

BEYOND ATSSM — PROGRAM LEADERS GO FORTH

forum

by Steve White with Clive King, Program Leaders

EDITOR'S NOTE: FOUR YEARS AGO, STEVE WHITE WAS IN THE FIRST GROUP OF PROGRAM LEADERS TRAINED AT SUN MICROSYSTEMS IN THE UK. CLIVE KING TRAINED A YEAR LATER. IN THIS ARTICLE, THEY OUTLINE HOW ATS WAS INTEGRATED INTO SUN'S CUSTOMER PROBLEM RESOLUTION PROCESS AND DESCRIBE THE VARYING LEVELS OF ATS EXPERTISE THAT HAVE DEVELOPED. STEVE'S GUIDE TO TAKING ATS TO CLIENT SITES OFFERS A PERSONAL PERSPECTIVE ON ONE OF THE EFFECTIVE USES OF ADVANCED ATS SKILLS.

Since its inception in 1982, a singular vision, The Network Is the Computer, has propelled Sun Microsystems, Inc. to its position as a leading provider of industrial-strength hardware, software and services that power the Internet and allow companies worldwide to dot-com their businesses. Sun can be found in more than 170 countries and on the World Wide Web at sun.com.

The customer support chain within Sun Microsystems strives to improve the effectiveness, efficiency, and overall experience of the customer problem resolution process. There are many different training and support programs within the support chain, and Kepner-Tregoe's Analytic Troubleshooting (ATS) is one that is actively developed and sustained.

Across the world, Sun customer support teams quickly solve most problems encountered by customers. However, a few problems are very hard to solve. They

often involve several products from different suppliers interacting in a layered manner, with symptoms that are difficult to reproduce. The behavior of the Sun-supplied components may be as expected, but proving that can be difficult. These problems often require the holistic approach offered by ATS.

ATS implementation at Sun began in the Customer Support Division in France in 1995, and then moved slowly across the globe. In the UK, the roll out began at the end of 1996 with the training of a cadre of program leaders, who included managers and front-line staff. The program leaders then rolled out the training to their peers and colleagues throughout 1997. Today, UK training is in a sustaining mode.

Bell Curves

Like any new process, there was a bell-curve of response to the implementation of ATS. A few ATS workshop attendees simply don't "get it" and their behavior remains unmodified. The vast majority, in the center of the bell curve, understand and use the process with positive results in terms of customer problem resolution. Finally, at the other end of the curve, are a few people who have become very good at ATS and have moved from competency to proficiency.

Sun has experienced troubleshooters at all levels who have, over time, developed "battle hardened," internalized troubleshooting approaches based on experience. ATS implementation has enhanced their creative ability and effectiveness. It provides a common language for interaction, facilitating cross-organization, geographically dispersed teamwork on such issues as root-cause correction or action-plan protection. In an established ATS community, what opportunities are there for

senior management to leverage high-quality activity off the people who excel?

A small group of us who are proficient at using ATS techniques on customer issues in-house saw an opportunity to use ATS at customer sites. This was a personality-driven evolution—individuals recognizing the value of using ATS off-site when traditional methods were not progressing the call quickly enough for both Sun and the customer.

The customer may not have told us the whole story because we lacked the context in which to ask the right questions.

Building an ATS Culture

We must add a caution—the opportunity to move off-site evolved. Over 18 months, Sun aggressively built a solid foundation of ATS culture, trained sufficient people, allowed their skills to grow and mature, and installed a performance system which rewarded the right form of behavior, before anyone ventured abroad. The decision analysis surrounding the choosing of program leaders may now include their qualities as facilitators, not just teachers.

Measuring Success

ATS should not be a training course with success measured in numbers trained. A better measure of success is in the desirable change in behavior, not an easy task. Only by watching people interact with others in situations where there is an opportunity to use the techniques, can

individual behavior change be assessed. Easier measures are reflections of the change in behavior: Customer satisfaction improvements; average age of backlog case reduction; and other accurate historical measurements.

