

XXX

*Problem Management
Process Guide*

*Process Re-engineering
Problem Management Process*

Version Control

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1. Introduction

This document sets out the overall Problem Management Process for the XXX IT infrastructure and environment. This procedure took existing XXX Problem management practices, the AAA Process Model and ITIL best practices as input.

2. Purpose of the Document

This document contains high level process flows pertaining to the *Problem Management Service* in XXX IT environment. The document provides a framework and roadmap from which lower level operational procedures can be defined and implemented by the Service Improvement Team and IT Service Delivery staff. The document also serves the purpose of providing material for high level training and education to end user and IT communities. This aids high level understanding of process based service delivery and specific process based tasks for the *Problem Management Service*.

Every participant in the process is expected to understand and implement the guidelines described in this document.

2.1 Service Description

Problem Management is the ongoing service concerned with minimising the impact of problems affecting the availability and services of the service delivery environment, whilst minimising expenditure of resource and maintaining the highest level of client satisfaction.

This process captures information about problems and resolves them, according to XXX Standards and policies. Problems will flow in from and out to the XXX Incident management process.

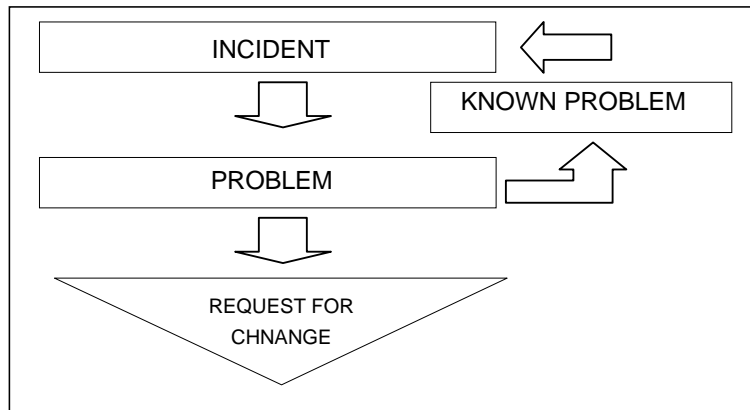
The process identifies, documents, analyses, tracks and resolves all problems within the XXX IT environment.

The suggested Problem Definition is: Any deviation from an expected norm. That is, a problem is any event resulting in a loss or potential loss of the availability or performance to a service delivery resource and/or its supporting environment. This includes errors related to systems, networks, workstations and their connectivity; hardware, software, and applications. The recognition of problems can come from any point in the environment and can be identified using a variety of automated and non-automated methods

An **incident** is a single occurrence of a difficulty, which is affecting the normal or expected service of the user. The usual priority when an incident occurs must be to restore normal service as quickly as possible, with minimum disruption to the users.

A **problem** is the underlying cause of one or more incidents, the exact nature of which has not yet been diagnosed. Restoring normal service to the users should normally take priority over investigating and diagnosing problems, although this may not always be possible.

2.2 Terminology



The following are ITIL descriptions:

ITIL recommends a clear demarcation between incident control and problem management. If help desk cannot resolve an incident, it is progressed to problem management.

An **incident** is a single occurrence of a difficulty, which is affecting the normal or expected service of the user. The usual priority when an incident occurs must be to restore normal service as quickly as possible, with minimum disruption to the users.

A **problem** is the underlying cause of one or more incidents, the exact nature of which has not yet been diagnosed. Restoring normal service to the users should normally take priority over investigating and diagnosing problems, although this may not always be possible.

A **known problem** is a problem which has been diagnosed and for which a resolution or circumvention exists. There may be good reasons for leaving a problem outstanding even though a resolution is possible, for example if the problem is minor and the resolution will impact on normal service provision.

ITIL refers to Problem Management as:

Incident Control

- Restoring normal service when service has one wrong

Problem Control

- Getting to the root cause of the problems
- Correcting Problems

Management Information

- Resulting from the other areas

Problem Management is also concerned with proactively preventing problems occurring.

2.3 Problem Management Objective

The objectives of the Problem Management Process is to provide a straightforward and workable process for handling all types of service inhibiting situations with minimum effort for the XXX IT clients. The goal is to maximise client satisfaction with IT systems and services.

The Problem Management process and Incident Management process are closely linked with many of the Problem Sub-process activities performed by the Helpdesk.

Problem Management Process Objectives:

- Minimize the impact of problems
- Minimize the duration of any related outages
- Manage problems within agreed-to time frames
- Reduce number of problems
- Prevent reoccurrence
- Perform trend analyses
- Assure performance of root cause analyses
- Maximize productivity of resources
- Monitor and measure the service
- Automate tasks wherever possible.

2.4 Scope

The Problem Management service begins with receipt of a problem record.

The assumption upon entering Problem Management is that the problem has already been logged, as a problem, via the Incident Management Process.

In order to resolve problems, the service includes the following activities:

- Notification
- Problem Determination
- Workaround and Recovery
- Problem Resolution
- Tracking
- Report and Control.

3. Overview of the Problem Management Process

The overall Problem Management process comprises a number of tasks or activities.

3.1 Problem Management - Overview Description

The Problem Management Process consists of the following sub process activities:

1. **Notification**

The identification of a problem. Examples of a problem might be an outage, an incorrect or an unusual result. This sub process also includes notifying the appropriate support structure that there is a problem and a need for assistance.

The initial recording of a problem, including all relevant information that is available when the problem occurs. This is the introduction of the problem into the management system. (Source Incident Management Process)

2. **Problem Determination**

The collection, analysis, and correlation, of data to determine and isolate the cause of the problem.

3. **Workaround and Recovery**

Activity to recover, workaround or circumvent the problem, and notification to the affected clients of action taken.

4. **Problem Resolution**

The identification, implementation, and verification of solutions, and notification to affected clients.

5. **Tracking**

The assignment of ownership for resolving problems and the follow-up activity to ensure that the goals for problem resolution are being met. It includes setting priorities and escalating issues via the appropriate system.

