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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FIDELITY INFORMATION SERVICES, LLC,
Petitioner,

v.

LIGHTHOUSE CONSULTING GROUP, LLC,
Patent Owner.

Case CBM2020-00009
U.S. Patent No. RE44,274

PETITION FOR COVERED BUSINESS METHOD REVIEW OF U.S. PATENT NO. RE44,274

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I. Preliminary Statement

Patent Owner Lighthouse Consulting Group, LLC ("Lighthouse"), has asserted U.S. Patent No. RE44,274 ("RE'274 patent") and U.S. Patent No. 8,590,940 ("'940 patent") (collectively "the Lighthouse patents") against TIAA, FSB Holdings, Inc. ("TIAA"), a customer of Petitioner Fidelity Information Services, LLC ("FIS"). In the district court action against TIAA, Lighthouse accuses FIS's products of infringing the Lighthouse patents.

The RE'274 patent is a reissue of U.S. Patent No. 7,950,698 ("'698 patent"). The '940 patent is a continuation of the '698 patent. Each of the Lighthouse patents claims priority to a provisional application filed October 17, 2005. For simplicity, this Petition refers to "the Lighthouse patents" when discussing common subject matter or admissions because the Lighthouse patents have nearly identical disclosures. Every claim of the RE'274 patent challenged in this petition is directed to the abstract idea of generating and transmitting document images that are organized using an identifier.

Patent Owner did not invent the concept of generating and transmitting document images that are organized using an identifier, which is a longstanding business practice for document management. Patent Owner also did not invent applying this concept to remotely depositing a check, which is also a longstanding

business practice. In fact, the Lighthouse patents acknowledge that generating and transmitting check images for remote storage was well known before the Lighthouse patents were filed. This admitted conventionality is confirmed by multiple patent publications cited by the Examiner during prosecution and other contemporaneous publications describing document imaging systems and methods, including for depositing checks. These publications also confirm that it was conventional to organize images from different pages or sides of a document using identifiers.

Because generating and transmitting document images that are organized using an identifier was a routine business practice, Patent Owner has alleged that it invented remotely depositing a check using "ubiquitous imaging devices," such as generic pre-existing scanners and fax machines, to remotely deposit a check. Ex. 1013, TIAA Compl., ¶¶ 24-25, 28. But this too was conventional in the prior art for capturing and processing images of documents and checks.

Patent Owner has also alleged that "pairing" front and back images of a document using a "unique identifier" is novel. *See id.*, ¶¶ 27-28. It is not. Like the other aspects of the claims, pairing document images using an identifier was conventional in preexisting document imaging systems. Preexisting imaging systems routinely used identifiers, such as sequential numbers and barcodes, to pair

or collate related images from the same document to produce a complete version of the document. It is also a generic electronic equivalent of a human activity to recognize related pages and store them together. Computerizing well-established human activities does not transform abstract ideas into patent-eligible subject matter.

But even if using "ubiquitous imaging devices" to generate and pair front and back images of a check was novel—which it is not—the claims of the RE'274 patent are still directed to the abstract concept of generating and transmitting document images that are organized using an identifier. "[A] claim for a *new* abstract idea is still an abstract idea." *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016). The challenged claims recite only routine and conventional activities in purely functional terms, which does not add "significantly more" to the claimed abstract idea to render it patent eligible. *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 215 (2014); *Voter Verified, Inc. v. Election Sys. & Software LLC*, 887 F.3d 1376, 1385-86 (Fed. Cir. 2018).

Nothing in the claims requires a computer processor; they could instead be human-implemented steps. In fact, most of the claims of the RE'274 patent do not even recite an imaging device, let alone a "ubiquitous" imaging device. Only two

dependent claims recite imaging devices, and those are acknowledged prior art that the Lighthouse patents explain can be used off-the-shelf and without modification.

The Lighthouse patents do not purport to have invented or require modifications to any imaging device, computer, or other system hardware, but instead use only known prior art components. The claims merely recite performing an abstract concept using conventional components in well-understood and routine ways, which does not constitute patent-eligible subject matter.

Accordingly, claims 1-15 of the RE'274 patent are unpatentable and should be canceled.

II. Overview of the State of the Art

Imaging and document management is a well-known business practice. Conventional imaging systems generated and transmitted document images using scanners, fax machines, and other imaging devices. These systems organized images using identifiers, such as barcodes or ID numbers. These were well-known business practices at the time the Lighthouse patents were filed, including in the financial industry. Ex. 1006, Gray Decl., ¶ 49. Many references describing imaging and document management systems confirm that the claim elements of the RE'274 patent were routine and conventional prior to the patent's filing date. *Id.*, ¶ 50.

Years before the Lighthouse patents were filed, Congress passed laws to facilitate electronic check imaging and processing. Ex. 1006, ¶ 51. In particular, Congress enacted the Check Clearing for the 21st Century Act ("Check 21 Act") in 2003. Pub. L. No. 108-100, 117 Stat. 1177 (2003). The Check 21 Act "modernize[d] the U.S. payments system by making it easier for check images to be transported electronically between financial institutions for payment." Ex. 1008, H.R. Rep. 108-132, 10; Ex. 1006, ¶ 51. The Check 21 Act promoted remote check deposits by authorizing banks to present a "substitute check" as a legal equivalent of an original paper check. Ex. 1008, H.R. Rep. 108-132, 10; Ex. 1006, ¶ 51. Authorizing this use of "substitute" electronic checks obviated the need to physically transfer checks between bank branches and central processing locations. This enabled customers to conduct check deposit transactions remotely. Ex. 1006, ¶ 51.

Prior to the Check 21 Act, billions of checks were processed in the United States every year using conventional check deposit processes that involved physically transporting paper checks from a presenting bank to a separate processing location. Ex. 1008, H.R. Rep. 108-132, 11; Ex. 1006, ¶ 52. The paper checks were processed using a magnetic ink character recognition ("MICR") code imprinted on the paper check. Ex. 1006, ¶ 52. The MICR code included deposit

information about the check, such as a check amount and customer account number. *Id.* During processing, the check was either cleared by the presenting bank ("on-us check") or transferred to a drawee bank ("transit check") to complete the transfer of funds. *Id.*

A. The Lighthouse Patents Acknowledge that Imaging and Document Management Was a Well-Known Business Practice

In the years following the Check 21 Act, systems for capturing check images remotely became commonplace. *Id.*, ¶ 54; Ex. 1001, 1:19-21. Indeed, the Lighthouse patents acknowledge prior existing remote check imaging systems. Ex. 1001, 1:19-21; Ex. 1006, ¶ 55, 57. These systems used a "dedicated check scanner" to generate images of the front and back of a check and send the images and associated data over a network to a bank. Ex. 1001, 1:44-48. After receiving the images, the bank's system assesses image quality, performs security tests, and verifies the deposit to ensure that the total deposit amount matches the total check amounts. *Id.*, 1:48-52.

The Lighthouse patents acknowledge the existence of several prior companies providing remote check imaging systems and services. *Id.*, 3:14-18; Ex. 1006, ¶ 56. This is confirmed by the archived web page of one company identified in the Lighthouse patents. *E.g.*, Ex. 1001, 3:14-18 ("[E]xisting remote capture providers (such as NetDeposit …) … accept data from PCs and images

captured by special purpose two sided scanners …"); Ex. 1021 (Net-Deposit Archive, Dec. 28, 2005, https://web.archive.org/web/20051228023803/ http://www.net-deposit.biz/about.html) ("For over three years, NetDeposit has been remotely capturing and electronically routing items."). The Lighthouse patents use off-the-shelf prior art scanners and fax machines and "do[] not require any modification to these scanning devices." Ex. 1001, 4:8-13.

The patents thus confirm that generating and transmitting financial document images (e.g., check images) was a well-known business practice for remote check deposits prior to the filing of the Lighthouse patents. Ex. 1006, ¶ 60.

B. Contemporaneous Publications Confirm the Conventionality of Document and Check Imaging Systems Before the Lighthouse Patents

By the mid-1990s, many different imaging and document storage systems were known in the art, including for check scanning. These only grew in popularity between then and the filing dates of the Lighthouse patents. Ex. 1006, ¶ 61. Imaging and document management systems became prevalent within the U.S. banking industry as businesses realized the need for more efficient "[i]tem processing," which was "a special form of imaging in which small documents,

such as checks and credit card receipts, are scanned at high volumes." Ex. 1012, Muller, 31[1]; Ex. 1006, ¶¶ 61-64.

Some of those systems are described in Muller's *Computerized Document Imaging Systems: Technology and Applications.* Ex. 1012, Muller. For example, in the 1990s, IBM's ImagePlus high-volume transaction processing system ("HVTPS") extended image processing to IBM's existing check-processing control system. *Id.*, Muller, 134; Ex. 1006, ¶ 63. The figure below illustrates ImagePlus's indexing and scanning process:

[1] Petitioner refers to the exhibit page numbers (page 1 of X), not original page numbers for Exs. 1003-1005, 1009-1012, 1020, 1021, and 1030.

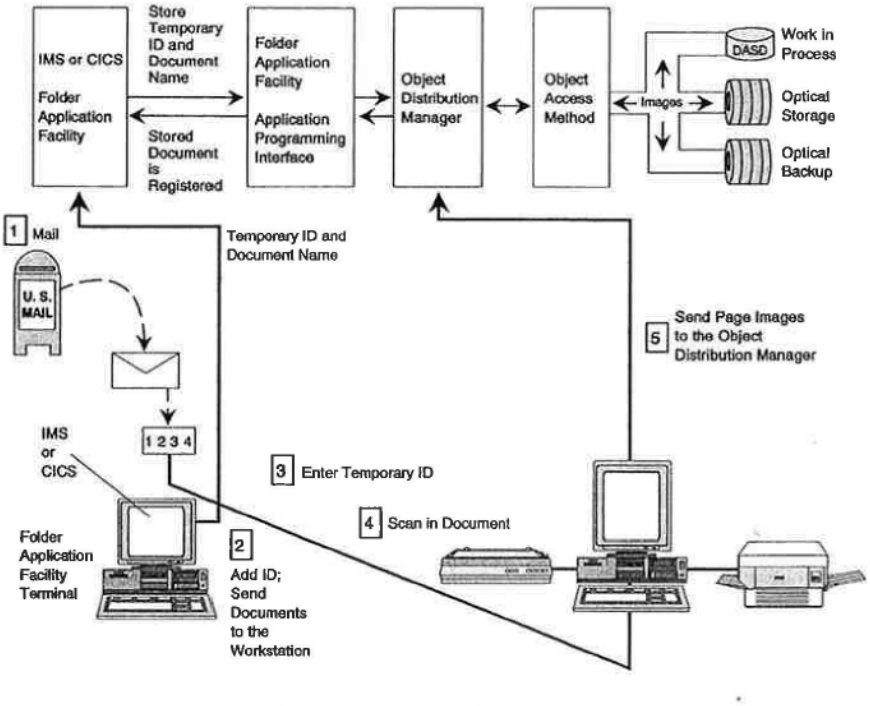


Figure 7.2 Manual indexing and scanning processes. *Source:* IBM Corp.

Ex. 1012, 140 (Fig. 7.2).

IBM's ImagePlus system used the "same [components] as those found in most other vendors' systems: scanner, display workstations, storage devices, and printer." *Id.*, 134; Ex. 1006, ¶ 63. ImagePlus incorporated well-known imaging devices, including "a number of scanners, including flatbeds and automatic sheet feeders from such vendors as Ricoh, Howtek, Bell and Howell, and Kodak," and "use[d] output from the scanner to index and store documents and optionally route them for processing though workflow queues." Ex. 1012, Muller, 139. The ImagePlus system generated a "temporary ID" that "uniquely identifies the document and associates the document with the folder into which it is to be

placed." *Id*. The temporary ID is keyed into a "scanner-equipped workstation" and "each page of the document is scanned into the ImagePlus system." *Id.* Then, the scanned document images are submitted to an "Object Distribution Manager" for routing and storage. *Id.*, 139-40; s*ee* Ex. 1030, Groff, 22-24, 166-67, 206; Ex. 1006, ¶ 65.

In the 1990s, Unisys's *InfoImage Item Processing System* ("IIPS") also provided banking offices the ability to "optically scan[] financial documents" to produce an electronic image of documents being processed. Ex. 1012, Muller, 287; Ex. 1006, ¶ 64. The IIPS's software "controls and manages input from the scanning device," and used identifiers captured during the imaging during later document processing. Ex. 1012, 154-55. This system allowed banks to automate business practices involving the "repetitive physical handling of paper checks." *Id.*, 287; *see* Ex. 1010, Green, 157. Indeed, banks routinely used "commercially available systems incorporating electronic document management technology" to support the "specific functions involved in daily processing of checks." *Id.*, 155; Ex. 1006, ¶ 69.

D'Alleyrand also explains that the "[g]eneral [s]tructure of an [i]maging [s]ystem" includes a scanner for capturing document images. Ex. 1011, D'Alleyrand, 51.. D'Alleyrand also describes the imaging system being configured

to transmit captured images over a network to a remote storage device or remote terminals. *Id.*

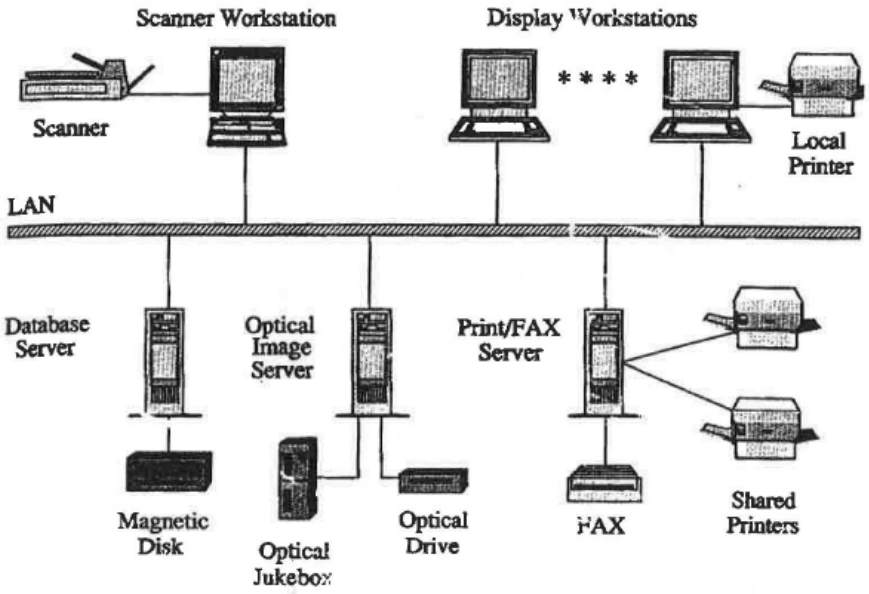


Figure 1.2 Imaging network. *(Courtesy Dynamic Concepts.)*

Id., 52 (Fig. 1.2). D'Alleyrand also discloses using such systems to image and process checks. *Id.*, 190

Green confirms the conventionality of this practice, explaining that in a "typical electronic document system," an image scanner is coupled to a "server," such as a personal computer, to support the scanning operation. Ex. 1010, Green, 37. Images are then sent "across the network to [a] central image [database]" for storage. *Id.*, 49; Ex. 1006, ¶ 67.

Robek's *Information and Records Management: Document-Based Information Systems*, published in 1995, describes other exemplary imaging and

document management systems. Ex. 1009, Robek. For example, rotary cameras were used to "film the ordinary variety of office documents, such as checks, invoices, and sales slips." *Id.*, 275. In addition to rotary cameras, Robek also explains that a "fax machine can and is used as an image scanner." *Id.*, 303, 209. Identifiers were associated with the documents to facilitate more efficient image capture and indexing. *Id.*, 276-77, 366; Ex. 1006, ¶ 68. Robek confirms that various imaging devices were used to capture check images. *Id.*, 263, 269, 275-76.

