

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

IOENGINE, LLC,

*Plaintiff,*

v.

PAYPAL HOLDINGS, INC.,

*Defendant.*

Civil Action No. 18-452-WCB

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INGENICO INC.,

*Plaintiff,*

v.

IOENGINE, LLC,

*Defendant.*

Civil Action No. 18-826-WCB

**FILED UNDER SEAL**

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IOENGINE, LLC,

*Counterclaim Plaintiff,*

v.

INGENICO INC.,  
INGENICO CORP., and  
INGENICO GROUP S.A.,

*Counterclaim Defendants.*

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## **MEMORANDUM OPINION AND ORDER**

In these consolidated cases, the parties have each filed case dispositive motions and motions to exclude expert testimony under *Daubert v. Merrill Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). IOENGINE, LLC (“IOENGINE”), has moved for partial summary judgment on the issue of invalidity and has moved to exclude portions of the testimony of two experts retained by Ingenico Inc. (“Ingenico”). Dkt. No. 397.<sup>1</sup> PayPal Holdings, Inc. (“PayPal”), and Ingenico have moved for summary judgment on several issues, and they have moved to exclude the testimony of two of IOENGINE’s experts. Dkt. Nos. 398–402. On April 6, 2022, and June 7, 2022, I heard oral argument on those motions.

### **I. Background**

IOENGINE alleges that PayPal and Ingenico infringe various claims of U.S. Patent No. 9,059,969 (“the ’969 patent”) and U.S. Patent No. 9,774,703 (“the ’703 patent”). IOENGINE had previously alleged infringement of U.S. Patent No. 8,539,047 (“the ’047 patent”) as well, but IOENGINE dropped the ’047 patent from these lawsuits after the Patent Trial and Appeal Board (“PTAB”), in an *inter partes* review (“IPR”) proceeding, found all of the asserted claims of that patent to be unpatentable. Dkt. No. 131 at 1.

#### **A. The Patents In Suit**

The ’969 and ’703 patents, which share a common specification, are directed to a “tunneling client access point” (“TCAP”) that the patents describe as “a highly secure, portable, [and] power efficient storage and data processing device.” ’969 patent, Abstract. In a preferred embodiment, the TCAP is a Universal Serial Bus (“USB”) device that connects to an “access terminal” (e.g., a desktop

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<sup>1</sup> All citations to the docket are to Case No. 18-452, unless otherwise noted.

computer, server, or mobile device). *Id.* at col. 3, ll. 46–54. In some embodiments, a user may “observe data stored on the TCAP without it being resident on the [access terminal],” a feature that “can be useful to maintain higher levels of data security.” *Id.* at Abstract. In other embodiments, “the TCAP may tunnel data through an [access terminal] across a communications network to access remote servers.” *Id.* Put more simply, the inventions disclosed in the specification allow a user to use processing and storage resources on the TCAP while making use of the display and network connection associated with the access terminal.

The asserted claims that remain in the two lawsuits are claims 3 and 10 of the ’969 patent and claims 56, 90, 101, 105, 114, and 124 of the ’703 patent. Those claims share a common hardware architecture, which includes a “portable device” connected to a “terminal,” which in turn is connected to a “communications network node.” *See* ’969 patent, claim 1 (on which asserted claims 3 and 10 of the ’969 patent ultimately depend); ’703 patent, claims 55, 78, 104 (on which the asserted claims of the ’703 patent ultimately depend). The independent claims from which the asserted claims depend also each recite software architecture in the form of “program codes.” *See* ’969 patent, claim 1; ’703 patent, claims 55, 78, 104.

Claim 3 of the ’969 patent encompasses the limitations of claims 1 and 2, from which claim 3 depends, and recites as follows:

1. A portable device configured to communicate with a terminal comprising a processor, an input component, an output component, a network communication interface, and a memory configured to store executable program code, including first program code which, when executed by the terminal processor, is configured to present an interactive user interface on the terminal output component, and second program code which, when executed by the terminal processor, is configured to provide a communications node on the terminal to facilitate communications to the portable device and to a communications network node through the terminal network communication interface, the portable device comprising:

(a) an external communication interface configured to enable the transmission of communications between the portable device and the terminal;

(b) a processor; and

(c) a memory having executable program code stored thereon, including:

(1) third program code which, when executed by the portable device processor, is configured to provide a communications node on the portable device to coordinate with the communications node on the terminal and establish a communications link between the portable device and the terminal, and facilitate communications to the terminal and to a communications network node through the terminal communication interface; and

(2) fourth program code which is configured to be executed by the portable device processor in response to a communication received by the portable device resulting from user interaction with the interactive user interface;

wherein the portable device is configured to facilitate communications through the communication node on the terminal and the terminal network interface to a communications network node.

**2.** The portable device according to claim 1, wherein the fourth program code which [sic], when executed by the portable device processor, is configured to cause a communication to be transmitted to the communication network node.

**3.** The portable device according to claim 2, wherein the communication caused to be transmitted to the communication network node facilitates verification of the portable device.

Claim 10 of the '969 patent, which also encompasses the limitations of claims 1 and 2, recites as follows:

**10.** The portable device according to claim 2, wherein the communication network node comprises a database and the communication caused to be transmitted to the communication network node facilitates synchronizing content on the portable device with content on the communication network node database.

The asserted claims of the '703 patent are generally similar, although they are directed to methods and systems, rather than devices, as is the case of the asserted claims from the '969 patent.

Asserted claim 56 of the '703 patent, a method claim that depends from claim 55 and thus encompasses all the limitations of claim 55, recites as follows:

**55.** A method implemented on a portable device comprising a processor, a memory having executable program code stored thereon, and an external communication interface for enabling the transmission of a plurality of

communications between the portable device and a terminal, the terminal comprising a processor, an input component, an output component, a network communication interface, and a memory configured to store executable program code, including first program code which, when executed by the terminal processor, is configured to affect [sic: effect?] the presentation of an interactive user interface by the terminal output component, and second program code which, when executed by the terminal processor, is configured to provide a communications node on the terminal to facilitate communications to the portable device and to a communications network node through the terminal network communication interface, the method comprising:

(a) causing the terminal to execute the first program code to affect [sic: effect?] the presentation of an interactive user interface by the terminal output component;

(b) executing third program code stored on the portable device memory to provide a communications node on the portable device configured to coordinate with the communications node on the terminal and establish a communications link between the portable device and the terminal, and to facilitate communications to the terminal and to a communications network node through the terminal network communication interface;

(c) executing, in response to a communication received by the portable device resulting from user interaction with the interactive user interface, fourth program code stored on the portable device memory to cause a communication to be transmitted to a communications network node; and

(d) facilitating communications through the terminal network communication interface to a communications network node.

**56.** The method according to claim **55**, wherein the step of executing fourth program code stored on the portable device memory causes a communication to be transmitted to the communications network node to facilitate verification of the portable device.

Asserted claim 90 of the '703 patent, which depends from claims 78 and 86, and thus encompasses all the limitations of those claims, recites as follows:

**78.** A method implemented on a portable device comprising a processor, a memory having executable program code stored thereon, and an external communication interface for enabling the transmission of a plurality of communications between the portable device and a terminal, the terminal comprising a processor, an input component, an output component, a network communication interface, and a memory configured to store executable program code, including first program code which, when executed by the terminal processor, is configured to provide a communications node on the terminal to facilitate communications to the portable device and to a communications network node through the terminal network communication interface, the method comprising:

(a) affecting [sic: effecting?] the presentation of an interactive user interface by the terminal output component;

(b) executing second program code stored on the portable device memory to provide a communications node on the portable device configured to coordinate with the communications node on the terminal and establish a communications link between the portable device and the terminal, and to facilitate communications to the terminal and to a communications network node through the terminal network communication interface;

(c) executing, in response to a communication received by the portable device resulting from user interaction with the interactive user interface, third program code stored on the portable device memory to cause a communication to be transmitted to a communications network node; and

(d) facilitating communications through the terminal network communication interface to a communications network node.

**86.** The method according to claim **78**, wherein the step of executing third program code to cause a communication to be transmitted to a communications network node comprises providing the terminal with data stored on the portable device memory to facilitate the terminal to transmit a communication to the communications network node.

**90.** The method according to claim **86**, wherein the data stored on the portable device memory comprises portable device identified information.

Asserted claim 101 of the '703 patent, which depends from claims 93 and 97, and thus encompasses all the limitations of those claims, recites as follows:

**93.** A method implemented on a portable device comprising a processor, a memory having executable program code stored thereon, and an external communication interface for enabling the transmission of a plurality of communications between the portable device and a terminal, the terminal comprising a processor, an input component, an output component, a network communication interface, and a memory configured to store executable program code, including first program code which, when executed by the terminal processor, is configured to affect [sic: effect?] the presentation of an interactive user interface by the terminal output component, and second program code which, when executed by the terminal processor, is configured to provide a communications node on the terminal to facilitate communications to the portable device and to a communications network node through the terminal network communication interface, the method comprising:

(a) affecting [sic: effecting?] the presentation of an interactive user interface by the terminal output component;

(b) executing third program code stored on the portable device memory to provide a communications node on the portable device configured to coordinate with

the communications node on the terminal and establish a communications link between the portable device and the terminal, and to facilitate communications to the terminal and to a communications network node through the terminal network communication interface;

(c) executing, in response to a communication received by the portable device resulting from user interaction with the interactive user interface, fourth program code stored on the portable device memory to cause a communication to be transmitted to a communications network node; and

(d) facilitating communications through the terminal network communication interface to a communications network node.

**97.** The method according to claim **93**, wherein the step of executing fourth program code to cause a communication to be transmitted to a communications network node comprises providing the terminal with data stored on the portable device memory to facilitate the terminal to transmit a communication to the communications network node.

**101.** The method according to claim **97**, wherein the data stored on the portable device memory comprises portable device identifier information.

Asserted claim 105 of the '703 patent, which depends from claim 104, and thus encompasses all the limitations of that claim, recites as follows:

**104.** A system implementing a terminal having a processor, an input component, an output component, a network communication interface, and a memory configured to store executable program code, including first program code which, when executed by the terminal processor, is configured to affect [sic: effect?] the presentation of an interactive user interface by the terminal output component, and second program code which, when executed by the terminal processor, is configured to provide a communications node on the terminal to facilitate communications to and from the terminal, the system comprising:

(a) a communications network node; and

(b) a portable device comprising an external communication interface for enabling the transmission of a plurality of communications between the portable device and the terminal, a processor, and a memory, wherein the memory has executable program code stored thereon, the portable device configured to:

(1) cause the terminal to execute the first program code to affect [sic: effect?] the presentation of an interactive user interface by the terminal output component;

(2) execute third program code stored on the portable device memory to provide a communications node on the portable device configured to coordinate with the communications node on the terminal and establish a communications link between the portable device and the terminal, and to facilitate communications to the

terminal and to a communications network node through the terminal network communication interface;

(3) execute fourth program code stored on the portable device memory in response to a communication received by the portable device resulting from user interaction with the interactive user interface to cause a communication to be transmitted to a communications network node; and

(4) facilitate communications through the terminal network communication interface to a communications network node.

**105.** The system according to claim **104**, wherein the portable device is configured to execute the fourth program code to cause a communication to be transmitted to the communications network node to facilitate verification of the portable device.

Asserted claim 114 of the '703 patent, which also depends from claim 104 and therefore encompasses all the limitations of that claim, recites as follows:

**114.** The system according to claim **104**, wherein the portable device is configured to execute the fourth program code to cause a communication to be transmitted to the communications network node to facilitate synchronizing content on the portable device with content on the communications network node.

Asserted claim 124 of the '703 patent, which depends from claims 104 and 120, and thus encompasses all the limitations of those claims, recites as follows:

**120.** The system according to claim **104**, wherein the portable device is configured to execute the fourth program code to provide the terminal with data stored on the portable device to facilitate the terminal to transmit a communication to the communications network node.

**124.** The system according to claim **120**, wherein the data stored on the portable device memory comprises portable device identifier information.

In order to facilitate analysis, it is appropriate to analyze the claims without the “technical jargon” used in the patents. *See Ericsson v. TCL Commc'n Tech. Holdings, Ltd.*, 955 F.3d 1317, 1326 (Fed. Cir. 2020). Viewed in that manner, claim 1 of the '969 patent can be seen to recite a portable device that contains a processor and memory; the portable device communicates with a terminal that contains a processor and memory, and is connected with a network; the portable device executes code

to perform certain specific functions in response to input on the terminal's user interface and communicates with the network through the terminal.

That set of limitations is at the core of all the asserted claims of both the '969 patent and the '703 patent. Claim 3 of the '969 patent depends from claims 1 and 2, and it adds that the communication sent to the network serves to verify the portable device. Claim 10 of the '969 patent also depends from claims 1 and 2, and it adds that the communications sent to the communication network facilitate synchronizing content on the portable device with content on the communication network node database.<sup>2</sup>

Claim 56 of the '703 patent is a method claim that otherwise tracks the substance of claim 3 of the '969 patent. Claim 90 of the '703 patent similarly tracks claim 1 of the '969 patent but adds that the data stored on the portable device memory contains information identifying the portable device. Claim 101 of the '703 patent is also similar, but it adds that the data stored on the portable device memory includes portable device identifier information. Claim 105 claims a similar system in which the portable device is configured to cause a communication to be transmitted to the communications network node to facilitate verification of the portable device. Claim 114 recites a similar system in which the communication to the communications network node facilitates synchronizing content on the portable device with content on the communications network node. And claim 124 recites a similar system in which data stored on the portable device facilitates the terminal to transmit communications to the communications network node and the data stored on the portable device memory includes portable device identifier information.

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<sup>2</sup> Claim 1 of the '969 patent refers to a "communications network node," while claims 2, 3, and 10 refer to a "communication network node." The difference does not appear to be one of substance, but rather simply a manifestation of careless drafting of the type found throughout the two patents in suit.

## B. The Accused Products

PayPal and Ingenico’s accused products serve as components of mobile point-of-sale (“mPOS”) systems. Ingenico’s accused products are mobile credit card readers for use by merchants who run a payment processing software application on a smartphone or tablet. Ingenico also provides a payment application, known as “RoamPayX,” to a small number of its customers. Dkt. No. 404, Exh. 4, ¶ 60; Dkt. No. 403 at 4. The majority of Ingenico’s customers do not use RoamPayX, but instead write their own applications using Ingenico’s Application Programming Interfaces (“APIs”) and/or Software Development Kits (“SDKs”). Dkt. No. 404, Exh. 4, at ¶¶ 64–70; Dkt. No. 403 at 4.

PayPal’s accused products comprise two different product lines: PayPal Here and Zettle. In connection with each of those product lines, PayPal provides a free mobile application to merchants who can then accept credit card payments using a card reader that PayPal supplies to the merchants at little or no cost. Dkt. No. 403 at 5. The PayPal Here product line supports four different card readers: one supplied by a third party, Miura Systems Limited, and three supplied by Ingenico. PayPal’s Zettle product line supports only one card reader, the “Zettle 2” reader, which is supplied by a third party, Datecs Ltd. *Id.*

## **II. Legal Standard**

The court “shall grant summary judgment if 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). In the case of an issue on which the nonmoving party bears the burden of proof at trial, the party seeking summary judgment “bears the initial responsibility of informing the district court of the basis for its motion, and identifying those portions of ‘the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any,’ which it believes demonstrate the absence of a genuine issue of material fact.” *Celotex Corp. v. Catrett*, 477 U.S. 317,

323 (1986) (quoting Fed. R. Civ. P. 56(c) as of 1986). The burden on the nonmoving party in that situation can be satisfied by “showing,” that is, by “pointing out to the district court—that there is an absence of evidence to support the nonmoving party’s case.” *Id.* at 325. If the moving party carries its burden, the nonmovant must “come forward with specific facts showing that there is a genuine issue for trial.” *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986) (cleaned up).

### **III. PayPal and Ingenico’s Motions**

In their motions, PayPal and Ingenico have raised nine different issues. They argue: (1) the asserted claims of the ’969 and ’703 patents are directed to patent-ineligible subject matter under 35 U.S.C. § 101; (2) IOENGINE is estopped from disputing the validity of claims that the PTAB found to be unpatentable; (3) PayPal and Ingenico do not directly infringe the asserted method claims; (4) they do not directly infringe the asserted apparatus claims; (5) they do not jointly infringe the asserted method claims together with third parties; (6) Ingenico does not indirectly infringe the asserted claims; (7) Ingenico does not infringe the asserted claims under the doctrine of equivalents; (8) the expert testimony of Dr. Jeffery A. Stec should be excluded because of his failure to apportion damages to the infringing features of the accused products and for improperly relying on settlement agreements and prior jury verdicts to support IOENGINE’s request for damages; and (9) the expert testimony of Mr. Jeffrey Klenk regarding the commercial success of products covered by the asserted claims should be excluded.

#### **A. Patent Eligibility Under 35 U.S.C. § 101**

In evaluating whether a particular invention is patent-eligible within the meaning of 35 U.S.C. § 101, the court must first determine whether the asserted claims are directed to a patent-ineligible concept, such as an abstract idea. *Alice Corp. Pty. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014); *Mayo*

*Collaborative Servs. v. Prometheus Labs, Inc.*, 566 U.S. 66, 71–72 (2012). That factor is conventionally referred to as *Alice* step one. If the claims are directed to an abstract idea, the court must decide whether the claims nonetheless contain an “inventive concept . . . sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Alice*, 573 U.S. at 217–18; *Mayo*, 566 U.S. at 72–73. That factor is conventionally referred to as *Alice* step two.

With respect to *Alice* step one, PayPal and Ingenico argue that the asserted claims are directed to the abstract idea of “a portable device causing messages to be sent to a network through an intermediary computer.” Dkt. No. 403 at 6. IOENGINE responds that such a characterization “radically oversimplifies the invention,” which is directed to a “specific arrangement of components and program code to accomplish identified functionality.” Dkt. No. 416 at 6. In particular, IOENGINE argues, the asserted claims are directed to a specific improvement in computer capabilities, namely, “a tangible portable device with unconventional hardware” that “allows users to employ traditional large user interfaces they are already comfortable with, provides greater portability, provides greater memory footprints, draws less power, and provides security for data on the device.” Dkt. No. 416 at 7; ’969 patent, col. 2, ll. 35–39.

In cases involving computing technology, the Federal Circuit has frequently framed the inquiry at *Alice* step one as asking “whether the focus of the claims is on the specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016); *see also TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1293 (Fed. Cir. 2020); *Uniloc USA, Inc. v. LG Elecs. USA, Inc.*, 957 F.3d 1303, 1306–07 (Fed. Cir. 2020); *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1364–65 (Fed. Cir. 2020); *Data Engine LLC v.*

*Google LLC*, 906 F.3d 999, 1007–08 (Fed. Cir. 2018); *Core Wireless Licensing S.A.R.L.*, 880 F.3d 1356, 1361–62 (Fed. Cir. 2018); *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1316 (Fed. Cir. 2016); *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257–58 (Fed. Cir. 2014).

