

Witness Name: John Graeme Simpkins

Statement No.: WITN04110300

Dated: 19 December 2023

POST OFFICE HORIZON IT INQUIRY

THIRD WITNESS STATEMENT OF JOHN GRAEME SIMPKINS

I, *MR JOHN GRAEME SIMPKINS*, will say as follows:

INTRODUCTION

1. As noted in my first witness statement dated 4 August 2022, I am currently employed by Fujitsu Services Limited ("**Fujitsu**") as a Team Leader within the Software Support Centre for the Horizon IT System (the "**SSC**"), a position I have held since 2010.
2. This third witness statement is made to assist the Post Office Horizon IT Inquiry (the "**Inquiry**") with the matters set out in the Rule 9 Requests provided to Fujitsu on 16 June 2023 and 31 July 2023 (together, the "**Requests**"), to the extent I have or had direct knowledge of such matters. This third witness statement is intended to supplement the information provided in my second witness statement dated 30 August 2023 ("**Second Witness Statement**").
3. The nature and potential significance of the matters set out in this statement came to light on 6 December 2023, and there is an ongoing operational investigation with which I am assisting. In order to bring this matter to the

attention of the Inquiry as soon as possible, this statement was drafted with assistance from Morrison Foerster, the recognised legal representatives for Fujitsu in the Inquiry, in a limited timeframe. It may be necessary to further supplement the information provided in this statement, as my knowledge and understanding of the issues develop.

4. Where I have referred to documents to assist my preparation of responses to the Requests, the URNs of the relevant documents are set out in this statement.

BACKGROUND

5. In the Requests, the Inquiry asked Fujitsu for confirmation of whether it was aware of any cases where an ARQ log was provided to Post Office Limited (“**POL**”) or Royal Mail for court or disciplinary proceedings or an investigation in relation to an SPM, manager or assistant that was, or may be, unreliable. In paragraph 7 of my Second Witness Statement, I stated that I was not in a position to respond to the Inquiry’s questions surrounding the reliability of the audit archive or the ARQ data provided to POL over time because, for security reasons, the SSC was and continues to be segregated from the audit function. Further, the SSC has no direct access to (i) the audit data held in data centres, (ii) the audit tools, or (iii) which files, logs messagestore information etc. are collected for audit. Neither has the SSC ever supported the audit platform.
6. While this remains the case, since providing my Second Witness Statement I have become aware of an incident whereby ARQ data which was recently provided to POL for the Apex Corner branch (with FAD code 097005) (“**Apex Corner**”) did not contain a complete record of the transactions that took place in that branch (the “**Apex Corner Incident**”).

7. The circumstances which gave rise to the Apex Corner Incident require specialist knowledge of the operation of the system and, in particular, the lifecycle of transactions from the counter to the audit archive. Given my role in the SSC, I am working with other technical and operational staff within Fujitsu to investigate the causes of the Apex Corner Incident and to understand as far as possible the nature and extent of its impact.
8. My knowledge of the Apex Corner Incident as at the date of this third witness statement is set out below.

LIFECYCLE OF A TRANSACTION IN LEGACY HORIZON

9. Under Legacy Horizon, messages (including transaction messages) were written to the Riposte message store on the local counter disk. They were then replicated locally to other counters within the branch or, in single counter branches (such as Apex Corner), to internal removeable mirror disks. Legacy Horizon was primarily an offline system, so the messages would be sent to the Correspondence Servers periodically or immediately depending upon the network configuration. Every branch was assigned to one of four 'Clusters', and this controlled which Correspondence Server messages from that branch replicated to. There were 16 Correspondence Servers, and each one only contained messages for a single Cluster. Once in the Correspondence Servers, the Audit Harvester program would copy all messages from the Correspondence Server (i.e. a single Cluster) to a series of flat text files labelled by Data Center, Cluster and date. For ease, these are referred to in this statement as "**TMS Cluster Files**" but this is not a term I would use day to day.

Depending on the number of messages in each Correspondence Server, there may be more than one TMS Cluster File for each day.

10. From conversations I had during the course of the weeks commencing 4 and 11 December 2023 with members of the audit team, including Gerald Barnes, I understand that the TMs Cluster Files would be stored in the audit archive according to the date they were securely copied and accepted ("**sealed**") by the audit archive. For the reasons I state in paragraph 5 above, this process is outside my area of knowledge.

