UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte CARL TSUKAHARA and TERRI PRINCE

_____

Appeal 2015-000725
Application 13/423,574
Technology Center 3600

_____

Before HUBERT C. LORIN, TARA L. HUTCHINGS, and
ROBERT J. SILVERMAN, *Administrative Patent Judges.*

LORIN, *Administrative Patent Judge.*

DECISION ON REQUEST FOR REHEARING

STATEMENT OF THE CASE[1]

The Appellants filed a Request for Rehearing under 37 C.F.R. § 41.52
of the Decision on Appeal.

In the Decision on Appeal, the Board

- affirmed the rejection of claims 1–20 under 35 U.S.C. § 101 as
  being directed to non-statutory subject matter but denominated the
  affirmed rejection as a new ground of rejection;

- affirmed the rejection of claims 16–20 under 35 U.S.C. § 112,
  second paragraph, as being indefinite for failing to particularly

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[1] This Decision references the Appellants' Request for Rehearing ("Req.,"
filed Nov. 27, 2017) and the Board Decision ("Dec.," mailed Sept. 25,
2017).

point out and distinctly claim the subject matter which applicants
regard as the invention;

- reversed the rejection of claims 1–3, 5–12, 14–16, and 18–20
  under 35 U.S.C. § 103(a) as being unpatentable over Nightengale[2]
  and Gladstone[3]; and,

- reversed the rejection of claims 4, 13, and 17 under 35 U.S.C.
  § 103(a) as being unpatentable over Nightengale, Gladstone, and
  Rothermel.[4]

The Request seeks reconsideration only of the Board's decision to
affirm the rejection of claims 1–20 under 35 U.S.C. § 101 as being directed
to non-statutory subject matter (albeit denominated as a new ground of
rejection) and to affirm the rejection of claims 16–20 under 35 U.S.C. § 112,
second paragraph, as being indefinite for failing to particularly point out and
distinctly claim the subject matter which applicants regard as the invention.

The Appellants make several points they believe the Board
overlooked or misapprehended.

DISCUSSION

**"I. The Board misapprehended or overlooked Appellant's arguments
made in the Reply Brief with respect to the first and second steps of the
Alice test under 35 U.S.C. § 101**." Req. 2.

The _Alice_ step one determination

According to the Appellants,

[t]he Board misapprehended or overlooked Appellant's
arguments made in the Reply Brief with respect to what claims

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[2] Nightengale, US 2010/0241535 A1, issued Sept. 23, 2010.
[3] Gladstone, US 2003/0023774 A1, issued Jan. 30, 2003.
[4] Rothermel, US 2006/0143034 A1, issued June 29, 2006.

at issue are directed to in terms of the first step of the *Alice* test under 35 U.S.C. § 101, because the Board failed to understand Appellant's argument about what the claims at issue are in fact directed to in contrast to the Examiner's view.

Req. 2.

The Appellants reproduce portions of the Reply Brief and Decision (*see* Req. 2–3) and contend that

> [t]he argument made in the Reply Brief by Appellant was clear in that claims at issue are directed to generating a state model, determining an expected response to an alert associated with a first event, and updating the state model in accordance with the expected response if the second event includes the value sufficient to identify the expected response, rather than *simply* directed to sending and receiving alerts through stateless communication channels.

Req. 3 (emphasis added).

If, in using the word "simply," the Appellants mean to contend that the Appellants were arguing that "**The Examiner Misinterprets Claims 1, 10, and 16 as Being *Only* Directed to Sending and Receiving Alerts through Stateless Communication Channels**" (Reply Br. 3; *see also* Reply Br. 3 ("Claim 1 is not just directed to sending and receiving alerts through stateless communication channels") and twice at Reply Br. 4 ("the Examiner is incorrect in interpreting claim 1 as *only* being directed towards sending and receiving alerts through stateless communication channels"), emphasis added), then there is no disagreement and the Board did not misapprehend or overlook the Appellants' argument. As we stated,

> [a]ll that is argued is that each independent claim includes language which shows "the Examiner is incorrect in interpreting [each independent] claim [ ] as only directed towards sending and receiving alerts through stateless

communication channels." *See* Reply Br. 4 (for independent claims 1 and 11) and 5 (for independent claim 16). In support thereof certain claim limitations are reproduced, *without further explanation*.

