

**To:** Mark Underwood [GRO]  
**Cc:** Kevin Lenihan [GRO]; Newsome Pete [GRO]  
**From:** Davidson James [/O=EXCHANGE/OU=ADMINGROUP1/CN=RECIPIENTS/CN=DAVIDSONJ2]  
**Sent:** Fri 1/30/2015 5:14:52 PM (UTC)  
**Subject:** RE: URGENT ACTION : Accessing Horizon

Hi there,

Having looked again at the request from Paula, it appears that the fundamentals around this question are not understood. I suggest that Paula is briefed along the lines of the following.

- 1) No transaction data is held locally in any branch. Transactions are completed and stored in a central database and copies of all data is sent to a secure audit database.
- 2) Sub-postmasters directly manage user access and password setting locally so system access is limited to approved local personnel only who set their own passwords.
- 3) Once a transaction has been completed, there is no functionality (by design) for transactions to be edited or amended. Each transaction is given a unique number and 'wrapped' in a digital encryption seal to protect its integrity. All transactions are then posted to a secure and segregated audit server.
- 4) On approval, there is the functionality to add additional transactions which will be visible and have a unique identifier in the audit trail. This is extremely rare and only been used once since go live of the system in 2010 (March 2010)
- 5) Support staff have the ability to review event logs and monitor, in real time, the availability of the system infrastructure as part of standard service management processes.
- 6) Overall system access is tightly controlled via industry standard 'role based access' protocols and assured independently in annual audits for ISO 27001, Ernst and Young for IAS 3402 and as part of PCI audits.

Hope that helps!

**James Davidson**  
Post Office

**Fujitsu**  
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**From:** Mark Underwood [GRO]  
**Sent:** 30 January 2015 15:50  
**To:** Davidson James  
**Cc:** Kevin Lenihan  
**Subject:** RE: URGENT ACTION : Accessing Horizon

Hi Kevin my proposed answer to the first question below (it can be sent in its entirety to Mel and she can pick and choose). Though this will need to be signed off by James as accurate.

In terms of the second question, I cannot find anything on the testing carried out. It could very well have been sent to one of my predecessors but I cannot find it anywhere. **James** are you able to put something together based upon the email you sent Kevin?

Mark

In terms of Q1

This question often phrased by Applicants and Second Sight is:

*"Can Post Office remotely access Horizon?"*

Phrasing the question in this way does not address the issue that is of concern to Second Sight and Applicants. It refers generically to "Horizon" but more particularly is about the transaction data recorded by Horizon. Also, the word "access" means the ability to read transaction data without editing it – Post Office / Fujitsu has always been able to **access** transaction data however it is the alleged capacity of Post Office / Fujitsu to **edit** transaction data that appears to be of concern. Finally, it has always been known that Post Office can post additional, correcting transactions to a branch's accounts but only in ways that are visible to Subpostmasters (i.e. Transaction Corrections and Transaction Acknowledgements) – **it is the potential for any hidden method of editing data that is of concern.**

*Can Post Office or Fujitsu edit transaction data without the knowledge of a Subpostmaster?"*

**Post Office confirms that neither it nor Fujitsu can edit transaction data without the knowledge of a Subpostmaster.**

There is no functionality in Horizon for either a branch, Post Office or Fujitsu to edit, manipulate or remove a transaction once it has been recorded in a branch's accounts.

The following safeguards are in place to prevent such occurrences:

- Transmission of baskets of transaction data between Horizon terminals in branches and the Post Office data centre is cryptographically protected through the use of digital signatures.
- Baskets must net to nil before transmission. This means that the total value of the basket is nil and therefore the correct amount of payments, goods and services has been recorded in the basket. Baskets that do not net to nil will be rejected by the Horizon terminal before transmission to the Post Office data centre.
- Baskets of transactions are either recorded in full or discarded in full – no partial baskets can be recorded to the Audit Store.
- All baskets are given sequential numbers (known as Journal Sequence Numbers or JSNs) when sent from a Horizon terminal. This allows Horizon to run a check at the Data Centre for missing baskets (which triggers a recovery process) or additional baskets that would cause duplicate numbers (which would trigger an exception error report to Post Office / Fujitsu).
- All transaction data in the Audit Store is digitally sealed – these seals would show evidence of tampering if anyone, either inadvertently, intentionally or maliciously, tried to change the data within a sealed record.
- Automated daily checks are undertaken on JSNs (looking for missing / duplicate baskets) and on the digital seals (looking for evidence of tampering).

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**From:** Davidson James [GRO]  
**Sent:** 30 January 2015 12:42  
**To:** Mark Underwood1  
**Cc:** Kevin Lenihan  
**Subject:** FW: URGENT ACTION : Accessing Horizon

James Davidson

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Mark,

As discussed, can you hook up with Kevin to review what answers have already been provided to second sight as this should form the Post Office response.

Thanks,

James.

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**From:** Kevin Lenihan GRO  
**Sent:** 30 January 2015 09:28  
**To:** Newsome Pete  
**Subject:** URGENT ACTION : Accessing Horizon

Pete,  
My phone call earlier today refers.

I need some urgent information as per Paula's note please. Apologies if you've had this before but I'm not aware of the history on this – just point me in the direction of who has that answer and I'll pursue accordingly.

Cheers,  
Kevin

Kevin Lenihan | Senior Information Services Manager

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2<sup>nd</sup> Floor, 148 Old Street, London EC1V 9HQ

**GRO**



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**From:** Paula Vennells GRO  
**Date:** 30 January 2015 07:29:00 GMT  
**To:** Mark R Davies GRO, Lesley J Sewell GRO  
**Subject:** Urgent: Accessing Horizon

Dear both, your help please in answers and in phrasing those answers, in prep for the SC:

1) "is it possible to access the system remotely? We are told it is."

What is the true answer? I hope it is that we know this is not possible and that we are able to explain why that is. I need to say no it is not possible and that we are sure of this because of xxx and that we know this because we have had the system assured.

2) "you have said this is such a vital system to the Post Office, what testing do you do and how often? When was the last time?"

Lesley, I need the facts on these - I know we have discussed before but I haven't got the answer front of mind - too many facts to hold in my head! But this is an important one and I want to be sure I do have it. And then Mark, to phrase the facts into answers, plus a line to take the conversation back up a level - ie., to one of our narrative boxes/rocks.

Thanks, Paula

Paula Vennells  
Chief Executive  
Post Office Ltd

**GRO**

Sent from my iPad

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