

BriefingsDirect Analysts List Top 5 Ways to Cut Costs Without Impacting Performance in Economic Downturn

Edited transcript of BriefingsDirect Analyst Insights Edition podcast, Vol. 38 on how businesses should react to the current economic realities and prepare themselves to emerge stronger.

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Dana Gardner: Hello, and welcome to the latest BriefingsDirect Analyst Insights Edition, Volume 38. I'm your host and moderator, Dana Gardner, principal analyst at Interarbor Solutions.

This periodic discussion and dissection of IT infrastructure related news and events, with a panel of industry analysts and guests, comes to you with the help of our charter sponsor, Active Endpoints, maker of the ActiveVOS, visual orchestration system. We also come to you through the support of TIBCO Software.

Out topic this week, and it is the week of March 9, 2009, centers on the economics of IT. It's clear that the financial crisis has spawned a yawning global recession on a scale and at a velocity unlike anything seen since the 1930s. Yet, our businesses and our economy function much differently than they did in the 1930s. The large and intrinsic role of information technology is but one of the major differences. In fact, we haven't had a downturn like this since the advent of widespread IT.

So, how does IT adapt and adjust to the downturn? This is all virgin territory. Is IT to play a defensive role in helping to slash costs and reduce its own financial burden on the enterprise, as well as to play a role in propelling productivity forward despite these wrenching contractions?

Or, does IT help most on the offensive, in transforming businesses, or playing a larger role in support of business goals, with the larger IT budget and responsibility to go along with that? Does IT lead the way on how companies remake themselves and reinvent themselves during and after such an economic tumult?

We're asking our panel today to list the top five ways that IT can help reduce costs, while retaining full business or perhaps even additional business functionality. These are the top five best ways that IT can help play economic defense.

After we talk about defense, we're going to talk about offense. How does IT play the agent of change in how businesses operate and how they provide high value with high

productivity to their entirely new customer base?

Join me in welcoming our analyst guests this week. Joe McKendrick, independent IT analyst and prolific blogger on service-oriented architecture (SOA), business intelligence (BI), and other major IT topics. Welcome back, Joe.

Joe McKendrick: Thanks, Dana. Glad to be here.

Gardner: We're also joined by Brad Shimmin, principal analyst at Current Analysis.

Brad Shimmin: Hello, Dana.

Gardner: Also, JP Morgenthal, independent analyst and IT consultant. Hi, JP.

JP Morgenthal: Hi. Thanks.

Gardner: We're also joined by Dave Kelly, founder and president of Upside Research, who joins us for the first time. Welcome, Dave.

Dave Kelly: Hey, Dana. Thanks for having me. It's great to be here.

Gardner: Let's go first to Joe McKendrick at the top of the list. Joe, let's hear your five ways that IT can help cut costs in enterprises during our tough times.

Previous downturns

McKendrick: First of all, I just want to comment. You said this is virgin territory for IT in terms of managing through downturns. We've seen in our economy some fairly significant downturns in the past -- the 1981-82 period, 1990-91 period, and notably 2001-2002. Those were all major turning points for IT, and we can get into that later. I'll give you my five recommendations, and they're all things that have been buzzing around the industry.

First, SOA is a solution, and I think SOA is alive and well and thriving. SOA promotes reuse and developer productivity. SOA also provides a way to avoid major upgrades or the requirement for major initiatives in enterprise systems such as enterprise resource planning (ERP).

Second, virtualize all you can. Virtualization offers a method of consolidation. You can take all those large server rooms -- and some companies have thousands of servers -- and consolidate into more centralized systems. Virtualization paves the path to do that.

Third, cloud computing, of course. Cloud offers a way to tap into new sources of IT processing, applications, or IT data and allows you to pay for those new capabilities incrementally rather than making large capital investments.

The fourth is open source -- look to open-source solutions. There are open-source solutions all the way up the IT stack, from the operating system to middleware to applications. Open source provides a way to, if not replace your more commercial proprietary systems, then at least to implement new initiatives and move to new initiatives under the budget radar, so to speak. You don't need to get budget approval to establish or begin new initiatives.

Lastly, look at the Enterprise 2.0 space. Enterprise 2.0 offers an incredible way to collaborate and to tap into the intellectual capital throughout your organization. It offers a way to bring a lot of thinking and a lot of brainpower together to tackle problems.