This principle has sometimes been described as requiring “a technological solution to a technological problem” specific to computers. *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1301 (Fed. Cir. 2016); *see also cxLoyalty, Inc. v. Maritz Holdings, Inc.*, 986 F.3d 1367, 1378 (Fed. Cir. 2021); *Ancora Techs., Inc. v. HTC Am., Inc.*, 908 F.3d 1343, 1348 (Fed. Cir. 2018), *as amended* (Nov. 20, 2018) (computer functionality improvements can be patent-eligible if they are “done by a specific technique that departs from earlier approaches to solve a specific computer problem”); *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016) (claims held patent-ineligible because they “are not directed to a solution to a ‘technological problem’”).

When the claims at issue do not provide “a specific technical solution to a technological problem,” the claims have been held abstract. *See Universal Secure Registry LLC v. Apple Inc.*, 10 F.4th 1342, 1355 (Fed. Cir. 2021). But when the claims provide for a specific improvement in the operation of a computer, such as a new memory system, a new type of virus scan, or a new type of interface that makes a computer function more accessible, the Federal Circuit has found the claims patent-eligible. *See Data Engine*, 906 F.3d at 1008–11 (methods for making electronic spreadsheets more accessible); *Core Wireless*, 880 F.3d at 1361–63 (improved display devices); *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1303–06 (Fed. Cir. 2018) (novel method of virus scanning); *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1259–62 (Fed. Cir. 2017) (improved computer memory system).

The Federal Circuit’s decision in *Visual Memory* is instructive in this regard. There, the Federal Circuit held that patent claims directed to an improved computer memory system were patent-

eligible and not directed to an abstract idea. The memory system disclosed in the patent at issue in that case contained three separate caches, each of which was “programmable based on the type of processor connected to the memory system.” 867 F.3d at 1256. The patented system “separat[ed] the functionality for the caches and defin[ed] those functions based on the type of processor” being used with the memory system. *Id.* The court held that the claims were directed to “a technological improvement” and noted that “the specification discusse[d] the advantages offered by the technological improvement.” *Id.* at 1259–60.

In the cases at bar, the claimed components standing alone (e.g., a “terminal,” “portable device,” or “processor”) can fairly be considered as generic, as were the memory and cache components that were claimed in *Visual Memory*. But here, as in *Visual Memory*, the claims recite a specific structure and division of functions that are represented to constitute a technological improvement. The asserted claims of the ’969 and ’703 patents recite a portable device with a processor that performs functions in response to inputs on an interface located on a separate device—the terminal—which in turn is connected to a network. And the common specification of the asserted patents sets forth the advantages offered by that particular structure of components and division of functions. *See, e.g.*, ’969 patent at col. 2, ll. 25–51 (discussing various problems with existing portable devices that the claimed inventions purportedly solve).

Specifically, the claims of IOENGINE’s patents are directed to allowing users to “securely access, execute, and process data . . . in an extremely compact form.” ’969 patent, col. 2, ll. 26–28. And the common specification describes various ways to accomplish that goal, such as by allowing certain activities to “execute on the TCAP’s processor” while using the access terminal merely as a display, *id.* at col. 9, ll. 24–27, or by using the TCAP’s processor to encrypt data and transmit it through the access terminal such that it is not readable by or stored on the access terminal, *id.* at col.

12, line 65 through col. 13, line 12. The claims recite several tangible components, including a portable device, a terminal, communications network nodes, and memory, that are configured to perform those functions. The generic character of those components renders the claims broad in scope, but the breadth of the claims does not necessarily dictate whether the invention is directed to patent-eligible subject matter. Instead, courts must consider “the focus of the claim, i.e., its character as a whole, in order to determine whether the claim is directed to an abstract idea.” *Brit. Telecomms. PLC v. IAC/InterActiveCorp*, 381 F. Supp. 3d 293, 304 (D. Del. 2019), *aff’d*, 813 F. App’x 584 (Fed. Cir. 2020) (internal quotation marks and citations omitted). Here, the character of the claims as a whole relates to a specific improvement in computing technology, and not to implementing an “independently abstract” process that merely invokes computers as a tool. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016).

More generally, the Federal Circuit has noted that the abstract idea exception to patent eligibility “prevents patenting a result where ‘it matters not by what process or machinery the result is accomplished.’” *McRO*, 837 F.3d at 1312 (quoting *O’Reilly v. Morse*, 56 U.S. 62, 113 (1853)). The Federal Circuit expounded upon that theme in *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1343 (Fed. Cir. 2018), where the court explained that claims that are drafted in a functional manner have the effect of broadening the claim scope to cover a result regardless of how that result is obtained. And by laying claim to a function or result, the claims risk preemption of any means of achieving the claimed function or result. *See ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 768–69 (Fed. Cir. 2019); *Koninklijke KPN N.V. v. Gemalto M2M GmbH*, 942 F.3d 1143, 1150 (“An improved result, without more stated in the claim, is not enough to confer eligibility to an otherwise abstract idea. . . . To be patent-eligible, the claims must recite a specific means or method that solves a problem in an existing technological process.”).

This point was well put in the Federal Circuit’s decision in *TecSec, Inc. v. Adobe Inc.*, where the court wrote that in computer-related patents, the court has inquired whether the focus of the claimed advance is on a solution not a problem specifically arising in the realm of computer networks or computers, and “whether the claim is properly characterized as identifying a ‘specific’ improvement in computer capabilities or network functionality, rather than only claiming a desirable result or function.” 978 F.3d 1278, 1293 (Fed. Cir. 2020) (citing *Uniloc*, 957 F.3d at 1306, 1308–09).

PayPal and Ingenico characterize the abstract idea underlying the asserted claims of the ’969 and ’703 patents as sending messages to a network through an intermediary. If accurate, that characterization of the claims would, of course, be functional and result-oriented, and would have broadly preemptive effects. The characterization, however, is not accurate, as it summarizes the claimed subject matter at too high a level of abstraction to fairly represent what the claims actually recite. The claims are directed to particular hardware components that have particular features and are arranged in a particular manner. The recited components perform a function and achieve a result, but what is claimed is a particular arrangement of particular components, not the abstract idea of transmitting messages through an intermediary, regardless of how that result might be achieved.

PayPal and Ingenico cite as presumably analogous authority several cases in which courts have held that patent claims involving computers were directed to abstract ideas, but those cases each involved the use of computers for other purposes, not improvements in computer technology. For example, the claims in *Universal Secure Registry* were directed to a method of verifying a person’s identity by combining several conventional verification techniques. 10 F.4th at 1354. The court held that the claims were directed to an abstract idea because the authentication method simply used computers as a tool for performing the claimed multi-factor authentication, and the claims “d[id] not include sufficient specificity” regarding the technical solution being claimed. *Id.*

Similarly, in *Yu v. Apple Inc.*, the court held certain claims to be patent-ineligible; those claims were directed to a digital camera that would take two images of the same object and use one of the images to enhance the other. 1 F.4th 1040, 1042–43 (Fed. Cir. 2021). The court held that the claimed method was “‘directed to a result or effect that itself is the abstract idea and merely invoke[s] generic processes and machinery’ rather than ‘a specific means or method that improved the relevant technology.’” *Id.* at 1043 (quoting *Smart Sys. Innovations, LLC v. Chi. Transit Auth.*, 873 F.3d 1364, 1371 (Fed. Cir. 2017)). In *Yu*, the purported technical solution was “the abstract idea itself—to take one image and ‘enhance’ it with another.” *Id.* at 1044. And in *Ericsson v. TCL Communication Technology Holdings, Inc.*, the Federal Circuit invalidated claims that were directed to “controlling access to, or limiting permission to, resources.” 955 F.3d at 1326. Even though the claims were written “in technical jargon,” the court concluded that they were directed to “nothing more than this abstract idea” and lacked “the specificity required to transform a claim from one claiming only a result to one claiming a way of achieving it.” *Id.* at 1328 (quoting *SAP Am., Inc. v. Investpic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018)).

The same is true for the district court cases cited by PayPal and Ingenico. *See, e.g., Callwave Commc’ns, LLC v. AT&T Mobility*, 207 F. Supp. 3d 405, 412–13 (D. Del. 2016) (noting that “the specification fails to reveal any sort of tangible technological advance beyond a mere abstract idea implemented using various existing technological tools”); *T-Jat Sys. 2006, Ltd. v. Expedia, Inc. (DE)*, No. 16-cv-581, 2018 WL 1525496, at \*4 (D. Del. Mar. 28, 2018) (holding that the “particular characteristic[s]” of the claims to a computerized translation device were “inherent to the concept of translation,” such that they would apply even to a human translator); *Pragmatus Telecom, LLC v. Genesys Telecomms. Lab’ys, Inc.*, 114 F. Supp. 3d 192, 200 (D. Del. 2015) (holding that claims directed to solving problems with call centers addressed “pre-Internet problems,” such as long wait

times and requiring customers to physically record and dial a telephone number). Notably, none of the claims in those cases recited a purportedly unconventional arrangement of hardware components similar to the arrangements recited in these cases or in *Visual Memory*.

At oral argument on these motions, counsel for Ingenico contended that the best case support for the defendants' section 101 argument from among the Federal Circuit's decisions can be found in *Affinity Labs of Tex. v. DirectTV, LLC*, 838 F.3d 1253 (Fed. Cir. 2016), and *Smartflash LLC v. Apple Inc.*, 680 F. App'x 977 (Fed. Cir. 2017). In both of those cases, however, the patent in question was directed to an abstract idea implemented by technological means, rather than to a modification of the technological means themselves. In *Affinity Labs*, the court identified the abstract idea as the dissemination of broadcast content to users outside of a particular region. 838 F.3d at 1256. There was nothing in the claim that was "directed to how to implement out-of-region broadcasting on a cellular telephone. Rather, the claim [was] drawn to the idea itself." *Id.* at 1258 (emphasis omitted). And in *Smartflash* the court identified the abstract idea as conditioning and controlling access to data based on payment, and it explained that the asserted claims invoked computers "merely as tools to execute fundamental economic practices." 680 F. App'x at 982.

IOENGINE's claims are directed to what IOENGINE asserts is a novel computer architecture that is designed to provide benefits because of the claimed structures of the computing elements. Unlike the cases relied upon by PayPal and Ingenico, IOENGINE's patents do not recite the use of conventional computer components as tools to accomplish other objectives set forth in abstract terms. While PayPal and Ingenico contend that the idea of distributing computer architecture in the manner provided in the asserted claims was not new when IOENGINE's patent applications were filed, that

is an issue that is properly assessed under the law of anticipation and obviousness; it is not a matter of patent ineligibility under section 101.<sup>3</sup>

In prior litigation in this district involving the same family of patents as those asserted here, the defendant argued that the '047 patent was directed to an abstract idea. Judge Sleet rejected that argument on the ground that the claims were directed to an improvement in computing technology. *IOENGINE, LLC v. Interactive Media Corp.*, No. 14-cv-1571, 2017 WL 67938, at \*1 n.2 (D. Del. Jan. 4, 2017). Specifically, Judge Sleet noted in the *Interactive Media* case that “the claims are directed to addressing a specific technological problem in then-existing computing environments: portable devices were ‘bulky, provide[d] uncomfortably small user interfaces, and require[d] too much power to maintain their data.’” *Id.* (quoting '047 patent, col. 2, ll. 29–32).<sup>4</sup> Although the instant cases involve different patents than the one involved in the *Interactive Media* case, the patents are from the same family, share a common specification, and are directed to the same general subject matter. Accordingly, Judge Sleet’s analysis is directly applicable here, and I find his opinion to be persuasive as to this issue.<sup>5</sup>

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<sup>3</sup> In their reply brief, PayPal and Ingenico cite three district court cases for the proposition that “[d]istributing resources and tasks among computing devices is a well-recognized abstract idea.” Dkt. No. 424 at 1. In one of those cases, *British Telecommunications PLC v. IAC/InteractiveCorp*, 381 F. Supp. 3d 293, 317–18 (D. Del. 2019), the discussion of distributed computer architecture was directed to whether the patent was directed to a well-understood, routine, and conventional computer function, the issue addressed in step two of the *Alice* analysis. See *Alice*, 573 U.S. at 221-22, 225. It was not directed to the abstract idea requirement addressed in step one of *Alice*. In the other two cases, *Device Enhancement LLC v. Amazon.com, Inc.*, 189 F. Supp. 3d 392, 403–04 (D. Del. 2016), and *Appistry, Inc. v. Amazon.com, Inc.*, No. C15-311, 2015 WL 4210890, at \*2 (W.D. Wash. July 9, 2015), the courts found that the asserted claims were directed to the general idea of distributed computer architecture rather than to a specific structure and division of functions. The asserted claims of the '969 and '703 patents are directed to a more specific allocation of functions than was true in the “distributed architecture” cases on which PayPal and Ingenico rely.

<sup>4</sup> The language from the '047 patent quoted by Judge Sleet is the same as the language found in the '969 patent at col. 2, ll. 29–31.

<sup>5</sup> PayPal and Ingenico suggest that Judge Sleet’s ruling on other “abstract idea” issue may

Although the claimed elements in IOENGINE’s patents are broad in scope, there is sufficient structure in the claims to ensure that IOENGINE is not simply laying claim to an end result rather than to the process or machinery employed to achieve that result. As IOENGINE notes in its brief, “there are many unclaimed ways [in which the invention] could be practiced.” Dkt. No. 416 at 6 (emphasis omitted). And Ingenico effectively confirms that assertion by noting, with regard to the issue of indirect infringement, that its accused card readers “support numerous mechanisms for accomplishing payment transactions and firmware updates that are not accused of infringement.” See Dkt. No. 403 at 31. The preemption concerns that underlie the abstract idea exception are therefore not particularly strong in these cases.

For purposes of the summary judgment motion on patent ineligibility, I conclude that PayPal and Ingenico have not shown that the claims at issue in these cases are directed to an abstract idea. PayPal and Ingenico’s motion for summary judgment of invalidity therefore fails at *Alice* step one. For that reason, I need not address whether, under *Alice* step two, the claims recite an “inventive concept.” See *Koninklijke*, 942 F.3d at 1153; *Visual Memory*, 867 F.3d at 1262; *Enfish*, 822 F.3d at 1339.

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have been the result of the “defendant’s overbroad articulation of the abstract idea” in that case. Dkt. No. 403 at 8. That speculation is not persuasive. The defendant in the *Interactive Media* case characterized the ’047 patent as being directed to “a portable device that communicates with and through general purpose computers.” *IOENGINE, LLC v. Interactive Media Corp.*, No. 14-cv-1571, Dkt. No. 137 at 2 (D. Del. Dec. 1, 2016). That characterization is quite similar to the manner in which PayPal characterizes the abstract idea here. See Dkt. No. 403 at 6 (defining the abstract idea as “a portable device causing messages to be sent to a network through an intermediary computer”). Thus, the persuasive value of Judge Sleet’s opinion does not appear to be undermined by the manner in which the defendant in that case characterized the alleged abstract idea.

## B. Estoppel

While this litigation was pending, Ingenico filed petitions for *inter partes* review with the PTAB, challenging claims in all of the patents asserted in the litigation. In 2020, the PTAB issued final written decisions in which it held that all the challenged claims of the '047 patent and most of the challenged claims of the '969 and '703 patents were unpatentable. Only three of the originally asserted claims survived the IPR proceeding: dependent claim 3 of the '969 patent and dependent claims 56 and 105 of the '703 patent. IOENGINE then added five new claims against each defendant in the district court litigation: dependent claim 10 of the '969 patent and dependent claims 90, 101, 114, and 124 of the '703 patent.

All eight of the claims now being asserted against PayPal and Ingenico depend from claims that were invalidated in the IPR proceedings. Based on the PTAB's rulings on those claims, PayPal and Ingenico contend that IOENGINE should be estopped from arguing that any of the limitations found in those independent claims are not found in the prior art. Dkt. No. 403 at 18–22. They cite two theories in support of their estoppel argument: collateral estoppel and quasi-estoppel.

### 1. *Collateral Estoppel*

In deciding questions involving collateral estoppel, the Federal Circuit looks to regional circuit law—here, the law of the Third Circuit—except for any aspects of collateral estoppel that may have special or unique application to patent cases. *See Aspex Eyewear, Inc. v. Zenni Optical Inc.*, 713 F.3d 1377, 1380 (Fed. Cir. 2013); *AbbVie Deutschland GmbH & Co. KG v. Janssen Biotech, Inc.*, 759 F.3d 1285, 1295 (Fed. Cir. 2014). In this instance, the question is whether to give collateral estoppel effect to the decisions of the PTAB in Ingenico's IPR proceedings. It is therefore at least arguable that this is a case involving the application of collateral estoppel in the patent context, so that Federal Circuit law should apply. However, with regard to the particular principles of collateral

estoppel law that apply here, Federal Circuit law and Third Circuit law are the same. The choice of law question therefore does not matter to the disposition of this issue.

A party asserting collateral estoppel ordinarily must satisfy the court that (1) the identical issue was previously adjudicated; (2) the issue was actually litigated; (3) the previous determination was necessary to the decision in the previous litigation; and (4) the party to be estopped from relitigating the issue was fully represented in the prior action. *Jean Alexander Cosms., Inc. v. L'Oreal USA, Inc.*, 458 F.3d 244, 249 (3d Cir. 2006); *Laguna Hermosa Corp. v. United States*, 671 F.3d 1284, 1288 (Fed. Cir. 2012). Importantly, however, when the burden of proof on an issue in the prior proceeding was less stringent than the burden of proof on the issue as to which preclusion is sought in the second proceeding, collateral estoppel typically does not apply.

That principle has been recognized by the Supreme Court on several occasions and has been applied by both the Third and the Federal Circuits. *See One Lot Emerald Cut Stones & One Ring v. United States*, 409 U.S. 232, 235 (1972); *see also B & B Hardware, Inc. v. Hargis Indus., Inc.*, 575 U.S. 138, 154 (2015) (“[I]ssues are not identical if the second action involves application of a different legal standard, even though the factual setting of both suits may be the same.” (citation omitted)); *Grogan v. Garner*, 498 U.S. 279, 284–85 (1991) (when a prior decision on an issue was based on the preponderance-of-the-evidence standard of proof, that decision cannot be given collateral estoppel effect against a party in a proceeding in which the decision on that issue is governed by the clear-and-convincing-evidence standard of proof); *In re Braen*, 900 F.2d 621, 624 (3d Cir. 1990) (different burdens of proof—in that case, preponderance of the evidence in the first litigation and clear and convincing evidence in the second—“foreclose application of the issue preclusion doctrine”); *SkyHawke Techs., LLC v. Deca Int’l Corp.*, 828 F.3d 1373, 1376 (Fed. Cir. 2016) (“[T]he Patent Office is not bound by [a] district court[’s] claim construction due to the different claim construction

standards applied in the two fora.”); *Fears v. Wilkie*, 843 F. App’x 256, 261 (Fed. Cir. 2021) (“[I]ssues are not identical if the second action involves application of a different legal standard” than the first.).

