A. Good morning.

Q. I’m going to talk about remote access today and for that purpose I would just like to spend a few minutes looking at the issues relating to remote access. Can I ask you to go to bundle [C1/1], please. If we go to page [C1/1/3], I will pick it up at Issue 10 under the heading "Access to and/or Editing of Transactions and Branch Accounts", and we will see the issue there: "Whether the defendant and/or Fujitsu have had the ability / facility to: (i) insert , inject, edit or delete transaction data or data in branch accounts; (ii) implement fixes in Horizon that had the potential to affect transaction data or data in branch accounts; or (iii) rebuild branch transaction data."

And then is it at all; is it without the knowledge of the SPM; and without the consent of the SPM?

A. Yes.

Q. So this is really a theoretical question. It is what could in theory be done based on the system configuration, yes?

A. Yes, but there are practical examples that will help answer those.

Q. I’m going to come to that. And transaction data or data in branch accounts. Let’s get some terms clear. When I talk about transaction data I’m talking about records of transactions: price, date, quantity, money paid, that kind of thing. Do you understand?

A. Yes.

Q. That would be a practical and useful definition for that kind of term?

A. Yes.

Q. So shall we agree that that’s what transaction data means for the purposes of our conversation today?

A. Yes. There’s also session data, and within session data is often contained transactional data.

Q. Then data in branch accounts. A branch account, it is true, isn’t it, is an aggregation of transactions from a given starting point, correct?

A. Yes.

Q. So your starting point is your opening position?

A. Yes.

Q. Which is itself an aggregation of prior transactions, yes?

A. Historical, yes.

Q. So when you start from time T0, the beginning of the branch, you will have a series of transactions, there will be a calculation at an accounting date, then you will have a closing balance which is your opening balance for the next period?

A. Yes.

Q. And on you go. And on each occasion what the system does is it does an aggregation, a calculation, based upon the transactions that have happened since the previous opening position, yes?

A. Yes.

Q. So if the opening position is a genuine aggregation of all the transactions that went before then the branch accounts will be right at that starting point, correct?

A. They should be, yes.

Q. You can change your accounting date or period. For example, you could have an accounting date that starts at 1 June and finishes at 20 June, and then you can change your mind and decide to finish the accounting period on 30 June.

A. I understand you can, yes.

Q. But that won’t create a shortfall in your accounts, will it? It just means you have a different accounting period.

A. It shouldn’t do, no.

Q. Thank you. When we talk about accounting data, for the reasons that we have discussed really it is the transaction data that would concern the account holder most of all, wouldn’t it?

A. Yes.

Q. Any change to the transaction data is something that the user would want to know about because it might affect his balance at the next accounting date, yes?

A. Yes.

Q. Whether it is in his favour or against him?

A. Indeed.

Q. The user is much less likely to be concerned about changes to operational data that don’t affect the aggregation of transactions that build up and aggregate into his balance, yes?

A. If it has little or no impact on his balance then, yes, that is right.

Q. The same goes for Post Office, doesn’t it? It will be concerned about the accuracy of the branch accounts which of course are then transmitted and become part of its own accounts?

A. Mm.

Q. It will be much less concerned about adjustments, for example, to opening dates or matters of that sort, yes?
Q. That surprises me, Mr Coyne. It may be my fault. Are you suggesting there was an annual blanket consent given by Post Office for the making of changes to accounting data in branches by way of remote access?

A. There were certainly blanket authorisations given for a number of tasks, I would have to go back and have a look at what specific tasks they were, but I'm reasonably sure that that included quite a widely worded one that allowed Fujitsu to undertake any -- I think it either said emergency or critical actions that were required.

Q. I see. And are you aware of any occasion when that authorisation was exercised so as to make a change to branch accounting data of the sort we discussed?

A. Yes, I think that's likely. Because what typically happens, or certainly there's evidence of it happening, is that there will then be a retrospective document that's created.

Q. I see. So what you are saying then is there were -- in critical cases there were occasions when changes were made and consent, as it were, was recorded retrospectively. Is that what you are talking about?

A. What I'm saying is there was a blanket consent for whenever Fujitsu decides that an element is critical, that they need to deal with it, so they didn't have to request permission. And I have also seen evidence that after certain tasks have been undertaken, that there is a retrospective document for every incident, there is really no way of knowing.

Q. And how many of these retrospective documents have you found in your researches?

A. Hundreds.

Q. Hundreds?

A. Hundreds, yes.

Q. Well, that takes me somewhat by surprise. Is this dealt with in one of your reports, Mr Coyne?

A. No, I think this is typically seen from the OCPs or the OCPs, so that's after the report was completed.

Q. Well, I'm not in a position to ask you any questions about that because it comes as news to me. Is there any reason why that hasn't been revealed to the defendant beforehand?

A. I would have thought the defendant would have already known, would they not?

Q. So what you are saying is this isn't something that was mentioned in your first report, yes?

A. Yes.

Q. And it wasn't mentioned in your second report?

A. Yes.
Q. You have become aware of it since then?
A. Yes.
Q. But you have taken no step to inform the defendant that you are aware of it and that it might form part of your evidence today?
A. It is a question that was put to me that I’m answering.
Q. And you have discussed it with Dr Worden, Mr Coyne?
A. No.
Q. Well, do you agree with me that given that it may be relevant to the issues that we are canvassing today, given that it may be relevant to the issues arising in this trial, do you agree with me that as an expert it would have been helpful if you had broached it with Dr Worden so that an agreed position could be arrived at?
A. It didn’t appear -- they were late documents -- sorry, finalised my report, and it didn’t appear to be any particular issue. You asked me the question then and I answered it. I didn’t believe it would be a revelation to anyone within Post Office that --
Q. Mr Coyne, you do understand how litigation works? You are an experienced expert witness, yes?
A. Yes.
Q. And you know when counsel is cross-examining you, counsel doesn’t have the familiarity which all the other individuals in the case do. What counsel does is counsel looks at the material which he is facing and decides upon questions that he is going to ask in relation to that material.
A. Yes.
Q. Now, what you have just said comes as a complete revelation to me and there’s no way in the world I’m going to be able to ask you any questions about it and, if I may say so, I suggest to you that it is obvious to you that that would be the position. Did you not appreciate that that would be the position?
A. No, because it would be my perception that that would already be known. It is only on the documents that have been disclosed to me. The documents say that they are created retrospectively.
Q. Well, Mr Coyne, I’m not going to ask you any questions about that because none of this material has been put forward or explained or identified and I’m not in a position therefore to seek to test it, so I’m going to lay that question aside and I’m going to continue with the rest of my cross-examination, okay?
MR JUSTICE FRASER: Just before you do, can you just describe to me the title of the documents you have just explained?
A. Yes, there’s a couple of documents that go together, OCRs and OCPs, and they are requests for a change to data and then the permission being granted.
MR JUSTICE FRASER: But those are the documents you are referring to, are they?
A. Yes, my Lord, and --
MR JUSTICE FRASER: Hold on. And when do you say you got them?
A. I believe that there was a request --
MR JUSTICE FRASER: No, no. When do you say, when are you telling me, you got them?
A. Without looking at my records, my Lord, I’m not sure, but --
MR JUSTICE FRASER: Ballpark.
A. Either when my report had been completed or just before.
MR JUSTICE FRASER: All right.
Back to you, Mr de Garr Robinson.
MR DE GARR ROBINSON: Mr Coyne, there are two categories of documents, aren’t there, that relate to the process by which consent is obtained or recorded in relation to remote access. There are MSCs, aren’t there?
A. Yes.
Q. And there are OCPs and also OCRs for less important changes, yes?
A. Mm.
Q. And the MSCs were disclosed to you on 21 December, weren’t they?
A. Yes.
Q. And the OCPs and OCRs were disclosed to you on 24th January, weren’t they?
A. That could well be the time I’m referring to. The report was 1st February.
Q. And your report was served on 1st February, wasn’t it?
A. That could well be the time I’m referring to. The report was 1st February.
Q. And your report was served on 1st February, wasn’t it?
A. Yes, so a week after the documents were disclosed.
Q. So in terms of the Fujitsu process for making changes, the permission controls applied within Fujitsu, do you accept that the sort of changes we are talking about, remote insertions, edits or deletions of accounting data held in branch accounts in the BRDB or the messagestore, do you accept that Fujitsu applied a rule that changes of that sort could only be made with another colleague reviewing and approving the change that was going to be made, yes?
A. Yes. There is often a record that you will see that...
Q. So you don't agree it would have been helpful to
gets sent.
There has to be a cut-off point by which time the report
arise that we could say the very same thing about.
A. I mean, to be fair, there might be other things that
addressed?
Q. Well, Mr Coyne, again that's something which you haven't
suggested in any of your reports, isn't it?
A. No, I don't believe I have.
Q. Do you not think it would have been helpful to have
revealed these points before your cross-examination
started so that the matter could be considered and
addressed?
A. I mean, to be fair, there might be other things that
arise that we could say the very same thing about.
There has to be a cut-off point by which time the report
gets sent.
Q. So you don't agree it would have been helpful to

The same goes if the tool is used, but it is fair to see
from the evidence that the tool was used rarely and it
was used in a careful way. Again, the fact that
permission controls weren't as strict as perhaps some
people might think, that wouldn't adversely affect the
net outcome, the practical impact of the existence and
use of the tool, would it?
A. I think the problem with permission controls is that it
allows somebody into a system and on that system there
could be a number of different tools, so they may not
have used the prescribed tool but they're then into the
system so they could use other tools. That is the
danger with --
Q. Mr Coyne, I would ask you -- I have limited time and
your reports are really huge and contain a vast number
of claims which I can't possibly deal with in the time
that I already have available. I would ask you, please,
to focus on my question and answer my question rather
than to go off, turn left, and give me an answer which
you conceive may assist some other aspect of your
analysis.
My question was: in circumstances where the tool is
used, but it is used rarely and it is used carefully,
that won't have a practical impact, for example, on the
reliability of the overall system and the reliability of
the accounting data contained in the branch accounts,
would it?
A. No.

Q. Thank you. If we move on to Issue 12 which is on page (C1/1/3), the next issue is how often was any facility used, if at all? That is a practical question -- the previous one we looked at is a theoretical question -- it is a practical question of scale. Now, you have seen over 220,000 PEAKs, haven't you?
A. Yes.

Q. And do you know from the answers you have previously given you have also seen many tens of thousands of OCPs, OCRs and MSCs, haven't you?
A. Yes.

Q. And they are a rich source of material to interrogate to ascertain the answer as to whether and how frequently facilities were used to remotely access branch accounts and change the accounting data in those branch accounts, yes?
A. They are a good source of information that would indicate what steps were taken. They very, very rarely outline what was done within the branch accounts.

Q. Well, is that right? Let's take it in stages. PEAKs -- if there is some remote access by Fujitsu, it will be mentioned in a PEAK, won't it?
A. Yes, if there is a need to conduct some remote access then, yes, that's often --

Q. And in the same way, the OCPs and MSCs, you will have example, but it is not always consistent.

A. It will sometimes say a correction or an adjustment made to a particular kind of value but it may not tell you what the numerical number of the change is, is that what you are saying?
A. Yes.

Q. And as well as PEAKs, you have the ability to search OCRs and OCRs and MSCs as well?
A. Yes.

Q. And they give you further information relating to the issue that I have.

Q. Could I suggest to you, Mr Coyne, that you can usually see the nature of the change that's being done and the effect of that change, yes?
A. From reading it you can often see what is going to be done but you can't often see the effect. That's the issue that I have.

Q. If it is a value, you don't often see the value --
A. Often, yes.

Q. It won't -- it may not give you the SQL lines that have actually been written if that is the form of remote access being used, but it will give you a fair assessment of the nature of the change that's being done and the effect of that change, yes?
A. Yes.

Q. From reading it you can often see what is going to be done but you can't often see the effect. That's the issue that I have.

Q. Could I suggest to you, Mr Coyne, that you can usually see the nature of the change that's being affected?
A. The nature of it but not necessarily the number of it.

Q. If it is a value, you don't often see the value --
A. Often, yes.

Q. And as well as PEAKs, you have the ability to search OCRs and OCRs and MSCs as well?
A. Yes.

Q. And they give you further information relating to the

question whether any remote access has been exercised so as to affect branch accounting data, correct?
A. Yes.

Q. So between the PEAKs on the one hand and the OCPs, OCRs and MSCs on the other, you do have a rich resource, if you choose, to go through them and form an assessment of the scale of the exercises of remote access that have happened in the last 15 or 16 years, yes?
A. You get an indication of what was occurring, yes.

Q. As we have already discussed, you are capable of using search functions to look for cases where that form of remote access has been exercised, where there has been remote access affecting branch data. You are well capable of -- by looking for FAD codes or the word "FAD" and by looking for other technical terms that often go hand in hand with the exercise of remote access, you are well capable of finding -- doing intelligent searches with a view to finding documents indicating the overall scale of the remote access that has been exercised, would you agree with that?
A. No, that's not a very easy task, to identify remote access and how it took place. You can't very easily search for things like SQL statements, you can't actually search really for FAD code because FAD is a box at the top of most of the PEAKs, it is just often not filled in, so that isn't a very good thing to search for. We recently found out that there was -- I think the word Riposte import or something was an indication of -- so that helped us with our searching.

So it is true that we have identified things that would indicate remote access but I don't believe we are advanced in that.

Q. What I would suggest to you, Mr Coyne, is that where there is an exercise of remote access in relation to a branch's account, the PEAK will identify the branch by its FAD code, yes?
A. There are certainly occurrences of that, yes.

Q. Mr Coyne, you are understating the position, aren't you? It will invariably be the position that where there is a problem at a branch which requires some form of remote access to be exercised, the PEAK will identify the branch that is concerned. That's just how the system works, isn't it?
A. It will sometimes say a correction or an adjustment needs to be made at the branch and that might be the terminology. There will sometimes be a FAD code, there will sometimes be the name, so Dalmellington for example, but it is not always consistent.

Q. And in the same way, the OCPs and MSCs, you will have corresponding OCPs and MSCs relating to the exercises of
Q. -- they will identify the branches. So with intelligent
search functions it is possible to form a view, isn’t
it, of the nature of the branch -- the scale of the
exercise of remote access to affect branch accounts?
A. I mean that is a hugely complex task to start from the
large number of PEAKs, attempt to determine which within
those PEAKs suggest remote access, and then go from the
PEAKs into the OCRs and OCPs. Yes, you could do it for
one or two examples, but you couldn’t do that for all, that
would be --
Q. You could do it for a sample, couldn’t you? You could
choose a sample of particular branches with particular
names and FAD codes and you could use your search
function to see how often those branches have been the
subject of exercises of remote access, couldn’t you?
A. Yes, you could do that. Yes,
Q. And that would be a very easy way of forming
an assessment of scale, the scale or the extent to which
remote access has been exercised, wouldn’t it?
A. If you were confident that you had all of the search
terms that would confirm remote access has taken place
then you would use those search terms.
Q. You could just choose a group of FAD codes and a group
of branch names that correspond with those FAD codes.
You would identify a series of PEAKs and a series of
OCRs, OCRs or MSCs with those FAD codes in them and you
would be able to go through them and form an assessment
of how often that happened?
A. From the starting point of a particular number of FAD
codes?
Q. Yes.
A. Yes, that would be possible to do.
Q. And it would have been a suitable and helpful thing to
have done that, wouldn’t it?
A. Yes, I think it would be. If we could identify
particular FAD codes and try and analyse the entire
movements of what has gone on with that particular FAD
code, that might be an exercise to do.
Q. And both you and Dr Worden are aware of the FAD codes
that relate to a very helpful sample in the context of
this case, aren’t you, which is the FAD codes of the
claimants in these proceedings, yes?
A. Yes. In one of my early requests for information the
response that I was given is that I shouldn’t be
requesting any information that makes any attempt to
identify particular claimant characteristics.
Q. Mr Coyne, I really don’t think you should be suggesting
that Post Office were telling you not to look at that
group as a group. We could have a discussion about it
if you want, but could I caution you against making that
claim because that wouldn’t be an entirely accurate way
of characterising what happened, would it?
A. Can we go to the RFI and have a look at that?
Q. Let’s do it after a break, shall we?
MR JUSTICE FRASER: All right. I'm not going to have a spat
MR DE GARR ROBINSON: See, that's exactly --
MR JUSTICE FRASER: All right.
MR DE GARR ROBINSON: All right.
MR JUSTICE FRASER: All right. I'm not going to have a spat
during a cross-examination. Mr de Garr Robinson says he
is going to perhaps return to it after the break and you
have got your re-examination.
MR DE GARR ROBINSON: So I have suggested to you, Mr Coyne,
that it would be possible. I mean, you have been aware
of the FAD codes of the claimant branches for a very
considerable time, haven’t you?
A. No, I haven’t.
Q. The FAD codes I’m informed were included in Dr Worden’s
first report. Do you recall that?
A. The FAD codes are certainly included in one of
Dr Worden’s reports, I’m not sure whether it was his
first one or not.
Q. So it isn’t the position that the FAD codes for the
claimant branches are things you have only just become
aware of recently, it wouldn’t be right to say that, would it?
A. I haven’t concerned myself with claimant branches
because it was made quite clear to me that there was no
interest in this matter about particular claimants.
MR JUSTICE FRASER: Did you have the FAD codes before
Dr Worden’s report?
A. No.
MR JUSTICE FRASER: All right.
MR DE GARR ROBINSON: It needn’t be the claimant FAD codes,
one could just take a sample, a random sample of
branches, and perform an analysis which would give you an indication of the sort of scale of remote access that’s happened over the past 15 or so years, yes?

