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Approval Authorities: *(See PA/PRO/010 for Approval roles)*

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0.0 Document Control

0.1 Document History

Version No.	Date	Reason for Issue	Associated CP/PinICL
1.0	05/11/97	ICL Pathway Problem Management Process	
1.1	16/04/98	Update	
1.2	25/05/98	Update	
1.3	19/07/98	Update	
1.4	03/12/98	Update	
1.5	02/04/99	Update	
1.6	29/07/99	Updated following internal review and comments	
2.0	26/08/99	Stored in PVCS as "Version Complete"	
2.1	15/05/00	Updated following a review of the CS Problem Management Operation	
3.0	13/11/00	Updated with comments from version 2.1, and developed for approval.	
3.1	19/11/01	Updated following annual process review, and incorporation of the CS divisional alert process.	
4.0	27/11/01	Updated with comments from review of version 3.1 and developed for approval	
4.1	05/11/04	Updated with a complete rewrite of the Process after workshops within the POA Support Groups. To support the change in Post Office Business for On-Line Services	
5.0	20/01/05	Updated following internal review and comments	
5.1	7/4/05	Updated with new ITIL template and taking into account new HSD and Problem Management structure.	
5.2	5/5/05	Updated in light of comments, particularly in reference to respective roles of IMT and PI. Also two new types of problem resolution identified.	
6.0	02/08/05	For Approval	

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0.2 Review Details

Review Comments by :	
Review Comments to :	*Deirdre Conniss*

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0.3 Associated Documents

Reference	Version	Date	Title	Source
CS/IFS/008			POA/POL Interface Agreement for the Problem Management Interface	PVCS

CS/PRD/074			POA Incident Management Process	PVCS
PA/PRO/001			Change Control Process	PVCS
CS/QMS/001			Customer Service Policy Manual	PVCS
CS/PRD/122			POA Major Incident Communication Process	PVCS

Unless a specific version is referred to above, reference should be made to the current approved versions of the documents.

0.4 Abbreviations/Definitions

Abbreviation	Definition
CI	Configuration Item
CMDB	Configuration Management Database
CP	Change Proposal
CSIP	Continuous Service Improvement Plan
FAD	Identifying code for a Post Office branch
HSD	Horizon Service Desk
IMT	Incident Management Team
KEL	Known Error Log
MBCI	Major Business Continuity Incident
MSU	Management Support Unit
PI	Problem Initiator
PM	Problem Manager
PO	Post Office
POA	Post Office Account
POL	Post Office Limited
PRB	Problem Review Board
SDMs	Service Delivery Managers
SDU	Service Delivery Unit
SLA	Service Level Agreement
SLT	Service Level Target
SRF	Service Review Forum
SSC	System Support Centre (Team responsible for 3rd line support applications)

0.5 Changes in this Version

Version	Changes
6.0	Changes resolving typos plus making minor corrections.

0.6 Changes Expected

Changes
Changes following peer review. Further development of reporting.

0.7 Table of Contents

1.0 Introduction

1.1 Purpose

The purpose of this document is to define the process for Problem Management of the POA environment. For the purpose of this document a Problem is defined as:

"The unknown underlying cause of one or more Incidents."

1.2 Objectives

The primary goal of the Problem Management process is to minimise the adverse effect on the business of Incidents and Problems caused by errors in the PO environment, and to proactively prevent the recurrence of Incidents, Problems and errors. Problem Management focuses on finding the root cause of Incidents, creating Known Errors and resolving these via the Change Management process.

1.3 Process Owner

The owner of this process is the Service Delivery Team Manager. Responsibility for individual problems is allocated to the specific Service Delivery Manager most affected by the problem, who will act thereafter as the Problem Manager. The table in Appendix A shows the current scope of each Service Delivery Manager's responsibility. Where a problem spans several services, and relates to the customer view of the service, the Problem Manager will be the Service Delivery Team Manager. If there is no immediately obvious Service Delivery Manager to manage a Problem, then the Service Delivery Team Manager will nominate the individual.

2. Scope

2.1. General

The process covers both the reactive and proactive functions of Problem Management.

The scope of the reactive function is from identification of a Problem to its closure and includes root cause analysis, initiation of change requests and the provision of management information to Fujitsu and POL. Note that a problem may be closed without being resolved, where the resolution is judged not to be cost effective.

The scope of proactive Problem Management includes trend analysis, subsequent identification and resolution of Problems and management of the Problem Management process itself.

Care needs to be taken within POA to distinguish a "Problem" from a "Major Incident", since old procedures controlled Major Incidents by defining them as Problems. Every Major Incident will have a Problem record raised for it but this is only to ensure that the underlying cause of the incident is thoroughly aired and any recommendations from the Major Incident report applied over time. Problems are handled essentially off-line and may take many days to resolve. Incidents are handled quickly, the aim being to restore the customer's service as soon as possible.

2.2 Inputs

The inputs to this process are:

- Problem record initiated by the Service Desk following identification that no record exists on the Knowledge datastore (KEL) for the specific circumstances associated with an incident.
- Problem record raised by the Service Delivery Manager as the result of a direct request from POL e.g. during monthly reviews or on the telephone. Note that the problem management process interface for POL raised problems is covered in ref [1] .
- Problem record raised by the Service Delivery Manager as the result of a direct request from an SDU, apart from Service Desk, who have noticed a trend which needs investigation.
- Statistics for trend analysis
- Request for management information from Problem records
- Outputs from performance metrics where, for example, the SLT is at risk.

2.3 Outputs

The outputs from this process are:

- A closed Problem
- An entry in the KEL
- A workaround
- A permanent solution where commercially feasible
- Contribution to a Continuous Service Improvement Plan (CSIP)
- A CP and business case for proposal
- A Problem referred to POL or a third party
- An available Service or Component
- Analysis of a trend report and recommendations for proactive change
- Management Information
- Proactive feedback and advice to users
- Other proactive actions to reduce the number of Incidents

2.4 Control Mechanisms

The measures that apply to this service are:

- Number and impact of similar Incidents occurring after a Problem is recorded before a resolution or workaround is available
- Total number of Incidents reported to the Service Desk
- Caseload of Problem Managers
- No of Problems by SDU, service and application

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2.5 Service Hours

Although a problem may be identified at any time, the management of problems is essentially conducted during office hours i.e. 09:00 to 17:30 Monday to Friday excluding Bank Holidays.

3.0 Risks and Dependencies

3.1 Risks

The following define the risks to the successful delivery of the process:

- Break in the communications chain to third parties. Mitigation is to invoke escalation procedures
- Resistance by parties to carry out pro-active recommendations to reduce number of Incidents. Mitigation is to escalate to senior management
- Commercial constraints. These would need to be analysed on an individual basis to decide on the most commercially acceptable option
- Increased business and operational impact through lack of Problem progress updates to POL.
- Unavailability of sufficient support unit staff
- Unavailability of sufficient tools for problem diagnosis
- Non-availability of KEL or call management systems
- The provision of inadequate staff training
- Unavailability of systems for evidence gathering
- Loss of any infrastructure component which links support systems to the live estate

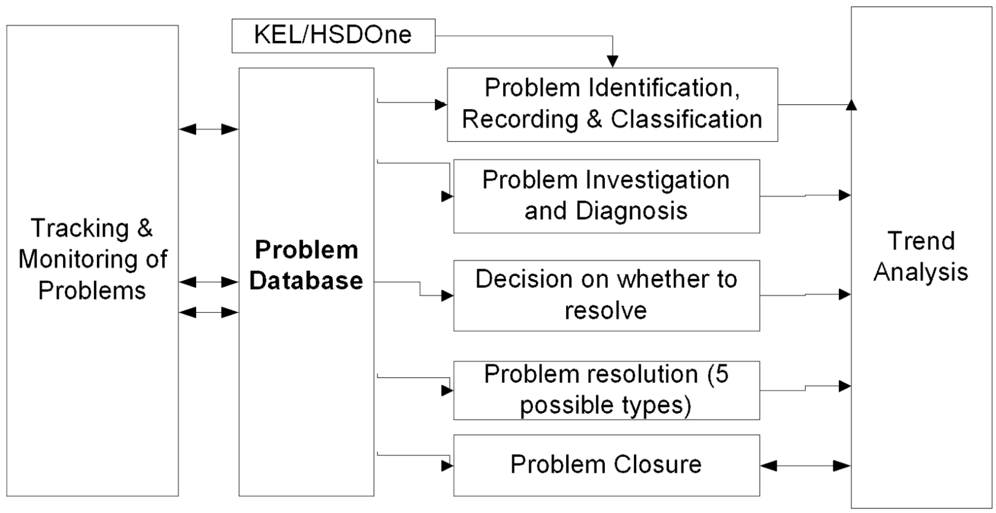
3.2 Dependencies

This process is dependent on:

- Effective routing of Problems to SDUs and third parties
- Effective escalation procedures within Fujitsu, POL and third parties
- POL acceptance of feedback, contributing to end user education and reduced Incident rates
- Effective collaboration diagnosis between SDU's and third parties

4.0 Process Flow

4.1 Level 1 Problem Management Process



Problem database implemented within 2 physical databases. Powerhelp holds the main Problem database, which will have an entry for every problem. PEAK (primarily for software problems) holds detailed information on error investigation and diagnosis and root cause analysis.

