dbkay
+associates

DB KAY & ASSOCIATES – REMOTE SUPPORT BEST PRACTICES AND BENEFITS – WHITE PAPER

Show, Don't Tell

Remote Support Best Practices and Benefits

David Kay

Principal

DB Kay & Associates

November 2004

dbkay +associates

DB Kay & Associates – Remote Support Best Practices and Benefits – White Paper

Before Remote Access

The payroll system's not working, and it's your neck on the line. IT did some kind of database upgrade they said wouldn't make any difference, but it must have changed something important. You call support and listen to hold music while your boss pokes his head in your cube for the third time in the last half hour.

You finally get through to the technical support representative (TSR). He's sympathetic to your issue, and confirms that data base changes could result in exactly the error your seeing. Unfortunately, to get to the bottom of the problem, he's going to have to get a bunch of configuration files and settings from your system to try to replicate the error on his machine. "Take careful notes," he says. "The procedures for getting the information I need are a little tricky, and I need to get it all before I can start debugging. Ready? First right click on 'Properties,' then find the 'Advanced' tab, then…"

- *Phone tag*
- *Error-prone*
- *Frustrating*
- *Longer time to relief*

Ten minutes later, you screen is full of notes telling you how to get all the information he needs, and he's promised to call you just as soon as he gets your email with all the settings. You work through arcane menus you get the feeling you were never meant to never see. A half hour later, you send him an email with many attachments and sit looking expectantly at the phone. Your boss comes in and gives you an odd look before moving on.

Twenty minutes later, the phone rings again, and you answer it immediately. "Whoops!" the TSR starts. "We forgot about the database DLL versions. I'll need those, too, to recreate your system. Ready to take more notes?" You sit back in your chair, increasingly certain that checks aren't going to be cut in time for payroll tomorrow…

With Remote Access

The payroll system's not working, and it's your neck on the line. IT did some kind of database upgrade they said wouldn't make any difference, but it must have changed something important. You call support and are surprised when you ring right through. Your boss pokes his head in your cube and nods, pleased that you're working the issue already.

The TSR confirms that database changes could result in exactly the error you're seeing. "Let's take a look," she says. "Do you mind if I see what's on your screen? It's completely secure – your security office reviewed our technology and approved it." You click the "OK" button on your screen to authorize sharing.

- *Closed at first call*
- *Instructional*
- *Loyalty-building*
- *Shorter time to relief*

She asks you to look at a few things for her and then says, "It might be quicker if I drive. You watch while I explain what I'm doing, in case you ever need to look at this stuff again." You click "OK" again and look at your screen, encouraged and interested, as the TSR steps you through her debugging process and figures out the exact configuration change that's needed.

"Well, it looks like that's all taken care of. Anything else I can help you with today?"

"No, thank you!" You sit back in your chair, relieved, and then stand up to go tell your boss that payroll is back on track.

Executive Summary

*"**The customer reaction to using [remote support] has been very positive:** it's as close as you can get to having someone come out to your desk and help you. The customers sense that. It's the next best thing to a visit."*
– Manager, Hardware and Software Support, Test and Measurement Company

Centralization was the first great innovation of technical support. As mainframes with their dedicated cadre of technicians increasingly gave way to the widespread deployment of complex software running on a broad array of off-the-shelf hardware, on-site support was no longer practical.

But in the process, something important was lost. Field service technicians were with the equipment, but TSRs in remote centers had to work through customer intermediaries. While some of these customers were quite skilled, it was never quite the same as working on the systems in person. Resolutions simply took longer.

Stopgap measures evolved, but are cumbersome, often less secure, and don't scale across today's heterogeneous, many-to-many internet environment.

Internet-Based Remote Support To The Rescue

In recent years, a new breed of remote support has become available and is being rapidly adopted in support centers. It provides the next best thing to being there in person, letting TSRs virtually sit next to customers, see what's on their screens, and take over if appropriate. They make it easy to upload and download files to diagnose and resolve issues. And their architecture lets them do this in a way that's secure, under the customer's control, fast, and scalable. They don't require time-consuming or undesired software installations on the customer machine. They make it easy to set up a connection, no matter how the computers are connected to the Internet.

