

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

JPMorgan Chase Bank, N.A.
Petitioner

v.

Identitii Limited
Patent Owner

Case IPR2024-00593
U.S. Patent 10,984,413

PATENT OWNER'S PRELIMINARY RESPONSE

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PATENT OWNER'S EXHIBIT LIST

Exhibit	Description
EX2001	<i>Intentionally Omitted</i>
EX2002	Dr. James L. Olivier Curriculum Vitae
EX2003	Website Printout entitled "About Us Onyx by J.P.Morgan," available at https://www.jpmorgan.com/onyx/about
EX2004	Non-Final Office action to U.S. Patent Application No. 15/797,602, dated October 22, 2020
EX2005	Website Printout entitled "Onyx by J.P.Morgan," available at https://www.jpmorgan.com/onyx/index.htm
EX2006	Quinlan & Associates, 'From KYC To KYT: Blockchain's Emerging Role In The Global Payments System', November 2016, available at: https://www.quinlanandassociates.com/insights-from-kyc-to-kyt/
EX2007	<i>Intentionally Omitted</i>
EX2008	<i>Intentionally Omitted</i>
EX2009	Website Printout entitled "Innotribe Swift," available at https://www.swift.com/about-us/innovate-swift/innotribe
EX2010	Website Printout entitled "Rising to the challenge Swift," available at https://www.swift.com/news-events/news/rising-challenge
EX2011	Innotribe Industry Challenge Presentation Agenda and Presenters, dated July 6-7.
EX2012	<i>Intentionally Omitted</i>
EX2013	Declaration of Dr. James L. Olivier, for Petition #2 ("Olivier Dec.")

I. INTRODUCTION

The Board should deny institution of *inter partes* review of U.S. Patent No. 10,984,413 (the “’413 patent”) because Petitioner fails to demonstrate a reasonable likelihood that any challenged claim would have been obvious.

The inventors of the ’413 patent foresaw what would become significant drawbacks to traditional banking payment rails such as SWIFT. To process a financial transaction using traditional payment rails, an intermediary, such as a buyer’s financial institution, communicates a fixed message to another financial intermediary, such as a seller’s financial institution. Often times, the message passes through multiple intermediaries. These fixed messages could only send set, specific information in a one-way communication. With the rise of differing regulatory requirements, the static information became insufficient, and it was difficult, if not nearly impossible for intermediaries to confirm or gather additional information to complete the processing of a financial transaction efficiently.

However, replacing traditional payment rails, used by most financial institutions in the world, was not, and is not, feasible. The inventors therefore invented a system to work in conjunction with and serve as an overlay to traditional payment rails. In the new system of the ’413 patent, an intermediary server generates an enriched data record, which can include not only the static information of a traditional payment message, but any additional information necessary for

completing the financial transaction, such as information required for anti-money laundering regulations. The information is included in newly generated, enriched data record that is placed on a blockchain, which can be accessed by financial institutions at any point while processing the transaction by using a pointer to the information. Patent Owner's invention has enjoyed great success, including awards and industry recognition. Indeed, Petitioner has implemented the inventions of the '413 patent and has recently touted the implementation as "[t]ransforming the future of banking." EX2003.

Petitioner's proposed combination here fails to demonstrate any reasonable expectation of success that the claims would have been obvious. Petitioner's primary reference, Kennedy, does not teach a method of allowing financial intermediaries to communicate flexible and dynamic information while using messaging of traditional payment rails. Instead, Kennedy merely discloses a purportedly faster and more efficient way of taking information from the static, standardized message of a traditional message and placing it on a blockchain. Kennedy does not solve problems contemplated by the '413 patent or allow financial intermediaries to comply with regulations in processing financial transactions using traditional payment rails.

As Kennedy is in a different context, dealing with different problems than the '413 patent, it fails to teach or suggest numerous claim elements. Attempting to cure these deficiencies, Petitioner proposes to supplement Kennedy's admitted failures

with Kurani-816, but that reference is even further afield. Kurani-816 teaches an escrow system that maintains titles to assets digitally. And while Kurani-816's title transfers are recorded in a blockchain, the sale of an asset in Kurani-816's system requires the coordination of two separate transactions – one for recording the title transfer, and another for processing payment. The added complexity of Kurani-816's system is directly contrary to Kennedy's goal of faster transaction processing, and thus a POSITA would not be motivated to combine the two references. And as both references are far afield and unrelated to the problems solved by the '413 patent, it is unsurprising that the combination of these two references fails to teach or suggest numerous limitations of the independent claims.

Because there is no reasonable expectation of success, the Petition must fail.

II. THE PARTIES

United States Patent No. 10,984,413 issued on April 20, 2021, to Patent Owner Identitii Limited.¹ Identitii is a publicly-held Australian entity that develops and licenses enterprise solutions and software for regulated entities. Identitii offers products and platforms to financial entities in the United States, Australia, and Asia.

¹ The '413 patent was assigned to Identitii Pty Limited, which changed its name to Identitii Limited.

The products allow entities to comply with financial regulations while leveraging the entities' current technology systems.

After filing a patent application for the technology of the '413 patent, Identitii approached Petitioner, who was interested in learning about Identitii's technology. Identitii confidentially provided Petitioner information about its innovative technology. Rather than taking a license after receiving the confidential information, Petitioner filed its own patent applications and began offering its own product. Petitioner's patent applications were rejected in view of Identitii's published patent application. *See, e.g.*, EX2004, 8 (rejecting Petitioner's claims in view of the pre-issuance publication of the '413 patent).

Petitioner, who uses Patent Owner's technology, has recognized the novel architecture of the '413 patent. For example, years after the conception of the '413 patent, Petitioner advertises that its practicing product "is at the forefront of a major shift in the financial services industry ... by "offer[ing] a blockchain-based platform for wholesale payments transactions, helping to re-architect the way that money, information and assets are moving around the world." EX2003. To this day, Petitioner publicly admits that such a system, using "blockchain innovation," is a "re-architected ... infrastructure ... [that] unlock[s] the potential of distributed ledger technology." EX2003. Therefore, Petitioner's assertion here that the '413 patent merely "takes conventional financial transactions and records them on a

generic blockchain,” (Pet., 1) is not only incorrect technically, but the assertion is also incredible in view of Petitioner’s public pronouncements outside the context of this dispute.

III. THE ’413 PATENT

The ’413 patent relates to improved methods and systems for solving growing regulatory compliance issues in processing financial transactions. Particularly, the ’413 solves problems of the conventional banking infrastructure and payment rails, such as SWIFT, by introducing a new infrastructure that overlays conventional payment rails. The ’413 patent allows financial intermediaries that are processing financial transactions to utilize conventional payment rails while also allowing them to comply with growing, and changing, regulatory requirements to more efficiently reconcile financial transactions.

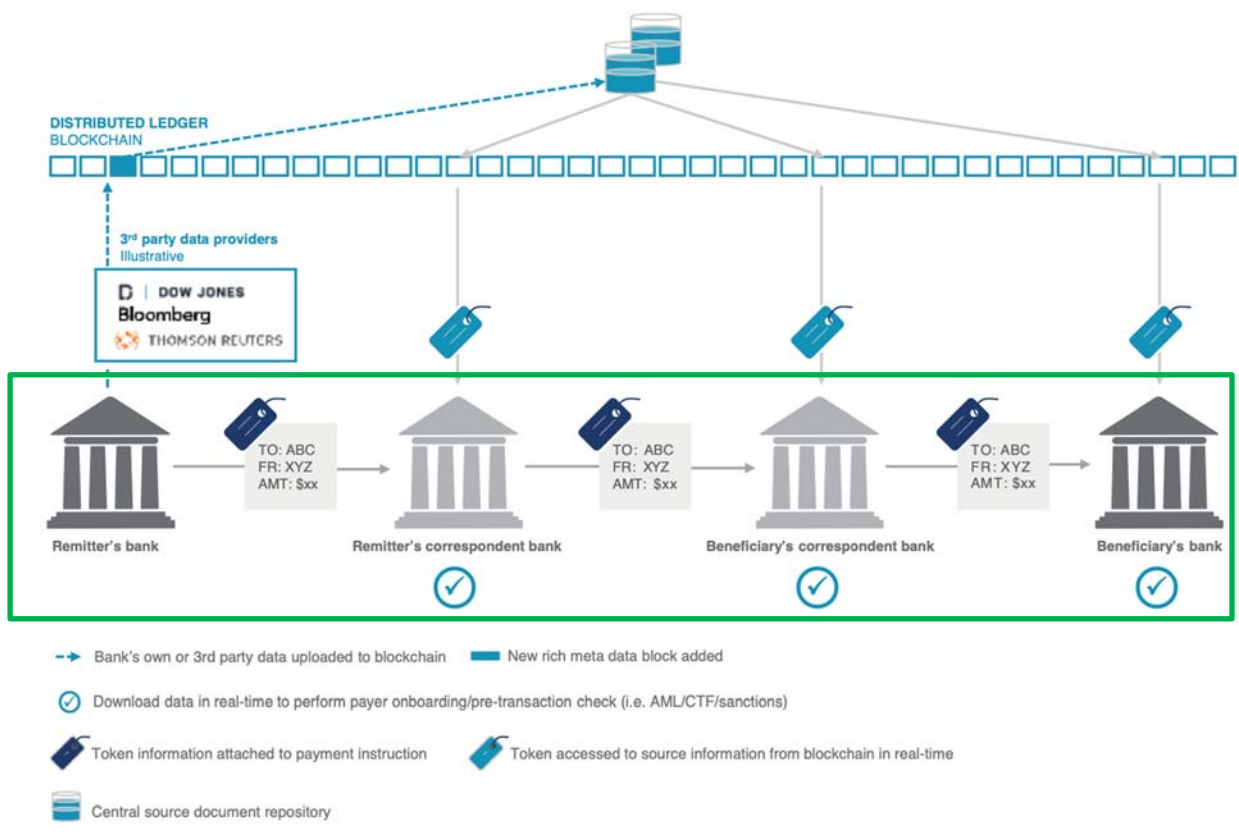
At the time of the invention of the ’413 patent, existing technology and infrastructure for executing financial transactions between financial intermediaries, such as banks and brokerage firms, suffered from numerous problems. For example, the Society for Worldwide Interbank Financial Telecommunications (SWIFT)² was (and still is) the main network for executing financial transactions between banks