A. If you were aware of the things that you should be searching for then, yes, that would be possible.

Q. Well, if you were aware of the FAD codes of your sample group, Mr Coyne, yes?

A. Yes, and then look at the whole history of support across the FAD codes, yes?

Q. Moving on. Two elements to the extent, the potential to affect liability in issue -- well, let’s move on to issue 13:

“To what extent did the use of any such facility have the potential to affect the reliability of branches’ accounting systems?”

That involves two distinct questions, doesn’t it?

It involves how often it happened in the first place, which is raised in Issue 12, yes?

A. Yes.

Q. And it also involves a question as to how carefully any remote access was done, whether there are reasons for thinking it was done casually and without proper regard to the accuracy of any changes made, or whether it was done extremely carefully in accordance with procedures that we have already discussed, yes?

A. Yes.

Q. So if one were to get to a position where one is aware that remote access has happened on some occasions but doesn’t happen thousands and thousands of times a year -- I mean, you have no evidence to think, do you, that remote access has happened thousands of times a year?

A. No.

Q. Do you have a sense, bearing in mind the documents you have seen, as to the likely scale of annual remote access?

A. No. It would appear that the access in Legacy Horizon was higher than it would be in Horizon Online but I don’t really get an indication of scale.

Q. You have not found hundreds of PEAKs or hundreds of OCPs or MSCs showing that remote access affecting branch accounts has happened in this case, have you?

A. No. There won’t be hundreds that refer to adding messages or things like that.

Q. I have read your reports -- I have tried to read your reports quite carefully, it is always a dangerous thing to make a claim of that sort, but my apprehension from the reports I have read, particularly your second report, is you had found relatively few occasions when remote access had been used to affect branch accounts, would that be fair?

A. There’s often talk about the need to make a correction or to address a discrepancy and there’s often a couple of ways of doing that. Sometimes you will see in the PEAK that the question will be asked -- sorry, the statement will be made: this can either be corrected by inserting a message or do Post Office want to issue a transaction correction to make the adjustment? So you often see that. So you don’t know what the outcome of that was.

Q. Mr Coyne, you have referred to some of those PEAKs and, so far as I can tell from having read them myself, where there has been an exercise of remote access that’s recorded in the PEAK. The PEAK doesn’t go quiet once the possibility is mooted, it only goes quiet when remote access hasn’t been exercised because it has been dealt with by different means. Surely you would agree that?

A. When it goes quiet and you don’t know what it is, the two options are given in there. So it is either that Post Office has been asked to correct it or remote access has taken place, there’s no evidence either way.

Q. Mr Coyne, I think we agreed yesterday that Fujitsu in the production of PEAKs are quite process driven, yes?

A. Yes.

Q. When they do something, when they do a piece of work in relation to a particular PEAK they will write down, they will indicate in the PEAK what work they have done?

A. Yes, that’s fair.

Q. And what I would like to suggest to you is that it is clear that in circumstances where you have a PEAK and someone at the SSC is wondering whether a change or a remedy should be applied either by Post Office issuing a transaction correction or perhaps by doing some form of remote access, in circumstances where the transaction correction or other manual approach is adopted, there will be no suggestion of any remote access being adopted later on in the PEAK, yes?

A. Yes.

Q. But where some remote access is done, where a decision is made that the person at the SSC is actually going to make a change, that will always be documented in a PEAK, will it not? That’s how Fujitsu work?

A. Yes, I would agree that that would appear to be their typical process.

Q. Thank you. Bearing in mind that you have now agreed I think on two occasions that where there has been some remote access there will be a PEAK indicating that it has happened, if I could go back to my earlier question:

I would be right in thinking, wouldn’t I, that of the
Q. But I -- if -- because you don't have the values into the PEAKs, so that's incredibly difficult to search for or audit.
A. Well, I have seen that example. Again that's something that's incredibly difficult to search for or audit because you don't have the values into the PEAKs, so if --
Q. But I --
Q. We are going to come to that. But just taking that very briefly, the process we have just discussed, that form of rebuilding where a counter for some reason has a problem and its messagestore is deleted, what that does is it triggers an automatic system in Riposte, yes?

A. Right.

Q. Which causes the mirror server, which contains all the data, to be replicated to the particular machine whose messagestore has been deleted, yes?

A. That is the process, how it should work, but there is evidence of that failing and messages having to be extracted from hard drives of failed counters, the actual messages being taken out there and then rebuilt on another counter. So I agree that what you have outlined there is the position that should happen.

Q. We will come to those examples, I will ask you about those if I have got time. But they are relatively few, yes? We are talking about a very small number of examples that you are aware of, is that right?

A. There is quite a few where that --

Q. When you say quite a few, how many are you aware of?

A. There is quite a few where that --

Q. -- to operate in that way. And what then happens is you have a machine which actually has the right data on it after all?

A. That's absolutely the way that it should happen, yes.

Q. So let's now look at the forms of remote access you have addressed in your report. Can we go to the fourth joint statement, please, that's at [D1/5/4]. If I could pick it up at page 4, paragraph 10.2. This is addressing the ability/facility to insert, inject, edit or delete transaction data or data in branch accounts, so this is what I call proper remote access, yes?

A. Yes.

Q. What you have done there is you have set out the forms of remote access which you are aware of, is that right?

A. Yes.

Q. Are there any other forms of remote access of which you are aware that are not set out in the this joint statement?

A. No.

Q. Thank you. So what I need to do today is cross-examine you on the forms of remote access that I will find in this joint statement, correct?

A. Yes. You started this session by reducing what remote access meant.

Q. I started this session by defining what remote access was, Mr Coyne, which was what's referred to in Horizon Issue 10 --

A. Yes, and you said this excluded --

Q. -- which is inserting, injecting, editing or deleting transaction data or data in branch accounts.

A. Yes.

Q. What I'm doing, I'm not seeking to pull a fast one, I'm simply seeking to ensure that that's what we are talking about in the course of today, because if we talk about too many other things we will never finish. Okay?

A. Okay.

Q. Thank you. Laying aside whether the forms of remote access you describe here do account as forms of remote access, would you agree that the forms you have identified in the joint statement are consistent with the basic forms discussed in Mr Godeseth's and Mr Parker's witness statements?

A. Yes.

Q. Okay. So ten occasions over the ten-year period up to Horizon Online. But laying those aside, the standard form of messagestore deletion with automatic replication, that is a form of a back up. That's actually a form of robustness, isn't it, because what happens is when that system is invoked, it is invoked automatically, the system is designed --

A. It is designed to do that, yes.

Q. -- to operate in that way. And what then happens is you have a machine which actually has the right data on it after all?

A. That's absolutely the way that it should happen, yes.

Q. So let's now look at the forms of remote access you have addressed in your report. Can we go to the fourth joint statement, please, that's at [D1/5/4]. If I could pick it up at page 4, paragraph 10.2. This is addressing the ability/facility to insert, inject, edit or delete transaction data or data in branch accounts, so this is what I call proper remote access, yes?

A. Yes.

Q. What you have done there is you have set out the forms of remote access which you are aware of, is that right?

A. Yes.

Q. Are there any other forms of remote access of which you are aware that are not set out in the this joint statement?

A. No.

Q. Thank you. So what I need to do today is cross-examine you on the forms of remote access that I will find in this joint statement, correct?

A. Yes. You started this session by reducing what remote access meant.

Q. I started this session by defining what remote access was, Mr Coyne, which was what's referred to in Horizon Issue 10 --

A. Yes, and you said this excluded --

Q. -- which is inserting, injecting, editing or deleting transaction data or data in branch accounts.

A. Yes.

Q. What I'm doing, I'm not seeking to pull a fast one, I'm simply seeking to ensure that that's what we are talking about in the course of today, because if we talk about too many other things we will never finish. Okay?

A. Okay.

Q. Thank you. Laying aside whether the forms of remote access you describe here do account as forms of remote access, would you agree that the forms you have identified in the joint statement are consistent with the basic forms discussed in Mr Godeseth's and Mr Parker's witness statements?

A. Yes.

Q. Okay. So ten occasions over the ten-year period up to Horizon Online. But laying those aside, the standard form of messagestore deletion with automatic replication, that is a form of a back up. That's actually a form of robustness, isn't it, because what happens is when that system is invoked, it is invoked automatically, the system is designed --

A. It is designed to do that, yes.

Q. -- to operate in that way. And what then happens is you have a machine which actually has the right data on it after all?

A. That's absolutely the way that it should happen, yes.

Q. So let's now look at the forms of remote access you have addressed in your report. Can we go to the fourth joint statement, please, that's at [D1/5/4]. If I could pick it up at page 4, paragraph 10.2. This is addressing the ability/facility to insert, inject, edit or delete transaction data or data in branch accounts, so this is what I call proper remote access, yes?

A. Yes.

Q. What you have done there is you have set out the forms of remote access which you are aware of, is that right?

A. Yes.

Q. Are there any other forms of remote access of which you are aware that are not set out in the this joint statement?

A. No.
data? It is not transaction data and it is not a branch accounting data, is it?

A. It is not, but it indicates that there is a situation that has occurred, that a transaction might be part complete. So it is an indication that something needs to be looked at very carefully to see if there is something that’s out of balance.

Q. But it is not the data that’s referred to in Horizon Issue 10, is it?

A. No. It has an impact on the data that is Horizon Issue 10 but it isn’t in itself transaction data.

Q. And it is not recorded in the tables that constitute a branch’s accounts in the messageto the BRDB, is it?

A. I think it is in the BRDB.

Q. It is in -- I was quite careful in my question. Let’s just talk about the BRDB which is Horizon Online. The tables that the recovery flag are contained in are not tables which contain transaction data within the meaning of Horizon Issue 10, are they? They are not data that’s in the branch’s accounts. It is a different -- there are hundreds of tables in the BRDB, yes?

A. Yes.

Q. And the recovery flags, and there will be other tables containing the data relating to the transaction to which the recovery flag relates, yes?

A. Yes.

Q. Both the tables containing the recovery flags and the tables containing the data relating to recoverable transactions, those tables do not form a part of a branch’s accounts, do they?

A. Yes, that is right. There is a danger, I think we are probably splitting hairs, but there’s a difference between tables and fields within a table. But taking your point at face value, yes, it is in a slightly different place.

Q. Absolutely. The recovery flag is a field actually. I do accept there is this concept of fields. But it doesn’t affect the answer to my questions, does it?

A. That is right.

Q. The tables we are talking about and the various fields in those tables do not form part either of transaction data in branch accounts or of other accounting data in branch accounts, do they?

A. No. They are an indicator that something needs to be checked in the branch accounts.

Q. And there is other data also, which I think is often called configuration data, which are in other tables as well which could be of great use to Post Office in its accounting systems, or can be of great use in relation to defensive programming or redundant storage of data and comparison of copies of the same data in the system.

Things like time stamps where the system records all sorts of time stamps, there can be hundreds of them for one transaction recording the particular moment in time at which the information relating to a transaction moved from one table to the other or something was done with it, yes?

A. I’m sorry, you have conflated so many different issues there I’m not with you, sorry. I’m really not with you.

Q. It would take too long, let me move on.

When we talk about inserting or injecting data, again can we agree that what we are talking about is manually creating and inserting either accounting data or transaction data, yes?

A. Yes.

Q. You are aware that Mr Godeseth restricts the definition of balancing transactions to a form of transaction insertion by using the transaction correction tool, yes?

A. Yes, there was a tool that was created for Horizon Online for that purpose.

Q. Just to be clear, I’m going to follow the same practice. So when I talk about balancing transactions, I’m going to be talking about transactions that are a result of the exercise of the transaction correction tool in Horizon Online, okay?

A. And not any transactions that are outside of that --

Q. Yes. It is important to make that clear because in your reports you often use the term “balancing transactions” to refer to other forms of insertion, don’t you?

A. But they are balancing transactions.

Q. I appreciate that that’s how you think of them, but the term “balancing transaction”, the technical meaning of the term “balancing transaction”, is a transaction that is inserted as a result of the exercise or the use of the transaction correction tool. And there are other forms of injection or insertion. For example, there were transaction insertions that could be made in Legacy Horizon, and Mr Godeseth is quite clear in his witness statement, isn’t he, that those aren’t properly...
Q. Okay. For the purposes of this discussion let’s adopt IT terminology, let’s not adopt what you regard as ordinary accounting terminology. So just to be clear, shall we first of all agree that when we talk about balancing transactions we are talking about the transaction correction tool, could we do that?

A. Yes.

Q. My understanding is that you agree with that?

A. Yes, I do.

Q. Editing now. Editing again is manually manipulating data that’s already in the branch accounts, yes?

A. Yes.

Q. And deleting. With deleting there is an important practical distinction to be drawn, isn’t there, between deleting a whole set of messages to allow -- the whole messagestore to allow automatic replication to take place, yes?

A. Mm.

Q. And manually deleting lines of transaction data, yes?

A. Yes.

Q. And those two are very different things?

A. Yes.

Q. Both involve deletion but they have different implications. The first is an automatic process which actually enhances robustness, it doesn’t detract from it. Would you agree?

A. I can accept that.

Q. Can we also agree that there are a large number of references in your report to balancing transactions that have nothing to do with the transaction correction tool, yes?

A. They are balancing transactions but outside of the balancing transaction tool.

Q. Mr Coyne, I’m not seeking to criticise you, I’m just seeking to get you to agree that in your report, when you refer to balancing transactions, the judge shouldn’t think that you are talking about exercises of the transaction correction tool?

A. Yes.

Q. Thank you.

Q. I could go to the pleadings but I’m not sure I have ... I could go to the pleadings, but if I simply suggest to you -- would you recognise that the forms of remote access that the Horizon Issues are getting at aren’t concerned with transaction corrections and transaction acknowledgements, and indeed that the Horizon Issues were drafted with a view to excluding the process by way of transaction corrections and transaction acknowledgements were arrived at ... All right, okay.

Q. Can we agree that for the purposes of this debate it really doesn’t assist matters to include transaction corrections and transaction acknowledgements, yes?

A. Okay.

Q. Would you give me a moment?

I’m sorry, I think I may have misheard you. I’m told that in answer to my question you indicated that error notices itself, in your view, would constitute a form of remote access. Is that true?

A. No -- well, an error notice has been issued by Post Office to make a change to branch accounts. So depending on what definition we are using at the moment, then it is somebody remote from the branch making a change.

Q. My understanding of your report, Mr Coyne, was that you
MR JUSTICE FRASER: Is that the point you are pursuing? You put a question at line 17, which was then answered:

"Not for the purposes of the remote access that you described before ..."

Is that the point you are pursuing?

MR DE GARR ROBINSON: I was pursuing a suggestion that in Mr Coyne's view --

MR JUSTICE FRASER: Based on that answer, though, I mean?

MR DE GARR ROBINSON: Yes. Is that right? Yes.

MR JUSTICE FRASER: The easiest way might be to deal with it like this: do you treat error notices either in your report or today as constituting remote access?

A. No.

MR JUSTICE FRASER: Right.

MR DE GARR ROBINSON: Very good.

MR JUSTICE FRASER: Back to you, Mr de Garr Robinson.

MR DE GARR ROBINSON: Very good.

MR JUSTICE FRASER: Right.

A. Yes.

Q. Because at least the SPM is aware of them and has to press a button to allow them into his branch accounts?

A. Yes.

Q. Now let's talk about Post Office back office systems.

We have discussed several times already how Horizon -- for example, in Horizon Online it would be the BRDB -- feeds data to various parties including Post Office, so Post Office systems like POLFS, POLSAP and Credence and so on, but also to other systems.

A. Yes.

Q. And that's via what's known as the transaction processing system, yes?

A. Yes.

Q. Often known as TPS.

A. Yes.

Q. And an aspect of the transaction processing system is what's called TIP, yes?

A. Yes.

Q. Do you remember what that acronym stands for? A slightly unfair question.

A. No. It will be ...

Q. Transaction information --

A. Processing, yes.

Q. And the TIP system is an interface, isn't it, with the TPS system, so it allows files to be accessed and perhaps -- I'm looking around to make sure I'm saying the right thing -- so it is fair to say that TIP and TPS are aspects of each other?

A. Yes.
A. Could I please have a definition of that second order
25
earlier?

Q. Would you agree with me, Mr Coyne, that that also is
20
made, yes?

A. Yes.

Q. Which results in a transaction correction decision being
19
made, yes?

A. Yes.

Q. Would you agree with me, Mr Coyne, that that also is
16
a second order issue of the sort that we discussed
15
earlier?

A. Could I please have a definition of that second order
12
issue?

Q. Let me just take it in stages. One of the main purposes
17
of the TPS system or one of the main aspects of the TPS
16
system is the harvesting and reconciliation processes
15
that are operated within it?

A. Yes.

Q. And the purposes of those operations is to ensure that
13
the data in the TPS system -- TPS stands for, I’m saying
12
“system” twice but you will forgive me if I make that
11
mistake. That data is then compared with other
10
available forms of data with a view to checking to see
9
whether it is correct or not?

A. Yes.

Q. And then decides to issue a transaction correction?
8

A. Yes.

Q. And what you are suggesting there is a mechanism by
7
which a change is made to some data that’s held in TPS?
6

A. Yes.

Q. That data is then transmitted to Post Office?
5

A. Mm.

Q. Post Office looks at it and thinks that must be correct, it
4
looks at the data that’s in branch accounts and sees
3
that the data is different?
2

A. Yes.

Q. And then decides to issue a transaction correction?
1

A. Yes.

Q. What you are suggesting then is Post Office would see
0
a discrepancy but prefer the TPS version of truth

A. Yes.

Q. Secondly, that would be a necessary condition before
0
there’s any possibility of Post Office issuing
a transaction correction, yes?