Metrics which are already measured and for which there are accurate historical measurements are useful. For example, a measure that the UK Solution Centre used was the backlog of cases over 30-days old. It was anticipated that by institutionalizing ATS, the backlog would decrease. This is clearly not measuring the direct behavioral changes such as the increased quality of questions asked, the reduction of false starts, or improved documentation. It is a metric that is affected by these behavior changes.

Triggers for Use

Triggers help embed the contingent action that is ATS. Given that direct ATS result measurement is difficult, triggers that prompt the use of ATS within an existing system measure the absence of chaos-driven activity, in-directly measuring good behavior. They provide a good historical record of quarter-on-quarter behavioral changes.

Some companies are procedurally driven, and triggers for use become embedded in those procedures. Sun is less procedurally driven and the triggers must be more explicit. To work, triggers need to tie in with the existing performance system. If the current reward system penalizes a group with calls over a certain number of days old, then a trigger to perform Situation Appraisal on every call, days before that penalty kicks in, helps institutionalize ATS. Of course, some problems do take a long time and a lot of effort to solve (and with less difficult problems being mopped up using process, the really hard problems become easier to see).

With evidence of positive results from the change of behavior, management will increasingly trust their staff and the ATS process. Staff who demonstrate good use of process are given increasingly difficult problems. Eventually, when people have been given the time and opportunities to grow, the very hardest problems within the business should be handled using ATS early enough to have a beneficial effect.

Proficiency

Challenge:

- *Keep a mixed, sometimes hostile audience on process in a variety of conditions without an extensive need for cards or job aids.*
- *Ask Find True Cause questions in a natural manner using the appropriate content for the case in hand and maintaining intent.*

There is more to becoming proficient than being excellent at process. Proficiency in using ATS off-site requires a lot of experience and success with problem solving and decision making. In addition, some personal qualities, which fall outside the pure skills of ATS, increase proficiency. One of these, we'll suggest, is the experience of

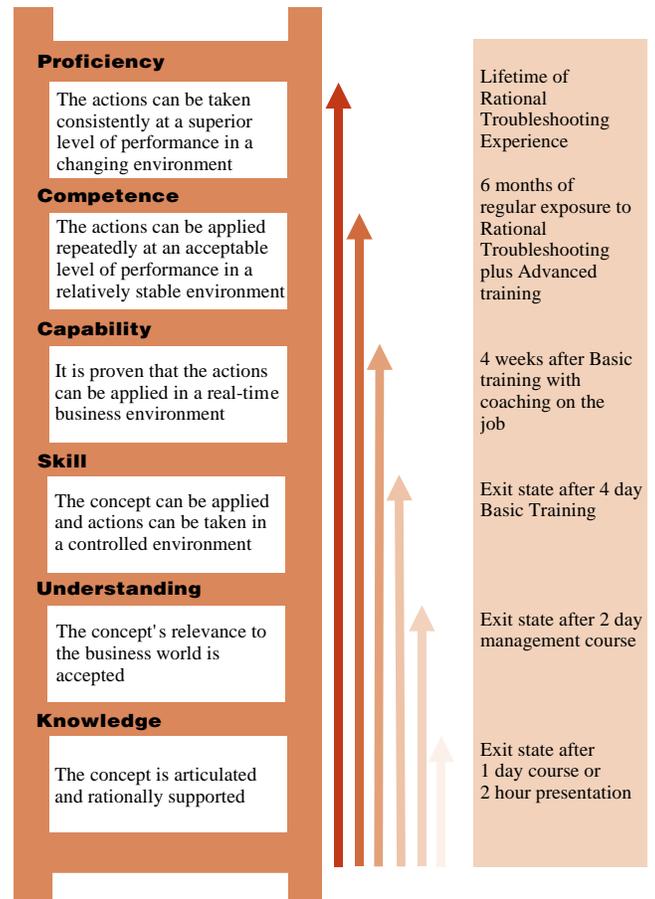
being involved with the theater, whether professional or non-professional. This is not the only road to enlightenment. We could list some others such as leading group skills facilitation, customer management skills, and so on.

