PM003 Problem Management Process Flow Document

IT Service Management

Unilever IT

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Notes to the Reader

No	Notes
1	The Global PRISM Programme has produced only 6 of the 10 ITIL Processes. The 6 ITIL Processes in scope of this Programme are: • Incident Management • Problem Management • Change Management • Configuration Management • Release Management • Service Level Management The 4 ITIL Processes out of scope of this Programme are: • Financial Management for IT Services • Capacity Management • IT Service Continuity Management • Availability Management

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Problem Process Design Team	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓						
Regional Process Mangers																					✓						
Other PRISM Leads																					✓						
Design Authority				✓	✓	✓	✓	✓				✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Reference Documentation

Doc. No	Document Name
PM001	Problem Management Roles Document
PM002	Problem Management Policy Document
PM004	Problem Management Process Activities Document
PM007	Problem Management Work Instructions
PM009	Problem Management Categorisation and Allocation Procedure
PM011	Problem Management Escalation Procedure

Management Summary

This document describes the Problem Management Process Flow for Unilever IT.

The Problem Management Process encompasses Problem Control, Error Control and Problem Closure. Each of the components are associated with process steps.

It describes the following component processes:

- Reactive Problem Management (Including Major Incident Handling)
- Proactive Problem Management

The process steps are further broken down into process activities which are described in more detail in PM004 Problem Management Process Activities Document.

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1 Introduction

1.1 Mission Statement

Maximise IT service quality by performing root cause analysis of incidents to rectify what has gone wrong and prevent re-occurrences. This requires both reactive and proactive procedures to effect resolution and prevention, in a timely and economical fashion.

The main activities associated with Problem Management are listed below:

- **Problem Control** - Ensuring Problem records are identified, accurately categorised, investigated for the root cause and that workarounds are made available where possible.

- **Error Control** - the process for managing Known Errors to ensure that they are accurately recorded, monitored, and eliminated where feasible and cost justifiable.

- **Major Incident Handling** - Ensuring Major Incidents are effectively managed to resolution by the Problem Management team.

- **Proactive Problem Management** - Ensuring Major Incidents are effectively managed to resolution by the Major Incident Management team.

1.2 Benefits to IT Department

- Achieve a better first-time fix at the Service Desk

- Support groups can show added value to the IT organisation

- Reduced workload for IT staff and Service Desk (incident volume reduction)

- Achieve better alignment between Support Groups

- More empowered IT staff

- Prioritisation of efforts

- Better use of resources

- More control over IT Services.

1.3 Benefits to Customer Organisation

- Improved quality of IT service

- Higher service availability

- Improved user productivity

- IT organisation can show added value to customer organisation.

1.4 Purpose of Problem Management

To decrease the number of avoidable incidents by: -

- Identifying root cause of Incidents

- Initiating action to improve or correct the situation

- Providing Incident Management with information to circumvent errors and minimise loss of service.

The process has both reactive and proactive aspects. The reactive aspect is concerned with solving problems in response to one or more incidents. Proactive Problem Management uses trend analysis, allowing steps to be taken for the resolution of underlying issues resulting in Incident reduction.

1.5 Scope

The scope of the Problem Management process is to perform the reactive and proactive elements in relation to Problems and Known Errors. These are Problem control, error control, Major Incident Control and proactive Problem Management.

Definitions:

- A Problem is an unknown underlying root cause of one or more incidents

- A Known Error is a problem for which the root cause has been successfully diagnosed and for which a workaround or a permanent alternative has been identified

Note: The term "workaround" is used in the process flows and explicitly defined in the flow description as a temporary fix or a containment action.

The term "root cause" is used to identify the underlying reason or fault that instigated the incident or failure.

A Problem record will be created when one or more of the following criteria are met:

- All Major Incidents

- All Urgent P1 Incidents

- Underlying longer-term trends identified through proactive trend analysis

- Known Errors are identified through the application development lifecycle

- Other IT processes identify a potential Problem

In addition, a Problem record may also be created for the following:

- Multiple Incidents, Problems or a combination of Incidents and Problems are recorded that exhibit common symptoms.

- A single Incident with high or medium priority that warrants further intervention. For such cases, a decision to create a Problem record can be taken after the incident has been resolved."

1.6 Support Groups

All IT support groups are involved in the Problem Management Process.