KEL datastore is a reference point for HSD, primarily relating to software known errors and prepared for them by SSC team. HSDOne is a further KEL to which HSD have added other information required by HSD agents

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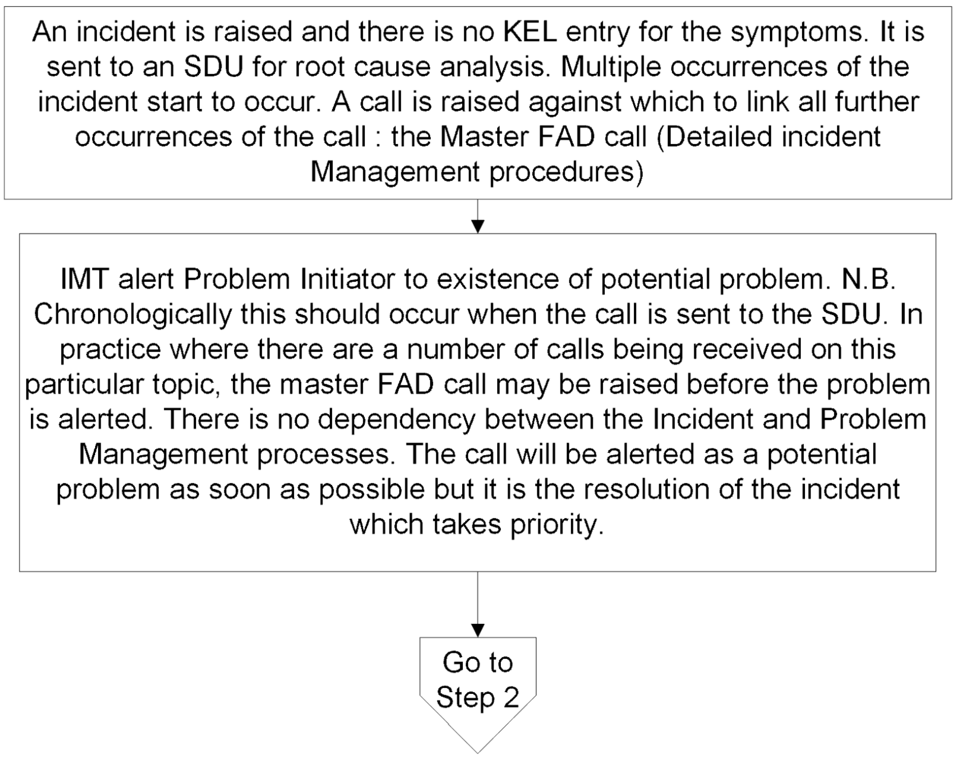
4.2 Level 2 Problem Management Processes

4.2.1 Step 1a : Problems initiated from incident management

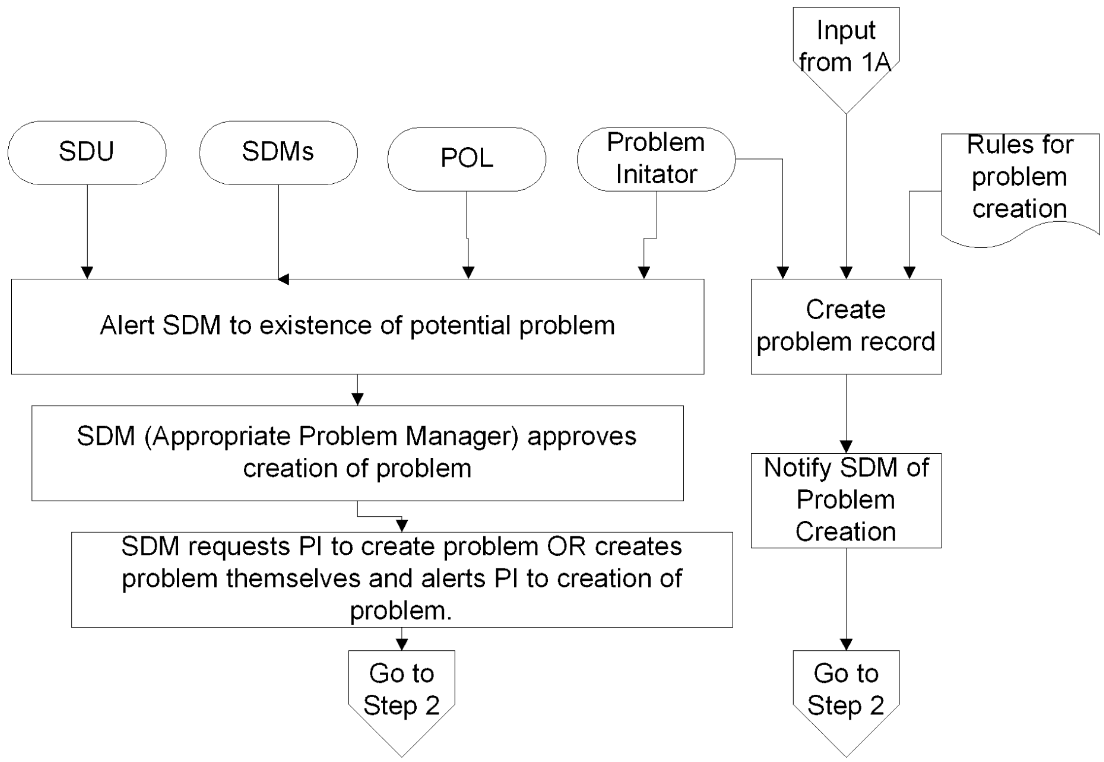
Responsible: Service Desk(IMT) and Problem Initiator (PI)



This section is not part of the Problem Management Process. It is part of the detailed Procedures associated with the Incident Management Process. It is included to link the two processes.

4.2.2 Step 1: Problem Identification, Recording and Classification

Responsible: Service Desk, SDU's, Service Management, POL



Steps

1.1 A Problem may be initiated by the following:

- The Problem Initiator (PI) noting that a multiple Incident has occurred.
- The IMT noting that there is no KEL entry to cover the specific circumstances of an incident and alerting the PI
- The Service Delivery Units may identify Problems, from either noting that a multiple Incident has occurred or that the root cause of an Incident is required, following the restoration of a service after applying a temporary workaround.
- Problems may be identified following an analysis of trends by SDUs, the Service Desk, Service Delivery Managers etc., which require the underlying cause to be found.
- Either POL or Fujitsu Service Management may become or be made aware of situations which identify a Problem.

If contacted by the IMT, the PI will use the Rules to determine whether it is appropriate to raise a problem. If in doubt the PI should contact the Service Delivery Manager and request approval to raise a Problem by telephone. On receipt of approval or when the issue conforms to the rules for Problem raising, the Problem Initiator will raise a Problem record.

If POL wish a problem to be raised, they will discuss initiation with the Service Delivery Manager and on acceptance of the problem, the Service Delivery Manager will raise a Problem record and notify the PI that they have done so. Alternatively they may contact the PI and request them to raise it on their behalf. .

If the SDU (including 3rd party suppliers) wish to raise a problem, they will discuss it with the appropriate Service Delivery Manager, who will create the Problem record on their behalf or ensure that the PI does so.

Note that care needs to be taken on the definition of a problem and its title, as this will be crucial in determining further occurrences of it. For example, if a series of branches have a problem where SLT targets for breakfix are exceeded due to poor quality spares, it is important that the incident is identified as being a problem with the SPARES not with BRANCHES failing SLT targets for speed of turnaround.

Note also that the Problem Initiator is normally co-located with the IMT team. In the event of the PI's illness or absence, that role will be performed someone from the CS Administration team.

1.2 The Problem is classified by assigning a severity level according to urgency and impact. While the Incident is open, the severity will match that of the Incident. However, if the Problem has been raised to provide the underlying cause of an Incident to which a temporary workaround has been applied, the severity may be lower. Note also that "MBCI" and "Major Incident" relate to classifications of incidents. However they are included here, as such incidents should always generate an examination of root cause and determination of action to prevent recurrence.

1.3. Note that once a problem reference has been generated and is available to attach to, HSD should attach the Master FAD call to the Problem record. Further occurrences should continue to be attached to the Master FAD call.

There is no target for the creation of the Problem Record, attachment of the Master FAD call to the Problem record. However it is expected that all the steps will be completed within one working day of the problem record being created.

Severity	Importance	Definition
MBCI		• System outage which prevents the supply of one or more services to a number of post offices
Major Incident		• A system outage which has the potential, if not resolved, to lead to an MBCI
A	Critical	• BUSINESS STOPPED, a Post Office down, unable to process any business.
B	Major	• BUSINESS RESTRICTED, a Post Office restricted in its ability to transact business, e.g. one counter down.
C	Medium	• NON-CRITICAL, a Post Office working normally but with a known disability, e.g. an interim solution (workaround) has been provided.
D	Low	• INTERNAL, an internal HSD/SMC problem, e.g. a help desk PC or a phone set inoperable.

Note that neither MBCI nor Major incident is reflected in Powerhelp or PEAK. Such a status is simply the trigger for the process steps outlined in ref [5]

Problems identified outside normal office hours

The PI only provides the service 09:00 to 17:30. Any potential problems identified outside those hours should be communicated to the PI or the SDM at the earliest possible time i.e. the next working day.

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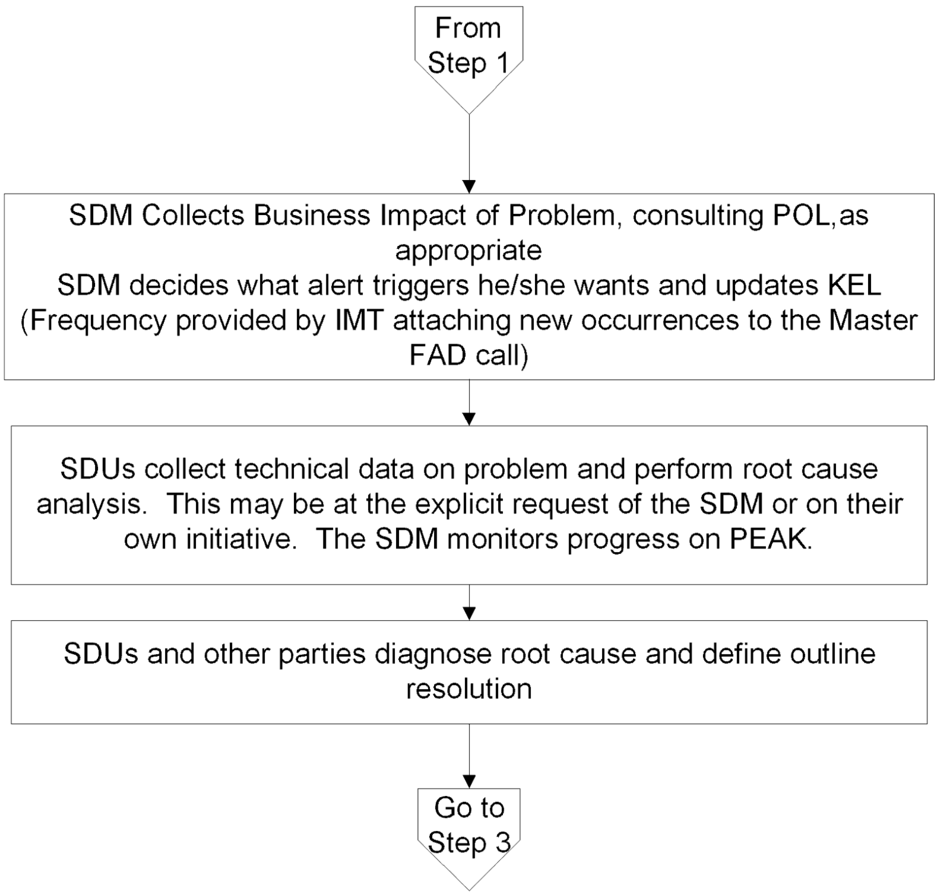
4.2.2 Step 2: Problem Investigation and Diagnosis

