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Abstract: This document describes the procedures for ICL Pathway Duty and Problem Management to support the Customer Service Operations Manual.

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0   Document control

0.1   Document history

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Version	Date	Reason
0.1	01/05/99	First draft
0.2	04/02/99	Update following observations from walkthrough held on 13/01/99.
0.3		Update following Problem management and Business Continuity Management Walkthroughs
1.0	30/01/01	Document rewritten to reflect current procedures

0.2   Approval Authorities

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0.3   Associated Documents

	Reference	Vers	Date	Title	Source
1.	CS/PRD/021	2.3		ICL Pathway Problem Management Process	ICL Pathway
2.	CS/QMS/005	1.01	24/01/01	ICL Pathway Customer Service: Operations Services Operations Manual	ICL Pathway
3.	CS/PRO/110	2.0	13/11/00	ICL Pathway Customer Service: Problem Management database procedures	ICL Pathway
4.	CS/IFS/009	0.3	4/9/00	ICL Pathway / OSD Interface agreement for the problem management interface	ICL Pathway
5.	CS/IFS/008	0.2	7/7/00	ICL Pathway / PON Interface agreement for the problem management interface	ICL Pathway
6.	CS/QMS/001			CS Policy Manual	ICL Pathway
7.	CS/QMS/002			CS Process Manual	ICL Pathway

0.4   Abbreviations

ATP	Authorised Temporary Procedures
FSM	Field Service Manager
HSH	Horizon Systems Helpdesk
HSRF	Horizon Service Review Forum
ICLP	ICL Pathway
ISD	Infrastructure Services Division (formerly OSD and division within ICL)
MBCI	Major Business Continuity Event
NBSC	Network Business Support Centre
PIR	Post Implementation Review
PM	Problem Manager
PON	Post Office Network , a division of Post Office Counters Limited
TP	Transaction Processing (A unit within PON)
XDPMF	Cross Domain Problem Management Forum

0.5   Changes in this version

- Document re-written to reflect current problem management operation.

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0.2   Table of content

1 Introduction

This document describes the procedures for problem management within ICLP Customer Service. The procedures support the ICL Pathway Problem Management Process, CS/PRD/021 [Ref.1].

1.1 Terminology

1.1.1 Incidents

Incidents are individual day to day events resulting from:

- Faults or failures in equipment, software, services or procedures;
- User error
- User requests for advice and guidance

Incidents are managed via a framework of function specific Help Desk services. Once a solution or temporary procedure has been supplied and accepted the individual incident will be closed. The focus of these help desks is to restore the operation as quickly as possible. System and Technical incidents are managed via the Horizon System Helpdesk (HSH) and business incidents are managed via the Network Business Support Centre (NBSC).

1.1.2 Problems

A problem is an underlying cause that may result in incidents

A problem potentially exists when a defect in the specification, design, production, implementation, or use of any of the service components results in any aspect of the service not meeting expectations.

A problem will be raised when the impact of the defect is substantial enough to warrant action to eradicate it. The problem will be closed when it has been agreed that the underlying cause has been fixed or removed.

Scope

This document provides guidelines for Problem Managers to effectively manage problems. The document underpins the ICL Pathway Customer Service problem management process (CS/PRD/021) [Ref. 1] and identifies the sources of problems, how to register and manage the problem and responsibilities of the Problem Manager.

The scope of the document includes the following:

1. Duty Management procedures for problem reception

2. Problem Management procedures

3. Escalation and alert procedures.

Procedural Rules

When following the procedures within this document, it is important that the rules within this section below are complied with.

3.1 Communication

Communication is vital within the problem management process. The originators of problem calls should regularly updated and there should be constant communication between those involved in the resolution of problems.

When possible, communication must be pro-actively arranged through agreed regular update intervals. However, those involved in problem resolutions must also be prepared to re-act to changing circumstances and unexpected 'twists' and communicate with others as necessary.

3.2 The Problem database

The ICL Pathway Customer Service department Service Managers and the Duty Manager will be made aware of problems. It will be their responsibility to ensure that problems are progressed and logged upon the department's Problem database.