Dec. 4–5 (emphasis added). We did not find the argument persuasive because

> [t]he Examiner did not say that the claims are *only* directed towards sending and receiving alerts through stateless communication channels . . . and the *Appellants do not explain*, in what way the additional limitations in the claims materially affect the concept to which they are directed to as the Examiner has articulated it or its abstract nature.

Dec. 5 (emphasis added).

If, in using the word "simply," the Appellants are now contending that the Appellants were actually arguing that the claims were *directed to* a concept substantially more than the one the Examiner articulated it to be, then we disagree that we misunderstood the Appellants' initial position (Reply Br. 3–6). No such argument was made.

Yet, the latter interpretation seems to be what the Appellants are now contending. According to the Request, the

> claims at issue are directed to generating a state model, determining an expected response to an alert associated with a first event, and updating the state model in accordance with the expected response if the second event includes the value sufficient to identify the expected response, rather than simply directed to sending and receiving alerts through stateless communication channels. This concept comes from a technological problem involved in stateless communication based on the stateless communication channels as stated in the background of the disclosure ([0001]-[0002]), because each message (e.g., alert or response) communicated in stateless communication channels is regarded as an independent

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message, and conventionally, distinction among messages could not be properly made even when a response to an alert is expected. See [0060] of the Specification ("[d]istinguishing between multiple outstanding alerts for a single account holder becomes impossible on a stateless communication channel without ensuring that the responses are within prescribed parameters"). In consideration of the technological problem involved in the stateless communication, the claims at issue includes the limitations of "generates a state model," "determines an expected response to an alert associated with the first event," and "updating the state model in accordance with the expected response if the second event includes the value sufficient to identify the expected response." Therefore, in view of the disclosure as a whole, it is apparent that claims at issues [sic] are as a whole directed to operations performed in expectation of a response to a message sent through stateless communication channels, i.e., "generating a state model," "determining an expected response," and "updating the state model," rather than simply sending and receiving alerts through stateless communication channels.

Req. 3–4.

We concluded that "[i]n light of the Specification and in view of the Appellants' insufficient explanation to the contrary, the Appellants' suggestion that the Examiner did not properly determine whether the claims at issue are directed to a patent-ineligible concept, such as an abstract idea, in accordance with *Alice* step one is unpersuasive." Dec. 7. This conclusion rested not just on the Appellants' insufficient rebuttal. It was also based on making an *Enfish* "directed to" inquiry (*Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016)). *See* Dec. 5–7. Consistent therewith we found that

> [t]he Specification describes "[o]ne problem with the current alerts is that they must be used on stateful communication channels, such as through a website. While it is possible to

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send an alert for which a response can be made via some other
channel, it is not typically possible to send an alert via a
stateless communication channel, and receive a response via
that same stateless communication channel." Spec., para. 2.
Consistent with what is claimed, the Specification discloses as a
solution "[a] technique for actionable alerting [that] involves
processing a first event, maintaining state associated with the
event, sending an alert on a stateless communication channel to
a registered destination of an account holder associated with the
event, processing a second event, updating the maintained state,
and closing, reminding, or escalating in response to the second
event." *Id.* at para. 5. These passages appear to support the
Examiner's view that "[t]he claims are directed to sending and
receiving alerts through stateless communication channels."
Ans. 2–3. While the scheme, as claimed, is more detailed than
just sending and receiving alerts through stateless
communication channels, it does not change its abstract
character. Adding words such as "receiving," "identifying,"
"making," "generating," "sending," "determining," and
"updating," to more fully articulate the concept to which the
claims are directed describes the concept at a lower level of
abstraction, but does not change its character. . . .

As to the elements in the claims (e.g., "datastore" and
"engine" in claim 1) which facilitate said technique, the
Specification discloses the use of "traditional databases" (para.
23) and "general purpose central processing unit[s]" (para. 16).
Thus, the Specification supports the view that these elements
are simply conventional computer components added to a
scheme for sending and receiving alerts through stateless
communication channels.

Dec. 6–7.

While not expressly stated, the Request challenges our "directed to"
analysis.

