

## Royal Mail Group

### Witness Statement

(CJ Act 1967, s9; MC Act 1980, ss 5A(3)(a)  
and 5B, MC Rules 1981, r 70)

**Statement of** Gareth Idris JENKINS

Age if under 18      Over 18      (If over 18 insert 'over 18')

This statement (consisting of 416 pages each signed by me) is true to the best of my knowledge and belief and I make it knowing that, if it is tendered in evidence, I shall be liable to prosecution if I have wilfully stated in it anything which I know to be false or do not believe true.

Dated      6th      day of      October      2010  
the

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Further to my statements of 2nd February, 8th February 2010 and 9<sup>th</sup> March 2010 I would like to add the following.

I have examined the "Technical expert's report to the Court prepared by Charles Alastair McLachlan, a Director of Amsphere Consulting Ltd" which I received on 1<sup>st</sup> October 2010. I have been asked by Post Office Ltd to provide a statement regarding to my views on the report with regard to the Horizon system and also about my analysis of the data regarding the transactions carried out in Branch 126023 which I understand to be the Branch that the defendant managed.

I would like to re-iterate that my expertise relates to the Horizon system only and not to Post Office Ltd's Back end systems. However such systems are irrelevant to the Branch accounts that are produced on Horizon since any externally initiated transactions (such as Transaction Corrections and Remittances which will be discussed later) must be authorised by a User of the Horizon system in the Branch before they are included in the Branch's accounts.

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## **Witness Statement**

(CJ Act 1967, s9; MC Act 1980, ss 5A(3)(a) and 5B, MC Rules 1981, r 70)

Continuation of statement of      Gareth Idris JENKINS

In Section 1.2 of his report, Professor McLachlan lists a number of "Hypothetical issues" with the Horizon system. However there doesn't appear to be a thorough justification as to why these might be relevant.

Specifically, in section 1.2.1 he hypothesises that "The User Interface gives rise to incorrect data entry: poor user experience design and inadequately user experience testing can give rise to poor data entry quality.". Although I was not responsible for the Design and development of the Horizon user interface, I do know that one of the key goals of the User Interface was that it would be easy to use and that it could be used by Users with no IT experience.

In Section 1.2.2 there is the hypothesis that 'The Horizon system fails to properly process transactions: accounting systems are usually carefully designed to ensure that accounts balance after each "double entry" transaction.' Horizon is indeed designed to use "double entry" transactions. Further Professor McLachlan refers to the need for database systems to use "two-phase" commit technologies. Again, Horizon is designed using such concepts. However in a distributed environment with multiple systems it is not possible to handle all failure scenarios through 2-phase commit mechanisms. What has to be included in the design is what happens when the outcome of a 2-phase commit is indeterminate and Horizon's design does that.

Finally, in Section 1.2.3 there is the Hypothesis that "External systems across the wider Post Office Limited Operating Environment provide incorrect externally entered information to the Horizon accounts through system or operator error outside Horizon.". I am not quite clear what Professor McLachlan is referring to here. However what I can say is that any transaction that is recorded on Horizon must be authorised by a User of the Horizon system who is taking responsibility for the impact that such a transaction on the Branch's accounts. There are no cases where external systems can manipulate the Branch's accounts without the Users in the Branch being aware and authorising the transactions.

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## **Witness Statement**

*(CJ Act 1967, s9; MC Act 1980, ss 5A(3)(a) and 5B, MC Rules 1981, r 70)*

Continuation of statement of Gareth Idris JENKINS

In Section 2.2.1 of his report, Professor McLachlan outlines a number of limitations in the scope of his investigation. In some of these cases, they are irrelevant to the processing of transactions in Horizon.

Specifically, the report states "It was not possible to examine the process for introducing Transaction Corrections that can give rise to changes in the cash that Horizon records at the branch". As I have stated earlier in this statement, any Transaction Correction that has been generated by the external Post Office Ltd systems must be explicitly accepted into the Branch's accounts by an appropriate User. In many cases there is the opportunity to reject the Transaction Correction allowing a separate process to agree whether or not it is valid before it is accepted into the accounts. Therefore, I would say that it is not necessary to examine the process for generating Transaction Corrections.

The next Bullet states "It was not possible to examine the processes for Remittances (the movement of cash and stock) into and out of the branch that changes the cash and stock that Horizon records at the branch." Again, any Remittance into the Branch has to be explicitly accepted by the User and a receipt is produced stating the amount that is being introduced into the Branch accounts. Should this differ in any way from the amount recorded on the cash pouch or the amount of cash found inside the pouch, there are processes to query such differences. Therefore, I would say that it is not necessary to examine the process for generating Remittances.

The third bullet states "It was not possible to examine the processes for revaluing foreign currency which could change the value of cash held at the branch". Revaluation of currency doesn't affect the cash position. It purely affects the notional value of the Foreign Currency as it is reported in the accounts, but has no impact on the Cash (sterling) position. Its only impact might be on the liability of the postmaster for any currency that is subsequently lost (which would need to be repaid at the current value). Note that revaluation can be positive or negative.