Having been assigned a problem, it is essential that the Problem Manager keeps the database updated with the latest events of the problem, the actions to be taken and deadlines. Therefore, anyone else needing to know the details of the problem can easily find them out by looking up the details on the database.

Details the Database logging procedures can be found in ICL Pathway Customer Service: Problem Management database procedures document (CS/PRO/110) [Ref. 3]

3.3 Escalation

It is important to note that 'Escalation' (Section 6) has the potential to occur at any stage of the process. The procedures detailed within this proposal may at times actually point specifically towards escalation at certain steps of the process since these areas are the most likely to invoke the escalation process.

However, the Problem Manager can escalate at any time that he/she feels it necessary to do so, in order to inform the escalated authority of events. Unresolvable disagreements or decisions that need to be made at a higher level can also occur at any stage of the process which again might require escalation in order to resolve them.

3.4 Holiday/ Sick Leave

The PM should ensure that during any planned leave a suitable stand in is found and where necessary progress the problem in his or her absence. During sick leave the line manager responsible should provide progress updates where necessary.

4 Problem Management

The aim of problem management is to identify and remove the root causes of issues that cause incidents to be raised from within the ICL Pathway estate. The role of the Problem Manager is to drive any identified problem to a conclusion by ensuring that resources are available to investigate and remove the problem and to report on progress. Problem management within ICLP is resourced from the various operating and service management units within Customer Service. Problems are allocated to individual problem managers depending on areas of knowledge and expertise, areas of responsibility and availability.

4.1 Problem sources

Problems arise from various sources within the Horizon operational estate most problems are concerning the live estate but are occasionally raised before a product or release is live.

4.1.1 Customer identified

PON identify issues from feedback with various PON operational units such as reconciliation (TIP) and NBSC helpdesk. PON raise the potential problem via the daytime Duty Manager.

4.1.2 FSM identified

The Field Service Managers (FSM) interface on a daily basis with the outlets and identify "problem" outlets from various sources such as trend analysis of incidents raised, and feedback from outlets and PON. The FSM will arrange visits to outlets to interview the outlet staff and ascertain the scope of the issues within the outlet. Many of these issues are resolved within the FSM processes but some may develop into problems.

4.1.3 Operational

The units managing the day to day operations and support of the horizon estate escalate potential problems to the duty manager. The duty managers will decide if the issue in hand is to be treated as an incident, a problem or a major business continuity incident. This is usually decided based on the operational impact, severity and visibility of the issue.

4.2   Problem reporting

Problems that are identified outside of ICLP for example by the operational units such ISD, HSH or PON are reported and raised via the daytime Duty Manager. These types of problems and responsibilities of parties involved are documented in the problem management interface agreements between ISD and PON [Ref. 4 &5]. Problems identified from ICLP staff such as Service Managers or FSM's are registered directly onto the ICLP problem database.

4.2.1 Reporting problems via Duty manager

Once a problem is identified and meets the criteria described in the problem management interface agreement(s) the originator pages the Duty Manager (pager numbers are documented in the respective interface agreements). The pager message is sent requesting contact with the originator. The information contained within the page is Contact Name, telephone number and a brief description of the problem.

4.2.2 ICLP reported problems

Problems identified from within ICLP will normally arise from incident trend analysis against which, underlying problems are identified. The process for raising problems directly onto the ICLP database are explained in ICL Pathway Customer Service: Problem Management database procedures document (CS/PRO/110) [Ref. 3]

4.3   Problem Acceptance

Once the request to raise a problem has been received by the Duty Manager he or she will contact the originator to gain a better understanding of the issue and decide:

1) If the issue in hand meets the problem criteria (initial check)

2) If the issue is a Major Business Continuity Incident (MBCI) and if necessary invoke the MBCI process.

3) Who is best placed to be problem manager for this issue (This decision is based on departmental areas of responsibility, expertise of staff within those areas and availability of those staff. If the Problem Manager cannot identify a suitable problem manager he or she will escalate the problem to the unit line manager.

