

Patterns for Managing an Escalated Issue

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Within the technology service community the term Incident Management has been used to describe the activities taken to identify, analyze, and correct service-affecting issues; thereby restoring service and preventing a future reoccurrence. These service-affecting issues are normally addressed by a knowledgeable response team, designated in advance, to restore normal operations. Over the years, organizations that have continually invested in developing internal policies to address incidents have enjoyed a competitive advantage. Those that are better staffed or equipped with experienced individuals, and effective processes have an upper hand at being able to address events which are not part of the standard operation of the service, and events which may cause an interruption or a reduction of the quality of the service offered. This paper identifies the patterns used by Information Technology service providers, and presents them to the reader as additional tools which can be used to restore normal operations as quickly as possible with minimal impact on their business or the customers they have worked hard to acquire.

Categories and Subject Descriptors: Pattern Recognition

General Terms: Incident Escalation, Crisis Management

Additional Key Words and Phrases: Crisis Escalation, Issue Management, Patterns, Information Technology, Service Management, Crisis Team, Service Delivery, ITIL

1. INTRODUCTION

The following patterns describe best practices commonly used to address escalated issues within an Information Technology organization. While the patterns may have various applications, the intent is to provide the reader with proven methods which have been applied by different organizations to expeditiously manage an escalated customer issue. The pattern language, Patterns for Managing An Escalated Issue, introduces an initial set of conditions which enables you to make use of the four patterns

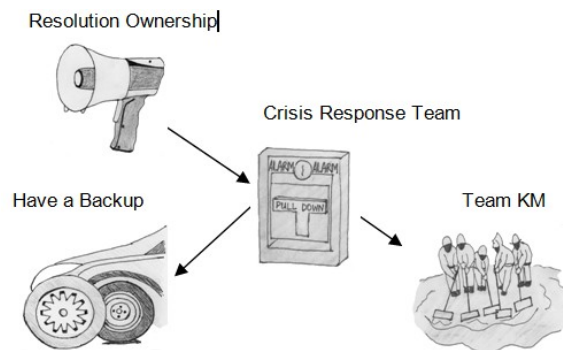


Figure 1: Patterns and the dependent relationships

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that most technology companies leverage, on a daily basis, to deliver high-quality services, and to maintain a healthy customer relationship: Resolution Ownership, Crisis Response Team, Have a Backup, Team KM.

The Figure 1 illustrates the flow and use of the patterns, to aid the reader in better understanding the organizational components which must be in place to effectively make use of these common practices.

In addition to the dependent relationship diagram above, it is important to describe the roles within the service organization that are required to execute the patterns within this paper, and that are necessary to interact with the customer: Customer Account Manager, Escalation Manager, Support Engineers, and Subject Matter Experts.

- The **Customer Account Manager** is a member of the sales and business development department with responsibilities for building the relationship between the customer and the organization. As the organization's interface, the Customer Account Manager identifies the customer's needs and brings available resources to meet them, such that the customer continues to use the company for business. If the Customer has a persistent concern that is not addressed by the organization, they will likely escalate to the Customer Account Manager for further action.
- The **Escalation Manager** is a member of the operations and service management group, and functions as the point of contact when the customer has an issue that requires Subject Matter Experts (SMEs) to investigate and resolve the problem. They tend to be knowledgeable of the organization, and of the resources who are best positioned to resolve a problem.
- The **Support Engineers** are members of the operations and service management group with responsibilities for acknowledging the Customer's request to address an incident (service affecting issue). They also communicate steps taken to resolve the problem, and escalation to Subject Matter Experts for a deeper dive into the problem. These individuals are normally reference by the terms first level or second level support.
- The **Subject Matter Experts** are often part of the technical or shared services side of the organization. They comprise of senior level (or third level support) gurus from engineering, development, and the technical architecture departments; although these resources sit within different departments, their foremost objective is to rally to the call of the Escalation Manager, and to support the relationship building of the Customer Account Manager.

