

Wednesday, 20 March 2019

(10.32 am)

Housekeeping

MR DE GARR ROBINSON: My Lord, good morning. Before I call my next witness there is one small matter I should raise with your Lordship. Your Lordship may recall that I raised the question of disclosure from the claimants in relation to the documents that were referred to by the claimant witnesses who gave evidence last week.

MR JUSTICE FRASER: Yes.

MR DE GARR ROBINSON: Your Lordship will recall that a letter was sent on Friday which sought a response from Freeths by close of business on Monday.

MR JUSTICE FRASER: Yes.

MR DE GARR ROBINSON: I raised it with you on Tuesday. It is now Wednesday morning. I simply wish to make your Lordship aware that this is an issue and that the point is fast approaching where I may have to ask your Lordship to do something.

MR JUSTICE FRASER: Okay. Have I got a copy of that letter?

MR DE GARR ROBINSON: My Lord, I don't believe you have,
I will make sure --

MR JUSTICE FRASER: It is not on Magnum, is it?

MR DE GARR ROBINSON: That will need to be checked, my Lord.

MR JUSTICE FRASER: All right. I think the best thing is have the letter put on Magnum, I'm just going to explore the situation with Mr Green now and if we have to come back to it, then obviously we will fit it in with the trial timetable and if people have to be recalled, they have to be recalled, but obviously I would like to avoid that if possible.

MR DE GARR ROBINSON: Of course.

MR JUSTICE FRASER: Mr Green.

MR GREEN: My Lord, I'm afraid we have been working on cross-examination and I just don't know what the position is on it, but I'm sure it is being attended to. I will find out and update your Lordship later in the day. Obviously, any documents that they have referred to need to be disclosed and that's obviously -- we must do it, so I'm --

MR JUSTICE FRASER: We are in -- I suppose in a sense on the basis that these might be -- or these would be documents which Mr De Garr Robinson might want to put a point to a factual witness, then the factual witness would have to be recalled anyway, but just in terms of proper and efficient trial management --

MR GREEN: Absolutely right.

MR JUSTICE FRASER: -- we've got a little bit of scope next

week, but I want all the factual evidence dealt with
before the experts are called.

MR GREEN: My Lord, yes.

MR JUSTICE FRASER: And one of the days next week has
already been set aside for a contested third party
disclosure application against Royal Mail which I think
has been moved by consent from tomorrow to next Tuesday.

MR GREEN: My Lord, yes.

MR JUSTICE FRASER: And I don't want to let sand run through
all our fingers unnecessarily. So we will revisit --
today is Wednesday, we will revisit this at the end of
today, please.

MR GREEN: I'm grateful, my Lord.

MR DE GARR ROBINSON: My Lord, I call David Johnson.

MR JUSTICE FRASER: Yes.

MR DAVID MALCOLM JOHNSON (affirmed)

MR JUSTICE FRASER: Thank you, Mr Johnson. Do have a seat.

Examination-in-chief by MR DE GARR ROBINSON

MR DE GARR ROBINSON: Mr Johnson, there should be a file of
documents in front of you. Can I ask you please to go
to tab 4 of that file {E2/4}. You will see there
I think a sheet of two corrections and then behind that
sheet there should be a witness statement which
describes itself as being of David Malcolm Johnson; do

you see that?

A. Yes.

Q. And is that your name and address there on the first page?

A. Yes, it is.

Q. And could you go to the last page in that same tab please {E2/4/20}.

A. Yes.

Q. Is that your signature on that page?

A. Yes, it is.

Q. And if you could look briefly at the corrections -- have you seen those corrections before?

A. Have I seen them before?

Q. Yes.

A. Yes.

Q. Are they corrections you wish to make to this witness statement?

A. Yes.

Q. And then if we go forward in the bundle could I ask you to go to tab 6 please {E2/6}.

A. Okay.

Q. That's your name and address, I think I can take it from you, on page 1 of that?

A. Yes.

Q. And on the back page, page 5 {E2/6/5}, is that your signature?

A. Yes, it is.

Q. So these are two witness statements that you have made. Subject to the two corrections that we have just referred to, are those witness statements true to the best of your knowledge, recollection and belief?

A. Yes, they are.

MR DE GARR ROBINSON: Thank you, Mr Johnson. If you wait there there will be some questions for you.

Cross-examination by MR GREEN

MR GREEN: Mr Johnson, I think you may have been involved in training some of the legal representatives.

A. I gave some demonstrations on how the Horizon system is used in branch to various parties involved in this, yes.

Q. And I think one of the points you covered was how to reverse a -- how to sell stock into the system, to correct too much stock and how to enter a transaction --

A. Yes.

Q. -- that would then balance stock and cash?

A. Yes.

Q. Do you remember that?

A. Yes.

Q. And you are very familiar with how the system works?

A. Yes.

Q. You are a trainer?

A. (Nods).

Q. In your witness statement you say at paragraph 10, which is on {E2/4/2}, which is page 2 of your first witness statement, it will come up on the screen as well, you say that:

"The screenshots that appear in this statement are primarily taken from a document called Post Office Onboarding Counter Guide ... where a screenshot has been taken from another document I refer to that document."

Is that correct?

A. Yes.

Q. So what you have done is you have taken the screenshots that we see in your witness statement from that guide and if they're not from that guide, you have pointed that out?

A. Yes.

Q. So when we look, for example, at the screenshot on page 3 {E2/4/3}, that's come from the guide?

A. Yes.

Q. We can see a date in the top, Tuesday 2 December 2014?

A. Yes.

Q. And if we look over the page on page 5 please {E2/4/5},

similarly we see layouts there. There's a date
of October 2017 at the top.

A. Yes.

Q. And August 2017.

A. Yes.

Q. Can we just look over the page now at page 6, please
{E2/4/6}. Now, you haven't said there that those have
come from any other source, but they are not actually in
the guide, are they?

A. I don't know.

Q. Can you see they look a little bit different?

A. Yes.

Q. And if you have a look at the two examples we've got
there, in the travel line in the top one can you see
"Business Mails" is in italics?

A. Yes.

Q. And "Drop Mails Suite" is in italics?

MR JUSTICE FRASER: Sorry, which one are you looking at?

MR GREEN: I'm sorry, in the top box --

MR JUSTICE FRASER: On page 6.

MR GREEN: -- on page 6 on the travel line at F4, you go
across.

MR JUSTICE FRASER: I see, yes.

MR GREEN: "Business Mails 45" is in italics and the one

beneath it is in italics and "Returns" is in italics.

A. Yes.

Q. And if we go down to "Licences & Government", "Sell Euros" and "Sell Dollars" are in italics, yes?

A. Yes.

Q. And we can also see "AP Manual Entry" and "Transcash" in the "Retail F7" line are also in italics?

A. Yes.

Q. In the one below, none of those ones are in italics.

There's no system reason for that, is there?

A. Not that I know of.

Q. So do you know where these ones have come from?

A. No.

Q. Did you actually cut and paste these into the statement yourself?

A. No, I did not.

MR JUSTICE FRASER: Who did?

A. The statement was provided to me by our solicitors based on conversations and --

MR JUSTICE FRASER: You don't need to tell me about that.

I just wondered who had cut and paste these into the statement.

A. I don't know who did that.

MR JUSTICE FRASER: You don't know. Right.

MR GREEN: Can we go back please to page 5 {E2/4/5}. Just a couple of practical points. Could we very kindly enlarge the bottom table please. Thank you very much.

So, Mr Johnson, just to understand how it works practically, which is your area --

A. Mm-hm.

Q. -- this is a typical screen that an SPM might see --

A. Yes.

Q. -- when they're in the branch and they're serving customers?

A. Yes.

Q. Now, a couple of quick points. When they press "1st Stamp" in the F2 line, which is "Postal Services", yes, what happens is that it registers that a first class stamp is going to be purchased.

A. Yes.

Q. That's right. And the SPM doesn't need manually to enter in the price of a first class stamp, do they?

A. No, they don't.

Q. And the reason for that is that there is a reference data table from which that's populated?

A. As far as the technical aspects of it, I'm not familiar with what goes on behind the scenes, what I know is when you press that button --

Q. When you press it --

A. -- that's what comes up.

Q. -- the price of a first class stamp pops up?

A. Yes.

Q. So there are two aspects to what's happening: there's a button press, which is the actual physical input by the subpostmaster or subpostmistress?

A. Yes.

Q. And then there's what the -- the value of that transaction, which is coming from the system --

A. Yes.

Q. -- back onto the screen?

A. Yes.

Q. So there are two elements of that interfacing together, yes?

A. Mm-hm.

MR JUSTICE FRASER: Exotic though your hand gestures are, they're not going to come out on the transcript.

MR GREEN: My Lord.

Mr Johnson, those are acting together to produce what's going into the basket: two components --

A. As I understand it, yes.

Q. -- a button press -- it's practically what you would see?

A. Yes.

Q. So the SPM presses a button and the item that they have pressed and its value should appear in the basket?

A. Yes.

Q. If it is all working well?

A. Yes.

Q. Now, just looking at the layout of that table, there is quite a lot of white space there, isn't there?

A. Yes.

Q. And the actual buttons are very cosy, they're all stuck right together, aren't they, with no white space between them: "1st Stamp", "1st Large Stamp", "1st x 12 Stamps", they're all absolutely tight together, there's no white space separating them?

A. Yes, the items in the middle of the screen correspond to the -- in most -- in the vast majority of cases to the most commonly used products.

Q. And the point I was just seeking to make to you is there are a number of ways that screen could be laid out, and on that screen we can see there would be plenty of room to separate the buttons from each other more, wouldn't there?

A. It would appear that way.

Q. Yes. And you are aware that sometimes SPMs have

problems with miskeying, don't they?

A. Yes.

Q. Can we look please at {F/932} on page 7 please
{F/932/7}. We can see here if we look at the -- sorry,
shall we start at the first page just to be fair to you,
so you can see what the document is.

A. Okay.

Q. This is a miskeying project feasibility study and you
can see that it is a document from May 2012, yes?

A. Yes.

Q. And if we go back please to page 7 of the document
{F/932/7}, there are a number of recommendations. I'm
just going to follow through one particular one. If we
look at the penultimate bullet point there.

A. Yes.

Q. "Look at the Buy and Sell icons on the travel home
screen are too close together and it becomes difficult
to isolate the correct icon. It would be useful to
clearly show which icon to press showing the Buy and
Sell icons more clearly."

Yes?

A. I can see that, yes.

Q. One of the features of the buy and sell icons, which
you, I think will know about, is that they are at the

end of the transaction, so if you press the wrong one, the transaction has already gone?

A. No, that's not right.

Q. Let's have a look, if we may please, at page 14 of the document {F/932/14}. Is what's said in the top line of that correct? Let's just look at it together, if we can:

"The Buy and Sell icons on the travel screen are too close together."

And the second box says:

"Having these two icons next to each other many of the Counter Colleague hit the wrong icon, which means there is no way of reversing the transaction when a mistake has been issued."

What is suggested is:

"Separate these two icons to a more logical location on the screen."

And so forth. Can you see what's being meant by that second box there?

A. I don't agree with the second part of that where it says there is no way of reversing the transaction when a mistake has been issued. The pressing of either the buy or the sell icon is at the very start of the transaction, so there are various opportunities before

the transaction is completed to recognise that the wrong button may have been pressed.

Q. But if it is not recognised and the transaction is then completed, it's correct, is it, there's no way of reversing the transaction at that point?

A. No, to my knowledge a bureau de change buy or sell transaction can be reversed.

Q. As the system is today?

A. As I understand, yes.

MR JUSTICE FRASER: Has it always been capable of being reversed?

A. I believe so. It's almost nine years since I last worked on Legacy Horizon. To my knowledge, yes, it has always been possible to reverse a bureau de change transaction.

MR GREEN: Let's look, if we may, at another facet of this. We haven't got a screen for it, but there is on some screens a zero and a double zero button, aren't there?

A. On the keyboard, there is a zero and a double zero button, yes.

Q. Yes, and they're next to each other?

A. Yes.

Q. And we can see that that's got the potential for miskeying?

- A. I wouldn't say it has any more potential than any other layout particularly.
- Q. Well, if you put in -- I mean, we have seen some of the examples of miskeys already during the trial and there are things where items which should be perhaps 3,400 are 34,000, so quite a lot of them have got an extra nought on the end. Can you understand from your knowledge of the layout why that might sometimes occur, might feature quite prominently?
- A. Yes, it could happen because the buttons are next to each other one might press the double zero rather than the single zero, yes, I can see how that --
- Q. But it's easy -- you can imagine someone not spotting a double zero as easily as they might spot perhaps a 9 instead of a 4, or a 9 instead of a 2. It's more striking, a 9 instead of a 2, isn't it?
- A. A completely different number would be more striking, however, if I were serving a customer and they were paying a bill for, let's say, £350, I would check the terminal after I had keyed the entry to make sure that is the amount that's showing on the stack.
- Q. Yes, but what we're talking about is the opportunity for the system to minimise errors that are made in the ordinary course by people who are just busily serving

customers, trying to be conscientious and deliver a good service; that's all we're talking about.

A. Okay.

Q. And it's right, isn't it, that if you stop and rigorously check and never make a mistake, which is perhaps unusual for humans, that wouldn't happen, but what this is focusing on is how to improve the system so it is less easy for people to make understandable mistakes. Yes?

A. Yes, I understand that.

Q. And that's a good idea in system design, isn't it?

A. I think so.

Q. Yes. And the screenshots that we've got have largely maintained the same design since Horizon was brought in, haven't they?

A. Since original Horizon or Horizon Online?

Q. Since original Horizon. They have broadly looked the same since Horizon was brought in?

A. Legacy Horizon, the screen looked rather different because there were kind of small pictures on the icons rather than just -- there were visual representations of it rather than just the written product, if you like.

Q. But the overall layout itself has stayed broadly the same?

A. Yes.

Q. And so the icons were fitted into the little buttons that we have seen here?

A. As far as I'm aware, yes.

Q. At paragraph 32 of your witness statement on page 8 {E2/4/8} you talk about the cash declarations having to be made by 6.55 because polling takes place at 7.00 pm. Is that something you know about in terms of what the consequences are if, for whatever reason, the cash declaration is made at 7.01?

A. Yes.

Q. What happens?

A. The reason we say to make a cash declaration by 6.55, yes, as it states there, the cash declaration information is sent to the cash management team, so they are aware of what cash on hand is at the branch and to my understanding -- I don't work in the cash management team, but to my understanding, the cash management team use that information to decide how much cash to send to that branch on their next scheduled delivery, or if they're holding extra then -- more than they need, how much they need to return.

Q. Now, part of your witness statement has dealt with the reports available to SPMs.

A. Yes.

Q. One of the things they can't do is export data to a CSV file, can they?

A. I don't know what a CSV file is.

Q. Or an Excel spreadsheet?

A. No, they can't export that from Horizon, as far as I know, no.

Q. And has any thought been given, as far as you know, to allowing that to happen?

A. I don't know.

Q. The Post Office itself has Credence, doesn't it?

A. Yes.

Q. And that allows it to look at the transactions that have happened in branch?

A. Yes, as far as I'm aware, yes.

Q. Do you know why the Post Office just doesn't use the same reports as are available to the SPM? Why does it need Credence?

A. I don't know.

Q. Because the Post Office could print-out the till rolls and analyse it that way too, couldn't they?

A. As far as -- well, I don't know whether the Post Office could print-out a transaction log as you would print-out in branch. As far as I'm aware, that is only available

in branch.

Q. Oh, I see.

A. In that format.

Q. One of the things you have mentioned in your witness statement -- it's actually in your second witness statement, if we could kindly go to that, which is {E2/6/1}. I will just show you the front page to orientate yourself. This is your second witness statement, yes?

A. Yes.

Q. And if we go to paragraph 21 on page 5 {E2/6/5}, you say there:

"The transaction log is a list of all transactions and transfers completed in the branch, in chronological order.

"The transaction log can be used as a general investigation of all transactions or it can be filtered by time, value and product. The transaction log records the transaction that has taken place and also shows how it was settled, for example by cash, card or cheque. It is therefore possible to see all the transactions where customers have paid by debit or credit card."

Yes?

A. Yes.

Q. Now, let's say you're in a situation faced by one of the lead claimants, Mr Bates, where he is worried that there may be duplicate entries in his account, but he doesn't know what they are; how does he use the Horizon reporting system to find them? What does he do?

A. To my knowledge, the transaction log will produce what I have said there.

Q. No, I understand. Mr Johnson, I'm not trying to be unfair to you. Just practically, so we can look at this, you suspect there may be some duplicate entries, perhaps giving you a discrepancy that's unexplained. Just practically, what do you do if you are Mr Bates in your sub-post office in Craig-y-Don in Wales and you want to try and find out what's going on?

A. Are we saying that these are transactions which don't appear on the transaction log?

Q. Well, he doesn't know whether they will -- we will come to that in a minute --

A. Okay.

Q. -- but let's just say -- what do you suggest that person in that situation does?

A. I would advise a postmaster in that instance to first, raise the issue with NBSC.

Q. Okay. But if they're told that it is their

responsibility to find discrepancies in the branch, what can they do for themselves? Do they -- because we have heard of SPMs printing out very long transaction rolls --

A. Yes.

Q. -- we have actually got one, it's quite long. Is that what they do if they're looking for possible duplicates, they print out -- because they don't know what the value is --

MR JUSTICE FRASER: You are rolling about two or three questions into one again, Mr Green.

MR GREEN: Sorry.

MR JUSTICE FRASER: Why don't you just give me a walk-through of the steps that you say hypothetically someone in Mr Bates' position should take.

A. So if a postmaster wants to check what transactions have gone through, they would go to the transaction log. If they wanted to look at a particular -- as I have suggested, it could be filtered in a number of ways: by date, by product, by value, by stock unit, by user, there are a number of ways it can be filtered, and obviously the more you can filter it, the shorter the report will be, and then it would be a question of, as you say, printing the transaction log out and manually

checking each item.

MR GREEN: But if you're looking for duplicates, you would have to try and remember the figures you have seen?

A. Yes, I mean if you're looking for a duplicate then I'm -- I mean, I don't know, I'm -- I'm guessing here that if there would be -- that there would already be one transaction on the transaction log. I'm not quite sure what you are getting at. Presumably we can see one transaction on the transaction log and there's a thought that that transaction may have been duplicated, is that what we are ..?

Q. Well, you get an unexplained discrepancy of a figure you don't recognise.

A. Right.

Q. Let's say £1,723.

A. Okay.

Q. And you don't understand how that can have happened. You think "Well, maybe there's a duplicate entry of some sort", just, you know, this is one example, or maybe there's a number of duplicate entries. You can see it's not very easy, is it?

A. It's not the most user-friendly way of investigating.

Q. That's all I was really asking.

MR JUSTICE FRASER: Can I just ask you a question. When you

say the filtering that it can be done, that can be done in branch, can it?

A. Yes.

MR JUSTICE FRASER: Am I right that would only be of any -- that would only be of any assistance if you knew what you were looking for already, wouldn't it?

A. Not necessarily. A postmaster may have come to the conclusion that a discrepancy occurred on a particular day by virtue of looking at his cash declaration for the previous day and the current day, and the previous day had no discrepancy, the current day does, so he may want to filter then to that particular day when the discrepancy occurred on his cash declaration.

MR JUSTICE FRASER: Mr Green.

MR GREEN: Could we look please at {F/1556} please. Now, this it document is titled the "Network Development Programme Operation Simplification", and if we go over the page {F/1556/2}, you can see the sorts of things that it is covering and can we go please to page 6, which is the "Business Context" section {F/1556/6}, and can I just invite you to look at this first paragraph:

"There are a number of branch operations processes, especially around branch accounting and reconciliation, which operate using legacy processes. They are

unnecessarily complex and detract Post Office branch resources from serving customers. Stock Unit Management and accountability is very poorly controlled and is operated on very complex business rules. The lack of accountability and visibility of cash and stock transfers between Stock Units can lead to errors, rework and provides opportunities for fraud."

Is that a statement that you disagree with, or agree with?

A. I would agree with that.

Q. And then if we look just below:

"Similarly, Suspense Accounting is based upon legacy cash accounting practices, ill-defined and out of date processes. Inefficiencies lead to poor utilisation of resources both in Post Office branches and Support Services."

Is that something you would agree with or disagree with? Is that fair?

A. My experience of the suspense accounts in branch is that it works -- it does what it's supposed to do.

Q. Can you see why that might be a reasonable view, or is it a completely unreasonable view?

A. I don't think it's completely unreasonable, no.

MR GREEN: Okay, I'm very grateful. My Lord, I have no

further questions for this witness.

MR JUSTICE FRASER: Can you just tell me what date this document is, Mr Green?

MR GREEN: This is 21 October 2016.

MR JUSTICE FRASER: Mr De Garr Robinson?

Re-examination by MR DE GARR ROBINSON

MR DE GARR ROBINSON: Mr Johnson, you were asked some questions about buttons being close together, but there are some questions you weren't asked that I would like to ask you now.

As I understand it, you have experience of working in branch?

A. Yes.

Q. Do you have experience of working in a busy branch?

A. Yes.

Q. How much experience of that sort do you have?

A. I have -- before I started my current role in 2012 I had worked in branches since 1984.

Q. So could you give the court some indication of how much -- would you consider yourself very experienced, not very experienced? I'm just trying to get a clear answer from you.