The appointed Problem Manager is then responsible for contacting the originator and accepting or rejecting the issue as a problem. If the issue is accepted as a problem the PM needs to carry out the acceptance routine:

- Check the database to see if the issue is already recorded as a problem

- If Cross Domain record PON problem title, problem number and PON PM

- Record any supporting evidence (Incident numbers, FAD codes etc)
- Agree closure criteria
- Agree update schedule

4.4 Problem Management

The PM co-ordinates the resolution of the problem and acts as a single point of contact for everyone involved with the problem.

This role is part of the end-to-end process described in the ICL Pathway Problem Management Process (Ref. CS/PRD/021) [Ref. 1].

The stages involved in managing a problem once accepted are:

- Analysis
- Action
- Resolution
- Monitor

The PM needs to assess the impact of any problem and arrange for the gathering of evidence or statistics to support this assessment and identify the root cause(s). At this stage a work around or Temporary procedure may need to be developed to circumvent the impact of the problem. The PM will develop an action plan describing who does what and when and once the root cause is known how to resolve the issue. Once the solution has been applied the problem and change must be monitored to ensure that the solution has worked.

4.4.1 Assessing the impact

The problem manager should attempt to assess the impact of the problem. The reason for assessing the impact is twofold. Firstly it is important to attempt to understand the extent of the problem to enable effective escalation if required. Secondly, the PM will be expected to provide regular updates on the problem. Understanding the impact will enable a suitable update timetable to be set.

To enable a better understanding of the impact the PM should check to see if the issue as an affect on the daily operational schedule. Check the volumes of incidents raised at the helpdesk(s) and if it's a cross domain problem, the business impact within PON.

Serious operational issues that affect large numbers of outlets or concerning a serious hardware failure may result in a Major Business Continuity Incident

(MBCI) in these cases the problem should be escalated by the Duty Manager to the MBCI manager.

4.4.2 Closure Criteria

When registering a problem the PM should set and agree suitable closure criteria. If the problem is cross domain and affects PON then the closure criteria must be agreed with the PON problem manager.

Closure criteria should be specific to the issue, achievable, measurable and clear. It is important to ensure each problem is being driven towards a specific point (the closure criteria) and that progress is reported towards achieving closure.

Once closure criteria is agreed any change to this must be avoided otherwise the problem will "drift" and closure will become difficult.

4.4.3 Managing the problem

Most problems will arise from an incident or several incidents. In these cases the incident management process will progress the underlying incidents to resolution. In these cases, the PM must take ownership of the resolution timescale and ensure resolution is line with the problem requirements. .

To do this the PM should regularly review/monitor Powerhelp and PINICL to determine progress and chase the support unit managers to ensure visibility of the problem and support focus is maintained in correcting it. Any incident is likely to pass through several stages:

- Initial investigation and possible deployment of a temporary procedure
- Evidence collection and identify the root cause
- Developing the solution
- Testing and Release
- Monitoring

The PM should also monitor further incidents that relate to the problem, these may increase the impact of the problem and raise the urgency.

The PM should initially identify if a work around or temporary procedure is required to circumvent the fault condition. Any change to the outlet or PON business processes will have to be agreed with PON and communicated to the outlets via normal communication channels.

The problem manager should develop an outline plan to manage communications, resources and actions.

Many problems and incidents stall whilst evidence is collected, the PM must drive support by monitoring the any further incidents and ensuring that they are progressed to the relevant support unit and re-enforcing any business impact through escalation if necessary.

Once a solution is found the development and testing cycles can be extensive, the PM must determine the delivery timescale on any fix and ensure that business impact is considered.

4.4.4 Temporary Procedures

Discuss with the expert domain and any other relevant parties if temporary procedures need to be put in place whilst the solution is being produced. If they are, ensure that the process to develop and implement the temporary procedures is carried out by the responsible domain.

4.4.5   Problem Closure

Problem closure must be agreed with the originator and will probably only be achieved after a monitoring period. During the monitoring period the Problem Manager activities will be to detect and report any further incidents that relate to the problem.