The Appellants cite *Enfish*, emphasizing that the inquiry requires
looking at the claims in light of the Specification and basing the

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determination that the claims are directed to excluded subject matter on "their character **as a whole**." Req. 3. But the Appellants do not explain in what way we failed to accomplish that.

The Appellants state that the "claims at issue are directed to generating a state model, determining an expected response to an alert associated with a first event, and updating the state model in accordance with the expected response if the second event includes the value sufficient to identify the expected response." Req. 3. But we acknowledged that claim 1 included limitations to that effect. *See* Dec. 6. We stated that "[w]hile the scheme, as claimed, is more detailed than just sending and receiving alerts through stateless communication channels, it does not change its abstract character." Dec. 6.

Why is this more detailed concept to which the claims are said to be directed to any less abstract than the concept the Examiner determined it to be? The Appellants do not say, arguing rather that

> [t]his concept comes from a technological problem involved in stateless communication based on the stateless communication channels as stated in the background of the disclosure ([0001]-[0002]), because each message (e.g., alert or response) communicated in stateless communication channels is regarded as an independent message, and conventionally, distinction among messages could not be properly made even when a response to an alert is expected. See [0060] of the Specification ("[d]istinguishing between multiple outstanding alerts for a single account holder becomes impossible on a stateless communication channel without ensuring that the responses are within prescribed parameters"). In consideration of the technological problem involved in the stateless communication, the claims at issue includes the limitations of "generates a state model," "determines an expected response to an alert associated

with the first event," and "updating the state model in
accordance with the expected response if the second event
includes the value sufficient to identify the expected response."
Therefore, in view of the disclosure as a whole, it is apparent
that claims at issues [sic] are as a whole directed to operations
performed in expectation of a response to a message sent
through stateless communication channels, i.e., "generating a
state model," "determining an expected response," and
"updating the state model," rather than simply sending and
receiving alerts through stateless communication channels.

Req. 3–4.

Setting aside the arguably abstract character of "operations performed

in expectation of a response to a message sent through stateless

communication channels" (Req. 4), an underlying difficulty with the

argument is that claim 1 does not reflect the solution to the problem set forth

in para. 60 of the Specification. Para. 60 describes a module (module 204 in

Fig. 2) for "maintaining state for an issue associated with the event" (para.

59):

> [0060] In the example of FIG. 2, the flowchart 200
> continues to module 206 with sending an alert on a stateless
> communication channel to a registered destination of the
> account holder. Since state was maintained (204), it becomes
> possible to send an alert to an account holder on a stateless
> communication channel. If no state were maintained, an
> alerting system might not be able to reconcile an event that was
> a response to an alert through the stateless communication
> channel. Distinguishing between multiple outstanding alerts for
> a single account holder becomes impossible on a stateless
> communication channel without ensuring that the responses are
> within prescribed parameters. So the alert can include expected
> responses such that a response from the account holder can be
> matched with the alert.

We do not see in claim 1 sending an alert while the state for an issue associated with an event is maintained, as para. 60 discloses. At best, claim 1 calls for generating a state model, storing it in the "issue state model datastore," and updating the state model if a certain condition is met. But claim 1 does not describe the solution ("maintaining state") to the problem ("[d]istinguishing between multiple outstanding alerts for a single account holder becomes impossible on a stateless communication channel without ensuring that the responses are within prescribed parameters") described in para. 60 of the Specification.

 Accordingly, we are unpersuaded by the argument that we were in error to conclude that "the Appellants' suggestion that the Examiner did not properly determine whether the claims at issue are directed to a patent-ineligible concept, such as an abstract idea, in accordance with *Alice* step one is unpersuasive" (Dec. 7).

The *Alice* step two determination

 The Appellants argue that "the Board misapprehended or overlooked the above argument made by Appellant, and failed to sufficiently understand technological concepts articulated in the Appellant's argument." Req. 5. The argument said to be misapprehended/overlooked was:

> [t]he claims include language that goes beyond merely linking sending and receiving alerts over a stateless communication channel to a particular technological environment. Specifically, the language of the claims includes generating a state model, determining an expected response to an alert associated with a first event, and updating the state model in accordance with the expected response if a second event includes a value sufficient to identify the expected response. As discussed previously,

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> maintaining a state model is advantageous, as "a system
> implementing the technique can handle multiple events
> simultaneously for a single account holder or state model, even
> using stateless channels." *Specification*, p. 1. Therefore, in
> generating and updating a state model to handle multiple events
> simultaneously using stateless communication channels, the
> claims include meaningful limitations that go beyond merely
> linking an abstract idea to a particular technological
> environment.