² Other existing networks include Automated Clearing House (ACH) and Real Time Gross Settlement (RTGS). EX1001, 26:49.

around the globe, including across borders of countries having various governmental regulatory requirements. SWIFT provides one of the largest worldwide financial messaging systems for financial institutions to send and receive information to support global payment orders. A key characteristic of conventional payment rails, such as SWIFT, is standardized messaging and a relatively secure network. EX2013 (“Olivier Dec.”), ¶ 33; EX2006, 22, 35. However, the standardized messaging in conventional payment rails did not allow for including information in addition to that for the standardized, fixed length messages. EX1001, 26:1-2. As such, conventional messages lack flexibility and fail to include information required for ongoing and everchanging regulatory developments, e.g., to enforce sanctions or combat money laundering, fraud, and financing of terrorism, which require sanctions screening, address proof, or other additional information to comply with government regulations, such as “know your customer” (“KYC”). EX1001, 12:31-39; 13:48-60.

Another drawback of conventional payment rails and messaging, such as SWIFT messaging, is that the conventional systems “are characterised by effective one-way transmission.” EX1001, 1:44-51. This is illustrated, for example, in the image below:

FIGURE 15: IDENTITII TOKENS



EX2006, 34 (annotated)

As shown in the annotated in the green square, a fixed message travels one-way through multiple financial intermediaries (e.g., from Remitter's bank to Remitter's correspondent bank to Beneficiary's correspondent bank to Beneficiary's bank). A drawback of this one-way transmission of fixed data is that if there are deficiencies in the data being transmitted or if more data is required to process the transaction, there was no support in the network architecture for communicating, confirming, or requesting additional data. EX1001, 1:44-51.

Instead, the transaction simply failed or required manual “time consuming checking and querying operations and correspondence” outside the conventional payment messaging network before a financial transaction can be effected. *Id.*, 26:46-62. This issue was exacerbated by growing and changing regulatory requirements of numerous agencies of various governments.

Identitii reimagined an architecture to eliminate these problems of the conventional payment rail infrastructure. At the time of the invention, the inventors envisioned using blockchain technology that overlayed the traditional architecture of global payment systems to support real-time, two-way communication to ensure the integrity and validation of the data at any point during and after the financial transaction. EX1001, 3:32-33; 13:44-14:4; 14:53-15:7; 19:11-39; 23:1-5; 23: 45-65; 24:21-27; 26:46-62; 31:46-50. Blockchain is a type of distributed ledger database that records and maintains a constantly growing list of transactions in sequential blocks. As a result, those with access to the network have shared access to information in the blockchain. *Id.*, 12:65-13:8; 25:14-46; Fig. 15.

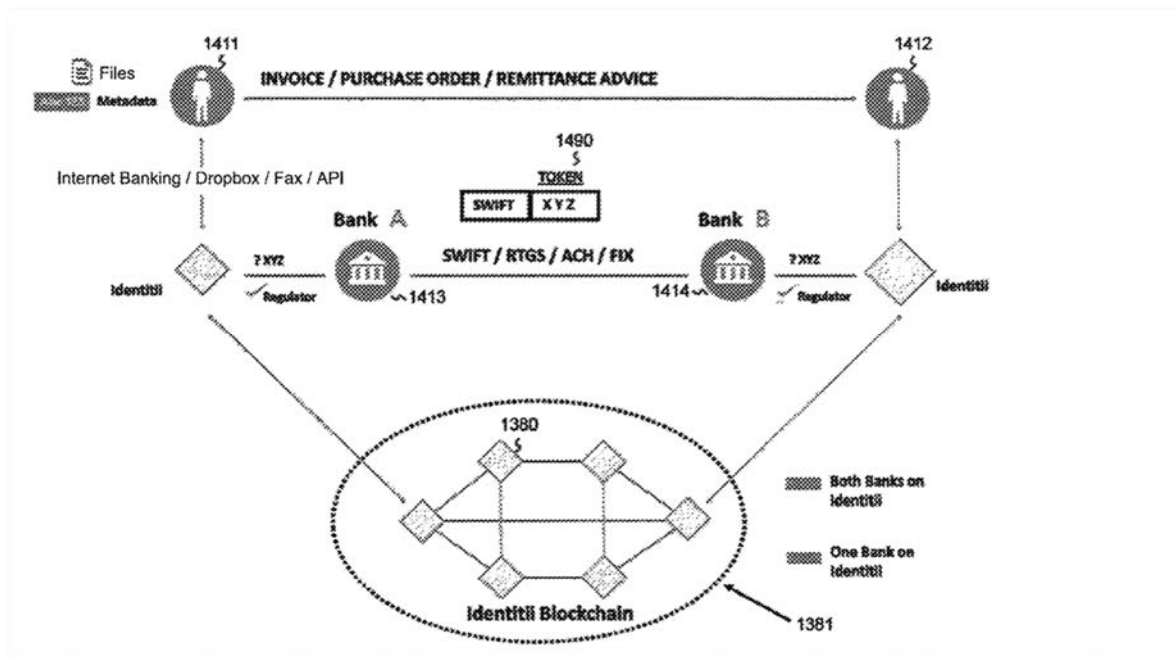
Identitii’s novel architecture generates an enriched data record from one or more documents of a financial transaction as described, for example, in claim 15. As the inventors recognized, processing transactions often requires far more underlying information than simply, for example, information in a standardized SWIFT message. EX1001, 26:34-38 (“the additional information is to enrich payments with

more information given the inability of existing payment systems to communicate enriched information.”); 28:46 (“the existing financial messaging systems allow only specific information to be attached to the financial transaction.”); 12:19-48. Many transactions require regulatory documents, including sanctions screening results, purpose of payments, and other types of documents required to comply with government regulations. *Id.*, 12:31-48. As the ’413 patent described, the new architecture generates the enriched data record from one or more documents by “extract[ing] a plurality of attributes from the one or more documents” and “combin[ing] the plurality of attributes to generate the enriched data record.” *Id.*, 12:15-18; 12:46-53. In addition, the architecture may de-identify and/or hash the attributes in generating the enriched data record. *Id.*, 12:53-64. The enriched data record thus can include information that may be pulled from underlying documents.

