IMPLEMENTING SERVICE-LEVEL MANAGEMENT

By: Harris Kern's Enterprise Computing Institute

Many benefits can be realized from a well-implemented service-level management discipline. The most important benefit is that the IT organization gets an accurate picture of what the users need. Another advantage of having a Service-Level Agreement is that IT can allocate just enough resources towards what the users really need. In this article we describe the process requirements - that is the key process steps involved in service-level management.

Service-level management deals with how user service requirements are understood and managed. The objective is to balance what users *want,* and what the business can afford to provide. Begin by examining the business environment and the ways in which information technology supports business objectives. Next, IT negotiates service levels or performance targets with its users. The result of the negotiations is a *service level agreement* - a living document that is revised as the business environment, IT environment, and user requirements change.

Step 1: Define service-level standards

First and foremost, gain a clear understanding of the characteristics users associate with quality service, including system availability, reliability, performance, and usability. In a young IT environment, you can even hold a workshop with users to ensure that you both are "speaking the same language." For example, users may want the system to be fast, but what does 'fast' means to them? Does it mean that the application starts quickly, or that it takes little time to calculate an answer, or that it can quickly fetch data from external databases?

Some common service-level targets deal with the following:

- **Availability hours** — The hours of the day and days of the week that the computer system is accessible to the users.
- **Number of outages** — The average and maximum number of system outages that the users will tolerate. These are two separate targets, and they are equally important. You might have a good average number of outages per day over a given month - for example, only two outages. However, on the day monthly reports were due, you might have had 20 outages.
- **Frequency of outages** — The time between outages. If outages occur in (relatively) rapid succession, more users will be unhappy. Having just recovered from an outage, they will be faced with yet another one.
- **Outage duration** — The length of time an outage can last. Obviously, two outages lasting for one hour each are better than one outage that lasts for more than a day.
- **Response time** — The time it takes for the system to respond to user input.

- **Turnaround time** — The time it takes for a user activity to be completed. This measurement is usually applied to user activities comprising many tasks, such as printing or data retrieval.

Step 2: Establish service levels to be attained

The second step involves the actual negotiations with users on the service levels to be provided. The IT organization should analyze service levels achieved during any pilot implementation programs and determine which of those levels are achievable for all users, what the costs are for reaching those levels, and what action plans can be put in place to achieve levels not previously attained. During negotiations with users, the IT organization should explain the costs of providing the desired service levels, as well as improvements or plans that need to be implemented to make the changes happen. Then, the users can decide whether to invest the resources required to achieve these service levels.

This phase of the service-level negotiation should also identify the people, including representatives from both the IT organization and the user group, who will be responsible for the attainment of the targets set. Remember that service-level management is an ongoing activity, so it is essential that this interaction between the IT group and the users be preserved.

The product of this phase is a Service Level Agreement that is signed by senior management from both the IT organization and the user population. These signatories will guarantee proper focus, attention, and resources are given to enforce the agreement.

Step 3: Monitor achievement of service levels

The next phase in the service-level management discipline concerns measuring whether promised service levels have been achieved.

Since typical service-level targets are defined in high-level terms, first divide these targets into measurable quantities. For example, if you set a target response time of one minute for an employee database system, you may decide to track the time to get back employee data from the moment the Enter key was pressed to the moment data was displayed at the user workstation.

Next, identify and deploy the resources needed to monitor service levels. In the preceding example, this resource could take the form of an IT staffer visiting random user terminals weekly and running a test transaction. Or you might install software on user workstations that automatically executes transactions and records the response time.

Once you deploy resources for monitoring service levels, the third step is to actually monitor them, collecting and storing data for analysis.

Step 4: Analyze service-level attainment and report to higher management

This most crucial and often neglected phase of service-level management involves reporting on service-level attainment. These reports should highlight significant trends, helping to identify problems *before* they become visible to users. Any downtrend in achievement should be spotted and corrected as soon as possible.

Review service-level attainments regularly with user representatives. This offers an excellent opportunity to discuss the challenges you are encountering, and obtain needed support from the users.

Step 5: Redefine service levels, if necessary

Step 5 is the feedback stage of the service-level management process. At this stage, you and your users assess the reasonableness of your service-level targets, and change them if necessary. If the targets cannot be adjusted, then an action plan is devised to help attain them.

Factors that are critical to the success of service-level management are:

- **New targets or service levels piloted -** When you create your first Service-Level Agreement, or any new service target, it makes sense to run a pilot program, within IT or with a small group of users, prior to full-scale implementation. This gives you a better understanding of the effort and resources the target will require, including concrete cost data you can use during negotiation with users. A pilot study typically lasts from two to three months.

- **Attainment of service levels monitored -** We see many Service Level Agreements made, then kept under lock and key, never to be reviewed again until a user satisfaction crisis arises. This should *not* happen! IT should use the Service Level Agreement to guide their day-to-day operations, as it defines user expectations in unprecedented detail. IT should also ensure that quantifiable, measurable targets are set. If it can't be measured, don't make it a target.

- **Agreement reevaluated at least once a year -** Reevaluate your Service Level Agreements roughly once a year. This is a comfortable timeframe for the following reasons:
  - Major changes in technology and the business environment tend to occur each year.
  - If you reevaluate more often, the reevaluations take up too much time, distracting you from actually achieving your targets.
  - Your people should be given ample time to achieve their targets.

A user of any computing resource will be satisfied if his perceived satisfaction level is exceeded. With a Service Level Agreement, IT has an opportunity to set this expectation level realistically. IT now has a better chance to satisfy its users, since satisfaction is no longer arbitrary or subjective.

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