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 SEBASTIAN TYRRELL and JUAN SOLANA DE QUESADA

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Appeal 2017-002730
Application 11/863,907
Technology Center 3600

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Before MURRIEL E. CRAWFORD, ANTON W. FETTING, and
CYNTHIA L. MURPHY, *Administrative Patent Judges.*

FETTING, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE[1]

Sebastian Tyrrell and Juan Solana De Quesada (Appellants)[2] seek
review under 35 U.S.C. § 134 of a final rejection of claims 1–27, the only
claims pending in the application on appeal. We have jurisdiction over the
appeal pursuant to 35 U.S.C. § 6(b).

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[1] Our decision will make reference to the Appellants' Appeal Brief ("App.
Br.," filed February 29, 2016) and Reply Brief ("Reply Br.," filed December
6, 2016), and the Examiner's Answer ("Ans.," mailed October 6, 2016), and
Final Action ("Final Act.," mailed August 20, 2015).
[2] The real party in interest is Nokia Technologies Oy. App. Br. 2.

The Appellants invented a way of management of a network element in a telecommunications network when a license for a service or feature of the network element expires. 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 method comprising:

[1] enabling one or more features on a network element in a telecommunications network for a predetermined time according to a license provided to said network element,

the enabled one or more features being provided by the network element;

[2] causing management traffic to be sent and received on a first data connection,

the first data connection being dedicated for management traffic;

[3] causing user traffic utilizing said one or more features to be sent and received on a second data connection,

said second data connection

being dedicated for user traffic utilizing said one or more features,

and

being distinguishable from and controllable independently of said first data connection;

and

[4] in an instance in which said license expires, then

[5] blocking said second data connection;

[6] receiving, at said network element, license management data downloaded over said first data connection while said second data connection is blocked;

[7] renewing the license on said network element using the license management data downloaded over said first data connection;

and

[8] after the license is renewed, unblocking said second data connection.

The Examiner relies upon the following prior art:

Bi	US 2004/0024688 A1	Feb. 5, 2004
Santoso	US 2007/0014234 A1	Jan. 18, 2007
Sobel	US 2007/0027815 A1	Feb. 1, 2007

Claims 1–27 stand rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

Claims 1–27 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Sobel, Santoso, and Bi.

ISSUES

The issues of eligible subject matter turn primarily on whether the claims recite more than abstract conceptual advice of what a computer is to provide without implementation details.

The issues of obviousness turn primarily on whether the art recites the limitations.

FACTS PERTINENT TO THE ISSUES

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

Facts Related to the Prior Art

Sobel

01. Sobel is directed to centralized license and subscription management in a small networking environment. Sobel para. 2.

02. Sobel describes management of a software product's licensing/subscription agreements in a computer network by determining whether a licensing/subscription store is preconfigured with a licensing/subscription agreement; initiating communication with a licensing/subscription charging service; providing network identification to the licensing/subscription charging service; determining what licenses/subscriptions are needed for the network; and acquiring the licensing/subscription agreement. Sobel para. 10.

03. Sobel describes network interfaces as separate communication modules (i.e., network adaptors) capable of plugging into a gateway appliance. Each of network interfaces may have one or more network ports. Each of network interfaces may also have dedicated processor units and software programs to process network traffic. Network interfaces may be connected to different network segments. For example, one of network interfaces may be connected to a network; one of network interfaces may be connected to Internet. Sobel para. 34.

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04. Sobel describes determining whether a communication with the licensing/subscription store has been established. If the licensing/subscription store is found, then the license/subscription for that particular software product is located and verified by noting that its terms are applicable to the software product being executed. Once the verification is complete, the license/subscription is applied to the software product thus enabling the software product to be fully operational under the terms of the licensing/subscription agreement. Sobel para. 48.

Santoso

05. Santoso is directed to a loop prevention system and method for use with a stackable Ethernet switch system. Santoso para. 4.