Reply Br. 7. This was the only argument made challenging the Examiner's
step-two determination.

We disagree that we misapprehended and/or overlooked said
argument. We reproduced said argument in our Decision (*see* pages 9–10)
and responded that

> the Appellants do not sufficiently explain, how the additional
> limitations render the abstract idea to which the claims are
> directed to any less an abstract idea. For example, the argued-
> over state model appears to be a type of information. *See*
> Specification, para. 34 ("An issue state model includes an
> account identifier and the status of an issue.") However,
> information is an intangible. *See Microsoft Corp. v. AT & T
> Corp.*, 550 U.S. 437, 451 n.12 (2007). Also, "[t]hat a computer
> receives and sends the information over a network—with no
> further specification—is not even arguably inventive."
> *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir.
> 2014).

Dec. 10.

The discussion in the Request does not provide an explanation that is
any more sufficient than the one provided for in the Reply Brief.

> We are cognizant of the Federal Circuit's caution
>
> courts "must be careful to avoid oversimplifying the claims" by
> looking at them generally and failing to account for the specific
> requirements of the claims. . . . Whether at step one or step two

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> of the *Alice* test, in determining the patentability of a method, a court must look to the claims as an ordered combination, without ignoring the requirements of the individual steps.

McRO, Inc. v. Bandai Namco Games America Inc., 837 F.3d 1299, 1313 (Fed. Cir. 2016) (citing *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016)). *See* Req. 5.

But we did not oversimplify the claims. Under step one we analyzed whether the concept to which the Examiner determined the claims to be directed was in error. We also ascertained whether said concept was an abstract idea. Then, under step two, we analyzed whether the Examiner was in error in determining that claim 1 did not include an element or combination of elements sufficient to ensure that the claimed subject matter in practice amounted to significantly more than to be on the patent-ineligible abstract idea itself.

> The Appellants argue, again, that the

> claims at issue include *concepts* of generating a state model, determining an expected response to an alert associated with a first event, and updating the state model in accordance with the expected response if the second event includes the value sufficient to identify the expected response, which is in consideration of the technological problem of associating conventionally-undistinguishable messages (e.g., an alert and a response thereto) communicated in stateless communication channels, as set forth above.

Req. 5–6 (emphasis added). But we do not see, and the Appellants do not explain, how including said "concepts" transforms the abstract idea into an inventive application. If anything, they further reinforce the abstract character of the claimed subject matter.

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The combined concepts of generating a state model, determining an expected response to an alert associated with a first event, and updating the state model in accordance with the expected response if the second event includes the value sufficient to identify the expected response desribes a solution oriented to achieve a result (i.e., to overcome problems associated with sending and receiving alerts through stateless communication channels). What the Appellants are urging as patent-eligible subject matter is a result-oriented solution that is absent any technical detail for practicing it. It is a broad solution that is not circumscribed by technical detail. *Cf. Credit Acceptance Corp. v. Westlake Services, LLC*, 859 F.3d 1044, 1057 (Fed. Cir. 2017):

> Significantly, the claims do not provide details as to any non-conventional software for enhancing the financing process. *See Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1342 (Fed. Cir. 2017) (explaining that "[o]ur law demands more" than claim language that "provides only a result-oriented solution, with insufficient detail for how a computer accomplishes it"); *Elec. Power Grp.*, 830 F.3d at 1354 [*Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016)]; (explaining that claims are directed to an abstract idea where they do not recite "any particular assertedly inventive technology for performing [conventional] functions").

Accordingly, we continue to find that the Examiner was not in error in determining that claim 1 did not include an element or combination of elements sufficient to ensure that the claimed subject matter in practice amounted to significantly more than to be on the patent-ineligible abstract idea itself.

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"**II. The claims at issue are patent-eligible under 35 U.S.C. § 101 in terms of recent Federal Circuit cases.**" (Req. 6).

