Intellectual Property Office

BL O/402/17
25 August 2017

PATENTS ACT 1977

APPLICANT	Appa Music Group UG
ISSUE	Whether patent application GB1319727.2 complies with sections 1(1)(b), 1(2)(c), 14(5)(b) and 76
HEARING OFFICER	H Jones

DECISION

Introduction

1 This decision is concerned with the question of whether the invention set out in patent application GB1319727.2 satisfies various requirements for grant of a patent as set out in the Act, namely whether it involves an inventive step, whether it relates to excluded matter, whether amendments made to the application have added subject-matter beyond that contained in the application as filed and whether the claims define the scope of protection in a clear and concise manner.

2 The applicant filed amended claims on 22 August 2016 with the aim of at least clarifying the scope of the claims, explaining in the accompanying letter that much of the imprecision could be attributed to errors in translation and ambiguities that had arisen during translation of the claims from the original German language text. At the same time, an oral hearing was requested to deal with the remaining matters, and this hearing was eventually held on 24 July 2017 at which Mr Marcus Cavalier of Minerva IP Consultancy Ltd represented the applicant. The matters to be decided were set out in the examiner's pre-examination report dated 16 March 2017.

The invention

3 The application is titled "Systems and methods for providing multimedia content within an application and a security solution integrated therein". It was filed on 8 November 2013 with a claim to priority from a German patent application filed on 9 November 2012.

4 The claims as they currently stand relate to a system for distribution and "acoustic playback" of a plurality of music albums. The system is described as taking the form of an app for running on various electronic output devices such as a smartphone, a tablet computer, a television or a dedicated app album player. Music albums are downloaded within the app environment and can be played back on the output device. The music albums can contain not only music files but also related album cover information, picture and video files, lyrics, links to other relevant content (e.g. merchandise, social media, artist interviews etc.) and so on, and the app provides a user interface for viewing/interacting with this additional data. Music and video data

that requires protecting from illegal distribution is downloaded to the output device in encrypted form and stored in an area of memory referred to as a “media safe”; unprotected data, such as social media content, metadata relating to the artist/album and links to external websites, is not encrypted and is stored in a separate area of memory or under a different directory structure. The output device transmits authentication data to a remote app album server (e.g. via an encrypted https network connection) and receives in return a decryption key that allows the protected data to be played back or viewed on the output device. The app allows music albums to be displayed as a “virtual CD rack” and allows the user to vary display settings such that albums are grouped together per artist or by a particular genre of music.

5 The latest set of claims filed on 22 August 2016 has one independent claim, claim 1, which is set out below. There is also a method claim, claim 14, framed as a method of storing and executing a plurality of storage, treatment and control means according to claim 1.

> 1. A system for distribution and acoustic playback of a plurality of music albums;
>
> wherein each music album comprises a plurality of digital files and multimedia content in the form of at least one multimedia file assignable to the music files and multimedia files;
>
> wherein the music files and multimedia files are provided as data sets for downloading as music albums in a data memory of an end-user device;
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> the system comprising:
>
> the end-user device;
>
> a server device;
>
> storage means;
>
> treatment means;
>
> control means for comparison of authorisation data stored on the server device and by the treatment means;
>
> wherein by means of the storage means, music files belonging to a first album are stored in a first container in the data memory of the end-user device and music files belonging to a second album are stored in a second container in the data memory of the end-user device, wherein the first and second containers are temporarily encrypted;
>
> wherein the control means transmits the authorisation data by means of a transmitting device of the end-user device to the server device and wherein after the comparison of the authorisation data, a decryption key transmitted from the server device to decrypt a respective on of the encrypted containers and stored by the storage means is processed by the control means;
> wherein by means of the treatment means, the respective one of the containers is decrypted with the decryption key, wherein each of the containers can be

decrypted individually, and where in at least one of the music files in the decrypted container is treated by the treatment means in dependency on the comparison of the authorisation data with the data stored on the server device, so the treated music file is transferred to an output device of the end-user device;

wherein the decrypted music file and/or additional multimedia files consist of a plurality of data sets, which are provided together with a plurality of groups of displayable designations;

wherein each one of a first group of the designations respectively refers to a respective one of the plurality of data sets and corresponds to the designation of the digital medium of the respective one of the plurality of data sets; and

a second group of the designations reflects a common feature of a plurality of data sets belonging to specific album.

