

FUJITSU CONFIDENTIAL – INTERNAL USE ONLY

**TITLE: POA IMPROVEMENTS LOG (WIP)**

The following is a summary list of improvements that have been made on POA that improve service delivery across several areas and enhance the ways of working with POL. The items are grouped into categories and are not, at this stage, fully described.

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### 2. HIJ PROGRAMME

- Assigned a named point of contact to help coordinate POL's HIJ improvement initiatives in February 2021
- Whilst the detail of the HIJ Programme was being formulated by POL and KPMG, Fujitsu proactively created and shared a POL focussed “Postmaster First” improvements initiative to jointly address several issues on 04 March 2021.



RE\_ Improvement  
planning ideas.msg

- The POL HIJ Programme never really materialised as the Fujitsu “Postmaster First” actions were taken forward and tracked with weekly calls with POL



Postmaster First – Postmaster First –  
Improvements Plan - Improvements Plan -

- In July 2021 POL shared an initial Remediation Program POAP but did not explain if Fujitsu were involved



RE\_  
Remediation\_Improv

- By August 2021 POL had associated actions to the PoaP so Fujitsu could interact. It was mostly comparing RTQs to the initiatives POL had on its PoaP. IT was not a jointly planned and worked programme by any conventional definition.



RE\_  
Remediation\_Improv

- In November 2021 POL issued the final update to the PoaP and in January 2022 the weekly catch-ups were cancelled



Weekly HIJ  
Remediation Progra

- In summary Fujitsu drove the activity that created the following outcomes:
  1. Supported POL/KPMG to validate and test that the 29 BEDs were remediated
  2. Proposed improvements to Incident and Problem classification to enable better reporting (POL did not respond to final action list shared)
  3. Supported POL to take the Chair of what was HKERF and what was now HDR Forum – including defining a ToR
  4. Integrated CBIF with HDR in August 2021 to consolidate views of defects (See HDR below)
  5. Enhanced the ARQ data sharing process with digital signing and encryption under CWO0426 leading to CCN1723a

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6. Ran numerous Deep Dive sessions with POL and Fujitsu SMEs on POL selected subjects to enhance POL/KPMG understanding of various parts of HNG-X
7. Refined the documentation of the process for granting the APPSUP role and how the approvals and evidence of actions would be recorded. The processes around the temporary granting of the APPSUP role were defined in Fujitsu's "Horizon Data Changes Process Work Instruction" [SVM/SDM/PRO/4293]. POL has its own internal process document for Horizon Data Change which Fujitsu understands is titled "Horizon Support Approval Process vx.x" (latest version not known by Fujitsu)
8. Decommissioned the Transaction Correction Tool on 13 May 2021 under R21.51
9. Introduced weekly reporting of PAM administrator accounts for POL to review
10. Supported POL high-level discussions on its intentions to create a UAT process
11. Reviewed and contributed to POL planning around its test strategy, test policy and regression testing approach (see TESTING)
12. Supported POL in its thinking of its new governance model and the value and relevance of the many meetings being held between POL and Fujitsu
13. Offered guidance and teaching sessions on POL reconciliation actions (POL never responded)
14. Supported POL to take action on some of its selected "Pain Point Catalogue" action items