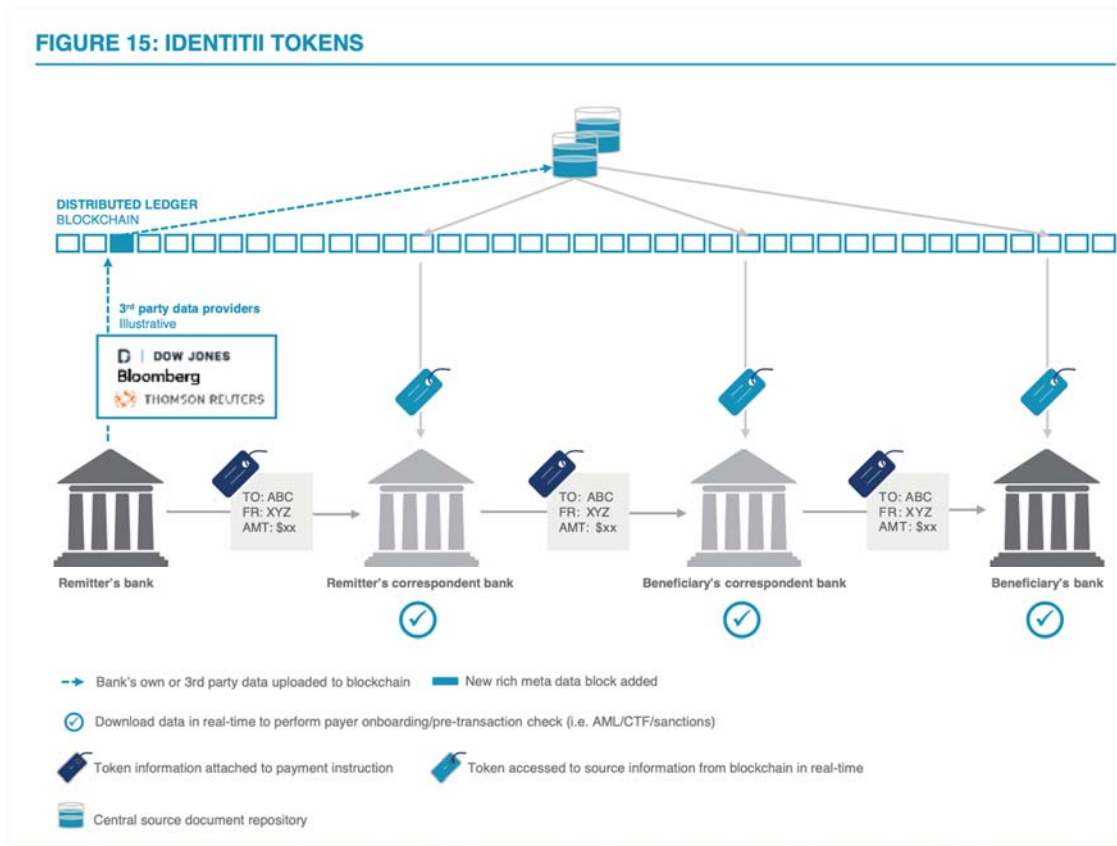
Identitii’s new architecture further uses a token associated with the enriched data record stored in the blockchain, regardless of the legacy system being used, to create a full data payment record containing all the data required to settle the financial transaction. EX1001, 22:50-67; 26:46-62. “The token provides a pointer to the enriched data record.” *Id.*, 28:66-29:1. “The token can be included in all the financial messages sent between a plurality of financial intermediaries, and the token can be used by any of the plurality of intermediaries to verify the financial transaction from the enriched data record, before taking any further steps in the

process.” *Id.*, 31:38-45. The token may be included in conventional messaging, such as SWIFT messages between banks, bank branches, other financial institutions, or other entities, making this “interoperability” a unique feature of the ’413 patent as well. *Id.*, 25:1-13. And each entity may utilize the token to access additional data for the transaction that could not be communicated using traditional payment rails. *Id.*, 31:38-45.

The enriched data record and its associated token is added to and stored in a blockchain as described in, e.g., claim 15 and illustrated in the images below:



EX1001, Fig. 14



EX2006, 34

As illustrated, a Remitter and a Beneficiary enter into a transaction. Intermediary entities in transaction process have real-time access to the blockchain and the information stored thereon—and thus an enriched data record that includes information for the transaction can be retrieved and audited/verified at any time when queried with the token.

The structure of Identitii's new architecture is described in the '413 patent's specification and is embodied in claim 15 of the '413 patent:

15. A system for processing a financial transaction, the system comprising:

a first intermediary server in a centralized financial system, the first intermediary server being operably connected to a network and a first document store;

a token server operably connected to the network;

a messaging bus in the centralized financial system, the messaging bus being operably connected to the network; and

a blockchain operably connected to the network, the blockchain being a distributed ledger;

wherein the first intermediary server is configured to:

transmit one or more documents pertaining to the financial transaction, to the first document store;

generate an enriched data record from the one or more documents and add the enriched data record into the blockchain;

request generation of a token corresponding to the financial transaction to identify the one or more documents, to the token server, via the messaging bus; and

transmit the token to the first document store;

wherein the token server is configured to:

generate the token and add the token into the blockchain in association with the enriched data record; and

transmit the token to the first intermediary server, via the messaging bus.

In accordance with the claimed invention, Identitii invented a server-system that generates an enriched data record from documents regarding a financial

transaction and that enriched data record is inserted on a blockchain. Additional information is used to enrich payments with more information given the inability of existing payment systems such as SWIFT to communicate enriched information. EX1001, 26:34-38. The system also has a token server [which] generates a token associated with the enriched data record and that token is stored in the blockchain in association with the enriched data record. *Id.*, 13:9-14. The token provides a pointer to the enriched data record in the blockchain and can be used to retrieve the enriched data record at, for example, the time of an audit. *Id.*, 2:12-15; 16:1-3; 22:45-57; 22:61-67; 23:19-29; 23:66-24:2; 28:66-29:7. The system leverages blockchain and tokenization technology to create an unconventional architecture that is a departure from prior architectures like SWIFT.

With the invention of the '413 patent, financial intermediaries can now transmit, receive, and confirm sensitive banking information securely and without any need to contact other entities or access the internal data stores of those entities. Instead, the processing entities can gather the information using the tokens and enriched data records by directly accessing the blockchain. The financial institutions involved in the transaction may communicate in real-time and ensure, for example, that the payer, the beneficiary and all the parameters corresponding to the financial transaction are validated. EX1001, 31:46-50.

Identitii's new architecture, which includes, inter alia, an enriched data record,

a token, and a blockchain provides a robust information overlay over existing payment systems like SWIFT to enrich payments with supporting information that is accessible at each step of the payment process, enabling banks to clear transactions more quickly and reliably. EX1001, 25:2-7; 26:46-62; 28:44-60.

Petitioner states that “[t]he ’413 Patent takes conventional financial transactions and records them on a generic blockchain.” Pet., 1. This is incorrect. Instead, as discussed, the ’413 patent describes a new overlay over existing architecture for “conventional financial” payment systems to improve electronic payment processing. JPMC’s mischaracterization dooms the Petition, as it results in numerous failures of the independent claims alone.

Indeed, in addition to Petitioner’s recognition of the technological advancements of the ’413 patent, the industry as a whole has likewise recognized Patent Owner’s novel architecture. For example, SWIFT itself acknowledged the innovation by selecting Patent Owner as the winner of the 2016 SWIFT Innotribe³ Compliance Challenge based on Patent Owner’s new patented architecture. EX2006 at 33; EX2010; EX2011.

³ Innotribe is SWIFT’s innovation arm. EX2009.

A. Person of Ordinary Skill in the Art (POSITA)

Petitioner and its expert state that a POSITA “would have at least a bachelor’s degree in computer science, computer engineering, applied mathematics, or equivalent and at least 2 years of experience researching, implementing, programming, or designing computer networks, distributed systems, blockchain technology, applied cryptography, or security. Additional education can supplement practical experience, and vice-versa.” Pet., 6. For purposes of this POPR, Patent Owner and its expert apply this definition, as the Petition fails under any definition of a POSITA. *See* Olivier Dec., ¶ 31.

Petitioner’s expert also notes that a POSITA would have familiarity with “concepts and developments in the areas of ... payment networks.” EX1026, ¶ 22. However, Petitioner has not alleged or shown that Dr. Shen has any such experience. *See generally* EX1026, ¶¶ 4-10; EX1036.

IV. SUMMARIES OF THE ASSERTED REFERENCES

A. Kennedy (EX1033)

U.S. Pub. No. U.S. 2017/0132626 by Kennedy (“Kennedy”) is directed to a system that increases the speed at which transactions are processed in a payment transaction network that includes blockchain transactions. EX1033, [0003]. The transactions handled by Kennedy’s system include “product or service purchases, credit purchases, debit transactions, fund transfers, account withdrawals, etc.” *Id.* at

[0017]. The goal of Kennedy's system is the efficient processing of such transactions with minimal error and interruption. *See id.* at [0089].