A. Yes. So it is either a correction that’s been made with
the TIP correction tool, which is the tool -- I think we
saw a screen shot of it earlier on within the trial, where a
copy of the data is brought up and then the user
can make modifications to that data, either the value or
where it is destined for, so the change is made. You
can either do it on one transaction or it can be done on
many transactions if the same fault occurs with all
transactions. You can fix lots at once and the tool
then sends the data on its way.

A. Yes.

Q. Are you approaching an answer to the question I actually
asked you, though, which is: the chances of a change to
the TPS data, it would be picked up as a reconciliation
exception, wouldn’t it?

A. Yes.
Q. Mr Coyne, you do seem to be struggling to accept something which in my respectful suggestion is blindingly obvious, which is that in the vast majority of cases, given the purpose with which the TIP repair tool is always used, the chances of the TIP repair tool being used in a way which introduces an error -- which actually introduces an inconsistency with branch accounts when the whole purpose of the tool is to ensure that doesn't happen, usually it is to ensure coherence between the accounts and the TPS system -- the chances in the real world of the use of a TIP repair tool which introduces a discrepancy is very small?

A. No, I don’t accept that.

Q. Why don’t you accept that? Isn’t it commonsense again?

A. It’s whatever the chances are of a human making an error with that.

Q. You really don’t want to talk about extent, do you, Mr Coyne?

And where that kind of error happens, the chances of that error then not being picked up when Post Office looks at the client account and looks at the client data, the chances of Post Office favouring the erroneous TPS data over the alternative sources of data that are available, would you accept the chances of that happening are very low?

A. Yes.

Q. And have you forgotten the evidence that’s given in Mr Smith’s second witness statement explaining that those figures don’t actually represent what, entirely fairly, you understood them to represent in his first witness statement?

A. Yes, quite possibly.

Q. You would only use the TIP repair tool where you thought there was a problem in the TPS because it is not consistent either with branch accounts or with client data, yes?

A. Yes.

Q. No one would make a change in the TPS in order to introduce an incorrect figure?

A. I agree.

Q. So the purpose of any change that’s made using the TIP repair tool, that’s what we are talking about, and I am sure your Lordship is familiar with that tool, the purpose of the TIP repair tool is actually to ensure that there is coherence in the data in the TPS system as compared with the data in the branch accounts and the data held by clients. That’s the general purpose of making changes?

A. Yes.
Q. And what you are suggesting is -- let’s say the Fujitsu transaction is properly undertaken in the branch and an error is introduced, and you accept it is going to happen only in a small minority of cases, an error is introduced, don’t you accept that the circumstances in which Post Office is likely to prefer that erroneous figure than the figure that is correctly held in branch accounts and correctly held by the client, the chances of that happening in practice are very small?

A. Yes.

Q. And then of course there is a further chance it has to happen, there is a further box that needs to be ticked in order for branch accounts to be affected, because once of course the transaction correction goes through it gets sent to the postmaster?

A. Yes.

Q. And the postmaster says, “Hang on a second, I didn’t receive £90,000, this isn’t right “, and phones up the helpline because that’s what you do when you don’t agree with the transaction correction?

A. Yes.

Q. So again there is a further protection, there is a further filter that needs to be got through, namely either the postmaster not objecting or the postmaster’s objections being overruled?

A. Yes.

Q. I was seeking to ascertain from you, Mr Coyne, is whether you are willing to accept that in the real world the chances of Fujitsu making a mistake so as to create a discrepancy rather than to create one or affirm one by its use of the TIP repair tool, which is its intention, and the chances of when that happens of Post Office looking at that error and looking at the client data and deciding to accept the erroneous figure rather than the client data and what’s already in the Horizon branch accounts, what I’m suggesting to you is that that scenario is obviously a very unlikely one. I’m not saying it is impossible, but in the real world the chances of those different kinds of errors all combining together to result in a false transaction correction is very low?

A. I do accept that it is low but it isn’t that many errors that’s required. It is only really required that an error is made by Fujitsu either on the value or potentially the transaction type, because if the transaction type is altered the transaction could go somewhere differently or be dealt with differently. And then the only other decision that needs to be taken is that Post Office accept that data rather than the branch’s version of the data.

Q. And you are suggesting that in circumstances where the
Q. And do you not accept that in the real world, given the scale of the changes -- well, what is the scale of changes made to the TPS system by using the TIP repair tool? It is relatively small, isn’t it?
A. It is relatively small in comparison with the number of transactions per day, but it is a high number of repairs that are made each day.
Q. How many?
A. I don’t know precisely but I think it has been mentioned. It is in the thousands, I believe.
Q. Thousands a day?
A. Of TIP repairs, yes.
Q. Okay. That comes as a surprise to me. But you are saying it is small relative to the number of transactions that are actually passing through the system in the day?
A. Yes, but it is still quite a big number that he has done. I do believe it is in evidence somewhere.
Q. I will have to look at that.
My Lord, I see it is 11.50, and this isn’t a convenient moment but in fairness --
MR JUSTICE FRASER: All right. Would you like to pursue it for a couple more minutes?
MR DE GARR ROBINSON: Yes, if that’s agreeable.
MR JUSTICE FRASER: As long as it is only a couple of minutes then that’s fine, otherwise we can break now.
MR DE GARR ROBINSON: Last question before -- or last series, couple of questions. Where the TIP repair tool is exercised there will be a PEAK relating to its exercise, yes?
A. There should be, yes.
Q. Are you suggesting that there are PEAKs numbering in the thousands per day reflecting the exercise of the TIP repair tool in the PEAKs that you have seen?
A. No, I don’t believe there is one, there isn’t one PEAK per TIP repair that’s undertaken. You don’t have a one to one relationship.
Q. Have you seen a significant number of PEAKs relating to the exercise of the TIP repair tool?
A. I don’t know what the number will be, but there are PEAKs that talk about the TIP repair cool.
Q. Could you give me a sense of scale? Are you talking about a dozen, are you talking about a thousand, are you talking about a smaller number?
A. What I’d prefer to do, because I’m pretty sure the number of tips that are done per day or per month is in the evidence somewhere, I would prefer to find that and give you the number.
MR DE GARR ROBINSON: Very good. My Lord, perhaps that would be a convenient moment.

(11.55 am)
A short break

(12.05 pm)
(A short break)

First of all you referred to the fact that sometimes, let me put it this way, bulk changes were made by means of the TIP repair tool, yes?
A. Yes.
Q. So changes were made to more than one item of data?
A. Yes.
Q. Would you accept that inevitably those changes are not going to be changes to transaction data because of course each transaction has its own individual characteristics. Those changes will be changes to attributes, you know, adding missing fields or flags of some sort. Those would be the kind of changes that would be done in bulk, yes?
A. Yes.
Q. So when we are talking about erroneous transaction data being created as a result of the TIP repair tool in the TPS system, we are not really worried about, we don’t need to be concerned about, bulk changes of that sort because the basic transaction details will not be...
Q. So what you are signalling to the reader is that the data which is held within branch accounts?
A. Yes.

Q. So what you are talking about in this section is changes within Branch Accounts ... What you are talking about is insertions and deletions made to accounting data held in branch accounts.
A. Yes.

A. Certainly to make a mistake, yes.

Q. Is that 72 on the face of the document?
A. Yes.

Q. It would be a small percentage of the millions or billions of transactions, yes.
A. Yes.

Q. Before was a second order issue, this is a third order issue, isn’t it? It requires a series of unfortunate events, all of which are not particularly likely to combine together, yes?
A. Yes.

Q. So in the real world, the overall likelihood of those three things all happening at the same time again is extremely small, yes?
A. Yes.

Q. It would be a small percentage of the millions or billions of transactions, yes.
A. Yes.

Q. It would be a fraction of a percent, wouldn’t it?
A. Yes.

Q. Okay, one final question in relation to the TIP repair tool. Could we go to your second report (D2/4.1/72), please. I would like to pick it up at page 72.
A. Yes.

A. Yes.

Q. Have you seen any changes of that sort being done?
A. Unless there were bulk changes made to things like the transaction type or something like that.

A. Yes.

Q. I’m grateful. Then just to finish up, the kind of scenario that you are suggesting would require, first of all, Fujitsu to make a mistake in its use of the TIP repair tool, effectively to do the opposite of what it intended to do, yes?
A. Yes.

Q. Surely you accept that that’s what that heading conveys?
A. Yes.

Q. Have you seen any changes of that sort being done?
A. Or that has an impact on branch accounts, yes.

Q. Do you accept that your entire approach to the TPS system as exemplified in these paragraphs is actually misleading?
A. I think the heading is misleading because it is talking about modifications that have an impact on branch accounts.

Q. The PEAK above therefore indicates that Fujitsu support had the capabilities to manually rebuild data.
A. This is all under the heading I took you to before.

Q. If we can go forward to page (D2/4.1/78), perhaps I could ask you to read paragraphs 3.247 through to paragraph 3.248. {D2/4.1/79}
A. No, I’m so sorry, 3.243 through to 3.248, please.

A. 3.243?
Q. Yes.

A. Yes.

Q. I am sure you know where I’m going, Mr Coyne, but in those paragraphs you are talking about changes made to data in the TPS, aren’t you?
A. Yes.

Q. And yet you finish up with 3.248 which says:
A. No.

Q. And yet you finish up with 3.248 which says:
A. No.
Q. So would I be right in inferring from your answer that you didn’t want to make that distinction? You were quite happy for the distinction between changes made to data in branch accounts and changes made to data held elsewhere, you weren’t interested in that distinction, you just wanted to talk about changes made to data, full stop?

A. That were remote from the branch. That it isn’t changes to data that’s been made at the branch counter.

Q. But Mr Coyne, the branch can’t change data that’s held in the TPS. So the notion that changes to data being made in the TPS is being made remotely from the branch makes no conceivable sense, does it?

A. Mm.

Q. Thank you. That has saved a great deal of time. I’m very grateful to you.

If we could go now to the joint fourth statement at bundle [D1/5/8], paragraph 10.15. A short question only. Here you say -- this is one of your personal statements, it is not an agreed statement. At page 8, paragraph 10.15, you say:

“The controls around branch account data do not specifically consider if the monies within the transaction actually go to the correct accounts. It would be possible through simple changes to alter the sort code and account number of the destination account and unless this was spotted by the PM or the client, Post Office system would not detect this.”

Now, you then go on to talk about defects in Horizon reference data, yes?

A. Yes.

Q. Just to be clear, the second paragraph there has nothing to do with remote access, does it?

A. It has nothing to do with the way that you have set out that you want remote access dealing with in this section, no.

Q. Thank you. Now the first paragraph, I don’t need to ask you much, but is the scenario you are suggesting here that a criminal working in Fujitsu could, if he wanted to, spot that a payment was being, an electronic payment being made by a customer at an branch, identify the payment that was being made, hack into the system to change the sort code and account number of the destination account, and by that means secure that the money goes to the criminal rather than to the customer who originally made the payment?
Q. And it would be -- so what happens is a bill payment is done at the branch. It is transmitted through to Post Office’s back systems, so it goes out of BRDB and goes into Post Office’s systems. It waits there for a while before it is then transmitted onwards to the bank to actually make the payment?

A. Yes.

Q. And which -- presumably he wouldn’t be doing this in the branch accounts, he would not be changing the data in the branch accounts. If you are talking about the sort code and destination account, he would be changing the data that’s passed through to Post Office, wouldn’t he?

A. Yes.

Q. So we are not talking about data in the branch accounts because that doesn’t contain that sort of data, does it?

A. No.

Q. If this was going to go on it would go on at Fujitsu’s back office --

A. Yes.

Q. It would be some sort of change to some Post Office system, yes?

A. Yes.

Q. And it would be -- so what happens is a bill payment transaction is done at the branch. It is transmitted to the bank and say “What the hell has happened? I have paid my phone bill but I have just been cut off”. We have seen examples of that happening, haven’t we?

A. Yes, there are a couple of scenarios where payments have gone to wrong parties because of erroneous --

Q. So the kind of criminal that we are talking about, as well as being a master criminal because he has got privileged user rights and has the ability to use them, so he is obviously of some seniority within Fujitsu, he would also have to be an idiotic criminal, wouldn’t he, because that would be a step which would be bound as night follows day to get detected because there would be an investigation, wouldn’t there, as to what happened to the payment?

A. Yes.

Q. And on that investigation it would be discovered where the money actually went and why it was that it got there?

A. That bit is not as easy as you suggest, but yes, there would be an investigation.

Q. And it would be possible, it may not be easy, but in circumstances where money has gone in completely the wrong direction, that would absolutely be something -- you have seen this with Fujitsu themselves, with the Highland Council, it is something they took very seriously indeed and they acted on it very quickly, didn’t they?

A. Mm.

Q. There would be an in-depth investigation to make damn sure they knew what had happened, yes?

A. Yes.

Q. So in practice anyone working at Fujitsu would know very well that it would be professional suicide to try a stunt like that, yes?

A. Yes.

Q. And you would need to be quite well qualified. You say simple, I think, but you would really have to have a good understanding of the system and know which tables to be looking at and what changes are to be made in a way that didn’t create some reconciliation error somewhere else in the system. It would be quite a sophisticated process. Your knowledge of the system would have to be quite substantial, yes?

A. I have seen two or three of these and investigate them and have a look at what has been actually done, in some they have got away with it and in others they have been caught.

Q. In the real world you have no reason for thinking that has ever happened in Post Office, have you?

A. No.

Q. If I can ask you to look back at your report at page 245 [D2/4.1/245], paragraph 5.427, this is where -- perhaps we can go to the previous page so we can see the heading {D2/4.1/244}. It is all under the heading “Global Users”, do you see? And you very fairly indicated that in the light of the evidence you changed your mind, and that is extremely helpful.
A. Yes.

Q. If we go to page 245, having addressed the question whether global users have the ability to undertake remote access, you then say:

"Also it is not (in my opinion) a question of whether DBAs misused their powers, it is more important to consider (in respect of their actions) whether they might have erroneously (without intent) modified data."

That’s true, isn’t it? In the real world that’s what we should be focusing on. We don’t need to focus on hypotheses as to master criminals seeking to steal someone’s gas bill, do you agree?

A. Yes.

Q. Let’s move to what I call remote access proper. Let’s take Legacy Horizon first. If we can go to bundle D1, the joint statement again {D1/5/4}. This is where you set out the form of remote access that you are aware of.

A. Yes.

Q. "In Legacy Horizon, rebuilding transaction data in the branch, by replication from some other copy of the data.”

Stopping there, I think we have already agreed that that -- first of all, it is certainly possible, it is discussed by all the witnesses, but that’s something that -- first of all, it is certainly possible, it is discussed by all the witnesses, but that’s something which enhances robustness rather than detracts from it.

1. Q. If we go to page 245, having addressed the question whether global users have the ability to undertake remote access, you then say:

"Also it is not (in my opinion) a question of whether DBAs misused their powers, it is more important to consider (in respect of their actions) whether they might have erroneously (without intent) modified data."

That’s true, isn’t it? In the real world that’s what we should be focusing on. We don’t need to focus on hypotheses as to master criminals seeking to steal someone’s gas bill, do you agree?

A. Yes.

Q. Let’s move to what I call remote access proper. Let’s take Legacy Horizon first. If we can go to bundle D1, the joint statement again {D1/5/4}. This is where you set out the form of remote access that you are aware of.

A. Yes.

Q. "In Legacy Horizon, rebuilding transaction data in the branch, by replication from some other copy of the data.”

Stopping there, I think we have already agreed that that -- first of all, it is certainly possible, it is discussed by all the witnesses, but that’s something which enhances robustness rather than detracts from it.

1. Q. If we go to page 245, having addressed the question whether global users have the ability to undertake remote access, you then say:

"Also it is not (in my opinion) a question of whether DBAs misused their powers, it is more important to consider (in respect of their actions) whether they might have erroneously (without intent) modified data."

That’s true, isn’t it? In the real world that’s what we should be focusing on. We don’t need to focus on hypotheses as to master criminals seeking to steal someone’s gas bill, do you agree?

A. Yes.

Q. Let’s move to what I call remote access proper. Let’s take Legacy Horizon first. If we can go to bundle D1, the joint statement again {D1/5/4}. This is where you set out the form of remote access that you are aware of.