### 3. HORIZON DEFECTS REVIEW (HDR) – formerly HKERF – Branch Affecting defects

- In 2018, Fujitsu introduced internal weekly review of any new Knowledge Base Articles that could potentially refer to defects to ensure a Peak/Incident was in place if needed and POL notification of the Peak was provided where branch impacting. This fed into the Horizon Known Error Review Forum (HKERF)
- Fujitsu introduced a weekly HKERF in late 2018 to provide POL with early visibility of branch affecting defects
- POL considered ending this in 2019 (Martin Godbold)
- POL had created its own ToR for the meeting it did not chair (back in September 2020), and Fujitsu had created a ToR for the meeting it chaired. The 2 ToRs were not mutually agreed and were different
- POL requested transfer of chairmanship to POL in Q1 2021 with a new name HDR – started February 2021. Fujitsu agreed
- The HDR meeting scope includes Fujitsu defects and defects from other parties so Fujitsu does not attend the whole meeting and the minutes POL issued initially did not differentiate between the Fujitsu defects and others so Fujitsu was unable to accept the minutes from POL
- May/June 2021 the ToR for HDR was updated and the interaction formalised – critically, this included an agreed definition of a Live Defect
- POL did not seek to 'sign off' the ToR instead assuming its acceptance – which was reasonable as Fujitsu had co-authored it – but not formal
- In November 2021 Fujitsu proposed a new format for the HDR minutes that would allow Fujitsu to sign off on them. This included a recommendation that the weekly meeting started with an agreement of the minutes – POL agreed

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- Fujitsu proposed and introduced a target dataset for defect notification to POL and implemented it in November 2021 after receiving POL acceptance. This was added into v2.3 of the HDR ToR. This saw many new attributes captured and shared: release dates; release numbers; screenshots; description of workarounds; and many fields describing the defect to help POL understand and prepare postmaster comms
- In January 2022 Fujitsu amended the ToR to reflect all recent changes to ways of working (v2.3) and proposed to POL that this version is formally signed off. It was jointly signed off 04 February 2023



HDR ToR V2\_3.msg

- V3.0 was released March 2022 and we held a copy in Dimensions under reference SVM/SDM/PRO/4317

HDR Terms of  
Reference V3\_0.msg

- V3.2 was released January 2023 and our copy in Dimensions was updated too

RE\_ Horizon  
Implementation Def

- In August 2023 POL offered a v3.3 where they had removed the word DEFECT and changed it to Problem. Problem is a contract defined term and we responded with various points suggesting this was not a good idea. The discussion is ongoing

FW\_ Branch  
Impacting Problems

- In May/June 2021, based on the agreed definition, POA made numerous changes to Peak to enable better tracking and reporting of Live Defects using system driven approaches. This built upon the existing method as described in the “BED Current Process” audit report and was followed by various account wide cascades of the desired ways of working. In simple terms, if an Incident is raised for an issue that appears inconsistent with the agreed design or service specification it must be recorded in Peak with a specific ## tag applied. If, in addition, there is a possibility that the issue could be affecting live branches then it gets a second HDR tag. This drives all reporting and the various other meta data helps clarify the progress being made
- HDR reporting included all Deferred Defects (approved at a release closure meeting with POL) and major project defects (e.g. PBS) which are also discussed in project steering groups. This was to ensure POL’s defect team had a complete view of all HDR defects regardless of source as the release sign off attendees and project/programme managers were not feeding defects to the POL defect team. All reporting has included all branch affecting defects since the very start
- Fujitsu has been attending the weekly Monday HDR meetings since they started in June 2021 and provides a HDR Defects Update Report on the prior Friday.

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- In August-November 2022 a full review of all KBAs was completed to ensure that any defects were in fact also held in Peak and hence subject to all the tracking, reporting, updating and controls embedded into the systems and processes. KBAs are NOT where POA records Defects, that is done in Peak. There were very few amendments need to Peak and the exercise ensured Peak was the master system
- The KBA review did identify that there were defects that Fujitsu had not been asked to fix. To bring these into the Defect reporting, a new category of Accepted Live Defect was created and added to the reporting so it was visible to POL and could be discussed jointly. This was implemented in November 2022 and communicated to POL 02 December 2022. It has been on our reports ever since



