

Problem Management

A high-level overview for IT Help Desk Managers

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Overview for IT Managers

Problem Management is the most critical of all IT System Management processes for any IT organization. Yet with the hundreds of companies I have worked with, it is most often not done well. It seems that many companies consider Problem Management only as an afterthought, a necessary evil, overhead, or worse, all of the above.

So what is Problem Management? Problem Management is a formal set of processes designed and implemented to quickly and efficiently resolve problems and questions. Those problems come from customers, both internal and external.

Why is Problem Management important? Because how well you do at resolving those problems and questions determines how your customers perceive you. Further, how you provide those services can make an enormous difference in your overall costs-not only your costs, but also the costs your customers incur.

Do a poor job on your Problem Management processes and your customers will think ill of you. Internal customers can be the most vicious, because they know who to complain to. They also complain to each other, and before you know it, the entire IT department. Let's face it most of the IT department's exposure is through the Problem Management function (Help Desk) and that is where your reputation will be made or broken. It isn't hard to justify spending to improve Problem Management when you calculate the number of hours of internal downtime and the average cost per hour the company absorbs for that downtime. Run the numbers and see for yourself.

The scope of Problem Management applies to all IT functions in Microsoft computing environments including but not limited to:

- Computer Operations
- Applications Development
- Applications Support
- Technical Support
- Database Administration
- Performance and Tuning
- Network Support
- IT Manager

Problem Management and Control Definition

Problem Management is composed of many parts. A major part is the process of problem control with the objective being effective problem resolution. Four areas of Problem Management include:

- Measurement – when a computing system (MS Server 2003, SharePoint 2007, etc.) fails to operate as planned, the Problem Management system is the first place a

recorded indication of that failure is made. No other operational system has the responsibility of recording failure occurrence. Thus, within the Problem Management system there must be a responsibility to obtain a complete and accurate account of the problem to assist in the management decision process.

- **Tracking** – A tracking function is performed to ensure that all problems are looked at regularly. If some of those problems are outside the guidelines established by management for resolution time or action plan, they are brought to management's attention. This means that it is always a management decision to allow a problem to remain in an exception status. It also means that this decision will be reviewed regularly until the problem is resolved or is no longer in exception status.
- **Control** – The Problem Management system controls in several ways. The first is through the procedures that are established to dictate the way in which problems are entered and handled by the system. A second form of control is in the early identification of problems through trend analysis. The control function must detect and escalate problems before they have major systems impact. Finally, control is established through the specific assignment of responsibilities for problem activities.
- **Reporting** – The final contribution of the Problem Management system is to provide information to management. Without accurate and timely information, management will not be able to make appropriate decisions related to a problem. Problem areas include, but are not limited to:
 - Hardware failures (i.e., backup device, SANS environment is down, etc.)
 - System software failures (i.e., OS2003, Vista compatibility issue, etc.)
 - Application software failures (i.e., SharePoint 2007, PowerPoint problem, etc.)
 - Database failure (i.e., SQL 2005, etc.)
 - Network outages (i.e., Internet down, Cisco switch is down, etc.)
 - Environmental failures (i.e., air conditioning)
 - Outdated or lack of documentation (i.e., lack of an effective Change Management process)
 - User complaints (i.e., Outlook is not working, etc.)
 - Operator error (i.e., Tape backup device was not cleaned per preventive maintenance procedure, etc.)
 - Missing reports (Application did not produce scheduled report, etc.)
 - Scheduling problems (i.e., batch job ran out of sequence, predecessor job abended, etc.)
 - Unscheduled production restores (i.e., corrupted database, invalid content, etc.)

Problem Management Process

The Problem Management process includes:

- **Problem Recognition** – detection and identification of problems or potential problems through monitoring, trend analysis, or observation.
- **Problem reporting/logging** – notification of the occurrence of a detected problem to a central point, and recording information about a problem for subsequent handling.
- **Problem determination** – identification of the source of a problem at a level sufficient to enable corrective action.

- Bypass/recovery – partial or complete circumvention of a problem, usually prior to final resolution.
- Problem resolution – the final corrective action that repairs, replaces or modifies the source of a problem.
- Management review – management evaluation and control of overall operation and achievement of the problem control process.
- Problem coordination – the enforcement responsibility of problem control resides with the problem coordinator.

In Summary: The end-point of the operational flow of problems through the system is when the problems are finally resolved. While the purpose of the problem management system is to manage the flow of problems to ensure organizational efficiency and effectiveness, the ultimate goal is to solve the problems and eliminate each as a potential or actual outage.