A. Yes.

Q. "In Legacy Horizon, rebuilding transaction data in the branch, by replication from some other copy of the data.”

Stopping there, I think we have already agreed that that -- first of all, it is certainly possible, it is discussed by all the witnesses, but that’s something which enhances robustness rather than detracts from it.
Q. Do you recall where those documents are?
A. The reference is to using the tool Text Pad, the text editor to make the changes.
Q. Are we talking about PEAKs or --
A. It is a PEAK, I believe.
Q. Is this discussed in any of your reports? I'm not building a big criticism, it is just this comes as news to me and I'm wondering if I missed it?
A. I don't know if it is referenced in my reports or not.
Q. Shall we give you some quick homework? Would that be acceptable, my Lord, overnight?
A. Certainbly, my Lord, yes.
MR JUSTICE FRASER: I have no objection. Are you able to look at it after hours today?
A. Certainly, my Lord, yes.
MR JUSTICE FRASER: You might want -- so that is your second, I think. That's his second. I see you are taking a list. Have you got a list?
A. Yes, I have got it on here.
MR DE GARR ROBINSON: So what you are suggesting is it wouldn't be automatic, the numbering would be manual.
A. I have certainly seen a document when the messages in the messagestore have been taken from a disk that has failed, editing is suggested using Text Pad, some numbering is changed. Then Fujitsu use a tool called Message Factory and that creates the CRC check to go round the messages, and then they use the Riposte import command, I believe it is, and that imports it back into the branch.
Q. Well, perhaps we could see the document you are referring to before -- I don't want to take up time unnecessarily now. But you would accept, would you, that for this to have a detrimental impact on branch accounts there would have to be some quite surprising error made. I mean there would have to be some change actually made to the underlying transaction data and that change would be erroneous?
A. Yes.
Q. And you see Mr Parker saying that Fujitsu's practice was not to make changes to transaction data?
A. Yes.
Q. Are you aware of anything in the system, in the design documents or other documents that you have seen, which would indicate that -- or any PEAKs that you have seen which would indicate that that had actually happened, that any changes had been made to transaction data?
A. Well, the one that I'm referencing at the moment, there is a change being made to the --
Q. To the number of the transactions, yes?
A. There's a couple of elements. I think the counter code is changed to make it appear that it had been entered on a different counter than it actually had been done on, and there was a change to some sort of -- it might have been a serial number or a transaction number that was on.
Q. But not a change to any basic transaction detail, price, product or anything of that sort?
A. No. The PEAK was suggesting which elements of the messages should be changed before the upload takes place. The PEAK didn't say change a value, so it would have to be a mistake. The real mistake with that would be not getting all of the transactions, or accidentally duplicating a transaction.
Q. Wouldn't you just be taking a copy of what's in the messagestore?
A. Yes, but you are then opening up the messagestore in a text editor, and whenever you are moving data between an environment where it has some structural integrity into a text editor then there's always the danger that things --
Q. So you are suggesting that -- the intention wouldn't be to change anything, but you're saying there might be a mistaken change of something, yes?
A. I think the necessity is you do have to change something because I do not think you can import the data into another counter in the same way, because it has a counter ID in there and I think that has to be changed.
Q. You are right, my question was too loose. There wouldn't be an intention to change transaction data but you are saying there might be a mistake made which results in a change to transaction data that was held on a machine?
A. Yes, or an omission of a message.
Q. Would you accept that -- first of all, how many occasions of that are you aware of? Have you just seen one PEAK or is it more?
A. There's not many PEAKs -- there are quite a few PEAKs that talk about the Riposte import commands that suggest throughout --
Q. That is different though. That is transaction insertions, yes? We are not talking about rebuilding data now.
A. But that's the process that you rebuild the data.
Q. I see.
A. You get them from another counter or a failed disk, you edit them and then you import them, you insert them into a working counter.
Q. But the particular process that we are talking about now, involving taking data off the machine and injecting
Q. Thank you. I think, and you may already have accepted this but I ought to put it just in case you haven’t, you would accept, wouldn’t you, bearing in mind the evidence you have heard and the documents you have seen relating to Fujitsu’s own processes, that that process would involve careful review by two pairs of eyes, yes?
A. Yes, I believe so.
Q. So in the real world again would you accept that the chances of that happening, going wrong and causing an erroneous entry in branch accounts that were not intended, would be very, very low. Would you accept that?
A. It would be low, yes.
Q. Thank you. Now are there any other forms of data rebuilding that you believe ought to be discussed in this context or shall I move on to a different form of --
A. Yes.
Q. Thank you. I think, and you may already have accepted this but I ought to put it just in case you haven’t, you would accept, wouldn’t you, bearing in mind the evidence you have heard and the documents you have seen relating to Fujitsu’s own processes, that that process would involve careful review by two pairs of eyes, yes?
A. Yes, I believe so.
Q. Thank you. Now are there any other forms of data rebuilding that you believe ought to be discussed in this context or shall I move on to a different form of --
A. Yes.
Q. Thank you. Now are there any other forms of data rebuilding that you believe ought to be discussed in this context or shall I move on to a different form of --
A. Yes, I believe so.
Q. Thank you. Now are there any other forms of data rebuilding that you believe ought to be discussed in this context or shall I move on to a different form of --
A. Yes.
Q. Thank you. If you could let me have a copy of the PEAK tomorrow...
A. Just with regard to the PEAK. PEAKs are raised at third line Fujitsu. So when you say Fujitsu would do whatever they would do, it would be effectively the SSC. So if the call gets to the SSC level then that’s when the PEAK subpostmaster was told that they couldn’t recover the transactions, so the subpostmaster put the transactions back in manually from his or her own paper copy, and then Fujitsu did manage to recover the transactions and inserted them, which caused a doubling of the transactions.
Q. Right. We are talking about -- so you found one occasion when something like that happened?
A. That I was reminded of from that, yes.
Q. Whenever these things happen they are recorded in PEAKs, yes?
A. This was recorded in a PEAK, yes.
Q. But by virtue of the way we all know Fujitsu works, if it happens it would be recorded in a PEAK?
A. It should be recorded in a PEAK, yes.
Q. It would be very surprising if it wasn’t recorded somewhere in a PEAK, yes? And you are aware of one occasion where that happened, yes?
A. Yes.
Q. If you could let me have a copy of the PEAK tomorrow that would be very helpful, thank you.
A. Just with regard to the PEAK. PEAKs are raised at third line Fujitsu. So when you say Fujitsu would do whatever they would do, it would be effectively the SSC. So if the call gets to the SSC level then that’s when the PEAK...
Q. But of course if a call didn’t get to the SSC, then there wouldn’t be any question of any remote access, would there?

A. No, not necessarily. If a call didn’t get to SSC then Post Office has decided that it would deal with it using some of its own methods, so issuing a TC --

Q. I’m sorry, I’m really confused, Mr Coyne. When you say deal with "it" , what are we talking about?

A. Deal with the situation --

Q. The purpose of the discussion we are having today is to discuss remote access. Remote access, correct me if I’m wrong, is what can be done by the SSC when seized of a problem, yes?

A. Yes, but you then took me --

Q. If I could just -- yes, is that right?

A. Yes.

Q. So in the context that we are discussing it now, we are always talking about something in relation to which the SSC is already involved, yes?

A. Yes.

Q. And so when you suggest now that there are situations when the SSC isn’t involved, I don’t know what those situations are, but what I want to suggest to you, and to save some time, is that whatever those situations involve, they don’t involve remote access of the sort with which I’m concerned today. Would you accept that?

A. I would accept that. The answer that I gave is because you asked me about whether something would be recorded in a PEAK or not.

Q. Yes.

A. And I give you the answer that if the subpostmaster called Post Office to tell them that there was then a doubling of their transactions as a result of this, that that in itself would not raise a PEAK until that call went all the way through to Fujitsu SSC and the PEAK would be raised then.

Q. Yes. Are you suggesting -- so you are suggesting a situation where a branch has already got through to the SSC and the SSC has done some rebuilding of data. The branch then has a problem -- the branch knows there has been some rebuilding of data, I think we discussed that, yes? And the branch then sees there has been a doubling of transaction and phones up the helpline. Now in that hypothetical call the postmaster would say “This has just happened. The Fujitsu -- the third tier support has been helping me with my data but I have this problem because now I have a duplicate transaction.”

You are not suggesting, are you, that that call wouldn’t get passed back to SSC to be looked at by the people who did the original whatever the transaction insertion was?

A. I’m not suggesting any of that. I’m answering your question as precisely as possible. You asked me whether it would be recorded in a PEAK and I explained the process to you when the PEAK gets raised.

Q. So in the scenario you have just hypothesised, the overwhelming likelihood is that it would get through back to the SSC and it would be picked up in a PEAK, probably the same PEAK, yes?

A. That is the process that should be followed, but initially the call would go into the Post Office and the Post Office would investigate it and they would make a decision whether that call should go through to Fujitsu or not. And then it would be recorded in a PEAK.

Q. Thank you. Now, no other forms of data rebuilding that are in your mind that you wish to talk about? Why don’t I give you an opportunity to look through paragraphs 10.2 -- perhaps pages 4 through to 6. Is there any other aspect of rebuilding of data that we haven’t covered, in your expert view? [D1/5/4] [D1/5/6]

(Pause)

A. No, I’m happy with what’s covered in that statement.

Q. Thank you. If we could then go back to page 4 and look at the next item [D1/5/4]. The second form of remote access. You say: “In Legacy Horizon, injection of an additional message in the branch messagestore.”

A. Yes.

Q. The standard way of doing it, I believe you will accept, is doing it via the correspondence server which, when a transaction is inserted, would leave an indication that the counter on which the transaction was done was greater than the number of 32, correct?

A. Well, it depends really at what time of day the message is inserted. Messages are not always at the correspondence server --

Q. I’m trying to explore that there is a standard way of doing it and then an alternate way of doing it that doesn’t involve doing it through the messagestore, yes?

A. I don’t believe it is a case of one is standard and one is nonstandard. It depends on whether you are making a modification after messages have been sent to the correspondence server or whether they haven’t yet gone from the branch to the correspondence server.

Q. Let’s look at what Mr Parker says about that. It is at [E2/12/9]. Perhaps I could ask you to read what he says in paragraphs 27 through to 28, please.

(Pause)
A. Yes.  
Q. Why isn’t that in any of your reports?  
A. It was a recent -- it was since this report has been --  
Q. It is quite difficult -- this time I’m not blaming you, Mr Coyne, but it is very difficult to conduct a cross-examination in circumstances where the goalposts seem to be moving all the time.  
A. Let me just move on. Perhaps I will say this --  
Q. Should I include that in the homework?  
A. Yes. I’m sorry to burden everyone with this. I’m anxious that I’m not giving you an opportunity to put in a supplemental report by the provision -- I don’t mean this as a criticism, you are doing this in answer to my questions, but in effect we are in a situation where new evidence is being given which it would have been helpful to have seen in a supplemental report. But yes, please:  
MR JUSTICE FRASER: All you are being asked to do is actually identify the document that you are talking about.  
MR DE GARR ROBINSON: Yes.  
A. Yes, my Lord.  
MR DE GARR ROBINSON: I would really not have an exegesis.  
MR JUSTICE FRASER: Yes. There’s nothing other than the documents.  
MR DE GARR ROBINSON: My Lord, yes.
1 MR DE GARR ROBINSON: It is paragraph 29 at page E2/12/10.
2 I’m sorry.
3 MR JUSTICE FRASER: Yes, thank you. We have caught up.
4 That’s all right.
5 MR DE GARR ROBINSON: You will see what he says in paragraph 29.
6 A. Yes.
7 Q. I presume you reviewed the documents that he refers to in his footnote?
8 A. Yes, I did.
9 Q. And do you accept that he correctly characterises the impact of those documents or the effect of those documents?
10 A. What does he say is the impact of the documents?
11 Q. Paragraph 29.
12 A. They do. They don’t include the word “Riposte import” or “message import”, which is the one that I have since used, so whether that brings back additional messages, I’m not sure.
13 Q. So you have done your own searches now, have you?
14 A. After seeing these words here, I have looked at those documents and found the command Riposte import in some of those documents, so I have gone back to search for that across the whole database.
15 Q. And are you in a position to suggest that the basic thrust of what he says in paragraphs 29 and 30, that the
16 number of occasions where this happened and involved injecting transaction data was very low?
17 A. The number will be relatively low, yes.
18 Q. It’s always dangerous to ask but we are talking about a handful of occasions, no more than that, yes, during the life of Legacy Horizon?
19 A. It is probably best for me to actually run the searches and give you the actual numbers.
20 Q. I really don’t want you to be doing more research, Mr Coyne. I understood you to be telling me that you had already done it, and I’m simply asking you whether in the course of doing that search you found more than a handful. Perhaps we will leave it at that question. Perhaps you could answer it now?
21 A. No, I hadn’t got the information to be able to ask the question that you put to me then, whether these specific PEAKs address those six things.
22 Q. And you are not in a position to suggest that the search that he describes in paragraph 29 yielded 14 occasions on which only one involved an insertion of transaction data? You are not in a position to challenge that?
23 A. I’m not in a position to challenge that.
24 Q. Would you accept that the search that is described in paragraph 29, that is a sensible set of terms to use when searching for the kind of transaction insertion we are talking about?
25 A. Well, I didn’t know that at the time, that these were the sort of words that you should use to search for message insertion. That is something that both myself and Dr Worden had been looking for for a little while so it was good to have that confirmed. And after looking at the messages, that Riposte, and I think there is Riposte import as well, that’s one that I found as well, so it was helpful. The search terms do look to be --
26 Q. Do you accept, though, that those search terms are likely to capture the sort of transactions that we are talking about now?
27 A. They do. They don’t include the word “Riposte import” or “message import”, which is the one that I have since used, so whether that brings back additional messages, I’m not sure.
28 Q. So you have done your own searches now, have you?
29 A. After seeing these words here, I have looked at those documents and found the command Riposte import in some of those documents, so I have gone back to search for that across the whole database.
30 Q. And are you in a position to suggest that the basic thrust of what he says in paragraphs 29 and 30, that the
97 number of occasions where this happened and involved injecting transaction data was very low?
98 A. The number will be relatively low, yes.
99 Q. It’s always dangerous to ask but we are talking about a handful of occasions, no more than that, yes, during the life of Legacy Horizon?
100 A. It is probably best for me to actually run the searches and give you the actual numbers.
A. Good afternoon.

MR DE GARR ROBINSON: Mr Coyne, good afternoon.

MR JUSTICE FRASER: Right. I'm not going to say anything
arose.

MR GREEN: Yes. I think that's where the misunderstanding
arose.

MR GREEN: Yes. I think that's where the misunderstanding
arose.

MR GREEN: I'm much obliged to your Lordship.

MR JUSTICE FRASER: Understood.

MR DE GARR ROBINSON: Bearing in mind my timing concerns,

I suspect it is very unlikely that I will be
cross-examining Mr Coyne on any of the material that he
produces.

MR JUSTICE FRASER: Understood.

MR DE GARR ROBINSON: So it doesn't have to be done by --

MR JUSTICE FRASER: Understood.

All right, Mr Green, can you just make arrangements
insofar as necessary that a bundle of the witness
statements in hard copy is available for Mr Coyne by
4.30 pm so he can take it with him to look through and
find that reference.

MR GREEN: My Lord, I do not think it is in the witness
statements.

MR JUSTICE FRASER: Well, the expression used was "in the
evidence", so that was where I assumed it would be.

MR GREEN: Yes. I think that's where the misunderstanding
arose.

MR JUSTICE FRASER: Right. I'm not going to say anything
else and we will come back at 2 o'clock.

(1.02 pm)

(The short adjournment)

(2.00 pm)

MR DE GARR ROBINSON: Mr Coyne, good afternoon.

A. Good afternoon.

Q. We were talking about transaction insertions in
Legacy Horizon and I recall that you mentioned earlier
on the $1,000 PEAK, and that was a transaction injection
so this may be a good moment to talk about it.

Could I ask you to go to (F/432/1), please. This
is -- do you recall this PEAK?

A. Yes, I think I do.

Q. It has been cited quite a lot by Mr Green. In your
second report, we don't need to go to it but it is at
paragraph 3.232, I think, or it may be 3.234, my note
isn't clear, but it doesn't matter. (D2/4.1/75)

You make two essential points about this PEAK.

First of all you say there was no settlement value for
the transaction and this was corrected by a transaction
insertion, and then you say but a $1,000 loss was
identified afterwards. Would I be right in thinking
that your implication was that that loss may have been
caused by the transaction insertion, yes?

A. Yes.

Q. Secondly, you point out that in the PEAK the view is
expressed that it is best that the postmaster be not
informed about the problem because it was resolved
before roll-over, do you remember that?

A. Yes, I think this is the one. Yes.

Q. So here is an apparent exception to the general practice
of telling postmasters what's going on. Are you aware
of any other exceptions?

A. No, I don't believe so.

Q. Let's look at the PEAK. It is dated 10th December,
2007. The call logger on the top right-hand side is
MSU-Indt Mgt. What does that signify? What does MSU
signify?

A. Management support unit.

Q. Yes. And so this is therefore a report that comes in
not from the postmaster but from the MSU, because some
kind of exception has been thrown up, some kind of
report has been generated?

A. Yes.

Q. In the automatic monitoring processes that are operated
by MSU?

A. Yes.

Q. If we go down to the first box, it is dated
7th December. About four lines down:

"Summary: branch [there is the FAD code] TPSC257."

You will recall what TPSC257 is, won't you? It is
POLSFS incomplete summaries report, yes?

A. Yes.

Q. And do you remember, it is a report which shows -- which
indicates that the information going into Post Office
through the TPS is incomplete?
Q. Then, if we go down to 7 December at 10.35, it says:

   “OCR 17493 has been raised. Sending to EDSC for investigation, correct?”

A. Yes.

Q. Then, if we go down to 7 December at 10.35, it says:

   “OCR 17493 has been raised. Sending to EDSC for investigation, correct?”

A. Yes.

Q. Then, if we go down to 7 December at 10.35, it says:

   “OCR 17493 has been raised. Sending to EDSC for investigation, correct?”