The results are dramatic:

- ***Faster time to resolution***, as phone tag and data gathering steps are eliminated, and more issues are resolved at first contact.
- ***Higher TSR productivity***, as support engineers can work directly on the system, see exactly what's happening, and not need to recreate customer environments on lab computers.
- ***Better root cause analysis***, as engineers can see defects exactly as they present themselves at customer sites.
- ***Training as a byproduct of support***, as customers watch, learn and duplicate expert resolution processes.
- ***Higher customer satisfaction and loyalty*** as a natural side effect of faster, more accurate, and more transparent resolutions.

As support centers have deployed this new generation of remote support solutions, they have developed a series of best practices for maximizing their benefits. Based on market research performed in the second half of 2004, this white paper summarizes these best practices, illustrates the benefits, and suggests considerations for selecting the remote access solution that will be most effective for your support organization.

The Remote Access Opportunity

The Challenge of Remote Support

"Customers unintentionally lie to us, *because they don't understand the questions we're asking. In complex support, we really need to see what's going on."*
– Manager, Support Center Tools, Enterprise Software Company

Over the past few decades, field service has gradually been replaced by the call center, which has itself evolved to the multichannel contact center. According to IDC, there are 2.5 million agents in 76,000 call centers in the United States alone, and a significant fraction of these provide technical support.

This is a natural outgrowth of the personal computer and Web revolutions, which deliver increasingly sophisticated computing with off-the-shelf desktops and servers. Unlike the mainframe days of old, when lab coat wearing support experts were as much a part of a hardware installation as raised floors and disk farms, today's complexity lies in highly configurable integrated application suites. The complexity has migrated from hardware to software.

As computer scientists are prone to say, the only difference between software and hardware is that you can send software over a phone line. And so, as complexity moved into the software, it naturally occurred to vendors to provide support over a phone line, too. This translated into much lower costs and much higher scale for support.

But remote support has its drawbacks. Field service technicians were right there: they could listen to disk drive bearings, smell fusing components, and, most importantly, sit at the console and do what they needed to do to diagnose and repair their systems. In contrast, call center TSRs found themselves having to work blind, like an air traffic control center talking an untrained pilot in for a landing. When customers are less technical, TSR and customer alike were even more frustrated and less likely to successfully resolve the issue.

Remote support provided efficiency, but made it much harder to provide fast and accurate resolutions. Clearly the market needed the efficiency of the centralized support center with the immediacy of field service.

First Steps to Remote Access

*"**It used to take literally hours to remote connect,** from setting up a modem, opening holes in the firewall, installing PCAnywhere, etc. There were ways of doing it, but it would be terrible – making arrangements on the customer site, going to a separate PC, and so on."*
– Manager, Support Center Tools, Enterprise Software Company

The first relief from the challenges of supporting products remotely came from a surprising source: IT server management. People running racks of PC-based servers needed a way to log in to them and manage them without having a separate screen for each PC – as a matter of fact, without leaving their desks. This need was intensified by the GUI nature of these PC server environments: no longer could the IT user simply have a command line connection to their servers – they needed to see what was on the "screen," even if the machine didn't have one. As a result, a series of utilities were developed to allow one computer's screen to be displayed in a window on another computer, the most widely adopted of which was PCAnywhere.

Organizations supporting complex products immediately started using these applications to see what their customers were seeing. While they did help, they did so in a way that wasn't scalable, efficient, or secure. This is because these products were designed to be used inside a single local area network (LAN) – from an IT staff member's PC to a server. This architecture resulted in serious issues when used for support:

1. ***Customer-side footprint.*** Applications like PCAnywhere required customers to install software on their systems to allow the TSR to connect. At best, this was a time consuming step; at worst, this was impossible because of locked down machines and IT policies designed to manage configurations and avoid malware.

2. ***Performance requirements.*** Being designed to work over a high-speed LAN, legacy systems assume levels of bandwidth and connection reliability that is not universally found across the Internet. As a result, they often drop connections and provide frustratingly slow screen refreshes.

