A Verghis Group White Paper

Redefining

Command & Control

in Today's IT Reality

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About Phil Verghis

Phil Verghis is founder and president of The Verghis Group, a trusted advisor to service & support leaders, and author of the acclaimed book, "The Ultimate Customer Support Executive."

He has been called a "brilliant strategist and innovator" by the Software Support Professionals Association and is a highly sought after speaker around the world. He is a past chairperson of HDI's Strategic Advisory Board, the largest membership-based technical support organization in the world.

Phil has received numerous industry accolades, including the only two-time winner of Service News magazine's "Service 25" award from given to people who made a significant impact in the field of service and support. He was also named a "leader and legend" by STI Knowledge for making some of the most notable contributions to the support industry over the last decade.

His book, *The Ultimate Customer Support Executive,* was on Harvard Business School's Working Knowledge recommended list. The Association of Support Professionals called it "by far the most intelligent book on how to manage support organizations."

Prior to founding The Verghis Group, Phil was vice president of infrastructure support at Akamai Technologies where he started the global customer care and service delivery teams that handled mission-critical customer lifecycle support for corporate customers around the world.

At a key point in Akamai's history following the dot com crash, Phil was asked to take on three other VP jobs addition to Global Service Delivery. This included the world's largest distributed IP network (25,000 assets comprising 15,000 servers in 60 countries), the global Operations role and most of the CIO role. His leadership of an interdisciplinary team saved the company $33 million on an annualized basis in network Cost of Goods Sold, while network traffic tripled to tens of billions of hits per day during that period. Akamai grew from $4M in annual revenue in 1999 to $161M in 2003, and became profitable in 2004.

Phil has a Bachelor's degree in Electrical and Computer Engineering and an MBA, both from the University of New Hampshire. He is an adjunct faculty member at the University of New Hampshire, where he teaches in the MBA program.

Redefining Command and Control in Today's IT Reality

Executive summary

The traditional 'Command and Control' service desk and IT asset management models that served corporate IT so well are now straining to keep up with the pace of 21st century business. The old models made sense in the past, when it was important to protect expensive IT resources and people with rare technology skills from having to deal with end users. The old models have become obsolete, but so far we haven't found better models that afford us the same level of visibility and control.

This white paper looks at the challenges and trends that are driving the need for change, and presents some of the actions that can be taken today to enable IT to move at the speed of the business in a complex, rapidly changing world.

Historical context: "We know best"

Computers used to be expensive to acquire and maintain, and too complex for the average person. In fact, the only place people could access the latest in computing technology was at work. The workplace boasted sophisticated computers, printers and telephone equipment – certainly far better than what they had at home. Since operating a computer was a specialized skill, and 'user friendly' was not part of the computing mindset, most casual users lacked the knowledge to interact directly with computers. They got what they needed through corporate IT. Computers and the people who tended them were seen as a different, specialized group of people. Some even called it the 'high priesthood.'

In order to protect users from themselves (and protect IT from non-techies), it made perfect sense to create command and control systems that put a buffer between average users and computers. After all, most employees had limited interaction with computers outside work, and if they did, it was with 'toy' computers. If something went wrong, specialized knowledge was needed to fix things. So they had to call us.

The most common service desk model today is still a buffer between corporate IT and the end user. IT employs friendly but not very technically savvy front line computing staff who attempt to answer all the easy, routine questions. If they are stumped, the caller is escalated to a 'level two' support team member, who is more savvy technically but still not an expert. If level two can't resolve the issue, it is escalated again to level three support, or even up to the developers. The idea is to shield 'expensive' resources like developers from basic questions that distract them from high-value work.

We now realize there are two fundamental problems with this approach. First, a buffer only made sense in the early days, when end users did not know much about computing. This is rarely the case today. Most end users now own computers; many even manage small networks at home. They may possess the knowledge and skill to solve many issues themselves, but at work they are not allowed to lift the hood and make any modifications. This results in unnecessary support calls, escalations and frustration.

The second problem with the buffer is that it prevents the people who can solve issues from discovering the important productivity-sapping issues that end users face. Under the traditional model, bugs and defects are fairly quickly identified and resolved, but the majority of questions and issues that nag end users are not. Instead they are handled by level one and level two support. Obviously, this knowledge should be shared with those higher up the IT chain. Unfortunately, it is rarely done in a way that reduces or eliminates the root causes of the issues.

Another example of a buffer in the traditional command and control model is in the area of IT Asset Management, specifically the practice of standardizing and locking down equipment. Again, this made perfect sense back when computers and software were proprietary and peripherals were not designed to be interoperable. With numerous permutations of equipment, most of which did not work with each other, the best way to control the chaos was to lock things down and decree that all equipment must be issued and/or approved by the IT department. This helped reduce the number of issues that arose, and eased training of support staff who dealt with end users.