6. **Reporting and Control**

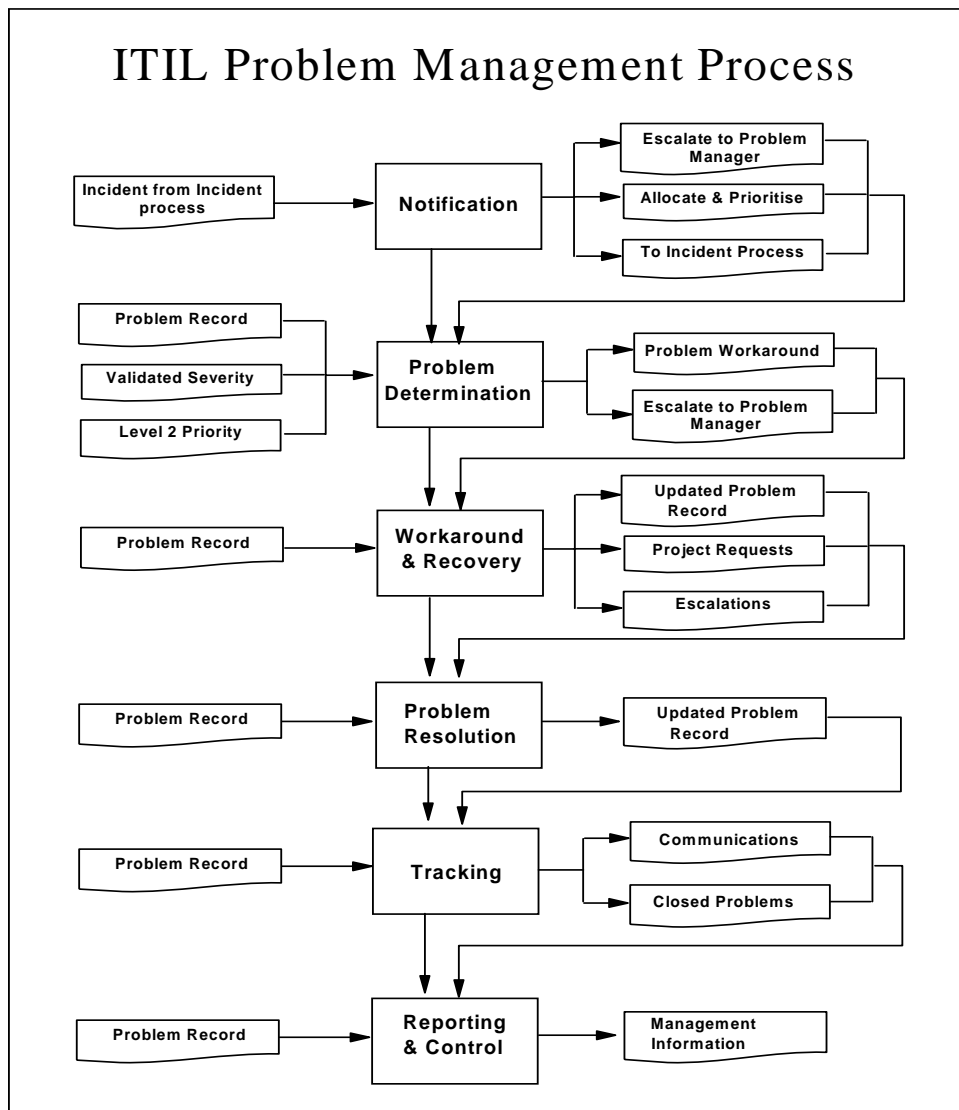
The production and analysis of reports, over time, to determine if the problem management process is working effectively and to identify changes that may be necessary. It also helps identify significant results and problem trends.

Note:

- Emergency Changes will always relate to a problem record
- There will be known problems that will not be fixed
- There will be known problems for which XXX will be waiting on a vendor to provide the fix.

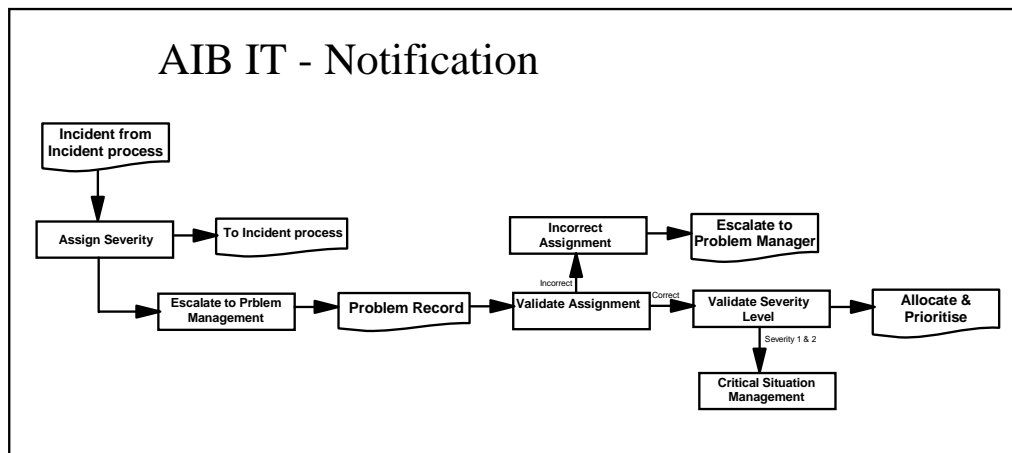
3.2 Problem Management Process Flow (ITIL)

The following process flow shows an overall ITIL based version of the Problem Management process for resolving client problems. This illustration is meant to provide the reader with an understanding of the general functional flow of the problem process.



3.3 Notification

Inputs:	<ul style="list-style-type: none"> • Problem Record • External Notification • User Communication
Outputs:	<ul style="list-style-type: none"> • Assigned Problem • Escalated record •
Roles:	<ul style="list-style-type: none"> • Problem Management Controller / Problem Manager



The Identification and notification sub process includes the following steps:

1. **Raise Problem Record**
Problem Management Controller raises problem record, copying relevant details from the incidents and expanding as required. This should include verification or modification of the severity and impact, escalating to the problem manager if found to be high severity
2. **Validate Severity Level**
Problem Manager assesses incident forwarded from first level support area (e.g. Helpdesk) via the Incident Management process, checking noted severity and verifying or modifying as required and identifying further handling requirements
3. **Directly Manage Critical Situations**
Problem manager, if it is a severe situations (severity 1 & 2), directly initiates and co-ordinates resolution actions, or designates someone else to co-ordinate. Ownership of the Incident process remains with the Incident manager / Helpdesk although management has passed to the problem manager for the duration of the critical situation.

Problem Manager, or designate, continues co-ordination of major incident through to resolution, or until severity or impact has been reduced sufficiently to progress as per other incident standards. Regular updates must be provided to

service delivery groups and / or user management. If necessary, problem manager should convene “problem/critical situation” meetings with the relevant experts to determine the best course of action and maintain progress in line with severity and impact.