A. Yes.
Q. The MSC? 
A. The MSC? 
Q. Sorry, the MSU, I do apologise. The MSU sends in, 
   rather as happens here actually, a report saying 
   an exception has arisen in this report and then the SSC 
   looks into it. You have seen a large number of PEAKs of 
   that sort, haven’t you?
A. Yes. So there is an automated report produced and then 
   somebody would look at that report.
Q. Thank you. So what happens is the system picks it up 
   and a PEAK is created and then people start looking into 
   what should happen, what has happened, yes?
A. Nearly right. I think the PEAK would be created after 
   somebody looks at it and decides a PEAK is required.
Q. The PEAK is created when the MSU sends a report in to 
   the SSC, correct?
A. I’m not sure that is correct. I think the report is 
   sent, somebody looks at the report, and then creates 
   a PEAK if a PEAK is required.
Q. I see. So what you are suggesting is a report is sent 
   in and a human being looks at the report and then 
   creates the PEAK?
A. Yes.

Q. That is the process which is followed?
A. Yes.
Q. There is no process by which a report is sent in and 
   then people sit on their hands and do nothing about it?
A. I would hope not, no.
Q. If we go down to 12 o’clock on 12th December: 
   “As was suggested by Anne Chambers yesterday, there 
   is a new exception on the TPSC257 (Incomplete Summaries 
   Report) for 11/12/2007. The report shows further 
   entries for this branch ...”
   Then down the page to 12.33 on 12th December – I’m 
   so sorry, down to right at the bottom of the page, 
   17.19, I do apologise, and this is by Andy Keil again: 
   “Worth noting that the branch didn’t have any issues 
   with the mismatched transactions because this was fixed 
   before they did the roll. The branch is not aware of 
   this and it is best that the branch is not advised.”
   This is something that has been drawn attention to 
   and I think you kindly said that this is the only 
   example of something like this happening of which you 
   are aware, yes?
A. Yes, I can’t think of anywhere else where it said 
   expressly: don’t contact the customer.
Q. Then if we go to page [F/432/3] at 16.13: 
   “As detailed above the two POLS incomplete summaries
   issues have been resolved.
   “The counter problem which caused the first issue 
   has been corrected by inserting a message into the 
   messagstore, for equal but opposite values/quantities, 
   as agreed with POL (OCP ...)”
   So we see there that the OCP was approved, yes?
A. Yes.
Q. “As a result of this corrective action, the net effect 
   on POLFS is zero, and POLFS figures are in line with the 
   branch.”
A. Yes.
Q. “POLMIS ...”
A. That’s Post Office Management Information System.
Q. “... received both the original message and the 
   corrective message.
   “Once the problem was corrected, there should have 
   been no impact on the branch.”
A. Yes.
Q. And you understand why, don’t you?
A. Yes.
Q. It is correct, isn’t it, that where you have 
   a transaction that involves no settlement value then 
   once that is cancelled out the branch will properly 
   balance?
A. Yes.
Q. However it has been noted that the stock unit BDC had a 
   loss of $1000, which was generated after the correction 
   was made. We have already notified Gary Blackburn at 
   POL ... This appears to be a genuine loss at the branch, 
   not a consequence of the problem or correction.”
A. Yes.
Q. “I would be right in thinking that you question that 
   and that you are suggesting that in fact the $1,000 loss 
   was caused by the OCP, the transaction insertion?”
A. Yes.
Q. And why do you say that?
A. Because I believe that the transaction insertion was 
   done incorrectly. I think the message that was inserted 
   did not reflect the right amount.
Q. Is this -- we will come to it in a minute, but there is 
   a document referring to 2,080. Is that the document you 
   are referring to?
A. I think that is the document.
Q. You think that that document indicates that a change of
1. 2,080 was made rather than the $1,000 or £484 change that should have been made?
2. A. Yes.
3. Q. And that that would have caused the $1,000 loss, yes?
4. A. Yes.
5. Q. Now would you accept, stopping there, that the process that we have just seen of Fujitsu changing -- inserting a settlement line -- inserting a transaction to cancel out this unbalanced transaction, that is a relatively rare occurrence?
6. A. Yes.
7. Q. So let's look at that. First of all, let's look at the OCP. That is at [F/432.2/1]. You will see what it says here:
8. "A single SC line was written for $1,000 (£484) with no settlement, in the middle of two RISP transactions." The line was missing some AdditionalData so it wasn't harvested properly, but the main problem was the lack of settlement. POLF authorised us to insert an equal but opposite message, to prevent a discrepancy (in theory anyway) and to avoid problems on POLFS. Please note that this is exceptional and must not be seen as a convenient avoidance in place of a fix."
9. 114
10. You would accept, would you, that what she says there, which is that this is exceptional, don't expect us always to be dealing with points of this sort, that's fairly reflected in the PEAKs that you have seen, isn't it? This is something that happens quite rarely?
11. A. Yes.
12. Q. You will see Ms Chambers says here that what was inserted as a result of the OCP was an equal but opposite message?
13. A. Yes.
14. Q. But you are suggesting that she is wrong about that and in fact a larger amount was inserted, is that right?
15. A. Yes. Could I just ask, can we just go through this and have a look at whether we see the message insert command in this PEAK, please.
16. Q. I don't believe we do, but we do have the OCP and the OCR.
17. A. If that is the case, that highlights one of the difficulties that you have with identifying from a PEAK when a message has been inserted.
18. Q. That's why we have OCPs and OCRs, isn't it, so you can see -- the purpose of those documents is to record precisely that information, would you agree?
19. A. The purpose of those documents is to request permission from Post Office to do something, but that in itself may not contain any search terms that would indicate that a message has been inserted. There is no --
20. Q. In any event, it is the case, isn't it, that there are OCPs and OCRs in this case which cause you to conclude that there was an error made in the level of the transaction insertion into the branch accounts, correct?
21. A. Yes.
22. Q. So let's look at that. First of all, let's look at the OCP. That is at [F/432.2/1]. You will see what it says here:
23. "A single SC message ... was written in error on 26th November ... selling 1,000 US dollars, with no corresponding settlement line. To remove the effects of this message at both the branch and on POLFS, we will insert a new message to negate the effects of the original message."
24. "Justification: If the change is not made in the counter message/store (before the stock unit is balanced on Wednesday), the branch will have an unexpected gain of £484 (or thereabouts - depends on exchange rate), and a receipts and payments mismatch. This gain would have to be resolved at the branch. There would also be an inconsistency between the branch and POLFS to be resolved. By correcting the problem locally, the branch may not be aware of the problem, and there will be no inconsistency between the branch and POLFS."
25. 115
26. Do you see that?
27. A. Yes.
28. Q. And all those things are true, yes? If the right figure is entered in, the branch will balance. There will be no danger to the branch's balancing. The concern is if the wrong figure is inserted, correct?
29. A. Yes.
30. Q. Then:
31. "Extra detail: The original message ..."
32. And this is the information I think you were referring to in your answer previously?
33. A. Yes.
34. Q. "The original message had ProductNo:5129, Qty:1, SaleValue:484, PQty:1000. The new message will have ..."
35. Then there are some similar words but basically the opposite of what's in there.
36. "... with other attributes as before."
37. Do you see that?
38. A. Yes.
Q. And what you are suggesting is that although that was wrong, yes?
A. Yes.
Q. And you do that on the basis of another document that we will go to in a minute.
Then it says:
"The message will include a comment to show it has been inserted to resolve this problem (this will not be visible to the branch)."
So you will see this is consistent with Mr Parker’s evidence that when insertions are made, comments are included so that it can be seen. In this case not by the postmaster but it can be seen, so if anyone looks at what has happened in the branch they will see there has been an insertion by the SSC, do you see that?
A. If anyone back at Fujitsu looks at it they will know.
The postmaster wouldn’t know though.
Q. Then it says:
"This change will first be applied to a copy of the messagstore within the SSC environment, and the stock unit then rolled over to make sure there are no unexpected consequences. Neither the new nor the old message will be included in the data sent to POLF."
This indicates that they were effectively going to test the change before they actually made it, yes?
A. Yes.
Q. So it would be quite surprising, wouldn’t it, if they did a dummy run on a copy of the messagstore held by the SSC, got a positive result, but then when they did it in live action they actually produced the wrong result. That would be quite a surprising mistake to make, I think you would agree?
A. I’m not sure that the test they conducted would have the ability to see that level of sophistication because I think what they are going to test here is that the message can be successfully inserted. They only have a copy of the messagstore that they have taken and that will be probably at most 24 hours of transactions.
Q. Are you sure that’s fair, Mr Coyne, because they do say:
"... and the stock unit then rolled over to make sure there are no unexpected consequences."
So what they are going to do is make the insertion in the dummy account, they are then going to roll the dummy account over and see what the consequences are.
Wouldn’t it be fair to assume that -- aren’t they precisely saying that in those circumstances they are going to type in what they intend to do, make sure that it has the intended effect and allows a roll-over with a proper balance, and then once they have satisfied themselves that that is right they will then do it in live use, yes?
A. It could be, yes.
Q. Are you suggesting they mean something else?
A. There isn’t a great deal of detail there. I don’t know what the set up of the SSC environment is. We don’t know how much of the messagstore is in there.
Q. So you are saying that because you are seeking to resist the impression that you perceive I’m trying to give, that the notion that the transaction insertion involved an error is quite surprising, and you don’t want to accept that and the way you respond to that is by saying you don’t know precisely what they did, is that right?
A. I do not think either of us now know precisely what that test did.
Q. I would like to suggest to you, Mr Coyne, that it is painfully obvious what the test did. They applied the change they were going to apply on a test rig which had an identical copy of the messagstore of the branch, they rolled it forward, and then they saw what the consequences were. What else could that sentence be talking about?
A. And would that test environment then have a look at the impact on what the branch accounts would be?
Q. Yes.

---

Q. Or are they just looking at whether a roll-over can take place or not?
A. Or are they just looking at whether a roll-over can take place or not?
Q. Very well. Let’s go on to the OCR, because it is the OCR which is the basis of your suggestion that in fact they inserted the wrong figure, yes?
A. Mm.
Q. It is at page [F/434.1/1]:
"Extra detail: This OCR is being raised so that EDSC...
A. Or are they just looking at whether a roll-over can take place or not?
Q. Very well. Let’s go on to the OCR, because it is the OCR which is the basis of your suggestion that in fact they inserted the wrong figure, yes?
A. Mm.
Q. It is at page [F/434.1/1]:
"Extra detail: This OCR is being raised so that EDSC...
A. Or are they just looking at whether a roll-over can take place or not?
Q. Very well. Let’s go on to the OCR, because it is the OCR which is the basis of your suggestion that in fact they inserted the wrong figure, yes?
A. Mm.
Q. And what you are suggesting is that that insertion would have caused an imbalance, would have caused — could have caused a loss in the branch?
A. Yes.

Q. If we go down to "Other details", you see the last entry on "Other details"? It says:
"Change type: TRT."

What does that mean?

A. TIP repair tool?

Q. Yes. So what they are talking about here, what this change here is, is a change being made by using the TIP repair tool into the TPS, correct?

A. Yes, but the PEAK refers to the insertion of a message into the messagestore.

Q. Yes, the PEAK and indeed the OCP we have just looked at. It is the PEAK which deals with the transaction insertion into the messagestore. The OCR isn’t concerned with the transaction insertion into the messagestore, is it? The OCR is concerned with a change made via the TIP repair tool of the data that’s held in the TPS, correct?

A. Right, so this doesn’t relate to the creation of the message then.

Q. It doesn’t relate to the branch accounts, Mr Coyne, does it? This is an OCR which involves an exercise — well, the use of the TIP repair tool to change data that is in the TPS system, yes?

A. Yes, but the PEAK refers to the insertion of a message into the messagestore.

Q. Yes, the PEAK and indeed the OCP we have just looked at. It is the OCP which deals with the transaction insertion into the messagestore. The OCR isn’t concerned with the transaction insertion into the messagestore, is it? The OCR is concerned with a change made via the TIP repair tool of the data that’s held in the TPS, correct?

A. Right, yes.

Q. So it follows as night follows day that whatever change was made as a result of this tool, it didn’t affect any change to the branch accounts, it didn’t constitute an insertion into the messagestore for the branch, do you agree?

A. So if I follow correctly, what you are putting to me here is that what we see within this OCR is a secondary form of correction via the TIP repair tool?

Q. Yes.

A. After the message that was inserted into the messagestore?

Q. It doesn’t matter whether it was after or before. What matters is that this document and the transaction, the work that it covers, is nothing to do with the messagestore of the branch and I would like you to accept that.

A. Whilst it might be nothing to do with it, it is making an alteration to the branch accounts.

Q. Mr Coyne, I have spent something like 45 minutes this morning seeking very carefully to get you to agree, and to be fair to you, you did agree, that when a change is made using the TIP repair tool it doesn’t change the branch accounts, it doesn’t affect the messagestore of any branch, it only affects the data within the TPS system.

A. Yes.

Q. If you want to make a change to the accounts you have to insert a transaction?

A. Yes.

Q. Using the facility in Legacy Horizon?

A. Yes.

Q. That facility is approved pursuant to the OCP we saw before we looked at this document. However, there were two problems. There was a problem with the messagestore.

A. Yes.

Q. And there was also a separate problem with the POLFS data, the data that was in the TPS system.

A. Yes.

Q. This OCR is concerned with getting authorisation to make the change to what’s in the —

A. TPS system, and the PEAK was to do with making the change.

Q. The PEAK covered both problems. You will recall that there are two changes referred to. There are OCRs referred to in the PEAK and there is an OCP referred to in the PEAK.

A. Yes.

MR DE GARR ROBINSON: Absolutely. Sorry?

MR JUSTICE FRASER: That’s exactly what I’m doing actually.

MR DE GARR ROBINSON: It is F/432 —

MR JUSTICE FRASER: There is page 1 and 2, I think. The OCR that you have just been looking at, is that the one?

MR DE GARR ROBINSON: My Lord, yes.

MR JUSTICE FRASER: Which appears on the line before. It is a correction 12.12.2007.

MR DE GARR ROBINSON: Yes.

MR JUSTICE FRASER: The reference to the $1,000 loss caused a loss in the branch?

MR DE GARR ROBINSON: The reference to the $1,000 was made on “Other details.” It says:

"User: Andy Kiel. Details of how POLFS feed was corrected 12.12.2007.”

MR JUSTICE FRASER: Which appears on the line before. It is a correction 12.12.2007.

MR DE GARR ROBINSON: Yes, by all means.

MR JUSTICE FRASER: This is an OCR.

MR DE GARR ROBINSON: It is F/432/1.

MR JUSTICE FRASER: That’s exactly what I’m doing actually.

MR DE GARR ROBINSON: The reference to the $1,000 loss is on page F/432/3 about four boxes down,


MR JUSTICE FRASER: I think the OCR that you have just been putting, Mr de Garr Robinson, is one of the ones mentioned on page 2, is that right?

MR DE GARR ROBINSON: Yes, my Lord, I believe so.

MR JUSTICE FRASER: Because actually it says on 12th December 2007 at 16.39:

"User: Andy Kiel. Details of how POLFS feed was corrected 12.12.2007."

MR DE GARR ROBINSON: My Lord, yes.

MR JUSTICE FRASER: Which appears on the line before. It is also on page 432/2 in the entry immediately before.

MR DE GARR ROBINSON: Absolutely.
MR JUSTICE FRASER: For some reason on my screen the two
entries are highlighted in blue, I thought it was
a hyperlink. It is the antepenultimate entry on page 2
and the one before it, isn’t it? Aren’t they the exact
documents you have been using?
MR DE GARR ROBINSON: At 12th December 2007 at 15.06 there
is a reference to the OCR.
MR JUSTICE FRASER: Yes, and then underneath --
MR DE GARR ROBINSON: Details of how the feed was corrected.
MR JUSTICE FRASER: Yes, and that’s what you have been
putting,
MR DE GARR ROBINSON: Yes.

Does that help you, Mr Coyne?
A. Because we know that the TPS side of the fix to this
problem happened on 12th December at 15.07. The
observation about the £1,000 was on 14th December.
MR DE GARR ROBINSON: Yes, when the roll-over was done or
after the roll over was done.
A. So the bit that’s missing is we need to see the message,
so that is the OCP. Can we see the time --
Q. Mr Coyne, when I asked you about this before you said
there was a reason why you thought there was an error
made in the transaction insertion and that’s because
there was a document which showed the figure of 2,080
being inserted yes?