HDR Defects  
Update Report - 02\_

### 4. ALL LIVE DEFECT MANAGEMENT

- POA defined a role for a Defect/Quality Manager and identified an internal candidate who took the role from 01 January 2022
- February 2022 – POA introduced Live Defect monthly reporting to the POA Business Review pack
- February 2022 – POA introduced Live Defect monthly reporting to all POA stack managers
- August 2022 – Fujitsu implemented fortnightly reporting to POL of ALL HNG-X Live Defects. Fujitsu had initially proposed and presented this to POL in December 2021, which led to a joint follow up January 2022, a sample report shared with POL February 2022 for their consideration, and then it went quiet. Fujitsu reminded POL in July 2022 and following further joint discussions Fujitsu launched the fortnightly reporting on 05 August 2022 and it remains in place

### 5. PRIVILEGED ACCOUNT IMPROVEMENTS

- Q2 2021 – Reviewed assignments of user accounts with elevated administrator privileges and rationalised it from 56 to 34
- May 2021 – Introduced additional weekly reporting for POL on PAM administrator account status. This is also now part of the monthly SecOps report to POL
- Enhanced the monthly PAM verification processes to record more evidence of actions taken – updates applied to SVM/SDM/PRO/0012
  - March 2023 – Further enhanced to include an approval step and a verification step where a member of the POA Leadership Team must be included
- November 2021 – introduced monthly SecOps reporting of all releases of “breakglass” accounts by POA SecOps – mentioned in RTQSR0003429 and offered by Fujitsu
- November 2021 – introduced monthly SecOps reporting of checks done to validate failed remote connections to the Horizon SSNs (Login failures)– mentioned in RTQSR0003429 and offered by Fujitsu. Suspended reporting from September 2022 to February 2023 due to identifying a data issue affecting reporting – checking was still being done
- Q4 2021 Fujitsu commissioned its ECS team to do a review of PAM accounts and activity. This concluded in December 2021 with a series of recommendations

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- Q1/Q2 2022 Fujitsu commissioned ECS to remediate all PAM account findings
- Q3 2022 POA SecOps implemented a Privileged Account Register to hold details of all privileged and shared accounts
- Q3 2022 POA implemented a Privileged Account Policy including a revised Password Policy and stating a range of controls that were to be assessed per privileged account
- Q4 2022/Q1 2023 POA SecOps updated the Privileged Account Register to record the compliance of all accounts to the stated controls implemented
- CP2831 – Fujitsu changed all non-BRDB default privileges for SSC support staff to be read only by default with validated logging when rights escalated to WRITE to perform approved changes (e.g. contractual tasks such as reconciliation and OBC, or other POL pre-approved system fixes as documented in the Horizon Data Change work instruction). The CP also ensured ALL human actions taken against the non-BRDB databases were fully logged and written to the Audit Archive. Implemented December 2022 under R36.50
- 19 March 2023 – under R40.50 - CP2876 – Fujitsu refined the auditing of all human database actions to include the BRDB
- July 2023 – under R38.51, Fujitsu implemented a GPO change to enable enforcing of iKey (Multi-Factor Authentication) of all staff – importantly including system administrators who had always been exempt to facilitate remote support

### 6. ENQUIRY SUPPORT for POL

- July 2021 – Introduced a simple enquiry mailbox for POL and its legal representatives and assigned a multi-skilled team to be available to review and actions (PO.Enquiries@ and the channels we proposed prior to this)
- Offered to work with POL to check it is using all of the Horizon content it has access to to best support an inquiry from a postmaster. Interactions ongoing with POL actions frequently being the cause of the delays/lack of pace
- Supported POL's Investigations team to identify a series of new requirements to improve their processes (CWO0474) which led to changes being made under CWO0562

### 7. APPSUP

- 18 October 2016 18:00 – Removed the default privilege APPSUP on BRDB under MSC 043J0451867 and made it an on-demand and approved controlled allocation of temporary rights
- APPSUP is not used to correct branch balance discrepancies or to amend financial transactions. Corrections relating to branch balance discrepancies are performed by POL using the POL Transaction Correction Process. APPSUP is used for non-balance impacting actions (such as stock unit associations, emergency branch opening, or monthly tidying of despatch reports). This is documented in the Horizon Data Change work instruction. Some APPSUP actions can indirectly lead to a balance impact (such as deleting a corrupt recovery message that is causing a logon loop). Where an action being taken by Fujitsu using APPSUP could lead to a balance impact, it is POL that decide if any balance discrepancy correction is required with the branch and it is POL that take any corrective action required.