In addition, commentators and other courts have treated that rule as black letter law. *See* Restatement (Second) of Judgments § 28(4) (1982) (relitigation of an issue in a subsequent action is not precluded if “the adversary [of the party against whom preclusion is sought] has a significantly heavier burden than he had in the first action”); *id.*, cmt. f & illus. 11 (no preclusion where burden of proof in one action was preponderance of the evidence and in the other action was clear and convincing evidence); 18 Charles Alan Wright et al., *Federal Practice & Procedure* § 4422 (3d ed. 2016) (“[A] party who has carried the burden of establishing an issue by a preponderance of the evidence is not entitled to assert preclusion in a later action that requires proof of the same issue by a higher standard.”); 18 James Wm. Moore et al., *Moore’s Federal Practice* § 132.02[4][e] (2021) (“[I]ssue preclusion does not apply when the party seeking to benefit from preclusion has a significantly heavier burden in the subsequent action than in the prior action.”); *Cobb v. Pozzi*, 363 F.3d 89, 113 (2d Cir. 2004) (same; citing cases).

What PayPal and Ingenico are asking the court to do is to give collateral estoppel effect in this litigation to certain aspects of the PTAB’s rulings invalidating the independent claims of the ’969 and ’703 patents in the IPR proceedings. In particular, PayPal and Ingenico argue that because the PTAB invalidated the claims from which the asserted claims depend (which they refer to as the “underlying claims”), IOENGINE should be foreclosed from disputing that the subject matter of those claims (and thus the subject matter of each of the limitations of those claims) is contained in the prior art. The effect of that relief, if granted, would be that IOENGINE could argue that only those new limitations that were introduced in the dependent claims asserted in these cases are novel, and thus that the validity of those claims would depend entirely on the novelty of the new limitations.

The problem with that argument is that the standard of proof for determining validity that is applied in proceedings before the PTAB differs from the standard of proof that is applied in proceedings before a district court. A petitioner in an IPR proceeding need only prove invalidity by a preponderance of the evidence. 35 U.S.C. § 316(e). In district court litigation, however, the defendant must prove invalidity by clear and convincing evidence. *Microsoft Corp. v. I4I Ltd. P'ship*, 564 U.S. 91, 95 (2011). Under the general principles of collateral estoppel law, as set forth above, that difference forecloses the court from applying collateral estoppel to IOENGINE's validity arguments in this forum, as several district courts have held. *See United Therapeutics Corp. v. Liquidia Techs., Inc.*, No. 20-755, 2022 WL 823521, at \*4–5 (D. Del. Mar. 30, 2022), *report and recommendation adopted on a different ground*, 2022 WL 1503923 (D. Del. May 12, 2022); *TrustID, Inc. v. Next Caller Inc.*, No. 18-cv-172, 2021 WL 3015280, at \*3 n.2 (D. Del. July 6, 2021); *Sanofi-Aventis U.S. LLC v. Mylan GmbH*, No. CV 17-9105, 2019 WL 4861428, at \*1 (D.N.J. Oct. 2, 2019); *Papst Licensing GmbH & Co. v. Samsung Elecs. Co.*, 403 F. Supp. 3d 571, 601–03 (E.D. Tex. 2019).

PayPal and Ingenico take issue with that analysis. Relying on *XY, LLC v. Trans Ova Genetics, L.C.*, 890 F.3d 1282 (Fed. Cir. 2018), they argue that, notwithstanding the difference in the standards of proof between PTAB proceedings and district court litigation, collateral estoppel applies to invalidity issues decided by the PTAB when those issues arise in district court litigation. To assess that argument requires a close examination of the *XY* case and the scope of that court's holding regarding collateral estoppel.

In *XY*, the Federal Circuit had before it two appeals involving the same patent claims—an appeal from a district court judgment that, in relevant part, held the claims invalid, and an appeal from a final written decision of the PTAB that invalidated the same claims in an IPR proceeding. The Federal Circuit affirmed the PTAB's decision and then gave collateral estoppel effect to that decision

with respect to the appeal from the district court, dismissing that appeal as moot. *XY*, 890 F.3d at 1294–95. The court noted that “both parties assumed that an affirmance of the Board’s decision would result in estoppel” and that there was “no indication that either party thought estoppel would not apply.” 890 F.3d at 1295. Under those circumstances, the court applied collateral estoppel *sua sponte* “to avoid unnecessary judicial waste from remanding an issue that has a clear estoppel effect.” *Id.* (citation omitted).

Although PayPal and Ingenico cite *XY* for the proposition that the presence of “differing invalidity standards does not negate collateral estoppel,” Dkt. No. 424 at 5, *XY* does not stand for so broad a proposition. The Federal Circuit had previously held that when the PTO cancels a claim, “the patentee loses any cause of action based on that claim, and any pending litigation in which the claims are asserted becomes moot” despite the differing standards of proof in the two forums. *Fresenius USA, Inc. v. Baxter Int’l, Inc.*, 721 F.3d 1330, 1340 (Fed. Cir. 2013) (terminating parallel district court litigation when claims are canceled in reexamination); *see also LG Elecs., Inc. v. Conversant Wireless Licensing S.A.R.L.*, 759 F. App’x 917, 926 n.5 (Fed. Cir. 2019) (applying *Fresenius* to decisions of the PTAB canceling claims following an IPR proceeding). Importantly, however, *Fresenius* was not based on collateral estoppel; instead, it was based on the fact that the PTO’s cancellation of patent claims extinguishes the patentee’s cause of action for infringement of those claims. The Federal Circuit in *XY* reached a result roughly equivalent to the result it reached in *Fresenius*, as the court in *XY* dismissed the appeal from the district court litigation over certain after upholding the PTAB’s decision invalidating those same claims. To be sure, the court in *XY* granted that relief before the PTO had formally canceled the claims. Perhaps for that reason, the Federal Circuit in *XY* treated its decision as being based on collateral estoppel rather than on a direct application of *Fresenius*.

This case is different from *XY* in three respects. First, unlike in *XY*, the claims that were invalidated in the IPR proceedings are not the same as the claims that are at issue in these cases. Second, unlike in this case, the parties in *XY* advised the court that they assumed the affirmance of the Board's decision would result in an estoppel. Third, the Federal Circuit upheld the PTO's decision invalidating the claims at issue simultaneously with its decision dismissing the patentee's challenge to the district court's order holding the claims invalid. In this case, the PTAB's decision invalidating the independent claims of the '969 and '703 patents has not been resolved by the Federal Circuit, but is still pending on appeal.

Given that the parties in *XY* agreed that estoppel should apply to the PTAB's decision once the Federal Circuit affirmed that decision, the court had no reason to address whether collateral estoppel should apply despite the different legal standards applicable to PTAB proceedings and district court actions. Moreover, because the facts of the *XY* case were closely aligned to those in *Fresenius*, and because the *XY* court reached a result that was aligned with the result that would have applied under *Fresenius* as soon as the PTO canceled the claims that had been invalidated by the Board and by the court of appeals, it made practical sense for the court to hold that the PTAB's decision rendered the appeal from the district court's invalidation order moot, rather than waiting until the PTO formally canceled the claims.

At bottom, PayPal and Ingenico's argument based on *XY* ignores the special circumstances in which that case arose. Instead, they contend that the court's reference to collateral estoppel as the basis for its ruling that the PTAB's invalidation of a claim bars further assertion of the same claim means that any issue decided by the PTAB in addressing invalidity has collateral estoppel effect in subsequent district court litigation notwithstanding the differences in the standard of proof between the two forums and even if the PTAB decision in the case has not been finally resolved. To read *XY*

that broadly would mean that the Federal Circuit, without saying so, has created an exception to the general rule of the law of judgments that collateral estoppel does not apply in circumstances in which the standard of proof that the party asserting collateral estoppel is more exacting in the second forum than in the first.

Although, as noted above, a number of district courts—including several in this district—have declined to read the *XY* decision that broadly, others have interpreted the decision to apply beyond the circumstances at issue in *XY*, where identical claims were at issue before the PTAB and the district court. See *Trs. Of the Univ. of Pa. v. Ely Lilly & Co.*, No. 15-6133, Dkt. No. 343, at 9–11 (E.D. Pa. Jan. 14, 2022); *M2M Solutions LLC v. Sierra Wireless Am., Inc.*, No. 14-cv-102, Dkt. No. 213, at 5–7 (D. Del. Mar. 31, 2021), *declining to adopt report and recommendation*, 2020 WL 7767639 (D. Del. Dec. 4, 2020); *Cisco Sys., Inc. v. Capella Photonics, Inc.*, No. 20-cv-1858, 2020 WL 7227153, at \*3–4 (N.D. Cal. Dec. 8, 2020); *Intell. Ventures I, LLC v. Lenovo Grp. Ltd.*, 370 F. Supp. 3d 251, 255–57 (D. Mass. 2019); *Fellowes, Inc. v. Acco Brands Corp.*, No. 10 cv 7587, 2019 WL 1762910, at \*6 (N.D. Ill. April 22, 2019).

Ultimately, the Federal Circuit will have to resolve the question of the intended breadth of its decision in *XY*. For the present, I interpret the *XY* decision in light of the facts that were before the court in that case. I do not understand the court’s opinion to have created an exception to general and long-standing principles of collateral estoppel law, particularly in the absence of any discussion by the court of those principles or whether departing from them would be justified under circumstances such as the circumstances in the PayPal and Ingenico cases. Accordingly, I conclude that collateral estoppel has no application to the validity of the asserted claims in these cases.

## 2. *Quasi-Estoppel*

The doctrine of quasi-estoppel “precludes a party from asserting, to another's disadvantage, a right inconsistent with a position it has previously taken.” *Albertson v. Winner Auto.*, No. 01-cv-116, 2004 WL 2435290, at \*4 (D. Del. Oct. 27, 2004) (citation omitted). PayPal and Ingenico argue that IOENGINE’s statement to the court that it would not “re-litigate previously invalidated claims” after the PTAB issued its decision in the IPR proceeding warrants the application of quasi-estoppel here. Dkt. No. 403 at 21 (quoting Dkt. No. 131 at 1).

IOENGINE is not asserting any claims that the PTAB found to be unpatentable in the IPR proceeding. PayPal and Ingenico suggest that IOENGINE may seek to argue, for purposes of the claims now being asserted by IOENGINE, that certain limitations that the PTAB found to be disclosed in the prior art are not in fact so disclosed. As discussed above, collateral estoppel would not apply to that argument. And although the issues that IOENGINE proposes to litigate in these cases may be similar to issues decided by the PTAB in the IPR proceedings, IOENGINE did not agree not to revisit any *issue* decided by the PTAB; it agreed only not to relitigate previously invalidated *claims*. IOENGINE has not taken a position that is inconsistent with its statement that it would assert only patent claims that were not found to be unpatentable by the PTAB. As a result, quasi-estoppel does not apply to the validity of any of the claims asserted against PayPal and Ingenico.

### C. Direct Infringement of the Asserted Method Claims

PayPal and Ingenico argue that they do not directly infringe any of the asserted method claims, which are claims 56, 90, and 101 of the ’703 patent. Dkt. No. 403 at 22–23. They note that each method claim requires a user to interact at various points with either the portable device (which IOENGINE maps to the accused card readers) or the terminal (which IOENGINE maps to smartphones and tablets). Dkt. No. 403 at 22. According to PayPal and Ingenico, neither one of them

performs all the accused method steps and thus neither directly infringes the asserted method claims. *Id.* (citing *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1378 (Fed. Cir. 2007)).

IOENGINE has two separate theories of direct infringement: payment transactions and firmware updates. With regard to the payment-transaction theory of infringement, IOENGINE points to evidence that employees of PayPal and Ingenico complete the steps of the claimed methods when they either demonstrate or test the accused card readers. Dkt. No. 416 at 19–24. For example, IOENGINE points to a video that appears to depict a PayPal employee attempting to complete a payment transaction in order to test the “blacklist” feature of PayPal Here.<sup>6</sup> Dkt. No. 418, Exh. 10. As for PayPal’s Zettle readers, IOENGINE points to deposition testimony suggesting that in February 2021 PayPal conducted internal test transactions on the Zettle readers in the United States and that those test transactions constituted direct infringement by PayPal. PayPal responded that those tests involved about 15 cents worth of transactions.<sup>7</sup> *See* Dkt. No. 447 at 1–2; Dkt. No. 448-1, Exh. 41, at

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<sup>6</sup> The “blacklist” feature uses the card reader’s serial number, which is sent to the server during a payment-card transaction to determine whether a device is involved in fraud and needs to be blacklisted. PayPal and Ingenico argue that the video in question is not evidence of direct infringement because it “does not show an actual transaction being conducted (*e.g.*, the ‘Charge’ button isn’t pressed).” Dkt. No. 424 at 7. It is not clear, however, that the fact that the “Charge” button was not pressed means that the employee in the video did not complete all the steps of the claimed method. Viewing the facts in the light most favorable to IOENGINE, a reasonable jury could find that the video demonstrates completion of the claimed method steps.

<sup>7</sup> PayPal objects to this evidence on two grounds:

First, PayPal argues that IOENGINE raised this evidence for the first time at oral argument on the summary judgment motions. That contention fails because IOENGINE pointed to that evidence in response to a question from the court seeking clarification of the evidence on which IOENGINE was relying to support its direct infringement claim. Following the hearing, PayPal filed a statement responding to that evidence. *See* Dkt. No. 447. While a party resisting summary judgment must point to evidence supporting its position during the summary judgment proceedings, nothing prohibits the party from pointing to that evidence in response to questions from the court. Because PayPal had the opportunity to respond to that evidence (and availed itself of that opportunity), it was not prejudiced by IOENGINE’s reference to the evidence during the hearing.

Second, PayPal argues that, in any event, the fact that the amount of the transactions was only 15 cents means that the infringement is *de minimis*. While that may be true, IOENGINE has at least

31. While the “volume” of the alleged test transactions is vanishingly small, that evidence is sufficient to create a triable issue of fact as to whether PayPal engaged in at least some acts of direct infringement of the method claims. As a result, summary judgment is inappropriate with respect to the issue of direct infringement by PayPal under IOENGINE’s payment-transaction theory.

As for Ingenico, IOENGINE points to two other videos that appear to depict an Ingenico employee demonstrating Ingenico’s card reader systems. Dkt. No. 418, Exhs. 13–14. Those videos, however, do not create a genuine dispute of material fact on the issue of direct infringement under the payment-transaction theory. One video was recorded at a conference, “Transact 15,” which took place prior to the issuance of the asserted patents. *See* Dkt. No. 418, Exh. 13; Dkt. No. 451 at 227–28. The other video depicts the use of Ingenico’s iCMP device in conjunction with the RoamPayX application. But the combination of the iCMP device and the RoamPayX application is not accused of infringement in the Ingenico case. *See* Dkt. No. 418, Exh. 14; Dkt. No. 451 at 228–29. Accordingly, IOENGINE has not identified evidence sufficient to create a genuine dispute of material fact on the issue of direct infringement by Ingenico under the payment-transaction infringement theory. Summary judgment will therefore be granted to Ingenico on that issue.

With regard to IOENGINE’s firmware-update theory of infringement, the only suggestion of direct infringement is in the form of attorney argument presented at the oral argument on these motions. *See* Dkt. No. 451 at 220. In essence, IOENGINE suggests that because PayPal and Ingenico are large companies with many customers, they must at least test the firmware-update capability of

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raised a dispute of fact as to whether PayPal tests the payment-transaction functionality of its Zettle readers in an infringing manner, even if the degree of the infringement is minimal. *See Organic Seed Growers & Trade Ass’n v. Monsanto Co.*, 718 F.3d 1350, 1356 (Fed. Cir. 2013); *Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1343, 1352–53 (Fed. Cir. 2009) (*de minimis* infringement can still be infringement).

their products. *Id.* That supposition is insufficient to create a genuine dispute of material fact on the issue of direct infringement under the firmware-update theory. Accordingly, summary judgment will be granted to PayPal and Ingenico with respect to direct infringement under IOENGINE's firmware-update theory.

#### D. Direct Infringement of the Asserted Apparatus and System Claims

PayPal and Ingenico next challenge IOENGINE's assertion that they directly infringe the asserted apparatus and system claims. Dkt. No. 403 at 23–28. That dispute focuses on whether the preambles of those claims have the effect of limiting the claims to require a system with a terminal.

There are two asserted apparatus claims in these cases—claims 3 and 10 of the '969 patent—and three asserted system claims—claims 105, 114, and 124 of the '703 patent. Both apparatus claims of the '969 patent depend from claim 1 of that patent. The three system claims of the '703 patent depend from claim 104 of that patent.

The preamble of claim 1 of the '969 patent recites:

A portable device configured to communicate with a *terminal* comprising a processor, an input component, an output component, a network communication interface, and a memory configured to store executable program code, including first program code which, when executed by the *terminal* processor, is configured to present an interactive user interface on the *terminal* output component, and second program code which, when executed by the *terminal* processor, is configured to provide a communications node on the *terminal* to facilitate communications to the portable device and to a communications network node through the *terminal* network communication interface.

'969 patent, claim 1 (emphases added).

The preamble of claim 104 of the '703 patent recites:

A system implementing a *terminal* having a processor, an input component, a network communication interface, and a memory configured to store executable program code, including first program code which, when executed by the *terminal* processor, is configured to affect the presentation of an interactive user interface by the *terminal* output component, and second program code which, when executed by the *terminal*

processor, is configured to provide a communications node on the *terminal* to facilitate communications to and from the *terminal*.

'703 patent, claim 104. (emphases added).

A frequently quoted principle of patent law is that a preamble will be regarded as limiting if it recites essential structure or steps of a claim, or is necessary to give life, meaning, and vitality to the claim. *See Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002); *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999). By contrast, if a preamble merely “define[s] the environment in which an accused infringer must act or describe[s] capabilities that an accused device must have,” the preamble is generally not considered limiting. *Advanced Software Design Corp. v. Fiserv, Inc.*, 641 F.3d 1368, 1374–75 (Fed. Cir. 2011); *see also Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1309 (Fed. Cir. 2011).

