

# The Role of Metrics in managing service relationships

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*If only companies know what they know they probably would be three times more efficient and productive*

IT organizations have had their hands full in trying to get something done as quickly as possible with limited budgets and resources. The pace of changes in business processes has compounded the problems to a large extent. With user expectations rising and performance slipping IT has taken recourse to increasingly outsource development and maintenance to service providers. The introduction of an out agency does indeed help in bringing service to the users but it adds other dimensions of complexity.

IT organizations now need to focus on business needs and business imperatives that drive changes in IT delivery. They are also tasked with making the Outsourcing operational and the governance of the relationship. The issue- how do you effectively govern an Outsourcing service relationship? How do you measure the effectiveness of the service provider? To what performance do you hold the service provider? How do you establish a baseline of performance and ensure a year over year productivity to get the best out of your service relationship?

IT organizations have never done a good job of measuring performance for themselves largely because it was never an organizational requirement to benchmark or measure. They have always been obsessed with "getting something done" and then meeting user support needs. So how would it set service level metrics for its service provider and what service level metrics should it set? The goal is to identify what metrics are necessities.

In any activity you can measure many things. Some have more relevance than others.

- ✚ The approach to understanding metrics is to list different types of metrics that can be collected
- ✚ Once these have been listed the metrics can be categorized
- ✚ Once they have been categorized and listed they can be prioritized. Some metrics take precedence as they are absolutely critical to optimizing or managing service performance. Some metrics serve no useful function. Some may be too costly to track with results having little significance.
- ✚ Once the service levels have been identified to be tracked they should be monitored. IT Organizations need to gather enough data and measure their own current performance. This could be measured against "industry standards" of performance. Goals can then be set on performance enhancement and year over year productivity.

Metrics programs can be grouped in the following categories:

- ✚ Size or amount of the Work
- ✚ Quality of the Work
  - Process Quality
  - Product Quality
- ✚ Customer Satisfaction
- ✚ Cost of doing work and productivity

### SIZE

determines the volume of work involved. This allows projects of similar types to be measured and compared against each other. Characteristics of such metrics include:

- ✚ number of lines of code or function points, pages of documentation

- + type of project (development, enhancement, maintenance etc.)
- + application type (scientific, real time, system software,)
- + technology type (J2EE, .NET, EAI,)
- + is it an innovative application or has it been done before?
- + How complex is the project - low medium - high
- + How critical is system performance?
- + Does it involve COTS?
- + Languages and tools used
- + Number of requests per day
- + Number of fixes per week
- + Number of resources used

## QUALITY

Quality can be measured for the process that produces the work as well as the work product itself.

### Process Quality Metrics

- + Defect removal efficiency
- + Inspection efficiency
- + Testing efficiency
- + Compliance to standards for coding, testing, documentation, reporting
- + Cost of Quality

### Product Quality metrics

- + Defect density
- + Reliability of product
- + Technical quality
- + Degree of complexity
- + Maintainability of product
- + Usability
- + Performance
- + Security
- + Testability
- + Interoperability
- + Portability of code

## CUSTOMER SATISFACTION

- + Outstanding maintenance requests- backlog
- + Turnaround of code and number of turnarounds
- + Repair compliance
- + Defect density
- + Time to implement
- + Time to acknowledge
- + Performance
- + Usability
- + Flexibility
- + Approachability

## COST OF DOING WORK AND PRODUCTIVITY

- + Cost per man month
- + Delivered volume of accepted work per man month
- + Capacity utilization
- + Resource revenue generating efficiency
- + Percentage of time spent on support and repair

- ✚ Cost of support and repair
- ✚ Wasted effort
- ✚ Repair compliance
- ✚ Defect removal efficiency
- ✚ Development productivity
- ✚ Delivery rate (size by elapsed time in months)

## WHAT IS YOUR CULTURE?

No matter how well you measure yourself and establish metrics the numbers are meaningless if you have not understood the “work culture” or process in your organization. Most IT organizations are driven by day to day business requirements and priorities. Some organizations have a formal process to translate these business requirements to useful work products, most don't. In either case there are substantial changes in business requirements as work proceeds at various stages of the development life cycle. Some of these change requests are formal most are informal and are accepted as a result of a tacit understanding between the sponsor and the developer or the project lead. In some organizations this “backdoor” change requests can at times involve more effort than the original requirement itself. If this is the culture in the organization this will be the expected behavior of the IT organizations with its service provider. In such an environment service levels will never be met and outsourcing itself may result in service failure. At best your service level metrics will be severely flawed.

Metrics will play a key role in managing the service relationship. At its basic level you have an instrument to measure the service performance. It also provides you with measures to enforce a year over year productivity norm on your service provider. Lastly it permits you to see how you are performing against your peers in your industry.

So which metrics should you pick?

This depends on what you hope to achieve. If you do not have the skills and time to market is important then you may trade speed over other metrics such as product or process quality. If cost reduction is an objective then you need to focus on productivity and size metrics. If Customer satisfaction is paramount then those metrics need to be enforced. Depending on your situation select a group of metrics that are absolutely essential for the results that you wish to seek. Let this not be an overwhelming list. Start small and get the issues that are most important under control. Then expand this list gradually. If you seek repeatability then focus on process metrics over a period of time.

Be ready to quantify what you want. It may be meaningless to expect defect free quality code as a required metrics articulate what you want by stating a number “x” defects per function point, or “y” type A bugs fixed every week.

The first step is to measure yourself against industry standards. The next step: ask your service provider on its performance over similar projects. This is not what you should hold your service provider to. Your service provider will have a learning curve on your work product. Establish mutually what service level goals should be set for the near term and after the learning curve has been established. Then discuss and agree upon year over year productivity norms.

Do not expect your service provider to guarantee results on issues it may have little control. If the work involves using a state of the art COTS product that has not been field tested your service provider may never be able to fulfill any service level on this project.

Select only those metrics that make sense to your objectives. If the cost of using a metrics is greater than any tangible benefit discard it.

Finally use the metrics wisely. The objective should never be to generate a beautiful voluminous binder for management stimulation but a useful piece of information that will get the task done on time, with good quality and at the least cost.