- *Note: APPSUP can be used to correct branch balance discrepancies and to amend financial transactions but a decision was made, but not documented or dated, that Fujitsu would NOT use the*

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*privilege to do this. A note is being added to any current work instructions and KBAs to ensure it is clearly stated that we do not use APPSUP for that purpose and that that has been the case for many years*

- Implemented a new jointly defined and agreed process for APPSUP usage in May 2021 (Horizon Data Change process) that ensures a new POL approval process can be integrated and evidence of action taken provided. This document also describes all scenarios under which Fujitsu may be required to amend live data

### 8. COUNTER ACCESS RIGHTS and ACCESS

- October 2021 – Fujitsu sent a recommendation to POL to work with CC to ensure that Fujitsu privileges using the CSASSH account used when connecting to counters for remote support purposes has Least Privilege (READ ONLY level capabilities) and CANNOT affect counter operations – as described in REQ/SIR/SRS/2605. In Q4 2022 POL commissioned Fujitsu to test a solution proposed by their new EUC provider DXC. This concluded successfully in December 2022. POL then rolled out this least privilege change with DXC in January and February 2023. This now affirms that Fujitsu support staff cannot make changes to live counters
- April 2022 – under CWO0574 Fujitsu implemented weekly reporting of all remote counter access made by Fujitsu specialist support staff to branch counters. This showed the command executed and the result

### 9. FUJITSU SYSTEMS

- 13 May 2021 (CWO0425) – Fujitsu fully decommissioned the Transaction Correction Tool with POL involvement throughout. Done under Release 21.51
- R72.10 (CP2774) – Fujitsu fully decommissioned the misleadingly named Fujitsu Keylogger which was partially implemented to help Computacenter resolve issues with hardware peripherals

### 10. RISK MANAGEMENT

- January 2020 - POA continued to make internal process improvements to the account risk management processes and platform to ensure greater alignment and clearer action tracking across all areas
  - A POA monthly Risk Meeting was initiated in January 2020 for all senior managers to require quality and risk posture
- May 2020 – POA enhanced risk management with POL - expanding it to cover all domains and providing a monthly report. This is discussed at ISMF and SMR and an overview check is performed by the POA risk lead and the POL risk lead at a monthly joint risk review meeting
- Security risks are routinely reviewed and action plans (where viable) have been created for ALL risks – jointly – and this is reviewed monthly as each risk review date occurs

### 11. ARQ

- October 2022 – Digitised the delivery of ARQ responses. This was done under CWO0426 and was extremely delayed by POL procuring, installing and configuring the required desktop PGP software. The project started in April 2021

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### 12. SECURITY MONITORING

- March 2022 – September 2023 (WIP) – Fujitsu implemented SIEMaaS as an internal service improvement project under CP2877

### 13. TRANSACTION CORRECTION TOOL

- Decommissioned the Transaction Correction Tool in May 2021 under formal project with POL involvement and sign-off

### 14. HORIZON AUDIT

- January – March 2021 – Delivered 6 detailed reports on Fujitsu ways of working to assure POL of the current Fujitsu working practices on:
  - SDLC
  - Testing & QA
  - BED Management
  - Remote Access
  - Robustness
  - Detailed update on the 29 BEDs
- Follow up questions were sent by POL and Fujitsu responded to all of those formally too
- Each report contained a number of recommendations which POL have not sought to discuss or overtly action
- Fujitsu was assured it would receive formal feedback on these reports but this has never been shared by POL

### 15. PAM/RAM ASSURANCE

- April 2023 - Delivered detailed report on PAM/RAM questions raised by POL. Feedback yet to be received, but a diary entry exists for informal feedback Wednesday 06 September 2023

### 16. REPORTING

- Horizon Defect Review Report - weekly
- ALL Live Defects Report - fortnightly
- Fujitsu Counter Access Report - weekly
- PAM Weekly Report - weekly
- Fujitsu Risk Log - weekly
- Projects/Programmes PoaP – weekly
- Project Status Reports - weekly
- See MONITORING section as the additional events monitored are presented as HORice reports

Specifically for Defects...