A. I suppose you could say I am very experienced at working in branches.

Q. Thank you. It was suggested to you that -- you were shown one of the screenshots in your witness statement and it was suggested to you that the buttons were close together. What you weren't asked about is whether you took the view that the buttons you saw, or the buttons on the screen -- that their closeness together is a cause of any difficulty in using the system. Would you like to comment on that question?

A. The fact that buttons are close together can mean that one does occasionally press the wrong one. However, that is easily rectified.

Q. And when you say it is easily reconciled, why is it easily reconciled?

A. Rectified.

Q. Rectified, I'm so sorry.

A. If one would notice that the wrong button had been pressed -- for example, you may go to sell a first class stamp and you know yourself that the cost of that stamp is 67p. If you were to hit the first class large stamp, which is next to it, in error, the amount on the stack would be a different amount, so it would be easily recognisable that you had then pressed the wrong button.

Q. And another question that you were asked is whether the layout of the counter had been broadly consistent over

the period of operation of Horizon. Mr Johnson, you may not be able to answer this question, but do you have a view as to whether keeping the layout of the screen consistent over time is a good thing or a bad thing?

A. That's -- my opinion on that is it is a good thing.

Q. Why do you say that?

A. Because one gets used to working on the system and the buttons are where you would expect them to be.

MR DE GARR ROBINSON: My Lord, I have no further questions.

Thank you, Mr Johnson.

Questions by MR JUSTICE FRASER

MR JUSTICE FRASER: I just have a couple about your experience. I know you have said in paragraphs 2 and 3 how you started as a counter clerk.

A. Yes.

MR JUSTICE FRASER: And that was in a Crown branch I think, wasn't it?

A. Yes.

MR JUSTICE FRASER: And then you say you became the assistant manager and worked in various branches as the assistant manager. Were they all Crown branches?

A. Yes, they were.

MR JUSTICE FRASER: And your last role was the branch manager at the Barry Crown office?

A. My last role prior to taking up my current role, yes.

MR JUSTICE FRASER: Which was in 2012?

A. Yes.

MR JUSTICE FRASER: I'm sure I can guess from the name, but
Barry Crown office is a Crown branch, isn't it?

A. Yes.

MR JUSTICE FRASER: All right, that's very helpful. Thank
you very much indeed for coming, and that's the end of
your evidence. I assume there are no follow-up
questions to that from either of you?

Further re-examination by MR DE GARR ROBINSON

MR DE GARR ROBINSON: Perhaps one question.

Does it make a difference whether you are working --
in terms of operating the system, is there a material
difference between operating the system from
a subpostmaster branch, an agency branch, or from
a Crown office?

A. No.

MR DE GARR ROBINSON: Thank you.

MR JUSTICE FRASER: Thank you very much.

MR DE GARR ROBINSON: My Lord, I call Andy Dunks.

MR ANDREW PAUL DUNKS (sworn)

Examination-in-chief by MR DE GARR ROBINSON

MR DE GARR ROBINSON: Mr Dunks, there should be a bundle of

documents in front of you. Can I ask you to go to divider 10 of that bundle please {E2/10}. You will see a witness statement that describes itself as being by you. Is that your name and address on the first page?

A. That's the name of my -- where I work.

Q. Where you work, I see.

A. Yes.

Q. Thank you. And if you go to page 3 {E2/10/3}, is that your signature?

A. Yes, it is.

Q. And do you confirm that this statement is true to the best of your knowledge, recollection and belief?

A. Yes.

MR DE GARR ROBINSON: Thank you. If you could wait there for a moment.

MR JUSTICE FRASER: Mr Miletic.

Cross-examination by MR MILETIC

MR MILETIC: Good morning, Mr Dunks.

A. Good morning.

Q. I would like to start with paragraph 3 of your witness statement which is {E2/10/1}. There are you say:

"I have been employed by Fujitsu Services Limited, on the ~... (Post Office Account), since 11 March 2002 as an ~... (IT) Security Analyst responsible for audit

data extractions and IT Security."

That's quite a long time, isn't it?

A. Yes.

Q. 17 years of experience you have in this particular area of data extractions?

A. Yes.

Q. And over the course of that 17-year period, how many extractions do you think you have carried out?

A. I couldn't tell you. Hundreds.

Q. Hundreds?

A. Yes.

Q. You have probably seen every issue that possibly could arise with extraction of data, haven't you?

A. I would say so, yes.

Q. And how many others have a similar position to yours at Fujitsu at any given time and carry out data extractions?

A. Generally, there is a team of three or four people.

Q. And do they carry out a similar number of extractions each year as you would?

A. Yes.

Q. Would that number vary from year to year, or would it be fairly consistent?

A. No, it varies. It varies week by week.

- Q. And you have experience of carrying out audit data extractions both on Legacy Horizon and Horizon Online?
- A. Yes.
- Q. If we could please go to {E2/1/10}. This is Mr Godeseth's witness statement, his first witness statement, and he is a colleague of yours at Fujitsu, correct?
- A. Yes.
- Q. Now, at paragraph 31 there he says that he has been informed by a colleague that the number of ARQs issued since 2014/15 are as follows, and then he sets some out there at 31.1 to 31.4, do you see?
- A. Yes.
- Q. That suggests huge fluctuations over the years, doesn't it?
- A. Yes.
- Q. 729 extractions in 2014/2015. Can you think of why that would be?
- A. I have no idea. It is what we would get supplied or requests from the Post Office, so we don't control how many we get.
- Q. Would it make sense to you if that was during the period when the mediation scheme was taking place and so maybe you had more requests at that time?

A. Yes, it could quite well be, yes.

Q. And in 2016/2017 and 2017/2018, over 300 requests. Do you think that these proceedings may have an impact on that number and why it is a bit higher than for example 2015/2016?

A. It could well be, but I can't guarantee that.

Q. In 2015/2016, 103 without these two alternative events going on. Is that perhaps more representative of what you would get on a yearly basis, or do you not know?

A. I would be guessing if I said yes, without looking at all the previous years and how it has incremented over the years, I couldn't tell you.

Q. Sure. But in your experience that might be about right, 100 or so?

A. It could be, yes.

Q. And for 11,000 branches in a year, it's not a high percentage of ARQs that were requested during that year?

A. I suppose so.

Q. Now, there are no figures there for pre-2014, and the court has had had evidence from Mrs Mather -- and we don't need to turn it up, but for his Lordship's note it is paragraph 19 of her first witness statement which is {E2/8/4}. There Mrs Mather says that there is a contractual limit on the amount of data requests that

Post Office can ask for of 720. Is this a limit that you're aware of?

A. Yes.

Q. If there's a contractual limit on the amount of ARQs that can be requested, Fujitsu must be keeping a record of how many requests are made each year?

A. Yes, we do.

Q. Why then are there no figures seemingly for prior to 2014?

A. I can't answer that.

MR JUSTICE FRASER: Have you been asked to get --

A. No.

MR JUSTICE FRASER: You haven't?

A. No.

MR MILETIC: But as far as you are aware, there would be a record of those?

A. As far as I'm aware, there is, yes.

Q. There should be really?

A. Yes.

Q. The purpose of your witness statement is essentially to talk about the process of audit extraction, audit data extraction, and the integrity of data and how it is maintained during that process, is that fair?

A. Yes.

Q. If we could go back to paragraph 4 of your witness statement {E2/10/1}, you say:

"During 2009/2010 the Horizon system was upgraded to Horizon HNGX [Horizon Online] and the detail contained in this witness statement refers to audited transaction records generated by this upgraded ... system."

I just want to be precise about the language there. When you say "audited transaction records", you are talking about transaction records generated from the audit store; what you're not talking about -- it's not the case that those records are actually audited prior to going into the audit archive, correct?

A. No, it's just the extraction data that I'm taking out.

Q. Exactly. And so it's an important distinction because really the only time when those records are audited is when they are extracted and then someone uses them to compare against different records. Does that sound correct?

A. I think so. I don't think they are actually compared. All the data that we extract is specific data from the servers with all the transactions so it's not -- I think the word "audit data" -- it's just we extract that data, we don't then compare it. We then extract the data and supply it to the Post Office.

Q. Yes, so where it says "audited transaction records" it might be slightly misleading because it is not that they are audited prior to going into the audit store; that's correct, isn't it?

A. I don't know how it is put onto the audit store.

Q. And the second sentence there:

"Unless I state otherwise in this statement when I subsequently refer to the 'Horizon System' I am referring to the ~... system as upgraded by Horizon HNGX."

Looking at your statement I have not seen somewhere where you have stated otherwise, and so actually your evidence is limited to the extraction process under Horizon Online, correct?

A. It is probably misleading. As I have been doing it that long, it is both Horizon and Horizon Online.

Q. But the specific content of your witness statement from that point onwards only addresses Horizon Online?

A. I would say it's -- it's the data that I have extracted for these proceedings.

Q. I see. And when you discuss controls, which we will get on to in a little bit, is it your evidence that those controls have always been the same and the same processes have been followed both in Legacy and

Horizon Online?

A. I believe so. I don't know all the controls -- the technical controls which are used for the storage of the data.

Q. So when you provided your evidence here, you really were talking about the controls as at effectively today's date when you were making extractions for this trial?

A. Yes.

Q. And if we could go over the page please to paragraph 5 {E2/10/2}, the first sentence:

"When information relating to individual transactions is requested, the data is extracted from the audit archive media of the Horizon System via the Audit Workstations."

And then this second sentence:

"Information is presented in exactly the same way as the data held in the archive although it can be filtered depending on the type of information requested."

Pausing there, do you always provide data that's filtered, or do you sometimes provide data that's unfiltered?

A. We supply data that's filtered.

Q. Are there any circumstances in which you provide unfiltered data?

A. To the Post Office, I don't believe I have done.

Q. And then you go on to say:

"The integrity of data retrieved for audit purposes is guaranteed at all times from the point of gathering, storage and retrieval to subsequent despatch to the person making the request."

Again, just in the interests of being precise, can you explain exactly what you mean when you're saying "data integrity"?

A. That's what I'm led to believe within the systems that it is -- that hasn't -- the integrity is complete, it hasn't been touched in any other way.

Q. So your definition of integrity of data is simply whether it has been tampered with or not?

A. No, my definition of integrity is that the data I have extracted and supplied to the Post Office my -- I'm aware of is in -- its integrity is complete.

Q. And if I was to say the data integrity is the overall completeness, accuracy and consistency of that data which you can measure by comparing between sources, would you agree with that as a definition of data integrity?

A. Yes.

Q. And if we could please go to {D3/1/67}, this is from

Dr Worden's first expert report, and if we could look at paragraph 238.6 and what he says there, which is:

"The audit system provides a highly secure and tamper-proof record of what is entered into Horizon at the counter, which can be used, in cases of any anomaly, to provide a 'gold standard' for comparison with data held in other parts of the Horizon estate, supporting the diagnosis of software errors. This acts as a secure kernel and redundant store of data (SEK and RDS)."

I'm not going to ask you about the second sentence and those acronyms, but in terms of that first part, is it your evidence as well that it is highly secure and tamper-proof?

A. The -- where the data is stored, I'm not involved in, so I can't answer that side of the question.

Q. But in terms of when it is extracted?

A. From my point of view, the processes that we follow and extract them and supply them to the Post Office, that is my belief.

Q. It is highly secure and tamper-proof?

A. Yes.

Q. And is it your evidence as well that it can be used in cases of an anomaly as a gold standard for comparison?

A. They are -- they are words that I probably wouldn't use,

but I'm happy with the integrity of the data that I give to the Post Office.

Q. But "gold standard" might be putting it a bit high for your -- in your opinion?

A. Well, no, if you want to use "gold standard", yes, I will agree with that.

Q. But in any event, you agree that the accuracy of that audit data and maintaining the integrity upon extraction is extremely important, particularly, if it is going to be used in disputes with subpostmasters?

A. Yes.

Q. And if we could go back to {E2/10/2}. Paragraph 6 where you set out what you say the following controls are that apply. Did you look at any specific Fujitsu documents when listing what amount to 12 controls there?

A. Where am I looking at here, sorry?

Q. So in paragraph 6 you say:

"During audit data extractions the following controls apply ..."

A. Yes.

Q. And then you list out in subparagraphs, 12 specific particular controls and I was just wondering whether you looked at any specific Fujitsu documents when you set out those controls?

A. No, this is the process -- there are security processes and protocols in place within Fujitsu, but these are basically the security controls that we have as a team that we have to extract the data.

Q. My question might not have been entirely clear, Mr Dunks, but when you set out these 12 controls, when you were drafting this part of your statement, did you look at any specific documents in order to think of and write out these 12 controls?

A. No, this is my knowledge of the controls.

Q. So this is purely from your memory that you draft the 12 controls?

A. Yes.

Q. I see. And in terms of those 12 controls, have they always been available throughout your time at Fujitsu, or have some potentially changed?

A. No, that's basically as is the whole time I have been there.

Q. As far as you can recall those are~...

A. Yes.

Q. Would you say that those are sort of the core controls, or they just some that you thought of?

A. No, they are the core controls surrounding the audit extraction.

Q. So at any point in time when we look we should probably see the 12 same controls listed at other points in time?

A. Yes.

Q. And just over the page, please, {E2/10/3}, at paragraph 7 you just describe the fact that you have extracted data in relation to these proceedings. And then paragraph 8, again, I just want to be very precise and I want to make sure that I understand exactly what is being said in this statement. Paragraph 8 begins:

"There is no reason to believe that the information in this statement is inaccurate ..."

Pausing there, what is "this statement"? Do you mean your witness statement?

A. Yes.

Q. Okay:

"There is no reason to believe that the information in this [witness] statement is inaccurate because of the improper use of the system."

What is the "system" there? Is that the system of the process of extracting audit data, or is it something else?

(Pause).

A. Good question. There's no -- I'm not sure what I was meaning by that, "There is no reason to believe ..."

Q. We will take this step-by-step, but just looking at that first sentence, you are not quite sure what you mean by "system"?

A. I think I was meaning about the improper use of the audit data extraction system.

Q. So when you say "system", you mean the process of extracting audit data?

A. Yes, I do.

Q. I see, so:

"There is no reason to believe that the information in this [witness] statement is inaccurate because of the improper use of the system [in place for extracting audit data]."

A. Yes.

Q. "To the best of my knowledge and belief at all material times ..."

Pausing there, what are "all material times" in your statement?

A. The whole time I had been using the workstations to extract the data, as far as I'm concerned, there has been no issues or faults with the workstations to extract the data.

Q. So "at all material times" is actually the 17 years you have been at Fujitsu?

A. Yes.

Q. I see, so:

"To the best of my knowledge and belief at all material times the system ..."

Ie the process of extracting data:

"... was operating properly, or if not, any respect in which it was not operating properly ..."

Again, pausing there, it is slightly confusing. Are you aware or not aware of any instances where that system was not operating properly?

A. No, not really, no.

Q. Okay. So you're not aware --

A. There may have been a few faults -- software faults -- I would say software faults -- where the system has rebooted or whatever, but if that does, it interrupts the data extraction which doesn't complete, so we will then re-run the data extraction. So it's not affecting any data that's been extracted.

Q. I see. And is that the only example that you can provide his Lordship as to occasions when that system wasn't operating properly?

A. Yes.

Q. So you say it was operating properly:

"... or if not, any respect in which it was not

operating properly, or was out of operation was not such as to effect the information held within it."

What is "it"?

A. The data that I have extracted.

Q. I see, okay. So, Mr Dunks, how could you possibly say that in any respect that the system wasn't operating properly, it wouldn't affect the data that you have extracted? Surely if that process isn't operating properly, it must have an effect on the data that it produces?

A. Well, no, because if it doesn't extract the data wholly, or there is an issue with the PC at the time, it will -- it shows that there is an error, so we actually re-run the data and there are some checksums within the data which is a number for each day and if there's a gap between -- and we check that there's no gaps between those numbers, and on each report it states that there are no gaps, which would show if it there were any issues, but ...

Q. I see. And is it your case that there has never been a circumstance where the data that's been produced hasn't[sic] appeared inaccurate because of the process used to extract it?

A. Not to the best of my knowledge, no.

Q. So now that we have deconstructed that paragraph a little bit, it is a very specific and slightly hard to follow choice of wording. Has that come from you, or has that come from somebody else, Mr Dunks?

A. It -- I did produce the witness statement and then it came back slightly altered to see if I was happy with that and I read it and I was happy with it. Maybe misunderstanding how it could be interpreted, but ...

Q. Yes, but paragraph 8, is that your choice of wording or not?

A. I can't remember.

Q. Is it more of a Fujitsu party line when it comes to providing statements on extracting data?

A. There is -- as far as witness statements, there are no -- I'm not aware of any party line, no.

Q. Thank you. Can we please go to {E2/1/10} and we're back in Mr Godeseth's witness statement here. We looked at the ARQ extraction rates over the years. At paragraph 32, Mr Godeseth says:

"I am not aware of any instances where data retrieved from the Audit Store differs from other sources of data, nor am I aware of any instances where the integrity checks described in paragraph 30 have revealed any issues."

Those integrity checks are broadly similar to the ones that you have outlined, but are you aware of any instances where data retrieved from the audit store has differed from other sources of data?

A. No, because I'm not aware of any other forms -- I'm not involved in any areas of data storage.

Q. So Fujitsu wouldn't know that anyway?

A. Well, I can't say that.

Q. Does Fujitsu keep a list of any times when that might happen?

A. I don't know.

Q. It would be quite a useful thing to have though, for Fujitsu's purposes, if they did have such a list, wouldn't it?

A. Yes.

Q. And I guess my second question is a bit overlapping with the first, but are you aware of any instances where integrity checks have revealed issues?

A. No, I'm not aware, no.

Q. Not aware of any instances?

A. No.

Q. And again, Fujitsu don't keep a list of any of these times when it might have revealed issues?

A. Again, I don't know.

Q. Can we please go to {F/1557}. Mr Dunks, this is actually a Post Office document titled "Back Office Transformation". It is dated 22 October 2016. The context -- there's a little bit in that first part there:

"This paper outlines the business case for the back office transformation. An opportunity to significantly improve our basic process and controls, whilst simplifying the back office application landscape and reducing our cost base."

If we could please go to page 4 of that document {F/1557/4}. Have you seen this document before, Mr Dunks?

A. No.

Q. Now, there it says "Why do we need to transform?":

"Transformation in the back office is required due to unsuitable processes and significant operational risk.

"The Post Office has been running the same sub-optimal back office processes for many years."

If we go down a bit further:

"Industry best processes exist that can, and will be adopted."

And then 14:

"The back office is currently operating with a far higher operational risk profile than is accepted by the Post Office when making investment or project decisions. High proportion of manual accounting steps."

And then the first arrow bullet point there:

"Lack of system audit trail between transactions."

What do you think that means?

A. I have no idea, I would be guessing.

MR DE GARR ROBINSON: Is this a fair --

MR JUSTICE FRASER: Just -- Mr De Garr Robinson.

I'm not sure you can actually really pursue that very much further with this witness given he has never seen the document before.

MR MILETIC: I'm grateful, my Lord.

MR JUSTICE FRASER: Is it a phrase you have ever come across before "lack of system audit trail"?

A. No.

MR MILETIC: I suppose the one question I would ask Mr Dunks is: are you aware that Post Office had any concerns regarding system audit trail as far back as 2016.

A. No, because I'm not involved in that area at all.

Q. I see. I will move on.

If we could please go to {F/1716}. This is the audit extraction client user manual. Presumably you are

very familiar with this document?

A. I haven't read it for a long time, but I'm aware of it, yes.

Q. So it's not something that you really look to on a daily basis?

A. No, it's not.

Q. When do you think is the last time you would have looked at it?

A. A few years.

Q. A few years?

A. Yes.

Q. The date of this document is 1 December 2017. It's the most recent version, as far as we're aware, but you're not sure either way probably whether it is or it isn't, is that fair?

A. No, not -- no.

Q. If we could go please to page 9 of this document {F/1716/9}, the introduction there:

"In addition to the historic data collected under Horizon, the HNG-X system generates significant amounts of data that is of interest to Post Office~... Internal Audit ... and other groups.

"This document describes the Audit Extraction Client application that is run on the Audit Workstations ...

the AE client provides functionality to manage [ARQs] ... and to retrieve and process audit data from the audit archive."

It seems like an incredibly important document for your job, doesn't it, Mr Dunks?

A. Yes.

Q. It is effectively a step-by-step guide on how to contrary out data extraction?

A. I don't know. I can't remember reading it but --

Q. You can't remember reading. The definition there of "filtering" under 3, do you see?

A. Mm-hm.

Q. "Filtering is the process of searching the retrieved audit files for specified FAD codes or strings in order to select a subset of data for further processing. The user has the option of selecting the whole file in which a match is found or of just selecting the matching messages or records."

So filtering takes place obviously after you have actually retrieved the files from the archive?

A. Yes, yes.

Q. Under 4, "Audit Data Integrity", the second paragraph there:

"The integrity of audit data must be guaranteed at

all times and controls have been established to provide assurances to Post Office Internal Audit that this integrity is maintained."

That wording actually mirrors paragraph 5 of your witness statement. Do you recognise that wording?

A. Yes.

Q. And then it says:

"During audit data extractions the following controls apply ..."

Now, there are two there on that page which actually mirror your 6.1 and 6.2 controls and then just over the page please {F/1716/10}, the third one there matches your paragraph 6.6.