4. Allocate and assign Incidents for further investigation

Problem manager, if further investigation of incident is required, allocates incident to a problem analyst, progressing to identify nature of the problem.

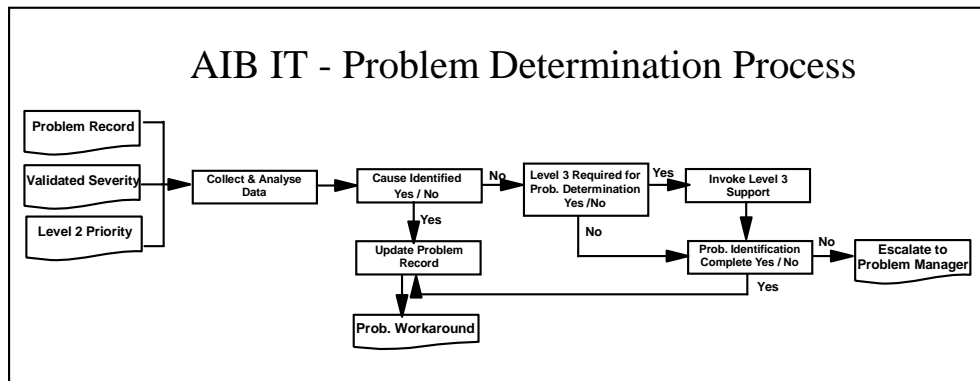
Problem manager, if further investigation is not required prior to assignment to a specialist support function (and a problem has already been created) progress to assign problem.

If a Level 2 to Level 2 reassignment takes place the group passing the problem on will notify the incident manager/Helpdesk of the move.

The problem manager will also assign significant problems that have been externally notified, for example urgent notification of virus signatures from the relevant external agencies.

3.4 Problem Determination

Inputs:	<ul style="list-style-type: none"> Updated Problem
Outputs:	<ul style="list-style-type: none"> Problem Status (Updated Problem Record)
Roles:	<ul style="list-style-type: none"> Problem Management Controller / Level 2/3 support



The Problem determination sub process includes the following steps:

1. Collect Problem & Analyse Available Problem Data; Identify Related Occurrences

Collect all available data about the problem, its symptoms, and associated configuration data. Identify any related occurrences of the problem from the knowledge database. (Maybe performed at level 1 Helpdesk). Analyse available problem data using normal problem determination procedures

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2. **Is this a problem requiring a specialist service (level 2 or 3 support)**
Based on the available problem data, decide whether this problem is of a “specialist” nature, for example a performance problem
 3. **Correct Owner?**
Determine if the problem has been referred to the correct owner (work group/queue)
 4. **Escalate Problem as Appropriate**
If the correct owner is not known, escalate the problem to the Problem Management Co-ordinator or, if necessary, the Problem Management Controller for resolution
 5. **Reassign Problem Record to Correct Owner**
Note: If the correct owner is known, the Problem Controller does this. If the correct owner is not known, the Problem Management Co-ordinator or Controller does this.
 6. **Resolve Incident**
Problem Management controller, co-ordinates actions of, resolution with assistance and participation of relevant support groups.

Problem Controller organises communication of resolution to users via Help Desk.
 7. **Update Call Record with Additional Details**
Update the Call Record with additional detail to help with future assignment of problem records. If the incident is still affecting users, then its record should stay open pending circumvention or resolution
 8. **Identify Probable Cause**
Identify the probable cause for the problem, isolating the problem to a single point of failure if possible. Perform an initial root cause analysis
 9. **Is it a Problem?**
Determine if the reported problem is actually a problem
 10. **Action Required?**
If the reported problem is not actually a problem, determine if any action is required
 11. **Perform Appropriate Action**
If action is required for a non-problem, perform the appropriate action.
Note: For example, if a customer calls about a service outage, and service has already been restored, ensure that the customer is able to use the service.

Update Problem Record to Indicate that Reported Problem is not Actually a Problem

Update the problem record to indicate why the reported problem is not a problem.

Note: The problem record is then closed by way of the Close Request activity of the Incident Management service

Adjust Initial Severity/Priority if Required

Notify Severity/Priority Change

This activity invokes Incident Management to register the severity/priority change and carries on in parallel to **Update Problem Record**.

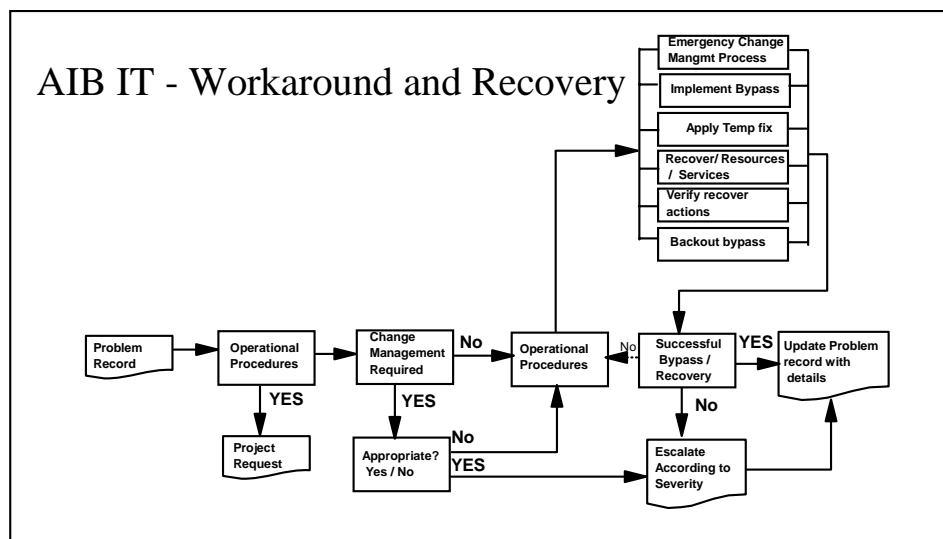
Incident Management

Call Management is responsible for resetting the severity/priority.

