From: Paula Vennells

To: Mark R Davies; Lesley J Sewell
Subject: Urgent: Accessing Horizon
Date: 30 January 2015 07:29:02

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

T: @postoffice.co.uk

From: Lesley J Sewell on behalf of Lesley J Sewell < @postoffice.co.uk

To: ;
Subject: Fwd: Urgent: Accessing Horizon
Date: 30 January 2015 07:35:24



I need some help with both of these.

: the first is for you. This really is in the back of the Deloitte review.

: the second for you. I think this should be phrased around the testing we do around change.

This is fairly urgent as Paula is preparing for the select committee next week.

We can catch up today.

L

Lesley J Sewell Chief Information Officer Post Office Ltd

Email: @postoffice.co.uk

Direct: Mobile:

Sent from my iPad

Begin forwarded message:

From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

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

we are sure of this because of xxx and that we know this because we 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



From: Mark R Davies
To: ;
Subject: Fwd: Urgent: Accessing Horizon
Date: 30 January 2015 07:43:30

FYI

Mark Davies

Communications and Corporate Affairs Director

Mobile:

Sent from my iPhone

Begin forwarded message:

From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < @postoffice.co.uk>, Lesley J Sewell

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



From:
To: ;
Cc: Lesley J Sewell

Subject: Fw: Fwd: Urgent: Accessing Horizon
Date: 30 January 2015 07:55:03



The request from Lesley and Paula below is urgent and relates to Horizon/second sight, so can you take the lead on this but draw on the paula place.

Note that Paula wants facts, but also Lesley's guidance around relating this to the testing of change because testing the "system" isn't a quantifiable thing.

Something by the end of today would be great.

Many thanks



From: Lesley J Sewell

Sent: Friday, January 30, 2015 07:35 AM

To: ;

Subject: Fwd: Urgent: Accessing Horizon



I need some help with both of these.

: the first is for you. This really is in the back of the Deloitte review.

: the second for you. I think this should be phrased around the testing we do around change.

This is fairly urgent as Paula is preparing for the select committee next week.

We can catch up today.

L

Lesley J Sewell Chief Information Officer Post Office Ltd

Email: <u>@postoffice.co.uk</u>

Direct: Mobile:

Sent from my iPad

Begin forwarded message:

From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < @postoffice.co.uk>, Lesley J Sewell

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

T: @postoffice.co.uk

From: To:

Re: Fwd: Urgent: Accessing Horizon

Date: 30 January 2015 08:11:45

Mark R Davies;

Thanks

Subject:

We are already well covered on (1) - it's in the exisiting brief (remote access IS possible but we have strong line on conditions for that)

On (2) re audits and tests etc of system - there was an FOI in 2011 on this that Sparrow have been checking for ys because we must have provided info to SS at some point I would think. It was a strong FOI answer.

Communications Team

Mobile

From: Mark R Davies

Sent: Friday, January 30, 2015 07:43 AM

To: ;

Subject: Fwd: Urgent: Accessing Horizon

FYI

Mark Davies

Communications and Corporate Affairs Director

Mobile:

Sent from my iPhone

Begin forwarded message:

From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < <u>@postoffice.co.uk</u>>, Lesley J Sewell

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



From: Lesley J Sewell on behalf of Lesley J Sewell < @postoffice.co.uk>

To: Mark R Davies

Subject: Fwd: Urgent: Accessing Horizon
Date: 30 January 2015 08:29:25

I've got my guys pulling something together, then we should catch up.

L

Lesley J Sewell Chief Information Officer Post Office Ltd

Email: @postoffice.co.uk

Direct: Mobile:

Sent from my iPhone

Begin forwarded message:

From: Paula Vennells @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < @postoffice.co.uk>, Lesley J Sewell

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

T: @postoffice.co.uk

 From:
 Mark R Davies

 To:
 Lesley J Sewell

 Cc:
 Cc:

Subject: Re: Urgent: Accessing Horizon
Date: 30 January 2015 08:31:02

Hi

Ta. There are lines already which can send you - then we should review.

M

Mark Davies

Communications and Corporate Affairs Director

Mobile:

Sent from my iPhone

On 30 Jan 2015, at 08:29, "Lesley J Sewell" < @postoffice.co.uk> wrote:

I've got my guys pulling something together, then we should catch up.

L

Lesley J Sewell Chief Information Officer Post Office Ltd

Email: @postoffice.co.uk

Direct: Mobile:

Sent from my iPhone

Begin forwarded message:

From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < pp>
<u>@postoffice.co.uk</u>>, Lesley J

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



From:
To: Lesley J Sewell

Subject: Fw: Fwd: Urgent: Accessing Horizon

Date: 30 January 2015 08:39:06

To see below. We will need help on 2 if we have not provided this to Second Sight.

I am on train in and will send you current response and what we have said in FOI when in office.



From:

Mobile

Sent: Friday, January 30, 2015 08:11 AM

To: Mark R Davies;

Subject: Re: Fwd: Urgent: Accessing Horizon

Thanks Mark

We are already well covered on (1) - it's in the exisiting brief (remote access IS possible but we have strong line on conditions for that)

On (2) re audits and tests etc of system - there was an FOI in 2011 on this that Sparrow have been checking for ys because we must have provided info to SS at some point I would think. It was a strong FOI answer.

Communications Team

Mobile

From: Mark R Davies

Sent: Friday, January 30, 2015 07:43 AM

To: ;

Subject: Fwd: Urgent: Accessing Horizon

FYI

Mark Davies

Communications and Corporate Affairs Director

Mobile:

Sent from my iPhone

Begin forwarded message:

From: Paula Vennells < <u>@postoffice.co.uk</u>>

Date: 30 January 2015 <u>07:29:00 GMT</u>

To: Mark R Davies < <u>@postoffice.co.uk</u>>, Lesley J Sewell

<a href="mailto:subject: urgent: urg

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

T: <u>@postoffice.co.uk</u>

From: To:

Subject: Re: Fwd: Urgent: Accessing Horizon

Date: 30 January 2015 10:05:59

On the case

From:

Sent: Friday, January 30, 2015 07:55 AM Coordinated Universal Time

Cc: Lesley J Sewell

Subject: Fw: Fwd: Urgent: Accessing Horizon



The request from Lesley and Paula below is urgent and relates to Horizon/second sight, so can you take the lead on this but draw on , plus FJ eg

Note that Paula wants facts, but also Lesley's guidance around relating this to the testing of change because testing the "system" isn't a quantifiable thing.

Something by the end of today would be great.

Many thanks

Post Office Ltd

From: Lesley J Sewell

Sent: Friday, January 30, 2015 07:35 AM

Subject: Fwd: Urgent: Accessing Horizon



I need some help with both of these.

: the first is for you. This really is in the back of the Deloitte review.

: the second for you. I think this should be phrased around the testing we do around change.

This is fairly urgent as Paula is preparing for the select committee next week.

We can catch up today.

L

Lesley J Sewell **Chief Information Officer** Post Office Ltd

Email: @postoffice.co.uk

Direct: Mobile:

Sent from my iPad

Begin forwarded message:

From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < @postoffice.co.uk>, Lesley J Sewell

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

@postoffice.co.uk

From: Paula Vennells
To:

Subject: Fwd: Urgent: Accessing Horizon
Date: 30 January 2015 11:15:40

Paula Vennells Chief Executive Post Office Ltd



Sent from my iPad

Begin forwarded message:

From: <u>@postoffice.co.uk</u>>
Date: 30 January 2015 07:28:57 GMT

To: Mark Davies < @postoffice.co.uk>, Lesley Sewell

 @postoffice.co.uk
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



From: To: Cc: URGENT ACTION: Accessing Horizon Subject: Date: 30 January 2015 13:28:11 image001.png image003.png Attachments:

image004.png image005.png image006.png

Cc-FYI



I don't have your phone number and it's not on any central list so hopefully you pick this email up shortly.....

Can you give me a call to understand the answers already provided so we can replicate this through for paula this afternoon please.

Thanks,



@uk.fujitsu.com] From: mailto:

Sent: 30 January 2015 12:42

To: Cc:

Subject: FW: URGENT ACTION: Accessing Horizon



Fujitsu

Lovelace Road, Bracknell, RG12 8SN

Mob:

Email: @
Web: http://uk.fujitsu.com @uk.fuiitsu.com









Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com



Please consider the environment - do you really need to print this email?



second sight as this should form the Post Office response.

Thanks.

From: @postoffice.co.uk]

Sent: 30 January 2015 09:28

To:

Subject: URGENT ACTION : Accessing Horizon



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,



From: Paula Vennells < <u>@postoffice.co.uk</u>>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies @postoffice.co.uk>, Lesley J Sewell

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



Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From:

To:

Cc:

Subject:

RE: URGENT ACTION : Accessing Horizon

30 January 2015 13:48:45

Attachments: image003.png image004.png image005.png

image005.png image006.png image007.png

Folks,

Just to let you know that I am offline between 3-4 so will pick up any queries after 4. I believe you should have everything you need based on answers provided to Second Sight previously but have not seen these in their entirety. Happy to help further if needed.

Regards,





Fujitsu is proud to partner with <u>Shelter</u>, the housing and homeless charity Reshaping ICT, Reshaping Business in partnership with <u>FT.com</u>





Cc - FYI



I don't have your phone number and it's not on any central list so hopefully you pick this email up shortly.....

Can you give me a call to understand the answers already provided so we can replicate this through for paula this afternoon please.

Thanks,







From: [mailto: @uk.fujitsu.com]

Sent: 30 January 2015 12:42

To:

Subject: FW: URGENT ACTION : Accessing Horizon

Post Office

Fujitsu

Lovelace Road, Bracknell, RG12 8SN

Mob: Email:

@uk.fuiitsu.com

Web: http://uk.fujitsu.com









Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com



Please consider the environment - do you really need to print this email?



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

Thanks,



Sent: 30 January 2015 09:28

To:

Subject: URGENT ACTION: Accessing Horizon



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,





From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < <u>@postoffice.co.uk</u>>, Lesley J Sewell

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

T: <u>@postoffice.co.uk</u>

Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From:
To:
Cc:

Subject: RE: URGENT ACTION : Accessing Horizon

Date: 30 January 2015 15:50:00

Attachments: image003.png

image004.png image005.png image006.png image007.png

Hi my proposed answer to the first question below (it can be sent in its entirety to she can pick and choose). Though this will need to be signed off by as a 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. are you able to put something together based upon the email you sent ?



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).

