

10 AUG 1999 - 821

## Electronic memo



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**Hard Copy To**  
**Hard Copy cc**  
**From** Ruth Holleran/POCL/POSTOFFICE  
**Date** 09/08/99 19:15  
**Subject** Fwd: POCL Acceptance and Business Impact Assessment

All

POCL Business impact assessment against proposed high severity Als positioned as work in progress and to meet deadline of close of play today.

We need to refine and polish assessments further over the next 24 hours in the event some of these may go forward into dispute. I will liaise direct with Keith Baines on this.

I would welcome any comments to strengthen our position.

Ruth

**To** [REDACTED] **GRO**  
**cc**  
**Hard Copy To**  
**Hard Copy cc**  
**From** Ruth Holleran/POCL/POSTOFFICE  
**Date** 09/08/99 19:06  
**Subject** POCL Acceptance and Business Impact Assessment

Mike

Please find attached details of POCL's draft business impact for the proposed High severity rating incidents.

Ruth Holleran



Draft High Impact.do

**POCL Business Impact Analysis of Proposed High Acceptance Incidents**  
*Prepared on 9<sup>th</sup> August by Ruth Holleran - Draft - Work in Progress*

Incident No	Business Description	Business Impact	Current Position including rectification requirements.	Pathway Severity	POCL Severity
376	The business impact of these three requirements are the same, and so are described together here.	The ICL Pathway service is an integral part of POCL's client accounting system - indeed the service is an accounting service. As such it accounts for turnover of £140 billion per annum involving some 3 billion transactions. Given the scale of this system even the smallest of defects is capable of generating error within the accounts of very significant amounts.	376	376 High	376 High
410	<b>376. Data Integrity - TIP derived cash account not equal to electronic cash account received by TIP.</b>	A major component of the current system is the matching of the underlying transaction stream to summary totals on the cash account. There are currently logged incidents where both the underlying transaction stream is incomplete and transactions are being "missed" when the service accumulates the summary cash account line. These faults were identified as a result of special controls put in place by POCL to monitor the live trial and not by any system based control operated by ICL Pathway which in turn are part of POCL's requirements. It is not known when if at all ICL Pathways controls would have detected these fundamental and by inference whether such controls are effective.	The POCL position is that this incident is high severity and that the analysis provided by Pathway is unacceptable for the following reasons:  i) There is no explanation as to how Pathway propose to meet R891/02 - i.e. the need for them to reconcile the two streams of data. ii) There is no explanation on the real cause of the problem, i.e. the reason why the data attributes are omitted in the first place? iii) further detail is required on the fix, e.g. if the date is omitted from the first transaction of the day, first transaction for a SU, etc. The solution does not indicate what date the TPS harvester applies in these scenarios and why. iv) The solution does not explain how it will prevent transactions being recorded against the incorrect mode, e.g. a remittance as a serve customer transaction. Invalid item transaction modes could result.	410 None	410 High
411	In certain circumstances transactions are recorded at the outlet with a missing attribute, e.g. start time and mode. The reason these attributes are omitted has not yet been explained by Pathway. At the end of the day, Pathway's TPS harvester polls the transactions from the outlets and validates them before they are passed to TIP. Any transactions with these attributes omitted will fail the validation and not be passed to TIP.  Pathway also poll the weekly cash account from each outlet and passes this to TIP. Transactions with missing attributes are correctly recorded on the cash account and are passed from the outlet, via the TPS harvester into TIP. One of the processes currently performed by TIP is to derive a cash account from the daily transaction	POCL has not seen a detailed description of the faults creating the missing data neither has it seen any description of how and when these	411 None	411 High	