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*(CJ Act 1967, s9; MC Act 1980, ss 5A(3)(a) and 5B, MC Rules 1981, r 70)*

Continuation of statement of Gareth Idris JENKINS

Finally, the 4<sup>th</sup> bullet states "It was not possible to examine the processes of reconciliation conducted by the Post Office that could give rise to Transaction Corrections.". As stated earlier this is not really relevant since any Transaction Corrections will have been accepted by the User into the Branch accounts and should not be accepted if not understood. Accepting a Transaction Correction implicitly means taking responsibility for that in accounting terms.

Moving on to Section 2.2.2 of Professor McLachlan's report which is titled Opportunities for Reconciliation. I accept that the Horizon system has not been designed to automatically provide vouchers for every transaction. It was not a requirement for Horizon to produce such vouchers and in fact there were specific requirements from Post Office Ltd regarding transaction times that preclude printing such records. My experience as a user of Retail systems (such as supermarkets) is that such vouchers are not normally generated there either.

In Section 2.3 of his report, Professor McLachlan looks at hypothetical issues with Data Entry. Section 2.3.1 looks at the calibration of the touch screen. I accept the fact that a misaligned touch screen could certainly cause confusion to the User and result in incorrect buttons being activated. However I don't understand how Professor McLachlan is suggesting that such a misalignment would cause discrepancies within the accounts.

In section 2.3.2, Professor McLachlan states that "Poor user interface design can contribute to poor data entry quality and user errors.". I agree with this as a statement. However Professor McLachlan makes no attempt to explain in what way the Horizon User Interface design is "Poor". As I stated earlier one of the key goals of the User Interface was that it would be easy to use and that it could be used by Users with no IT experience. A significant amount of effort was put into designing and agreeing the User Interface with Post Office Ltd.

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(CJ Act 1967, s9; MC Act 1980, ss 5A(3)(a) and 5B, MC Rules 1981, r 70)

Continuation of statement of Gareth Idris JENKINS

In Section 2.3.3 of his report Professor McLachlan hypothesises that errors can be introduced by incorrect use of the "Fast Cash" button. In particular he challenges my analysis of unsuccessful Debit Card Transactions. I have re-checked the transaction for £7,000 on 11<sup>th</sup> January 2007 and this transaction was actually settled by a Cheque and not cash. This was covered by case 1 in my email to him which is reproduced in Appendix I of his report. Therefore in this case the User must have been aware that the Debit Card transaction had failed in order to ask for a cheque. Even supposing the Cheque button was pressed in error for Fast Cash, then there would have been a discrepancy in the value of cheques and there is no evidence of such discrepancies.

Later in this section, Professor McLachlan claims "the 'Fast Cash' button is demonstrated to be a source of data entry error (the reversals confirm this).." I don't agree with that. I can see no evidence to support this statement. The fact that there are reversals following a failed Debit card transaction is due to the fact that some transactions cannot be abandoned and need to be settled and then reversed. This was a specific requirement on Horizon from Post Office Ltd. The fact that this has been done shows that the user was well aware of the failure of the Debit Card transaction and followed normal process when the failure occurred.

Professor McLachlan explores issues with training of the Users in section 2.3.4 of his report. I support his finding regarding discrepancies in cash in almost every period. I also did an analysis of the daily cash movements compared with the daily cash declarations and could see very little correlation between the two which indicates that the variances between the declared cash and the system cash figures were not being monitored very well within the Branch. I would agree that this could be down to Theft / Fraud, or incompetence by the Branch staff. However there is no evidence that this is down to any sort of System failure. Further I would suggest that small discrepancies are to be expected in such an environment due to mistakes in giving change etc. My understanding is that Post Office investigators expect such small discrepancies in normal operation.

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Continuation of statement of Gareth Idris JENKINS

Section 2.4 of Professor McLachlan's report than describes 2 possible issues with Horizon.

I accept that there was an issue with the Post Office in Calendar Square Falkirk as desried in the email reproduced in Appendix C of the report and covered by a previous Witness statement I made on 8<sup>th</sup> February 2010. As I stated in the email, the problem was fixed in March 2006 and so is not relevant to the period of data that I have examined in this branch. Also, when the problem manifested itself it was clear from the various logs that there was a problem in the system. There is no evidence of such problems from the various logs that have been examined for this branch. Therefore I see no relevance for this problem to the period of data that is being looked at for this case. In particular, Professor McLachlan says "It demonstrates that there have been faults with the Horizon system which give rise to discrepancies that can cause losses. It is not reasonable to exclude the possibility of system problems when considering a case such as Misra. ". I would dispute that. It was clear from the Events generated at the time in Calendar Square that there was a problem. No such events have been seen in West Byfleet in the period in question and so this cannot be responsible for the losses in that period.