Update Problem Record

3.5 Workaround and Recovery

Inputs:	<ul style="list-style-type: none"> • Problem record • Available workaround • Operational procedures • Change management
Outputs:	<ul style="list-style-type: none"> • Problem status (Updated problem record) • Project request • Change Intention • Configuration Update Details
Roles:	<ul style="list-style-type: none"> • Problem Co-ordinator /Team Leader



The Problem Workaround & Recovery sub process includes the following steps:

1. Review/Develop Bypass/Recovery Plan with Affected Parties

2. Project Required?

Based on Policy.

Determine if a project is required to implement the bypass.

- If yes, proceed to Project Request.
- If No, proceed to Change Management Required?

3. Project Request Management

If a project is required, invoke the Project Request to implement the workaround.

- Proceed to Successful Bypass?

4. Change Control Required?

Based on Policy

Determine if Change Control is required to implement the bypass.

- If Yes, proceed to Change management
- If No, proceed to Operational Processes.

Emergencies will be handled according to XXX IT Change Policies; for example, this may mean that Change Control is invoked retrospectively, i.e. after the workaround or recovery has been implemented.

5. Change Management

If required, invoke Change Control to approve and schedule the workaround.

6. Change Management Appropriate?

Determine if Change management is required and if so is it appropriate to the situation.

- If No proceed to Operational Processes
- If Yes, proceed to Escalate According to Severity

7. Operational Processes

If a project is not required, start the implementation of the workaround or recovery plan by way of the operational procedures that perform implementation tasks such as:

- Emergency Change Management
- Implement the bypass
- Apply temporary fixes
- Recover resources and services
- Verify that the bypass/recovery actions work
- Back out the bypass if it was unsuccessful

Note: Operational Processes include Desk-side Support, Software Distribution, Server Management, Applications Management, and so on.

8. Successful Workaround?

- If Yes, proceed to Update Problem Record to Indicate Workaround was Successful
- If No, proceed to Update Problem Record to Indicate Workaround was Unsuccessful.

9. Update Problem Record to Indicate Workaround was Successful

If the workaround was successful, update the problem record to indicate that the workaround was successfully implemented.

10. Update Problem Record to Indicate Workaround was Unsuccessful

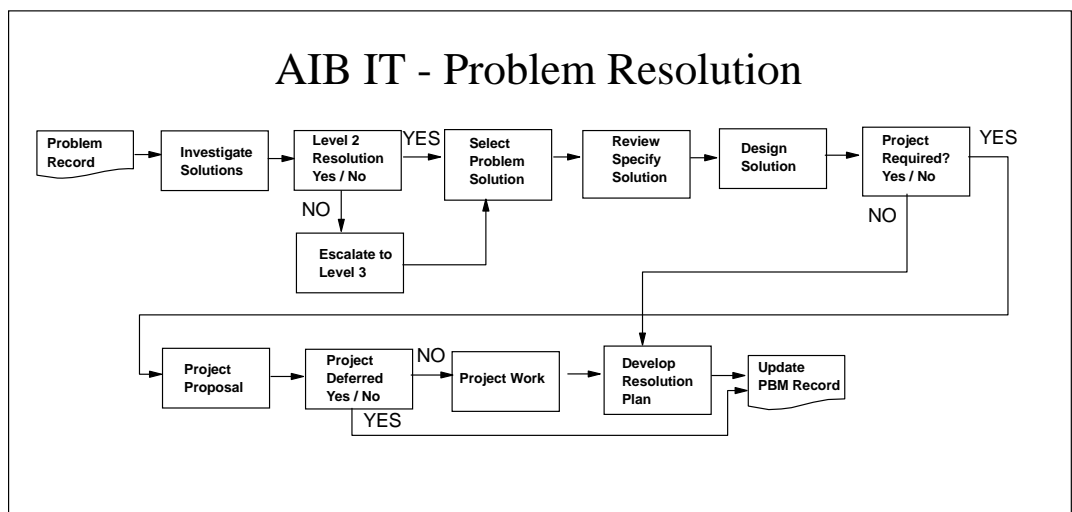
If the workaround was unsuccessful, update the problem record to indicate that the workaround was not successfully implemented.

11. Update Problem Record to Indicate Workaround was not Approved

If the change (workaround) was not approved, update the problem record to indicate that the workaround was not approved.

3.6 Problem Resolution

Inputs:	<ul style="list-style-type: none">• Problem record• Knowledge database• Change Approval• Change Status Report
Outputs:	<ul style="list-style-type: none">• Problem Status (Updated Problem Record)• Problem Resolution Plan• Project Request• Change Intention
Roles:	<ul style="list-style-type: none">• Problem Co-ordinator / Level 2 / Level 3



The Problem Resolution sub process includes the following steps:

1. Investigate Possible Solutions

Investigate possible permanent solutions for the problem

Problem owner assesses alternative resolution approaches, with assistance of other support areas (including Change Management) and identifies preferred approach.

The potential to combine resolutions into a scheduled “upgrade” should be actively considered

2. Select Problem Solution

Select the best permanent solution for the problem

3. Review/Design Solution

Review or design the permanent solution for the problem

4. Develop Plan to Create, Test, Apply & Verify the Fix

Develop a resolution plan to create, test, apply, and verify the permanent fix

5. Project Required?

Based on Policy

Determine if a project is required to implement the solution.

- If Yes, proceed to Project Request (in tracking)

- If No, proceed to Select Problem Solution

6. Project Request

If a project is required, invoke Project Request to implement the solution

7. Provide Service

After handling the entitlement failure, determine if service is to be provided; that is, will the recommended solution or an acceptable alternative be implemented

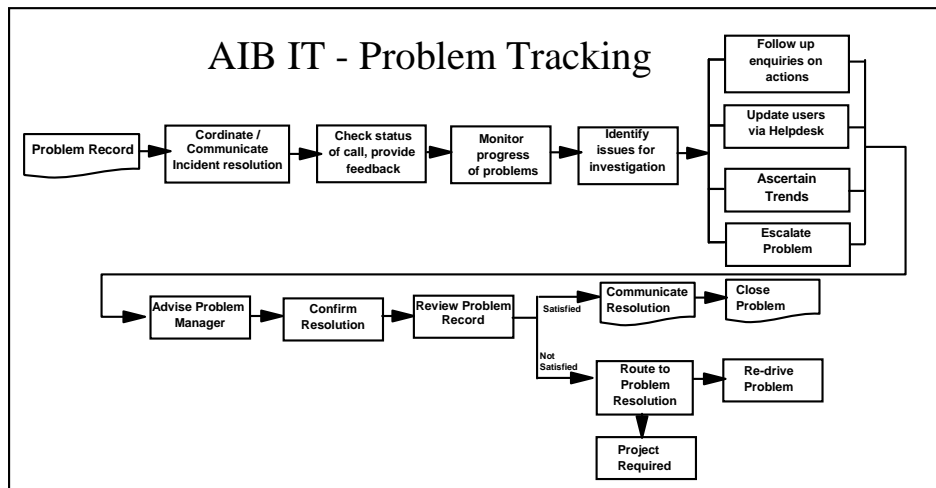
8. Develop Resolution Plan

Follow XXX operational procedures to develop a resolution plan install the fix to the problem