From: mailto: @uk.fujitsu.com] Sent: 30 January 2015 12:42 To: Cc: Subject: FW: URGENT ACTION : Accessing Horizon **Fujitsu** Lovelace Road, Bracknell, RG12 8SN Mob: Email: @
Web: http://uk.fujitsu.com @uk.fujitsu.com Fujitsu is proud to partner with Shelter, the housing and homeless charity Reshaping ICT, Reshaping Business in partnership with FT.com Please consider the environment - do you really need to print this email? As discussed, can you hook up with to review what answers have already been provided to second sight as this should form the Post Office response. Thanks, From: @postoffice.co.ukl mailto Sent: 30 January 2015 09:28 To: Subject: URGENT ACTION: Accessing Horizon

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,



From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < @postoffice.co.uk>, Lesley J Sewell

<a href="mailto:omega="mailto:

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

T: <u>@postoffice.co.uk</u>

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From: To:

Subject: FW: URGENT ACTION : Accessing Horizon

Date: 30 January 2015 16:58:00

Attachments: image003.png

image004.png image005.png image006.png image007.png

fyi

From:

Sent: 30 January 2015 15:50

To:

Cc:

Subject: RE: URGENT ACTION: Accessing Horizon

Hi my proposed answer to the first question below (it can be sent in its entirety to she can pick and choose). Though this will need to be signed off by as a 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. are you able to put something together based upon the email you sent ?



In terms of Q1

-0

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).

From: [mailto: @uk.fujitsu.com]
Sent: 30 January 2015
12:42
To: Cc: Subject: FW: URGENT ACTION : Accessing Horizon

Post Office

Fujitsu
Lovelace Road, Bracknell, RG12 8SN
Mob:
Email: @uk.fujitsu.com
Web: http://uk.fujitsu.com



Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com



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

Thanks,



Sent: 30 January 2015 09:28

To:

Subject: URGENT ACTION: Accessing Horizon



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,



From: Paula Vennells < <u>@postoffice.co.uk</u>>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < <u>@postoffice.co.uk</u>>, Lesley J Sewell

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

 Γ :

Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From: To:

Subject: FW: URGENT ACTION : Accessing Horizon

Date: 30 January 2015 16:58:03

Attachments:

image003.png image004.png image005.png image006.png image007.png

fyi

From:

Sent: 30 January 2015 15:50

To:

Cc:

Subject: RE: URGENT ACTION: Accessing Horizon

Hi my proposed answer to the first question below (it can be sent in its entirety to she can pick and choose). Though this will need to be signed off by as a 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. are you able to put something together based upon the email you sent ?



In terms of Q1

-0

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).

From: [mailto: @uk.fujitsu.com]
Sent: 30 January 2015
12:42
To: Cc: Subject: FW: URGENT ACTION : Accessing Horizon

Post Office

Fujitsu
Lovelace Road, Bracknell, RG12 8SN
Mob:
Email: @uk.fujitsu.com
Web: http://uk.fujitsu.com



Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com



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

Thanks,



Sent: 30 January 2015 09:28

To:

Subject: URGENT ACTION: Accessing Horizon



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,



From: Paula Vennells < <u>@postoffice.co.uk</u>>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < <u>@postoffice.co.uk</u>>, Lesley J Sewell

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

 Γ :

Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From:
To:

Cc:

Sewell;
Subject:

RE: URGENT ACTION : Accessing Horizon

Date:

30 January 2015 16:59:01

Attachments:

image001.png
image003.png
image004.png
image005.png
image005.png
image006.png

I have the bullets that provided earlier in relation to Q2 :-

Q. "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?"

Answer:-

- There is a Joint permanent test team
- · Permanent test facilities are in place
- In constant use to test enhancements and maintenance releases (software upgrades, patching etc)
- · All code regression tested to ensure stability of the environment
- · All change approved formally by change process
- Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard
- All access and system segregation, security audited by external PCI auditors for PCI accreditation
- Consequently system stability is high and availability has run consistently above target over many years

I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided.

I propose that we provide with the answer to Q.1) as you have stated below (I have already agreed that content with final article is crafted by a Comms expert.

/ — are you all okay with this or do you need me to do anything else ?

Thanks,



From:
Sent: 30 January 2015 15:50
To:
Cc:

Subject: RE: URGENT ACTION: Accessing Horizon

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

are you able to put something together based upon the email you sent
?



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).

From: [mailto: @uk.fujitsu.com]
Sent: 30 January 2015 12:42
To: Cc: Subject: FW: URGENT ACTION : Accessing Horizon

Fujitsu
Lovelace Road, Bracknell, RG12 8SN
Mob:
Email: @uk.fujitsu.com
Web: http://uk.fujitsu.com



Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com



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

Thanks,



From: @postoffice.co.uk

Sent: 30 January 2015 09:28

To:

Subject: URGENT ACTION: Accessing Horizon

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.





From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < <u>@postoffice.co.uk</u>>, Lesley J Sewell

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

T: @postoffice.co.uk

Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET. LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From: To @uk.fuiitsu.com): Cc: Subject: RE: URGENT ACTION: Accessing Horizon Date: 30 January 2015 17:01:00 Attachments: image001.png image003.png image004.png image005.png image006.ppg Fine by me. let me know if you need me to do anything further From: Sent: 30 January 2015 16:59 To: @uk.fujitsu.com); Cc: Subject: RE: URGENT ACTION: Accessing Horizon I have the bullets that provided earlier in relation to Q2:-Q. "you have said this is such a vital system to the Post Office, what testing do you do and how

Answer:-

There is a Joint permanent test team

often? When was the last time?"

- Permanent test facilities are in place
- In constant use to test enhancements and maintenance releases (software upgrades, patching etc)
- · All code regression tested to ensure stability of the environment
- All change approved formally by change process
- Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard
- All access and system segregation, security audited by external PCI auditors for PCI accreditation
- Consequently system stability is high and availability has run consistently above target over many years

I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided.

I propose that we provide with the answer to Q.1) as you have stated below (I have already agreed that content with provided by to Q2. so that the final article is crafted by a Comms expert.

/ — are you all okay with this or do you need me to do anything else ?

Thanks,



From:

Sent: 30 January 2015 15:50

To:

Cc:

Subject: RE: URGENT ACTION: Accessing Horizon

Hi my proposed answer to the first question below (it can be sent in its entirety to she can pick and choose). Though this will need to be signed off by as a 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. are you able to put something together based upon the email you sent ?

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).

From: [mailto: @uk.fujitsu.com]
Sent: 30 January 2015
12:42
To: Cc: Subject: FW: URGENT ACTION : Accessing Horizon

Post Office

Fujitsu
Lovelace Road, Bracknell, RG12 8SN
Mob:
Email: @uk.fujitsu.com
Web: http://uk.fujitsu.com



Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com



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

Thanks,



Sent: 30 January 2015 09:28

To:

Subject: URGENT ACTION: Accessing Horizon



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,



From: Paula Vennells < <u>@postoffice.co.uk</u>>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < <u>@postoffice.co.uk</u>>, Lesley J Sewell

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

 Γ :

Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From: To @uk.fuiitsu.com): Cc: Subject: RE: URGENT ACTION: Accessing Horizon Date: 30 January 2015 17:01:07 Attachments: image001.png image003.png image004.png image005.png image006.ppg Fine by me. let me know if you need me to do anything further From: Sent: 30 January 2015 16:59 To: @uk.fujitsu.com); Cc: Subject: RE: URGENT ACTION: Accessing Horizon I have the bullets that provided earlier in relation to Q2:-Q. "you have said this is such a vital system to the Post Office, what testing do you do and how

Answer:-

There is a Joint permanent test team

often? When was the last time?"

- Permanent test facilities are in place
- In constant use to test enhancements and maintenance releases (software upgrades, patching etc)
- · All code regression tested to ensure stability of the environment
- All change approved formally by change process
- Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard
- All access and system segregation, security audited by external PCI auditors for PCI accreditation
- Consequently system stability is high and availability has run consistently above target over many years

I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided.

I propose that we provide with the answer to Q.1) as you have stated below (I have already agreed that content with final article is crafted by a Comms expert.

/ — are you all okay with this or do you need me to do anything else ?

Thanks,



From:

Sent: 30 January 2015 15:50

To:

Cc:

Subject: RE: URGENT ACTION: Accessing Horizon

Hi my proposed answer to the first question below (it can be sent in its entirety to she can pick and choose). Though this will need to be signed off by as a 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. are you able to put something together based upon the email you sent ?

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).

From: [mailto: @uk.fujitsu.com]
Sent: 30 January 2015
12:42
To: Cc: Subject: FW: URGENT ACTION : Accessing Horizon

Post Office

Fujitsu
Lovelace Road, Bracknell, RG12 8SN
Mob:
Email: @uk.fujitsu.com
Web: http://uk.fujitsu.com



Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com



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

Thanks,



Sent: 30 January 2015 09:28

To:

Subject: URGENT ACTION: Accessing Horizon



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,



From: Paula Vennells < <u>@postoffice.co.uk</u>>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < <u>@postoffice.co.uk</u>>, Lesley J Sewell

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

 Γ :

Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From: Lesley J Sewell on behalf of Lesley J Sewell < @postoffice.co.uk>

To: Mark R Davies

Subject: Fwd: URGENT ACTION: Accessing Horizon

Date: 30 January 2015 17:13:21

Attachments: image001.png

image002.jpg image003.png image004.png image005.png image006.png

FYI

Any questions please give me a shout.

L

Lesley J Sewell Chief Information Officer Post Office Ltd

Email: @postoffice.co.uk

Direct: Mobile:

Sent from my iPhone

Begin forwarded message:

Subject: RE: URGENT ACTION: Accessing Horizon

I have the bullets that provided earlier in relation to Q2:-Q. "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?"

Answer:-

- There is a Joint permanent test team
- · Permanent test facilities are in place
- In constant use to test enhancements and maintenance releases (software

upgrades, patching etc)

- · All code regression tested to ensure stability of the environment
- · All change approved formally by change process
- Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard
- · All access and system segregation, security audited by external PCI auditors for PCI accreditation
- · Consequently system stability is high and availability has run consistently above target over many years

| I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided. |
|---|
| I propose that we provide with the answer to Q.1) as you have stated below (I have already agreed that content with AND the bullets provided by a Comms expert. |
| - are you all okay with this or do you need me to do anything else ? |
| Thanks, |
| I |
| 2nd Floor, 148 Old Street, London EC1V 9HQ Mobex @postoffice.co.uk [Footer 5] |
| From: Sent: 30 January 2015 15:50 To: Cc: Subject: RE: URGENT ACTION : Accessing Horizon |
| Hi my proposed answer to the first question below (it can be sent in its entirety to and she can pick and choose). Though this will need to be signed off by as a 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. are you able to put something together based upon the email you sent. |

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.