Kennedy discloses "traditional electronic payment transaction[s]," using traditional "payment messages." *Id.* at [0024, 0048]. The messages are transmitted using traditional "payment rails," such as ACH. *Id.* at [0025, 0048]. Kennedy proposes to forward the traditional message to a processing server, so that the processing server can add information from the traditional message onto a blockchain. *Id.* at [0025-0026, 0048-0049]. The processing server then passes the message along so that it can be processed using traditional payment methods. *Id.* at [0051].

B. Kurani-816 (EX1034)

U.S. Patent No. 10,719,816 to Kurani ("Kurani-816") is directed to a system for handling escrow transactions where title to an asset is being transferred. *See* EX1034, 2:54-56 ("Referring to the figures generally, systems and methods for performing transactions involving a purchase of a titled item with MBC held in escrow are described."). Kurani-816 discloses transferring a "digital title" via two transactions involving math-based currency ("MBC") such as Bitcoin. *Id.*, 1:23-41, 2:54-64. The first MBC transaction passes digital title from the seller to the buyer, while the second MBC transaction passes payment from the buyer to the seller. *Id.*, 2:64-3:2.

Before any asset (either physical or digital) can be sold in Kurani-816's system, a "digital title" must be created for the asset. A "digital title company" "maintains [a] title database." *Id.*, 6:34-39. After verifying ownership of an asset (e.g., using "paper title documents, deeds, etc."), the digital title company "create[es] a digital title for the asset." *Id.*, 6:41-7:1. The digital title is merely an entry in a database that includes an identifier, description of the asset, and ownership of the asset. *Id.*, 7:1-4.

Kurani-816 describes passing the digital title using a "financial institution" as an escrow agent. *Id.*, 7:45-8:8. As with traditional escrow transactions, in Kurani-816, a "buyer 102 deposits the agreed upon amount" with the financial institution in MBC (e.g., Bitcoin) or fiat currency. *Id.*, 8:9-10; *see also* 7:61-64. After confirmation, the seller provides the financial institution information that can be used to verify asset ownership with the digital title company. *Id.*, 8:41-54. The digital title company verifies ownership of the asset, and then the seller "sends digital title to the buyer." *Id.*, 8:54-9:25. To send the digital title, the seller sends a "nominal amount" of Bitcoin (or other MBC) to the buyer and attaches the digital title or a pointer to the digital title in the title database to the Bitcoin (or other MBC) transaction. *Id.*, 9:25-47. The title transfer is thus recorded in the Bitcoin (or other MBC) blockchain.

The financial institution checks the blockchain to confirm that title has been transferred, and upon such confirmation releases payment for the asset to the seller. *Id.*, 9:59-10:37. The financial institution then notifies the digital title company of the digital title transfer, and the digital title company updates the information in the title database to reflect the new ownership. *Id.*, 10:38-60.

**V. THE PETITION FAILS TO DEMONSTRATE A REASONABLE
LIKELIHOOD THAT CLAIM 1 WOULD HAVE BEEN OBVIOUS.**

The Petition presents two obviousness grounds. Under ground 1, Petitioner challenges claims 1-2 and 4-20 as obvious over Kennedy in view of Kurani-816. Pet., 2. For ground two, Petitioner challenges dependent claim 3 by adding Yago to the combination. Both grounds fail.

Kennedy and Kurani-816 are different systems used for different purposes, and a POSITA would have recognized that it did not make sense to combine them. And even if a POSITA would or could have combined the references as Petitioner proposes, the combination would nevertheless fail to teach or suggest numerous elements present in each independent claim.

The table below highlights the limitations of claim 1 that are missing, completely, from the proposed Kennedy/Kurani-816 combination. The other independent claims (claims 15 and 16) include similar limitations that are completely missing from the proposed Kennedy/Kurani-816 combination.

Claim 1
Preamble: A computer implemented method for processing a financial transaction, the method comprising the steps of:
Element 1: transmitting one or more documents pertaining to the financial transaction, from a first intermediary server in a centralised financial system to a first document store;
Element 2: generating an enriched data record from the one or more documents, at the first intermediary server, and adding the enriched data record into a blockchain being a distributed ledger, from the first intermediary server;
Element 3: requesting generation of a token corresponding to the financial transaction to identify the one or more documents, to a token server, from the first intermediary server, via a messaging bus in the centralised financial system;
Element 4: generating the token at the token server and adding the token into the blockchain from the token server in association with the enriched data record;
Element 5: transmitting the token to the first intermediary server from the token server, via the messaging bus; and
Element 6: transmitting the token from the first intermediary server to the first document store in association with the one or more documents.

Thus, the Petition fails to present any reasonable likelihood of success.⁴

A. There Is No Likelihood of Success on Ground 1

1. A POSITA would not have been motivated to combine Kennedy and Kurani-816

As an initial matter, Kennedy and Kurani-816 are directed at solving different problems in the field of financial transactions, and a POSITA therefore would not be motivated to combine the teachings of these two references. Kennedy is directed to a system that increases the speed at which transactions are processed in a payment transaction network that includes blockchain transactions. EX1033, [0003]. The transactions handled by Kennedy's system include "product or service purchases, credit purchases, debit transactions, fund transfers, account withdrawals, etc." *Id.* at [0017]. The goal of Kennedy's system is the efficient processing of such transactions with minimal error and interruption. *See id.* at [0002], [0089]; Olivier Dec., ¶ 39.

⁴ Patent Owner disagrees with Petitioner's claim that the '413 Patent is not entitled to claim priority to the Australian provisional applications. However, the Board need not address this issue because, even assuming that Kennedy, Kurani-816, and Yago all constitute prior art to the '413 Patent, Petitioner's obviousness grounds fail for the reasons set forth herein.

Kurani-816, on the other hand, is directed to a system that handles a narrow type of escrow transactions. Specifically, Kurani-816 is directed to “transactions involving the transfer of titled items, [where] funds may be held in escrow until a title is physically transferred between parties.” EX1034, 1:45-48. Kurani-816 teaches as an improvement over existing math-based currency (MBC) the capability to perform escrow transactions. *Id.* at 1:45-52. To provide this capability, Kurani-816 requires a unique identifier for every piece of property that is to be bought or sold in order to verify ownership. *Id.* at 6:26-33; Olivier Dec., ¶¶ 53-55.

Thus, in order to apply the teachings of Kurani-816, a unique token or digital title must be created for each product or service sold. But this is impossibly expensive for certain types of fungible products such as fruits or vegetables. In a transaction involving the sale of apples, for example, Petitioner’s proposed combination of Kennedy and Kurani-816 would require that each apple in the transaction be tracked using a separate unique identifier, which would be prohibitively expensive to implement. Olivier Dec., ¶¶ 55-56. In addition, the need in Kurani-816 to create a unique “digital title” for every object in a transaction before the transaction takes place would severely slow down payment processing, defeating one of the primary objectives in Kennedy of increasing the speed at which payment transactions are processed. Olivier Dec., ¶¶ 57-59. Still further, the requirement in Kurani-816 of two separate transactions in order to complete the sale of an asset

would further slow down payment processing. *Id.* A POSITA therefore would not be motivated to combine the teachings of Kennedy with Kurani-816. *Id.*

Even if a POSITA were to combine the teachings of Kennedy and Kurani-816, the combination would not render the '413 claims obvious because the combination would still be missing critical elements of the claims, discussed below.

2. The Kennedy/Kurani-816 Combination Is Missing Multiple Elements of Claim 1

a) Element 1: Kennedy and Kurani-816 fail to teach or suggest “transmitting one or more documents ... from a first intermediary server ... to a first document store.”

Petitioner cannot show that the Kennedy/Kurani-816 combination teaches or suggests element 1 in claim 1, which recites “transmitting one or more documents ... from a first intermediary server ... to a first document store.” Petitioner relies solely on Kennedy as allegedly disclosing this element. Pet., 22-26. Kennedy, however, does not teach transmitting documents from an intermediary server to a document store.