3. ***Holes in the firewall.*** Perhaps the most significant drawback of being designed to work on a closed connection is these systems they communicate over proprietary ports – ports that aren't generally open in security-conscious networks. As a result, these legacy remote access solutions require IT to open holes in the firewall, an action they're loath to take.

As TSRs and people being supported increasingly work in disparate locations – distributed work environments, home offices, on the road, through wireless, and so on – legacy LAN-based approaches to remote access aren't a practical approach to delivering support. A new solution, architected for the Internet, is required.

The Internet-Based Remote Access Revolution

"In the 1990s, companies would look for some way to see what was happening in an organization. Those were the days of PCAnywhere and solutions like that…but, there was no universal tool to use in all cases with all customers. ***I needed a universal remote access solution."***

– Director, North America Technical Support, Enterprise Software Company

Given the clear demand for scalable, high-performance, and secure remote access solutions that are at home in the chaos of connections that make up today's internet, vendors are now delivering a new class of internet-based remote access solutions for support. As Gartner describes the space, "an emerging alternative exists in Web-based, browser controlled sessions for one-to-one or one-to-many sessions."

Unlike LAN-based legacy solutions, internet-based solutions are:

- ***Browser-based.*** This means they communicate over standard secure web ports that are already open in the firewall. It also means that no application needs to be downloaded to the machine receiving support.

- ***High-performance.*** Taking bandwidth in sips rather than gulps by using smarter algorithms for packaging and sharing data, internet-based solutions are not only faster over any kind of network but also more resilient to packet loss, temporary loss of connections, and the other realities of today's Internet.

- ***Secure.*** Using the same secure web protocols that drive billions of dollars of financial transactions and internet-based Virtual Private Networks (VPNs), internet-based remote access solutions are secure, permissions-based, and give granular control over the level of access the supported system provides.

They become, in effect, a universal remote access solution that allows support professionals to be virtually next to all of their internet-connected customers.

Today's Market for Internet Remote Access

"Why did I consider a remote support solution? *Survival, mostly…it's pretty much impossible to do what we do without it."*
– Director, North America Technical Support, Enterprise Software Company

Given the market demand for practical remote access solutions, it's no surprise that the market has established itself quickly. Gartner notes that the overall market for collaboration solutions, including remote support, will exceed $1B of new license sales by 2008. A quick Google search on Remote Support will return tens of companies offering products in the space; industry analysts peg WebEx in the number one position.

Customers using internet remote access include:

- Agile
- Avaya
- BEA
- Cognos
- Covisint
- Documentum
- Epicor
- Genesys
- Lawson
- Manugistics
- Mercury Interactive
- PeopleSoft
- Toshiba

Gartner estimates the overall market for collaborative solutions is growing at a compound annual growth rate of over 17% – a standout in today's high-tech economy.

The Business Case for Remote Access

*"**We haven't missed an SLA in two years.** [Remote support] is a big part of that."*
– Manager, Hardware and Software Support, Test and Measurement Company

The business case for remote access is based on its ability to make resolution faster and more accurate. Fast and accurate resolution increases customer satisfaction (and, more importantly, reduces dissatisfaction), which in turn increases loyalty. It also takes less time from TSRs, increasing their productivity and support center efficiency. And, a key source of value is the ability to drive to resolution over the course of a single, interactive session. By avoiding the telephone tag frequently required by complex diagnostic processes where settings and logfiles are gathered, sent to the support center, and then used to replicate an environment there, an incident that might have taken days of email and phone sessions to resolve can often be closed in real time.

Reduced Support Costs through Increased Productivity

*"On typical highly complex cases we deal with, we can move from 2 or 2 ½ hours to about 35 minutes…at today's run rate of 1200 sessions per month, this translates to an annual savings of nearly $600,000 and **an ROI in excess of 700%.**"*
– Manager, Support Center Tools, Enterprise Software Company

*"**In the first year,** the issues that were taking four hours of analyst effort were now taking 20 minutes."*
– Director, North America Technical Support, Enterprise Software Company

According to research by the Service and Support Professionals Association, over 80% of the cost of support is consumed in actually resolving customer issues – more for complex issues that extend past the first contact. As support centers find their budgets increasingly squeezed, the single highest leverage action they can take is making their TSRs more efficient.