2 Explanation of the Numbering System Used

Each of the "boxes" in the flowchart has a number associated with it. The numbering is used to help explain the flowchart in more detail.
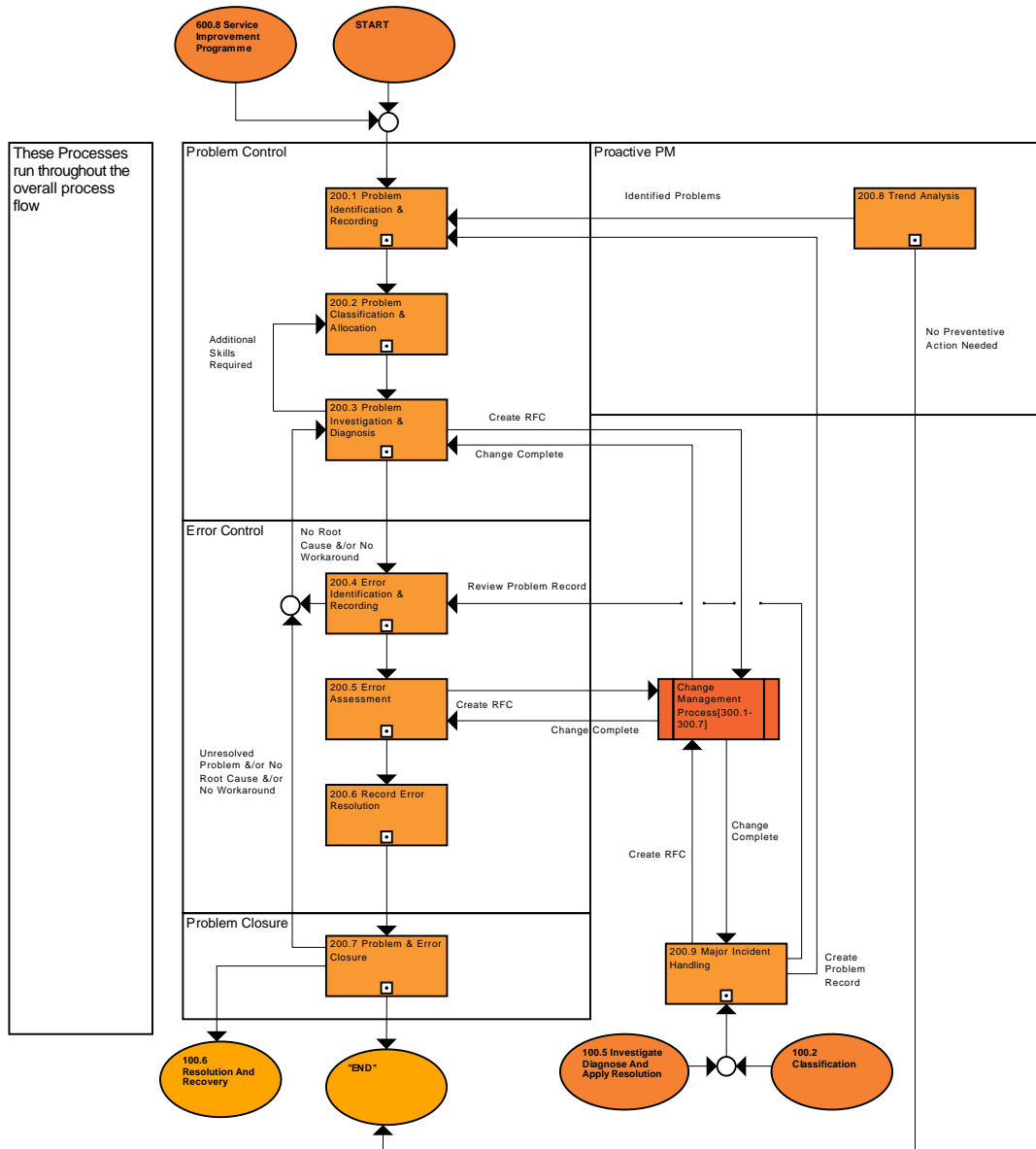
2.1 Numbering system

Processes are referenced by up to three numbers, separated by a period.

- The first number references the Service Management discipline (for example, the number used for Problem Management is "200")

- The second number references the procedural flowchart (for example, "200.1" is a procedural flowchart for Problem Management).

3 Problem Management Process Flow

4 Problem Management Process Flow Explanation

No.	Description
200.1	**Problem Identification & Recording** A Problem record will be created when one or more of the following criteria are met: • All Major Incidents • All Urgent P1 Incidents • Underlying longer-term trends identified through proactive trend analysis • Known Errors are identified through the application development lifecycle • Other IT processes identify a potential Problem In addition, a Problem record may also be created for the following: • Multiple Incidents, Problems or a combination of Incidents and Problems are recorded that exhibit common symptoms. • A single Incident with high or medium priority that warrants further intervention. For such cases, a decision to create a Problem record can be taken after the incident has been resolved."
200.2	**Problem Classification & Allocation** • Classify the Problem; ensure that the Category, Type and Item (CTI) are completed. Determine the impact and priority • Assign the problem to the designated Support Group investigating the root cause of the problem
200.3	**Problem Investigation & Diagnosis** • Investigate and diagnose root cause of the Problem • Reassign the Problem to another Support Group if necessary • Identify a workaround or permanent alternative for the Problem. (A "known error" is created when the root cause of a problem is known and either a workaround or a permanent alternative has been identified) • Record the root cause within the Service Management application • Ensure all resolution activities are recorded against the Problem record in the Service Management application • Raise a Request For Change if required If a Problem is incorrectly allocated, return to 200.2 "Problem Classification and Allocation".
200.4	**Error Identification & Recording** • Ensure all resolution activities are recorded against a Known Error record in the Service Management application • If no root cause or workaround has been defined, return to 200.3 "Problem