PayPal and Ingenico argue that the preambles of all the apparatus and system claims are limiting because they are “necessary for a POSITA to understand the subject matter of the claims.” Dkt. No. 403 at 24. IOENGINE responds by arguing that the preambles of those claims are not limiting, because they merely “describe the environment in which the claimed portable device or system is configured to operate.” Dkt. No. 416 at 25.

With respect to the apparatus claims of the '969 patent, IOENGINE's argument is persuasive. Claim 1 is explicitly directed to a “portable device,” and the limitations recited in that claim are all components of the portable device. The recitation of a “terminal” in the preamble of claim 1 serves only to define the capabilities of the claimed portable device. That is, the claimed portable device is “configured to communicate with a terminal” having certain features. '969 patent, claim 1. In such situations, the reference to a second device that the claimed device is configured to engage with does

not require that the accused infringer make, use, or sell (or offer to sell or import) the second device. *See Advanced Software*, 641 F.3d at 1374.

As the Federal Circuit observed in *Uniloc USA, Inc. v. Microsoft Corp.*, a patentee can generally structure a claim so that it captures infringement by a single entity. 632 F.3d at 1309 (quoting *BMC*, 498 F.3d at 1381). The fact that the portable device must be able to interact with a terminal does not require that PayPal or Ingenico make, use, or sell (or offer to sell or import) both a portable device and a terminal in order to infringe those claims. *See id.* (“That other parties are necessary to complete the environment in which the claimed element functions does not necessarily divide the infringement between the necessary parties. For example, a claim that reads ‘An algorithm incorporating means for receiving e-mails’ may require two parties to function, but could nevertheless be infringed by the single party who uses an algorithm that receives e-mails.”). Consequently, I construe the apparatus claims of the ’969 patent not to require proof that the accused infringer make, use, or sell (or offer to sell, or import) a terminal in order to infringe the claims.

With respect to the system claims of the ’703 patent, however, PayPal and Ingenico have the more persuasive argument. Those claims—asserted claims 105, 114, and 124—are directed to a “system *implementing* a terminal.” ’703 patent, claim 104 (emphasis added). Unlike the preamble of claim 1 of the ’969 patent, which describes the environment in which the claimed portable device operates, the preamble of claim 104 of the ’703 patent makes clear that the claimed system is required to “implement” a terminal. That language goes farther than merely defining the environment in which the system operates or defining the capabilities of the system. To “implement” a terminal, the system must necessarily comprise a terminal. Accordingly, I construe the apparatus claims of the ’703 patent as requiring proof that the accused infringer make, use, or sell (or offer to sell, or import) a terminal as well as the recited portable device.

The summary judgment record is clear that neither PayPal nor Ingenico provides the smartphones or tablets that IOENGINE alleges correspond to the “terminal” in the asserted patents. Dkt. No. 404, Exh. 13, at 189–193; Dkt. No. 404, Exh. 15, at 28–29. IOENGINE conceded during the oral argument on this motion that PayPal and Ingenico do not provide such devices. Dkt. No. 451 at 219. Accordingly, PayPal and Ingenico are entitled to summary judgment that they do not directly infringe claims 105, 114, and 124 of the ’703 patent. PayPal and Ingenico are not, however, entitled to summary judgment that they do not directly infringe claims 3 and 10 of the ’969 patent.

E. Joint Infringement

Joint infringement of a method claim is established “when an alleged infringer conditions participation in an activity or receipt of a benefit upon [another party’s] performance of a step or steps of a patented method and establishes the manner or timing of that performance.” *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 797 F.3d 1020, 1023–24 (Fed. Cir. 2015). More specifically, joint infringement occurs when “a third party hoping to obtain access to certain benefits can only do so if it performs certain steps identified by the defendant, and does so under the terms prescribed by the defendant.” *Travel Sentry, Inc. v. Tropp*, 877 F.3d 1370, 1380 (Fed. Cir. 2017). PayPal and Ingenico argue that IOENGINE has pointed to no evidence that either of them controls or directs another actor to perform the acts constituting infringement. Dkt. No. 403 at 28–30.

In the PayPal case, I allowed IOENGINE’s “direction or control” theory of joint infringement to survive a motion to dismiss because “[a]ccording to IOENGINE, the ability of PayPal POS [point-of-sale] Partners to interact with the accused PayPal products depends on their use of PayPal’s software development kits, which control the performance of the steps of the method claims when the PayPal software is run by the POS Partners.” Dkt. No. 48 at 5.

PayPal’s argument relies heavily on the distinction between “merchants” and “POS Partners.” For example, PayPal argues that “merchants—not POS partners—run the accused apps.” Dkt. No. 403 at 28. The distinction between the two is not entirely clear, although it appears that PayPal refers to the POS Partners as those entities that develop the applications used with PayPal’s card readers, whereas PayPal refers to merchants as those entities that complete transactions using those applications. In any event, that distinction does not affect the resolution of this issue.

IOENGINE points to the agreement that customers enter when undertaking to use PayPal Here. The agreement requires that the customers either “download the PayPal Here App” or use an application that is “configured to make . . . requests to the PayPal Here SDK.” Dkt. No. 418, Exh. 16, at § 4. Otherwise, the agreement provides, “payments will not be processed.” *Id.* Viewed in the light most favorable to IOENGINE, that requirement could be understood to require either a merchant or a POS partner to use PayPal’s applications and/or PayPal’s SDKs in conjunction with the PayPal Here card readers.

With respect to Ingenico, IOENGINE points to evidence demonstrating that Ingenico allows its customers to use the mPOS EMV SDK in conjunction with its card readers. Dkt. No. 418, Exh. 18, at 593; Dkt. No. 418, Exh. 19, at 29–31. But that evidence does not establish that Ingenico requires its customers to use any particular application or SDK in order to use Ingenico’s products. IOENGINE’s attorney argument at the motions hearing that Ingenico’s products must use an SDK (although not necessarily the EMV SDK) is not sufficient to create a genuine dispute of material fact on that point. *See* Dkt. No. 451 at 222–23.

The Federal Circuit has held that a defendant commits joint infringement if the defendant controls “the manner and timing of its customers’ performance [when] it provide[s] them with detailed instructions regarding how to complete [the method] steps and dedicate[s] resources toward helping

the customers resolve problems encountered along the way.” *Travel Sentry*, 877 F.3d at 1380 (citing *Akamai*, 797 F.3d at 1025). Here, both PayPal and Ingenico provide technical support resources to customers who use the accused card readers. Dkt. No. 418, Exhs. 44–45.

PayPal and Ingenico argue that to the extent they may control certain aspects of a merchant’s transactions, they do not direct or control “the accused method steps (e.g., the Bluetooth pairing process, entering the payment amount, etc.)” Dkt. No. 403 at 29. As to PayPal, that argument is unpersuasive because a jury could find that PayPal requires its customers to use either the PayPal Here application or SDK. Steps such as pairing a card reader and entering a payment amount might plausibly be directed by the software the merchants use.<sup>8</sup>

Viewing the evidence in the light most favorable to IOENGINE, a jury could reasonably find that PayPal controls the manner and timing of the merchants’ performance of the claimed method steps. Accordingly, PayPal is not entitled to summary judgment of no joint infringement. With respect to Ingenico, however, the evidence is different. IOENGINE has not established that Ingenico requires its customers to use any particular application or SDK in conjunction with Ingenico’s accused card readers. There is therefore no genuine dispute of material fact regarding whether Ingenico controls the manner and timing of the merchants’ performance of the claimed method steps. For that reason, Ingenico is entitled to summary judgment of no joint infringement.

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<sup>8</sup> PayPal also argues that it “do[es] not dictate the form of payment that a merchant accepts, what time to perform a transaction, or where/whether the merchant should perform a transaction at all.” Dkt. No. 424 at 10. The fact that PayPal does not require customers to process payment transactions in the first place does not preclude a finding that PayPal jointly infringes when its customers engage in those transactions. In *Travel Sentry*, the court found that the alleged infringer, by providing the Transportation Security Administration (“TSA”) with resources on how to identify and disengage its accused luggage locks, could jointly infringe, despite there being no suggestion that the defendant had any control over which items of luggage the TSA chose to inspect or whether the TSA would disengage any of the locks at all. *Travel Sentry*, 877 F.3d at 1383–85 (“[I]t is irrelevant that TSA can choose to accomplish its luggage screening mandate through other means.”).

## F. Indirect Infringement

Ingenico argues that it does not indirectly infringe the asserted claims. As part of its proof of indirect infringement, a plaintiff must show that a third party directly infringed the asserted claims. *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 843 F.3d 1315, 1332 (Fed. Cir. 2016). Ingenico argues that IOENGINE has not pointed to any specific instances of direct infringement by Ingenico's customers. Dkt. No. 403 at 30–32.

IOENGINE responds by noting that it has alleged direct infringement by PayPal based on PayPal's alleged use of Ingenico's products to infringe the asserted claims. Dkt. No. 416 at 30. I have noted above that there is a triable issue as to PayPal's direct infringement of the apparatus claims of the '969 patent and the asserted method claims of both asserted patents. Viewing the facts in the light most favorable to the non-movant, a reasonable jury could find that PayPal uses Ingenico's card readers to directly infringe the asserted claims.

In any event, in order to prevail on its indirect infringement claim, IOENGINE is not required to point to direct evidence of either inducement of particular parties by Ingenico or direct infringement by the induced parties. On multiple occasions, the Federal Circuit has held that circumstantial evidence is sufficient to support a jury verdict of indirect infringement, both with respect to the element of inducement and the element of direct infringement by the induced party. *See, e.g., Power Integrations*, 843 F.3d at 1335 (collecting cases); *GlaxoSmithKline LLC v. Teva Pharms. USA, Inc.*, 7 F.4th 1320, 1340 (Fed. Cir. 2021) (“It was fair for the jury to infer that when [the defendant] distributed and marketed a product with labels encouraging an infringing use, it actually induced [third parties] to infringe.”); *Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358, 1364 (Fed. Cir. 2012) (circumstantial evidence sufficient to prove direct infringement element of induced infringement); *In re Bill of Lading Transmission*, 681 F.3d 1323, 1336 (Fed. Cir. 2012) (“This court has upheld claims

of indirect infringement premised on circumstantial evidence of direct infringement by unknown parties.”); *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1317–18 (Fed. Cir. 2009) (same); *Symantec Corp. v. Computer Assocs. Int’l, Inc.*, 522 F.3d 1279, 1293 (Fed. Cir. 2008) (same). And IOENGINE has pointed to various statements and user guides along with sample code, documentation, and applications that Ingenico makes or provides to its customers. Dkt. No. 416 at 32 (describing several exhibits). Those materials are similar to the materials the Federal Circuit held in *Power Integrations* and *GlaxoSmithKline* to be adequate circumstantial evidence of induced infringement. *See Power Integrations*, 843 F.3d at 1335 (identifying “advertisements” and “user manuals” as types of circumstantial evidence of inducement); *GlaxoSmithKline*, 7 F.4th at 1340 (same).

Ingenico makes the separate argument that IOENGINE has not shown that Ingenico’s devices “necessarily infringe[] the patent[s] in suit.” Dkt. No. 403 at 30 (quoting *Parallel Networks Licensing, LLC v. Microsoft Corp.*, 777 F. App’x 489, 493 (Fed. Cir. 2019)). However, the requirement that an indirect infringer’s product must actually infringe the claim does not apply when “the claim language only requires the capacity to perform a particular claim element.” *Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1329 (Fed. Cir. 2010). Here, the asserted claims are directed to the capabilities of the recited elements. *See, e.g.*, ’969 patent, claim 1 (reciting a “portable device configured to” perform several functions); ’703 patent, claim 104 (describing the claimed system largely in terms of its capabilities). As a result, IOENGINE need not show that Ingenico’s card readers necessarily infringe the asserted claims, as long as the card readers possess the capabilities recited in the claims, and as long as direct infringement is committed by third parties who are induced by Ingenico to infringe. I therefore find that there is a triable issue of fact with respect to whether Ingenico indirectly infringes the asserted claims.

### G. Doctrine of Equivalents

Ingenico moves for summary judgment that it does not infringe under the doctrine of equivalents. Ingenico asserts that “IOENGINE has only proffered from its expert a statement of the legal standard and a single conclusory statement” that the accused products infringe under the doctrine of equivalents. Dkt. No. 403 at 32–33.

As Judge Stark has noted, “[t]here is no set formula for determining whether a finding of equivalence would vitiate a claim limitation, and thereby violate the limitations rule.” *Int’l Bus. Machines Corp. v. Priceline Grp. Inc.*, 271 F. Supp. 3d 667, 685 (D. Del. 2017), *aff’d sub nom. Int’l Bus. Machines Corp. v. Booking Holdings Inc.*, 775 F. App’x 674 (Fed. Cir. 2019) (citation omitted). Nevertheless, the plaintiff must do more than offer “the same literal infringement theory repackaged as DOE, without particularized linking evidence on a limitation-by-limitation basis.” *Osseo Imaging, LLC v. Planmeca USA Inc.*, No. CV 17-1386, 2020 WL 6318724, at \*5 (D. Del. Oct. 28, 2020); *see also nCube Corp. v. Seachange Int’l, Inc.*, 436 F.3d 1317, 1325 (Fed. Cir. 2006); *ViaTech Techs. Inc. v. Microsoft Corp.*, 733 F. App’x 542, 552–53 (Fed. Cir. 2018).

IOENGINE points to several places in the report of IOENGINE’s expert, Aviel D. Rubin, in which Dr. Rubin noted that some of the accused devices contain components or perform functions similar to the components and functions set forth in the claims. Dkt. No. 416 at 34–35. But those statements are directed to literal infringement, not infringement under the doctrine of equivalents. For example, Dr. Rubin relied on the “Landi source code” in his discussion of how some of the accused readers “initiate a payment transaction.” Dkt. No. 418, Exh. 3, at ¶¶ 384–97. He then concluded his analysis of that feature by noting that the accused readers “are capable of the same functionalities [as those provided by the Landi source code] even if they do not utilize the Landi source code” because they “embody similar source code.” *Id.* at ¶ 397. That observation is clearly intended to say that the

additional accused card readers literally infringe, not that they infringe under the doctrine of equivalents. In any event, that observation and others to the same effect are conclusory and do not explain in what ways the functionalities or underlying source code are “similar.” *See id.*

IOENGINE has thus failed “to make a showing sufficient to establish the existence of an element essential to [its] case.” *Celotex*, 477 U.S. at 322. Because IOENGINE has not “designate[d] ‘specific facts showing that there is a genuine issue for trial’” as to the doctrine of equivalents, *Celotex*, 477 U.S. at 324 (quoting Fed. R. Civ. P. 56), IOENGINE has failed to raise a genuine dispute of material fact on which a jury could find infringement by Ingenico under that theory of liability. Summary judgment will therefore be granted for Ingenico on the issue of infringement under the doctrine of equivalents.

#### H. Opinion of Dr. Stec

In their *Daubert* motions, PayPal and Ingenico seek to exclude the opinions of Jeffery A. Stec, IOENGINE’s damages expert. Dkt. No. 403 at 33–41. IOENGINE has put forth a theory of damages based on the reasonable royalty that PayPal and Ingenico would have had to pay to license the technology in the asserted patents. As is typically done when damages claims are based on a reasonable royalty theory, IOENGINE offers expert testimony directed to the amount that willing parties would have agreed to for a license following a hypothetical negotiation. *See Fujifilm Corp. v. Benun*, 605 F.3d 1366, 1372 (Fed. Cir. 2010) (a royalty rate must reflect what “would have been agreed to in a hypothetical negotiation between a willing licensee and willing licensors”); *Lucent*, 580 F.3d at 1325. IOENGINE’s evidence addresses the royalty base that would have been used in such a hypothetical negotiation and the royalty rate that the parties would have settled on. PayPal and Ingenico challenge Dr. Stec’s conclusions as to the amount the parties would have agreed to in such a negotiation, contending (1) that Dr. Stec failed to properly apportion the value of the licensed

technology across the royalty base, (2) that he relied on a non-comparable license agreement to support his assessment of the royalty rate to which the parties would have agreed, and (3) that he improperly based his damages opinion on jury verdicts and settlement agreements in other cases.

1. *Apportionment and License Comparability*

PayPal and Ingenico first argue that in performing his damages assessment Dr. Stec failed to conduct an appropriate apportionment analysis. As the Federal Circuit has explained, “damages awarded for patent infringement ‘must reflect the value attributable to the infringing features of the product, and no more.’” *Commonwealth Sci. & Indus. Rsch. Organisation v. Cisco Sys., Inc.*, 809 F.3d 1295, 1301 (Fed. Cir. 2015) (quoting *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1226 (Fed. Cir. 2014)). To do so, the patentee must either point to “evidence tending to separate or apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented features” or demonstrate that “the entire value of the whole machine, as a marketable article, is properly and legally attributable to the patented feature.” *Uniloc*, 632 F.3d at 1318 (citation omitted).

The parties agree that in these cases the smallest salable patent-practicing units are the accused card readers. Dkt. No. 416 at 35; Dkt. No. 424 at 15. In cases in which the smallest salable unit contains features that are not attributable to the patented technology, “the patentee must do more to estimate what portion of the value of that product is attributable to the patented technology.” *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1327 (Fed. Cir. 2014). The need for apportionment can be avoided if the patentee establishes that its “patented technology drove demand for the entire product.” *Id.* at 1329. However, a patentee may “assess damages based on the entire market value of the accused product *only where* the patented feature creates the basis for customer demand or substantially creates the value of the component parts.” *Id.* at 1327 (quoting *Versata Software, Inc. v. SAP Am., Inc.*, 717

F.3d 1255, 1268 (Fed. Cir. 2013)) (emphasis in *VirnetX*); *Sonos, Inc. v. D&M Holdings, Inc.*, 297 F. Supp. 3d 501, 515 (D. Del. 2017).

The accused card readers at issue in these cases contain numerous features that are not covered by the '969 and '703 patents. For example, the accused card readers include physical components such as “a display screen, pin pad, processor, battery, power supply, and the card reading technology itself” along with security features such as “point-to-point encryption, the capacity to meet industry anti-fraud standards, [and] the ability to handle contactless transactions.” Dkt. No. 424 at 16–17.

Dr. Stec did not adjust his assessment of the royalty base for the accused products to account for those non-patented features present in the accused card readers. Nor does IOENGINE allege that the features claimed in the asserted patents “create[] the basis for customer demand” for the accused products, *see VirnetX*, 767 F.3d at 1326. Instead, IOENGINE points to the “built-in apportionment” attributable to the licenses on which Dr. Stec relies, and contends that the “built-in apportionment” satisfies the apportionment requirement. Dkt. No. 416 at 36.

