



PATENTS ACT 1977

APPLICANT Synchronoss Technologies, Inc.

ISSUE Whether patent application GB1416791.0 is
 excluded under section 1(2) of the Patents Act 1977

HEARING OFFICER Ben Buchanan

DECISION

Introduction

- 1 This decision considers the issue of whether the invention claimed in patent application GB1416791.0 satisfies the requirement for patentability as defined by section 1(2) of The Patents Act 1977.
- 2 Patent application GB1416791.0 was filed on 23 September 2014 in the name of F-Secure Corporation. The application, entitled “Event scene identification in group event”, claims a priority date of 27 September 2013. The application was published on 1 July 2015 as GB2521717 A. During the course of proceedings, the applicant for the patent was re-registered as Synchronoss Technologies, Inc.
- 3 The examiner initially issued a search report under Section 17(5)(b) along with an abbreviated examination report under Section 18(3), stating that the invention as claimed related to a method for doing business and a program for a computer as such, both of which the Act excludes from patentability, and that a search would therefore serve no useful purpose. Consequently, consideration of novelty and inventive step has been deferred. In the event that I decide in favour of the applicant, the application will be remitted to the examiner for further processing.
- 4 The excluded matter objection has been maintained throughout a number of rounds of amendment, with the examiner and the applicant unable to resolve the matter under section 1(2). The application came before me at a hearing on 29 September 2016. The applicant was represented by Dr Robert Lind, who was assisted by Mr Michael Chester. Also attending were hearing assistant Ben Widdows and an observer, Janet Kohler.

The Application

- 5 The application is concerned with automatically identifying and notifying users about particular events – called event scenes – occurring at group events, by utilising content generated and submitted by users to a network based content sharing service (such as a social media service). For example, a group event may be a street festival and an event scene maybe a star appearing at the festival. Thus spontaneous events, or events which are a departure from a schedule, may be notified to users. The application does not rely on users sending explicit information on where and when an event scene is happening. Instead it utilises content data and associated metadata already being submitted to a content sharing service to indicate an event scene, and to determine the location and time of the event scene.
- 6 In particular, submissions to the content sharing service which match preconfigured event scene data are identified, the time period of the event scene is determined based on the rate of the submissions and the location of the event scene is determined based upon the metadata of such submissions. A group event user is then sent a notification identifying the event scene and its location.

The Claims

- 7 The most recent set of claims, filed on the 14 April 2016, includes three independent claims: a method performed at a network based content sharing and storing service (claim 1); an apparatus configured to operate as a network based content and sharing service (claim 12); and a computer program for carrying out a method (claim 23).
- 8 Claims 1, 12 & 23 read as follows:
 1. A method, comprising, at a network based content sharing and storing service:
 - defining a group event and an associated set or¹ group of event users, and monitoring submissions, from one or more network connected devices of the group event users, to the content sharing and storing service, each submission including content data relating to said group event;
 - extracting meta data from each submission, said meta data relating at least to a location of the event scene in the group event;
 - identifying submissions associated with an event scene of the group event by comparing preconfigured event scene data to said meta data;
 - tracking a rate of submissions associated with the event scene;
 - determining a time period of the event scene in the group event on the basis of the tracked rate of submissions
 - determining the location of the event scene on the basis of meta data for the submissions associated with the event scene; and
 - upon such determination, sending notifications to devices of group event users including an identification of the event scene and its location.
 12. An apparatus, configured to operate as a network based content and sharing service, comprising
 - a memory configured to store computer program code, and

¹ Should read “of”

a processor configured to read and execute computer program code stored in the memory,

wherein the processor is configured to cause the apparatus to perform:

defining a group event and an associated set or² group of event users, and monitoring submissions, from one or more network connected devices of the group event users, to the content sharing and storing service, each submission including content data relating to said group event;

extracting meta data from each submission, said meta data relating at least to a location of the event scene in the group event;

identifying submissions associated with an event scene of the group event by comparing preconfigured event scene data to said meta data;

tracking a rate of submissions associated with the event scene;

determining a time period of the event scene in the group event on the basis of the tracked rate of submissions

determining the location of the event scene on the basis of meta data for the submissions associated with the event scene; and

upon such determination, sending notifications to devices of group event users including an identification of the event scene and its location.