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	<p>files and compare this with the cash account received from Pathway. This process - which is only being performed on a temporary basis - has revealed differences as a result of the above.</p> <p>The cause of this incident is that, on occasions, the counter system records a transaction without all the data attributes for the transaction which are required by the TPS harvester to send it on to TIP. However this does not impact the transaction being recorded in the cash account file sent to TIP.</p> <p>Pathways proposed fix involves the TPS harvester inserting the required data as follows:</p> <ul style="list-style-type: none"> <li>i) inserting the start time based on the end time of the previous transaction;</li> <li>ii) inserting the mode as 'Serve Customer' in every occasion</li> </ul> <p>The fix was applied on 3/8 and we need to allow a full cash account period for monitoring before this can be cleared due to the multiplicity of data integrity issues. This is the period over which the original test was performed. (NB the cash account for w/e 4<sup>th</sup> August; week 19 can only be partially included as the fix was applied</p>	<p>faults will be fixed. ICL Pathway have admitted that they do not yet understand the root cause of the problem. A workaround has been offered but by ICL Pathways own admission this will not present a complete solution to the faults in the service nor has POCL had visibility of the testing plan to ensure that the fix does not introduce further problems.</p> <p>It is a fundamental of any accounting system that it provides a complete and accurate record of all transactions. The ICL Pathway system does not support this fundamental. For example in week 17 there were 89 differences in 20 outlets which extrapolates to 5500 differences over the entire network. For week 18 there were 2451 differences experienced in 67 outlets which extrapolates to 150k differences over the entire network.</p> <p>These "gaps" in data will ultimately be reflected in balance sheet accounts. The nature of these gaps is such that POCL will not be able to readily explain them. To this end our external auditors operating within generally accepted accounting practice will insist that any debit balances are written to Profit and Loss account whilst credit amounts are retained on the balance sheet. Given the nature of the errors concerned the potential is for these write offs to be significant threatening the business performance against shareholder targets and</p>	<p>v) The analysis does not explain whether the fix is temporary or permanent. If it is temporary, the analysis needs to state why a permanent fix is not being applied at this stage, when the permanent fix will be applied, what the permanent fix will be and how we will know whether the permanent fix works.</p> <p>vi) Changing the transaction data in this way impacts on the audit trail, i.e. the transaction data received by TIP will be different to that leaving the outlet as the attributes are added.</p> <p>vii) The proposal to reduce the severity from high to medium if the frequency falls is unacceptable because the principle here is that if it happens once, it means incidents can occur and hence the fix is not working correctly. Only a frequency rate of zero - during an agreed period of monitoring - should enable the severity rating to be changed.</p> <p>viii) If we accept the temporary fix, we need to understand how we will monitor any permanent fix as the TIP processing in this area is only a temporary measure. We will rely on Pathway's reconciliation of the two data streams and we will therefore need to assure ourselves that their</p>		

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	<p>during the week.) Any analysis provided by Pathway should explain how they propose to comply with R891/02 - which effectively means they should be doing the reconciliation currently being performed by TIP.</p> <p><b>410</b>            This incident was previously recorded under AI376. However as the effect is different, this now stands alone. It refers to a scenario resulting in the TIP derived cash account, calculated from Pathways daily transaction files, exceeding the transaction totals in the Pathway cash account. (Refer to description of AI376 for more detail on this process). It is this latter cash account stream that feeds the POCL accounting processes via CBDB.</p> <p>Pathway analysis - provided against AI376 - indicates the root cause as being a change in the POCL data attributes relating to a particular item (product). Some products are available to all outlets, others to only a</p>	<p>potentially as a going concern.</p> <p>These balances are also the basis of settlement with clients. Failure to settle accurately with clients could place POCL in breach of contract. Many clients have a right of audit. For government clients this is usually the National Audit Office. The results of such audits can feature in NAO opinions on the accounts of Government Agencies. Such comments are a matter of public record. <b>Integrity failures could thus become a matter of public record damaging the reputation of POCL. Integrity is one of the major attributes of the brand such damage would, therefore, be substantial.</b></p> <p>Finally this level of difference is operationally unsustainable. The level of resource necessary to investigate and resolve these differences is significant at the 5500 level and at the higher level the resource requirements are impractical i.e. there would be a complete breakdown of POCL's back end accounting as the effort required would be unsustainable - error levels are currently running at twice the normal pre-horizon baseline. In addition, the absolute increase at the 5500 level would increase error processing costs by £8.3m per annum and effectively double the size of the TP workload.</p>	<p>processes for doing this reconciliation are acceptable.</p> <p>ix) the frequency suggested by Pathway does not match the result identified by TIP.</p> <p>As with AI 410, and AI 411, POCL regard Pathway as non compliant on R891/02 and require a proposal from Pathway for reconciliation of the 2 data streams within the Pathway domain before closure of this incident which is judged by POCL to be high.</p> <p><b>410</b>            Requirement 818/08 states 'EPOSS shall be a robust Service, including features to:</p> <ul style="list-style-type: none"> <li>a) check internal consistency, reporting errors, warning of non critical errors and preventing critical errors;</li> <li>b) refuse deletions if there is a dependent business data which would lead to inconsistency of data within the Service Infrastructure;</li> <li>c) make Reference Data available at the counter terminals;</li> <li>d) check Reference Data consistency and report exceptions.</li> </ul> <p>The POCL view is that this criterion has</p>		