If we could please move forward to page 42 of this manual {F/1716/42}, the section begins with "Validation and Query":

"This tab will only be available if the following conditions have been met:

"1. The retrieved data consists exclusively of TMS and/or BRDB messages.

"2. Filtering has been performed."

So this is now the data has been retrieved and now we have been filtering, is that right?

A. Right, this is -- there would be two forms of data

retrieval, one is the fast and one is a slow one. This is the historic one which I haven't used for quite a while, but yes, I believe so.

Q. I see.

MR JUSTICE FRASER: Is this the slow one or the fast one?

A. It's the slower one.

MR JUSTICE FRASER: The slow one.

MR MILETIC: And if we could go over the page, please

{F/1716/43}, it says:

"TMS and BRDB messages are numbered in sequence for each node. During filtering any retrieved audit message data is analysed to determine what message sequences are present in the data and whether there are any gaps or duplicates in those sequences. A gap in a message sequence may indicate that a message is missing from the audit data. Duplicates may indicate that an audit file has been gathered twice."

Taking those in turn, "a gap in a message sequence may indicate that a message is missing from the audit data"; that suggests that the underlying audit data is incomplete, doesn't it, Mr Dunks?

A. I would say so, yes.

Q. But it uses the word "may", so actually it might be the case that it is the retrieval process that has caused

the gap?

A. I don't -- no, I don't think -- I don't know.

Q. So the use of the word "may", may just be a slip in language there?

A. Quite possibly.

MR JUSTICE FRASER: Well, it could be any one of a number of reasons.

MR MILETIC: Precisely, my Lord.

MR JUSTICE FRASER: But on the basis that the witness didn't draft it, I think he has agreed with your proposition to the extent he can, but he also says he doesn't know.

MR MILETIC: I'm grateful, my Lord.

And the second part there "duplicates may indicate that an audit file has been gathered twice", so that would be an example of the processing -- the system you were describing before, potentially causing duplicates to be gathered?

A. Yes, possibly.

Q. And are you aware whether actually it might be the case that duplicates were in the underlying data itself rather than through the process?

A. I don't know, I can't -- I don't know.

Q. Well, the diagram there shows what would happen in the event that gaps and duplicates are found, and do you see

it says gaps found shown in red, duplicates found shown in blue and in block capitals "Seek assistance from audit support". Now, on the face of that message -- first of all, have you seen messages like this before when you have retrieved data?

A. If I have it was a long time ago. I'm not saying I haven't, but it would have been a long time ago.

Q. You may have done? And on the face of it doesn't tell you what the cause is of those gaps or duplicates, does it?

A. No, I don't believe it does, no.

Q. And you wouldn't know what the cause was?

A. No, I wouldn't know, no.

Q. And in block capitals it says "Seek assistance from audit support". Seek assistance from audit support, but there's no explanation as to what audit support might do. What do audit support do in that circumstance?

A. I'm assuming they would investigate the cause of the gap.

Q. Do you have any experience of when you have called audit support and they have come back to you?

A. Possibly. I think I possibly -- yes, I think we have raised PEAKs, which is if this -- we would raise an issue via a PEAK for the audit team to investigate.

Q. It's a problem, isn't it, if gaps and duplicates are found upon the retrieval process?

A. Yes, I think so.

Q. And it's obviously very important what happens to the data afterwards. Would you provide ARQs containing gaps and duplicates, or would that go out of your hands and then audit support gets involved?

A. Yes, the latter, yes.

Q. The latter?

A. Yes.

Q. And you're not quite aware of what they do. You say they investigate?

A. Mm-hm.

Q. When the ARQ is ultimately provided, do they -- do you know if they provide a version containing gaps and duplicates, or if they provide a version without gaps and duplicates because they have removed them?

A. I don't know.

Q. You don't know?

A. No.

MR MILETIC: My Lord, would it be a convenient moment for a break?

MR JUSTICE FRASER: Yes, it would.

Mr Dunks, you are in the middle of giving your

evidence. We have a short break in the morning and a short break in the afternoon for the shorthand writers. Please don't talk to anyone about your evidence or the case. We will have ten minutes, come back in at 11.50, but please don't feel constrained to stay in the box, you are allowed to go outside, stretch your legs, even get some fresh air if you think you can get down and get back up in time, but 11.50. Thank you very much.

(11.41 am)

(Short Break)

(11.52 am)

MR MILETIC: Could Mr Dunks please be shown {F/676}. This is a witness statement dated 8 July 2010 by Gareth Jenkins. Do you know Gareth Jenkins?

A. Yes, I do.

Q. He was a colleague of yours, correct?

A. Yes, he worked on the same account.

Q. And he provided this witness statement in the trial of Mrs Seema Misra. I assume you are familiar with Mrs Misra's case?

A. Yes.

Q. In fact I understand, having seen a reference in a transcript, that you in fact provided at least one

witness statement in that case?

A. I did.

Q. Do you remember what the content of that witness statement, what it was dealing with?

A. That was around the help desk calls.

Q. I see. Now, Mrs Misra was a subpostmistress in West Byfleet that was at the time being prosecuted on charges of false accounting and theft and you recall that?

A. Yes.

Q. Have you seen this witness statement of Gareth Jenkins before?

A. No.

Q. Could we please go to page 2 of this statement {F/676/2}. In the first full paragraph it says:

"With Horizon counters, the mechanism by which data is audited has always worked on the principle that it is acceptable to audit the same data more than once -- in particular if in doubt as to whether or not it has been previously audited successfully. The Mechanism used on Horizon to retrieve the audit data took this into account and only presented one instance of such duplicate data in the ARQ extracts. The Audit Mechanism cannot alter the base information and therefore

a re-running of the audit process will always produce the same result."

Does that accord with your understanding of how the process of retrieving audit data worked in Legacy Horizon?

A. Yes.

Q. Are you sure or is it --

A. No, no, as far as I'm aware it extracts the data that's there and if I extract it again, it will bring out the same data.

Q. I see, so duplicates would not show up at that time?

A. When you say duplicates --

Q. Well, when it says:

"~... only presented one instance of such duplicate data in the ARQ extracts."

A. As far as I'm concerned the data that -- it is very process-driven, so we input the FAD code, the dates and extract the data, and if I extracted it a second time, it would bring back the same data, so I'm not aware, or I don't know about duplicates it would bring back -- as far as I'm concerned, it brings back the same data.

Q. I see. Mr Jenkins goes on to say:

"In January 2010 a new HNG-X application was introduced to filter transaction records for

presentation to Post Office Limited. It has recently been noticed that this HNG-X retrieval mechanism does not remove such duplicates. An enhancement to the extraction toolset will be developed, tested and deployed and will remove such duplicate data in the future. However until this enhancement is deployed, there is a possibility that data is duplicated."

Pausing there, do you recall this being an issue at the time?

A. I vaguely remember it, yes.

Q. And he goes on to say:

"The reliable way to identify a duplicate transaction is to use the <Num> attribute that is used to generate the unique sequence numbers. This will be included in all future transaction record returns until the retrieval mechanism is enhanced. A semi-automated process to copy the returned data, and then to identify and remove any duplicated records which may be present from this copy by using the <NUM> attribute, has been agreed with Post Office Limited for use in the interim period."

What that suggests is there was a period of time when there was -- it says semi-automated, a partly manual process in removing duplicate records from ARQ

extracts. Does that accord with your memory?

A. It wasn't in the process that we did when extracting the data. I'm aware of that happening, whether it went on -- I don't know the process of it, but it wasn't in our daily process for extracting and removing any duplicates.

Q. So where it says that there is a process agreed with Post Office in the interim period for removing those duplicate records, that's not something that you were involved in as the person extracting the data?

A. No.

Q. And not anyone in the similar role to yours was involved in that?

A. I don't believe so, no.

Q. So there was effectively a separate department that was taking care of that?

A. That was dealt with -- yes, not within our team.

Q. I see. And it says there:

"A transaction log data disc has been produced as exhibit PT/02 in the trial of Seema Misra. The transaction log data disc is made up of ARQs 436 to 448. It should be noted that ARQ 447 which records the transactions between 1 November 2007 to 30 November 2007 does contain some duplications of audited records."

But then Mr Jenkins says:

"It is emphasised that [it doesn't] ~... in any way [affect] actual physical transactions recorded on the counter~... The duplication of records has ..."

If we could turn the page:

"... occurred during the auditing process when records were in the process of being recorded purely for audit purposes from the correspondence servers to the audit servers."

That final paragraph there, does that look familiar to you?

A. Yes, it's the same as what's in my statement, yes.

Q. There's a slight difference in that it says improper use of the computer rather than system, but the rest does seem to match up?

A. Mm-hm.

Q. But you hadn't seen this witness statement before?

A. No.

Q. And you're not sure why it would largely replicate your paragraph 8?

A. No, I mean, we do have a standard witness statement that we produce for ARQs. When we supply ARQs we are sometimes asked for a witness statement to go through the process and verify as far as I'm aware that the data

I supplied is accurate. Now, we use that quite a lot and it may actually be in that statement.

Q. I see. So when I asked you earlier whether it was something of a Fujitsu party line you said you didn't think it was, but actually it looks as though it is on the basis of what you have just told me and on this document as well.

A. It could be. It may be part of our standard witness statement that we supply.

Q. And it's not something you think about too much, that specific section?

A. No.

Q. It's just template. You don't think about it, and you sign?

A. No.

Q. I see.

MR JUSTICE FRASER: Is that no, you are agreeing, or no, you are disagreeing?

A. No, I agree.

MR MILETIC: I'm grateful, my Lord.

Now, if we could please go to {F/573/1}. This is a witness statement of Penelope Anne Thomas. Do you know Mrs Thomas?

A. Yes, she used to be a colleague.

Q. And have you seen this witness statement before?

A. No.

Q. This is a witness statement also in Mrs Misra's trial and if you look at the first full paragraph, that largely replicates your paragraph 3. She was essentially performing the same role in terms of providing evidence as you are here, is that fair?

A. Yes.

Q. And if we could turn to page 3 please {F/573/3}, and just to say, the date of that statement -- it says 4 February on the front page and she describes a bit of the process there in the second paragraph and in the final two sentences, in discussing the transaction records, she says:

"They therefore provide the ability to compare the audit track record of the same transaction recorded in two places to verify that systems were operating correctly. Records of all transactions are written to audit archive media."

Nothing controversial there, do you agree?

A. Yes.

Q. And just in passing, the two paragraphs below that where it says:

"The Horizon system records time in GMT and takes no

account of Civil Time Displacements ..."

This is something we have actually heard some evidence on earlier, but it's correct, isn't it, that the audit data -- six months of the year the time stamp will be off by an hour?

A. Yes.

Q. And at the bottom of that page, Penelope Thomas says:

"During audit data extraction the following controls apply."

And then over the page {F/573/4}, and she too lists 12 controls that aren't entirely -- they don't entirely match up to the controls that you have set out, for example, one of the controls that I noted appears to be missing is in your paragraph 6.9 where you said:

"Checks are made using the JSN that all audited messages for each counter in the Branch ~..."

I will just let you find it if it would help?

A. Mm-hm.

Q. "Checks are made using the JSN that all audited messages for each counter in the Branch have been retrieved and that no messages are missing."

To your knowledge, was this an available control at this time when Ms Thomas gave her statement?

A. I don't know. I don't know.

Q. So you don't know when that control came into play?

A. No, I don't.

Q. I see. Do you think if it was available it's quite an important check that Ms Thomas would have mentioned it?

A. Possibly.

Q. But it is quite difficult because she hasn't listed where she derives those controls from either and a point that we made earlier when looking at your witness statement -- you said that you had listed 12 controls effectively from recollection, or what you understand them to be, but we can't now verify that by looking at any documents to see where those controls might appear and when they were brought into force or not as the case may be?

A. No -- well, I don't know. There may be ...

Q. I see. How did you satisfy yourself that the controls you were speaking to in paragraph 6 of your witness statement do actually apply as at today's date?

A. I -- on those checks -- those -- I was trying to imply that the data as far as I was concerned, when extracted, was true and accurate to my best knowledge.

Q. Well, stopping just there. You're trying to imply the result which is that the data is accurate, but the question is very specific as to the content, the

existence of the controls that are in place. How did you verify to yourself that those controls are actually in place? How did you know?

A. I was trying to imply that the data that I had extracted hadn't -- from the date of -- from the time of being extracted hadn't been manipulated or touched and when you said before (inaudible) with the Post Office, and controls to actually go in and log on and extract that data, there were controls in place to do that.

Q. But can you actually be sure that the controls you listed were in effect and were operating as at the time you extracted the data?

A. To the best of my knowledge, yes. Yes.

Q. I see.

A. I had no reason to doubt it.

Q. Even though you didn't confirm it through any documents?

A. No.

Q. I see. And over the page, please, {F/573/5}. Ms Thomas there just describes that she was in fact the one that extracted the records in relation to Mrs Misra so we see:

"ARQs 436 to 448 ... were received on
26 February 2010 ..."

It goes on to say:

"I produce a copy ... as exhibit PT/01. I undertook extractions of data held on the Horizon system in accordance with the requirements of ARQs 436 to 448 ... and followed the procedure outlined above. I produce the resultant CD as Exhibit PT/02. This CD, Exhibit PT/02, was sent to the Post Office Investigation section by Special Delivery on 4 March~..."

Do you recall that PT/02 was the exhibit that Gareth Jenkins in his witness statement was talking about?

A. I'm -- with it being called the same, I'm assuming it is the same.

Q. Yes, and he, in that statement, referred to ARQ 447 containing duplicate records and then needing to be removed. I can take you back if you would like to see that section?

A. No, that's fine.

Q. So then Ms Thomas sets out:

"This report is formatted with the following headings."

And then over the page, please {F/573/6}:

"The Event report is formatted with the following headings."

Now she doesn't mention anywhere there that ARQ 447

contained duplicate records, does she? I can give you a moment to look at that section.

A. No.

Q. And then the paragraph immediately below it, that again is your paragraph 8 although this time word-for-word is the same as your paragraph 8, isn't it?

A. Yes.

Q. And it is consistent with your answer earlier that this is a sort of template Fujitsu witness statement document that is provided and you sign --

A. Yes.

Q. -- just to show that the extraction has been okay?

Ms Thomas not identifying duplicates in ARQ 447, that's slightly problematic, isn't it, to either Post Office or an SPM that is trying to look at anomalies and compare sources of data? That's not very helpful, is it?

A. The statement again is to verify the integrity of the data once extracted and given. We don't control what's in the data. Our process is about extracting it and securely passing it over to the Post Office. It's not our concern of what's in the data.

Q. It's not your concern what's in the data?

A. No, it's what we're -- we're process-driven to extract

certain types of data for certain requests.

Q. And so whether or not that might match another record or not, or replicate or duplicate or have gaps, that's not part of your remit, that's not really part of your concern?

A. No, it's not.

Q. I see. So reading that and reading the paragraph 8 as it was in your witness statement, it doesn't give much comfort to somebody that's then trying to rely on ARQ data as being a gold standard to compare and investigate anomalies, does it?

A. Possibly not.

Q. Are you aware, Mr Dunks, of any other specific issues with the retrieval of audit data that may have impacted disputes between Post Office and subpostmasters or subpostmistresses?

A. Not that I can -- not that I can recall would cause those issues, no.

Q. Could we please look at {F/829}. This is a PEAK, PC0211833, and do you see under "Summary" it says:

"Audit Retrieval for ARQ Returns Missing Reversal Indicator."

Do you see that field?

A. Yes.

Q. And then under "Impact Statement" in capitals:

"Service on stop ... ARQ returns for HNGX transaction records must stop until resolution. Analysis must identify returns which may require re-retrieval."

Do you recall a particular issue in terms of reversals and audit retrieval?

A. No. At that time, Penny managed the ARQ retrieval process and she -- that was her main priority and her main job, so I wasn't -- I wouldn't have been -- I wouldn't have seen this issue, or been made aware of these issues.

Q. You would not have been made aware of this issue at all?

A. No.

Q. Even though you are the person that's extracting data?

A. No. With our team we had a number of different roles and audit extraction is one of those roles, which is process-driven, so -- and Penny would have managed that via this PEAK. I wasn't aware of -- and if I was, I certainly don't remember.

Q. And if we could go over to page 2 please {F/829/2}. Do you see that bottom box there? If we look down at "Impact on operations" -- well, if we start at the top it says:

"Specify the HNG-X platforms impacted."

Do you see that?

A. Yes.

Q. And it says:

"The platform has been specified and it is the Audit Server.

"Technical summary: the spreadsheets presented in support of prosecution at court miss out an indication as to whether or not a transaction is a reversal."

And then further down do you see "Impact on operations".

A. Yes.

Q. There again it says:

"Spreadsheets supplied by the prosecution team miss out an indication as to whether a transaction is a reversal."

It says:

"The prosecution team are well aware of the problems; we hope to have a release out in a few days; a KEL is therefore not required."

Just over the page please {F/829/3}, and it says:

"Risks (of releasing and of not releasing proposed fix):

"There are few risks with this fix. It must be got

out or prosecution evidence is incomplete."

And then there is a description there of queries being changed in order to show reversals, and this is taking place now this PEAK from -- August 2011 is when this problem was identified, but you say you were never made aware of it and presumably you weren't aware either of queries being changed subsequently?

A. I don't recall this, no.

Q. And on the final page, please, of this document {F/829/5}, there is a final message there saying:

"Fix deployed; all appears to be operating as required. Closing call. Many thanks to all, Penny."

So it is fair to say that up until August 2011, the data that you were retrieving did not have an indicator as to whether or not reversals had taken place?

A. Correct, yes.

Q. Do you see that as detracting somewhat from this being a secure gold standard record to be compared with other sources?

A. I honestly can't say whether that has an implication on that at all or -- that data missing has an implication on that at all, I don't know.

Q. It's not in your remit, it's not in your concern?

A. No, no.

Q. Were you in court on Monday when Mrs van den Bogerd was being cross-examined?

A. Yes.

Q. Did you hear a reference to something that was referred to as the Helen Rose report?

A. I don't recall it but ...

Q. It's a very short point I was going to make, but actually perhaps it is fair to take the witness to the document very briefly.

MR JUSTICE FRASER: It depends what the point is, I suppose.

MR MILETIC: Well, the short point is this but actually it might be, Mr Dunks, that you simply don't know the answer to this either, so the point that I was going to make is that it wasn't until the summer of 2013, at the time of the Helen Rose report, that in actual fact it was identified to be a problem that the reversal indicator didn't show whether it was system or user-generated, but is that something that is outside of your knowledge?

A. Yes.

Q. Very well. I won't go to that point then.

So, Mr Dunks, having now canvassed through various documents and looked at various problems that existed with ARQ data when it was retrieved, can you just

explain to the court why those things, or a semblance of those issues were not set out candidly in your witness statement?

A. Sorry, I don't understand.

Q. So we have just been through several documents and several issues in terms of when audit data is retrieved and the problems in relying on that data, but none of that is set out in your witness statement, and is there a particular reason as to why that might be?

A. Again, the -- what I was trying to convey with our witness statements, as I believe, is the integrity of the data once we have extracted it, and then supplied it to the Post Office, and the controls around the extraction, not the data itself.

Q. I see, so what you are not saying in your witness statement is that the data then is accurate and reliable in terms of use for disputes between subpostmasters and Post Office?

A. No, I can't say that at all.

MR MILETIC: You can't say that? That's fair.

My Lord, I have no further questions.

MR JUSTICE FRASER: Mr De Garr Robinson?

Re-examination by MR DE GARR ROBINSON

MR DE GARR ROBINSON: Mr Dunks, I would just like you to

look at your witness statement please, paragraph 8. You were asked a question about this paragraph and you were asked -- it was suggested to you that you didn't really think about that paragraph much and I would just like to take you through it {E2/10/3}. In the first sentence you say:

"There is no reason to believe that the information in this statement is inaccurate because of the improper use of the system."

Mr Dunks, is that sentence true or is it not true?

A. It is -- well, it's true. I don't believe -- there's no reason to believe that it is inaccurate at all.

Q. And did you think about that sentence when you signed the statement?

A. It wasn't in the forefront of my mind when I was signing the statement, no.

Q. The next sentence:

"To the best of my knowledge and belief at all material times the system was operating properly, or if not, any respect in which it was not operating properly, or was out of operation was not such as to effect the information held within it."

Is that sentence true?

A. Yes.

Q. Would you have signed this statement if either of those sentences had not been true?

A. No.

MR DE GARR ROBINSON: Thank you.

Questions by MR JUSTICE FRASER

MR JUSTICE FRASER: I have just got a question.

You started doing your current role in 2002, is that right? I think it is in paragraph 3, you say.

A. I have worked within this team since then, but the roles have changed within that over that period of time.

MR JUSTICE FRASER: What were you doing before 2002?

A. I was -- there were different roles again within then ICL, from desktop support, et cetera.

MR JUSTICE FRASER: And when did you start at ICL, do you remember?

A. Good question. About 21 years ago.

MR JUSTICE FRASER: 1998?

A. Yes.

MR JUSTICE FRASER: You are trying to catch me out with some mental maths.

I don't have any questions other than that.

I assume there's nothing arising out of that. Thank you very much for coming, you can now leave the witness box.

MR DE GARR ROBINSON: My Lord, I call Torstein Godeseth.

