

**United States Court of Appeals
for the Federal Circuit**

CLOUDOFCHANGE, LLC,
Plaintiff-Appellee

v.

NCR CORPORATION,
Defendant-Appellant

2023-1111

Appeal from the United States District Court for the
Western District of Texas in No. 6:19-cv-00513-ADA, Judge
Alan D. Albright.

Decided: December 18, 2024

JERRY ROBIN SELINGER, Patterson & Sheridan LLP,
Dallas, TX, argued for plaintiff-appellee. Also represented
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ery LLP, Washington, DC, argued for defendant-appellant.
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Before DYK, REYNA, and STOLL, *Circuit Judges*.

STOLL, *Circuit Judge*.

This case asks us to consider again whether to attribute a customer's use of a claimed system to the manufacturer of only part of the system. Appellant NCR Corporation ("NCR") appeals the United States District Court for the Western District of Texas's denial of judgment as a matter of law ("JMOL") of no direct infringement. NCR asserts it could not directly infringe the claims of U.S. Patent Nos. 9,400,640 and 10,083,012 as a matter of law because NCR itself does not use the claimed system; rather, its merchants do. The district court found that the merchants' use of the system could be attributed to NCR under our precedent involving divided infringement and principles of vicarious liability. For the following reasons, we reverse.

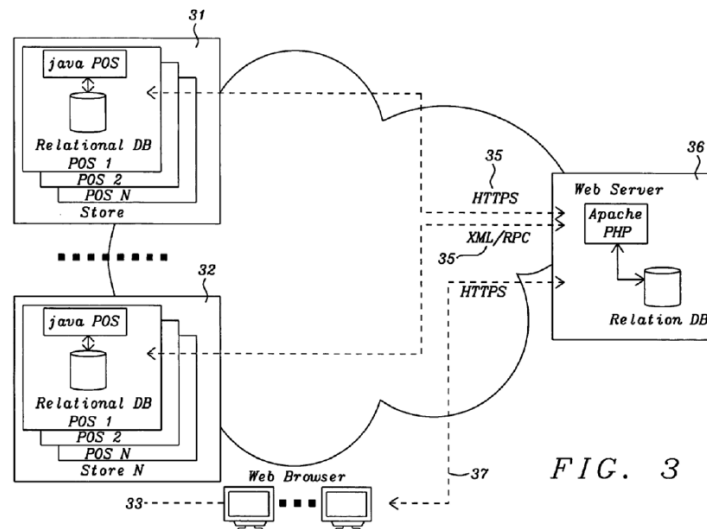
BACKGROUND

I

CloudofChange, LLC ("CloudofChange") sued NCR, alleging infringement of the '640 and '012 patents (collectively, the "Asserted Patents"). The Asserted Patents share a specification and a priority date of February 5, 2008. The shared specification discloses an online web-based point-of-sale-builder system that a non-expert business operator can use to assemble a point of sale ("POS") system for managing their business operations. '640 patent, col. 1 ll. 10–18. The specification explains that the conventional process of assembling a POS system required manually coding information, such as menu selections, and defining the position and operation of touch screen keys and their database correspondence. *Id.* at col. 1 ll. 20–32. According to the specification, this process was time-consuming and prone to mistakes, only specially trained individuals could build or change POS screens, and store owners tended to retain out-of-date POS screens to avoid the editing process. *Id.* at col. 1 ll. 32–37.

The disclosed object of the Asserted Patents is “to provide an online, web-based point of sale builder system,” *id.* at col. 2 ll. 3–4, that a non-expert business operator can use to assemble a POS system, which she could then use to manage her business.

Figure 3 of the Asserted Patents, reproduced below, illustrates an embodiment of the web-based POS system. *Id.* Fig. 3; col. 3 ll. 38–49. As shown, “[t]here are N POS terminals (POS 1, POS 2, . . . POS N) in ‘Store’ 31 and in ‘Store’ 32.” *Id.* at col. 3 ll. 37–40. “Each POS includes personal computer hardware and software,” and “[e]ach POS operates with a hardware/software connection 35 to the Internet.” *Id.* at col. 3 ll. 40–41, 43–44. Connection 35 allows each POS to communicate via Hypertext Transfer Protocol (HTTP) with Back-Office (“BO”) software implemented on web servers 36. *Id.* at col. 4 ll. 16–19. “In addition, the BO software and data can be viewed from any store employee at any PC 33 who has Internet access 37 and a password.” *Id.* at col. 4 ll. 20–22.



Id. Fig. 3.