Listening to support calls, one is struck by how much of the time spent on the phone is taken up with understanding the problem statement, getting the exact error message, getting configuration information, and then guiding people to apply the fix correctly. And a huge driver of off-the-phone time is spent in the lab, attempting to recreate the problem presented by the customer.

Because remote support allows TSRs to see what's happening first hand and take corrective action, the time spent on the phone can shorted dramatically. And because the work is done on the machine with the problem, time is saved in the lab – and in tracking down the differences between the lab and customer environment.

The result is a sizable fraction of calls that take far less TSR effort, freeing them up for other customers.

Reduced Time to Resolution

*"**It's faster to use [the customer's system], not duplicate it…**The engineers are saying that calls that took one or two weeks, elapsed, now take 30 minutes. We take out the phone tag, the email tag, and the turn around time, and just have the actual resolution time."*
– Manager, Hardware and Software Support, Test and Measurement Company

*"**We saw a 50% reduction** in average close time in just a few months."*
– Customer Service Coordinator, Professional Services Software Company

All support centers track time to close, and most pay attention to aging incidents. In some cases, long times to close happen for the "right" reasons – problems are very hard, engineering resources are required, or a new patch must be constructed. But in other cases, long times to close are a function of customers who are hard to contact, resulting in phone tag and delays in taking the next step in the resolution process.

Because internet-based remote support eliminates many causes of phone tag, it makes it more likely that resolution will be reached in a single interaction – or at least in fewer iterations. This means that, especially for those customers who are hardest to reach, time to close can go down dramatically.

In addition to increasing customer satisfaction, shortening close times reduces the number of incidents that require costly management attention or time-triggered escalations. It also helps organizations meet their operational metric objectives and their customer SLAs.

Increased Customer Satisfaction and Loyalty

*"**Before, it would take a day or a couple of days to help the customers.** But the customers needed help right away. So, the top level driver for remote access was customer satisfaction via a timely resolution of the problem. Cost savings was a nice second benefit….Our customer satisfaction scores have gone up by 12%."*
– Customer Service Coordinator, Professional Services Software Company

If customers had their way, they'd never talk with anyone in the support center: their products would just work and it would be obvious how to use them. If they do have to talk with support, they're already frustrated – frustrated with the product, frustrated with being on hold, frustrated from failed self-service attempts, frustrated with the entitlement process, and perhaps even frustrated with themselves for not being able to solve their own problems.

The last thing they need is more frustration. They just want a fast and accurate resolution.

But consider what generally happens next in complex support:

1. Customers have to explain their situation, often to several different people.
2. They get assigned "homework:" they have to gather up configuration files and data on behalf of the TSR.
3. They have to wait for a call or an email back while the TSR works through all the information.

If the customer-provided data is wrong or incomplete (and it often is, despite the customer's best intentions), then accurate resolutions are hard to come by. In any event, the phone tag and back and forth conversations take time. In short, the last thing their resolution is likely to be is fast and accurate.

Frustrated customers aren't satisfied customers. Dissatisfied customers are almost never loyal customers. And, according to research by loyalty guru Frederick Reichheld, loyal customers are the single most important factor to corporate profitability.

With remote support, the situation is different. Customers can show, not tell, which is much easier and less threatening. The TSR has to do the "homework." And issues are more likely resolved during a single call.

The result is that remote support users have higher satisfaction, but more importantly higher loyalty. Because of the increased transparency of remote support – the customer sees exactly what the TSR is doing – there's a greater comfort level with the value of support. Renewal rates, repurchase rates, and recommendation rates all increase after remote support experiences.

Best Practices for Using Remote Access

We have seen the market imperatives for internet-based remote access in support and its success in the market. We've also examined the key ROI factors for remote access solutions. Based on the successful adoptions across the industry, we'll review the best practices that have emerged for maximizing the business benefits of remote access.