9. Update Problem Record.

3.7 Problem Tracking

Inputs:	<ul style="list-style-type: none"> • Problem record • Knowledge database • Configuration Information
Outputs:	<ul style="list-style-type: none"> • Problem Status (Updated Problem Record) • Problem analysis information • Root cause analysis • Possible Problem Solution
Roles:	<ul style="list-style-type: none"> • Problem Management Co-ordinator / Team Leader • Problem Management Controller



The Problem Tracking sub process includes the following steps:

- 1. Actively Monitor or Manage Progress on “Significant” Problems**
 Problem manager actively monitors (or directly manages) actions on problems and known errors related to major incidents.

As appropriate, problem manager convenes and chairs specific co-ordination meetings with participants in the resolution.
- 2. Follow up on specific Progress on Problems and known problems**
 Problem manager, in response to enquiry or trigger from the problem management system (e.g. change in problem status), checks on latest status and documentation of related problems and provides feedback as required.
- 3. Monitor Overall Progress on Problems and known problems**
 Problem manager, maintains an overall awareness of incident, problem, and known problem environment, identifying any issues for further investigation and either following up directly or initiating follow up by other Problem Management staff. Follow up may include enquiries on actions, initiating updates to users (via

helpdesk), ascertaining trends (for feed into production management information) and potential escalation

Resolve and Close Problem

Identify Resolution

Problem owner verifies that the solution has successfully resolved the problem or known error.

Problem owner completes associated resolution details on problem or known error record.

Problem owner advises Problem Management of resolution.

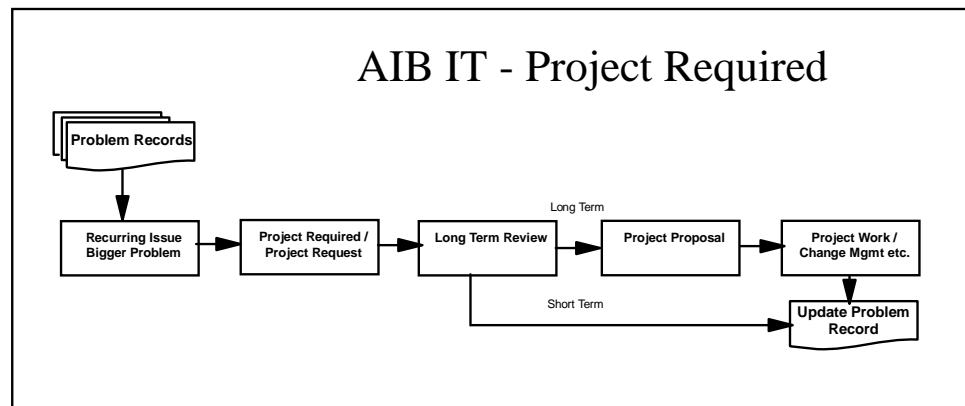
Confirm Resolution

The Problem manager checks for resolution details, confirming details and resolving any inconsistency with problem owner, change owner and Change Manager as required.

Problem Manager, if resolution is not satisfactorily complete, returns problem-to-problem owner as not resolved. Problem manager will monitor for pervasive problem records & will initiate project activity, where required, to resolve the root cause.

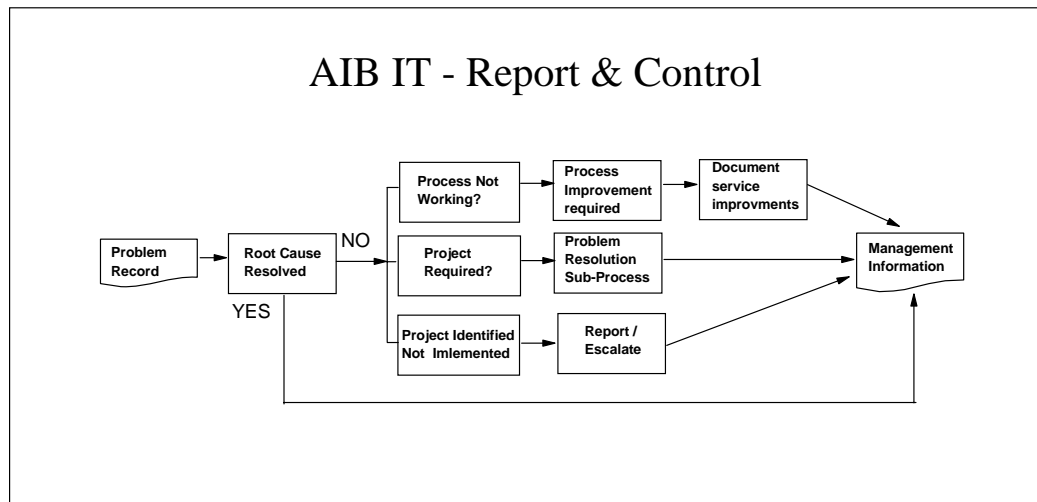
Close Problem

Problem Manager completes closure details and closure of associated incident links (unless done by the helpdesk as part of Incident Management in which case Problem Manager advises Help Desk manager of completion), and closes problem.