Claim 1 of the '640 patent is illustrative of the asserted claims and recites:

1. A web-based point of sale (POS) builder system comprising:

one or more point of sale terminals, that display POS screens,

an internet connection from said one or more point of sale terminals to a web server,

one or more local or remote POS workstations, and point of sale builder software that runs on said web server, wherein said local or remote workstations are utilized to build or edit said POS terminals in real time, from anywhere in the world and over the worldwide web,

wherein said web servers are provided as a vendor subscription service *wherein web server software resides and is hosted on said vendor's remote servers and wherein subscriber company's POS terminals access and repeatedly interact with said web server software* from said vendor's remote servers, in order to perform the subscriber's desired terminal function, over a network, wherein the network comprises the Internet.

Id. at col. 6 ll. 11–28 (emphasis added). The claims expressly require two entities: a vendor and a subscriber. The claims require the vendor's remote servers to host the web server software while subscribers possess the POS terminals that access the web server software.

II

CloudofChange accused NCR's product, NCR Silver, of infringing several claims of the Asserted Patents. NCR Silver is a web-based POS solution designed for small and independent business owners. NCR Silver allows

merchants¹ to edit POS menus, perform transactions, and build their own POS screens.

Relevant here, a merchant's use of NCR Silver requires application software, POS hardware—such as a tablet or personal computer—and an Internet connection to NCR's backend servers. It is undisputed that NCR does not provide all the necessary components of the accused system. Specifically, (1) NCR contractually makes users responsible for supplying and maintaining an Internet connection, which is necessary to use NCR Silver; and (2) most users supply their own POS hardware. While most merchants supply the POS hardware, a small number of merchants obtain the hardware from NCR. Hardware products available through NCR include tablets, display screens, payment processors, and cash drawers. Merchants download NCR Silver software from an app store onto their POS hardware.

III

In the district court, CloudofChange pursued a single theory of infringement: that NCR directly used the claimed system by putting it into beneficial use under this court's *Centillion* precedent. *Centillion Data Sys., LLC v. Qwest Commc'ns Int'l, Inc.*, 631 F.3d 1279 (Fed. Cir. 2011). Specifically, CloudofChange asserted that NCR controls and benefits from each component recited in the claimed system and thus, under *Centillion*, uses the system. CloudofChange abandoned all other infringement theories, including induced infringement, contributory infringement, and direct infringement by importing, making, or selling the claimed system. The district court observed that CloudofChange's "proof requirements are particularly

¹ NCR refers to its customers as merchants. Appellee's Br. 10. This opinion refers to users, customers, and merchants interchangeably.

difficult” because CloudofChange “only asserts a direct infringement theory of ‘use’ against NCR” and “abandoned all other theories.” *Cloudofchange, LLC v. NCR Corp.*, No. W-19-cv-00513-ADA, 2022 WL 15527756, at *5 (W.D. Tex. Oct. 27, 2022). Under CloudofChange’s theory “[i]t’s the defendant [NCR] that uses the Internet connection as part of the system,” and thus has “control and beneficial use of the system per *Centillion*.” J.A. 8195 (Pretrial Conference Tr. 45:16–18).

At trial, CloudofChange’s technical expert, Gregory Crouse, testified that a customer-merchant downloads the NCR Silver software from an app store onto a POS terminal such as a tablet. He explained that a merchant can use NCR Silver, for example, to add new categories and add or edit buttons on the merchant’s POS screens. He also testified that using NCR Silver requires an Internet connection between the merchant’s POS terminal and NCR’s backend server. Mr. Crouse concluded that use of NCR Silver infringed claim 1 of the ’640 patent, but he did not discuss how that use could be attributed to NCR, as opposed to the merchants or users of NCR Silver.

CloudofChange’s direct infringement theory turned on its argument that “NCR controls and benefits from its Silver system, including the requirement that customers who use the system supply an internet connection and network access to do so.” J.A. 11059. In support of this argument, CloudofChange pointed to Mr. Crouse’s testimony that a merchant who purchases NCR Silver must supply their own Internet access to use NCR Silver. CloudofChange also introduced into evidence NCR Silver’s Merchant Agreement, which directs the merchant to “maintain Internet access at your own expense” to use the service. J.A. 15490. For its part, NCR did not dispute that its Merchant Agreement makes Internet access the merchant’s responsibility; rather, NCR argued that this does not demonstrate control of the merchant’s *use of* NCR Silver.

On cross-examination, CloudofChange's technical expert, Mr. Crouse, agreed that it is NCR's customer-merchants who put NCR Silver into service and benefit from using it. J.A. 9049 (Trial Tr. 469:6–25); J.A. 9051 (Trial Tr. 471:17–25). The following exchange from NCR's cross-examination of Mr. Crouse is illustrative:

Q. And so as part of the merchant agreement, NCR tells customers that they need to get their own Internet access, correct?

