UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/481,082	05/25/2012	Mamdouh IBRAHIM	END920080312US3	4217

46583 7590 08/17/2017

Roberts Mlotkowski Safran Cole & Calderon, P.C.
Intellectual Property Department
P.O. Box 10064
MCLEAN, VA 22102-8064

EXAMINER
MCINTYRE, CHARLES AARON

ART UNIT	PAPER NUMBER
3685	

NOTIFICATION DATE	DELIVERY MODE
08/17/2017	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@rmsc2.com
lgallaugher@rmsc2.com
dbeltran@rmsc2.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MAMDOUH IBRAHIM, SRI RAMANATHAN, TAPAS K. SOM, and MATTHEW B. TREVATHAN

Appeal 2015-006472
Application 13/481,082
Technology Center 3600

Before ANTON W. FETTING, PHILIP J. HOFFMANN, and BRUCE T. WIEDER, *Administrative Patent Judges.*

FETTING, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE[1]

Mamdouh Ibrahim, Sri Ramanathan, Tapas K. Som, and Matthew B. Trevathan (Appellants) seek review under 35 U.S.C. § 134(a) of a final rejection of claims 1–19, the only claims pending in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

---

[1] Our decision will make reference to the Appellants' Appeal Brief ("App. Br.," filed December 15, 2014) and Reply Brief ("Reply Br.," filed June 19, 2015), and the Examiner's Answer ("Ans.," mailed April 20, 2015), and Final Action ("Final Act.," mailed August 20, 2014).

The Appellants invented a way to support identity theft protection and, in particular, for supporting identity theft protection as part of a distributed service oriented ecosystem in Internet protocol (IP) multimedia subsystem (IMS) and non-IMS networks. Specification para. 1.

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below (bracketed matter and some paragraphing added).

> 1. A computer program product comprising a computer usable storage medium having readable program code embodied in a storage device, the computer program product includes at least one component that when executed by a processor causes the processor to perform the steps of:
>
> [1] process an authentication request
>
> comprising one or more credentials
>
> in order to access an account of a subscriber;
>
> [2] process the one or more credentials
>
> to identify the subscriber;
>
> [3] determine that the subscriber has an Internet protocol (IP) multimedia subsystem (IMS) device;
>
> and
>
> [4] send a notification message to the subscriber
>
> notifying the subscriber that the authentication request to access the subscribers account has been made.

The Examiner relies upon the following prior art:

Bhansali	US 2005/0044404 A1	Feb. 24, 2005
Putman	US 2008/0086564 A1	Apr. 10, 2008
Kongalath	US 2009/0307141 A1	Dec. 10, 2009
Kolhi	US 2009/0304009 A1	Dec. 10, 2009

Noldus US 2011/0255531 A1 Oct. 20, 2011

Claims 1–19 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

Claims 1–11 and 13–18 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Kongalath and Noldus.[2]

Claim 12 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Kongalath, Noldus, and Putman.

Claims 17 and 18 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Kongalath, Noldus, and Bhansali.

Claim 19 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Kongalath, Noldus, and Kolhi.

ISSUES

The issues of eligible subject matter turn primarily on whether intangible signals are encompassed within claim scope. The issues of obviousness turn primarily on whether the art describes all of the recited steps.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

---

[2] Although the statutory statement of rejection omits claim 13 (Final Act. 6), the analysis includes it (*id.* at 10).

Facts Related to Claim Construction

01. The disclosure contains no lexicographic definition of "device."

02. The ordinary definition of a device is an object designed and manufactured to perform one or more functions.[3]

03. The ordinary definition of manufacture as a verb is to make or produce a product.[4]

04. The ordinary definition of product is something produced by human or mechanical effort or by a natural process, as an item that is made or refined and marketed.[5]

05. The computer-usable or computer-readable medium may be, for example but not limited to, an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, device, or propagation medium. Spec. par. 42.