Taking ATS Off-site

Improvised Theater

You have the idea of where you're going but you don't know how you're going to get there. The roar of the greasepaint and the smell of the crowd—you're on stage, you have an audience, you have a flip chart, and the only thing standing between you and the void of personal and professional embarrassment is that you know roughly where this performance is heading.

From a personal perspective, performing ATS away from Sun at customer sites is, without any shadow of doubt, the most scary but satisfying thing I have done while working for Sun. I, Steve White, will go into any customer situation with the process as my shield and I know I will come to no harm and move the problem



forward, however rough the journey.

On the occasions when facilitation at client sites failed, was clear before, or very early on, that the scene was not correctly set. When the scene has been well set—without exception in three years—bringing the rational approach of ATS to bear on complex, undefined customer issues provides clarity, direction, and progress.

Taking ATS to the customer is particularly effective when we need to look at the bigger picture. The customer may not have told us the whole story because we lacked the context in which to ask the right questions. By going to the customer site, all present feel, smell, see, sense, touch the customer situation and are able to undertake peer-review of the information to find gaps and falsehoods.

Production Team

Before the curtain opens, the production team must assemble the cast and find an appropriate venue. Careful preparation for a customer-hosted ATS facilitation is critical to its success.

The Cast

Customer Management Buy-In

The customer must really care that the problem needs resolution. Customers should budget four hours at a minimum for one issue, six hours if it's really tricky. To give up this time the customer must perceive a clear benefit.

Customer Staff Availability

The customer staff needs to be available to take part in the investigation—one person missing and vital information can fail to turn up. Everyone who had dealings with the incident needs to be there for the first pass of a problem specification at least. It's best to get the manager to specify that the technical team stay to the end if possible.

Take a Techie

As facilitator your role is to facilitate—take the right content expert for the job (if the right person is known) and have them provide technical content. If the techie is ATS literate, that helps keep the away team on track. It is easier to go off course if you're facilitating a problem in your area of expertise. Let the techie provide the content expertise.

Take Two Process Experts

It's possible to perform an ATS facilitation on your own, but ideally there should be two process experts running the session—one to scribe (Aha! The power of the pen!) and one to ask questions. The scribe should keep the questioner on process track if they are led down a rat hole. If there is no choice and you have to venture forth on your own, you want to be quite battle hardened before you go.

The Venue

Get a big enough stage

It is said that all the world's a stage, but if there isn't enough room to swing a cat then the session won't go well.

Have the right props

White boards just don't cut it when it comes to documenting the session afterwards. Flip charts are your friend. Also, if people know you're going to take their words away, they'll provide more accurate information.

Set expectations

You are there to move the problem forward. Don't allow anyone to set the expectation that you are there to fix the problem. One possible outcome is an acknowledgment that there isn't enough evidence to find the true cause.

The Curtain Opens

Starting a session is the hardest part of all. Every member of the audience has their preconceived ideas about what is about to happen, and they almost certainly have other places to be at that moment. For this we suggest you have a small prompt card prepared with the topics you need to cover. In Sun, we have piloted a short internal training class to help experienced program leaders perform the first 10 minutes of an on-site facilitation in the safety of a classroom.

We suggest beginning with a brief, round-table introduction. It gives the scribe a chance to make a room map indicating names and positions. Follow that with clarification of the objectives for attending from each person in the room and the manager who is driving the issue (already it feels like an ATS training class). Sometimes there will be an argument within the customer staff about what is the most important problem to solve. Only occasionally is it unanimous.

If there's a member of the customer management present, pre-plan to have them explain why the session matters. In our experience, they often come in at the start or stay to watch.