A license can provide “built-in apportionment” if it is “sufficiently comparable” to the hypothetical license that parties in the position of the parties to the lawsuit would have agreed to. *Vectura Ltd. v. GlaxoSmithKline LLC*, 981 F.3d 1030, 1040 (Fed. Cir. 2020). But a fact-finder can conclude that the parties to an extraneous license “settled on a royalty rate and royalty base combination embodying the value of the asserted patent” only if the extraneous license is comparable to the license that would be the product of the hypothetical negotiation in the case before it. *Id.* at 1041; *Omega Pats., LLC v. CalAmp Corp.*, 13 F.4th 1361, 1377 (Fed. Cir. 2021). The problem with Dr. Stec’s testimony is that the circumstances that gave rise to the licenses on which Dr. Stec relied in his expert report were not comparable to the circumstances in the PayPal and Ingenico cases.

To begin with, among the licenses on which Dr. Stec relied, only one is a license entered into other than as the product of the settlement of litigation. That license is a license from iPIN Debit Network, Inc. (“iPIN”), to Infantly Available, Inc. (“Infantly”).<sup>9</sup> Dkt. No. 404, Exh. 10, at 32. In that license, iPIN granted Infantly an exclusive license to two patents and several products, including iPIN’s devices, “Debit Network,” “Debit Processing Center,” capabilities for “acquiring, settl[ing], and processing transaction[s] by merchant processors,” and “encryption and transmission of electronic and/or mobile financial transactions.” *Id.*

PayPal and Ingenico argue that the iPIN license is not comparable to the royalty agreements that would have been reached in hypothetical negotiations with IOENGINE over the asserted claims in these cases, and that it was therefore improper for Dr. Stec to rely upon the iPIN license in his report. IOENGINE argues that license comparability is a jury question that goes to the weight of Dr. Stec’s testimony, not its admissibility.

In order for the iPIN license to be admissible on the issue of damages, the license would have to be “sufficiently tied to the facts of the case.” *Apple Inc. v. Wi-LAN Inc.*, 25 F.4th 960, 971 (Fed. Cir. 2022) (quoting *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1296 (Fed. Cir. 2015)). More specifically, the Federal Circuit has instructed district courts “to exercise vigilance when considering past licenses to technologies *other* than the patent in suit.” *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 869 (Fed. Cir. 2010).

It is clear that the technology that is the subject of iPIN license differs significantly from the technology at issue here. For example, in his report Dr. Stec referenced the opinion of Dr. Rubin that

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<sup>9</sup> As noted below, Dr. Stec will be precluded from relying upon the settlement agreements and jury verdicts discussed in his report. Accordingly, Dr. Stec’s treatment of the iPIN license must independently meet the apportionment requirement for his analysis of the iPIN license to be admissible.

“the iPIN technology is not suitable for [mPOS], where the card readers rely on the [interactive user interface] and interface capabilities of a mobile phone or tablet but rather is more like a traditional POS system.” Dkt. No. 404, Exh. 10, at 38 (internal quotation marks omitted). Dr. Stec added that “the patent[s]-in-suit provide a more beneficial architecture and tunneling security benefits,” and that “the Patents-in-Suit provide significantly more important features and benefits than the technology described by this license.” *Id.* (internal quotation marks omitted). Ultimately, Dr. Stec noted that the technology covered by the iPIN license is “inferior or at least a distant second” to the technology covered by the asserted patents in these cases. Dkt. No. 404, Exh. 23, at 74.

Because of the iPIN license is so different from a license to the technology at issue in these cases, the iPIN license is of little or no value in analyzing the hypothetical negotiation that is designed to provide guidance as to the proper assessment of damages. First, the iPIN license covered one patent that had already expired by the time the license took effect and another patent that was to expire approximately one year after the license became effective. Dkt. No. 418, Exh. 31, at 39. Second, the iPIN license was exclusive, whereas a hypothetical negotiation in these cases would be for a non-exclusive license. *Id.* at 32. Third, the iPIN license covered several products, services, and other obligations in addition to the two patents recited in the license. *Id.* at 32–33. And fourth, the iPIN license did not involve any of the parties to these cases.<sup>10</sup> *See id.* Although a license need not be “perfectly analogous” in order to be comparable, the expert must nevertheless account for any

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<sup>10</sup> IOENGINE’s damages expert in a previous case involving the ’047 patent noted, when discussing licenses not involving the parties to the hypothetical negotiation, it is “probably impossible to find anything comparable that would be acceptable in terms of supporting the royalty.” *IOENGINE LLC v. GlassBridge Enterprises, Inc.*, No. 14-cv-1572, Dkt. No. 272 at 741 (D. Del. Apr. 25, 2018). That expert refused to rely upon outside licenses because “you’re not going to find very comparable technology to a particular and unique patent that you are dealing with in these cases.” *Id.* at 742.

differences between the license and the royalty agreement that would be expected to flow from a hypothetical negotiation involving the patents in suit. *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d at 1227–28.

In his analysis, Dr. Stec used the five-percent royalty rate adopted in the iPIN license as a floor for the hypothetical negotiation in these cases. Because he viewed the technology covered by that license as inferior to the technology at issue in the cases at bar, he concluded that the royalty rate for the patents in these cases should be adjusted upward from five percent of net sales. *Id.* at 74–77. But Dr. Stec failed to explain how the iPIN license provides the built-in apportionment necessary to satisfy the apportionment requirement. The patents that were the subjects of the iPIN license were directed to a “secure keyboard” in one instance and a “system for remote purchase payment transactions and remote bill payments” in the other. Dkt. No. 418, Exhs. 38–39. Dr. Stec did not explain what portion of the five-percent royalty rate in the iPIN license was attributable to the technology covered by those patents as opposed to the other provisions of the license, aside from his general assertion that the other obligations contained in the license would result in “limited downward pressure on the royalty rate that would have been agreed to in the hypothetical negotiation.” Dkt. No. 418, Exh. 31, at 41. Nor did he explain how the details of the iPIN license could be useful in separating the value of the patented features from the value of the unpatented features in the accused card readers at issue in these cases. Given the significant differences in the technologies, Dr. Stec’s failure to account for those points substantially undermines his reliance on the iPIN license. *See Omega*, 13 F.4th at 1379 (noting that a patentee may not “avoid the task of apportionment” in cases in which its expert’s testimony “does not sufficiently speak to ‘built-in apportionment’”).

The license that the Federal Circuit addressed in *Vectura Ltd. v. GlaxoSmithKline LLC*, provides a useful contrast to the iPIN license. *See* 981 F.3d at 1041. In *Vectura*, the plaintiff’s expert

relied on a prior license between the plaintiff and the defendant as providing built-in apportionment. *Vectura*, 981 F.3d at 1040. In that case, not only were the parties to the prior license the same as in the hypothetical negotiation, but the license and the hypothetical negotiation covered “roughly very similar technologies.” *Id.* at 1041. The defendant’s own expert in *Vectura* admitted that the license “was a very close comparable, much closer than you ever find in a patent case.” *Id.* at 1040. In the cases at bar, by contrast, the iPIN license that IOENGINE offers as a comparable license covered technology quite different from the technology that is the subject of the asserted claims. And the rights conveyed by the iPIN license differed dramatically from the rights that would be at issue in a hypothetical negotiation over a license to IOENGINE’s asserted patents.

In *Pavo Solutions LLC v. Kingston Technology Co.*, \_\_\_ F.4th \_\_\_, No. 21-1834, 2022 WL 1815050 (Fed. Cir. June 3, 2022), the Federal Circuit recently found that a license relied upon by the plaintiff’s damages expert provided built-in apportionment under circumstances that indicated what the Federal Circuit regards as sufficient to satisfy the apportionment requirement. The license upon which the expert in the *Pavo Solutions* case relied was a prior license to the same patent between the plaintiff and another entity. *Id.* at \*8. The court observed that the license therefore “plainly reflected the value that the contracting parties settled on for the patent.” *Id.* By contrast, the iPIN license differs in numerous respects from the license that would be the product of a hypothetical negotiation involving the asserted patents. For that reason, it cannot be said that the iPIN license “plainly reflect[s]” the value that the parties would place on the ’969 and ’703 patents. *See id.* Thus, unlike in *Vectura* and *Pavo Solutions*, the iPIN license is not “highly comparable” to the technology at issue in these cases, such that “principles of apportionment [a]re effectively baked into the [iPIN] license.” *See id.* at 1041; *Pavo Solutions*, 2022 WL 1815050, at \*8; *see also Omega*, 13 F.4th at 1379–80.

In many situations, the fact that a license is not perfectly analogous to the rights that would be at issue in a hypothetical negotiation goes to the weight of the evidence, not its admissibility. *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d at 1227. And at least in broad strokes, Dr. Stec attempted to account for some of the differences between the iPIN license and the hypothetical negotiation in these cases. But those efforts are not sufficient to satisfy the requirement that IOENGINE present evidence apportioning the “patentee’s damages between the patented feature and the unpatented features.” *Uniloc*, 632 F.3d at 1318 (citation omitted). Dr. Stec did not apportion the royalty base or rate to account for unpatented features of the accused card readers, nor did he show that the iPIN license is sufficiently comparable that “principles of apportionment [a]re effectively baked into” the license. *See Vectura*, 981 F.3d at 1041. Accordingly, his testimony regarding the iPIN license lacks the reliability required of expert evidence and will be excluded.

## 2. *Jury Verdicts*

PayPal and Ingenico also argue that Dr. Stec’s opinion impermissibly relies on prior jury verdicts from two cases involving the ’047 patent. In 2017, a jury found that Imation Corp. infringed the ’047 patent, and Dr. Stec calculated a 23.9% “implied royalty rate” based on that verdict. The same year, a jury found that Interactive Media Corp. (“IMC”) infringed the ’047 patent, and Dr. Stec calculated a 27.9% “implied royalty rate” based on that verdict. Dr. Stec considered both of those verdicts in his damages analysis.

District courts have frequently disapproved of the admission of prior jury verdicts into evidence in patent cases. *See, e.g., Sprint Commc’ns Co. v. Charter Commc’ns, Inc.*, No. 17-cv-1734, 2021 WL 982732, at \*9 (D. Del. Mar. 16, 2021); *Princeton Digital Image Corp. v. Ubisoft Entm’t SA*, No. 13-cv-335, 2018 U.S. Dist. LEXIS 213987, at \*3–7 (D. Del. Dec. 11, 2018), *report and recommendation adopted*, No. 13-cv-335, Dkt. No. 377 (Aug. 6, 2019); *Acceleration Bay LLC v.*

*Activision Blizzard, Inc.*, 324 F. Supp. 3d 470, 489 (D. Del. 2018); *Roche Diagnostics Operations, Inc. v. Abbott Diabetes Care*, 756 F. Supp. 2d 598, 605 (D. Del. 2010); *St. Clair Intell. Prop. Consultants, Inc. v. Fuji Photo Film Co.*, 674 F. Supp. 2d 555, 558–59 (D. Del. 2010), *rev'd on other grounds*, 412 F. App'x 270 (Fed. Cir. 2011); *Maxell, Ltd. v. Apple Inc.*, No. 5:19-CV-00036-RWS, 2021 WL 3021253, at \*6–7 (E.D. Tex. Feb. 26, 2021); *Atlas IP, LLC v. Medtronic, Inc.*, No. 13-CIV-23309, 2014 WL 5741870, at \*6 (S.D. Fla. Oct. 6, 2014); *Honeywell Inc. v. Victor Co. of Japan, Ltd.*, No. 99-cv-1607, 2003 U.S. Dist. LEXIS 27873, at \*4–5 (D. Minn. May 16, 2003). Those courts have generally expressed concern with the prejudice that could result from introducing a prior verdict to the jury. *Sprint*, 2021 WL 982732, at \*9 n.9; *St. Clair*, 674 F. Supp. 2d at 559; *Acceleration Bay*, 324 F. Supp. 3d at 489 n.19; *Honeywell*, 2003 U.S. Dist. LEXIS 27873, at \*4; *Maxell*, 2021 WL 3021253, at \*7.

Outside of the patent context, courts have echoed those concerns regarding the potential for prejudice. *See, e.g., Coleman Motor Co. v. Chrysler Corp.*, 525 F.2d 1338, 1351 (3d Cir. 1975) (“The admission of a prior verdict creates the possibility that the jury will defer to the earlier result and thus will, effectively, decide a case on evidence not before it.”); *Porous Media Corp. v. Pall Corp.*, 173 F.3d 1109, 1117–18 (8th Cir. 1999); *Athridge v. Aetna Cas. & Sur. Co.*, 604 F.3d 625, 633 (D.C. Cir. 2010); *Engquist v. Oregon Dep't of Agric.*, 478 F.3d 985, 1009–10 (9th Cir. 2007); *Blakely v. City of Clarksville*, 244 F. App'x 681, 684 (6th Cir. 2007); *Espenscheid v. DirectSat USA, LLC*, No. 09-CV-625, 2012 WL 12995333, at \*4 (W.D. Wis. Feb. 27, 2012); *see generally McKibben v. Phila. & Reading Ry. Co.*, 251 F. 577, 578–79 (3d Cir. 1918) (“[T]he statement made by counsel for the plaintiff in his argument to the jury as to what had been done by other juries in former trials of this case . . . [is] in a federal court deemed so improper as to warrant opposing counsel to request, and courts of their own motion to direct, the withdrawal of a juror and the continuance of a case . . .”).

Apart from the issue of prejudice, Judge Andrews has questioned the reliability of using jury verdicts to inform a hypothetical negotiation, noting that “[a] jury verdict represents the considered judgment of twelve (or maybe fewer) random non-experts as to what a hypothetical negotiation would have resulted in for the patent(s) at issue.” *Acceleration Bay*, 324 F. Supp. 3d at 489; *see also Sprint*, 2021 WL 982732, at \*9; *Princeton*, 2018 U.S. Dist. LEXIS 213987, at \*4.

The reliability of the jury verdict at issue in a particular case can also play a role in determining whether the verdict should be considered in the hypothetical negotiation. For example, in *Saint Lawrence Commc'ns LLC v. ZTE Corp.*, No. 2:15-CV-349, 2017 WL 3476978 (E.D. Tex. May 8, 2017), the court declined to admit a jury verdict that had not been tested in post-trial briefing or on appeal. As a result, the court concluded that the verdict was not an “established and reliable data point” that could be used in the hypothetical negotiation. *Id.* at \*2. As in the *Saint Lawrence* case, the verdicts in the IMC and Imation cases were never tested in post-trial motions or on appeal, because those cases both settled before the court had an opportunity to rule on the post-trial motions and before any appeal from the verdict was taken to the Federal Circuit. *See generally IOENGINE LLC v. Interactive Media Corp.*, No. 14-cv-1571 (D. Del.); *IOENGINE LLC v. GlassBridge Enterprises, Inc.*, No. 14-cv-1572 (D. Del.). Moreover, in the Imation case, the defendants had specifically challenged the damages methodology of IOENGINE’s expert in a post-trial motion for judgment as a matter of law, but in light of the settlement, that issue was never resolved. *See GlassBridge*, Dkt. No. 208, at 8–13. The fact that the verdicts in those cases were not further analyzed by the district court or the Federal Circuit render them less reliable evidence of the parties’ positions at a hypothetical negotiation than might otherwise be the case. *See Saint Lawrence*, 2017 WL 3476978, at \*2. Moreover, as IOENGINE acknowledged during the oral argument on these motions, the juries in the IMC and Imation cases awarded damages that were different from (albeit close to) the amounts requested by

IOENGINE. It is not clear what the precise basis was for the figures awarded by the juries in those cases, which further calls into question the reliability of the jury's awards in those cases as an indication of the outcome of a hypothetical negotiation in the cases at bar.

IOENGINE points out that on two occasions the Federal Circuit has declined to reverse judgments arising from cases in which prior jury verdicts were admitted as part of the plaintiffs' hypothetical negotiation analysis. *See Sprint Commc'ns Co. v. Time Warner Cable, Inc.*, 760 F. App'x 977, 980–82 (Fed. Cir. 2019); *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 435 F.3d 1356, 1365–66 (Fed. Cir. 2006). Those decisions, however, stand only for the proposition that the district courts in those cases did not abuse their discretion in allowing the juries to consider prior jury verdicts under the specific circumstances of those cases. *See Applied Med.*, 435 F.3d at 1366 (“We therefore conclude that the court acted within its discretion.”); *Sprint*, 760 F. App'x at 982 (“[T]he district court did not commit reversible error in failing to” exclude a prior jury verdict.). In neither case did the court of appeals give unqualified approval for the general admission of jury verdicts on the issue of damages. In fact, in the *Sprint* case the court made clear that prior verdicts “can be prejudicial and must be treated with great care.” *Sprint*, 760 F. App'x at 980–81. As the Third Circuit has observed, district courts are given “very substantial discretion” in making evidentiary decisions, and it would be improper to read *Sprint* and *Applied Medical* as foreclosing a district court's exercise of its discretion to exclude prior jury verdicts and instead requiring that prior jury verdicts must ordinarily be treated as admissible. *See United States v. Ali*, 493 F.3d 387, 391 (3d Cir. 2007).

In sum, there are substantial issues with using jury verdicts to inform a hypothetical negotiation, both generally and in these cases. While the jury verdicts at issue in these cases have some relevance as to the value that IOENGINE's technology would be assigned in a hypothetical negotiation, I find that the prejudicial effect of the jury verdicts substantially outweighs the probative

value of those verdicts. *See* Fed. R. Evid. 403. Accordingly, I will exclude Dr. Stec’s testimony to the extent that it relies on the IMC and Imation jury verdicts.

### 3. *Settlement Agreements*

In addition to their arguments regarding the prior jury verdicts, PayPal and Ingenico contend that Dr. Stec improperly relied on the settlement agreements that IOENGINE entered into with IMC and Imation following the jury verdicts in those cases. After the Imation verdict, IOENGINE and Imation entered into an agreement settling the litigation in that case, from which Dr. Stec calculated a 16.8% royalty rate. And after the IMC verdict, IOENGINE and IMC entered into an agreement settling the litigation in that case, from which Dr. Stec calculated a 12.2% royalty rate. Dr. Stec considered both of those settlement agreements in his report.

The Federal Circuit has observed that “[t]he propriety of using prior settlement agreements to prove the amount of a reasonable royalty is questionable.” *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 77 (Fed. Cir. 2012); *see also Zimmer Surgical, Inc. v. Stryker Corp.*, 365 F. Supp. 3d 466, 495 (D. Del. 2019); *M2M Sols. LLC v. Enfora, Inc.*, 167 F. Supp. 3d 675, 678 (D. Del. 2016) (“Federal Circuit precedent is hostile toward using litigation settlement agreements in proving a reasonable royalty, except in limited circumstances.”). As the court explained in *LaserDynamics*, a licensing agreement entered into to resolving an ongoing infringement claim “is tainted by the coercive environment of patent litigation” and is therefore generally “unsuitable to prove a reasonable royalty.” 694 F.3d at 77.