MR TORSTEIN OLAV GODESETH (affirmed)

MR JUSTICE FRASER: Have a seat, Mr Godeseth.

Examination-in-chief by MR DE GARR ROBINSON

MR DE GARR ROBINSON: Mr Godeseth, there's a bundle of documents in front of you. Could I ask you to go to divider 1 of that bundle please {E2/1}. This is a document that describes itself as a witness statement by you. Is that your name and address on the first page?

A. It is.

Q. And if you go to the last page, page 20 {E2/1/20}, is that your signature?

A. It is, my Lord.

Q. If we could go on to tab 7 in the same bundle, please {E2/7}. I believe you will see a page with two corrections, is that right, at the front of that tab?

A. Yes.

Q. And then over the page, there is another witness statement by you and again, there's your name and address on the first page, isn't there?

A. That's right.

Q. And page 18 {E2/7/18}, that's your signature, is it?

A. It is.

Q. And then there's a third statement which should be behind divider 14 of the bundle {E2/14}. Again, your name and address on page 1, and on page 7, is that your signature? {E2/14/7}

A. It is.

Q. Now, the later statements clarify and in some respects correct matters that are set out in the earlier statement. Subject to those clarifications and corrections, and subject to the two corrections you saw in the front sheet at tab 7, do you confirm that these witness statements are true to the best of your knowledge, recollection and belief?

A. I do.

Q. Now, Mr Godeseth, I've got a question I would like to ask you arising from evidence that's just been given by Mr Dunks, and with your Lordship's permission ...?

MR JUSTICE FRASER: Yes.

MR DE GARR ROBINSON: If we could go to {F/1716} please and could we go to page 43 of that document {F/1716/43}. This is a Fujitsu document. It's the Audit Extraction Client User Manual. Do you see that?

A. Yes.

Q. Now, just remind me, how long have you been working for Fujitsu?

A. Since 2010.

Q. And since that time, have you had any familiarity with the audit extraction process and its reliability and so on, and issues surrounding it?

A. I have clearly been aware that audit extracts have been happening, but I have not been intimately involved in that process until more recently.

Q. I see. I would like to ask you about -- at the top of the page it says:

"TMS and BRDB messages are numbered in sequence for each node. During filtering any retrieved audit message data is analysed to determine what message sequences are present in the data and whether there are any gaps or duplicates in those sequences. A gap in a message sequence may indicate that a message is missing from the audit data. Duplicates may indicate that an audit file has been gathered twice."

I would just like to ask you a couple of questions about that. If there had been a gap in a message sequence during the extraction process that's described here, is that something that you would know about?

A. I believe so, yes, because it would be a highly serious problem.

Q. And can I ask you whether there have been any such gaps

during the time that you have been at Fujitsu?

A. I'm certainly not aware of any, and I'm confident that I would have been told.

Q. Very good. And then moving on to the next sentence, the duplicates. Could I ask you the same question about duplicates: what would have happened? Would you be aware if there were any duplicates?

A. Having seen Gareth's statement, I would say that duplicates are probably being misinterpreted here, because if a record goes into the audit trail twice it's simply two copies of the same record. As long as that's dealt with, I don't think that's a problem.

MR JUSTICE FRASER: When you say duplicates are being misinterpreted here, do you mean in this document, in Mr Jenkins' document, or in what you are being asked?

A. I think here the issue is -- I clearly understand that the claimants are interested, my Lord, in whether transactions got duplicated, and I think what goes into the audit is a record which has come from a counter, different mechanisms in Riposte and also in the newer Horizon system. I think what Mr Jenkins is referring to is that a record can be written to an audit trail twice and as long as you spot that and you deal with it, that's fine, because it is simply saying, it is

simply: I wrote down the same thing twice. And the circumstances in which I have some recollection of is that the audit trail got written to Bootle and to Wigan, our separate data centres in the days of Riposte, so clearly I would have a copy of a record in both Bootle and Wigan.

MR JUSTICE FRASER: I'm not sure that necessarily answers my question.

A. Sorry, my Lord.

MR JUSTICE FRASER: When you said duplicates are being misinterpreted, do you mean misinterpreted in this Fujitsu document, interpreted insofar as you understand what Mr Jenkins is saying, or misinterpreted in the question that Mr De Garr Robinson asked you?

A. I think here I'm saying that duplicates may indicate that an audit file has been gathered twice is --

MR JUSTICE FRASER: When "here" you mean the Fujitsu document?

A. In this Fujitsu document. I think that is entirely consistent with what Mr Jenkins said in his statement.

MR JUSTICE FRASER: I see.

MR DE GARR ROBINSON: "The suggestion here that duplicates may indicate that an audit file has been gathered twice" --

MR JUSTICE FRASER: That's what it says in the paragraph.

MR DE GARR ROBINSON: Yes, I have just read out the paragraph, I don't know why I did that. If duplicates were being produced in audit extractions, is that something with which Fujitsu would be interested to know?

A. I think it is important to go back to understand what the audit trail is looking to do, and I think I would like to start by describing the Horizon Online system which I'm more familiar with, and the audit trail in my book is I'm trying to write down, transaction by transaction what is coming from a counter and I am keeping a record of effectively the transaction as entered at the counter as closely as I can possibly make it.

In the Horizon Online, the big protection there is a thing called the JSN which is the Journal Sequence Number, and we use this to indicate that -- or to prove that I have not missed any records and I haven't got any duplicates. So built into the system at the BOWL(?), we get a sequence of messages coming up from the counter to the BOWL, and these all have a JSN in them, and these are checked to make sure that they just increment by one.

In the Riposte system, there was a very similar concept, but this was the message number on the messages coming from a particular counter, and again, by checking that I've got a -- what we call a dense list which says I've got every number accounted for, and I -- if I have duplicates, and they both say the same thing, that is just the fact that I have written something down twice and I imagine from what I have read in Gareth's statement that this obviously happened in Riposte days when there were data centres in Wigan and Bootle and I know that audit trails were written in both centres, but I think by then saying "Okay, I have now written some things down twice, but I can recognise those because they have the same message number", they are simply copies of the same thing.

MR DE GARR ROBINSON: My Lord, I'm at the margins of my own understanding of the system and I think I had better stop now.

MR JUSTICE FRASER: Well, I'm actually just go to pursue this on your behalf, because your question was quite simple and it has led to an answer of about a page and a quarter, so I'm just going to ask the same question.

What Mr De Garr Robinson asked you was if duplicates were being produced in audited extractions, is that

something that Fujitsu would be interested in knowing?

And I'm unclear as to what the answer is.

A. Yes. Sorry, yes, my Lord.

MR JUSTICE FRASER: The answer is yes?

A. Yes. We would be interested in knowing because we would have to explain it.

MR JUSTICE FRASER: Right.

If you want to ask a follow-up question,

Mr De Garr Robinson, you can do so.

MR DE GARR ROBINSON: Are you aware of -- since your time at Fujitsu -- I'm not asking you about Legacy Horizon now, but since your time at Fujitsu, are you aware of this issue having arisen in relation to extracting audit data, duplicates?

A. No, my Lord.

MR JUSTICE FRASER: Mr Green, your turn.

Cross-examination by MR GREEN

MR GREEN: I will start at the beginning of your statement, if I may, Mr Godeseth. If we can look at {E2/1/1}. You explain in paragraph 1 that you are employed at Fujitsu Services Limited as the chief architect on the Post Office account.

A. I am, my Lord.

Q. And you say you are authorised to make this statement on

behalf of Post Office Limited in the proceedings. It is right, isn't it, that you were first employed by Post Office?

A. I was employed by Post Office from 1987 for a number of years.

Q. Let's have a look at paragraph 5 of your witness statement please. Sorry, I think we've got the wrong one there. Can we get {E2/1/1}, please.

Just look at paragraph 5 on page 1 to start with {E2/1/1}. You give your employment history there and at the bottom of the page, after leaving the Royal Navy you joined Forward Trust in November 1981 to work in systems programming and technical support for their IT systems. Then if we go over the page:

"I joined the Post Office IT department in November 1987 to work on a project to introduce technology into Post Office branches."

What project was that?

A. I know it as the Thames Valley pilot. It was a project to introduce -- we supported three products in those days, it was Girobank, DVLA and National Savings, a pilot in the Thames Valley area which had about 250 offices.

Q. Then at paragraph 6 we see you worked as the technical

advisor to Post Office when they and the Benefits Agency procured the Horizon system.

A. That's correct, my Lord.

Q. It was unusual as a project; it was being procured by two different government bodies, wasn't it? There was the Department for Social Security, Benefits Agency, on the one side and then there was Post Office at that time under Royal Mail on the other?

A. That's right, my Lord.

Q. And latterly you were then technical advisor to Post Office when Legacy Horizon changed to Horizon Online?

A. Correct.

Q. And then from 2010 you then moved from Post Office to Fujitsu.

A. I did, yes.

Q. What occasioned that move?

A. I was working as a contractor for Post Office. My contract came to an end, and I joined Fujitsu on contract.

Q. But when you say "as a contractor", do you mean as an independent contractor --

A. Yes.

Q. -- rather than employee?

- A. I joined Fujitsu initially as a contractor and then in November, I accepted a full-time role.
- Q. And just so we have a vague idea, for what proportion of your time with Post Office were you employed, and for what proportion of the time were you an independent contractor?
- A. I became an independent contractor in 2005, just as Impact Programme was going live.
- Q. Just as ...?
- A. The Impact Programme was going live.
- Q. Can you explain to the court what the Impact Programme was?
- A. The impact -- the major change in the Impact Programme delivered was to take out the old cash account and replace it with branch trading statements, but there were a few other changes implemented at the same time.
- Q. Now, you effectively have worked for both Post Office and Fujitsu and have been involved in pretty much the entire history of the Horizon system in different ways, haven't you?
- A. I was -- pretty much, but I was not involved in the early days of the roll-out of Horizon, so when I finished my stint on the procurement, I worked elsewhere in the Post Office, then came back to

Post Office counters to deal with banking and since then I think my time has been pretty much with Post Office counters. I had a break in 2009 before coming back for a short contract with Post Office counters and then joining Fujitsu.

Q. Right. We will come to the introduction of Horizon and so forth in a minute, but just clarifying the construction of your witness statement, your first witness statement which we're looking at, which is the one of 27 September 2018, broadly covers the accuracy of audit data and the issue of remote access for both Legacy Horizon and Horizon Online, is that fair?

A. It is, yes.

Q. And at paragraph 7 of that witness statement {E2/1/2}, if you just look at that for a moment, do you see at the bottom of that paragraph it says:

"I therefore have consulted with colleagues who work in the areas that are covered by this statement to ensure that my understanding of them is correct."

Which were the areas that you were referring to there?

A. Basically any area that I wanted to just double check, so I don't see it as anything specific. I work with a number of people and if I'm uncertain of anything, or

just want to check up, then I would talk to them.

Q. So you were sufficiently uncertain about certain things to have to go and speak to a number of your colleagues?

A. I wouldn't say "uncertain". It is due diligence, double checking.

Q. Who were the colleagues you spoke to?

A. Off the top of my head, I would say Steve Parker and a couple of guys in his area; Pete Jobson, Gareth Seemungal, Alan Holmes, Jon Hulme.

Q. Could you just help the court just in relation to each of those, what were the aspects they were contributing to your statement, could you just explain?

A. In Steve Parker's area, certainly there are people who have longer -- or recollections of how Riposte actually worked. Gareth Seemungal, I talked to about BRDB and how Oracle works. Pete Jobson I talked to about how batch systems work. Alan Holmes knows a fair amount about audit. Jon Hulme, knows the counter pretty well.

Q. Right, that's helpful. Let's look at paragraph 34 please on page 11 {E2/1/11}. We see there "Audit data - Legacy Horizon."

You say:

"In Legacy Horizon Riposte, a messaging system, was responsible for storing all data in Post Office branches

and replicating it to data centres. As I was on 'the other side of the fence' ..."

Because you were working with Post Office at the time:

"... when Riposte was in use I have consulted with my former colleague, Gareth Jenkins, to prepare this section of my statement."

Yes?

A. Yes.

Q. And in fact we see Mr Jenkins' name in a number of other paragraphs throughout your witness statement?

A. Yes.

Q. And it is fair to say that really the source of that information that you're giving is Mr Jenkins, isn't it, because you were working for Post Office at the time?

A. I feel I had a pretty good knowledge of how Riposte works, since I needed it when I was working on Impact, but it's absolutely the case that I would get more detailed information from Gareth.

Q. Because in a number of paragraphs -- I mean, just give us a couple of examples. At paragraph 38 you say:

"I understand from Gareth that each message included three key pieces of information ..."

And if we go to paragraph 39, over the page

{E2/1/12}:

"I also understand from Gareth that messages also had an associated 'Expiry Date' ..."

Paragraph 41:

"I understand from Gareth that due to the size of the Post Office network [they] were split into four separate clusters"

And so forth. Paragraph 43:

"I understand from Gareth that the audit application read every record that was visible to the correspondence server ..."

Paragraph 44 {E2/1/13}:

"I also understand from Gareth that once these files had been written they became visible to the audit server which would pick them up ..."

I'm obviously not going to keep going, but that's information you have obtained from Mr Jenkins, isn't it?

A. It's difficult to judge how much I knew beforehand, but certainly talking to Gareth has freshened up my understanding of it.

Q. I suggest to you it is mostly Mr Jenkins' explanations to you which you seem to think --

A. I would certainly regard Gareth as an expert on Riposte, having far more knowledge about it at a practical level

than I have.

Q. He is the most obvious person to talk about it in a sense, isn't he?

A. Yes.

Q. And let's look, if we may please, at page 16 of your first witness statement {E2/1/16}. This falls under a heading called "Balancing Transactions" which has been given an acronym of "BTs".

A. Yes.

Q. We will come back to that. But just for the moment, just to orientate you where you are in the statement, if you look -- I'm sorry, Mr Godeseth, I didn't spot you didn't have any water.

(Pause).

Just to orientate yourself in the witness statement, you've got:

"A small group of Fujitsu users from the Software Support Centre ... (30 users) have the ability to inject additional transactions into a branch's accounts in Horizon Online, using a designed piece of functionality called a Balancing Transaction."

Now, pausing there, we heard Mr Roll being cross-examined and it was suggested to him that within SSC there were about 25 members who were -- whose

experience Mr De Garr Robinson went into with Mr Roll, and then five sort of super elite members, as they were described by Mr De Garr Robinson.

A. Mm-hm.

Q. That's a total of 30. Is that about the same size as the department is now? Is 30 users the whole of SSC?

A. I wouldn't know. Steve would be able to give a far better -- but I -- I think there was about that number of people there, yes.

Q. So Mr Parker would be the person who knows, and you think it's probably about the whole of SSC?

A. Yes.

Q. So when we just look at the words:

"A small group of Fujitsu users from the Software Support Centre."

It's actually probably the whole or most of the Software Support Centre?

A. Mm-hm.

Q. Everyone, it looks like?

A. Yes.

Q. If we come down to paragraph 58.9, just go over the page {E2/1/17}, that's -- that all seems to be dealing with Horizon Online and then at 58.10 you say:

"In Legacy Horizon, any transactions injected by SSC

would have used the computer server address as the counter position which would be a number greater than 32, so it would be clear that a transaction had been injected in this way."

Yes? That's what you said in that first witness statement.

A. That's what I said in that statement, correct.

Q. Now, just pausing there, you don't say who you got that from, but did that come from Mr Jenkins?

A. Yes. The greater than 32 came from Mr Jenkins, correct.

Q. So we could write in there "I understand from Gareth"?

A. Yes.

Q. And in fact if we go back to paragraph 36 on page 11 {E2/1/11}, it is effectively mirroring the overall description that the node ID associated with an injected message would be that of the correspondence server at which the message had been injected, and not a normal counter node ID, and therefore would have been clearly visible in any audit data.

A. Yes.

Q. That's the same point but without using the number 32, yes? It's a broader point, but it captures the point that you're making in 58.10 and is consistent with it.

A. There were a number of mechanisms for the -- I think the

preferred route for injecting any transactions would always be to do it at the correspondence server. There were occasions where it was necessary to inject messages at the counter. I think that was the point that Mr Roll was making in identifying that messages had to be inserted to correct problems at the counter, and there are a few instances where clearly that happened.

Q. Yes. And so can I just ask you, did you get this section in 36 also from Mr Jenkins, broadly?

A. Yes.

Q. And then just going forward in your third witness statement at {E2/14/7}, paragraph 25 -- I'm so sorry. If you look at paragraph 25 you say:

"In paragraph 58.10 of my first statement I stated that any transactions injected by SSC in Legacy Horizon would have used the computer server address as the counter position which would be a number greater than 32. I have read Parker 2 and I am now aware that it was also possible for SSC to insert transactions with a counter position with a number less than 32. I did not discuss this in my first statement because I was not aware of it."

A. That's correct.

Q. So at what point did you realise that it was not

correct?

A. When it was brought to my attention at the time that

Steve was preparing his second statement.

Q. Were you a bit shocked about that, to find it was wrong?

A. "Shocked" would be too strong a word. It was -- I was finding out a detail that I didn't know before.

Q. You were finding out a detail that you didn't know before in quite a controversial area, weren't you?

A. It was clearly an area that was going to be of interest because of the fact that we were inserting transactions into Riposte. It was an operational necessity and it was done in a controlled way. I had believed that the way that transactions were being injected would give them a counter position greater than 32 because the correspondence servers basically had nodes or addresses which were above 32, there was a special address for the gateway server, there was a special address for the extra disc in a single position branch and I had basically expected messages to be introduced using a different counter position and having read a whole number of PEAKs, I can quite clearly see that the standard practice in Fujitsu was to label something which was being inserted into Riposte so as to make it as clear as possible that it was not being done -- it

was being done as something out of the ordinary, it was being inserted because of a problem.

So we had techniques for doing that. You could put in an attribute because this wouldn't be visible to a subpostmaster, I fully understand that, but it would be visible in the audit trail, when you ever come back to pull out the audit trail, you could put in an attribute to say "This was done under PEAK 75". Subpostmasters would never see that. They would not see it in their account in their branches and I'm fully aware that that is the case. It was a better audit than Mr Roll was alluding to when he said that it was left in a PINICL, because that would have been an audit which is separate from the actual data that we would be looking at should we ever need to pull stuff out of the audit trail and the intention was always to make it as clear as possible that this had been done under exceptional circumstances.

The techniques used to make it as visible to the subpostmaster as possible would be to put in references which referred to a counter that didn't exist in the branch, such as -- I saw a technique described in a number of cases which said put in a -- you know, if you are correcting something for counter 1, call it

counter 11; if you're correcting something for counter 2, call it counter 12. These things would have been visible to a subpostmaster and the reason that you had to do it that way was to make sure that these transactions also got picked up and dealt with because these were legitimate counter numbers.

If I start to put in data with a number which is not a legitimate counter number then it's going to be ignored by systems further down the track.

Q. So which were legitimate counter numbers?

A. Up to 32.

Q. Right, so you say less than 32 in your witness statement at paragraph 25 --

A. Sorry, I may have got that -- the boundary was at 32; whether 32 was a legitimate --

Q. Don't worry about that. That's not -- that's not --

A. -- counter or not, I don't know.

MR JUSTICE FRASER: Please don't talk over each other.

MR GREEN: I'm so sorry.

Don't worry about the boundary. So the short point is that you learned, when Mr Parker was preparing his second witness statement, that it was in fact possible to inject transactions which a subpostmaster would not know about at the counter rather than at the

correspondence server, you learned that for the first time?

A. I cannot see how a subpostmaster would not have been aware of these transactions being injected, because there's a technical rationale why the subpostmaster had to be in his branch -- sorry, it didn't necessarily have to be the subpostmaster, it had to be somebody in the branch who was logged on when these techniques were used to inject transactions at the counter and the simple reason is that if you didn't have somebody logged on, then Riposte would have generated a message with a blank user ID. Riposte was responsible for actually wrapping the message that we were looking to insert at the counter, and in doing that, Riposte will tell you the counter ID, or technically it was a stream, it would pick up the user ID, it would pick up the time, so this was effectively the envelope which wrapped the payload that we were looking to inject.

If there was no user logged on at the counter then Riposte would introduce a blank user ID and that would be picked up in later processing.

Q. But let's take it in stages, if we may.

MR JUSTICE FRASER: Just before you do.

Mr Green is going to be putting quite precise

questions to you. I know it's an understandable human reaction to want to argue wider points, but I would like you to listen to his questions and answer his questions please.

A. Yes, my Lord.

MR JUSTICE FRASER: Right, Mr Green.

MR GREEN: Can we separate what you can do from what you have inferred was done in many cases from PEAKs you have looked at, and let's focus on what could be done.

You realised for the first time that it was possible to inject or insert a transaction with a counter position less than 32 when Mr Parker was preparing his second statement?

A. Correct.

Q. And you knew that that was a contentious issue in this litigation, yes?

A. Yes.

Q. And if we can go back please to paragraph 58.10 of {E2/1/16}. Go over the page please to 10 {E2/1/17} there it says:

"In Legacy Horizon, any transactions injected by SSC would have used the computer server address as the counter position which would be a number greater than 32, so it would be clear that a transaction had been

injected in this way."

Can we go back to the previous page just to get the introduction to that {E2/1/16}. It's not immediately clear from this part of your statement that you got that information from Mr Jenkins, is it, 58.10?

