



6.4 Problem Management

Process Purpose / Objective

Problem Management is the process responsible for identifying and removing systemic issues within the IT environment impacting service availability and for managing the lifecycle of all problems.

The objectives of the Problem Management process are to:

- Prevent problems and resulting incidents from happening
- Eliminate recurring incidents
- Minimize the impact of incidents that cannot be prevented

6.4.1 Assessment Score

- Maturity Score – 0.93 (Non-Existent / Initial)
- Importance – 3.00

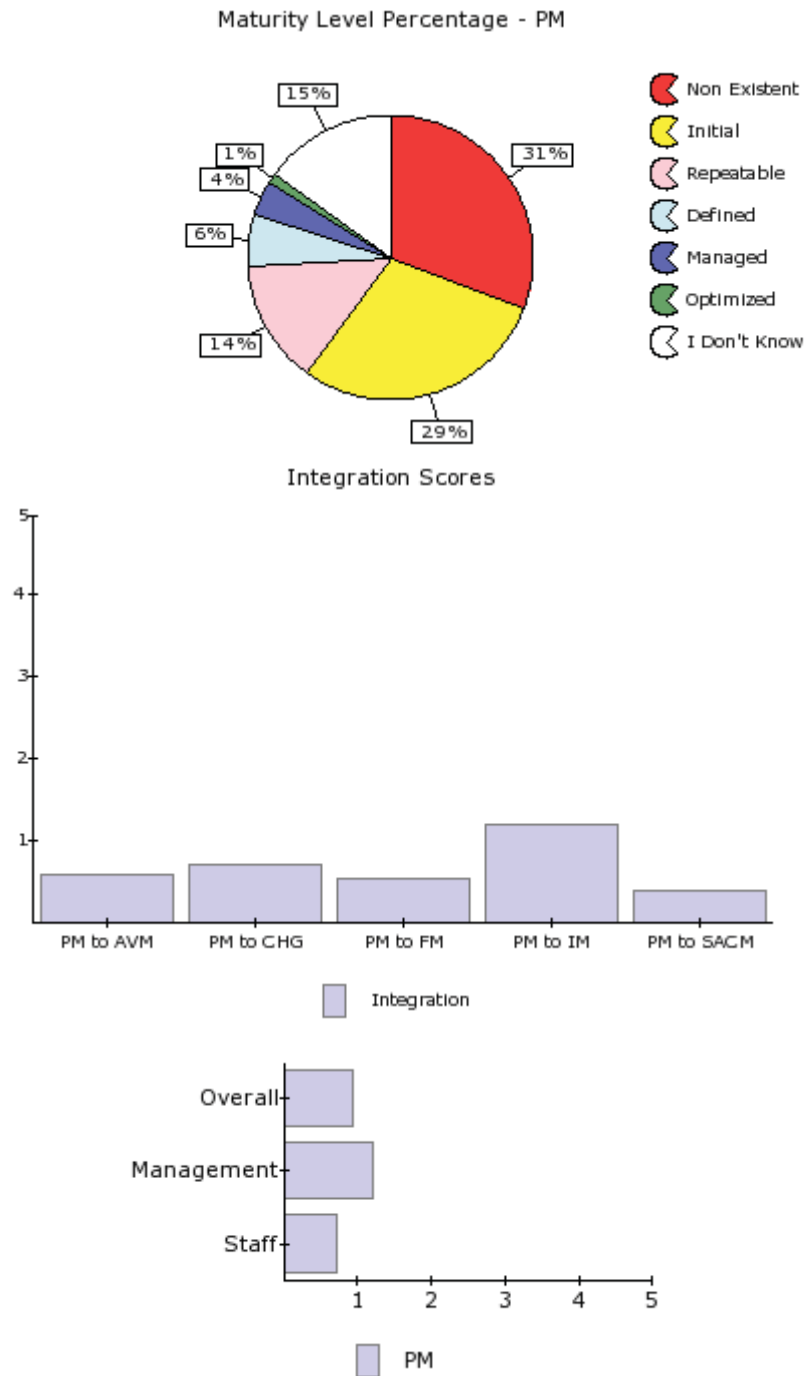


Figure 7 – Problem Management Scores



6.4.2 Observations and Conclusions

- Problem Management is not clearly defined as a process. All activities related to an ITIL based Problem Management process are carried out on the basis of individual and technology group experience, expertise and knowledge and not on a formally agreed, documented and repeatable process
- A Problem Management Process Owner has been identified but does not appear to have the authority to get everyone to use the process across the enterprise
- Staff understands the importance and value that a formal Problem Management process can provide to OIT and the University
- There may be a fair number of problems that are not being addressed today that could provide permanent resolution and eliminate recurring incidents
- There is little or no distinction made or understood between an incident and a problem and no distinction between Incident Management and Problem Management processes. As a result, individuals determine the best course of action between applying a temporary work-around or carrying out Root Cause Analysis to discover a permanent resolution on a case by case basis
- There is no separate problem record ready to be used in HP Service Manager although the capability exists
- If a problem is detected and action is needed to determine the Root Cause, identify a workaround or a permanent fix, an incident record may be used to track those activities
- There is no evidence that OIT follows a documented and well understood Root Cause Analysis (RCA) procedure. "RCA" has been the term generally accepted as synonymous with the term "Problem"
- RCA discussions are primarily focused on Major Incident resolution and there is little evidence that there is follow-through to ensure the error is removed and incidents are eliminated or reduced
- There is no Known Error Database, but every application area keeps their own "bug list"
- Workarounds may be documented in a knowledge document, but this is not general practice outside of the Support Center
- Each OIT group tracks their own known problems and specific knowledge articles
- Proactive measures such as trend analysis and analysis of the incident records for the purposes of identifying resolving problems do not exist largely because incident records are not kept up well enough



6.4.3 Recommendations

- Define and document a Problem Management process based on the ITIL best practices. Include both reactive as well as proactive activities designed to prevent future incidents in the process
- Facilitate problem identification, classification and prioritization through analysis of incident records, monitoring data and inputs from other processes as well
- Move the organization toward a more complete view of issues that are causing downtime or are a threat to cause downtime in the future and allow for a more systematic approach to reducing or eliminating adverse impacts of downtime to the University users