Gardner: It sounds like you feel that IT has a lot of the tools necessary and a lot of the process change necessary. It's simply a matter of execution at this point.

McKendrick: Absolutely. All the ingredients are there. I've said before in this podcast that I know of startup companies that have invested less than \$100 in IT infrastructure, thanks to initiatives such as cloud computing and open source. Other methodologies weigh in there as well.

Gardner: All right. Let's go to bachelor number two, Brad Shimmin. If you're dating IT efficiency, how are you going to get them off the mark?

Provide a wide pasture

Shimmin: Thanks, Dana. It's funny. Everything I have in my little list here really riffs off of all of Joe's excellent underlying fundamentals that was talking about there. I hope what I am going to give you guys are some not-too-obvious uses of the stuff that Joe's been talking about.

My first recommendation is to give your users a really wide pasture. There is an old saying that if you want to mend fewer fences, have a bigger field for your cattle to live in. I really believe that's true for IT.

You can see that in some experiments that have been going on with the whole BYOC -- Bring Your Own Computer -- programs that folks like Citrix and Microsoft have been engaging in. They give users a stipend to pick up their own notebook computer, bring that to work, and use a virtualized instance of their work environment on top of that computer.

That means IT no longer has to manage the device itself. They now just manage virtual image that resides on that machine. So, the idea that we've been seeing with mobile devices making a lot of headway, in terms of users buying and using their own inside IT, we'll see extend to desktops and laptops.

I'd just like to add that IT should forget about transparency and strive for IT participation. The days of the ivory tower with top-down knowledge held within secret golden keys behind locked doors within IT are gone. You have to have some faith in your users to manage their own environments and to take care of their own equipment, something they're more likely to do when it's their own and not the company's.

Gardner: So, a bit more bizarre, when it comes to how IT implements and operates.

Shimmin: Absolutely. You can't have this autocracy downward slope anymore to be efficient. That doesn't encourage efficiency.

The second thing I'd suggest is don't build large software anymore. Buy small software. As Joe mentioned, SOA is well entrenched now within both the enterprise and within the IT. Right now, you can buy either a software as a service (SaaS) or on-premise software that is open enough that it can connect with and work with other software packages. No longer do you need to build this entire monolithic application from the ground-up.

A perfect example of that is something like PayPal. This is a service, but there are on-premise renditions of this kind of idea that allow you to basically build up a monolithic application without having to build the whole thing yourself. Using pre-built packages, smaller packages that are point solutions like PayPal, lets you take advantage of their economies of scale, and lets you tread upon the credibility that they've developed, especially something that's good for consumer facing apps.

The third thing I'd suggest -- and this is in addition to that -- build inside but host outside. You shouldn't be afraid to build your own software, but you should be looking to host that software elsewhere.

A game changer

We've all seen both enterprises and enterprise IT vendors -- independent software vendors (ISVs) themselves like IBM, Oracle, and Microsoft, in particular -- leaping toward putting their software platforms on top of third-party cloud providers like Amazon EC2. That is the biggest game changer in everything we've been talking about here to date.

There's a vendor -- I can't say who it is, because they didn't tell I could talk about it -- who is a cloud and on-premise vendor for collaboration software. They have their own data centers and they've been moving toward shutting down the data centers and moving that into Amazon's EC2 environment. They went from these multi-multi thousand dollar bills they are paying every month, to literally a bill that you would get for such a cellphone service from Verizon or AT&T. It was a staggering saving they saw.

Gardner: A couple of hundred bucks a month.

Shimmin: Exactly. It's all because the economies are scaled through that shared environment.

The fourth thing I would want to say is "kill your email." You remember the "Kill your TV" bumper stickers we saw in the '90s. That should apply to email. It's seen its day and it really needs to go away. For every gigabyte you store, I think it's almost \$500 per user per year, which is a lot of money.

If you're able to, cut that back by encouraging people to use alternatives to email, such as social networking tools. We're talking about IM, chat, project group-sharing spaces, using tools like Yammer inside the enterprise, SharePoint obviously, Clearspace -- which has just been renamed SBS, for some strange reason -- and Google Apps, That kind of stuff cuts down on email.

I don't know if you guys saw this, but in January, IBM fixed Lotus Notes so they no longer store duplicate emails, They were cutting down on the amount of storage their users required by something like 70 percent, which is staggering.