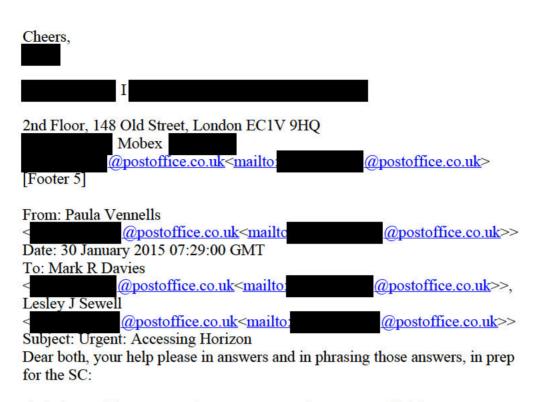
There is no functionality in Horizon for either a branch, Post Office or Fujitsu to edit, manipulate or remove a transaction once it has been recorded in a branch's accounts.

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).

| From: [mailto: Sent: 30 January 2015 12:42 To: Cc: [mailto: A CTION A | @uk.fujitsu.com] |
|--|------------------------------------|
| Subject: FW: URGENT ACTION : Accessing I | Horizon |
| Post Office Fujitsu Lovela <u>ce Road, Brackn</u> ell, RG12 8SN | |
| Mob: + Email: @uk.fujitsu.com <mailto:< td=""><td>@uk.fujitsu.com></td></mailto:<> | @uk.fujitsu.com> |
| Web: http://uk.fujitsu.com [cid:image002.png@01CDCD78.A2445810] http://www.facebook.com/fujitsuuk | |
| [cid:image003.png@01CDCD78.A2445810]< | https://twitter.com/#!/fujitsu_uk> |
| [cid:image004.png@01CDCD78.A2445810] http://www.youtube.com/user/FujitsuUK | |
| [cid:image005.png@01CDCD78.A2445810] <a announcem"="" href="http://www.linkedin.com/company/fujitsu-uk-thttp://www.linkedin.com/com/company/fujitsu-uk-thttp://www.linkedin.com/com/com/com/com/com/com/com/com/com/</td><td>-and-ireland></td></tr><tr><td>Fujitsu is proud to partner with Shelterhttp://www.fujitsu.com/uk/announcem housing and homeless charity Reshaping ICT, Reshaping Business in partners FT.com http://reshaping-ict.ft.com/ P Please consider the environment - do you real. | ship with |
| As discussed, can you hook up with already been provided to second sight as this sh response. | |
| Thanks, | |
| | |
| From: [mailto: @p Sent: 30 January 2015 09:28 To: Subject: URGENT ACTION : Accessing Horiz | ostoffice.co.uk] |
| 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.



- 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

T: @postoffice.co.uk<mailto: @postoffice.co.uk>

Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

- ?
- ?
- ?
- 2
- 9
- ?

From: Lesley J Sewell on behalf of Lesley J Sewell < @postoffice.co.uk>
To: Mark R Davies
Subject: Fwd: URGENT ACTION : Accessing Horizon

Date: 30 January 2015 17:13:54

image002.jpg image003.png image004.png image005.png image006.png

image001.png

Lesley J Sewell Chief Information Officer Post Office Ltd

Email: <u>@postoffice.co.uk</u>

Direct: Mobile:

Attachments:

Sent from my iPhone

Begin forwarded message:

```
From: '
                                              @postoffice.co.uk>
To: "
                                   @postoffice.co.uk>.
                @uk.fujitsu.com>.
                @postoffice.co.uk>
                                  @uk.fujitsu.com>
Cc: "
              @uk.fujitsu.com)" <
                                               @uk.fujitsu.com>, "
                     @postoffice.co.uk>.
                                         "Lesley J Sewell"
              @postoffice.co.uk>, '
            @postoffice.co.uk>,
            @postoffice.co.uk>
Subject: RE: URGENT ACTION: Accessing Horizon
```

Fine by me. — let me know if you need me to do anything further

Subject: RE: URGENT ACTION: Accessing Horizon

I have the bullets that provided earlier in relation to Q2:-

Q. "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?"

Answer:-

signed off by

- · There is a Joint permanent test team
- Permanent test facilities are in place
- · In constant use to test enhancements and maintenance releases (software upgrades, patching etc)
- · All code regression tested to ensure stability of the environment
- · All change approved formally by change process
- Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard
- · All access and system segregation, security audited by external PCI auditors for PCI accreditation
- · Consequently system stability is high and availability has run consistently above target over many years

I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided.

| below (I have already agreed that content with AND the bullets provided by a Comms expert. — are you all okay with this or do you need me to do anything else? |
|---|
| Thanks, |
| I |
| 2nd Floor, 148 Old Street, London EC1V 9HQ Mobex @postoffice.co.uk <mailto: 5]="" @postoffice.co.uk<="" [footer="" p=""></mailto:> |
| From: Sent: 30 January 2015 15:50 To: Cc: Subject: RE: URGENT ACTION : Accessing Horizon |
| Hi my proposed answer to the first question below (it can be sent in its entirety to and she can pick and choose). Though this will need to be |

In terms of the second question, I cannot find anything on the testing carried

as accurate.

out. It could very well have been sent to one of my predecessors but I cannot find it anywhere. are you able to put something together based upon the email you sent ?

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.

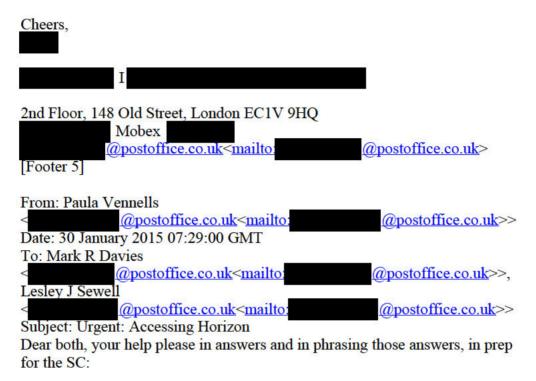
The following safeguards are in place to prevent such occurrences:

- 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). @uk.fujitsu.com From: mailto: Sent: 30 January 2015 12:42 To: Cc: Subject: FW: URGENT ACTION: Accessing Horizon Post Office Fuiitsu Lovelace Road, Bracknell, RG12 8SN Mob: + Email: @uk.fujitsu.com<mailto: @uk.fujitsu.com> Web: http://uk.fujitsu.com [cid:image002.png@01CDCD78.A2445810] http://www.facebook.com/fujitsuuk> [cid:image003.png@01CDCD78.A2445810]<https://twitter.com/#!/fujitsu_uk> [cid:image004.png@01CDCD78.A2445810] http://www.youtube.com/user/FujitsuUK [cid:image005.png@01CDCD78.A2445810] http://www.linkedin.com/company/fujitsu-uk-and-ireland Fujitsu is proud to partner with Shelter<http://www.fujitsu.com/uk/announcements/shelter/index.html>, the housing and homeless charity Reshaping ICT, Reshaping Business in partnership with FT.com<http://reshaping-ict.ft.com/> P Please consider the environment - do you really need to print this email? As discussed, can you hook up with to review what answers have already been provided to second sight as this should form the Post Office response. Thanks, @postoffice.co.uk From: mailto: Sent: 30 January 2015 09:28 To: Subject: URGENT ACTION : Accessing Horizon

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.



- 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

T: @postoffice.co.uk> @postoffice.co.uk<mailto:

Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

- ?
- ?
- ?
- 2
- ?
- ?

Date: 30 January 2015 17:22:32

Attachments: image003.png

image004.png image005.png image006.png image007.png



I have just seen this as was working in another mail to you which I have posted below.

Having looked again at the request from Paula, it appears that the fundamentals around this question (remote access) 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 (to create transactions) are limited to approved local personnel only who are responsible for setting their own passwords. Users are only created following an approval process which requires authorisation by the sub-postmaster. All subsequent transactions are recorded against the id used to log on to the system.
- 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.

Happy to clarify any points further.

Regards,

Post Office

Fujitsu

Lovelace Road, Bracknell, RG12 8SN

Mob: @uk.fujitsu.com

Web: http://uk.fujitsu.com



Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com

Please consider the environment - do you really need to print this email?

| From: | [mailto: | @postoffice.d | co.uk] |
|-------------------|----------------|--------------------|--------|
| Sent: 30 January | 2015 16:59 | | |
| То: | ; | ; | |
| Cc: | ; | ; Lesley J Sewell; | ; |
| Subject: RE: URGI | ENT ACTION : . | Accessing Horizon | |

,

I have the bullets that provided earlier in relation to Q2:-

Q. "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?"

Answer:-

- There is a Joint permanent test team
- · Permanent test facilities are in place
- · In constant use to test enhancements and maintenance releases (software upgrades, patching etc)
- · All code regression tested to ensure stability of the environment
- · All change approved formally by change process
- Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard
- · All access and system segregation, security audited by external PCI auditors for PCI accreditation
- · Consequently system stability is high and availability has run consistently above target over many years

I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided.

I propose that we provide with the answer to Q.1) as you have stated below (I have already agreed that content with provided by to Q2. so that the final article is crafted by a Comms expert.



Thanks,





From:

Sent: 30 January 2015 15:50

To:

Cc:

Subject: RE: URGENT ACTION: Accessing Horizon

Hi my proposed answer to the first question below (it can be sent in its entirety to she can pick and choose). Though this will need to be signed off by as a 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. are you able to put something together based upon the email you sent ?



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).



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,



From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < @postoffice.co.uk >, Lesley J Sewell

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

T: <u>@postoffice.co.uk</u>

Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From: Lesley J Sewell on behalf of Lesley J Sewell < @postoffice.co.uk>

To: Mark R Davies

Subject: Fwd: URGENT ACTION: Accessing Horizon

Date: 30 January 2015 17:28:59

Attachments: <u>image003.png</u>

image004.png image005.png image006.png image007.png image008.jpg

More detail

Lesley J Sewell Chief Information Officer Post Office Ltd

Email: @postoffice.co.uk

Direct: Mobile:

Sent from my iPhone

Begin forwarded message:

Subject: RE: URGENT ACTION: Accessing Horizon

Hi ,

I have just seen this as was working in another mail to you which I have posted below.

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

- 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 (to create transactions) are limited to approved local personnel only who are responsible for setting their own passwords. Users are only created following an approval process which requires authorisation by the sub-postmaster. All subsequent transactions are recorded against the id used to log

on to the system.

- 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.

Happy to clarify any points further.