23. A computer program product comprising computer-executable computer program code which, when the computer program code is executed on a computer, is configured to cause the computer to carry out a method comprising

defining a group event and an associated set or³ group of event users, and monitoring submissions, from one or more network connected devices of the group event users, to the content sharing and storing service, each submission including content data relating to said group event;

extracting meta data from each submission, said meta data relating at least to a location of the event scene in the group event;

identifying submissions associated with an event scene of the group event by comparing preconfigured event scene data to said meta data;

tracking a rate of submissions associated with the event scene;

determining a time period of the event scene in the group event on the basis of the tracked rate of submissions

determining the location of the event scene on the basis of meta data for the submissions associated with the event scene; and

upon such determination, sending notifications to devices of group event users including an identification of the event scene and its location.

The claims define a single invention, using consistent language and differing in form rather than substance. As such claim 1 was discussed at the hearing. In this decision I will consider claim 1, and note that claims 12 & 23 will stand or fall along with claim 1.

² Ibid.

³ Ibid.

The Law

- 9 The examiner has raised an objection under section 1(2)(c) of the Patents Act 1977 that the claimed invention is not patentable because it relates to a method for doing business and a program for a computer as such. The relevant provisions of this section of the Act are shown in bold below:

1(2) It is hereby declared that the following (amongst other things) are not inventions for the purpose of the Act, that is to say, anything which consists of –

(a)

(b)

*(c) a scheme, rule, or **method for performing a mental act, playing a game or doing business, or a program for a computer;***

(d)

but the foregoing provisions shall prevent anything from being treated as an invention for the purposes of the Act only to the extent that a patent or application for a patent relates to that thing as such.

- 10 The starting point for determining whether an invention falls within the exclusions of section 1(2) is the judgment of the Court of Appeal in *Aerotel/Macrossan*⁴.
- 11 The interpretation of section 1(2) has been considered by the Court of Appeal in *Symbian*⁵. *Symbian* arose under the computer program exclusion, but as with its previous decision in *Aerotel/Macrossan*, the Court gave general guidance on Section 1(2). Although the Court approached the question of excluded matter primarily on the basis of whether there was a technical contribution, it nevertheless (at paragraph 59) considered its conclusion in the light of the *Aerotel/Macrossan* approach. The Court was quite clear (see paragraphs 8-15) that the structured four-step approach to the question in *Aerotel/Macrossan* was never intended to be a new departure in domestic law; that it remained bound by its previous decisions, particularly *Merrill Lynch*⁶ which rested on whether the contribution was technical; and that any differences in the two approaches should affect neither the applicable principles nor the outcome in any particular case. But the *Symbian* judgment does make it clear, that in deciding whether an invention is excluded, one must ask does it make a technical contribution? If it does then it is not excluded.
- 12 Therefore, subject to the clarification provided by *Symbian*, it is appropriate for me to proceed on the basis of the four-step approach set out in *Aerotel/Macrossan* namely:
- 1) *Properly construe the claim.*
 - 2) *Identify the actual contribution (although at the application stage this might have to be the alleged contribution).*
 - 3) *Ask whether it falls solely within the excluded matter.*

⁴ *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007] RPC 7

⁵ *Symbian Ltd v Comptroller-General of Patents*, [2009] RPC 1

⁶ *Merrill Lynch's Application* [1989] RPC 561

4) If the third step has not covered it, check whether the actual or alleged contribution is actually technical.