06. Santoso describes prior art data communication networks based on the Ethernet technology, in which packet switches, including multi-layer switches and routers, are used to operatively couple many nodes for purposes of communicating packets of information therebetween. Switches that are made to stand alone without relying on a shared backplane have a plurality of ports and an internal switching fabric for directing inbound packets received at an ingress port to a suitable egress port. In some implementations in the art, the switching capacity is enhanced by linking a plurality of stand-alone switches by operatively linking selected ports (i.e., stack ports) of the switches together so as to create a stackable switch system operable as a single switching entity. Such systems, sometimes called stack switch systems, are

often employed together at a customer's premises, e.g., an enterprise. Santoso para. 6.

07. Santoso describes a prior art typical implementation, in which a system of stack switches are operatively interconnected via a pair of designated stack ports present on each switch, also referred to as an element. The system of stack switches is generally coupled in series and the topology of the system is generally characterized by a closed loop called a ring or an open strand of switches referred to herein as a chain. Each of the stack switches is adapted to perform switching between its own data ports as well as the data ports of other stack switches by transmitting packets via the stack ports using stack switch identifiers that facilitate the efficient transmission and switching of these packets to the appropriate stack switch element. Santoso para. 7.

08. Santoso describes that in certain prior art architectures involving stackable switch elements, looping of user data traffic may occur when the control processor of one of the switch elements becomes dysfunctional. Once a loop in the network is created, the network becomes unusable and requires user intervention to troubleshoot the problem, thereby leading to network downtime and associated inefficiencies. Santoso para. 8.

09. Santoso describes a loop prevention system and method operable in a stackable Ethernet switch system (SESS) having a number of stack switch elements. Santoso describes monitoring control management traffic on a stacking port of a stack switch

element of the SESS. Also included is logic, operable responsive
to determining that there is a loss of control management traffic on
a stacking port of a particular switch element of the SESS, for
disabling user traffic data on that stacking port while keeping the
control management traffic path open. Santoso para. 9.

10. Santoso describes stack switch element logic operable upon
initialization of the SESS to monitor the physical status of the
stacking ports of SESS such that when the status of a stacking port
changes from DOWN to UP, additional port monitoring logic
associated with a stack switch element is activated. Upon
detecting the status transition from DOWN to UP,
control/management traffic on the stacking port is enabled and
subsequently monitored. Once it is ensured that appropriate
control traffic has commenced on the stacking port, user data
traffic is enabled for transport via the stacking port as part of
normal operations effectuated in the SESS. Santoso para. 32.

11. Santoso describes monitoring the status and condition of the
control traffic on the stack ports. When a stack port of a particular
switch element is physically up but the control traffic messages
(e.g., Keep Alive messages) are not received at that port from a
neighboring switch element, a determination is made that there is
a loss of control traffic from the neighboring switch element. In
one exemplary implementation, the loss condition may be
determined based on detecting that Keep Alive messages from the
neighboring switch element are not received after a period of time,
which may be predetermined or configurable to be dynamically

variable, etc. Responsive to the determination that there is a loss of control traffic on the stacking port, user data traffic on that stacking port is disabled while continuing to keep the control/management traffic path open. Accordingly, the disabling of user data traffic on the stacking port operates to prevent the looping of the data in the network environment in which the SESS is disposed. Upon detection of appropriate control traffic on the stacking port from the neighboring element (due to, e.g., rebooting by the network operator or administrator), the user data traffic may be re-enabled or resumed on the stacking port. Santoso para. 33.

Bi

12. Bi is directed to digital content distribution and subscription system for digital data files, such as digital, audio or video files, which provides users or subscribers, with, for example, music or video, either streaming data files or locally stored digital files, for a fee. Bi para. 2.

13. Bi describes how licenses grant users the ability to access digital content which has already been or will be downloaded onto their client computer(s), and are set to expire at the end of each subscription period. If a license for content exists and is valid for the time period during which access is being attempted, access to the content will be granted. If an attempt is made to access content for which no license exists or for which an expired license exists, an attempt may be made to immediately retrieve a valid

license for this content and allow access to the content, or the user may be notified that such content is inaccessible, and that access will be forbidden. In the latter case, the user may be given the opportunity to retrieve a license for the specific content at this time or at a later time. Bi para. 167.

ANALYSIS

Claims 1–27 rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more

Claims 1, 8, and 17 are the independent claims on appeal, with the rest of the claims on appeal depending therefrom.