Regards,

Post Office Fujitsu

Lovelace Road, Bracknell, RG12 8SN

Mob: +

Email: @uk.fujitsu.com

Web: http://uk.fujitsu.com

[cid:image002.png@01CDCD78.A2445810]

http://www.facebook.com/fujitsuuk

[cid:image003.png@01CDCD78.A2445810]<https://twitter.com/#!/fujitsu_uk>

[cid:image004.png@01CDCD78.A2445810] http://www.youtube.com/user/FujitsuUK

[cid:image005.png@01CDCD78.A2445810]

http://www.linkedin.com/company/fujitsu-uk-and-ireland

Fujitsu is proud to partner with

Shelter<http://www.fujitsu.com/uk/announcements/shelter/index.html>, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with

FT.com<http://reshaping-ict.ft.com/>

P Please consider the environment - do you really need to print this email?

| From: | mailto: | @postoffice.co.uk | <u> </u> |
|-----------------|--------------|-------------------|----------|
| Sent: 30 Januar | y 2015 16:59 | | |
| Го: | | | |

| Cc: ; ; Lesley J Sewell; ; Subject: RE: URGENT ACTION : Accessing Horizon |
|--|
| I have the bullets that provided earlier in relation to Q2:-Q. "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?" |
| Answer:- |
| There is a Joint permanent test team |
| Permanent test facilities are in place |
| In constant use to test enhancements and maintenance releases (software upgrades, patching etc) |
| All code regression tested to ensure stability of the environment |
| All change approved formally by change process |
| Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard |
| All access and system segregation, security audited by external PCI auditors for PCI accreditation |
| Consequently system stability is high and availability has run consistently above target over many years |
| I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided. |
| I propose that we provide with the answer to Q.1) as you have stated below (I have already agreed that content with AND the bullets provided by a Comms expert. |
| - are you all okay with this or do you need me to do anything else ? |
| Thanks, |
| I |
| 2nd Floor, 148 Old Street, London EC1V 9HQ Mobex @postoffice.co.uk <mailto 5]="" @postoffice.co.uk<="" [footer="" p=""></mailto> |
| From: |

Sent: 30 January 2015 15:50 To: Cc:

Subject: RE: URGENT ACTION: Accessing Horizon

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

are you able to put something together based upon the email you sent
?



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).

@uk.fujitsu.com mailto: From: Sent: 30 January 2015 12:42 To: Cc:

Subject: FW: URGENT ACTION: Accessing Horizon

Post Office Fuiitsu

Lovelace Road, Bracknell, RG12 8SN

Mob: + Email:

@uk.fujitsu.com<mailto:

@uk.fujitsu.com>

Web: http://uk.fujitsu.com

[cid:image002.png@01CDCD78.A2445810]

http://www.facebook.com/fujitsuuk>

[cid:image003.png@01CDCD78.A2445810]https://twitter.com/#!/fujitsu-uk

[cid:image004.png@01CDCD78.A2445810] http://www.youtube.com/user/FujitsuUK

[cid:image005.png@01CDCD78.A2445810]

http://www.linkedin.com/company/fujitsu-uk-and-ireland

Fujitsu is proud to partner with

Shelter<http://www.fujitsu.com/uk/announcements/shelter/index.html>, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with

FT.com<http://reshaping-ict.ft.com/>

P Please consider the environment - do you really need to print this email?

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

Thanks,

From: [mailto: @postoffice.co.uk]

Sent: 30 January 2015 09:28

To:

Subject: URGENT ACTION : Accessing Horizon

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,

2nd Floor, 148 Old Street, London EC1V 9HQ

Mobex
@postoffice.co.uk<mailto:
@postoffice.co.uk>

[Footer 5]

From: Paula Vennells

@postoffice.co.uk<mailto:</pre>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies

@postoffice.co.uk<mailto:

Lesley J Sewell

@postoffice.co.uk<mailto:
@postoffice.co.uk<>>

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

| T: | 97 | |
|----|--|--------------------|
| @1 | oostoffice.co.uk <mailto:< td=""><td>@postoffice.co.uk></td></mailto:<> | @postoffice.co.uk> |

Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540.

Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

- ?
- ?
- ?
- ?
- ?
- ?

From: Duk fuiitsu.com": To uk.fuiitsu.com": Les Cc: Re: URGENT ACTION: Accessing Horizon Subject: Date: 30 January 2015 17:48:40 Attachments: image003.ppg image004.png image005.png image006.png image007.png **Thanks** Helpful and clear input. Regards Post Office Ltd From: [mailto: @uk.fujitsu.com] Sent: Friday, January 30, 2015 05:22 PM

To: ; Lesley J Sewell; Cc: @uk.fujitsu.com> Subject: RE: URGENT ACTION: Accessing Horizon

Hi

I have just seen this as was working in another mail to you which I have posted below.

Having looked again at the request from Paula, it appears that the fundamentals around this question (remote access) 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 (to create transactions) are limited to approved local personnel only who are responsible for setting their own passwords. Users are only created following an approval process which requires authorisation by the sub-postmaster. All subsequent transactions are recorded against the id used to log on to the system.
- 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.

Happy to clarify any points further.

Regards,





Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com





,

I have the bullets that provided earlier in relation to Q2 :-

Q. "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?"

Answer:-

- There is a Joint permanent test team
- Permanent test facilities are in place
- In constant use to test enhancements and maintenance releases (software upgrades, patching etc)
- All code regression tested to ensure stability of the environment
- All change approved formally by change process
- Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard
- All access and system segregation, security audited by external PCI auditors for PCI accreditation
- Consequently system stability is high and availability has run consistently above target over many years

I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute

the facts provided.

From: Sent: 30 January 2015 15:50

To:

Subject: RE: URGENT ACTION: Accessing Horizon

Hi my proposed answer to the first question below (it can be sent in its entirety to she can pick and choose). Though this will need to be signed off by as a 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. are you able to put something together based upon the email you sent ?



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).

From: [mailto: @uk.fujitsu.com]
Sent: 30 January 2015 12:42

To: Cc:

Subject: FW: URGENT ACTION: Accessing Horizon

Post Office

Fujitsu

Lovelace Road, Bracknell, RG12 8SN

Mob:
Email: @uk.fujitsu.com
Web: http://uk.fujitsu.com









Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com



Please consider the environment - do you really need to print this email?



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

Thanks,



From: [mailto: @postoffice.co.uk]

Sent: 30 January 2015 09:28

To:

Subject: URGENT ACTION : Accessing Horizon



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,



From: Paula Vennells < appostoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < <u>@postoffice.co.uk</u>>, Lesley J Sewell

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



Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From: To: @uk.fuiitsu.com" Cc: Re: URGENT ACTION: Accessing Horizon Subject: Date: 30 January 2015 17:50:03 Attachments: image001.png image003.png image004.png image005.png image006.png Thank you so much for your help today and I do apologise that we are going over some welltrodden ground. But needed to to craft into brief. Have a good weekend Communications Team Mobile From: Sent: Friday, January 30, 2015 05:01 PM @uk.fujitsu.com>; To: Cc: @uk.fujitsu.com> @uk.fujitsu.com) @uk.fujitsu.com> ; Lesley J Sewell; Subject: RE: URGENT ACTION: Accessing Horizon Fine by me. let me know if you need me to do anything further From: Sent: 30 January 2015 16:59 To:

Cc: @uk.fujitsu.com> (@uk.fujitsu.com);

; Lesiey J Sewell; Subject: RE: URGENT ACTION : Accessing Horizon

I have the bullets that provided earlier in relation to Q2 :-

Q. "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?"

Answer:-

- There is a Joint permanent test team
- Permanent test facilities are in place
- In constant use to test enhancements and maintenance releases (software upgrades, patching etc)
- · All code regression tested to ensure stability of the environment
- · All change approved formally by change process
- Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard
- All access and system segregation, security audited by external PCI auditors for PCI accreditation
- · Consequently system stability is high and availability has run consistently above target over

many years

I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided.

I propose that we provide with the answer to Q.1) as you have stated below (I have already agreed that content with ______, Info. Security. AND the bullets provided by ______ to Q2. so that the final article is crafted by a Comms expert.

/ _____ - are you all okay with this or do you need me to do anything else?

Thanks,

I

2nd Floor, 148 Old Street, London EC1V 9HQ

Mobex

@postoffice.co.uk

From: Sent: 30 January 2015 15:50

To: Cc:

Subject: RE: URGENT ACTION: Accessing Horizon

Hi my proposed answer to the first question below (it can be sent in its entirety to she can pick and choose). Though this will need to be signed off by as a 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. are you able to put something together based upon the email you sent ?



-

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).

From: [mailto: @uk.fujitsu.com]
Sent: 30 January 2015 12:42

To: Cc:

Subject: FW: URGENT ACTION : Accessing Horizon

Post Office

Fujitsu

Lovelace Road, Bracknell, RG12 8SN













Please consider the environment - do you really need to print this email?



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

Thanks.



@postoffice.co.uk] From: [mailto:

Sent: 30 January 2015 09:28

Subject: URGENT ACTION: Accessing Horizon



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.



From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

<u>@postoffice.co.uk</u>>, Lesley J Sewell **To:** Mark R Davies <

@postoffice.co.uk> **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



Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

| From: | | | |
|--------------|---|-------------------|------------|
| To: | ; | | |
| Cc: | <pre>_< @uk.fujitsu.com> (</pre> | @uk.fujitsu.com); | ; Lesley J |
| | Sewell; ; | | |
| Subject: | UPDATE Q1: URGENT ACTION: Accessing Horizon | | |
| Date: | 30 January 2015 17:50:40 | | |
| Attachments: | image001.png | | |
| | image003.png | | |
| | image004.png | | |
| | image005.png | | |
| | image006 ppg | | |

has had a look at your answer to Q1. And thinks there's too much detail for Paula – this was written for a different type of audience. He has captured the same points but in a more appropriate format:-

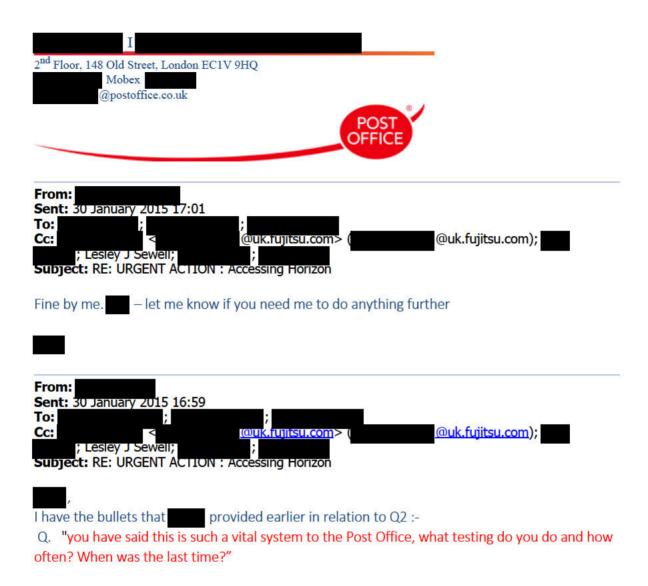
He states :-

Having looked again at the request from Paula, it appears that the fundamentals around this question (remote access) 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 (to create transactions) are limited to approved local personnel only who are responsible for setting their own passwords. Users are only created following an approval process which requires authorisation by the sub-postmaster. All subsequent transactions are recorded against the id used to log on to the system.
- 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.

| I suggest that we take | advice on this and combine that with the Q2. Answer as proposed | |
|-------------------------------|--|---|
| has advised that he is contac | you are okay with this final position unless I hear differently. stable over the weekend, so if you need more information / ease direct via me and I'll co-ordinate. | Š |

Thanks,



Answer:-

- There is a Joint permanent test team
- Permanent test facilities are in place
- In constant use to test enhancements and maintenance releases (software upgrades, patching etc)
- All code regression tested to ensure stability of the environment
- All change approved formally by change process
- Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard
- All access and system segregation, security audited by external PCI auditors for PCI accreditation
- Consequently system stability is high and availability has run consistently above target over many years

I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided.