Facts Related to the Prior Art

Kongalath

06. Kongalath is directed to protecting identity data for performing secure transactions. Kongalath para. 2.

07. The steps a user performs for setting up a trustee database can generally be described in three phases. In the first phase a user

---

[3] American Heritage Dictionary
https://www.ahdictionary.com/word/search.html?q=device
[4] American Heritage Dictionary
https://www.ahdictionary.com/word/search.html?q=manufacture
[5] American Heritage Dictionary
https://www.ahdictionary.com/word/search.html?q=product

submits a list of cards to a trustee database. In phase two, the user provides the authorization check uniform resource indicator (URI) to the desired companies. This authorization check URI is associated with an authorization server which can access the database. In the third phase, a user sets up group approvals for automatic transaction enabling or blocking as desired. Kongalath paras. 34–35.

08. A user uses a card to purchase a product at an establishment, which transmits the credit card information as a request message to an automated clearing house (ACH). The ACH uses the information in the request message, looks up the field for the authorization URI (which was previously submitted by the user) and contacts the authorization server linked to the URI via an invite message, as well as other desired parameters of the transaction. The authorization server then sends a validation inquiry to a trustee database and looks up whether the credit card can be used for the requested transaction using the previously entered user inputs as described above. Kongalath para. 36.

09. The Trustee database then returns the validation result, including details as to whether the credit card is enabled or disabled, for the requested transaction. Based upon this information, the authorization server transmits a success or failure message, along with a transaction digest to the ACH which then forwards the message to the establishment device in the form of a yes approval or a no disapproval response. Kongalath para. 37.

10. After a user has input a variety of personal information, including credit card information, into a trustee database, at some future point in time, the user then decides to make an online transaction using a web browser which acts as a POS terminal. The transaction is sent to the ACH which in turn looks up the user supplied URI and uses the URI to query, e.g., transmit an identity request message as a SIP INVITE message, the identity server (which also acts as an authorization server). The identity server verifies with the trustee database that the referenced credit card is enabled for this transaction. Kongalath para. 50.

11. The identity server requests user acceptance by, for example, requesting a PIN number. Additionally, the identity server verifies location, communicates with the SIM associated with the user's mobile phone, and receives a soft/hard token. The location of the POS terminal is then compared with the location of the user and if the locations are acceptably close, assuming all other authorization requirements have passed, the transaction is approved. This approval information is then transmitted back to the POS terminal through the ACH as a message, e.g., SIP OK message. Kongalath para. 51.

Noldus

12. Noldus is directed to setting up a call from a non-IMS network to a destination node in an IMS network, the destination node serving a called terminal. Noldus para. 1.

13. The combined database node receives an information request message from the Network Gateway Node (NGN) and then it determines the capabilities of the NGN. The combined database node can derive implicitly from the address of the NGN the capabilities of the NGN using a capability table. Subsequently, the combined database node generates the response message comprising the step of determining whether the called terminal is an IMS subscriber. The subscriber profile associated with the called terminal comprises information indicating whether the called terminal has an IMS subscription. If the called terminal is not an IMS subscriber, then normal call handling will take place, that is, the combined database node sends e.g. a Mobile Station Roaming Number, MSRN or a Terminating-Call Camel Subscription Information, T-CSI, code to the NGN. Noldus para. 67.

14. If it is determined that the called terminal is an IMS subscriber, the combined database node will before generating the response message determine whether the combined database node contains an S-CSCF address of the destination node. Furthermore, if it is determined that the combined database node contains an S-CSCF address of the destination node, the combined database node will before generating the response message determine whether the at least one capability indicates that the NGN comprises an integrated GMSC-MGCF. The supported capability of the NGN may be indicated explicitly in a message, or may be derived from

the address of the NGN, by using a capability table. Noldus para. 68.

ANALYSIS

Claims 1–19 rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter

Transitory propagating signals are unpatentable under 35 U.S.C. § 101. *In re Nuijten*, 500 F.3d 1346, 1355 (Fed. Cir. 2007). According to U.S. Patent & Trademark Office (USPTO) guidelines:

> A claim that covers both statutory and non-statutory embodiments . . . embraces subject matter that is not eligible for patent protection and therefore is directed to non-statutory subject matter. . . . For example, a claim to a computer readable medium that can be a compact disc or a carrier wave covers a non-statutory embodiment and therefore should be rejected under § 101 as being directed to non-statutory subject matter.

