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**Document Control**

**Document Version History**

This table shows a record of significant changes to the document.

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| **Version** | **Date** | **Author** | **Description of Change** |
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**Approvals**

This table shows the approvals on this document for circulation, use and withdrawal

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| 1.1 |  |  |  |  |

**Glossary**

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| **Term** | **Description** |
| Governance | The structure and management processes of managing the end to end delivery of <customer> services. |
| IM | Incident Management |
| Incident | An unplanned interruption to an IT service or a reduction in the availability of an IT Service. |
| Problem | A cause of one or more Incidents where root cause if not known. |
| KEDB | Known Error Database |
| RCA | Root Cause Analysis. Problem solving methods aimed at identifying the root causes of problems or events |
| Third Party | A 3rd Party, for the purpose of this document relates to resolvers that may be required which fall outside the scope of an L2 vendor’s domain. |
| SLA | Service Level Agreement |

# Process Overview

## Objectives

A ‘Problem’ is a cause, or potential cause, of one or more Incidents.

The objective of Problem Management Process is to prevent problems by resolving the root cause of Incidents. Another objective of this process is to reduce the recurrence of Incidents. A third objective of the problem management process is to reduce impacts of incidents which cannot be prevented.

Proactive Problem Management identifies and resolves Problems before Incidents occur.

## Scope

Scope of Problem Management activities can be defined as:

### Identify and analyse Problem

### Identify Problem Solution

### Change Management

### Develop Problem Solution

### Release Management (Solution Implementation)

### Problem monitoring

## Interface with other Processes

Related Incidents / Recurring Incidents

* Use of Configuration Records
* Configuration Anomalies
* Potential flagging of services

e.g., as ‘failed’ or equivalent

**Problem Management**

**Incident Management**

**Change Management**

**Configuration Management**

**Service Level Management**

Incident management information regarding breaches of services

Details of probable changes to

resolve particular Problems

The Problem management process interfaces with various other Service management processes as shown in the diagram above. This diagram depicts how Problem Management is operated and the interfaces associated with it.

# Problem Management Process

**Overview**:

Many problems are unique and require individual handling. There might be several incidents which are caused by the same problem

## Problem Management Process flow

In practical IT environment, Problem management operations would generally be executed as per the below diagram:

No

Yes

No

Yes

Known Error Database

Provide a workaround

Change Management Process

Major Problem

Review

Major Problem?

Closure

Resolution

Create known error record

Workaround?

End

Yes

No

Problem, Monitoring, tracking and communication

Problem Logging

Categorization

Prioritization

Investigation & Diagnosis

Change needed?

Unresolved Incidents

System Events/ Alerts

Service Desk

Proactive Problem Mgmt.

Supplier/ Contractor

Problem Detection

## Process Description of Problem Management

This process starts with the initial detection of Problems and then raising a respective ticket.

Each Problem is recorded so that it could be tracked, monitored, and updated throughout its life cycle.

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| **Act No:** 1 | **Act Name:** Problem Detection | **Owner:** Person identifying/ reporing a problem |
| **Description:** ITIL problem management process receives Problems through different channels. These chnannels are the service desk (frequently reported incidents), event management process (events and alerts), incident management process (ananlysis of recurring incidents), proactive problem management, and supplier or contractor. | | |

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| **Act No: 2** | **Act Name:** Problem Logging | **Owner:** Problem Coordinator/ Problem Manager |
| **Description:** After the problem is received, the next step is that the problem is reviewed. If required, more information is gathered by contacting the respective person(s). If the review team find to be a problem that needs a resolution, then a problem is logged. | | |
| **Output**: Problem Ticket is raised | | |

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| **Act No: 3** | **Act Name:** Categorize Problem | **Owner:** Problem Coordinator/ Problem Manager |
| **Description:** Categorize the Problem.  Categorization is assigning the Category, Type and Item (CTI), to allow the correct assignment of the ticket. Some of the problems are related to the 3rd party and they are not assigned to the L2-L3 support teams. Such tickets are assigned directly to the 3rd party vendor.  The same categories that are used in incident categorization should be used for problem categorization | | |
| **Output**: Categorized Problem | | |