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	<p>portion of the network. This is expressed through an attribute setting of 'core' or 'non-core'.</p> <p><b>411</b> This incident was previously recorded under AI376 but has been separated as the cause is now understood to be different. Similarly to AI 376, the detailed transaction stream was incorrect as transactions were not passed from TPS to TIP resulting in the cash account stream being greater than the transaction stream. (Refer to description of AI376 for more detail on this process).</p> <p>The problem was manifested through a reconciliation failure on 2451 cash account lines across 67 outlets during week 18. It is not known how many transactions were lost although this must be a minimum of</p>		<p>not been met, particularly in relation to part 'b'.</p> <p>POCL also require evidence that integrity checks in support of R818/08 are sufficient for all Business data. In the absence of this evidence, the integrity of the data that drives the central accounting process is in question. This incident is therefore adjudged high in line with AI376 and AI411.</p> <p>As with AI 376, and AI 411, POCL regard Pathway as non compliant on R891/02 and require a proposal from Pathway for reconciliation of the 2 data streams within the Pathway domain before closure of this incident which is judged by POCL to be high</p> <p><b>411</b> The Pathway rectification proposed for TIP incident 889 appears acceptable to POCL at a high level. However a date for the fix to the agents software is required as is a detailed proposal of how Pathways processes are intended to work - this proposal needs to be agreed by POCL and should explain how Pathway will identify missing transactions, given this was only identified by TIP.</p>		

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	<p>2451 which constitutes serious client settlement and outlet reconciliation failures. This applies regardless of the value of these transactions - which may net out to a negligible amount.</p> <p>The analysis from Pathway indicates that the root cause is a wholesale 'data replication' failure due to conflicting system processes following an unusual failure condition</p>		<p>A date is also required for recovery of the missing transactions and this needs to be agreed with TIP.</p> <p>As with AI 376, and AI 410, POCL regard Pathway as non compliant on R891/02 and require a proposal from Pathway for reconciliation of the 2 data streams within the Pathway domain before closure of this incident which is judged by POCL to be high.</p>		
298	<p>Evidence from live trial shows that the counter system is subject to 'lockups' and 'system freezes', where the system halts in mid-processing giving the user no opportunity to take any corrective action other than re-booting the system. This is either exhibited by the system hanging or presenting a blank blue screen. The user is forced to ring the HSH and is advised to reboot the system.</p> <p>This incident related to criterion 536-01. "Peripheral and input devices supplied as part of the elements of the Service Infrastructure on which OPS is provided shall be reliable, robust and easy to use".</p>	<p>Estimate of outlet cost (this impact should be updated when Pathway System management log report is received):</p> <ol style="list-style-type: none"> <li>POCL analysis based on telephone review with outlets. This indicates that 56 outlets affected in week 19 with system freeze.</li> <li>POCL estimated that on average 40 minutes to: log call with help desk; re-boot system; recover transactions (1 and 2 position offices) undertaken in manual fall-back mode.</li> <li>Indicate, conservatively, a cost of £2.6 million per annum.</li> </ol> <p>Other impacts not quantified:</p> <ol style="list-style-type: none"> <li>Extreme frustration and loss of confidence by sub-postmasters in the system.</li> <li>Adverse impact on customers perception of the service</li> <li>Increase in HSH and NBSC Helpdesk calls to authorise the need to re-boot</li> </ol>	<p>Pathway analysis received 9/8. This was based on HSH log, and not an analysis of re-boots from their System Management Log as requested by POCL. Pathway indicate that the HSH log reduces this incident to acceptable numbers. However, outlets are learning that the recovery action is to re-boot, and are not calling the Help Desk for many incidents. Therefore POCL has discounted the HSH log data in this instance.</p> <p>In addition, Pathway have not given POCL confidence that they understand the root cause of these system freezes and lock-up. Reduction in severity will require:</p> <ol style="list-style-type: none"> <li>Root cause analysis discussed with POCL</li> <li>Rectification plan agreed</li> </ol>	Low	High