3.8 Report and Control

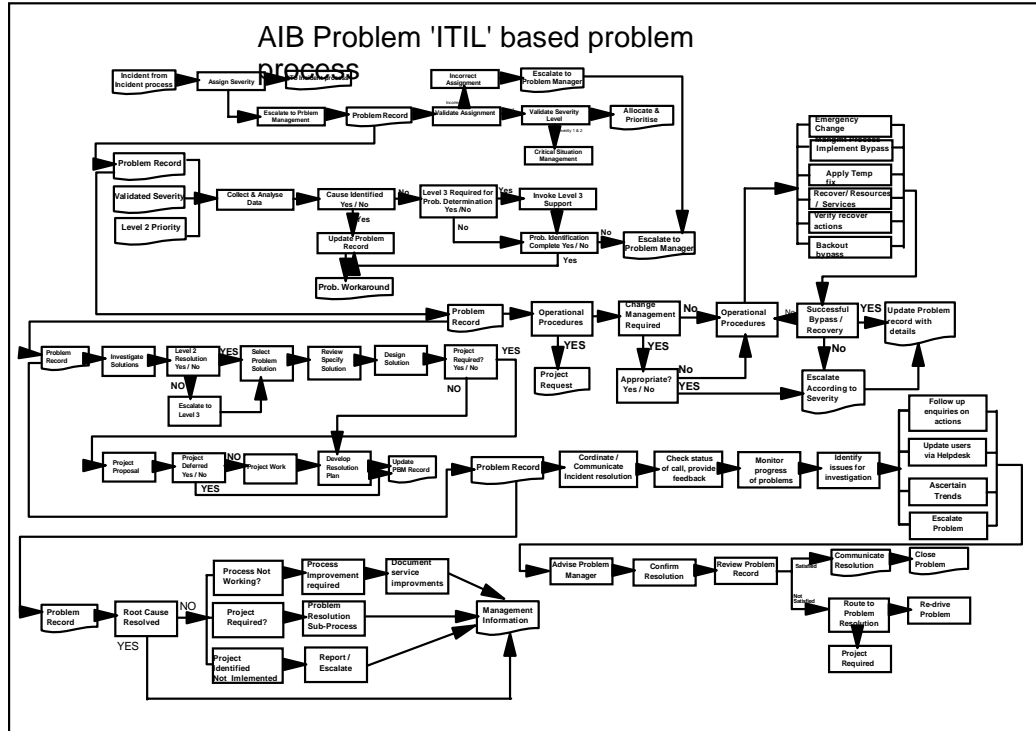
Inputs:	<ul style="list-style-type: none"> • Problem Record
Outputs:	<ul style="list-style-type: none"> • Requirement(s) for process improvement • Documented non-compliance's • Problem Management Measurements and Reports, including trend analyses
Roles:	<ul style="list-style-type: none"> • Problem Management Controller



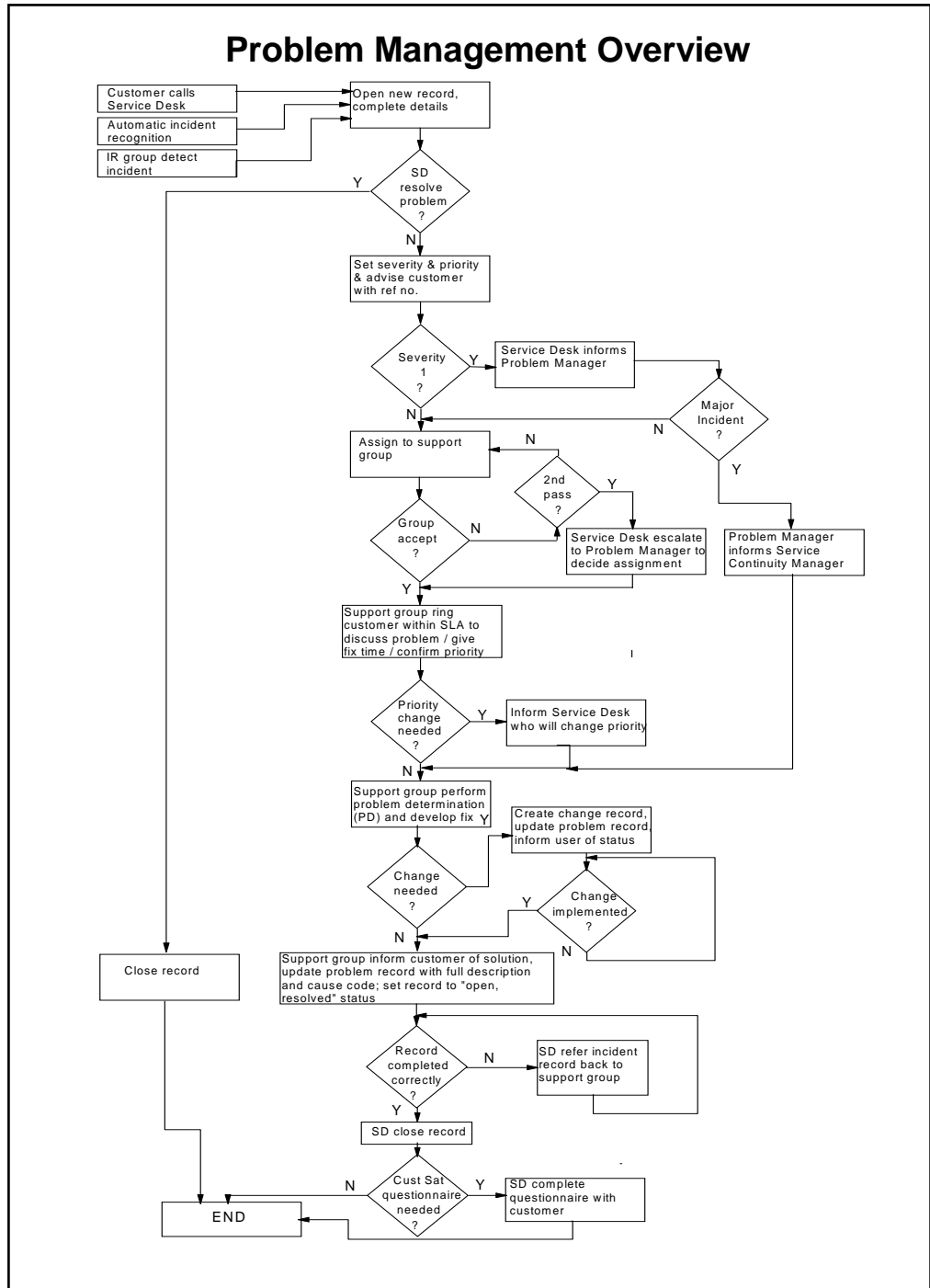
The Report and Control Problems sub process includes the following steps:

1. **Root Causes Resolved?**
Tests whether or not a resolution has been implemented for the root cause.
2. **Problem Management Sub-Processes not working effectively?**
Invoke sub-processes improvement activity as required.
3. **Project Required?**
Based upon the outcome of analysis of generic incidents or problems determine whether or not specific project activities are required.
4. **Project Identified but not implemented?**
Project activities identified but project activities rejected or deferred. Escalate to the problem manager via exception reporting.
5. **Perform Projects / Actions Required**
6. **Process Improvements Required?**
7. **Document Recommended Process Improvements**
This task documents the required process improvement. This could be an improvement to the Problem Management service itself, or an improvement to any other service within the XXX Service.