A. Yes, sir.

Q. Okay. And so it's the consumers, the merchants that actually use NCR Silver, correct, in their retail operations?

A. Yes, sir.

Q. Okay. So you admit that a merchant who purchases the NCR Silver has to obtain their own Internet access, don't you?

A. Yes, sir.

Q. Okay. You admit that the merchants put NCR Silver into service, don't you?

A. Yes, sir.

....

Q. You admit that merchants benefit from the use of NCR Silver, don't you?

A. Yes, sir. I do.

J.A. 9049 (Trial Tr. 469:6–25). Citing this testimony, NCR timely moved for JMOL under Federal Rule of Civil Procedure 50(a), arguing that no reasonable jury could find infringement.

After a four-day trial, the jury found that NCR directly infringed all asserted claims, including claims 1, 3, 4, 5, 6,

11, 12, and 13 of the '640 patent and claims 1–4 of the '012 patent (collectively the “Asserted Claims”). The jury also found that NCR had not proven that the Asserted Claims were invalid. Finally, the jury found NCR’s infringement willful and awarded CloudfChange lump sum damages totaling \$13.2 million.

NCR then renewed its motion for JMOL under Rule 50(b) or, in the alternative, moved for a new trial under Rule 59. NCR’s renewed motion challenged the verdict for five principal reasons: (1) the jury was erroneously instructed; (2) the district court erred by failing to interpret the claim term “builder”; (3) the Asserted Claims are invalid; (4) NCR does not use the claimed system (and thus does not infringe) as a matter of law; and (5) the jury’s award of damages under the entire market value rule was erroneous.

Most relevant to this opinion, NCR argued it was entitled to JMOL of no infringement because CloudfChange did not offer substantial evidence that NCR (as opposed to its merchant customers) controls and benefits from every element of the claimed system as required by *Centillion*. Specifically, NCR argued that “[s]imilar to Qwest [the accused infringer in *Centillion*], NCR does not infringe the asserted system claim because ‘the entire system is not used until a customer loads software on its personal computer and processes data.’” J.A. 10781 (quoting *Centillion*, 631 F.3d at 1287). NCR pointed to CloudfChange’s expert’s admission that NCR’s merchants, not NCR, put NCR Silver into service, control their use of NCR Silver, and benefit from the use of NCR Silver.

The district court held that substantial evidence supported the jury’s infringement findings and denied NCR’s JMOL motion. In so holding, the court acknowledged that NCR is liable for direct infringement for “use” only if it controls the system and obtains benefit from it. But the court explained that the “sticking point is whether

[CloudofChange] provided substantial evidence to support a theory of vicarious liability as to certain claim elements.” *Cloudofchange*, 2022 WL 15527756, at *5.

The district court first held “that NCR, although it owns and operates the Back Office, does not put the accused system into service because it does not itself control the network.” *Id.* at *7. Instead, the court concluded that NCR’s merchants were analogous to the accused infringer’s customers in *Centillion* because the merchants benefit from and put the system into service by initiating demand for service at the front-end. Accordingly, the district court held that NCR’s customers—not NCR—“put the accused system into service by obtaining internet access” and “therefore, control this portion of the accused system.” *Id.*

The court then turned to whether the merchants’ use of NCR Silver could be attributed to NCR under *Centillion* and *Akamai Technologies, Inc. v. Limelight Networks, Inc.*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc) (per curiam). Relying on the legal framework for direct infringement of method claims in *Akamai*, the court held that substantial evidence supported the jury’s finding that NCR directed or controlled its merchants’ use of the claimed system. In so holding, the court distinguished the facts in this case from those in *Centillion*, noting that in *Centillion* there was “no vicarious liability because ‘Qwest in no way direct[ed] its customers to perform nor d[id] its customers act as its agents.’” *Cloudofchange*, 2022 WL 15527756, at *7 (quoting *Centillion*, 631 F.3d at 1287). The court concluded that “[u]nlike Qwest in *Centillion*, NCR ‘directs its customers to perform’ by requiring its merchants to obtain and maintain internet access.” *Id.* at *8. To support its conclusion, the court pointed to the NCR Silver Merchant Agreement as evidence that “NCR ‘contracts with [merchants] to perform one or more’ of the claimed elements, i.e., internet or network access.” *Id.* (quoting *Akamai*, 797 F.3d at 1023) (alteration in original).