Several types of generic imaging devices, including handheld and flatbed scanners, were used in conventional imaging systems to capture document images, e.g., check images, prior to the filing of the Lighthouse patents. Ex. 1012, Muller, 86-88; Ex. 1011, D'Alleyrand, 249, 270; Ex. 1006, ¶¶ 69-72. Generic scanners were commercially available and the type of scanner selected for a particular imaging application is based on performance, features, and cost considerations of that application. Ex. 1010, Green, 50-51. Fax machines were also used with imaging systems to generate and transmit document images, including checks. Ex. 1012, Muller, 38, 176, 274; Ex. 1009, Robek, 303, 209; *see also* Ex. 1016, Botvin, 2:16-18, 2:20-25, 4:44-46. Robek confirms it was well known to use "flatbed" scanners and fax machines as image capture devices for various types of documents. Ex. 1009, Robek, 300, 302-03.

These examples confirm that a person of ordinary skill in the art would have understood that imaging and documents management systems were routine and conventional for processing checks. Ex. 1006, ¶ 73.

C. Generating and Transmitting Front and Back Images of Documents Was a Well-Known Business Practice Prior to the Lighthouse Patents

Prior to the Lighthouse patents, imaging devices routinely captured front and back images of documents and transmitted the document images to remote locations. Ex. 1006, ¶¶ 74-75; *supra* § II.B.

Conventional systems used imaging devices configured to "produce[] an exact likeness of the documents, including illustrations, text, and handwritten information," and can "input images directly into an application." Ex. 1012, Muller, 86-87; *see* Ex. 1006, ¶ 75. When a single-sided scanner is used, the front and back sides of a document are separately scanned, and the images are "electronically paste[d]" together. Ex. 1011, D'Alleyrand, 273. Regardless of whether the scanner allows for one-sided or two-sided scanning, "sides one and two are marked as such, and the images are collated by the system." Ex. 1012, Muller, 122, 155.

Prior art patents and publications cited on the face of the Lighthouse patents confirm the conventionality of using imaging devices, such as scanners and fax

machines, to image and transmit both sides of a document. Ex. 1006, ¶ 76. For example, U.S. Patent Application Publication No. 2006/0102704, filed September 30, 2004 ("Reynders"), describes using imaging devices such as "scanners, readers, [or] copiers" to capture images of "both sides of the document." Ex. 1017, [0009], [0012]. Similarly, U.S. Patent No. 3,593,913, issued July 20, 1971 ("Bremer"), describes photographing both sides of a check that is secured to a carrier. Ex. 1015, 2:17-22, 5:17-20; *see* Ex. 1012, Muller, 122, 155 (scanning both sides of a document separately and transmitting the images to storage or further processing); Ex. 1011, D'Alleyrand, 138-39 (same).

Consistent with these prior publications, the Lighthouse patents concede that it was conventional to generate and transmit images of both sides of a negotiable instrument using prior existing check scanners. Ex. 1006, ¶ 77; Ex. 1001, 1:43-58, 3:14-18, 14:6-16; Ex. 1005, '698 File Wrapper, 298-99 (describing "traditional deposit processing" using paper checks or check images transmitted to a remote location).

Thus, a person of ordinary skill in the art would have understood that well-known, generic imaging devices—such as scanners and fax machines—conventionally generated and transmitted document images of both sides of a document. Ex. 1006, ¶ 78.

D. Organizing Document Images Using Identifiers Was a Well-Known Business Practice Prior to the Lighthouse Patents

Organizing electronic documents was important for storage and archival purposes, and identifiers provided an efficient and effective electronic replacement for manual filing systems. Ex. 1011, D'Alleyrand, 180; Ex. 1006, ¶ 79. Identifiers "significantly improve[d] the performance of recordkeeping systems by improving the accessibility of the information contained in them," and "improve[d] productivity, reduce[d] costs, facilitate[d] work management, and provide[d] better services to customers." Ex. 1009, Robek, 255; *id.*, 249-51 (identifying benefits of barcode identifiers for document management, such as tracking lost documents).

Indexing is one example of a routine practice to organize electronic documents using identifiers. Ex. 1011, D'Alleyrand, 233. Indexing can be performed manually or automatically. An index server that receives image data from a scanner is a "[b]asic component[] of an imaging system." *Id.*, 170, 180 & Fig. 10.1 (shown below); *see id.*, 234. The indexing process includes assigning an identifier to a document and presenting the document pages in a systematic order

to facilitate efficiently storing and retrieving the document. *Id.*, 233.

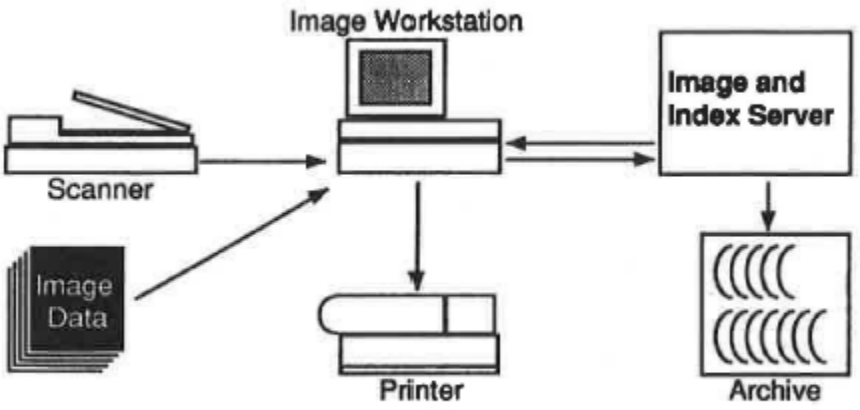


Figure 10.1 Basic components of an imaging system.

Id., 180 (Fig. 10.1). In another example, rotary machines used a sequential numbering device to generate numerical identifiers, which allows "documents [to] be filmed in random order" and organized thereafter during indexing. Ex. 1009, Robek, 276-77.

Barcodes are another example of identifiers routinely used to organize documents. Ex. 1012, Muller, 122; Ex. 1010, Green, 129, 251. A barcode can be encoded with information identifying the document and affixed or preprinted on a document before imaging. The barcode is then scanned and information encoded in the barcode is retrieved to identify the document. Ex. 1009, Robek, 292, 252, 254-55 (describing barcodes preprinted and purchased from "commercial sources" or

generated and printed using record management software); Ex. 1012, Muller, 122; Ex. 1010, Green, 129, 251.

In the 1990s, different pages of organize double-sided or multi-page documents were routinely organized using identifiers. Ex. 1006, ¶ 83. Muller explains that scanners "read barcodes and imprint the sequence number on each image" of a document and that "sides one and two are marked as such, and the images are collated by the system." Ex. 1012, Muller, 122, 155. Muller also describes using barcodes or micrographic patches (document separators) as identifiers to index and organize documents into a specific sequence. Ex. 1012, Muller, 150-51. Images of double-sided documents were organized by assigning numerical identifiers to the front and back of all document pages so that, even if the front and corresponding back pages are not scanned together, the fronts and backs can be collated and organized in sequential order. Ex. 1011, D'Alleyrand, 138. Identifiers were printed on all sheets of a particular document, including the front and back of the document, so that pages separated from the others could be identified as part of that document if separated from the other sheets. Ex. 1009, Robek, 366, 369. Thus, identifiers were commonly used to organize images from the same document. Ex. 1006, ¶ 86.

Prior art patent publications confirm the conventionality of using identifiers to organize images from the same document. For example, U.S. Patent Application Publication No. 2003/0183685, filed March 26, 2003 ("Moore"), describes transactions that exchange physical or electronic versions of a check between financial institutions using identifiers. In Moore, the exchanged documents "must be collected, maintained and accessed" in order to "effectively manage the ongoing business of an institution." *Id.*, [0007], [0008]. In one example, a barcode is "applied, affixed or printed" on both sides of a documents, *id.*, [0053], before the document is imaged, *id.*, [0073]. Similarly, the prior-art Reynders publication describes an "identification tag or scan series label" included with the imaged document so that the images could be traced back to a particular scanning sequence. Ex. 1017, Reynders, [0060].

These examples demonstrate that using identifiers to organize images from the same document was well known and routine in document imaging and management systems prior to the filing of the Lighthouse patents. Ex. 1006, ¶¶ 79, 81, 83, 85, 87, 88.

E. Carriers Were Routinely Used to Secure Documents for Imaging and Document Management

Contemporaneous publications confirm that carriers were well known to secure documents for imaging prior to the Lighthouse patents' filing dates. *Id.*,

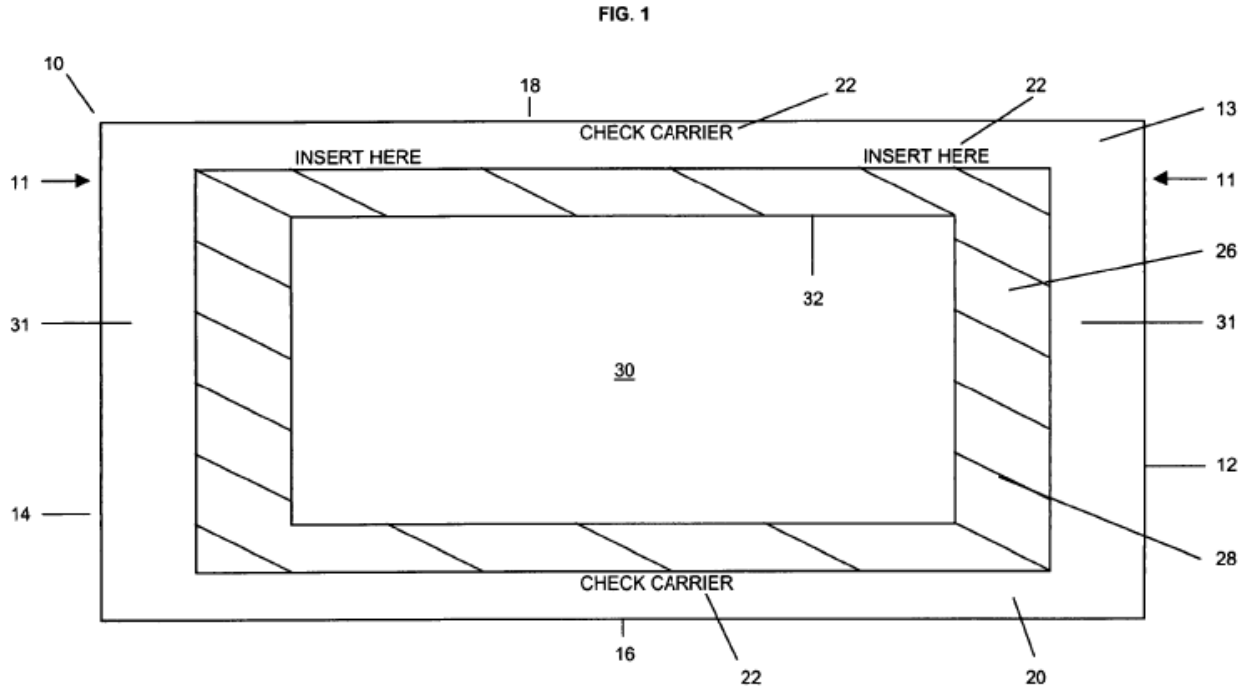
¶¶ 89-95. A carrier is, for example, a folder or envelope that holds or secures a document for imaging in the imaging device. *Id.*, ¶ 89.

Since the 1970s, patents such as Bremer have described carriers that secure a checks and "enable both sides of a check to be photographed" when secured to the carrier. Ex. 1015, Bremer, 2:17-22. Bremer further describes carriers having a "compartment or pocket" for securing the document. *Id.*, 1:52-58, 1:63-64.

D'Alleyrand also explains that a "plastic, see-through envelope known as a carrier" is used to transport small or damaged sheets of paper through a document scanner. Ex. 1011, D'Alleyrand, 271. Similarly, microfilm jackets were carriers consisting of "two very thin pieces of rectangular, optically clear polyester material sealed together on two sides to form a jacket or envelope" to secure film. *Compare* Ex. 1009, Robek, 273-74, *with* Ex. 1001, 5:21-27 (describing a carrier having two sheets that are closed to secure the documents). Other examples of carriers included aperture cards that, like the carriers in the Lighthouse patents, have a rectangular opening on which a document or film is secured. *Compare* Ex. 1009, Robek, 271-73, *with* Ex. 1001, 8:62-64 (describing a carrier with "cutouts" to secure documents).

Patent publications also confirm the conventionality of using carriers to secure documents, such as checks, for imaging. Reynders describes various types

of prior art carriers having transparent windows or pockets used to secure checks and other documents for imaging and scanning, including the example shown below:



Ex. 1017, Reynders, Fig. 1, [0005] (describing a carrier having adhesives and a "flap" to secure a document/check being during imaging), [0007] (describing a carrier having an "adhesive grid pattern" to hold documents during scanning); [0013], [0056]; *see generally id.*, [0037]-[0063]. Reynders also teaches that some carriers were designed to hold more than one document, including negotiable instruments. *Id.*, [0058], [0060] (describing a "second document 106 is also provided in the pocket"), [0061]-[0063].

The Lighthouse patents further confirm the conventionality of "generic" carriers for securing documents, Ex. 1001, 10:36-39, by acknowledging that carriers were "commercially available." *Id.*, 4:45-47. The Lighthouse patents do not require any modifications to these "standard carrier[s]." *Id.*, 6:12-14.

Thus, carriers designed to secure one or more negotiable instruments and to permit imaging of the document secured to the carrier were well known prior, routine practices to the Lighthouse patents. Ex. 1006, ¶¶ 94, 95.

III. Overview of the Lighthouse Patents and Prosecution Histories

A. Specification

The Lighthouse patents describe systems and methods for remote transmission of a negotiable instrument to a bank for deposit. Ex. 1001, Abstract. In particular, the Lighthouse patents describe remote check image capture for depositing a check using "commercially available" carriers and "ubiquitous imaging devices." *Id.*, 2:18-25, 4:45-47.

The RE'274 patent admits that systems and methods for remote check image capture were well-known industry practices prior to the filing of the Lighthouse patents. *Id.*, 1:18-42; Ex. 1006, ¶ 41-44. The Lighthouse patents describe several features of existing remote check deposit methods, including generating images of

both sides of a check, transmitting images over a network, assessing image quality, and using markings to prevent re-deposit of a check. Ex. 1001, 14:4-15:29.

According to the Lighthouse patents, existing remote check deposit systems required a "dedicated check scanner," *id.*, 1:67-2:4, that purportedly deterred "low volume users (e.g., individuals or small businesses)" from using the existing remote deposit system. *Id.*, 1:63-65; *see also id.*, 13:17-18. Thus, the RE'274 patent describes capturing check images using off-the-shelf "ubiquitous imaging devices," *id.*, 1:63-2:4, 2:18-22, 4:8-13. The Lighthouse patents describes a "ubiquitous imaging device" as an "existing" off-the-shelf imaging device, such as a fax machine or a flatbed scanner, which is used without any modification, in the same way as the prior art. *Id.*, 1:65-67, 2:11-14, 2:56-59, 4:8-13; *supra* §§ II.A-II.B.

Annotated Figures 1 and 2 below confirms that the process for depositing a check is the same whether a dedicated check scanner (Figure 1) or a ubiquitous imaging device (Figure 2) is used for image capture. Ex. 1006, ¶ 45. Both processes involve generating images of a check (shaded red) and transmitting the images over a communication line (shaded orange) to an image receiving unit for further processing (shaded blue). *Compare* Ex. 1001, 1:43-62, Fig. 1, *with* 2:56-67, Fig. 2.

