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Abstract:
Many organizations implement information technology (IT) service management practices to improve IT operations that support internal and external stakeholders. When outsourcing an IT service such as help desk support for customers, the organization may lose some of its ability to manage the relationship and ensure effective services are provided to the organization and customers. This case is designed for students and managers with little practical experience working with vendors of outsourced IT services. The paper presents an organization that uses specific service level agreement (SLA) performance and a well defined communications plan as two tools that help an organization manage the relationship with an IT service provider supporting 128,000 students.

Keywords: IT service management, help desk, SLA metrics, service level agreement, service provider, outsourcing.

I. INTRODUCTION

Improving management of information technology services is on the minds of Chief Information Officers. For several years the Society for Information Management's (SIM) survey of top IT executives found ITIL and IT process management practices as one of the top ten technology developments [Luftman and Ben-Zvi, 2011]. IT Service Management (ITSM) is process oriented and focuses on managing IT operations such as support/help desks, maintenance, education, business continuity, and performance planning [Galup et al., 2009]. ITSM frameworks such as ITIL and ISO/IEC 20000 outline best practices in the delivery of IT services.

Some organizations choose to outsource IT services such as help desks for several reasons including cost savings [Sako, 2010], but there are significant challenges involved in managing services that lie outside the boundaries of the organization. Service Level Agreements are fundamental to IT service management and are increasingly common as a mechanism for governing relationships with outsourced IT service providers. This paper outlines the interaction between an IT support desk service provider and service recipient, a large post-secondary education system in the US with a focus on metrics outlined within the Service Level Agreement.

Effective contract design is an important step in good governance of outsourced IT services and defines specific parameters such as the service level agreement (SLA) and performance metrics (Mani et al., 2006). An SLA is a written agreement between an IT service provider and customer defining the key service targets and responsibilities of both parties [Goo et al., 2009]. SLAs spell out the measurable levels of service that customers want an IT service to provide. The number of current service level agreements and the extent of the service being provided through these agreements may affect how busy the service desk becomes.

SLAs are both financial contracts and an instrument for managing the customer's expectations [Trienekens et al., 1999]. Well structured SLAs provide service providers with a safety net, rather than exclusively relying on trust [Goo et al., 2009; Sabherwal, 1999]. Empirical research has shown that well developed SLAs provide a way to measure the service provider's performance as well as enabling effective management of the relationship [Goo et al., 2009].

There are several contractual elements in a Service level Agreement for an outsourced IT service such as objectives, future demand management, feedback plan, and a measurement charter. A measurement charter is the 'tactical measurements for calculating and reckoning of service performance as well as success metrics derived from the service receiver's strategic plan' [Goo et al., 2009]. SLA metrics are considered one of the top sets of IT metrics used by executives [Luftman and Derksen, 2012].

The following case will demonstrate an example of outsourcing an IT support desk services in the setting of a statewide community college system in the US. While the case example is a community college system, the use of a well-defined communication plan and SLA metrics manage outsourced services provides an example that may be replicated by organizations in other industries.

II. OUTSOURCED SUPPORT DESK SERVICE CASE STUDY

Background

The Mountain West Community College System (MWCCS)[1] serves more than 128,000 students annually. The MWCCS oversees career and academic programs in its 13 state community colleges and career and technical programs. MWCCS made a decision to develop a 24/7 Support Desk to support distance education students and faculty in accessing and using the learning management system.

Without having the necessary resources to run a support desk in-house, MWCCS chose to outsource the support desk to an external service provider. The request for proposals and vendor selection process for a Support Desk service provider was conducted in mid-2007, and a contract was awarded to the chosen vendor in December 2007. Representatives from each of the 13 member community colleges were involved in the initial preparation phase to ensure both unique and common practices were in place when the 24/7 Support Desk went live. Prior to the April 2008 pilot phase, two MWCCS representatives conducted live agent training at the vendor's location. During the pilot phase and early in the live coverage, MWCCS representatives were available during regular business hours to answer agent questions while on live student calls. The 24/7 Support Desk developed naturally from over 14,000 contacts during FY09 (July 1, 2008 – June 30, 2009) to over 43,000 contacts in FY10 (July 1, 2009 - March 31, 2010). Over time the support desk services evolved to include support for student email, college portals, admission and registration processes, and the learning management system.

The contract defines the two primary level of communication expected between the vendor and MWCCS liaison and a service level agreement with specific metrics the vendor is required to meet.