To be sure, the Federal Circuit has recognized that a court in its discretion can admit a settlement agreement if the settlement agreement is relevant to the value of the technology in suit and the relevance of the evidence is not outweighed by the risk of prejudice accompanying its admission. *See, e.g., AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324, 1336–37 (Fed. Cir. 2015); *Prism Techs.*

*LLC v. Sprint Spectrum L.P.*, 849 F.3d 1360, 1368–71 (Fed. Cir. 2017). As the court in *Prism* explained, “a license agreement entered into in settling an earlier patent suit sometimes is admissible in a later patent suit involving the value of the patented technology, and sometimes is not.” *Prism*, 849 F.3d at 1368–69. The court in *AstraZeneca* said the same—that “there is no per se rule barring reference to settlements simply because they arise from litigation.” 782 F.3d at 1336. The court in that case noted, however, that “litigation itself can skew the results of the hypothetical negotiation.” *Id.* (quoting *ResQNet*, 594 F.3d at 872). Importantly, the settlements in *AstraZeneca* and *Prism*, occurred prior to an award of damages in the form of a jury verdict. For a settlement agreement to be useful in the context of a hypothetical negotiation, it must have some “relation to demonstrated economic demand for the patented technology.” *LaserDynamics*, 694 F.3d at 77. Put simply, settlement agreements such as those in the IMC and Imation cases, which were reached after the juries had already obligated the defendants to pay a fixed amount of damages, do not reliably demonstrate the economic demand for the patented technology that was at issue in those lawsuits.

In cases in which the settlement occurs after a damages award, whatever number the jury arrives at inevitably forms a baseline for the settlement discussions.<sup>11</sup> That baseline necessarily skews the parties’ negotiations when determining the amount they will agree to in order to settle the case post-verdict. Prior licenses entered into voluntarily can be instructive for a hypothetical negotiation to the extent that those licenses reflect the royalty terms the parties before the court would have settled on in a voluntary transaction. As such, parties’ voluntary agreement on a royalty may “reflect the

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<sup>11</sup> For example, the jury award in the Imation case was \$11 million, and the parties settled for \$7.75 million. Dkt. No. 404, Exh. 10, at 22–23. Assume instead that the jury in that case had returned a verdict in the amount of \$15 million. It is highly unlikely that under those circumstances, even assuming all other factors were equal, IOENGINE and Imation would have agreed to the same \$7.75 million settlement that was reached after the \$11 million verdict that was returned in that case.

economic value of the patented technology.” *LaserDynamics*, 694 F.3d at 79. But a settlement agreement entered into in the course of litigation following an award of damages is not the product of a voluntary agreement by the parties, uninfluenced by extraneous considerations. Rather, it is an agreement driven by the result of the litigation, and in particular by the amount of the jury’s award. *See id.* at 77–78 (“The notion that license fees that are tainted by the coercive environment of patent litigation are unsuitable to prove a reasonable royalty is a logical extension of *Georgia-Pacific*, the premise of which assumes a voluntary agreement will be reached between a willing licensor and a willing licensee . . . .”); *Sprint Commc’ns Co. v. Charter Commc’ns, Inc.*, 2021 WL 982732, at \*10 (“There is minimal probative value in using litigation settlement agreements to calculate a reasonable royalty, as the settlement agreement is not comparable to a negotiation between two willing parties.”); *M2M Sols.*, 167 F. Supp. 3d at 678 (the two licenses before the court “resulted from litigation settlements, providing a drastically different backdrop than the hypothetical negotiation involving two willing licensors”); *Sprint Commc’ns Co. v. Comcast IP Holdings LP*, No. 12-1013, 2015 WL 456154, at \*2 (D Del. Jan. 30, 2015) (same).

In addition to following a damages award, the settlement agreements in the IMC and Imation cases differ from those in *AstraZeneca* and *Prism* due to their temporal distance from the hypothetical negotiation. The Federal Circuit has held that prior litigation can be relevant to a reasonable royalty analysis when the hypothetical negotiation occurs shortly after the prior litigation. *See Applied Medical*, 435 F.3d at 1366 (declining to overturn a district court’s admission of a jury verdict when the hypothetical negotiation occurred “on the heels” of the verdict); *Sprint*, 2021 WL 982732 (applying the reasoning of *Applied Medical* to settlement agreements). For both the PayPal and Ingenico cases, Dr. Stec identified June 16, 2015, as the hypothetical negotiation date (assuming infringement of both patents), see Case No. 18-452, Dkt. No. 418-5, Exh. 31, at 51, 57; Case No. 18-

826, Dkt. No. 405-1, Exh. 1, at 43, 48, and the parties confirmed at the oral argument on the present motions that June 2015 was the hypothetical negotiation date. The IMC and Imation settlement agreements, however, both occurred in 2017. The fact that the settlement agreements were entered long after the date of the hypothetical negotiation renders the settlement agreements less reliable as an indication of the value that the hypothetical negotiation would have placed on IOENGINE's technology than might otherwise be the case.<sup>12</sup>

Not only do settlement agreements such as the ones at issue in these cases lack the probative value of licenses entered outside the framework of litigation, but their admission at trial would also present a significant risk of prejudice, for much the same reason that the admission of jury verdicts would be prejudicial. In order to fully consider the probative value of the agreements, the jury would need to understand the context in which the settlement agreements were executed. That is, the jury would need to be aware that a prior jury had determined liability for infringement and had awarded damages for a particular amount prior to the settlement. Providing that context for the settlement agreement would create the same risk that would be associated with allowing the introduction of the jury verdicts in the first place, namely, that “the jury will defer to the earlier result and thus will, effectively, decide a case on evidence not before it.” *Coleman*, 525 F.2d at 1351. For those reasons, even assuming that the settlement agreements in the Imation and IMC cases have some baseline level

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<sup>12</sup> It is true that, as IOENGINE points out, some courts have held that the amount of time between a settlement agreement and the hypothetical negotiation is a concern that goes to the weight of the agreement rather than its admissibility. *See, e.g., Papst Licensing GmbH & Co., KG v. Samsung Elecs. Co.*, No. 18-CV-388, 2018 WL 10126008, at \*2 (E.D. Tex. Oct. 26, 2018); *Contour IP Holding, LLC v. GoPro, Inc.*, No. 17-CV-4738, 2020 WL 5106845, at \*9–10 (N.D. Cal. Aug. 31, 2020). However, there is no indication that the settlement agreements in *Papst* or *Contour* came after a damages award, as is the case for the IMC and Imation settlements. The nearly two-year gap between the hypothetical negotiation and the settlement agreements in the IMC and Imation cases is further evidence of those agreements' lack of comparability to the hypothetical negotiation, and in view of the totality of the circumstances, I find that they should be excluded.

of comparability to the hypothetical licenses at issue in the cases at bar, I would exclude them under Rule 403 of the Federal Rules of Evidence on the ground that the probative value of that evidence would be substantially outweighed by the danger of unfair prejudice to the defendants. Dr. Stec's testimony is therefore excluded to the extent that it relies on settlement agreements reached after verdicts in the IMC and Imation cases.

#### I. Opinion of Mr. Klenk

Finally, PayPal and Ingenico move to exclude portions of the opinion of Mr. Jeffrey Klenk, IOENGINE's expert on commercial success. Dkt. No. 403 at 41–43. Specifically, they allege that Mr. Klenk's opinion "does not meet the legal threshold for arguing the Accused Products['] commercial success indicates nonobviousness." *Id.* at 41.

When a patentee introduces evidence of commercial success as objective evidence of nonobviousness, "the patentee bears the burden of showing that there is a nexus between the claimed features of the invention" and the commercial success. *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1359 (Fed. Cir. 1999). Such a nexus is presumed if the specific product for which success is introduced "*is the invention disclosed and claimed.*" *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373–74 (Fed. Cir. 2019). But even in the absence of such a presumption, a patentee may establish a nexus "by showing that the objective indicia are the 'direct result of the unique characteristics of the claimed invention.'" *Campbell Soup Co. v. Gamon Plus, Inc.*, 10 F.4th 1268, 1276–77 (Fed. Cir. 2021) (quoting *Fox Factory*, 944 F.3d at 1373–74).

PayPal and Ingenico point to portions of Mr. Klenk's report and deposition testimony in which he acknowledged that other features of the accused card readers contribute to their commercial success. Dkt. No. 403 at 42. For example, in his report Mr. Klenk cited the importance of "encryption and other security functionality on mPOS devices" generally, Dkt. No. 404, Exh. 25, at ¶¶ 28–30, but

then in his deposition he admitted that those security features are not entirely attributable to the patented technology, Dkt. No. 404, Exh. 26, at 97–98. And Mr. Klenk identified other features of the accused products that may have contributed to their commercial success, such as “the basic capability of reading credit card information” and “support services” offered by Ingenico. *Id.* at 93.

What PayPal and Ingenico’s argument ultimately amounts to is a contention that no nexus exists between the accused products’ commercial success and the patented technology. IOENGINE, on the other hand, points to Mr. Klenk’s analysis in which he “specifically investigated the extent to which the patented technology contributed to the ability of PayPal and Ingenico to make sales of the Accused Products,” and his conclusion that “the patented technology is a crucial element of PayPal and Ingenico’s ability to sell the Accused Products.” Dkt. No. 418, Exh. 40, at ¶¶ 16–17. And it is true that the patented invention “need not be solely responsible for the commercial success” of the accused products in order for a nexus to exist. *Cont’l Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1273 (Fed. Cir. 1991). If PayPal and Ingenico had moved for summary judgment based on the absence of any nexus between commercial success and the patented technology, that motion would have been denied because, viewing the facts in the light most favorable to IOENGINE, a reasonable jury could find that such a nexus exists.

Instead, however, PayPal and Ingenico have fashioned this motion as a *Daubert* motion, which means that I must examine the “qualification, reliability, and fit” of Mr. Klenk’s testimony. *Schneider ex rel. Est. of Schneider v. Fried*, 320 F.3d 396, 404 (3d Cir. 2003). Other than the factual disputes previously mentioned, PayPal and Ingenico do not raise questions regarding Mr. Klenk’s qualifications or the reliability of his testimony. For example, they do not argue that he lacks the “broad range of knowledge, skills, and training [that] qualify an expert,” nor do they argue that his testimony rests on “subjective belief or unsupported speculation.” *Id.* (citations omitted). And to the

extent that those arguments might be implicit in the arguments PayPal and Ingenico do make, those concerns are not sufficient to prevent the evidence from reaching the jury. Rather, those concerns go to “the weight and credibility of his opinion, not its admissibility.” *See Alarm.com, Inc. v. SecureNet Techs. LLC*, No. 15-807, 2019 WL 133228, at \*2 (D. Del. Jan. 8, 2019). Accordingly, PayPal and Ingenico’s motion to exclude the testimony of Mr. Klenk is denied.

#### **IV. IOENGINE’s Motions**

For its part, IOENGINE argues that: (1) based on “IPR estoppel,” Ingenico is barred from relying on certain prior art references; (2) PayPal is estopped to the same extent as Ingenico with respect to the IPR proceedings, because PayPal was a real party in interest in those proceedings or was in privity with Ingenico for purposes of those proceedings; (3) PayPal and Ingenico have improperly asserted anticipation based on a combination of prior art references rather than a single reference; and (4) the opinion of Ingenico’s experts relating to the reasonable royalty issue should be excluded.

##### **A. IPR Estoppel**

Under 35 U.S.C. § 315(e)(2), when an IPR proceeding results in a final written decision by the PTAB, the petitioner may not argue that the claims that were challenged in the IPR proceeding are “invalid on any ground that the petitioner raised or reasonably could have raised during that inter partes review.” Specifically, “[a] prior art reference not raised in the IPR proceeding is subject to the statutory bar of 35 U.S.C. § 315(e)(2) if (1) the IPR petitioner actually knew of the reference or (2) a skilled searcher conducting a diligent search reasonably could have been expected to discover the reference.” *Palomar Techs., Inc. v. MRSI Sys., LLC*, No. CV 18-10236-FDS, 2020 WL 2115625, at \*3 (D. Mass. May 4, 2020). The estoppel provided for by section 315(e)(2) extends not only to the IPR petitioner, but also to “the real party in interest or privy of the petitioner.” 35 U.S.C. § 315(e)(2).

IOENGINE alleges that Ingenico's prior art falls into three categories: (1) patents and publications that were actually raised during IPR, (2) patents and printed publications that IOENGINE alleges could reasonably have been raised during IPR, and (3) device art for which Ingenico relies on patents and printed publications that IOENGINE alleges were raised or reasonably could have been raised in the IPR. Dkt. No. 405 at 7–21. These categories are each addressed separately below.

1. *Patents and Publications Relied Upon During the IPR*

IOENGINE alleges that Ingenico may not rely upon two references on which Ingenico actually relied in the IPR proceeding: U.S. Patent Publication No. 2003/0020813 (“Iida”) and the “Fuji Guide,” which is a user manual that was provided to purchasers of the Fujifilm FinePix6800Z camera. Dkt. No. 417, Exh. E, at 65.

The PTAB determined that the Fuji Guide did not qualify as a prior art printed publication because Ingenico failed to show that the Guide was publicly available before the critical date of the patents. For that reason, the Board did not allow Ingenico to rely upon the Fuji Guide during the IPR proceeding. *Id.* at 78. Ingenico argues that it should not be estopped from invoking the Fuji Guide as a prior art reference in this litigation, because the PTAB did not determine on the merits whether the Fuji Guide disclosed the limitations of the challenged claims. Dkt. No. 415 at 12–13. IOENGINE argues that because Ingenico failed to meet its burden in the IPR proceedings to show that the Fuji Guide was publicly available before the critical date, Ingenico should not be permitted to re-litigate that issue in this court. Dkt. No. 422 at 5.

IOENGINE's argument regarding the Fuji Guide is based on collateral estoppel, not IPR estoppel. In general, an agency adjudication is subject to the same collateral estoppel principles as an adjudication by a court. Restatement (Second) of Judgments § 83(1) & cmt. f (1982). With respect to the motions filed by PayPal and Ingenico, I noted above that the different standards of proof in an

IPR proceeding and in district court precluded a finding of collateral estoppel. In this instance, however, the burden-of-proof issue weighs against Ingenico. If Ingenico could not prove before the PTAB that the Fuji Guide was a prior art publication under the preponderance-of-the-evidence standard, that is sufficient to preclude Ingenico from attempting to establish that issue as part of its burden of proving invalidity by clear and convincing evidence. *Cf. id.* at § 28(4) (relitigation of an issue in a subsequent action is not precluded if “the adversary [of the party against whom preclusion is sought] has a significantly heavier burden than he had in the first action”). Accordingly, Ingenico will be precluded from asserting the Fuji Guide as printed publication prior art in these cases.<sup>13</sup>

As for the Iida reference, the Board determined that Iida did not anticipate the remaining asserted claims in these cases. Dkt. No. 417, Exh. E, at 85. Based on IPR estoppel principles, Ingenico will therefore be estopped from claiming that Iida anticipates the claims asserted in this proceeding. That estoppel does not necessarily mean, however, that Iida may play no role in Ingenico’s invalidity case. A defendant “can assert invalidity based on grounds that might be ‘cumulative or redundant’ of grounds raised during IPR as long as the defendant does so by relying on references or combinations of references that were unavailable” at the time of the IPR proceeding. *Contour IP Holding, LLC v. GoPro, Inc.*, No. 3:17-CV-04738, 2020 WL 109063, at \*6 (N.D. Cal. Jan. 9, 2020) (quoting *Clearlamp, LLC v. LKQ Corp.*, No. 12 C 2533, 2016 WL 4734389, at \*8 (N.D. Ill. Mar. 18, 2016)). Such reliance must constitute a new “ground” of invalidity that could not have reasonably been raised in the IPR; “merely swap[ping] evidentiary proofs supporting the same ‘ground’ for invalidity that” could have been raised during the IPR is not permitted. *See Wasica Fin. GmbH v. Schrader Int’l*,

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<sup>13</sup> This ruling, however, does not necessarily estop Ingenico from relying on the Fuji Guide in support of its contention that the Fujifilm FinePix6800Z camera is invalidating device art, as discussed below.

*Inc.*, 432 F. Supp. 3d 448, 453–54 (D. Del. 2020). In other words, Ingenico may raise an invalidity theory at trial that includes Iida only if there is some substantive difference between that theory and the theories previously raised by Ingenico in the IPR proceedings that is germane to the invalidity dispute at hand.

2. *Patents and Publications That Reasonably Could Have Been Raised During the IPR Proceedings*

IOENGINE next alleges that Ingenico was aware of several references that it could reasonably have raised in the IPR proceedings, but did not. IOENGINE contends that Ingenico should be estopped from asserting those references in this litigation. IPR estoppel “applies not just to claims and grounds asserted in the petition and instituted for consideration by the Board, but to all grounds not stated in the petition but which could reasonably have been asserted against the claims included in the petition.” *Cal. Inst. of Tech. v. Broadcom Ltd.*, 25 F.4th 976, 991 (Fed. Cir. 2022).

IOENGINE argues that IPR estoppel should apply to several categories of references because Ingenico allegedly was aware of them. The references that IOENGINE argues should be excluded at trial are (1) documents raised in Ingenico’s IPR challenge to the ’047 patent,<sup>14</sup> (2) documents described in Ingenico’s invalidity contentions that Ingenico did not raise in the IPR proceedings,<sup>15</sup> (3) documents raised in the IPR petitions filed by PayPal before Ingenico filed its IPRs,<sup>16</sup> (4) documents identified on the face of the ’703 patent,<sup>17</sup> and (5) documents discussed in the report of Dr. Vijay Madiseti,<sup>18</sup> which was produced to Ingenico prior to the filing of Ingenico’s IPR petitions. Dkt. No.

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<sup>14</sup> Genske, U.S. Patent Publication No. 2002/0065872

<sup>15</sup> The “FujiFilm Documents,” identified at Dkt. No. 405 at vi.

<sup>16</sup> Abbott, U.S. Patent No. 7,272,723; Shmueli, U.S. Patent Publication No. 2002/0147912; Burger, U.S. Patent Publication No. 2002/0099665; DiGiorgio, U.S. Patent No. 6,385,729.

<sup>17</sup> Elazar, U.S. Patent Publication No. 2004/0039932; Shmueli.

<sup>18</sup> The documents identified at Dkt. No. 405 at 11–12 (subsection 5).

