "storing step") to mean "pre-fetching advertising objects and storing at a store established at the reception system in anticipation of display concurrently with the applications." *See Int'l Bus. Machs. Corp. v. The Priceline Grp. Inc.*, No. 1:15-cv-00137-LPS, 2016 WL 6405824, at *9 (D. Del. Oct. 28, 2016) ("*Claim Construction Order*").

Shortly thereafter, Booking Holdings moved for summary judgment of noninfringement, arguing that IBM would not be able to prove direct infringement because Booking Holdings does not perform the storing step. *See* J.A. 2395–97. Booking Holdings argued that the storing step was performed by the user's reception system, not Booking Holdings', and also could not be attributed to it under a divided infringement theory. *See Akamai Techs., Inc. v. Limelight Networks, Inc.*, 797 F.3d 1020, 1022 (Fed. Cir. 2015) (en banc). IBM responded that Booking Holdings itself performed the storing step, despite the fact that the step occurs at the user's reception system, because, it asserts, Booking Holdings dictates performance of the storing step through its cache control directives. *See* Appellant's Br. 14. Alternatively, IBM argued that even if the storing step could not be considered to have been performed by Booking Holdings, the performance by the user's reception system should be attributable to Booking Holdings because it "directs or controls" the performance of the step. *See* J.A. 3117 (quoting *Akamai*, 797 F.3d at 1022). IBM contended that it need not argue "the participation or benefit test if [Booking Holdings] otherwise control[s] the reception system's performance." J.A. 3118 (citing *Akamai*, 797 F.3d at 1023).

The district court determined that IBM failed to present evidence that Booking Holdings "direct[s] or control[s] the web browsers' or mobile applications' performance of the storing step" and granted summary judgment of noninfringement. *See Int'l Bus. Machs. Corp.*, 271 F. Supp. 3d at 683. IBM sought reconsideration of the judgment of noninfringement for the mobile applications, arguing that the mobile applications always have caching enabled and must therefore carry out the cache control directives. The district court denied the motion, determining that IBM failed to produce evidence that Booking Holdings actually performed the storing step or directed or controlled the mobile operating systems' caching. *See Int'l Bus. Machs. Corp. v. The Priceline Grp. Inc.*, No. 1:15-cv-00137-LPS, 2018 WL 746521, at *2 (D. Del. Feb. 1, 2018).

IBM appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

We review procedural matters not unique to patent law under the law of the regional circuit. *See Solarex Corp. v. Arco Solar, Inc.*, 870 F.2d 642, 643 (Fed. Cir. 1989). We thus review a grant of summary judgment under the law of the Third Circuit. *See Braintree Labs., Inc. v. Novel Labs., Inc.*, 749 F.3d 1349, 1356 (Fed. Cir. 2014). The Third Circuit reviews *de novo* a district court's grant of summary judgment applying the same standards as the district court. *See Nicini v. Morra*, 212 F.3d 798, 805 (3d Cir. 2000) (en banc). Summary judgment is appropriate when "the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a); *see also Eisai, Inc. v. Sanofi Aventis U.S., LLC*, 821 F.3d 394, 402 (3d Cir. 2016).

I. CLAIM CONSTRUCTION

IBM argues that the district erred in construing "selectively *storing advertising objects* at a store established *at*

the reception system" to mean "pre-fetching advertising objects and *storing* at a store established *at the reception system* in anticipation of display concurrently with the applications." *See Claim Construction Order*, 2016 WL 6405824, at *9 (emphases added). IBM contends that the proper construction should be "*storing advertising objects* according to a predetermined storage criterion at a store established *at the reception system*," Appellant's Br. 54 (emphases added), omitting reference to "pre-fetching."