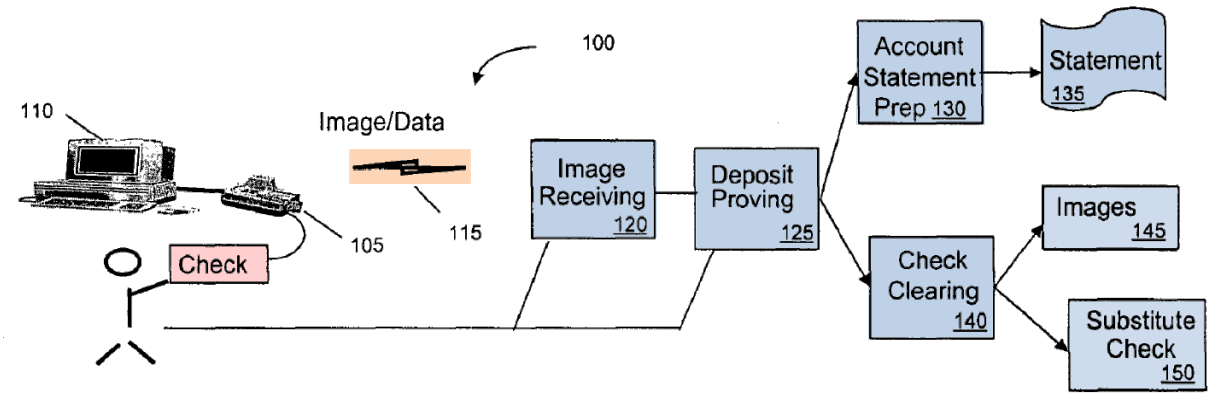


Fig. 1 (Prior Art)

Id., Fig. 1 (annotated).

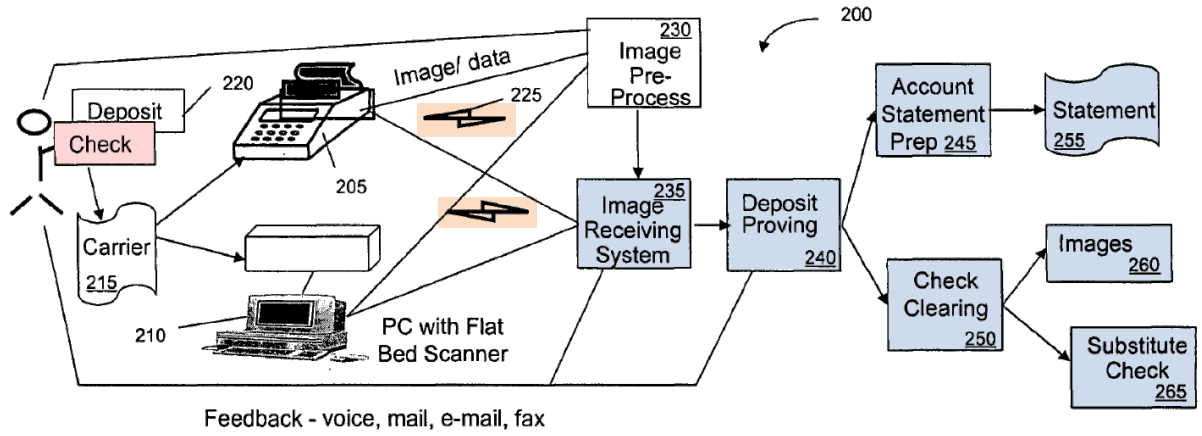


Fig. 2

Id., Fig. 2 (annotated).

The only difference between the Lighthouse patents' process in Figure 2 and the admitted prior art process in Figure 1 is using a carrier and "flat bed scanner" to "deliver[] the functional equivalent" of remote check deposit systems existing in the prior art. *Id.*, 2:56-61, 3:19-25; Ex. 1006, ¶ 47. The RE'274 patent correctly

acknowledges "commercially available," "generic," or "standard" carriers without any modifications can be used. Ex. 1001, 4:45-53, 6:12-14, 6:35-39; *supra* § II.E. The Lighthouse patents admit that the scanning devices are conventional off-the-shelf scanning devices used without any modifications. Ex. 1001, 4:8-13; *supra* § II.B. The front and back sides of the carrier have a conventional "unique security/sequence number" that "facilitates" the pairing of front and back images in the same way as the prior art. *Id.*, 5:66-6:2; *supra* §§ II.C-II.D. The Lighthouse patents acknowledge that, even if ubiquitous imaging devices are used, the front and back images can be captured and sent together. *E.g.,* Ex. 1001, 11:18-22. In this manner, the bank's server can "match up" the front and back images "even if the front and back of the check are sent as separate fax transmissions at different times," in the same way as the prior art. *Id.*, 6:6-9, 3:25-28, 13:27-31 ("fax image deposits are processed in much the same way as are deposits made using traditional check scanning devices"); *supra* §§ II.B-II.D.

B. Prosecution Histories

1. The RE'274 Patent

The RE'274 patent is a reissue of the '698 patent, which claims priority to U.S. Provisional Application No. 60/727,533 ("'533 provisional application"). Ex. 1001, cover.

When allowing the ’698 application, the examiner stated that cited references did not disclose “pairing separately received front and back images of the negotiable instrument,” and there existed “no apparent motivation to pair separate images at a remote location since the check may be scanned by a two-sided scanner and thus sent as a single file or image.” Ex. 1005, ’698 File Wrapper, 388. The ’698 patent issued May 31, 2011. Ex. 1001.

2. The ’940 Patent

On April 15, 2011, the applicant filed U.S. Application No. 13/088,068, as a continuation of the ’698 patent. Ex. 1002. Following a series of claim amendments, the Examiner issued a Notice of Allowance, stating as the reason for allowance that “Reynders does not disclose a carrier capable of receiving a **plurality** of negotiable instruments and further software in the receiving unit ‘designed to break down the individual front and back images of **all** negotiable instruments ….’” Ex. 1004, ’940 File Wrapper, 275-76.

The ’940 patent issued November 26, 2013. Ex. 1002.

The Examiner did not reject any of the claims of the ’698 patent, RE’274 patent, or ’940 patent under 35 U.S.C. § 101, all of which issued before the Supreme Court’s *Alice* decision.

C. Effective Filing Dates

For purposes of this Petition, Petitioner assumes that the earliest effective filing date of the RE'274 and '940 patents is October 17, 2005, the filing date of the '533 provisional application.[2]

D. Challenged Claims

All of the challenged claims of the RE'274 patent—claims 1-15—are directed to the process of remote check image capture by generating document images of a front and back of a negotiable instrument secured to a carrier, transmitting the document images to a remote location, and pairing the front image with the back image based on the identifier. Independent claim 1 is representative of the challenged claims.

IV. Petitioner Has Standing to File This CBM Petition

Petitioner FIS certifies that it has standing to file this Petition because the RE'274 patent is a covered business method ("CBM") patent and Petitioner meets the eligibility requirements to file a petition under Section 18 of the Leahy-Smith

[2] Unified Patents' petition in IPR2020-00194 challenges the effective filing date of the '940 patent. Ex. 1019, 15-21. The effective filing date does not affect the determination of patent ineligibility under § 101.

America Invents Act ("AIA"), Pub. L. No. 112-29, § 18(a)(1)(B), 125 Stat. 284, 330 (2011), and 37 C.F.R. § 42.302.

A. Petitioner's Privy TIAA Has Been Sued for Infringement of the RE'274 Patent

"A person may not file a petition for a transitional proceeding with respect to a covered business method patent unless the person or the person's real party in interest or privy has been sued for infringement of the patent or has been charged with infringement under that patent." AIA § 18(a)(1)(B); 37 C.F.R. § 42.302(a).

Petitioner FIS has standing under AIA Section 18 to file this Petition because its customer and privy, TIAA, has been sued for infringement based on Lighthouse's allegations that TIAA's "Mobile Checking Application" provides a "method for depositing checks via an image capture device coupled with an electronic transmission means" that Patent Owner alleges infringes the RE'274 patent. Ex. 1013, TIAA Compl., ¶ 54. FIS currently supplies TIAA's business mobile banking application and Xpress Deposit Services. FIS supplied TIAA's consumer mobile banking application [redacted]. These applications include the accused remote check deposit capture functionality for both applications during the period for which Lighthouse seeks. Ex. 1022, Giovannetti Decl., ¶¶ 6-16. FIS also has standing under AIA Section 18 because its products have been "charged with infringement" based on Patent Owner's infringement

allegations against TIAA's mobile banking applications with remote check deposit functions provided by FIS and FIS's obligations to indemnify TIAA against those assertions.

The Board has explained that, according to the legislative history of AIA Section 18, 125 Stat. at 329-31, for standing purposes, "'privy' 'effectively means customers of the petitioner.'" *SAP Am., Inc. v. Pi-Net Int'l, Inc.*, CBM2013-00013, Paper 15 at 4-5 (PTAB Sept. 19, 2013) (quoting 157 Cong. Rec. S5432 (daily ed. Sept. 8, 2011) (statement of Sen. Schumer)). The Board in *SAP* found that, because SAP's customer had been sued for infringement in district court and the customer had requested indemnity from SAP, SAP had standing to file a CBM petition. *Id.*, 3-5.

The Board has also found that when a customer is accused of patent infringement, the supplier of the accused technology has standing to file a CBM petition because the infringement assertion against the customer amounts to the supplier being "charged with infringement" under AIA Section 18. *GSI Commerce Sols., Inc. v. Clear with Computs., LLC*, CBM2013-00055, Paper 16 at 8-11 (PTAB Mar. 6, 2014). "[C]harged with infringement" is satisfied when the petitioner "would have standing to bring a declaratory judgment action in Federal court." 37 C.F.R. § 42.302(a). The Federal Circuit has held that "where a patent

holder accuses customers of direct infringement based on the sale or use of a supplier's equipment, the supplier has standing to commence a declaratory judgment action if … the supplier is obligated to indemnify its customers from infringement liability." *Arris Grp., Inc. v. British Telecomms. PLC*, 639 F.3d 1368, 1375 (Fed. Cir. 2011); *accord GSI*, Paper 16 at 9 (quoting *Arris*, 639 F.3d at 1375).

Thus, a product supplier has CBM standing under either of two separate theories: (1) the supplier's customer and privy was sued for infringement, or (2) the allegation of infringement against a customer amounts to a charge of infringement of the supplier's products, and the supplier is obligated to indemnify its customer from infringement liability. FIS has standing under either theory here because (1) FIS supplies the accused mobile remote check deposit and transmission features to its customer and privy, TIAA; and (2) FIS has an obligation to indemnify TIAA for damages and losses arising from Lighthouse's Complaint alleging that the FIS-supplied mobile remote check deposit products infringe the Lighthouse patents. Ex. 1022, ¶¶ 6-16.

1. TIAA Is a Privy of FIS and Has Been Sued for Infringement of the RE'274 Patent

Patent Owner's litigation Complaint accuses TIAA's mobile banking application, and specifically the function of "depositing checks via an image capture device coupled with an electronic transmission means," of infringing the

RE'274 patent and the other Lighthouse patents. Ex. 1013, TIAA Compl., ¶¶ 37, 39, 54, 56. TIAA is a customer of FIS. Ex. 1022, ¶ 6. FIS currently supplies the accused business mobile banking application and Xpress Deposit Services. *Id.*, ¶ 7. FIS previously supplied the corresponding consumer mobile banking application [redacted]. *Id.*, ¶ 8. Each of these products includes remote check deposit capture and transmission functionality (collectively "the FIS Products"). *Id.*, ¶¶ 7-9; Ex. 1024, Mobile Banking Services Addendum; Ex. 1026, Letter from TIAA to FIS; Ex. 1027, Letter from FIS to TIAA; Ex. 1028, 1.

FIS is obligated to indemnify TIAA for damages and losses resulting from allegations of infringement against the FIS Products. Ex. 1022, ¶¶ 9-12. TIAA and FIS entered into an Information Technology Services Agreement (the "TIAA Agreement") for mobile remote check deposit functionality. *Id.*, ¶ 9; Ex. 1023, TIAA Agreement. Under the TIAA Agreement, FIS provided TIAA with the FIS Products for its accused mobile banking applications with the accused remote check deposit functionality. Ex. 1022, ¶¶ 10-11; Ex. 1024, Mobile Banking Services Addendum; Ex. 1025, Xpress Deposit Services Addendum. The TIAA Agreement includes an indemnity provision that requires FIS to indemnify TIAA for damages and losses arising from patent infringement claims directed against the FIS Products purchased by TIAA. Ex. 1022, ¶ 12; Ex. 1023, TIAA Agreement,

§ 14.1.1. This includes an obligation to indemnify TIAA's mobile banking applications, including the accused remote check deposit functionality, provided by FIS in the infringement suit brought by Lighthouse. Ex. 1022, ¶¶ 12, 16; Ex. 1027, Letter from FIS to TIAA.

After being sued, TIAA sent a letter requesting that FIS indemnify it in the Lighthouse litigation under the TIAA Agreement. Ex. 1022, ¶ 13; Ex. 1026, Letter from TIAA to FIS. The TIAA Agreement was in effect when Patent Owner sued TIAA for infringement and when TIAA sent the indemnity request letter to FIS. Ex. 1022, ¶¶ 14-15. FIS received the indemnity letter and believes it was proper under the TIAA Agreement. *Id.*, ¶¶ 13, 16; Ex. 1027, Letter from FIS to TIAA. In accordance with the TIAA Agreement, FIS has agreed to defend and indemnify TIAA against Lighthouse's infringement allegations against TIAA's mobile banking applications and Xpress Deposit Services, including the remote check deposit functionality, provided by FIS. Ex. 1022,., ¶ 16; Ex. 1027, Letter from FIS to TIAA.

2. FIS Has Been "Charged with Infringement" Under AIA Section 18 and 37 C.F.R. § 43.302(a)

FIS has been "charged with infringement" under AIA Section 18 and 37 C.F.R. § 42.302(a) because it has declaratory judgment standing. *GSI*, Paper 16 at 8-11; *Arris*, 639 F.3d at 1375. Specifically, TIAA purchased and used FIS's mobile

banking applications and Xpress Deposit Services, including the remote check deposit functionality; Lighthouse accused TIAA's mobile banking applications and Xpress Deposit Services, including the remote check deposit functionality, of infringing the RE'274 and '940 patents; and FIS is obligated to indemnify TIAA under its Agreements. *Supra* § IV.A.1.

3. FIS Has Standing to File This Petition

FIS has standing to file this Petition because (1) FIS's privy TIAA has been sued for infringement, *supra* § IV.A.1; and (2) FIS has been "charged with infringement" within the meaning of § 42.302(a), *supra* § IV.A.2. Either of these bases is sufficient to confer standing on FIS to file this Petition. *SAP*, Paper 15 at 4-5; *GSI*, Paper 16 at 9; *Arris*, 639 F.3d at 1375.

Petitioner certifies that it is not barred or estopped from requesting CBM review on the identified grounds, including under any of 35 U.S.C. §§ 315(e) or 325(e) or 37 C.F.R. § 42.302(b) or (c).

B. The RE'274 Patent Is a CBM Patent

The RE'274 patent is a "[c]overed business method patent" under AIA § 18(d)(1), 125 Stat. at 331, and 37 C.F.R. § 42.301 because it is (i) directed to a method for generating, transmitting, and organizing images of a negotiable

instrument for deposit, and (ii) not for a technological invention. Ex. 1006, ¶¶ 98, 107, 124, 125.

The CBM analysis under AIA § 18(d)(1) requires the Board to "examine *the claims* when deciding whether a patent is a CBM patent." *Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1340 (Fed. Cir. 2016). A single qualifying claim is sufficient to institute CBM review. *SIPCO, LLC v. Emerson Elec. Co*., 939 F.3d 1301, 1309 (Fed. Cir. 2019); Transitional Program for Covered Business Method Patents—Definitions of Covered Business Method Patent and Technological Invention, 77 Fed. Reg. 48,734, 48,736 (Aug. 14, 2012).

1. Legal Standard

The AIA defines a "[c]overed business method patent" as "a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions." AIA § 18(d)(1); *see* 37 C.F.R. § 42.301(a); *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1326-27 (Fed. Cir. 2015).