Gardner: So what was that, eliminating the PSD plus the NSF version or whatever it was? There were multiple versions of any email, right?

Shimmin: It was the attachments, yes. If there was a duplicate attachment, they stored one for each note instead of saying, "Hey, it's the same file, let's just store one instance of it in a database." Fixing stuff like that is just great, but it points to how big a problem it is to have everything running around in email.

Gardner: You might as well just be throwing coal up into the sky, right?

Shimmin: Exactly. To add to that, we should really turn off our printers. By employing software like Wikis, blogs, and online collaboration tools from companies like Google and Zoho, we can get away from the notion of having to print everything. As we know, a typical organization kills 143 trees a year -- I think was the number I heard -- which is a staggering amount of waste, and there's a lot of cost to that.

Gardner: Perhaps the new bumper sticker should be "Email killed."

Open, but not severe

Shimmin: Printing and email killed, right. My last suggestion would be, as Joe was saying, to really go open, but we don't have to be severe about it. We don't have to junk Windows to leverage some cost savings. The biggest place you can see savings right now is by getting off of the heavy license burden software. I'm going to pick on Office right now.

Gardner: How many others do you have to pick from?

Shimmin: It's the big, fat cow that needs to be sacrificed. Paying \$500-800 a year per user for that stuff is quite a bit, and the hardware cost is staggering as well, especially if you are upgrading everyone to Vista. If you leave everyone on XP and adopt open-source solutions like OpenOffice and StarOffice, that will go a long, long way toward saving money.

Why I'm down on printing is, the time is gone when we had really professional, beautiful-looking documents that required a tremendous amount of formatting and everything needed to be perfect within Microsoft Word, for example. What now counts is the information. It's same for 4,000-odd features in Excel. I'm sure none of us here have ever even explored a tenth of those.

Gardner: Maybe we should combine some of the things you and Joe have said. We should go to users and say, "You can use any word processor you want, but we're not going to give you any money," and see what they come up with.

Shimmin: You're going to find some users who require those 4,000 features and you are going to need to pay for that software, but giving everyone a mallet to crack a walnut is insane.

Gardner: I want to go back quickly to your email thing. Are you saying that we should stop using email for communication or that we should just bring email out to a cloud provider and do away with the on-premises client server email -- or both.

Shimmin: Thanks for saying that. Look at software or services like Microsoft's MOSS. You can get Exchange now for something like \$5 per month per user. That's pretty affordable. So, if you're going to use email, that's the way to go. You're talking about the same, or probably better, uptime than you're getting internally from a company like Microsoft with their 99.9 percent uptime that they're offering. It's not five 9s, but it's probably a lot better than what we have internally.

So, yeah. You should definitely explore that, if you're going to use email. In addition to that, if you can cut down on the importance of email within the organization by adopting software that allows users to move away from it as their central point of communication, that is going to save a lot of money as well.

Gardner: Or, they could just Twitter to each other and then put all the onus on the cost of maintaining all those Twitter servers.

Shimmin: Nobody wants to want to pay for that though.

Gardner: Let's go to JP Morgenthal. I'm expecting "shock and awe" from you, JP. What's your top five?

Morgenthal: Shock and awe, with regard to my compadres' answers?

Gardner: Oh, yeah. Usually you have a good contrarian streak.

The devastation of open source

Morgenthal: I was biting my tongue, especially on the open source. I just went through an analysis, where the answer was go JBoss on Linux Apache. Even in that, I had given my alternative viewpoint that from a cost perspective, you can't compare that stack to running WebSphere, or WebLogic on Windows. Economically, if you compare the two, it doesn't make sense. I'm still irked by the devastation that open source has created upon the software industry as a whole.

Gardner: Alright. We can't just let that go. What do you mean, quickly?

Morgenthal: Actually, I blogged on this. Here's my analogy. Imagine tomorrow if Habitat for Humanity all of a sudden decided that it's going to build houses for wealthy people and then make money by charging maintenance and upkeep on the house. You have open source. The industry has been sacrificed for the ego and needs of a few against the whole of the industry and what it was creating.

Gardner: Okay. This is worth an entire episode. So, we're going to come back to this issue about open source. Is it good? Is it bad? Does it save money or not? But, for this show, let's stick to the top five ways to save IT, and we'll come back and do a whole show on open source.