Claim construction is ultimately a question of law that we review *de novo*. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015). Any subsidiary factual findings based on extrinsic evidence "must be reviewed for clear error on appeal." *Id.* But "when the district court reviews only evidence intrinsic to the patent (the patent claims and specifications, along with the patent's prosecution history), the judge's determination will amount solely to a determination of law," which we review *de novo*. *Id.*

However, we need not decide whether the district court correctly construed the storing step because both the district court's construction and IBM's proposed construction require "storing" advertising objects "at the reception system." *Compare Claim Construction Order*, 2016 WL 6405824, at *9 (construing the term to mean "pre-fetching advertising objects and *storing [advertising objects]* at a store established *at the reception system* in anticipation of display concurrently with the applications"), *with* Appellant's Br. 54 (arguing for a proposed construction of "*storing advertising objects* according to a predetermined storage criterion at a store established *at the reception system*"). Because, as we determine below, the infringement analysis turns on the entity performing the storing of the advertising objects at the reception system, and both the district court's construction and IBM's proposed construction include that same requirement, the infringement analysis must focus on storing and is the same under either construction. We therefore need not determine whether

the district court's claim construction was correct. The prefetching language of the court's construction does not impact the outcome here.

II. INFRINGEMENT

IBM argues that it has presented substantial evidence that Booking Holdings directly infringes the asserted claims because Booking Holdings itself performs the storing step. Alternatively, it argues that even if Booking Holdings does not perform the storing step, it is still liable for direct infringement under divided infringement theories. *See Akamai*, 797 F.3d at 1022. We take each argument in turn.

Infringement is a question of fact. *Alza Corp. v. Mylan Labs., Inc.*, 464 F.3d 1286, 1289 (Fed. Cir. 2006). Under 35 U.S.C. § 271(a), "whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent." Direct infringement requires that all the steps of a claimed method be "performed by or attributable to a single entity." *See Akamai*, 797 F.3d at 1022 (citing *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1379–81 (Fed. Cir. 2007)).

IBM argues that the district court erred in granting summary judgment of noninfringement by assuming that this is a divided infringement case. However, IBM contends that Booking Holdings "[itself] perform[s] the storing step by dictating caching at the user's device" via the cache control directives. Appellant's Br. 22. According to IBM, this situation is similar to that in *SiRF Technology, Inc. v. International Trade Commission*, 601 F.3d 1319 (Fed. Cir. 2010), which it argues held that when an accused infringer dictates the performance of a claimed method step, that is sufficient to hold the accused infringer responsible for performing that step.

Booking Holdings responds that it is undisputed that it does not perform the storing step and that the users' third-party web browsers and mobile operating systems perform the local storing of advertising data at the users' systems. In fact, Booking Holdings argues that it is not involved in the actual storing of the data at all. According to Booking Holdings, the storing step is performed when the users' browsers or mobile devices cache the advertising data, and the district court properly granted summary judgment of noninfringement.

We agree with Booking Holdings that the district court properly granted summary judgment of noninfringement. There is no dispute that the storing step occurs on the users' device. *See* Appellant's Br. 8–12; Appellee's Br. 6–7. The only question is whether, by setting the cache control directives, Booking Holdings should be held liable as if it had performed the storing step itself. IBM relies on *SiRF* to argue in the affirmative. In *SiRF*, the defendant manufactured a chip incorporated in the end user's device that performed all the claimed method steps. *Id.* at 1330–31. We specifically determined, first, that this was "*not* a situation . . . in which a third party actually performs some of the designated steps . . . ." *Id.* at 1329 (emphasis added). After the user put the system into operation, the user was no longer involved in the performance of the method steps. *Id.* at 1330–31. Only then did we determine that the defendant in *SiRF* itself directly infringed. *Id.*

In contrast, neither party disputes that in this case, the storing step occurs at the user's reception system. *See* Appellant's Br. 8–12; Appellee's Br. 6–7. Therefore, this case is distinguishable from *SiRF* because some third party (at least a party that is not Booking Holdings) *is* involved in the performance of a method step. While there is an open question regarding who is actually performing the storing step, *see* Oral Arg. at 11:38–12:55, 14:35–16:03, *Int'l Bus. Machs. Corp. v. Booking Holdings Inc.*, No. 18-1574 (Fed. Cir. Apr. 5, 2019), http://oralarguments.cafc.uscourts.gov/

default.aspx?fl=2018-1574.mp3, whether it is the user, or the device, or the browser's manufacturer, the answer does not matter for our purposes. What matters in this case is that Booking Holdings is *not* performing the storing step.