This definition includes a financial prong and a technological prong. The financial prong requires that a claim recite activities that are "financial in nature," *Unwired Planet, LLC v. Google Inc*., 841 F.3d 1376, 1380 n.5 (Fed. Cir. 2016)

(quoting *Blue Calypso*, 815 F.3d at 1340), while the technological prong excludes "patents for technological inventions," AIA § 18(d)(1); 37 C.F.R. § 42.301(a). The technological prong excludes patents from CBM review if the claimed subject matter as a whole (1) "recites a technological feature that is novel and unobvious over the prior art;" and (2) "solves a technical problem using a technical solution." 37 C.F.R. § 42.301(b); *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1239-40 (Fed. Cir. 2016). When the problem disclosed in the patent is a "business problem, not a technical one," a claim does not recite a "technical solution to a technical problem." *Trading Techs. Int'l, Inc. v. IBG, LLC*, 921 F.3d 1378, 1382 (Fed. Cir. 2019).

2. Financial Prong: The RE'274 Patent Claims a Method of Performing an Operation Used in the Practice of a Financial Product or Service

a. The Claims Expressly Recite Practicing a Financial Service of Processing Negotiable Instruments

All claims of the RE'274 patent claim methods for processing negotiable instruments, such as checks, for deposit, which are "data processing or other operations used in the practice, administration, or management of a financial product or service." Ex. 1006, ¶ 99; 37 C.F.R. § 42.301(a).

The claims recite a process for capturing images of a negotiable instrument for deposit, such as a check, by generating front and back images of the check,

transmitting the front and back images to a remote location, and pairing the front check image with the back check image using an identifier, such as a number or barcode, associated with the images. Ex. 1006, ¶ 99.

Independent claim 1 is representative and expressly recites steps for "depositing of a *negotiable instrument*, including "providing a carrier [for] the *negotiable instrument*," "securing the *negotiable instrument* to the carrier," "generating an electronic image of … the *negotiable instrument*," and " pairing … the front image of the *negotiable instrument* … to provide a complete image of the *negotiable instrument*." Ex. 1001, claim 1 (emphases added). A person of ordinary skill in the art would have known that a negotiable instrument is a financial document, such as a check, containing a promise or order to pay the holder or someone specified by the holder upon issue, possession, demand, or at a specified time. Ex. 1006, ¶ 102; *see* Ex. 1001, 2:59-61 (identifying "check or deposit slip" as examples of "negotiable instruments"). Independent claim 9 is substantially similar to independent claim 1. *Compare* Ex. 1001, claims 1, 9; Ex. 1006, ¶¶ 101, 153.

Depositing a negotiable instrument, as specified in claim 1, involves a financial operation for transacting the transfer of funds from a payor to a payee and involves processing a negotiable instrument, which is a financial service. Ex. 1006, ¶ 102; *see Fid. Nat'l Info. Servs, Inc. v. DataTreasury Corp.*, CBM2014-00020,

Paper 34 at 8-9 (PTAB Apr. 29, 2015). Such operations generally involve exchanging electronic or paper copies of the negotiable instrument between financial institutions, authenticating the check as a valid instrument, and authorizing payment to the payee, which are operations used in the practice of financial products and services. *Id.*, ¶ 103.

The dependent claims confirm the financial nature of the claimed "negotiable instrument." For example, claims 4 and 12 recite "verifying [that] the negotiable instrument has a valid endorsement" and "verifying image quality … to ensure compliance with *financial industry standards*"; claims 5 and 13 recite that the negotiable instrument "is a *check or deposit slip*"; claims 6 and 14 recite that "transmitting includes … communications protocols compatible with *banking industry standards*"; claims 7 and 15 recites "validating a deposit, based on the negotiable instrument*, to the financial institution*"; and claim 8 recites "providing the image of the negotiable instrument … to prevent re-processing of the *negotiable instrument.*" Ex. 1001, claims 4-8, 12-15 (emphases added). These dependent claims underscore the financial operations recited in the independent claims and satisfy the financial prong of the CBM test. Ex. 1006, ¶ 104-105,

Moreover, claims 4 and 12 recite nearly identical subject matter to that identified by the Patent Office as subject matter qualifying for CBM review.

Claims 4 and 12 recite "verifying [that] the negotiable instrument has a valid endorsement." Ex. 1001, claims 4 & 12. The Consolidated Trial Practice Guide explains that patent claims directed to "verifying validity of a credit card transaction" are "subject to a CBM review proceeding." Patent Trial and Appeal Board, Consolidated Trial Practice Guide at 43 (Nov. 2019), https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf?MURL= ("Trial Practice Guide"); 84 Fed. Reg. 64,280, 64,280 (Nov. 21, 2019) *see* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,764 (Aug. 14, 2012) (same). Verifying the check endorsement's validity is similar to the example identified in the Trial Practice Guide because both are steps that verify the validity of a financial transaction—whether the transaction to pay a credit card charge is valid (Trial Practice Guide) or whether the instruction to pay a particular person the amount on the check is valid (claims 4 and 12). Because a single qualifying claim is sufficient to institute CBM review, and at least claims 1, 4-9, and 12-15 each expressly recite subject matter eligible for CBM review, the RE'274 patent is subject to CBM review. *SIPCO*, 939 F.3d at 1309.

b. The Specification Confirms the Financial Nature of the Claimed Invention

The Lighthouse patents' specification confirms that the claimed invention is directed to performing data processing or other operations used in the practice, administration, or management of a financial product or service. Ex. 1006, ¶ 106.

For example, the specification explains that the "present invention" uses an imaging device to "capture and transmit check images to a bank." Ex. 1001, 2:18-22. The captured images must "conform with the bank's existing image receiving capability." *Id.*, 2:22-24. The "benefit" of the purported invention is the expansion of a bank's market to low-volume individuals and businesses. *Id.*, 2:26-30. The specification also confirms that "[o]nce the image is received and a deposit is proved 240, existing systems check images and data in the correct formats for the bank's … check clearing." *Id.*, 3:4-7; *see also id.*, 3:28-31. In other words, the specification confirms that the invention is related to data processing (e.g., processing check images) and other operations (e.g., sending, verifying, and correlating check images) used in the practice, administration, or management of a financial product (e.g., negotiable instruments) or service (e.g., depositing checks, verifying checks, and records management). Ex. 1001, 2:18-24, 2:56-61, 4:32-57, 6:46-54, 13:33-37.

c. The Federal Circuit and the Board Have Found that Similar Claims Satisfy the Financial Prong

Both the Federal Circuit and the Board have held that claims directed to processing financial documents, such as checks, satisfy the financial prong.

For example, the Federal Circuit affirmed the Board's finding in *Fidelity National Information Services, Inc. v. DataTreasury Corp.*, CBM2014-00020, Paper 34 at 8-9 (PTAB Apr. 29, 2015), that a patent claiming methods for managing, remotely storing, and verifying remotely captured paper transactions from checks was a CBM patent because the claims recited "processing financial transactions." *DataTreasury Corp. v. Fid. Nat'l Info. Servs., Inc.*, 669 F. App'x 572 (Fed. Cir. 2016) (mem.; nonprecedential) (Fed. Cir. R. 36 affirmance), *cert. denied*, 137 S. Ct. 1338 (2017).

In *SIPCO v. Emerson Electric*, the Federal Circuit affirmed the Board's determination that a patent that "expressly contemplates that the information communicated through the claimed system is financial information" satisfied the financial prong of the CBM analysis because the "concept of communicating financial information from a device associated with an ATM to a central location is 'central to the operation of the claimed device.'" 939 F.3d at 1310 (citation omitted) (reversing on other grounds); *see Emerson Elec. Co. v. SIPCO, LLC*, CBM2016-00095, Paper 39 at 12-16 (PTAB Jan. 16, 2018) (affirmed by *SIPCO*).

In *Federal Reserve Bank of Atlanta v. Bozeman Financial LLC*, the Board found that claims directed to "processing and authentication of checks for payment meets the financial product or service requirement of Section 18 of the AIA." CBM2017-00035, Paper 34 at 21-22 (PTAB July 23, 2018) (citing *U.S. Bancorp v. Solutran, Inc.*, CBM2014-00076, Paper 16 at 6 (PTAB Aug. 7, 2014) (method for processing paper checks for payment)); *see Nautilus Hyosung Inc. v. Diebold Nixdorf, Inc.*, CBM2016-00034, Paper 33 at 9 (PTAB Aug. 14, 2017) (finding that a patent claiming "operating a machine to generate check image data corresponding to … one side of a check" and operations performed "during the check cashing transaction" met the financial product or service requirement).

Like the concepts recited in *Data Treasury*, *SIPCO*, *Federal Reserve Bank of Atlanta*, and *Nautilus Hyosung*, the RE'274 patent's claims expressly recite operations for processing a financial document and, thus, also satisfy the financial prong.

d. The Claims Are Not "Incidental to" or "Complementary to" a Financial Activity

In *Unwired Planet*, the Federal Circuit explained that the financial prong does not include activities that are merely "incidental to" or "complementary to" a financial activity. *Unwired Planet, LLC v. Google Inc.*, 841 F.3d 1376, 1382 (Fed. Cir. 2016). The patent in *Unwired Planet* claimed methods for restricting access to

a wireless device's location information using "privacy preferences." *Id.* at 1377. The Federal Circuit explained that incidental financial results that may result from a patented technology (e.g., sales of a patented product), but which are not claimed, did not cause the claims to be "used in the practice, administration, or management of a financial product or service." *Id.* at 1380, 1382 (quoting AIA § 18(d)(1); 37 C.F.R. § 42.301(a)).

Similarly, in *Secure Axcess*, the Federal Circuit held that claims directed to authenticating a web page did not satisfy the financial prong. *Secure Axcess, LLC v. PNC Bank Nat'l Ass'n*, 848 F.3d 1370, 1381-82 (Fed. Cir. 2017), *vacated as moot*, 138 S. Ct. 1982 (2018). The patents at issue described using the authentication system for financially related activities, but did not expressly recite a financial activity in the claims. *Id.*, 1373-75, 1381-82. The court found this to be an "incidental," unclaimed relationship insufficient to satisfy the financial prong. *Id.*, 1380-81.

The RE'274 patent's claims are distinguishable from both *Unwired Planet* and *Secure Axcess* because the claims expressly recite the financial activity of capturing and transmitting negotiable instruments (e.g., checks), among other processes, and thus, are not "incidental to" or "complimentary to" the financial activity. *Supra* § IV.B.2.a. For example, the representative claim expressly recites

a "method for remote depositing of a negotiable instrument" comprising steps for generating images of a negotiable instrument, transmitting the images of the negotiable instrument, and pairing the front and back images of the negotiable instrument to "provide a complete image of the negotiable instrument." Ex. 1001, claim 1; *supra* § IV.B.2.a; *Miami Int'l Holdings, Inc. v. NASDAQ ISE, LLC*, CBM2018-00021, Paper 82 at 26-27 (PTAB Oct. 1, 2019) (finding that claims expressly reciting "a process for trading a financial instrument" were financial in nature and satisfied the financial prong).

3. Technological Prong: The RE'274 Patent Does Not Claim a "Technological Invention"

The RE'274 patent does not claim a "technological invention" because claims 1-15 do not recite a technological feature that is novel and unobvious over the prior art, and do not solve a technical problem using a technical solution. 37 C.F.R. § 42.301(b); *Versata*, 793 F.3d at 1326; Ex. 1006, ¶ 108. Therefore, the RE'274 patent is eligible for CBM review.

a. Part 1: The Claims Do Not Recite a Novel and Nonobvious Feature over the Prior Art

The RE'274 patent does not claim a technological feature that is novel and nonobvious over the prior art. Ex. 1006, ¶¶ 109,117. Rather, the claims recite only a combination of well-known steps for performing a conventional business process

of capturing images of documents, such as checks, and transmitting and storing the images. *Id.*, ¶ 109.

Indeed, the Lighthouse patents and contemporaneous publications confirm that the claim elements were routine and conventional elements for remote check image capture. Ex. 1001, claims 1, 9 (reciting only generic steps without implementation details); Ex. 1006, ¶ 110; *supra* §§ II.A-II.E. Neither the claims nor the specification recites any alleged improvements in these components. Ex. 1006, ¶¶ 110, 114-116.

In its Complaint against TIAA, Patent Owner alleges that the patented technology improved the state of the art by eliminating the need for dedicated check scanners and instead used "ubiquitous imaging devices." Ex. 1013, TIAA Compl., ¶¶ 24-25, 28. Patent Owner has alleged that using "a ubiquitous imaging device" to image a check is a "technical advance[] over the prior art and enable[s] functionality not previously available to ubiquitous imaging devices." *Id.*, ¶¶ 28; *see* Ex. 1005, '698 File Wrapper, 342 (arguing during '698 patent prosecution that claims recited an "inventive concept" of "using electronic image processing equipment (for example a fax machine) that was not designed for such a purpose"). But, as discussed above, both check imaging, and check imaging with "ubiquitous"

devices, such as flatbed scanners and fax machines, were well known in the art, and are therefore neither novel nor nonobvious. *E.g.*, *supra* §§ II.B-II.C.

But even if Patent Owner's assertions are true—which they are not—the claims do not recite a technical feature that is novel and nonobvious over the prior art. Ex. 1006, ¶¶ 114-117. For example, even if the claims require using an imaging device other than a dedicated check scanner for remote check image capture (which is not recited expressly), they do not recite any *improvement* or *feature* of such technology, but rather claim only generic, previously known functions (e.g., "generating" and "transmitting" images, and correlating or indexing the images). *Id.*, ¶¶ 116-117; *see* Ex. 1001, claim 1. Although dependent claims 6 and 14 recite "wherein the step of transmitting includes using one of a fax, a scanner, a device designed to transmit electronic data, or other image device compatible with … banking industry standards," a person of ordinary skill in the art would have understood "a scanner" and "a device designed to transmit electronic data" would encompass many previously known imaging devices, including dedicated check scanners. Ex. 1006, ¶ 113; Ex. 1001, claims 6, 14. Thus, the claims are not different from the admitted prior art systems. Ex. 1006, ¶ 113. Regardless, the claimed functions (e.g., "generating an electronic image" and "transmitting the electronic image") are generic and do not recite any improvement

or modification of the image capture device because the specification states that they are used without modification. *Id.*, ¶¶ 114, 116; *see* Ex. 1001, 4:8-13. The claims recite, at most, using only known prior art technology performing its known functions or combining prior art structures to achieve the normal, expected, or predictable result of that combination and not a technological improvement. Ex. 1006, ¶ 115; *supra* §§ II.A-II.E.

The Patent Office has also determined that these types of generic recitations of known prior art technologies (e.g., "scanners") performing their known functions are mere "claim drafting techniques" and do not render a patent a "technological invention," "even if [the] process [performed by the known prior art technology] is novel and non-obvious." Trial Practice Guide at 43. Thus, using a "ubiquitous imaging device," such as a previously known scanner or fax machine, to remotely deposit a check is not a technological invention because it does not improve the scanner itself and was a conventional use of the technology in the prior art. Ex. 1006, ¶ 116; Ex. 1001, 2:56-59, 3:19-25 (explaining that "[t]he process delivers the functional equivalent of what users and existing system providers get from special purpose check scanners attached to a computer"), 2:11-14, 3:65-4:10 (explaining that "**existing** FAX machine, flat bed scanner, or other

ubiquitous imaging device" is used without any modifications) (emphasis added); *supra* §§ II.A-II.C.

Contemporaneous publications confirm that the concept of using "ubiquitous imaging devices" for remote check image capture was neither novel nor nonobvious over the prior art. Ex. 1006, ¶117; *supra* § II.B; *see* Ex. 1016, Botvin, 2:20-25, 4:44-59 (describing facsimile machine that "acts as a digital scanner" to conduct financial transactions); Ex. 1012, Muller, 274 (explaining that "any office with a modem-equipped PC or fax machine is a potential imaging location"). During prosecution, the applicant admitted that using a "ubiquitous imaging device" was known in the prior art. Ex. 1005, '698 File Wrapper, 154 (acknowledging that Botvin (Ex. 1016) discloses generating and transmitting check images "to the drawee via facsimile" and processing check images using a computer).