Petitioner asserts that the “processing server” in Kennedy constitutes an “intermediary server.” Pet., 22. Kennedy describes that this processing server is responsible for intercepting a transaction message (the alleged “one or more documents”) and posting information from the message into a blockchain. EX1033, [0026] (“The processing server 102 may receive the transaction message The

processing server 102 may be configured to generate a data record The data record may then be posted to a blockchain by the processing server 102.”). After that, the processing server passes the transaction message along to other components for further processing, as reflected in Figure 3 in Kennedy:

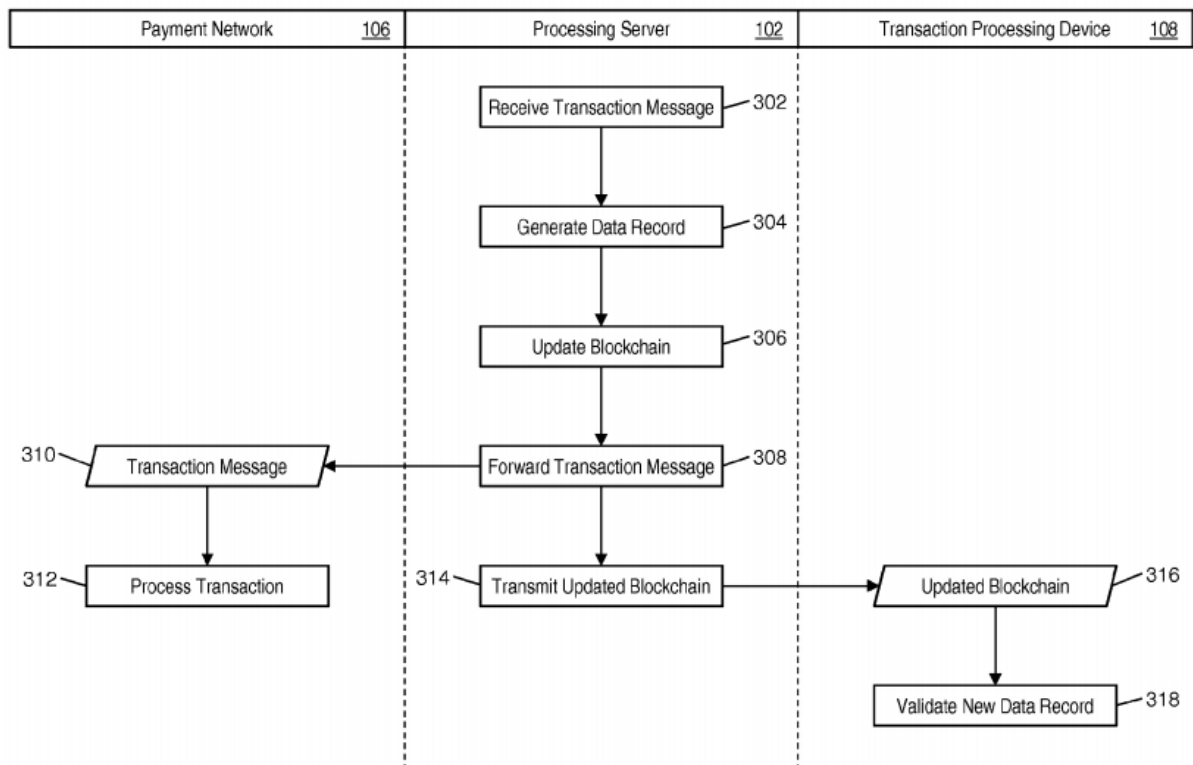


FIG. 3

See also id. at [0051]. Kennedy never teaches that the processing server stores the transaction message or transmits it into any type of storage. Olivier Dec., ¶¶ 60-63.

Petitioner argues that Kennedy’s processing server must be transmitting the transaction messages into a document store because the processing server has memory. But the mere fact that the processing server includes memory does not

mean that the processing server is performing storage of the transaction messages. Indeed, Kennedy simply describes that the processing server “memory 228 may be configured to store data for use by the processing server 102 in performing the functions discussed herein.” EX1033, [0046]. This generalized description of the memory being used to store data for performing “functions” does not indicate any storage of any transaction messages. Olivier Dec., ¶ 63. Indeed, Kennedy goes on to describe some examples of information that may be stored in the memory, none of which include storing the alleged transaction message “documents”:

The memory 228 may include, for example, encryption keys and algorithms, communication protocols and standards, data formatting standard and protocols, program code for modules and application programs of the processing device, and other data that may be suitable for use by the processing server 102 in the performance of the functions disclosed herein

EX1033, [0046]. A POSITA would recognize that these are examples of various **tools** needed by the processing server in order to perform its functions, rather than records of financial transactions. Olivier Dec., ¶ 63. The memory in the processing server is therefore not a “document store” for the alleged transaction message “documents.”

In addition, a POSITA would not have considered using the memory in the processing server as a “document store” for the transaction messages, given that

Kennedy already teaches that the processing server translates the transaction message into a “data record” that is inserted into the blockchain. EX1033, [0026], [0061]. Kennedy’s blockchain therefore contains a record of the financial transaction, and there would be no need for the processing server to separately store any copies of the transaction message “documents.” Olivier Dec., ¶¶ 64-65. Indeed, Kennedy’s Figure 2 shows a processing server that includes a blockchain containing data records that is separate from the processing server memory:

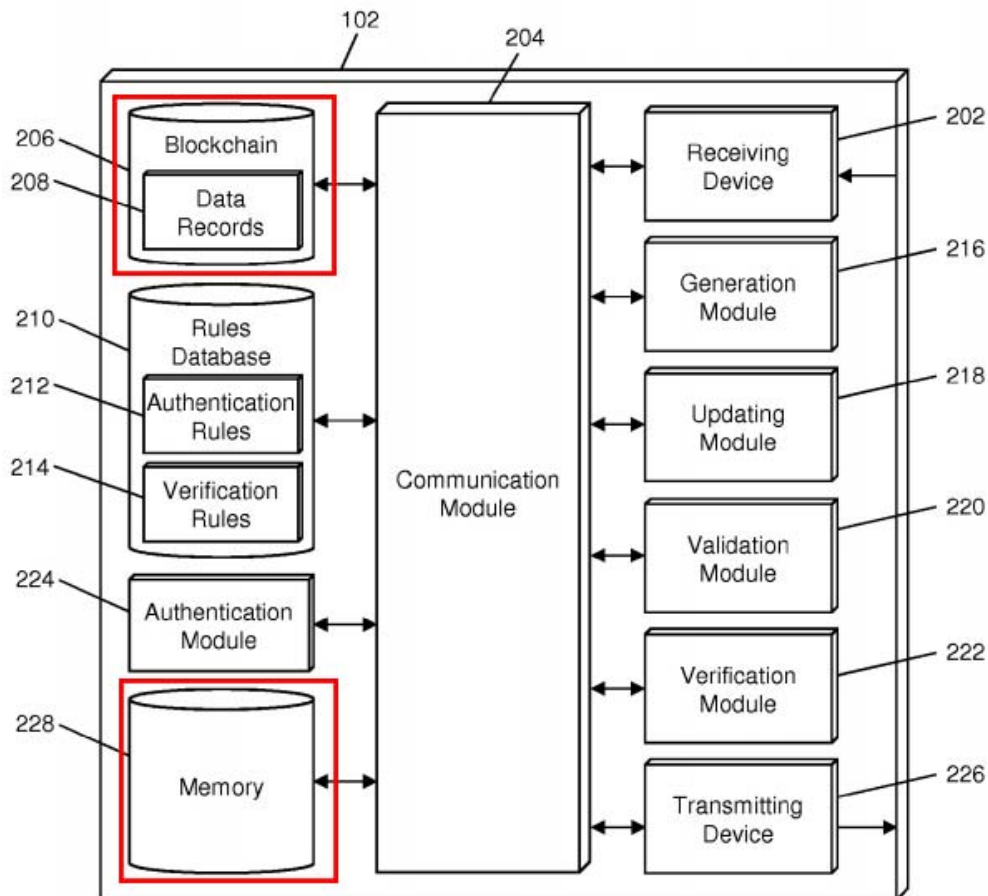


FIG. 2

A POSITA would therefore have no motivation to consider storing transaction messages in the processing server's memory. Olivier Dec., ¶¶ 64-65.

Nor can the processing server's temporary receipt of the transaction messages be considered "transmitting one or more documents . . . from a first intermediary server . . . to a first document store," as Petitioner suggests. Petitioner argues that, in order for the processing server to perform its functions on the transaction messages, it would necessarily need to maintain a copy of those messages while performing its functions. Pet., 24-25. But to the extent that the processing server might have transaction messages stored in volatile memory as it is performing its functions on those messages, such storage does not constitute "transmitting one or more documents . . . from a first intermediary server . . . to a first document store." Olivier Dec., ¶¶ 63-66. The '413 patent teaches that the "document store" is a long-term repository of information such as a database, not simply volatile memory. EX1001, 11:9-11 ("In one embodiment, the first document store 132 and the second document store 134 represent databases configured to store a plurality of documents."); 28:56-60 ("Further, the documents stores enable maintaining of a state of the token. That is, a status of the financial transaction can be tracked at any time, from the respective documents stored in the document stores.").