IBM also argues that the focus should not be on the entity performing the method step, but on the entity that is dictating its performance. *See id.* at 5:54–6:35; Appellant's Br. 23–25; Reply Br. 4. We have addressed such situations under the divided infringement theories in *Akamai*. 797 F.3d at 1022–24.

Divided infringement occurs when "more than one actor is involved in practicing the steps" and "the acts of one are attributable to the other such that a single entity is responsible for the infringement." *Id.* at 1022. This can arise "(1) where that entity directs or controls others' performance, and (2) where the actors form a joint enterprise." *Id.* IBM does not argue that Booking Holdings is part of a joint enterprise with its users; we therefore focus only on the first situation where an entity "directs or controls others' performance." *Id.* "Whether a single actor directed or controlled the acts of one or more third parties is a question of fact . . . ." *Id.* at 1023.

We have articulated two general principles to determine if a single entity directs or controls the acts of another. First, "an actor is liable for infringement . . . if it acts through an agent (applying traditional agency principles) or contracts with another to perform one or more steps of a claimed method" (the "agency test"). *Id.* Second, "liability under § 271(a) can also be found when an alleged infringer conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner and timing of that performance" (the "benefit test"). *Id.* On appeal, IBM does not argue that Booking Holdings has an agency or contractual relationship with its users. *See* Reply Br. 7 ("IBM

does not contend that Defendants direct or control the storing step by acting through an agent or contracting with another."). We thus only review IBM's benefit test argument.

IBM argues that users of Booking Holdings' products receive a benefit from caching because the users can "retrieve content from their local device more quickly than from [Booking Holdings'] network." Appellant's Br. 42. Accordingly, IBM contends that Booking Holdings infringes under a theory of attribution because it conditions the benefits from caching on executing the cache control directives. IBM also argues that this court's decision in *Travel Sentry, Inc. v. Tropp*, 877 F.3d 1370 (Fed. Cir. 2017), held that infringement could be found if an actor "'profit[s] from direct infringement' . . . [and] has the right and ability to stop or limit the infringement." *Id.* at 1385 (quoting *Akamai*, 797 F.3d at 1023). According to IBM, Booking Holdings profits from caching because caching improves network efficiency by reducing requests for advertising data over the network, and it has the right and ability to stop caching from occurring.

Booking Holdings responds that IBM has waived this argument by not presenting it before the district court. In fact, Booking Holdings argues that, not only did IBM not raise this argument, but it affirmatively stated in its summary judgment motion that it "need not" make arguments that Booking Holdings "meet[s] the participation or benefit test" because Booking Holdings "control[s] the reception system's performance." J.A. 3118 (citing *Akamai*, 797 F.3d at 1023). Booking Holdings further contends that even though IBM brought *Travel Sentry* to the attention of the district court, it did not argue how that case supported its position.

We agree with Booking Holdings that IBM waived this argument. It affirmatively stated it was *not* arguing divided infringement under the benefit test. *See id.* ("Defendants need not meet the participation or benefit test if

they otherwise control the reception system's performance."). While IBM did raise the issue of divided infringement, and it argues that waiver generally does not apply to specific arguments, *see Warner-Lambert Co. v. Teva Pharm. USA, Inc.*, 418 F.3d 1326, 1338 n.11 (Fed. Cir. 2005) (citing *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1346 (Fed. Cir. 2001)), that general rule does not address the current situation. Here, IBM expressly forfeited a particular argument. *See* J.A. 3118. IBM also relies on the fact that it cited *Travel Sentry* to the district court and that it properly preserved the issue in that manner. *See* Reply Br. 13. We do not agree. IBM cited a case to support an argument that it had already abandoned. Because IBM chose not to argue divided infringement under the benefit test before the district court, we will not consider it for the first time on appeal. *See Sage Prods., Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1426 (Fed. Cir. 1997) ("With a few notable exceptions, . . . appellate courts do not consider a party's new theories, lodged first on appeal.").