The Examiner rejects these claims according to the two step procedure in *Alice Corp. Pty. Ltd. v. CLS Bank Intl*, 134 S. Ct. 2347 (2014). As to the first step, the Examiner finds that the claims are directed to facilitating a license renewal process over a wide area telecommunications network with dedicated data connections. Final Act. 3. We agree. The preamble to claim 1 does not recite what the claim is directed to, but the steps in claim 1 result in a license renewal transaction. The Specification at paragraph 1 describes the invention as being related to management of a network element in a telecommunications network when a license for a service or feature of the network element expires. This all supports a determination that claim 1 is directed to facilitating a license renewal process over a wide area telecommunications network with dedicated data connections, which is a notoriously old practice and therefore an abstract idea. *See Bilski v. Kappos*, 561 U.S. 593 (2010). The remaining independent method claims are similar

and the independent structural claims recite generic computer devices performing the method claim steps.

The second step of the *Alice* test requires the consideration of "the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Alice*, 134 S. Ct. at 2355.

Independent claim 1 inserts a second data connection for a single data transaction and recites

> causing management traffic to be sent and received on a first data connection, the first data connection being dedicated for management traffic; [and] causing user traffic utilizing said one or more features to be sent and received on a second data connection, said second data connection being dedicated for user traffic utilizing said one or more features, and being distinguishable from and controllable independently of said first data connection.

Independent claim 14 recites similar limitations. According to the Appellants

> the instant claims are directed to methods and systems for controlling access to features of a network (e.g., a cellular network) that solve a technical challenge caused by the fact that such networks often carry both user traffic and management traffic. The instant claims modify the technical functioning of such systems to enable separate data connections for each traffic type, so that if user traffic is disabled due to a license expiration, management traffic is still processed such that the management traffic may be employed to reenable user traffic. Accordingly, the claims provide a solution to a technological problem that necessarily arises out of the use of technology.

App. Br. 11–12.

Examiner finds that

> 10. The elements of the instant process, when taken in combination, together do not offer substantially more than the sum of the functions of the elements when each is taken alone. That is, the elements involved in the recited process perform the same activities according to their generic functionalities which are well-understood, routine and conventional.

> 11. The claims do not amount to significantly more than the abstract idea itself. This is because the claims do not effect an improvement to another technology or technical field; the claims do not amount to an improvement to the functioning of a computer itself; and the claims do not move beyond a general link of the use of an abstract idea to a particular technological environment.

> 12. The claims merely amount to the application or instructions to apply the abstract idea (i.e. license renewal process) using computers, and is considered to amount to nothing more than requiring generic computer systems (e.g. a computer system; a generic element for providing a network based communications; a generic element for receiving and transmitting information; and a generic element to allow the parties to complete license renewal process) to merely carry out the abstract idea itself. As such, the claims, when considered as a whole, are nothing more than the instruction to implement the abstract idea (i.e. license renewal process) in a particular, albeit well-understood, routine and conventional technological environment.

Final Act. 3–4. We agree with the Examiner that the claims appear to recite "generic computer systems" that perform "generic functionalities which are well-understood, routine and conventional." *Id.* And the Appellants do not contend that they invented the central processing system or other computer-related equipment recited in the claims on appeal.

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However, the Examiner does not sufficiently establish that the "ordered combination" of the recited elements also fails to "'transform the nature of the claim' into a patent-eligible application." *Alice*, 134 S. Ct. at 2355. "[A]n inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces," even if these pieces constitute generic computer-related components. *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016). The instant claims are similar to those in *Bascom* in that as in *Bascom*, an intermediary is inserted between two otherwise conventional computer nodes to move the location where a process is otherwise ordinarily executed. In *Bascom* it was filtering and in the instant claims it is the separation of management and user connection limitations. The claims further recite automated license renewal on this distinction. The reasons for moving are similar in both cases and are rooted in the ways of internet technology.

As discussed above, the Appellants explain that the claimed architecture (i.e., the ordered combination and arrangement of the recited elements) provides a particular technical advantage. The Examiner does not persuasively challenge the Appellants' position on this matter.