The claims recite only known prior art technologies that perform known business processes. Accordingly, the claims do not constitute a technological feature that is novel and nonobvious over the prior art. Ex. 1006, ¶ 117; *see In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1347-48 (Fed. Cir. 2014).

b. Part 2: The Claims Do Not Solve a Technical Problem Using a Technical Solution

The claims do not solve a technical problem using a technical solution. Ex. 1006, ¶¶ 118, 120, 124. The claims are directed to solving a business problem related to the alleged "high cost" of using dedicated check scanners. *Id.*; Ex. 1001, 1:53-2:6; *see* Ex. 1013, TIAA Compl., ¶¶ 24-25.

Using other types of known scanning devices (e.g., fax machine or flatbed scanners) is directed to the business problem of reducing expenses associated with purchasing a "dedicated check scanner," not a technological problem and solution. Ex. 1006, ¶ 118; *see* Ex. 1001, 1:65-2:6, 2:30-32. In fact, the specification admits that the imaging devices used are known in the prior art and used without modification. Ex. 1001, 4:8-10 ("[the] invention does not require any modification to these scanning devices"); *supra* §§ II.A-II.B. "[A] technical invention does not emerge from a patent where it strives to solve a problem that is more of a business problem than a technical problem." *Price f(x) AG v. Vendavo, Inc.,* CBM2019-0023, Paper 7 at 18 (PTAB Aug. 5, 2019) (internal quotation marks omitted) (citing *Apple*, 842 F.3d at 1240). The claims' focus on the cost of remote check deposit systems is not a technological problem, and using known scanners without modification is not a technological solution. Ex. 1001, 2:4-6; *see Trading Techs.*, 921 F.3d at 1382-83 (claims that "focus[] on improving the [user], not the

functioning of the computer," do not provide a technical solution to a technical problem).

The claims do not recite a technical solution. Ex. 1006, ¶ 120. First, the claims do not require the purported solution—a ubiquitous imaging device—to perform the claimed method. *Id.*; Ex. 1001, 1:67-2:4; *Synopsys*, 839 F.3d at 1149 (rejecting patent owner's argument that the "true novelty" of the claims was the "inten[tion] to be used in conjunction with computer-based design tools," but did not recite the computer tools). Second, even if the claims did recite a ubiquitous imaging device, this is not a technical solution because the claims do not "improve the functioning of the computer, make it operate more efficiently, or solve any technological problem." *Trading Techs.*, 921 F.3d at 1384-85; Ex. 1006, ¶ 120. Instead, the specification confirms that imaging devices were well known in the art, including using commercially available imaging devices, such as fax machines and scanners, for check image capture. *Id.*, ¶¶ 58, 120; *supra* § II.B. The specification also admits that the imaging devices do not require modification. Ex. 1001, 4:8-10. The claims do not require any specific, unconventional software, computer equipment, tools or processing capabilities. Ex. 1006, ¶ 120. Generically recited computer components and conventional use of those components to facilitate generically recited steps "does not change the fundamental character" of

the claims. *Versata*, 793 F.3d at 1327 (citing *Alice*, 573 U.S. 208). Thus, the claims' conventional use of a well-known imaging device is not a technological solution.

Patent Owner alleges that using identifiers "provides a technical solution," and that, "[b]y using identifiers on the front and back of check images, the industry was able to overcome a problem specifically arising in the realm of computer networks." Ex. 1013, TIAA Compl., ¶¶ 27, 30. Contrary to Patent Owner's assertion, this is just the computerized equivalent of stapling two pages of the same document together. Ex. 1006, ¶ 123. Using identifiers to automatically organize documents was well known in the art and does not recite a technological solution. *Id.*, ¶¶ 80-88, 121-122; *supra* § II.D; Ex. 1009, Robek, 366, 369 (describing identifiers printed on the front and back of the document, so that the front and back of a document can be associated if one is separated); Ex. 1012, Muller, 122 (placing barcodes or sequence numbers on each side of a two-sided documents, and collating the documents using the identifier), 151, 155 (scanning both sides of a document and grouping documents images having the same barcode together). Even more specifically, it was well known to use identifiers on both sides of a check to associate the images. Ex. 1006, ¶ 121-122; Ex. 1018, Moore, [0087], [0089], [0134] (describing an identifier printed or applied to "one or more" sides of

a document, and using identifiers to "reduce the amount of time and resources required to locate processing details, images and actual documents"). Thus, to the extent that Patent Owner argues that identifiers permitted banks to process electronic images of checks or automate check manual check processing, this does not provide a technological invention. *See Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017) (finding that claims directed to automating the manual processing of loan applications did not constitute an improvement in computer technology); Ex. 1013, TIAA Compl., ¶ 30.

A person of ordinary skill in the art would have understood that using identifiers for "pairing" front and back images does not require any computer components and merely describes a computerized mental or human activity, which is not a technological solution. Ex. 1006, ¶¶ 88, 123; *Synopsys*, 839 F.3d at 1148-52 (finding that claims directed to "generating a representation of a single specific hardware component," which could be "performed mentally or with pencil and paper," did not recite a technical solution). Correlating document images using an identifier is no more than automating the human activity of recognizing that two pages belong together and putting them in the same file. Ex. 1006, ¶ 123. An operator can also inspect two images having a "Document 1234" identifier, determine mentally that the two images are part of the same document, and pair the

images together into either a single document to form a complete image of the document or associate them in an index as a single document. *Id.*, ¶ 123.

The claimed identifiers also do not recite a technological solution because the claims do not include a particular way of generating and using the identifiers or a specific improvement in the way computers operate. *Id.*, ¶¶ 124-125; *see Apple*, 842 F.3d at 1241.

Accordingly, the RE'274 patent is a CBM patent and its claims are eligible for CBM review.

V. Statement of Precise Relief Requested for Each Challenged Claim

A. Claims for Which Review Is Requested

Petitioner respectfully requests review of claims 1-15 of the RE'274 patent pursuant to 37 C.F.R. § 42.300 and cancellation of those claims as unpatentable. Petitioner certifies that it is not barred or estopped from requesting CBM review on the identified grounds, including under any of 35 U.S.C. §§ 315(e) or 325(e) or 37 C.F.R. § 42.302(b) or (c).

B. Statutory Grounds of Challenge

Claims 1-15 of the RE'274 patent are unpatentable under 35 U.S.C. § 101 because they claim patent-ineligible subject matter.

VI. Person of Ordinary Skill in the Art

A person of ordinary skill in the art relating to the Lighthouse patents would have a Bachelor's degree in Management Information Systems, Computer Science, or Electrical Engineering, or four years of professional system development experience, plus two years of work experience in image processing, computer networking, electronic document management storage systems, or records management, or equivalent additional formal education such as graduate studies, or work experience to replace formal education. Ex. 1006, ¶ 32.

VII. Claim Construction

No claim constructions are necessary for the Board to resolve the question of patent eligibility under § 101. *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Canada*, 687 F.3d 1266, 1273 (Fed. Cir. 2012) ("[C]laim construction is not an inviolable prerequisite to a validity determination under § 101")

Petitioner notes, however, that in *Unified Patents Inc. v. Lighthouse Consulting Group, LLC*, IPR2020-00194, Paper 1 at 21-33 (PTAB Dec. 13, 2019), the petitioner Unified Patents proposed constructions for several terms of the related '940 patent, which are shown below.

> **"the identifier being independent of data on the negotiable instruments"** means "not depending or

contingent upon information on the negotiable instruments."

"while the negotiable instruments are secured to the carrier" and **"when the negotiable instruments are secured to the carrier"** means "while/when the negotiable instruments are inserted into or attached to a carrier."

"imaging device" is not a means-plus-function limitation governed by pre-AIA 35 U.S.C. § 112, ¶ 6, but if the Board believed it should be construed as a means-plus-function limitation, the limitation's *function* is "separately generating and transmitting one electronic front image of all the negotiable instruments and one electronic back image of all the negotiable instruments and the unique identifier," and its *structure* is "fax machine or a computer having a flat bed scanner connected to the computer that is capable of generating scanned images; and equivalents thereof."

"receiving unit" is not a means-plus-function limitation governed by 35 U.S.C. § 112, ¶ 6, but if the Board believed it should be construed as a means-plus-function limitation, the limitation's *function* is "(i) receiving the separately transmitted front and back images of the negotiable instruments; (ii) storing the received images;

> (iii) breaking down the individual front and back images of all negotiable instruments from the one front image of all the negotiable instruments and one back image of all the negotiable instruments; and (iv) subsequently pair[ing] the front image of each negotiable instrument," and its *structure* is "a computer … having memory and imaging software that performs the … algorithms for functions (i)-(iv) above."

Ex. 1019, Unified Patents' IPR Petition, 21-33.

To the extent the Board considers these constructions, they do not alter the outcome of the patent-eligibility analysis or the conclusion that the claims are not patent eligible under § 101.

VIII. Claims to Abstract Business Practices Are Not Patent Eligible Under § 101

Abstract ideas have long been ineligible for patenting under 35 U.S.C. § 101. *Alice*, 573 U.S. at 216. The Supreme Court in *Alice* "set forth a two-step analytical framework to identify patents that, in essence, claim nothing more than abstract ideas." *Synopsys*, 839 F.3d at 1146. Under the two-part framework, a court must (i) "determine whether the claims at issue are directed to … [a] patent-ineligible concept[]," such as an abstract idea; and (ii) if so, "consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-

eligible application." *Alice*, 573 U.S. at 217 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 78, 79 (2012)).

A. Claims that Merely Generate and Transmit Document Images that Are Organized Using an Identifier Are "Directed to" an Abstract Idea

Under *Alice* step 1, the Board must identify whether the "focus" of the claims or their "character as a whole" is directed to an abstract idea. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353-54 (Fed. Cir. 2016) (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335-36 (Fed. Cir. 2016)); *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1327 (Fed. Cir. 2017). Claims whose focus "is not on such an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools," are not patent eligible. *Elec. Power Grp.*, 830 F.3d at 1354. Thus, claims that recite "generalized steps to be performed on a computer using conventional computer activity" or "simply add[] conventional computer components to well-known business practices" are directed to abstract ideas. *TLI Commc'ns*, 823 F.3d at 612.

Similarly, "[m]ethods which can be performed entirely in the human mind are the types of methods that embody the 'basic tools of scientific and technological work' that are free to all men and reserved exclusively to none." *Voter Verified*, 887 F.3d at 1385 (quoting *CyberSource Corp. v. Retail Decisions,*

Inc., 654 F.3d 1366, 1373 (Fed. Cir. 2011)). Thus, claims that do not "differentiate a process from ordinary mental processes, whose implicit exclusion from § 101 undergirds the information-based category of abstract ideas," are not patent eligible. *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1097 (Fed. Cir. 2016) (quoting *Elec. Power Grp.*, 830 F.3d at 1355).

The Federal Circuit has repeatedly rejected the patenting of generating and transmitting document images that are organized for storage as routine and conventional activities.

For example, in *Secured Mail Solutions, LLC v. Universal Wilde, Inc.*, the Federal Circuit found that claims directed to "using a marking affixed to the outside of a mail object to communicate information about the mail object" were abstract. 873 F.3d 905, 910-11 (Fed. Cir. 2017). The Federal Circuit explained that where the claims did not recite "a new barcode format, an improved method of generating or scanning barcodes, or similar improvements in computer functionality," "[t]he fact that an identifier can be used to make a process more efficient … does not necessarily render an abstract idea less abstract." *Id.*

In *TLI Communications*, the Federal Circuit found that claims directed to the abstract idea of "classifying and storing digital images in an organized manner" recited "a well-established 'basic concept' sufficient to fall under *Alice* step 1."

823 F.3d at 613. Similarly, in *University of Florida Research Foundation, Inc. v. General Electric Co*., the Federal Circuit found claims directed to "collecting, analyzing, manipulating, and displaying data" were abstract because the claims did not improve computer functionality and merely sought to replace "pen and paper methodologies." 916 F.3d at 1367-68 (citation omitted).

In *Electric Power Group*, the Federal Circuit found that claims directed to "a process of gathering and analyzing information of a specified content, then displaying the results, [but] not [to] any particular assertedly inventive technology for performing those functions," recited abstract ideas. 830 F.3d at 1353-54.

The "physicality" of claim components does not preclude a claim from being directed to an abstract idea. *Solutran, Inc. v. Elavon, Inc.*, 931 F.3d 1161, 1166-68 (Fed. Cir. 2019) (citing *In re Marco Guldenaar Holding B.V.*, 911 F.3d 1157, 1161 (Fed. Cir. 2018)). This is because the focus of subject matter eligibility is not whether the claimed invention comprises physical steps rather than mental steps. *Solutran*, 931 F.3d at 1166-68. Instead, appending purely conventional physical activities involving conventional components does not supply an "inventive concept." *In re Smith*, 815 F.3d 816, 819 (Fed. Cir. 2016) (citing *Alice*, 572 U.S. at 209).

In *Solutran*, the Federal Circuit explained that the claimed method for processing a physical check was abstract because the claims "simply recite conventional actions in a generic way (*e.g.*, capture data for a file, scan check, [and] move check to a second location, such as a back room) and do not purport to improve any underlying technology." *Solutran*, 931 F.3d at 1166-68*; see Chamberlain Grp. v. Techtronic Indus. Co.*, 935 F.3d 1341, 1348 (Fed. Cir. 2019) (finding that "physical real world manifestation[]" did not make claims non-abstract); *Smith*, 815 F.3d at 819 (claims requiring the "shuffling and dealing [of] physical playing cards" did not transform claims into patent-eligible subject matter because they recited conventional physical activities).

In *Content Extraction*, 776 F.3d at 13437, the Federal Circuit canceled claims directed to "1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory" despite the use of physical scanners to create and process checks. Finding the claims unpatentable, the court noted that "banks have, for some time, reviewed checks, recognized relevant data …, and stored that information in their records."

The court has found that physical components did not save abstract claims directed to a method for voting that involved steps of printing and handling physical election ballots, *Voter Verified*, 887 F.3d at 1386, and a method of using a

physical bankcard, *Smart Sys. Innovations, LLC v. Chi. Transit Authy.*, 873 F.3d 1364, 1373 (Fed. Cir. 2017).

In accordance with this precedent, a claim directed to generating and transmitting document images that are organized using an identifier is directed to an abstract idea, even if physical components are involved.

B. Conventional Computer Implementation of an Abstract Idea Does Not Transform the Claim into a Patent-Eligible Application

Under *Alice* step 2, the Board must determine whether the claims, either individually or in an ordered combination, include an "'inventive concept'—*i.e.,* an element or combination of elements that is 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself.'" *Alice*, 573 U.S. at 217-18 (quoting *Mayo*, 566 U.S. at 72-73). The inventive concept "cannot simply be an instruction to implement or apply the abstract idea on a computer." *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016). The Federal Circuit has evaluated patent claims under *Alice* step 2 to determine whether the claims involve a "technology-based solution." *Id.* at 1351. Claims that recite an "abstract-idea-based solution implemented with generic technical components in a conventional way" are not patent eligible. *Id.*

In contrast, claims that "solve a technology-based problem, even with conventional, generic components, combined in an unconventional manner," or provide an "unconventional technological solution … to a technological problem," have been found to be patent eligible under *Alice* step 2. *Amdocs (Isr.) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1300 (Fed. Cir. 2016). But merely limiting the claims to a particular technological environment, such as negotiable instruments, is insufficient to transform an abstract idea into a patent-eligible application. *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014).

Using known generic devices to computerize the steps of "recognizing and storing information from hard copy documents using a scanner" is the same as recognizing and organizing information on checks, which is an activity humans "have always done," and does not provide an inventive step. *Content Extraction*, 776 F.3d at 1347-48; *Solutran*, 931 F.3d at 1166-68.

Accordingly, computerizing human activities with generically claimed functions does not transform an abstract idea into a patent-eligible application.

