From: Rodric Williams[**GRO**

Sent: Mon 12/10/2015 3:57:57 PM (UTC)

To: Patrick Bourke GRO Mark Underwood1

Subject: Actions to Address Techincal Challenges to Horizon - STRICTLY PRIVATE AND

CONFIDENTIAL - SUBJECT TO LEGAL PRIVILEGE - DO NOT FORWARD

GRO

Attachment: Strictly Private & Confidential - Subject to Legal Privilege Attachment: RE: Strictly Private & Confidential - Subject to Legal Privilege Attachment: RE: Strictly Private & Confidential - Subject to Legal Privilege

Attachment: 20151012155404801.pdf Attachment: 20151012155424996.pdf

WORK IN PROGRESS AS PER CON WITH JANE:

1. To establish whether the cash shortfalls identified in the complaints made by sub-postmasters were caused by accounting system errors.

SECOND SIGHT

Cc:

- Spot Reviews
 - See "Bible" (attached within emails to Deloitte)
- Second Sight 8 July 2013 "Interim Report"
 - a. "We have so far found no evidence of system wide (systemic) problems with the Horizon" (para
 - b. "We are aware of 2 incidents where defects or 'bugs' in the Horizon software gave rise to 76 branches being affected by incorrect balances or transactions, which took some time to identify and correct" (para 8.2(b))
 - i. Two Bugs which POL identified
 - ii. See FJ responses attached (attached within emails to Deloitte)
 - c. "Occasionally an unusual combination of events, such as a power or communications failure during the processing of a transaction, can give rise a situation where timely, accurate and complete information about the status of a transaction is not immediately available to a SPMR" (para 8.2(c))
 - d. Extended scope to audit and investigation function (in order to address complaints)
- 3. Scheme Related Work:
 - a. Part One Report, 22 May 2014
 - i. Contains a basic description on Horizon in Section 5
 - ii. Generally concerned with "Post Office branch operating procedures and related functions of the Horizon system" i.e. non-technical.
 - b. From the 150 applications to the Scheme, SS identified 19 "commonly mentioned issues (often described as 'Thematic Issues') raised by multiple Applicants".
 - c. Part Two Report Version 1, 21 August 2014;
 - i. POL response of 2 September 2014 contains technical material in:
 - Section 10: Limitations in the Transactional "Audit Trail"
 - Section 12: Transaction reversals
 - Section 18: Error repellency
 - Section 19: Transactions not entered by SPMRs
 - d. Q&A for Version 2, 27 January 2015;
 - i. POL response of 9 April 2015 contains technical material in: 3.1(a), 3.1(c), 3.1(d), 6.2, 7.8, 7.9, 7.14, 8.1, 9.1, 14.2
 - e. Version 2, 9 April 2015
 - i. POL response of 9 April 2015 contains technical material in:

- Section 14: Transactions not entered by SPMRs
- Section 15: Transaction reversals
- Section 21: Error repellency of Horizon.

(The content in the two POL responses overlaps to a large extent, but it may be illustrative of what part/s of the response Second Sight accepted.)

DELOITTE

- 4. Instructed following a Report to the Board from Linklaters dated 20 March 2014: "We note that there is, so far as we understand it, no objective report which describes and addresses the use and reliability of Horizon. We do think that such a report would be helpful, though there is a decision to be made about how broad and/or thorough it needs to be."
- 5. Deloitte
 - a. Initial Instructions (commencing 2 April 2014)
 - b. "Horizon: Desktop Review of Assurance Sources and Key Control Features" dated 23 May 2014
 - i. Per Engagement Letter dated 9 April 2014
 - ii. Desktop review focussing on sources of assurance, but did not verify or test information considered
 - c. "Board Briefing" dated 4 June 2014
 - i. Per Change Order No. 1 (vers.2) dated 6 May 2014
 - ii. Summary of key features and controls considered

ICL

- 6. Imperial College London (Professor Kramer and Dr Dulay)
 - a. Instructed as potential expert witnesses to support criminal prosecutions
 - b. Preliminary review of "Architecture and Process Documents of Horizon System"
 - c. No further progress due to:
 - i. Age, complexity and development of system;
 - ii. time and cost to complete;
 - iii. marginal utility given Horizon's limited shelf life; and
 - iv. marginal utility given cannot attest to system at every point of time in operation
- 2. To establish whether, if such accounting system errors did exist, they have now been resolved.

Responses to Two Bugs

3. To established that no such accounting system errors are now present in the computerised accounting system.

New Issue identified; Process for identifying and addressing