Lastly, IBM argues generally that the district court erred by failing to evaluate attribution under "current law," Appellant's Br. 45, and that the "principles of attribution are to be considered in the context of the particular facts presented," *Akamai*, 797 F.3d at 1023. However, it is unclear what other legal theory IBM is asserting under which the district court erred by not considering the "particular facts" of its case. *Id.* Moreover, while *Akamai* left open the possibility of "other factual scenarios" that "may arise which warrant attributing others' performance of method steps to a single actor," those factual scenarios must align with a particular "legal framework for direct infringement." *Id.* (listing as possible legal frameworks theories from agency law, contract law, and the doctrine of joint enterprise, from which one could hold an entity liable for another's action(s)). IBM has not identified a legal theory that the district court failed to apply to its particular

facts. Accordingly, the district court properly granted summary judgment of noninfringement.

CONCLUSION

We have considered IBM's remaining arguments but find them unpersuasive. For the foregoing reasons, we *affirm* the district court's judgment of noninfringement.

AFFIRMED

United States Court of Appeals for the Federal Circuit

INTERNATIONAL BUSINESS MACHINES CORPORATION,
Plaintiff-Appellant

v.

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2018-1574

Appeal from the United States District Court for the District of Delaware in No. 1:15-cv-00137-LPS, Chief Judge Leonard P. Stark.

TARANTO, *Circuit Judge*, dissenting.

I respectfully dissent from the court's holding that, as a matter of law, Booking Holdings does not perform the "storing" step of the claimed methods. IBM has presented evidence that the following process regularly occurs when an end user visits one of the Booking Holdings websites or uses one of the Booking Holdings mobile applications: Booking Holdings sends advertising information to the end user's computer or mobile device and includes instructions

in the transmission that are automatically carried out on
the end user's equipment to store the information at issue,
without the end user's or any other person's intervention.
I would conclude that IBM has presented sufficient evidence to create a triable issue of fact as to whether Booking
Holdings, through the instructions it gives that are automatically carried out on the receiving devices, performs the
"storing" step of the claims at issue. On that basis, I would
reverse the district court's grant of summary judgment of
non-infringement.

As the panel majority observes, our decision in *SiRF
Technology, Inc. v. International Trade Commission*, 601
F.3d 1319 (Fed. Cir. 2010), involved different facts from
those present here. But our system of precedent pervasively involves reliance on the rationales of earlier decisions to resolve later cases involving different facts. Here,
SiRF is highly significant for how the analysis of the present facts should be conducted.

First, we were careful in *SiRF* to discuss performance
of method steps in terms of persons (including legal persons) rather than equipment. *See id.* at 1329–31 (discussing alleged infringer, its customers, and end users, rather
than their respective devices, as potentially performing
method steps). Indeed, the statutory provision defining
acts of patent infringement makes clear that only persons,
not equipment, can infringe a patent. *See* 35 U.S.C.
§ 271(a) ("*[W]hoever* without authority makes, uses, offers
to sell, or sells any patented invention . . . infringes the patent." (emphasis added)); *see also* 1 U.S.C. § 1 (defining
"whoever" to include corporations, companies, and certain
other entities). That focus on persons, not equipment, necessarily applies to determining *who* (not what equipment)
carries out the steps of a method claim under the
longstanding interpretation of section 271 that for a
method claim to be infringed, each step must be performed
by, or be properly attributed to, the direct infringer. *See
Limelight Networks, Inc. v. Akamai Techs., Inc.*, 572 U.S.