- 13 The operation of this test is explained at paragraphs 40-48 of the judgment. Paragraph 43 confirms that identification of the contribution is essentially a matter of determining what it is the inventor has really added to human knowledge, and involves looking at substance, not form. Paragraph 46 explains that the fourth step of checking whether the contribution is technical may not be necessary because the third step should have covered the point.
- 14 In *Symbian*, the Court of Appeal stated that a computer program may not be excluded if it makes a technical contribution. The judgment in *AT&T/CVON*⁷ provided guidance in the form of a number of signposts which may indicate that a computer program provides a technical contribution. The signposts were updated in *HTC v Apple*⁸ and are considered as follows:
- i) whether the claimed technical effect has a technical effect on a process which is carried on outside the computer;*
 - ii) whether the claimed technical effect operates at the level of the architecture of the computer; that is to say whether the effect is produced irrespective of the data being processed or the applications being run;*
 - iii) whether the claimed technical effect results in the computer being made to operate in a new way;*
 - iv) whether the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer;*
 - v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.*
- 15 Dr Lind agreed that following these precedents and guidance was the correct approach to take.

Arguments and analysis

- 16 The first two steps of the above test are common when deciding whether the application relates to a program for a computer or a method for doing business.

Step 1: Properly construe the claim

- 17 Construing the claims presents no problems. Although an added matter objection was raised during the course of proceedings by the examiner, this has been overcome in the most recently amended claims. Claim 1 relates to a method, performed at a network based content sharing and storing service, of sending notifications to devices of group event users. This is achieved by defining a group event and associated event users, and monitoring submissions from the group event users. Metadata relating at least to a location of the event scene is extracted from the submission, and submissions which match preconfigured event scene data are identified. The time period of the event scene is determined based on the rate of the submissions, and the location of the event scene is determined based upon the

⁷ *AT&T Knowledge Ventures LP and Cvon Innovations Ltd v Comptroller General of patents* [2009] EWHC 343 (Pat)

⁸ *HTC Europe Co Ltd v Apple Inc* [2013] EWCA Civ 451

metadata associated with such submissions. A group event user is then sent a notification identifying the event scene and its location.

Step 2: Identify the actual (or alleged) contribution

18 There has, on the face of it, been an element of disagreement between the examiner and the applicant regarding the contribution. In skeleton arguments and at the hearing, Dr Lind suggested that the examiner had found some “prior art” in a related technical field and used this as the starting point to identify the contribution. However, I don’t believe that this is the case. The examiner has used prior art cited against the US equivalent of the present application (US 2015/0095414) to indicate the state of the art of certain aspects of event notification, but not as a starting point for the assessment of the contribution or an inventive step.

19 Indeed, the examiner’s assessment of the contribution in her examination report dated 9 February 2016 was as follows:

“automatically identifying the location and time of an event scene in a group event and notifying participants of an event of interest. This is done by monitoring content data uploaded by users to a central sharing and storing service, the location being identified from metadata included in content and the time period being detected by monitoring the rate of submissions to the service”.

20 Whilst in a subsequent examination report dated 4 May 2016 the examiner has summarised the contribution differently – with reference to documents US 2013/0013683 and GB2403099 cited against the US equivalent – I do not think that the subsequent definition of the contribution is inconsistent with her previous assessment. Rather her later definition of the contribution provided a different emphasis in light of prior art (although I do not think it is particularly helpful).

21 In their skeleton arguments the applicant identified the contribution as:

“Tracking a rate of submissions to a content server, determining a time period of the event scene on the basis of the tracked rate of submissions, determining the location of the event scene based on the metadata that accompanies the submissions and using the results to notify users of the event scene and its location”.

22 Dr Lind agreed at the hearing that, to all intents and purposes, the above identified contribution and the examiner’s 9 February 2016 assessment of the contribution are the same. I note that the examiner’s assessment specifically states that the content data which is uploaded by users to the server is *monitored* and that the applicant’s formulation specifies that users are notified of the event *and its location*. The application is quite clear that event scenes happen at a specific location (see page 2 lines 20-21, for example) and so the notification of *the location* to users is a component of the contribution. Equally, the content data uploaded to the central server is *monitored* by the system, as the examiner notes and as the claims define, so this too is a legitimate component of the contribution.

23 In *Aerotel/Macrossan*, at paragraph 42, the Court states that the assessment of the contribution can be best summed up as what the inventor has really added to the stock of human knowledge. Having considered the examiner's and the applicant's formulations of the contribution – which to all intents and purposes are the same – I suggest that what has really been added to the stock of human knowledge can be defined as:

Automatically identifying the location and time of an event scene in a group event and notifying participants of an event of interest and its location, by monitoring content data uploaded by users to a central sharing and storing service, the location being identified from metadata included in content and the time period being detected by monitoring the rate of submissions to the service.