U.S. Patent & Trademark Office, *Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101*, Aug. 2009, at 2, available at http://www.uspto.gov/web/offices/pac/dapp/opla/2009-08-25_interim_101_ instructions.pdf ("Interim Instructions").

The USPTO also provides the following guidance:

> The broadest reasonable interpretation of a claim drawn to a computer readable medium . . . typically covers forms of non-transitory tangible media and transitory propagating signals per se in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. . . . When the broadest reasonable interpretation of a claim covers a signal *per se*, the claim must be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter.

David J. Kappos, *Subject Matter Eligibility of Computer Readable Media*, 1351 Off. Gaz. Pat. Office 212 (Feb. 23, 2010).

Independent claim 1 recites, in pertinent part, "a computer usable storage medium having readable program code embodied in a storage device." Upon reviewing Appellants' Specification for context, we find that what constitutes the claimed "computer usable storage medium" may include a propagation medium. We conclude that the claimed "computer usable storage medium" can be broadly, but reasonably, construed to encompass both non-transitory tangible media and transitory propagating signals per se. The limitation of being embodied in a storage device is not explicitly described in the Specification, and the word device means an object designed and manufactured to perform one or more functions. To manufacture is to make or produce a product and a product is something produced. An object in the computer context is a piece of software.

Absent some constraint on longevity, the word "storage" really adds nothing to the phrase "computer readable medium." Storage does not mean static, it just means retention, which a wave performs, else it could not be read at a time subsequent (albeit at or near light speed) to its propagation. As a notorious example, our radio telescopes read waves emitted by stars thousands of years ago – the content of those waves were stored for that duration.

The limitation of being embodied in a storage device, therefore, encompasses being embodied on a waveform that is produced by a computer. As independent claim 1 covers both statutory and non-statutory

embodiments, it embraces subject matter that is not eligible for patent protection and, therefore, is directed to non-statutory subject matter.

We are not persuaded by Appellants' argument that a non-precedential Board Decision[6] found that a device was physical. App. Br. 3. Aside from the fact the Decision was non-precedential, the Decision based its conclusions on the absence of any reference to non-tangible products in the Specification, in contrast with the present application.

We are not persuaded by Appellants' argument that the claimed computer program product is being executed by a processor. *Id.* Claim 1 uses the subjunctive form "the computer program product includes at least one component that when executed by a processor causes the processor to perform." That is, it recites what one hopes to occur when, at a later time, the instructions are executed.

Claims 1–11 and 13–18 rejected under 35 U.S.C. § 103(a) as unpatentable over Kongalath and Noldus

We are not persuaded by Appellants' argument that

> Kongalath does not disclose sending a notification message to a subscriber notifying the subscriber that an authentication request to access the subscribers account has been made. Instead, Kongalath discloses that a transaction authorization request will either be sent to a trustee database 204 or to a user in order to enable or disable the transaction. Moreover, the success or failure message 318 simply relays the results of a requested transaction and transmitted to the establishment device 302. Accordingly, Kongalath cannot reasonably be

---

[6] *Ex Parte Ludtke*, App. No. 2009-001989 (BPAI, August 18, 2010.)

> considered to disclose sending a notification message to a subscriber, but instead, is merely seeking authorization for a transaction at a third party establishment device 302.

App. Br. 6. Kongalath describes sending a notification message to a subscriber notifying the subscriber that a transaction request has been either accepted or denied. To do so, Kongalath describes the first two steps in claim 1. This is undisputed. The third step is not at issue in this argument, as the Examiner applies Noldus. The fourth step is to "send a notification message to the subscriber notifying the subscriber that the authentication request to access the subscribers account has been made." The functional part of this step, sending a notification message to the subscriber, is explicitly performed by Kongalath as we find *supra*. The issue is the content of the message.