125

A. Yes.
Q. And that figure is on page {F/434.1/1}, it is in the
OCR.
A. Yes.
Q. I can tell you on instructions what that figure means.
If we go under “Comments”:
“Updated POLFS feed for branch [blah, blah, blah]
with SaleValue=1014.73 and PQty=2080.”
You will recall that the transaction itself was
removed from POLFS. The £1,000 transaction, the £484,
it was removed from POLFS. You remember seeing that in
the PEAK?
A. Yes.
Q. But what’s left is the aggregate of all the remaining
dollar conversion transactions which have been
undertaken in the relevant period.
A. Yes.
Q. So on instructions I can tell you that the sale value of
1,014.73 and the quantity of 2,080, those figures relate
to what is the aggregate of the figures that are left in
the system after you remove the one-sided transaction
that the parties were concerned about.
A. Right.
Q. It would be difficult to understand them otherwise,
because 1,014.73 bears no relation to £484 or to $1,000,
does it?
A. No, I agree with that.
Q. I appreciate that I’m telling you this on instructions
because I have to say nobody knew that this suggestion
was going to be made until it was put to Mr Godeseth
when he was being cross-examined, but in actual fact it
follows as a matter of logic, doesn’t it, that whatever
the explanation of these figures — sale value 1,014 and
quantity 2,080 — whatever the nature of those figures, those
figures actually have no impact on the
messagestore on the branch accounts that could have
caused a $1,000 loss?
A. Well, the $1,000 loss would be because of a difference
between the two, and you are making change to the branch
within the messagestore and you are making a change to
the backing systems to the TPS.
Q. Let’s go back to page {F/432/3}, please. This is
Anne Chambers explaining what has happened. She has all
the documents and she has sight of what’s going on in the
messagestore, yes?
A. Yes.
Q. She says in the third paragraph — the second paragraph:
“The counter problem which caused the first issue
has been corrected by inserting a message into the
messagestore, for equal but opposite values/quantities,
as agreed with POL ...”
A. Yes.
Q. She has seen the transaction that is done and it is her
view that what was inserted was an equal but opposite
value, yes?
A. Yes.
Q. And she then goes on:
“As a result of this corrective action, the net
effect on POLFS is zero, and POLFS figures are in line
with the branch. POLMIS received both the original
message and the corrective message.”
Do you see that?
A. Yes.
Q. “Once the problem was corrected, there should have been
no impact on the branch. However it has been noted that
the stock unit BDC had a loss of $1000, which was
germinated after the correction was made.”
A. So between the 12th at midday but before 14th when this
is recorded.
Q. The OCP was made — the OCP was raised on 10th December,
you see that at the top of page {F/432/2}, and the
correction was made to the messagestore on 11th
December. That’s on page 2, six boxes down. Do you see
that?
A. One of the documents said 12th December at 15.07, either
1. the OCP or the OCR.
2. Q. 12th December, 15.07?
3. A. Yes, at the time of 15.07, I believe.
4. MR JUSTICE FRASER: That is the OCR which is on --
5. MR DE GARR ROBINSON: Yes, that is the TPS. What happens is
6. there is an OCR that is done, that’s actioned on
7. 11 December, so the messagestore is changed on
8. 11 December.
9. A. Yes.
10. Q. Then there is an OCR which changes the TPS on
11. 12th December.
12. A. Yes.
13. Q. And then on 14 December Anne Chambers is reviewing
14. everything that has happened and she said the
15. transaction insertion goes through fine, but after it’s
16. gone through a $1,000 loss has appeared on a particular
17. stock unit.
18. Now you latched onto the OCR with a view to
19. suggesting that because the figure of 2,080 was used
20. rather than 1,000, and because the figure of 1,014 was
21. used rather than 484, you latched onto that and thought,
22. aha, there must have been an error in this insertion and
23. that error must have been responsible for the loss.
24. What I’m suggesting to you, Mr Coyne, is that’s not
25. right, because this is a change that was not made to the

129

messagestore, it was made to the TPS system, do you
agree?
A. There were two changes, one to the messagestore and one
to the TPS system.
MR JUSTICE FRASER: I think that’s agreed.
MR DE GARR ROBINSON: I will move on.
MR JUSTICE FRASER: Just before you do, I appreciate you
have been putting these points on instruction, as you
put it. I would really quite like to understand the
chronology in detail, I’m pretty sure I do, but I’m just
going to tell you what my understanding is because it is
taken from the PEAK.
MR DE GARR ROBINSON: My Lord, yes.
MR JUSTICE FRASER: And it is simply so that you can tell me
if I haven’t got it right.
The PEAK is raised, and I find page 2 of the PEAK
most useful because it actually says when the OCRs are
created and when the OCRs are created.
MR DE GARR ROBINSON: Yes.
MR JUSTICE FRASER: The OCR is created on 10th December 2007
at 17.25, is that right?
MR DE GARR ROBINSON: The OCP, my Lord, yes.
MR JUSTICE FRASER: I beg your pardon.
MR DE GARR ROBINSON: That is the transaction insertion into
the messagestore.

130

2. MR DE GARR ROBINSON: Yes.
3. MR JUSTICE FRASER: It actually says “OCR” on here.
4. MR DE GARR ROBINSON: Your Lordship is absolutely right.
5. MR JUSTICE FRASER: I was about to come onto the OCP which
6. I think is 40-odd seconds later.
7. MR DE GARR ROBINSON: Your Lordship is absolutely right.
8. I’m sorry to have spoken too soon.
9. MR JUSTICE FRASER: No, it is just important for me to
10. understand it. So there is an OCR at 17.25 which is
11. referenced here on 10th December, and there is also
12. an OCR literally about a minute later. Am I reading it
13. correctly?
15. MR JUSTICE FRASER: Then we come further down the document
16. and there is a reference on 12th December, both at 15.06
17. to the actual OCR and then at 16.39 to details of how it
18. was corrected, and those two entries should effectively
19. be read together, is that correct?
20. MR DE GARR ROBINSON: My Lord, I believe so. So the OCR was
given effect to on the 12th.
21. MR JUSTICE FRASER: So as at the 12th, whatever is being
done to the system has in fact been done, is that right?
23. MR JUSTICE FRASER: Then the review where Ms Chambers says
131

what she does on 14 December, 16.13, is after those
changes, is that right?
A. Sorry, what page number, please?
Q. I’m sorry?
A. What page number?
Q. Page 4.
A. Yes, I have that.
Q. It is the third bullet point in paragraph 10.2.
A. Yes.
Q. There is the third form of remote access which is
deletion of messagestore data?
A. Yes.
Q. We know that wholesale deletion of the messagestore was
possible as part and parcel of the automatic back up
process that we talked about and of course that involves
no discretionary manual deletions. Could I ask you,
what examples have you found of discretionary manual
Q. Thank you. Nor are you aware, are you -- I have gone through your reports quite carefully and if I have missed it, it is my fault -- of any edits in Legacy Horizon of any lines of transaction data? No example of that has been identified, has it?
A. Yes, messages are transferred to Fujitsu to enable them to edit the message and then reinser the message.
Q. So transaction insertions possible?
A. Yes.
Q. But if you have got a piece of data, a line of transaction data or whatever in the messagestore, you are not aware of any example of remote access whereby someone gets into the messagestore and edits that line of data, are you?
A. Well, they are editing a line of data, they are bringing the messagestore back to Fujitsu, editing the line of data and then sending it back.

Q. Mr Coyne, I understand that the practical effect of inserting a transaction could be -- is a change in the entirety of the contents of the messagestore, so in a loose sense you could say the messagestore as a whole has been edited. But I would like to be really clear. I'm just asking you the narrow question: have you seen any example of someone at Fujitsu, or indeed anyone else, accessing a branch's messagestore remotely, so from their office, and fiddling about with a transaction that's currently in the branch accounts, in the messagestore, so as to change its value or change any other of its basic transaction details?
A. I have not seen evidence of changing of value but I have seen evidence of editing other data around it.
Q. I'm being really clear now because I tried to establish some clear ground rules when we were talking about what constituted transaction data and what constituted accounting data. Are you aware of any example of some transaction data having been changed, having been edited remotely by someone at Fujitsu?
A. Yes, if we --
Q. In Legacy Horizon?
A. If we go to [F/337.1/1].
Q. Would you like to talk me through this PEAK?
A. Is this 337.1?
Q. And I was suggesting to you that neither were you aware of any case where there has been a remote transaction data. You very kindly admitted that you are not aware of any case where there has been a remote access. You are only aware of occasions when transactions of one sort or another have been inserted, is that right?

A. This has been inserted but it is a message that was already in the messagestore that has been brought back, edited, and pushed back again.

Q. Mr Coyne, I'm just trying to be really clear about concepts. The Horizon Issues talk about insertions or injections of transaction data, it talks about deletion of transaction data, and it talks about editing of transaction data. You very kindly admitted that you are not aware of any case where there has been a remote deletion of transaction data.

A. Right.

Q. And I was suggesting to you that nor were you aware of any case where there has been an example of remote editing of transaction data. That means that the only form of remote access that's left in Legacy Horizon is transaction insertions.

Now, what you have just brought me to, and we have taken 10 minutes on it, is an example of a transaction insertion, yes?

A. It is an insertion but it is insertion of a transaction that was already there. So effectively it is a modification. It is not a new transaction.

Q. Let's move on. I'm getting anxious -- I'm already very anxious about time.

That deals with the facilities for remote access in Legacy Horizon, doesn't it?

A. Yes.

Q. So let's look at Horizon Online now and let's do it as quickly as we can. If we go back to page [D1/5/4], and I hope I can take this quickly. We have dealt with the three Legacy Horizon entries at the top of paragraph 10.2, yes?

A. Yes.

Q. Then there is a Horizon Online form of remote access: "Injection of a transaction --"

Let's leave that one out.

"In Horizon Online, using the balancing transaction tool ... as defined below."

Q. Would I be right in thinking you agree there's only been one use of the transaction correction tool to insert transactions into the BRDB, is that correct?

A. Using that tool, yes.

Q. If we can now move on. I would like to ask you a question about your second report, it is at {D2/4.1/72}. It is paragraph 3.223. Here you refer to a PEAK which is at [F/594/1], which I hope we won't need to go to in light of what you have already said. You say: it:

"... suggests that the modifications by Fujitsu support staff to the Horizon Branch Database (BRDB) is not unusual."

I think we can agree that that PEAK, which is at [F/594/1], I'm not suggesting we go to it, is a PEAK which discusses whether immediately after the one use of the transaction correction tool that we are aware of -- perhaps let me put it to you this way. Does it ring a bell that the one use that we are aware of was given effect to, happened on 11 March 2010, very early on in the life of Horizon Online, does that ring a bell?

A. Yes.

Q. And this PEAK is opened the day after it on 12th March, yes?

A. Yes.
Q. And it is opened by the person that made the balancing transaction in the first PEAK?

A. Right, yes.

Q. Do you remember that?

A. Yes.

Q. And what happens is that person says "We have now used the tool and I can think of some ways in which we can improve it"?

A. Yes.

Q. Then there is a debate during the course of the PEAK as to how it could be improved. No sense of urgency, the PEAK goes on for quite a long time, do you remember that?

A. Yes.

Q. Eventually it is agreed that certain changes will be made, and ultimately after a long time those changes are made to the transaction correction tool. Do you recall that?

A. Yes. They talk about typically trying to create templates, so that when people use it in the future they fill in a template to make the tool easier to use and to ensure there are less risk problems when using it.

Q. You say in paragraph 3.223 that this PEAK: "... suggests that the modifications by Fujitsu support staff to the Horizon Branch Database ... is not unusual."

A. Yes. There are other tools that are written to the same transactions into branch accounts, yes?

Q. Yes. I have a series of questions to ask you about that by reference to the PEAK.

A. Yes.

Q. But I can short circuit all of those questions by indicating that in actual fact you accept that the transaction correction tool was only used once to insert transactions into branch accounts, yes?

A. Yes. There are other tools that are written to the same journal, but only one of those journal entries show this particular tool being used to edit the BRDB with regard to transactions.

Q. Just to be clear, here you are suggesting the use of the tool is not unusual, you're suggesting there's a significant number of uses of the tool, and I'm really not suggesting any criticism of you, Mr Coyne, at all, but just to be clear for his Lordship's note, actually you accept it only happened once, correct?

A. Yes.

Q. And would it include use of the APPSUP role?

A. Yes.

Q. That's by privileged users, yes?

A. Yes.

Q. And would it include use of the APPSUP role?

A. Yes.

Q. Here's some common ground. Privileged users have strong evidence of I think it was Mr Godeseth.
1. powers to add, delete and edit data, don't they?
2. A. Yes.
3. Q. You and Dr Worden agree, I think, that the abilities of that kind are necessary for the administration of any database of this sort?
4. A. Yes.
5. Q. I imagine you are not aware of any big system which doesn't have such facilities, yes?
6. A. There needs to be a super user access somewhere, yes.
7. Q. So the mere existence of this right of access does not indicate that the system is insecure, does it?
8. A. It would indicate that it's insecure if that access is given to too many people, yes.
9. Q. It doesn't necessarily follow from the existence of these powers that it was in fact used to alter transaction data, necessarily?
10. A. That doesn't -- yes.
11. Q. So the question is whether and to what extent it actually happens and in what circumstances, yes?
12. A. Yes.
13. Q. Could you explain how an SQL line editor would be used in a case of this sort? I mean the BRDB has over 250 tables, doesn't it? Is it quite a complex process to change those tables in a way that doesn't cause problems within the system as a whole?
14. A. No, I mean the good thing about the SQL command is that you can use it to look up information that's in there and get it to return a value and then change that value. It is quite easy when you use the SQL tool.
15. Q. Could I ask you to look, please, in your second report, {D2/4.1/83}, at paragraphs 3.266 to 3.276. I'm not going to read them out loud, I'm going to deal with them as quickly as is humanly possible. These paragraphs deal with the use of -- is it the use of SQL to delete certain kinds of data?
16. A. Yes.
17. Q. You refer to a number of PEAKs. Let me see if I can take this in stages without having to go to any of them.
18. A. Yes.
19. Q. And one of the systems that Horizon has in place is the concept of the recoverable transaction?
20. A. Yes.
21. Q. And what happens when you are typing a transaction into the counter is that recovery data is constantly transmitted to the BRDB and stored in various tables in case it becomes necessary to use it?
22. A. Yes.
23. Q. But all that data becomes irrelevant once the transaction is entered into the -- once the basket is committed to the BRDB --
24. A. Yes.
25. Q. -- and the transaction enters the account.
26. A. Yes.
27. Q. And there is completed, that's where the recovery process has been completed and the transaction is recovered?
28. A. Yes.
29. Q. There is a third state, which is outstanding, which is that the recovery process was unable to recover the transaction for some reason and to allow the counter to proceed, the recovery data is marked as outstanding and needs to be manually resolved by support staff?
30. A. Correct.
31. Q. Now, the PEAKs that you are talking about here relate to transactions involving recovery data which is stuck in the outstanding state, don't they?
32. A. Yes.
33. Q. The effect of that is that it can prevent the branch from rolling over and sometimes it can prevent counters from working, I think?
34. A. Yes. What should happen is that you reboot the counter. The counter sees the recovery flag, looks at the state of the data, and hopefully can clear itself up, if you will, deciding which transactions to proceed with and which to back out of. The problem that occurs sometimes is that that process fails and it can't automatically recover.
35. Q. Yes.
36. A. And you end up switching the branch off and back on again and it just keeps trying to --
37. Q. One of the examples in one of these PEAKs is where the clerk was logged on to the counter and then never logged off and then the counter was taken away. You remember that? Does that ring a bell?
38. A. I do, but I don't quite know how it relates to --
39. Q. Anyway, in these PEAKs there is discussion of deletion
of the session to allow the block that's constituted by the recovery marker from preventing the branch from operating and rolling over, correct?

A. Yes.

Q. In those PEAKs, SQL script is used in order to delete the session so that it will have that effect, do you agree?

A. Yes.

Q. So in that process, no data that's actually in the branch accounts is affected at all. In each of these PEAKs, no change is made to any of the transaction data or other accounting data that's actually already in the branch accounts, correct?

A. That is where the problem is, that you are deleting session data without going through the understanding of what position that session data is in.

Q. And in each of those PEAKs, a determination is made that the relevant transaction hasn't actually been undertaken, it doesn't need to be inserted, doesn't need to be included into the branch accounts, and the subpostmaster is involved and onside and aware of what's going on, do you agree with that?

A. There isn't a PEAK for every time that happens.

Q. Why would there not be a PEAK when it happens? Surely there would always be a PEAK when it happens?

A. The main KEL that covers this scenario is an Anne Chambers' KEL and that KEL reference is 3/400 PEAKs.

Q. Is it ACHA 959T that you have in mind?

A. It might well be.

Q. I believe it may refer to about 2,000 PEAKs, yes?

A. I do not think it is that high of a number.

Q. Maybe 1,000.

A. I think there is a table in the report that goes to that, it talks about how many PEAKs are referenced in that KEL--

Q. I think I was probably trying to be a bit clever, actually, Mr Coyne, and I think I should apologise for being incautious in that endeavour.

A. I do not think there is a PEAK for every time that happens.

Q. Well, Ms Chambers' KEL, ACHA 959T, is a list of instructions about what to do in various different scenarios, yes?

A. Yes.

Q. It doesn't concern any bugs in Horizon, it is just if this happens then this is how it should work, if this happens then this, and if there is a problem the SSC should do this. That is the nature of the --

A. Yes, it does result from a bug, error or defect in Horizon because the process should be that it recovers itself.

Q. I'm going to suggest to you, but I'm not going to go to it, that if you go through that particular KEL you will find that it simply addresses various recovery issues that can arise in practice?

A. Yes.

Q. And suggests how the SSC and other stakeholders in the process should deal with them when they do arise?

A. Yes, it does.

Q. And my suggestion to you is that it doesn't actually consider any bugs in Horizon, it doesn't suggest workarounds for bugs in Horizon, that's not the purpose of that KEL?

A. The whole process is a workaround because the system isn't designed to do that, so something has failed. So it talks about the various workarounds to get the counter up and running again.

Q. Mr Coyne, we will have to agree to differ on that. My suggestion to you is that this is just an explanatory KEL which explains how the system works. It is actually describing how the system should work, it is not describing what should happen when the system fails, but I can see that we are not going to agree about that.

A. It is inconsistent that users should be expected to go through to Fujitsu third line report to deal with a problem that almost should happen. That can't be right.

Q. I think we agreed -- I must go more quickly -- the other day that the recovery process, because it involves third parties, there is inevitably going to be a situation where a manual inquiry needs to be made as to what happens on the ground, and then steps need to be taken to reconcile what happens on the ground with what's recorded in the accounts, and that is inherent in the process of having recoverable transactions. Would you agree with that?