Morgenthal: I'd like to, but I've got to give credit. I can't deny the point that as a whole, for businesses, again, those wealthy homeowners who are getting that Habitat for Humanity home, hey, it's a great deal. If somebody wants to dedicate their time to build you a free home, go for it, and then you can hire anybody you like to maintain that home. It's a gift from the gods.

Gardner: What are your top five?

Morgenthal: Vendor management is first. One thing I've been seeing a lot is how badly companies mismanage their vendor relationships. There is a lot of money in there, especially on the IT side -- telecom, software, and hardware. There's a lot of play, especially in an industry like this.

Get control over your vendor relationships. Stop letting these vendors run around, convincing end-users throughout your business that they should move in a particular direction or use a particular product. Force them to go through a set of gatekeepers and manage the access and the information they're bringing into the business. Make sure that it goes through an enterprise architecture group.

Gardner: It's a buyers market. You can negotiate. In fact, you can call them in and just say, "We want to scrap the old license and start new." Right?

Morgenthal: Well, there are legal boundaries to that, but certainly if they expect to have a long-term relationship with you through this downturn, they've got to play some ball.

With regard to outsourcing noncritical functions, I'll give you a great example where we combined an outsourced noncritical function with vendor management in a telco. Many companies have negotiated and managed their own Internet and telco communications facilities and capability. Today, there are so many more options for that.

It's a very complex area to navigate, and you should either hire a consultant who is an expert in the area to help you negotiate this fact, or you should look the scenario where you take as much bandwidth as you use on an average basis, and when you need excess bandwidth, team in the cloud. Go to the cloud for that excess bandwidth.

Gardner: Okay, number three.

Analyze utilization

Morgenthal: Utilization analyses. Many organizations don't have a good grasp on how much of their CPU, network, and bandwidth is utilized. There's a lot of open space in that utilization and it allows for compression. In compressing that utilization, you get back some overhead associated with that. That's a direct cost savings.

Another area that has been a big one for me is data quality. I've been trying to tell corporations for years that this is coming. When things are good, they've been able to push off the poor data quality issue, because they can rectify the situation by throwing bodies at it. But now they can't afford those bodies anymore. So, now they have bad data and they don't have the bodies to fix up the data on the front end.

Here is a really bad rock and hard place. If I were them, I'd get my house in order, invest the money, set it aside, get the data quality up and allow myself to operate more effectively without requiring extra labor on the front end to clean up the data on the back end.

Finally, it's a great time to explore desktop alternatives, because Windows and the desktop has been a de-facto standard, a great way to go -- when things are good. When you're trying to cut another half million, million, or two million out of your budget, all those licenses, all that desktop support, start to add up. They're small nickels and dimes that add up.

By looking at desktop alternatives, you may be able to find some solutions. A significant part of your workforce doesn't need all that capability and power. You can then look for different solutions like light-weight Linux or Ubuntu-type environments that provide just Web browsing and email, and maybe OpenOffice for some light-

weight word processing. For a portion of your user base, it's all they need.

Gardner: Okay. Was that four or five?

Morgenthal: That's five -- vendor management, outsourcing, utilization analysis, data quality, and desktop alternatives.

Gardner: Excellent. Before we go to our next panelist, I would like to take a brief pause for a message from our sponsors, Active Endpoints and TIBCO software. Okay. Now, going to you, Dave Kelly, what's your top five?

Optimize, optimize, optimize

Kelly: Thanks Dana, and it's great to come at the end. I don't always agree with JP, but I liked a lot of the points that he just made and they complement some of the ones that I am going to make, as well as the comments that Brad and Joe made.

My first point would be, optimize, optimize, optimize. There's no doubt that all the organizations, both on the business side and the IT side, are going to be doing more with less. I think we're going to be doing more with less than we have ever seen before, but that makes it a great opportunity to step back and look at specific systems and business processes.

You can start at the high level and go through business process management (BPM) type optimization and look at the business processes, but you can also just step it down a level. This addresses what some of the other analysts have said here. If you look at things like data-center optimization, there are tremendous opportunities for organizations to go into their existing data centers and IT processes to save money and defer capital investment.

You're talking about things like increasing the utilization of your storage systems. Many organizations run anywhere from 40 to 50 percent of storage utilization. If you can increase that and push off new investments in additional storage, you've got savings right there. The growth rate in storage over the past three to five years has been tremendous. This is a great opportunity for organizations to save money.