First, the Examiner finds the content of the message is undeserving of patentable weight. Ans. 9. We agree. Mental perceptions of what data represents are non–functional and given no weight. *King Pharm., Inc. v. Eon Labs, Inc.*, 616 F.3d 1267, 1279 (Fed. Cir. 2010) ("[T]he relevant question is whether 'there exists any new and unobvious functional relationship between the printed matter and the substrate.'") The content of the message does not affect the operation of the steps and the operation of the steps does not affect the content of the message. *See King Pharm, id.*

To the extent the message to notify that an authentication request has been made is considered functionally dependent on the authentication request in the first limitation, the fourth limitation does not recite any particular implementation, so again the message content per se is not functionally dependent on the first limitation. It is the sending of the

message that is functionally dependent, but that is described by Kongalath. In any event, because the response in Kongalath requires the authentication request, the message implies the authentication request irrespective of the actual content. This is sufficient to provide the recited notification.

We are not persuaded by Appellants' argument that

> Noldus does not disclose determining whether a subscriber has an IMS device. Instead, Noldus discloses determining whether a requesting device is an IMS subscriber, but there is no determination whether a device is an IMS or non-IMS device. In other words, simply determining whether the called terminal is an IMS subscriber cannot reasonably be considered to correspond to determining that a subscriber has an IMS device. Moreover, being an IMS subscriber does not require the subscriber to have an IMS device.

App. Br. 8. The problem Appellants have is they do not define what an IMS device is. IMS is an acronym meaning Internet Multimedia Subsystem. The question becomes how does the modifier "IMS" modify the phrase "IMS device." This is unclear from the Specification. One of ordinary skill could reasonably interpret this as a device attached to an Internet multimedia subsystem. This would then be a device within such a subsystem and logically such a subsystem device. Appellants admit the evident fact that Noldus discloses determining whether a requesting device is an IMS subscriber. That is, determining whether the requesting device subscribes to an Internet multimedia subsystem. As such a subscriber, the device would be part of the Internet multimedia subsystem.

As to claim 3, reciting a component to determine that the authentication request is in a blackout time and charge the subscriber for the message, we are persuaded by Appellants' argument that Kongalath fails to describe a

blackout time. App. Br. 9. The Examiner cites three paragraphs from Kongalath, none of which describe this. Final Act. 8; Ans. 13.

As to claim 4, reciting a component to convert the authentication request to a SIP and publish the converted authentication request, we are persuaded by Appellants' argument that Kongalath fails to describe a conversion to SIP. App. Br. 10. The Examiner cites two paragraphs from Kongalath, none of which describe this. Final Act. 8; Ans. 13.

As to claim 14, reciting allowing the subscriber to reject an unauthorized login attempt based on the notification message, and allowing changing of credentials as a result of the unauthorized login attempt, we are not persuaded by Appellants' argument that Kongalath fails to describe a conversion to SIP. App. Br. 10. As the Examiner finds, this limitation is broad enough to encompass Kongalath's request for approval as an implementation of allowing rejection, and the offer by the customer of a different card as an implementation of changing credentials. Final Act. 8; Ans. 13. As the claim recites no implementation, any implementation will fall within the claim scope.

The remaining claims are argued on the basis of claim 1.

Claim 12 rejected under 35 U.S.C. § 103(a) as unpatentable over Kongalath, Noldus, and Putman

This is not separately argued.

Claims 17 and 18 rejected under 35 U.S.C. § 103(a) as unpatentable over Kongalath, Noldus, and Bhansali

This is not separately argued.

Claim 19 rejected under 35 U.S.C. § 103(a) as unpatentable over Kongalath, Noldus, and Kolhi

This is not separately argued.

CONCLUSIONS OF LAW

The rejection of claims 1–19 under 35 U.S.C. § 101 as directed to non-statutory subject matter is proper.

The rejection of claims 1, 2, 5–11 and 13–18 under 35 U.S.C. § 103(a) as unpatentable over Kongalath and Noldus is proper.

The rejection of claims 3 and 4 under 35 U.S.C. § 103(a) as unpatentable over Kongalath and Noldus is improper.

The rejection of claims 17 and 18 under 35 U.S.C. § 103(a) as unpatentable over Kongalath, Noldus, and Bhansali is proper.

The rejection of claim 19 under 35 U.S.C. § 103(a) as unpatentable over Kongalath, Noldus, and Kolhi is proper.

The rejection of claim 12 under 35 U.S.C. § 103(a) as unpatentable over Kongalath, Noldus, and Putman is proper.

DECISION

The rejection of claims 1–19 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2011).

AFFIRMED