THE APEX CORNER INCIDENT

11. On 3 November 2023, I was informed by Morrison Foerster and members of Fujitsu's legal team that Peters & Peters Solicitors LLP ("**Peters & Peters**") had raised some questions regarding some transactions that took place at Apex Corner in March/April 2008.
12. I was shown the following documents, which I understand were provided to Morrison Foerster by Peters & Peters:
 - a. a spreadsheet containing an extract from the messagestore for Apex Corner for the period 1 January 2008 to 31 October 2008 (FUJ00234830). I have since been made aware by Morrison Foerster that this spreadsheet was a compilation of ARQ data that was provided by Fujitsu on 4 September 2023, in response to an ARQ Request issued by POL on 11 August 2023 (the "**September 2023 ARQ data**") (FUJ00234843).
 - b. a document titled "*Sathyan – KSO6*" (FUJ00234827) which appears to be a girocheque report dated 10 April 2008 (the "**April 2008 girocheque**").

report”). I was informed that the first 13 transactions listed in this report were missing from the September 2023 ARQ data (the “**13 Missing Girocheque Transactions**”).

13. In paragraph 22 of my Second Witness Statement, I explained the individual components of transaction IDs, including the counter position where the relevant transaction took place. The 13 Missing Girocheque Transactions each contain a counter position which is stated to be “11”. It was usual practice for the SSC to use ‘virtual’ counter numbers when recovering transactions to ensure that the Session and Transaction identifiers remained unique. It was my view that the use of counter position “11”, when there had been very few branches with more than 10 counters, indicated that these transactions appeared to have been ones which were manually reinserted by the SSC.
14. While I was able to identify the 13 Missing Girocheque Transactions as ones which had likely been reinserted, for the reasons set out in paragraphs 4 and 12 above it was not clear to me why they did not appear in the September 2023 ARQ data.
15. Based on a review of operational records for the relevant period, I now understand that:
 - a. The counter in use at Apex Corner suffered a network failure on 13 March 2008 and was non-polling until a replacement counter base unit was installed on 20 March 2008 (FUJ00234847; FUJ00234850).
 - b. For the period that Apex Corner was non-polling, transaction messages were stored locally on the counter disk and mirror disk but were not

- replicated to the Correspondence Server. When the counter was replaced, the mirror disk should have been removed from the original counter and swapped to the replacement counter. If this was done, transactions stored on this mirror disk would replicate to the new counter disk and the Correspondence Server when the replacement counter was connected to the Horizon network, and the branch records would be brought up to date.
- c. However, when the base unit was replaced, the engineer failed to swap the mirror disk. This resulted in just under 8,000 messages dating from the period the branch was non-polling (i.e. 13 to 20 March 2008) being 'marooned' on the mirror disk and therefore never entered into the counter or Data Center (FUJ00234852). Of these messages, 1,964 related to transactions (the "**Marooned Transactions**") (FUJ00234850).
- d. The mirror disk was physically delivered to the SSC on 28 March 2008 (FUJ00234848) so that the Marooned Transactions could be recovered and manually inserted to the Correspondence Server. This was the only way the Marooned Transactions could be recovered and branch records brought up to date. Once the counter was replaced and recovered to an operational state from the messages held in the Data Centre, it would have started to reuse the unique Counter message numbers (NUM) and potentially the Session and Transaction identifiers of the Marooned Transactions, for new transactions. Therefore, the mirror disk could not be swapped to the replacement counter once that counter was operational. The original counter, with the mirror disk and a PMMC card, would need to be sent to the SSC in order to extract the Marooned Transactions. From these, the

SSC would modify the unique identifiers in order to enable them to be re-inserted into the Correspondence Server successfully, which would allow them to replicate down to the branch. This process would correct the branch accounts, however any recovered APS transactions would fail to be harvested because they have a digital signature and modification of the transaction attributes would cause the APS Harvester to reject them. These transactions would be sent manually to POL using the BIMS process (FUJ00234853) for onward transmission to AP Clients – this would delay the customer payments reaching the AP Clients, but would not affect branch accounts.

e. The Marooned Transactions were “*Discussed with PM*” and reinserted by the SSC on 4 April 2008 (FUJ00234852; FUJ00234850).