NCR appeals, arguing *inter alia* that the district court erred in denying JMOL of noninfringement. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

We review the grant or denial of a motion for JMOL under the law of the regional circuit. *Kaufman v. Microsoft Corp.*, 34 F.4th 1360, 1368 (Fed. Cir. 2022). The Fifth Circuit reviews the grant or denial of JMOL de novo. *Janvey v. Dillon Gage, Inc. of Dallas*, 856 F.3d 377, 384 (5th Cir. 2017). Under the Fifth Circuit’s standard for JMOL, a jury’s determination on infringement must be upheld unless it is not supported by substantial evidence. *ACCO Brands, Inc. v. ABA Locks Mfrs. Co., Ltd.*, 501 F.3d 1307, 1311 (Fed. Cir. 2007).

I

Because this case turns on the application of *Centillion* and principles of vicarious liability, we begin by discussing our precedent and the relevant legal framework.

This court first addressed the issue of infringement for “use” of a system claim that includes elements in the possession of more than one actor in *Centillion*. We held that a party “uses” a system for purposes of infringement when it “control[s] the system as a whole and obtain[s] benefit from it.” *Centillion*, 631 F.3d at 1284. The control contemplated is not direct or physical control over each individual element of the system, but rather the ability to make the system elements “work for their patented purpose” and thus use “every element of the system by putting every element collectively into service.” *Id.*

At a high level, the claims at issue in *Centillion* involved a system for presenting information to an end user related to transaction records and summary reports from those records. *Id.* at 1281. The system claims included both a back-end system, maintained by the service provider, and a front-end system with a personal computer,

maintained by the end user. *Id.* The accused systems also included two parts: (i) Qwest’s back-office system that processed data and (ii) Qwest’s customers’ front-end client application with a personal computer for managing billing information. *Id.* The parties disputed whether it was Qwest or its customers that “used” the claimed system for purposes of direct infringement.

We held that Qwest’s customers (not Qwest) used the claimed system as a matter of law. *Id.* at 1285. Because the customers chose when to put the system into service either by (1) creating queries, which in turn resulted in the back-end processing by Qwest; or (2) by subscribing to receive monthly electronic billing information from Qwest’s back-office system, we concluded the customer controlled the system. We reasoned that if the customer did not make the request or subscribe, then the back-end processing would not be put into service. *Id.* We further explained that this was “use” because “but for the customer’s actions, the entire system would never have been put into service” and “the customer clearly benefit[ed] from this function.” *Id.*

We next considered whether Qwest was vicariously liable for the actions of its customers such that the customers’ use may be attributed to Qwest. We looked to our precedent on vicarious liability regarding both method claims and system claims. *Id.* at 1286–87 (collecting cases). Applying this precedent, we held that because Qwest “in no way directs its customers to perform nor do its customers act as its agents,” Qwest was not vicariously liable for the actions of its customers. *Id.* at 1287.

II

Turning to the facts of this case, we hold that the district court correctly determined that it is NCR’s merchants (not NCR) that use the claimed system. *See id.* at 1284. As the district court explained “NCR, although it owns and operates the Back Office, does not put the accused system into

service.” *Cloudfchange*, 2022 WL 15527756, at *7. Like the customers in *Centillion*, NCR’s merchants put the system into service because they initiate at the POS terminal a demand for service (for example, building or editing a POS) and benefit from the back end providing that service. NCR’s merchants therefore “control the system as a whole and obtain benefit from it.” *Centillion*, 631 F.3d at 1284. In other words, the merchants make the system parts “work for their patented purpose,” and thus use “every element of the system by putting every element collectively into service.” *Id.*

That NCR occasionally provides the POS hardware used by the customer-merchants does not change our view. J.A. 8195–96. CloudfChange admitted that, in most cases, NCR’s merchants provide their own hardware. And CloudfChange did not present different infringement arguments based on whether NCR merely provided the software or provided both the POS hardware and the software. Because in most cases NCR provides only the software to the merchant and CloudfChange forfeited any argument for those few circumstances where NCR provides the POS hardware, we see little daylight between this case and *Centillion*. Moreover, as CloudfChange’s own expert agreed, it is NCR’s merchants who put NCR Silver into service, control their own use of NCR Silver, and benefit from the use of NCR Silver.

CloudfChange next argues that, in fact, NCR “benefits from” the entire NCR Silver system from the monthly subscription fee, product improvements through testing and evaluation, product ideas, transaction data, revenues from third-party products and services, marketing rights associated with the merchant’s use, and advertising. Appellee’s Br. 26–27. But these are not the kind of benefits on which *Centillion* focuses. See, e.g., *Intell. Ventures I LLC v. Motorola Mobility LLC*, 870 F.3d 1320, 1329 (Fed. Cir. 2017) (rejecting notion that an accused infringer need only derive a benefit from a claimed component of the claimed

system to directly infringe). *Centillion* asks whether a party uses the entire claimed system by putting that system to use and receiving the benefit (i.e., the recited purpose or result) of that use. Here, we agree with the district court that it is NCR's merchants, not NCR, who initiate the use of NCR Silver at the POS terminals and benefit from the POS builder software at the web server building or editing the POS terminals.