2. THE PATTEN FORM

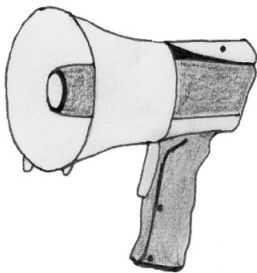
To facilitate the ease of reading and understanding the patterns, a modified Alexandrian format is used throughout the paper, and each pattern has the same format. The form consists of the five key Alexandrian sections, separated by a set of triple asterisks (***) instead of diamonds: Context, Problem, Forces, Solution, Resulting Context. First, there is a title which provides the name of the pattern. This is followed by a picture, that shows an archetypal example of that pattern_[4]. Alongside the picture, each pattern has an introductory paragraph that provides the **Context** and background for the pattern. The Context is followed by a set of asterisks and a bold type italic sentence that provides a summary of the **Problem**. The Problem is followed by another set of asterisks and a section which details the positive and negative conflicting **Forces** which are creating and affecting the problem. The Forces are followed by another set of asterisks and a bold type italic sentence which provides the **Solution** for resolving the problem. The Solution is always stated in the form of an instruction so that you know exactly what you need to do, to build the pattern_[4]. The Solution is followed by a set of asterisk and a final section which details the **Resulting Context** of the problem. The Resulting Context provides the positive and negative consequences of applying the solution--to address the problem.

3. ESCALATING AN ISSUE

You are assigned as a Customer Account Manager who is responsible for interfacing with the customers of

your organization. Your customer is having problems implementing an externally facing system which they planned will 'go-live' into production within a month. The Customer has opened a standard incident ticket, with your company, to request assistance in investigating and resolving the problem. The standard incident ticket is logged and is routed to a support team for handling. Although the support team acknowledges receiving the ticket and investigates the problem, the issue remains open for several days and the Customer is not provided with an update. Due to the upcoming time-sensitive deadline, and the support team's inability to address the unresolved ticket, the Customer further escalates the problem to you. With the second escalation, the Customer is irate, and their loyalty is at significant risk because the problem continues to impact their business.

4. RESOLUTION OWNERSHIP



As the Escalation Manager, you are contacted by your Customer Account Manager regarding a customer who is about to miss a key deliverable, and incur penalties because of an unresolved issue that was acknowledged by the support resources of the organization.

The first level Support Engineers are not able to resolve the problem; thus the customer has not been contacted or provided with a resolution.

The Escalation Manager agrees that resolution of the issue is beyond the expertise of the support resources. Recent organizational changes at the service provider may be contributing to delays, in receiving approvals, for the support team to take corrective action. There may also be issues with handing-off support, due to geographic span of support: follow-the sun is not working. As the Escalation Manager, you want to acknowledge all client complaints quickly, although the issues are a normal part of any client implementation. Aggressively addressing the issue presents an opportunity for you to demonstrate your company's commitment to customer satisfaction and focus on overall quality. It also provides the Customer Account Manager with the expected results necessary to regain the Customer's trust.

Therefore, as the Escalation Manager you will own resolution of the Customer issue, and drive further escalation within your organization, to instill urgency and to insure further outages or interruptions in service stop. You should make sure you do not take on too many escalated issues; this would cause further delays in responding to the Customer.

You are empowered to put in place processes, procedures, and the people with knowledge of how to resolve the issue, to prevent delays in responding to the Customer. You will review monitoring metrics and run reports to remove the impediments that increased the time to resolve the initial problem.

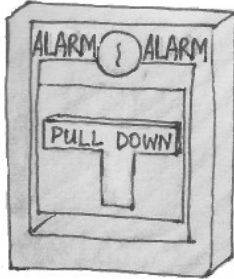
The Customer should have a direct line of communication to you, to follow-up on progress made towards resolution; else not being able to get in contact with you will force the Customer to request assistance from the Customer Account Manager or someone else.

The Customer Account Manager should be able to do more business with the Customer because the Customer is comfortable in knowing there is a proven process in place that addressed their concerns.

You need to make sure you have a backup resource to push for resolution on your behalf, if you are unavailable.

You may over promise delivery of a solution to the Customer; this would in turn further jeopardize the business relationship and will require the Customer Account Manager to do damage control.

5. CRISIS RESPONSE TEAM



As the Escalation Manager, you own resolution of an issue that was brought to your attention by your Customer Account Manager: the Customer is highly dissatisfied with the standard level of support that was provided by your organization. Support Engineers have been working on the issue for a few days, but the service impact persists, and a key deadline is about to be missed by the Customer.

As the Escalation Manager, you are unable to free up resources to urgently work on the Customer's problem. The situation is quickly getting away from you, and you find yourself in a position where you do not have anyone to contact.