A. Yes, but that isn't a manual process. Typically it is an automated process which happens thousands of times per month across the estate. A few of those, but it is in the thousands, the recovery will not be automatic and it requires a call to Fujitsu, it goes to third line support, the Anne Chambers KEL is considered and that process is used, a SQL command is used to delete some of the session data, and then the counter is back up and running.

Q. Mr Coyne, I will just leave it here. I was asking you about the PEAKs that are referred to in these paragraphs under the heading "Deletion of Data" in your report.
Q. And my suggestion to you is that in none of those PEAKs was there actually any change made to transaction data contained in any branch accounts, would you agree with that?
A. There was no change but there was deletion.
Q. Not of data in branch accounts. There was deletion of data relating to recovery markers which were concerned with sessions, would you agree with that?
A. Yes, but contained within there is session data that’s in an unconfirmed state that needs dealing with.
Q. Yes. And in each of those cases it was dealt with in consultation with the subpostmaster to ensure that the accounts were right, to ensure that nothing was done which produced an inappropriate result for the accounts. Would you agree with that?
A. I agree actually with the process, yes.
MR JUSTICE FRASER: Mr Coyne, one last PEAK to go to in relation to SQL and that’s referred to in your report.
A. I believe there are some more, these are examples.
Q. These are representative of those others?
A. Yes.
Q. This is a reference to a PEAK, PCO197592: “… details an error whereby rollover cannot be completed due to system error. Gareth Jenkins of Fujitsu states…”
Then you quote what he writes there and you say: “This is indicative that Fujitsu, by creating SQL scripts, could delete relevant records in order to negate previous operations.” We both agree that privileged user access is a powerful thing.
A. Yes.

Q. Then you continue:
…”Whilst this is not necessarily deletion of transaction data, it is the modification to operations that are all intrinsic to transaction accounting.” I wonder whether we can take this quickly. You accept, don’t you, that the operation that was undertaken here didn’t involve deletion of transaction data, would you agree with that?
A. It deleted an opening balance.
Q. Yes, but it didn’t delete transaction data, it deleted an opening balance, yes?
A. I do not understand why an opening balance isn’t part of transaction data.
Q. Data relating to a transaction that’s done by the branch. It didn’t delete that. I rather thought you were going to accept that because you said: “Whilst this is not necessarily deletion of transaction data…” Are you suggesting that deleting an opening balance is deletion of transaction data?
A. Well, it changes the postmaster’s accounting position.
But, no, I can accept that it isn’t one of the transactions of selling things or paying your money or whatever, but it would have an effect on - -
Q. And then there’s this one other PEAK?
A. Yes.
Q. And those are the examples of which you are aware, correct?
A. I believe there are some more, these are examples.
Q. So there are the three PEAKs that we discussed before the court broke?
A. Yes.
Q. And then there’s this one other PEAK?
A. Yes.
Q. These are representative of those others?
A. Yes.
Q. Thank you. So let’s go very quickly to [F/611/1], please. This is dated 15th April 2010, so it is during the -- it was a branch which had migrated to Horizon Online during the pilot project, do you remember?
A. Yes.
Q. So there were a relatively small number of branches that have seen, privileged user access that you have seen affecting branch accounts?
A. Yes.
Q. So there are the three PEAKs that we discussed before the court broke?
A. Yes.
Q. These are representative of those others?
A. Yes.
Q. Thank you. So let’s go very quickly to [F/611/1], please. This is dated 15th April 2010, so it is during the -- it was a branch which had migrated to Horizon Online during the pilot project, do you remember?
A. Yes.
Q. So there were a relatively small number of branches that...
Official Court Reporters  
Opus 2 International  
June 6, 2019 Alan Bates & Others v Post Office Limited Day 16

Q. And the fact that there is a zero for the forthcoming balancing period means that the branch can’t roll into that balancing period, correct?

A. Yes.

Q. So if we go down the page to 14th April at 13.00 hours, this is Gareth Jenkins:

“...I’ve had a look at this PEAK and agree that we need an OCP to tidy up BRDB to unstick this branch. Note that what I’m proposing here is slightly different from what Anne has suggested above.”

He suggests the text that you quoted in your report.

So first of all he wants to update the stock units, setting the trading period to 11. Yes?

A. Yes.

Q. So the stock units, which are already in trading period 12, the branch isn’t but the stock units are, he wants to re-set the stock units so they are back in trading period 11, yes?

A. Yes.

Q. Secondly, he wants to delete the opening figures for the next period -- the opening balance for the next trading period --

A. Yes.

Q. -- to get rid of that rogue zero?

A. Yes.

Q. And by that means the stock units and the branch will be in the same trading period, first of all?

A. Yes.

Q. And secondly, because the zero is no longer in the way, they will both be able to roll over, correct?

A. Yes.

Q. And as a result of rolling over, what will the opening position of the branch be?

A. Whatever it should be.

Q. Exactly. It will be an aggregation of all the transactions that have been undertaken in the branch since the previous -- the beginning of that trading period.

A. Yes.

Q. So what’s being done here is something that doesn’t change any transaction data, it doesn’t insert any new transactions that have a value and so on in the branch. It is simply a form of SQL script which allows the automatic process of aggregation of transactions to be undertaken in a way that isn’t blocked by the glitch that’s introduced as part of the migration process during the pilot roll out, yes?

A. Yes.

Q. And I think you may agree that there definitely wasn’t a change to transaction data, and there definitely wasn’t any change which in any way modified the

---

A. Yes.
1  that purpose you rely on two documents, don’t you, you
2  rely on the Ernst & Young management letter of 2011 and
3  you also rely on the minutes of the Risk & Compliance
4  Committee meeting that we discussed a couple of days
5  ago.
6  A. Yes.
7  Q. The impression that’s given in your report is that
8  Fujitsu has poor controls which could expose the system
9  to a risk of poor actions being done, yes?
10  A. Yes.
11  Q. But in all the documents you have searched through you
12  have actually not found any significant evidence of poor
13  actions being done, have you?
14  A. No, but in a lot of documents you will see, for example,
15  the term user APPSUP, but then you don’t see what
16  follows so we don’t see what the actions are.
17  Q. Let’s look at the Ernst & Young management letter. We
18  have already talked about the Risk & Compliance
19  Committee minutes. Could we go to [F/869/1], please.
20  You refer to this a lot in both reports, particularly in
21  your second report. Could I ask you first of all to go
22  to page [F/869/3]. This is the executive summary.
23  Perhaps I could ask you to read it. (Pause)
24  A. Yes.
25  Q. I’m going to deal with each of those four key
Q. So you are saying the table at section 2 supports your inference or your understanding that Post Office chose not to take action in response to the recommendations by Ernst & Young. Is that what you are saying?
A. Yes. So section 2 deals with points that were made in the previous year. Section 4 is specific points made for the current year.
Q. Yes. So section 2 won't justify an assertion that the key recommendations that are in section 4, Post Office chose not to react to them because it is to do with past events, yes?
A. Can we go to that document?
Q. Yes, it is at [F/869/1]. What I'm proposing to do, Mr Coyne, but if you would like me to do something else do tell me, is to take you to the particular provisions of the letter in which recommendations are made and to see whether it is fair to say that Post Office chose to take no action to improve the position in response.
Q. Would that be a fair thing to do?
A. Yes.
Q. Let's do that. If we could go first of all to page [F/869/23], this is "Improve governance of outsourcing application management", and it goes on for two pages, you see?
A. Yes.
Q. If you look at the far right column entitled "Management
they offer an opportunity to improve these countermeasures which it appears Post Office chose not to take. I have listed below the four key recommendations...
On what basis do you say in this report that it appears that Post Office chose not to take the opportunity to improve the countermeasures as recommended?
A. This document is -- there was a risk identified to the Post Office and Post Office chose not to mitigate it in the way suggested by Ernst & Young.
Q. Hold on, you are talking about recommendations. You are talking about -- you appear to be talking about the key recommendations and forgive me, Mr Coyne, but you appear to be saying that Post Office chose not to act in response to those recommendations. Is that not the impression that's given by this paragraph?
A. Yes. I think this is covered -- is it 5.197 in my report which relates to the document you just took me to, it was the table at section 2.
Q. 5.197?
A. Yes. [D2/4.1/178] You took me to the executive summary before, but the section that I comment on in the report is the table at section 2, points 12 to 15.
Q. So you are saying the table at section 2 supports your
It goes on for several pages, do you see?

Q. Would you agree that this doesn’t suggest that Post Office chose not to take action in response to the second key recommendation. Do you think that’s fair?

A. Yes, I think that’s fair.

Q. If we move on to page (F/869/29), this is the third key recommendation of strengthening the change management process. I pause to note in the middle column, the “Recommendation” column:

"Management should enhance the current change management process ... to include."

The word “enhance” doesn’t usually connote deficiency, it connotes room for improvement, would you agree with that?

A. Yes.

Q. Then if you look in the far column it starts by saying: “Work has commenced on the strengthening of the change management process: “Centralisation of approvals for change for POL within Fujitsu is to be established.”

It goes on for another page and another page, and another page and another page. It goes on for pages, actually, all the way to page (F/869/38). It finishes at page 36, I see. So quite a lot of things being done in relation to the recommendation that there be a strengthening -- an enhancement of the change management process, would you agree with that?

A. Yes, one of the recommendations that I recall reading in this document is that Post Office should be aware that Fujitsu automatically tell them of changes to Horizon --

Q. That’s quite interesting, Mr Coyne, because we discussed that, do you remember, when we talked about the risk management committee minutes a couple of days ago.

That’s one recommendation. In paragraph -- in the relevant paragraph of your report you talk about the recommendations, plural.

The impression that you are obviously seeking to achieve in your report is that four key recommendations were made and Post Office chose to do nothing about any of them. Do you not accept that that was the impression that was given by the relevant paragraph of your second report?

A. No, I think what the paragraph in my report says is that there were recommendations that weren’t taken up.

Q. Would you give me a moment, please, Mr Coyne?

A. Certainly.

Q. Mr Coyne, you raised the proposal that was considered at the Risk & Compliance Committee meeting I think in 2012 and you suggested that that proposal was contained in the 2011 Ernst & Young management letter. Are you sure about that?

A. It was my perception that it had came from one of the Ernst & Young --

Q. It came from the 2012 Ernst & Young audit report. Do you remember that?

A. Right, yes.

Q. It didn’t come, I don’t believe, from the 2011 letter?

A. I thought the letter was a distillation of the main points in the report.

Q. The 2011 Ernst & Young management letter accompanied the 2011 audit, yes?

A. Right.

Q. And the following year there was a 2012 audit.

A. Right.

Q. And in the 2012 audit there was a recommendation that perhaps the system could be enhanced by adopting an automatic monitoring system rather than the manual one that was currently operated. Does that ring a bell?

A. Yes.

Q. I’m just wondering whether you would like to reconsider your evidence that in 2011 it was proposed that this automatic monitoring system should be adopted?

A. It might be a mistake, maybe it should be 2012.

Q. This may be slightly unfair to you, and it is a long document, but let’s assume that it doesn’t contain that proposal, that the 2011 management letter didn’t contain that recommendation, and if it is an unfair assumption, and I will check it overnight, I will come back tomorrow morning and apologise to you.

But on that assumption which I believe to be correct, so far we have not seen any proposal made by Ernst & Young in relation to which Post Office has not chosen to take any action at all, would you agree?

A. I would agree.

Q. Of course it is to be expected that when an auditor makes recommendations, there will be a -- I don’t want to say a negotiation, but one doesn’t assume that every single proposal will be accepted in every material particular. There’s always going to be some room for discussion, “Well, maybe we could achieve that objective in a different way”. That is part of the normal process by which auditors deal with their appointors and vice versa, do you agree?

A. Yes.

Q. But subject to points of that sort, are you aware of anything that was recommended in the 2011 letter that wasn’t addressed in some way by Post Office in response to that letter, and indeed in the very letter itself in the “Management Comment” section?

transcripts@opus2.com
0203 008 6619
Q. Here we are. I'm sorry for wasting time. At the bottom of the page, item 3, "POLSAP periodic user access review":

A. It could well be that. It could well be that the 2012 document looks back at the findings of 2011 and provides an update on that and that's why I say it was 2011.

Q. That's not actually an answer to my question. Let's finish the list and then we can look at 2012.

A. If we go to page [F/869/47], this is the fourth key recommendation, "Review of generic privileged accounts."

Q. If you look at the far right, "Management Comment", you will see: "A Fujitsu project has been established to review all user management. This is to include all system/s, accounts and privileges."

A. "Monitoring and communication will be provided to POL through the regular embedded BAU..."

Q. That is business as usual:

A. "... process to ensure access to control management is robust."

Q. Do you see that?

A. Yes.

Q. So it wouldn't be fair to say, would it, that no action was taken in relation to that fourth key recommendation either?

A. Well, nothing got done or got improved over it, and we can see that from the PEAK where Fujitsu are trying to address --

173

Q. So what you are suggesting is that -- there were obviously audits in later years?

A. Yes.

Q. And are you suggesting the auditors in later years found a deficiency in Post Office's approach to the recommendation they had made in 2011?

A. No, what I'm saying is it might not be the auditors that found future deficiencies after the initial observation wasn't corrected.

Q. Mr Coyne, would you agree with me that in principle the best people to judge whether action is being taken to address recommendations made by auditors is the auditors themselves rather than you, would you agree with that?

A. Yes.

Q. Let's look to see what the auditors said in later years. Could I ask you to go to [F/1138/1], this is the 2013 audit of Post Office. If we could go to page [F/1138/7] of that document, I'm afraid you are going to have to give me a moment, Mr Coyne, I haven't marked this piece of paper. I apologise.

A. That's fine.

Q. Here we are. I'm sorry for wasting time. At the bottom of the page, item 3, "POLSAP periodic user access review":

174

Q. This is where the proposal is actually made which is has been reduced not to look at finance any more?

A. Right.

Q. Let me get this straight. You were aware of these documents when you made your statement in your second report --

A. Yes.

Q. -- that Post Office had chosen not to take action? You had seen the later audits by Post Office, hadn't you?

A. Yes.

Q. You wouldn't make a claim of that sort if you hadn't looked at the later documents to actually see what the auditors were saying, would you?

A. Yes. And at number 4 is one of the reference about

Q. So it wouldn't be fair to say, would it, that no action was taken in relation to that fourth key recommendation either? You wouldn't make a claim of that sort if you hadn't looked at the later documents to actually see what the auditors were saying, would you?

A. Yes.

Q. -- that Post Office had chosen not to take action? You had seen the later audits by Post Office, hadn't you?

A. Yes.
A. Yes.

Q. That has nothing to do with the claim we are currently addressing, the claim you make in your second report, that Post Office chose not to take the opportunity to improve its procedures in response to the key recommendations made in the 2011 Ernst & Young management letter, do you see?

A. Right, so this is the 2012 audit and this is the first time that that issue has arisen, is that what you are putting to me?

Q. Mr Coyne, I’m not sure whether the proposal was made in 2012 as well as 2013 but I’m not aware that the proposal was made in 2011.

A. Right, okay. But the principal point is that increased monitoring was suggested by the auditors to put controls in place to validate programme changes to Horizon and POLSAP and that Post Office’s decision was to accept that the risk existed.

Q. Here’s what’s interesting to me, Mr Coyne. In your second report you made a criticism which is limited entirely to the 2011 Ernst & Young management letter. It is a criticism you repeat many times in your second report, would you agree?

A. Mm.

Q. And the criticism is these key recommendations were made and Post Office chose not to take them up, not to react to them, not to take the opportunity to improve with regard to the recommendations that were made. That was the claim that you made. And I think you have agreed with me that when you made that claim you took the trouble to look at later audit reports, and did you also look at the Fujitsu service audit reports that were also in existence? Did you look at those?

A. Yes.

Q. So you looked at all those documents, and having seen what was in those documents you felt it appropriate to say that Post Office had chosen not to take the opportunity to improve. What I’m suggesting to you is that the evidence is not consistent with that rather damning judgment. It might be that Post Office didn’t react immediately and accept every jot and tittle of every recommendation that was made, but you have already fairly accepted that in the real world when proposals and recommendations are made by auditors there is always room for decision as to how much of the recommendation should be decided, yes?

A. Yes.

Q. So what I’m suggesting to you, Mr Coyne, is that key recommendations were made in the 2011 letter and the criticism that you choose to level at Post Office on the basis of those recommendations and on the basis of Post Office’s response to those recommendations is not justified by the evidence that you yourself agree that you had seen. Now how would you respond to that?

A. It appears that I have made a mistake and should have referred to the 2012 audit.

Q. And if we go back to page {F/1138/4}. Hold on, are you making an assertion now about the 2012 audit or are you making an assertion about this audit here that we are now looking at which is the 2013 one?

A. I would have to check what the 2012 audit said as well.

MR JUSTICE FRASER: We are in 2013 at the moment and Mr de Garr Robinson is taking you to page 4.

MR DE GARR ROBINSON: Let’s go to page {F/1138/4}. Under the heading “Summary of IT control observations”, do you see that? If we go to the second paragraph.

A. Yes.

Q. “This year, we have not identified significant exceptions in our independent testing of POL-operated controls. We have, nevertheless, identified a small number of improvement opportunities to enhance the effectiveness of recently implemented controls and further improve some of POLSAP’s security settings. It should be noted that these control enhancements did not have an adverse impact on our ability to place reliance on the effectiveness of automated controls within HNGX and POLSAP for financial statement audit purposes.”

Do you see that?