III

We now turn to whether NCR is vicariously liable for its merchant-customers' use of the claimed system. As the district court correctly recognized, *Centillion's* analysis did not end after concluding that Qwest's customers used the claimed invention. Instead, we considered whether "Qwest is vicariously liable for the actions of its customers such that 'use' by the customers may be attributed to Qwest." *Centillion*, 631 F.3d at 1286. Answering this question, we held that because Qwest "in no way directs its customers to perform nor do its customers act as its agents," Qwest was not vicariously liable for the actions of its customers. *Id.* at 1287. In so holding, we emphasized that while Qwest provided application software and technical assistance, it was entirely the decision of the customer whether to install and operate the software on its personal computer data processing means. *Id.*

So too here. NCR does not direct or control its merchants to subscribe to the NCR Silver system, download the NCR Silver app on their POS terminals, or put the NCR Silver system into use by initiating action at the POS terminals to cause the NCR Silver software to modify its POS terminals. NCR's merchants take these actions of their own accord. That NCR's Merchant Agreement makes merchants responsible for obtaining and maintaining Internet access does not equate to contractually obligating merchants put the entire accused NCR Silver system into use. We thus conclude as a matter of law that NCR does not

direct or control its merchants' use of the claimed system, nor do its merchants act as NCR's agents.

In concluding otherwise, the district court erred by focusing its direction or control analysis on one element of the system—Internet access. Because NCR's Merchant Agreement makes merchants responsible for obtaining and maintaining Internet access, the district court determined "NCR 'contracts with [merchants] to perform one or more' of the claimed elements." *Cloudofchange*, 2022 WL 15527756, at *8 (alteration in original) (quoting *Akamai*, 797 F.3d at 1023). Based on this conclusion, the district court held that NCR directed or controlled its merchant-customers' use of the claimed system. But, in the context of this case, directing the merchants to perform one element of a system claim is not the proper test for analyzing vicarious liability for use of a system claim.

Specifically, the district court's analysis conflates use of a method claim (which was at issue in *Akamai*) with use of a system claim (which was at issue in *Centillion*). "Under section 271(a), the concept of 'use' of a patented method or process is fundamentally different from the use of a patented system or device." *NTP, Inc. v. Rsch. In Motion, Ltd.*, 418 F.3d 1282, 1317 (Fed. Cir. 2005). "[T]he use of a process necessarily involves doing or performing each of the steps recited," while the "use of a system as a whole" involves putting that entire system to use and benefitting from it. *Id.* at 1318.

In *Akamai*, the accused infringer, Limelight, performed every step of the claimed method except one, which was performed by its customer. *Akamai*, 797 F.3d at 1024. It was in this unique context that this court focused on one claim element (the one that Limelight itself did not perform) and considered whether Limelight directed or controlled its customers' performance of this claim step. *Id.* at 1024. After answering this question in the affirmative, the court held that Limelight was vicariously liable for the

performance of all the steps of the method claim because it either performed or directed or controlled the performance of all of the claim elements. *Id.* at 1024–25.

Applying the vicarious liability principles from *Akamai* to this case, the appropriate question is whether NCR directed or controlled or should otherwise be vicariously liable for its customers' use of the system claim. Specifically, the issue is whether NCR directed or controlled its merchant-customer's actions in putting the entire claimed system to service to build or edit POS systems. As the contractual obligation to supply an Internet connection does not amount to direction or control of a merchant's use of the claimed system to build POS systems, we hold that NCR is not vicariously liable for that infringing use.

CONCLUSION

Because we conclude the district court erred in denying JMOL of no infringement, we do not reach the other issues presented on appeal.² For the reasons discussed above, we reverse the district court's denial of JMOL and vacate the jury verdict.³

REVERSED

² At oral argument, NCR contingently abandoned its counterclaim for declaratory judgment of invalidity should this court reverse the infringement verdict. Oral Arg. at 8:03–8:57, https://oralarguments.cafc.uscourts.gov/default.aspx?fl=23-1111_06042024.mp3. Accordingly, we do not reach the issue of invalidity.

³ In light of our disposition on the merits, we deny as moot Appellant NCR's Renewed Motion Regarding IPR Decisions asking us to take judicial notice of *inter partes* review decisions related to the Asserted Patents (ECF No. 67).