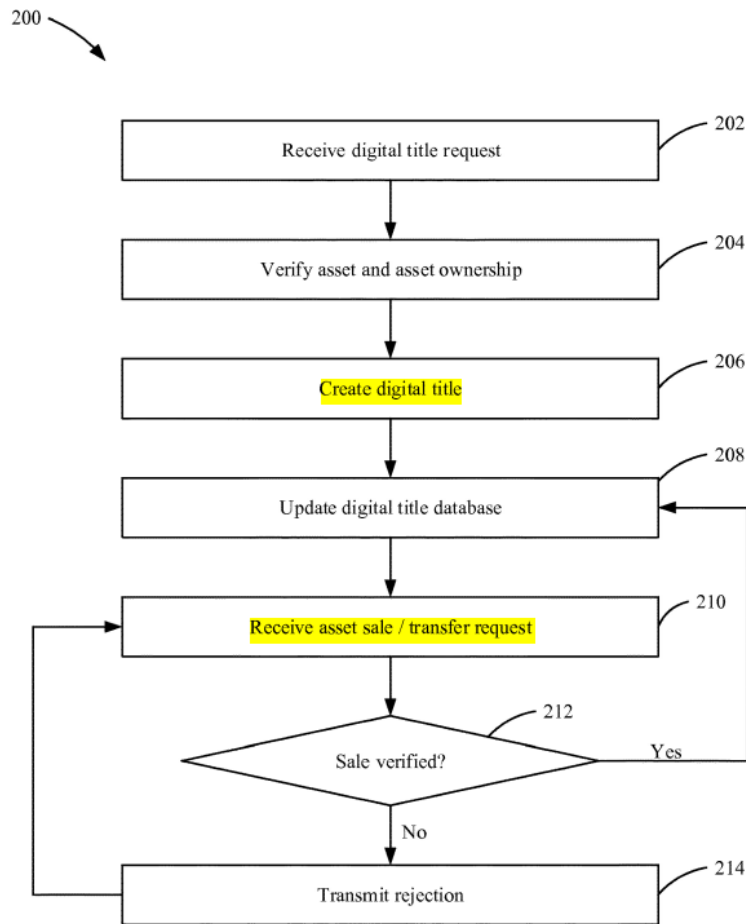
b) Element 3: Kennedy and Kurani-816 fail to teach or suggest “requesting generation of a token corresponding to the financial transaction ... from the first intermediary server.”

Petitioner cannot show that the Kennedy/Kurani-816 combination teaches or suggests element 3, which recites “requesting generation of a token corresponding to the financial transaction to identify the one or more documents, to a token server, from the first intermediary server, via a messaging bus in the centralized financial system.” As an initial matter, the Petition suggests that the “transaction identifier” in Kennedy could be the claimed “token.” Pet., 29. Yet Petitioner never presents any evidence or argument that Kennedy teaches “requesting generation” of this alleged token “to a token server, from the first intermediary server, via a messaging bus in the centralized financial system.” Thus, Petitioner effectively concedes that Kennedy does not disclose element 3.

Instead, Petitioner relies on Kurani-816 for this element, arguing that the “digital title” in Kurani-816 is the claimed “token.” Pet., 30. Petitioner’s asserted combination of Kennedy and Kurani-816 for element 3, however, fails for several reasons.

First, Petitioner alleges that the “digital title company computing system” in Kurani-816 is the “token server” that generates the digital title/token, and that a “POSITA would have been motivated to transmit the token generation request from

Kennedy's processing server (i.e., 'the first intermediary server') so the request for digital title generation is transmitted from a server processing the transaction that is separate from the token generating server." Pet., 32-33. But this argument does not make sense because element 3 requires "requesting generation of a token ***corresponding to the financial transaction . . .***" In other words, this element requires the creation of a token that is specific to a particular financial transaction. Indeed, the '413 patent teaches that a "token" is "a pointer to an enriched data record of a plurality data required to process a financial transaction." EX1001, 28:66-29:1. But in Kurani-816, the "digital titles" are not transaction-specific. Rather, the "digital titles" are data records that already exist prior to the financial transaction, and therefore do not need to be generated for the transaction. Figure 2 in Kurani-816 makes this clear:



Nor do the “digital titles” constitute “tokens” in the ’413 patent’s sense of “a pointer to an enriched data record of a plurality data required to process a financial transaction.” Rather, a “digital title” is defined in Kurani-816 as simply “a digital file associated with an asset (physical or digital) that proves ownership of the asset.” EX1034, 3:13-15. And while Kurani-816 does discuss the use of pointers to help identify and track the “digital titles” (*see, e.g., id.* at 3:15-22), Petitioner does not contend that those pointers are “tokens.” Instead, Petitioner identifies only the

“digital title” itself as the alleged “token.” *See* Pet., 30 (“POSITA would have understood Kurani-816’s ‘digital title’ . . . corresponds to the claimed ‘token.’”).

Kurani-816 therefore does not teach or suggest “requesting generation of a token corresponding to the financial transaction to identify the one or more documents, to a token server, from the first intermediary server.” Olivier Dec., ¶¶ 67-70.

In addition, element 3 requires that the request to generate a token must be “from the first intermediary server.” To the extent Kurani-816 discusses generation of the digital title, Kurani-816 states that it is the “owner of an asset” (i.e., the seller) who makes the generation request. EX1034 at 6:43-45 (“The digital title request is received by the digital title company computing system from a title requestor (e.g., the owner of an asset.”); Olivier Dec., ¶ 71. This request is not from any “intermediary server” or any server at all. Rather, Kurani-816 teaches that the seller communicates with the system using “a seller computing device associated with the seller,” which a POSITA would understand to be a client device and not a server. EX1034 at 1:61-65, 8:32-35; Olivier Dec., ¶ 72.⁵

⁵ Petitioner’s expert misleadingly refers to the “seller – 104” box in Figure 1 of Kurani-816 as the “seller server.” EX1026, ¶ 102. Nowhere in Kurani-816 is there any teaching that the “seller – 104” is a server. Olivier Dec., ¶ 72.

c) Element 3: Kennedy and Kurani-816 fail to teach or suggest a token “to identify the one or more documents”

The Petition also fails because it ignores the language in element 3 that the claimed token is “corresponding to the financial transaction *to identify the one or more documents.*” Here, “the one or more documents” refers back to the language in element 1 of “one or more documents pertaining to the financial transaction [transmitted] from a first intermediary server in a centralised financial system to a first document store.” Thus, read in the context of the entire claim, the token must somehow identify the one or more documents for the financial transaction that are transmitted from the first intermediary server to the first document store. Petitioner’s Kennedy/Kurani-816 combination does not teach or suggest a token that would serve this function. Under Petitioner’s theory, the “one or more documents” are the “transaction messages” in Kennedy that are sent to the processing server “because they are records or a request relating to the transaction containing financial transaction data.” Pet., 23-24. The “digital title” that is the alleged token in Kurani-816, however, is not intended to identify any particular financial transaction. Rather, Kurani-816 defines a “digital title” as “a digital file associated with an asset (physical or digital) that proves ownership of the asset.” Ex. 1034 at 3:13-15. That is, the digital title is a file that exists independent of any financial transaction to identify an *asset*. This digital title therefore cannot possibly be used as a “token corresponding

to the financial transaction to identify the one or more documents” under Petitioner’s combination where “the one or more documents” are transaction messages. Olivier Dec., ¶¶ 73-74. Petitioner therefore fails to show that the Kennedy/Kurani-816 combination would teach or suggest the element 3 requirement of a “token corresponding to the financial transaction to identify the one or more documents.”

d) Element 4: Kennedy and Kurani-816 fail to teach or suggest “adding the token into the blockchain from the token server”

Petitioner cannot show that the Kennedy/Kurani-816 combination teaches or suggests “adding the token into the blockchain from the token server” as recited in element 4. Petitioner argues that a POSITA would understand that in its Kennedy/Kurani-816 combination the digital title/token would be added to the blockchain from the “digital title company” which is the alleged “token server.” Pet., 36, 38-40. But the disclosures in Kurani-816 directly refute this. Kurani-816 teaches a system through which an asset is sold using “two separate MBC transactions.” EX1034 at 2:61-64. The “first MBC transaction” involves transferring a digital title from a seller to a buyer, while the “second MBC transaction” involves the buyer transferring payment to the seller. *Id.* at 2:64-3:2. The first MBC transaction is where the digital title is added to the blockchain and is consistently described in Kurani-816 as an action performed by the seller, not the digital title company. *See, e.g., id.* at 9:34-37 (“When the seller 104 initiates the first MBC transfer, the seller 104 either

attaches the digital title to the first MBC transfer or attaches a pointer to the digital title to the first MBC transfer.”); 10:67-11:3 (“[A]ny seller of a digitally titled asset can transfer the digital title by inserting the digital title . . . in the metadata of a MBC transaction.”); Olivier Dec., ¶¶ 78-81. Thus, Kurani-816 does not disclose “adding the token into the blockchain from the token server.” *Id.*

Indeed, Petitioner’s suggestion for the digital title company to add the digital title to a blockchain is directly at odds with its other argument that using the digital title company as a token server is “advantageous because it provides a neutral and independent location for generating tokens that is not affiliated with any participating buyer, seller, bank, etc.” Pet., 33. If the digital title company is responsible for adding the digital title into a blockchain as part of a financial transaction, then the digital title company is hardly “a neutral and independent location.” Olivier Dec., ¶ 82.

