"We have eliminated the word 'escalation' from our vocabulary," says Marco Bill-Peter, VP Global Support Services, Red Hat. Steve Young, formally with Service Business Transformation at Cisco, talks about "playing catch, not ping pong," and a goal of "the first person to work on a customer issue [case or incident] is the right person to resolve it."

Red Hat and Cisco are two of a number of companies who are rethinking how they align people with work. The old model of levels or tiers of support and the escalation process is giving way to a new model of collaboration.

Intelligent Swarming is a dramatically different way to align people with work. It challenges 30+ years of accepted practice and structure in support. The early adopters of this model are seeing improvements in all key operational measures of support, including productivity, time to resolve, employee growth, and customer satisfaction. And, early adopters are surprised at how quickly they see improvements in these areas.

While not appropriate for all support environments, Intelligent Swarming is most effective when solving new, complex problems. The goal is to get the right people to work on new issues, together, as quickly as possible. Intelligent Swarming facilitates and expands the collaboration already happening between support agents and leads to faster and more creative resolutions.

Let's examine what is driving this change, how it works, where it is applicable, and why it can be a more efficient and effective way to deliver support.

Why is the tiered support model becoming obsolete?

There are three drivers behind this change. First, more support organizations are successfully using Knowledge-Centered Service (KCS®) to capture and reuse what they collectively know. Second, the success of customer self-service is changing the ratio of new to known issues that come into the support center. "New" issues require diagnostic activity or research in order to resolve. "Known" issues are those that are captured and findable in the knowledge base. Third, support organizations are expanding their focus from internal productivity to also include reducing customer effort and increasing customer productivity.

Many support organizations have implemented KCS (Knowledge-Centered Service): a methodology that focuses on creating and maintaining knowledge as a by-product of solving customer issues. Knowledge workers (support agents or support engineers) can quickly find answers to customer questions and problems that have already been solved. Reuse of the knowledge improves the rate at which issues are recognized as known, as well as the speed and accuracy in providing customers with resolutions.   As a result, known issues are resolved faster

with fewer escalations. To achieve a corresponding improvement in solving new issues, we need to facilitate collaborative problem solving.

The second driver is the steady increase in customer self-service activity. KCS creates content in the context of the customer and makes it available quickly to self-service channels, so knowledge articles are findable and usable by customers. The goal with self-service is to allow customers to find resolutions to their issues with less time and effort than it takes to open a case or incident. As customer use of and success with self-service increases, the number of known issues reported to the support center declines, and so shifts the ratio of new to known issues coming into the support organization.

As resolutions move closer to customers via self-service mechanisms, and the nature of the work coming into the support organization shifts, how we align people with work in support must change. In the past, support tiers acted as filters, with each level resolving 70 to 80 percent of the problems it received. The problem had to be pushed or escalated toward the resolution. With self-service mechanisms, we are pushing the resolutions toward the problems! A number of companies are finding their customers are now solving 80 percent of their issues through self-service. This is a great thing, but has two important implications. First, a positive self-service experience resets customer expectations about time to resolution. Second, when customers contact the support center (for the 20 percent of issues that aren't solved on the web), the likelihood that problem will require escalation is increasing. This has a compound effect. Customers are expecting an immediate response, and the chance that the problem can be solved on first contact is much lower than it used to be. The issues coming into support are more likely to be new, unique, complex issues. As a result, customers who can't find a solution through self-service feel like they have to "run the gauntlet" (escalate to level 2 or 3) to get their issue resolved...every time! As known issues are removed from the support organization's workflow and the percentage of new issues increases, we need to rethink how we align resources to work.

The third driver is a deeper, philosophical transformation happening in customer support. It is characterized by a broader sense of awareness - one that includes the customer and their experience. At Microsoft Support, one of the key measures they are using to assess their success is customer effort. Oracle is changing their support vocabulary from cases and customer satisfaction to customer health and productivity. Yahoo! has become obsessed with understanding the customer experience. The enlightened support organization is as concerned with customer effort, success, and productivity as they are with their own. We can no longer optimize our productivity at the expense of the customer's. Swarming improves the customer experience and minimizes their effort.

How does Intelligent Swarming work?

"Every interaction is an opportunity to improve the next interaction."

Swarming is not a new concept for knowledge workers; they have always collaborated on problem solving. Fortunately, they have done so in spite of the processes, structures, and measures that inhibit collaboration in the traditional approach to support! What if we facilitated collaboration instead of inhibited it?

Support organizations with good self-service models are rethinking their support processes and moving from an escalation-based model to a collaboration-based model. They are collapsing their support tiers, creating a single team of people who collaborate on solving customer issues. This is replacing the model of multiple teams that toss issues back and forth through case routing, re-routing, escalation and rejection (playing ping pong). The new model is a single team that collaborates on solving customer issues (playing catch).

Intelligent Swarming is about getting the best people to solve the issue working on the issue as quickly as possible. While we don't have tiers of support in a swarming model, we do have many different types of skills. We seek to engage the most appropriate or relevant skill(s) on a customer issue based on what we know about the customer (some are experts, some are novices) and the issue they are reporting. At the highest level, we could think about generalists and specialists. Some issues are poorly defined and require lateral thinking skills and an ability to talk to the customer in their context. This is the value of the generalist; they help define the problem when the customer can't. A good generalist helps define the issue in such a way that we can identify the specialist skill needed. However, if the problem is well defined, we may be able to identify the specialist(s) that would be best able to resolve the issue. The most valuable resource to the organization is a knowledge worker who is both a generalist and a specialist.

