SLAs for Managing Applications Development Outsourcing

Outsourcing deals that include applications development are increasingly common, but enterprises still struggle with appropriate SLAs. Here, we propose metrics that can help them measure and manage these deals.

Core Topic
Sourcing: Service Contracting

Key Issue
What are the best methods for developing effective, mutually beneficial contracts with ESPs?

Key Facts:
- Most enterprises feel they lack the correct SLAs to monitor, measure and manage these deals.
- Measurements should be formalized in SLAs between outsourcers and their clients.
- More-robust measurements are needed to enable enterprises to monitor and manage the applications development components of outsourcing deals.
- Applications outsourcing deals involving new development are increasing.

Note 1
Definition of Selected Measures
Function point: An application size measure based on the data accessed and manipulated, as well as the processes that do this. This is essential as a normalizer for productivity, quality and cost metrics.

Cyclomatic complexity: A measure developed by Thomas McCabe that quantifies the complexity of logic by examining the number of unique paths possible through the code.

Essential complexity: A measure developed by Thomas McCabe that examines the number of possible entry and exit points in a component.

The number of applications outsourcing deals that include new development is increasing, as enterprises become comfortable with the model. However, few enterprises feel they have the correct service-level agreements (SLAs) to monitor, measure and manage these deals. Here, we propose a base set of metrics that enterprises can use.

The Problem: The practice of outsourcing new applications development efforts is slowly increasing, either as stand-alone deals or as part of a larger applications services contract. Measuring the various service dimensions of an applications development outsourcing contract (e.g., cost, quality, service productivity, customer satisfaction and personnel) is critical to the success of such deals. However, few enterprises are satisfied that they know how to do this effectively. As a result, many of the inquiries Gartner receives regarding applications development outsourcing (including major enhancements) focus on how enterprises can better measure these efforts.

A Proposed Solution: A more-robust set of measurements is needed to help enterprises monitor and manage the applications development component of their outsourcing deals. These measurements (see Note 1) should be formalized in SLAs between outsourcers and clients. Although most outsourcing contracts include comprehensive SLAs for data center outsourcing or desktop outsourcing deals, there are still no widely accepted, standardized SLAs for applications outsourcing. In "SLAs for Applications Management Outsourcing Deals," TU-14-2818, we propose a set of base-level measurements that enterprises can implement in their applications management outsourcing (AMO) deals.

In this *Research Note*, we propose a similar (but not identical) set of metrics and sample service goals that enterprises can employ

Gartner

to measure and manage their applications outsourcing deals (see Figure 1). It is important to note that the proposed measurements may be used across enterprises; however, the actual service levels will vary widely by enterprise. The sample service goals listed below should be considered as a starting point for enterprises looking to better manage applications development. Enterprises should modify them to meet the needs of their particular organizations and outsourcing arrangements.

Figure 1
Sample Service Levels: Development and Major Enhancement

Function: Applications	Performance Area: Development and Enhancement	
	Sample Service Levels	
Service Dimension	**Measurement**	**Sample Service Goals**
1. Cost	Cost/FP by application, attribute and severity level Plan vs. actual	Cost/FP of < $x Accuracy of x% on planned vs. actual costs
2a. Quality — Functional Do applications meet functional requirements?	Response times — by transaction Defect levels/FP during warrantee period, by severity	All response requirements met For enhancements, 0 increase in residual rates Defect levels of x per FP, 0 severity 1 defect
2b. Quality — Technical Does delivered product meet specifications?	Essential complexity Cyclomatic complexity Dead code Unstructured code Compliance with installation coding standards	<x per module <x per module 0 dead code x% unstructured code 100% compliance, ensured through inspections
2c. Quality — Process How did process perform during life of the project?	Defect removal rate — overall, by phase Defect density/FP — overall, by phase introduced	Defect removal rates of >x% Defect densities of < x/FP
3. Service Productivity	Productivity/project, in FP/hour Cycle time/project, in FP/ day or days/FP Project attributes Work backlog, in FPs Productivity/phase, in FP/hour Effort, by phase Planned/actual dates, effort, FP counts	x FP/hour, depending on attributes Specific cycle time requirements x% new development w/specific methods/tools Backlog < x months x FP/hour in analysis/design x% spent in analysis/design x% accuracy on dates, effort, FP counts
4a. Customer Satisfaction — Project-Based	Reliability: Was the project on time? Did it meet business requirements? Staff professionalism, responsiveness and availability Documentation: Useful, clear, complete? Overall satisfaction	x% projects delivered on time Scale-based opinion survey Scale-based opinion survey Scale-based opinion survey Scale-based opinion survey
4b. Customer Satisfaction — Periodic	Reliability: Do products and services have high quality? Responsiveness: Does IT provide timely solutions?	Scale-based opinion survey Scale-based opinion survey
4c. Customer Satisfaction — Return	Return: Does IT provide adequate ROI?	Scale-based opinion survey, or activity-based
5. Personnel	Turnover of staff by skill level/position Staff availability by skill level/position Elapsed time to get staff by skill level/position Training hours per FTE by tool/methodology	Turnover <20%, 100% accessibility during avail. n% project mgrs. with >x years experience avail. Get skilled C++ programmers in one month Five days of C++ training for programmers with one year of experience

Source: Gartner Research

Bottom Line: SLAs are essential to managing outsourcing deals; applications outsourcing deals involving new developments are no exception. Enterprises should consider the service elements listed above and adapt them to their own requirements.