Those who don't know what is about to happen welcome a brief explanation of the process. We have found it best to hand out process sheets with the universal questions and we do not keep it a secret that we are following a recognized process from Kepner-Tregoe. With luck someone in the group will have heard of them.

Fall into the Recognize-a-Problem process. List concerns, and expect a lot of issues raised if there are many people in the room, at least 30 in our experience. The scribe may be busy recording this for over an hour.

Some Triggers for Use of ATS at Sun

Triggers to appraise the customer call:

- More than X days old
- Management alert

Trigger to create a problem statement:

- Call not closed on first contact (all cases should have a problem statement if more than 15 minutes old)

Triggers to create a problem specification:

- First fix failed (experience has failed)
- Need to escalate to the next technical level

Trigger to request an off-site session:

- There is a customer case which is unclearly defined, perhaps involving multiple vendors, that is serious and urgent
- And management in all companies involved agree that activity using traditional methods is not making progress

Triggers to require Decision Analysis:

- A decision is being made which is worth over \$X
- There are a number of fix alternatives

Triggers for using Potential Problem Analysis:

- Action plans are being assembled for an urgent serious customer event
- Major internal departmental changes

Triggers for using Think Beyond The Fix:

- Closure of an escalation or call that had:
 - A root cause that was not obvious and took time to discover
 - A problem that has a high impact on customer business
 - An answer that would be useful elsewhere
 - Symptoms that are hard to define

Now you're in process, with primary sources answering questions as you ask them. You can use all your senses to get an understanding of the problem and weigh the credibility of answers. Allow the customer staff to peer review the answers they are giving you. Sometimes there is a disagreement, which you may need to help them through. Having completed a first pass at the problem specification, take a break, as there will be information that people will have to get.

Play the part as best you can. There's no script—it's down to experience from here.

Conclusion

Providing management with the option to hold a customer-hosted ATS facilitation is a powerful potential end game for an ATS implementation. It gives development opportunities to people who are very good at process and can significantly improve customer relations.

Further potential end games for ATS applications include:

- Extremely difficult technical problems (the hard problems are only getting harder as the complexity and layering of both software and hardware products increases)
- Process improvements within the organization
- Risk management
- Thinking beyond-the-fix every time
- Cost reduction
- Product selection at point-of-sale
- Proof to the customer that we are a quality vendor that can provide a rational audit trail when things go wrong
- A more capable generation of potential managers who can move from a purely technical role.

A training rollout of ATS is a good first step. If undertaken with knowledge of the possibilities that ATS can bring to an organization, beyond the confines of the training exercise, advanced uses of ATS can have a profound effect on the return on investment.

About the authors:

Steve White, *Global Programme manager for ATS.*

Steve has over 12 years experience in the IT industry, and joined Sun Microsystems in 1989. He has worked in a series of computer support roles including both hardware and software support, frontline and backline in Enterprise Services. For the last five years he has specialized in troubleshooting techniques and their application in a computer support environment as well as handling complex customer and internal issues.

He is currently using the experience gained as a troubleshooter to shape the way Sun approaches difficult problems. As the Global Programme manager for this project, he is assisting in the institutionalization of a rational approach to customer issues across Sun.

Clive King, *System Products Group, Customer Problem Resolution Engineering.*

Clive has over 10 years experience in the IT industry and academia, and joined Sun in 1997. He has worked as a UNIX systems administrator, computer science lecturer, and a researcher in novel Artificial Intelligence techniques. His PhD. focused on trying to find out what goes through the mind of a software developer by observing the behavior of the end product.

While at Sun, Clive has worked in a back line Operating Systems role. He currently specializes in platform specific operating system issues within Customer Problem Resolution Engineering. He is a program leader with a special interest in bringing rational process to bear on the resolution of holistic problems and evangelizing the benefits of "Think Beyond the Fix."

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