The law

6 The relevant provisions in relation to inventive step are sections 1(1)(b) and section 3, which state:

> *1(1). A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say -*
>
> *(a) …*
> *(b) it involves an inventive step;*
> *(c) …*
>
> *3 An invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms part of the state of the art by virtue only of section 2(2) above (and disregarding section 2(3) above).*

7 "Matter which forms part of the state of the art by virtue only of section 2(2)" is everything that was made available to the public before the priority date of the application in question.

8 The Court of Appeal in the case of *Windsurfing*[1] formulated a four-step approach for assessing whether an invention involves an inventive step. This approach was restated and elaborated upon by that Court in *Pozzoli*[2], as follows:

> *(1)(a) Identify the notional "person skilled in the art";*
> *(1)(b) Identify the relevant common general knowledge of that person;*
> *(2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;*
> *(3) Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed;*
> *(4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?*

[1] Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd, [1985] RPC 49
[2] Pozzoli SPA v BDMO SA [2007] EWCA Civ 588

9 Section 1(2) of the acts states that an invention is not patentable if it relates to one or more categories of excluded matter:

> *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) 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 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 examiner considers that that invention relates a program for a computer and/or a business method and therefore it is not patentable by virtue of section 1(2)(c). The provisions of section 1(2) were considered by the Court of Appeal in *Aerotel*[3], in which a four-step test was laid down to decide whether a claimed invention is patentable:

1) properly construe the claim;
2) identify the actual 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.

11 Lewison J in *AT&T/CVON*[4] set out five signposts ("the *AT&T* signposts") that he considered to be helpful when considering whether a computer program makes a technical contribution. Lewison LJ reconsidered the signposts in *HTC/Apple*[5] in light of the decision in *Gemstar* [6]. The signposts are:

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.

12 Sections 14(5) and 76 of the Act set out requirements for clarity and conciseness of claims and that no subject-matter should be added to an application after the filing date:

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[3] Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application [2006] EWCA Civ 1371
[4] AT&T Knowledge Venture/CVON Innovations v Comptroller General of Patents [2009] EWHC 343 (Pat)
[5] HTC Europe Co Ltd v Apple Inc [2013] EWCA Civ 451
[6] Gemstar-TV Guide International Inc v Virgin Media Ltd [2010] RPC 10

14(5). The claim or claims shall -

(a) define the matter for which the applicant seeks protection;
(b) be clear and concise;
(c) be supported by the description; and
(d) relate to one invention or to a group of inventions which are so linked as to form a single inventive concept.

76. No amendment of an application for a patent shall be allowed under section 15A(6), 18(3) or 19(1) if it results in the application disclosing matter extending beyond that disclosed in the application as filed.

13 I shall turn first to the questions of whether the claims define the matter for which the applicant seeks protection in a clear and concise manner and whether subject-matter has been added by amendment of the application after the filing date.

The claimed invention: clarity and added matter

14 Claim 1 defines a system for distribution and playback of music albums wherein each music album comprises a plurality of music and multimedia files stored on an end-user device. The system comprises the end-user device, a server device, a storage means and a treatment means. Music albums are stored in the storage means of the end-user device and are temporarily encrypted. The control means is required to transmit authorisation data by means of a transmitting device of the end-user device to the server device and after comparison of the authorisation data, a decryption key is sent from the server device to decrypt the respective music album files stored in the end-user device. Claim 1 also requires that the control means compares the "authorisation data stored on the server device and by the treatment means", which seems inconsistent with what is said above and is the reason for the examiner's objection to lack of clarity. Mr Cavalier accepted this at the hearing, explaining that in the process of amending the claims, the original claim 4 had now been subsumed into claim 1 and the consistency of wording had not been checked. He confirmed that the control means transfers authorisation data to the server where it is compared and, if successful, i.e. it matches with data held on the server, a decryption key is returned to the control means, which then passes it to the treatment means for decrypting the music files.