405 at 8–12. Ingenico concedes that it could have raised those documents in the IPR proceedings. Dkt. No. 451 at 233–34. Accordingly, Ingenico will be estopped from relying on those documents to prove invalidity unless, as discussed above, they form part of a substantively different combination of references that would not have been available to raise in the IPRs.

IOENGINE also identifies several categories of documents that Ingenico “reasonably could have been expected to discover.” Dkt. No. 405 at 13. Those categories are: (1) references listed by PayPal in its invalidity contentions,<sup>19</sup> (2) documents related to the DiskOnKey system that were identifiable via a Google search or by searching other patents from the same inventor,<sup>20</sup> and (3) documents obtained pursuant to a subpoena to Western Digital after the IPR petition had been filed.<sup>21</sup> *Id.* at 13–16. Ingenico does not suggest any reason to believe that it could not have raised those documents in the IPR proceeding as well.<sup>22</sup> Accordingly, Ingenico will be estopped from relying on those documents except to the extent, as noted above, that they form part of a substantively different combination of references that could not reasonably have been raised in the IPRs.

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<sup>19</sup> Iijima, U.S. Patent Publication No. 2003/0053124; Nakagawa, WIPO Patent Publication No. WO 02/075549 A1; Bodnar, U.S. Patent No. 7,433,710; Seaman, U.S. Patent Publication No. 2003/0030733.

<sup>20</sup> Ban-078, U.S. Patent No. 7,175,078; Ban-354, U.S. Patent No. 6,148,354; Teicher-409, U.S. Patent No. 8,745,409; Teicher-219, U.S. Patent No. 7,240,219.

<sup>21</sup> Any “documentation related to DiskOnKey Upgrade software and numerous other Western Digital Documents,” Dkt. No. 405 at 15–16, which are identified at Dkt. No. 405, Appendix V.

<sup>22</sup> Ingenico suggests in its brief that some of the Western Digital documents on which it relies were “designated as confidential to Western Digital.” Dkt. No. 415 at 11. To the extent that Ingenico relies on documents that are not public (i.e., they are not prior art publications), Ingenico will not be estopped from raising those documents because they could not reasonably have been raised as prior art publications in the IPR proceedings.

### 3. *Device Art*

IOENGINE argues that Ingenico should not be permitted to rely upon device art, i.e., particular prior art devices, to the extent that the proof of the device art incorporates any documents to which IPR estoppel applies. In general, IPR estoppel does not apply to device art, because “a petitioner cannot use an IPR to challenge the validity of a patent claim . . . based on prior art products or systems.” *Medline Indus., Inc. v. C.R. Bard, Inc.*, No. 17 C 7216, 2020 WL 5512132, at \*3 (N.D. Ill. Sept. 14, 2020). However, some courts have estopped defendants from asserting device art when “the physical product is entirely cumulative” of the prior art raised in the IPR, i.e., when the product is “materially identical” to the prior art reference raised in the IPR. *See, e.g., Wasica Fin. GmbH v. Schrader Int’l, Inc.*, 432 F. Supp. 3d 448, 454–55 (D. Del. 2020); *see also Biscotti Inc. v. Microsoft Corp.*, No. 2:13-CV-01015, 2017 WL 2526231, at \*8 (E.D. Tex. May 11, 2017); *Cal. Inst. of Tech. v. Broadcom Ltd.*, No. CV 16-3714, 2019 WL 8192255, at \*7 (C.D. Cal. Aug. 9, 2019), *aff’d*, 25 F.4th 976 (Fed. Cir. 2022) (disapproving the use of device art that “simply swap[s] labels for what is otherwise a patent or printed publication invalidity ground in order to ‘cloak’ its prior art ground and ‘skirt’ estoppel”).

Ingenico seeks to rely upon two devices at trial, the DiskOnKey and the Fujifilm FinePix6800Z camera (the “Fuji camera”). In response, IOENGINE first argues that because Ingenico’s experts did not test those devices, but instead intend simply to rely upon documents describing the devices, those invalidity grounds may not properly be characterized as device art. Courts, however, have allowed the functions of prior art devices to be established through the use of documents and testimony. *SiOnyx, LLC v. Hamamatsu Photonics K.K.*, 330 F. Supp. 3d 574, 604 (D. Mass. 2018) (“It is true that defendants’ expert did not examine the product itself, but relied on documentation describing the product. But that documentation is evidence of how the product is

configured, how it is made, and how it works.”); *Fujifilm Corp. v. Motorola Mobility LLC*, 182 F. Supp. 3d 1014, 1028–29 (N.D. Cal. 2016). I agree that Ingenico’s expert need not have inspected or tested the devices in order to rely upon them for purposes of invalidity. Accordingly, the evidence relating to DiskOnKey and FinePix6800Z may properly be considered to be device art.

With respect to the DiskOnKey device, IOENGINE argues that Ingenico’s expert, James T. Geier, relies on “44 documents, all of which could have been raised during IPR.” Dkt. No. 405 at 19 & Appendix III. However, IOENGINE does not establish that each of those 44 documents reasonably could have been raised in the IPR. To the contrary, Ingenico submits that it is relying on documents that it obtained via a third-party subpoena and that those documents are “non-public and not reasonably available.” Dkt. No. 415 at 11. In support, Ingenico points to the expert report of Mr. Geier, who Ingenico claims relied on non-public documents that Ingenico obtained via subpoena. *See* Dkt. No. 451 at 231; Dkt. No. 406, Exh. 1, at 75–85 (citing various Western Digital documents including SDK documentation and executable files). IOENGINE’s briefing addresses the general categories of documents on which Ingenico seeks to rely, but it does not address Ingenico’s assertion that some of those documents would not have been publicly available and could not reasonably have been relied upon in an IPR proceeding. Thus, IOENGINE has not demonstrated that there is no genuine dispute of material fact with respect to whether the documents relating to the DiskOnKey could have been raised in an IPR.

As for the Fuji camera, I noted above that I will not exclude the Fuji Guide on the basis of IPR estoppel, but that Ingenico is collaterally estopped from arguing that the Fuji Guide was publicly available before the critical date. That collateral estoppel determination does not extend, however, to the separate issue of whether the Fuji Guide evidences the features that would have been present in the Fuji camera before the critical date. Even if Ingenico was aware of the other documents it now

seeks to rely upon to establish the functions of the Fuji camera, the unavailability of the Fuji Guide for use in the IPR precludes the application of IPR estoppel to the Fuji camera device. *See SPEX Techs. Inc v. Kingston Tech. Corp.*, No. SACV 16-01790, 2020 WL 4342254 (C.D. Cal. June 16, 2020) (“The Court finds that the reliance on some printed publications in an overall collection of documents being used to describe a system invalidity theory should not lead to estoppel of the overall system invalidity theory itself, nor piecemeal exclusion of the printed publications underlying that system invalidity theory, absent a showing that the system invalidity theory is a patent or printed publication theory in disguise.”). Accordingly, summary judgment will not be granted excluding the Fuji camera from evidence at trial.

#### 4. *Summary*

In summary, Ingenico is estopped from relying on references that it actually raised or reasonably could have raised during the IPR proceedings. However, that estoppel extends only to references or combinations of references that could have been raised during IPR. Ingenico is not estopped from relying on device art if, as it appears here, that device is not simply a printed publication invalidity theory in disguise. Because a device may not be raised as a ground for invalidity in an IPR, Ingenico may combine the DiskOnKey device and/or the Fuji camera with other references that it raised or reasonably could have raised in the IPR proceeding, so long as that combination is substantively different from the grounds that were raised or reasonably could have been raised by Ingenico in its petitions for IPR. *See Microchip Tech. Inc. v. Aptiv Servs. US LLC*, No. 1:17-CV-01194, 2020 WL 4335519, at \*4 (D. Del. July 28, 2020) (applying IPR estoppel to publications but not to device art used in combination with those publications).

## B. Real Party in Interest and Privity

As part of its motion for partial summary judgment, IOENGINE argues that PayPal was either a real party in interest in Ingenico’s IPR proceedings or was in privity with Ingenico with respect to those proceedings. As a result, according to IOENGINE, PayPal should be subject to IPR estoppel to the same extent as Ingenico with respect to prior art that Ingenico actually relied upon or could reasonably have relied upon in the IPR proceeding. Dkt. No. 405 at 21–35.

By statute, IPR estoppel extends beyond the petitioner to any “real party in interest or privy of the petitioner.” 35 U.S.C. § 315(e)(2). Those terms, which are not defined in Title 35, are well-established common law terms in the law of judgments, and the Federal Circuit has held that Congress intended for those terms to have their common law meaning. *See Power Integrations, Inc. v. Semiconductor Components Indus., LLC*, 926 F.3d 1306, 1315 (Fed. Cir. 2019); *WesternGeco LLC v. Ion Geophysical Corp. Int’l S.A.R.L.*, 889 F.3d 1308, 1319 (Fed. Cir. 2018).

Consistent with its use in the law of judgments, the “real party in interest” inquiry focuses on “whether a petition has been filed at a nonparty’s behest.” *Uniloc 2017 LLC v. Facebook Inc.*, 989 F.3d 1018, 1028 (Fed. Cir. 2021) (quoting *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1351 (Fed. Cir. 2018)); *Wi-Fi One, LLC v. Broadcom Corp.*, 887 F.3d 1329, 1336 (Fed. Cir. 2018). In particular, a party that “funds and directs and controls an IPR or [post-grant review] proceeding constitutes a ‘real-party-in-interest.’” *Wi-Fi One*, 887 F.3d at 1336 (citing PTO, Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,760 (Aug. 14, 2012)).

The privity inquiry, also a familiar feature of the law of judgments, focuses on whether the party alleged to be in privity with the petitioner “had a full and fair opportunity to litigate the issues it now seeks to assert.” *Id.* (internal quotation marks and citation omitted). In *Taylor v. Sturgell*, 553 U.S. 880 (2008), the Supreme Court identified six factors as bearing on the question whether two

parties are in privity for purposes of determining whether the second party should be bound by decisions made in a proceeding involving only the first party. Those factors are whether (1) there was an agreement by the parties to be bound by a decision in the first party's case; (2) there was a pre-existing substantive legal relationship between the parties, such as assignor and assignee, preceding and succeeding owners of property, or bailee and bailor; (3) in certain circumstances, whether the second party was adequately represented by a party in the first action having the same interests as the second party; (4) the second party assumed control over the litigation in which the initial judgment was rendered; (5) the second party is seeking to relitigate an issue through a proxy, i.e., where the second party is the designated representative of a person who was a party to the prior adjudication; and (6) a special statutory scheme expressly forecloses successive litigation by persons who were not parties to the first action, assuming the statutory scheme satisfies due process requirements. *Id.* at 894–95. The Federal Circuit and the PTO have looked to the Supreme Court's opinion in *Taylor* for guidance as to whether parties were in privity for purposes of IPR estoppel. *See Uniloc 2017*, 989 F.3d at 1028–29; *Applications in Internet Time*, 897 F.3d at 1359–64 (Reyna, J., concurring); *WesternGeco*, 889 F.3d at 1319; *Wi-Fi One*, 887 F.3d at 1336; Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,759.

IOENGINE argues that the following considerations support a finding that PayPal was a real party in interest in Ingenico's IPR proceedings or that PayPal was in privity with Ingenico for purposes of those proceedings: (1) there is a supply agreement between PayPal and Ingenico, which is part of a longstanding business relationship between the parties relating to the products at issue in these cases; (2) there are cross-indemnification obligations between PayPal and Ingenico; (3) PayPal and Ingenico have conducted a coordinated defense in this action; (4) Ingenico shares and represents PayPal's interests to such a degree that PayPal should be regarded as having been a real party in interest in the

IPR proceedings or that PayPal should be regarded as having been in privity with Ingenico for purposes of those proceedings; and (5) Ingenico would in effect be relitigating by proxy the issues it lost in the IPR proceedings if PayPal were permitted to challenge the validity of the asserted claims on grounds that Ingenico is estopped from asserting. Dkt. No. 405 at 25–32. PayPal disputes that those points establish either that PayPal was a real party in interest in Ingenico’s IPR proceedings or was in privity with Ingenico in the course of those proceedings.

In opposition to IOENGINE’s motion for summary judgment that PayPal was the real party in interest in Ingenico’s IPR proceedings, PayPal points to declarations from PayPal and Ingenico’s outside counsel, as well as from PayPal’s in-house counsel, stating that PayPal and Ingenico did not cooperate in petitioning for *inter partes* review of the asserted patents. Dkt. No. 417, Exhs. F–H. Additionally, Ingenico represented to the PTAB that its petitions were filed “under the complete direction and control of Ingenico without contribution from PayPal.” Dkt. No. 417, Exhs. I–L. Because the real-party-in-interest inquiry typically focuses on whether a party controls, funds, or directs the “petitioner’s participation in a proceeding,” *see Applications in Internet Time*, 897 F.3d at 1342, PayPal and Ingenico’s evidence to the contrary creates at least a genuine dispute of material fact on the real-party-in-interest issue. That is particularly true in light of the absence of any evidence that Ingenico initiated its IPR proceedings at PayPal’s behest or that PayPal funded Ingenico’s activities before the PTAB. Summary judgment therefore cannot be granted to IOENGINE with regard to its contentions that PayPal was a real party in interest in Ingenico’s IPR proceedings.

IOENGINE has also failed to show that it is entitled to summary judgment on its contention that PayPal was in privity with Ingenico in the IPR proceedings. IOENGINE argues that the supply agreement between PayPal and Ingenico establishes that the two entities were in privity for purposes of Ingenico’s IPRs. PayPal, however, responds that “[t]he agreement merely reflects a standard

customer-manufacturer relationship in which Ingenico manufactured and supplied products to PayPal.” Dkt. No. 415 at 19. IOENGINE places great weight on the fact that Ingenico has produced a large majority of PayPal’s accused card readers and that PayPal entered into a long-term “Custom Product Sales Agreement” with Ingenico’s predecessor in 2012 under which Ingenico agreed to produce a custom mobile card reader exclusively for PayPal, along with various rights and services attendant to the sale and use of those machines. While that agreement confirmed that Ingenico and PayPal have had a close business relationship as manufacturer and customer, such relationships are not uncommon, and the fact of that relationship does not suffice to show that the parties are so closely related that litigation preclusion against one should extend to the other. *See Atlanta Gas Light Co v. Bennett Regul. Guards, Inc.*, No. IPR2015-00826, 2015 WL 5159438, at \*8–9 (P.T.A.B. Sept. 1, 2015).

In support of its privity argument, IOENGINE places its greatest emphasis on the cross-indemnification provisions in the agreement between PayPal and Ingenico, which IOENGINE argues are strong evidence that PayPal and Ingenico are in privity. PayPal responds by pointing to evidence indicating that neither party has agreed to indemnify the other with respect to the cases at bar. Dkt. No. 409, Exh. 30, at 70–71. The indemnification clauses, which are directed at holding each party harmless from expenses attributable to violations of law by the other do not appear plainly applicable to the situation presented in these cases, in which Ingenico and PayPal have each been sued based directly on their own conduct. Nor has either party sought to control the other party’s conduct of the litigation, or even suggested that either party has the right to do so under the circumstances of these cases. The indemnification clauses therefore do not have the force that IOENGINE attributes to them, and they are insufficient, at least for summary judgment purposes, to require that Ingenico and PayPal be treated as being in privity with one another.

Next, IOENGINE alleges that PayPal and Ingenico coordinated their strategies in the IPR proceedings, but PayPal and Ingenico dispute that assertion as well. Dkt No. 417, Exhs. F–L. PayPal and Ingenico point out that although PayPal raised issues in its IPR petitions different from those raised by Ingenico, doing so was entirely rational, since if PayPal had filed a duplicative IPR petition, the PTAB might well have declined institution on that ground alone.

The remaining consideration raised by IOENGINE is that PayPal and Ingenico have coordinated their defenses in this action. But “without more,” two parties’ consolidation of argument and evidence in their defense against parallel infringement proceedings does not justify a finding of privity. *See Uniloc 2017*, 989 F.3d at 1029. The Ingenico and PayPal cases were consolidated for purposes of discovery and pretrial proceedings at IOENGINE’s behest, and the consolidation was clearly in all parties’ interest (and well as the court’s) by avoiding duplication of effort. The fact that Ingenico and PayPal have joined in making many of the same arguments during the pretrial process is hardly surprising, given that they have both been charged with infringement of the same claims of the same patent in connection with the manufacture and sale of many of the same devices. The substantial parallelism in their litigation interests is not enough to justify the conclusion, on summary judgment, that Ingenico and PayPal are so closely aligned that each should be subject to preclusion based on rulings made against the other. That is to say, IOENGINE has not shown, for purposes of summary judgment, that PayPal has had a full and fair opportunity to litigate the issues that were raised unsuccessfully by Ingenico, merely because of the close commercial relationship between the parties and their status as defendants in closely related actions brought by IOENGINE. In the end, because privity is a holistic inquiry that requires consideration of “all contacts between [the parties], direct and indirect,” the existence of disputes as to many of the factors cited by IOENGINE creates at least a genuine issue of material fact with respect to privity. *See Intel Corp. v. U.S. Int’l Trade*

*Comm'n*, 946 F.2d 821, 838 (Fed. Cir. 1991). Accordingly, summary judgment is denied on this issue.

While considering the real-party-in-interest and privity issues, I asked the parties to brief the question whether those issues are factual or legal, and whether they are for the court to decide as a preliminary matter or for the jury to decide at trial. The parties submitted briefs in response to my request, and based on that briefing and my independent research, I am persuaded that, for the reasons set forth below, the questions whether PayPal was a real party in interest in Ingenico's IPR proceedings and whether PayPal was in privity with Ingenico for purposes of those proceedings are mixed questions of fact and law that are for the court, not the jury, to decide.

Courts are divided with regard to the question whether privity is a question of fact, a question of law, or a mixed question of fact and law. *See, e.g., Vulcan, Inc. v. Fordees Corp.*, 658 F.2d 1106, (question of fact); *Sw. Airlines Co. v. Texas Int'l Airlines, Inc.*, 546 F.2d 84, 95 (5th Cir. 1977) (question of law); *Matter of L & S Indus., Inc.*, 989 F.2d 929, 933 (7th Cir. 1993) (mixed question of law and fact that is "particularly amenable to a sliding-scale standard of review" depending on the nature of the inquiry).