I propose that we provide with the answer to Q.1) as you have stated below (I have already agreed that content with , Info. Security. AND the bullets provided by to Q2. so

that the final article is crafted by a Comms expert.

/ ____ are you all okay with this or do you need me to do anything else ?

Thanks,

I

2nd Floor, 148 Old Street, London EC1V 9HQ

Mobex

@postoffice.co.uk

From: Sent: 30 January 2015 15:50

To:

Cc:

Subject: RE: URGENT ACTION: Accessing Horizon

Hi my proposed answer to the first question below (it can be sent in its entirety to she can pick and choose). Though this will need to be signed off by as a 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. are you able to put something together based upon the email you sent ?



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).

Subject: FW: URGENT ACTION: Accessing Horizon

Fujitsu
Lovelace Road, Bracknell, RG12 8SN
Mob:
Email: @uk.fujitsu.com
Web: http://uk.fujitsu.com



Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com

Please consider the environment - do you really need to print this email?



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

.

From: [mailto: @postoffice.co.uk]

Sent: 30 January 2015 09:28

To:

Subject: URGENT ACTION: Accessing Horizon



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,



From: Paula Vennells < <u>@postoffice.co.uk</u>>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < <u>@postoffice.co.uk</u>>, Lesley J Sewell

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



Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From: Lesley J Sewell on behalf of Lesley J Sewell < @postoffice.co.uk>

To: Mark R Davies

Subject: Fwd: UPDATE Q1 : URGENT ACTION : Accessing Horizon

Date: 30 January 2015 18:00:50

Attachments: image001.png

image002.jpg image003.png image004.png image005.png image006.png

FYI

Lesley J Sewell Chief Information Officer Post Office Ltd

Email: <u>@postoffice.co.uk</u>

Direct: Mobile:

Sent from my iPhone

Begin forwarded message:

Subject: UPDATE Q1: URGENT ACTION: Accessing Horizon

has had a look at your answer to Q1. And thinks there's too much detail for Paula – this was written for a different type of audience. He has captured the same points but in a more appropriate format:-

He states :-

Having looked again at the request from Paula, it appears that the fundamentals around this question (remote access) 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 (to create transactions) are limited to approved local personnel only who are responsible for setting their own passwords. Users are only

created following an approval process which requires authorisation by the subpostmaster. All subsequent transactions are recorded against the id used to log on to the system.

- 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.

I suggest that we take advice on this and combine that with the Q2.

Answer as proposed.

- I'll assume that you are okay with this final position unless I hear differently. has advised that he is contactable over the weekend, so if you need more information / clarification on any points please direct via me and I'll co-ordinate.

Thanks,



| From: Sent: 30 January 2015 16:59 To: ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; |
|--|
| I have the bullets that provided earlier in relation to Q2:-Q. "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?" |
| Answer:- |
| There is a Joint permanent test team |
| Permanent test facilities are in place |
| In constant use to test enhancements and maintenance releases (software upgrades, patching etc) |
| All code regression tested to ensure stability of the environment |
| · All change approved formally by change process |
| |

- Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard
- · All access and system segregation, security audited by external PCI auditors for PCI accreditation
- · Consequently system stability is high and availability has run consistently above target over many years

I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided.

| I propose that we provide with the answer to Q.1) as you have stated below (I have already agreed that content with AND the bullets provided by to Q2. so that the final article is crafted by |
|--|
| a Comms expert. - are you all okay with this or do you need me to do anything else? |
| Thanks, |

| 2nd Floor, 148 Old Street, London EC1V 9HQ | |
|---|--------------------|
| Mobex | 1555a is 955633 19 |
| @postoffice.co.uk <mailto:< td=""><td>@postoffice.co.uk></td></mailto:<> | @postoffice.co.uk> |
| [Footer 5] | |
| From: | |
| Sent: 30 January 2015 15:50 | |
| To: | |
| Ce: | |
| Subject: RE: URGENT ACTION: Accessing H | orizon |

Higher my proposed answer to the first question below (it can be sent in its entirety to and she can pick and choose). Though this will need to be signed off by 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. are you able to put something together based upon the email you sent ?



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).

From: [mailto: @uk.fujitsu.com]
Sent: 30 January 2015 12:42

To:

Cc:

Subject: FW: URGENT ACTION: Accessing Horizon

Post Office Fujitsu

Lovelace Road, Bracknell, RG12 8SN

Mob: Email:

@uk.fujitsu.com<mailto:

@uk.fujitsu.com>

Web: http://uk.fujitsu.com

[cid:image002.png@01CDCD78.A2445810]

http://www.facebook.com/fujitsuuk>

[cid:image003.png@01CDCD78.A2445810]<https://twitter.com/#!/fujitsu_uk>

[cid:image004.png@01CDCD78.A2445810] http://www.youtube.com/user/FujitsuUK

[cid:image005.png@01CDCD78.A2445810]

http://www.linkedin.com/company/fujitsu-uk-and-ireland

Fujitsu is proud to partner with

Shelter<<u>http://www.fujitsu.com/uk/announcements/shelter/index.html</u>>, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with

FT.com<http://reshaping-ict.ft.com/> P Please consider the environment - do you really need to print this email? As discussed, can you hook up with to review what answers have already been provided to second sight as this should form the Post Office response. Thanks, From: mailto @postoffice.co.uk Sent: 30 January 2015 09:28 To: Subject: URGENT ACTION : Accessing Horizon 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, 2nd Floor, 148 Old Street, London EC1V 9HQ Mobex @postoffice.co.uk> @postoffice.co.uk<mailto: Footer 5 From: Paula Vennells @postoffice.co.uk<mailto: @postoffice.co.uk>> Date: 30 January 2015 07:29:00 GMT To: Mark R Davies @postoffice.co.uk<mailto: @postoffice.co.uk>>, Lesley J Sewell @postoffice.co.uk<mailto: @postoffice.co.uk>> 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



Sent from my iPad

<u>*************************</u>

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

?

?

?

?

From:

To:

Cc:

| Guk.fujitsu.com"; | Lesley J Sewell; | ; |
| Guk.fujitsu.com"

Subject:

Re: UPDATE Q1 : URGENT ACTION : Accessing Horizon

Date:

30 January 2015 18:17:10

Attachments:

Image001.png
Image003.png
Image005.png
Image005.png
Image006.png

Thanks again to everyone. This all provides the reassurance needed for Paula in my view re any Qs that come up on this. If we get more queries on any aspect I will let you know.



has had a look at your answer to Q1. And thinks there's too much detail for Paula – this was written for a different type of audience. He has captured the same points but in a more appropriate format:-

He states :-

Having looked again at the request from Paula, it appears that the fundamentals around this question (remote access) 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 (to create transactions) are limited to approved local personnel only who are responsible for setting their own passwords. Users are only created following an approval process which requires authorisation by the sub-postmaster. All subsequent transactions are recorded against the id used to log on to the system.
- 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.

I suggest that we take advice on this and combine that with the Q2. Answer as proposed. I'll assume that you are okay with this final position unless I hear differently. has advised that he is contactable over the weekend, so if you need more information / clarification on any points please direct via me and I'll co-ordinate. Thanks, 2nd Floor, 148 Old Street, London EC1V 9HQ Mobex apostoffice.co.uk From: Sent: 30 January 2015 17:01 To: @uk.fujitsu.com); Cc: @uk.fujitsu.com> ; Lesley J Sewell; Subject: RE: URGENT ACTION: Accessing Horizon - let me know if you need me to do anything further Fine by me. From: Sent: 30 January 2015 16:59 To: @uk.fuiltsu.com> @uk.fuiitsu.com); Cc: t; Lesley J Sewell; Subject: RE: URGENT ACTION : Accessing Horizon I have the bullets that provided earlier in relation to Q2:-Q. "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?"

Answer:-

- There is a Joint permanent test team
- · Permanent test facilities are in place
- In constant use to test enhancements and maintenance releases (software upgrades, patching etc)
- · All code regression tested to ensure stability of the environment

- All change approved formally by change process
- Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard
- All access and system segregation, security audited by external PCI auditors for PCI accreditation
- Consequently system stability is high and availability has run consistently above target over many years

I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided.

with the answer to Q.1) as you have stated below (I have already I propose that we provide agreed that content with , Info. Security. AND the bullets provided by that the final article is crafted by a Comms expert. - are you all okay with this or do you need me to do anything else? Thanks, 2nd Floor, 148 Old Street, London EC1V 9HQ Mobex @postoffice.co.uk From: Sent: 30 January 2015 15:50 To: Cc: Subject: RE: URGENT ACTION: Accessing Horizon my proposed answer to the first question below (it can be sent in its entirety to she can pick and choose). Though this will need to be signed off by 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. to put something together based upon the email you sent

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.

- 18

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).

From: [mailto: @uk.fujitsu.com]
Sent: 30 January 2015
12:42
To:

Subject: FW: URGENT ACTION : Accessing Horizon

Post Office

Fuiitsu

Cc:

Lovelace Road, Bracknell, RG12 8SN

Mob: Email: Web: http://uk.fuiitsu.com









Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com



Please consider the environment - do you really need to print this email?



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

Thanks.



From: @postoffice.co.ukl mailto:

Sent: 30 January 2015 09:28

To:

Subject: URGENT ACTION: Accessing Horizon



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,



From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < <u>@postoffice.co.uk</u>>, Lesley J Sewell

@postoffice.co.uk> 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



Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From:
To:
Subject: RE: UPDATE Q1 : URGENT ACTION : Accessing Horizon
Date: 30 January 2015 19:20:00

Attachments: image001.png
image003.png
image004.png
image005.png
image006.png

omg

Thanks again to everyone. This all provides the reassurance needed for Paula in my view re any Qs that come up on this. If we get more queries on any aspect I will let you know.