Responsible: Service Delivery Managers, SDU's, POL, third parties



Steps

2.1 The SDM identifies the initial business impact of the problem and decides what he wants as triggers for alerting. For example, for one problem he might want to know as soon as there was a recurrence. With another, he might only want to be notified when there were 12 in one day. The SDM should update the KEL to provide this information for the IMT. Note that if this information is not provided, the IMT will not notify any surge in incident occurrence. Note also that the business impact may change over time if more incidents occur, as a direct result of the underlying problem not being fixed. IMT will continue to link any new occurrences to the Master FAD call, as they occur. They will also contact the PI, if the triggers set by the SDM on the KEL are tripped. The SDM will consult POL as appropriate. In some cases, this may not be necessary (the business impact of an MBCI is to some extent pre-determined). However the SDM should always consult POL, where the problem has an impact on the daily working practices of Post-masters or relates to a "Problem Branch".

Business impact is measured against the following parameters:

- Total number of incident calls associated with the problem
- Whether the problem is disabling a specific outlet or preventing it from trading and whether there are alternatives to that branch in the locality.
- Whether the problem is disabling a high performance outlet or preventing it from trading
- Whether the problem is disabling a nation-wide service or affecting a specific service over a distinct geographical area
- Whether there is a workaround, which enables the Post Master to circumvent the problem without affecting his business flow. Note that the workaround must be acceptable to the Post Master. In this context, a workaround, which disables the counter for 5 minutes, is unlikely to be acceptable.
- Whether the problem is likely to bring POL HQ into disrepute e.g. articles in the Press, Postmaster has contacted M.P.

Note that the above parameters are intended to provide RELATIVE Business impact. It is not intended to imply that a single disabled outlet, where there are alternatives, can be left disabled indefinitely. Business Impact is defined in more detail in Appendix C

2.2 Details of the Problem are gathered by the responsible SDU or third party from wherever is relevant, e.g. Incident Management, the person logging the Incident, the CMDB, other SDUs. The information is then used to diagnose the problem and find the root cause. If difficulties are encountered, the SDU escalates the issue to the SDM. The work done to establish root cause may be performed at the explicit request of the SDM, in which case, updates may be applied directly to the Problem record by the SDM. It may also be performed on their own initiative by the SDU, because for example, they need the information to resolve the incident. The SDM will monitor the PEAK system to view progress and summarise the information on the problem record on Powerhelp.

2.3 From this investigation the SDU decides what would be required for a permanent resolution, including the following information:

- Root cause analysis of the problem
- One or more permanent resolutions to the problem
- Outline indications of the resource required for each resolution option, which may be expressed in financial terms or human resource terms but should be readily convertible to financial impact.
- Impact on the SDU to resolve the problem
- Estimated impact on the user: Note that this is not a duplicate of the business impact already collected. It provides a technical view of what the user will be able or unable to do.
- Estimated impact on operations

- Risk of applying resolution to problem (risks identified for each option, if there are more than one)
- Cost of not-resolving a problem
- Cost of conformance as opposed to non-conformance
- Suggested best time for implementation: e.g. in relation to releases or operational exercises already planned with which this change could coincide. With application code, this will always be a Release reference.
- Any other relevant information e.g. this component becomes redundant in six months time, therefore less incentive in fixing problem.

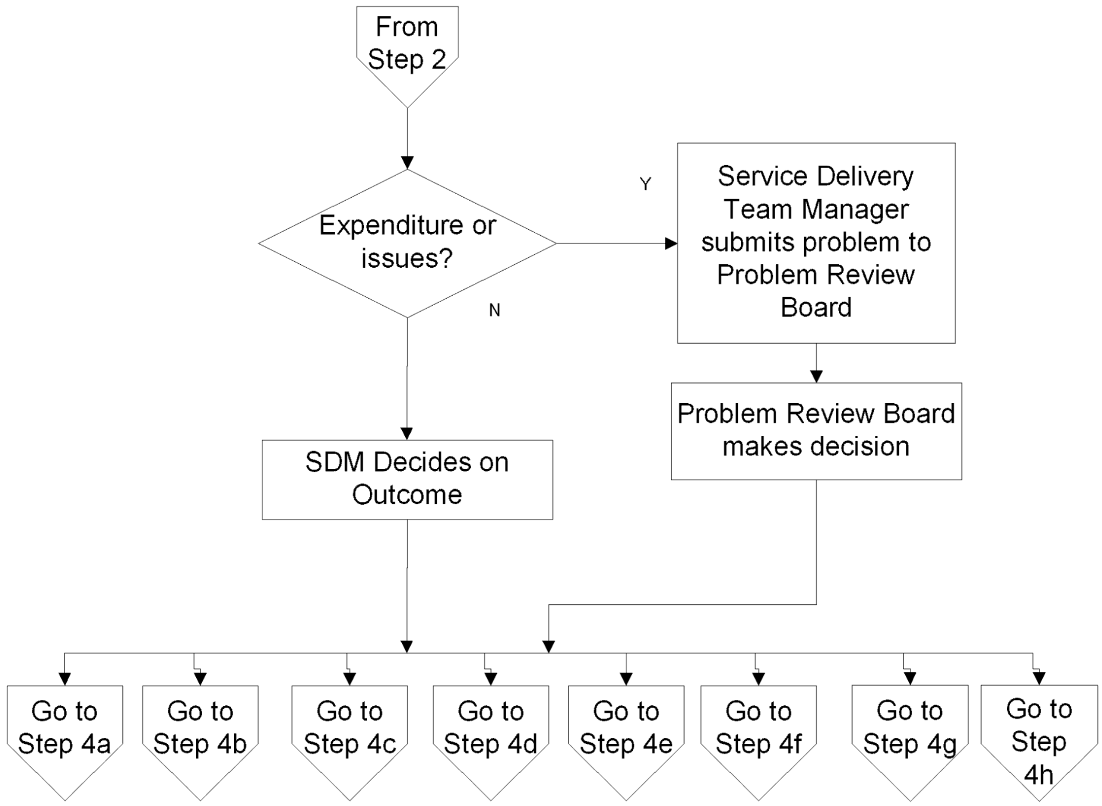
Note that it is possible for a problem to be resolved without going through a formal process of agreement to resolve e.g. root cause analysis is quickly established, resolution is clear and simple, business impact is severe and a testing environment is immediately available for the resolution to be tested. In such cases, there is no need for the SDM to do more than record this on the Problem record.

2.4. Subject to the above, the SDM will make an assessment, which will cover the following areas:

- Severity and Business impact of the problem
- Cost of the resolution
- Risk of the technical solution
- Impact if any on POA implementation programmes
- If relevant, long term viability of the solution e.g component shortly to become redundant.
- Whether the problem needs to be fixed immediately or in the medium to long term.

4.2.3 Step 3: Decision on whether to resolve

Responsible: Service Delivery Manager
Escalation Route: Problem Review Board



Steps

3.1 At this point, the SDM decides whether or not he believes the problem must be resolved. He should take into account the business impact and in particular any input provided by POL PM. POL PM should always be consulted where the SDM's judgement is that the problem needs to be resolved but should be deferred to the next major release rather than being resolved immediately. There are seven possible outcomes:

- Impact of problem is minimal, therefore resolution is not cost justifiable
- Impact of problem is not minimal but resolution is not cost effective
- The problem is release connected and should be resolved in a specific major release
- The problem is release connected and should be resolved immediately
- The problem itself is release independent but resolving it has an impact on release e.g. contention for test rigs.

- The problem is entirely release independent and can be financed entirely by Customer Services.
- The resolution of the problem requires financing by POL
- The problem requires action by POL to resolve it.

3.2 The SDM may also identify at this point, that the proposal needs the explicit support of senior management within Customer Services. The following list is not exhaustive but indicates where escalation is appropriate:

- Resolution of the problem requires capital expenditure to be allocated
- Resolution of the problem may require a delay to a release
- POL have requested urgent resolution to a problem, but indications are that the resolution cannot be fitted into the next release
- POL have requested resolution of a problem but the SDM's judgement is that the resolution is not cost effective
- Significant investment by POL is required to resolve a problem, there is evidence that they are unlikely to approve it and there is a knock-on effect on POA Operations.