The Third Circuit has held that the issue of privity presents a legal question that may be based on underlying issues of fact. *See Jean Alexander Cosms.*, 458 F.3d at 248 ("[W]hether the basic requirements for issue preclusion are satisfied . . . is a matter of law over which we exercise plenary review"); *Ransburg Electro-Coating Corp. v. Lansdale Finishers, Inc.*, 484 F.2d 1037, 1038 (3d Cir. 1973) ("We . . . hold that the question of control of the previous litigation was for the court as a fact-finder."); *United States v. Webber*, 396 F.2d 381, 386 (3d Cir. 1968) ("In circumstances similar to the present case, whether the individuals exercised sufficient control over or had the requisite interest in [a prior] litigation is primarily a question of fact."). As a general matter, the Federal Circuit has held

that questions as to the application of collateral estoppel turn on regional circuit law, not Federal Circuit law. *In re PersonalWeb Techs. LLC*, 961 F.3d 1365, 1374 (Fed. Cir. 2020) (“To the extent that a case turns on general principles of claim preclusion, as opposed to a rule of law having special application to patent cases, this court applies the law of the regional circuit in which the district court sits . . .”). Arguably, the fact that the collateral estoppel issue in this case arises in the context of an IPR proceeding would suggest that a patent-specific rule should apply, and thus Federal Circuit law should govern. *See id.* That principle does not apply here, however, for two reasons: First, the legislative history of the AIA makes clear that the terms “privity” and “real party in interest” were intended to have their ordinary common law meanings in the IPR context, not a patent-law-specific meaning. *See Wi-Fi One*, 887 F.3d at 1335–36. Second, there is no indication that Federal Circuit law would be different from Third Circuit law in this respect. *See, e.g., WesternGeco*, 889 F.3d at 1316, 1322 (reviewing the PTAB’s finding of no privity for “substantial evidence,” the standard of review that applies to “factual determinations” underlying the Board’s legal conclusions). I will therefore apply Third Circuit law, which treats the collateral estoppel issue as a legal question that may be based on underlying disputed facts.

The next question, which was addressed by the parties in their supplemental briefing on the privity/real-party-in-interest issue, is whether the issues of privity and real-party-in-interest status are to be given to the jury or reserved for the court to decide as a preliminary matter. The parties take different positions as to that issue: IOENGINE argues that those issues are for the jury; PayPal and Ingenico argue they are for the court.

While the parties have not pointed to any governing precedent on this issue, the parties’ briefing indicates, as does my research, that both the legal and factual components of these related issues have consistently been addressed by the court and not the jury. In *Ransburg*, the district court

held on summary judgment that one of the defendants to that patent infringement case “had controlled the defense of a previous [patent] infringement action” brought by the plaintiff against one of that defendant’s customers (i.e., that defendant was in privity with a defendant in a prior action). *Ransburg*, 484 F.2d at 1038. Concluding that a genuine dispute of material fact existed as to whether that defendant controlled the prior litigation, the Third Circuit reversed the district court but held “that the question of control of the previous litigation was for the court as a fact-finder.” *Id.* at 1038–40. Accordingly, the court’s language in *Ransburg* is a strong indication that the factual portion of the privity inquiry is a question reserved for the court.

Other cases are in accord. *See, e.g., Webber*, 396 F.2d at 386 (“[T]he court . . . can find that privity exists . . .”); *Mars Inc. v. Nippon Conlux Kabushiki-Kaisha*, 58 F.3d 616, 620 (Fed. Cir. 1995) (“[A] plaintiff who chooses to bring two separate actions against two tortfeasors who are jointly responsible for the same injury runs the risk *that the court will find* the parties sufficiently related that the second action is barred by claim preclusion.” (emphasis added)); *Amalgamated Sugar Co. v. NL Indus., Inc.*, 825 F.2d 634, 641 (2d Cir. 1987) (“The question whether a party’s interests in a case are virtually representative of the interest of a nonparty is one of fact for the trial court.” (quoting *Aerojet-Gen. Corp. v. Askew*, 511 F.2d 710, 719 (5th Cir. 1975))); *Evonik Degussa GmbH v. Materia Inc.*, 53 F. Supp. 3d 778, 788 n.10, 795–96 (D. Del. 2014) (“[T]he court finds [that the defendant] was in privity with [another party to a prior litigation].”); *Hinshillwood v. Cnty. of Montgomery*, No. 00-cv-4283, 2002 WL 1773059, at \*5 (E.D. Pa. July 31, 2002) (“The fourth and final element of issue preclusion requires the Court to find that same parties or their privities were fully represented in the prior action. . . . [T]he Court finds that the fourth and final element of issue preclusion has been met.”); *see also* 18 J. Wm. Moore, *Moore’s Federal Practice* § 132.04 [1][b][ii] (2022) (“Privity is a legal

determination for the trial court with regard to whether the relationship between the parties is sufficiently close to support preclusion.”).

IOENGINE cites two cases that it contends stand for the proposition that questions whether two parties are in privity should be submitted to a jury. Dkt. No. 496 at 8–9 (citing *Mazzei v. Money Store*, 829 F.3d 260 (2d Cir. 2016), and *Landegger v. Cohen*, 5 F. Supp. 3d 1278, 1295 (D. Colo. 2013)). Those cases do not support IOENGINE’s assertion that whether a third party was in privity with a participant in an IPR proceeding or was a real party in interest in that proceeding is an issue that should be given to the jury as opposed to being decided by the court. The reason is that those cases involved questions of privity of contract, not privity in the context of preclusion law. Privity of contract refers to the status of parties who are entitled to sue on a particular contract. *See* 13 Richard A. Lord, *Williston on Contracts* § 37:1 at 4 (4th ed. 2013); 9 John E. Murray, Jr., *Corbin on Contracts* § 41.2 at 4 (rev. 3d 2007); *Universal Bonding Ins. Co. v. Gittens & Sprinkle Enters., Inc.*, 960 F.2d 366, 376 (3d Cir. 1992). And it is clear that the term “privity,” as used in the phrase “privity of contract” has a very different meaning from the term “privity” as used in the law of judgments and in particular in the collateral estoppel context. *See, e.g., Phil Crowley Steel Corp. v. Sharon Steel Corp.*, 702 F.2d 719, 722 (8th Cir. 1983) (“‘Privity’ is a term with different meanings in different contexts; for example, the concept of ‘privity of parties’ is not the same as the concept of ‘privity of contract.’”); *Putnam Mills Corp. v. United States*, 479 F.2d 1334, 1340 (Ct. Cl. 1973) (“The words ‘privity’ or ‘privy,’ however, are not necessarily interchangeable between the contract and res judicata contexts.”); *Meisner v. Zymogenetics, Inc.*, No. 3:15-cv-3523, 2016 WL 4858741, at \*4 (D.S.C. Sept. 15, 2016) (“Privity in the *res judicata* context depends on the relationship between the parties in the first and second lawsuits, and is different from privity of contract.”). Thus, once IOENGINE’s privity-of-contract cases are disregarded, IOENGINE has cited no authority for its position that privity and

real-party-in-interest status in an IPR proceeding are for the jury to decide in district court litigation following upon IPR proceedings.

While issues of privity and real party in interest frequently involve factual questions, as they do in these cases, that does not automatically require that they be committed to the jury for resolution. Issues such as claim construction can involve factual disputes, but nonetheless are reserved to the court for decision. Preliminary determinations bearing on the admissibility of evidence are also routinely decided by courts, even when they turn on factual determinations. *See Bourjaily v. United States*, 483 U.S. 171, 177–78 (1987); *see generally* Fed. R. Evid. 104(a). The task of deciding the predicate question of PayPal’s status in order to determine whether to permit PayPal to introduce certain evidence at trial is closely akin to the commonplace task of deciding preliminary factual questions in determining whether to admit particular evidence. In the PayPal case, then, the court will decide whether the IPR estoppel applicable to Ingenico also applies to PayPal. That decision will be made in advance of the trial in the PayPal case.

### C. Anticipation for Combined References

IOENGINE next argues that PayPal and Ingenico rely upon several references to describe the DiskOnKey and Fuji camera devices, but have not shown “that the functionality described across multiple references ever actually existed in a single device.” Dkt. No. 405 at 35 (emphases omitted). Anticipation, of course, depends on a finding that a single reference satisfied all the limitations of the challenged claim. Nonetheless, it is permissible for a defendant to establish anticipation by using several documents that reveal how a single prior art system works. *Brit. Telecomms. PLC v. IAC/InterActiveCorp*, No. 18-cv-366, 2020 WL 3047989, at \*6 (D. Del. June 8, 2020); *see also Radware, Ltd. v. F5 Networks, Inc.*, No. 5:13-CV-02024, 2016 WL 861065, at \*2 (N.D. Cal. Mar. 5, 2016); *Shuffle Tech Int’l, LLC v. Sci. Games Corp.*, No. 15 C 3702, 2018 WL 2009504, at \*4 (N.D.

Ill. Apr. 29, 2018). By contrast, a “post-hoc, reconstructed interpretation of how a [prior-art] system *might* have been constructed does not constitute prior art for purposes of anticipation.” *Apple, Inc. v. Samsung Elecs. Co.*, No. 12-CV-00630-LHK, 2012 WL 2576136, at \*3 (N.D. Cal. July 3, 2012).

With respect to the DiskOnKey device, IOENGINE argues that the experts for PayPal and Ingenico rely upon multiple documents to describe that device without establishing that all of the documents describe “a single device” that “was in existence . . . prior to the priority date.” Dkt. No. 405 at 36. In particular, IOENGINE points to the report of PayPal’s expert, Harry Bims, who noted that his analysis of the DiskOnKey referred to “the DiskOnKey 2.0, DiskOnKey Titan, DiskOnKey v.2.7.1, DiskOnKey T3, and DiskOnKey Pro *devices*.” Dkt. No. 406, Exh. 2, at ¶ 776 (emphasis added). PayPal responds by offering evidence that the various versions of the DiskOnKey devices “differed only in their form factors, speed, and/or memory sizes, which [are] not material here.” Dkt. No. 415 at 33; *see also* Dkt. No. 417, Exh. KK, at 23. PayPal also notes that “there is evidence in the record that the [DiskOnKey] SDK and software applications were supported across the versions.” Dkt. No. 415 at 33; Dkt. No. 417, Exhs. II–JJ. Viewing the facts in the light most favorable to PayPal and Ingenico, a reasonable jury could find that documentation describing various versions of the DiskOnKey is representative of a single prior art device.

IOENGINE relies on *Apple, Inc. v. Samsung Electronics Co.*, but that decision does not support IOENGINE’s argument. The court in that case found that there was “no evidence that the [documents used by the defendant’s expert] were in existence at the same time or that they were combined in a single apparatus.” *Apple*, 2012 WL 2576136, at \*3. Here, by contrast, the evidence at least suggests that the various features described in the references on which PayPal relies may have been present in a single DiskOnKey device. Moreover, the court in *Apple* evaluated the prior art in the context of a motion to stay a preliminary injunction pending appeal, rather than one for

summary judgment. *Id.* at \*1. The court in *Apple* evaluated the defendant’s “likelihood of success on the merits of its appeal,” whereas here the standard is whether there is a genuine dispute of material fact. *See id.* at \*2. Because I find there is a triable issue of fact with respect to anticipation by a single DiskOnKey device, summary judgment on that issue will be denied.

With respect to the Fuji camera, IOENGINE asserts that Ingenico’s expert, James Geier, relied upon multiple documents describing the camera and that he did not analyze or test the physical device itself. Dkt. No. 405 at 35–36. IOENGINE does not explain how or why the various documents that Mr. Geier relied upon are representative of systems other than the single asserted prior art device. Accordingly, IOENGINE has not met its burden to demonstrate that there is no genuine dispute of material fact regarding the Fuji camera. Summary judgment is therefore denied as to the Fuji camera as well.

#### D. Opinions of Mr. Sussman and Mr. Geier

IOENGINE’s final argument is that portions of the opinions of Ingenico’s experts, Barry Sussman and James Geier, should be excluded. Dkt. No. 405 at 37–41. IOENGINE objects to Mr. Geier’s conclusion that the asserted claims contribute 5% of the security of Ingenico’s payment transactions, and to Mr. Sussman’s subsequent reliance on that opinion in his “market factors” damages theory, along with Mr. Sussman’s “additional gross profits” damages theory.

##### 1. “*Market Factors*” Theory

IOENGINE first argues that Mr. Sussman’s “market factors” theory should be excluded because it relies on an unsupported opinion from Mr. Geier. As noted above with respect to Dr. Stec, damages for patent infringement should reflect the incremental value to the infringer that was attributable to the claimed invention. But that incremental value need not be determined with

absolute precision; the “approximate value of [the] technological contribution” is enough. *Ericsson*, 773 F.3d at 1233.

In his report, Mr. Sussman determined that 29.8% of the value of mPOS sales generally was attributable to security features of the mPOS system. Dkt. No. 407, Exh. 36, at ¶ 101. Mr. Sussman then accepted Mr. Geier’s opinion that “the patented innovations contributed only 5% to the overall security of payment processing.” *Id.* at ¶ 102. Multiplying 29.8% by 5%, Mr. Sussman concluded that 1.5% of Ingenico’s mPOS sales are attributable to the claimed inventions. *Id.* at ¶ 103.

Mr. Geier arrived at his 5% figure by identifying various factors that contribute to the security of mPOS transactions and by considering whether the claimed inventions cover those factors. Dkt. No. 423, Exh. 57, at ¶¶ 296–301. Mr. Geier listed several factors that have no relationship to the claimed invention, such as “point-to-point encryption,” “tokenization,” “adherence to payment industry standards and specifications,” and “various measures taken by consumers, merchants, and banks to avoid fraudulent payments.” *Id.* at ¶¶ 297–300. He then noted that the claimed inventions “pertain[] only to specific message flow involving a card reader executing specific code in response to a message from a phone/tablet.” *Id.* at ¶ 301. Mr. Geier estimated that, because the claimed inventions covered only one of several factors that contribute to security, “the asserted claims contribute 5% [of] the security of a payment transaction.” *Id.*

In *Odyssey Wireless, Inc. v. Apple Inc.*, No. 15-CV-01735, 2016 WL 7644790 (S.D. Cal. Sept. 14, 2016), the court considered a similar estimate made by the plaintiff’s technical expert. The defendant’s expert in that case took the position that the asserted patents were “responsible for 20% of the increase in 4G LTE uplink speed” in the accused devices. *Id.* at 7. He stated that he reached that conclusion by “evaluat[ing] all the factors that contribute to the increase in 4G LTE uplink speed over previous systems.” *Id.* The court rejected the argument that the expert’s opinion was

inadmissible because it was “an approximation and not . . . supported by testing or simulation.” *Id.* Such arguments, according to the court, went to the weight of the testimony, not its admissibility. *Id.*

I find that Mr. Geier’s approximation and Mr. Sussman’s subsequent reliance on it should not be excluded, and that IOENGINE’s concerns can be adequately addressed on cross-examination of both experts. Unlike Dr. Stec, Mr. Sussman attempted to calculate a reasonable royalty that is attributable only to the incremental value of the patented inventions. The fact that Mr. Geier’s 5% figure is an estimation does not preclude the evidence from being admitted, and IOENGINE is free to explore its concerns on cross-examination. *See Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 596 (1993) (“Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence”). Mr. Sussman’s “market factors” theory, and Mr. Geier’s opinion on which it relies, will therefore not be excluded.

## 2. “Additional Gross Profits” Theory

IOENGINE next argues that Mr. Sussman’s “additional gross profits” theory “bears no relation to the value of the invention at issue and should be excluded.” Dkt. No. 405 at 39. I need not address whether that theory properly apportions damages according to the contribution of the inventions, because both Mr. Sussman and Ingenico have conceded that the “additional gross profits” theory does not factor into Mr. Sussman’s ultimate calculation of a reasonable royalty. *See* Dkt. No. 406, Exh. 37, at 58 (Mr. Sussman stating that he “had no intention of relying on [the additional gross profits analysis] exclusively,” and that it was merely “a data point, something that I looked at, [that] I thought was interesting”); Dkt. No. 415 at 38 (“Mr. Sussman does not use projected profits in his ultimate calculation of a reasonable royalty.”); Dkt. No. 407, Exh. 36, at ¶ 104 (Mr. Sussman’s report,

describing the “market factors” theory as “the more appropriate apportionment technique”). Because Mr. Sussman does not ultimately rely upon the “additional gross profits” theory in his reasonable royalty calculation, there is no need for him to discuss that theory at trial. *See* Fed. R. Evid. 702 (requiring that expert testimony “help the trier of fact”). Accordingly, Mr. Sussman’s testimony as to the “additional gross profits” theory will be excluded.

## **V. Conclusion**

In an abundance of caution, this order has been filed under seal because the parties’ briefs and exhibits regarding the present motions were filed under seal. *See, e.g.*, Dkt. Nos. 403, 405, 415, 416, 423, 424. Within three business days of the issuance of this order, the parties are directed to advise the court by letter whether they wish any portions of the order to remain under seal. Any request that portions of the order should remain under seal must be supported by a particularized showing of need to limit public access to those portions of the order.

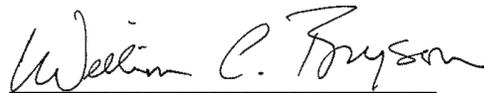
In view of and consistent with the above discussion, I order the following:

- IOENGINE’s Motion for Partial Summary Judgment of No Invalidity and to Exclude the Testimony of Barry Sussman and James T. Geier, Dkt. No. 397 (Dkt. No. 352 in Case No. 18-826), is GRANTED IN PART and DENIED IN PART.
- PayPal and Ingenico’s Motion to Preclude the Testimony of Dr. Stec, Dkt. No. 398 (Dkt. No. 353 in Case No. 18-826), is GRANTED.
- PayPal and Ingenico’s Motion to Preclude the Testimony of Mr. Klenk, Dkt. No. 399 (Dkt. No. 354 in Case No. 18-826), is DENIED.
- PayPal and Ingenico’s Motion for Summary Judgment that IOENGINE is Estopped from Relitigating the Validity of Claims Found Unpatentable by the PTAB, Dkt. No. 400 (Dkt. No. 356 in Case No. 18-826), is DENIED.

- PayPal and Ingenico’s Motion for Summary Judgment of No Direct or Joint Infringement, Dkt. No. 401 (Dkt. No. 357 in Case No. 18-826), is GRANTED IN PART and DENIED IN PART.
- PayPal and Ingenico’s Motion for Summary Judgment that the Asserted Claims are Invalid Under Section 101, Dkt. No. 402 (Dkt. No. 358 in Case No. 18-826), is DENIED.
- Ingenico’s Motion for Summary Judgment of No Indirect Infringement, Dkt. No. 355 in Case No. 18-826, is GRANTED IN PART and DENIED IN PART.

IT IS SO ORDERED.

SIGNED this 15th day of June, 2022.

A handwritten signature in black ink that reads "William C. Bryson". The signature is written in a cursive style and is positioned above a horizontal line.

WILLIAM C. BRYSON  
UNITED STATES CIRCUIT JUDGE