Gaining Acceptance From your Technical Support Team

"We've rolled out a number of different technologies over the years. There's always some growing pain – analysts don't immediately see the benefit. Remote access was different: there was an immediate impact, so ***this was the easiest adoption we've ever had****."*
– Manager, Escalation Team, Business Intelligence Software Company

*"****Once analysts start using it,*** *it's a tool in their tool bag and they don't want to give it up."*
– Director, North America Technical Support, Enterprise Software Company

Often tool initiatives for support centers seem to consider every stakeholder but the actual user! Shareholder value, customer satisfaction, average handle times, IT requirements, and more are considered, but usability and fit with the TSR's workflow are sometimes ignored. When the finding comes back that "they're just not using it," management shows its whip hand and resorts to threats. But browbeating already-pressured knowledge workers into using tools that don't seem designed for their needs makes a bad situation worse, and the initiative's inevitable failure is blamed on technology, stubborn staff, and anything but the real culprit: lack of effective change management.

Here are proven approaches for encouraging TSR acceptance:

1. ***Involve TSRs in the planning process.*** TSRs have a lot of windows open on their screens today, and they're not going to assume that adding another one to the list is in their best interest. By including TSRs in the planning process for a remote support effort, you'll make sure their concerns and needs are addressed in the project. You'll also capture some of the best sources of insight about what will and won't work during real calls with real customers. Finally, you'll have created ownership and buy-in: remote support won't be something that "they" are foisting on "us."

2. ***Grow the ranks by invitation, not fiat.*** Although you can be more subtle than Tom Sawyer was in getting his friends to paint his fence, it's always better to encourage people to opt-in to a program rather than to order them to start using a tool. The excitement a by-invitation-only core team can generate and the cachet of being an "insider" will encourage others to want to be part of the next wave of the roll-out.

3. ***Consider WIIFM.*** When talking with TSRs about remote access technology, remember that everyone wonders "What's In It For Me?" Lower average handle times or time to close are important to TSRs, but on a personal note they'll care more about being able to look smart and effective for their customers and avoiding the frustration that comes when customers can't give them the information they need to do their jobs.

4. ***Find and persuade the influencers.*** Every support organization has its informal influencers: experts whose opinions on tools (and most everything else) are respected by the rest of the organization. These are the people who may be most concerned about change. Making a special effort to reach out to show how remote access makes them more effective, but doesn't diminish the importance of their skills and expertise, is critical to avoiding a silent rebellion.

5. ***Celebrate the wins.*** When remote access helps TSRs and customers, make sure that everyone knows. We are persuaded more by stories than by facts; if TSRs have good experiences, they make compelling stories that can make the benefits of remote support real to others. Invite TSRs who have had customer wins to tell the rest of the organization about it in whatever forum suits their styles and the organizational culture best.

Gaining Acceptance From your Customers

*"**The customers ask for it by name.** 'Can't you WebEx? We don't have much time.'"*
– Director, North America Technical Support, Enterprise Software Company

In general, customers who are calling or creating a technical support incident are in pain. This means that their willingness to try techniques that will lead to a resolution is high. So the kind of privacy concerns that might come up in responding to an online survey or filling out a marketing form aren't usually roadblocks to the adoption of remote support. (Security officers and IT departments can be a different story: they need special resources as discussed below.)

Still, it helps to have set end-user expectations before the "OK to start sharing?" button appears on their screen. Support organizations should:

1. ***Publicize the benefits of remote support in advance.*** Before the first remote session starts, let customers know what it is, what's in it for them, and where they can find more information. Give them the opportunity to discuss concerns before they're on a call. This can be done through newsletters, opt-in email, the support web site, user group meetings, and account manager discussions with strategic customers.

2. ***Prepare TSRs to answer questions and deflect objections.*** TSRs need materials – whether scripts, bullet points, FAQs, or a knowledge base article – to help them explain the benefits to customers and overcome likely concerns about security, privacy, and changes in the resolution process. TSRs should be coached to answer customer questions based on their needs and interests ("we'll waste less of your time") and not their own ("I don't have to wait for you to look things up for me.")