The Appellants argue that

claims at issues are directed to a concept of "generating a state model according to the business rules determination . . . determining an expected response to the alert associated with the first event . . . and updating the state model in accordance with the expected response if the second event includes the value sufficient to identify the expected response." Unlike *Apple* [*Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229 (Fed. Cir. 2016)], . . . this claimed concept is not simply directed to a concept of mere resulting systems with certain features, and instead directed to certain computer operations of "generating a state model according to the business rules determination . . . determining an expected response to the alert associated with the first event . . . and updating the state model in accordance with the expected response if the second event includes the value sufficient to identify the expected response," so as to enable sequential and mutual communication through stateless communication channels.

Req. 7.

The argument is unpersuasive. Claim 1 is not focused on "enabl[ing] sequential and mutual communication through stateless communication channels." It is broader than that.

The Appellants argue that "the claims at issue are rather patent-eligible like *Enfish*, where use of a self-referential table for a computer database instead of conventional separate multiple tables for a computer database have been held as not merely using computers as a tool and rather focus on improvement in the functioning of the computer itself." Req. 7. According to the Appellants, "the claim features improve the functioning of the computer itself." Req. 8.

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The argument is unpersuasive. Claim 1 nominally defines a system comprising three different engines and three different datastores. But, as we stated in the Decision,

> [a]s to the elements in the claims (e.g., "datastore" and "engine" in claim 1) which facilitate said [claimed] technique, the Specification discloses the use of "traditional databases" (para. 23) and "general purpose central processing unit[s]" (para. 16). Thus, the Specification supports the view that these elements are simply conventional computer components added to a scheme for sending and receiving alerts through stateless communication channels.

Dec. 7. The Appellants do not dispute this. The Specification belies the Appellants' current argument that the claimed subject matter does not merely use generic computers as a tool or that their functioning is improved by the claimed scheme.

No more arguments having been submitted. For the foregoing reasons we see no error in the Board's decision to affirm the rejection of claims 1–20 under 35 U.S.C. § 101 as being directed to non-statutory subject matter and to denominate the affirmed rejection as a new ground of rejection.

"III. The Board misapprehended or overlooked Appellant's arguments made in the Appeal Brief with respect to rejections under 35 U.S.C. § 112, second paragraph." Req. 8.

The Appellants argue "[t]he Board misapprehended or overlooked Appellant's argument made in the Appeal Brief with respect to the rejections under 35 U.S.C. § 112, second paragraph, because the Board failed to refer to any of the disclosure that Appellant's argued as describing the structure of the claimed limitations that allegedly amount to means-plus-function limitations." Req. 8.

In the Appeal Brief, the Appellants argued that

[t]he Examiner asserts that FIG. 1 repeats the same limitation as claim 16 in a flow diagram. *See Final Office Action*, pp. 2-3. Applicant respectfully submits that FIG. 1 is not a flow diagram and discloses sufficient structure to allow one of ordinary skill in the art to understand what is claimed when read in light of the specification. For example, Applicant points to the Application which reads "the alert generation engine 114 determines an expected response to the alert and generates an alert that includes a value sufficient to identify the expected response." *Application*, ¶ [0035]. Applicant further points to the Application, which recites

As used in this paper, an engine includes a dedicated or shared processor and, typically, firmware or software modules that are executed by the processor. Depending upon implementation-specific or other considerations, an engine can be centralized or its functionality distributed. An engine can include special purpose hardware, firmware, or software embodied in a computer-readable medium for execution by the processor. As used in this paper, a computer-readable medium is intended to include all mediums that are statutory (e.g., in the United States, under 35 U.S.C. 101), and to specifically exclude all mediums that are non-statutory in nature to the extent that the exclusion is necessary for a claim that includes the computer-readable medium to be valid.

Application, ¶ [0022]. Based on the example portions of the Application, Applicant respectfully submits that the Application discloses sufficient structure to allow one of ordinary skill in the art to understand what is claimed in claims 16-20 when read in light of the specification

App. Br. 8.

We stated that the "Examiner's position has not been adequately challenged." Dec. 11. We stated that

> [t]he Appellants argue that "the Application discloses
> sufficient structure to allow one of ordinary skill in the art to
> understand what is claimed in claims 16-20 when read in light
> of the specification." Appeal Br. 8. But that is not the
> question.