It also references what Brad said. You've got the same opportunity on the email side. If you look at your infrastructure on the data-center side or the storage side, you've got all this redundant data out there.

You can use applications. There are products from Symantec and other vendors that allow you to de-duplicate email systems and existing data. There are ways to reduce your backup footprint, so that you have fewer backup tapes required. Your processes will run quicker, with less maintenance and management. You can do single-instance archiving and data compression.

Gardner: Dave, it sounds like you're looking at some process reengineering in the way that IT operates.

Kelly: You can certainly do that, but you don't even have to get to that process reengineering aspect. You can just look at the existing processes and say, "How can I do individual components more efficiently." I guess it is process reengineering, but I think a lot of people associate process reengineering with a large front-to-back analysis of the process. You can just look at specific automated tasks and see how you can do more with less in those tasks.

There are a lot of opportunities there in terms of like data center optimization as well as other processes.

The next point is that while it's important to increase your IT efficiency, while reducing cost, don't forget about the people. Think about people power here. The most effective way to have an efficient IT organization is to have effective people in that IT organization.

Empower your people

There's a lot of stress going on in most companies these days. There are a lot of question about where organizations and businesses are going. As an IT manager, one thing you need to do is make sure that your people are empowered to feel good about where they're at. They need to not hunker down and go into this siege mentality during these difficult times, even if the budgets are getting cut and there's less opportunity for new systems or new technology challenges. They need to redirect that stress to discover how the IT organization can benefit the business and deal with these bad times.

You want to help motivate them through the crisis and work on a roadmap for better days, and map out, "Okay, after we get through this crisis, where are we going to be going from here?" There's an important opportunity in not forgetting about the people and trying to motivate them and provide a positive direction to use their energy and resources in.

Gardner: They don't want to get laid off these days, do they?

Kelly: No, they don't. Robert Half Technology recently surveyed 1,400 CIOs. It's pretty good news. About 80 percent of the CIOs expect to maintain current staffing levels through the first half of this year. That's not a very long lead-time at this point, but it's something. About 8 or 9 percent expected to actually hire. So everyone is cutting budgets, reducing capital expenditures, traveling less, trying to squeeze the money out of the budget, but maybe things will stay status quo for a while.

The third point echoes a little bit of what JP said on the vendor management side, as well as on using commercial software. Organizations use what they have or what they

can get. Maybe it's a good time to step back and reevaluate the vendors. That speaks to JP's vendor management idea, and the infrastructure they have.

So, you may have investments in Oracle, IBM, or other platforms, and there may be opportunities to use free products that are bundled as part of those platforms, but that you may not be using.

For example, Oracle bundles Application Express, which is a rapid application development tool, as part of the database. I know organizations are using that to develop new applications. Instead of hiring consultants or staffing up, they're using existing people to use this free rapid application development tool to develop departmental applications or enterprise applications with this free platform that's provided as part of their infrastructure.

Of course, open source fits in here as well. I have a little question about the ability to absorb open source. Perhaps at the OpenOffice level, I think that's a great idea. At the infrastructure level and at the desktop level that can be a little bit more difficult.

The fourth point, and we've heard this before, is go green. Now is a great time to look at sustainability programs and try to analyze them in the context of your IT organization. Going green not only helps the environment, but it has a big impact, as you're looking at power usage in your data center with cooling and air conditioning cost. You can save money right there in the IT budget and other budgets going to virtualization and consolidating servers. Cutting any of those costs can also prevent future investment capital expenditures.

Again, as JP said about utilization, this is a great opportunity to look at how you're utilizing the different resources and how you can potentially cut your server cost.

Go to lunch

Last but not least, go to lunch. It's good to escape stressful environments, and it may be a good opportunity for IT to take the business stakeholders out to lunch, take a step back, and reevaluate priority. So, clear the decks and realign priorities to the new economic landscape. Given changes in the business and in the way that services and products are selling, this may be a time to reevaluate the priorities of IT projects, look at those projects, and determine which ones are most critical.

You may be able to reprioritize projects, slow some down, delay deployments, or reduce service levels. The end effect here is allowing you to focus on the most business critical operations and applications and services. That gives a business the most opportunity to pull out of this economic dive, as well as a chance to slow down and push off projects that may have had longer-term benefits.