   Questions to cover include "can you take files from my machine?" "can you put viruses on my machine?" "will your software stay on my machine and monitor my actions?" "is this spyware?" and "does this cause a breach in our firewall?"

3. ***Be crystal clear about the opt-in nature of remote support.*** Support organizations should help customers understand that remote support is an option, not a requirement, and that they only need to grant specific rights for specific applications – it's all under their control.

4. ***Provide resources for Security officers and IT departments.*** Leading organizations provide white papers and detailed security information on their web site or customer extranet to help technical people at customer sites evaluate the security of the remote access solution. Ideally, this is backed up with internal expertise and, as a last resort, a conference call with the vendor. Vendors should provide customers with a template white paper that can be customized and branded for the specifics of the implementation.

5. ***Use remote support only when it's most effective.*** Although customers who have experienced remote support might want to use it in all cases, support organizations should carefully evaluate when and how it's used. If two or three simple questions are all that's needed, the overhead and cost of setting up a remote session isn't justified. By using remote support only when it's the smart thing to do, support organizations raise its value in the eyes of the customer.

Capturing Defects

*"**Session recording is very beneficial** if we're dealing with a possible defect that we can't duplicate in house but that does happen on the customer site. You now have a template for a possible problem…We're getting more requests from Development to set up a remote access session, if there's an escalation."*
– Manager, Escalation Team, Business Intelligence Software Company

One of the most time-consuming tasks for escalation groups is submitting defects that pass muster with a skeptical engineering department. Recreating a customer defect on a lab system can be a laborious process, and sometimes isn't even possible. Yet, engineering groups need to see the problem at work before they'll take the defect.

Advanced internet-based remote support solutions have a special feature that can avoid this problem: session recording. If a problem exists on a customer system, the escalation engineer can explore that system with the customer and record the session. Attached to a defect record, this recorded session is a nearly painless way to give engineering the information they need. It also eliminates a task TSRs truly despise: creating screen shots.

Some organizations go even further and include engineering on remote support sessions when a defect is suspected. If the internet-based remote support solution supports it, the TSR and development engineer can trade control back and forth, jointly exploring the customer's system.

Integrating Remote Support in the Workflow

*"**We've integrated remote access** into our electronic support channel – it's literally three clicks to get connected. This can happen in less than a minute."*
– Manager, Support Center Tools, Enterprise Software Company

Experience has shown that support tools that aren't seamlessly integrated into the customer and TSR experience are rarely used. Remote support should be integrated with:

- ***CRM and the customer data repository*.** TSRs should be able to launch a remote session directly from the customer data without retyping any information.

- ***Electronic incident workflow.*** If the customer can create an incident online, that incident should also allow TSRs to launch an immediate session.

- ***The knowledge base.*** If a customer support interaction results in knowledge that should be captured in the knowledge base, then the remote session should be saved as a way to jump-start the knowledge creation process. In some cases, sessions can themselves because multimedia components of knowledge.

Training in the Support Process

*"Remote access sessions are also a training opportunity for **teaching people how to debug**."*
– Manager, Support Center Tools, Enterprise Software Company

In the same vein, support organizations should realize that each remote access customer interaction is a training opportunity – a way to show customers how to solve their own problems and do more with their software. Some people learn better by hearing things, others by seeing, but all learn best when the experience combines seeing and hearing and participating, as happens in remote support.

Support organizations should be careful in drawing a clear line between support and training offerings. Adopters of remote support advise that customers really enjoy training delivered through remote support, and it's easy for a legitimate "how to" support incident to extend to value-added training. Properly packaged, remote support technologies rapidly turn into a platform for value-added training, system management, or other services.

Driving Self-Service by Example

*"**We expected we could drive self-service** by showing customers how to do it when they called, but we expected we'd have to invest a little extra in those calls. We were right about driving self-service, but in fact the customers' being able to see the screen shortened the calls."*
– Director, Technical Support Group, Network Equipment Company

Support organizations that have invested in sophisticated self-service web sites often find themselves at a loss when it comes to driving its adoption. Traditional marketing and "hold-vertising" (on-hold announcements) only go so far, especially when customers have had bad experiences on older versions of the site or with other companies' self-service offerings.