16. As I mention in paragraph 13 above, when transactions were recovered in this way, the SSC typically used a virtual branch counter number in the Riposte message attributes to avoid conflict with newly entered transactions re-using the same unique attributes. For Apex Corner, the SSC incremented the real counter node number in the Counter, Session and Transaction identifiers (counter 1) by 10 (to counter 11). The original message number, Session and Transaction identifiers for the recovered transactions would have been re-used by the replacement counter when it was connected to the Horizon network, as it would have followed sequentially from the last transaction copied to the Correspondence Server by the original counter. Other than this, transactions

which were reinserted retained their original attributes, including the date they took place in the branch.

17. The Marooned Transactions (including the 13 Missing Girocheque Transactions) were inserted to the Correspondence Server on 4 April 2008 and were harvested into the TMS Cluster Files for that date.

ARQ EXTRACTION PROCESS

18. My understanding of the process for extracting ARQ data is primarily based on conversations I have had recently with other members of the team investigating the Apex Corner ARQ Incident, such as Gerald Barnes. In particular, I understand from conversations during the week commencing 4 December 2023 that:
 - a. the Fast ARQ process for extracting one calendar month of ARQ data, which has been in place since the transition from Legacy Horizon to HNG-X in 2010, does not always account for transactions that are sealed to the audit archive more than a few days after the end of the calendar month during which the transactions took place. Consequently, the Marooned Transactions (which were sealed on 4 April 2008) were not retrieved by the process that was run when extracting the ARQ data for March 2008.
 - b. the Fast ARQ process filters transactions that were sealed within each calendar month by the 'start date' of the transaction (i.e. the date the transaction took place in the branch). As the Marooned Transactions had a start date of 13-20 March 2008, they were not retrieved by the process that was run when extracting the ARQ data for April 2008.

19. I now understand it is for these reasons that the 13 Missing Girocheque Transactions were not included in the September 2023 ARQ data.
20. In general, a delay between (i) the date a transaction was carried out, and (ii) the date it was sealed to the Audit Archive could be caused by a number of things, such as counter hardware problems (as was the case at Apex Corner) or network connectivity problems. If these delays extended beyond two or three days into the next calendar month, it is possible that they would not be identified in ARQ returns that are prepared following the Fast ARQ process that has been in place since 2010. The Apex Corner Incident is the only such incident I am aware of, but it is possible that the reliability of other historic ARQs is affected.
21. As I mention above, I am currently working with relevant technical and operational staff at Fujitsu to understand the nature and extent of the impact of the Apex Corner Incident. The focus of our investigations to date has been on transactions that took place under Legacy Horizon, as this is the system that was in operation at Apex Corner in March and April 2008. There has been only one instance of a transaction requiring a correction by the SSC under HNG-X. I have checked the attributes of this transaction, and it has an insert date equal to the transaction start date. Further, the HNG-X system, as an online system, does not have the potential for delays in the same way that Legacy Horizon did, as a predominantly offline system. I do not have any knowledge of the audit process under HNG-X, but these are relevant considerations in the investigation that is being undertaken into whether the Apex Corner Incident may also affect HNG-X transactions.

Statement of Truth

I believe the content of this statement to be true.

Signed: **GRO**

Dated: 19/12⁰/2023

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Exhibit No.	Description	Control Number	URN
1.	Spreadsheet titled "Apex Corner downloaded ARQ" dated 24 October 2023	POINQ0240972F	FUJ00234830
2.	'ARQ Apex Corner' dated 11 August 2023	POINQ0240985F	FUJ00234843
3.	'Sathyan - KS06' dated 10 April 2008	POINQ0240969F	FUJ00234827
4.	HSD RMGA Incident Export 161338 dated 13 March 2008	POINQ0240989F	FUJ00234847
5.	OCR 18618 dated 4 April 2008	POINQ0240992F	FUJ00234850
6.	PC0156078 dated 20 March 2008	POINQ0240994F	FUJ00234852
7.	HSD RMGA Incident Export 173358 dated 20 March 2008	POINQ0240990F	FUJ00234848
8.	PC0156836 dated 10 April 2008	POINQ0240995F	FUJ00234853