915, 921–22 (2014); *Travel Sentry, Inc. v. Tropp*, 877 F.3d 1370, 1378 (Fed. Cir. 2017); *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1328–29 (Fed. Cir. 2008).

Second, we emphasized in *SiRF* that the inquiry must focus on the steps that are part of the claimed method, not actions that might well be essential to a fully functioning, real-world operation but that are outside the claim. For instance, the asserted claims in *SiRF* included steps of "communicat[ing] the satellite ephemeris to a mobile GPS receiver" and "transmitting the formatted data to a remote receiver." *SiRF*, 601 F.3d at 1329–30. The alleged infringer argued that it did not perform those steps because, "in order for the data to be 'communicat[ed]' or 'transmit[ted]' to the GPS receiver," the alleged infringer's "customers must forward this data to the mobile GPS receivers, and the end users of the GPS devices must download the data from the customers' servers." *Id.* at 1330. We rejected that argument. We explained that "the actions of 'forwarding' or 'downloading' are not required by the claims, and, therefore, the fact that other parties perform these actions does not preclude a finding of direct infringement." *Id.*

Related to *SiRF* is the district court decision in *TQP Development, LLC v. Intuit Inc.*, No. 12-cv-180, 2014 WL 2809841 (E.D. Tex. June 20, 2014) (Bryson, J.), which is written in terms of direction and control under the standards for divided infringement, but is instructive on the more general question of who performs steps of a patented method.[1] The claimed method included two steps at a

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[1]   In my view, IBM's argument—based on Booking Holdings' sending of instructions that are automatically implemented on the end user's equipment without further action by the end user or any other person—gives IBM a triable case on whether Booking Holdings performs the "storing" step. But if one follows Booking Holdings and blurs the person/equipment distinction, then it seems to me

transmitter (generating a first sequence of pseudo-random key values and encrypting data) and two steps at a receiver (generating a second sequence of pseudo-random key values and decrypting the data). *See id.* at *11. There was no dispute that the defendants (at their servers) performed the steps that occur at the transmitter. *Id.* The defendants sought summary judgment of non-infringement, however, on the ground that the steps that occur at the receiver (indisputably located on end users' computers, not the defendants' own servers) were not attributable to the defendants. The court denied summary judgment, holding that there was a triable factual issue as to whether the steps at the receiver were controlled by the defendants, whose websites used an encryption algorithm covered by the claims. *Id.* at *11–12. The court relied on evidence from the plaintiff that the end users' computers would, without end users' intervention, automatically perform the receiver-end steps once the server transmissions were made and received. *Id.* at *12. The court explained that the fact that users must take various actions *before* the claimed steps could occur, such as choosing whether to visit the defendants' websites and whether to configure their browsers to use the relevant encryption algorithm, did not foreclose a finding of direct infringement by the defendants. *Id.* Such users' actions are merely "prefatory to the steps recited in the claim" and "only establish the setting within which infringement may occur." *Id.*

Turning back to *SiRF*, I note my agreement with the panel majority here that, of course, the facts of the present case differ from those of *SiRF*. In *SiRF*, once the customers

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that the substance of IBM's argument justifies a finding of actionable divided infringement, whether under the "direction or control" rubric or otherwise. I agree with the panel majority that IBM did not preserve its "conditioning receipt of a benefit" argument for divided infringement.

and end users took the necessary preparatory actions, only the accused infringer's hardware and software were involved in performing the claimed steps. *See* 601 F.3d at 1331 ("Once the GPS receiver is enabled and ready to process the data, only [the accused infringer's] actions are involved in 'processing' or 'representing' the data."). Here, by contrast, hardware and software created by entities other than Booking Holdings, such as web browsers and mobile operating systems, are involved in storing the advertisements sent by Booking Holdings' servers (or a third-party content delivery network). For example, Booking Holdings' mobile applications call underlying code provided by Apple or Google to make HTTP requests for web content, and that underlying code is executed when the Booking Holdings instruction to cache is received.

