

**CONFIDENTIAL AND LEGALLY PRIVILEGED  
POST OFFICE GROUP LITIGATION**

**Steering Group Meeting: 28 November 2018**



**Noting paper: Expert Report of Dr Robert Worden**

**1. SUMMARY**

- 1.1 Post Office has been ordered to file an expert report regarding Horizon which must address 13 "Horizon Issues" set by the Court. The central thrust of these issues focus on whether Horizon is robust and whether it was or was not the cause of losses in branches. The Claimants have already filed their report and Post Office's report is being prepared by Dr Robert Worden (**RW**).
- 1.2 RW's current draft report is around 300 pages. In Counsel's words "*it is an impressive piece of work*". We are confident that when put alongside the Claimants' report by their expert Mr Coyne, RW's work will be seen as a much more comprehensive and structured analysis.
- 1.3 The deadline for RW's report to be filed is 30 November 2018. RW would like a 7 day extension (Section 2 below).
- 1.4 RW's central conclusion is that Horizon is reliable and extremely unlikely to be the cause of the Claimants' shortfalls but there have been lengthy debates between RW and the legal team over how best to communicate this to the Judge (Section 3 below).
- 1.5 There are some topics to be updated / improved in RW's supplemental report (Section 4 below).
- 1.6 There are a small number of risks to Post Office arising from the report that need to be considered (Section 5 below).

**2. PROPOSED EXTENSION**

- 2.1 The deadline for the report is this Friday, 30 November. RW would like a 7 day extension. The principal reason is RW just needs more time.
- 2.2 This also has the extra benefit of meaning that RW's report won't be filed until after closing submissions in the Common Issues Trial, avoiding the risk of the Claimants' Counsel trying to cite something from it (e.g. RW confirms that there is no "dispute button" in Horizon, being a favourite topic of the Claimants).
- 2.3 Counsel's view is that it will be difficult for the Cs to refuse this extension request.

**3. CONTENT AND CONCLUSIONS OF THE REPORT**

- 3.1 RW's central conclusion is that Horizon is reliable and extremely unlikely to be the cause of the Claimants' shortfalls. Much of the debate between him and the legal team is how best to convey this to the Judge. The legal team prefer qualitative analysis ("*Horizon is sound because...*") whereas RW prefers a quantitative analysis ("*The chances of there being a bug are X%*"). RW says that as an engineer he would always base risk assessment in statistics and judging the "*extent of bugs in Horizon*" is a form of risk assessment.
  - 3.1.1 The legal team's concerns with placing too much weight on statistical analysis are that:
    - (a) Some judges just do not like numbers and Mr Justice Fraser may ignore them.

- (b) Calculating statistics requires making some assumptions and those assumptions can always be attacked in cross examination.
- 3.1.2 This topic has been the subject of numerous calls and conferences between RW and Counsel (we must have spent over 20 hours debating this point). The outcome is that:
  - (a) The statistics will be kept, but only after the qualitative analysis has already reached a freestanding conclusion that Horizon is sound. This is why in RW's report section 7 (qualitative) goes before section 8 (quantitative).
  - (b) RW has adopted extremely conservative (anti-Post Office) assumptions so that the assumptions would need to be massively wrong to move the end-result.
- 3.2 The remote access section of the report needs more work (section 11). RW's view is that it is so obvious that Fujitsu would not abuse their remote access capability, and that doing so would be so difficult, that the point warrants not much comment. We have explained the sensitivity of this topic to Post Office and the case, and he is going to do more work on this.