3.9 Grouped Level 2 XXX Problem Management Process



3.10 ITIL Problem Management Overview



4. Problem Management Measures

The reports that are produced for the problem management system are designed to help manage the process. Daily reports identify results from the previous day, and any problems, which must be confronted during the day. Weekly reports provide a summary of the previous week's success, current status and weekly trend information. Daily reports are primarily for technicians. Weekly reports enable effective management of the process. Monthly reports can also enable IT to evaluate the effectiveness of the problem management system.

4.1 Problem Management Process Measurements

The problem management process measurements are used to determine if adjustments must be made to the process:

- Cost and resource time to support the process
- Number of problems raised
- Number of known errors identified
- Number of incidents linked to problems
- Number of rejected resolutions
- Number of changes resulting in problems
- Number and cost of problems caused by changes
- Numbers of problems fixed by changes.

Some examples of reports are listed below:

- **Daily Turnover Report of all Problems**
Showing at the detail level all problems opened and closed the previous 24 hours
- **Weekly Report of Problems Resolved by the Help Desk**
Showing detail of those problems resolved by the Help Desk
- **Weekly Report of Problems Resolved by Level 2 Departments**
Showing detailed of all resolved problems assigned by the Help Desk to any Level 2 department.

It should be noted that these reports are not intended to replace the normal operations reports for systems and network availability/outages. These reports are to monitor the progress of the problem management system and provide guidance in the effectiveness of the problem management activity.

5. Roles and Responsibilities

5.1 Problem Management Process Owner

Job Purpose	This position is a senior service delivery co-ordination and development role for the Problem Management and underpinning technical services. Is responsible for ensuring the problem, management system is in place and effective.
Major Tasks	<ul style="list-style-type: none">• Is responsible for and owns the overall Problem Management service• The process owner must build the process. This includes defining what is a problem, setting goals and objectives of the problem management process, understanding what severity's, priorities, service levels are required, and setting up the information flows• Responsible for overall performance to target service levels for Problem Management and underpinning technical services• Ultimately responsible for resolving Problem Management and technology service/s dissatisfaction issues• Escalates exceptions to senior management as appropriate• Has a nominated deputy to cover for service owner absence• Develops requirements for Problem Management standards, procedures, measurements, tools and technology in conjunction with the Incident Management service owner• Sponsors and / or manages internal improvement projects to implement new technology and process improvement, ensuring compatibility and integration with other XXX services and non XXX service providers• Communicates Problem Management procedures and working practices and changes to internal standards, processes, procedures and technology• Co-ordinates and sets annual service requirements, objectives and targets for Problem Management and underpinning technical services in conjunction with technology service owners• Approves and sponsors Problem Management and technical service improvement ideas• Attends appropriate senior management level service support and development reviews as appropriate• Involved in development and subsequent agreement of service level targets and target improvements related to the Problem Management and underpinning technical services.

5.2 Problem Management Controller (Helpdesk – Level 1)

Job Purpose	<p>The Helpdesk personnel play the key role in the day-to-day operation of the problem management process and in the majority of incidents becomes the problem owner.</p> <p>The problem owner/controller assumes responsibility for all communications and for co-ordinating resolution activity on that problem, in accordance with severity.</p>
Major Tasks	<ul style="list-style-type: none">• Is the initial point of contact for the client community• Do the initial problem logging and problem determination• Resolve most level 1 problems• Contact vendors for most hardware problems• Do the problem tracking.• Provide feedback to the client who reported the problem• Records all calls that require a problem or incident to be opened• Complete the initial descriptive portion of the problem record for all problems• Assign problem severity level and the initial priority• Update the problem record and maintain a list for tracking all problems that have been assigned problem numbers• Assign the problem and send a copy of the problem record to the appropriate group(s) for additional problem determination and problem resolution• Reassign the problem if the Level 2 that was first assigned is not the correct group to fix the problem• Summarise daily, weekly and monthly statistics and provide reports to interested departments• Provide the problem management co-ordination. In that role, the responsibilities are:• Oversee and track all exception problems affecting clients, from initial recording, through management review, through escalation, through closing.• Notify management of the requirements to schedule escalation/problem review meetings• Prepare problem reports• Review closed problems for validity

5.3 Problem Management Analysts

Job Purpose	The problem analyst is a member of the Problem Management function and is responsible for examining incidents escalated from first level support to identify their cause. Incidents are either related to existing problems or known problems, or recorded as new problems which will normally be allocated to a support area and subsequently progressed by the problem owner / controller.
Major Tasks	<ul style="list-style-type: none">• Responsible for effective implementation and maintenance of Problem Management procedures and working practices• Defines training and development needs for individuals within the team• Ensures adherence to staff training plan• Undertakes performance review meetings with team members in compliance with XXX policy• Invokes escalation procedures and communicates with management as appropriate• Identifies and reports exception items to management as appropriate• Identifies incident and problem trends to anticipate potential service outages and duplicated problems• Co-ordinates / undertakes appropriate action as a result of service deterioration• Participates in customer satisfaction surveys obtaining feedback from customers with respect to service level attainment and service quality and feeding information into service improvement process• Provides first line escalation point for customer service dissatisfaction• Recommends working practice improvement ideas with the team, passing them to the Problem Management Controller and / or Service Owner for approval and action• Provides individual input to Problem Management service improvement.

5.4 Knowledge Engineer

Job Purpose	Responsible for providing all aspects of knowledge insertion into the appropriate tools. These responsibilities include identifying knowledge bases to build, finding sources of expertise, acquiring the knowledge, and implementing the knowledge systems.
Major Tasks	<ul style="list-style-type: none">• Creating a process to easily identify the knowledge needed• Implementation of the knowledge will include inserting, quality assurance, delivering and supporting the knowledge• The Knowledge Engineer may also be responsible for routine follow-up, an occasional backup for Level 1, contacting vendors, and minor bug fixes• The Knowledge Engineer will participate in out of hours support.