Some support leaders are having great success in driving self-service by showing customers how it works when resolving their incidents. Turning around the normal remote access paradigm, the TSR shares his or her web browser with the customer. (Internet-based remote access makes it easy to do this, since it's all browser based – no software installation is required.) The TSR then goes to the self-service site and shows the customer how to resolve the issue using on-line resources. The customer leaves with a new competence – and confidence – in the self-service tools.

One organization that tried this expected call handle times to go up with this approach, but assumed the investment would be worth it in the long run as self-service adoption increased. They were surprised to see that, in fact, call times went down! As customers could see the information on the TSR's screen, they were triggered to collaboratively solve the problems with the TSR. The particular customers in this case were quite technical, so the experience may not be universal, but it does show the power of the customer and TSR looking at and working on the same information.

Considerations For Selecting a Remote Access Partner

Once you have decided that an internet-based remote access solution is the right approach, it's important to assess your goals to select the right vendor from the many that are out there. Among other considerations not listed below is whether your preference is for a hosted or a licensed technology provider. Licenses are appealing from a perceived security standpoint, especially for companies with sophisticated IT departments, but be aware of the costs of running highly available worldwide network operations from within your own IT environment.

Privacy Support

*"**It's technology that's secure** and the customer is in complete control."*
– Manager, Support Center Tools, Enterprise Software Company

The more assurances you can provide to customers being supported that their privacy is respected and maintained, the easier it is to get them to adopt remote support. Key factors to consider:

1. ***Fine-grain control.*** Does the user have the option to grant or restrict specific permissions, such as viewing an application or operating an application? Can the user share only specific applications while keeping other activities on the screen private? This level of explicit control reassures users.

2. ***Thin client.*** Does the application require a troublesome installation on the customer's machine, or can they simply open a web browser and start sharing their system? Downloaded applications raise concerns about privacy, especially in this day of disguised spyware.

3. ***Encryption.*** Does the system use certified encryption, ensuring the privacy of the data as it traverses the Internet? Is it encrypted at every stage from the customer's desktop to the TSR's desktop?

Performance

*"**Over low bandwidth connections,** such as ISDN, our old solution would sometimes just drop the connection or freeze. [Our internet-based remote access solution] works well with low bandwidth – really great."*
– Manager, Technical Support, Managed Service Provider

Today's internet and distributed work environments provide a challenge for streaming media, as anyone who has streamed video can attest: sometimes it works great, and sometimes it doesn't.

A remote access solution should work well in low and high-bandwidth environments, not falling over when run across dial-up lines, high latency two-way satellite links, wireless LANs or WANs, or simply congested Internet links. It should provide good screen refresh rates, and not hang when packets are momentarily delayed.

File Transfer Capabilities

*"**We also use the file transfer capabilities** as a more secure way of delivering files. Some of our customers can't go to an FTP site or open an email attachment. It works great."*
– Manager, Escalation Team, Business Intelligence Software Company

Once a customer problem has been diagnosed, it's common that the resolution includes moving configuration, data, or executable files to the customer's machine. Many TSRs use email today, which has some serious restrictions: it doesn't support complex file transfers with many files going in many locations; it requires the customer to distribute the files; and it's not auditable.

Support organizations should consider a secure, auditable, and highly flexible file transfer utility to be a key functional component of a remote access solution, and should make sure that customers and TSRs are comfortable using it. Remote file management substantially extends the benefits of remote access.

Certified Security

*"**There were initially customers who were concerned about security**, but we've worn them down with facts and logic, answering their queries confidently. Every customer has been convinced.*

The key with customers: there's no Internet traffic going in, unlike the traditional remote control system. The old model is that the engineer is going through a hole in the firewall. [Internet-based remote access] solutions are a completely different paradigm, where the client is in charge. The client initiates everything."
– Manager, Technical Support, Managed Service Provider

When evaluating the security of an internet-based remote access solution, the following factors should be considered:

1. ***No direct connection.*** In a highly secure solution, there is no direct connection between the TSR and the customer machine. This is important, because a direct machine-to-machine connection is easier to hijack. The most secure solution is to have each machine initiate a session with a common set of network services in a physically and logically secure location, and to have those services intermediate interaction between the two machines.