Petitioner incorrectly argues that it would be obvious to a POSITA that the token in the Kennedy/Kurani-816 combination would be added into the blockchain from a token server because Figure 1 in Kurani-816 “depicts two-way communication between ‘digital title company’ and []MBC blockchain via the network.” Pet., 38-39. Figure 1 in Kurani-816 is merely a high-level diagram showing that various components of the system are capable of communicating over

the same network; it does not show what specific data, if any, is exchanged between any of the particular components:

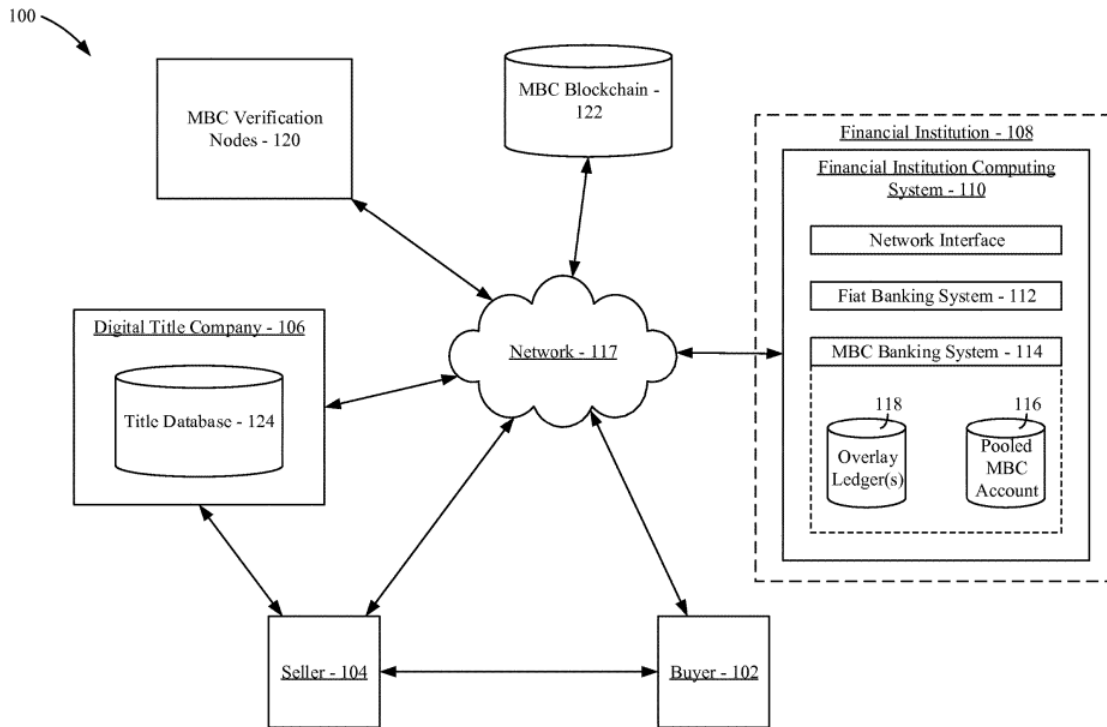


FIG. 1

Figure 1 therefore does not provide any guidance as to what might be added into the blockchain or from where. Olivier Dec., ¶ 83. Nor does Kennedy suggest adding a token into the blockchain from a token server. Petitioner cites to a discussion in Kennedy of updating the blockchain to include a “generated data record” and a “new data record,” but those are very different from the “digital title” held by the “digital title company” in Kurani-816. Pet., 38-40. The data records in Kennedy’s blockchain are used to validate electronic transactions, not for maintaining title records.

EX1033, [0065]. In addition, as Petitioner concedes, in Kennedy updates to the blockchain do not come from any “token server,” but are rather made through a “processing server” that Petitioner identifies as the alleged “intermediary server.” Pet., 27.

Finally, Petitioner incorrectly argues that it would be obvious to modify Kennedy to use Kurani-816’s digital title company as a token server to insert tokens into the blockchain because “use of token servers to reduce misuse and fraud by a token requestor was well-known.” Pet., 39. As support, Petitioner cites to a reference that discusses network tokens, which are very different from the asset tokens taught in Kurani-816. *See id.*; EX1046, [0011]. The mere fact that tokens in general were known to be valuable in the art does not mean that a POSITA would have been motivated to combine the particular teachings in Kurani-816 with Kennedy. Olivier Dec., ¶ 84. To the contrary, as discussed above, there are compelling reasons why a POSITA would not want to combine Kurani-816’s teachings with Kennedy.

e) Element 5: Kennedy and Kurani-816 fail to teach or suggest “transmitting the token to the first intermediary server from the token server.”

Petitioner’s Kennedy/Kurani-816 combination also does not teach or suggest “transmitting the token to the first intermediary server from the token server” as required in element 5. Petitioner relies solely on Kurani-816 as allegedly teaching this element. Pet., 40. But there is no disclosure in Kurani-816 of any token being

transmitted from a token server to a first intermediary server. Petitioner cites to a discussion in Kurani-816 of the “digital title company” (the alleged “token server”) transmitting the “digital title” (the alleged “token”) to a seller. Pet., 40-41. But as discussed in Section V.A.2.b above, the seller is not a “first intermediary server,” or any server at all. Rather, a POSITA would understand that the seller communicates with the system through a client device. Olivier Dec., ¶ 87.

Petitioner also incorrectly argues that a POSITA “would have been motivated to transmit the token from Kurani-816’s ‘digital title company’ (‘token server’) to Kennedy’s ‘processing server’ (‘first intermediary server’), to ensure that the digital title token is associated and stored with the transaction record and documents.” Pet., 41-42. First, this argument does not make sense because Kennedy does not disclose storing any transaction records or documents in the “processing server.” Second, Kurani-816 in fact teaches away from storing the “digital title token” in the same location as the transaction records. Specifically, Kurani-816 teaches that the digital titles are maintained in a database at the digital title company, and that this separate database is updated as assets are transferred between buyers and sellers. EX1034 at 6:8-12 (“Digital title for a given asset is maintained by the digital title company 106. . . . The digital title database 124 is maintained by a computing system associated with the digital title company 106.”); 7:21-30 (“If the sale or transfer is verified, the method 200 returns to 208, where the digital title database is updated.”); Fig. 1. A

POSITA would therefore have no motivation to modify the Kurani-816 system to have the digital title company transmit a digital title/token to any intermediary server. Olivier Dec., ¶ 88.

f) Element 6: Kennedy and Kurani-816 fail to teach or suggest “transmitting the token from the first intermediary server to the first document store in association with the one or more documents”

Petitioner’s Kennedy/Kurani-816 combination also does not teach or suggest “transmitting the token from the first intermediary server to the first document store in association with the one or more documents” as required in element 6. As discussed above with respect to element 5, neither Kennedy nor Kurani-816 discloses any token being transmitted to a first intermediary server. *See supra*, Section V.A.2.e. Thus, there is no intermediary server in Kennedy or Kurani-816 that would ever possess a “token” that could be transmitted to a first document store. Olivier Dec., ¶ 90.

Petitioner’s arguments with respect to element 6 also fail for several other reasons. First, Petitioner argues that it is “Kennedy’s transaction identifier/token” that a POSITA would have found obvious to use as the “token” for this element. Pet., 43. But as discussed above with respect to element 3, Petitioner fails to present any evidence or argument to show that the “transaction identifier” in Kennedy is the claimed “token.” *See supra*, Section V.A.2.b.

Petitioner also apparently argues in the alternative that a POSITA would have found it obvious to use the “digital title” in Kurani-816 as the “token” for this element. *Id.* But this argument also fails because, under Petitioner’s theory, the “document store” is local memory within the “processing server” that is handling the transaction. *Id.* Kurani-816 does not teach the storage of “digital titles” within the memory of any processing server. Rather, as discussed above with respect to element 5, Kurani-816 teaches that the “digital titles” are stored in a separate database at the digital title company. *See supra*, Section V.A.2.e. Thus, there is no need to maintain a local record of any token on a processing server, as Petitioner argues. Olivier Dec., ¶ 91.