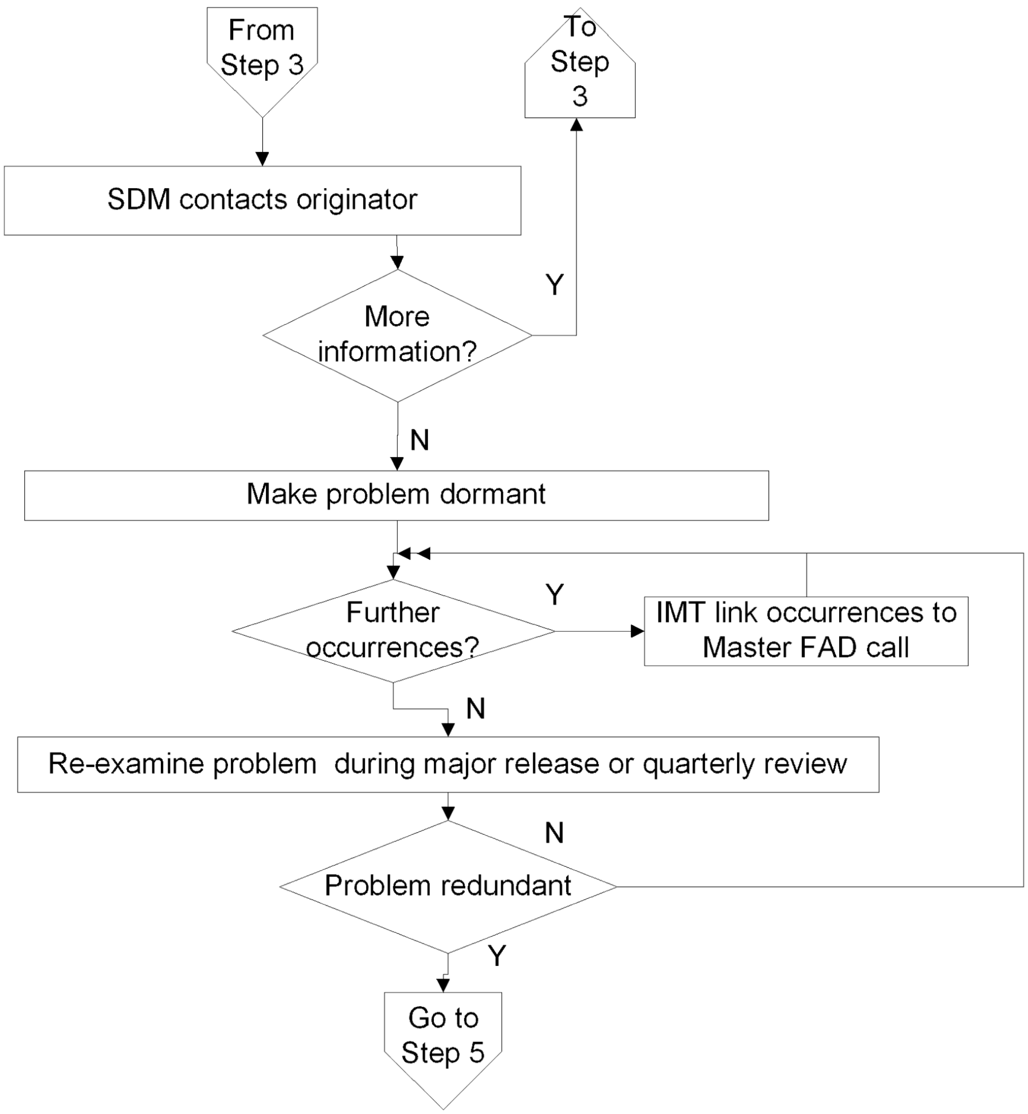
3.3 The SDM will prepare a formal assessment of the problem, including the elements defined at Paragraph 2.3.and pass the problem to the Service Delivery Team Manager, who will submit it to the Problem Review Board, whose Terms of reference are described in Appendix B. They will decide on the most appropriate action. In addition to the above, this may include tabling the problem at the SRF for further high-level discussion with POL.

3.4 If the SDM has a problem which requires urgent resolution and where expenditure will need to be authorised by the Problem Review Board, he/she should escalate to the Service Delivery Team Manager and he/she will make a decision on whether it is appropriate to convene a special meeting of the Problem Review Board to discuss the issue.

4.2.4 Step 4a: Impact minimal therefore resolution not cost justifiable

Responsible: Service Delivery Manager

Escalation: Problem Review Board



Steps

4.1 SDM contacts the originator of the problem and lets them know their decision (or the Problem Review Board's decision if it has been escalated). It is possible that this will result in the discovery of information, which would make it more important to resolve the problem. In such a case, the SDM may either decide to go ahead with the resolution based on the new evidence or re-submit it to the PRB, if it was their decision not to proceed with it.

4.2 The problem will become dormant, i.e. it will be monitored but no active steps will be taken to resolve it. The following events need to take place, before the SDM can leave it:

- If the problem is also registered on the PEAK system as an error, the SDM will ensure that the PEAK record has been updated with a progress indicating that the problem record is now only being monitored. . No other updates should be made on the subject of resolving it.
- The SDM will decide what frequency of incidents will cause the dormant problem to be re-activated and ensure that this is documented on the KEL record. This is expected to vary widely from problem to problem.

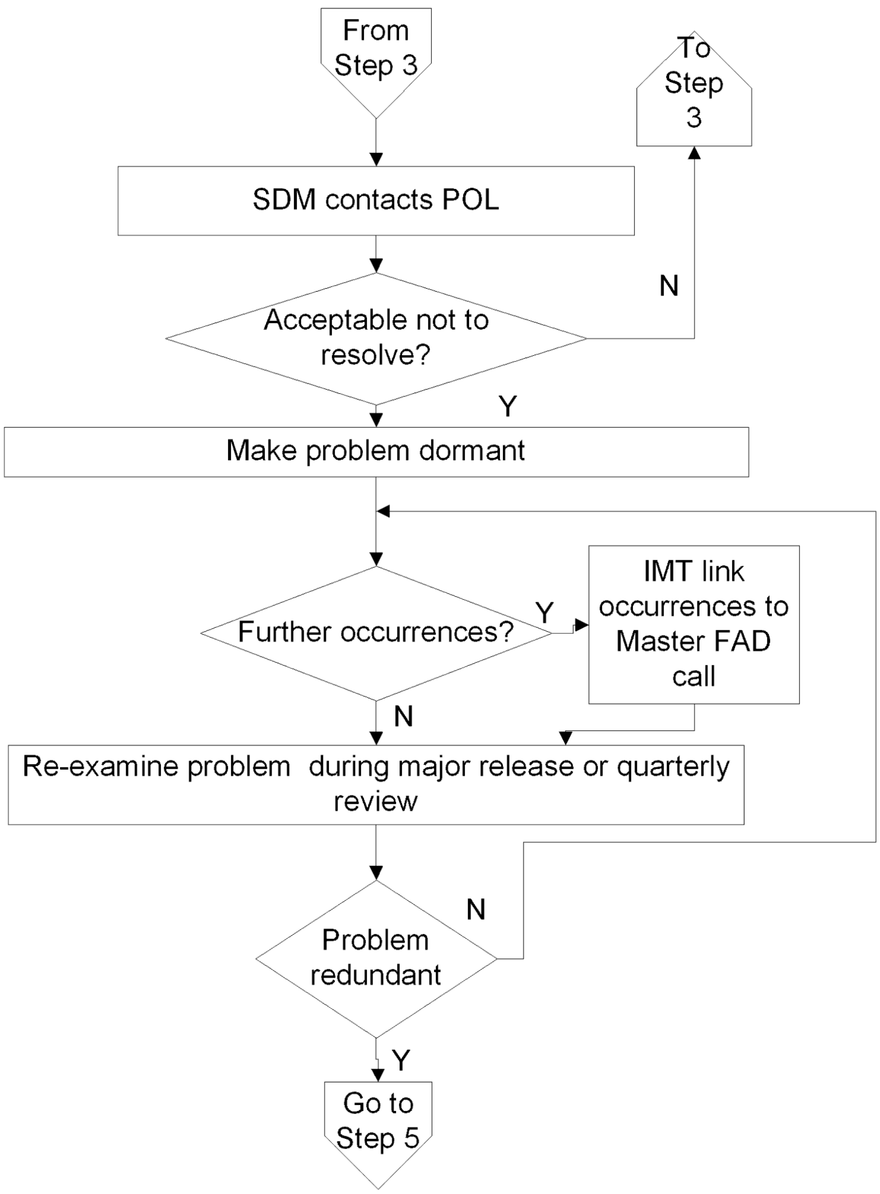
New incidents, which are occurrences of the problem will be attached to the Master FAD call as they occur and before being closed.

4.3 Before each major release the problem will be examined to determine if it is no longer relevant. If there are no major releases within a year, the problem should be examined at least quarterly and assessed for closure.

4.2.5 Step 4b: Impact not minimal but resolution not cost justifiable

Responsible: Service Delivery Manager, POL Problem Manager

Escalation: Problem Review Board



Steps

4.1 SDM contacts POL Problem Manager and discusses with them the relative importance of business impact over cost justification. If POL Problem Manager does not agree to let the problem go unresolved, the SDM should refer it to the Problem Review Board.

4.2 Providing that POL Problem Manager agrees, the problem will become dormant i.e. it will be monitored only. No active steps will be taken to resolve it.

The following events need to take place, before the SDM can leave it:

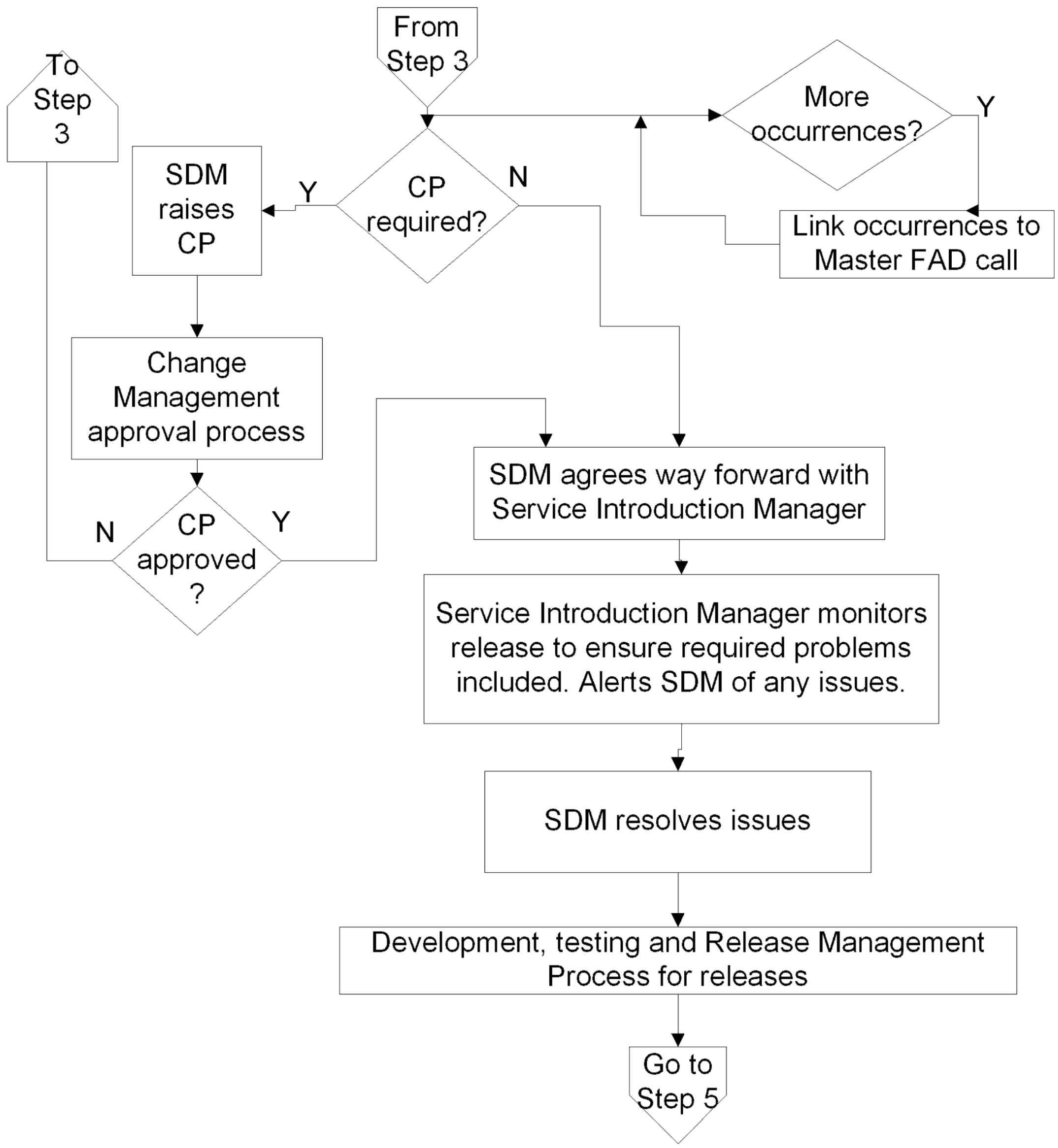
- If the problem is also registered on the PEAK system, the SDM will ensure that the PEAK record has been updated with a progress indicating that the problem record is now dormant. No other updates should be made on the subject of resolving it.
- The SDM will decide what frequency of incidents will cause the dormant problem to be re-activated and ensure that this is documented on the KEL record. This is expected to vary widely from problem to problem.

New incidents, which are occurrences of the problem will be attached to the Master FAD call as they occur and before being closed.

4.3 Before each major release the problem will be examined to determine if it would no longer apply. If there are no major releases within a year, the problem should be examined at least quarterly and assessed for closure.

4.2.6 Step 4c: Problem needs linking to a release and can be deferred to the next major release.

Responsible: Service Delivery Manager
Escalation: Problem Review Board



Steps

4.1 If the resolution requires a change in the fundamental design of the software or the introduction of new hardware/software/ functionality, a CP will be required. The SDM should prepare and sponsor the CP on behalf of Customer Services , using the information already collected.

4.2. The SDM will liaise with the Service Introduction Manager to ensure that the resolution is included in the next release and supply him/her with all the necessary data on the business impact of the issue. Issues associated with inclusion of the resolution in the next release should be escalated to the Problem Review Board.

4.3 The SDM is responsible for a list of problems, relating to his/her area of responsibility. This list should include the business impact for each problem and the release to which it is attached. The Problem Manager has the responsibility of ensuring that the Service Introduction Manager has access to the list.

4.4 It is the responsibility of the Service Introduction Manager to alert the SDM's to any potential issues with the resolution of problems being taken out of releases. Subject to the agreement of the specific SDM, the Service Introduction Manager may negotiate on his/her behalf on the inclusion or otherwise in a release. It remains the responsibility of the SDM to ensure that the resolution to a particular problem is included in a release, if that is the business requirement.

4.5 It is the responsibility of the SDM to:

- Record on the Problem database, which release the resolution has been allocated to
- Ensure that the Service Introduction Manager for that specific release is aware that a new problem resolution has been included in the release by the development team.

N.B. Where a problem with application code is a "late entrant" to a release, it is possible that a later release will already be in preparation and therefore the Service Introduction Manager for the later release will have to be notified too.

4.6 The progression and implementation of the change will follow the normal Change Management and Release Management Processes.

4.7 While development is pending, the problem record will stay open. Any further occurrences of the problem reported as incidents, should be linked to the Master FAD call by the IMT before they are closed, so as to keep a frequency record.

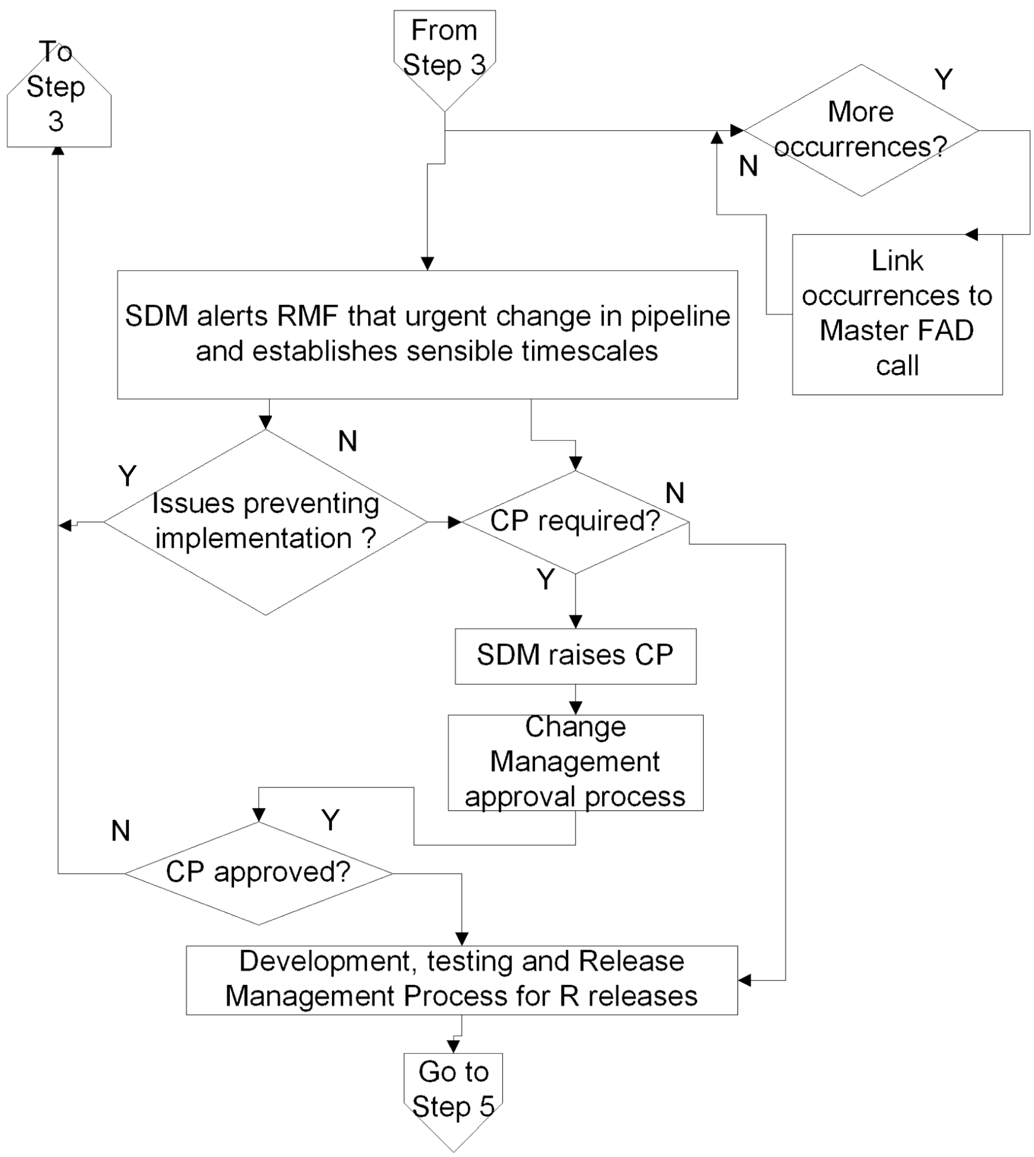
4.8 When the resolution is implemented, the following tasks will be performed:

- KEL record will be amended to record that a resolution of the problem is being implemented and the expected completion date of the implementation.

- The originator of the problem (unless it has been originated by IMT) is informed that a resolution to the problem has been implemented
- The problem record is updated to show that a resolution to the problem has been implemented.
- An estimate is made by the SDM as to how long a problem record should remain open before being permanently closed. As a general rule this will be three months after the resolution has been applied. In cases where the problem relates to a specific event e.g change of time-zones or resilience in the event of high order comms failure due to poor weather, it may be necessary to leave the problem open longer. It is also open to the SDM to decide that the problem can be closed earlier.

4.2.7 Step 4d: The problem needs linking to a release and should be resolved as soon as possible.

Responsible: Service Delivery Manager
Escalation: Problem Review Board



Steps

4.1 If the resolution specifically relates to a software fault, the SDM will liaise with the Release Management Forum to ensure that the resolution is included in the next R release. It is expected that this will be via the SSC Team Manager, who will present the business impact provided by the SDM to the RMF. Where the SDM wishes to do so, they may attend the RMF in person. The SDM's will be on the circulation list for RMF minutes. Issues associated with inclusion of the resolution in the next R release should be escalated to the Problem Review Board.

4.3 If the resolution requires a change in the fundamental design of the software or the introduction of new hardware/software/ functionality, a CP will be required. The SDM should initiate the CP on behalf of Customer Services, using the information already collected.

4.4 While development is pending, the problem record will stay open. Any further occurrences of the problem reported as incidents, should be linked to the Master FAD call before being closed, so as to keep a frequency record.

4.5 Development and implementation of the resolution will follow the Release Management Process. The Release Manager should escalate to the relevant SDM if there is any issue, which is likely to prevent the resolution of the problem being delivered in expected timescales.