15 The treatment means is required to decrypt the encrypted music files with the decryption key based on the comparison of authorisation data with data stored on the server device so that the "treated" music, i.e. the decrypted music, is transferred for playback on an output device of the end-user device. The decrypted file is said to include a plurality of groups of displayable designations, comprising a first group corresponding to the designation of individual files and a second group reflecting a common feature of a plurality of individual files associated with an album. The examiner argues that the first group of designators (corresponding to designation of individual files) was limited only to the title of the respective music file in the claims as originally filed and that removing reference to the title of the respective music file has added subject-matter to the application. Mr Cavalier explained that this difference can be explained by the poor translation of the original specification from the German language priority application and said that some of the original meaning had become lost. He pointed me to paragraph 18 of the specification which suggests that the title of the music file is only a preferred option for the first group of designations and that other designators are possible. Having read this passage in

the light of Mr Cavalier's explanation, I accept that such an interpretation can indeed be made.

Inventive step

16 In his arguments on inventive step leading up to the hearing, the examiner had characterised the difference between the inventive concept of the application and the state of the art as being the ability to designate music files using a first set of designators relating to the title of each individual piece of music and using a second set of designators relating to a common feature of the individual music pieces, such as the album title. Mr Cavalier accepted that such a distinction between the invention and the prior art would not involve an inventive step, but then sought to identify other aspects of the claimed invention that did distinguish it from the prior art which the examiner had not appreciated.

17 Mr Cavalier referred to paragraph 6 of the application which sets out the context in which the invention was made, in particular where it describes advantages of storing protected music data in the internet or in the cloud as opposed to storing it locally on end-user devices, thus preventing illegal distribution, and the disadvantages that such a solution offers in needing a permanent data connection in order to play music from the cloud and reducing the operating time of mobile devices. Paragraph 10 of the application describes the solution offered by the present invention whereby encrypted music files are downloaded onto the end-user device as opposed to being streamed from the cloud, and that music can only be played with proper authorisation. Music files are stored in encrypted form on the user device, thus preventing illegal copying and distribution of data held on the device.

18 Referring to paragraph 13 of the application, Mr Cavalier explained that the decryption key can be kept online, i.e. on the server device, or can be generated and stored on the end-user device (cf paragraph 13: "…it is conceivable that the decryption key is generated by the system respectively the control software locally on the end-user-device or by combining the system respectively the control software and the server device or only on the server device"). He said that a particular benefit of generating/storing the decryption key on the end-user device is that the user would not need to maintain a permanent connection with the server in order to decrypt music files stored locally. He suggested that this was the disadvantage of maintaining a data connection being referred to in paragraph 6 and that he could clarify this by amendment if necessary.

19 I do not agree that the data connection problem referred to at paragraph 6 of the application relates to the transfer of decryption keys in the way suggested by Mr Cavalier, and I can find no other support for the suggestion that it would be advantageous to generate the decryption key in what Mr Cavalier described as an "offline" mode, i.e. without access to a data connection to a remote server. What the description at paragraph 13 appears to be saying is that it may be possible to have the decryption key generated within the end-user device instead of the server device, but this does not remove the requirement for a network connection between the two elements in order for the key to be created in the first place. The description at paragraphs 147 to 150 all refer to music files being treatable by a treatment means in dependence upon authorisation. It does not appear to matter where the decryption key is generated but it does appear essential that decryption takes place after the authorisation step, and that authorisation takes place at a remote server. Paragraph

127 refers to figure 10a of the specification as showing how an inventive method "preferably communicates with a high-availability system over the Internet." There is nothing in the description that explains how the system operates in an "offline" mode without access to the remote authentication server.

20 The first step of the *Windsurfing/Pozzoli* test requires me to identify the skilled person and his common general knowledge. The examiner has indicated that the skilled person is an application programmer with a basic knowledge of playback and digital rights management together with online distribution. He says that the skilled person would be familiar with association of metadata with particular media as generally used by media players and file managers at the priority date of the application. Mr Cavalier does not challenge this assertion.