A. Sorry, I'm looking at 58.7 here?

Q. Yes, I'm just showing you --

A. I agree, yes.

Q. So what had actually happened to you is that you had had a conversation with Mr Jenkins, he had given you the information on a contentious point in the litigation, and you had repeated it in a way that could be read as sounding as if you knew about it yourself?

A. That was certainly not deliberate.

Q. No, but I'm just saying that is what had happened?

A. I can accept that.

Q. And then you found out that was wrong. Did you go back and talk to Mr Jenkins about it?

A. I don't think I have, no.

Q. Were you not interested to find out from him directly whether they always used counter numbers other than those in use by the SPM, rather than inferring matters from PEAKs as you have suggested?

A. I have not discussed it further with Gareth.

Q. So you are not in a position to comment on that beyond what you have inferred from the PEAKs?

A. I think that's fair, yes.

Q. Now, it would be possible, would it not, to use a counter number of 1, or 2, or 3?

A. It would.

Q. And if that counter number was a counter number actually in use by the SPM, it would appear to the SPM, from the records they could see, that it was a transaction which had been done in their branch, by them or their assistants?

A. Yes.

Q. Now, you were at Post Office at the time that Legacy Horizon was in use, weren't you?

A. I was certainly at the Post Office when Legacy Horizon was in use.

Q. You had a break, I think you mentioned earlier. Was that around 2009?

A. In 2009 I finished my contract with Post Office counters in roughly June, and went back to Post Office counters in the following January, so I had a six-month gap.

Q. And apart from that were you continuously working for Post Office from 1987 to when you left and joined Fujitsu?

A. No. I think it's covered in my opening statement, that I was -- from Post Office I was outsourced to a company called Xansa, and then after a couple of years -- probably two and a half years at Xansa, I decided to go independent.

Q. So when you were outsourced to Xansa --

A. I continued in roughly the same role.

Q. -- you continued -- did you remain an employee of Royal Mail IT department outsourced, or were you outsourced so that you went and worked for someone else with a direct relationship with them?

A. I was outsourced from Royal Mail to Xansa as part of a rationalisation programme, so therefore I was employed by Xansa, I was paid by Xansa.

Q. I understand. So apart from that period and the short break you had in 2009 that you have described, the six-month break which began in 2009, you were at Post Office effectively throughout the period from 1987?

A. I was at Post Office, I was working actively on the Post Office account for most of that time, but, as I say, once the procurement of Horizon with ICL Pathway had come to a sensible juncture, I did spend some time working with other parts of Post Office, Parcelforce, the Television Licence Agency and such. So there was

a gap in my time alongside Post Office counters.

Q. In the light of your time and position and role within Post Office, would you have been regarded as a knowledgeable person within Post Office about whether remote access of the type we're talking about was possible?

A. I believe I would have been regarded as a knowledgeable person.

Q. Very knowledgeable?

A. Yes, I would like to think so.

Q. And it is your evidence to the court that you were completely unaware that inserting transactions in this way was possible throughout your time at Post Office?

A. To be honest, I wouldn't have actually thought about it. If you are looking to support a large system, then I think the logical conclusion is it's inevitable that you have to do this sort of thing on occasion.

Q. So if you had been asked whether it was likely that it would be possible, you would have said --

A. Yes.

Q. -- it's inevitable because it's a large system?

A. I think so, yes.

Q. So were you a bit surprised when Mr Jenkins told you when you were preparing your first witness statement

that it would not be possible to do it unless it was done just to the correspondence server?

A. I don't think he told me that. I think that is his -- his description to me was a far more generic one rather than going into that level of detail.

Q. But wasn't the key point that you were giving evidence about whether or not it would be identifiable as not having been done by the subpostmaster?

A. I think we were really talking about messages coming in at the correspondence server which would therefore be very different from the ones coming from the counter which would have the lower counter numbers or node numbers.

Q. The short point is, Mr Godeseth, that your original witness statement was -- paragraph 58.10, if we can just look at that finally {E2/1/17}. Paragraph 58.10 was clearly designed to suggest that it would not be possible to insert transactions as Mr Roll was suggesting, wasn't it?

A. I don't see that as the intention at all. I think there I was looking to describe -- I think the intention was to describe that transactions injected by the SSC would be different from transactions done by the counter.

Q. Well, that's not quite what you say. This is my last

question on this, I think. You say:

"In Legacy Horizon, any transactions injected by SSC would have used the computer server address as the counter position which would be a number greater than 32, so it would be clear that a transaction had been injected in this way."

A. Yes.

Q. You were specifically ruling out injection of transactions in a way that the subpostmaster could see, weren't you?

A. Sorry, could you repeat the question?

Q. That form of words you have used was specifically ruling out the injection of transactions in a way that a subpostmaster could not see?

A. I think there are too many negatives in this.

Q. The effect of what you were saying there was that any -- we can read "all" -- transactions injected by SSC would have had a number greater than 32?

A. Yes.

Q. And that would make it clear that a transaction had been injected?

A. Yes.

Q. What you were trying to say by that was it was not possible for transactions to be injected which would not

be clear that they had been injected?

- A. I would still say that transactions that have been injected are clearly identifiable, albeit there may be a convoluted route to identifying them.

MR GREEN: My Lord, is that a convenient moment?

MR JUSTICE FRASER: I think it probably is. We will come back at 2 o'clock.

Mr Godeseth, you are in the middle of giving your evidence so you're not allowed to talk to anybody about the case over the short adjournment. Come back at 2 o'clock.

(1.03 pm)

(The luncheon adjournment)

(2.01 pm)

MR GREEN: Mr Godeseth, can we look at the introduction of Horizon itself, paragraph 6 of your witness statement at {E2/1/2}. We have mentioned already you were technical advisor in the procurement of the Horizon system and touched on the fact that it was unusual because it was two different government entities.

It was not uncontroversial, this project, at the time, was it?

- A. Sorry, it was -- certainly it was an interesting project to be working on, so I'm not sure ...

Q. Well, let's take it in stages. It encountered quite a lot of difficulties as a project, didn't it?

A. Yes.

Q. And its sort of birth as a system was not entirely easy, is that fair?

A. I think that probably the relationship between Post Office, Benefits Agency and the contractual situation is fairly well-known, yes.

Q. And if you can very kindly look at {F/70} as an example. This is a Computer Weekly article, 1 November 2000, and you will see there it says:

"The infamous 1996-1999 Pathway project aimed to computerise the nation's post offices and tackle benefit fraud. But 18 months later, after losing millions and destroying reputations a credible IT project has emerged."

So although, as we will see, the problems were well-known, as you have fairly accepted, a credible IT project did emerge from it?

A. Mm-hm.

Q. Which was what we now know as Horizon?

A. Yes.

Q. And the article then, in paragraph 2, notes:

"It was one of the largest roll outs in Europe~...

despite its complexities, it is now running smoothly, on time and to budget."

That was the impression they had. And the NAO had had some concerns about money wasted on the aborted attempt for the swipe card system, yes?

A. I must admit I have no recollection of what the swipe card system would have been, but ...

Q. Do you remember that the focus of the project changed as it went along? It was originally going to be very high levels of security for the direct payment of Social Security benefits through the system and then in the end the DSS pulled out and --

A. I certainly recall that the Benefits Agency pulled out.

Q. And a deal was done with Fujitsu to carry on with just the Post Office --

A. Yes.

Q. -- as a contracting party. If we look at the reason that the Select Committee on Trade & Industry was looking at it in July 1999, if we look halfway down the page you will see:

"At a hearing of the Select Committee on Trade & Industry in July 1999, two months after deciding to cancel the swipe card, and causing massive monetary loss, three cabinet ministers leaned heavily towards

blaming the supplier, ICL Pathway, for the disaster."

Now, there was -- I think you have hinted at it, that the relationships were not very easy, is that a ...?

A. There were some very fascinating tensions going on, yes.

Q. Yes. And there was some dispute over the terms on which Fujitsu would carry on with a project that they had anticipated and agreed would be both for two clients essentially, with just one?

A. Yes.

Q. And so the deal that was done with Fujitsu at that stage was one which in some senses compensated Fujitsu for losing the DSS?

A. I can't comment on that. I didn't know about the contractual situation at that point.

Q. Now, in your paragraph 12 you say Fujitsu began a pilot of the system in 1996 and it was rolled out across the Post Office network between 1999 and 2000. At that stage, the pilot was still for the Post Office and the Benefits Agency, wasn't it?

A. I honestly don't know. The objective of the original Horizon system was very much to replace what was then the mechanism for issuing pensions and such-like, which was an order book, you would get 13 slips in it and --

so my recollection is that this was what we were looking to replace.

Q. And if we go to {F/3} please. That is the ICL Pathway Technical Environment Description, do you see that?

A. Yes.

Q. At that stage I think ICL -- Fujitsu had a majority shareholding in ICL, but only became a 100% shareholder in 1998, is that right?

A. I honestly don't know.

Q. You're not sure, no. If we look at page 9 of that document please {F/3/9}, we can see references there.

A. Sorry, I'm looking at page 8 at the moment.

Q. Oh, you should have page 9.

MR JUSTICE FRASER: I think you are looking at page 9.

A. Okay, at the bottom it says --

MR GREEN: Internal page 8 at the bottom, but at the top, electronic page 8 --

MR JUSTICE FRASER: No, electronic page 9.

MR GREEN: I'm sorry, electronic page 9.

"References", you can see who was involved there.

If you look at the bottom of the references you see

"Agent Architecture - Gareth Jenkins."

A. Yes.

Q. Is that the same Gareth Jenkins we have been mentioning?

A. Yes.

Q. And if we look at page 92 please {F/3/92}, you will see under the heading "Migration":

"This section describes the mechanism by which the Outlets that take part in the Limited Go Live will be integrated into the Pilot Roll-out."

So there were two sort of phases of that, weren't there?

A. Again, I don't have any personal recollection of this because I wasn't involved at that time.

Q. You didn't have any involvement in this bit?

A. No, no, no, for the actual roll-out of it, I was not -- I was off doing other things.

Q. What were you doing at that time?

A. Parcelforce, SSL, as they were known, who were the TV licence guys in Bristol, Post Office Group.

Q. Okay. Let's just look under "Background" you will see:

"The 10 Outlets that take part in the~... Go Live use early versions of the solution. This includes the counter PC ..."

Which we now know as the Horizon terminal?

A. Yes.

Q. "... the BPS application suite ..."

What's that?

A. I don't know.

Q. Might it be business process systems? You don't know?

A. It could be, but I --

Q. "Riposte etc"?

A. Riposte I recognise, the rest I don't.

Q. Okay. And if we go please to {F/3/92} -- sorry, I think we may have a misreference there.

Let's go to {F/299} please. Now, this is a document that begins the migration to Horizon Online --

A. Yes.

Q. -- and what's contemplated. Pausing there, by the time you were advising in relation to this, you were aware that there had been a number of problems with the old legacy system that we have seen in many of the PEAKs.

A. HNG-X was very much geared -- or HNG as it started off -- was geared at refreshing the solution. I don't remember it being seen as fixing a whole load of PEAKs, it was simply seen as refreshing the system.

Q. Yes, but pausing there, I -- my question is quite specific.

A. Sorry.

Q. Did you have any awareness of any problems that had been encountered with Legacy Horizon by the time that you were advising in relation to migration to

Horizon Online?

- A. I will have been aware of some at the time but I honestly cannot remember any major issues that I was dealing with, but because of the work I was doing, because I was having to ensure that Post Office could continue to deliver change and whatever, I would have been aware of it, yes, certainly.
- Q. Okay. So important PEAKs would have been drawn to your attention under Legacy Horizon, you think?
- A. I believe so, yes.
- Q. And when we look at the aims of the HNG-X plan, this is dated 21 September 2005?
- A. Yes.
- Q. Can we look at page 10 please {F/299/10}. This is a document that you would have known about, isn't it, in all likelihood?
- A. I was certainly involved at this stage, yes.
- Q. And you will see that the -- under 1.4 you will see:
- "While Post Office has considerably increased expectations on cost reductions, the organisation has also become substantially more open to operational changes. Post Office has clearly indicated that aspirations to a more retail-type IT spending are matched with the acceptance of more retail-type

operational practices."

And then:

"The original business case for HNG within Post Office was based on a balance of cost reductions and improved capabilities. The new business case is almost entirely based on cost reductions".

Now, that was accurate at the time, wasn't it?

A. I didn't write it, but I'm not going to argue the case.

Q. And if we look at page 13, paragraph 3.1.1 {F/299/13} we see under "Assumptions":

"The fundamental assumes is that Post Office will accept a solution based on the business capabilities that the solution provides and will not insist on being involved in the technical and technology aspects. This will require Post Office to fully engage with suitable empowered personnel in these initial stages and to have in place assurance and decision-making processes that align with the time/cost boxed programme milestones."

Now, just pausing there, effectively what is being said is that Post Office was not insisting on being involved in the technical and technology aspects, is that correct?

A. Certainly it was looking for a more arm's length relationship, sir, yes.

Q. A more ..?

A. Arm's length, I think.

Q. Arm's length?

A. Yes.

Q. If we look at page 16 of this document please

{F/299/16}, do you see under 4.0 "Business Applications".

A. Mm-hm.

Q. "In order to reduce the overall application development costs within HNG-X, substantial reuse of data centre application components is proposed."

A. Yes.

Q. That's correct, isn't it?

A. Yes.

Q. That's what was proposed and what was done:

"The Legacy Host database applications (TPS, APS, LFS, DRS and TES) are to remain largely intact."

Can you remember what they were?

A. TPS is transaction processing system, AP is automatic payment system, LFS is logistics feeder system or service, DRS is data reconciliation service, TES is transaction enquiry service.

Q. Thank you. And they were remaining largely intact:

"The online interfaces (~... Banking Streamline and

ETU)~..."

What was ETU?

A. ETU is electronic top-up. It's paying for your mobile phone.

Q. "... will be modified to provide a Web Service interface in place of Riposte messaging together with a simplification of the security mechanisms."

A. Yes.

Q. That's a fair summary of the matters that it deals with there?

A. Yes, I think so.

Q. Now, that was recycling quite a lot of application components, wasn't it?

A. Yes.

Q. And if we look at page 23 of this document {F/299/23} you see in the second paragraph:

"There will be minimal change to legacy applications. LFS, DRS and TPS will incorporate new harvesters that will extract transactions from the Branch database rather than the message store."

And that reflected the change that was going to be made because the data would no longer be held in the message store in branch, it would be held in the branch database, the BRDB?

A. That's right.

Q. "APS will be modified such that it extracts transactional data directly from the TPS stream and this reduces the need for much of the AP-TP reconciliation."

Can you just tell the court what the AP-TP reconciliation is?

A. AP is responsible for sending transactions off to clients; TP is responsible for sending transactions to basically Post Office back-end systems. The reconciliation was there to make sure that if you sent something to the back -- to a client, it was also being sent through to the Post Office back-end systems.

Q. Okay. Then it says:

"No other rationalisation is proposed to the data centre applications as part of HNG. A phase II rationalisation programme is not deemed to be part of the HNG-X project and must be separately justified at a later stage."

What was phase II, do you know?

A. I don't think there ever has been a phase II. We're currently making changes which will probably get rid of things like -- or certainly reengineer things like DRS and LFS. TPS is still there, but pretty nearly redundant, so nothing that I would recognise as

a phase II rationalisation process.

Q. Okay. And if we look at {F/451} please, this is the HNG-X testing strategy. The document is dated 10 April 2008 and can we just go to page 10 please {F/451/10}. Now, if you look at the third paragraph down:

"It has been recognised for some time that this architecture, whilst providing an extremely robust operational solution, was not ideally suited to the very different business and technology drivers that prevail today."

Now, we see "robust" as a description of the solution in lots of places in lots of documents, both at PO and Fujitsu, and it's a term that you're very familiar with, isn't it?

A. Yes.

Q. The latter part of that sentence is saying it is not ideally suited to the very different business and technology drivers that prevail today and it goes on and says:

"In addition, in common with many elderly systems that have been subjected to a succession of major changes, it has become increasingly difficult to make those changes, and expensive to operate."

Now, that's a fair description of how the system originally was perhaps designed jointly with the DSS at the beginning and launched and then over the years, between then and 2008, there have been lots of sort of bolt-ons and additional things that have been changed on the system, haven't there?

- A. Yes, I think that's fair. The major one probably in my mind would be banking.
- Q. And if we look at the fourth paragraph down, three lines down please:

"The main drivers were to create a solution that was more responsive to business change (faster time to market), and more efficient to operate, maintain, and enhance, thus providing lower Total Cost of Ownership (TCO). However, HNG was ambitious, projected costs were high, and the benefit realisation profile was unclear. In particular, HNG had been predicated on expecting a high rate of future business change for the system. Emerging business strategy in the Post Office indicated that this was uncertain and could not be relied upon sufficiently to support the proposed business case. As a result HNG was suspended in the summer 2005."

Yes? Can you remember that happening, the project being suspended at that point?

A. Yes.

Q. And if we now look at what is being proposed, the bottom paragraph of section 1.1 on {F/451/10}:

"The HNG-X programme proposes a somewhat less ambitious re-engineering of Horizon, without the branch network hardware refresh ..."

A. Yes.

Q. "... and with the focus squarely on reduction of the TCO [total cost of ownership]. The principal drivers for the HNG-X programme are to deliver a solution that significantly reduces the TCO, whilst maintaining 'Business Equivalence' (ie the HNG-X solution is to provide effectively the same business capability as the existing Horizon solution, but cost less to operate and maintain)."

Now, is that a fair summary?

A. I can't argue with it, certainly.

Q. Can we look, please, at {F/555}. This is a Post Office online induction training presentation. Can we go to the next page of that please {F/555/2} and the course aims are to:

"... give you all the information and skills that you will need to successfully support a branch from Horizon to Horizon Online."

So this is actually an internal Post Office document, it appears, and if we look at page 10 please {F/555/10}. This is Horizon's current state:

"13 year old design and technology to satisfy a different business.

"Slow and expensive to use.

"Evolved rather than designed - a consequence of which is a robust service but complicated to change."

Do you see that?

A. Yes.

Q. Now, the comment on it being a 13-year-old design and technology is fair, isn't it?

A. Yes.

Q. The comment on it being slow and expensive to use is fair, as at that date, or do you feel a bit conflicted because you now work for Fujitsu?

A. I know that Post Office regarded this as expensive and they also regarded it as slow to change. I personally didn't necessarily go along with that because there was a -- there's an AP-ADC product which since I was involved in Post Office at this time, AP-ADC was my way of being able to carry on making business changes whilst we were going through this particular phase, so yes, I feel slightly conflicted because I know that the

Post Office high-level view was that you couldn't make changes to Horizon, whereas I was busy -- you could do -- there were certainly changes you certainly could not do, but my feeling was that we could continue to support the business, they could continue to take on new clients using this facility, AP-ADC.

- Q. Okay, well, have a look at the four lines at the bottom of the page if you would and see whether you think this is fair:

"Horizon is also a system that's wrapped up in 'barbed wire' -- making changes difficult and costly -- test everything!"

Is that an understandable observation?

- A. I think that I would see that from Post Office perspective but, as I say, my personal view on this was that I could still make changes by getting AP-ADC scripts through, but there were certainly some things that yes, if -- there were some things that would have been very difficult to change at that time.
- Q. If we look at -- if we just go back if we may please to {F/451} which is the HNG-X testing strategy of 10 April 2008. If we look at page 33 of that document please {F/451/33}, paragraph 2.2.6, "Migration Complex and Critical":

"The system and data migrations required for HNG-X, both at the Data Centres, and at the branches (which continues branch by branch throughout the roll-out period), are absolutely fundamental to the success of the deployment. It is a complex area requiring careful and detailed planning. Thorough verification and validation will be essential."

Now, that's fair, isn't it? I mean, that's what you would expect to see, yes?

A. Yes.

Q. And if we look at the bottom two paragraphs of that section:

"Migrated data should be introduced into the mainstream tests as soon as practicable, interleaving migration tests with functional test cycles."

And then:

"Full-blown rehearsals of the detailed migration plans must be completed prior to Pilot."

Yes?

A. Yes.

Q. So what this envisages is that before the pilot is done, there must be full-blown rehearsals of detailed migration plans to try and see if there are any problems or difficulties.

A. Yes.

Q. Now, in fact, the pilot had to be stopped, didn't it?

Do you remember that?

A. Yes.

Q. Let's have a look, please, at {F/588}. This is PEAK PC0195380 and you can see it is created apparently on 2 March in the top box under "Progress Narrative", and --

A. This is which year, sorry? This is 2010, yes. Yes.

Q. Sorry, I think I've got the wrong reference there, wait a minute. Just give me one second.

I will come back to that in a second, if I may.

I think we may not have the correct reference.

Let's go forward, if we may, to {F/614} and this is the Horizon Online Programme Update. Who was Mark Burley?

A. Mark Burley was my boss whilst I was working on the preparation for HNG-X.

Q. And how long had you worked with him?

A. On this -- I knew him way before I started working with him. On this project I guess I was working for him for a year, a year and a half.

Q. And if we look, please, on that document at page 4 {F/614/4}, we can see Horizon Online status:

"614 branches live on Horizon Online (plus 8 Model Offices)."

A. Yes.

Q. And then do you see:

"High Volume Pilot suspended."

A. Yes.

Q. And:

"NFSP raised concerns but remain supportive."