Withdraw any Temporary Procedures. These will be withdrawn in parallel with the release of the solution.

Agree with the appropriate parties that the problem can be closed.

4.4.6 PIR (Post Incident Review)

A PIR can be called by exception, and is normally called if the management of a problem goes awry or if requested by a third party. The Problem Manager is responsible for setting up and managing the PIR. The PIR will then be used as the tool for authorising the closure of the problem and will be signed by each party that is required to agree closure.

A copy of the PIR report should be attached to the problem on the Problem database, and a copy with the signatures will be kept in a file that is maintained by the Problem Database administrator.

If a PIR is not required, the Problem will only be closed once all parties concerned have sent confirmation that they agree to closure.

Once confirmation for closure has been received, whether through the PIR or not, the problem can be closed on the Problem Management database. If necessary, close it with the HSH and inform all other impacted parties that the problem has been closed.

5.   Authorised Temporary Procedures (ATP) for Cross-Domain Problems

An ATP is a temporary arrangement that may be required to allow normal operations to continue in advance of the eventual resolution of a problem that affects PON operation or business processes. All ATP must be developed in conjunction with PON Business Service Management unit and communicated to the outlet via normal communication channels.

The Problem Manager will own the ATP and will co-ordinate the development, authorisation, implementation and withdrawal of the ATP.

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6 Escalation

Escalation occurs in several different circumstances:

- MBCI
- Lack of support or progress with a problem
- Customer dissatisfaction
- Significant business impact

6.1 MBCI

There are several routes of escalation available to the PM that align to these criteria. Any call to the duty manager that is deemed to be an MBCI will be escalated by the Duty Manager. Once the MBCI is declared PON is informed of the issue and the PM will then be required to provide frequent updates to the MBCI distribution list. The focus at this point is recovery of the operational failure and the PM will be the centre of communications. Once the operational recovery is complete the problem will come off the escalation list and the PM will run the problem as normal identifying and removing the root cause.

6.2 Poor Progress

If a PM is dissatisfied with the progress of any problem it should be escalated to the Customer Service Weekly prayers review meeting. Attendees ate the meeting include representatives from development, support, operations and infrastructure. Actions are placed at the review to progress problem areas.

If progress required from PON is unsatisfactory then these problems are escalated to the Cross-Domain Problem Review Forum (XDPMF) which is held monthly. Problems requiring escalation to the Horizon Service Review Forum (HSRF) are also discussed at this forum to ensure that both PON and ICLP are able to properly brief the HRSF attendees.

6.3 Customer Dissatisfaction

The complaint procedure and Field Service Management procedures normally handled issues surrounding customer dissatisfaction. Some of the underlying issues in these cases become registered and managed as problems.

6.4 Significant Business impact

Problems that have a significant business impact on ICLP or PON will be escalated at the weekly and monthly reviews. They may also be placed on divisional alert status.

7.   Alert Process

The divisional alert process is used to identify significant problems to ICL Pathway senior management and to gain support from other directorates in addressing the problem. Once a problem is on divisional alert, weekly updates are provided to ICLP directors and senior managers appraising them of progress against plans and issues with the problem.

8.   Appendix 1

Information required to log and maintain a problem on the Problem database

Logging a problem

1. (If available) incident reference numbers.

   - these might come from the helpdesk (such as the HSH) or from the customer (such as PON Problem reference number)

2. Where the call originated and who logged it.

3. Details of the problem

4. Actions taken to date

5. A contact for the Problem Manager

   - For example, if the call originated from PON, who in PON should the Problem manager be contacting to find out more information and progress the incident.

Updating the Problem

The problem should be updated at least weekly on the problem database. Problems available to PON are updated weekly each Friday.

Cross-Domain Problem Manager Responsibilities

The Problem manager is the person within the Service management organisation with responsibility for:

a) accepting and logging problems

b) managing impact assessment

c) brokering prioritisation with counterparts in the other organisation

d) monitoring progress

e) reviewing solutions

f) closing problems

g) Primary channel for all communication between the organisations

h) Responsible for logging **all** details