In a swarming model, the person who takes ownership of the issue owns the issue until it is resolved. They may engage others in the process of solving the issue, but they don't toss it over the wall (escalate) and thereby lose touch with how the issue is resolved. This is how collaboration enables skill development and, more importantly, this is how we create knowledge workers who are both generalists and specialists! In the existing model, we aren't giving people the opportunity to develop the range of skills that are most valuable to the support organization.

We could think of the old, linear, tiered structure as *streaming* and the new collaborative model as *swarming*. Unfortunately, a collaborative process doesn't align with the way most support organizations think about their people or their processes. Over the years, a rigid hierarchy has emerged among tiers, with a strong sense of "them and us," and arbitrary

boundaries that can only be crossed by escalation. The transition from a streaming model to a swarming model is not easy. It is a significant social change in that we are taking apart the "ranks" of the tiered support model. The most relevant knowledge worker for the requestor and issue is the first point of contact; this could be a specialist (what we used to call level 2 or 3). We often hear that the specialists in the higher tiers of support feel they should not have to talk with customers. The idea that anyone in support could "earn the right not to have to talk with customers" is a ridiculous notion. Customer support is, after all, about supporting customers.

Swarming requires that we give up the highly siloed and compartmentalized structures we have created. Too many organizations have become so enamored with their internal processes and service levels between support tiers that they have adopted the dysfunctional practice of "rejecting" an incident. Clearly, they are more focused on their niche of the process - and their niche measures - than on solving the customer's issue. The service level that really matters is the customer's experience. By contrast, in a swarming model we don't reject customer issues. We pursue their resolution with enthusiasm: we choose to help.

The thing that makes Intelligent Swarming *intelligent* is People Profiles. People Profiles contain the information that we need to optimally align the people with the work.   Profiles are critical in identifying the best knowledge worker(s) to work on the issue and they help us identify the best candidate to help if the case owner needs assistance.

Scope: Who Should Participate in Intelligent Swarming?

The scope of the audience also makes a difference. At a minimum, the swarming model should include the original level 1, 2 and 3 knowledge workers. Some of the most effective implementations have also included development (engineering and product management) resources. These people are not usually candidates for case ownership, but they are highly valuable as candidates to help when assistance is needed. The value proposition to engage development resources in the swarming model addresses two points of frustration for the developers. First, they don't like to bothered with things that the support organization should be able to handle. Swarming optimizes the use of our skills in support and minimizes the likelihood that we will engage them in trivial issues.   Second, development hates it when support holds on to an issue for too long and it becomes a political or executive escalation - especially when they could have easily or quickly resolved the issue had they been engaged at the right point in time. Our commitment to development: Intelligent Swarming greatly improves the probability that we will engage development only on appropriate issues and at the right time.

Intelligent Swarming: When is it Appropriate?

As a general rule, Intelligent Swarming is most valuable in solving new, complex issues. Understanding the nature of the issues the support organization handles is critical. To determine if Intelligent Swarming makes sense, look at three key attributes of the work:

- Complexity
- Percent of high severity issues
- Ratio of new issues to known issues

Time to resolve is a reasonable indicator of both complexity and new vs. known. If your support organization solves a high percentage of customer issues in three to five minutes, it would imply that a high percentage of issues are known and the complexity is low. While a robust Knowledge-Centered Service (KCS) program can improve speed and consistency of answers in this environment, swarming typically doesn't make sense.

If your average time to resolve (in work minutes) is greater than 15 minutes, this would imply a fair amount of complexity and possibly a higher rate of new issues being reported. Ideally, we want to use our support resources to solve new issues, not ones we have already solved. The goal of KCS is to get the known issues to the customer quickly through self-service or, better yet, to remove the cause of the high volume known issues from the environment through root cause analysis and corrective actions. Intelligent Swarming facilitates a collaborative problem solving process for new issues.

Who is Currently Swarming?

The number of organizations that are moving from a static, linear escalation model to a dynamic collaboration model is growing rapidly. For a list of the latest case studies see the Consortium's [Intelligent Swarming](#) page.

Intelligent Swarming: a Work in Progress

The Consortium for Service Innovation has been exploring the possibility of a better way to align people to work for some time, and is working to identify swarming principles and practices so organizations can make this shift in an optimal way. Intelligent Swarming is an emerging practice; the Consortium does not have operational experience with all elements of the model as envisioned, but as a result of the courage of Consortium member companies, we are learning a lot about what makes it work and what ditches to avoid. If your company is playing with collaboration or is interested in helping to develop the next best practice, please visit

www.serviceinnovation.org.

About the author: Greg Oxton is the former Executive Director of the Consortium for Service Innovation, and currently their Strategic Advisor. The Consortium is a non-profit alliance of customer support organizations. The goal of the Consortium is to develop innovative ways to address the challenges of customer engagement and interaction. The work of the Consortium for Service Innovation includes the developed and evolution of the KCS practices and techniques, the Intelligent Swarming framework, the Predictive Customer Engagement model and the Leadership Framework for Service Excellence.

For more information about KCS and the only official KCS Certification programs please visit the KCS Academy at www.thekcsacademy.net. For more information about the Consortium for Service Innovation and their work please visit www.serviceinnovation.org.

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