Intellectual Property Office

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PATENTS ACT 1977

APPLICANT	Lenovo (Singapore) Pte. Ltd
ISSUE	Whether application GB 1519157.0 complies with Section 1(2) of the Patents Act 1977
HEARING OFFICER	Dr Stephen Brown

DECISION

Introduction

1 Patent Application GB1519157.0 was filed on 29th October 2015 claiming a priority date of 30th October 2014 from an earlier US application. It was published as GB 2534444 A on 27th July 2016. Despite several rounds of amendment the applicant has been unable to convince the Examiner that the application is not excluded under Section 1(2) of the Act. The applicant thus requested a hearing to resolve the matter.

2 This took place on 4th March 2019 by phone. The applicant was represented by Thomas Leffers of Schweiger and partners. I was assisted by Mr Nigel Hanley and the Examiner, Dr Fraser Stewart, attended.

Section 20

3 The compliance date for this application is 30th April 2019. As I explained at the hearing, I will exercise my discretion to allow an extension if one is required.

The Application

4 People today store digital information in many places, including a wide variety of local devices and also remote locations such as 'the cloud'. Also, when using remote storage users can access the same information from multiple devices as long as they enter the required authentication details. This variety results in people using many different devices, programmes and interfaces to access and manage their data.

5 The current patent application addresses this issue by providing an aggregating service which can connect multiple local devices, remote devices and cloud services.

The user can tailor their access to their information by the type of information, rather than by its location. For example, a user could authenticate to the aggregation service on their smartphone then request access to a photo on their Home PC.

The Claims

6 The current claims were filed on 10th September 2018 and comprise two independent claims directed, respectively, to a method and a device. Claim 1 reads:

A method, comprising:

> *Sending, from a device, input from a user requesting access to data retrievable by an aggregate service device;*
>
> *Sending, from the device, input from a user selecting, from the aggregate service device, a selection of data;*
>
> *and sending from the device a distribution command to the aggregate service device;*
>
> *wherein the distribution command comprises information related to distributing a pointer indicating the selection of data;*
>
> *wherein the aggregate service device distributes the pointer according to the distribution command; and*
>
> *wherein the data retrievable from the aggregate service device is retrieved from a device selected from the group consisting of: a remote device, a cloud storage device, a removable storage device and a local device.*

Claim 9 reads:

A device, comprising:

> *A processor;*
>
> *A memory device that stores instructions executable by the processor to:*
>
> *Send input from a user requesting access to data retrievable by an aggregate service device;*
>
> *Send input from the user selecting, from the aggregate service device, a selection of data; and*
>
> *Send a distribution command to the aggregate service device;*
>
> *Wherein the distribution command comprises information related to distributing a pointer indicating the selection of data;*

Wherein the aggregate service device distributes the pointer according to the distribution command; and

Wherein the data retrievable from the aggregate service device is retrieved from a device selected from the group consisting of: a remote device, a cloud storage device, a removable storage device and a local device.

The Law

7 Section 1(2) of the Patents Act 1977 reads:

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

8 In order to decide whether an invention relates to subject matter excluded by Section 1(2), the Court of Appeal has said that the issue must be decided by answering the question of whether the invention reveals a technical contribution to the state of the art. The Court of Appeal in *Aerotel/Macrossan*[1] set out the following four-step approach to help decide the issue:

> 1) Properly construe the claim;
>
> 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.

9 The operation of the approach 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 47 adds that a contribution which consists solely of excluded matter will not count as a technical contribution.

[1] Aerotel Ltd v Telco Holdings Ltd (and others) and Macrossan's Application [2006] EWCA Civ 1371

10 The case law on computer implemented inventions has been further elaborated in *AT&T/CVON*[2] which provided five helpful signposts to apply when considering whether a computer program makes a relevant technical contribution. In *HTC v Apple*[3], Lewison LJ reconsidered the fourth of these signposts and felt that it had been expressed too restrictively. 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 make the computer a better computer in the sense of running more efficiently and effectively as a computer; and

v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.

