

Call Prioritisation: Rationing the Help Desk Resource

Neil McBride

Centre for IT Service Management Research

De Montfort University

Journal of the IT Service Management Forum April 2002

Most helpdesks experience peaks and troughs of activity. Regardless of the size of the helpdesk, peaks of activities will result in there sometimes being more outstanding calls than there are staff to deal with them. Many helpdesks have a permanent waiting list for support. Thus decisions must be made concerning the significance of calls, who should deal with them, in which order calls are allocated and whether some are actually resolved at all.

Controlling workflow and defining call priorities is a significant management problem. Managers may intervene in the process by defining the help desk categories and the response times and actions associated with them, by influencing the category a call is initially allocated to, and by making escalation / de-escalation decisions. Both the allocation of the call to a category and escalation / de-escalation may not be purely objective decisions, but may involve perception of the importance of the user, the solvability of the problem and the current workload.

How do we define our call categorisation systems and, more importantly, how do we assign users' calls to a category? How do we classify the user? And who decides on the category of a call? This may, in reality, be an exercise in analysing the perceived business benefits of answering a call. This judgement may involve considering the business role of users and the effect of the IT support problem on their ability to work, the nature of the business process affected, the benefits of completing the business process and the effect on the perception of the service by the organisation's customer. All these issues suggest that definition of call priority systems and the allocation of user calls to categories is more of a business decision than a technical decision. Technical input as to the severity of the problem, the technical impact of the problem and the complexity of fixing the problem feed into the categorisation but should not determine the priority given to the call.

Allocation of scarce resources to a large population of users making immediate and conflicting demands on a service is a problem in healthcare where the demand for healthcare constantly out-strips resources. Decisions must be taken by gatekeepers, who may be general practitioners, consultants or even managers, as to who receives the healthcare and who gets priority.

Waiting lists provide a prime mechanism for rationing routine or elective treatment. In the case of, for example, transplants, waiting lists arise due to the scarcity of transplant organs. Patients are evaluated on the basis of their medical condition, weighted by their time on the waiting list. First on, first-off waiting lists, while fair and democratic are impractical for help desks. However, degrees of prioritisation may be applied using pre-set maximum waiting thresholds, but other

methods are needed which involve choice and selection, whether by an expert or by the consumer.

In accident and emergency departments of hospitals, triage involves the assessment of the patient and the deferring of patients who are in a stable state in preference to those more seriously ill. Here the prime criterion is clinical severity. In an emergency situation, such as an earthquake or fire, treatment may be rationed according to role and perceived value, so rescue workers are treated first in order to return them to effective work. Similarly in the battlefield, commanders may be treated first because of their critical role, or those less severely wounded are treated first in order to return them to the battlefield. In each case, prioritisation decisions are being made which are complex and not purely clinical. These decisions are being made by experts or those in power who made have a variety of motivations both explicit and hidden.

Alternatively, the users of a service may make their own prioritisation choices. In the case of Oregon State, a Health Services Commission made choices through surveys of a thousand Oregonians concerning some 1600 treatments for particular conditions. The survey gave the administrators a view of how the public rated the impairments arising from conditions. Benefits could be calculated and cost-effectiveness measures obtained. This led to the ranking of 709 treatment / condition pairs.

Such an approach may be impractical for help desk problems since the effort of surveying and analysing users' views of IT problems may be excessive. Alternatively, if users are left to determine their own assessment of the severity of their IT problems, perception issues may come into play. One user's minor inconvenience may be another user's debilitating problem as a result of the user's level of stress, the nature of the job being done and simply how the user feels at the time. Indeed it may be difficult for users to make the decision to delay obtaining solutions to their problem on the premise that others might have worse problems.

Furthermore, it may be difficult for users to assess the characteristics of an IT support problem. For example, a call is logged by control engineers in charge of a critical real time system. They perceive the problem as a minor PC fault and therefore the problem is given a low priority. However, it turns out to be a critical application error that leads to significant system outage. Since the control engineers were not aware of the complexities of the IT they were using, they did not realise the significance of what looks like a minor problem.

If allowing users to define the severity of their call is problematic, allowing IT staff to allocate a call to a category is not without its pitfalls. One study carried out by the Centre for IT Service Management Research looked at the call prioritisation system in a large organisation with a help desk with 5 staff serving 700 users.

The prioritisation system involved 5 categories:

Category A. Urgent, Highest Priority. Problems stopping staff from working which is dealt with immediately, if possible. Examples include PCs not powering up, and users unable to log on to the network.

Category B. Important. Standard priority assigned to most calls passing through the help desk system.

Category C. Non-Urgent. Calls deemed non-urgent. This category includes calls concerning non-standard software, software evaluations or calls not directly related to the user's work.

Category I. Incident. Disruptive problems affecting many users. Examples include loss of part of network and the presence of a computer virus. These calls are monitored by higher management and the IT department is set targets to reduce the number of calls with this category.

Category P. Pending. Calls on hold. The call may be waiting a part or service from a supplier, or the user cannot be contacted.

These categories were managed using a help desk system that escalated open calls automatically through green and yellow to red after pre-defined time intervals. For example, an open Priority B call turns green after 2 hours, yellow after 6 hours and is considered breached, and red after 8 hours.

Studying how the priority system was being used in practice gave food for thought. Almost all calls were allocated priority B by the help desk administrator. A few rare calls were allocated Priority A. Calls appeared on the first line worklist and the support analysts then decided which calls to take on. When reviewing the worklist, analysts tended to focus on the description of the problem and ignore the priority. Calls remained at B if they were simple to resolve and could be closed immediately. Calls were quickly de-escalated to C if the analyst thought it would take a long time to solve, needed to pass the problem to a different IT services team, or could not contact the user. Call priorities were never escalated.

An examination of the call log showed a high percentage of calls being de-escalated. Final call classifications correlated with the problem type. Password changes generally remained at B, while network problems, clearly of greater complexity to deal with, got generally de-escalated to C. The evidence suggested that the call prioritisation system was being used to control workflow to meet the support staff's concerns rather than to fulfil business needs. The category of calls was frequently changed to avoid escalation and change of the call's colour to red by the help desk system. The day-to-day use of the call prioritisation system was motivated by strategies to keep the help desk system worklist as green as possible.

Support staff expressed satisfaction with the way call prioritisation worked. It was meeting their needs, but was it meeting the business's needs? While lip-service was being paid to business priorities, the system was being driven by technical priorities.

A number of questions arise from this: Should not call prioritisation systems be defined at a business level in order to help align IT service provision and resource allocation with business priorities? Should we be explicit in judging the business benefits of service and support requests? Who should define the categories and who should allocate calls to categories? How do we enable the technical aspects to inform the assessment of business benefits? In analysing business benefits do we assess the user's role, the business process they are executing or their perceived value to the organisation's customers?

The Centre is continuing to research this area. We would be interested in your views on these questions. How do you tackle call prioritisation? How do you match the business

and technical priorities? How do you ensure that the implementation of your call prioritisation system meets its expected purpose?

We're also interested to know what you would like to see tackled in the Research Talk column. Email Neil McBride (nkm@dmu.ac.uk) or ring him on 0116 207 8500.