February 2022 – 122 Live Defects of which 58 were Branch Affecting



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### 17. HEADCOUNT & CAPACITY (check with Dan)

- Added 35 heads in October 2020 to better support POL in its change aspirations predominantly to build capacity to deliver the PBS and BEX critical strategic projects as well as recruited specialists to aid the transition to a hybrid delivery model
- ASM was introduced in 2018 to enable POL to prioritise the utilisation of 4<sup>th</sup> line resource on project work over lower priority BAU work.
  - 61 potential projects were then identified for consideration by POL (extract thumbnail shown below)

ID	Maturity of Idea	Problem Statement (as succinct as possible)	Benefit to POL (as succinct as possible)	Study / Implementation Required	ASM / Wrap Usage?	Other suppliers involved? (e.g. ATDS)	Size ESTIMATE (F-shir) S <500k/Mf / >500knd L total project delivery
ASM-1	Green	Current JRE used on HNG-A and other components is soon going out of support.	Ability to continue to get security and patch updates for the JRE.	Study	100% Wrap	No	S
ASM-2	Green	PODS protocols out-of-date - Options Study	Easier/less issues when connecting to 3rd parties.	Study	100% ASM & Wrap	No	S
ASM-3	Green	PODS protocols out-of-date - Implementation (Requires ASM-2)	Easier/less issues when connecting to 3rd parties.	Implementation (Requires ASM-2)	90% ASM & Wrap, 10% other (more work to refine)	No	L
ASM-4	Green	Re-engineer iBoss Services - Implementation	Easier to create shared component functionality, reduction of licensing costs. More in line with the current architectural direction.	Implementation - Re-engineer the services as iBoss to be like cloud services.	90% ASM & Wrap, 10% other (more work to refine)	No	M
ASM-5	Green	Implementation of new Operational Business Change process in Estate Management - Implementation (Requires replacement ENVDI/MTA (C72611/C92235))	Give the Post Office themselves the ability to order and monitor changes to the Estate's Branches and Branch equipment (or continue via the MAC team)	Implementation - To replace the existing BCMS / CBC process with a new BCMS Database and Web front end / Mobile App?	75% ASM & Wrap, 25% other (more work to refine)	ATDS, POL	M

- Increased the scope of funded resource provided by Fujitsu to cover £1.2m pa (£90k per month of testing, PM and Architecture resource from circa April 2020)
  - Identified potential options to improve the service such as a mechanism for the counter to check in to see if it is the latest version, thereby enabling shorter lead time for releases

### 18. PROJECTS & CHANGE (check with Jon)

- Identified the need for a POL Demand Planning forum and setup the governance with POL and inputs to enable this to progress and mature
- Fujitsu had to take on a more active leadership of Demand Planning to apply more rigour and help POL better manage workload and change
  - Fujitsu project workload tracking improved to enable better feed into Demand Planning
  - This includes validating if work by Fujitsu is in fact the right option, challenging the purpose and whether IT is the right route or whether business process amendment may be more suitable
  - Fujitsu initiated review of all open work items to identify any that would affect the BEX delivery dates that POL are keen to achieve
  - Fujitsu provides a POAP to help POL understand the overall demand landscape
- More focussed project weekly reporting set up, highlighting risks and dependencies for POL to manage and monthly finance forecasting provided to POL PMs
- PCI Change Request meeting set up to track key changes / additions / new requirements to support PCI initiative