Accordingly, the Examiner has not sufficiently established, on the record before us, that independent claims 1, 8, and 17 (and the claims depending therefrom) do not pass muster under step two of the *Alice* test.

Claims 1–27 rejected under 35 U.S.C. § 103(a) as unpatentable over Sobel,

Santoso, and Bi

We are not persuaded by Appellants' argument that

Sobel fails to teach or suggest separation of management data and user data to different data connections. At best, Sobel teaches a computing device for management of software licenses that includes one or more network interfaces 212-1, 212-2, 212-3 (see Sobel, FIG. 2). The network interfaces are described as "network adapters" (see Sobel, [0034]). The network interfaces are described as possibly being "connected to different network segments" (see Sobel, [0034]). In other words, the network adapters of Sobel allow the system of Sobel to communicate with different networks.

The Final Office Action notes, and Appellant agrees, that Sobel fails to explicitly disclose "multiple connections of a network element and downloading license management data to said network element over said first data connection while said second data connection is blocked, and unblocking said second data connection." (see Final Office Action, page 6). The Final Office Action cites to Santoso as remedying this deficiency. Appellant disagrees with this characterization of Santoso.

Santoso generally describes an Ethernet switch that includes a loop prevention system (Santoso, [0009]). To prevent data loops, the system of Santoso is operable to disable user data traffic on a "stacking port" of a stackable switch while allowing management data to be transmitted on that same stacking port (Santoso, [0010]). Disabling user traffic may allow avoidance of a loop condition when using multiple stacked switches in a serial connection (Santoso, [0010]).

Notably, Santoso describes how management traffic and user data traffic are transmitted on the same stacking port, and how the system of Santoso is capable of effectively filtering out user data traffic while passing through management traffic. Appellant notes that the Final Office Action alleges that Santoso describes a stacking port through which "multiple data connections may be established," but Appellant respectfully

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submits that Santoso fails to teach or suggest any such multiple
data connections being provided through a single port. The
mere suggestion that a port may handle both user data traffic
and management traffic is not, in and of itself, sufficient to
teach or suggest the use of such multiple data connections. For
example, a single data connection could be employed through
the single port (and would likely be the most logical
implementation), and individual packets could be flagged as
either user data traffic or management traffic, with packets
flagged as user data being filtered out.

App. Br. 22–24. As the Examiner applies Santoso for the separation of
connections, the arguments related to Sobel are unpersuasive. As to
Appellants' contention that "Santoso fails to teach or suggest any such
multiple data connections being provided through a single port" (*id.* at 23–
24), the argument is not commensurate with the scope of the claims, which
do not recite ports. As to Appellants' contention that "[t]he mere suggestion
that a port may handle both user data traffic and management traffic is not,
in and of itself, sufficient to teach or suggest the use of such multiple data
connections" (*id.* at 24), Santoso describes disabling user data traffic on a
stacking port while continuing to keep the control/management traffic path
open. Such bifurcation of data traffic is within the scope of two data
connections as recited in the claims.

As to separately argued claims 24–27, we agree with the Appellants that

configuring these particular cellular elements in the manner
alleged to be possible by the Final Office Action represents a
deviation from the traditional network communication
standards, such that applying these techniques to a mobile
switching center, base transceiver station, or to particular
network features is also not an obvious modification of these
elements and features.

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Reply Br. 4. These claims recite the inclusion of such equipment as part of the singular element in claim 1. The Examiner determines that the recited components are generic and predictable. Ans. 5–6. We agree as such, but this does not show a reason for including such equipment as part of the recited element in claim 1 as contrasted with somewhere else in the network.

CONCLUSIONS OF LAW

The rejection of claims 1–27 under 35 U.S.C. § 101 as directed to a judicial exception without significantly more is improper.

The rejection of claims 1–23 under 35 U.S.C. § 103(a) as unpatentable over Sobel, Santoso, and Bi is proper.

The rejection of claims 24–27 under 35 U.S.C. § 103(a) as unpatentable over Sobel, Santoso, and Bi is improper.

DECISION

The rejection of claims 1–23 is affirmed.

The rejection of claims 24–27 is reversed.

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-IN-PART