Dec. 11. We quoted from Federal Circuit decisions (i.e., *Rodime PLC v.*

Seagate Tech., Inc., 174 F.3d 1294, 1302 (Fed. Cir. 1999); *In re Donaldson*

Co., 16 F.3d 1189, 1193 (Fed. Cir. 1994); and *Biomedino, LLC v.*

Waters Techs. Corp., 490 F.3d 946, 950 (Fed. Cir. 2007)), reproduced the

Examiner's position, and stated that

> [c]laim 16 has eleven means-plus-function clauses. The
> question is whether the Specification discloses structure
> corresponding to each of said means-plus-function limitations.
> The Appellants' response that there is "sufficient structure to
> allow one of ordinary skill in the art to understand what is
> claimed" (Appeal Br. 8) is not an adequate response to the
> Examiner's determination that the Specification does not
> disclose structure corresponding to the means-plus-function
> limitations sufficient to render the claims definite.

Dec. 12.

> We maintain that was not an adequate response.

The Appellants now argue that said response is indeed adequate. The

Appellants argue that we misapprehended and misunderstood the adequacy

of the Appellants response as set forth on page 8 of the Appeal Brief.

According to the Appellants,

> [t]he argument made in the Appeal Brief by Appellant was clear
> in that FIG. 1 of the disclosure depicts *each of the alleged*
> *means-plus-function limitations*, and that the Specification
> sufficiently describes the structure corresponding to the alleged
> means-plus-function limitations, for example, the alert
> generation engine 114 described in paragraph [0035] in
> combination with description about specific structure of

"engine" described in paragraph [0022] for claimed "alert generation engine."

Req. 9 (emphasis added). We disagree.

There is nothing in the Appeal Brief about FIG. 1 of the disclosure depicting *each* of the alleged means-plus-function limitations. Apparently the Appellants deem it sufficient to cite a figure and provide an example and then to leave it to the Board investigate the Specification for some structure corresponding to each of the 11 means-plus-function limitations in claim 16. Suffice it to say that we are not in favor of that tactic. *See DeSilva v. DiLeonardi*, 181 F.3d 865, 867 (7th Cir. 1999) ("[An appeal] brief must make all arguments accessible to the judges, rather than ask them to play archaeologist with the record.") *See also* (1) *Shiokawa v. Maienfisch*, 56 USPQ2d 1970, 1975 (BPAI 2000) and (2) *LeVeen v. Edwards*, 57 USPQ2d 1406, 1413 (BPAI 2000).

Be that as it may, FIG. 1 of the disclosure insufficiently discloses structure corresponding to each of the 11 means-plus-function limitations of claim 16. FIG. 1 is reproduced below:
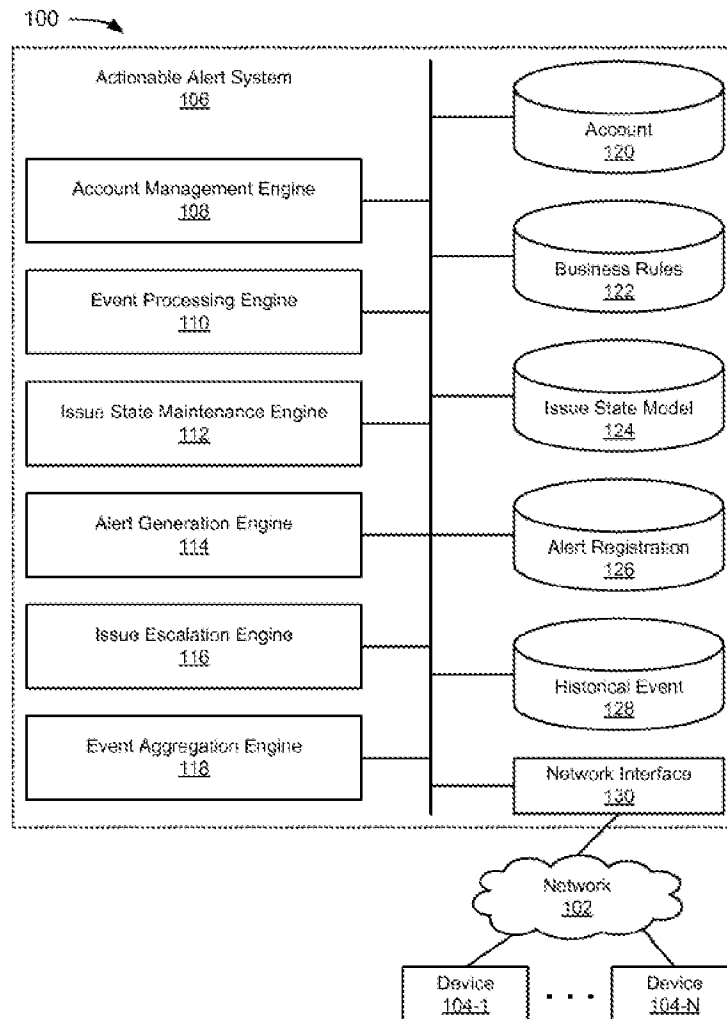
FIG. 1