3. Claims 2 and 4-20 are not obvious for the same reasons as Claim 1

Claims 2 and 4-14 of the ’413 patent all depend on claim 1, and are therefore not obvious for the same reasons discussed above for why the Petition fails to show obviousness of claim 1 based on the Kennedy/Kurani-816 combination.

Claim 15 includes multiple elements that correspond to elements in claim 1 which, as discussed in Section V.A.2 above, are not disclosed in either Kennedy or Kurani-816. Those elements are set forth below:

Claim 1	Claim 15
[Element 1] transmitting one or more documents pertaining to the financial	[Element 4] wherein the first intermediary server is configured to:

Claim 1	Claim 15
transaction, from a first intermediary server in a centralised financial system to a first document store	transmit one or more documents pertaining to the financial transaction, to the first document store
[Element 3] requesting generation of a token corresponding to the financial transaction to identify the one or more documents, to a token server, from the first intermediary server, via a messaging bus in the centralised financial system	[Element 6] [wherein the first intermediary server is configured to] request generation of a token corresponding to the financial transaction to identify the one or more documents, to the token server, via the messaging bus
[Element 4] generating the token at the token server and adding the token into the blockchain from the token server in association with the enriched data record	[Element 8] wherein the token server is configured to: generate the token and add the token into the blockchain in association with the enriched data record
[Element 5] transmitting the token to the first intermediary server from the token server, via the messaging bus	[Element 9] [wherein the token server is configured to] transmit the token to the first intermediary server, via the messaging bus
[Element 6] transmitting the token from the first intermediary server to the first document store in association with the one or more documents	[Element 7] [wherein the first intermediary server is configured to] transmit the token to the first document store

Thus, for the same reasons discussed in Section V.A.2 above, the Petition fails to show obviousness of claim 15 based on the Kennedy/Kurani-816 combination. See Olivier Dec., ¶¶ 93-95.

Likewise, claim 16 includes multiple elements that correspond to elements in claim 1 which, as discussed in Section V.A.2 above, are not disclosed in either Kennedy or Kurani-816. Those elements are set forth below:

Claim 1	Claim 16
[Element 1] transmitting one or more documents pertaining to the financial transaction, from a first intermediary server in a centralised financial system to a first document store	[Element 1] [A first intermediary server . . . configured to:] ⁶ transmit one or more documents pertaining to the financial transaction, to the first document store
[Element 3] requesting generation of a token corresponding to the financial transaction to identify the one or more documents, to a token server, from the first intermediary server, via a	[Element 3] [A first intermediary server . . . configured to:] request generation of a token corresponding to the financial transaction to identify the one or more documents, to a token

⁶ This language appears in the limiting preamble of claim 16. The preamble is limiting, as it provides structure for the claim and antecedent basis for numerous terms. See, e.g., *SIMO Holdings Inc. v. Hong Kong uCloudlink Network Tech. Ltd.*, 983 F.3d 1367, 1375 (Fed. Cir. 2021).

Claim 1	Claim 16
messaging bus in the centralised financial system	server, via a messaging bus in the centralised financial system
[Element 6] transmitting the token from the first intermediary server to the first document store in association with the one or more documents	[Element 4] [A first intermediary server . . . configured to:] transmit the token to the first document store

Thus, for the same reasons discussed in Sections V.A.2 above, the Petition fails to show obviousness of claim 16 based on the Kennedy/Kurani-816 combination. *See* Olivier Dec., ¶¶ 96-97.

Finally, claims 17-20 of the '413 patent all depend on claim 16, and are therefore not obvious for the same reasons discussed above for why the Petition fails to show obviousness of claim 16 based on the Kennedy/Kurani-816 combination. *See* Olivier Dec., ¶ 98.

B. There Is No Likelihood of Success on Ground 2

In Ground 2, Petitioner contends that dependent claim 3 is obvious in light of the combination of Kennedy, Kurani-816, and a third reference, Yago. Pet., 68-71. Petitioner relies on Yago solely to address the additional element in claim 3 that the method involves the use of a “smart contract.” *Id.* Yago therefore does not cure any of the deficiencies in Petitioner’s obviousness arguments with respect to claim 1. *See* Olivier Dec., ¶ 99. Thus, the Petition fails to show obviousness of claim 3 for

the same reasons discussed above for why the Petition fails to show obviousness of claim 1.

VI. SECTION 311(B) OF THE AIA AND THE SCOTUS RULING IN *SAS* PREVENT INSTITUTION

The Petition must be denied under 35 U.S.C. § 311(b) as Kennedy cannot be used for purposes of IPR. While Section 102 identifies numerous disclosures that qualify as “prior art,” IPRs may only be instituted on a subset of that art. Specifically, §311(b) allows *inter partes* review “only on the basis of prior art consisting of patents or printed publications.” 35 U.S.C. § 311(b). Petitions thus may not be instituted on prior art consisting of “public use” or “sales,” as recited in §102(a)(1) or a patent application that was filed before the effective date, but published after, as contemplated in §102(a)(2).

Kennedy is not “prior art consisting of patents or printed publications” as required by § 311(b). Kennedy is a patent publication, and thus not prior art consisting of a patent. EX1033, 1. Moreover, Kennedy was not published until May 11, 2017 (*id.*), well after even the August 2, 2016 filing date of the ’413 patent (EX1001,1). Petitioner makes no argument that Kennedy was publicly available before its publication. As such, regardless of Petitioner’s priority date arguments, Kennedy is not prior art consisting of a printed publication because “[f]or a reference to qualify as a printed publication, ‘before the critical date the reference must have

been sufficiently accessible to the public interested in the art.” *See, e.g., Valve Corp. v. Ironburg Inventions Ltd.*, 8 F.4th 1364, 1373 (Fed. Cir. 2021) (quoting *Constant v. Adv. Micro-Devices, Inc.*, 848 F.2d 1560, 1568 (Fed. Cir. 1988)). As such, the Petition cannot be instituted based on Kennedy.⁷

VII. CONCLUSION

The Petition presents no reasonable likelihood of success and should be denied.

Dated: May 28, 2024

/s/ Richard C. Lin
Richard C. Lin, Lead Counsel
Reg. No. 56,682
Jerry D. Tice II, Back-up Counsel
Reg. No. 73,582
Bunsow De Mory LLP
701 El Camino Real
Redwood City, CA 94063
Telephone: 650-351-7248
Facsimile: 415-426-4744
rlin@bdiplaw.com
jtice@bdiplaw.com

Counsel for Patent Owner

⁷ Patent Owner recognizes and notes that this issue is currently on appeal before the Federal Circuit in *Lynk Labs, Inc. v. Samsung Elecs. Co.*, No. 2023-2346 (Fed. Cir.).

**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATION,
TYPEFACE REQUIREMENTS, AND TYPE STYLE REQUIREMENTS**

1. This Patent Owner's Preliminary Response complies with the type-volume limitation of 14,000 words, comprising 8,410 words, excluding the parts exempted by 37 C.F.R. § 42.24(a)(1).

2. This Patent Owner's Preliminary Response complies with the general format requirements of 37 C.F.R. § 42.6(a) and has been prepared using Microsoft® Word 2016 in 14 point Times New Roman.

Dated: May 28, 2024

/s/ Richard C. Lin

Richard C. Lin

Reg. No. 56,682

Bunsow De Mory LLP

701 El Camino Real

Redwood City, CA 94063

Telephone: 650-351-7248

Facsimile: 415-426-4744

rlin@bdiplaw.com

Lead Counsel for Patent Owner

CERTIFICATE OF SERVICE

Petitioner has consented to e-mail service in this proceeding. Pursuant to 37 C.F.R. §42.6, the undersigned certifies that on May 28, 2024, a copy of the foregoing document was served by email upon the following counsel at the below email addresses:

JONES DAY

H. Albert Liou – aliou@jonesday.com

Rita J. Yoon – ryoon@jonesday.com

I. Sasha Mayergoyz – smayergoyz@jonesday.com

Matthew W. Johnson – mwjohnson@jonesday.com

Marlee R. Hartenstein – mhartenstein@jonesday.com

Stephen M. Bradley – sbradley@jonesday.com

Dated: May 28, 2024

/s/ Richard C. Lin

Richard C. Lin

Reg. No. 56,682

Bunsow De Mory LLP

701 El Camino Real

Redwood City, CA 94063

Telephone: 650-351-7248

Facsimile: 415-426-4744

rlin@bdiplaw.com

Lead Counsel for Patent Owner