For example, you may be able to reduce service levels or reduce the amount of time the help desk has to respond to a request. Take it from two hours to four hours and

give them more time. You can potentially reduce your staffing levels, while still serving the business in a reasonable way. Or, lengthen the time that IT has after a disaster to get systems back up and operating. Of course, you've got to check that with business leaders and see if it's all right with them. So, those are my top five.

Gardner: Excellent, thank you. I agree that we're in a unique opportunity, because, for a number of companies, their load in the IT department is down, perhaps for the first time. We've been on a hockey-stick curve in many regards in the growth of data and the number of users, seats, and applications supported.

Companies aren't merging or acquiring right now. They're in kind of stasis. So, if your load is down in terms of headcount, data load, newer applications, now is an excellent time to make substantial strategic shifts in IT practices, as we've been describing, before that demand curve picks up again on the other side, which its bound to do. We just don't know when.

As the last panelist to go, of course, I am going to have some redundancy on what's been said before, but my first point is, now is the time for harsh triage. It is time to go in and kill the waste by selectively dumping the old that doesn't work. It's easiest to do triage now, when you've got a great economic rationale to do it. People will actually listen to you, and not have too much ability to whine, cry and get their way.

IT really needs to find where it's carrying its weight. It needs to identify the apps that aren't in vigorous use or aren't adding value, and either kill them outright or modernize them. Extract the logic and use it in a process, but not at the cost of supporting the entire stack or a UNIX server below it.

IT needs to identify the energy hogs and the maintenance black holes inside their infrastructure and all the inventory that they are supporting. That means ripping out the outdated hardware. Outdated hardware robs from the future in order to pay for a diminishing return in the past. So, it's a double whammy in terms of being nonproductive and expensive.

You don't really need to spend big money to conduct these purges. It's really looking for the low-lying fruit and the obvious wasteful expenditures and practices. As others have said today, look for the obvious things that you're doing and never really gave much thought to. They are costing you money that you need to do the new things in order to grow. It's really applying a harsh cost-benefit analysis to what you are doing.

It would also make sense to reduce the number of development environments. If you're supporting 14 different tools and 5 major frameworks, it's really time to look at something like Eclipse, Microsoft, or OSGi and say, "Hey, we're going to really work toward more standardization around a handful of major development environments. We're going to look for more scripting and doing down and dirty web development when we can. That just makes more sense.

It's going to be harder to justify paying for small tribes of very highly qualified and

important, but nonetheless not fully utilized, developers.

Look outside

It's also time to replace costly IT with outside services and alternatives that we have discussed. That would include, as Brad said, your email, your calendar, word processing, and some baseline productivity applications and consider where you can do them cheaper.

I do like the idea of saying to people, "You still need to do email and you need still to do word processing, but we no longer are going to support it. Go find an alternative and see how that works." It might be an interesting experiment at least for a small department level at first.

That means an emphasis on self-help, and in many aspects of IT it is possible. Empower the users. They want that power. They want to make choices. We don't need to just walk them down a blind path, tell them how to do mundane IT chores, and then pay an awful lot of money to have them doing it that way. Let's open up, as Brad said, the bizarre and stop being so much of a cathedral.

I suppose that means more use of SaaS and on-demand applications. They make particular sense in customer relationship management (CRM), sales force, and in human resources procurement and payroll. It's really looking to outsource baseline functionality that's not differentiating your organization. It's the same for everybody. Find the outsourcers that have done it well and efficiently and get it outside of your own company. Kill it, if you are doing it internally.

It's really like acting as a startup. You want to have low capital expenditures. You want to have low recurring costs. You want to be flexible. You want to empower your users. A lot of organizations need to think more like a startup, even if they are an older, established multinational corporation.

My second point is to create a parallel IT function that leverages cloud attributes. This focuses again on what Joe mentioned, on the value of virtualization and focusing on the process and workflows -- not getting caught up in how you do it, but what it ends up doing for you.

The constituent parts aren't as important as the end result. That means looking to standardize hardware, even if it's on-premises, and using grid, cloud, and modernized and consolidated data center utility best practices. Again, it's leveraging a lot of virtualization on standard low-cost hardware, and then focusing the value at a higher abstraction, at the process level.