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| **Act No: 4** | **Act Name:** Categorize and Prioritize Problem | **Owner:** Problem Coordinator/ Problem Manager |
| **Description:** Prioritize the Problem.  Prioritization of Problem would be done based on impact and urgency of issue. (Urgency is defined as the timeframe in which the business needs the problem resolved. The impact is defined as the extent to which the problem could cause damage to the business). Problems are prioritized into P1, P2, P3 or P4 based on company’s prioritisation. While prioritizing the Problem, it gets treated based on the criticality. | | |
| **Output**: Prioritized Problem | | |

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| **Act No: 5** | **Act Name: Investigation and diagnosis** | **Owner:** L2-L3 Resolver Group |
| **Description:** Assign the Problem to the appropriate L2 resolution group. Assignment is based on the categorization/ prioritization of the Problem. During diagnosis, the incident related to the problem is analysed and any further testing is done. | | |
| **Output**: Resolver group identified and Problem is investigated | | |

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| **Decision Box** | **Act Name:** Is there a Workaround? | **Owner:** L2-L3 Resolver Group |
| **Description:** After initial investigation and diagnosis, the next step is to check if there is any workaround available for the problem which can be used to avoid impacting on the users until the problem is fixed permanently. Problems can take months to resolve which is why it is important to have workarounds for problems. | | |
| **Output**: Decision on Workaround | | |

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| **Act No: 6** | **Act Name:** Provide Workaround | **Owner:** L2-L3 Resolver Group |
| **Description:** If a workaround is available, it is tested thoroughly on few samples before creating a Known Error record. A workaround helps the service desk to restore services with a temporary solution until the real cause of the problem can be solved. | | |
| **Output**: Workaround | | |

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| **Act No: 7** | **Act Name:** Create Known Error Record | **Owner:** L2-L3 Resolver Group |
| **Description:** While the Resolver Group searches for a permanent solution, the problem is recorded in the known error database (with its workaround if available. When a workaround is documented, service personnel can use the workaround to deal with the problem quickly as it occurs). | | |
| **Output**: Known Error Record in database | | |

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| **Decision Box** | **Act Name:** Is Change Required | **Owner:** L2-L3 Resolver Group / Change Management Process |
| **Description:** Resolving a problem means that the root cause of the problem and the solution to the problem has been identified. It is checked if the solution of the problem requires a change. If change is required, change management process is triggered, a request for change is initiated. Change Management Process is followed. | | |
| **Output**: Resolution identified and if it requires a change, then Change Request is raised | | |

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| **Act No: 8** | **Act Name:** Resolution Provided | **Owner:** L2-L3 Resolver Group/ Problem Manager |
| **Description:** Resolution is provided to the Problem. At this stage, since the permanent solution for the problem is provided, the known error database is updated to remove the record. The Problem ticket is updated with resolution activities. All service personnel are informed about the resolution. | | |
| **Output**: Resolved Problem | | |

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| **Decision Box** | **Act Name:** Is it a Major Problem? | **Owner:** L2-L3 Resolver Group/ Problem Manager |
| **Description:**Check if the Problem is a Major Problem. | | |
| **Output**: Decision whether it is a Major Problem | | |

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| **Act No: 9** | **Act Name:** Major Problem Review | **Owner:** L2-L3 Resolver Group/ Problem Manager |
| **Description:** After the closure of the problem, if it is a major problem, major problem review is executed. The major problem review is a process step necessary to avoid future problem. Sometimes, senior management may need to be updated. | | |
| **Output**: Major Problem Reviewed | | |

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| **Act No: 10** | **Act Name:** Closure | **Owner:** Problem Manager |
| **Description:** Update status of ticket to “Closed”. Capture and record Lessons Learnt. | | |
| **Output**: Ticket status set to “Closed”, Updated Lessons learnt information | | |

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| **Act No: 11** | **Act Name:** Problem Monitoring and Tracking | **Owner:** Problem Manager |
| **Description:** Throughout the process, the status of problem and resolution is monitored/ tracked in order to maintain focus and momentum. Sometimes the problems resolution can take a long time. Periodic review meetings can help this monitoring activity. | | |
| **Output**: Minutes of review meetings, Problem tracking sheet | | |

## Key Contacts and Escalations

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| **No.** | **Key Contacts** | **Phone Number/ Email Id.** | **Title/ Department** | **Escalate to** | **Phone Number/ Email Id.** | **Title/ Department** |
| 1 | <Name> |  |  | <Name> |  |  |
| 2 | <Name> |  |  | <Name> |  |  |