A lot has changed since the dawn of the command and control approach, both in terms of end-user sophistication as well as the spread of 'plug and play' peripherals. Yet most IT departments continue this highly restrictive and draconian approach, despite much chafing from our customers. In today's world, it's important to enlist end users as allies, and to change their perceptions and expectations of IT. Instead of being perceived as a barrier, IT should be seen as an enabler.

Why should IT care about the perceptions and expectations of end users? Because perceptions can become reality, as the following fascinating study demonstrates.

Perceptions and Expectations[i]

Expectations have long been studied by psychologists. What we expect plays a big role in determining how effective certain medications are, for example. Now there is additional research showing the brain does

even more active 'adjusting' of our senses than previously thought. Consider the following experiment done on volunteers by scientists from Caltech and Stanford.

Volunteers were asked to take a sip of wine, swish it in their mouths for six seconds, swallow it and then rate it. Before they tasted each wine, they were told what the wine cost (between $5 and $90 a bottle). The catch? The wine prices were random and arbitrary. But you can probably guess the results. When rating how much they liked the wine, they gave the more "expensive" wines higher scores.

By the way, the study did not rely solely on subjective ratings. The medial orbitofrontal cortex of each volunteer's brain was also scanned. Their synapses confirmed objectively what the volunteers said in terms of which wines tasted better. They believed what they said.

This experiment was repeated (without the brain scans) on the Stanford wine club with similar results. Even these oenophiles gave higher ratings to the wines they believed were more expensive.

CalTech associate professor of economics Antonio Rangel, one of the study's authors, said the most interesting part of the study is that our enjoyment of an experience depends not only on the experience itself, but in *our belief* of what the experience will be like.

Think about this in the context of your organization. What are your customers' expectations of your service? Do they approach you with dread because of all the rules and restrictions you cite every time they ask for something? Or do your customers look forward to interacting with you, because they know (expect) you to be competent and to have their best interests at heart?

What changed? "You know as much"

Fast forward to today. First, consider the generation just entering the workforce. This demographic has completely different expectations about authority and control than previous generations. Even their comfort with chaos is different. They grew up in a world where it's perfectly normal to juggle five or ten simultaneous chat sessions with friends all over the globe. This generation barely remembers a time without cell phones and text messaging and being able to express themselves with tools like YouTube.

This technological sophistication extends to their home computers, too. Most end users — not just the young — own computers with power and capabilities far beyond the average stripped-down office machine. Their cell phone probably has far more bells and whistles than the company-issued phone. At home, end users act as their own IT department (perhaps with the assistance of a nephew or niece). They install and update software, manage their own anti-virus and firewall protection, and much more. Our co-workers may not work in IT, but they have a pretty good grasp of technology and what it takes to support it.

Even the speed of the corporate network, long the last spot where corporations maintain an advantage, is considerably slower than what is available to consumers in Korea, Japan and increasingly the US as well. Fact: A staggering 80 percent of households in Japan connect via a fiber network at speeds of 100 megabits per second — 30 times the average speed of a US cable modem or DSL connection — at roughly the same cost.

In addition, a long list of now-ubiquitous computing technology originally became popular at home before finding its way into the workplace: personal computers, mobile phones, instant messaging, social networking. The list goes on.

It is no wonder end users are frustrated. Despite their knowledge and experience with technology, at the office they are often treated like children, with strict rules about what they can and cannot do. Yet at home, with the freedom to do whatever they want, they seem to be just fine, despite the attendant chaos that comes with freedom. How is it, end users must wonder, that all this control and adherence to standards at work has not increased the speed of getting solutions or finding information? Why, they ask rhetorically, can we find everything about anything on the Internet within seconds, while inside the corporate firewall, where we have complete control, we can't seem to find anything?

You can see why the perception of the corporate IT team has degraded from an attitude of respect to something less — perhaps even pity. If users want anything that deviates from the corporate standard, for the most part they are out of luck. If they'd like anything customized or handled differently, they can't tackle it themselves. They must ask for permission, and wait until it bubbles up the priority list.

Why not give customers a choice?

Giving customers choice — even in areas that don't seem to make much difference to us as service providers — can make a big difference in the perception of the quality of the service.[ii] A fascinating article in the *International Journal of Personality and Social Psychology* sheds some interesting light on choice and stress.

It turns out that moderate levels of choice and information are optimal for coping with stress. For example, if a nurse lets a patient choose

which arm to draw blood from, the patient is happier and far more satisfied than if he's not offered a choice.

