

To: Prevost Jean-Pierre (FTS); [REDACTED] **GRO**
Cc: D'Alvarez Alan; [REDACTED] **GRO**; Allen Graham (BRA01); [REDACTED] **GRO**; Cochrane
Vince; [REDACTED] **GRO**; Dodington Chris; [REDACTED] **GRO**; Richardson Debbie
DB; [REDACTED] **GRO**; Jenkins Gareth G; [REDACTED] **GRO**; Welsh
Graham; [REDACTED] **GRO**
From: Butts Geoff/O=EXCHANGE/OU=ADMINGROUP1/CN=RECIPIENTS/CN=BUTTSGJ
Sent: Sat 27/02/2010 12:10:08 AM (UTC)
Subject: Branch Trading Statement Issue on HNG-X Release 1 Pilot
FW: FW: Workaround for the Final Balance Report for BTS

J-P,

Can you review this draft response to an email from Post Office (enclosed) about Fujitsu's approach to resolution and interim management of a software defect relating to the Final Balance Report for Branch Trading Statements, and let me know if any changes are required before it is sent. I've copied the HNG-X Leadership Team in for information. This issue has been flagged as critical to fix before the start of rollout.

Debbie – let me know if there is anything that needs to be added relating to test coverage of BTS Reports.

Thanks.

Regards,

Geoff

Phil,

Please find enclosed a consolidated response to your requests for further information with regard to the Final Balance Report for the Branch Trading Statement.

Background

During Branch Trading Statement (BTS) Production the report is produced twice in the form of:-

- A Trial Report to allow the Postmaster to check that the data is correct.
- A Final Report which is produced after the Trial Report has been confirmed. This indicates that the Branch has rolled over in the next Trading Period.

The BTS consist of two parts:-

1. A Summary of Stock Unit and Suspense Account activities (relating to Cash and Cash movements) over the Trading Period.
2. Consolidated Stock Levels for all Volume Stock Items.

Problem Description

On the Final Report, the Stock Holding figures in the second section of the Report are incorrect on the final balance.

Points to Note

- The first section of the Final Report (relating to Cash and Cash movements) is correct.
- The figures that are stored as Opening figures for the new Trading Period are correct. To expand on this slightly, at the time the Final BTS Report is produced some Opening Figures for the Suspense Account are stored back in the BRDB and these figures are from the first part of the report and so are not corrupted by the Bug and therefore are correct.
- The figures on both sections of the Trial Report, (which the Postmaster is asked to check) are correct.

Cause

The root cause of the issue is that the code that re-prints the report makes incorrect use of the cache of data held at the counter for generating the report as it is printing the report.

To expand on this a bit further:-

1. When the BTS is being produced, it is done based on data written to the Branch Database (BRDB) whenever a Stock Unit Rolls over.
2. BTS Production retrieves this data from BRDB to the counter.
3. The counter then uses it to generate the Trial BTS
4. There is a bug in the way that the report is produced such that some of the in-memory copy of the data is overwritten when the Trial BTS is produced.

5. A consequence of this is that when the final BTS is produced it is using incorrect data.
6. The problem has been fixed by ensuring that the final BTS uses the original data retrieved by the counter at step 2 rather than the data left over after step 4.
7. The problem was first reported by Warwick and they pointed out that the trial Balance figures were correct and the Final Balance figures were incorrect.
8. Comparing the Trial and Final balance figures with the corresponding Stock Unit Balance Reports shows easily that the Trial Balance is correct and the final Balance is incorrect.
9. None of the incorrect data is stored to BRDB so there is no possibility of ongoing corruption of stock levels.

Key Questions

Can Fujitsu provide a complete and comprehensive list of all products where the volumes on the Final Balance Report differ to those on the Trial Balance Report?

All figures relating to the Volume Stock Holdings can be corrupted by the bug, but not necessarily all the figures will be incorrect.

How Has the Defect Arisen?

The defect is a software issue that was not detected in application testing by the Joint Test Team.

What are the Impacts of this Defect – detailing all stock items affected?

All the Volume Stock items in this section of the report could be affected.

What is Fujitsu doing to resolve this defect?

Fujitsu has developed a software fix that resolves the issue by ensuring that the Final Report uses the original data retrieved by the counter at Step 2 described above rather than using the data left after Step 4. This is a counter fix that is currently scheduled to be delivered within the next Maintenance Release for HNG-X – 01.08. In the short-term, before the fix is deployed into live, Fujitsu has written a KEL which includes instructions to the HSD to give advice to Postmasters. The advice is to use the Trial Report, which is correct, and to discard the Final Report.

Can Fujitsu Provide a Statement Proving the Integrity of the Data is not compromised in any way, and the only impact is incorrectly reported data?

Fujitsu confirms that this defect relates specifically to the printing of Report data, and is not related in any way to the underlying branch data held in the operational HNG-X system.

Can Fujitsu provide a commitment to support POL in proving the integrity of the system in any subsequent legal action (specifically where the difference in the two reports is used as a means to challenge the integrity of the system)?

Yes, Fujitsu is willing to provide commitment to prove the integrity of the system in any subsequent legal action.

Geoff Butts,

Programme Manager, HNG-X Release 1,

Royal Mail Account

Practitioner, P&PM Academy

FUJITSU

Mob: [REDACTED] GRO
E-mail: [REDACTED] GRO
Web: <http://uk.fujitsu.com>

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