#### 4. SUPPLEMENTAL REPORT

- 4.1 Even with the extension of time discussed above, there are some topics where RW's analysis is ongoing and will be updated / improved in his supplemental report that is due to be filed in January 2019.
  - 4.1.1 RW has fully analysed 130 Known Error Logs about Horizon (**KELs**). He hopes to do more before his supplemental report so that his sample size is bigger and even more reliable.
  - 4.1.2 RW has had insufficient time to factor in all the witness evidence we served about individual Claimants. This will be addressed more fully in his supplemental report. Again, there are good tactical advantages to this:
    - (a) This evidence is disputed and there is always risk when an expert relies on contested facts to underpin his conclusions.
    - (b) By the time we reach supplemental reports, the Judge may have expressed a view on the appropriateness and role of the Claimant-specific evidence, which we believe to be inadmissible.
  - 4.1.3 The analysis of the information and reports available to Subpostmasters through Horizon is a little thin (sections 9 and 10 of RW's report). RW's view is that the full transaction log is all that matters, everything else is just a sub-set of that so doesn't add much. RW is right but it is a fairly hard-edged expert's view on available data. The legal team would prefer RW to point to a long list of reports a SPM can run. RW will look to expand this but much more will be set out in the supplemental report.
  - 4.1.4 There are several dozen (very long and complicated) technical documents cited by Mr Coyne that do not immediately appear to RW to be relevant so he has parked full analysis of them for now. These will be fully reviewed and addressed in response to Coyne in the supplemental report.
  - 4.1.5 There are a number of other areas where RW believes he could take his analysis deeper with more time.

## 5. RISKS

- 5.1 Although RW believes that Horizon is robust, robust does not mean perfect. Dr Worden has therefore conceded that there have been bugs in Horizon, there will be more in the future, and there may be some latent bugs in the system today that have not been detected. His point however is that the volume and effect of these bugs is so small that they are immaterial.
- 5.2 Through the statistical analysis RW calculates that at the absolute worst there have been 672 bugs in Horizon over the last 18 years (section 8.11 of his report). This is based on his "worst case assumption" methodology described above.
- 5.2.1 To an ordinary person this seems a massive number. To RW, this looks tiny. He calculates that for bugs to have caused the Cs losses there would need to have been around 64,000 bugs, so the worst case of 600 bugs is less than 1% of what the Claimants' need. He will say this in the executive summary at the start of the report.
- 5.2.2 Nevertheless the "600 bugs" number causes us two concerns:
- (a) The Claimants will latch on to this and we will hear reference to "600 bugs" all the way through the trial.
- (b) The media will misreport this as evidence of Horizon being prone to error.
- 5.2.3 We have explained this to RW at length and he is sticking to his position. His view is that his analysis is technically and statistically sound. Ultimately, RW has a duty to the Court to give his fair opinion and he is giving that priority – as he should – rather than only saying things that make Post Office's position and Counsel's job easier.
- 5.2.4 The legal and comms teams at Post Office therefore need to be fully prepared for this point as trial approaches.
- 5.3 With any expert report, there is always the possibility of an error in RW's work or that he does not come up to proof in Court. We have asked Fujitsu to review the report and to highlight any "show-stoppers" so to mitigate this risk.
- 5.4 As RW's conclusions favour Post Office, there is a risk that he looks partisan or biased. RW is very aware of this risk and doing all he can to make sure he looks at things evenly. We are including a section at the start of the report very clearly stating his duties as an expert, including quoting from Mr Justice Fraser's judgment in *ICI v Merit* which deals with the conduct and impartiality of experts so to indicate to the Judge that RW is aware of the need to be objective.

## 6. TIMETABLE FOR FINALISING THE REPORT

- 6.1 RW has just produced his executive summary which being commented on now.
- 6.2 The legal team have reviewed the entire report in detail.
- 6.2.1 We have also reviewed at least 2 previous drafts of sections 7 and 8 (being the key sections on the robustness of Horizon).
- 6.2.2 The legal team are now restricting themselves to comments on:
- (a) Section 2 – executive summary.
- (b) The re-written sections 9 – 11 as per comments above.
- 6.3 We are awaiting comments (if any) from Fujitsu and Post Office IT.

- 6.4 We are imposing a hard-close on further substantive comments at 4pm on Thursday so that RW has a chance to consider and make amendments.
- 6.5 Final version to be sent from RW to WBD on Wednesday next week.
- 6.6 WBD to format and proof read on Thursday.
- 6.7 RW to approve final version for submission electronically by 4pm on Friday 7 December (with hardcopies sent to the Judge in the following week).