

**OPINION UNDER SECTION 74A**

Patent	EP 1229193 B1
Proprietor(s)	Bernard William Hanning
Exclusive Licensee	
Requester	Gallafents Ltd.
Observer(s)	Transport Trading Limited (TTL) and Transport for London (TfL) Serco Limited
Date Opinion issued	13 July 2017

**The request**

1. The comptroller has been requested by Gallafents Ltd. (“the requester”) to issue an opinion as to whether EP1229193 B1 (“the patent”) is infringed by the Santander Cycle App (“the App”) used by the London Cycle Hire Scheme (LCHS).
2. The request was received on 18 April 2017 and includes online press releases by Transport for London (TfL) from May 2015 about the launch of the App and screen shots from Apple App Store which include screen shots of the App itself in use. Photographs of the physical apparatus of the bicycle hire scheme which with the App is used were also provided.

**Observations**

3. Separate sets of observations were received from Transport Trading Limited (TTL) and Transport for London (TfL) (“observer 1”) and from Serco Limited (“observer 2”) on 16 May 2017.
4. Observations in reply addressing issues raised by both observers were received on 1 June 2017.

**The patent**

5. The patent, EP 1229193 B1, is titled “Controlled access systems”. It has a filing date of 5<sup>th</sup> February 2002, priority date of 5<sup>th</sup> February 2001 and was published on 7<sup>th</sup> August 2002. The patent was granted on 31<sup>st</sup> August 2005 and is still in force in the UK.
6. The patent is concerned with a controlled access system which allows multiple users intermittent access to movable objects and is embodied as a bicycle hire scheme. Figure 1 is reproduced below. In its simplest variant a person wishing to hire a bicycle 2 arrives at a bicycling locking station 1 to which said bicycle is attached. Said person

contacts the operating authority 3 using their mobile phone and provides details pertaining to the bicycle and the locking station 6. The user is provided with a code which can be input into the locking station to release said bicycle. In an alternative variant the bicycles are provided with identification tags which are plugged into an appropriate receptacle at the locking station. Provision of code releases the tag from the docking station.