FIG. 1 depicts an example of an actionable alerting system according to the Appellants' invention.

FIG. 1 depicts an Actionable Alert System 106. "The actionable alert system 106 can be implemented on one or more devices in a network. Networks can include enterprise private networks and virtual private networks (collectively, private networks), which are well known to those of skill in computer networks." Spec. para. 21. Accordingly, the actionable alert system 106 and its components are computer-enabled. "For computer-

implemented means-plus-function claims where the disclosed structure is a computer programmed to implement an algorithm, 'the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm.'" *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1340–41 (Fed. Cir. 2008) (quoting *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999)).

FIG. 1 depicts black boxes. They provide insufficient disclosure of an algorithm.

For example, one box contains the words "Issue State Maintenance Engine." This is not a disclosure of an algorithm corresponding to the claimed function "generating at an issue state maintenance engine a state model according to the business rules determination" (assuming that is what the Appellants are arguing). Claim 11.

The Appellants suggest another example: that paras. 35 and 22 disclose a structure corresponding to the functions set forth in the last two means clauses of claim 16, means associated with alert generation engine 114; that is, "receiving a second event over the stateless communication channel in response to the alert" and "updating the state model in accordance with the expected response if the second event includes the value sufficient to identify the expected response." *See* Req. 9 (relying on Appeal Br. 8). But there is no algorithm disclosed there. Para. 35 describes what an alert engine does (e.g., "The alert generation engine 114 sends the alert to the alert destination.") and para. 22 discloses what the term "engine" covers (e.g., "An engine can include special purpose hardware, firmware, or

software embodied in a computer-readable medium for execution by the processor.")

Neither FIG. 1 nor the Specification provides the necessary sufficient disclosure of an algorithm corresponding to the functions recited in the 11 means-plus-function clauses set forth in claim 16. When there is no description of an algorithm in the Specification to support a computer-enabled means-plus-function limitation in a claim, the disclosure will be considered inadequate to explain to one of ordinary skill in the art what is meant by the claim language. *Aristocrat Techs. Australia Pty. Ltd. vs. Int'l Game Tech.*, 521 F.3d 1328, 1337 (Fed. Cir. 2008). Based on FIG. 1 and what is disclosed in the Specification, we cannot determine the corresponding structure in the Specification for the recited means. Accordingly, we agree with the Examiner that claim 16, and claims 17–20 that depend therefrom, are indefinite under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which the Appellants regard as the invention. "If there is no structure in the specification corresponding to the means-plus-function limitation in the claims, the claim will be found invalid as indefinite." *Biomedino, LLC v. Waters Techs. Corp.*, 490 F.3d 946, 950 (Fed. Cir. 2007).

Notwithstanding that we did not misapprehend or misunderstand the Appellants' arguments with respect to the rejections under 35 U.S.C. § 112, second paragraph, the position that the Specification provides sufficient structure (e.g., an algorithm) corresponding to the recited functions of the 11 means-plus-function clauses of claim 16 is not supported by the evidence.

CONCLUSION

We have carefully considered the arguments that the Appellants have set forth in the Request but, for the foregoing reasons, we do not find them persuasive as to error in the Board's decision of September 25, 2017 to affirm the rejection of claims 1–20 under 35 U.S.C. § 101 as being directed to non-statutory subject matter but denominate the affirmed rejection as a new ground of rejection and to affirm the rejection of claims 16–20 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

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

<u>DENIED</u>