24 This is the contribution I shall use in deciding whether the claims define an excluded thing as *such*.

Step 3 (i): Method for doing business

25 Having construed the claims and identified the contribution, I will first consider whether this falls solely within the excluded subject matter as a method for doing business. I must also consider whether the contribution is technical in nature. Although this is set out as the fourth step of the *Aerotel/Macrossan* test, it may be considered at the same time as step three.

26 The main thrust of Dr Lind's argument was that the current application is analogous with the invention in *Protecting Kids the World Over*⁹ (PKTWO). In PKTWO (see paragraph 4), a system for monitoring the content of electronic communications sniffs data packets from a communications channel to analyse their content. Depending upon a hash comparison, the system may generate an alert notification to users in response to detecting content of a predetermined type.

27 In his judgement, at paragraph 34, Floyd, J. found that generating an alarm alerting the user at a remote terminal, such as a mobile device, to the fact that inappropriate content is being processed is a physical concept. He concluded that an improvement to the monitoring of electronic communications was a technical contribution outside the computer. He noted, at paragraph 35, that the invention solves a technical problem lying outside the computer, namely how to improve on the inappropriate communication alarm generation in the prior art. He concluded that his finding applied to the very specific facts of the case.

28 The analogy between the present application and PKTWO is readily apparent. The present application, like PKTWO, generates a notification to a user at a remote terminal that an event is taking place. Dr Lind's argument was that this too is a physical concept and so a technical problem is solved. An improvement to the notification of events to users is therefore a technical contribution. Dr Lind argued that the application solves the problem of how to better alert people to an event scene taking place in a (group) space. Prior art solutions (in so far as can be determined in the absence of a search for prior art) rely on providing notifications to

⁹ *Protecting Kids the World Over* [2011] EWHC 2721 (Pat)

users in accordance with a schedule and do not permit real time notification of spontaneous events based on actions those users are already taking.

- 29 Dr Lind identified the differences between the present application and PKTWO as being (1) *monitoring metadata* of content to *determine location and timing information*, rather than *hashing content* to *identify inappropriate content* and (2) notifying users of (*spontaneous*) events taking place as opposed to *inappropriate content*.
- 30 With respect to the first difference, he and Mr Chester noted that although in PKTWO, the packet data was processed by “sniffing” it, this was as a result of the system operating at an intermediate node. In the present application the system is the *recipient* of data and the metadata may be processed in a different way. He argued that the method of processing per se was not important. I think that is the case the examiner was making by referring to prior art; not that the claimed invention was obvious, but that certain components of the contribution did not add to the stock of human knowledge and were thus not determinative of the whole contribution. I must of course consider the contribution as a whole, not just the bits of it which are, or are alleged to be, “new”. I agree with Dr Lind and Mr Chester that while the processing step is necessary for the contribution to take effect, it is not determinative of the contribution; but *processing metadata to determine location and timing information* is.
- 31 With respect to the second difference, Dr Lind argued that the alarm notification provided in PKTWO was patentable irrespective of the type of message content. In other words it was not important that the content specified by the invention was “inappropriate”. He noted that claim 20 of PKTWO related to identifying inappropriate content and was found to be excluded, but its dependent claim 33 defining an improved alarm was not (both of which related to notifying of inappropriate content, and thus he argued what was key is that PKTWO provided an improved alarm in a general sense). Dr Lind also drew an analogy between tracking the rate of submissions and hashing the data in PKTWO as the basis for generating an alert.
- 32 Dr Lind further commented that he considered the nature of the data in PKTWO not to be important, but the message content in the present application was important (although he acknowledged that the content may be technically conventional) because the nature of the data having location and timing information is essential to the application.
- 33 So does the identified contribution relate solely to a method for doing business in light of the judgment in PKTWO? I am not convinced that Floyd, J. would have found the same technical contribution if the alarm of PKTWO was not generated in response to *inappropriate* content. His qualification about the very specific facts of the case cannot be overlooked. The alarm generation is a means for protecting users from inappropriate content, which is not the same thing as notifying users of an event scene and its location. The only examples of group events which the application describes are a “company offsite activity, a wedding, a sport event and a street festival” (see page 1 line 35 – page 2 line 1, for example) which are not technical in nature. Whilst an improved alert to inappropriate content in electronic communications was found to have solved a technical problem lying outside the computer, I am not sure the same is true for an improved notification of an event

scene during a group event. The latter problem and solution would seem to me to fall squarely within the field of a method of doing business.