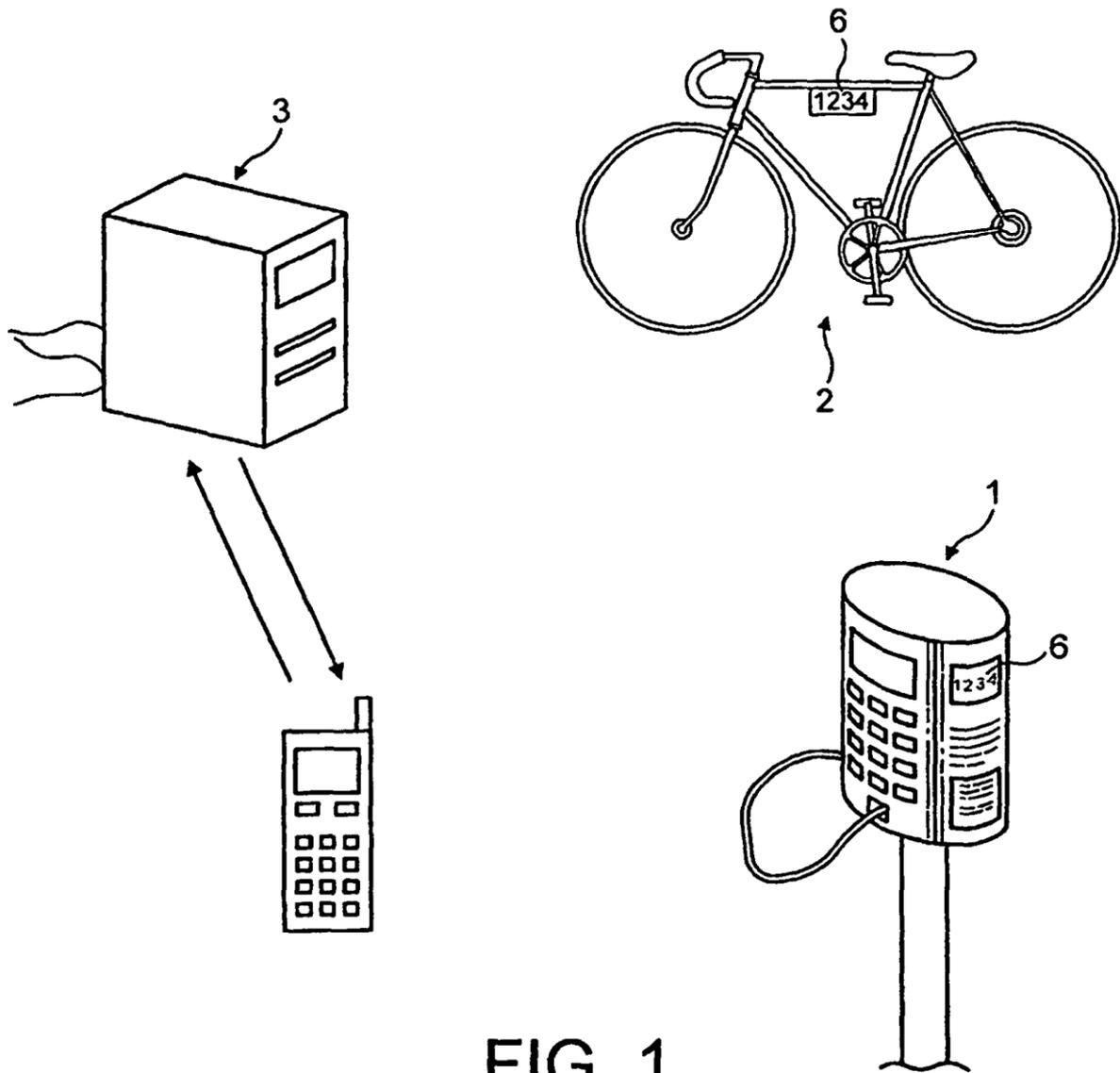


FIG. 1

7. The patent has 6 claims, including a single independent claim, claim 1. Claim 1 reads:

*A multiple access user system for providing intermittent availability to users of movable items, the system comprising:*

- a plurality of spaced apart item-securing devices (1) each such device comprising a unique identifier (6) associated therewith,
- means to lock a normally movable item (2) physically to the item-securing device,
- means to release an item (2) locked to the item securing device (1), and

- a central monitoring and control system (3) adapted to receive signals from a user (4) and, in dependence on the signals received, transmit data enabling a selected one of the item securing devices (1) to be switched between the locked and unlocked conditions, characterised in that the central monitoring and control system (3) is adapted to receive signals via a mobile telephone system from individual mobile telephone units located with each user and to transmit to the user, via the mobile telephone system, the data enabling the user to unlock the item.

## The App

8. The LCHS is a bicycle hire scheme operating over inner London wherein users are able to hire bicycles from multiple locations over the city. There are numerous ways in which a user can hire a bicycle using the system; direct interaction with the onsite payment terminal, use of a membership key or the use of the Santander Cycle App. It is hiring by use of the Santander Cycle App that is the subject of this request.
9. The LCHS comprises docking stations at locations all over inner London. Each docking station comprises a payment terminal and multiple docking points into which individual bicycles are docked. Each docking point is provided with a three digit keypad for the release of said bicycle as shown in Annex B1 and an individual barcode as shown in Annexes B2 and B3.



10. The functioning of the App is best described by the press release of annexes A1-A3:

*“The new Santander Cycles App for Android and iOS smartphones is free to download for both members and casual users. In addition to viewing the nearest docking station and bike availability, the new App is able to send a “bike release” code straight to a user’s phone, which means they can hire a cycle without having to use the docking station terminal. All customers need to do is register with their bank card, use the App to “hire now” from a nearby docking station, and just tap the code into a docking station to release a bike for use.”*

## **Infringement**

11. Section 60 Patents Act 1977 governs what constitutes infringement of a patent; Section 60(1) reads:

*(1) Subject to the provisions of this section, a person infringes a patent for an invention if, but only if, while the patent is in force he does any of the following things in the United Kingdom in relation to the invention without the consent of the proprietor of the patent, that is to say-*

*(a) Where the invention is a product, he makes, disposes of, offers to dispose of, uses or imports the product or keeps it whether for disposal or otherwise;*

*(b) Where the invention is a process, he uses the process or he offers it for use in the United Kingdom when he knows, or it is obvious to a reasonable person in the circumstances, that its use there without the consent of the proprietor would be an infringement of the patent;*

*(c) Where the invention is a process, he disposes of, offers to dispose of, uses or imports any product obtained directly by means of that process or keeps any such product whether for disposal or otherwise.*

*(2) Subject to the following provisions of this section, a person (other than the proprietor of the patent) also infringes a patent for an invention if, while the patent is in force and without the consent of the proprietor, he supplies or offers to supply in the United Kingdom a person other than a licensee or other person entitled to work the invention with any of the means, relating to an essential element of the invention, for putting the invention into effect when he knows, or it is obvious to a reasonable person in the circumstances, that those means are suitable for putting, and are intended to put, the invention into effect in the United Kingdom.*

12. In order to decide whether there is any infringement of the Patent under section 60(1), I must first determine whether the App of the request has all the features set out in the claims of the Patent.
13. The requester has made no indication that indirect infringement under 60(2) is to be considered.