21 From my assessment of the claimed invention set out above and the submissions made by Mr Cavalier at the hearing, I consider that the inventive concept of claim 1 is a computer system allowing music and other media files to be played on an end-user device whereby the music and media files are stored in encrypted form on the end-user device and are decrypted prior to playback after authorisation with a remote server. In order to improve accessibility of the music and media files on the end user device, the files can be associated with various tags or designators to help in searching and filtering particular files, which Mr Cavalier concedes would not of itself provide an inventive step over the prior art.

22 The examiner has cited two documents as forming part of the state of the art, namely WO2009/049352 A1 ("D1") and EP2587756 A1 ("D2").

23 D1 describes a system for distributing digital content (e.g. audio, video, books and audio books) to customers for playback on an end-user device. The end-user device is in communication with a remote control centre (server) through a communication network. A user purchases content from the server and this is downloaded as an encrypted file to the end-user device together with an encrypted session file. The session file may be encrypted with a different encryption key to that of the content. Figures 5 and 6 describe the process involved in allowing content to be played on the end-user devices, which requires an authorisation request to be sent from the end-user device to a remote server, for the server to verify the user's entitlement to play that particular item of content and then for the server to issue the necessary decryption key. Decryption of the content file occurs in the end-user device.

24 D2 describes a similar system. Media content is encrypted and downloaded to an end-user device. In order to play the content, the user requires a decryption key from the remote server and this will be sent to the end-user device if it is entitled to play the content; the user device authenticates to the server and in return receives a decryption key. At paragraph [0048] of the specification it says that a permanent link to the server is not required since only a short connection to receive the key is needed at the start of the playback. Paragraph [0049] describes the situation when no connection with the authorisation server is available. In this instance the keys are generated at the time of the download and can be valid for a period of time until they need to be re-validated, within which time a connection with the authorisation server can be re-established.

25 I see no difference between the systems disclosed in D1 and D2 other than the use of designators to identify the data sets or albums that have been downloaded, which Mr Cavalier concedes would not involve an inventive step. Mr Cavalier suggests that a further difference between the applicant's invention and the systems disclosed in D1 and D2 is that the control means and the treatment means are integral parts of the claimed systems for distribution and playback of music albums and he refers to paragraphs 10 and 11 of the description as originally filed for support. What I understand from these parts of the description is that content is stored in encrypted form in a particular area on the end-user device and that decryption of the content is not possible outside of the system. This is disclosed in D1 and D2. I therefore find that claim 1 lacks the required inventive step. Claim 14, which defines a method of storing and executing a plurality of storage, treatment and control means, also lacks an inventive step.

26 The examiner has argued that all of the features disclosed in the remaining claims would have been obvious to the skilled person. Mr Cavalier did not challenge these objections at the hearing, his focus being on identifying the other differences he considered there to be between the invention set out in claims 1 and 14 and the prior art. I agree with the examiner that the features set out in the remaining claims would have been regarded as trivial by the skilled person at the priority date of the application and that these claims also lack an inventive step.

Excluded matter

27 The examiner has also raised an objection that the claimed invention is excluded as either a computer program or a business method. In view of my earlier finding on inventive step, I do not consider it necessary to dwell too long on this point. I have assessed the scope of the claim and the inventive concept above. The contribution appears to be the use of designators associated with a multimedia content file in a system for downloading content from a remote server in order to aid the searching and filtering of particular files. The system operates on a computer network and is implemented by a computer program, which places the contribution firmly in a category of subject-matter excluded by section 1(2). In my view, the use of designators to assist identify files and to group music content does not provide a technical contribution.

28 Mr Cavalier challenges the examiner's assessment of the contribution made by the invention by referring to the "offline" mode of operation and the fact that it is not necessary to rely on a "high energy" (cf paragraph 6 of the application) connection between the end-user device and the authorisation server. He argues that these aspects of the invention provide technical benefits that make the computer system patentable. However, I have already found that the application does not support the "offline" mode of operation described by Mr Cavalier, therefore the invention remains solely within excluded subject-matter.

Conclusion

29 The claimed invention lacks an inventive step as required by section 1(1)(b) and relates to subject matter excluded by section 1(2) of the Act. I have found that claim 1 does not add subject matter beyond that contained in the application as filed and that the scope of the invention defined by claim 1 is unclear. I therefore refuse the application under section 18(3).

Appeal

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

H JONES
Deputy Director, acting for the Comptroller