5.5 Level 2 Support (Operations/Other)

Job Purpose	<p>Level 2 support is responsible for problem determination and resolution, and for bypass, recovery and / or circumvention when the Helpdesk (Level 1) or operations functions are unable to resolve the problem.</p> <p>Operations have specific responsibility for identifying those problems that are caused by systems and operational activities.</p>
Major Tasks	<ul style="list-style-type: none"> • Timely acceptance of responsibility for resolving problems which are assigned by the Helpdesk • Timely reaction based on priority of the problem • Meeting the established objectives for the problem resolution priority • Determining the failing component or the cause of the problem • Creating bypass/recovery/circumvention procedures, making the decisions as to when they need to be invoked, and invoking them when necessary • Providing the solution to the problem or contacting the vendor to resolve • Updating the resolution section of the problem record; working with the Helpdesk when the problem status changes, when there is activity, and when the problem is resolved • Assisting with Problem Determination when requested by others <p>Operations</p> <ul style="list-style-type: none"> • Notify the Helpdesk of problems, in the operations environment, which will affect the user community • Identify the failing component or the cause of the problem • Assist the Helpdesk with problem determination when requested • Help determine the availability of Bypass/Recovery Procedures • Obtain approval for Bypass/Recovery procedures and execute them when necessary or contact the appropriate group to perform Bypass/Recovery <p>Update the problem record or have the Helpdesk update it.</p>

5.6 Vendors (Level 3)

Job Purpose	<p>Vendors are a critical part of the problem management support process.</p>
Major Tasks	<ul style="list-style-type: none"> • Provide timely, skilled service dispatch and resolution • Provide feedback on the results of each assigned problem.

Need to add more of a Level 3 description, so that level 3 can be integrated into the process.

6. Appendices

6.1 Appendix A: Assigning Severity Codes

The impact of a problem is a composite of many factors: the number of clients affected, the type of service disrupted, the length of outage, the number of times the problem has recurred, the availability of a workaround, and the length of time the problem has been open.

Severity codes provide the means for assigning a value to a problem so that the impact of the problem can be communicated to the people involved in the Problem Management Process. The Help Desk personnel will make severity code assignment for client problems when the problem record is created.

Severity Level	Impact Description	TSD Keyword
Severity 1	<ul style="list-style-type: none">• All BBI Branches and or all ATMs• Based on Banks ability to process value through these channels• Escalated Severity 2 incidents	Critical
Severity 2	<ul style="list-style-type: none">• Major Service Impact to any Group Business (Ark Life, F&L, CM etc. up to 50 Branches or ATM)• Based on the Banks ability to process value through these channels or businesses• Escalated Severity 3 incidents	Severe
Severity 3	<ul style="list-style-type: none">• Major Problems• Large Business or Systems• Large non-branch business units, big branch or support department	Significant
Severity 4	<ul style="list-style-type: none">• Small User group within a business unit, small branch	High
Severity 5	<ul style="list-style-type: none">• Single User• Low Customer Impact	Medium
Severity 6	<ul style="list-style-type: none">• Default• All "Requests" & Batch Fails	Low

Sample Incident/Problem Close Codes

A = User Error

B = Request for Information / Education / Advice

C = Desktop Hardware

D = Desktop Software

E = System Hardware

F = System Software

G = Network

H = Security

I = Change

J = Duplicate Call

6.2 Appendix B: Managing Escalation

Escalation is a normal part of the problem management process, which recognises that some problems will not be resolved within established time frames.

The Helpdesk, with the participation of the appropriate level 2 departments and managers, manages the escalation process. The purpose of the escalation process is to bring additional resources to a problem which is not meeting the resolution objective for any number of reasons, such as lack of resource, problem more difficult to resolve than anticipated, lack of attention on the part of the client etc.

The escalation process is the means for bringing additional effort and emphasis to a problem.

Level 2 support is responsible for responding to the escalation and negotiating a solution. Level 2 is responsible for the technical quality of the resolution plan, ensuring that:

- The plan will result in problem resolution
- The problem can be resolved in the projected time frame
- The resolution will be acceptable to the client. If not, an acceptable agreement must be made with the client.

The escalation process is triggered when:

- The target time for problem resolution will be missed
- The identified Level 2 department does not accept responsibility for the resolution
- The client escalates the problem
- There is a critical application or system exposure

Escalation is meant to focus management attention on a specific problem. Escalating a problem should ensure that:

- The problem is resolved or bypassed
- The client is satisfied
- Responsibility is assigned, a plan is put in place, and a target for resolution exists
- The required resources are available

The process works as follows:

- The Helpdesk determines that escalation is needed and identifies the departments to be involved
- An “Escalation” Action Line is added with the relevant details

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- The Helpdesk Manager identifies the appropriate managers or supervisors to be involved. They set the objectives of the escalation and identify who needs to be involved as part of the resolution team
 - The Helpdesk provides the history of the problem (via the Helpdesk call record) and ensures that an action plan is developed
 - The team develops an action plan that outlines the action and sets target times and ensures resource commitments
 - If there is no agreement on a plan, or if the objective is missed, the problem is escalated to the next level of management
 - The assignee ensures that the affected department/clients are notified and are in agreement with the plan. If they are not, then agreement must be obtained
 - The Helpdesk documents the results of the escalation
 - The assignee notifies the appropriate management of the situation and plan
 - The assigned Level 2 department is responsible for updating the problem call in a timely fashion.

6.3 Appendix C: Support Levels

Support levels define the problem management functions to be performed by the staff and departments. Example support levels are described below. They can help each department determine how well prepared they are, to support the problem management process.

Level 1

- Act as the first point of contact for clients
- Perform problem Logging and tracking
- Answer basic operational and product knowledge questions
- Resolve most procedural and usage problems
- Perform problem determination for some applications and some hardware, and network usage problems. Level 1 should be able to perform routine Problem Determination for; PC workstations, key generic applications, and the network
- Dispatch problems to level 2 or vendors

Level 2

- Be able to operate and install
- Take responsibility for problem resolution
- Isolate complex problems to failing component
- Fix routine technical problems
- Identify bypass and recovery procedures
- Work with vendors to resolve problems
- Use diagnostic tools
- Update problem tracking system

Level 3 (usually the vendor)

- Work with level 2 to resolve complex problems
- Supply solutions with target time frames

6.4 Appendix D: Problem Management System Participants

The process participants are the XXX IT departments and groups identified below.

- Client
- Problem Management Process Owner
- Helpdesk (level 1)
- Operations
- Other XXX IT departments (level 2) i.e.: ITD, Networking
- Management
- Vendors (Level 3)