2. ***Opt-in only.*** Customers should have explicit control over each action and privilege that is granted to TSRs, with clear and intuitive messages explaining what rights they're providing. If a particular customer doesn't feel good about having a particular executable file placed on a machine, he or she should be able to block it without losing the other benefits of the session.

3. ***Strong encryption.*** Encryption should be at last 128 bits for practical insurance against cracking. A standard such as Secure Sockets Layer (SSL) should be used so that the protection afforded by the encryption is broadly understood.

4. ***Industry certifications.*** Enterprises should look to certifying bodies such as WebTrust to ensure that the solution has met high, objective standards for security.

5. ***Recording and audit trails.*** All actions taken by the TSR – gathering files, sending files, and actions taken on the computer itself – should be capable of being recorded for later auditing. This implies session recording, as there is no other way of seeing everything done by the TSR. Session recording plus audit trails enables compliance with Sarbanes-Oxley, HIPAA, and other regulatory frameworks.

Conclusions

*"**Our clients really like it.** They want to show us first what's happening. 'A picture is worth a thousand words.' It's difficult being able to explain what's going on in the system without being able to really see it."*
– Manager, Support Center Tools, Enterprise Software Company

*"**The product is complex:** there are all kinds of analyses, parameters, things even RF engineers haven't heard of. You can take all these different measurements, make all kinds of graphs, plot data over maps, and it's hard to describe this kind of complex analysis over the phone. So being able to see what the customer is seeing? It makes things make much more sense."*
– Manager, Hardware and Software Support, Test and Measurement Company

Support organizations face challenges by the very nature of being remote from the customer. Long times to resolution, wasted TSR effort, and many rounds of phone tag frustrate customers and drive up support costs at a time when budgets are under unprecedented pressure.

Internet-based remote access has become mainstream in the market by helping support organizations face the challenges of remote support with a secure, scalable solution that literally puts them on the same page with their customers. Rather than trying to talk customers through diagnostic procedures and imagining what must be on their screen, TSRs are able to see and guide the customer directly, collaborating on a fast and accurate resolution. TSRs no longer have to go to work wearing blinders.

Documented business results improve every quadrant of the support organization's balanced scorecard: financial performance, customer satisfaction and loyalty, process efficiency, and organizational capability. Perhaps most importantly, remote support simply makes support a better experience for TSRs and customers alike, while saving money in the process.

By following the best practices identified in this paper, and selecting a remote access partner after considering the requirements we've outlined, we predict your enterprise will experience these benefits, too.

Acknowledgements: WebEx and Its Customers

DB Kay & Associates gratefully acknowledges the financial support and customer contacts provided by WebEx for this white paper and the market research that led to it. WebEx is a leading provider of the current generation of internet-based remote access solutions.

We recommend that service and support organizations that are considering remote access solutions for all the reasons discussed in this paper consider the WebEx Support Center solution. For more information on WebEx for Support, visit:

http://www.webex.com/solutions/online-support-solutions.html

We would also like to thank the following WebEx customers who, among others, participated in the research that led to this white paper:

- Agilent Technologies
- Cognos
- Ericsson
- Epicor
- InfoGenesis
- Lawson
- Wind2 Software Inc.

About DB Kay & Associates

DB Kay & Associates is a consultancy that focuses on high-leverage initiatives for service and support, including knowledge management, self-service, collaboration, and remote access.

DB Kay provides
- assessments
- training
- technology selection
- adoption consulting services

for market-leading support organizations and the vendors who serve them.

David Kay, principal of DB Kay & Associates, has been a leader in applying technology to knowledge-intensive business processes like customer support since 1984. He has been certified by the Help Desk Institute (HDI) as a trainer for Knowledge-Centered Support, and is a frequent speaker and contributor for the Service and Support Professionals Association (SSPA.) Kay holds a patent covering the use of next-generation technology in customer support, and has been recognized as a Customer Service Innovator by the Consortium for Service Innovation.