A. Yes.

Q. And can you remember that the NFSP had raised concerns about the problems that people were having in the pilot?

A. No, I can't, because at this stage -- this is early 2010 -- at that time I was actually -- I was back in the Post Office working on a different project and so this was happening around me, but I was concentrating on something which was called SMTS.

Q. Okay, so you weren't in touch because you had only just come back I think, hadn't you?

A. I had just come back into the Post Office to work on this specific --

Q. In March?

A. No, sorry, I came back in January.

Q. Came back in January?

A. I came back to the Post Office in January to work on

small money transfer service.

Q. Okay, at the bottom of that slide we see:

"Fujitsu initiated 'red Alert' and independent reviews."

A. Yes.

Q. What did you -- did you know what a red alert from Fujitsu meant at the time?

A. I certainly would have done and when I moved across to Fujitsu, we were in red alert.

Q. So when you moved to Fujitsu they were in a state of red alert on this project?

A. Yes.

Q. And were there different codes for the colours of alert? Were there other alerts, amber alert?

A. You have got me on that one, but I'm sure there were.

Q. Can we infer from "red alert" that it is quite serious?

A. Oh, it was very serious.

Q. And can you tell his Lordship why it was serious?

A. There was an issue with Oracle which was the biggest problem, but clearly there were other problems going on at the same time because it was a brand new system, but the big one was an Oracle issue which I got involved in.

Q. Can you remember some of the other problems that were happening at the time?

A. I have to admit, I was focused on the Oracle problem.

I was new into Fujitsu. In that sense I was finding my feet and trying to work on the big one.

Q. Fair enough. Can we go back to {F/588} please. This is the same PEAK I think I identified, PC0195380, and can we go to page 4 of that PEAK please {F/588/4}. Now, can you see in the box under 5 March 2010 at 08.03.08, second box down?

A. Yes.

Q. Under -- it says:

"We have received notification from POL regarding the problems at this office. PSB ..."

Do you know who PSB was, or what it was?

A. No, I don't think it's a person. I don't know what PSB means. It is possibly "Please see below" but ...

Q. Okay:

"On the 1st of March at the close of business we found that on node 5 the cash was short of £1,000. All of the figures for that day match the figures presented at the time of each transactions. An instant saver withdrawal of £1,000 was transacted that day, but I was unable to find this transaction using the online report facility. I feel very anxious as I believe a system error has occurred at the time of this transaction."

So this seems to be being relayed from what the SPM has rung up about:

"On the 2nd of March a transaction for a cash withdrawal was completed where the system commanded a member of staff to issue the money to the customer on screen but the receipt printed for that transaction printed out a decline slip. The customer was honest enough to bring back the decline receipt a day later with the money."

Then:

"On the 2nd of March on node 5 a £220 cash deposit was authorised on screen but twenty minutes later the customer brought back a receipt that stated the transaction had declined. We contacted the NBSC as and when the customer produced the receipt. The NBSC stated that the transaction approved on the system and had no idea why the money was not deposited and why the decline slip was printed."

Now, pausing there, was this something that you would have been aware of in March 2010 or not?

A. No, I was in the Post Office at that time and so I wasn't involved in this bit.

Q. What were you -- you were in the Post Office at that time ...?

A. I was working in the Post Office on a separate project.

I had just come back in on a new project, on a new contract.

Q. But you were someone who had been working a lot in relation -- was very knowledgeable about Horizon?

A. Yes.

Q. Did any of this come to your knowledge?

A. No.

Q. And if we see then:

"A rem was scanned in our system and all figures had doubled up. The helpline team was notified at the time to which they seemed more confused as to why it happened than me!"

In your time prior to going off in 2009, had you sort of encountered difficulties of this sort in other PEAKS?

A. No, this is a problem with Horizon Online, so this is a problem with the new system. I had -- at the time that I finished my contract with Post Office, we were gearing up for starting the migration process but the big bit that concerned me most was the moving stuff across from one data centre to another. This bit, the counter migrations, was just kicking off in May 2010, so okay, the figures there say that we had 600 branches,

I think you said there. So in May 2010 when I was back on the scene but this time on the Fujitsu side, we were in red alert, we did have a big problem with Oracle, we were having to recover the situation so as to get ready to carry on with the counter roll-out.

Q. Now if we look -- I apologise, I haven't got time to take you to all of it, but there are quite a number of apparent problems that they are wishing to raise, aren't there?

A. I think this is the BT one, isn't it? Does this one end up with the branch transaction -- or the balancing transaction, sorry? This looks to me as though the dates are about right for the balancing transaction, but -- yes, I think there were -- there certainly were issues with the software in the early days of HNG-X.

Q. Yes. And that doesn't come leaping out of your witness statement, does it?

A. No.

Q. And you know that his Lordship is trying to determine how well the system worked over this period, don't you?

A. Yes, that's fair enough.

Q. And is there a reason why there isn't really any reference to the problems with the system in your witness statement?

A. I was looking to give an overall explanation as to how Horizon works. Obviously I was asked to pick up on a number of specific problems that have been experienced in the life of Horizon. There certainly were problems to be dealt with in the early days of Horizon Online.

Q. Now, at paragraph 13 of your witness statement you say horizon Online was the biggest overhaul. That's at {E2/1/3}, but:

"~... continuous and iterative updates to the system over its life."

You mention those as well, yes?

A. Sorry, could you remind me where we are?

Q. Sorry. If you look at paragraph 13 of your witness statement, you talk about the migration to HNG-X --

A. Yes.

Q. -- or Horizon Online, that's the same thing?

A. Yes.

Q. And you say this:

"This was the biggest overhaul in the Horizon infrastructure that I can recall, although there have been continuous and iterative updates to the system over its life."

Now, pausing there, we have seen that quite a number of the system components remained the same, didn't they,

from legacy days?

A. Yes.

Q. And we have also -- you have very fairly accepted that there were lots of additions made to the system over its life; yes?

A. Yes.

Q. Now, isn't HNG-X, or Horizon Online, an end of life version of the Horizon system rather than a reinvigorated and rejuvenated version? Is that fair?

A. No. Horizon Online is -- the components that were introduced by Horizon Online is the branch database, new technology for communication between the branches and data centres, so that was moving to an online system which is a radical change to the -- it's a radical change to the architecture compared to Riposte and there are -- the communications technology change was pretty dramatic in terms of moving from ISDN to what we have now -- or, sorry, to ADSL, which is -- so it was a big overhaul.

Q. Can I pause there. The communications changes that you mention are significant, aren't they, because there have been quite a lot of communications problems with the legacy version of Horizon?

A. Yes.

Q. And --

A. Sorry, the legacy version of Horizon was far more susceptible to communication glitches.

Q. Exactly. And so there were two improvements in that respect: the susceptibility to communication glitches was reduced, and also the quality of the communications infrastructure was improved, is that fair?

A. Yes.

Q. Can we now look please at {F/1663}. This is an IT risk management document from Post Office and it is dated 20 July 2017. Now, can we look at page 6 of this please {F/1663/6}. Can you see under the "Where we are now" heading:

"There is increased risk in our Branch technology environment:

"The ~... (HNG-X) platform is end of life ..."

A. Yes.

Q. "... and is running on unsupported Windows software, therefore needs replacing ..."

A. Yes.

Q. This is 2017?

A. Yes.

Q. Is it fair to describe it in these terms as at the date of this document?

A. Absolutely.

Q. "Branch counter technology is aged and unreliable, with frequent hardware failures, resulting in branch disruptions."

Is that fair?

A. Yes, I think so.

Q. "The branch IT network service (ISDN) provided by Vodafone will be switched off on 30 September 2017 and therefore needs transitioning."

That's a different observation relating to an external comms change.

A. The ISDN bit was a small number of branches where -- and I can't remember the numbers, but there was a relatively small number of branches that were still running on ISDN because you could not get ASDL there.

Q. Yes. So that's in the -- in the hierarchy of those points, that's the least important, isn't it?

A. Indeed. The straight case is that the platform was running on NT 4 and any technologist would tell you that that was too old, but it continued to work surprisingly well.

MR JUSTICE FRASER: That's the Windows NT 4?

A. Yes.

MR GREEN: And under the "Mitigation" heading we see:

"Accelerated plans to transition from HNG-X to updated HNGA ..."

And that's going to run basically on Windows 10, it doesn't say it there, but that was the plan, wasn't it?

A. Well, HNGA has now been installed and it is, as you say, running on Windows 10. At this stage I suspect the target was Windows 8, but that's irrelevant.

Q. Yes. In fact, you mention on page 4 of your witness statement, if we can go to {E2/1/4} -- you mention in the footnote there:

"HNG-X is being replaced by HNG-A. There is no functional difference between the two: HNG-A refers to an implementation of the same counter code as is used in HNG-X to run on a Windows 10 device (whereas HNG-X counters are NT4 devices)."

A. Yes.

Q. Yes? But there's not an explanation to anyone reading this witness statement of the sort of state of the technology in the terms that we have just seen in your witness statement?

A. That's a fair point.

Q. And in terms of the roll-out, did the first wave begin in about February 2017, is that right?

A. For HNG-A?

Q. Yes.

A. I can't really remember. The roll-out of HNG-A was not really a Fujitsu problem.

Q. Who was handling that?

A. There were two aspects to the roll-out of -- there were two aspects of roll-out. The network was moved from Fujitsu to Horizon and then the counters -- the actual hardware running HNG-A is supported by Computer Centre, so the software that runs in the counter is still Fujitsu's and so that's -- so we provide the software to Computer Centre, they wrap it up, they send it to the branches now.

Q. Can you remember roughly when that handover started, or took place? When did Computer Centre become responsible for it?

A. You mentioned the date in 2017, that rings true.

Q. If we have a look -- we don't necessarily know the answer at all, but {F/1710.1}. Let's look at the front first, "Post Office Limited audit planning report"; do you see that? And if we go to page 24 of that report {F/1710.1/24}, you can see -- it is quite small writing, but under the first yellow bullet point:

"Branch tech refresh - HNG-X in branches will be replaced by HNG-A in phases, the first wave started

in February 2017."

A. I'm --

Q. You may not know.

A. I'm certainly not disputing that.

Q. Thank you.

Can we now turn please to paragraph 17.1 of your witness statement in relation to data sources, that's at {E2/1/4}. You have identified what the sources of transaction data are and can we just identify this in a little bit more detail please:

"The vast majority of transactions are manually entered by user in branch at the counter, by pressing icons on the touchscreen, keying in the transaction on the keyboard, scanning a barcode, scanning a magnetic card or some other manual interaction with the system. These are referred to as 'counter transactions'."

Yes?

A. Mm-hm.

Q. Then transaction corrections, as you understand it:

"... they are produced when Post Office compares the data entered into Horizon by branches with data generated from other sources in order to identify any discrepancies."

You say there "as I understand it", that's because

it's not something that you knew that much about when you were at Post Office?

A. I know the general principles of it, but I certainly wouldn't know the detail of how TCs are generated.

Q. And it says:

"TCs are sent to the branch via Horizon."

And there is a footnote:

"TCs are incepted in Post Office's POLSAP system before being communicated to Horizon, via TPS to the BRDB."

Was that something you knew yourself or something somebody assisted you with?

A. Sorry, where are we now?

Q. Footnote 2, explaining how they are generated.

A. I'm only seeing footnote 1.

Q. If we go over the page, sorry. {E2/1/5}.

A. I know that they come from POLSAP.

Q. And how they are communicated via TPS to the BRDB, did you pick that up from someone else or ...?

A. I could work that out for myself.

Q. Did you, or did someone else tell you?

A. In this case I would have checked it, yes, so ...

Q. With Gareth or ...?

A. No, this would be more a Pete Jobson one.

Q. Okay. And you say "then accepted by a user in branch".

You don't know what's involved in that, do you?

A. I understand the principle because TCs were first introduced in Impact, which I was involved with, and I remember we had the conversations as to how TCs would go into the branch and we were very clear that the postmaster had to be aware, hence the mechanism that I have seen described, which is they are presented with the TC, they have to settle, they are given various options on how to settle.

Q. Yes. So why did -- you were involved in that design?

A. Yes.

Q. Why was there no dispute button?

A. That was a Post Office decision.

Q. Can you remember what the pros and cons that they had in mind were when they made the decision?

A. I think the basic argument was that disputes -- we wanted the flow of data through the system as quickly as possible because that keeps our books tidy and it was an inference that there was always the -- you had to press a button to take things through, but then you would pick up the phone to NBSC and say that wasn't right.

MR JUSTICE FRASER: Were you involved in the discussion about that, or were you just told there wasn't going to

be a dispute button?

A. I would say that I was aware. I wasn't particularly engaged in the conversation. I regarded that as business processing, my Lord. There is a precedent to this which is technically very similar, which is auto-remits, which I was also involved in, where the whole process changed so to save the subpostmaster having to key in the amounts in each pouch, they were presented with a screen which said "The amounts coming in are this, press this button." I would like to remember, but I can't be certain, that at that point there was a message to say "If you disagree, phone up the help desk", but again the principle was there to say "This is the right figure, accept it and then argue the case outside."

Q. Then we look at "Equipment located in a branch other than a Horizon terminal." You say it:

"... is required for some transactions, such as a Camelot terminal for lottery products and a Paystation terminal for some bill payments."

And the point you make there is that these bits of equipment communicate information direct to a client or other supplier, who relays that information to Post Office, or Fujitsu on Post Office's behalf, who

then send a transaction acknowledgement to the branch via Horizon.

So can we just pause there. Can we trace how a piece of information gets from a scratchcard activation into the various repositories of information, so tracing it through in accordance with what you have said there, there's a piece of equipment, namely the lottery terminal, and the SPM activates some cards on the lottery terminal, yes?

A. Yes.

Q. That information is then relayed directly to Camelot, the client?

A. Yes.

Q. And Camelot then in turn relay that to the Post Office, or Fujitsu on the Post Office's behalf, just following your witness statement.

A. My apologies -- well, apologies for that being unclear. In the case of Camelot, the data goes to the Credence system.

Q. Okay. So the Camelot data goes to Post Office's Credence system?

A. Correct.

Q. And then that then automatically engages with Horizon to send through a transaction acknowledgement to the branch

via Horizon?

A. Yes. We receive a file from Credence which then gets loaded into the branch database, then makes its way down to the counters.

Q. Yes. So the information going into the branch database is in fact in this case information that has come via a third party and back in?

A. I don't see it in quite those terms. I see it as we have received data which goes into the branch database, so we -- the Horizon system knows absolutely nothing about it until this file appears.

MR GREEN: Precisely. So just reputting that question --

MR JUSTICE FRASER: It might be because you said "via".

A. Sorry, I think that's probably the case, my Lord.

MR JUSTICE FRASER: Is that the part of it --

A. I think so, my Lord, yes.

MR GREEN: That's my fault.

MR JUSTICE FRASER: Do you want to just clear it up?

MR GREEN: Yes. So the journey that immediately is seen by Horizon is information coming in from Camelot --

A. Yes.

Q. -- via Credence, is that fair?

A. It comes in and we know it is coming from Credence, yes.

MR JUSTICE FRASER: So it goes: Camelot terminal in the

branch, to Camelot, to Credence, to Horizon?

A. Correct.

MR GREEN: And because it has come into Credence, it then goes into the branch database?

A. The branch database is the holding place where we put this data so that it is -- it's not technically sent to the branches but -- well, I suppose it is, because at the appropriate point the data comes from the branch database to the counters.

Q. Yes. So when someone turns on their terminal in the morning and logs on, they have some TAs on the screen?

A. Yes.

Q. And they have no choice but to accept those?

A. I don't know whether they have the option to stop them, but I think the principle is certainly right, that the TAs are going down there with the expectation that they have to be -- that they will be accepted.

Q. Just so you know, it is not controversial that they don't have a --

A. No, that's fine. Thank you.

Q. It's at that point that they enter the branch accounts?

A. Yes.

Q. And that is the data that is then captured by the audit system?

A. Yes.

Q. And that's true -- with minor differences but substantially correct -- for the other items of equipment that you have in mind in paragraph (c)?

A. Yes, the difference is that the Paystation data comes from Ingenico to us. We load it into the branch database in separate tables and we generate the TA, but then you are onto a common stream.

Q. And then again, that is the data that then goes into the audit store?

A. Yes, it's the action at the counter which then contains data which comes up into the branch database and that is the bit that goes into the audit store.

Q. What is the action that you are talking about there at the counter?

A. Pressing the "Accept" button.

Q. On the TA?

A. Yes.

Q. And then at (d) you say:

"In Horizon Online it is possible for Fujitsu to insert a balancing transaction - see paragraph 58 below."

A. Yes.

Q. We will come back to that later. We have already dealt

with it, at least in part. Just focusing on (a), (b) and (c) for a moment, when we look at the data that we're concerned about in paragraph 17.2(a), you point out, quite rightly, that:

"The vast majority of transactions are manually entered by a user in branch at the counter ..."

And then importantly "... by pressing icons on the touchscreen", yes?

A. Yes.

Q. So the significance of that is that the transaction data comprises the fact of a press -- one press by an SPM on a particular icon, yes, and the significance of that in the reference data table being put together so that something pops up in the basket, as I mentioned to Mr Johnson when he was giving evidence, yes? You don't type in the price of a first class stamp?

A. No, absolutely not. The price of something would be calculated for the majority of products.

Q. Yes, and that data is in the reference data table, isn't it?

A. Yes.

Q. So in the transaction data there are two elements. There is what the SPM has in fact done in terms of a keystroke.

A. I don't see it in those terms.

Q. I understand.

A. We see the result of actions at the counter as a basket and I think -- so we see the outcome from the counter application putting together a basket and it is that basket that we then put into the audit trail.

Q. Totally understand. I was just trying to be precise about the result that we see, which is the fruit of two different pieces of data: there is which icon the SPM has pressed on the screen and the relevant reference data in the reference data table for that icon.

A. If you're looking at something such as a first class stamp then yes, I agree. If you're looking at other things then it could be much more complicated.

Q. Of course, but for many many things there are --

A. Yes.

Q. The reason you say "by pressing icons on the touchscreen" in paragraph 17.2(a) of your statement, is because for quite a lot of transactions that's how it is done?

A. Yes.

Q. There are some where the SPM has to actually manually enter in what's happening.

A. There are some where the subpostmaster has to enter far

more data, such as on an AP-ADC transaction. There are some where data will come from a PIN pad, there are some where data will come from a barcode, weigh scales.

Q. Indeed. And that is the data -- the result of that, what's shown in the basket, in the transaction if you like, is what's then captured in the BRDB and in due course in the audit store.

A. Simultaneously. The first part of that is actually -- the audit store at that stage is actually simply a table in the branch database.

MR GREEN: Okay.

My Lord, would that be a convenient moment for a break?

MR JUSTICE FRASER: I dare say. Are you going to be dealing with Mr Godeseth for the whole of the afternoon?

MR GREEN: I am.

MR JUSTICE FRASER: We're going to have a short break, Mr Godeseth. Ten minutes -- or do you want five?

MR GREEN: That's fine.

MR JUSTICE FRASER: Ten minutes. We will have a ten minute break for the shorthand writers. If you could come back at 10 past. Same score as before, don't talk to anyone about the case.

A. Understood, my Lord, thank you.

(3.00 pm)

(Short Break)

(3.10 pm)

MR GREEN: Can we just touch on a couple of brief points in relation to transferring and storage of data. At paragraph 19 of your statement at {E2/1/6} you say:

"Due to the different ways that Legacy Horizon and Horizon Online transfer and store data, I address them separately below when dealing with integrity of data being transferred through Horizon."

We touched on the information flows in relation to third parties already, but that was in the context of the BRDB, wasn't it, our discussion we just had before the break?

A. Yes.

Q. And under Legacy Horizon you were on the other side of the fence, as it were, to where you are now?

A. Yes.

Q. Legacy Horizon days.

If we look at paragraph 34 of your witness statement at {E2/1/11}, you make the point that the messaging system was responsible for storing all the data in the Post Office branch and replicating it to data centres. The basic set up is that the counters held data in

a message store.

A. Yes.

Q. And the correspondence server also had a message store?

A. Yes.

Q. And the data inserted at the counter would be replicated in the correspondence server message store?

A. Correct.

Q. And vice versa if there was a --

A. If you needed to push data -- Riposte was responsible for replicating data to wherever you told it to.

Q. Indeed. At paragraph 43 of your witness statement {E2/1/12}, you have mentioned that:

"[You] understand from Gareth that the audit application read every record that was visible to the correspondence server ... and wrote a text copy of that data to a text file."

Do you know whether the audit server was hosted by Riposte or not?

A. The audit server is definitely outside of Riposte.

Q. Let's look at the Horizon Next Generation plan X document again please, at page 28 {F/299/28}. Do you see under "Audit" at paragraph 4.3.2.7 it says:

"The audit application remains largely unchanged apart from various modifications to the configuration of

audit collection points throughout the estate.

"An audit conversion tool will be required to convert existing audit data from Riposte to another readable/searchable format."

What is that referring to?

A. I think it's just wrong.

MR JUSTICE FRASER: You think that's wrong?

A. Yes. Yes, my Lord, because I have seen audit data from Riposte days and it is in Riposte attribute language, so I -- I can't see how that's right because the audit data that I have seen is in Riposte attribute language.

MR GREEN: So the audit data that was stored was in Riposte attribute language?