Analysis

11 I can see no issues of plurality so it follows that my analysis will apply to both independent claims mutatis mutandis.

12 The first step in applying the *Aerotel* test is to construe the claims. Whilst I believe the meaning of the claims is fairly clear, I will take some care in defining certain key terms.

13 Firstly, the claim refers to an "*aggregate service device*". Paragraph 0048 of the description states that this may be an "Information Handling Device" including the circuitry represented by Fig.1 or Fig.2. According to paragraph 0038, Fig.1 relates to smart phone or tablet circuitry suitable for acting as such a device. Whereas, from paragraph 0041, Fig.2 corresponds to PC circuitry, such as the 'THINKPAD' series sold by the applicants' parent company. From this, I believe that it is clear that the aggregate service device is a physical device. Furthermore, the disclosures mentioned above strongly imply that it is a known physical device. During the hearing Mr Leffers argued that it could also be some form of server, offering at one point to amend the claims accordingly. The aggregate service device is then connected to a number of other known devices and services. On this basis I am content to take the view that the aggregate service device is a computer system in its

[2] AT&T Knowledge Ventures LP and CVON Innovations Limited v Comptroller General of Patents [2009] EWHC 343

[3] HTC v Apple [2013] EWCA Civ 451

own right, probably acting as a server, that is connected to other devices and services.

14 Next, the claim refers to a "*distribution command*". Paragraph 0057 of the description discloses that this is a command that tells the aggregate service device where to send the selected data in the form of a pointer. According to paragraph 0058 possible destinations for the 'pointer' may be social media or linked to an email, a text message or a blog post. Further embodiments are set out in paragraphs 0059-0061. I thus construe the "distribution command" to be an instruction to the system of where to send the data.

15 Thirdly, what is meant by the term "*pointer*"? From paragraph 0057, again, this is either a link to the required data, the storage location of the data, the data itself or a copy thereof. In general though it is effectively information enabling the required data to be retrieved from one of the devices attached to the aggregate service device. I note that beyond this no detail is provided as to the structure of the pointer or how it functions. On this basis it could be little more than a URL or simply a copy of the data itself.

16 Finally, I think it is also important to consider what is meant by "*selecting*, from the aggregate selection device, *a selection of data*". Paragraph 0047 of the description states that Fig.3 represents an example user interface of the aggregate service. This allows the user to see the storage devices attached to the aggregate service and select the files and data thereon. To all intents and purposes, it is effectively a graphical display of a file storage system, something that I believe would be familiar to users of conventional computer systems.

17 I thus construe the claims to relate to: a user sending a request to access data retrievable by an aggregate service device, selecting the data they want to retrieve, and then sending a distribution command which causes the aggregate service device to suitably distribute information enabling the required data to be retrieved from attached devices.

18 The second step of the *Aerotel* test is to identify the contribution. During the examination process the Examiner argued that both networking and the sending of pointers is well known and thus should not be considered part of the contribution. Unsurprisingly, Mr. Leffers disagreed with this view and emphasised that the claim should be considered as a whole and not "cut into pieces". He also argued that you need to look at the problems the method seeks to overcome. On this point, he made much of the ability of the invention to allow low capacity devices to access data stored in other locations and how it resolved the security issues of accessing stored data using tokens.