In this example, giving the customer a choice makes no difference at all to the service provider. The blood quality is the same in either arm. But having a choice makes a big difference to the customer. Having a choice gives customers some degree of control over the interaction, which invariably increases their satisfaction with the service provider. Even when customers feel helpless, they still like to have some control over the outcome, even if that control is only symbolic.

Lesson learned:

Think about being flexible in areas where it might not make any difference to you, but it would to the customer.

Service Desk lesson:

Why not let your help desk or service desk offer end users a palette of choices from a list of 'approved' standards or vendors? Give them the information they need to make an informed choice, then allow them to select what makes sense to each individual and unit. If it makes no difference to you, then why not reap the rewards of giving your customers a choice?

What's next? "Together, we know best"

What are our choices for the future? The traditional method of complete control? Or the apparent alternative, complete chaos? It does not need to be an either/or option, as the following examples suggest.

IBM and its wholesale adoption of Linux.

IBM's bet on Linux, considered sacrilegious by some, helped transform the company from a tightly controlled 'closed' model to the open (and open source) world of Linux. This shift from a highly structured development environment to an open source code base was perceived as very risky by some in terms of quality of code, security fears and timeliness of deliverables.

Widely seen as a dangerous decision, it has paid off handsomely in terms of revenue and profit by helping IBM customers reduce costs. IBM client Nationwide[iii] consolidated over 250 servers onto a single production Linux-based mainframe ('System Z' in IBM parlance), running multiple enterprise-level instances of Linux under mainframe virtualization software. Nationwide expects to save $15M over three years in server consolidation and lower software, equipment and energy costs.

Proctor & Gamble's *Connect & Develop*[iv].

The giant consumer goods company has enjoyed a long tradition of R&D. For decades, it had developed virtually all its products in-house. But the new CEO, A.G. Lafley, was determined to open P&G's doors to outside innovation. He wanted half of its new products to come *from* its own labs, and the other half *through* them.

This was the conceptual breakthrough: Even with close to 8,000 people in its R&D organization, hundreds of thousands of people outside P&G had talents and ideas the company could tap into and profit from. This morphing from R&D (Research & Development) to C&D (Connect & Develop) required massive operational changes – from cultural changes to embracing 'proudly found elsewhere.' Technology and network changes had to be built to support this transformation.

The result? Proctor & Gamble's R&D productivity has increased by nearly 60 percent. Yet R&D investment as a percentage of sales has shrunk from 4.8 percent in 2000 to 3.4 percent in 2006. P&G's most successful Connect & Develop products are already familiar household names: *Swiffer Dusters* and the *Crest SpinBrush,* to name just two.

In order to extend their intellectual network outside their corporate boundaries in a safe and secure manner, P&G had to make a number of changes to its IT infrastructure (among others).

Support model – include your customers.

With today's rapid changes in technology, one way for support to keep up is to extend the support pool to include customers and partners.

This already happens in the consumer support space and in the many user groups and communities that exist. Think about it. When you have a problem with your PC at home, do you call support or look for assistance on the Internet first? How often do you find a speedy solution to your exact question answered by another customer versus the typically slow official support channels?

Smart corporations are starting to augment full time support staff with volunteers from their user community. In this support model, people earn the right to be considered a 'leader' not because they have a title within the organization, but because they have the most relevant and valuable knowledge to contribute.

The change to a peer-based support model dramatically enhances the productivity of full time support staff. It has already proven wildly successful at companies like Novell, which has two full time employees that resolve over 20,000 new cases a month, thanks to the help of volunteer 'SysOps'[v]. Of the more than 10,000 contributors to their discussion groups, 35 SysOps are their most respected contributors. This volunteer team has become an integral part of Novell's support ecosystem. In addition to providing support, it contributes to product improvement and development.

These volunteer communities are successful because they are self-selecting (i.e., opt-in) and focus on shared success, alignment and transparency. Each individual determines what 'win' means to them, and participates at whatever level is appropriate for them, based on skills and reputation. This new model switches focus from internal efficiency to customer productivity. At the same time, control shifts from the corporation to the individual.

Support model: No more tiers.

Traditional support involves 'layers' or 'tiers' where support 'experts' are buffered from simple, routine questions. From a customer's point of view, this approach is broken. Callers always have to start at the bottom, answering basic questions. There is no acknowledgement of your expertise or the context of your query. For example, whether you are calling because you can't print a document to read on the plane, or you are having trouble printing a proposal for a multi-million dollar project that is minutes away from the submission deadline, your query is usually treated the same. You have to jump through the same hoops until someone in support determines the context and urgency of your issue.

One of the emerging best practices in support revolves getting rid of the tiered support model completely. In this emerging model, which I call the 'savvy support' or 'no more tiers' model, if you need assistance you connect with a generalist who is highly skilled, knows your business well and quickly grasps the context of your call. He or she is paid just as well as the experts they may escalate to, since the skills they have are just as highly valued by customers. The generalists must know a lot about the customer's context and have the power to bring the right level of resources to resolve that particular issue.