A. Correct. It was basically the message store -- it's pretty much as simple as a copy of the message store.

Q. And in relation to who was managing the Riposte system, what was Escher's role?

A. Escher provided Riposte software, so they provided the software in which Fujitsu deployed applications.

Q. And did they provide support for the Riposte software as well, or not?

A. Yes, they did, but I honestly don't know what the contractual relationships were, so I can't really comment in any detail on that.

- Q. You wouldn't have known at the time what the arrangements between Escher and Fujitsu were if there were problems with Riposte?
- A. I certainly don't know. I'm obviously conscious, having looked at PEAKs, that there were issues, but I was not aware of those at the time.
- Q. I understand. You deal with Horizon Online from paragraph 20 {E2/1/6} in relation to the accuracy of transaction data. Is it fair to say this is more within your own knowledge, this bit of your statement?
- A. I feel that I know this pretty well, yes.
- Q. So back on home turf in a sense?
- A. In that sense, yes.
- Q. And in paragraph 26 {E2/1/7} you mention the controls that were in place. Do you know whether those controls ever failed? Take the first one, "A basket must balance to zero."
- A. We have checked this. If you do something on a test system to cause a basket not to balance to zero, it shows an error.
- Q. And you mentioned the Journal Sequence Number. It's impossible, isn't it, for the database to accept two items with the same JSN number?
- A. Correct.

Q. Can we look please at {F/590/7}. Just to orientate you in this, perhaps we can go to the first page, I'm sorry {F/590}. You will see that this is PEAK PC0195561. Do you see that?

A. Yes.

Q. And if we go to page 7 {F/590/7} and we look at 24 March 2010 at 14.45.49, which is the middle one, do you see there:

"Time-outs were the underlying cause of the issue and that there were long delays waiting on the DB ..."

That's the database, yes?

"... to process the 4 requests."

A. Mm-hm.

Q. "In this case two of the requests were committed and two correctly detected that the transaction had already succeeded. There is an issue with the 2 commits because this shouldn't have happened. However the behaviour of the OSR from CTR 25.07 onwards is to roll the transaction back on a time-out. In this scenario all the requests would have failed and no reconciliation is required.

"We would like to find the root cause of the issue as to how the duplicate entry was committed in the DB."

Now, I know you were working on other things

in March 2010, but were you aware of any problems with items with a duplicate JSN number, Journal Sequence Number, being committed to the database?

A. I'm not sure this is saying we had duplicate JSNs, but I would obviously have to check the detail and no, I wasn't aware.

Q. You weren't aware of that problem generally?

A. No.

Q. Okay. And you were here I think for Mr Dunks' evidence this morning.

A. Mm-hm.

Q. Paragraph 32 of your witness statement {E2/1/10} says:

"I am not aware of any instances where data retrieved from the audit store differs from other sources of data, nor am I aware of any instances where the integrity checks described in paragraph 30 have revealed any issues."

Yes?

A. Yes.

Q. Were you aware that there had been duplication of data identified in Seema Misra's case?

A. Misra I believe was on the old system.

Q. Yes, legacy.

A. Yes. So no, I was not aware of that.

Q. In terms of ARQ figures, can we look at paragraph 31 of your witness statement please {E2/1/10}. You say there:

"I have been informed by my colleague Jason Muir (Operational Security Manager in Security Operations Team) that the number of ARQs issued since the 2014/15 financial year is as follows ..."

And you then say one ARQ equals one month of an individual branch data so one Post Office request for data could have multiple ARQs, yes?

A. Yes.

Q. Just to explain what the figures are. And you have a footnote to that which says:

"These figures do not include the ARQs that Fujitsu has issued in relation to these proceedings."

So is it actually -- where did you get that information from?

A. From Jason.

Q. So what did you ask him?

A. Personally I didn't ask him anything. This was information that was being requested to go into the witness statement, so I'm confident that it is correct. I have no particular motive in providing that information.

Q. I'm just trying to -- I'm not talking about motive, I'm

just trying to identify how it has ended up in your witness statement.

A. I was effectively asked to put it in.

Q. So did Jason Muir actually inform you of this in response to any requests from you?

A. No.

Q. Because that saves me asking the next question which was why didn't you ask him for earlier years.

Now, can we just look at the years that we've got there, 31.1 to 31.4. When you were shown the information that you were to put into your witness statement you must have noticed that it only went from the 14/15 year to the 17/18 year.

A. I didn't pay it any particular attention.

Q. But you have been dealing with Legacy Horizon which pre-dates 2010 --

A. That's true.

Q. -- in the same witness statement, so you must have had in mind what the chronological sweep of this witness statement was supposed to deal with, mustn't you?

A. I'm afraid I didn't do my job in that case.

MR GREEN: Can we move now to --

MR JUSTICE FRASER: Just before you move off that, can you think of any reason why there should be a cut off at the

beginning of 2014, in terms of the system, or the way it worked, or anything?

A. I can't think of any reason why that information would not be available further back.

MR JUSTICE FRASER: Mr Green.

MR GREEN: Can we deal with the problem management procedure now. Can we look please at {F/1692}. This appears to be a Fujitsu document. We see at the bottom "Fujitsu restricted" and "Copyright Fujitsu Limited 2017". The title of the document is "Post Office Account - Customer service problem management procedure" and can we please go -- if you note the "abstract" there:

"To describe and document the customer service problem management process."

Now, you are the chief architect, aren't you, in relation to the responsibility for changes being made to the system being implemented without prejudicing the continued operation of the system? That's what you say in your witness statement?

A. Yes, that's right.

Q. And this is a recent document which relates specifically to the Post Office account. Is this a document you have seen before?

A. I can't honestly say. It's certainly not one that I'm

particularly familiar with.

- Q. Okay. Let's have a look, if we may please, at page 8 {F/1692/8}. You will see just under 1.1 "Process objective and scope":

"The objective of this document is to define the process for problem management in the POA environment to support the contracted infrastructure and application services described in the HNG-X contract. Other infrastructure and services used by POA to provide and support delivery of the HNG-X contract are also in scope of the process."

Now, just pausing there for a second, POA is the Post Office account team at Fujitsu, isn't it?

- A. Correct.

- Q. Then it says:

"For the purpose of this document a problem is defined as the unknown underlying root cause of one or more incidents."

Yes?

- A. Yes.

- Q. "The problem management process covers both reactive and proactive functions of problem management."

- A. Yes.

- Q. Now, if one is to have a robust system it's important,

isn't it, to make informed assessments of where problems lie based on the relevant information that was available?

A. Yes.

Q. And it's important to capture and track that in a way that can readily be analysed, is that fair?

A. Yes.

Q. And that seems to be at least consistent, if not the aim of this procedure, yes?

A. Agreed, yes.

Q. Let's look please at the document history on page 4 please {F/1692/4}. We can see that the draft document was updated in 2007 and we can see various changes going in and out and various revisions going forward on that basis. If we go over the page {F/1692/5}, we can see up to a date in September 2017, yes?

A. Yes.

Q. Now, can I just give you the context in which this document has come to the fore, so that you can see it clearly. The two experts both comment on it. If we go please to {D2/1/96}, this is Mr Coyne's report. We get to paragraph 5.156 there and it is clear from that paragraph that Mr Coyne was working on the basis that the problem management procedure had actually been acted

upon and you can see there, at 5.156, he says:

"The Post Office account customer service problem management procedure document ..."

Which he footnotes:

"... identifies the process metrics and key performance indicators required for measuring the effectiveness of the process and service specifically in relation to problem management. The problem management procedure is set out in more detail at appendix E ... relevant to this section and issue 6 are the metrics and KPIs to measure/control and reduce the risk of failure to detect, correct and remedy Horizon errors and bugs."

Yes?

Now, if we go please to page 97 over the page {D2/1/97} and we look at 5.157, he says:

"From the above, it is my opinion that Post Office should be aware of all recorded bugs/errors/defects in addition to those previously acknowledged by them, from the process metrics compiled above."

So what Mr Coyne seems to have inferred is that the problem management process had been implemented and there would be feedback from Fujitsu to Post Office about what errors and bugs -- that seems to be the basis he is proceeding on, doesn't it, on the face of it?

A. On the face of it, certainly.

Q. And if we go now to {D3/7/81} we can see Dr Worden -- this is his second report and he appears to be working on the basis also that the problem management procedure had been brought in. If we look at the third column he says -- so it is row 21, it relates to 5.156, which is Mr Coyne's paragraph I just showed you, the extract of Mr Coyne's paragraph is there, and then if you look on the right-hand side under "Commentary" you will see:

"This document is a rather high level and generic description of the problem management process.

"It is difficult to extract a clear picture from this document of how the process works in practice. For instance, there are listed about 20 types of process input and 20 types of process output. It is hard to discern from these long lists which inputs and outputs were most important.

"As another indication of its generic nature, the words 'bug', 'defect', 'software' and 'reference data' never occur in the document. The word 'error' does occur. Errors are discussed generically not as specific types of error such as errors in Horizon."

So both experts appear to be approaching it on the basis that it had been acted upon.

Now, if we look at {F/1692/10}, going back to the problem management document at page 10, we can see what the relevant metrics are. Now, those are competent professional metrics that you would expect to see in a policy of this sort, aren't they?

A. Yes.

Q. You can see that what's proposed there is:

"The following metrics, to be reported monthly, will be used to measure effectiveness of the process and drive performance of the process and overall service in general."

That's the way it is going to work?

A. Yes.

Q. And were you aware, as you are one of the key people at Fujitsu, that Mr Coyne had asked for documents to be provided which he thought should exist based on the problem management procedure? Did you know -- did that come to your attention at all?

A. It has not come to my attention.

Q. Well, I will take it quite quickly. Let's have a look at {D2/5/22}. This is a request for information and a response and you can see that in relation to this -- in the Post Office response to requests for information, if we go down to page 26 {D2/5/26} you will see in the

left-hand column at the bottom:

"Please provide how many times (and over what period) the 'problem management process' has recorded the potential for a system or software error?"

And then in the column with Post Office's response:

"Post Office objects to this request. Fujitsu believes that it does not record problems in such a way that would allow this to be determined without retrospectively carrying out detailed analyses."

And so forth. Over the page:

"This would require a disproportionate effort and cost."

You have addressed this issue at paragraph 63 of your witness statement at {E2/7/16}, haven't you?

A. I have.

Q. And what you have explained there -- in your second witness statement this is. What you say there is:

"I have spoken to my colleague Steve Bansal, Fujitsu's senior service delivery manager, who has informed me that the Post Office account customer service problem management procedure document was introduced by Saheed Salawu, Fujitsu's former Horizon lead service delivery manager and that Saheed Salawu left the Fujitsu Post Office account in

around February 2013, before the new procedure had been implemented. I understand from Steve that Saheed Salawu's replacement did not wish to implement the changes and therefore the records referred to by Mr Coyne in paragraphs 5.157 to 5.159 of his report do not exist, as we continued to follow the previous existing reporting methodology."

Now, can we just unpack that slowly. Who was Saheed Salawu's replacement?

A. I don't know. As you can tell I'm a bit vague on this area. I remember Saheed, I don't know whether it was Tony Wicks who took over from him or somebody else.

Q. Because when we go back to the document itself, at {F/1692/4}, here is the "Summary of changes and reason for issue". The document's history goes back to 2007, doesn't it?

A. Yes.

Q. And it looks like it was issued for approval in 2014, doesn't it?

A. Well, it was issued for approval on 9 December 2013, yes.

MR JUSTICE FRASER: "Issued for approval" appears in a number of places I think.

A. Yes and the convention is that when you go to a ".0"

version then that's one that is being issued for approval.

MR JUSTICE FRASER: Hence 2.0, April 2008;
3.0, December 2013; 4.0, July 2014?

A. Yes.

MR JUSTICE FRASER: And that's why they are all ".0" because they are all issued for approval?

A. They should all be issued for approval, yes.

MR GREEN: And that is after the date when you say Mr Salawu left.

A. I think so because I think Saheed left in 2013, so it looks as though it was Tony Wicks who came in to take on -- take up from him.

Q. So can you explain to his Lordship what the procedure for adopting a policy or procedure of this sort is?

A. I'm afraid not. It's governance within the account team. I am certainly no expert on that aspect of it.

Q. Okay, because when we go over the page {F/1692/5} in 2017 we see no comments from review cycle. It is still being dealt with in 2017 and we can see the name of Tony Wicks for review comments, can't we?

A. Yes.

Q. Requested by 14 December 2017. Is he the person we would really have to ask about this?

A. If my suppositions are correct then it looks as though
Tony Wicks is the man who has driven this.

MR JUSTICE FRASER: He is the what, sorry?

A. He would be the man who has driven this.

MR GREEN: And he is the person we would really have to ask
about what happened after February 2013?

A. Yes, if my suppositions are right that he took over from
Saheed.

MR JUSTICE FRASER: Well, would you like to look at page 1
{F/1692}. What does "Approval authorities" mean?

A. Approval -- sorry, that would be Steve Bansal who would
sign it off.

MR GREEN: Let's look at the Legacy Horizon reporting system
because in your paragraph 63 -- if we can just go back
to that {E2/7/16} -- you say there in the last line of
that:

"... we continued to follow the previous existing
reporting methodology."

Is that a reporting methodology with which you're
familiar?

A. No.

Q. So that's what he -- you've got all of that from Steve?

A. I got -- basically I got this from Steve.

Q. And you don't really know what the reporting methodology

is?

A. Not in any detail at all.

Q. Do you imagine it ought to be documentary, or would it be oral, or ...?

A. I imagine it happening via the service review meetings that Steve chairs. We have regular sessions with ATOS, with other suppliers, but I have not -- I can't remember actually going to one. I'm aware that there are meetings with Post Office and ATOS to talk about service issues.

Q. Okay. Let's look in paragraph 64 where you are dealing with the service review book. You say:

"When Legacy Horizon was in place problem management was reported in a specific section within the service review book (SRB)."

Is that something you also got from Steve or something that you knew about yourself?

A. No, that is from Steve. I have probably seen service review book outputs in the past but ...

Q. That was a fairly high level review of problem management and (inaudible) main problems, was it?

A. Very high level, yes.

Q. If we look please at your paragraph 65 {E2/7/16}, is this still Steve Bansal?

A. Yes.

Q. So how far down does that go? Is this all -- just give us a feel for how far down we go.

A. I think to the bottom of the page.

Q. To the bottom of the page, I see.

In paragraph 65 you say that:

"From September 2010 these SRBs reported metrics only against contractual service level agreements ... and as there are no contractual SLAs for problem management, it is not covered in the SRB reports between ... 2010 and 2014."

That's right, is it? That's what you understand from Steve?

A. That's certainly what I understand from Steve.

Q. Okay. I mean wouldn't Post Office want to know the sort of information that would be conveyed from that sort of reporting procedure?

A. I would imagine so and I did not attend the meetings with Post Office and ATOS so ...

Q. There's only so far we can take it?

A. Yes.

Q. And you say at paragraph 66 {E2/7/16} -- and I appreciate this is also from Steve Bansal:

"For the years 2014 to 2017 there are annual problem

review reports ..."

Yes?

A. Yes.

Q. Is that system still in place in 2018?

A. I just do not know.

MR JUSTICE FRASER: I'm having grave difficulty with following this at what might be called face value, which is why I'm just interrupting. Is the import or the summary of your paragraph 63 to 66 that these types of metrics are only available between the years you have identified in those paragraphs and that Fujitsu doesn't keep them, or hasn't kept them for years outside the ones identified in those paragraphs?

A. I don't know the answer to that, my Lord. I don't know whether there were records available. I would have to speak in far more detail to Steve and others to ascertain that.

MR JUSTICE FRASER: But I thought you had already spoken to Steve about this?

A. I was looking for a high level response on a specific issue that was being requested.

MR JUSTICE FRASER: And what specific issue was that?

A. I think it was raised by Mr Coyne.

MR JUSTICE FRASER: Insofar as you can remember, do you

remember what it was?

A. It was simply looking for -- my recollection of it was that he was concerned that Saheed had suggested an improvement to problem management and was looking for the evidence that that had been implemented and when I spoke to Steve and said "Did we implement this?" he said no.

MR JUSTICE FRASER: All right. Mr Green.

MR GREEN: If we look at {F/1420}, this is headed "2014 POA problem management - problem review", do you see that?

A. I do.

Q. It is called version 1.0, at the bottom right-hand side, which suggests it has been issued for approval and we see "Document status: for approval".

A. Yes.

Q. Again Mr Bansal's name under "Approval authorities". Was this one actually implemented, or do you not know?

A. I don't know.

Q. Have a quick look at page 6 {F/1420/6}. I'm going to have to take this quite quickly, Mr Godeseth, because it's obviously not something you're familiar with, but this appears to contemplate undertaking a trend analysis and so forth to review the knowledge database, review problems and so forth, and if we go to page 7

{F/1420/7}, on the face of it looks as if there are considerations, for example, of specific problems that have in fact occurred. Do you see that?

A. Yes.

Q. So on the face of it it does look from this document as if there is a problem management review document with some actual problems in it, although it seems to be issued for approval. Is this something you know anything about?

A. No.

Q. Just quickly then, very briefly, if you look at page 13 please {F/1420/13}. If we look in the middle stripe, A1939577. Do you see that?

A. Yes.

Q. It mentions First Rate. Who are First Rate?

A. First Rate Exchange Services are, I believe, a joint venture owned by Post Office and Bank of Ireland, but they provide foreign -- they provide bureau services.

Q. And they say:

"First Rate has identified an anomaly over the way Horizon reversed transactions are recorded and polled through to them."

Is this something that came to your attention at all?

A. No.

Q. Because it does seem to have been fixed in counter release for R9.

A. Yes.

Q. Release 9?

A. I don't remember what date release 9 was. It would have been on my watch, but ...

Q. It's not something you remember particularly?

A. No.

Q. And you don't remember having seen this document either?

A. No.

Q. If we look at {F/1497}, this one is the "2015 POA problem management - problem review" and if we look at page 7 there {F/1497/7}, do you recognise this one at all or not?

A. I think I do from the recent review, but I couldn't be certain without checking it in more detail.

Q. Because it is in the same format as the previous one, isn't it?

A. Yes.

Q. And in the bottom stripe we see A10821106:

"Transaction discrepancies can occur during the rem-in process especially when transferring cash from one branch to another (eg between their main branch to

their outreach branch)."

Can we go back up very kindly. And then under
"Description":

"The underlying cause of this problem is that
a logout before a user has fully logged on, then
subsequently a pouch is rem-in manually, then after the
rem-in slip has been printed, the same screen is
redisplayed and if the user press enter again,
a duplicate will occur. A code fix has been developed
and is in release 12.88 hot fix."

Does that ring any bells?

A. That sounds like Dalmellington -- is it Dalmellington?

Q. Yes, it is the Dalmellington bug, isn't it?

And it doesn't capture how many branches were
affected, does it, that report?

A. That's true.

Q. It doesn't capture how long it took to find?

A. No.

Q. It doesn't capture the financial amounts involved?

A. No.

Q. So is it fair to say that that report is not
a particularly rigorous or robust treatment of recording
the problem, its extent and duration and effect?

A. I think that's a fair comment.

Q. Can we turn now please to understand a little bit better the issues around balancing transactions that we touched on earlier and can we first look please at {F/1692}. This is another Tony Wicks Post Office account customer service problem management procedure document. Now -- we will perhaps come back to that.

Let me take you forward, if I may -- or back in the bundle to {F/425} and just show you this to get the chronology. If you see at the top, the title on the top is, "Host BRDB transaction correction tool low level design." Do you see that?

A. Yes.

Q. And this is the low level design document, isn't it, for the branch database transaction correction tool?

A. Yes.

Q. And it says "Document status: draft" and the "Approval authorities" is Graham Allen. Do you know Graham Allen?

A. I do.

Q. Do you work with him?

A. Yes.

Q. And the author and department it says Rajesh Shastri. Do you work with him?

A. I don't recognise his name.

Q. And if we just go forward to page 5 {F/425/5} we can see

that the document history shows the draft version being produced in October 2007 and then, 29 September 2009, "Add transaction correction journal auditing". Do you know what transaction correction journal auditing is?

A. Sorry, where are we?

Q. Sorry, bottom of the 0.2 table.

A. 29 September 2009, yes.

Q. Now, this was a tool that was being developed for Horizon Online, wasn't it?

A. Yes.

Q. And if we go to page 8 {F/425/8}, under "Overview" it explains that:

"This document provides the low level design for the branch database transaction correction tool module. The utility will allow SSC to correct transactions by inserting balancing records to transactional/accounting/stock tables in the BRDB system. It will also audit the changes made. There will be no updating/deleting of records in the branch database."

And then it says:

"Warning: the use of this powerful tool has inherent risks. If the SQL statement is incorrect or badly written, it is possible to cause unintended

consequences, some of which may cause serious problems to the branch database. It is expected that only a small number of skilled staff will run this tool and that they will have detailed guidance as to when and how to use the tool."

Now, are you familiar personally with the use of this tool in Horizon Online?

A. I've never seen it used because I was -- the one time it was used, as we have already established, I was elsewhere. I have had pretty lengthy conversations with Gareth Seemungal about how this tool is put together, so I feel that I understand how it works.

Q. Pretty lengthy conversations with ..?

A. Gareth Seemungal.

Q. Let's look at the "Solution components". It says there are five main components to the solution. There is the UNIX shell script. There is the PL/SQL package.