IX. The Challenged Claims Are Not Patent Eligible Under § 101

All of the challenged claims are directed to the abstract idea of generating and transmitting document images that are organized using an identifier. Ex. 1006, ¶ 127. The Federal Circuit recognized in *Content Extraction*, *TLI Communications*,

Solutran, *Secured Mail*, and *Electric Power Group*, among other cases, that substantially similar concepts are "undisputably well-known." *Content Extraction*, 776 F.3d at 1347; *supra* §§ VIII.A-VIII.B; *see Univ. of Fla. Research Found.*, 916 F.3d at 1367.

The claims' use of conventional components and activities do not make them non-abstract, because all of the claim elements are generically recited and well known in the art. *Content Extraction*, 776 F.3d at 1347-48. Thus, no element or combination of elements in the claims provides a patent-eligible "inventive concept" to transform the claims into a patent-eligible application of the claimed abstract idea.

A. *Alice* Step 1: The Challenged Claims Are "Directed to" the Abstract Idea of Generating and Transmitting Document Images and Organizing the Images Using an Identifier

All of the challenged claims are directed to the concept of generating and transmitting document images that are organized using an identifier. Ex. 1006, ¶ 127, 135. The Federal Circuit has recognized that this is an unpatentable abstract idea.

Independent claim 1 is representative of all claims of the RE'274 patent. The Board can evaluate a representative claim when the other claims are "substantially similar and linked to the same abstract idea." *Content Extraction*, 776 F.3d at 1348.

The differences between claim 1 and the other claims are addressed in Sections IX.C (independent claim 9) and IX.D (dependent claims). Those differences do not change the patent-eligibility analysis or its outcome.

The table below highlights features related to the concept of generating and transmitting document images that are organized using an identifier in yellow and features that suggest or require generic computer components in blue.

Claim 1
1. A method for remote depositing of a negotiable instrument, the method comprising:
providing a carrier designed to permit a front image and a back image of the negotiable instrument, when the negotiable instrument is secured to the carrier, to be generated;
securing the negotiable instrument to the carrier;
creating an identifier on a front side and back side of the carrier, the identifier being unique to the carrier and associated therewith;
generating an electronic image of the front and back of the negotiable instrument along with the unique identifier on the carrier while the negotiable instrument is secured to the carrier;

Claim 1
transmitting the electronic image of the front and back of the negotiable instrument and the unique identifier to a remote location; and
pairing, at the remote location, the front image of the negotiable instrument having the associated unique identifier to a separately received corresponding back image of the negotiable instrument having the associated unique identifier, to provide a complete image of the negotiable instrument.

Ex. 1006, ¶ 128.

As this chart shows, the representative claim recites only the abstract idea implemented in a generic computer environment. *Id.*, ¶ 129.

Stripped of its excess verbiage, the representative claim is directed to storing or depositing a negotiable instrument by (1) imaging a document; (2) associating an identifier with the document; (3) transmitting the images and identifier; and (4) associating the images with each other using the identifier. *Id.*, ¶ 130. Taken as a whole, the claims are directed to the abstract idea of generating and transmitting document images that are organized using an identifier. *Id.*

1. The Abstract Idea Merely Implements a Known Business Practice and Human Activity

The claimed method of generating and transmitting document images that are organized using an identifier is a known business practice and a human activity, which is an abstract idea. Indeed, prior to the introduction of image processing technology, banks manually processed checks and routinely associated parts of documents using identifiers on each document. Ex. 1006, ¶¶ 130, 139. For example, paper checks received by a bank branch were manually processed by an operator. *Id.* Moreover, the Lighthouse patents admit that the process described in the RE'274 patent provides "the functional equivalent of what users and existing system providers get from [existing remote check deposit systems]," Ex. 1001, 3:19-21, and that the process was "much the same" as routine check and document processing made at bank branches, *id.*, 3:45-47, 10:61-62.

A claim that merely automates "pen and paper methodologies" is directed to an abstract idea. *Univ. of Fla. Research Found.*, 916 F.3d at 1367; *see TLI Commc'ns*, 823 F.3d at 613; *Content Extraction*, 776 F.3d at 1347. Here, the representative claim merely recites steps for generating and transmitting document images that are organized using an identifier to perform a generic electronic equivalent of the routine business practice of depositing checks and is

impermissibly directed to an abstract idea. Ex. 1006, ¶¶ 130, 135; *Bilski v. Kappos*, 561 U.S. 593, 608-09 (2010).

The concept of generating and transmitting document images that are organized using an identifier to keep pages of the same document together is the same as "paper and pen methodologies" by which a bank employee writes an identifier, such as a transaction number or record number, on each side of a check, photocopies both sides of a check, sends the photocopies to another part of the bank, and stores the photocopies together based on the transaction or record number. Ex. 1006, ¶ 132. For example, an operator may write "Document 1234," "Transaction No. 5678," or other record identifier on both sides of a check or other financial document to uniquely identify the record in case the payment or check is subsequently disputed, on both sides of a check or other financial document. *Id*. The operator may then create images of each side of the check using a photocopier and send the photocopies to a different location. *Id.* The recipient performs a visual inspection of the photocopies and determines, using mental reasoning, that photocopies having the same identifier are from the same document, and pairs the photocopies having the same identifier, e.g., "Document 1234," together by stapling them and/or placing them in the same folder to form a complete "Document 1234." *Id.*

The claimed "pairing" of two images is also the same as organizing a multipage document based on an identifier printed on each page of the document, such as a header or footer notation. *Id.*, ¶ 133. For example, an operator may assign an identifier indicating sequence numbers to a first page and a second page. Another operator who receives the second page having a "Document 1234-2" or "Document 1234 - 2 of 2" identifier may determine that it is the second page of "Document 1234" and combine it with a previously received first page having an "Document 1234-1" or "Document 1234 - 1 of 2" to form a complete document for identifier "Document 1234." *Id.*, ¶ 133.

Thus, the RE'274 patent claims only a known business activity of generating and transmitting document images that are organized using an identifier, which is an abstract concept. *Id.*, ¶¶ 134-135 ,149.

2. The Federal Circuit Has Held that Generating and Transmitting Document Images that Are Organized Using an Identifier Is an Abstract Idea

Representative claim 1 recites nothing more than an abstract concept. Claim 1 recited generating document images, transmitting the images and an identifier, and organizing the images by pairing images with the same identifiers. This is the same as abstract ideas previously found unpatentable by the Federal Circuit. Claim 1 is analogous to the patent-ineligible claims in *TLI*

Communications, *Content Extraction*, *Erie Indemnity*, *Secured Mail*, and *Solutran* each of which was similarly drawn to organizing images based on an identifier. *TLI Commc'ns*, 823 F.3d at 612-13; *Content Extraction*, 776 F.3d at 1347; *Erie Indem.*, 850 F.3d at 1327; *Secured Mail*, 873 F.3d at 910-11; *Solutran*, 931 F.3d at 1166-68. Such organizing and categorization constitutes "longstanding conduct that existed well before the advent of computers and the Internet." *Erie Indem.*, 850 F.3d at 1327.

In *TLI Communications*, the claims were drawn to "the abstract idea of classifying and storing digital images in an organized manner." 823 F.3d at 613. The Federal Circuit explained that "attaching classification data, such as dates and times, to images for the purpose of storing those images in an organized manner is a well-established 'basic concept' sufficient to fall under *Alice* step 1." *Id*.

In *Content Extraction*, claims directed to "collecting data," "recognizing certain data within the collected data set," and "storing that recognized data" were found to be directed to an "undisputedly well-known" activity that "humans have always performed." 776 F.3d at 1347. Although the claims in *Content Extraction* recited recognizing and storing specific data fields, such as dates, the Federal Circuit still held that they were abstract. *Id.* at 1348-49.

Erie Indemnity held that claims for categorizing and organizing data electronically are not patent eligible because "a hardcopy-based classification system (such as [a] library-indexing system) employs a similar concept," where classifiers "organize and cross-reference information and resources (such as books, magazines, or the like) by certain identifiable tags, e.g., title, author, subject" (i.e., identifiers). 850 F.3d at 1327.

Further, *Secured Mail* held that claims directed to a method where "a barcode is generated," "affixed to a mail object," "sent through the mail system," "upon receipt, the barcode is scanned," and "data corresponding to the sender is sent to the recipient over the network and displayed on the recipient's device," were abstract even if the claims improved on the existing process by reliably identifying information using an identifier. *Secured Mail*, 873 F.3d at 910-11. The RE'274 patent's claims are directed to an abstract idea substantially similar to these cases because they recite only the abstract concept of imaging a document, sending the document images, and associating the images together using a document identifier. Ex. 1006, ¶ 130.

Moreover, the Lighthouse patents do not describe any improvement in computer technology or anything more than the routine business practice of processing a check, which is an activity "humans have always performed." *Content*

Extraction, 776 F.3d at 1347 ("banks have, for some time, reviewed checks, recognized relevant data such as the amount, account number, and identity of account holder, and stored that information in their records"); Ex. 1006, ¶¶ 110, 120, 124, 134; *DealerTrack, Inc. v. Huber*, 674 F.3d 1315, 1333-34 (Fed. Cir. 2012) (a "computer-aided limitation" did not render the claims for processing credit applications over electronic networks any less abstract than the idea of using a clearinghouse to process information).

Thus, representative claim 1 is directed to the abstract idea of generating and transmitting document images that are organized using an identifier. Ex. 1006, ¶ 135.

3. The USPTO's Subject Matter Eligibility Guidance Confirms the Abstract Idea in the Challenged Claims

The USPTO's October 2019 Update to Subject Matter Eligibility Guidance, available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf ("Guidance"), which provides further guidance on the 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019), confirms that the challenged claims are directed to an unpatentable abstract idea.

a. Revised USPTO Step 2A, Prong 1: The Claims Recite an Abstract Idea—Organizing Human Activity

The Guidance confirms that claims directed to "fundamental economic practices" and "commercial or legal interactions" recite unpatentable abstract ideas. Guidance 5. Example of abstract economic practices include "local processing of payments for goods" and "using a marking … to communicate information about [a] mail object." *Id.* (citations omitted). Similarly, "processing a credit application" and "processing information through a clearinghouse" are examples of unpatentable abstract commercial interactions. *Id.*, 6 (citation omitted). These abstract ideas are similar to the challenged claims' abstract idea of generating and transmitting document images—in particular check images—and organizing the images using an identifier, which is an economic practice and commercial activity of electronic check processing. *Supra* §§ IX.A.1-IX.A.2.

b. Revised USPTO Step 2A, Prong 2: The Claims Do Not Integrate the Abstract Idea into a "Practical Application" of the Abstract Idea

Under the Guidance, an abstract idea may be patent eligible if it is "integrated into a practical application of the [judicial] exception," such as by "improving technology" or "implementing with a particular machine." Guidance, 10-11. But mere "generic computer components that amount[] to mere instructions to implement the abstract idea on a computer" are not a practical application. *Id.*,

11-12. The challenged claims do not recite an improvement to technology components or implement the claimed abstract idea using a particular machine. *Supra* §§ IV.B.3.a-IV.B.3.b, IX.A.1-IX.A.2. Instead the claims use only generic off-the-shelf components without modification and recite generic functional language. *Supra* §§ IV.B.3.a-IV.B.3.b, IX.A.1-IX.A.2. Under the Guidance, such generic claims do not recite a practical application of an abstract idea to render them patent eligible. Guidance 10-13.

B. *Alice* Step 2: The Claim Elements, Either Alone or in Combination, Do Not Add "Significantly More" to the Abstract Idea

"To save a patent at [*Alice*] step two, an inventive concept must be evident in the claims." *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017). Thus, "[f]or the role of a computer in a computer-implemented invention to be deemed meaningful in the context of this analysis, it must involve more than performance of 'well-understood, routine, [and] conventional activities previously known to the industry.'" *Content Extraction*, 776 F.3d at 1347-48 (quoting *Alice*, 573 U.S. at 225). Similarly, claim elements reciting physical activities performed by humans do not make the claims less abstract because these steps represent conventional activity. *Solutran*, 931 F.3d at 1166-68; *Content Extraction*, 776 F.3d at 1347-48; *Voter Verified*, 887 F.3d at 1385; *Alice*, 573 U.S. at 223-24. Here, the

claim elements recite only conventional human activities and do not provide any improvements in computer technology. Ex. 1006, ¶¶ 139, 140, 149.

1. Representative Claim 1 Recites Only Generic, Well-Known Components and Activities Used in Purely Conventional Ways

The Lighthouse patents recite using only generic components and functional steps in a conventional way to perform known, conventional functions, such as scanning, sending images, and storing images. *Id.*, ¶¶ 142, 147-149.

Processes for generating electronic documents images and transmitting the images to a remote location were routine and conventional in the prior art. *Id.*, ¶¶ 139-140; *supra* § II.B; *see* Ex. 1012, Muller, 287 (explaining that hundreds of banking offices had the ability to "optically scan[] financial documents" and "produc[e] a digitized instrument that is processed"); Ex. 1011, D'Alleyrand, 180 & Fig. 10.1 (the "[b]asic components" of an imaging system include a scanner for generating images and a workstation for transmitting images). The RE'274 patent itself acknowledges that capturing electronic images of the front and back of checks and transmitting the images to remote locations was conventional in existing remote check imaging systems. Ex. 1001, 1:43-48, 3::14-18, Fig. 1.

Representative claim 1 does not recite any computer components and instead recites only generic functions, such as "generating" and "transmitting" electronic

images. Ex. 1006, ¶¶ 141, 148 149; Ex. 1001, claim 1. But even if the claim recited a computer, imaging device, or "ubiquitous imaging device," this would not constitute an inventive concept because using imaging devices, including flatbed scanners and fax machines, to generate and transmit electronic documents images was well known and conventional. *Id*., ¶ 141; *supra* §§ II.A-II.E; *see Content Extraction*, 776 F.3d at 1348-49 (scanning device and data extraction from check images does not render claims patent eligible); *TLI Commc'ns*, 823 F.3d at 613-15 (claimed "telephone unit" for generating images and transmitting images with "classification data" does not render claims patent eligible); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370-71 (Fed. Cir. 2015). The Lighthouse patents admit that imaging devices were routinely used for "commercial and personal purposes" and no technological modifications were required to such devices to practice the invention. Ex. 1001, 3:65-4:10.

Representative claim 1 recites generic human activities for performing check processing (e.g., "providing a carrier," "securing the negotiable instrument to the carrier," "creating an identifier," and "pairing … the front image … to a separately received corresponding back image"). Ex. 1006, ¶ 142; Ex. 1001, claim 1; *supra* §§ II.C-II.E. Well-established human activities do not transform abstract ideas into patent-eligible subject matter. *Solutran*, 931 F.3d at 1168 ("[t]he physical nature of

processing paper checks" does not transform the abstract idea into patent-eligible subject matter); *Content Extraction*, 776 F.3d at 1348-49; *Voter Verified*, 887 F.3d at 1385-86.

Providing a carrier to secure the negotiable instrument that allows generating front and back images was a routine and conventional business practice. Ex. 1006, ¶ 145; *supra* § II.E; Ex. 1017, Reynders, [0005], [0060] (describing transparent carriers configured to secure multiple documents); Ex. 1015, Bremer, 2:17-22, 1:52-58, 1:63-64 (describing transparent carriers, double-sided carriers, and carriers having compartments or pockets for securing negotiable instruments); Ex. 1011, D'Alleyrand, 271 (describing transparent carrier for securing documents passed through a scanner). The Lighthouse patents admit that carriers were well-known off-the-shelf components. Ex. 1001, 4:45-47 ("[c]arriers are … commercially available"), 6:12-14 ("a standard carrier, without any customized information, is used"); *supra* § II.E.