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- Fujitsu offered considerable additional support to POL to help it manage its 3<sup>rd</sup> parties – to try and reduce the frequency of plan changes needed due to POL 3<sup>rd</sup> party issues
- Projects to support Postmasters:
  - Rename Settle centrally (CWO0415)
  - Design study for access to Branch Hub from Horizon (CWO0424)
  - Branch Printer Cost Reduction – Error Code Mapping and Economy Print (CWO0348)
  - Making test hardware more representative (CWO0224)
  - Horizon Help screen FIX #2 (CWO0479)- in flight
  - Clear back office print queue from Horizon (CWO0490) – still in impacting stage
  - Discrepancy investigations (CWO0466) – progress stopped by POL and project withdrawn
  - Cash management (Glory machines)
  - Payment Banking Service to reduce the dependency on Horizon and instead utilise industry solutions i.e. Ingenico
- Trained & accredited POL and project teams in SAFE agile methodology to help ensure DDS ways of working are optimised to enable delivery. Funded external coaches full time to assist the entire delivery mechanism from POL product managers/owners to scrum team engineers

## 19. GOVERNANCE/COMPLIANCE (check with Dan)

- A Weekly Priority Meeting was requested by Fujitsu and introduced in April 2019 to enable POL to share its priorities – face to face – so Fujitsu could be clear on the context and ask questions to avoid any confusion from emails, meetings, and other ad-hoc discussions
  - Additionally this helps POL stakeholders to be aware of the breadth of activities that Fujitsu are undertaking.

## 20. TESTING (check with Graham)

- Fujitsu assisted POL to confirm that all 62 issues comprising the 29 BEDs cited in the Horizon Issues were closed. This was successful
- With the appointment of a new POL Head of Test we have introduced a more collaborative approach to testing. Each release now has a joint test team POL/Fujitsu/Any appropriate 3<sup>rd</sup> party to discuss/agree scope of activities for the changes under test.
  - Good examples of this were the 29 BED testing, PRE-PAID MI and Computacenter Data Centre migration where we worked closely with POL Test / Accenture / KPMG / CC to complete these activities
- We have contributed to the Post Office Test Strategy, Test Policy and Regression testing approach to help shape testing process at all levels
- We made many recommendations in the TESTING & QA REPORT as part of the Horizon Audit

## 21. MONITORING (check with Steve Ba)

- The following HORIce graphs were introduced (following Incident reviews). They are used to assess impact/observe symptoms of ongoing live issues and are used by Service Management
- These are visible to POL on its HORIce dashboard

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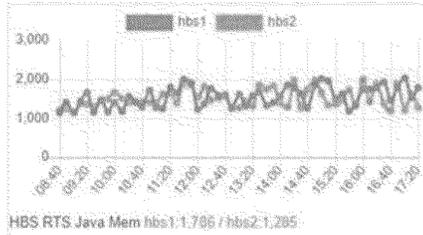


Figure 1: This is looking at the BMX metrics for Java heap memory in the HBS (kiosk) servers. If the Java cannot free used memory quickly enough it leads to issues

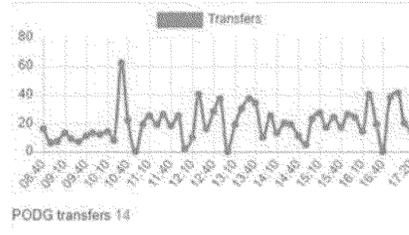


Figure 2: This is looking at the PODG transfer logs (via a HTTP interface) to detail the number of completed file transfers

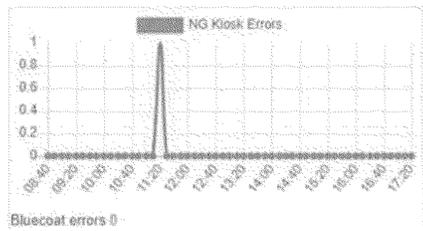


Figure 3: This is looking at Tivoli events harvested from the BlueCoat-ProxySG, it is looking for a specific error text 'Scheme was not delimited' that can affect kiosks