There's:

"A set of template files, one for each transaction table for which balancing transactions are allowed to be inserted. Each file contains a template for an SQL insert statement for the table in question. This makes it easier for users to produce new transaction files by basing them on the template files."

And then there is the possibility for branch seeding, new branches to be processed by the tool, and the bottom one:

"Transaction correction journal auditing - a new process generates audit files for the input day's audible transaction correction records. See section 5 for details."

Now, just taking this in stages, the seed records, in the penultimate bullet point there in red, last line -- do you see that?

A. Yes.

Q. The seed records have a node ID of 99?

A. Yes.

Q. Now, that's like having a branch ID number -- a counter number of greater than 32, isn't it?

A. That is the counter number that this transaction would be recorded against because the node ID is the counter.

Q. Exactly. Now, just clarifying where we are, we have seen what you will and will not be able to do in 1.1, so it will allow SSC to correct transactions by inserting balancing records to transactional/accounting or stock tables in the BRDB system, also audit the changes made, "There will be no updating/deleting of records in the branch database." So this is the design for the tool?

A. Yes.

Q. So insertions of balancing records, yes; auditing, yes; no updating or deleting of records.

A. Correct.

Q. And that's actually reflected, at least to some extent we will see -- just trace it through. Let's look at the objects because identifying the permitted database objects is important to identifying the scope of potential application of the tool with this design, isn't it?

A. Absolutely.

Q. So we look at paragraph 2.4.1 on page {F/425/9}, the next page, and we see there's a table there. 2.4 is the objects used. We will just go through these carefully. 2.4.1, "Database objects used", so in the database objects tables, these are the object names to which the specific functions that we are concerned with have access, yes?

A. Yes.

Q. Okay, let's have a look. You can see there's the BRDB operational exceptions table?

A. Yes.

Q. The system parameters table?

A. Yes.

Q. FAD hash outlet mapping table?

A. Yes.

Q. The process audit table?

A. Yes.

Q. Process audit sequence table?

A. Yes.

Q. Transaction correction tool journal table -- sorry,
"process audit sequence" was a sequence.

MR JUSTICE FRASER: Yes, I don't think that's a table.

MR GREEN: Yes, that's actually a sequence, which we will
come back to. My mistake.

The transaction correction tool journal table, the
FAD hash current instance table, transaction correction
tool control table, branch info table and then -- branch
operators exception sequence, is that?

MR JUSTICE FRASER: "Operational" I imagine.

MR GREEN: Or "operational".

MR JUSTICE FRASER: Is that right, Mr Godeseth, do you
think?

MR GREEN: Something like that.

A. I --

MR JUSTICE FRASER: Or you don't know?

A. I don't know to that level.

MR GREEN: Okay. And then we see what the privileges

granted are:

"The following transaction tables have been granted
INSERT privileges ..."

Yes?

"... to OPS\$SUPPORTTOOLUSER. The transaction
correction statement is only allowed to insert into
these tables."

A. Yes.

Q. And it identifies effectively all the important
transactions tables and --

A. I think there are probably another two or three on the
next page.

Q. On the next page, exactly, I was just going to take you
there {F/425/10}. Plus the events table.

A. Yes.

Q. Session data, you see that as well?

A. Yes.

Q. And at 2.4.2, the files used, it says:

"The process uses the following files:

"Transaction file containing an SQL INSERT statement
that creates the required balancing transaction."

So this would be where there is one half of
a transaction missing another half of a transaction?

A. Yes.

Q. And the insert statement, the "SQL INSERT" statement effectively goes in and puts in the missing other side of that transaction?

A. Yes.

Q. And the method on the next page, page 11 {F/425/11}:

"Having logged into their own UNIX user, the SSC team members will change directory ... and place their transaction file in the ... subdirectory. They will then invoke BRDBX015 manually. The shell script module will be owned by the UNIX user 'supporttooluser'."

And then it explains what the module will do and the insert statement and so forth and you see that set out at 3.1 in the method.

A. Yes.

Q. Now can we go forward please from there to look at {H/218} please. This is a letter from Wombles to Freeths about the request for disclosure of the audit records for the use of the tool and it says:

"This log is produced in relation to the use of balancing transactions via the transaction correction tool as described in paragraph 58 of Mr Godeseth's first witness statement."

And you were describing in your paragraph 58 the tool we have just been looking at, weren't you?

A. Yes.

Q. And let's look at what the audit table shows in terms of number of non-zero audit files. We can see there 2010, 46,000 files -- 47,000 nearly, and one file with more than zero content and then you can see 322, 553, 122, 129, 228, 420, so in total -- over the page -- over the period: 2,297 {H/218/2}.

Now, just to give you the context of what's being said, if you go back a page what's said in the middle of that letter there is:

"Fujitsu have extracted the data from 2010 to 2019 and provided the following explanation for the documents. It should be noted that Relativity is not able to recognise 0KB documents since these do not contain any data and therefore disclosure can only be provided of the 2,297 files which contain data. We understand from Fujitsu that a 0KB file is produced where there was no logged activity. A disclosure list is enclosed."

So that's the explanation for the difference between 46,976 and 1, yes?

A. Yes.

Q. And when we go over the page please {H/218/2}, it says:

"Each document is associated with a single SQL

statement which made a database correction. There are two different types of correction shown in the files - the SQL statements for each are of the form:

"1. Update OPS\$BRDB.brdb_rx_recovery_transactions
SET settlement_complete_time stamp = ..."

And then the "INSERT INTO" command.

It says:

"Type 1 reflects the action taken to reset the recovery flag on a transaction. This will have no effect on branch accounts (see footnote 58 in our letter of response ...)"

Which says:

"Several hundred other balancing transactions have been used but not in a manner that would affect branch accounting. These were generally used to 'unlock' a stock unit within a branch."

Do you see that?

A. Yes.

Q. Were you asked about the explanations that are being given here, or would it be someone else at Fujitsu who would know about this?

A. This would have been written by others but I'm fully aware of it.

Q. And then it says:

"Type 2 reflects the action taken to insert
a Balancing Transaction ..."

It has a big "B" and a big "T", "Balancing
Transaction":

"... where it changes transaction data in the main
transactional tables. This will affect branch
accounts."

Yes?

A. Yes.

Q. So what is being said there in relation to type 1 is
that the 2,296 other uses of the tool have been used
mostly to unlock a stock unit within a branch and not in
a way which would affect branch accounts.

A. Correct.

Q. And then there is one which it is accepted did accept
a branch account and that's the first one.

A. Yes.

Q. And that's your understanding too?

A. That is absolutely my understanding. The only way you
would be allowed to write into those tables listed is
using this tool and that would be listed as a balancing
transaction.

Q. Just looking at the command that's being used for
number 1, it's not an insert command, is it?

A. I'm not sufficiently au fait with Oracle to -- sorry, the first one, no, it says it is an update so ...

Q. Yes, and the point is, if we go back please to the low level design which I took you to with some care at {F/425/8}, it is clear, isn't it, from this design that -- if we look at the last part of 1.1, the last sentence of that first paragraph:

"There will be no updating/deleting of records in the branch database."

A. Yes, it says that.

Q. If we look on the next page, page 9 {F/425/9}, you can see in-between the two tables:

"The following transaction tables have been granted insert privileges ..."

A. Yes.

MR JUSTICE FRASER: Where are you reading?

MR GREEN: Between the two tables, my Lord, at the bottom,

"The following transaction tables have been granted insert privileges ..."

MR JUSTICE FRASER: Yes.

MR GREEN: And that means that people who have the privileges of the "OPS\$\$SUPPORTTOOLUSER" are allowed to run SQL insert commands, aren't they?

A. The intention of this tool is to allow a set of people

to run a transaction which will insert records into one or more of those tables and it will be audited.

MR GREEN: Well, that's not an answer to my question.

MR JUSTICE FRASER: I don't think it's even vaguely in the field of answering the question, with respect. Do you want to put it again, Mr Green?

MR GREEN: This tool is confined to a privilege to insert, isn't it, as described here?

A. I think so, yes.

Q. And we don't see the necessary database object fields table for correcting in the manner suggested --

A. For the locks.

Q. For the locks, do we?

A. I can't contradict you on that, so no.

Q. So it is clear, isn't it, that the use of the tool has now gone way beyond what we find in this low level design document, is that fair?

A. Certainly there are -- there is tooling which is based on this which has two aspects to it, certainly, so I think I'm agreeing with you.

MR GREEN: Yes. Now, if we look at {H/2/25} --

MR JUSTICE FRASER: Just before you move off, just to clear it up for me, can we look at page 11 {F/425/11}. Now, I accept that this is in Oracle, I think, these

commands, and if you don't -- I'm sure you've got at least a basic knowledge of some Oracle --

A. I hope so but ...

MR JUSTICE FRASER: I'm sure your knowledge of Oracle is far wider than mine, but I do understand it a little bit, but if you look at the second paragraph under "Method" do you see it says:

"The module will read the contents of the input transaction file, which will be in the form of an SQL insert statement."

A. Yes.

MR JUSTICE FRASER: "Only a single insert statement is allowed and (after an optional introductory comment) it must start with the 'insert into' clause."

A. Yes.

MR JUSTICE FRASER: Am I right that you would then expect to see the block capitals command at the beginning of the insert?

A. I think it is telling me that I would see an "insert into" one of those tables and then whatever data had to be inserted into that table.

MR JUSTICE FRASER: Yes and the insert would be part of the command, wouldn't it?

A. The insert would be in the SQL script because what I'm

trying to do is to get a record into that table.

MR JUSTICE FRASER: Thank you very much. That's how

I understood it but I just wanted to check it.

Right, Mr Green, over to your H reference.

MR GREEN: I'm very grateful.

If we look at {H/2/25}. Now, at 5.16.3 you will see:

"Fujitsu (not Post Office) has the capability to inject a new 'transaction' into a branch's accounts. This is called a balancing transaction. The balancing transaction was principally designed to allow errors caused by a technical issue in Horizon to be corrected: an accounting or operational error would typically be corrected by way of a transaction correction. A balancing transaction can add a transaction to the branch's accounts but it cannot edit or delete other data in those accounts. Balancing transactions only exist within Horizon Online ... and so have only been in use since around 2010. Their use is logged within the system and is extremely rare. As far as Post Office is currently aware a balancing transaction has only been used once to correct a single branch's accounts (not being a branch operated by one of the claimants)."

Then 5.16.4:

"Database and server access and edit permission is provided, within strict controls ... to a small, controlled number of specialist Fujitsu ... administrators. As far as we are currently aware, privileged administrator access has not been used to alter branch transaction data. We are seeking further assurance from Fujitsu on this point."

Now, this letter was in 2016. Can you remember being asked about these matters in 2016 at all, or was it not directed to you?

A. I don't remember any specific requests, but I have been working in this sort of area for a long time so -- yes.

Q. Okay. And in your witness statement you have also referred to only one use of the tool, the point you have made orally as well.

A. Correct.

Q. For a balancing transaction purpose.

A. For a balancing transaction.

Q. Can we please look now at {F/590}. 7 March 2010 is the target date. We're looking at PEAK 0195561, which we have already identified, and you will see this relates to 4 March 2010 and this time we're going to look on the first page, at the second box down, and you will see there call 2083169:

"PM was trying to transfer out 4,000 pds. The system crashed. PM was issued with 2 x 4,000 pds receipts."

Do you see that?

A. Yes.

Q. And that's repeated at the bottom of that page.

If we go forward please to page 3 {F/590/3}, 10 March 2010 at 8.51, which is the third box down, Cheryl Card:

"After discussion with Gareth Jenkins, the suggested correction is to negate the duplicate transfer out by writing 2 lines to the BRDB_RX_REP_SESSION and BRDB_RX_EPOSS_TRANSACTIONS tables, with:

"1) Product 1, Quantity 1, Amount 4,000.00, Counter mode ID 7 ... 2), Product 6276, Quantity -1, Amount 4,000.00 ... This should be done using the transaction correction tool. An OCP approved by POL will be needed."

Now, just focusing on your time at Post Office, I think at this time you're not really working on Horizon any more, are you?

A. Correct.

Q. Did you hear on the grapevine of anyone at Post Office being asked for authorisation for this sort of thing to

be done?

A. No.

Q. Once you arrived at Fujitsu did you have any involvement in seeking approval, or discussions with Gareth Jenkins about anything like this being done?

A. No.

Q. Did you know that Post Office's approval had been sought for this particular transaction?

A. No.

Q. If we go forward please to page 9 {F/590/9},
22 April 2010:

"I have gone through the counter logs, OSR logs and the DB dumps provided in the PEAK. Let's analyse this from scratch."

Pausing here, you have acknowledged under legacy there were sometimes problems with duplications within the Riposte system, yes?

A. Yes.

Q. But we're not dealing with that system here, we're dealing with Horizon Online, aren't we?

A. Yes. If it mentions OSR, certainly.

Q. Okay. The second paragraph of that says:

"PEAK has been raised when a clerk attempted to transfer out of 4,000.00 from stock unit BB to MS. Due

to a system problem the transfer out doubled up, so when the transfer in was done on counter 1 at 16.15, it was for 8,000.00. The branch now has a lot of [£4,000]."

Do you see that?

A. Yes.

Q. And there's then some discussion and then if we come down to:

"But, I have noticed that the retried request [with an ID] ... was ignored by time out monitor in the [Branch Access Layer] side and continued to execute. But from the OSR.log file and OSR message log, I couldn't find this request was failed due to the duplicate JSN record in the journal table (which was expected and the normal behaviour of OSR), didn't happen in this case.

"I have requested for the journal table dump to check whether duplicate JSN entries exists in the table. But from the DB dump I couldn't find any duplicates."

Now, the whole point of JSN entries is that they should not duplicate and if they are duplicates they should not be committed to the database; that's right, isn't it?

A. Yes. And I think you will see there that the retried requests failed because there was already a journal

record in the database with that JSN.

Q. Well, let's just follow this through, if we may. If we look now please at {F/594}, you will see that this is PEAK 0195962. Do you see that? This is Cheryl Card again.

A. Yes.

Q. And if we just go down to the yellow bar it says:

"The transaction correction tool has now been used in live. The templates for use with this tool need to be updated to correct some details."

Yes?

A. Yes.

Q. So the idea was to have templates so that the scripts wouldn't have too many errors in them when they were deployed.

A. Yes.

Q. And that PEAK refers in turn, we can see -- if we look at {F/1095} please. We can see this is the OCP 25882. Can you just tell his Lordship what an OCP is?

A. Operational Change Process I believe.

Q. And there's also an OCR, isn't there?

A. Yes, that is Operational Change Request, as I understand it.

Q. And one is for the change to the front end and one is to

change the back-end. The OCP is for the front end and the OCR is --

A. I don't know.

Q. You don't know. If we look at this document at {F/1095}, the branch 226542 transfer out doubled up. We can see:

"Due to a system fault, the branch did a transfer out of £4,000 and a corresponding transfer in of £8,000.

"Justification: correct a loss of £4,000 at the branch due to a system fault ... extra detail: the transfer in details were incorrectly doubled up when they were written to the BRDB. This needs to be corrected using the transaction correction tool."

Do you see that?

A. Yes.

Q. Now, on the face of it this appears to be consistent with at least one use of the transaction correction tool for one balancing transaction, yes?

A. Yes.

Q. And are you aware of any reason why Post Office couldn't have just used a transaction correction for £4,000 to correct the SPM's position?

A. If we -- the only reason that we would need to use the

branch transaction tool is if I got a one-sided transaction.

Q. If you got a one-sided transaction?

A. Yes.

Q. Let's look, if we may please, at {F/485/1}. This is PEAK PC0175821. Do you see that?

A. Yes.

Q. And the call status on the right is "Closed - solicited known error." Do you know when that code is used or not?

A. No.

Q. If you look down on 19 February 2009 at 17.39.40, can you see:

"There are two sides to the problem relating to these transactions. The first is where all five SC transactions missing core data as described in the above-mentioned KEL."

A. Yes.

Q. That's one aspect of the problem in this PEAK:

"Second is absence of equal but opposite (ie settlement) lines. See PC0152014 for a similar problem and how problem was resolved."

A. Yes.

Q. "For the first problem, I have used the TRT to insert

the missing data ie Region, Margin, Margin Product and EffectiveExRate."

Now, pausing there, what does it look to you is going on here?

A. It looks to me as though we are inserting into a totally different database because it is TMS_RX so this is the -- this is not the branch database.

Q. No. And also they seem to be using the transaction repair tool.

A. Yes.

Q. Rather than the transaction correction tool.

A. Which I think would be what I have referred to as the TIP(?) repair tool.

Q. Yes?

A. And TMS is -- yes, it's not part of the BRDB.

Q. But what we do see -- and this is in February 2009, so this is Horizon Online, isn't it?

A. It could be ... 2009 was migration, so I don't for certain know without looking further at whether this was old or new.

Q. Would they be using the TIP repair tool with Legacy Horizon?

A. Yes, the TIP repair tool has been used -- it was basically moved across from legacy onto BRDB. It

fulfils the same function. It sits inside the -- I'm sorry, I have forgotten the name of the database, but it sits inside -- yes, TPS.

MR GREEN: Okay. Let's just take it --

MR JUSTICE FRASER: Do you want to continue with this one now to the end?

MR GREEN: My Lord, if I may. I will try and take it quickly.

MR JUSTICE FRASER: Well, yes, but don't take it quickly as in speaking so quickly the witness can't really follow you.

MR GREEN: I'm grateful.

MR JUSTICE FRASER: I don't want you to feel under pressure of time at all on this, Mr Godeseth, so ...

A. Thank you, my Lord.

MR GREEN: If we look at 19 February 2009, 17.39.40, which is the line we were looking at, do you see the two sides of the problem relating to these transactions and we just read this text?

A. Yes.

Q. "The first is where all five SC transactions missing core data as described in the above-mentioned KEL."

A. Yes.

Q. And that appears to be the KEL reference at the top of

the page, "KEL obengc3120K", yes?

A. Yes.

Q. And the second point is the absence of equal but opposite settlement lines. So what you've got there in the data is not a zero sum basket, in the data. There's half of it missing, isn't there?

A. That's what it appears to be saying, so to do it full justice I would want to spend more time looking at it but I ...

MR GREEN: I understand. Well, perhaps -- I don't know whether it would be --

MR JUSTICE FRASER: How many pages are there in this PEAK?

MR GREEN: There are only three, my Lord, but you do have to look at the KEL. I wonder if it would be fair to the witness if he could be provided with a copy of this and a copy of the PEAK 0152014 and KEL 017510 overnight so he can consider those.

MR JUSTICE FRASER: Well, rather than just grandly say "Yes he shall be provided", let's work out who is going to provide it to him.

MR GREEN: He is not our witness, but we would be happy to do anything we can.

MR JUSTICE FRASER: You are cross-examining him.

MR GREEN: Of course.

MR JUSTICE FRASER: Just pause one second.

Mr De Garr Robinson, it seems to me the witness
ought to be allowed to see those documents.

MR DE GARR ROBINSON: Absolutely, my Lord. This illustrates
the difficulty, particularly with using Magnum for this
kind of cross-examination.

MR JUSTICE FRASER: Well ...

MR DE GARR ROBINSON: I'm not complaining, but it would be
helpful and, my Lord, it would also be helpful it seems
to me if the witness is also given a copy of PC0175821.

MR JUSTICE FRASER: That's exactly what I was then about to
suggest because they are linked and the same problem has
arisen in that PEAK as well.

Mr Green, is the quickest and easiest way for you --
have you got unmarked copies?

MR GREEN: I don't, my Lord. I have only got mine marked
up.

MR JUSTICE FRASER: Have either of you got the facility to
print those documents relatively promptly?

MR GREEN: We can go back to chambers and print them off.

MR DE GARR ROBINSON: My Lord, we might be able to print
them off in a room we have just around --

MR JUSTICE FRASER: Perfect. I'm going to leave it to your
two joint good offices.

Mr Godeseth, unlike the usual warning "don't talk to anyone about the case", you are allowed to talk to each of these two gentlemen who are going to give you the documents to look at.

A. Thank you, my Lord.

MR JUSTICE FRASER: I'm in no way limiting the time that you look at them, it is completely up to you, you're going to resume at 10.30 tomorrow, but just in terms of common sense I wouldn't sit and stare at them every minute between now and 10.30 tomorrow morning and that's not me being flippant, everyone reacts differently when they are presented with documents in the middle of their evidence and I don't really want you to come back in the morning having spent however many hours there are between now and then just staring at endless PEAKS.

A. Thank you, my Lord.

MR JUSTICE FRASER: But other than that, please don't talk to anyone about the case.

A. Understood.

MR JUSTICE FRASER: Does that deal with that issue?

MR GREEN: My Lord, yes.

MR JUSTICE FRASER: I don't think there is anything else?

No. So far as tomorrow is concerned ..?

MR GREEN: We are going to be finishing with Mr Godeseth in

the morning and then we don't know the position in
relation to Mr Membery and then we will finish with
Mr Parker.

MR JUSTICE FRASER: I will leave you to discuss that between
yourselves. Just let me know in the morning.

MR GREEN: Most grateful.

MR JUSTICE FRASER: So there's no housekeeping or anything
of that nature and I shall see everyone and you as well,
Mr Godeseth, at 10.30 tomorrow.

A. Thank you very much.

(4.33 pm)

(The court adjourned until 10.30 am on Thursday,

21 March 2019)

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