Communications Plan

For outsourcing to be successful, relationships have to be established both within and across the client and supplier organizations, and at every level. Middle managers, such as help desk manager, are considered the "glue

MWCCS Manager of Help Desk Services -- Vendor Subject Matter Expert

Email is the main mode of communication between the MWCCS Manager of Help Desk Services and the vendor's Subject Matter Expert (SME). The communication includes routine daily activities such as changes for the agents' knowledge base (KB), requests to coach agents on processes, upcoming system outages and maintenance, and schedule meetings. Urgent matters such as unexpected outages generally require a phone call between the Manager of Help Desk Services and the SME during regular business hours or another supervisor outside of normal business hours. Once contact has been made about an unexpected system interruption, email is the mode of communicating updates.

The contract allows for meetings between vendor and client representative. Over the course of the service partnership, routine meetings were established. The first routine meeting is a weekly status meeting conducted by phone to discuss daily activities, status of ongoing activities, and upcoming system changes that will affect coverage. The main two attendees include the vendor's SME and MWCCS' Manager of Help Desk Services. Meeting notes are distributed after the meeting to provide a tracking mechanism of discussion and activities.

MWCCS Manager of Help Desk Services – Vendor Quality Assurance Specialist

The second regular meeting is a bi-monthly quality assurance meeting conducted by phone with the vendor's quality assurance (QA) Specialist and MWCCS' Manager of Help Desk Services. The purpose of the meeting is to discuss the quality of recorded calls and provide information to improve agents' performance when assisting students. The meeting activities include:

[1] The community college system name has been changed to provide anonymity.

- QA Specialist emails one to four recorded calls and associated service ticket information at least one day prior to the meeting to Manager of Help Desk Services
- Each attendee individually reviews and scores the call(s) based on an established evaluation sheet.
- Individual notes and scores are compared and recorded during the meeting to determine the agent's score on the call and action items.
- Outcomes from the meeting include action items such as modifying the KB, agent coaching, and MWCCS system or process modifications.

MWCCS Manager of Help Desk Services – Vendor Director of Enterprise Service Center

Another regular meeting is a bi-monthly meeting to discuss mid-level management related topics such as reviewing current status of the vendor's Enterprise Service Center (ESC) operations, staffing updates and process changes. The phone meeting is primarily between the vendor's Director of ESC and MWCCS' Manager of Help Desk Services.

MWCCS Manager of Help Desk Services -- General Manager of Unified Service Centers Operations

The final regularly scheduled meeting is the monthly phone call to discuss mid- to high-level management related topics such as future goals and plans and a review of current performance status. The meeting is between the vendor's General Manager of Unified Service Centers Operations and MWCCS' Manager of Help Desk Services.

Ad Hoc Meetings with Vendor

There are occasional ad hoc meetings conducted as needed. One meeting is the working meeting to complete activities such as KB review and modification, new projects (e.g., self help site upgrade), and report mock-ups. Another periodic meeting is an executive meeting sometimes requested to address high-level topics such as an overview of overall performance. Typical attendees to an ad hoc executive meeting include vendor's General Manager of Unified Service Centers Operations and VP of Client Relations and MWCCS' CIO, Co-Director Learning Technology, and Manager of Help Desk Services. Annual visits are conducted to provide some face-to-face interaction between all interested stakeholders. Either the vendor representatives visit the client site or the client visit the vendor's site.

SLA Metrics

MWCCS has five queues handled by the vendor. Two of the queues are for incidents received by *phone* where one queue is for login assistance and the other phone queue is for all other issues. The other three queues are for *email requests*, *chat requests* and *priority requests* respectively. A variety of reports are generated to track incidents and present overall usage to multiple stakeholders within MWCCS. During the first year of the contract, the routine daily, weekly and monthly reports were created by the vendor's SME and delivered electronically as a spreadsheet to the Manager of Help Desk Services for review and distribution within MWCCS. Since the implementation of a new reporting system in Microsoft SharePoint, the MWCCS Manger of Help Desk Services has access to generate routine reports as needed. Additional reports are available to the client by request.

An open ticket report is generated at the beginning of each week for distribution to each college. The purpose of the report is a review of Remedy tickets that were escalated to Tier 2 at the student's home college and have not been handled.

The weekly and monthly phone system reports are generated by the vendor's SME and delivered to the Manager of Help Desk Services via the reporting system. The reports include:

- *Queue by Date* - Reports each of the five client queues alphabetically with the number of incidents answered, average daily talk time, average speed to answer, average time for incidents to be abandoned, percent of incidents abandoned, number of incidents abandoned, and maximum time to answer.
- *Negative Abandons* - Reports each of the five client queues alphabetically with the number of incidents received, number of incidents abandoned, thresholds during which incidents were abandoned between 0 and 60 seconds, average abandon time, and average speed to answer.