A. Yes.

Q. That is quite close to what in the audit world could be regarded as a ringing endorsement, isn’t it, Mr Coyne?

A. Yes.

Q. If we go to page {F/1138/8} to see what small number of enhancements they are proposing in relation to HNGX... (Pause)

Now I’m slowing you down, Mr Coyne. I do apologise. I should have marked this document properly before I came to it (Pause)

So it is page 8 of the document. In column 4, you will see “Change management monitoring control”.

A. Yes.

Q. They say:

“As part of management’s initiative to strengthen the control environment, we noted that POL implemented a monitoring control to validate whether program changes to HNGX and POLSAP have been authorised, tested and approved prior to migration into the production
Q. Mr Coyne, we would be on the same page if the true situation without the improvement was deficient.

A. That’s certainly something you can’t say, would you agree?

Q. Let’s not worry about misunderstandings. Just take it in stages. The HNG-X recommendation we have seen is in order to enhance effectiveness, yes?

A. Yes.

Q. It is not a serious deficiency in relation to which a key recommendation of serious importance is being made, would you agree?

A. Agreed.

Q. It is an opportunity for enhancement to improve something that is already adequate, would you agree with that?

A. Well, it certainly is an improvement. Whether it was adequate already I can’t say.

Q. But what you can’t say then by the same token is that the situation without the improvement was deficient.

A. It is a poor position to be in in the first place but it is not an unreasonable approach.

Q. Mr Coyne why do you say, in fact how do you feel it appropriate for you to say it is a poor position for Post Office to be in when the very people that are making the recommendation are only doing so on the basis that it is an enhancement. They are not saying there is a deficiency that needs to be addressed. So why is it you are taking it upon yourself to take a much stronger view of steps that should be taken than Ernst & Young itself?

A. Because that is the situation that you should be in in order to be confident about your systems that are being supplied to you.

Q. Right. One final question in relation to that, the proposal that we are talking about of course has nothing to do with the kind of remote access that we are considering does it?

A. Agreed.

Q. So actually we have just spent the last ten minutes discussing your criticism of Post Office, it is a criticism which actually doesn’t arise in relation to the access control programme – the access control principles that are applied in relation to Post Office’s business, would you agree?

A. Agreed.

Q. So I would suggest to you Mr Coyne that having regard not just to the 2011 management letter, which says some
Q. If I may say so, Mr Coyne, it must have been a conscious decision to leave negative things that were contained in the 2011 management letter, but are you saying that was conscious, that was -- what are you saying?

A. I was attempting to identify areas of lack of control that could have led to bugs, errors and defects.

Q. What you were trying to do, Mr Coyne, may I suggest, is that you were trying to find things, trying to find coconuts to lob at Post Office and you were not very interested in whether Post Office had some kind of shield that it could raise to the coconuts that you would be lobbing, would that be fair?

A. No, it wouldn't be fair because it is not about largely irrelevant aspects where improvements have made, it is where aspects that are relevant to this dispute haven't been dealt with, such as control and change to software.

Q. Would you give me a moment please. (Pause).

I would like to spend a few minutes now, at the end of my cross-examination in this area, discussing another set of documents that you didn't refer to in your second report, which is the service audits that Dr Worden referred to in his report.

As well as performing financial audits with Post Office, Ernst & Young also performed audits for Fujitsu’s IT infrastructure services supporting POLSAP and Horizon Online, didn’t they?

Q. From 2016 these service audits also covered a review of Credence, didn’t they?

A. I think that’s right, yes.

Q. Would you agree that service audits by Ernst & Young are rather more specific than the general financial audits that would have been done by Ernst & Young for Post Office’s general accounts?

A. Yes.


I don’t have time to take you to them all but let’s just look at 2012. Could we go to {F/1041/1} please. So this is a description of Fujitsu’s system of:

’IT Infrastructure Services Supporting Post Office’s POLSAP and HNG-X Applications throughout the period April 2012 to December 2012 with the independent service auditor’s assurance report including test performed and results thereof.”

Now, have you read those documents?

A. I believe I have, yes.

Q. Let’s go -- there are a number of control objectives, aren’t there?

A. Yes.

Q. What Ernst & Young does is it expresses its opinion on how -- whether there are deviations or not from the
appropriate -- what should be the appropriate approach to each of those control objectives, would you agree?

A. Yes.

Q. So if we go to access control, which I am sure you will agree is quite an important one in the present context, let's go to page [F/1041/83]. It is control objective 10.

"Control objective 10: Controls provide reasonable assurance that access to system resources, including computing platforms and operating systems is restricted to properly authorised individuals."

You will see that there is a series of, what does one call them? Tests on the left-hand side from 10.1 through to 10.7.

A. They are statements in which to benchmark against.

Q. Yes. Thank you.

So there are these seven checks/statements and if we run through them all -- perhaps you could read them to yourself. (Pause).

A. Yes.

Q. You will see -- I have to say Mr Coyne I'm terribly impressed by how fast you read, you are much quicker than I am. I'm rather envious.

But if you look at the right-hand column it is headed "Results of Tests". You see that for all of those tests there are no deviations noted except for the third one.

A. Accepted.

MR JUSTICE FRASER: Can we go back to page 7 because it might actually be the right document and he is just looking at the Fujitsu part that's attached.

A. It could well do, my Lord. Could we go through? (Pause)

MR JUSTICE FRASER: Is that clear?

A. Yes, my Lord.

A. I think I have made a mistake here in believing which document -- which Ernst & Young audit this was.

I thought this was going to be the one that noted the controls with regard to access to the Horizon back end systems. I'm not sure this is the document that I thought it was.

Q. So you think -- what, you think there is another document that is relevant to the debate we are having, do you?

A. Yes.

Q. What's that document?

A. Could I take a moment to find it?

Q. Yes, by all means. We are talking about an Ernst & Young document?

A. I believe so, yes.

MR JUSTICE FRASER: I think we need to go back a page.

A. They are statements in which to benchmark against.

Q. Yes. Thank you.

So there are these seven checks/statements and if we run through them all -- perhaps you could read them to yourself. (Pause).

A. Yes.

Q. You will see -- I have to say Mr Coyne I'm terribly impressed by how fast you read, you are much quicker than I am. I'm rather envious.

But if you look at the right-hand column it is headed "Results of Tests". You see that for all of those tests there are no deviations noted except for the third one.

A. I believe so, yes.

MR JUSTICE FRASER: All right.

A. Accepted.

MR JUSTICE FRASER: Is that clear?

A. Yes, my Lord.

MR DE GARR ROBINSON: I'm much obliged to your Lordship.

A. Can you keep going forward please to the point where the tables start please. [F/1041/10]. I don't think this is the one that I was thinking it was.

Q. What I took you to was the service audits that Dr Worden refers to at some length in his supplemental report and which he refers to again in your joint statement?

A. Yes.

Q. I'm happy for you to tell me there are some other documents which are relevant to the debate we are having, but the fact that you thought I was going to take you to some other documents doesn't really take matters much further, does it?

A. Okay, I'm happy for you to take me wherever you want to take me to.

MR JUSTICE FRASER: Can I just make a point generally because I know you have only got another day.

Although Mr de Garr Robinson does say from time to time "the debate we are having" and "the discussion we are having", actually he is cross-examining you. So if you just focus on his questions. If in order to answer the question you refer to documents or there is some wider sphere, well, of course that's understood, but it is not a general debate.

A. Yes, my Lord.

MR JUSTICE FRASER: Is that clear?

A. Accepted.
MR DE GARR ROBINSON: Thank you, my Lord. Let’s now go to control objective 13, it is headed “Remote Access”. It is at {F/1041/88}. To be clear I apprehend that what this document means by remote access isn’t exactly the same as what I mean when I talk about remote access, although there is some significant overlap.

Q. Perhaps you could cast your eye down since you are such a quick reader. Is it page 88? (Pause). So if you could just cast your eye down those control objectives. You will see on the right-hand side of the page “No deviations noted”?

A. Yes.

Q. Ernst & Young gave Fujitsu a full, clean bill of health on all the other control objectives, didn’t it?

A. Yes. For context the remote access authorisation here is the connection from the counter to the date centre.

Q. Yes, it is not entirely the same as what we are talking about. But on all the objectives that are addressed in this service audit, they cover issues that you have raised but going much wider than remote access, don’t they? That is a slightly unfair question, let me be clearer. Control objective 1 {F/1041/70}:

“Controls provide reasonable assurance that access to data centres and facilities with computer equipment, storage media and program. Documentation is restricted to properly authorised individuals.”

{F/1041/71}

“Control Objective 2: Controls provide reasonable assurance that computer equipment and facilities are protected from damage by fire, flood and other environmental hazards and maintenance agreements are in place.”

{F/1041/72}

“Control Objective 3: Controls provide reasonable assurance that programs, files and datasets that have been identified as requiring periodic backup are backed up and retained.”

{F/1041/73}

“Control Objective 4: Controls provide reasonable assurance that processing is appropriately authorised and scheduled and that deviations from scheduled processing are identified and resolved.”

“A. They do, yes.

Q. {F/1041/74}

“Control objective 5: Controls provide reasonable assurance that system availability performance and capacity are routinely monitored to ensure potential issues are captured and investigated.”

{F/1041/76}

“Control Objective 6: Controls provide reasonable assurance that significant operations incidents are adequately reported, tracked, monitored through resolution and resolved timely.”

“Control Objective 7: Controls provide reasonable assurances that networks are managed to contractual and site requirements, monitored for availability and response times and issues are identified, tracked and resolved.”

{F/1041/80}

“Control Objective 8: Controls provide reasonable assurance that modifications to system software and networks are authorised, tested, approved, properly implemented and documented.”

That is quite an important one in the context of these proceedings, isn’t it?

We have already looked at control objective 10. If we look at control objective 11 {F/1041/85}:

“Controls provide reasonable assurance that access to databases, data files, and programs is restricted to properly authorised individuals.”

That is quite important, isn’t it?

A. It is and that’s why I’m surprised that in 2011 Ernst & Young made the observations that they did in another audit document.

Q. {F/1041/87}

“Control Objective 12: Controls provide reasonable assurance that networks and system resources are protected from external threats and access violations are detected, reported and investigated.”

Now all of those are quite material to many of the judgments you have made in the course of both your reports about how the system was operated, about how its...
1 robustness could be improved and so on, aren’t they?
2 A. Yes.
3 Q. Now in the years 2012 all the way through to 2017,
4 the one we have already gone to and that was in the 2016
5 service audit and for fairness I should take you to it.
6 It is at {F/1562/83}. I may have given the wrong
7 reference.
8 MR JUSTICE FRASER: We are going to 2015?
9 MR DE GARR ROBINSON: Let’s hope I have got the right
10 reference.
11 If we could go to page {F/1562/83}. Yes.
12 "Control Objective 9: Controls provide reasonable
13 assurance that new or modified application software
14 development efforts are authorised, tested, approved,
15 properly implemented and documented."
16 A. Yes.
17 Q. It is said that one POLSAP user could develop and
18 implement a change for software development and a user
19 should not be able to do both, do you see that?
20 A. Yes.
21 Q. This issue was flagged and resolved before the service
22 audit was published, do you see that?
23 A. Yes.
24 Q. There was only one user, there was no reported incident
25 in connection with this, yes?
26 A. Mm.
27 Q. And no recommendation for improvement, yes?
28 A. Yes.
29 Q. So subject to those two deviations over a five-year
30 period, no other deviations were noted in these service
31 audits and no recommendations for improvement were made?
32 A. No.
33 Q. Now, in your reports you attached importance to audits,
34 didn’t you, saying that auditors are in a better
35 position than you and Dr Worden to evaluate the change
36 control processes, yes?
37 A. Yes.
38 Q. Do you stand by that?
39 A. Yes.
40 Q. Do you accept that in circumstances where you are making
41 serious criticisms of Post Office’s and Fujitsu’s
42 processes over all or most of these control objectives,
43 it was really important to provide a balance to account
44 of where Post Office and Fujitsu stood?
45 A. The specific observations I made was user access and
46 change control. A lot of the things you have taken us
47 through aren’t necessarily about that.
48 Q. A lot of the things I have taken you through are
49 terribly about lots of things that you purported to
50 criticise Post Office for during the course of your two
51 reports, would you agree with that?
52 A. No. The majority of the criticism is about change
53 control and user access.
54 Q. Do you not think, Mr Coyne, that it would have been fair
55 for you to have had proper regard to the service audits
56 and to have mentioned them in your reports when deciding
57 to criticise Post Office and Fujitsu in the way that you
58 have?
59 A. It would have been helpful to provide an overview of
60 these, yes.
61 Q. My Lord, I wonder whether that’s a convenient moment.
62 MR JUSTICE FRASER: I think so. Would you like to start at
63 10.15 am tomorrow?
64 MR DE GARR ROBINSON: I would love to start at 10.15.
65 MR JUSTICE FRASER: I think there may only be a couple of
66 other people in this court who share your exuberance but
67 luckily I’m one of them.
68 So Mr Coyne, I know you come from Preston but
69 I imagine you are staying in London, are you?
70 A. Yes. I am.
71 Q. A lot of the things I have taken you through are
72 terribly about lots of things that you purported to
73 criticise Post Office during the course of your two
74 reports, would you agree with that?
75 A. No. The majority of the criticism is about change
76 control and user access.
77 Q. Do you not think, Mr Coyne, that it would have been fair
78 for you to have had proper regard to the service audits
79 and to have mentioned them in your reports when deciding
80 to criticise Post Office and Fujitsu in the way that you
81 have?
82 A. It would have been helpful to provide an overview of
83 these, yes.
84 Q. My Lord, I wonder whether that’s a convenient moment.
85 MR JUSTICE FRASER: I think so. Would you like to start at
86 10.15 am tomorrow?
87 MR DE GARR ROBINSON: I would love to start at 10.15.
88 MR JUSTICE FRASER: I think there may only be a couple of
89 other people in this court who share your exuberance but
90 luckily I’m one of them.
91 So Mr Coyne, I know you come from Preston but
92 I imagine you are staying in London, are you?
93 A. Yes. I am.
94 Q. A lot of the things I have taken you through are
95 terribly about lots of things that you purported to
96 criticise Post Office during the course of your two
97 reports, would you agree with that?
98 A. No. The majority of the criticism is about change
99 control and user access.
100 Q. Do you not think, Mr Coyne, that it would have been fair
101 for you to have had proper regard to the service audits
102 and to have mentioned them in your reports when deciding
103 to criticise Post Office and Fujitsu in the way that you
104 have?
105 A. It would have been helpful to provide an overview of
106 these, yes.
107 Q. My Lord, I wonder whether that’s a convenient moment.
INDEX

MR JASON PETER COYNE (continued) ...............1
Cross-examination by MR DE GARR ROBINSON ......1
(continued)

201

202
June 6, 2019
Alan Bates & Others v Post Office Limited
Day 16
<table>
<thead>
<tr>
<th>4</th>
<th>104:12</th>
<th>104:15</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>104:25</td>
<td>132:14</td>
</tr>
<tr>
<td>40</td>
<td>132:7</td>
<td>132:24</td>
</tr>
<tr>
<td>40o</td>
<td>131:6</td>
<td>131:7</td>
</tr>
<tr>
<td>425</td>
<td>101:7</td>
<td>101:7</td>
</tr>
<tr>
<td>430</td>
<td>102:11</td>
<td>102:10</td>
</tr>
<tr>
<td>432</td>
<td>102:24</td>
<td>102:24</td>
</tr>
<tr>
<td>45</td>
<td>122:21</td>
<td>122:21</td>
</tr>
<tr>
<td>488</td>
<td>116:12</td>
<td>116:12</td>
</tr>
<tr>
<td>498</td>
<td>116:12</td>
<td>116:12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5</th>
<th>104:35</th>
<th>104:40</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>104:23</td>
<td>200:3</td>
</tr>
<tr>
<td>512</td>
<td>120:22</td>
<td>120:22</td>
</tr>
<tr>
<td>5196</td>
<td>164:7</td>
<td>164:7</td>
</tr>
<tr>
<td>5197</td>
<td>166:21</td>
<td>166:21</td>
</tr>
<tr>
<td>5264</td>
<td>165:20</td>
<td>165:20</td>
</tr>
<tr>
<td>5421</td>
<td>45:6</td>
<td>45:6</td>
</tr>
<tr>
<td>5422</td>
<td>45:10</td>
<td>45:10</td>
</tr>
<tr>
<td>5427</td>
<td>76:20</td>
<td>76:20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6</th>
<th>104:35</th>
<th>104:40</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>104:20</td>
<td>190:9</td>
</tr>
<tr>
<td>105:3</td>
<td>190:9</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7</th>
<th>105:14</th>
<th>105:14</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>105:13</td>
<td>190:14</td>
</tr>
<tr>
<td>105:14</td>
<td>190:14</td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>66:15</td>
<td>66:16</td>
</tr>
<tr>
<td>78</td>
<td>67:18</td>
<td>67:18</td>
</tr>
<tr>
<td>7th</td>
<td>104:18</td>
<td>200:12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8</th>
<th>105:14</th>
<th>105:14</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>72:1</td>
<td>180:17</td>
</tr>
<tr>
<td>105:20</td>
<td>180:17</td>
<td></td>
</tr>
<tr>
<td>88</td>
<td>193:9</td>
<td>193:9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9</th>
<th>105:14</th>
<th>105:14</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>196:3</td>
<td>197:13</td>
</tr>
<tr>
<td>90000</td>
<td>60:17</td>
<td></td>
</tr>
<tr>
<td>951</td>
<td>158:1</td>
<td>158:1</td>
</tr>
<tr>
<td>959</td>
<td>150:4</td>
<td>150:4</td>
</tr>
</tbody>
</table>