Step 3 (ii): Program for a computer

- 34 The claimed invention undoubtedly uses a computer program for its implementation. In particular, automatically notifying users about an event scene and its location on the basis of processing metadata from already uploaded content is performed by means of a program for a computer. However, the mere fact that the invention is effected in software does not mean that it should be necessarily excluded as a computer program as such. What matters is whether or not the program provides a technical contribution.
- 35 Determining whether the contribution is technical in nature can be assisted by considering the problem to be solved by the invention. Dr Lind felt that the examiner had formulated the problem far too generally as: “notifying a user of an event of interest”. He added that, for any invention, all advantages can be generalised as “a benefit to humans” - which is not necessarily indicative of a technical problem. He felt that if the problem was to be considered as a guide to assessing technical contribution then it should be formulated at a lower level, or as I understood it – at the level at which the solution might be identified.
- 36 Dr Lind defined the problem as:
- “How to automate the provision of alerts to user devices, for example smart phones, which relies upon a crowd-sourcing approach to gathering data, but which avoids the need for (additional) user action over and above those actions users are already taking”.*
- 37 Dr Lind argued that this problem was “external and therefore technical” and that the solution provided – namely producing real time alerts for event scenes – was “faster and more efficient” than anything done previously (such as sending text messages). However, in the context of event scenes such as those exemplified in the application, I do not think these are reflective of anything more than the problem being a business one as I set out in paragraph 33, and the solution being implemented by means of a computer program. The latter is specifically achieved by tracking the rate of content submissions, enabling the identification of event scenes in real time, but that does not seem to me to add anything technical beyond a computer program processing metadata to solve a business problem. Therefore, although processing metadata to determine location and timing information is essential and determinative of the contribution, as acknowledged in paragraph 30 above, it is not indicative of the contribution being technical, because the metadata is conventional and the process is implemented solely by a program for a computer.
- 38 I agree that the problem exists outside the computer. Notifying users of an event scene is clearly directed to enhancing users’ interaction with their environment. However where that interaction is non-technical, as all the examples discussed in the application would seem to be, it is hard to see how the problem is anything other than one lying in the field of business. Overcoming the problem does not then have a technical effect.

- 39 Although Dr Lind did not formally present arguments with reference to the AT&T/CVON signposts, he acknowledged that his arguments were consistent with signposts (i) and (v) and that the others were not relevant. For completeness, I do not consider the improved notification of an event scene during a group event to provide a *technical* effect outside the computer, rather the effect is a business one. Therefore signpost (i) is not met. Whilst the problem Dr Lind has outlined may have been overcome rather than circumvented, such a problem is not technical in nature – again it is a business problem. Therefore signpost (v) is not met.
- 40 In summary I find that the contribution provided by the claimed invention solves a problem which exists within the field of business, and is implemented by a program for a computer. I have been unable to identify a technical contribution and therefore I must conclude that the contribution falls wholly within the field of a program for a computer and/or a method for doing business.

Step 4: Check whether the alleged contribution is actually technical in nature

- 41 Having considered this issue throughout my assessment of the contribution, as set out above, I conclude that the contribution is not actually technical in nature.

Conclusion

- 42 I find that the claimed invention is excluded under section 1(2)(c) because it relates to a method for doing business and a program for a computer as such.
- 43 Having read the specification I do not think that any saving amendment is possible. I therefore refuse the application under section 18(3).

Appeal

- 44 Any appeal must be lodged within 28 days.

Ben Buchanan
Deputy Director, acting for the Comptroller