The existence of a factual distinction between this case and *SiRF*, however, does not establish that the result here must be different from the result reached in *SiRF*. The difference in facts just means that there is a new question to be decided—one not presented or decided in *SiRF*, but to be decided in light of both general legal principles and relevant aspects of the reasoning of *SiRF*. On that question, I do not see a basis for rejecting, as a matter of law, IBM's position that Booking Holdings is storing the advertising on the end user's equipment through its giving of instructions that are automatically executed on that equipment without any further action by another person.

The panel majority notes that "the storing step occurs at the user's reception system." Majority at 8. But that was true in *SiRF* as well: it was undisputed that "the 'processing' and 'representing' steps must take place in the mobile GPS device," which was not in the possession or control of the accused infringer. *See* 601 F.3d at 1330. The court squarely held that fact not to preclude a finding that the accused infringer performed the steps at issue. And as *SiRF* illustrates, the who-stores question does not ask what equipment is involved but what persons are taking

what action, and only the actions that are part of the specific claim steps, not actions outside those claim steps, determine the answer.

At oral argument, Booking Holdings suggested that the suppliers of the operating systems or browsers on the end users' devices are persons that carry out the storing (as a matter of law). The panel majority does not adopt that contention. We have held that supplying a piece of software does *not* mean that the supplier is performing the steps involved in executing the software. *See Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1221–22 (Fed. Cir. 2014); *Ricoh Co. v. Quanta Computer Inc.*, 550 F.3d 1325, 1335 (Fed. Cir. 2008). What the software suppliers do has already been done before the steps of the claimed methods here begin.

The specific patent at issue does not furnish a legally compelled answer to the who-stores question. The district court construed the phrase "selectively storing" in claim 1 of the '849 patent to clarify the meaning of "selectively," but it did not separately construe "storing" as used in any of the claims at issue. The parties did not request such a construction. In these circumstances, "storing" must be given its ordinary meaning, and the issue of who performs the "storing" step is a factual question.

In my view, IBM has presented enough evidence, including expert testimony, to permit a reasonable jury to find that Booking Holdings performs the "storing" step. Booking Holdings has not identified a settled common usage that forbids IBM's position as to "storing." And both *SiRF*'s and *TQP*'s reasoning provide considerable support for the facial reasonableness of IBM's position. In response to user requests through web browsers or mobile applications, Booking Holdings sends advertisements that, according to IBM's evidence, are automatically stored on user devices in accordance with cache control parameters programmed by Booking Holdings. I accept the premises that

storage of advertisements does not occur until (1) the web-browser or mobile-operating-system provider has written and supplied to the end user software that carries out caching when a command to do so is received; (2) the user has enabled (or refrained from disabling) caching on the device; and (3) the user accesses Booking Holdings' website or mobile application. But those premises do not foreclose a finding that Booking Holdings performs the "storing" step by giving the command to cache. Those third-party actions are not part of the claimed methods but rather "prefatory" steps that "establish the setting within which infringement may occur." *See TQP*, 2014 WL 2809841, at *12.

For those reasons, I respectfully dissent from the holding that Booking Holdings does not perform the "storing" step as a matter of law. I would reverse the grant of summary judgment, which rests on the "storing" ground. Booking Holdings argues for affirmance on the alternative grounds that there is no triable issue as to its "selectively" storing, under the district court's claim construction of "selectively storing" in claim 1, and also no triable issue as to its meeting the "predetermined amount" requirement of claim 8. I would reject those arguments. IBM has pointed to evidence that could reasonably be found to establish satisfaction of those claim limitations, even under the adopted construction.

I do not address the correctness of the "selectively storing" construction. That construction played no role in the district court's grant of summary judgment. And, as just noted, it need not be addressed to reverse the grant of summary judgment.