FUJ00086811

Confidential and legally privileged

Horizon data
Lepton SPSO 191320

STATUS: DRAFT

Author: Helen Rose

Version: 1

Last edited by: Helen Rose

Last edit date: 12/06/2013

FUJ00086811

Confidential and legally privileged

Horizon data - Lepton SPSO 191320

Executive Summary

A transaction took place at Lepton SPSO 191320 on the 04/10/2012 at 10:42 for a British Telecom bill payment for £76.09; this was paid for by a Lloyds TSB cash withdrawal for £80.00 and change give for £3.91. At 10:37 on the same day the British Telecom bill payment was reversed out to cash settlement.

The branch was issued with a Transaction Correction for £76.09, which they duly settled; however the postmaster denied reversing this transaction and involved a Forensic Accountant as he believed his reputation was in doubt.

Reviewing the data

On looking at the credence data, it clearly indicates that the reversal was completed by JAR001 (postmaster) at 10:37 04/10/2012 and was reversal indicator 1 (existing reversal) and settled to cash. An existing reversal is where the session number/Automated Payment number has to be entered to reverse the item. (Copy in Appendix 1)

The fujitsu logs were requested for this branch, but whilst waiting for these to arrive communications took place with Gareth Jenkins at Fujitsu for more details to gain an understanding what had occurred at this branch.

Questions asked and extracts from various emails in response.

Question – I am requesting fujitsu logs for Lepton 191320 to look at a reversal that the postmaster denies transacting, do I need to request further details, and also could you explain what happens when the system fails. (Gareth looked at data at his end prior to me receiving the fujitsu logs. (Copy in Appendix 1).

Answer - This shows that Session 537803 was successfully saved to the BRDB, but when the user JAR001 Logged On again Recovery reversed the session in session 537805.

It isn't clear what failed, but if it was a comms error, then the system would have printed a disconnected session receipt and the Clerk should have given the customer £80 and told him his Bill was unpaid. The fact that there is no indication of such a receipt in the events table suggests the counter may have been rebooted and so perhaps may have crashed in which case the clerk may not have been told exactly what to do.

The reversal was due to recovery (Counter Mode Id = 118) so this was not an explicit reversal by the clerk. This scenario is fairly rare so it is certainly quite easy for the clerk to have made a mistake and either he or the customer could be in pocket / out of pocket (depending on exactly what happened!). The system is behaving as it should. (email 30/01/2013)

Question – I can clearly see the recovery reversal on the fujitsu logs received, but would this have been clear had we not previously discussed this issue. (Copy of transactions and events in Appendix 1)

FUJ00086811

Answer - Note that the standard ARQ spreadsheet may not make it easy to confirm that the Reversal was part of Recovery, but the underlying logs used to extract them can show it. (Email 30/01/2013)

The files *4 to 25 Oct 12.xls* and *Events 4 to 25 Oct 12.xls* are part of the standard ARQ returned. Rows 141 to 143 of *4 to 25 Oct 12.xls* clearly show a Reversal. Also Row 70 of *Events 4 to 25 Oct 12.xls* shows that session 537803 (ie rows 138 to 140 of *4 to 25 Oct 12.xls*) has been recovered and this event has the same timestamp as the Reversal Session. Also row 71 of *Events 4 to 25 Oct 12.xls* shows that a receipt was generated from the session 537805 (not explicitly, but it was the only session at that time). This receipt would have told the user that a Rollback had taken place (but the logs don't make that explicit). If that is sufficient for you purposes, then you do have all you need in the standard ARQ.

However what I was able to confirm from my look at live data a couple of weeks ago and is also held in the underlying raw logs is confirmation that the reversal was generated by the system (and not manually by the user). What might also be available in the underlying logs is whether or not the system was re-booted – I suspect it was but have no evidence one way or the other (and it isn't in what was extracted this time either). I can confirm that the user did Log On again (row 69 of *Events 4 to 25 Oct 12.xls*). (Email 11/02/2013)

Question – I can see where this transaction is and now understand the reason behind it. My main concern is that we use the basic ARQ logs for evidence in court and if we don't know what extra reports to ask for then in some circumstances we would not be giving a true picture.

I know you are aware of all the horizon integrity issues and I want to ensure that the ARQ logs are used and understood fully by our operational team who have to work with this data both in interviews and in court.

Just one question from my part - if the reversal is system created but shows as an existing reversal, could this not be reflected with a different code, .i.e. SR (system reversed) to clear up any initial challenges. My feelings at the moment are not questioning what Horizon does as I fully believe that it is working as it should, it is just that I don't think that some of the system based correction and adjustment transactions are clear to us on either credence or ARQ logs.

Answer - I understand your concerns. It would be relatively simple to add an extra column into the existing ARQ report spreadsheet, that would make it clear whether the Reversal Basket was generated by Recovery or not. I think this would address your concern. I'm not sure what the formal process is for changing the report layout. Penny can you advise as to the process: Is this done through a CR? (email 13/02/2013)

Recommendations

I do believe that the system has behaved as it should and I do not see this scenario occurring regularly and creating large losses. However, my concerns are that we cannot clearly see what has happened on the data available to us and this in itself may be misinterpreted when giving evidence and using the same data for prosecutions.

My recommendation is that a change request is submitted so that all system created reversals are clearly identifiable on both fujitsu and credence.

Helen Rose
Security – Fraud Analyst
12th June 2013

FUJ00086811

Confidential and legally privileged

Appendix 1

Credence data and fujitsu transaction logs for Lepton SPSO 191320

Lepton credence data – downloaded from our credence data

Lepton fujitsu data – data supplied by Gareth prior to receiving the fujitsu logs

Lepton 4 to 25 Oct 12 and Lepton Events 4 to 25 Oct 2012 – fujitsu logs received


Lepton credence data for 04-10-12.xls


Lepton fujitsu data for 04-10-12 GJ.xlsx


Lepton 4 to 25 Oct 12.xls


Lepton Events 4 to 25 Oct 12.xls

Other information

Reversal indicators	
Entry	**Method Title**
0	normal transaction
1	existing reversal (AP transactions)
2	new reversal

FUJ00086811

Entry Methods	
Entry Method ID	**Entry Method Title**
0	Barcoded Transactions
1	Manual
2	Magnetic Swipe
3	Chip and Pin or Smart Card
4	Chip and Pin used in fallback mode (when chip doesn't work and it is then used as a Magnetic Swipe
5	Scales (connected)