During the service period, customized reports developed by the vendor and client exhibit monthly and quarterly performance and ticket summaries. One customized report is the monthly Executive Summary report, which is delivered as a spreadsheet to the Manager of Help Desk Services by the SME. The contents consists of a summary of incidents by queue, average speed to answer, average negative abandons, average customer satisfaction, total number of tickets created, first call resolution, total number of incidents, and maximum wait period. Other sheets within the report display the number of incidents by category and by college, actual customer survey comments and scores, category-type-items (CTIs) available for agents to select per ticket, and call data from the phone system. The Executive Summary report is distributed to the client's CIO and Co-Director of Learning Technology.

Another customized report is the quarterly metrics report which is delivered as a PDF file converted from a Powerpoint presentation to the client by the SME. The quarterly metrics report provides a high-level summary of monthly activity cumulating in an annual report. The report is distributed by the Manager of Help Desk Services to college representatives who distribute the report to appropriate college administration. The report graphically displays monthly figures for incidents, number of incidents per queue, average quality assurance score, total tickets per college, top 5 ticket categories, monthly ticket status open versus closed, and the key performance indicators of average speed to answer, negative abandon rate, customer satisfaction score, and first contact/call resolution.

In addition to the routine and customized reports, ad hoc reports are available through requests to the vendor or by the client. The data is from the ticketing system, phone system, and/or the reporting system. Resource availability and data requirements determine who is responsible for pulling the data for the report. Typical ad hoc reports are number of incidents per student at the request of the student's college, tickets by college during a specific time period, tickets by category with the details that are not part of quarterly and annual metric reports, research related reports to determine root cause, and time of MWCCS system performance issue (e.g., LMS unavailable to students and faculty). The format of the reports is usually comma delimited converted to spreadsheet.

The service level agreement with the vendor includes specific metrics and performance levels at which service will be measured. Metrics included in the SLA that the Service Provider reports include:

- **Average speed of answer (ASA)** is the "time a caller rings or is queued in the system before reaching a 'live' agent." The monthly average is to be less than 60 seconds 95% of the time
- **First call resolution (FCR)** is defined as the "Percent of calls resolved by the [vendor] Help Desk, thereby eliminating the need for escalation to Tier 2." The monthly rate is to be greater than 75%
- **Call Abandon Rate** (or Negative Abandon Rate) – which is defined as "Customer hangs up without reaching a Help Desk agent. Calls abandoned <60 seconds are excluded from this metric." The monthly average is to be less than 6%.
- **Customer Satisfaction** – based on survey results "On a scale of 1-5, minimum acceptable value would be 3.5." The monthly average should be equal to or greater than 3.5 points. The survey contains five questions where each question allows for the caller to add comments.
- **Online Help Desk Tracking System** (or Remedy ticketing system) has a benchmark of "99.99% uptime on a monthly basis, excluding scheduled system maintenance and 'acts of God.'"
- **System uptime** of telephone, web and email system availability for the initiation of Help Desk tickets by client constituents has a benchmark of "99.99% uptime on monthly basis, excluding scheduled system maintenance and 'acts of God.'"

Addressing Breaches of Service Level Agreement

The vendor is willing to address client concerns and accommodate appropriately in order to improve support services. No enforcement threats have occurred during the contract's life to date. Negotiations occurred on two separate occasions when SLAs were missed. The first event was related to vendor technical difficulties with a third party vendor, which caused a significant impact on SLAs. The result of the negotiations was successful and the partnership continued to expand. The second event was associated with staff schedules, which caused a minor impact on SLAs for two consecutive months. Around the same period, the client requested an exchange of services, and exchange request was accepted.

MWCCS may use the threat of enforcing contract termination as an option if a resolution cannot be negotiated with the vendor. The service level metrics provide the client with performance-based evidence to help better manage performance of the outsourced support desk services from the vendor.

III. CONCLUSION

This case study provides students and managers with specific examples of an organization attempting to manage outsourced IT support desk services through the use of a well defined communication plan and service level agreement performance metrics. The examples may provide help in negotiating new contracts with vendors and in better managing existing relationships and agreements with vendors.

IV. DISCUSSION QUESTIONS

The case may be used in a course or discussion related to Outsourcing IT services, IT service management, and vendor selection and management. Suggested discussion questions may include:

1. What additional metrics might be considered to be included in an agreement with an outsourced service provider?
2. The case explains that when SLAs were missed, the client negotiated an exchange of services. If negotiations with the vendor fail, the threat of contract termination may be used as a bargaining chip.
3. What level of breach for an SLA would warrant termination of the contract with the service provider? What additional information is important for consideration with regard to a termination decision?
4. If the service provider was offshore, would you expect a different set of challenges than the current situation where the vendor is outsourced?
5. What IT service management best practices might help the vendor be more successful in meeting the SLAs?
6. Based on the information provided, was choosing to outsource the help desk a good decision, why or why not? What are some examples of steps or investments the organization would have had to make to create its own “in-house” help desk?

V. REFERENCES

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