Communications Team Mobile

has had a look at your answer to Q1. And thinks there's too much detail for Paula – this was written for a different type of audience. He has captured the same points but in a more appropriate format:-

He states :-

Having looked again at the request from Paula, it appears that the fundamentals around this question (remote access) 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 (to create transactions) are limited to approved local personnel only who are responsible for setting their own passwords. Users are only created following an approval process which requires authorisation by the sub-postmaster. All subsequent transactions are recorded against the id used to log on to the system.
- 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.

advice on this and combine that with the Q2. Answer as proposed. I suggest that we take I'll assume that you are okay with this final position unless I hear differently. has advised that he is contactable over the weekend, so if you need more information / clarification on any points please direct via me and I'll co-ordinate. Thanks, 2nd Floor, 148 Old Street, London EC1V 9HQ Mobex postoffice.co.uk From: Sent: 30 January 2015 17:01 To: Cc: @uk.fujitsu.com); @uk.fujitsu.com> ; Lesley J Sewell; Subject: RE: URGENT ACTION: Accessing Horizon let me know if you need me to do anything further From: Sent: 30 January 2015 16:59 To: @uk.fujitsu.com> @uk.fuiitsu.com); Cc: ; Lesley J Sewell; Subject: RE: URGENT ACTION: Accessing Horizon

I have the bullets that provided earlier in relation to Q2:-

Q. "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?"

Answer:-

- There is a Joint permanent test team
- · Permanent test facilities are in place
- In constant use to test enhancements and maintenance releases (software upgrades, patching etc)
- · All code regression tested to ensure stability of the environment
- · All change approved formally by change process
- Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard
- All access and system segregation, security audited by external PCI auditors for PCI accreditation
- Consequently system stability is high and availability has run consistently above target over many years

I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided.

| the facts provided. |
|--|
| I propose that we provide with the answer to Q.1) as you have stated below (I have already agreed that content with provided by to Q2. so that the final article is crafted by a Comms expert. |
| / — are you all okay with this or do you need me to do anything else ? |
| Thanks, |
| I 2 nd Floor, 148 Old Street, London EC1V 9HQ Mobex @postoffice.co.uk POST OFFICE |
| From: Sent: 30 January 2015 15:50 To: Cc: Subject: RE: URGENT ACTION: Accessing Horizon |
| Hi my proposed answer to the first question below (it can be sent in its entirety to she can pick and choose). Though this will need to be signed off by as a 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. |

to put something together based upon the email you sent

In terms of O1

_

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).

From: [mailto: @uk.fujitsu.com]
Sent: 30 January 2015
To: Cc: [mailto: @uk.fujitsu.com]

Subject: FW: URGENT ACTION: Accessing Horizon



Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com



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

Thanks,



From: [mailto: @postoffice.co.uk]

Sent: 30 January 2015 09:28

To:

Subject: URGENT ACTION: Accessing Horizon



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,



From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

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

T: <u>@postoffice.co.uk</u>

Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From:
To:
Subject: RE: UPDATE Q1 : URGENT ACTION : Accessing Horizon
Date: 30 January 2015 19:20:32

Attachments: image001.png
image003.png
image004.png
image009.png

image006.ppg

omg

Thanks again to everyone. This all provides the reassurance needed for Paula in my view re any Qs that come up on this. If we get more queries on any aspect I will let you know.

Communications Team Mobile

has had a look at your answer to Q1. And thinks there's too much detail for Paula – this was written for a different type of audience. He has captured the same points but in a more appropriate format:-

He states :-

Having looked again at the request from Paula, it appears that the fundamentals around this question (remote access) 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 (to create transactions) are limited to approved local personnel only who are responsible for setting their own passwords. Users are only created following an approval process which requires authorisation by the sub-postmaster. All subsequent transactions are recorded against the id used to log on to the system.
- 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.

advice on this and combine that with the Q2. Answer as proposed. I suggest that we take I'll assume that you are okay with this final position unless I hear differently. has advised that he is contactable over the weekend, so if you need more information / clarification on any points please direct via me and I'll co-ordinate. Thanks, 2nd Floor, 148 Old Street, London EC1V 9HQ Mobex postoffice.co.uk From: Sent: 30 January 2015 17:01 To: Cc: @uk.fujitsu.com); @uk.fujitsu.com> Subject: RE: URGENT ACTION: Accessing Horizon let me know if you need me to do anything further From: Sent: 30 January 2015 16:59 To: @uk.fujitsu.com> @uk.fuiitsu.com); Cc: ; Lesley J Sewell; Subject: RE: URGENT ACTION: Accessing Horizon

I have the bullets that provided earlier in relation to Q2:-

Q. "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?"

Answer:-

- There is a Joint permanent test team
- Permanent test facilities are in place
- In constant use to test enhancements and maintenance releases (software upgrades, patching etc)
- All code regression tested to ensure stability of the environment
- All change approved formally by change process
- Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard
- All access and system segregation, security audited by external PCI auditors for PCI accreditation
- Consequently system stability is high and availability has run consistently above target over many years

I suggest that any words in association to the above are primarily to make the above flow, and

| they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided. |
|--|
| I propose that we provide with the answer to Q.1) as you have stated below (I have already agreed that content with , Info. Security. AND the bullets provided by to Q2. so that the final article is crafted by a Comms expert. |
| / are you all okay with this or do you need me to do anything else? |
| Thanks, |
| I |
| 2 nd Floor, 148 Old Street, London EC1V 9HQ Mobex @postoffice.co.uk |
| OFFICE |
| From: Sent: 30 January 2015 15:50 To: Cc: |
| Subject: RE: URGENT ACTION: Accessing Horizon |
| my proposed answer to the first question below (it can be sent in its entirety to she can pick and choose). Though this will need to be signed off by as accurate. |
| In terms of the second question, I cannot find anything on the testing carried out. It could very |

are you able

well have been sent to one of my predecessors but I cannot find it anywhere.

to put something together based upon the email you sent

In terms of O1

_

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).

From: [mailto: @uk.fujitsu.com]
Sent: 30 January 2015
To: Cc: [mailto: @uk.fujitsu.com]

Subject: FW: URGENT ACTION: Accessing Horizon



Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com



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

Thanks,



From: [mailto: @postoffice.co.uk]

Sent: 30 January 2015 09:28

To:

Subject: URGENT ACTION: Accessing Horizon



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,



From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

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

T: <u>@postoffice.co.uk</u>

Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

| From: To: Subject: Date: Attachments: | Re: UPDATE Q1: URGENT ACTION: Accessing Horizon 30 January 2015 19:22:39 image001.png image003.png image004.png image005.png image006.png |
|---|--|
| I am trying to s | top them:)) |
| Communicatio Mobile | ns Team |
| | anuary 30, 2015 07:20 PM |
| Subject: RE: U | PDATE Q1: URGENT ACTION: Accessing Horizon |
| omg | |
| From: Sent: 30 Janua To: Cc: Subject: Re: U | guk.fujitsu.com'; ; Lesley J Sewell; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; |
| | o everyone. This all provides the reassurance needed for Paula in my view re any up on this. If we get more queries on any aspect I will let you know. |
| Communicatio Mobile | ns Team |
| To: Cc: | anuary 30, 2015 05:50 PM ; (@uk.fujitsu.com> (@uk.fujitsu.com) ; Lesley J Sewell; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; |
| | a look at your answer to Q1. And thinks there's too much detail for Paula – this r a different type of audience. He has captured the same points but in a more |

He states :-

appropriate format :-

Having looked again at the request from Paula, it appears that the fundamentals around this question (remote access) 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 (to create transactions) are limited to approved local personnel only who are responsible for setting their own passwords. Users are only created following an approval process which requires authorisation by the sub-postmaster. All subsequent transactions are recorded against the id used to log on to the system.
- 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.

I suggest that we take advice on this and combine that with the Q2. Answer as proposed.

If the proposed of th

Thanks,



Fine by me. - let me know if you need me to do anything further

| From: Sent: 30 January 2015 16:5 | 59 | |
|--|-------------------------------|-------------------|
| To: ; Cc: | ; <u>@uk.fujitsu.com</u> > | @uk.fujitsu.com); |
| ; Lesley J Sewell; Subject: RE: URGENT ACT. | ; ION : Accessing Horizon | |
| , | | |

Q. "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?"

Answer:-

- There is a Joint permanent test team
- Permanent test facilities are in place
- In constant use to test enhancements and maintenance releases (software upgrades, patching etc)
- · All code regression tested to ensure stability of the environment
- All change approved formally by change process
- Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard
- All access and system segregation, security audited by external PCI auditors for PCI accreditation
- Consequently system stability is high and availability has run consistently above target over many years

I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided.

I propose that we provide ____ with the answer to Q.1) as you have stated below (I have already agreed that content with ____ , Info. Security. AND the bullets provided by to Q2. so that the final article is crafted by a Comms expert.

/ — are you all okay with this or do you need me to do anything else ?

Thanks,



From: Sent: 30 January 2015 15:50

To: Cc:

Subject: RE: URGENT ACTION: Accessing Horizon

Hi my proposed answer to the first question below (it can be sent in its entirety to she can pick and choose). Though this will need to be signed off by as a 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. are you able to put something together based upon the email you sent are?



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).