The Support Engineers who are available to assist may lack the background knowledge, and the deep experience required to resolve the problem. It is also possible that they are geographically dispersed across multiple time-zones; thus, causing further delays to contact the right individuals. There are support limitations which you are not able to manage: missing escalation procedures for the Support Engineers to engage the Subject Matter Experts, lack of rotating Support Engineers leading to fatigue, and new Support Engineers joining and others leaving the team or organization. Despite these challenges, you forge ahead to secure assistance because you want to provide the best customer care as fast as possible, and reduce the overall impact of the problem.

Therefore, you create a crisis response team with Subject Matter Experts who are experienced and knowledgeable of the problem domain, to resolve the issue: all expert hands on deck. The crisis response team not only has the right resources who can provide a fix, they will have access to a knowledgebase that will store historical experiences in resolving similar issues. The knowledgebase can also contain contact information, for members of the crisis response team, and the escalation procedures for engaging additional Subject Matter Experts.

You maintain a working relationship with the Support Engineers and Subject Matter Experts who contributed to resolving the issue. These resources can be approached in the future, for additional support advice and recommendations, on who to include on a permanent/standing crisis response team.

You create a crisis response team that no one else is aware of. When you are not available, another Escalation Manager may have to assemble a new crisis response team from scratch, and cannot leverage the previous success in building team to address a similar problem.

You consume the organization's top resources for an indefinite amount of time; thus, placing other resolutions efforts and client relationships at risk of failing.

The primary go-to Subject Matter Expert might not be available. You are directed to another senior level person who does not have sufficient knowledge of the problem area, or does not have the communication skills required to help you understand the risks in attempting a fix.

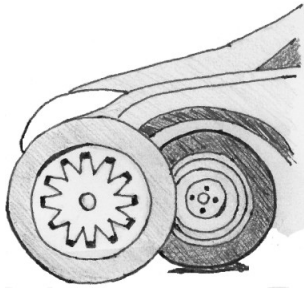
You reach out to members of the crisis response team, who worked on the problem, to understand the details of the issue: why the initial Support Engineers were not able to address the problem when it was first reported? what have the Support Engineers and Subject Matter Experts learned? what can the service provider organization do better--for the Customer?

The assembled response team is able to document the tasks required to execute a practice/mock customer escalation, to gauge the effectiveness of the crisis response team's engagement process.

You become dependent on key Subject Matter Experts; this can overwhelm the engineering and development resources, and possibly introduce delays in resolving issues brought to you by the Customer Account Manager.

6. HAVE A BACKUP

The Escalation Manager is responsible for creating a crisis response team to address urgent Customer affecting issue. One of the Subject Matter Experts, on the crisis response team, is not available and cannot be contacted. No one has the skills or expertise to work on the issue except this individual. Time is running out and impact to the Customer continues.



As the Escalation Manager, you realize that your organization does not have enough Subject Matter Experts to assign to response teams. You continue to leverage the same individuals and risk a knowledge void if your SME is not available.

You would like to address this problem such that organizational knowledge and intellectual capital should not reside with one person. There should be at least another person, from the subject domain area, who is available to substitute when the primary resource is unavailable. Competing organizations will attempt to hire talent from your organization. Organizational growth and business development will be hampered, if product knowledge and key customer concerns are not communicated to a broader audience. If there is no one to continue in the capacity of the primary resource, the Customer will lose confidence in the organization's ability to bring the right resources to resolve their problem.

Your organization spends less money on staffing because there are less people to function as the backup. Company meetings are less complicated because input from several people are not required. Time is spent re-learning and re-tooling, to develop the same understanding as the person who is no longer available.

Therefore, you identify an individual (skilled or untrained) who will function as the secondary backup for the SME, before the SME becomes unavailable. Once you identify the backup, you need to inform the crisis response team member so that a knowledge transfer or training is performed by the primary. The backup should be aware of the inner workings, relationships, and have the same competence as the primary person--to continue the support function.

It is worth the investment to have a second resource who is aware of key deliverables, or the tasks required to resolve a Customer impacting issue. The additional perspective will enable the pair to make consistent progress; especially if a member of the pair is not available, due to an unforeseen.

Organizations are not limited to a restricted group of individuals who possesses all of the operating knowledge, and understanding of the customer relationships. Identified skills and relationship gaps should be highlighted, and quickly addressed, before the Subject Matter Expert is no longer with the company or becomes unavailable for a long period of time.

As part of its standard operating procedures, the organization must have a succession plan in place, that will be supported by the Customer and the members of the crisis response team. All would have to be comfortable with the chosen backup; else, there may be personality and organizational conflicts that will delay bringing the new person up to speed.

Final decision on how to resolve an issue can take time because additional people (in this case the secondary) will have to be consulted on the effectiveness and potential risks of a solution.