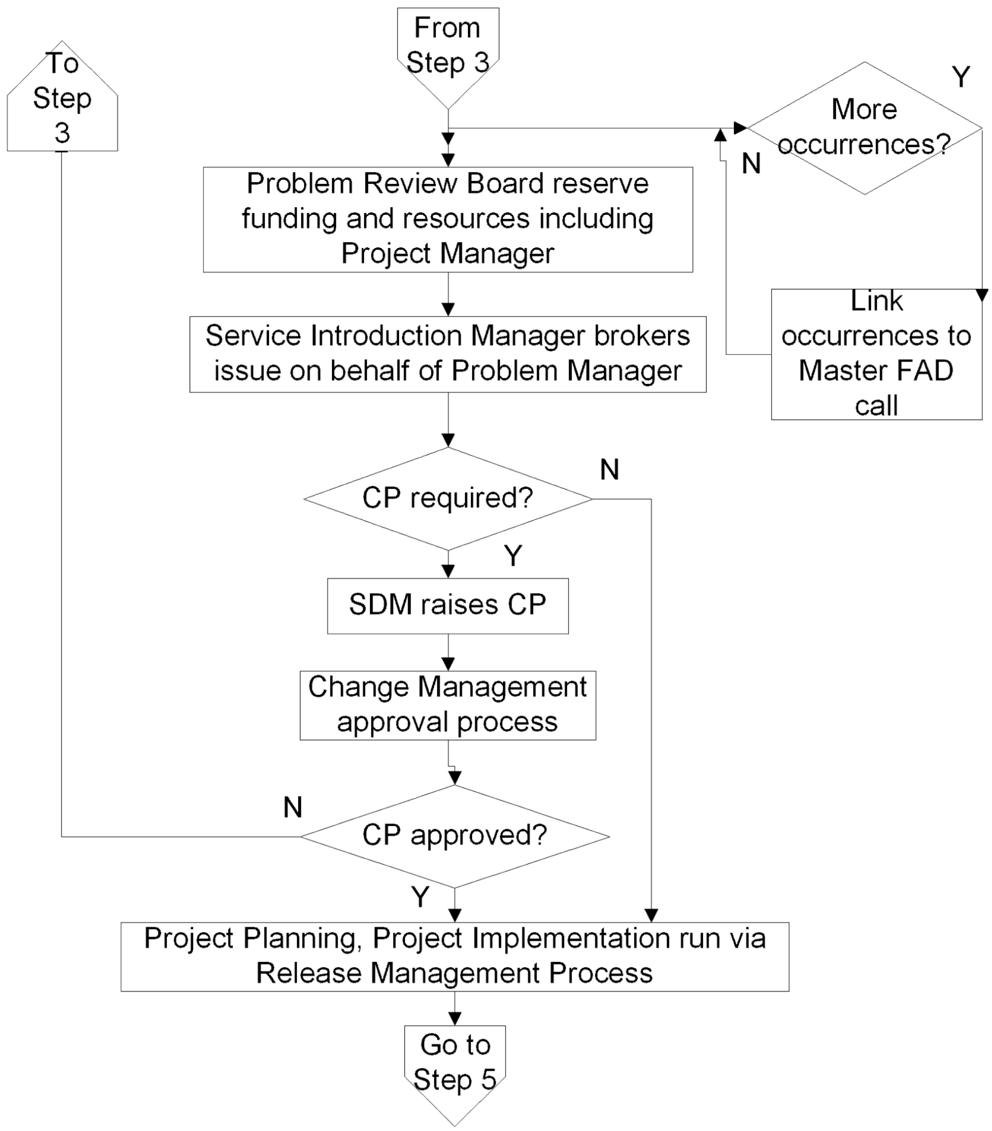
4.6 When the resolution is implemented, the following tasks will be performed:

- KEL record will be amended to record that a resolution of the problem is being implemented and the expected date of completion of implementation
- The originator of the problem is informed that a resolution to the problem is being implemented
- The problem record is updated to show that a resolution to the problem is being implemented.

4.2.8 Step 4e: Resolution of problem is release independent but there is a potential impact on release

Resolution: Service Delivery Manager

Escalation: Problem Review Board



Steps

4.1 An example of this type of issue is where the resolution is release independent but requires testing on a test rig, which is already fully booked for testing on a major release and therefore the testing may impact release plans. If the resolution requires a change in the fundamental design of the software or the introduction of new hardware/software/ functionality, a CP will be required. It is important that any issue affecting release is aired and resolved before substantial steps are taken to implement. The SDM may prepare and sponsor the CP on behalf of Customer Services , using the information already collected but should not submit it into PVCS until any potential clashes for resources are resolved.

4.2. The Service Introduction Manager will broker any issues on behalf of the Problem Manager and/or Project Manager. Prior to the CP, it may not be possible to get a formal commitment to resolve the issue but the change should not be proceeded with unless the issue has been informally resolved with those people who have the power to make the resolution work. Particularly where the resolution involves out of hours work , the person owning the human resource must be consulted to confirm that the resolution is acceptable to them.

4.3 The SDM will liaise with the Service Introduction Manager to ensure that the dependency is resolved and supply him/her with all the necessary data on the business impact of the problem. Any issues associated with this should be escalated to the Problem Review Board.

4.4 It is the responsibility of the Service Introduction Manager to alert the SDM's to any potential issues with the resolution of the problem. The progression and implementation of the change will follow the normal Change Management and Release Management Processes.

4.5 While development is pending, the problem record will stay open. Any further occurrences of the problem reported as incidents, should be linked to the Master FAD call by the IMT before they are closed, so as to keep a frequency record.

4.6 When the resolution is implemented, the following tasks will be performed:

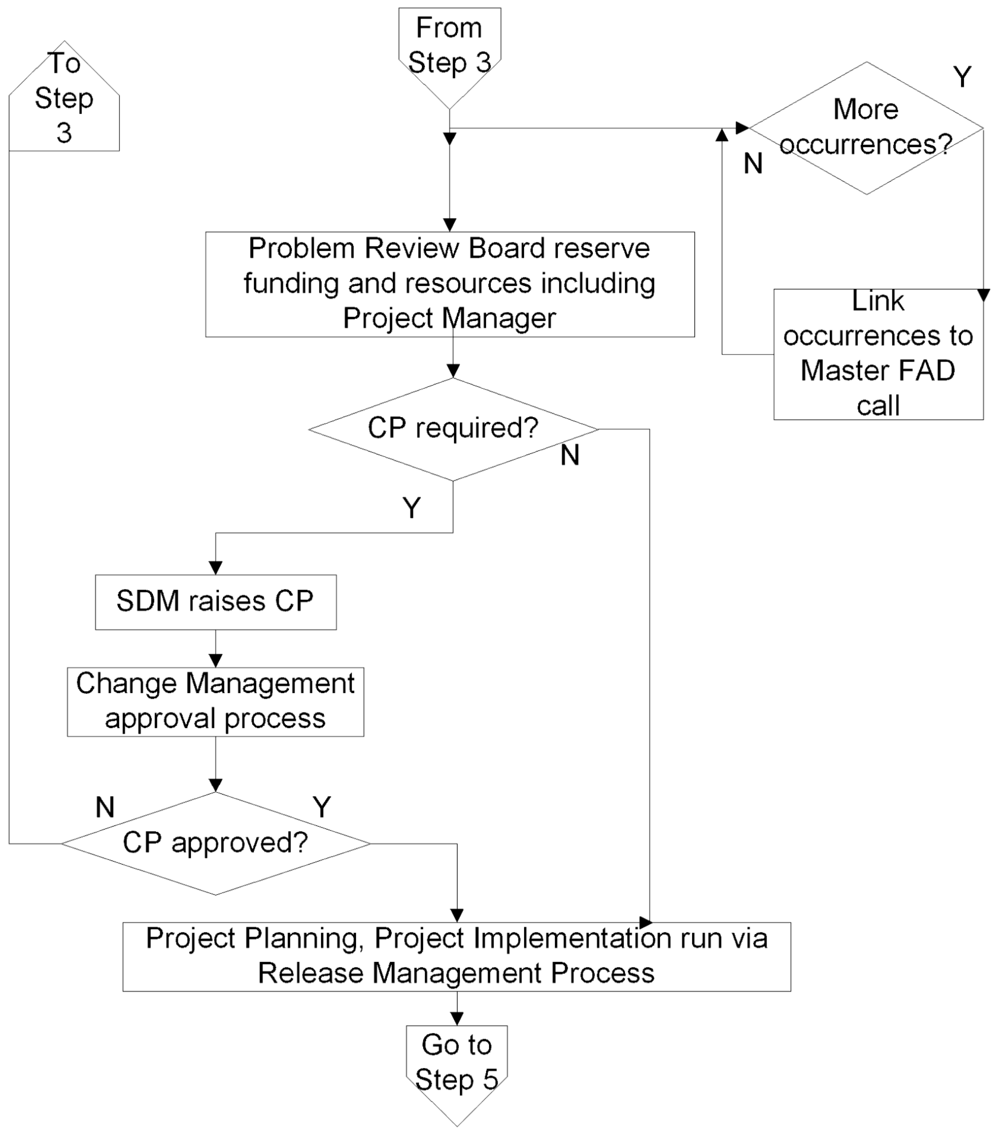
- KEL record will be amended to record that a resolution of the problem is being implemented and the expected completion date of the implementation.
- The originator of the problem, unless originated by the PI is informed that a resolution to the problem has been implemented
- The problem record is updated to show that a resolution to the problem has been implemented.
- An estimate is made by the SDM as to how long a problem record should remain open before being permanently closed. As a general rule this will be three months after the resolution has been applied. In cases where the problem relates to a specific event e.g change of time-zones or resilience

in the event of high order comms failure due to poor weather, it may be necessary to leave the problem open longer. It is also open to the SDM to decide that the problem can be closed earlier.

4.2.8 Step 4f: Resolution of Problem is release independent and wholly financed by Customer Services

Responsible: Problem Review Board, SDM, Project Manager (if not SDM)

Escalation: Problem Review Board



Steps:

4.1 Problem Review Board allocates resource and defines a Project Manager to own implementation project (who may be the SDM).