	Investigation and Diagnosis"
200.5	**Error Assessment**
	• Perform an assessment of how to resolve the Known Error; record all possible solutions within the Known Error record
	• Generate a Request for Change to resolve the Known Error. Pass to Change Management 300.1 "Filtering and Registering of RFC" for approval and implementation
200.6	**Record Error Resolution**
	• Record details of the resolution within the Known Error record, ensuring all data on the affected CI, symptoms, resolution and circumvention actions are recorded and accurate
200.7	**Problem & Error Closure**
	• Conduct a Post Implementation Review in co-operation with Change Management, to ensure that the Known Error resolution was effective. This is an optional activity and should be conducted at the discretion of the Problem Manager
	• Assign both cause and resolution codes to the Known Error record, and close it
	• If the Problem has not been resolved return to 200.3 "Problem Investigation and Diagnosis"
200.8	**Trend Analysis**
	• Trend analysis will be conducted on data from the Incident, Problem, Change, Availability, Capacity and other IT management processes
	• Each identified trend will be investigated further to ascertain if there is an underlying Problem. If there is a Problem record will be raised
200.9	**Major Incident Handling**
	Major Incidents are recorded by Incident Management and will be escalated to follow the Major Incident Management process (200.9).
	Problem Manager or nominated alternate will assume the role of Major Incident Manager and will take control of co-ordinating activities through to incident resolution.
	The activities of Incident and Problem Management shall take place as deemed appropriate by the Major Incident Manager with the aims of both restoring service and ensuring thorough investigations of the incident take place. In addition the Major Incident Manager will ensure accurate recording of progress details/actions within the MI record.
	Once the affected service has been restored and confirmation obtained from the customer Proceed to 100.7 Incident Closure.
	In addition the Major Incident Manager holds a service restoration review and produces the report; Proceed to 200.1 Problem Identification and Recording (Note; the Problem record may have already been created by the Problem Analyst representative within the Major Incident Team).

5 Interfaces with Other Processes

Availability Management

Availability management requires data collected by Problem Management to produce management information about reliability and availability.

Configuration Management

Configuration requires logging of all Problems in the Configuration Management Database (CMDB) and ensuring they are linked to valid Configuration Items (CIs).

Financial Management for IT Services

Financial management requires input to the calculation for the cost of an outage through time stamps available in the Service Management application.

Incident Management/ Service Desk

Problem Management can provide the Service Desk with regular updates on outstanding Problems/Known Errors and will provide first level fixes in the Known error database.

All disciplines

Provide each of the other disciplines with information on Problems/Known Errors in their area.

6 Dependencies on Other Processes

Incident Management/ Service Desk

Record sufficient, accurate details within all Incident records, to a consistent standard using the correct codes, enabling Incidents and Problems to be investigated and analysed.

Escalate to Problem Management in a timely manner, any Incident records which cannot be accurately categorised within the existing category structure for onward discussion with Configuration Management.

Escalate to Problem Management in a timely manner, any Incident records of sufficient priority to be classified Major Incidents.

Attend Problem review meetings where input is required from the Incident Management process.

Configuration Management

Ensure that the data and relationships within the CMDB are accurate and complete, and ensure that this resource is available to the Problem Management.

Attend Problem review meetings where input is required from Configuration Management.

Change Management

Ensure that Requests for Change (RFCs) raised by Problem Management are correctly assessed for impact and are authorised/rejected as appropriate.

Provide assistance as required during the handling of Major Incidents where a rapid response from Change Management is critical.

Provide details of planned changes (Forward Schedule of Change-FSC) to Problem Management on a regular basis, as a minimum, once a week.

Notify Problem Management of any changes to the Forward Schedule of Change. (I.e. Changes are backed-out.)

Attend Problem review meetings where input is required from Change Management.

Advise on successful implementation of Changes.

Release Management

Provide information on (new) software and hardware releases and assist in Problem investigation.

Provide the list of outstanding Known Errors and Workarounds within any new release to the Problem Management team. This transaction must occur in such time that Known Errors and Workarounds may be entered into the Known Error database prior to the new system going live.

Attend Problem review meetings where input is required from the Release Management process.

Service Level Management

Ensure that business requirements and priorities are being communicated to Problem Management.

Liaise with third-party vendors to achieve service improvements.

Attend Problem Management meetings where appropriate.

Communicate any changes in agreed business requirements appropriate to the Problem Management process.

Ensure that business requirements are reflected correctly in the priority and category classifications used by Incident and Problem Management.

Availability Management

Notify Problem Management of any recurring Availability problems threatening service availability.

Capacity Management

Provide assistance in resolving Problems that are caused by insufficient system capacity.

Notify the Problem Management team of any Capacity related problems threatening Service availability.