In section 2.4.2 Professor McLachlan describes a "travellers cheque stock problem". I disagree with his description of what happens in this scenario. Horizon doesn't attempt to control Travellers' Cheques at a denominational level. In other words it only manages the total value (in dollars) of Travellers' Cheques and doesn't distinguish between \$1,000 being held as 10 \$100 Travellers' Cheque or as 50 \$20 Travellers' Cheques or any other combination. Horizon is only concerned with the fact that it holds Travellers' Cheques to a face value of \$1,000. Therefore following through Professor McLachlan's scenario, the system initially has \$1,000 of Travellers' Cheques. When a customer purchases one Travellers' Cheque for \$100, then this will be reflected by reducing the stock of Travellers' Cheques by 100, leaving 900 Travellers' Cheques in stock. This would be reflected on the Stock Report.

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Continuation of statement of Gareth Idris JENKINS

I also note that in this section Professor McLachlan states that he has discussed this scenario with me and that I "acknowledge that this is a known feature of Horizon and that the Post Office have not instructed Fujitsu to change the system to produce a meaningful stock report.". I don't recall any such discussion. I have seen such a scenario described in a separate report that Professor McLachlan has written for a separate case, and did explicitly check out the scenario and produced a report for Post Office Ltd refuting the description. I do accept that there are some cases where the way in which Travellers' Cheques can appear to be slightly misleading, however there is nothing as blatantly incorrect with the system as Professor McLachlan suggests.

Therefore I would contend that section 2.4.2 of the report is irrelevant.

In Section 2.5.1, Professor McLachlan looks again at Transaction Corrections. Here he refers to Appendix G of his report which describes some analysis I have done concerning transaction Corrections (my email on this is actually in Appendix D of the report). This shows that if we analyse all Transaction Corrections during the 13 month period that the net value is £1,840. I've subsequently gone over the data again and found some additional transaction corrections that have been processed and the total net value of all such Transaction Corrections is actually slightly less namely £1,619.43.

He then refers to a slightly wider scope that he has taken in Appendix J where he comes up with an absolute value of £82,918.35 (though a net value of £19,257.21). I have now had a chance to examine this data in more detail and have the following observations to make on Professor McLachlan's analysis:

*I still need to do this analysis, so I'll come back to this.*

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Later on in the section Professor McLachlan states "There is no record of Misra requesting evidence in the transactions provided between 1 Dec 06 and 31 Dec 07. ". This is incorrect. There was one such example on 13<sup>th</sup> December 2006 and two more on 14<sup>th</sup> March 2007. I accept that I had omitted these from my initial analysis.

Finally, towards the end of the section Professor McLachlan hypothesises "There are missing Transaction Corrections which would reduce the cash balance expected by the Horizon system (i.e. be in favour of Misra).". This may indeed be true. However my understanding is that normally branches are well aware of such errors and would have contacted Post Office Ltd to enquire as to why no Transaction Correction was being made in favour of the branch.

Section 2.5.2 of the report discusses remittances. However I don't understand the relevance of this discussion to the case. Professor McLachlan mentions that my analysis "identified a pattern or remittance transactions which is consistent with Misra's statement that she declared cash held in remittance pouches in the safe which was not actually present.". In my view is this not an indication of guilt?

Section 2.5.3 then refers to incorrect transaction processing. However there is no indication as to what types of transaction processing may be incorrect. It should be noted that the Horizon counter application has recently been replaced and the last Horizon Counter migrated to the new system in September 2010 and so there are no longer any Horizon counter systems to examine.

Professor McLachlan's report then attempts to draw some conclusions in section 3.

Section 3.1 queries why it took Post Office Ltd so long to notice the pattern of discrepancies. Much of the detailed information regarding such discrepancies is only available within the

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branch to assist the sub-postmaster in managing their branch and so is not routinely available to Post Office Ltd until and investigation is carried out as in this case.

Section 3.2 mentions screen calibration issues. While I can't 10% rule out such issues as causing some issues. However I can't see how this could account for anything like the full extent of the losses.

Section 3.3 refers to Horizon issues. As stated earlier, the Calendar Square issue is irrelevant and there is no issue with Travellers' Cheques.

Finally in 3.4 is challenging the integrity of Post Office Ltd's back end systems. My view is that any faults in these systems are irrelevant to the Branch accounts and hence the losses. This is because, as stated earlier, any transactions generated from a Post Office Ltd back end system must be explicitly accepted onto Horizon by a User and cannot be introduced into the Branch accounts without their knowledge.

I have not examined the data in the appendices in detail. I acknowledge that any emails included there from myself are correct, but have not examined the embedded spreadsheets in detail other than where explicitly referenced in this statement. I note that many of the appendices are not referenced from the report and there is no explanation as to the basis used to construct them. I assume that they are all generated from the raw transaction and event logs that were supplied to Professor McLachlan by Fujitsu at the request of Post Office Ltd.

In addition to examining Professor McLachlan's report, I have also been asked to look at Cash Balances and Cash held in Pouches awaiting collection through the period from December 2006 to December 2007.

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