4.2 The SDM should initiate any required CP on behalf of Customer Services , using the information already collected.

4.3 Project Manager (if they are separate individuals) reports back to SDM on progress of project.

4.4 Change Management and Release Management process is followed.

4.5 Project Manager manages implementation.

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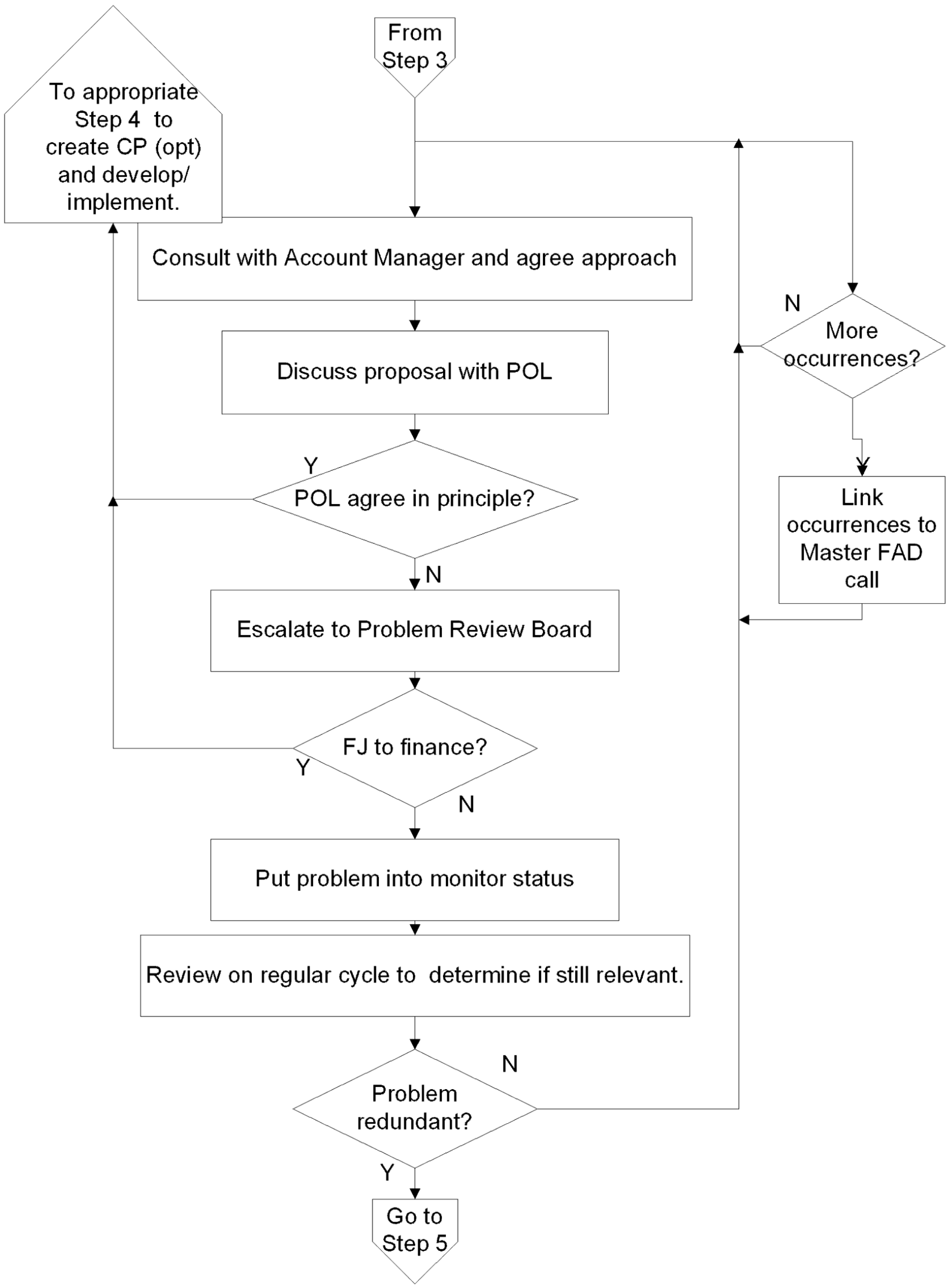
4.2.9 Step 4g: Resolution of problem requires expenditure from POL

Responsible: Service Delivery Manager

Escalation: Problem Review Board



Steps:

4.1 The SDM should alert the Account Manager to the issue and agree an approach to POL. This may involve:

- Gaining agreement with the POL budget holder via the Service Review Forum or via the SDM's personal contacts within POL.
- Gaining agreement with the POL budget holder via the Account Manager's regular contacts

Note in each case, the agreement with POL at this stage is likely to be without prejudice, and no development work should start until POL have formally confirmed via acceptance of the CP that they are prepared to finance the work.

4.2. If POL agrees to the expenditure, the SDM should initiate any required CP on behalf of Customer Services , using the information already collected and following approval, the CP will be submitted to POL for an order following the standard change management procedure.

4.3. If POL indicates that they are not prepared to finance the work, the SDM should refer the request back to the Problem Review Board. They may decide the following:

- Request for POL to finance should be escalated
- The work should be financed by Fujitsu (in which case, the problem falls into one of the preceding categories of Step 4)
- The problem should be closed (go to step 5)

4.4 Escalation should be to Service Management Team Manager initially and thence to Customer Services Director. On conclusion of negotiations with POL, the following outcomes are possible:

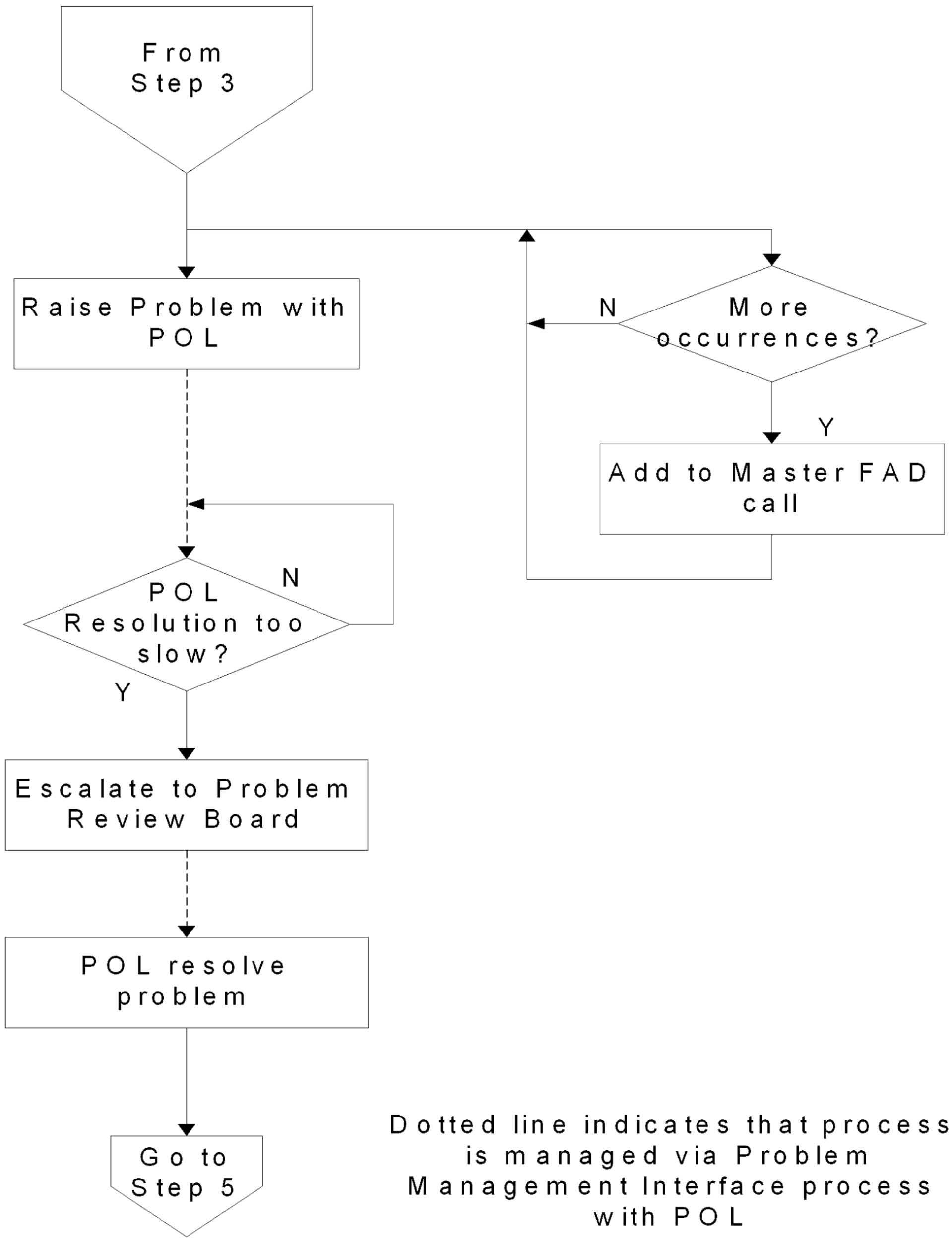
- Work should be financed by Fujitsu (in which case, the problem falls into one of the preceding categories of Step 4)
- Problem should become dormant but be monitored for its ongoing impact.

4.5. While the financing of the resolution is being discussed, occurrences of the problem will continue to be collected by HSD and the SDM will use the ongoing data to inform all parties on the business impact of the problem.

4.2.10: Step 4h: Resolution of Problem requires action by POL

Responsible: Service Delivery Manager

Escalation: Problem Review Board



Steps:

4.1. SDM should contact the POL Problem Manager and raise a Problem with POL. The process is documented in reference [1].

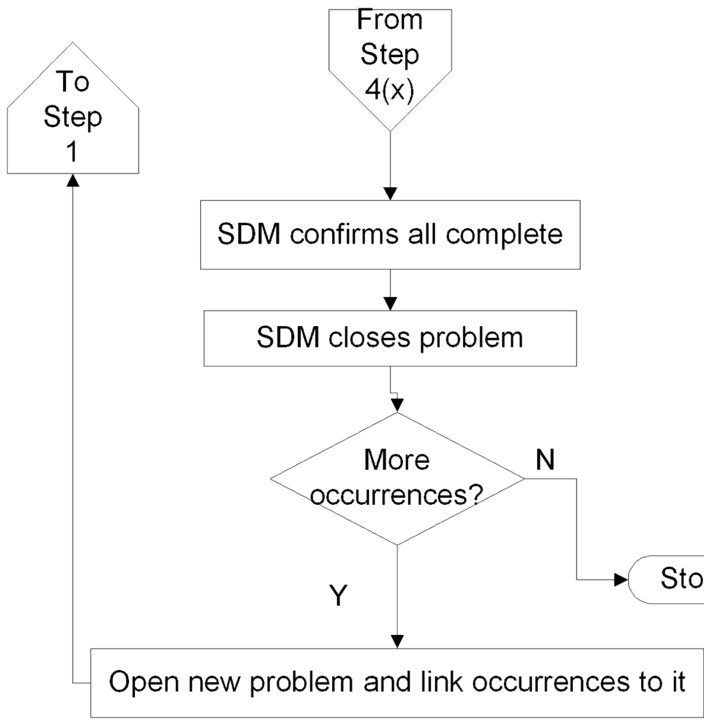
4.2. Pending resolution of the problem, occurrences will continue to be collected via HSD and the SDM will use this ongoing data to inform the discussion with POL.