It's standardizing more use of appliances and looking at open-source software. I also have to be a little bit of a contrarian to JP. I do think there's a role for open source in these operations, but we are going to save that for another day. That's a good topic.

This is another way of saying doing SOA, doing it on-premises, using cloud and compute fabric alternatives, and trying to look outside for where other people have created cloud environments that are also very efficient for those baseline functions that don't differentiate. That creates a parallel function in IT, but also looks outside.

I agree wholeheartedly with what's been said earlier about the client. It's time to cheapen, simplify, and mobilize the client tier. That means you can use mobile devices, netbooks, and smart phones to do more activities, to connect to back-end data and application sets and Web applications.

Focus on the server

It's time to stop spending money on the client. Spend it more on the server and get a higher return on that investment. That includes the use of virtual desktop infrastructure (VDI) and desktop-as-a-service (DaaS) types of activities. It means exploring Linux as an operating environment on the desktop, where that makes sense, and look at what the end users are doing with these clients.

If they're at a help desk and they're all using three or four applications in a browser, they don't need to have the equivalent of a supercomputer that's got the latest and greatest of everything. It's time to leverage browser-only workers. Find workers that can exist using only browsers and give them either low-cost hardware that's maybe three or four years old and can support a browser well or deliver that browser as an application through VDI. That's very possible as well.

It means centralizing more IT support, security, and governance at the data center. It even means reducing the number of data centers, because given the way networks are operating, we can do this across a wide area network (WAN). We can use acceleration, remote branch technologies, and virtual private networks (VPNs). We can deliver these applications to workers across continents and even across the globe, because we're not dealing with a B2C, we are dealing with a B2E -- that is, to your employees.

You can support the scale with fewer data centers and lower cost clients. It's a way to save a lot of money. Again, you're going to act like a modern startup. You're going to build the company based on what your needs are, not on what IT was 15 years ago.

My fourth point is that BI everywhere. Mine the value of the data that you've got already and the data that you are going to create. Put in the means to be able to assess where your IT spend makes sense. This is BI internal to IT, so BI for IT, but also IT enabling BI across more aspects of the business at large.

Know what the world is doing around you and what your supply chain is up to. It's time to join more types of data into your BI activities, not just your internal data. You might be able to actually rent data from a supplier, a partner or a third party, bring that

third-party data in, do a join, do your analysis, and then walk away. Then, maybe do it again in six months.

It's time to think about BI as leveraging IT to gain the analysis and insights, but looking in all directions -- internal, external, and within IT, but also across extended enterprise processes.

It's also good to start considering tapping social networks for their data, user graph data, and metadata, and using that as well for analysis. There are more and more people putting more and more information about themselves, their activities, and their preferences into these social networks.

That's a business asset, as far as I'm concerned. Your business should start leveraging the BI that's available at some of these social networks and join that with how you are looking at data from your internal business activities.

Take IT to the board level

Last, but not least, it's time for IT to be elevated to the board level. It means that the IT executive should be at the highest level of the business in terms of decision and strategy. The best way for IT to help companies is to know what those companies are facing strategically as soon as they're facing it, and to bring IT-based solutions knowledge to the rest of the board. IT can be used much more strategically at that level.

IT should be used for transformation and problem solving at the innovation and business-strategy level, not as an afterthought, not as a means to an end, but actually as part of what ends should be accomplished, and then focusing on the means.

That is, again, acting like a startup. If you talk to any startup company, they see IT as an important aspect of how they are going to create value, go to market cheaply, and behave as an agile entity.

That's the end of my five. Let's take the discussion for our last 10 minutes to how IT can work on the offense. I'll go first on this one. I think it's time to go green field. It's time to look at software as a differentiator.

The reason I bring this up is Marc Andreessen, who is starting a venture capital fund with Ben Horowitz. They were both at Opsware together and then at HP, after they sold. Andreessen told Charlie Rose recently that there is a tragic opportunity from our current economic environment. A number of companies are going to go under or they're going to be severely challenged. Let's take a bank, for example.

A bank is going to perhaps be in a situation where its assets are outstripped by its liabilities and there is no way out. But, using software, startups, and third-party services, as Andreessen said, you can start an Internet bank. It's not that difficult.

You want to be able to collect money, lend it out with low risk at a sufficient return, and, at the end of the day, have a balance sheet that stands on its own two feet. Creating an Internet bank, using software and using services combined from someone like PayPal and others makes a tremendous amount of sense, but that's just an example.