From: [mailto: @uk.fujitsu.com]
Sent: 30 January 2015 12:42

To:

Cc:

Subject: FW: URGENT ACTION: Accessing Horizon



Fujitsu

Lovelace Road, Bracknell, RG12 8SN

Mob:
Email: @uk.fujitsu.com
Web: http://uk.fujitsu.com



Fujitsu is proud to partner with Shelter, the housing and homeless charity

Reshaping ICT, Reshaping Business in partnership with FT.com





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

Thanks,



From: [mailto: @postoffice.co.uk]

Sent: 30 January 2015 09:28

lo:

Subject: URGENT ACTION: Accessing Horizon



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,



From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

To: Mark R Davies < @postoffice.co.uk>, Lesley J Sewell

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

T: @postoffice.co.uk

Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From: To: Fw: UPDATE Q1: URGENT ACTION: Accessing Horizon Subject: Date: 30 January 2015 18:41:08 Attachments: image001.png image003.png image004.png image006.png Good outcome and thanks for pulling all of this together today. Really appreciated. Have a good weekend. Head of IT Services Post Office Ltd From: January 30, 2015 06:17 PM Sent: To: @uk.fuiitsu.com>: Lesley J Sewell: Cc: @uk.fujitsu.com @uk.fujitsu.com: subject: Re: UPDATE Q1 : URGENT ACTION : Accessing Horizon Thanks again to everyone. This all provides the reassurance needed for Paula in my view re any Qs that come up on this. If we get more queries on any aspect I will let you know. Communications Team Mobile From: Sent: Friday, January 30, 2015 05:50 PM To: @uk.fujitsu.com> @uk.fujitsu.com) @uk.fujitsu.com>; Cc: (OUK.TUIITSU.COM> Subject: UPDATE Q1 : URGENT

has had a look at your answer to Q1. And thinks there's too much detail for Paula – this was written for a different type of audience. He has captured the same points but in a more appropriate format:-

He states :-

Having looked again at the request from Paula, it appears that the fundamentals around this question (remote access) 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 (to create transactions) are limited to approved local personnel only who are responsible for setting their own passwords. Users are only created following an approval process which requires authorisation by the subpostmaster. All subsequent transactions are recorded against the id used to log on to the system.
- 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. I suggest that we take advice on this and combine that with the Q2. Answer as proposed. – I'll assume that you are okay with this final position unless I hear differently. has advised that he is contactable over the weekend, so if you need more information / clarification on any points please direct via me and I'll co-ordinate. Thanks. Floor, 148 Old Street, London EC1V 9HQ Mobex postoffice.co.ul From: Sent: 30 January 2015 17:01 To: @uk.fujitsu.com); ; Lesley J Sewell; Cc: UK.TUIITSU.COI Subject: RE: URGENT ACTION: Accessing Horizon - let me know if you need me to do anything further From: Sent: 30 January 2015 16:59 To: @uk.fujitsu.com); ; Lesley J Sewell; Subject: RE: URGENT ACTION: Accessing Horizon provided earlier in relation to Q2 :-I have the bullets that Q. "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?" Answer:-There is a Joint permanent test team Permanent test facilities are in place In constant use to test enhancements and maintenance releases (software upgrades, patching etc) All code regression tested to ensure stability of the environment All change approved formally by change process Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard All access and system segregation, security audited by external PCI auditors for PCI accreditation Consequently system stability is high and availability has run consistently above target over many years I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided. I propose that we provide with the answer to Q.1) as you have stated below (I have already agreed that content with , Info. Security. AND the bullets provided by to Q2. so that the final article is crafted by a Comms expert.

– are you all okay with this or do you need me to do anything else?



From: Sent: 30 January 2015 15:50

To: Cc:

Subject: RE: URGENT ACTION : Accessing Horizon

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

are you able to put something together based upon the email you sent

?

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).



From: Paula Vennells < @postoffice.co.uk>

Date: 30 January 2015 07:29:00 GMT

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



Sent from my iPad

This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.

POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.

Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu".

This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free.

Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW.

Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW.

PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE.

Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU.

From: Lesley J Sewell on behalf of Lesley J Sewell < @postoffice.co.uk> To: Cc: Subject: Re: UPDATE Q1: URGENT ACTION: Accessing Horizon Date: 30 January 2015 18:46:17 **Attachments:** image001.png image003.png image004.png image005.png image006.png Thank you I've had some great feedback today on how you personally have supported the Sparrow team. Well done and great job. Have a good weekend. L Lesley J Sewell Chief Information Officer Post Office Ltd Email: @postoffice.co.uk Direct: Mobile: Sent from my iPad > On 30 Jan 2015, at 18:41, " @postoffice.co.uk> wrote: > Good outcome and thanks for pulling all of this together today. Really appreciated. > Have a good weekend. > > Post Office Ltd > From: > Sent: Friday, January 30, 2015 06:17 PM > To: ; Lesley J Sewell; > Cc: @uk.fujitsu.com' @uk.fujitsu.com>; @uk.fujitsu.com' @uk.fujitsu.com> > Subject: Re: UPDATE Q1 : URGENT ACTION : Accessing Horizon > Thanks again to everyone. This all provides the reassurance needed for Paula in my view re any Qs that come up on this. If we get more queries on any aspect I will let you know. > Communications Team > Mobile > From: > Sent: Friday, January 30, 2015 05:50 PM > To: @uk.fujitsu.com) > Cc: @uk.fujitsu.com>

| | \mathcal{L} | ; Lesley J | J Sewell; | ; | ; | |
|--|--|---|-------------------|--------------------------------------|---------------------|-----|
| Subjects III | @uk.fujitsu.com> | CTION . A coordina | ~ II.amiraan | | | |
| > Subject. Or | PDATE Q1 : URGENT A | CTION . Accessing | g monzon | | | |
| | , nad a look at your answer be of audience. He has ca | | | | | or |
| > He states :- | | | | | | |
| | ked again at the request frot understood. I suggest the | | | | | e |
| > | | | | | | |
| | ansaction data is held loca copies of all data is sent to | | | e completed and | stored in a central | |
| > 2) Sub-p transactions) a Users are only | postmasters directly managare limited to approved lo y created following an appansactions are recorded ag | cal personnel only proval process which | who are respor | nsible for setting norisation by the | their own passwords | • |
| > 3) Once or amended. I integrity. All | a transaction has been con Each transaction is given a transactions are then post | unique number ar | nd 'wrapped' in | a digital encrypt | | |
| | oproval, there is the function fier in the audit trail. This 2010) | | | | | n |
| > 5) Suppo | ort staff have the ability to tructure as part of standard | | | n real time, the av | vailability of the | |
| > 6) Overa | all system access is tightly endently in annual audits | | • | | • | ts. |
| > > I suggest th > | at we take advice o | n this and combine | e that with the (| Q2. Answer as pr | oposed. | |
| > / / advised that he please direct v | I'll assume that you are ne is contactable over the via me and I'll co-ordinate | weekend, so if you | | | | |
| > Thanks, > S | | | | | | |
| > > | I | | | | | |
| > | 140 011 0 | | | | | |
| > > | 148 Old Street, London Ed Mobex @postoffice.co.uk | CIV 9HQ | | | | |
| > [Footer 5] > | | | | | | |
| > From: > Sent: 30 Jan > To: > Cc: J Sewell; | nuary 2015 17:01 ; @ ; E: URGENT ACTION : A | ccessing Horizon | (a | uk.fujitsu.com); | ; Lesle | ;y |
| > Fine by me. | - let me know if you | a need me to do any | ything further | | | |
| > | | | | | | |

| ^ > |
|--|
| > From: |
| > Sent: 30 January 2015 16:59 |
| > To: ; |
| > Cc: @uk.fujitsu.com <mailto: @uk.fujitsu.com="">></mailto:> |
| ; |
| > Subject: RE: URGENT ACTION : Accessing Horizon |
| > |
| > I have the bullets that provided earlier in relation to Q2:- |
| > Q. "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?" |
| > |
| |
| > Answer:- |
| > Allower |
| > There is a Joint permanent test team |
| > |
| > · Permanent test facilities are in place |
| > In constant use to test enhancements and maintenance releases (software upgrades, patching etc) |
| > |
| > · All code regression tested to ensure stability of the environment |
| |
| All change approved formally by change process |
| > Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard |
| > |
| >· All access and system segregation, security audited by external PCI auditors for PCI accreditation |
| |
| > Consequently system stability is high and availability has run consistently above target over many years > |
| > I suggest that any words in association to the above are primarily to make the above flow, and they are the |
| facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided. |
| |
| > I propose that we provide with the answer to Q.1) as you have stated below (I have already agreed that content with the final article is |
| crafted by a Comms expert. |
| are you all okay with this or do you need me to do anything else? |
| |
| > Thanks, > |
| > |
| > I |
| > |
| > 2nd Floor, 148 Old Street, London EC1V 9HQ > Mobex |
| // / / / / / / / / / / / / / / / / / / |
| > [Footer 5] |
| > |
| > From: > Sent: 30 January 2015 15:50 |
| > To: |
| > Cc: |
| > Subject: RE: URGENT ACTION : Accessing Horizon |
| > Him we proposed answer to the first question below (it can be sent in its entirety to and she can pick |
| and choose). Though this will need to be signed off by 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. are you able to put something together based upon the email you sent > 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). > > > From: @uk.fujitsu.com > Sent: 30 January 2015 12:42 > To: > Cc:

> Subject: FW: URGENT ACTION : Accessing Horizon

```
> Post Office
> Fujitsu
> Lovelace Road, Bracknell, RG12 8SN
> Mob:
> Email:
                           @uk.fujitsu.com<mailto
                                                                       @uk.fuiitsu.com>
> Web: http://uk.fujitsu.com
> [cid:image002.png@01CDCD78.A2445810]< http://www.facebook.com/fujitsuuk>
> [cid:image003.png@01CDCD78.A2445810]<https://twitter.com/#!/fujitsu_uk>
> [cid:image004.png@01CDCD78.A2445810]<a href="http://www.youtube.com/user/FujitsuUK">http://www.youtube.com/user/FujitsuUK</a>
> [cid:image005.png@01CDCD78.A2445810]<a href="http://www.linkedin.com/company/fujitsu-uk-and-ireland">http://www.linkedin.com/company/fujitsu-uk-and-ireland</a>
> Fujitsu is proud to partner with Shelter<a href="http://www.fujitsu.com/uk/announcements/shelter/index.html">http://www.fujitsu.com/uk/announcements/shelter/index.html</a>, the
housing and homeless charity
> Reshaping ICT, Reshaping Business in partnership with FT.com<a href="http://reshaping-ict.ft.com/">http://reshaping-ict.ft.com/</a>
> P Please consider the environment - do you really need to print this email?
> As discussed, can you hook up with to review what answers have already been provided to second
sight as this should form the Post Office response.
> Thanks,
                         mailto
                                                  @postoffice.co.ukl
> From:
> Sent: 30 January 2015 09:28
> To:
> Subject: URGENT ACTION : Accessing Horizon
> \overline{\text{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,
> 2nd Floor, 148 Old Street, London EC1V 9HQ
                  Mobex
                 @postoffice.co.uk<mailto:
                                                            @postoffice.co.uk>
> [Footer 5]
> From: Paula Vennells <
                                           @postoffice.co.uk<mailto
                                                                                        @postoffice.co.uk>>
> Date: 30 January 2015 07:29:00 GMT
> To: Mark R Davies <
                                                                                   @postoffice.co.uk>>, Lesley J
                                       @postoffice.co.uk<<u>mailto:</u>
                        @postoffice.co.uk<mailto
                                                                    @postoffice.co.uk>>
> 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 > T: @postoffice.co.uk<mailto @postoffice.co.uk> > Sent from my iPad > ***************************** > This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated. > POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ. > Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "Fujitsu". > This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-> Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW. > Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW. > PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE. > Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU. > <image001.png> > <image002.jpg> > <image003.png> > <image004.png> > <image005.png> > <image006.png>