Including more people who are familiar with the details of a problem domain, or specific Customer issues would increase the agility, awareness, and capability of the group assigned to address the problem.

7. TEAM KM



As the Escalation Manager you added a new member to the crisis response team, to further assist with resolving the escalated issue. You are unable to provide the customer with an immediate solution to their problem because the new resource does not have access to the same information as the other Subject Matter Experts; this causes your team to delay their response to the Customer. The Customer's confidence in you, to manage the resolution of this problem, quickly erodes, especially if this is a problem that occurred before.

As the Escalation Manager, you have resources joining the team who have different levels of experience and familiarity with work previously done to address customer issues; this is delaying knowledge transfer and steps to bring new resources up to speed to address the problem.

The new member of the team finds it is taking time to engage and fully interact with the more experienced members. The lack of comfort in approaching established members is causing the team not to operate efficiently. A backlog of urgent customer problems are not getting the proper attention.

People are not available to work on the problems, due to other responsibilities and priorities. The team may have been assembled in an ad hoc fashion; thus, the SMEs may not know each other, or the new resources who joined the team. There are no procedures or formal processes to bring someone new onboard to the team; this becomes more of a problem, if there is a high resource turnover rate.

Therefore, you create a Knowledge Management repository for all crisis team members to share information about their experience, and their expertise. The repository can also contain information on things the Support Engineers or Subject Matter Experts are interested in; this information which will enable the new members to find similarities with their teammates, in the hopes of better relating with them. For the Knowledge Management repository to remain effective and current, you decide that all team members must update their profiles, skills and experience frequently. The repository should include holidays, and time-zones for work locations to simplify the effort of determining when someone is available to assist.

Team members must have 24x7 access to the Knowledge Management repository such that they have access to the latest support information necessary to manage an incident, or fix a customer issue. Populating the repository will be part of the formal on-boarding for new resources. The team must make certain that the information being accessed is kept secure, that it is not misused by employees, and that it does not contain personal or private information from the team members.

Setting up a formal procedure for updating the Knowledge Management repository and training requires the full support of the organization's management team. Also, review of the procedures and participation in the training should be mandatory, else adherence by all will be weak and the objective of capturing the latest root cause analysis and resolution steps will be fragmented.

If the repository becomes unavailable the organization might experience issues in properly functioning and communicating--assuming all become dependent on the repository data; this will cause further delays and customer impact. The information stored in the repository should be backed-up periodically and kept off-site, in case the repository data needs to be restored.

8. ESCALATED ISSUE RESOLVED

When applying the patterns described within this paper, you were able to maintain continuity towards addressing the problem by bringing in a team of qualified Subject Matter Experts to resolve the customer's service affecting issue--as quickly as possible. Every individual, within your organization, who supports a critical customer, or who has privileged knowledge should have a secondary who is familiar with the problem domain. The SMEs must have another individual on the team who can execute a succession or resolution plan, if required.

Although there are standing/existing support teams, it may be required that you build the crisis response team based on the complexity of the issue, the technologies, and the different groups working on the problem. By quickly forming the team with the resources who happen to be available, you run the risk that the team will lack the background knowledge, and the depth of experience required to resolve the problem. Having a predefined method of accessing a skilled team of professionals facilitates the ease of getting them to work together towards a common goal: effectively addressing the customer's issue. You should take all the steps necessary to make sure the crisis response team is able to mentor new members, and work efficiently together. Introducing a knowledgebase enables members to have a common reference point where they will be able to share information on issues they have addressed; this repository will enable the response teams to better handle day-to-day obstacles; internal delays arising because members reside in geographically disperse locations; the lack of familiarity with organizational procedures and with the tools required to address an escalated problem, and the concern of losing valuable intellectual knowledge and lessons learned when a member is no longer with the team.

9. CONCLUSION

Organizations often find themselves fire fighting, to resolve customer impacting problems, before the incidents evolve into a critical situation. You need to have a continuous process which accepts customer issues and turns them around, before they become critical thereby affecting the customer's overall business. The sooner and the more efficiently you are engaged, the less challenging it is to restore the customer's confidence in you. Ahead of the problem becoming an urgent concern, you should review the administrative processes, people, services, and products/tools required to make resolution of the problem straightforward, and the customer's experience more rewarding. The patterns described within this paper enables the reader to wrap a more structured and responsive approach, to the business-as-usual techniques used for addressing escalated customer issues.

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Bios

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