### **Claim construction and comparison of the App with claim 1**

14. In order to reach an opinion I will need to construe the claims of the Patent interpreting them in the light of the description and drawings as instructed by Section 125(1) and taking account of the Protocol to Article 69 of the EPC.
15. Firstly, I considered the man skilled in the art to be a person, or a team of persons, familiar with the design and manufacture of autonomous hire systems for mobile items i.e. hire systems which do not require human interaction other than from the intended user. This man would be familiar with the different mechanisms that allow items to be secured and released and how they interact with payment systems and the like.
16. There appears to be some disagreement between the requester and the observers with respect to how certain features of claim 1 should be construed. In order to construe claim 1 I think it is helpful to break down claim 1 into a number of features:

- (1a) a plurality of spaced apart item securing devices*  
*(1b) each device comprising a unique identifier associated therewith*  
*(2a) means to lock a normally moveable item physically to the item securing device*  
*(2b) means to release an item locked to the item securing device*  
*(3) a central monitoring and control system adapted to receive signals from a user and in dependence on the signals received, transmit data enabling a selected one of the item securing devices to be switched between the locked and unlocked conditions*  
*(4) the central monitoring and control system is adapted to receive signals via a mobile telephone system from individual mobile telephone units located with each user and to transmit to the user, via the mobile telephone system, the data enabling the user to unlock the item.*

17. I will take each feature of the claim in turn and decide whether that term requires particular consideration regarding construction and then decide whether the App exhibits that feature or not.
18. Feature (1a) is easy to construe as it is evident throughout the patent that the item securing devices are the features known as locking points to which the bicycles are secured. The Santander App has a plurality of spaced apart item securing devices known as docking points which equate to the item securing devices and it is therefore clear that feature (1a) is satisfied.
19. Whether feature (1b) is satisfied is more controversial. Annexes B2 and B3 clearly show how each docking point is provided with an individual barcode which the requester contends fall within the bounds of what is meant by the claim. Observer 1 contends that the barcodes the requester has identified are not unique identifiers in the context of the application and that they are provided for maintenance purposes only and do not form part of the system of hire. Observer 2 simply states that the LCHS system does not have unique identifiers.
20. So what does a unique identifier mean in the context of the patent and is it a requirement that the identifier play an active part of the system?
21. Paragraph [0007] discusses how the item securing devices may be active or passive. In the case where the securing devices are active they are provided with means to communicate with the central monitoring and control system, whereas passive securing devices do not have this communication capacity. It is further discussed in paragraph [0008] how in an active system the unique identification number associated with an item securing device may not necessarily be available to the user but in a passive system it is available. Paragraph [0016] further elaborates that when the securing device is of the active type the release code may be sent straight thereto which implies that the control system must know the identity of the securing device.
22. As previously discussed, the item securing devices equate to the locking stations of the embodiments described in the patent. Figure 1 shows how both the bicycle and the locking station bear a visible unique identity number 6, in this case a four digit number. Two embodiments are described. The first in paragraph [0018] wherein to hire a bicycle the user is required to supply the identity number of the bike and the

identity number of the locking station to the central control system. On receipt of both numbers the control system sends back a release code. Paragraph [0019] discusses an alternative system in which the identity of the bicycle does not need to be supplied as this is known from a tag associated with the bicycle. When the tag is inserted into the locking station the locking station may display a check number. When this check number is supplied to the central control system it is able to derive the identity of the locking station and the bicycle to which the tag is attached. This appears to imply that the locking station still has an identifier but it is not strictly visible to the user.

23. Based on these passages it is my opinion that the unique identifier associated with each locking station plays an active part in the system and therefore this aspect of claim 1 must be construed as such.
24. From the information supplied it is probable that each docking **station** of the LCHS has a unique identifier which plays an active part in the overall hiring system (even if that is merely its street address/GPS location). However, the actual docking **points** associated with each docking station which equate to the locking points in the patent, do not appear to have a unique identifier which plays an active part in the hiring system. It would appear that the unlocking code supplied to a user is associated with the docking station not the specific docking point.
25. It is clear that the barcodes shown in annexes B2 and B3 are unique identifiers for each docking point but are the unique identifiers in terms of claim 1 i.e. do they play an active part in the system? From the information supplied in the request, there is no evidence to support that these barcodes play an active part of the system.
26. Based on the information presented, I am therefore of the opinion that feature (1b) is not satisfied.
27. Moving on, features (2a) and (2b), means to lock and unlock an item to the item-securing device can be dealt with together, as these features in my mind are not difficult to construe. The securing wire shown in figure 1 and the tags discussed in paragraph [0019], clearly imply that these features should be construed to mean some sort of physical means to restrain the moveable item.
28. Although not shown in the photographs of the docking points supplied with the request, it is implicit that each must have some means for securing the bike thereto in order for the system to function. Features (2a) and (2b) are therefore satisfied.
29. Next we must consider feature (3), a central monitoring and control system adapted to receive signals from a user and in dependence on the signals received, transmit data enabling a selected one of the item securing devices to be switched between the locked and unlocked conditions.
30. The central monitoring and control system adapted to receive signals from a user via a communication channel is not difficult to construe this being the server with which the user communicates via their mobile telephone to perform a hiring transaction. The control system receives signals from the user via their mobile phone and based on the information supplied it is this server which transmits the data which enables locking and unlocking of the item securing devices, in this case a four digit code.