```
From:
                               on behalf of
                                                                  @postoffice.co.uk>
To:
Subject:
                   Re: UPDATE Q1: URGENT ACTION: Accessing Horizon
Date:
                   30 January 2015 18:59:55
Much appreciated.
      from FJS and
                               have been great though and made it easier for me.
Thanks,
---- Original Message -----
From: Lesley J Sewell
Sent: Friday, January 30, 2015 06:46 PM Coordinated Universal Time
To:
Cc:
Subject: Re: UPDATE Q1: URGENT ACTION: Accessing Horizon
Thank you
I've had some great feedback today on how you personally have supported the Sparrow team.
Well done and great job.
Have a good weekend.
L
Lesley J Sewell
Chief Information Officer
Post Office Ltd
Email:
                     @postoffice.co.uk
Direct:
Mobile:
Sent from my iPad
> On 30 Jan 2015, at 18:41, "
                                                        @postoffice.co.uk> wrote:
> Good outcome and thanks for pulling all of this together today. Really appreciated.
> Have a good weekend.
>
> Post Office Ltd
> From:
> Sent: Friday, January 30, 2015 06:17 PM
> To:
                                                    @uk.fujitsu.com>;
                                                                                   ; Lesley J Sewell;
> Cc:
                    @uk.fujitsu.com' <
                                                                        @uk.fujitsu.com>
                                      @uk.fujitsu.com' <
> Subject: Re: UPDATE Q1 : URGENT ACTION : Accessing Horizon
```

| > Thanks again to everyone. This all provides the reassurance needed for Paula in my view re any Qs that come |
|--|
| up on this. If we get more queries on any aspect I will let you know. |
| |
| > Communications Team |
| > Mobile > Mobile |
| > |
| > From: |
| > Sent: Friday, January 30, 2015 05:50 PM |
| > To: |
| > Cc: @uk.fujitsu.com> (@uk.fujitsu.com) |
| <pre>@uk.fujitsu.com>; ; Lesley J Sewell; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;</pre> |
| @uk.fujitsu.com> |
| > Subject: UPDATE Q1 : URGENT ACTION : Accessing Horizon > |
| > |
| has had a look at your answer to Q1. And thinks there's too much detail for Paula – this was written for |
| a different type of audience. He has captured the same points but in a more appropriate format:- |
| > |
| > He states :- |
| > Having looked again at the request from Paula, it appears that the fundamentals around this question (remote |
| access) 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 (to create |
| transactions) are limited to approved local personnel only who are responsible for setting their own passwords. |
| Users are only created following an approval process which requires authorisation by the sub-postmaster. All |
| subsequent transactions are recorded against the id used to log on to the system. |
| > |
| > 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. |
| |
| > I suggest that we take advice on this and combine that with the Q2. Answer as proposed. |
| > |
| > I'll assume that you are okay with this final position unless I hear differently. has advised that he is contactable over the weekend, so if you need more information / clarification on any points |
| please direct via me and I'll co-ordinate. |
| > |
| > Thanks, |
| > |
| > |
| |
| |
| > 2nd Floor 148 Old Street London EC1V 0HO |
| > 2nd Floor, 148 Old Street, London EC1V 9HQ > Mobex |
| > @postoffice.co.uk |
| <u> </u> |

| > [Footer 5] |
|--|
| > From: > Sent: 30 January 2015 17:01 > To: > Cc: Quk.fujitsu.com> (|
| > Fine by me – let me know if you need me to do anything further > |
| > |
| > From: > Sent: 30 January 2015 16:59 > To: |
| > |
| > |
| > Answer:- |
| > There is a Joint permanent test team |
| > Permanent test facilities are in place |
| > In constant use to test enhancements and maintenance releases (software upgrades, patching etc) |
| > All code regression tested to ensure stability of the environment |
| > All change approved formally by change process |
| > Processes (change, release etc) audited annually by Ernst and Young as part of IAS 3402 standard |
| > All access and system segregation, security audited by external PCI auditors for PCI accreditation |
| > Consequently system stability is high and availability has run consistently above target over many years |
| > I suggest that any words in association to the above are primarily to make the above flow, and they are the facts. I am happy to reconstruct the above into sentences but don't want to dilute the facts provided. |
| > I propose that we provide with the answer to Q.1) as you have stated below (I have already agreed that content with final article is crafted by a Comms expert. > With the answer to Q.1) as you have stated below (I have already agreed that content with final article is crafted by a Comms expert. > With the answer to Q.1) as you have stated below (I have already agreed that content with final article is crafted by a Comms expert. > With the answer to Q.1) as you have stated below (I have already agreed that content with final article is crafted by a Comms expert. |
| > Thanks, > |
| > 2nd Floor, 148 Old Street, London EC1V 9HQ > Mobex |

| > [Footer 5] | @postoffice.co.uk< <u>mailto</u> : | @postoffice.co.uk> |
|--|--|---|
| > To: | uary 2015 15:50 | |
| > Cc: > Subject: RE: | URGENT ACTION : Accessing Horizon | on |
| | proposed answer to the first question be hough this will need to be signed off by | |
| sent to one of r | the second question, I cannot find anythin my predecessors but I cannot find it anyther email you sent ? | ng on the testing carried out. It could very well have been where. |
| > | | |
| > In terms of C | 21 | |
| > "Can Post Or > Phrasing the Applicants. It Horizon. Also Fujitsu has alw to edit transact post additional Subpostmaster hidden method > Can Post Office of Subpostmaster > Subpostmaster > There is no f | refers generically to "Horizon" but more, the word "access" means the ability to vays been able to access transaction data tion data that appears to be of concern. It, correcting transactions to a branch's act (i.e. Transaction Corrections and Transaction data that is of concern. If of editing data that is of concern. If or Fujitsu edit transaction data with confirms that neither it nor Fujitsu can expect the confirms that neither | the issue that is of concern to Second Sight and the particularly is about the transaction data recorded by read transaction data without editing it – Post Office / however it is the alleged capacity of Post Office / Fujitsu Finally, it has always been known that Post Office can counts but only in ways that are visible to saction Acknowledgements) – it is the potential for any but the knowledge of a Subpostmaster?" dit transaction data without the knowledge of a Ch, Post Office or Fujitsu to edit, manipulate or remove a |
| > > The followin | ng safeguards are in place to prevent such | h occurrences: |
| > >· Office data cer > | Transmission of baskets of transaction atre is cryptographically protected through | data between Horizon terminals in branches and the Post gh the use of digital signatures. |
| | he correct amount of payments, goods a | sion. This means that the total value of the basket is nil nd services has been recorded in the basket. Baskets that al before transmission to the Post Office data centre. |
| >> · recorded to the >> | | ded in full or discarded in full – no partial baskets can be |
| > · | All baskets are given sequential number | ers (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

> · 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).

>

>

```
>
                                                       @uk.fujitsu.com
> From:
> Sent: 30 January 2015 12:42
> To:
> Cc:
> Subject: FW: URGENT ACTION : Accessing Horizon
>
>
> Post Office
> Fujitsu
> Lovelace Road, Bracknell, RG12 8SN
> Mob:
> Email:
                            @uk.fujitsu.com<mailto:
                                                                        @uk.fujitsu.com>
> Web: <a href="http://uk.fujitsu.com">http://uk.fujitsu.com</a>
> [cid:image002.png@01CDCD78.A2445810]<a href="http://www.facebook.com/fujitsuuk">http://www.facebook.com/fujitsuuk</a>>
> [cid:image003.png@01CDCD78.A2445810]<https://twitter.com/#!/fujitsu_uk>
> [cid:image004.png@01CDCD78.A2445810]<a href="http://www.youtube.com/user/FujitsuUK">http://www.youtube.com/user/FujitsuUK</a>
> [cid:image005.png@01CDCD78.A2445810] < http://www.linkedin.com/company/fujitsu-uk-and-ireland >
> Fujitsu is proud to partner with Shelter<a href="http://www.fujitsu.com/uk/announcements/shelter/index.html">http://www.fujitsu.com/uk/announcements/shelter/index.html</a>, the
housing and homeless charity
> Reshaping ICT, Reshaping Business in partnership with FT.com<a href="http://reshaping-ict.ft.com/">http://reshaping-ict.ft.com/</a>
> P Please consider the environment - do you really need to print this email?
> As discussed, can you hook up with
                                             to review what answers have already been provided to second
sight as this should form the Post Office response.
> Thanks,
>
                                                  @postoffice.co.uk]
                          mailto:
> Sent: 30 January 2015 09:28
> Subject: URGENT ACTION : Accessing Horizon
> \overline{\text{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,
> 2nd Floor, 148 Old Street, London EC1V 9HQ
                  Mobex
                 @postoffice.co.uk<mailto
                                                             @postoffice.co.uk>
> [Footer 5]
> From: Paula Vennells <
                                            @postoffice.co.uk<mailto:
                                                                                         @postoffice.co.uk>>
> Date: 30 January 2015 07:29:00 GMT
```

| > To: Mark R Davies < |
|---|
| > 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 |
| > - D. I. V II |
| > Paula Vennells > Chief Executive > Post Office Ltd |
| > > T: |
| <pre> @postoffice.co.uk<a fujitsu".="" href="mailto:mailt</td></tr><tr><td>> Sent from my iPad</td></tr><tr><td>> ></td></tr><tr><td>> ************************************</td></tr><tr><td>> This email and any attachments are confidential and intended for the addressee only. If you are not the named recipient, you must not use, disclose, reproduce, copy or distribute the contents of this communication. If you have received this in error, please contact the sender by reply email and then delete this email from your system. Any views or opinions expressed within this email are solely those of the sender, unless otherwise specifically stated.</td></tr><tr><td>> POST OFFICE LIMITED is registered in England and Wales no 2154540. Registered Office: 148 OLD STREET, LONDON EC1V 9HQ.</td></tr><tr><td>> >***********************************</td></tr><tr><td>> Unless otherwise stated, this email has been sent from Fujitsu Services Limited, from Fujitsu (FTS) Limited, or from Fujitsu Telecommunications Europe Limited, together "></pre> |
| > This email is only for the use of its intended recipient. Its contents are subject to a duty of confidence and may be privileged. Fujitsu does not guarantee that this email has not been intercepted and amended or that it is virus-free. |
| > Fujitsu Services Limited, registered in England No 96056, registered office 22 Baker Street, London W1U 3BW. |
| > Fujitsu (FTS) Limited, registered in England No 03808613, registered office 22 Baker Street, London W1U 3BW. |
| > PFU Imaging Solutions Europe Limited, registered in England No 1578652, registered office Hayes Park Central, Hayes End Road, Hayes, Middlesex, UB4 8FE. |
| > Fujitsu Telecommunications Europe Limited, registered in England No 2548187, registered office Solihull Parkway, Birmingham Business Park, Birmingham, B37 7YU. > <image001.png> > <image002.jpg></image002.jpg></image001.png> |

- > <image003.png>
- > <image004.png>
- > <image005.png> > <image006.png>