This model works both for the customer and the support team. The customer can get things resolved on the first call, if they even need to speak to a person. It works for the support team because people in support would rather solve problems than act as enforcers of procedures and rules. This model is also exceptionally customer friendly, because the important metrics are things like 'customer impacted minutes' rather than internal efficiency metrics like 'time to answer.'

IT Asset Management model: No more silos.

If our service desk model is going to expand to embrace the partner and customer ecosystem, our IT asset management model must also change. Recall that 'assets' are not only those within our control, but also those beyond it.

This transformation may seem daunting. After all, it's hard enough to keep track of what *we* own. But the right mix of procedures, policies and technology can make this task much easier. After all, the people participating in our extended network *want* to work with us.

Giving your internal customers choice and expanding your 'universe' of managed assets has a few basic prerequisites. You must know who has what, and be able to plan, procure, deploy, maintain and

eventually retire assets in a financially responsible, customer friendly way. Without this ability, customer choice gives way to corporate chaos.

Once you get beyond the basic question 'what do we have and what do we need' in terms of assets, a well coordinated IT asset management strategy will offer a holistic view of the total lifecycle costs. These go beyond point of purchase to include energy, maintenance, support and more. And as the Nationwide example showed, getting a good handle on the combination of hardware, complex software licensing, energy and facility costs can save a significant amount of money.

What do we need to do to enable all this?

Business is moving faster than IT's ability to adapt to and facilitate these changes. The biggest success stories will emerge when leadership and IT realize we have to get out of the way. We must transfer power to the individual. We must give individuals the tools and enabling systems to do what they need to do.

That requires:

Strong leadership. IT must embrace the shift from the traditional 'command and control' model of leadership to the newer, more inclusive model — one that embraces the end user, customer and partner ecosystems as full contributors to our joint success.

Visibility. In order to embrace this larger constituency, over whom we have no traditional 'control' (since they are not formally part of our company), we must have excellent visibility. We still need to know who is doing what and when. Unfortunately, regulations and compliance issues don't magically disappear in this new model.

We need visibility into the hardware, software, applications and the business context in which they are being used. To enable this, organizations need accurate discovery tools and rich dashboards that show real-time, actionable information of what is going on throughout the IT asset lifecycle.

Over time, this visibility must broaden to include transparency of effort, rewards and fuzzier concepts like reputation and relevance. After all, motivating our extended ecosystem will not fit neatly into corporate hierarchies or reward systems.

Control. We have to embrace a new philosophy that makes it easy for people to correct mistakes, rather than ensuring mistakes never happen. We do not need to be the gatekeeper of all assets in a company. We need to be facilitators, because we will be tapping into people and assets that are not formally part of our organization. This requires changing our network and access control systems to allow people who are outside our traditional corporate boundaries to contribute and participate in our joint success.

We must develop effective, unobtrusive processes that assist people in getting their jobs done, instead of getting in their way. We need to develop clear definitions of who does what and when, with explicit handoffs.

Integration and Automation. Finally, IT must become adept at integrating the vast array of products and services at our disposal. We must make sure we unleash the potential of our end users, as well as our customer and partner ecosystems. Integrated, flexible systems will be needed to enable new support and asset management models. These systems should make it easy to modify procedures and access on the fly to accommodate the non-hierarchical nature of the new world of business.

Actions to take now.

1. Evaluate your organization's service desk model. Understand who your customers are and segment them based on their needs. Tailor a support strategy to each segment, instead of a 'one size fits all' approach.

2. Evaluate your organization's IT asset management model. Understand and prioritize IT asset classes. Evaluate the communication and process maps that already exist and create those that need to be built.

3. Evaluate what systems / processes / organizational changes are needed to begin moving your service desk and IT asset management strategies to the new models.

    a. Start small.

    b. Make sure the systems you put in place – whether structural, measurement or technological – are easy to use, easy to implement and able to make changes as quickly as the business needs to.

[i] http://www.verghisgroup.com/publications/verghis-view-march-2008/
[ii] Phil Verghis, *The Ultimate Customer Support Executive: Unleash the Power of Your Customer* (Silicon-Press, 2006), pp 25-26.
[iii] http://www-01.ibm.com/software/success/cssdb.nsf/cs/JROT-76DMLM?OpenDocument&Site=corp&cty=en_us

[iv] "Connect and Develop: Inside Procter & Gamble's New Model for Innovation," Harvard Business Review, Vol. 84, No. 3, March 2006.
[v] http://www.serviceinnovation.org/included/docs/library/programs/aom_Novell_casestudy.pdf