Creating an identifier and pairing images using the identifier were also a well-known and conventional activities prior to the filing of the Lighthouse patents. Ex. 1006, ¶ 146; s*upra* § II.D; Ex. 1018, Moore, [0073], [0134] (describing identifier printed on "one or both sides" of a check and using identifiers to "reduce the amount of time and resources required to locate

processing details, images and actual documents"); Ex. 1012, Muller, 155 (identifying documents having the same barcode scanned out of order and collating images after scanning), 150-51 (describing using identifiers to organize document pages and that "the user indicates to the system the pages that make up a particular document and the order of those pages"); Ex. 1009, Robek, 366, 369 (describing identifiers assigned to the front and back of a document so that document pages can be identified if separated), 276-77 (describing using a "[s]equential [n]umbering [d]evice" to generate and assign numerical documents identifiers used to index imaged documents), 252, 255 (describing barcodes assigned to documents and used to identify information about the documents); Ex. 1011, D'Alleyrand, 233, 323, 326.

Organizing two images from the same document using the document identifier was a routine and conventional practice in the art. Ex. 1006, ¶¶ 143; *supra* § II.D. Imaging systems routinely used identifiers to identify individual pages of a single document and to produce a complete and collated version of the document. Ex. 1006, ¶ 144; *supra* § II.D; *e.g.*, Ex. 1011, D'Alleyrand, 138-39 (automatically organizing front and back page images sequentially after they are scanned out of order), 326 (associating an identifier for a particular document with

page images); Ex. 1009, Robek, 366, 369 (using an identifier placed on both sides of the document so that the document can be identified if a page is separated).

Thus, the elements of representative claim 1, taken both individually and as a whole, recite only routine, conventional activities and do not add "significantly more" to the abstract concept to render it patent eligible. Merely adding "well-understood, routine, and conventional" components and activities to the claims do not add an inventive concept to an abstract idea. Ex. 1006, ¶ 146, *Content Extraction*, 776 F.3d at 1348-49; *OIP Techs., Inc. v. Amazon.com, Inc*., 788 F.3d 1359, 1363 (Fed. Cir. 2015) ("relying on a computer to perform routine tasks more quickly or more accurately" does not render claims patent eligible).

2. The Claim Elements Do Not Provide a Technological Solution

Under *Alice* step 2, courts have looked to whether claims provide a "specific technical solution beyond simply using generic computer concepts in a conventional way." *BASCOM*, 827 F.3d at 1352. The elements of claim 1, taken both individually and as a whole, do not recite a technical solution or transform the abstract idea into a patent-eligible application. Ex. 1006, ¶¶ 121, 149; *supra* § IX.B.1.

The RE'274 patent asserts that the "present invention" allows users to capture check images remotely without using a dedicated check scanner. Ex. 1006,

¶¶ 106, 112, 118; Ex. 1001, 2:18-22, 2:26-32. However, the RE'274 patent admits that its purported invention "does not require any modification to these scanning devices," Ex. 1001, 4:8-10, and non-dedicated check scanners were conventionally used for processing negotiable instruments, such as checks, *supra* §§ II.A-II.C. Therefore, this does not constitute a technical solution because neither the claims nor the RE'274 patent recites an improvement in computer technology. Ex. 1006, ¶¶ 116, 120,124.

To the extent that Patent Owner argues that the "pairing" step is a technological solution because it allows "ubiquitous imaging devices" to be used for remote image capture, it is not. Pairing document pages using a document identifier was both a conventional human activity, *supra* § IX.A.1, and conventional in electronic image processing, *supra* §§ II.D, IX.B.1. Ex. 1006, ¶ 143-144, 146. Rather than a technical solution, the claims merely recite a routine human activity which does not transform the abstract idea into patent-eligible subject matter. Ex. 1006, ¶ 148; *CyberSource*, 654 F.3d at 1376-77; *Content Extraction*, 776 F.3d at 1348-49.

The combination of claim elements also does not recite a technological solution because the claimed features are "described and claimed generically rather than with the specificity necessary to show how those components provide a

concrete solution to the problem addressed by the patent." *Affinity Labs of Tex., LLC v. Amazon.com, Inc.*, 838 F.3d 1266, 1271-72 (Fed. Cir. 2016); *RecogniCorp*, 855 F.3d at 1328 (finding claims that failed to recite "a particularized application of encoding and decoding image data" were not patent eligible). Here, representative claim 1 merely "stat[es] [the relevant] functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance over conventional computer and network technology," and thus does not claim a technical solution. *Affinity Labs*, 838 F.3d at 1271 (quoting *Elec. Power Grp*., 830 F.3d at 1351); *Content Extraction*, 776 F.3d at 1348-49 (holding that identifying symbols from a scanned image of a document merely described generic, routine process).

To the extent Patent Owner argues that the claims are like those found patent eligible in *BASCOM*, they are not. In *BASCOM*, the Federal Circuit found an inventive concept in claims that combined known filtering elements because the claims "carve[d] out a specific location for the filtering system (a remote ISP server) and require[d] the filtering system to give users the ability to customize filtering for their individual network accounts." *BASCOM*, 827 F.3d at 1352. Unlike *BASCOM*, which migrated the functions being performed to a

nonconventional configuration, the claims of the RE'274 patent recite only conventional ways of using well-known elements. Ex. 1006, ¶ 149; *supra* § IX.B.1.

Representative claim 1 is also distinguishable from the claims in *Koninklijke KPN N.V. v. Gemalto M2M GmbH* because it does not recite an improvement to an existing technological process. 942 F.3d 1143, 1150-52 (Fed. Cir. 2019). In *KPN*, the claims recited a "specific implementation of varying the way check data is generated that improves the ability of prior art error detection systems to detect systematic errors." *Id.* In contrast, the claims of the RE'274 patent do not recite any improvements for how data is generated or processed over conventional human, business, or electronic imaging practices. Ex. 1006, ¶¶ 120, 124, 149; *supra* § IX.B.1.

Thus, representative claim 1 merely recites conventional components used in conventional ways to perform routine business practices and does not recite any technical improvement to such practices, whether taken individually or as a whole. *Supra* §§ IX.B.1, II.A-II.E; Ex. 1006, ¶ 149; *Content Extraction*, 776 F.3d at 1347-48.

3. Limiting Claims to a Particular Field or Technological Environment Does Not Make the Claims Patent Eligible

An abstract idea does not become patentable by limiting the invention to a particular field of use or technological environment. *Alice*, 573 U.S. at 223; *Affinity*

Labs of Tex., LLC v. DIRECTV, LLC, 838 F.3d 1253, 1258-59 (Fed. Cir. 2016). Although representative claim 1 recites "generating" "electronic image[s]" of negotiable instruments, "transmitting" the images "to a remote location," and pairing images "at the remote location," this does not make the abstract concept any less abstract. Ex. 1001, claim 1. Capturing electronic images of negotiable instruments and transmitting the images to remote locations for organizing and storage was well known and conventional in the prior art, as explained in Sections II.A-II.E. Ex. 1006, ¶¶ 141, 147-148. Thus, the claims' recitation of these additional elements merely restricts the invention's field of use and, as such, does not confer subject matter eligibility. *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017); *FairWarning*, 839 F.3d at 1096-97; *Smart Sys.*, 873 F.3d at 1373.

Accordingly, representative claim 1 does not recite patent-eligible subject matter under § 101.

C. Independent Claim 9 Is Substantially Similar to Representative Claim 1 and Recites the Same Abstract Idea

Independent claim 9 is substantially similar to representative claim 1 because it recites generating and transmitting document images that are identified using an identifier, while merely adding further conventional activity. Ex. 1006, ¶ 150. Independent claim 9 thus recites the same abstract idea as claim 1. *Id.*,

¶ 151. The differences from the representative claim neither alter the abstract idea nor add "significantly more" to the abstract idea to render claim 9 patent eligible.

1. Creating an Identifier Unique to the Carrier Merely Restates the Abstract Concept of Using a Document Identifier

Claim 9 replaces "creating an identifier …, the identifier being unique to the carrier," with "generating an identifier unique to the carrier." *Id.*, ¶ 152; *compare* Ex. 1001, claims 1, 9. A person having ordinary skill in the art would have understood that "generating" an identifier and "creating" an identifier are synonymous and directed to the same human activity. Ex. 1006, ¶ 152.

2. Transmitting Images of the Carrier with the Negotiable Instrument Does Not Alter the Abstract Idea or Provide an Inventive Concept

Claim 9 adds "transmitting the electronic image of the front and back of the carrier along with the negotiable instrument," whereas claim 1 recites "transmitting the electronic image of the front and back of the negotiable instrument." *Id.*, ¶ 153; *compare* Ex. 1001, claims 1, 9. That the transmitted image of claim 9 is "of the carrier along with the negotiable instrument" does not make the claims any less abstract because the "focus" of the claims remains unchanged on transmitting the electronic images. *Elec. Power Grp.*, 830 F.3d at 1353-54. Reynders, for example, teaches scanning carriers with the documents to allow scanning using "standard

sheet feeding equipment" of scanners and fax machines. Ex. 1017, Reynders, [0023]. Imaging the carrier with the check is no different than taping a check to a standard sheet of paper and scanning the entire sheet with the check, which was conventional practice for non-standard documents. Ex. 1006, ¶ 154.

Moreover, the prior art explains that an image generated of a document secured to a carrier often includes portions of the carrier itself. *Id.*, ¶¶ 93, 154; *supra* § II.E. A person of ordinary skill in the art would have understood that transmitting images of the carrier and the document was well known prior to the filing of the Lighthouse patents and merely describes the concept of transmitting electronic images. Ex. 1006, ¶ 154.

Thus, a person having ordinary skill in the art would have understood that transmitting an image in claims 1 and 9 are substantially similar because both recite transmitting the front and back images of the negotiable instrument. *Id.*, ¶ 155.

3. Providing Deposit Information Adds Written Notations, But Does Not Change the Abstract Idea or Provide an Inventive Concept

Claim 9 adds a step for "providing an area on the surface of the carrier to provide for deposit information." *Id.*, ¶ 156; *compare* Ex. 1001, claims 1, 9. But this does not alter the claimed abstract idea because it merely recites the well-

known practice of providing a space to write deposit information when depositing checks. *E.g.*, Ex. 1006, ¶ 156. The Lighthouse patents acknowledge that a depositor "prepares [a] deposit in much the same way as a deposit to be made at a bank branch" by writing the deposit information either on a deposit ticket or the carrier. Ex. 1001, 10:61-67. The prior art Wood and Bremer patents also included a part of the carrier to imprint deposit information, such as a bank's identification number, depositor's account number, and check amount, which was "well known in the art." Ex. 1006, ¶¶ 52, 60, 157; Ex. 1014, Wood, 2:43-49; Ex. 1015, Bremer, 1:22-28, 1:58-61.

Notwithstanding these additional claim elements, independent claim 9 is substantially similar to and directed to the same abstract idea of generating and transmitting document images that are organized using an identifier as recited in representative claim 1. Ex. 1006, ¶ 158; *see Content Extraction*, 776 F.3d at 1348-49 (applying same abstract idea to differently worded claims).

D. The Dependent Claims Are Directed to the Same Abstract Idea and Recite Only Conventional, Well-Known Components and Processes

All of the dependent claims are directed to the same abstract idea of generating and transmitting document images that are organized using an identifier. Ex. 1006, ¶ 160. Nothing in the dependent claims provides "significantly more" to render them patent eligible. *Id.*, ¶¶ 159-160. Rather, the dependent claims

merely limit the claims to a particular field, add only routine and conventional steps or devices, or append well-known post-solution activities to the abstract ideas. *Id.*, ¶ 159, 185. None of these render the claims patent eligible. *Content Extraction*, 776 F.3d at 1347-48.

1. Dependent Claims 2, 3, 5, 10, 11, and 13 Recite Only Conventional Physical Components and Human Activities

Generic, well-known physical components and activities neither alter the abstract idea of the independent claims nor provide an inventive concept to create a patent-eligible application of the abstract idea. *Marco Guldenaar*, 911 F.3d at 1161-62. This is because, "[j]ust as the recitation of computer implementation fell short in *Alice*," purely conventional physical activities do not transform the claimed subject matter into a patent-eligible application of the abstract idea. *Smith*, 815 F.3d at 819 (quoting *Alice*, 573 U.S. at 222).

a. Conventional Human Activities Involving "Carrier[s]" [claims 2, 3, 10, and 11]

Claims 2 and 10 recite "wherein, in the step of providing, the carrier includes one of: a transparent sealing carrier, transparent non-sealing carrier having pockets, transparent non-sealing carrier without pockets, a non-transparent cut-out carrier, a transparent carrier with an inserted negotiable instrument, a single sided carrier, or two sided carrier." Ex. 1001, claims 2, 10.

Claims 2 and 10 merely describe a well-known business practice of providing a carrier for the documents. Ex. 1006, ¶¶ 163-165; *supra* § II.E. Reynders, for example, describes transparent carriers, carriers having pockets, and carriers having flaps that allow the check inside to be scanned or imaged. Ex. 1017, Reynders, [0005], [0058], [0060]. Bremer also describes carriers having compartments or pockets for securing a negotiable instrument, transparent carriers, and double-sided carriers. Ex. 1015, 2:17-21, 1:52-58, 1:63-64; *see* Ex. 1011, D'Alleyrand, 271 (describing a conventional "plastic, see-through envelope known as [a] carrier" to secure pages or small documents during imaging). The Lighthouse patents also acknowledge that carriers were commercially available. Ex. 1006, ¶ 166; Ex. 1001, 4:45-53, 10:36-39; Ex. 1004, '940 File Wrapper, 179 (admitting that Reynders teaches using "a pocketed carrier" to hold negotiable instruments during imaging).

Claims 3 and 11 recite "creating a seal between the carrier and the negotiable instrument, marking the negotiable instrument as processed, aligning the negotiable instrument in a specified manner, or marking the negotiable instrument [using/with] a pattern." Ex. 1001, claims 3, 11.

These are well-known human activities for depositing a negotiable instrument. Ex. 1006, ¶ 166-167; Ex. 1017, Reynders, [0007], [0040], [0049]

(describing carriers for securing documents by aligning the document to the carrier using a "grid pattern" and sealing the carrier); *see* Ex. 1001, 5:23-27, 4:63-64, 7:14-19, 9:2-6; *supra* § II.E. Moreover, during prosecution of the '940 patent, the patent owner admitted that carriers "designed to … secure the [negotiable] instrument therein" were known in the prior art. Ex. 1004, '940 File Wrapper, 265.

Robek describes activities for marking a check with an "initial, a signature, or a stamp" to show that a document has been processed. Ex. 1009, Robek149, 330, 419. Moore also explains that "existing systems" in 2003 created markings on a negotiable instrument to indicate that it has been processed. Ex. 1018, Moore, [0009], [0010]. For example, as illustrated below, a marking is applied to the negotiable instrument using a stamp to show that the negotiable instrument was processed.

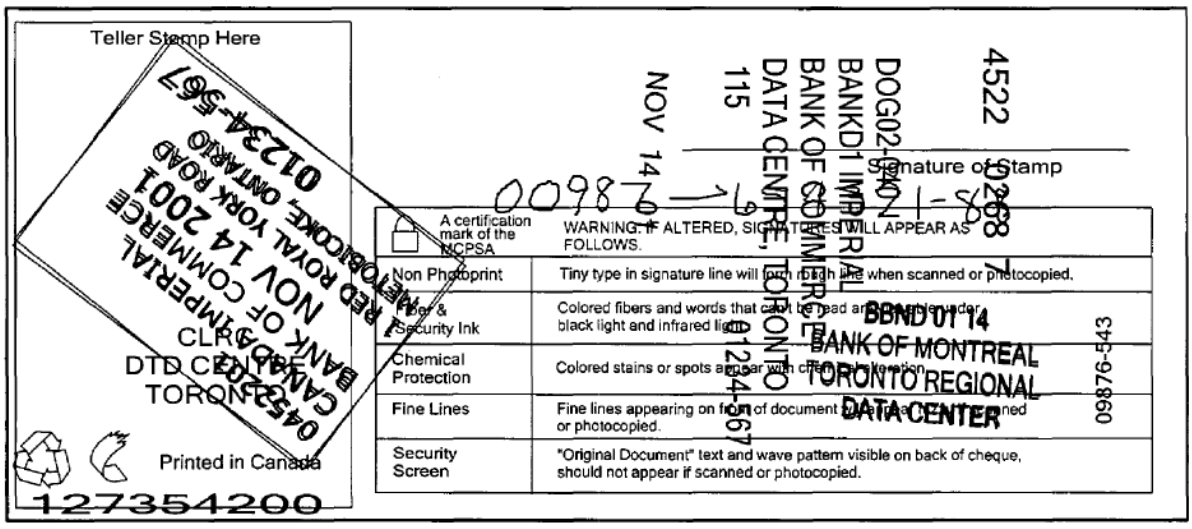


FIG. 1

PRIOR ART

Id., Fig. 1.