- Define and assign roles and responsibilities for specific activities such as:
 - Incident Matching for the purposes of problem identification
 - Work-around documentation in support of Incident Management
 - Trend analysis to identify current and future threats to services
 - Major Problem Reviews to identify areas for improvement in the overall provision of IT services to the University
- Develop a measurement framework that focuses attention on a balanced view of the Problem Management process with Critical Success Factors and Key Performance Indicators aligned with the goals and priorities of the process and of the OIT organization in delivering services to its customers
- Clearly and formally separate and define the Incident and Problem Management processes:
 - Ensure the goal of each process is understood
 - Ensure problems are recorded, tracked and reported separately from incidents, preferably using the same tool to leverage integration requirements
- Provide a definition of a “Problem” and establish OIT-wide criteria for when to open a problem record. Typical conditions requiring a problem record include:
 - Major Incidents
 - Incidents requiring a work-around or resolution
 - Repeating incidents or trends
 - Reports of the current environment to enable proactive action to prevent future incidents



- Develop, document, gain agreement on and implement an OIT-wide RCA methodology and practice with an initial focus on conducting RCA on Major Incidents, and if a workaround or permanent fix is not known
- Integrate the new Problem Management process into the work practices of all technical teams that recommend workarounds and fixes
- Establish a procedure for conducting Major Problem Reviews with key technical Subject Matter Experts (SMEs), business representatives and key stakeholders
- Ensure incident data and problem resolution data is audited and available for trend analysis and pattern determination resulting in information that enables informed decision-making when managing problems
- Ensure problem analysis and RCA data is documented, stored and searched within HP Service Manager which will facilitate linking problems to changes and related service and system components
- Provide the Problem Management Process Owner with the proper authority to:
 - Bring SMEs together to provide trending and reporting information
 - Lead RCA teams
 - Provide problem reporting and process improvement recommendations
- Provide role-based process and technical training to all staff allocated to conduct Problem Management activities, specifically problem identification, investigation and diagnosis
- Communicate the benefits of the Problem Management process to provide focus for both reactive and proactive aspects
- Establish policies that will enable increased coordination between technical teams to ensure that the key objectives for the distinct Incident Management and Problem Management processes are being met
- Capture and publish Problem Management metrics. For example:
 - Percentage of problems resolved in a given time period
 - Average cost of handling a problem
 - Backlog of outstanding problems and the trend (static, reducing or increasing)
 - Percentage of problems opened due to recurring incidents
 - Percentage accuracy of the Known Error Database (from database audits)