There are many other industries, where, if the old way of doing it is defunct, then it's time to come in and create an alternative. Internet software-based organizations can go out and find new business where the old companies have gone under. It doesn't necessarily mean it's all the software, but the business value is in how you coordinate buyers and sellers and efficiencies using software.

Take something like Zipcar. They're not in the automotive business, but they certainly allow people to gain the use of automobiles at a low price point.

I'd like to throw out to the crowd this idea of going software, going green field, creating Internet alternatives to traditional older companies. Who has any thoughts about that?

Morgenthal: On the surface there are some really good concepts there. What we need are state and federal governances and laws to catch up to these opportunities. A lot of people are unaware of the potential downside risks to letting the data out of your hands into a third-party candidate's hands. It's questionable whether it's protected under the Fourth Amendment, once you do that.

There are still some security risks that have yet to be addressed appropriately. So, we see some potential there for the future. I don't know what the future would look like. I just think that there is some definite required maturity that needs to occur.

Gardner: So, it's okay to act like a startup, but you still need to act like a grownup.

Morgenthal: Right.

Gardner: Any other thoughts on this notion of opportunity from tragedy in the business, and that IT is an important aspect of doing that?

Evolving enterprises

McKendrick: I agree with what you're saying entirely. You mentioned on a couple of occasions that large enterprises need to act like small businesses. About 20 years ago, the writer John Naisbitt was dead on with the prediction that large enterprises are evolving into what he called confederations of entrepreneurs. Large companies need to think more entrepreneurially.

A part of that thinking will be not the splitting up, but the breaking down of large

enterprises into more entrepreneurial units. IT will facilitate that with the Enterprise 2.0 and Web 2.0 paradigm, where end users can kind of shape their own destiny. You can build a business in the cloud. There is a need for architecture; and I preach that a lot, but smaller departments of large corporations can kind of set their own IT direction as well with the availability.

Gardner: We're almost out of time. Any other thoughts about how IT is on the offensive, rather than just the defensive in terms of helping companies weather the downturn?

Shimmin: I agree with what you guys have been saying about how companies can behave like startups. I'd like to turn it around a little bit and suggest that a small company can behave like a large company. If you have a data center investment already established, you shouldn't be bulldozing it tomorrow to save money. Perhaps there's money in "them thar hills" that can be had.

Look at the technologies we have today, the cloud-enablement companies that are springing up left and right, and the ability to federate information and to loosely coupled access methods to transact between applications. There's no reason that the whole idea that we saw with the SETI@home and the protein folding ideas can't be leveraged within the company's firewalls and data centers externalize. Maybe it's storage, maybe it's services, maybe it's an application or service that the company has created, that can be leveraged to make money. It's like the idea of a house putting a windmill in and then selling electricity back to the power grid.

Gardner: Last thoughts.

Kelly: I would add one or two quick points here. Going on the offense, one opportunity is to take advantage of the slowdown and look at those business processes that you haven't gotten to in a long time, because things have been so hectic over the past couple of years. It may be a great time to reengineer those using some of the new technologies that are out there, going to the cloud, doing some of the things we've already talked about.

The other option here is that it may be a good time to accelerate new technology adoption. Move to YouTube for video-based training, or use Amazon's Kindle for distributing repair manuals electronically. Look at what the options are out there that might allow you to remake some of these processes using new technologies and allow you to profit and perhaps even grow the business during these tough economic times.

Gardner: So economic pain becomes the mother of all invention.

Kelly: Exactly.

McKendrick: We've seen it happen before. Back in 1981-1982 was when we saw the PC revolution. The economy was in just as bad a shape, if not worse, than it is now. Unemployment was running close to 10%. The PC revolution just took off and

boomed during that time. A whole new paradigm had evolved.

Gardner: Very good. Well, I would like to thank our panelists this week. We've been joined by Joe McKendrick, independent IT analyst and prolific blogger. Also, Brad Shimmin, principal analyst at Current Analysis; JP Morgenthal, independent analyst and IT consultant; and Dave Kelly, founder and president of Upside Research. Thanks to all. I think we've come up with a lot of very important and quite valuable insights and suggestions.

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This is Dana Gardner, principal analyst at Interarbor Solutions. Thanks for listening, and come back next time.

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