19 Mr. Leffers thus stated that he saw the contribution as:

> *The hardware configuration of a user device and a remote device, a cloud storage device, a removable storage device or a local device is extended by an aggregate service device, which receives a distribution command from the user device and distributes data from the remote device, the cloud storage device, the removable storage device or the local device, according to the distribution command.*

20 Mr. Leffers is of course correct when he states that I must consider the claim "as a whole" and equally that I should be guided by substance rather than form. With these points in mind, I identify the contribution to be:

> *Sending a request to access data retrievable by an aggregate service device, selecting the required data, and then sending a distribution command which causes the aggregate service device to suitably distribute information enabling the required data to be retrieved from attached devices or services.*

21 The third step of the *Aerotel* test is to ask whether the contribution lies within one or more excluded areas. Mr. Leffers argued that it does not as it is a new arrangement of equipment. I am afraid that I am not convinced on this point. As discussed above in paragraph 13, I have concluded that the aggregate service device is a known computing device, probably acting as a server, connected to a number of other known devices and services. I do not think that such an arrangement can be said to be new. Indeed, it would appear to be little more than a standard network file system albeit in this case with a specifically designated purpose. The prior art identified by the Examiner, US 2007/0260628, would appear to reinforce this assessment. It discloses a similar arrangement of equipment where a virtual database is created which connects with multiple data sources. The aggregate service device may have a specific purpose but I believe something more is needed. To borrow from the language of *Aerotel*, the aggregate service device is not a *special exchange* which is what I think Mr. Leffers would have me believe.

22 I think it is telling that I can see no technical details of how the links to the storage devices are handled or managed in the description. Similarly, while the description refers to authenticating access to a plurality of cloud storage systems (paragraph 0028), the comments appear to be at the administrative level without any technical details of how it is to be achieved.

23 At the hearing, Mr. Leffers disclosed that one of the advantages of the proposed system was that low capacity devices, such as smartphones, could access large amounts of data. While this may indeed be facilitated by the invention, I note that it is not its stated primary purpose. Neither has it been explicitly claimed. I thus do not think that such a *possibility* adds anything relevant to my analysis at this point.

24 So, if the contribution is not a new arrangement of equipment then what is it? To my mind it is clearly a computer program running on known hardware. Referring to figure 3 of the application I note that the aggregate service device may feature a file manager interface that utilises a folder structure. This interface is, I believe, a key representation of what the applicants have really added to the stock of human knowledge – namely providing a tool allowing a user to access their data irrespective of where it is physically located. However, I conclude that it is clear that this advance is provided by the software that runs on the aggregated service device rather than the device itself.

25 The next question is thus: is this contribution merely a program for a computer as such? To help answer this question I will now turn to the updated *AT&T* signposts. At the hearing, Mr. Leffers chose to address only two of these, specifically signpost 3 and signpost 5.

26 Signpost 3 asks whether the claimed technical effect results in the computer being made to operate in a new way. In this case I do not believe that it does. As discussed above, the equipment is all known, with the aggregate service device itself being a standard computing device. I can thus see nothing in the application that indicates that the computer itself is operating in a new way.

27 Signpost 5 asks whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented. At the hearing, Mr. Leffers directed me to several areas of the specification to indicate the problems the application sought to resolve. These included the difficulty in accessing cloud storage services with multiple identities and the issues, mentioned above, with low capacity devices, such as smart phones.

28 While these may indeed be technical problems, I am not convinced that the claimed invention actually solves them. As far as I can see the invention does not address how to improve cloud storage services, neither does it increase the data storage capacity of mobile devices. Rather it provides a way to get around these limitations using an intermediate piece of software that hides their drawbacks from the user. To me this is the very definition of circumvention. I also think it is telling that the description contains no technical details of how the software is able to achieve this. I thus conclude that the contribution does not meet signpost 5.

29 Overall, I am forced to conclude that the contribution falls solely within the program for a computer exclusion.

30 The final step of the *Aerotel* test is to check whether the contribution is technical in nature. Since I have decided that it does not have a technical effect beyond that of a program running on a standard computer it also fails this step of the test. I thus decide that the contribution is excluded as a program for a computer as such.

Decision

31 I have decided that the invention defined in the independent claims falls solely within matter excluded under Section 1(2) as a program for a computer as such. Having reviewed the application, I do not consider that any saving amendment is possible. I therefore refuse this application under section 18(3).

Appeal

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

Stephen Brown
Deputy Director, acting for the Comptroller