A person of ordinary skill in the art would have understood that the operations recited in claims 2, 3, 10, and 11 were well-known conventional human activities, and thus do not transform the abstract idea into an inventive concept. Ex. 1006, ¶ 169.

b. "Negotiable Instrument" Is a Check [claims 5 and 13]

Claims 5 and 13 recite "wherein, in the step of securing, the negotiable instrument is a check or deposit slip." Ex. 1001, claims 5, 13.

As confirmed in contemporaneous publications and admitted in the Lighthouse patents, it was a well-known business practice to secure checks and

deposit slips to a carrier. Ex. 1006, ¶ 170; *supra* § II.E; Ex. 1017, Reynders, [0004], [0026], [0038], [0058], [0063] (describing carriers for securing "checks" and "any other document" required to complete a transaction); Ex. 1015, Bremer, 1:8-11, 1:52-58, 1:63-64, 2:17-22 (describing carriers for securing "checks, memoranda, and other papers"); Ex. 1014, Wood, 2:38-40, 2:43-47 (describing carriers having a "check-receiving enclosure" for securing a check).

A person of ordinary skill in the art would have understood that claims 5 and 13 merely recite types of conventional documents used when depositing a check as was known in the art. Ex. 1006, ¶¶ 171-172. Securing these types of financial documents to a carrier is a well-known human activity and business practice and also a mere field-of-use recitation that does not render the abstract idea patent eligible. *Id.*, ¶ 172; *Capital One Fin.*, 850 F.3d at 1340; *Smith*, 815 F.3d at 819.

2. Dependent Claims 6 and 14 Merely Recite Generic, Conventional Computer Functions and Are Not Patent Eligible

Claims 6 and 14 recite "wherein the step of transmitting includes using one of a fax, a scanner, a device designed to transmit electronic data, other image device compatible with ITU-T recommendations T.30 or T.4, other communications protocols compatible with banking industry standards, or combination thereof." Ex. 1001, claims 6, 14.

The types of imaging devices recited in claims 6 and 14 are generic, off-the-shelf imaging devices. Ex. 1006, ¶¶ 175-178. The RE'274 patent admits that the "invention does not require any modification to these scanning devices," such as a flatbed scanner or other imaging device, and thus uses only off-the-shelf devices. Ex. 1001, 3:64-4:10; Ex. 1006, ¶ 178.

Using generic computer components to perform "well-understood, routine, [and] conventional activities previously known to the industry" does not meaningfully change or add "significantly more" to the abstract idea. *Content Extraction*, 776 F.3d at 1347-48; *Chamberlain Grp.*, 935 F.3d at 1348; *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 774-75 (Fed. Cir. 2019). Such components "do[] nothing significant to differentiate a [claimed] process from ordinary mental processes," *Elec. Power Grp.*, 830 F.3d at 1355, but instead merely recite conventional components—scanners and imaging devices—to carry out the abstract idea and generic steps that correspond to human activities. *TLI Commc'ns*, 823 F.3d at 611; *Content Extraction*, 776 F.3d at 1347-48. Indeed, "there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible." *DDR Holdings*, 773 F.3d at 1256.

Transmitting images using these devices is a routine and conventional activity. Ex. 1006, ¶¶ 174, 176; *supra* §§ II.A-II.C; Ex. 1016, Botvin, 2:20-25, 4:44-46 (using a facsimile machine that "acts as a digital scanner" to complete financial transactions and transmit images of financial documents to a remote site); Ex. 1009, Robek, 303, 408-09 (using fax machines to transmit images in business applications); Ex. 1012, Muller, 33, 36, 87-88 (using flatbed scanners and facsimile machines to transmit document images and data to a remote location); Ex. 1009, Robek, 300, 302-03 (same); Ex. 1011, D'Alleyrand, 249, 270 (same); Ex. 1010, Green, 24-25, 48-49 (describing scanners sending images to a database for indexing and storage).

The RE'274 patent admits that using a dedicated check scanner to capture and transmit images (e.g., "a scanner" or "device designed to transmit electronic data") to a remote location was conventional. Ex. 1001, 1:43-48. As described above, any number of scanning and imaging devices were conventionally used, and thus claims 6 and 14 recite only routine and conventional ways to perform the generically claimed operation. Ex. 1006, ¶¶ 176-178. The RE'274 patent also acknowledges that transmitting images can be a human activity performed by an operator using fax protocols or email. *Id.*, ¶ 175; Ex. 1001, 4:16-28, 11:4-12.

Accordingly, claims 6 and 14 do not recite an inventive concept to transform the abstract idea to patent-eligible subject matter. Ex. 1006, ¶¶ 175, 179.

3. Dependent Claims 4, 7, 8, 12, and 15 Merely Recite Post-Solution Activities and Are Not Patent Eligible

Claims that recite well-known post-solution activities described at a high level of generality, but not "any method by which [the activity] is accomplished[,]' [are] not directed to patent-eligible subject matter." *Apple*, 842 F.3d at 1244 (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015)).

Claims 4, 7, 8, 12, and 15 recite only well-known post-solution activities described at a high level of generality.

For example, claims 4 and 12 recite "verifying [that] the negotiable instrument has a valid endorsement," "verifying image quality of the electronic image to ensure compliance with financial industry standards," and "validating any received security information." Ex. 1001, claims 4, 12. Claims 7 and 15 recite "validating a deposit, based on the negotiable instrument, to the financial institution." *Id.*, claims 7, 15. Claim 8 recites "providing the image of the negotiable instrument with a marking to prevent re-processing of the negotiable instrument." *Id.*, claim 8. Claims 4, 7, 8, 12, and 15 do not confer patent eligibility to the claimed abstract idea because they merely recite well-known activities at a

high level of generality without providing any specific or concrete ways of accomplishing these conventional steps. *Apple*, 842 F.3d at 1244; Ex. 1006, ¶ 180.

Contemporaneous publications confirm the conventionality of these operations. Ex. 1006, ¶¶ 182-183; *supra* § II.B; *see* Ex. 1011, D'Alleyrand, 62, 257 (explaining that "[i]mage quality control is an essential component of an imaging system's design," and using imaging systems to verify signatures in banking); Ex. 1010, Green, 155-56 (describing banking systems with signature verification processes and that "[c]onventional check processing" involves verifying the information printed on a check for "[d]eposit balancing and verification"); Ex. 1012, Muller, 139 (describing an "operator check[ing] the image display to ensure that the resulting [scanned] image is clear and legible").

The RE'274 patent acknowledges that these steps describe well-known activities for depositing checks using a dedicated check scanner. *Id.*, ¶ 184; Ex. 1001, 1:44-46, 1:49-61, 12:2-4; *see id.*, 14:4-16, 14:39-40, 14:54-61, 15:14-19 (describing such operations as "[t]raditional [r]emote [c]heck [i]mage [c]apture [m]ethods"). The RE'274 patent also acknowledges that verifying image quality, validating a deposit, providing an image having markings, and using markings to prevent re-processing of the instrument are activities that can be performed by

humans and are routine, conventional operations performed in remote check processing. *Id.*, 11:50-57, 12:4-7, 12:30-33, 13:7-15.

The activities recited in claims 4, 7, 8, 12, and 15 are conventional human activities, such as an employee accepting a check for deposit, that were well-known prior to the Lighthouse patents, and the claims do not recite any technical details for how these operations are performed. Ex. 1006, ¶ 185. Accordingly, claims 4, 7, 8, 12, and 15 do not transform the abstract idea into patent-eligible subject matter. *Id.*; *Apple*, 842 F.3d at 1244.

Accordingly, all of the challenged claims are not patent eligible under § 101.

X. Mandatory Notices

A. Real Party-in-Interest

The real parties-in-interest are Fidelity Information Services, LLC (Petitioner), and Fidelity National Information Services, Inc.

B. Related Matters

Petitioner identifies the following related matters pending in the following United States District Courts: Eastern District of Texas (E.D. Tex.), Western District of Texas (W.D. Tex.), and District of New Jersey (D.N.J.), in which the Lighthouse patents have been asserted:

Case Name	Case Number	Filing Date	Venue
Lighthouse Consulting Group, LLC v. Texas Bank and Trust Co.	2:19-cv-00376	11/15/2019	E.D. Tex.
Lighthouse Consulting Group, LLC v. Southside Bank	2:19-cv-00375	11/15/2019	E.D. Tex.
Lighthouse Consulting Group, LLC v. LegacyTexas Bank	2:19-cv-00374	11/15/2019	E.D. Tex.
Lighthouse Consulting Group, LLC v. Independent Financial	2:19-cv-00373	11/15/2019	E.D. Tex.
Lighthouse Consulting Group, LLC v. Capital One, National Association	6:19-cv-00622	10/18/2019	W.D. Tex.
Lighthouse Consulting Group, LLC v. SunTrust Bank and Trust Co.	2:19-cv-00340	10/15/2019	E.D. Tex.
Lighthouse Consulting Group, LLC v. First State Bank (terminated Jan. 31, 2020)	2:19-cv-00339	10/15/2019	E.D. Tex.

Case Name	Case Number	Filing Date	Venue
Lighthouse Consulting Group, LLC v. Citizens Financial Group, Inc.	2:19-cv-00338	10/15/2019	E.D. Tex.
Lighthouse Consulting Group, LLC v. BOK Financial	6:19-cv-00608	10/15/2019	W.D. Tex.
Lighthouse Consulting Group, LLC v. The PNC Financial Services Group, Inc.	3:19-cv-19004	10/15/2019	D.N.J.
Lighthouse Consulting Group, LLC v. US Bank, National Association	6:19-cv-00607	10/14/2019	W.D. Tex.
Lighthouse Consulting Group, LLC v. USAA Capital Corporation	6:19-cv-00606	10/14/2019	W.D. Tex.
Lighthouse Consulting Group, LLC v. TIAA, FBS Holdings, Inc.	6:19-cv-00605	10/14/2019	W.D. Tex.
Lighthouse Consulting Group, LLC v. State Street Bank and	6:19-cv-00603	10/14/2019	W.D. Tex.

Case Name	Case Number	Filing Date	Venue
Trust Company *(terminated Oct. 28, 2019)*			
Lighthouse Consulting Group, LLC v. State Farm Bank, FSB *(terminated Nov. 22, 2019)*	6:19-cv-00602	10/14/2019	W.D. Tex.
Lighthouse Consulting Group, LLC v. Regions Bank	6:19-cv-00601	10/14/2019	W.D. Tex.
Lighthouse Consulting Group, LLC v. Morgan Stanley	6:19-cv-00599	10/14/2019	W.D. Tex.
Lighthouse Consulting Group, LLC v. HBSC USA, Inc.	6:19-cv-00598	10/14/2019	W.D. Tex.
Lighthouse Consulting Group, LLC v. Fifth Third Bank	6:19-cv-00596	10/13/2019	W.D. Tex.
Lighthouse Consulting Group, LLC v. The Charles Schwab Corporation	6:19-cv-00595	10/13/2019	W.D. Tex.
Lighthouse Consulting Group, LLC v. BB&T Corporation	6:19-cv-00594	10/12/2019	W.D. Tex.

Case Name	Case Number	Filing Date	Venue
Lighthouse Consulting Group, LLC v. American Express Company (terminated Dec. 20, 2019)	6:19-cv-00593	10/12/2019	W.D. Tex.
Lighthouse Consulting Group, LLC v. Ally Financial Inc.	6:19-cv-00592	10/12/2019	W.D. Tex.
Lighthouse Consulting Group, LLC v. TD Bank, NA (terminated Dec. 6, 2019)	1:19-cv-18370	9/25/2019	D.N.J.
Lighthouse Consulting Group, LLC v. Investors Bank	3:19-cv-17522	8/30/2019	D.N.J.
Lighthouse Consulting Group, LLC v. The Bank of Princeton	3:19-cv-17389	8/29/2019	D.N.J.
Lighthouse Consulting Group, LLC v. Kearny Bank	2:19-cv-17318	8/28/2019	D.N.J.
Lighthouse Consulting Group, LLC v. JPMorgan Chase & Co.	2:19-cv-00283	8/22/2019	E.D. Tex.

Case Name	Case Number	Filing Date	Venue
Lighthouse Consulting Group, LLC v. Wells Fargo and Company	2:19-cv-00269	8/7/2019	E.D. Tex.
Lighthouse Consulting Group, LLC v. CitiGroup, Inc.	2:19-cv-00264	8/5/2019	E.D. Tex.
Lighthouse Consulting Group, LLC v. Bank of America, N.A.	2:19-cv-00250	7/12/2019	E.D. Tex.

The '940 patent has been challenged in *Unified Patents Inc. v. Lighthouse Consulting Group, LLC*, IPR2020-00194 (PTAB Dec. 13, 2019).

C. Lead and Backup Counsel

Petitioner identifies the following lead and backup counsel:

Lead Counsel	Backup Counsel
Erika Harmon Arner (Reg. No. 57,540) erika.arner@finnegan.com Finnegan, Henderson, Farabow, Garrett & Dunner, LLP Two Freedom Square 11955 Freedom Dr. Reston, VA 20190-5675 Tel: 571-203-2754 Fax: 202-408-4400	Kevin D. Rodkey (Reg. No. 65,506) kevin.rodkey@finnegan.com Finnegan, Henderson, Farabow, Garrett & Dunner, LLP 271 17th Street, NW Suite 1400 Atlanta, GA 30363-6209 Tel: 404-653-6484 Fax: 202-408-4400 Jency J. Mathew (Reg. No. 76,224) jency.mathew@finnegan.com Finnegan, Henderson, Farabow, Garrett & Dunner, LLP Two Freedom Square 11955 Freedom Dr. Reston, VA 20190-5675 Tel: 571-203-2419 Fax: 202-408-4400

D. Service Information

Please send all correspondence to the lead and backup counsel at Two Freedom Square, 11955 Freedom Drive, Reston, Virginia 20190. Petitioner consents to e-mail service at the lead and backup counsel's email address and FIS-Lighthouse-CBM@finnegan.com.

XI. Fee Payment

An electronic payment in the amount of $38,000 for the Covered Business Method Review fees specified by 37 C.F.R. § 42.15(b)—comprising the $16,000 request fee and $22,000 post-institution fee—is being paid at the time of filing this Petition. If any additional fees are due in connection with the filing of this paper, please charge the required fees to Deposit Account No. 06-0916.

XII. Conclusion

For these reasons, Petitioner has established that the challenged claims are ineligible for patenting under 35 U.S.C. § 101 and respectfully requests institution and cancellation of all challenged claims.

Date: February 14, 2020

Respectfully submitted,

/Erika H. Arner/
Erika H. Arner
Reg. No. 57,540
Lead Counsel for Petitioner

CERTIFICATE OF COMPLIANCE

The undersigned hereby certifies that the foregoing **Petition for Covered Business Method Review** contains 18,682 words, excluding those portions identified in 37 C.F.R. § 42.24(a), as measured by the word-processing system used to prepare this paper.

/Erika H. Arner/
Erika H. Arner
Reg. No. 57,540
Lead Counsel for Petitioner

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing (1) public Petition; (2) as-filed Motion to Seal; (3) Power of Attorney; and (4) Exhibits 1001–1021 and 1029–1033 were served via Priority Mail Express at the following addresses of record for the subject patent. The Confidential Petition and Confidential Exhibits 1022–1028 will be served when Protective Order acknowledgments are received, pursuant to 37 C.F.R. § 42.55.

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And at:

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Date: February 14, 2020

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