31. What is more contentious is how “**a selected one of the item securing devices**” should be construed. The requester is of the opinion that the term selected should be interpreted broadly and although in the embodied system the item securing device does use the unique identifier to facilitate this selection, this is only one approach for the systems operation. The observers on the other hand contend that this selection is intimately linked with the identity of the securing device and should therefore be construed as such.
32. In the context of what is discussed in paragraphs [0018] and [0021] of the patent I think this term must be construed as an extension of the unique identifier associated with the item securing device. A user selects the locking station that they want to use and using their mobile phone provides the identification of that locking station in order to facilitate the locking and unlocking process. In other words, the provision of the data which enables the locking and unlocking must be intrinsically linked to the item securing device that has been selected. The selection is an active part of the process by which the user is provided with the data enabling the transaction to move forward. Construing this feature more widely as suggested by the requester, would, I feel, be unjust.
33. On the basis of the information presented, it would seem that when using the Santander App the user selects a docking station but not a specific docking point. Although the user may have a specific docking point in mind, whether that be because the docked bicycle looks cleaner or perhaps is the only bicycle left at the docking station, the release code that is transmitted is not specific to that docking point. The transmission of data is not dependant on a specific docking point being selected.
34. I am therefore of the opinion that feature (3) is not satisfied.
35. Finally we must consider feature (4) the central monitoring and control system is adapted to receive signals via a mobile telephone system from individual mobile telephone units located with each user and to transmit to the user, via the mobile telephone system, the data enabling the user to unlock the item.
36. It is clear that a mobile phone communicates with a server in order for the system to function. The important bit about using the mobile phone appears to be the ease in which the system can identifier the user i.e. via the SIM card and thus facilitate billing, location fraud checks etc. Although the functional capability of mobile phones when the patent was filed in comparison to now are widely different, I don't think too much emphasis needs to be placed on this when construing this feature of the claim.
37. The crux of the mater appears to whether this feature of the claim should be construed to mean signals via a mobile telephone system or mobile telephone signals. Signals via mobile telephone system would mean any signals which are facilitated by a mobile telephone system an example of which would be wireless internet signals. Mobile telephone signals would be construed more narrowly as signals restricted to mobile telephony signals.
38. The patent envisages different possibilities for how the mobile phone interacts with the server, “Voice telephony”, SMS and voice recognition all being discussed. These all appear to fall within the bounds of what would be considered mobile telephony

signals. At paragraph [0009] online communication via the user's computer system and normal speech are highlighted as other possible means of facilitation. Although indicating that other possible ways of enabling the invention are possible, these means can not be considered to fall within the bounds of the claimed invention as they do not utilise a mobile device.

39. I don't think the patent goes into enough detail to infer that anything other than mobile telephony signals were envisaged and this in my opinion is how this feature of the claim should be construed.
40. It is evident that an Internet connection is required for the Santander App to function and both the requester and the observers seem to be in agreement on this. What is less clear is whether that connection must be a wireless internet connection or whether it may be a mobile internet connection. It would appear highly likely that the App is able to function and does in fact function via both type of connections.
41. The requester, in their observations in reply, has provided a plethora of literature regarding the history of mobile internet connections and the mechanisms via which these function. From these, it is my understanding that mobile internet connections function as part of the underlying telephony signal of the mobile device and that the development of the technology that facilitates this predates the patent. Following from this it would appear that when the Santander App utilises a mobile internet connection it uses mobile telephone signals to transmit the data between the user's mobile device and the control system.
42. I am therefore of the opinion that feature (4) is satisfied.
43. I therefore conclude that as the App lacks more than one of the required features of claim 1, i.e. features 1b and 3, it does not fall within the scope of claim 1 and it therefore cannot form the basis of any infringing action.

### **Opinion**

44. It is my opinion that the Product as specified and illustrated in the request does not fall within the scope of the claims. Accordingly any actions in relations to the Product do not constitute infringement of EP 1229193 B1.

### **Application for review**

45. Under section 74B and rule 98, the proprietor may, within three months of the date of issue of this opinion, apply to the comptroller for a review of the opinion.

Nicola Payne  
Examiner

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**NOTE**

*This opinion is not based on the outcome of fully litigated proceedings. Rather, it is based on whatever material the persons requesting the opinion and filing observations have chosen to put before the Office.*