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		<p>4. OBCS - unable to perform 100% checks on order books without recourse to HSH - therefore increase in transaction time - assumed extra time 119 seconds per transaction.</p> <p>5. Client SLA/confidence</p> <p>6. Risk of errors and impact on TP due to increased errors in fall-back</p> <p>7. Severe disruption to POCL's critical operating process</p>	<p>3. Pathway reporting accurate numbers of incidents from the outlets</p> <p>4. To reduce to Medium - no more than 10 outlets per week (observed over a period of 2 weeks for the 299 LT outlets)</p> <p>5. To reduce Incident to low - no more than ½% per week of outlets with system freezes and lockups observed over a 5 week period</p> <p>6. To clear incident - to be agreed.</p>		
300	<p>Evidence from live trial indicates that should the printer fail during operation, the system may lock up rather than handling the error normally. This has been observed even when the printer has only run out of paper. This has been observed in the back office printer, and its main impact has been on the time it takes to produce the cash account.</p> <p>This incident related to criterion 536-01. "Peripheral and input devices supplied as part of the elements of the Service Infrastructure on which OPS is provided shall be reliable, robust and easy to use".</p>	<p>The analysis of the business impact is similar to 298.</p> <p>Estimate of outlet cost (this impact should be updated when Pathway System management log report is received):</p> <ol style="list-style-type: none"> <li>1. POCL analysis based on telephone review with outlets. This indicates that 56 outlets (NB this is a coincidence - this is not the same 56 affected by other system freezes) affected in week 19 with system freeze.</li> <li>2. POCL estimated that on average 40 minutes to: log call with help desk; re-boot system; recover balance position.</li> <li>3. Indicate, conservatively, a cost of £2.6 million per annum.</li> </ol> <p>Other impacts not quantified:</p> <ol style="list-style-type: none"> <li>1. Frustration and loss of confidence by sub-</li> </ol>	<p>No Pathway analysis seen.</p> <p>Pathway have not given POCL confidence that they understand the root cause of these system freezes and lock-ups due to printing problems. Reduction in severity will require:</p> <ol style="list-style-type: none"> <li>1. Root cause analysis discussed with POCL</li> <li>2. Rectification plan agreed</li> <li>3. Pathway reporting accurate numbers of incidents from the outlets</li> <li>4. To reduce to Medium - no more than 10 outlets per week (observed over a period of 2 weeks for the 299 LT outlets)</li> <li>5. To reduce Incident to low - no more than ½% per week of outlets with system freezes and lockups observed over a 5 week period</li> </ol>	Low	High

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		<p>postmasters in the system.</p> <ol style="list-style-type: none"> <li>2. Impact on customers' perception of the service</li> <li>3. HSH and NBSC Helpdesk calls</li> <li>4. Client SLA/confidence</li> <li>5. Risk of errors and impact on TP</li> </ol>	6. To clear incident - to be agreed.		
372	<p>This incident addresses failures in Pathway's system management function following problems observed as part of the implementation of the LT2 maintenance release.</p> <p>The incident related to:</p> <p>537-01 476-05 476-04</p>	<p>In the LT2 implementation, 288 out of 299 outlets were upgraded by 10:30 on Monday. 8 of the offices were still outstanding at close of business the following Wednesday representing 2.7% of the outlets. Extrapolating this to the full network would mean that some 500 outlets would not be upgraded - this is unacceptable. Even though it appears that user intervention may have been part of the problem, we have no confidence that Pathway could manage even a performance with the same results to the full network because the difference in scale will compound any difficulties.</p> <p>This description represents a post hoc analysis and at the time Pathway were not able to advise which outlets had not been upgraded as planned. In addition, a number of outlets were left with a corruption to a .dll file which subsequently resulted in corruption of business data. The business impact has a dual perspective: firstly, the failure to implement a release successfully in all outlets and secondly, the ineffective rectification of the problem.</p>	<p>Pathway have submitted, as part of their analysis of the incident, a report which has been reviewed by POCL. However, the report is insufficient to close the incident with many questions remaining unanswered. These questions (39 in number) have been put to Pathway on 8 August and we await a reply.</p> <p>Until our questions are satisfactorily answered and an appropriate rectification plan has been agreed this incident remains of High severity.</p>	Pending	High

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		<p>The business impact is:</p> <ol style="list-style-type: none"> <li>1. outlets may not be able to sell products</li> <li>2. outlets may sell products they are not authorised to sell</li> <li>3. outlets may sell products at the wrong price</li> <li>4. outlets may wrongly account for items</li> <li>5. outlets are likely to have an increased error rate</li> <li>6. circumstances are possible where the outlets would be unable to use the horizon system</li> </ol>			
218	Training Course cash account module is inadequate	POCL's review of the training rectification analysis will be issued on 10 <sup>th</sup> August. Business impact already explained.			
384	Sequent failover time	Awaiting Pathway's report of re-test results			
301	Loss of accounting integrity due to printing failures	To follow			