4.3. If the SDM judges that the progress made by POL in resolving the problem is slow in relation to its business impact, then the SDM should escalate the issue to the Service Delivery Team Manager, who will bring it before the Problem Review Board.

4.4. The SDM is the primary contact point for any POL implementation plans. If any such plans impact POA release plans, the SDM is responsible for letting the Release Manager or the Service Introduction Manager know (depending on the nature of the impacted change).

4.2.10 Step 5: Problem Closure

Responsible: SDM



Steps:

5.1 Problem Manager confirms that the following is true:

- KEL record has been updated in accordance with events
- Resolution has been applied (if that was the decision)
- Planned pilot period has passed since time of resolution
- Originator (unless IMT) has been informed that the resolution has been implemented.
- PEAK record is fully updated and closed.

5.2 Problem Manager closes problem record.

5.3 If following problem closure, there are further occurrences, a new problem should be raised, which is linked to the old one.

4.2.10 Step 6: Tracking and Monitoring of Problems and Errors

Responsible: Problem Managers, Service Desk(IMT), Lead Problem Manager

The PI raises Problem records on Phoenix on the instructions of the Problem Managers or following rules. All open Problems are clearly visible to all Service Desk agents to enable them to check incoming Calls against existing Problems. In the majority of cases, a frequency pattern is expected to develop. The IMT will monitor for an increase in frequency pattern (see Step 7) . Each problem will have a specific trigger associated with it, for alerting to the PI. If this trigger is tripped, the PI will alert the SDM by telephone.

In the case of changes in the frequency pattern of an existing problem, the SDM will feed the information into the business impact rating of the existing problem as appropriate. The SDMs are however responsible for managing their list of Problems and ensuring that they are regularly progressed.

The Service Delivery Team Manager is responsible for the overall Problem Management process and confirming that the Problem records are properly managed.

4.2.11 Step 7: Trend Analysis

Responsible: Service Desk

Trend Analysis is performed on the statistics obtained from Call, Incident and Problem records. Once any of the following trends are observed, the IMT will contact the PI to alert them to the possibility of a Problem.

- Deteriorating SLA performance
- Deteriorating Customer Satisfaction
- Unexplained increases in Call volume
- Change in frequency pattern of incidents associated with a specific problem

The PI will alert the SDM. If the SDM confirms that he/she would like a Problem created, PI then creates the Problem record.

DN: Note that the SDM's comment on this area was that the IMT are not geared to monitor against these parameters. Initially they will only be able to monitor against rules defined in the KEL relating to increases in call volumes or change in frequency pattern.

5.0 Reporting on the Problem Management Process

5.1 Purpose

The purpose of the reports produced on the Problem Management process is as follows:

- To enable the Process owner to monitor the effectiveness of the process.
- To enable the Process owner to monitor that changes made to improve the effectiveness of the process have had the desired effect.
- To enable the Problem Manager to prove at need to Senior management how the process is operating.

5.2 Report List

The list of reports to be generated specifically for the Problem Management owner each month is as follows:

- By originating group (i.e. POL, IMT or SDU), list of problems opened during the month and list of problems closed during the month, together with a count of each category (Report to show Originating group, Problem identifier, date problem opened, Problem Business Impact Type (Ordinary, Arising from Major Incident, Arising from MBCI), Date Problem closed. (**Not yet available)**
- By SDM and by priority, how long did it take to perform problem life-cycle changes **(Not yet available)**
- By SDM, caseload statistics, showing all problems which have been open during the reporting period, sorted by date of opening of problem. (Report to show SDM Name, problem identifier, date problem opened, date problem closed, date of last update and current status of problem)
- By SDM caseload statistics showing for each day during the reporting period, how many problems they had open.
- List of problems which have led to breaches in SLA targets over the reporting period and which have been open during the reporting period. (Report should include Problem Identifier, SDM, date problem opened and date problem closed. There should be a nil return if none have been raised)
- List of problems alerted as a result of trend analysis by IMT. (Report should present a nil return if none have been raised over reporting period.)
- List of problems, which have been passed to support groups as new problems by the SDM but which are in fact duplicates of existing problems. (Report should include Problem identifier of new problem and Problem identifier of Old problem together with their respective opening and closing dates. Report should include a nil return if none have been raised)

- Any problems where it has been found necessary to re-open the problem after it was supposed to be resolved. (Report should provide a nil return if none have been raised)
- Any problems which have been the subject of customer complaints. (Report should provide a nil return if none have been raised.)

The Problem Management owner is expected to take the information supplied and investigate it. This is an essential step given the potential variables, since some problems can rightly be analysed quickly and resolved, while others require significant effort to perform root cause analysis and these differences are not readily established by SDM or problem type. Following investigation, the Problem Manager will determine which items are significant and forward a reduced report to Senior Management.

DN: It is expected over time that the analysis above will lead to the development of targets against which performance of the SDMs and the support groups in resolving problems (as opposed to incidents) can be measured and improved. Once these targets are in place, it will be necessary to create a reporting mechanism which records performance against targets and also monitors the progress of any improvement plans.

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Appendix A: Current scope of SDM (Problem Manager) responsibility

DeliveryFunction	High Level Overview	Primary Owner		Secondary Owner		Operational Review Responsibilities
On-Line Services	To ensure that every post office branch can complete on-line transactions through the maintenance of the communications network within the post office branch, the Energis/BT domains, the Fujitsu Services data centres and the links to each of the financial institutions. N.B. This does not include communications where the post office branches are within the OBC (Branch) environment or branch hardware related issues.	**Mike Stewart Mike Woolgar (Bracknell)**	GRO	**Mike Woolgar Mike Stewart (Bracknell)**	GRO	**On-Line services ORF**
Data Transfer Services	To ensure complete and timely data transfer between Fujitsu Services and POL FS (via SAP hosting & applications), TPS, APS clients and LFS (SAPADS) With responsibility also for AP Client takeon, and AP EDG.	**Ian Daniel (Bracknell)**	GRO	**Dean Felix (Bracknell)**		**TIP ORF, AP ORF, LFS ORF, POL FS ORF**
Operational Business Change	To ensure all changes to the post office branch network in respect of: new branch opening, branch relocations, branch refurbishment, branch closure, branch expansion or contraction and specific OBC (Branch) chargeable services, are completed in a timely and effective manner	**Denise Miller (Crewe)**	GRO	**Chris Bourne (Crewe)**		GRO

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Engineering Services	To ensure all post office branch hardware faults are rectified by repair or replacement within the agreed service level targets	**Dean Felix (Bracknell)**	GRO	**Julie Welsh (Bracknell)**	GRO	**Non specific but by invite as required to any ORF**
Operational Business Change (Reference data)	To ensure all Post Office Ltd and internal Fujitsu reference data is validated and distributed to post office branch and counters as required in accordance with the agreed implementation date and related service level targets. Also with responsibility for the ICON service.	**Dave Wilcox (Bracknell)**		**Kevin McKeown Aileen Davis (Bracknell)**		**Reference data RDORF**
Branch	To resolve specific issues in connection with branches	**Nick Crow**				

Appendix B: Terms of reference of Problem Review Board

B1: Composition

The following individuals are ex officio members of the Problem Review Board:

- Director Customer Services
- Service Management Team Manager
- Service Delivery Team Manager (also the lead Problem Manager)
- Service Support Team Manager
- Horizon Next Generation
- Service Introduction Manager
- SSC/Application Support Manager

B2: Purpose of the Problem Review Board

The purpose of the Problem Review Board is to act as a escalation point and decide as follows: .

- Bearing in mind relative availability of resources and the business impact of the problem whether a problem should be resolved.
- Allocate resource to resolution, where it is requires specific resource from Customer Services

Individual members of the Problem Review Board may be tasked with escalating resolutions within SI, where required.

B3: Frequency

The Problem Review Board will meet at least once per month but may meet more frequently.

Appendix C Matrix for assessing Business Impact

Matrix to be defined. May be replaced by service support database. Pending that definition, SDM should use SRRCs to assess business impact.

Appendix D Rules for the PI

Routine rules are as follows. Note that the PI can be asked to ignore them and raise problems if the SDM desires:

- A Problem should ALWAYS be raised by PI for an MBCI. However note that the Problem record is intended for examination of root cause analysis, which in the case of the MBCI is frequently established through specific meetings e.g Technical Bridge and War Rooms. Therefore information on the Problem record will tend to be initially at least, a summary of the root cause plus agreed actions to prevent recurrence.
- A Problem should NOT be raised by PI, when there are higher than usual failures of hardware in the branches, except at the explicit request of the Service Delivery Team Manager. This is because there are established procedures under Availability Management for these statistics to be evaluated.
- A Problem should NOT be raised where an incident has been sent to the SDU (term includes SSC) because the required workaround to resolve the incident can only be performed by the SDU. Such a problem would be a duplicate.
- A Problem should ALWAYS be raised where an error record (PEAK) has been sent to a SDU for root cause analysis. (Note that there is a possibility here that a PEAK which was sent to a SDU to establish a WORKAROUND might be mistaken for a problem. At this stage it is still an INCIDENT. If in doubt, raise the Problem record and check back later. If on inspection the original incident PEAK record was permanently closed on return from the SDU (thereby closing the Powerhelp incident record) close the problem record down.)
- Problems requested by 3rd parties i.e. SDU ‘s, POL should only be raised on the system with the explicit permission of or at the request of the SDM for that service (or their line manager)