

PATENTS ACT 1977

APPLICANT IGT Global Solutions Corporation & IGT

ISSUE Whether patent application GB1903234.1 is
excluded under section 1(2)(c)

HEARING OFFICER H Jones

DECISION

Background

- 1 Patent application GB1903234.1 relates to the generation, distribution, tracking and redemption of lottery tickets in a lottery system. It was filed on 8 March 2019, and a first examination report was issued in March 2022.
- 2 The examiner has maintained throughout examination of the application that the claimed invention is excluded from patentability under section 1(2) of the Act, either as being a program for a computer or a method for doing business. The applicant disagrees with this view, arguing that the advantages of the claimed invention are clearly technical and that the invention should therefore be found to comply with section 1(2).
- 3 The examiner twice offered a hearing. Even though the applicant did not take up these offers, the application was forwarded for a hearing in accordance with the practice of the Office when an impasse has been reached. The examiner issued a comprehensive letter on 15 March 2023 setting out the issues to be decided and a summary of the objections. The applicant responded to this letter on 31 March 2023, indicating that they were content for a decision to be made on the basis of the correspondence on file as well as further setting out their arguments.
- 4 Accordingly, the application has come to me for a decision. I have considered the contents of the above letters, as well as all previous letters and reports on the file.

The invention

- 5 The invention relates to a method and systems for generating digital lottery tickets, using various computers which function and communicate with each other to implement issuing and management of transactions relating to digital lottery tickets. The computers include a customer device, a point-of-sale (POS) terminal, an issuer terminal, and a Transaction Certification Authority (TCA) server with a Publicly viewable Transaction Ledger (PTL).

- 6 A series of messages is exchanged between the computers using standard techniques, which result in providing a digital ticket number and transaction ID to the consumer device, and storage on the PTL of information relating to the transaction and the digital ticket using blockchain technologies.
- 7 There are independent claims directed towards a method of generating a digital lottery ticket (claim 1), a system for generating digital lottery tickets (claim 8) and a system ... for generation and validation of digital lottery tickets (claim 9). Even though the claims are in different categories, they relate to the same subject-matter and will stand or fall together. The claims recite a relatively lengthy list of the communications between the computers. Although not immediately apparent from a reading of the claims, the applicant has argued that the communications produce the advantages of a more robust and tamper-resistant digital lottery system. The examiner has accepted that these advantages exist, and I see no reason to doubt it. Since the arguments turn on these advantages, rather than the precise communications that give rise to them, I will not recite the claims here.

The law

- 8 The relevant legal provision is section 1(2) of the Patents Act 1977, which says that certain things cannot be protected by a patent.

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

- (a) a discovery, scientific theory or mathematical method;*
- (b) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever;*
- (c) a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer;*
- (d) the presentation of information;*

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

- 9 There is well-established case-law providing guidance on determining whether an invention falls within this exclusion. *In Aerotel Ltd v Telco Holdings Ltd & Ors*¹ the Court of Appeal set out the following four-step test for determining whether a proposed invention is excluded under section 1(2):

- 1) properly construe the claims;
- 2) identify the actual or alleged contribution;
- 3) ask whether it falls solely within the excluded subject-matter;
- 4) check whether the actual or alleged contribution is actually technical in nature.

- 10 The examiner has also made reference to *Merrill Lynch's Application*² which discusses the scope of the business method exclusion, and *Halliburton Energy*

¹ [2006] EWCA Civ 1371

² [1989] RPC 561

*Services Inc's Applications*³, which discusses the relationship between the computer program and business method exclusions.

- 11 At page 569 of *Merrill Lynch*, Fox LJ explained that a method of doing business is excluded even though it may be an improvement on previous methods:

'Now let it be supposed that claim 1 can be regarded as producing a new result in the form of a technical contribution to the prior art. That result, whatever the technical advance may be, is simply the production of a trading system. It is a data-processing system for doing a specific business, that is to say, making a trading market in securities. The end result, therefore, is simply "a method of doing business", and is excluded by section 1(2)(c). The fact that the method of doing business may be an improvement on previous methods of doing business does not seem to me to be material. The prohibition in section 1(2)(c) is generic; qualitative considerations do not enter into the matter. The section draws no distinction between the method by which the mode of doing business is achieved. If what is produced in the end is itself an item excluded from patentability by section 1(2), the matter can go no further.'

- 12 In *Halliburton*, HHJ Birss (as he then was) set out at paragraph 35 that implementing a business method on a computer does not in itself make any technical contribution:

'The business method cases can be tricky to analyse by just asking whether the invention has a technical effect or makes a technical contribution. The reason is that computers are self evidently technical in nature. Thus when a business method is implemented on a computer, the patentee has a rich vein of arguments to deploy in seeking to contend that his invention gives rise to a technical effect or makes a technical contribution. For example the computer is said to be a faster, more efficient computerized book keeper than before and surely, says the patentee, that is a technical effect or technical advance. And so it is, in a way, but the law has resolutely sought to hold the line at excluding such things from patents.'

- 13 The examiner has based his analysis on *Aerotel*. He has also made appropriate reference to *Merrill Lynch* and *Halliburton*. I agree that this is the relevant law and note that the applicant has not commented on this, which I take to mean that there is no disagreement on this point.

Arguments and analysis

- 14 I will assess whether the invention is excluded under section 1(2)(c) in accordance with the guidance from *Aerotel*.
- 15 Construction of the claim does not appear to be contentious, so I will not address it here.
- 16 The examiner has proposed an assessment of the contribution which emphasises that the computers, blockchain technologies, and communication/security protocols are conventional, and identifying the benefit argued during examination that the identities of the POS terminal and customer terminal (sic) may be used to identify fraudulent behaviour (as set out at paragraph 15 of the examination report dated 11

³ [2012] RPC 129

March 2022). In short, the technical benefits referenced are those advantages inherent in the use of blockchain in the implementation of a lottery system.

- 17 The applicant has not proposed a different contribution, but instead argues that the invention involves different hardware compared to what has gone before, specifically, the presence of an issuer terminal and POS device as intermediaries between the blockchain and the customer device. This results in different records, which are argued to be more resistant to tampering.
- 18 I will therefore accept the examiner's assessment of the contribution, noting that while the computers and protocols used are all conventional, the specific claimed communications between the computers gives rise to the mentioned security benefit.
- 19 The contribution therefore lies in conventional computers communicating using specific messages to generate a digital lottery ticket, such that the integrity of the record held in the blockchain is improved, and it is made more tamper-resistant.
- 20 The applicant argues that improving the integrity and tamper resistance of the records is a technical advantage. I have carefully considered these arguments, but I cannot agree. The improvement lies in the tamper resistance of a digital lottery system. This is a business objective of a business method, but is not technical. It is clear from *Merrill Lynch and Halliburton* that the fact that the business method is improved and is embodied in a program for a computer, does not in itself take it outside the exclusion of a method of doing business as such, or make it technical. This business method is embodied not in a new arrangement of hardware, but in a program which causes conventional computers, communicating in conventional ways, to achieve a result specific to the program: it is an improved program for a computer, not an improved computer. There is no technical contribution in the way the programmed computers work, merely an improved business method.
- 21 The contribution lies solely in a method of doing business as such, embodied in a program for a computer as such, and so it is excluded from patentability by section 1(2)(c) as a method for doing business as such.

Conclusion

- 22 The application is refused under section 18(3) because the application relates to subject-matter excluded from patentability under section 1(2)(c).

Appeal

- 23 Any appeal must be lodged within 28 days after the date of this decision.

Huw Jones

Deputy Director, acting for the Comptroller